

**KS TOOLS**



**TOOLS FOR CRAFTSMEN  
AND MECHANICS**

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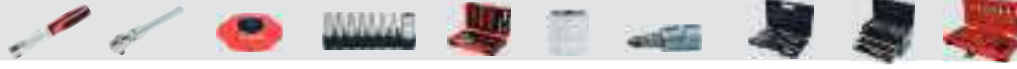



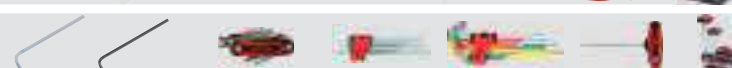








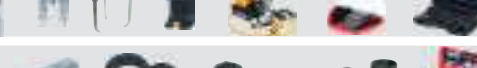
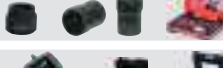



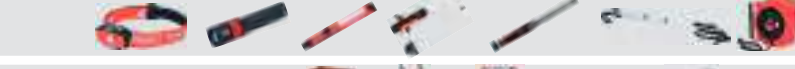
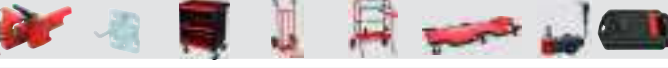
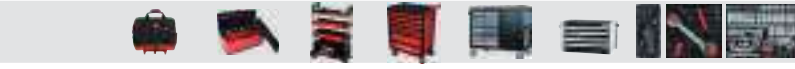
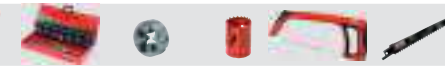

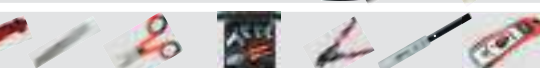
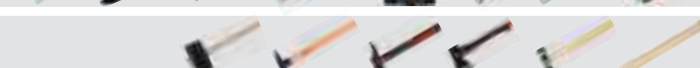


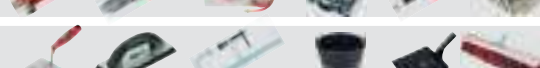
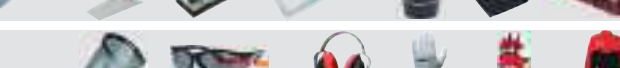
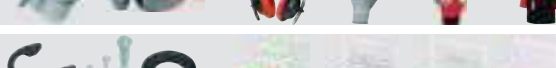
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# SPANNERS



*Innovation is  
our mission!*

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## MINI COMBINATION SPANNERS

### CHROMEplus® combination spanner, stubby

- FlankTraction profile
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
518.0001	4	5,0	5,0	12,5	16,5	80,0	10
518.0002	4,5	5,5	5,0	12,5	16,5	80,0	10
518.0003	5,0	5,5	5,0	12,8	16,8	80,0	10
518.0004	5,5	5,5	5,0	13,0	17,0	90,0	13
518.0005	6,0	5,8	5,0	13,0	17,0	90,0	13
518.0006	7,0	5,8	5,0	13,5	17,8	100,0	20
518.0007	8,0	5,9	5,2	13,5	17,8	100,0	20
518.0008	9,0	6,0	5,2	14,2	18,9	110,0	27
518.0010	10	7,5	5,8	16,1	22,2	95,0	37
518.0011	11	7,8	6,1	17,9	23,9	100,0	45
518.0012	12	7,8	6,6	19,1	25,5	104,0	51
518.0013	13	9,1	7,0	19,9	27,1	109,0	54
518.0014	14	9,4	7,6	21,8	29,2	114,0	71
518.0015	15	9,6	7,8	22,5	30,1	120,0	76
518.0016	16	9,8	7,9	24,1	32,8	124,0	88
518.0017	17	10,8	8,7	26,1	35,8	130,0	115
518.0018	18	11,0	9,1	27,0	36,7	134,0	118
518.0019	19	11,9	9,9	28,6	38,1	140,0	148

### CHROMEplus® combination spanner set, stubby

- FlankTraction profile
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



	mm	kg
518.0040	7 pcs 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	600



### GEARplus® combination ratcheting spanner, stubby

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
503.4631	8	6,5	4,0	16,6	16,7	90,0	30
503.4632	9	6,9	4,4	18,4	18,8	93,0	40
503.4633	10	7,3	4,8	20,0	20,8	95,0	45
503.4634	11	7,7	5,2	21,8	23,0	103,0	50
503.4635	12	8,2	5,5	22,7	25,0	106,0	55
503.4636	13	8,6	5,8	24,7	27,1	108,0	60
503.4637	14	9,0	6,2	27,0	29,2	115,0	70
503.4638	15	9,4	6,5	28,3	31,3	119,0	90
503.4639	16	10,0	6,8	30,0	33,4	123,0	100
503.4640	17	10,3	7,2	31,8	35,5	127,0	110
503.4641	18	10,7	7,7	32,6	37,6	131,0	120
503.4642	19	11,2	8,2	33,8	39,7	139,0	150



### GEARplus® combination ratcheting spanner set, stubby

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	mm	kg
503.4652	12 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1,08

### GEARplus® combination ratcheting spanner set, stubby

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

	mm	kg
503.4653	16 pcs GEARplus® combination ratcheting spanner set, stubby	1,35
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x	1/4"	
3 x	1/4" - 3/8" - 1/2"	

## COMBINATION SPANNERS

### Combination spanners, offset

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium

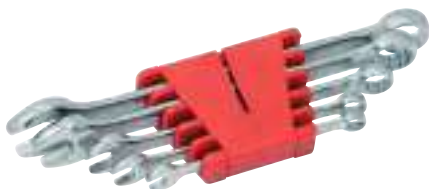


	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.0606	6	4,7	4,0	10,1	15,5	100,0	10
517.0607	7	5,0	4,0	11,5	17,0	110,0	15
517.0608	8	5,5	4,5	12,8	19,2	120,0	20
517.0609	9	5,9	4,5	14,2	21,2	130,0	30
517.0610	10	6,5	5,0	15,6	23,2	140,0	40
517.0611	11	6,9	5,4	16,9	25,3	150,0	45
517.0612	12	7,3	5,5	18,3	27,2	160,0	60
517.0613	13	7,8	5,9	19,7	29,4	170,0	60
517.0614	14	8,3	6,2	21,2	31,5	180,0	80
517.0615	15	8,6	6,4	22,5	33,2	190,0	90
517.0616	16	8,9	6,7	24,0	34,7	200,0	100
517.0617	17	9,3	6,9	25,3	36,5	210,0	120
517.0618	18	9,9	7,2	26,8	38,7	220,0	140
517.0619	19	10,5	7,4	28,1	40,7	230,0	170
517.0620	20	10,9	7,7	29,7	43,1	240,0	190
517.0621	21	11,3	8,0	31,3	44,5	250,0	210
517.0622	22	11,5	8,2	32,6	46,9	260,0	230
517.0623	23	13,5	7,6	33,0	49,5	270,0	245
517.0624	24	14,0	8,0	35,5	50,4	280,0	320

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.0625	25	14,5	8,2	36,0	54,5	290,0	340
517.0626	26	15,0	8,5	37,0	56,5	300,0	350
517.0627	27	15,5	8,8	39,6	59,5	310,0	420
517.0628	28	16,0	9,0	40,0	60,0	320,0	440
517.0629	29	16,5	9,5	41,5	61,5	330,0	470
517.0630	30	17,0	10,1	43,7	61,8	340,0	500
517.0632	32	18,0	10,4	46,4	65,8	360,0	530
517.0634	34	20,0	10,0	49,7	66,0	420,0	675
517.0636	36	19,5	11,0	51,5	77,0	380,0	690
517.0638	38	21,5	13,0	56,0	76,0	450,0	1000
517.0641	41	22,0	11,0	58,5	87,0	440,0	750
517.0646	46	25,0	15,2	71,5	93,0	506,0	1640
517.0650	50	26,4	16,4	75,6	102,0	540,0	2200
517.1901	1/4"	5,0	3,9	9,8	15,7	100,0	20
517.1902	5/16"	5,9	4,4	12,7	19,0	120,0	22
517.1903	3/8"	6,4	4,5	14,1	20,9	130,0	34
517.1904	7/16"	7,4	5,2	16,9	25,4	150,0	45
517.1951	1/2"	8,4	5,8	19,7	29,3	170,0	55
517.1906	9/16"	8,9	6,1	21,1	31,2	180,0	78
517.1907	5/8"	9,8	6,6	24,0	34,5	200,0	104
517.1908	11/16"	10,3	6,9	25,4	37,3	210,0	102
517.1909	3/4"	11,1	7,3	28,2	40,4	230,0	130
517.1911	25/32"	11,4	7,5	29,6	42,3	240,0	172
517.1912	13/16"	11,7	7,7	31,0	44,2	250,0	168
517.1913	7/8"	12,0	7,9	32,3	46,6	260,0	176
517.1914	15/16"	12,7	8,3	35,1	50,1	280,0	240
517.1952	1"	13,0	8,5	36,5	52,8	290,0	270
517.1916	1.1/16"	13,6	8,9	39,2	55,9	310,0	330
517.1917	1.1/8"	13,9	9,1	40,6	57,8	320,0	330
517.1918	1.3/16"	14,6	9,5	43,4	62,6	340,0	430
517.1919	1.1/4"	15,2	9,9	46,6	66,9	360,0	510
517.1921	1.5/16"	15,2	10,0	46,0	66,0	340,0	775
517.1922	1.3/8"	18,4	13,0	52,0	74,0	390,0	1015
517.1923	1.7/16"	19,0	13,0	52,1	75,0	390,0	1015
517.1924	1.1/2"	19,0	13,0	55,5	75,0	390,0	1015

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0045	5 pcs 8 - 10 - 13 - 17 - 19 mm	0,54

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0048	8 pcs 8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm	0,55

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0080	10 pcs 8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm	1,02

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0052	12 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0,88

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0085	12 pcs 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 - 24 - 27 - 30 - 32 mm	2,53

**Combination spanners set, offset**

- FlankTraction profile
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Polished heads
- Matt finish
- Chrome vanadium



	mm	kg
517.0043	21 pcs 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	3,80

**Combination spanners, offset**

- FlankTraction profile
- DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.1606	6	5,5	3,7	11,0	15,5	110,0	0,02
517.1607	7	6,0	3,7	12,5	17,5	120,0	0,02
517.1608	8	6,5	4,3	13,8	20,0	130,0	0,03
517.1609	9	7,0	4,3	15,0	21,5	140,0	0,04
517.1610	10	7,5	4,7	16,5	23,5	150,0	0,04
517.1611	11	8,0	5,1	18,0	25,0	158,0	0,05
517.1612	12	8,5	5,3	19,6	27,0	165,0	0,07
517.1613	13	7,0	5,5	21,2	29,5	175,0	0,08
517.1614	14	9,5	5,7	23,0	31,5	185,0	0,09
517.1615	15	10,0	6,1	24,4	33,5	195,0	0,10
517.1616	16	10,5	6,5	26,0	35,5	210,0	0,12
517.1617	17	11,0	6,9	27,6	37,0	225,0	0,14
517.1618	18	11,5	7,3	28,8	40,0	240,0	0,16
517.1619	19	12,0	7,7	30,5	42,5	255,0	0,18
517.1620	20	12,5	8,1	31,5	44,0	270,0	0,20
517.1621	21	13,0	8,5	33,0	45,5	285,0	0,24
517.1622	22	13,5	8,9	34,5	47,5	300,0	0,28
517.1623	23	14,5	9,5	37,0	52,0	320,0	0,38
517.1624	24	14,5	9,5	37,0	52,0	320,0	0,38
517.1625	25	15,5	10,3	39,0	54,5	350,0	0,44
517.1626	26	15,5	10,3	39,0	54,5	350,0	0,44
517.1627	27	16,5	11,3	42,0	60,5	380,0	0,49
517.1628	28	16,5	11,3	42,0	60,5	380,0	0,49
517.1629	29	17,5	12,5	45,0	64,0	410,0	0,68
517.1630	30	17,5	12,5	45,0	64,0	410,0	0,68
517.1632	32	18,5	12,5	49,0	66,0	430,0	0,72
517.1636	36	22,0	12,5	55,0	77,0	460,0	1,07
517.1638	38	22,0	12,5	55,0	77,0	465,0	1,08
517.1641	41	24,5	13,5	60,0	85,0	510,0	1,26
517.1646	46	25,5	16,0	66,0	93,0	530,0	1,70

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.1650	50	26,5	16,5	74,0	104,0	560,0	2,20
517.1655	55	28,3	19,0	82,0	112,0	570,0	2,90
517.1660	60	31,0	20,0	90,0	123,0	660,0	3,60
517.1665	65	33,0	22,0	98,0	133,0	710,0	4,55
517.1670	70	35,0	24,0	105,0	143,0	760,0	5,80
517.1675	75	38,0	26,0	110,0	153,0	810,0	6,65
517.1680	80	41,0	28,0	119,0	163,0	860,0	8,50
517.2601	1/4"	5,5	3,7	11,0	15,5	110,0	0,02
517.2602	5/16"	6,5	4,3	13,8	20,0	130,0	0,03
517.2603	3/8"	7,5	4,7	16,5	23,5	150,0	0,04
517.2604	7/16"	8,0	5,1	18,0	25,0	158,0	0,05
517.2651	1/2"	9,0	5,5	21,2	29,5	175,0	0,08
517.2606	9/16"	9,5	5,7	23,0	31,5	185,0	0,09
517.2607	5/8"	10,5	6,5	26,0	35,5	210,0	0,12
517.2608	11/16"	11,0	6,9	27,6	37,0	225,0	0,14
517.2609	3/4"	12,0	7,7	30,5	42,5	255,0	0,18
517.2611	25/32"	12,5	8,1	31,5	44,0	270,0	0,20
517.2612	13/16"	13,0	8,5	33,0	45,5	285,0	0,24
517.2613	7/8"	13,5	8,9	34,5	47,5	300,0	0,28
517.2614	15/16"	14,5	9,5	37,0	52,0	320,0	0,38
517.2652	1"	15,5	10,3	39,0	54,5	350,0	0,44
517.2616	1.1/16"	16,5	11,0	42,0	60,5	380,0	0,49
517.2617	1.1/8"	16,5	11,3	42,0	60,5	380,0	0,49
517.2618	1.3/16"	17,5	12,5	45,0	64,0	410,0	0,68
517.2619	1.1/4"	16,5	11,3	42,0	60,5	380,0	0,49
517.2621	1.5/16"	18,5	12,5	49,0	66,0	430,0	0,72
517.2622	1.3/8"	22,0	12,5	55,0	77,0	460,0	1,07
517.2623	1.7/16"	23,0	12,5	55,0	77,0	461,0	1,07
517.2624	1.1/2"	22,0	12,5	55,0	77,0	465,0	1,08
517.2653	1.9/16"	22,5	12,5	55,0	77,0	465,0	1,08
517.2626	1.5/8"	23,5	13,5	60,0	85,0	510,0	1,26
517.2627	1.11/16"	23,5	13,5	60,0	85,0	510,0	1,26
517.2628	1.3/4"	26,0	16,0	66,0	93,0	530,0	1,70
517.2629	1.13/16"	26,0	16,0	66,0	93,0	530,0	1,70
517.2631	1.7/8"	26,0	16,0	66,0	93,0	530,0	1,70
517.2632	1.15/16"	26,5	16,5	74,0	104,0	560,0	2,20
517.2633	2"	26,5	16,5	74,0	104,0	560,0	2,20
517.2634	2.1/16"	26,5	16,5	74,0	104,0	560,0	2,20
517.2635	2.1/8"	26,5	16,5	74,0	104,0	560,0	2,20
517.2636	2.3/16"	29,0	19,0	82,0	112,0	570,0	2,90
517.2637	2.1/4"	29,0	19,0	82,0	112,0	570,0	2,90
517.2638	2.5/16"	29,0	19,0	82,0	112,0	570,0	2,90
517.2639	2.3/8"	30,0	20,0	90,0	123,0	660,0	3,60
517.2641	2.7/16"	30,0	20,0	90,0	123,0	660,0	3,60
517.2642	2.1/2"	33,0	22,0	98,0	133,0	710,0	4,55
517.2643	2.9/16"	33,0	22,0	98,0	133,0	710,0	4,55
517.2644	2.3/4"	33,0	22,0	98,0	133,0	710,0	4,55
517.2645	3"	35,0	24,0	105,0	143,0	760,0	5,80
517.2646	3.1/8"	38,0	26,0	110,0	153,0	810,0	6,65
517.2647	3.1/4"	41,0	28,0	119,0	163,0	860,0	8,50

### Combination spanners set, offset

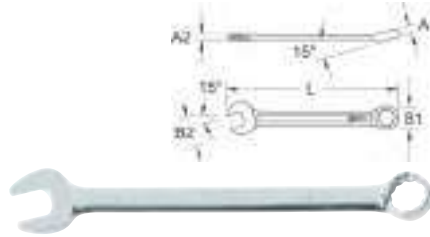
- FlankTraction profile
- DIN 3113 Form B / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 70° offset
- Ring head 10° angled
- Matt finish
- Chrome vanadium



		kg
517.0090	8 pcs 8 - 10 - 12 - 13 - 14 - 17 - 19 - 22 mm	0,92
517.0095	12 pcs 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	1,00
517.0099	25 pcs 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32 mm	5,96

### CHROMEplus® Combination spanner, offset

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
518.0606	6	4,6	4,3	10,5	13,7	128,0	21
518.0607	7	5,1	4,6	11,6	15,2	138,0	25
518.0608	8	5,7	4,7	12,6	16,9	148,0	32
518.0609	9	6,1	5,8	13,6	18,6	158,0	46
518.0610	10	6,7	6,0	14,6	20,3	168,0	48
518.0611	11	7,3	6,8	15,6	22,0	178,0	62
518.0612	12	7,9	7,9	16,6	23,7	188,0	70
518.0613	13	8,5	8,1	17,6	25,4	198,0	71
518.0614	14	9,1	8,7	18,6	27,1	208,0	95
518.0615	15	9,7	9,3	19,6	28,8	218,0	124
518.0616	16	10,3	10,0	20,6	30,5	228,0	124
518.0617	17	10,9	10,6	21,6	32,2	238,0	159
518.0618	18	11,5	11,2	22,6	33,9	248,0	176
518.0619	19	12,1	11,8	23,6	35,6	258,0	176
518.0620	20	12,7	12,4	24,6	37,3	268,0	233
518.0621	21	13,3	13,0	25,6	39,0	278,0	233
518.0622	22	13,9	13,6	26,6	40,7	288,0	335
518.0624	24	14,9	14,6	28,6	42,7	308,0	395
518.0627	27	16,4	16,1	31,6	45,7	359,0	512
518.0630	30	17,9	17,6	34,6	48,7	390,0	662
518.0632	32	18,9	18,6	36,6	50,7	425,0	800
518.3001	1/4"	4,6	4,3	10,5	13,7	128,0	21
518.3002	5/16"	5,7	4,7	12,6	16,9	148,0	32
518.3003	3/8"	6,1	5,8	13,6	18,6	158,0	46
518.3004	7/16"	6,7	6,0	14,6	20,3	168,0	62
518.3005	1/2"	7,3	6,8	15,6	22,0	178,0	71
518.3006	9/16"	7,9	7,9	16,6	23,7	188,0	95
518.3007	5/8"	8,5	8,1	17,6	25,4	198,0	124
518.3008	11/16"	9,1	8,7	18,6	27,1	208,0	155
518.3009	3/4"	9,7	9,3	19,6	28,8	218,0	176
518.3010	13/16"	10,3	10,0	20,6	30,5	228,0	233
518.3011	7/8"	10,9	10,6	21,6	32,2	238,0	287
518.3012	15/16"	11,5	11,2	22,6	33,9	248,0	332
518.3013	1"	12,1	11,8	23,6	35,6	258,0	422
518.3014	1.1/16"	12,7	12,4	24,6	37,3	268,0	512
518.3015	1.1/8"	13,3	13,0	25,6	39,0	278,0	664
518.3016	1.1/4"	13,9	13,6	26,6	40,7	288,0	847

### CHROMEplus® combination spanner set, offset

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



		kg
518.0640	9 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	930

### CHROMEplus® Combination spanner set, offset

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



		kg
518.0641	11 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm	1,40

### CHROMEplus® Combination spanner set, offset

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



		kg
518.0643	13 pcs 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm	1,40

### CHROMEplus® Combination spanner set, offset

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



		kg
518.0644	4 pcs 24 - 27 - 30 - 32 mm	2,50



**CHROMEplus® Combination spanner set, offset**

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



				kg
518.3000	11 pcs	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"		1,30

**CHROMEplus® Combination spanner set, offset**

- FlankTraction profile
- DIN 3113 / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



				kg
518.3020	7 pcs	3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4"		0,73

**GEARplus® Combination ratcheting spanner**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



								kg
mm	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm		
503.42055	5,5		6,3	3,9	14,0	15,0	127,5	0,02
503.4206	6		6,3	3,9	14,0	15,0	128,0	0,03
503.4207	7		6,5	4,0	16,8	16,7	140,0	0,03
503.4208	8		6,5	4,0	16,8	16,7	140,0	0,03

								kg
mm	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm		
503.4209	9		6,9	4,4	18,8	18,7	149,0	0,04
503.4210	10		7,3	4,8	20,8	20,8	158,0	0,05
503.4211	11		7,7	5,2	21,8	23,0	165,0	0,06
503.4212	12		8,2	5,5	22,8	24,6	171,0	0,07
503.4213	13		8,6	5,8	24,8	26,8	178,0	0,08
503.4214	14		9,0	6,2	27,8	29,0	190,0	0,11
503.4215	15		9,4	6,5	28,8	31,0	199,0	0,12
503.4216	16		9,9	6,8	30,8	33,0	208,0	0,15
503.4217	17		10,3	7,2	31,8	35,5	225,0	0,18
503.4218	18		10,7	7,7	32,8	37,5	236,0	0,21
503.4219	19		11,2	8,2	33,8	39,4	247,0	0,24
503.4221	21		13,0	9,0	40,0	45,8	289,0	0,34
503.4222	22		13,0	9,0	40,0	45,8	289,0	0,35
503.4224	24		14,5	10,0	46,0	51,8	322,0	0,47
503.4227	27		15,5	10,5	52,0	56,4	358,0	0,58
503.4228	30		17,0	11,4	58,0	62,7	401,0	0,86
503.4229	32		17,5	12,5	62,0	66,4	424,0	1,06
503.4230	34		17,5	13,0	62,0	70,0	459,0	1,17
503.4252	36		18,0	13,4	66,0	78,0	489,0	1,30
503.4253	38		18,0	13,4	66,0	78,0	489,0	1,40
503.4248	41		19,5	16,5	71,0	86,0	565,0	2,00
503.4102		5/16"	6,5	4,0	16,8	16,7	140,0	0,03
503.4103		3/8"	7,3	4,8	20,8	20,8	158,0	0,04
503.4104		7/16"	7,7	5,2	21,8	23,0	165,0	0,05
503.4105		1/2"	8,6	5,8	24,8	26,8	178,0	0,07
503.4106		9/16"	9,0	6,2	27,8	29,0	190,0	0,11
503.4107		5/8"	9,9	6,8	30,8	33,0	208,0	0,13
503.4108		11/16"	10,3	7,2	31,8	35,5	225,0	0,17
503.4109		3/4"	11,2	8,2	33,8	39,4	247,0	0,22

**GEARplus® Combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



				kg
503.4204	4 pcs	10 - 13 - 17 - 19 mm		650

**GEARplus® Combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



				kg
503.4270	4 pcs	24 - 27 - 30 - 32 mm		3,07

**GEARplus® ratchet combination spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



				kg
503.4255	5 pcs	8 - 10 - 13 - 17 - 19 mm		670

**GEARplus® Combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



				kg
503.4202	5 pcs	5/16" - 3/8" - 1/2" - 11/16" - 3/4"		690

**GEARplus® combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



				kg
503.4250	10 pcs	8-10-11-12-13-14-16-17-18-19 mm		1,24

### GEARplus® combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium
- In durable plastic storage case



				kg
503.4259	6 pcs	8 - 10 - 12 - 13 - 17 - 19 mm	970	

### GEARplus® combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

				kg
503.4260	10 pcs	GEARplus® combination ratcheting spanner set	1,06	
6 x		8 - 10 - 12 - 13 - 17 - 19 mm		
1 x		1/4"		
3 x		1/4" - 3/8" - 1/2"		

### GEARplus® combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium
- In durable plastic storage case



				kg
503.4265	12 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1,88	

### GEARplus® combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

				kg
503.4266	16 pcs	GEARplus® combination ratcheting spanner set	1,73	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
1 x		1/4"		
3 x		1/4" - 3/8" - 1/2"		

### GEARplus® reversing combination ratcheting spanner

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg	
503.4606	6	6,3	3,9	14,0	15,0	127,5	30	
503.4607	7	6,5	4,6	16,4	16,2	140,0	30	
503.4608	8	6,5	4,6	16,4	16,2	140,0	30	
503.4609	9	6,9	4,9	18,3	18,2	150,0	40	
503.4610	10	7,3	5,3	20,0	20,5	159,0	50	
503.4611	11	7,7	5,6	21,4	22,6	166,0	60	
503.4612	12	8,2	6,0	22,6	24,6	172,0	70	
503.4613	13	8,6	6,4	24,5	26,7	178,0	80	
503.4614	14	9,0	6,8	27,0	28,8	191,0	100	
503.4615	15	9,4	7,0	28,2	30,8	200,0	120	
503.4616	16	9,9	7,2	30,3	33,2	208,0	150	
503.4617	17	10,3	7,7	31,6	35,1	225,0	160	
503.4618	18	10,7	8,2	32,3	37,2	236,0	190	
503.4619	19	11,2	8,8	33,7	39,3	248,0	220	
503.4621	21	13,0	9,0	40,1	46,2	290,0	245	
503.4622	22	13,0	9,0	40,1	46,2	290,0	360	
503.4624	24	14,5	10,0	46,5	51,5	323,0	470	
503.4627	27	15,5	10,5	52,5	56,5	357,0	660	
503.4628	30	17,0	11,4	58,5	62,7	400,0	860	
503.4629	32	17,5	12,5	62,5	66,4	423,0	1050	
503.4630	34	17,5	13,0	62,5	70,6	460,0	1200	
503.4643	36	18,0	13,4	65,8	79,0	488,0	1300	
503.4644	38	18,0	13,4	65,8	79,0	488,0	1400	
503.4648	41	19,5	16,5	71,0	86,0	565,0	2000	
503.4681		5/16"	6,5	4,0	16,6	16,7	145,0	30
503.4683		3/8"	7,3	4,8	20,0	20,8	159,0	60
503.4684		7/16"	7,7	5,2	21,8	23,0	165,0	70
503.4685		1/2"	8,6	5,8	24,7	27,1	178,0	80
503.4686		9/16"	9,0	6,5	27,0	29,2	190,0	100
503.4687		5/8"	9,9	6,8	30,0	33,4	208,0	140
503.4688		11/16"	10,3	7,2	31,8	35,5	225,0	170
503.4689		3/4"	11,2	8,2	33,8	39,7	248,0	230

### GEARplus® reversing combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium



				kg
503.4604	4 pcs	10 - 13 - 17 - 19 mm	0,65	
503.4601	4 pcs	24 - 27 - 30 - 32 mm	3,23	

**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium



503.4605	5 pcs	8 - 10 - 13 - 17 - 19 mm	700
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**GEARplus® Reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium



503.4602	5 pcs	5/16" - 3/8" - 1/2" - 11/16" - 3/4"	600
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**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Square drive adaptor to DIN 3120 - ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

503.4650	9 pcs	GEARplus® reversing combination ratcheting spanner set	1,10
5 x		8 - 10 - 13 - 17 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium
- In durable plastic storage case



503.4646	6 pcs	8 - 10 - 12 - 13 - 17 - 19 mm	1,04
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**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

503.4647	10 pcs	GEARplus® reversing combination ratcheting spanner set	1,11
6 x		8 - 10 - 12 - 13 - 17 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium
- In durable plastic storage case



503.4665	12 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1,71
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**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

503.4666	16 pcs	GEARplus® reversing combination ratcheting spanner set	1,79
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

**GEARplus® reversing combination ratcheting spanner**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- Ring stop function
- High quality finish
- Chrome vanadium



	mm	B mm	L mm	kg
503.4979	9	12,0	21,2	10
503.4980	10	15,0	22,6	10
503.4981	11	16,2	22,9	10
503.4982	12	17,4	24,5	20
503.4983	13	18,7	25,8	20
503.4984	14	19,9	26,1	20
503.4985	15	20,8	28,0	30
503.4986	16	22,6	29,5	30
503.4987	17	23,7	30,6	30
503.4988	18	24,5	32,0	40
503.4989	19	26,1	33,5	50

	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
503.4908	8	6,5	4,6	16,6	16,7	140,0	40
503.4909	9	6,9	4,9	18,4	18,8	150,0	45
503.4910	10	7,3	5,3	20,0	20,8	159,0	50
503.4911	11	7,7	5,6	21,8	23,0	165,0	60
503.4912	12	8,2	6,0	22,7	25,0	172,0	70
503.4913	13	8,6	6,4	24,7	27,1	178,0	80
503.4914	14	9,0	6,8	27,0	29,2	191,0	100
503.4915	15	9,4	7,0	28,3	31,1	200,0	120
503.4916	16	9,9	7,2	30,0	33,4	208,0	140
503.4917	17	10,3	7,7	31,8	35,5	226,0	170
503.4918	18	10,7	8,2	32,6	37,6	237,0	200
503.4919	19	11,2	8,8	33,8	39,7	248,0	210

**GEARplus® reversing combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	kg
503.4955 5 pcs 8 - 10 - 13 - 17 - 19 mm	0,66

**GEARplus® Socket adapter with go through**

- FlankTraction profile
- With go through function
- Suitable for ring stop spanners
- High quality finish
- Chrome vanadium



	mm	B mm	L mm	kg
503.4978	8	12,0	19,8	10



**GEARplus® reversing combination ratcheting spanner set**

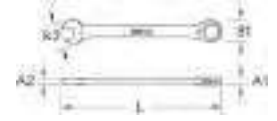
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ratchet head offset at 15°
- With reversing lever
- Versatile sockets with go through function
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



		kg
503.4960	30 pcs GEARplus® reversing combination ratcheting spanner set	2,43
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
3 x	1/4" - 5/16" - 10 mm	
3 x	1/4" - 3/8" - 1/2"	

**DUO GEARplus® combination spanner set with ratchet mechanism in ring and open jaw**

- Open end side with innovative ratchet mechanism
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



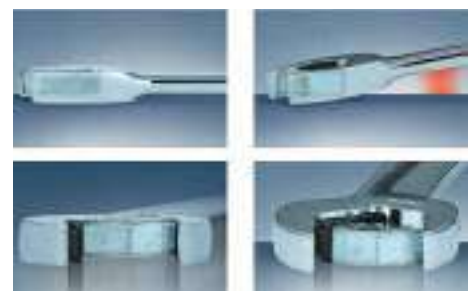
	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	Nm	kg
503.5208	8	6,5	4,1	16,4	16,2	140,0	15,0	36,0	30
503.5209	9	6,9	4,3	18,3	18,3	150,0	21,1	48,0	40
503.5210	10	7,3	4,8	20,0	20,0	159,0	31,1	85,2	50
503.5211	11	7,7	5,1	21,4	21,4	166,0	46,1	96,0	60
503.5212	12	8,2	5,3	22,6	22,6	172,0	49,1	109,2	70
503.5213	13	8,6	5,9	24,5	24,5	178,0	62,1	138,0	80
503.5214	14	9,0	6,3	27,0	27,0	191,0	86,0	189,6	110
503.5215	15	9,4	6,6	28,2	28,2	200,0	104,1	240,0	120
503.5216	16	9,9	6,9	30,3	30,3	208,0	124,1	297,6	150
503.5217	17	10,3	7,3	31,6	31,6	225,0	139,1	320,4	170
503.5218	18	10,7	7,8	32,3	32,3	236,0	155,1	364,8	210
503.5219	19	11,2	8,3	33,7	33,7	248,0	186,1	387,6	218
503.5221	21	13,0	8,8	40,1	46,2	290,0	248,1	446,4	340
503.5224	24	14,5	9,8	46,5	51,5	323,0	341,2	610,8	470
503.5227	27	15,5	10,4	52,9	56,1	352,0	432,0	805,2	650
503.5228	30	17,1	11,2	57,6	62,5	396,0	570,0	954,0	875
503.5229	32	17,6	12,1	61,9	66,2	418,0	650,0	1086,0	1035

**DUO GEARplus® combination spanner set with ratchet mechanism in ring and open jaw**

- Open end side with innovative ratchet mechanism
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium
- In durable plastic storage case

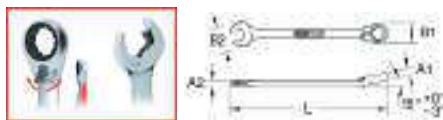


	kg
503.5205 5 pcs 8 - 10 - 13 - 17 - 19 mm	0,66



**DUO GEARplus® combination spanner with ratchet mechanism in ring and open jaw, reversible**

- Open end side with innovative ratchet mechanism
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reversing lever
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	Nm	mm	kg
503.5908	8	6,5	4,1	16,4	16,2	140,0	15,0	36,0	40
503.5909	9	6,9	4,3	18,3	18,2	150,0	21,1	48,0	45
503.5910	10	7,3	4,8	20,0	20,5	159,0	31,1	85,2	50
503.5911	11	7,7	5,1	21,4	22,6	166,0	46,1	96,0	60
503.5912	12	8,2	5,3	22,6	24,6	172,0	49,1	109,2	70
503.5913	13	8,6	5,9	24,5	26,7	178,0	62,1	138,0	80
503.5914	14	9,0	6,3	27,0	28,8	191,0	86,0	189,6	100
503.5915	15	9,4	6,6	28,2	30,8	200,0	104,1	240,0	120
503.5916	16	9,9	6,9	30,3	33,2	208,0	124,1	297,6	140
503.5917	17	10,3	7,3	31,6	35,1	225,0	139,1	320,4	170
503.5918	18	10,7	7,8	32,3	37,2	236,0	155,1	364,8	200
503.5919	19	11,2	8,3	33,7	39,3	248,0	186,1	387,6	210
503.5921	21	13,0	8,8	40,1	46,2	290,0	248,1	446,4	365
503.5922	22	13,0	8,8	40,0	46,2	290,0	279,1	489,6	375
503.5924	24	14,5	9,8	46,5	51,5	323,0	341,2	610,8	470
503.5927	27	15,5	10,4	52,9	56,1	352,0	432,0	805,2	650
503.5928	30	17,1	11,2	57,6	62,5	396,0	570,0	954,0	875
503.5929	32	17,6	12,1	61,9	66,2	418,0	650,0	1086,0	1035



**DUO GEARplus® combination spanner set with ratchet mechanism in ring and open jaw, reversible**

- Open end side with innovative ratchet mechanism
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reversing lever
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	mm	kg
503.5905	5 pcs 8 - 10 - 13 - 17 - 19 mm	0,66

**DUO GEARplus® Combination ratchet wrench with ratchet function, reversible**

- Open end side with innovative ratchet mechanism
- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- Ring head 15° offset
- With reversing lever
- Exact gearing with 72 teeth
- High quality finish
- Chrome vanadium

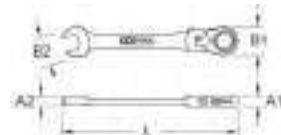


	mm	kg
503.5950	10 pcs 8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 mm	1,22

**FLEXIBLE COMBINATION SPANNERS**

**GEARplus® flexible locking combination ratcheting spanner**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
503.4808	8	6,5	4,3	16,7	16,2	127,0	30
503.4809	9	6,9	4,6	18,6	18,2	131,5	40
503.4810	10	7,3	5,0	20,0	20,3	136,0	50
503.4811	11	7,7	5,4	21,8	22,5	141,0	60
503.4812	12	8,2	5,8	23,0	24,3	147,5	70
503.4813	13	8,6	6,1	25,2	26,8	154,0	80
503.4814	14	9,0	6,4	26,8	28,7	160,0	100
503.4815	15	9,4	6,9	28,3	30,5	169,0	120
503.4816	16	9,9	7,2	29,8	32,9	179,0	150
503.4817	17	10,3	7,6	31,8	34,5	190,0	160
503.4818	18	10,7	8,0	32,8	37,0	203,0	190
503.4819	19	11,2	8,6	33,9	39,2	215,0	220

**GEARplus® flexible locking combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	mm	kg
503.4859	6 pcs 8 - 10 - 12 - 13 - 17 - 19 mm	1,21

**GEARplus® Articulated Ratchet Combination Wrench, lockable**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finish
- Chrome vanadium



	mm	kg
503.4850	10 pcs 8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 mm	1,21

**GEARplus® flexible locking combination ratcheting spanner set**

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 5/16" 3/16"

	mm	kg
503.4867	12 pcs GEARplus® flexible locking combination ratcheting spanner set	1,30
6 x	8 - 10 - 12 - 13 - 17 - 19 mm	
3 x	1/4" - 5/16" - 10 mm	
3 x	1/4" - 3/8" - 1/2"	

### GEAR<sup>plus</sup> flexible locking combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- High quality finish
- Chrome vanadium
- In durable plastic storage case



		kg			
503.4865	12 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	2,56		

### GEAR<sup>plus</sup> flexible locking combination ratcheting spanner set

- FlankTraction profile
- In accordance to DIN 3113 / ISO 3318
- Jaw 15° offset
- With flexible locking head
- Exact gearing with 72 teeth
- 180° revolving head
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- High quality finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 5/16" 9/16"

		kg	
503.4868	18 pcs	GEAR <sup>plus</sup> flexible locking combination ratcheting spanner set	2,90
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
3 x		1/4" - 5/16" - 10 mm	
3 x		1/4" - 3/8" - 1/2"	

### COMBINATION SPANNERS, EXTRA LONG

#### Combination spanner, extra long

- FlankTraction profile
- Jaw 15° offset
- Ring head 15° offset
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
517.1508	8	7,5	4,5	13,2	20,3	170,0	45
517.1509	9	8,0	4,5	14,6	22,4	180,0	55
517.1510	10	8,5	5,0	16,0	24,4	190,0	60
517.1511	11	9,0	5,5	17,2	26,4	200,0	75
517.1512	12	9,5	6,0	19,0	28,4	210,0	90
517.1513	13	10,0	6,5	20,0	30,5	225,0	108
517.1514	14	11,0	7,0	21,8	32,5	235,0	120
517.1515	15	12,0	7,5	23,0	34,5	250,0	150
517.1516	16	13,0	8,0	24,5	36,4	265,0	174
517.1517	17	14,0	8,5	26,5	38,4	280,0	206
517.1518	18	15,0	9,0	28,0	40,6	295,0	240
517.1519	19	16,0	9,5	29,5	42,6	310,0	272
517.1520	20	16,0	9,5	29,5	42,0	310,0	265
517.1521	21	17,0	10,0	33,0	46,6	340,0	370
517.1522	22	18,0	11,0	34,5	48,7	350,0	410
517.1523	23	18,0	11,5	34,0	47,0	345,0	400
517.1524	24	19,0	12,0	37,5	52,7	400,0	535
517.1525	25	19,0	12,0	37,0	52,0	395,0	510
517.1526	26	20,0	13,0	41,0	58,0	445,0	700
517.1527	27	20,0	13,0	42,0	58,9	450,0	680
517.1528	28	20,0	13,5	41,0	58,0	445,0	660
517.1530	30	21,0	14,0	47,0	64,8	480,0	870
517.1532	32	22,0	15,0	49,5	67,0	500,0	1000
517.1534	34	23,0	15,0	53,0	70,0	520,0	1100
517.1536	36	24,0	16,0	57,2	73,0	550,0	1320
517.1541	41	26,0	16,0	63,5	86,0	600,0	1700
517.1546	46	27,0	17,5	70,9	96,0	640,0	2230

#### Combination spanner set, extra long

- FlankTraction profile
- Execution similar to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- Matt finish
- Chrome vanadium

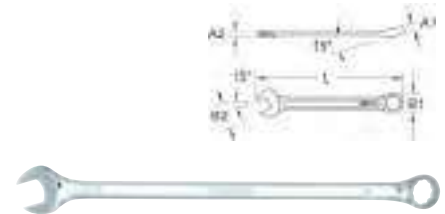


		kg	
517.1500	5 pcs	8 - 10 - 13 - 17 - 19 mm	0,70
517.1505	11 pcs	12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	2,67
517.1595	4 pcs	34 - 36 - 41 - 46 mm	6,50



### CHROME<sup>plus</sup> combination spanner, extra long

- FlankTraction profile
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
519.0650	10	6,9	5,1	15,8	22,8	189,0	53
519.0651	11	7,0	5,3	17,3	24,6	207,0	62
519.0652	12	7,8	5,6	18,8	27,2	225,0	77
519.0653	13	8,5	5,7	20,4	28,6	243,0	113
519.0654	14	9,1	6,9	21,8	31,4	261,0	128
519.0655	15	9,3	7,0	23,4	33,5	279,0	144
519.0656	16	10,0	7,3	24,8	35,3	297,0	182
519.0657	17	10,1	7,4	26,2	37,6	314,0	197
519.0658	18	11,3	7,8	27,5	39,4	333,0	223
519.0659	19	12,7	8,7	28,7	41,5	349,0	271

### CHROME<sup>plus</sup> combination spanner set, extra long

- FlankTraction profile
- Jaw 15° offset
- Ring head 15° offset
- Mirror polished
- Chrome vanadium



		kg	
519.0660	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	1,73

### OPEN ENDED SPANNERS

#### One handed multi function spanner

- Multi function spanner with ratchet function
- For complete screw working
- Adapts itself automatically to the screw size
- Self-clamping on flat pipes, bots, shafts, and unscrewed bodies of hexagonal, multitooth, Spline and TX screws
- No slipping due to the coarse teeth
- Chrome vanadium



	mm	L mm	kg
114.0055	8-17/14-32	260,0	530







	mm	A mm	B mm	L mm	kg
517.2278	2.9/16"	27,6	139,0	351,0	17,80
517.2275	2.5/8"	27,6	139,0	351,0	18,00
517.2272	2.3/4"	29,6	150,0	370,0	11,20
517.2279	2.13/16"	29,6	150,0	370,0	21,00
517.2277	2.7/8"	29,6	150,0	370,0	18,00
517.2280	2.15/16"	31,0	161,5	390,0	20,40
517.2281	3"	31,0	161,5	390,0	20,00
517.2284	3.1/8"	34,0	172,5	406,0	28,00
517.2283	3.1/4"	34,0	172,5	406,0	28,30
517.2286	3.3/8"	34,0	172,5	406,0	42,00
517.2282	3.1/2"	38,4	194,0	456,0	28,50
517.2287	3.5/8"	38,4	194,0	456,0	39,00
517.2285	3.3/4"	38,4	194,0	456,0	28,40
517.2288	3.7/8"	46,3	225,5	500,0	39,00
517.2289	4"	46,3	225,5	500,0	40,00
517.2292	4.1/8"	46,3	225,5	800,0	52,00
517.2291	4.1/4"	47,0	235,0	510,0	53,00
517.2290	4.1/2"	47,0	235,0	510,0	39,50
517.2293	4.3/4"	50,0	255,0	545,0	51,00
517.2294	5"	50,0	255,0	545,0	51,00
517.2296	5.3/8"	55,0	275,0	575,0	48,00
517.2295	5.3/4"	55,0	275,0	575,0	50,50
517.2297	6"	60,0	305,0	640,0	47,50

### DOUBLE OPEN ENDED SPANNERS

#### Double open ended spanners

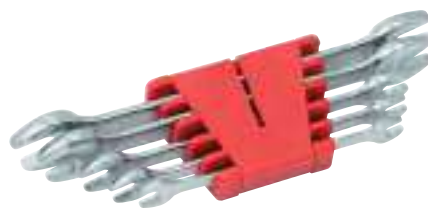
- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0726	41x46	10,7	86,5	95,5	400,0	1220
517.0728	46x50	11,6	97,0	103,0	420,0	1920
517.0772	55x60	16,5	110,0	120,0	565,0	3000
517.0781	1/4x5/16"	3,9	17,7	20,8	120,0	25
517.0782	5/16x3/8"	3,9	20,8	22,9	140,0	35
517.0783	3/8x7/16"	4,8	23,9	26,9	156,0	45
517.0784	7/16x1/2"	5,3	28,0	31,0	172,0	85
517.0785	1/2x9/16"	5,7	32,5	34,9	190,0	95
517.0786	9/16x5/8"	5,7	32,5	34,9	190,0	103
517.0787	19/32x11/16"	5,9	36,1	39,2	204,0	132
517.0788	5/8x11/16"	5,9	36,1	39,2	204,0	132
517.0789	11/16x3/4"	6,5	40,2	42,3	223,0	155
517.0791	5/8x3/4"	6,5	40,2	42,3	223,0	155
517.0792	3/4x25/32"	6,8	44,9	48,4	236,0	230
517.0793	3/4x7/8"	6,8	44,9	48,8	236,0	230
517.0794	13/16x7/8"	6,8	44,9	48,8	236,0	230
517.0795	15/16x1"	7,8	51,6	52,5	265,0	315
517.0796	1x1.1/8"	8,1	55,2	61,3	280,0	405
517.0797	1.1/16x1.1/4"	8,6	59,7	69,9	302,0	440

#### Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0145	5 pcs	8x9 - 10x11 - 12x13 - 16x17 - 18x19 mm				465

#### Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0148	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm				810



#### Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0149	10 pcs	8x10 - 10x12 - 13x17 - 14x15 - 16x18 - 17x19 - 20x22 - 21x23 - 24x27 - 30x32 mm				1,95

#### Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0123	11 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm				1,60

#### Double open ended spanner set

- DIN 3110 / ISO 1085 / ISO 10102 / ISO 3318
- Jaw 15° offset
- Ground heads
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	kg
517.0125	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32 mm				2,40







**Open double ring spanner, offset**

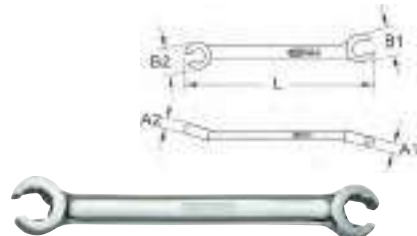
- 12 point
- DIN 3118
- Jaw 10-15° offset
- Opening 10-15° cranked
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
460.2511	17x19	12,0	13,0	30,0	33,0	220,0	250
517.0271	32x36	25,0	23,0	58,0	51,0	315,0	640
517.0272	36x41	27,0	25,0	65,0	58,0	350,0	820

**CHROMEplus® Open double ring spanner, offset**

- 6 point
- DIN 3118
- Jaw 15° offset
- Opening 15° cranked
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0511	6x8	6,6	6,7	17,6	19,8	143,0	50
518.0512	8x12	6,7	7,4	19,8	21,3	147,0	50
518.0513	9x11	7,6	7,4	21,3	22,9	152,0	60
518.0523	10x11	7,6	7,4	21,3	22,9	152,0	60
518.0514	10x12	7,6	7,4	21,3	22,9	152,0	60
518.0524	12x13	8,8	9,0	23,1	23,8	156,0	80
518.0515	13x14	10,0	9,9	25,3	25,3	178,0	120
518.0525	14x15	11,4	11,5	30,0	30,0	196,0	170
518.0526	14x17	11,4	11,5	30,0	30,0	196,0	170
518.0516	15x17	11,4	11,5	30,0	30,0	196,0	170
518.0517	16x18	11,4	11,5	30,0	30,0	196,0	170
518.0518	17x19	11,4	11,5	30,0	30,0	196,0	170
518.0519	19x21	13,5	13,1	34,1	34,1	207,0	220
518.0520	19x22	13,5	13,1	34,1	34,1	207,0	220
518.0521	24x27	17,0	16,2	46,0	46,0	264,0	360
518.0522	30x32	22,4	20,4	46,3	46,3	283,0	480
518.0501	1/4"x5/16"	6,6	6,7	17,6	19,8	143,0	50
518.0503	3/8"x7/16"	7,6	7,4	21,3	22,9	152,0	60
518.0506	7/16"x1/2"	8,8	9,0	23,1	23,8	158,0	80
518.0504	1/2"x9/16"	10,0	9,9	25,3	25,3	178,0	120
518.0505	5/8"x11/16"	11,4	11,5	30,0	30,0	196,0	170
518.0507	3/4"x7/8"	13,5	13,1	34,1	34,1	207,0	220

**CHROMEplus® Open double ring spanner set, offset**

- 6 point
- Ring head 30° offset
- Spanner has double sized head
- Heavy duty head
- For brake pipe couplers
- No slippage
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	C1 mm	C2 mm	L mm	g
517.0270	10x11	10,5	11,2	17,8	20,0	6,0	6,1	175,0	80



**DOUBLE RING SPANNERS**

**CHROMEplus® Starter and block spanner**

- FlankTraction profile
- Suitable for narrow spaces
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	g
518.0852	10x12	7,5	8,5	16,5	19,8	60

	mm	A1 mm	A2 mm	B1 mm	B2 mm	g
518.0853	11x13	7,5	8,5	16,8	19,8	98
518.2355	12x13	8,5	9,2	20,5	23,5	98
518.2363	12x14	8,5	9,2	20,5	23,5	98
518.2356	13x15	8,5	9,2	20,5	23,5	98
518.2364	13x16	9,0	9,2	22,7	25,5	110
518.2358	14x16	9,0	9,2	22,7	25,8	122
518.0856	14x17	9,0	9,2	22,7	25,8	129
518.2359	15x17	9,5	10,2	25,5	28,5	152
518.0857	16x18	9,5	10,2	25,5	28,5	171
518.2361	17x19	9,5	10,2	25,5	28,5	171
518.2367	18x21	10,0	11,5	28,8	33,0	210
518.2362	19x21	10,0	11,5	28,8	33,0	215
518.0859	19x22	10,0	11,5	28,8	33,0	244
518.2365	5/8"x3/4"	9,5	10,2	25,5	28,5	171
518.2366	3/4"x7/8"	10,0	11,5	28,8	33,0	240

**CHROMEplus® half moon - and manifold spanner set**

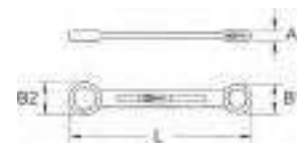
- FlankTraction profile
- Suitable for narrow spaces
- Mirror polished
- Chrome vanadium



	pcs	mm	g
518.0850	5 pcs	10x12 - 11x13 - 14x17 - 16x18 - 19x22 mm	890

**ULTIMATEplus double ring ended spanner**

- FlankTraction profile
- In accordance to DIN ISO
- Straight form
- Matt finish
- Chrome vanadium



	mm	A mm	B1 mm	B2 mm	L mm	g
920.0406	6x7	4,5	10,0	11,5	99,0	10
920.0408	8x9	5,2	13,0	11,5	114,0	15
920.0410	10x11	5,8	16,0	17,0	131,0	28
920.0412	12x13	6,4	19,0	20,5	149,0	35
920.0414	14x15	7,2	21,5	23,0	161,0	50
920.0416	16x17	7,8	24,5	25,5	169,0	65
920.0417	17x19	8,5	25,5	28,0	186,0	80
920.0418	18x19	8,5	27,0	28,0	186,0	80
920.0419	19x22	9,4	28,0	32,5	209,0	115
920.0420	20x22	9,4	29,5	32,5	209,0	120
920.0421	21x23	10,0	30,5	33,5	233,0	145
920.0422	22x24	10,0	32,5	35,5	233,0	150
920.0424	24x26	10,8	35,5	38,0	261,0	190
920.0425	24x27	10,8	35,5	39,0	260,0	200
920.0426	25x28	11,6	36,5	41,0	289,0	240
920.0427	27x32	12,6	39,0	46,0	320,0	320
920.0430	30x32	12,6	43,5	46,0	320,0	340

### ULTIMATE<sup>plus</sup> straight double open ended spanner set

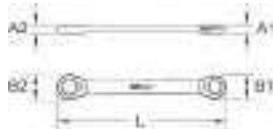
- FlankTraction profile
- In accordance to DIN ISO
- Straight form
- Matt finish
- Chrome vanadium



		kg	
920.0448	8 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	0,66
920.0450	12 pcs	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 25x28 - 30x32 mm	1,69

### GEAR<sup>plus</sup> Double ratchet ring spanner

- FlankTraction profile
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
503.4502	8x9	6,5	6,9	16,8	20,2	128,0	60
503.4511	8x10	7,3	6,5	20,0	17,0	128,0	40
503.4503	10x11	7,3	7,7	20,2	20,2	150,0	80
503.4512	10x13	7,3	8,6	20,2	20,2	150,0	80
503.4504	12x13	8,2	8,6	23,0	23,0	170,0	100
503.4505	14x15	9,0	9,4	26,5	26,5	190,0	140
503.4506	16x18	9,9	10,7	29,5	29,5	210,0	180
503.4507	17x19	10,3	11,2	31,5	31,5	230,0	220
503.4402	5/16"x3/8"	6,5	7,3	16,8	20,2	128,0	40
503.4403	7/16"x1/2"	7,7	8,6	23,0	24,8	170,0	80
503.4404	9/16"x5/8"	9,0	9,9	26,5	29,5	190,0	125
503.4405	11/16"x3/4"	10,3	11,2	31,5	33,5	230,0	200

### GEAR<sup>plus</sup> double ratchet ring spanner set

- FlankTraction profile
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



		kg	
503.4552	2 pcs	10x13 - 17x19 mm	335

### GEAR<sup>plus</sup> double ratchet ring spanner set

- FlankTraction profile
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium
- Supplied in a leather pouch



		kg	
503.4557	6 pcs	8x 9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	900



### GEAR<sup>plus</sup> double ratchet ring spanner set

- FlankTraction profile
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		kg	
503.4556	6 pcs	8x 9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	790

### GEAR<sup>plus</sup> double ratchet ring spanner set

- FlankTraction profile
- In accordance to DIN 3310 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

		kg	
503.4560	10 pcs	GEAR <sup>plus</sup> double ratchet ring spanner set	1,20
6 x		8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	
1 x		1/4"	
3 x		1/4" - 3/8" - 1/2"	

### 4 in 1 GEAR<sup>plus</sup> flexible reversing double ratchet ring spanner

- FlankTraction profile
- Straight form
- Exact gearing with 72 teeth
- With flexible head
- Four different sizes on each spanner
- With reversing lever
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	A4 mm	B1 mm	B2 mm	L mm	kg
503.4745	10x13-17x19	11,2	9,0	22,0	17,1	33,7	27,0	253,0	196



### Brake bleeding spanner

- 6 point
- Ideally suited to brake bleed screws
- Ring head cranked and offset
- For bleeding the brakes without dismantling of the wheels
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0307	7	5,3	5,6	12,9	12,1	190,0	60
518.0308	8	7,5	7,0	16,0	15,8	211,0	130
518.0309	9	7,4	6,9	16,0	15,9	211,0	130
518.0310	10	7,3	7,1	17,5	16,9	236,0	135
518.0311	11	7,2	7,0	17,3	16,9	236,0	135

### Brake bleeding spanner set

- 6 point
- Ideally suited to brake bleed screws
- Ring head cranked and offset
- For bleeding the brakes without dismantling of the wheels
- Matt finish
- Chrome vanadium
- Supplied in a leather pouch



			kg
518.0300	5 pcs	7 - 8 - 9 - 10 - 11 mm	1,20



### CHROMEplus® Double ring spanner, offset

- FlankTraction profile
- DIN 838 / ISO 3318 / ISO 1085 / ISO 10104
- Ring head 75° offset
- Thin walled
- Mirror polished
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
518.0801	6x7	5,9	6,6	10,2	12,5	168,0	52
518.0802	8x9	7,0	7,1	13,7	15,5	183,0	68
518.0804	10x11	7,5	7,5	16,8	18,2	198,0	92
518.0807	12x13	8,3	7,8	19,8	21,6	217,0	139
518.0809	14x15	9,0	9,1	22,7	24,7	239,0	167
518.0810	16x17	9,2	9,5	25,3	26,0	260,0	198
518.0811	17x19	10,3	10,8	28,6	29,8	292,0	263
518.0812	18x19	10,3	10,8	28,6	29,8	292,0	263
518.0814	20x22	10,4	11,4	31,1	34,6	318,0	319
518.0815	21x23	10,8	11,9	32,5	35,6	327,0	352
518.0816	24x27	11,8	13,7	36,5	41,4	339,0	466
518.0818	30x32	13,1	14,6	46,1	49,3	362,0	607
518.3101	1/4"x5/16"	5,4	6,0	10,8	13,1	165,0	40
518.3102	5/16"x3/8"	6,4	7,0	14,7	16,2	170,0	58
518.3103	3/8"x7/16"	6,9	7,6	16,3	18,6	195,0	73
518.3104	1/2"x9/16"	8,6	9,0	19,8	21,0	206,0	116
518.3105	9/16"x5/8"	8,8	9,3	21,4	24,8	232,0	134
518.3106	5/8"x11/16"	10,2	10,4	24,3	26,2	237,0	191
518.3107	11/16"x3/4"	11,1	11,6	27,8	29,3	270,0	269
518.3108	3/4"x7/8"	11,4	12,0	28,7	32,4	292,0	327
518.3109	7/8"x15/16"	11,6	12,3	21,1	34,4	327,0	345
518.3110	13/16"x7/8"	11,6	12,3	21,1	34,4	327,0	345
518.3111	15/16"x1"	14,0	14,1	34,4	36,5	362,0	517
518.3112	1"x1.1/8"	13,7	15,2	39,6	42,1	372,0	625
518.3113	1.1/8"x1.1/4"	17,2	18,6	44,4	48,3	392,0	880

### CHROMEplus® double ring ended spanner set

- FlankTraction profile
- DIN 838 / ISO 3318 / ISO 1085 / ISO 10104
- Ring head 75° offset
- Thin walled
- Mirror polished
- Chrome vanadium



			kg
518.0847	7 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	1,03
518.0843	3 pcs	21x23 - 24x27 - 30x32 mm	1,51
518.3120	6 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 9/16"x5/8" - 11/16"x3/4" - 13/16"x7/8"	1,10
518.3100	8 pcs	1/4"x5/16" - 3/8"x7/16" - 1/2"x9/16" - 9/16"x5/8" - 11/16"x3/4" - 13/16"x7/8" - 15/16"x1" - 1.1/8"x1.1/4"	2,46

### 11 mm + 1/4" Go through reversing ratchet

- Especially handy and compact
- Rotating assembly
- Very flat design for hard to access places
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Matt finish
- Chrome vanadium



1/4" 11 mm

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
918.3072	1/4" x 11 mm	10,2	9,7	17,2	14,2	115,0	45

### GEARplus® reversing double ratchet ring spanner

- FlankTraction profile
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
503.4571	8x9	6,9	6,5	20,2	16,8	128,0	60
503.4572	8x10	7,4	6,7	20,2	16,7	128,0	65
503.4573	10x11	7,7	7,3	21,8	20,2	150,0	70
503.4574	10x13	8,7	7,4	25,4	20,5	150,0	80
503.4575	12x13	8,6	8,2	24,8	23,0	170,0	100
503.4576	14x15	9,4	9,0	29,5	26,5	190,0	140
503.4577	16x18	10,7	9,9	33,5	29,5	210,0	180
503.4578	17x19	11,2	10,3	33,5	31,5	230,0	220

### GEARplus® double reversing ratchet ring spanner

- FlankTraction profile
- In accordance to DIN 3110 / ISO 3318
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reversing lever
- High quality finish
- Chrome vanadium
- Supplied in a leather pouch



			kg
503.4580	6 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x18 - 17x19 mm	790





**Ratchet ring spanner, reversing**

- FlankTraction profile (12 point)
- In accordance to DIN 838 / ISO 1085
- Ring head 75° offset
- Reversible
- Exact gearing with 24 teeth
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
520.1011	10x11	11,5	11,7	23,3	25,1	210,0	180
520.1214	12x14	12,1	12,4	26,4	30,8	245,0	260
520.1317	13x17	13,2	13,3	31,5	36,3	265,0	360
520.1516	15x16	14,6	14,7	33,1	34,9	260,0	420
520.1922	19x22	16,1	16,2	39,8	43,8	325,0	600
520.2427	24x27	17,7	17,9	47,4	51,6	390,0	800
520.3032	30x32	19,7	19,9	55,1	57,1	410,0	1300

**Ratchet ring spanner set, reversing**

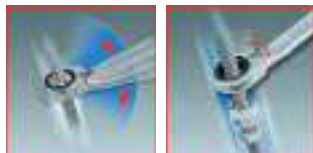
- FlankTraction profile
- In accordance to DIN 838 / ISO 1085
- Ring head 75° offset
- Reversible
- Exact gearing with 24 teeth
- Matt finish
- Chrome vanadium



	g
520.1000 5 pcs 10x11 - 12x14 - 13x17 - 15x16 - 19x22 mm	1,85
520.1100 7 pcs 10x11 - 12x14 - 13x17 - 15x16 - 19x22 - 24x27 - 30x32 mm	4,05

**GEARplus® Universal double ratchet ring spanner set**

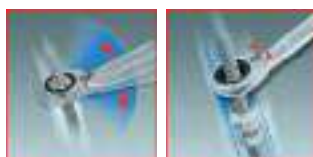
- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reversing lever
- With through inserts
- Waistband to key insert prevents slipping
- Suitable for narrow spaces
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	g
503.4645 10 pcs GEARplus® Universal double ratchet ring spanner set	500
1 x 14 x 19 mm	
9 x 8 - 9 - 10 - 11 - 12 - 13 - 15 - 16 - 17 mm	

**GEARplus® Universal double ratchet ring spanner set**

- Ratchet head 15° offset
- Exact gearing with 72 teeth
- With reversing lever
- With through inserts
- Waistband to key insert prevents slipping
- Suitable for narrow spaces
- High quality finish
- Chrome vanadium
- In durable plastic storage case



	g
503.4625 8 pcs GEARplus® Universal double ratchet ring spanner set	500
1 x 14 x 19 mm	
7 x 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16"	

**ACCESSORIES**

**GEARplus® Bit adapter**

- FlankTraction profile (12 point)
- Mirror polished
- Chrome vanadium



1/4" 5/16" 10 mm

	mm		B mm	L mm	g
503.4290	10,0	1/4"	11,0	15,7	6
503.4292	13,0	5/16"	15,5	15,3	11
503.4293	13,0	10 mm	21,0	21,0	17

**GEARplus® Bit adapter set**

- FlankTraction profile (12 point)
- Mirror polished
- Chrome vanadium



5/16" 10 mm

	g
503.4294 2 pcs 13 mm x 5/16" - 13 mm x 10 mm	100

**GEARplus® Socket adapter**

- With a push button quick release function
- FlankTraction profile (12 point)
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

	mm		B mm	L mm	g
503.4296	10 mm	1/4"	11,1	16,7	50
503.4297	13 mm	3/8"	14,5	21,7	70
503.4298	19 mm	1/2"	21,4	28,8	100

### GEARplus® Socket adapter set, for metric spanner

- With a push button quick release function
- Suitable for metric GEARplus® spanners
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		1	
503.4286	4 pcs	GEARplus® Socket adapter set, for metric spanner	270
1 x		10 mm x 1/4"	
3 x		10 mm x 1/4" - 13 mm x 3/8" - 19 mm x 1/2"	

### GEARplus® Socket adapter set, for imperial spanners

- With a push button quick release function
- Suitable for imperial GEARplus® spanners
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits to DIN 3126 / C 6,3
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		1	
503.4287	4 pcs	GEARplus® Socket adapter set, for imperial spanners	100
1 x		3/8" x 1/4"	
3 x		3/8" x 1/4" - 1/2" x 3/8" - 3/4" x 1/2"	

### GEARplus® Socket adapter for ring stop spanner

- With a push button quick release function
- Suitable for ring stop spanners
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Mirror polished
- Chrome vanadium



1/2"

		B		L		1	
		mm		mm			
503.4998	19 mm	1/2"	21,4	28,8	100		

### DOUBLE RING SPANNERS FOR TX E PROFILE

#### Double ring spanner for Torx E-Profile

- Torx-E-Profile
- Straight form
- Thin walled
- Matt finish
- Chrome vanadium



		A1		A2		B1		B2		L		1	
		mm		mm		mm		mm		mm			
911.0371	E6 x E8	4,2	5,3	7,3	9,7	114,0	20						
911.0372	E7 x E11	5,2	7,2	10,8	14,8	130,0	50						
911.0373	E10 x E12	6,5	7,7	12,3	15,1	141,0	40						
911.0374	E14 x E18	8,2	10,3	17,0	21,1	180,0	90						
911.0375	E16 x E22	8,4	11,8	19,7	27,3	205,0	130						
911.0376	E20 x E24	11,0	12,6	23,9	27,9	224,0	170						

#### Double ring spanner set for Torx E-Profile

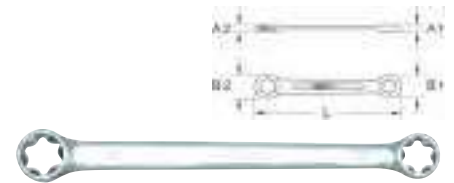
- Torx-E-Profile
- Straight form
- Thin walled
- Matt finish
- Chrome vanadium



		1	
911.0370	6 pcs	E6x E8 - E7x E11 - E10x E12 - E14x E18 - E16x E22 - E20x E24	585

### CHROMEplus® Double ring spanner for Torx E-Profile

- Torx-E-Profile
- Straight form
- Thin walled
- Mirror polished
- Chrome vanadium



		A1		A2		B1		B2		L		1	
		mm		mm		mm		mm		mm			
518.0861	E6 x E8	4,2	5,3	7,3	9,7	114,0	17						
518.0862	E10 x E12	6,5	7,7	12,3	15,1	141,0	36						
518.0863	E14 x E18	8,2	10,3	17,0	21,1	180,0	88						
518.0864	E20 x E24	11,0	12,6	23,9	27,9	224,0	165						

### CHROMEplus® Double ring spanner set for Torx E-Profile

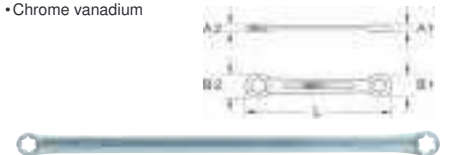
- Torx-E-Profile
- Straight form
- Thin walled
- Mirror polished
- Chrome vanadium



		1	
518.0860	4 pcs	E6x E8 - E10x E12 - E14x E18 - E20x E24	410

### CHROMEplus® Double ring spanner for Torx-E profile, extra long

- Torx-E-Profile
- Thin walled
- Mirror polished
- Chrome vanadium



		A1		A2		B1		B2		L		1	
		mm		mm		mm		mm		mm			
518.0931	E6 x E7	5,8	6,9	9,5	11,0	200,0	42						
518.0932	E8 x E10	7,3	8,6	12,0	14,3	240,0	68						
518.0933	E11 x E12	9,1	9,9	14,9	16,6	280,0	109						
518.0934	E14 x E16	10,3	11,2	18,1	19,8	320,0	161						
518.0935	E18 x E20	11,6	12,7	22,8	25,7	360,0	227						
518.0936	E22 x E24	13,3	14,0	26,9	29,2	400,0	344						

### CHROMEplus® Double ring spanner set for Torx-E profile, extra long

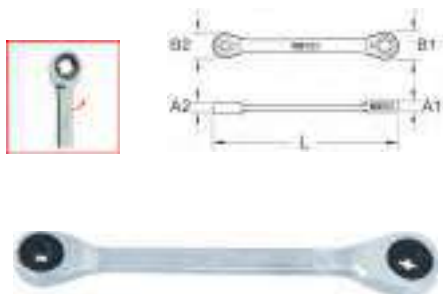
- Torx-E-Profile
- Thin walled
- Mirror polished
- Chrome vanadium



		1	
518.0930	6 pcs	E6-E7-E8-E10-E11-E12-E14-E16-E18-E20-E22-E24	943

**GEARplus® Double ring ratchet spanner for Torx E profile**

- Ideally suited for the assembly and disassembly in tight-fitting areas and changing the transmission
- Torx E
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
503.4351	E6 x E8	6,5	6,9	16,8	20,2	128,0	70
503.4353	E10 x E12	7,3	7,7	20,2	21,8	150,0	60
503.4355	E14 x E18	9,0	9,9	26,5	29,5	190,0	150
503.4357	E20 x E24	10,3	11,2	31,5	33,5	230,0	230

**GEARplus® Double ring ratcheting spanner set for Torx E profile**

- Ideally suited for the assembly and disassembly in tight-fitting areas and changing the transmission
- Torx E
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



			kg
503.4364	4 pcs	E6xE8 - E10xE12 - E14xE18 - E20xE24	475

**Double ring spanner for Torx E profile, offset**

- Torx-E-Profile
- Ring head 75° offset
- Thin walled
- Matt finish
- Chrome vanadium



		A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
911.0361	E6 x E8	5,5	6,2	10,0	12,3	147,0	32
911.0362	E7 x E11	5,6	7,0	11,3	14,5	159,0	43
911.0363	E10 x E12	5,9	6,8	13,5	15,5	175,0	50
911.0364	E14 x E18	7,7	9,3	17,3	21,7	215,0	108
911.0365	E16 x E22	8,1	11,6	20,1	27,4	234,0	157
911.0366	E20 x E24	11,3	13,3	23,5	28,2	262,0	223

**Double ring spanner set for Torx E profile, offset**

- Torx-E-Profile
- Ring head 75° offset
- Thin walled
- Matt finish
- Chrome vanadium

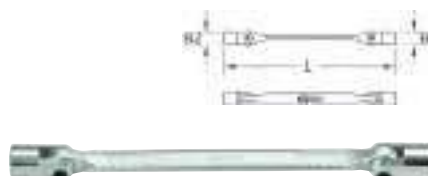


			kg
911.0360	6 pcs	E6xE8 - E7xE11 - E10xE12 - E14xE18 - E16xE22 - E20xE24	970

**FLEXIBLE SPANNERS**

**Double revolving head spanner**

- FlankTraction profile
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



	mm		B1 mm	B2 mm	L mm	kg
517.0300	6x7		10,5	11,2	198,0	90
517.0301	8x9		12,3	12,7	198,0	91
517.0302	10x11		14,8	15,7	216,0	118
517.0303	12x13		18,7	18,9	223,0	172
517.0344	13x17		19,0	24,0	240,0	250
517.0304	14x15		20,8	20,9	245,0	214
517.0305	16x17		22,7	23,8	257,0	282
517.0349	16x18		23,0	25,0	260,0	285
517.0345	17x19		24,0	26,0	260,0	348
517.0306	18x19		25,7	25,8	273,0	359
517.0307	20x22		27,7	30,0	297,0	486
517.0308	21x23		27,7	32,0	297,0	492
517.0346	24x27		33,0	37,0	335,0	520
517.0347	30x32		40,0	42,0	350,0	575
517.0351		3/8"x7/16	15,0	16,0	200,0	110
517.0352		1/2"x9/16	19,0	22,0	225,0	210
517.0353		5/8"x11/16	23,0	24,0	260,0	280
517.0354		11/16"x3/4	23,0	24,0	260,0	320



**Double revolving head spanner set**

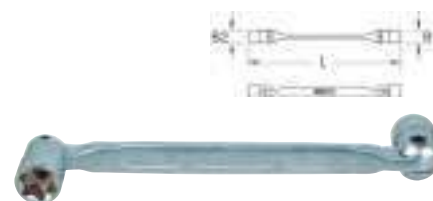
- FlankTraction profile
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



			kg
517.0310	6 pcs	8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm	1,34

**Double revolving head spanner for Torx E profile**

- Torx-E-Profile
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



		B1 mm	B2 mm	L mm	kg
517.0330	E6 x E8	12,9	12,9	200,0	85
517.0332	E10 x E12	14,6	16,0	220,0	130
517.0333	E14 x E16	19,1	20,9	245,0	190
517.0334	E18 x E20	21,9	22,8	255,0	270
517.0335	E22 x E24	25,9	25,9	270,0	370

**Torx E profile double headed revolving wrench set**

- Torx-E-Profile
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



			kg
517.0340	5 pcs	E6xE8 - E10xE12 - E14xE16 - E18xE20 - E22xE24	1,00

**Double revolving head spanner for Torx**

- Torx
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



	mm	B1 mm	B2 mm	T1 mm	T2 mm	L mm	kg
517.0315	T15 x T20	14,7	14,7	7,9	7,9	225,0	110
517.0316	T25 x T27	15,0	15,0	9,0	9,0	225,0	130
517.0317	T30 x T40	14,8	14,8	8,7	8,7	225,0	150
517.0318	T45 x T50	16,9	16,9	12,4	12,4	245,0	190
517.0319	T55 x T60	17,0	17,0	13,5	13,5	245,0	250

**Double revolving head spanner set for Torx**

- Torx
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



	pcs	mm	kg
517.0320	5 pcs	T15xT20 - T25xT27 - T30xT40 - T45xT50 - T55xT60	845

**Hexagonal double revolving head wrench**

- 6 point
- With flexible head
- Extra large pivoting range
- Suitable for narrow spaces
- Matt finish
- Chrome vanadium



	mm	B1 mm	B2 mm	T1 mm	T2 mm	L mm	kg
517.0341	3x4	15,0	15,0	5,8	4,5	205,0	115
517.0342	5x6	18,0	18,0	6,7	6,0	218,0	170
517.0343	8x10	20,0	20,0	8,7	10,1	225,0	225
517.0355	12x14	22,0	22,0	15,0	16,0	270,0	282
517.0356	17x19	24,0	30,0	18,0	20,0	295,0	525

**BOX SPANNERS**

**ULTIMATEplus double box spanner with go through centre**

- 6 point
- Ring head 90° offset
- With go through function
- High quality finish
- Chrome vanadium



	mm	D mm	L mm	kg
517.0406	6	10,0	102,0	0,05
517.0407	7	11,0	106,0	0,06
517.0408	8	12,5	114,0	0,07
517.0409	9	13,5	122,0	0,09
517.0410	10	15,0	129,0	0,11
517.0411	11	16,5	136,0	0,13
517.0412	12	18,0	144,0	0,16
517.0413	13	19,5	152,0	0,18
517.0414	14	21,0	160,0	0,23
517.0415	15	22,5	169,0	0,26
517.0416	16	24,0	178,0	0,32
517.0417	17	25,5	187,0	0,35
517.0418	18	26,5	195,0	0,41
517.0419	19	28,0	204,0	0,45
517.0420	20	29,5	212,0	0,51
517.0421	21	30,5	221,0	0,56
517.0422	22	32,0	230,0	0,66
517.0423	23	33,5	240,0	0,76
517.0424	24	34,5	250,0	0,83
517.0427	27	38,0	296,0	1,24
517.0430	30	42,0	330,0	1,57
517.0432	32	44,5	350,0	1,84
517.0434	34	47,0	340,0	1,60
517.0436	36	49,5	380,0	2,40

**ULTIMATEplus double box spanner set, offset**

- 6 point
- Ring head 90° offset
- With go through function
- High quality finish
- Chrome vanadium



	pcs	mm	kg
517.0450	9 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	1,55
517.0451	11 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	1,60
517.0452	8 pcs	8 - 10 - 11 - 13 - 17 - 19 - 22 - 24 mm	2,60
517.0453	21 pcs	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	8,40
517.0455	13 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 24 mm	4,56

**Pipe head spanner**

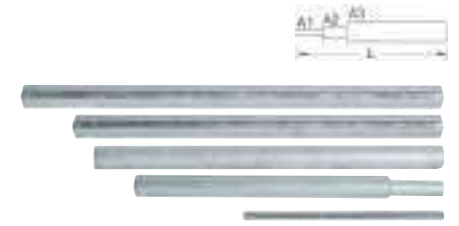
- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	L mm	#	kg
518.0870	6x7	10,0	11,0	100,0	1,2,3	27
518.0871	8x9	11,0	12,0	110,0	1,2,3	43
518.0872	10x11	12,5	13,0	120,0	1,2,3	63
518.0881	10x13	13,0	14,5	140,0	2,3	80
518.0873	12x13	14,0	14,5	130,0	2,3	96
518.0874	14x15	15,0	16,0	140,0	2,3	132
518.0875	16x17	16,0	17,0	150,0	2,3	155
518.0882	17x19	17,0	20,0	160,0	2,3	160
518.0876	18x19	18,0	20,0	160,0	2,3	187
518.0877	20x22	20,0	21,0	170,0	2,3	275
518.0878	21x23	20,0	20,0	180,0	2,3	310
518.0883	24x26	24,0	26,0	190,0	4	365
518.0879	24x27	24,0	26,0	190,0	4	365
518.0880	30x32	27,0	31,0	220,0	4	610
518.0884	36x41	32,0	35,0	220,0	5	650
518.0885	41x46	35,0	38,0	240,0	5	950
518.0886	46x50	38,0	40,0	240,0	5	1050

**Tommy bar for box spanner**

- Hardened
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	L mm	#	kg
518.0865	6x7-10x11	6,0	6,0	6,0	115,0	1	40
518.0866	6x7-21x23	5,8	8,0	9,5	160,0	2	80
518.0868	24x26-30x32	14,0	14,0	14,0	204,0	4	260
518.0869	36x41-46x50	15,6	15,6	15,6	253,0	5	370



**Box wrench sets**

- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finish
- Chrome vanadium



518.0900	10 pcs	Box wrench sets	920
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	
2 x		6-11 + 10-22 mm	

**ULTIMATEplus Double box spanner**

- FlankTraction profile
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Hexagonal shank
- Can use a ring spanner to drive
- High quality finish
- Chrome vanadium



		B1 mm	B2 mm		L mm		
518.0406	6x7	9,0	10,0	8,0	100,0	1	27
518.0408	8x9	11,5	12,5	9,0	110,0	1	43
518.0410	10x11	14,0	15,0	11,0	120,0	1	63
518.0412	12x13	16,5	17,5	13,0	130,0	2	96
518.0414	14x15	19,5	20,0	14,0	140,0	2	132
518.0416	16x17	21,0	22,0	16,0	150,0	2	155
518.0418	18x19	23,0	24,0	18,0	160,0	2	187
518.0420	20x22	26,0	28,0	20,0	170,0	2	275
518.0421	21x23	27,0	29,0	21,0	180,0	2	310
518.0424	24x26	30,0	32,0	24,0	190,0	3	365
518.0425	25x28	31,0	34,0	25,0	200,0	3	410
518.0427	27x29	34,0	36,0	27,0	210,0	3	540
518.0430	30x32	37,0	39,0	30,0	220,0	3	610

**Tommy bar for double box spanner**

- Hardened
- High quality finish
- Chrome vanadium



		A1 mm	A2 mm	A3 mm	L mm	#	
518.0450	6x7-10x11	2,6	5,0	5,0	100,0	1	10
518.0455	12x13-21x23	5,9	7,0	9,3	170,0	2	80
518.0460	24x26-30x32	11,6	12,5	12,5	290,0	3	280

**ULTIMATEplus Double box head spanner set**

- FlankTraction profile
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a ring spanner to drive
- High quality finish
- Chrome vanadium



518.0405	10 pcs	ULTIMATEplus Double box head spanner set	1,16
8 x		6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm	
2 x		#1 100 mm + #2 170 mm	

**ERGOTORQUEplus socket screwdriver**

- Two component handle
- 6 point
- Matt finish
- Chrome vanadium



		D mm	L1 mm	L2 mm	L3 mm	L4 mm	
159.1265	3	6,6	150,0	150,0	105,0	4,3	60
159.1201	4	6,6	255,0	150,0	105,0	4,3	60
159.1266	4,5	7,6	150,0	150,0	105,0	4,4	70
159.1202	5	7,6	255,0	150,0	105,0	4,4	70
159.1203	5,5	8,2	255,0	150,0	105,0	4,8	80
159.1204	6	8,8	255,0	150,0	105,0	5,5	80
159.1205	7	10,0	255,0	150,0	105,0	6,8	110
159.1206	8	11,2	264,0	150,0	114,0	7,0	110
159.1207	9	13,9	264,0	150,0	114,0	9,3	110
159.1208	10	15,0	264,0	150,0	114,0	9,9	120
159.1209	11	16,5	264,0	150,0	114,0	10,3	130
159.1210	12	17,6	264,0	150,0	114,0	11,2	180
159.1212	14	18,9	264,0	150,0	114,0	13,0	180



**ERGOTORQUEplus socket screwdriver set**

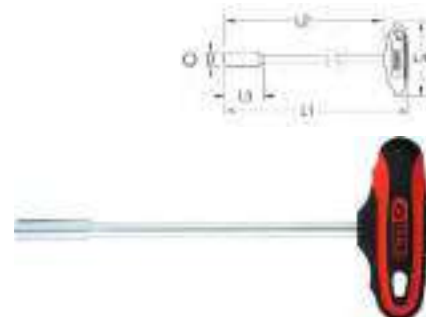
- Two component handle
- 6 point
- Matt finish
- Chrome vanadium



159.1200	8 pcs	5 - 6 - 7 - 8 - 10 - 11 - 12 - 13 mm	800

**T-handle socket screwdriver, long**

- Long execution
- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



		D mm	L1 mm	L2 mm	L3 mm	L4 mm	
158.50055	5,5	9,9	264,0	230,0	10,0	95,0	80
158.5006	6	9,9	264,0	230,0	10,0	95,0	100
158.5007	7	10,1	264,0	230,0	10,0	95,0	120
158.5008	8	12,5	270,0	230,0	14,0	115,0	140
158.5009	9	13,6	270,0	230,0	12,0	115,0	150
158.5010	10	14,5	270,0	230,0	14,0	115,0	160
158.5011	11	15,7	270,0	230,0	15,0	115,0	180
158.5012	12	16,7	270,0	230,0	15,0	115,0	180
158.5013	13	17,6	270,0	230,0	16,0	115,0	180
158.5014	14	19,2	270,0	230,0	15,0	115,0	190

T-handle socket screwdriver set

- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In sturdy wall bracket



158.5000	6 pcs	6 - 8 - 10 - 12 - 13 - 14 mm	1,40
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T-handle socket screwdriver, extra long

- Extra long execution
- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.5408	8	12,6	390,0	350,0	13,0	115,0	180
158.5409	9	13,6	390,0	350,0	14,0	115,0	190
158.5410	10	14,7	390,0	350,0	15,0	115,0	220
158.5413	13	17,7	390,0	350,0	15,0	115,0	230
158.5414	14	19,1	390,0	350,0	16,0	115,0	250

ERGOTORQUEplus socket screwdriver

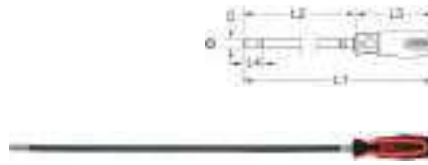
- Two component handle
- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1126	6,0	10,8	259,0	150,0	109,0	9,3	155
159.1127	7,0	11,7	259,0	150,0	109,0	10,0	155
159.2128	8,0	11,9	259,0	150,0	109,0	10,0	155
159.1125	10,0	12,5	279,0	170,0	109,0	14,3	170

ERGOTORQUEplus socket screwdriver, extra long

- Two component handle
- 6 point
- Flexible
- Ideal for deep seated screw-hose clamps
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Chrome vanadium

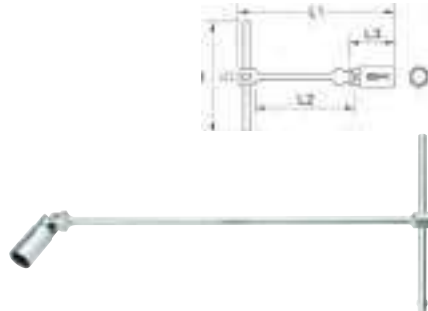


	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
911.1175	5	11,9	614,0	500,0	114,0	8,9	270
911.1176	6	10,9	614,0	500,0	114,0	11,3	280
911.1177	7	11,7	614,0	500,0	114,0	11,3	280
911.1178	8	11,7	614,0	500,0	114,0	11,3	280

T-HANDLE FLEXIBLE WRENCH

T-handle spark plug spanner with joint, long

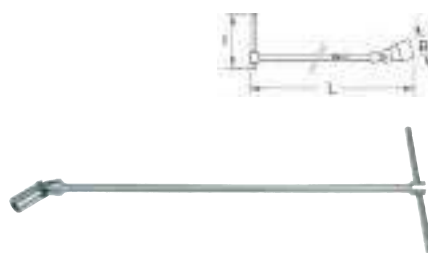
- 12 point
- Double hexagon profile allows the pickup of hexagon and 12-point spark plugs
- For difficult to access areas
- Universal usage
- With flexible head
- With rubber stop for holding the spark plugs
- Matt finish
- Chrome vanadium



	mm	I mm	L1 mm	L2 mm	L3 mm	g
517.1131	14,0	200,0	500,0	418,5	81,5	490
517.1132	16,0	200,0	500,0	418,5	81,5	500
517.1133	18,0	200,0	500,0	418,5	81,5	580
517.1134	21,0	200,0	500,0	418,5	81,5	590

T-handle universal wrench, extra long

- 6 point
- With flexible head
- For difficult to access areas
- Matt finish
- Chrome vanadium



	mm	B mm	I mm	L mm	g
517.1108	8	12,0	200,0	394,0	400
517.1109	9	14,5	200,0	395,0	420

	mm	B mm	I mm	L mm	g
517.1110	10	15,3	200,0	490,0	460
517.1111	11	17,0	200,0	491,0	470
517.1112	12	18,0	200,0	493,0	485
517.1113	13	18,0	200,0	493,0	485
517.1114	14	20,0	200,0	495,0	480
517.1115	15	22,0	200,0	495,0	480
517.1116	16	22,0	200,0	496,0	490
517.1117	17	24,0	200,0	469,0	495
517.1118	18	26,0	200,0	500,0	500
517.1119	19	28,0	200,0	500,0	520

T-Handle universal wrench for sockets, extra long

- In accordance to DIN 3122 / ISO 3315
- Square drive adaptor compliant with DIN 3122 - ISO 1174 with a ball locking device
- With flexible head
- For difficult to access areas
- Matt finish
- Chrome vanadium



	mm	B mm	I mm	L mm	g
517.1125	1/4"	6,3	200,0	490,0	420
517.1126	3/8"	9,5	200,0	495,0	540
517.1127	1/2"	12,6	200,0	500,0	760

HOOK WRENCH

Fixed hook wrench with nose

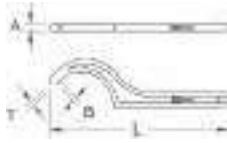
- In accordance to DIN 1810 Form A
- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1370	12 - 14	2,5	2,0	109,5	1,5	22
517.1371	16 - 20	2,5	2,0	109,5	1,5	22
517.1372	25 - 28	4,0	2,5	135,9	2,0	36
517.1373	30 - 32	4,0	2,5	135,9	2,0	36
517.1374	34 - 36	5,0	3,0	170,2	2,0	82
517.1375	40 - 42	5,0	3,0	170,3	2,0	76
517.1376	45 - 50	6,0	3,5	195,0	2,0	132
517.1377	52 - 55	7,0	3,5	220,0	2,5	176
517.1378	58 - 62	7,0	4,0	240,0	2,5	224
517.1379	68 - 75	7,6	4,0	260,0	3,0	280
517.1380	80 - 90	8,0	5,0	280,0	3,5	368
517.1381	92 - 100	8,0	5,0	280,0	3,5	394
517.1382	110 - 115	9,5	5,0	334,9	4,0	590
517.1383	120 - 130	9,5	5,0	334,9	4,0	540
517.2371	135 - 145	12,3	6,0	385,0	5,0	841
517.2372	155 - 165	12,3	6,0	385,0	5,0	820
517.2373	180 - 195	14,3	6,0	465,0	5,0	1445
517.2374	205 - 220	14,3	6,0	465,0	5,0	1448

Fixed hook wrench with pin

- In accordance to DIN 1810 Form B
- With hanging hole
- For pin type round nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1471	12 - 14	3,0	2,0	110,0	2,0	25
517.1472	16 - 18	3,0	2,5	110,0	2,5	25
517.1473	20 - 22	3,0	2,5	110,0	2,5	25
517.1474	25 - 28	4,0	3,0	136,0	3,0	55
517.1488	30 - 32	5,0	4,0	136,0	3,0	55
517.1476	34 - 36	5,0	4,0	170,0	3,5	100
517.1477	40 - 42	5,0	4,0	170,0	3,5	100
517.1478	45 - 50	6,0	5,0	206,0	4,0	165
517.1479	52 - 55	6,0	5,0	206,0	4,0	165
517.1480	58 - 62	7,0	5,0	240,0	5,0	270
517.1481	68 - 75	7,0	6,0	240,0	5,0	270
517.1482	80 - 90	8,0	6,0	280,0	6,0	410
517.1483	95 - 100	8,0	8,0	280,0	6,0	410
517.1484	110 - 115	8,0	8,0	335,0	8,0	610
517.1485	120 - 130	8,0	8,0	335,0	8,0	610
517.1486	135 - 145	8,0	8,0	380,0	8,0	790
517.1487	155 - 165	8,0	8,0	380,0	8,0	790
517.2312	205 - 220	10,0	10,0	470,0	10,0	1580
517.2314	180 - 195	10,0	10,0	465,0	10,0	1500

Hook wrench with nose

- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g	
517.1302	19-50	3/4-2"	9,0	3,5	162,0	2,9	100
517.1303	32-76	1.1/4-3"	11,5	4,5	205,0	3,7	210
517.1304	50-120	2-4.3/4"	12,4	6,5	295,0	4,6	420
517.1305	114-158	4.1/2-6.1/4"	12,4	9,8	315,0	8,3	440
517.2379	155-230	5.5/8"-9.3/50"	8,0	11,0	420,0	18,0	1000



Flexible hook wrench with pin

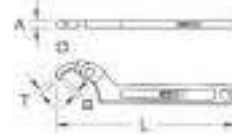
- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g	
517.1312	19-50	3/4-2"	9,2	4,0	165,0	4,0	110
517.1313	32-76	1.1/4-3"	11,3	5,0	210,0	4,7	220
517.1314	50-120	2-4.3/4"	12,5	6,0	295,0	5,5	420
517.1315	114-158	4.1/2-6.1/4"	12,6	8,0	320,0	7,6	440

Hook wrench with nose

- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1316	15 - 35	5,2	3,2	175,0	3,2	96
517.1317	35 - 50	5,9	4,0	202,0	4,2	186
517.1318	50 - 80	7,5	4,9	280,0	5,2	392
517.1319	80 - 120	8,2	5,3	345,0	5,8	656
517.1320	120 - 180	10,8	8,9	465,0	7,8	1286

Flexible hook wrench with pin

- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1323	15 - 35	9,8	2,8	177,0	2,8	96
517.1324	35 - 50	10,7	3,8	202,0	3,6	186
517.1325	50 - 80	14,0	4,8	280,0	5,0	380
517.1326	80 - 120	17,2	5,8	345,0	7,0	652
517.1327	120 - 180	19,2	7,8	465,0	9,0	1318

Hook wrench with nose

- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Infinitely variable
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1397	10 - 50	7,6	4,2	210,0	4,5	380
517.1398	20 - 100	8,2	6,8	360,0	5,5	840
517.1399	30 - 200	10,6	9,4	570,0	7,0	2250

Flexible hook wrench with pin

- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Infinitely variable
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	g
517.1328	10-50	8,3	2,6	210,0	2,5	380
517.1329	20-100	12,3	4,0	360,0	4,5	840
517.1330	30-200	17,3	5,8	570,0	4,8	2250

Adjustable hook wrench with nose

- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	Length mm	Thickness mm	g
517.2474	20-42	180,0	4	100
517.2475	45-90	250,0	6	25
517.2476	95-165	335,0	10	710







**SOCKETS AND OPERATING TOOLS 10**



*Innovation is  
our mission!*

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### CHROMEplus® 12-point socket-set, deep

- 12 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Includes storage rail



918.0630	10 pcs	4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	0,35
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### Torx E Socket

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
911.4313	E4	6,0	11,0	25,0	5,0	10
911.4314	E5	7,0	11,0	25,0	5,0	10
911.4315	E6	8,0	11,0	25,0	5,0	11
911.4316	E7	10,0	11,0	25,0	6,0	11,5
911.4317	E8	10,0	12,0	25,0	7,0	12,5
911.4332	E10	12,0	13,0	25,0	7,0	17
911.4350	E11	14,0	15,0	25,0	8,0	15
911.4352	E12	16,0	14,0	25,0	8,0	28

### Torx E Socket set

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



911.4355	7 pcs	E4 - E5 - E6 - E7 - E8 - E10 - E11	0,10
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### CHROMEplus® Torx E Socket

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
918.1582	E4	6,0	11,0	25,0	5,0	10
918.1583	E5	7,0	11,0	25,0	5,0	10
918.1584	E6	8,0	11,0	25,0	5,0	10
918.1585	E7	10,0	11,0	25,0	6,0	10
918.1586	E8	11,0	12,0	25,0	7,0	15
918.1587	E10	13,0	13,0	25,0	7,0	15
918.1588	E11	13,0	15,0	25,0	8,0	15
918.4352	E12	14,0	12,0	25,0	10,0	17

### CHROMEplus® Torx E Socket set

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



918.4355	7 pcs	E4 - E5 - E6 - E7 - E8 - E10 - E11	100
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### Torx E Socket, deep

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
917.2401	E4	6,0	11,0	50,0	10,0	14
917.2402	E5	7,0	11,0	50,0	10,0	16
917.2403	E6	8,0	11,0	50,0	10,0	18
917.2404	E7	9,0	11,0	50,0	10,0	18
917.2405	E8	11,0	12,0	50,0	10,0	20
917.2406	E10	13,0	13,0	50,0	10,0	26

### CHROMEplus® Torx E Socket, deep

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
918.2401	E4	6,0	11,0	50,0	10,0	14
918.2402	E5	7,0	11,0	50,0	10,0	16
918.2403	E6	8,0	11,0	50,0	10,0	18
918.2404	E7	9,0	11,0	50,0	10,0	18
918.2405	E8	11,0	12,0	50,0	10,0	20
918.2406	E10	13,0	13,0	50,0	10,0	26

### 1/4" BIT SOCKETS

#### Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.1418	4,0	12,0	37,0	18,0	20
911.1419	5,5	12,0	37,0	18,0	20
917.1421	6,5	12,0	37,0	18,0	20
911.1420	7,0	12,0	37,0	18,0	20
917.1422	8,0	12,0	37,0	18,0	20

#### CHROMEplus® Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.1487	4,0	12,0	37,0	18,0	20
918.1488	5,5	12,0	37,0	18,0	20
918.1489	6,5	12,0	37,0	18,0	20
918.1491	7,0	12,0	37,0	18,0	20
918.1486	8,0	12,0	37,0	18,0	20

#### Bit socket for phillips head screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium




		D mm	L mm	T mm	g
911.1482	PH0	12,0	37,0	18,0	15
911.1415	PH1	12,0	37,0	18,0	20
911.1416	PH2	12,0	37,0	18,0	20
911.1417	PH3	12,0	37,0	18,0	20
911.1421	PH4	12,0	37,0	18,0	20

**CHROMEplus® Bit socket for phillips screws PH**

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium




		D mm	L mm	T mm	
918.1416	PH0	12,0	37,0	18,0	20
918.1468	PH1	12,0	37,0	18,0	20
918.1469	PH2	12,0	37,0	18,0	20
918.1436	PH3	12,0	37,0	18,0	20
918.1440	PH4	12,0	37,0	18,0	20

**Bit socket for pozidriv screws PZ**

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium




		D mm	L mm	T mm	
911.1483	PZ 0	12,0	37,0	18,0	15
911.1401	PZ 1	12,0	37,0	18,0	14
911.1402	PZ 2	12,0	37,0	18,0	15
911.1403	PZ 3	12,0	37,0	18,0	15
917.1415	PZ 4	12,0	37,0	18,0	20

**CHROMEplus® Bit socket for pozidriv screws PZ**

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium






		D mm	L mm	T mm	
918.1417	PZ0	12,0	37,0	18,0	14
918.1477	PZ1	12,0	37,0	18,0	15
918.1478	PZ2	12,0	37,0	18,0	15
918.1437	PZ3	12,0	37,0	18,0	15
918.1448	PZ4	12,0	37,0	18,0	20

**Bit socket for hexagon screws**

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium




			D mm	L mm	T mm	
917.1434	2,0		12,0	37,0	18,0	14
917.1435	2,5		12,0	37,0	18,0	14
911.1436	3,0		12,0	37,0	18,0	14
911.1437	4,0		12,0	37,0	18,0	14
911.1438	5,0		12,0	37,0	18,0	15
911.1439	6,0		12,0	37,0	18,0	16
911.1440	7,0		12,0	37,0	18,0	17
911.1441	8,0		12,0	37,0	18,0	18
917.1452	10,0		12,0	37,0	18,0	20
917.1440		1/8"	12,0	37,0	18,0	14
917.1441		5/32"	12,0	37,0	18,0	14
917.1442		3/16"	12,0	37,0	18,0	15
917.1443		7/32"	12,0	37,0	18,0	15
917.1444		1/4"	12,0	37,0	18,0	16

**Bit socket set for hexagon screws**

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail






	
911.1544	7 pcs 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm 0,17

**CHROMEplus® Bit socket for hexagon screws**

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium




			D mm	L mm	T mm	
918.1438	2,0		12,0	37,0	18,0	12
918.1439	2,5		12,0	37,0	18,0	13
918.1461	3,0		12,0	37,0	18,0	20
918.1462	4,0		12,0	37,0	18,0	20
918.1463	5,0		12,0	37,0	18,0	15
918.1464	6,0		12,0	37,0	18,0	25
918.1465	7,0		12,0	37,0	18,0	25
918.1466	8,0		12,0	37,0	18,0	25
918.4361	10,0		12,0	37,0	18,0	20
918.1531		1/8"	12,0	37,0	18,0	25
918.1532		5/32"	12,0	37,0	18,0	25
918.1533		3/16"	12,0	37,0	18,0	25
918.1534		7/32"	12,0	37,0	18,0	25
918.1535		1/4"	12,0	37,0	18,0	25

**CHROMEplus® Bit socket set for hexagon screws**

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail




	
918.1670	7 pcs 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm 0,17

**Bit socket for Torx screws**

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium




		D mm	L mm	T mm	
911.4407	T6	12,0	37,0	18,0	13
911.4362	T7	12,0	37,0	18,0	13
911.1448	T8	12,0	37,0	18,0	13
911.1478	T9	12,0	37,0	18,0	14
911.1442	T10	12,0	37,0	18,0	14
911.1443	T15	12,0	37,0	18,0	14
911.1444	T20	12,0	37,0	18,0	14
911.1445	T25	12,0	37,0	18,0	15
911.1449	T27	12,0	37,0	18,0	15
911.1446	T30	12,0	37,0	18,0	16
911.1447	T40	12,0	37,0	18,0	16

**Bit socket set for Torx screws**

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



	
911.1458	7 pcs T10 - T15 - T20 - T25 - T27 - T30 - T40 0,16



### CHROMEplus® Bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
918.2407	T6	12,0	37,0	18,0	13
918.1496	T7	12,0	37,0	18,0	20
918.1492	T8	12,0	37,0	18,0	13
918.1494	T9	12,0	37,0	18,0	14
918.1479	T10	12,0	37,0	18,0	14
918.1480	T15	12,0	37,0	18,0	14
918.1481	T20	12,0	37,0	18,0	14
918.1482	T25	12,0	37,0	18,0	15
918.1483	T27	12,0	37,0	18,0	15
918.1484	T30	12,0	37,0	18,0	16
918.1485	T40	12,0	37,0	18,0	16

### CHROMEplus® bit socket set with joint for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Ideal for difficult to access areas
- Screwed joints
- Especially short execution
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

917.1490	8 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40	350

### CHROMEplus® Bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
918.1467	TB8	12,0	37,0	18,0	20
918.1415	TB9	12,0	37,0	18,0	20
918.1470	TB10	12,0	37,0	18,0	20
918.1471	TB15	12,0	37,0	18,0	20
918.1472	TB20	12,0	37,0	18,0	20
918.1473	TB25	12,0	37,0	18,0	20
918.1474	TB27	12,0	37,0	18,0	20
918.1475	TB30	12,0	37,0	18,0	20
918.1476	TB40	12,0	37,0	18,0	20

### CHROMEplus® Bit socket set for Torx screws

- Torx
- Internal square drive adaptor to DIN 3120 / ISO 1174
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/4"

918.1558	7 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40	0,16

### Bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
911.1461	TB8	12,0	37,0	20,0	14
911.1485	TB9	12,0	37,0	18,0	14
911.1462	TB10	12,0	37,0	20,0	14
911.1463	TB15	12,0	37,0	20,0	14
911.1464	TB20	12,0	37,0	20,0	14
911.1465	TB25	12,0	37,0	20,0	15
911.1466	TB27	12,0	37,0	20,0	15
911.1467	TB30	12,0	37,0	20,0	15
911.1468	TB40	12,0	37,0	20,0	20

### CHROMEplus® Bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fitted nickel plated stud
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/4"

918.1460	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	0,16

### CHROMEplus® bit socket with joint for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Ideal for difficult to access areas
- Screwed joints
- Especially short execution
- Mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
917.1491	T8	15,0	40,0	10,0	22
917.1492	T10	15,0	40,0	10,0	22
917.1493	T15	15,0	40,0	10,0	22
917.1494	T20	15,0	40,0	10,0	22
917.1495	T25	15,0	40,0	10,0	23
917.1496	T27	15,0	40,0	10,0	23
917.1497	T30	15,0	40,0	10,0	23
917.1498	T40	15,0	40,0	10,0	25

### Bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fitted nickel plated stud
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/4"

911.1460	7 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	0,16

### Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
917.1541	M4	12,0	37,0	18,0	20
917.1542	M5	12,0	37,0	18,0	20
917.1543	M6	12,0	37,0	18,0	20
917.1544	M7	12,0	37,0	18,0	16
917.1545	M8	12,0	37,0	18,0	20
917.1546	M10	12,0	37,0	18,0	20



**Bit socket set for spline (XZN®) screws**

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/4"

911.1547	6 pcs	M4 - M5 - M6 - M7 - M8 - M10	0,16	

**CHROMEplus® Bit socket for spline (XZN®) screws**

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
918.1441	M4	12,0	37,0	18,0	20
918.1442	M5	12,0	37,0	18,0	20
918.1443	M6	12,0	37,0	18,0	20
918.1444	M7	12,0	37,0	18,0	20
918.1445	M8	12,0	37,0	18,0	20
918.1446	M10	12,0	37,0	18,0	20

**CHROMEplus bit socket set for spline (XZN®) screws**

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



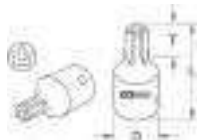
1/4"

918.0645	6 pcs	M4 - M5 - M6 - M7 - M8 - M10	0,16	

**Bit socket for five star tamperproof screws**

- Five star, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for **Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Skoda, Volvo** etc.



1/4"

		D	D mm	L mm	T mm	
911.2471	TS8	12,0	25,0	5,0	10	
911.1471	TS10	12,0	25,0	6,0	10	
911.1472	TS15	12,0	25,0	6,0	10	
911.1473	TS20	12,0	25,0	7,0	10	
911.1474	TS25	12,0	25,0	7,0	10	
911.1475	TS27	12,0	25,0	8,0	10	
911.1476	TS30	12,0	25,0	8,0	10	
911.1477	TS40	12,0	25,0	9,0	10	

**Bit socket set for tamperproof five star screws**

- Five star, tamperproof
- For the assembly and disassembly of safety bolts on temperature sensors and air volume measuring instruments
- For modern diesel injection systems (pump-nozzle device, pump and electricity nozzle, common rail), e.g. Bosch injection systems
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail

**Application range:** Control units, alternator, air flow meter, exterior mirrors, plug-in pumps for pump line nozzle system (also for **Mercedes Atego and Actros**), door lock fastening screws for **Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Skoda, Volvo** etc.



1/4"

911.1470	7 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	0,16	



**Bit set for tamperproof five star screws**

- Five star, tamperproof
- For the assembly and disassembly of safety bolts on temperature sensors and air volume measuring instruments
- For modern diesel injection systems (pump-nozzle device, pump and electricity nozzle, common rail), e.g. Bosch injection systems
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- 1/4" Bit adaptor socket
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel

**Application range:** Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for **Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Skoda, Volvo** etc.



1/4"

911.1480	8 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	50	

**CHROMEplus® Bit socket for five star tamperproof screws**

- Five star, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

		D mm	L mm	T mm	
918.1575	TS10	12,0	25,0	6,0	10
918.1576	TS15	12,0	25,0	6,0	10
918.1577	TS20	12,0	25,0	7,0	10
918.1578	TS25	12,0	25,0	7,0	10
918.1579	TS27	12,0	25,0	8,0	10
918.1580	TS30	12,0	25,0	8,0	10
918.1581	TS40	12,0	25,0	9,0	10
918.2411	TS45	12,0	25,0	9,0	10
918.2412	TS50	12,0	25,0	9,0	10

**CHROMEplus® Bit socket set for five star tamperproof screws**

- Five star, tamperproof
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/4"

918.1545	7 pcs	TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40	0,16	

### Cylinder head bolt socket set

- Range of all current inserts for cylinder head screws
- Correct and quick engine repair
- Matt finish
- Chrome vanadium
- In durable plastic storage case

**Application range:** Cylinder head screws, air quantity meter, oil sump drain plugs, gearbox oil, airbag, brake saddle etc.



1/4" 1/2"

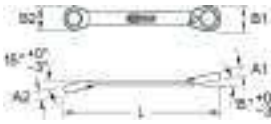
		K8	
911.4500	38 pcs	Cylinder head bolt socket set	6,50
9 x		1/4": 37 mm, TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	
5 x		1/2": 55 mm, 14 - 17 - 19 - 22 - 24 mm	
1 x		1/2": 55 mm, M16	
1 x		1/2": 75 mm, M18	
1 x		1/2": 100 mm, M9	
2 x		1/2": 110 mm, M9 - M16	
1 x		1/2": 110 mm, TB80	
3 x		1/2": 140 mm, 10 - 11 - 13 mm	
6 x		1/2": 140 mm, T40 - T45 - T50 - T55 - T60 - T70	
3 x		1/2": 140 mm, M10 - M12 - M14	
1 x		1/2": 140 mm, M10	
1 x		1/2": 160 mm, 5 mm	
1 x		1/2": 240 mm, 7 mm	
2 x		1/2": 240 mm, M7 - M8	
1 x		1/2": 300 mm, TB30	



### GO THROUGH SOCKETS

#### 11 mm + 1/4" Go through reversing ratchet

- Especially handy and compact
- Rotating assembly
- Very flat design for hard to access places
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Matt finish
- Chrome vanadium



1/4" 11 mm

		A1 mm	A2 mm	B1 mm	B2 mm	L mm	K9
918.3072	1/4" x 11 mm	10,2	9,7	17,2	14,2	115,0	45



#### 11 mm Go through socket

- With 11 mm hexagon drive
- 6 point
- FlankTraction profile
- Very short design for hard to access places
- For manual operation with go-through-reversing ratchet 918.3072
- Matt finish
- Chrome vanadium



	mm	L mm	D1 mm	D2 mm	T mm	K10
918.3061	5,0	18,0	11,0	8,0	9,0	20
918.3062	6,0	18,0	11,0	10,0	9,0	20
918.3063	7,0	18,0	11,0	11,0	9,0	20
918.3064	8,0	18,0	11,0	12,0	9,0	20
918.3065	9,0	18,0	11,0	13,0	9,0	20
918.3066	10,0	18,0	11,0	14,0	9,0	20
918.3067	11,0	18,0	11,0	16,0	9,0	20
918.3068	12,0	18,0	11,0	17,0	9,0	20
918.3069	13,0	18,0	11,0	18,0	9,0	20
918.3071	14,0	18,0	11,0	20,0	9,0	20

### Go through socket and bit set

- Especially handy and compact
- Rotating assembly
- Very flat design for hard to access places
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Matt finish
- Chrome vanadium
- In durable plastic case



		K11	
918.3050	31 pcs	Go through socket and bit set	420
10 x		5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
1 x		1/4" x 11 mm	
4 x		PH0 - PH1 - 2 x PH2	
3 x		PZ0 - PZ1 - PZ2	
2 x		4 - 6 mm	
4 x		3 - 4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

### 1/4" ADAPTERS

#### Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

	D1 mm	D2 mm	L mm	T mm	K12
911.4337	10,0	12,0	25,0	8,0	10

### CHROMEplus® Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Mirror polished
- Chrome vanadium



	D1 mm	D2 mm	L mm	T mm	
918.1421	10,0	12,0	25,0	8,0	10

### Bit adaptor socket

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium



	D1 mm	D2 mm	L mm	T mm	
911.4327	10,0	12,0	25,0	8,0	10

### CHROMEplus® Bit adaptor socket

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Mirror polished
- Chrome vanadium



	D1 mm	D2 mm	L mm	T mm	
918.1422	10,0	12,0	25,0	8,0	10

### Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



			L mm	
911.1494	1/4"	3/8"	25,0	30

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66

### CHROMEplus® Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



			L mm	
918.1501	1/4"	3/8"	25,0	30

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



917.0707	7 pcs				660

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm	30
911.1494	Adaptor, 1/4" Mx3/8" F	30
911.3892	Adaptor, 3/8" F x 1/2" M	60
911.1234	Adaptor, 1/2" F x 3/4" M	140
911.3897	Reducing adaptor, 3/8" F x 1/4" M	60
911.1233	Reducing adaptor, 1/2" F x 3/8" M	50
911.3412	Reducing adaptor 3/4" F x 1/2" M	195

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



918.0707	7 pcs				0,66

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm	30
918.1753	1/2" CHROMEplus Reducing adaptor, 1/2" F x 3/8" M	50
918.1501	1/4" CHROMEplus Adaptor, 1/4" Fx3/8" M	30
918.1754	1/2" CHROMEplus Adaptor, 1/2" Fx3/4" M	140
918.3930	3/8" CHROMEplus Reducing adaptor, 3/8" F x 1/4" M	60
918.3931	3/8" CHROMEplus Adaptor, 3/8" Fx1/2" M	60
918.3412	CHROMEplus Reducing adaptor 3/4" F x 1/2" M	195

## 1/4" UNIVERSAL JOINTS

### Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

			L mm	
911.1450	1/4"	1/4"	38,0	20

### CHROMEplus® Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

			L mm	
918.1450	1/4"	1/4"	38,0	20

### Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Matt finish
- Chrome vanadium



1/4"

			L mm	
917.1450	1/4"	1/4"	35,0	30

## CHROMEplus® Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Mirror polished
- Chrome vanadium



1/4"

			L mm	
919.1450	1/4"	1/4"	35,0	30

## 1/4" T-HANDLES

### Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

		H mm	L mm	
911.1425	1/4"	6,0	110,0	50

### CHROMEplus® Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

		H mm	L mm	
918.1451	1/4"	6,0	110,0	50

## 1/4" EXTENSIONS

### Flexible extension

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Limited torque due to a spiral spring
- For difficult to access areas
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

	L mm	
911.1422	150,0	60

## CHROMEplus® Flexible extension

- Square drive adaptor to DIN 3123 / ISO 3316 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Limited torque due to a spiral spring
- For difficult to access areas
- For manual operation
- Mirror polished
- Chrome vanadium



1/4"

	L mm	
918.1505	150,0	60



### Extension with hexagon drive

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Matt finish
- Chrome vanadium



1/4"

	L mm	
911.1423	50,0	30
911.1486	75,0	35
911.1424	100,0	40
911.1451	150,0	90
911.1504	250,0	130
911.2584	350,0	158
911.2585	400,0	164

### Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Matt finish
- Chrome vanadium



1/4" 3/8" 1/2"

911.0007	9 pcs Extension set	1,22
3 x	1/4" : 50 - 100 - 250 mm	
4 x	3/8" : 45 - 75 - 150 - 200 mm	
2 x	1/2" : 125 - 250 mm	

### CHROMEplus® Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



	L mm	g
918.1452	50,0	20
918.1453	75,0	30
918.1455	100,0	50
918.1454	150,0	60
918.1652	250,0	130

### CHROMEplus® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



		L mm	g
918.0007	9 pcs	CHROMEplus® Extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

### Wobble extension with hexagon drive

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- Hexagon drive
- For manual operation
- Mirror polished
- Chrome vanadium



	L mm	g
911.1506	50,0	20
911.1509	75,0	35
911.1507	100,0	40
911.1508	150,0	60
911.1543	250,0	130

### Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



		L mm	g
911.0009	9 pcs	Wobble extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

### CHROMEplus® Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



	L mm	g
918.1403	50,0	20
918.1653	75,0	35
918.1401	100,0	40
918.1402	150,0	60
918.1458	250,0	100

### CHROMEplus® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



		L mm	g
918.0009	9 pcs	CHROMEplus® Wobble extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 225 mm	
2 x		1/2" : 125 - 250 mm	

### CHROMEplus® extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Wobble square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



	L mm	g
919.1402	100,0	40
919.1404	150,0	60
919.1406	250,0	100

### CHROMEplus® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



		L mm	g
919.0143	3 pcs	100 - 150 - 250 mm	0,33

### CHROMEplus® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



		L mm	g
919.0007	7 pcs	CHROMEplus® Extension set with interlock	1,24
2 x		1/4" : 100 - 150 mm	
3 x		3/8" : 75 - 150 - 250 mm	
2 x		1/2" : 125 - 250 mm	



## 1/4" MANUAL DRIVE TOOLS

### Square drive screwdriver

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Two component handle
- Matt finish
- Chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	
911.1434	6,0	150,0	60,0	90,0	140

### CHROMEplus® Square drive screwdriver

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Mirror polished
- Chrome vanadium



	D	L1 mm	L2 mm	L3 mm	
918.1434	1/4"	150,0	60,0	90,0	60

### ERGOTORQUEplus® Square screwdriver

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating



	D mm	L1 mm	L2 mm	L3 mm	
159.1120	15,0	200,0	150,0	50,0	150

### Flexi head drive handle

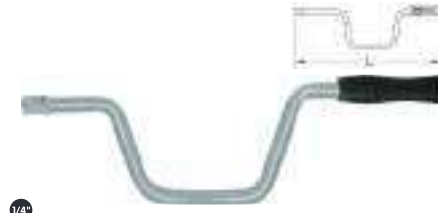
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Matt finish
- Chrome vanadium



	L mm	
911.1568	145,0	70

### Crank handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	
911.2358	370,0	310

## 1/4" RATCHETS

### Mini hand reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



		Tooth	
914.1410	1/4"	72	50

### Mini hand reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



914.1215	3 pcs 1/4" 3/8" 1/2"	165

### consists of:

914.1410	Mini hand reversible ratchet, 1/4", 72 teeth	50
914.3810	Mini hand reversible ratchet, 3/8", 72 teeth	55
914.1210	Mini hand reversible ratchet, 1/2", 72 teeth	60

### ERGOTORQUE® max T-handle ratchet

- DIN 3122 / ISO 3315
- With 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Reversible
- Exact gearing with 45-teeth
- With hanging hole
- Handy and compact
- Matt finish
- Chrome vanadium



	B mm	L1 mm	L2 mm	
151.1109	115,0	110,0	55,0	40



### Bit ratchet reversible with adaptor for sockets

- With 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Reversible
- Exact gearing with 72 teeth
- Extremely flat construction form
- Matt finished
- Special tool steel



	Length mm		
918.1595	2 pcs 100,0	1/4" 1/4"	98

### Bit-joint change-over ratchet set with plug adapter for sockets

- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- With square drive according to DIN 3120 / ISO 1174 with ball lock
- Reversible
- 180° revolving head
- Fine gearing 72 teeth ratchet mechanism
- Infinitely variable
- With extension and 1/4" plug-in adapter
- Extremely flat construction form
- Matt finished
- Chrome vanadium



	Length mm	□	■	g	
918.1590	3 pcs	119,0	1/4"	1/4"	104

consists of:

		g
503.8231	Socket adaptor f.bit ratchet, 1/4"x1/4"	6
918.1560	1/4" Bit-joint reversing ratchet, length 119mm	66
514.1124	1/4" extension, 100mm	33

### Mini reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
911.1510	10,0	22,0	110,0	911.1599	70

### CHROMEplus® Mini reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
918.1510	10,0	22,0	110,0	911.1599	70



### Reversible ratchet

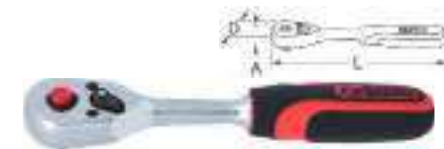
- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
911.1400	12,0	25,0	145,0	911.1499	130

### CHROMEplus® Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
918.1400	12,0	25,0	145,0	911.1499	130

### Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
914.1490	12,0	26,0	145,0	914.1497	130

### CHROMEplus® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
918.1490	12,0	26,0	145,0	914.1497	130

### CHROMEplus® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	g
918.1593	12,0	25,0	145,0	914.1497	150

### Rotation reversible ratchet with rotary handle

- According to DIN 3122 / ISO 3315
- The square is driven by means turning the hand grip
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- The grip can be rotated by 360°
- Conventional ratcheting is also possible
- Ideal for confined spaces
- With marking of the direction of rotation
- With exact gearing 60-teeth ratchet mechanism
- High-quality shaft drive
- Ergonomic 2 component handle
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	g
914.1425	15,0	18,0	185,0	195

### SlimPOWER reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
920.1490	20,0	20,0	140,0	920.1490-1	80

### SlimPOWER reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Mirror polished
- Chrome vanadium



920.0002	2 pcs	1/4" + 1/2"		430

### Flexibel head reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head with locking device
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
911.1495	12,0	26,0	140,0	911.1499	160

### CHROMEplus® Flexibel head reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.1493	12,0	26,0	140,0	914.1497	130

### MODIFIX® Mini T-handle ratchet, rotating head

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Multifunctional use
- Rotating shaft adjustable for constant tightening in the base of the rotating head
- Ergonomic 2-component handle with a soft zone
- Matt finish
- Chrome vanadium

**Application:** T-handle ratchet / screwdriver ratchet Adjustable in 2 positions 0° + 90°



	A mm	D mm	L mm	head spare	
914.1405	20,0	30,0	165,0	914.1405-1	179,0

### SlimPOWER telescopic-joint changeover ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- 180° revolving head
- Fine gearing 72 teeth ratchet mechanism
- Adjustable in 5 steps
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.1420	10,0	21,0	150,0-200,0	914.1420-1	138



### 1/4" SET ASSORTMENTS

#### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



918.0613	13 pcs	CHROMEplus® Socket set	0,78
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm	
1 x		100 mm	
1 x		140 mm	

#### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.0623	23 pcs	Socket set	0,45
12 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm	
1 x		1/4"	
1 x		100 mm	
1 x		1/4"	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
4 x		T15 - T20 - T25 - T30	



Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

		1/4"	
911.0625	25 pcs	Socket set	0,83
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4" x 1/4"	
4 x		1,0 - 1,5 - 2,0 - 2,5 mm	
1 x		1/4"	

Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

		1/4"	
917.0626	26 pcs	Socket set	0,44
12 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
1 x		1/4"	
1 x		100 mm	
1 x		1/4"	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
3 x		4 - 5,5 - 6,5 mm	
4 x		T15 - T20 - T25 - T30	

CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

		1/4"	
918.0626	26 pcs	CHROMEplus® Socket set	0,44
12 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
1 x		1/4"	
1 x		100 mm	
1 x		1/4"	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
3 x		4 - 5,5 - 6,5 mm	
4 x		T15 - T20 - T25 - T30	

Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable steel storage case



1/4"

		1/4"	
917.4030	30 pcs	Socket set	1,20
11 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		4 - 5,5 - 6 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
4 x		3 - 4 - 5 - 6 mm	
2 x		50 - 100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	

Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable steel storage case



1/4"

		1/4"	
911.0833	33 pcs	Socket set	1,52
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
2 x		50 - 100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4" x 1/4"	
1 x		140 mm	



### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

		kg	
918.0640	40 pcs	CHROMEplus® Socket set	0,80
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
2 x		PH1 - PH2	
6 x		PZ1 - PZ2	
7 x		3 - 4 - 5 - 6 - 7 - 8 mm	
5 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
1 x		M4 - M5 - M6 - M8 - M10	
1 x		1/4"	
1 x		100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		110 mm	



### Socket set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

		kg	
911.0646	46 pcs	Socket set	1,10
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
2 x		PZ1 - PZ2	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
4 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4" x 1/4"	
1 x		1/4"	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

		kg	
918.0646	46 pcs	CHROMEplus® Socket set	1,10
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
2 x		PZ1 - PZ2	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
4 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4" x 1/4"	
1 x		145 mm	














### CHROMEplus® Socket set

- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

		kg	
918.0847	47 pcs	CHROMEplus® Socket set	1,13
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	

3 x		4 - 5,5 - 7 mm
2 x		PH1 - PH2
5 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4"
6 x		T10 - T15 - T20 - T25 - T30 - T40
4 x		M4 - M5 - M6 - M8
2 x		50 - 100 mm
1 x		150 mm
1 x		1/4"
1 x		1/4"
1 x		110 mm
1 x		110 mm

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



			
917.0648	48 pcs	Socket set	1,15
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
1 x		1/4"	
1 x		1/4"	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		110 mm	
1 x		1/4"	
1 x		150 mm	
3 x		PH1 - PH2 - PH3	
2 x		PZ1 - PZ2	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
3 x		4 - 5,5 - 7 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
6 x		0,9 - 1,5 - 1,27 - 2 - 2,5 - 3 mm	



**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case








			
918.0648	48 pcs	CHROMEplus® Socket set	1,12
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
1 x		1/4"	
1 x		1/4"	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		110 mm	
1 x		1/4"	
1 x		150 mm	
3 x		PH1 - PH2 - PH3	
2 x		PZ1 - PZ2	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
3 x		4 - 5,5 - 7 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
6 x		0,9 - 1,5 - 1,27 - 2 - 2,5 - 3 mm	

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case













			
951.0650	50 pcs	Socket set	1,89
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	

6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
6 x		M4 - M5 - M6 - M7 - M8 - M10
1 x		1/4" x 10 mm
1 x		150 mm
1 x		110 mm
1 x		150 mm
2 x		50 - 100 mm
1 x		100 mm
1 x		1/4"
1 x		140 mm

**CHROMEplus® socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



			
958.0650	50 pcs	CHROMEplus® socket set	1,70
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
6 x		M4 - M5 - M6 - M7 - M8 - M10	
1 x		1/4" x 10 mm	
1 x		150 mm	
1 x		110 mm	
1 x		150 mm	
2 x		50 - 100 mm	
1 x		100 mm	
1 x		1/4"	
1 x		140 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

911.0651	51 pcs	Socket set	1,35
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PH3	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		145 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

951.0652	52 pcs	Socket set	1,80
11 x		3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" 3/8" - 13/32" - 7/16" - 1/2" - 9/16"	
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	
3 x		4 - 5,5 - 7 mm	

2 x		PH1 - PH2
2 x		PZ1 - PZ2
5 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4"
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
4 x		M4 - M5 - M6 - M8
1 x		150 mm
1 x		110 mm
1 x		150 mm
2 x		50 - 100 mm
1 x		1/4"
1 x		1/4"
1 x		140 mm

### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4"

958.0652	52 pcs	CHROMEplus® socket set	1,90
11 x		3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" 3/8" - 13/32" - 7/16" - 1/2" - 9/16"	
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	
3 x		4 - 5,5 - 7 mm	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
5 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4"	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
4 x		M4 - M5 - M6 - M8	
1 x		150 mm	
1 x		110 mm	
1 x		150 mm	
2 x		50 - 100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		140 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

911.0653	53 pcs	Socket set	1,55
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm	
7 x		6 - 7 - 8 - 10 - 11 - 12 - 13 mm	
3 x		4 - 5,5 - 7 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
6 x		T10 - T15 - T20 - T25 - T30 - T40	
2 x		50 - 100 mm	
1 x		150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4" x 1/4"	
1 x		145 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4"

951.0654	54 pcs	Socket set	1,89
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	

9 x		5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
3 x		4 - 5,5 - 7 mm
2 x		PH1 - PH2
2 x		PZ1 - PZ2
6 x		3 - 4 - 5 - 6 - 7 - 8 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
4 x		M4 - M5 - M6 - M8
1 x		150 mm
1 x		110 mm
1 x		150 mm
1 x		50 mm
1 x		100 mm
1 x		1/4"
1 x		1/4"
1 x		140 mm

### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



958.0654	54 pcs	CHROMEplus® socket set	1,89
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
9 x		5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
3 x		4 - 5,5 - 7 mm	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
4 x		M4 - M5 - M6 - M8	
1 x		150 mm	
1 x		110 mm	
1 x		150 mm	
1 x		50 mm	
1 x		100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		140 mm	

### 1/4" SET ASSORTMENTS

#### Torx Socket set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.4307	21 pcs	Torx Socket set	1,15
4 x		1/4": E4 - E5 - E6 - E8	
5 x		1/2": E10 - E12 - E14 - E18 - E20	
7 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30	
5 x		1/2": T40 - T45 - T50 - T55 - T60	

#### Torx Socket set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.4302	31 pcs	Torx Socket set	1,40
6 x		1/4": T10 - T15 - T20 - T25 - T27 - T30	
3 x		5/16": T40 - T45 - T50	
3 x		1/4": TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm	
2 x		1/2": T55 - T60	
4 x		1/4": E5 - E6 - E7 - E8	
3 x		3/8": E10 - E12 - E14	
3 x		1/2": E16 - E18 - E20	
3 x		1/4" x 1/4" - 3/8" x 5/16" - 1/2" x 5/16"	
4 x		E6 x E8 - E7 x E11 - E10 x E12 - E14 x E18 -	

### Torx Socket and bit set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.4305	57 pcs	Torx Socket and bit set	2,00
2 x		3/8" x 10mm - 1/2" x 1/4"	
12 x		1/4": E4 - E5 - E6 - E7 - E8; 3/8": E10 - E11 - E12 - E14; 1/2": E16 - E18 - E20	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		8 - 10 mm	
2 x		PH2 - PH3	
5 x		5 - 6 - 7 - 8 - 10 mm	
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x		M6 - M8 - M10 - M12	

### Torx Socket and bit set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.4301-1	30 pcs	Torx Socket and bit set	1,45
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10mm	
7 x		30 mm (T20 - T25 - T30 - T40 - T45 - T50 - T55)	
7 x		75 mm (T20 - T25 - T30 - T40 - T45 - T50 - T55)	

### Torx Bit socket set for Torx tamperproof screws

- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

		kg	
911.4301-2	30 pcs	Torx Bit socket set for Torx tamperproof screws	1,45
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10 mm	
7 x		30 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	
7 x		75 mm (TB20 - TB25 - TB30 - TB40 TB45 - TB50 - TB55)	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
951.0668	68 pcs	Socket set	4,97
10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
20 x		1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 34 mm	
3 x		1/4": 4,5 - 6,5 - 8 mm	
3 x		1/4": PH1 - PH2 - PH3	
3 x		1/4": PZ1 - PZ2 - PZ3	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		1/4": M4 - M5 - M6 - M8 - M10	
1 x		1/4"	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	

2 x		1/2": 125 - 250 mm
2 x		1/4" - 1/2"
1 x		1/4": 150 mm
2 x		1/4" - 1/2"



### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
958.0668	68 pcs	CHROMEplus® socket set	4,97
10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
20 x		1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 34 mm	
3 x		1/4": 4,5 - 6,5 - 8 mm	
3 x		1/4": PH1 - PH2 - PH3	
3 x		1/4": PZ1 - PZ2 - PZ3	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		1/4": M4 - M5 - M6 - M8 - M10	
1 x		1/4"	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 150 mm	
2 x		1/4" - 1/2"	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
918.0678	78 pcs	CHROMEplus® Socket set	6,30
13 x		1/4": 4-4,5-5-5,5-6-7-8-9-10-11-12-13-14 mm	
8 x		1/4": 6-7-8-9-10-11-12-13 mm	
15 x		1/2": 13-14-15-16-17-18-19-20-21-22-24-27-30-32-34 mm	
5 x		1/2": 14-15-17-19-22 mm	
3 x		1/2": 16-18-21 mm	
2 x		1/4": PH1-PH2	
2 x		1/4": PZ1-PZ2	
6 x		1/4": 3-4-5-6-7-8 mm	
7 x		1/4": T10-T15-T20-T25-T27 T30-T40	
6 x		1/4": M4-M5-M6-M7-M8-M10	
1 x		1/4"	
2 x		1/4": 50-100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		F3/8" x M1/2"	
2 x		1/2": 125-250 mm	
1 x		1/2"	
1 x		1/2": 250 mm	



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
911.0682	82 pcs	Socket set	5,80
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
12 x		1/2": 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": T8 - T10 - T15 - T20 - T25 - T30	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
4 x		5/16": 8 - 10 - 12 - 14	
4 x		5/16": T40 - T45 - T50 - T55	
2 x		1/4": 50 - 100 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
2 x		1/2": 125 + 250 mm	
1 x		1/2"	
1 x		1/2"	
1 x		1/2" x 5/16"	
1 x		1/2"	
9 x		8 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	

### Tool kit

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
911.0688	88 pcs	Tool kit	7,45
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
17 x		1/2": 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32 mm	
1 x		1/4": 911.2060	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		1/2": 125 mm	
1 x		1/2": 250 mm	
2 x		6,5 - 8 mm	
2 x		PH1 - PH2	
1 x		150 - 250 V	
1 x		250 mm	
1 x		180 mm	
1 x		300 g	
12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
911.0694	94 pcs	Socket set	6,20
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 14 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB30	
2 x		1/4": 50 - 100 mm	
1 x		1/4": 150 mm	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
4 x		5/16": 8 - 10 - 12 - 14 mm	
4 x		5/16": T40 - T45 - T50 - T55	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
4 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4"	
2 x		1/2": 125 - 250 mm	
1 x		3/8"Fx1/2"M	
1 x		1/2"	
1 x		1/2" x 5/16"	
1 x		1/2": 250 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

918.0694	94 pcs	CHROMEplus® Socket set	6,38
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30	
2 x		1/4": 50 - 100 mm	
1 x		1/4": 150 mm	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
4 x		5/16": 8 - 10 - 12 - 14 mm	
4 x		5/16": T40 - T45 - T50 - T55	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
4 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4"	
2 x		1/2": 125 - 250 mm	
1 x		F3/8" x M1/2"	
1 x		1/2"	
1 x		1/2" x 5/16"	
1 x		1/2": 250 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

917.0796	96 pcs	Socket set	6,30
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
1 x		1/2"	
1 x		3/8"Fx1/2"M	
1 x		1/4"	
1 x		1/2" x 5/16"	
1 x		110 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
3 x		1/4": 4 - 5,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30	
2 x		5/16": PZ3 - PZ4	
2 x		5/16": PH3 - PH4	
3 x		5/16": 8 - 10 - 12 mm	
4 x		5/16": 8 - 10 - 12 - 14 mm	
4 x		5/16": TB40 - TB45 - TB50 - TB55	
5 x		0,9 - 1,27 - 1,5 - 2,0 - 2,5 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

918.0796	96 pcs	CHROMEplus® Socket set	6,20
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
1 x		1/2"	
1 x		3/8"Fx1/2"M	
1 x		1/4"	
1 x		1/2" x 5/16"	
1 x		110 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
3 x		1/4": 4 - 5,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30	
2 x		5/16": PZ3 - PZ4	
2 x		5/16": PH3 - PH4	
3 x		5/16": 8 - 10 - 12 mm	
4 x		5/16": 8 - 10 - 12 - 14 mm	
4 x		5/16": TB40 - TB45 - TB50 - TB 55	
5 x		0,9 - 1,27 - 1,5 - 2,0 - 2,5 mm	



### Universal tool kit set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

917.0797		97 pcs	Universal tool kit set	9,00
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm		
1 x		1/4"		
1 x		1/2"		
1 x		1/2": 125 mm		
1 x		1/4": 100 mm		
1 x		1/4"		
1 x		1/2"		
3 x		PH0 - PH1 - PH2		
4 x		3 - 4 - 5,5 - 6,5 mm		
3 x		1/4": PH1 - PH2 - PH3		
3 x		1/4": PZ1 - PZ2 - PZ3		
3 x		1/4": 4 - 5,5 - 6,5 mm		
4 x		1/4": 3 - 4 - 5 - 6 mm		
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40		
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
1 x				
1 x		300 g		
1 x		160 mm		
1 x		200 mm		
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
9 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50		

### CHROMEplus® Universal tool set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

918.0797		97 pcs	CHROMEplus® Universal tool set	9,00
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm		
1 x		1/4"		
1 x		1/2"		
1 x		1/2": 125 mm		
1 x		1/4": 100 mm		
1 x		1/4"		
1 x		1/2"		
3 x		PH0 - PH1 - PH2		
4 x		3 - 4 - 5,5 - 6,5 mm		
3 x		1/4": PH1 - PH2 - PH3		
3 x		1/4": PZ1 - PZ2 - PZ3		
3 x		1/4": 4 - 5,5 - 6,5 mm		
4 x		1/4": 3 - 4 - 5 - 6 mm		
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40		
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
1 x				
1 x		300 g		
1 x		160 mm		
1 x		200 mm		
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
9 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50		

### CHROMEplus® Socket set

- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8"

918.0699		99 pcs	CHROMEplus® Socket set	6,30
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
10 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"		
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 24 mm		
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm		
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" 7/8"		
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"		
3 x		3/8": 16 - 18 - 21 mm		
3 x		3/8": 5,5 - 6,5 - 8 mm		
2 x		3/8": PH1 - PH2		
2 x		3/8": PZ1 - PZ2		
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm		
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"		
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
5 x		3/8": M4 - M5 - M6 - M8 - M10		
1 x		1/4"		
1 x		1/4": 100 mm		
1 x		1/4"		
2 x		3/8": 75 - 150 mm		
1 x		3/8"		
1 x		3/8": 200 mm		



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8"

951.0699	100 pcs	Socket set	6,20
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2" - 9/16" - 13/32"	
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm	
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"	
3 x		3/8": 16 - 18 - 21 mm	
3 x		3/8": 5,5 - 6,5 - 8 mm	
2 x		3/8": PH1 - PH2	
2 x		3/8": PZ1 - PZ2	
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		3/8": M4 - M5 - M6 - M8 - M10	
1 x		1/4": 150 mm	
1 x		1/4": 100 mm	
2 x		3/8": 75 - 150 mm	
1 x		3/8"	
2 x		1/4" - 3/8"	



### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8"

958.0699	100 pcs	CHROMEplus® socket set	6,20
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2" - 9/16" - 13/32"	
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm	
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"	
3 x		3/8": 16 - 18 - 21 mm	
3 x		3/8": 5,5 - 6,5 - 8 mm	
2 x		3/8": PH1 - PH2	
2 x		3/8": PZ1 - PZ2	
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		3/8": M4 - M5 - M6 - M8 - M10	
1 x		1/4": 150 mm	
1 x		1/4": 100 mm	
2 x		3/8": 75 - 150 mm	
1 x		3/8"	
2 x		1/4" - 3/8"	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

911.0708	108 pcs	Socket set	7,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
3 x		1/4": 4 - 5,5 - 6,5 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
7 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30	
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm	
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
2 x		1/2": 16 - 21 mm	
2 x		1/4": 50 - 100 mm	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm	
5 x		5/16": T40 - T45 - T50 - T55 - T60	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
3 x		1,5 - 2 - 2,5 mm	
1 x		1/2": 125 - 250 mm	
1 x		1/2"	
1 x		1/2"	
1 x		1/2" x 5/16"	
1 x		1/2": 250 mm	

Socket set

- 6 point
- Flank Traction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



CHROMEplus® socket set

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



CHROMEplus® Socket set

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



10 10

8650711 110 pcs. Socket set		290
10 x	1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x	1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
5 x	1/4": E4 - E5 - E6 - E7 - E8	
18 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
5 x	1/2": 14 - 15 - 17 - 19 - 22 mm	
8 x	1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
3 x	1/2": 16 - 18 - 21 mm	
2 x	1/4": 4 - 5.5 mm	
2 x	1/4": PH1 - PH2	
2 x	1/4": PZ1 - PZ2	
4 x	1/4": 3 - 4 - 5 - 6 mm	
7 x	1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30	
4 x	1/4": M4 - M5 - M6 - M8	
3 x	5/16": 8 - 10 - 12 mm	
2 x	5/16": PH3 - PH4	
2 x	5/16": PZ3 - PZ4	
5 x	5/16": 7 - 8 - 10 - 12 - 14 mm	
5 x	5/16": T40 - T45 - T50 - T55 - T60	
1 x	1/4"	
1 x	1/2" x 5/16"	
1 x	1/4": 100 mm	
2 x	1/2": 125 - 250 mm	
1 x	1/4"	
1 x	3/8" F x 1/2" M	
2 x	1/4" - 1/2"	
1 x	1/4": 150 mm	
2 x	1/4" - 1/2"	

10 10

9660711 110 pcs. CHROMEplus® socket set		288
10 x	1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x	1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
5 x	1/4": E4 - E5 - E6 - E7 - E8	
18 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
5 x	1/2": 14 - 15 - 17 - 19 - 22 mm	
8 x	1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
3 x	1/2": 16 - 18 - 21 mm	
2 x	1/4": 4 - 5.5 mm	
2 x	1/4": PH1 - PH2	
2 x	1/4": PZ1 - PZ2	
4 x	1/4": 3 - 4 - 5 - 6 mm	
7 x	1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30	
4 x	1/4": M4 - M5 - M6 - M8	
3 x	5/16": 8 - 10 - 12 mm	
2 x	5/16": PH3 - PH4	
2 x	5/16": PZ3 - PZ4	
5 x	5/16": 7 - 8 - 10 - 12 - 14 mm	
5 x	5/16": T40 - T45 - T50 - T55 - T60	
1 x	1/4"	
1 x	1/2" x 5/16"	
1 x	1/4": 100 mm	
2 x	1/2": 125 - 250 mm	
1 x	1/4"	
1 x	3/8" F x 1/2" M	
2 x	1/4" - 1/2"	
1 x	1/4": 150 mm	
2 x	1/4" - 1/2"	

10 10 10

9188726 124 pcs. CHROMEplus® Socket set		330
10 x	1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
6 x	1/4": 5 - 6 - 7 - 8 - 9 - 10 mm	
11 x	3/8": 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
6 x	3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
8 x	3/8": E8 - E10 - E11 - E12 - E14 - E16 - E18 - E20	
8 x	1/2": 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
6 x	1/2": 10 - 12 - 13 - 14 - 17 - 19 mm	
2 x	1/2": E22 - E24	
2 x	1/2": 16 - 21 mm	
1 x	1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
2 x	3/8": 4 - 5.5 mm	
3 x	3/8": PH1 - PH2 - PH3	
3 x	3/8": PZ1 - PZ2 - PZ3	
5 x	3/8": 3 - 4 - 5 - 6 - 8 mm	
5 x	3/8": T20 - T30 - T40 - T45 - T50	
4 x	3/8": M4 - M5 - M6 - M8	
7 x	1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40	
1 x	1/4"	
1 x	1/4": 100 mm	
2 x	3/8": 75 - 150 mm	
2 x	1/2": 125 - 250 mm	
3 x	1/4" - 3/8" - 1/2"	
2 x	1/2": F1/2" x M 3/8"	
3 x	1/4" - 3/8" - 1/2"	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

951.0751	151 pcs	Socket set	8,50
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
6 x		1/4": 8 - 9 - 10 - 12 - 13 - 14 mm	
4 x		1/2": 17 - 18 - 19 - 22 mm	
2 x		1/2": 16 - 21 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
3 x		1/4": 4 - 5,5 - 6,5 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		3/8": 3 - 4 - 5 - 6 mm	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30	
5 x		1/4": M4 - M5 - M6 - M7 - M8	
8 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27	
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45	
5 x		1/4": M5 - M6 - M7 - M8 - M9	
3 x		5/16": 8 - 10 - 12 mm	
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70	
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70	
2 x		5/16": M10 - M12	
2 x		5/16": M10 - M12	
1 x		1/4": 110 mm	
1 x		1/4": 150 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	

1 x		3/8" x 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
9 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm

### CHROMEplus<sup>®</sup> socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

958.0751	151 pcs	CHROMEplus <sup>®</sup> socket set	8,50
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
6 x		1/4": 8 - 9 - 10 - 12 - 13 - 14 mm	
4 x		1/2": 17 - 18 - 19 - 22 mm	
2 x		1/2": 16 - 21 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
3 x		1/4": 4 - 5,5 - 6,5 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		3/8": 3 - 4 - 5 - 6 mm	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30	
5 x		1/4": M4 - M5 - M6 - M7 - M8	
8 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27	
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45	
5 x		1/4": M5 - M6 - M7 - M8 - M9	
3 x		5/16": 8 - 10 - 12 mm	
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70	
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70	
2 x		5/16": M10 - M12	
2 x		5/16": M10 - M12	
1 x		1/4": 110 mm	
1 x		1/4": 150 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	

1 x		1/4": 110 mm
1 x		1/4": 150 mm
2 x		1/4": 50 - 100 mm
2 x		1/2": 125 - 250 mm
1 x		3/8" x 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
9 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0779	179 pcs	Socket set	9,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm	
3 x		1/4": PH0 - PH1 - PH2	
3 x		1/4": PZ0 - PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 T30	
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
2 x		1/2": E20 - E24	
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30	
1 x		1/4": TB7	
3 x		1/4": M5 - M6 - M8	

5 x		1/4": M5 - M6 - M7 - M8 - M9
8 x		1/4": TS10 - TS15 - TS20 - TS25 TS27 - TS30 - TS40 - TS45
3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 TB60 - TB70
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 150 mm
1 x		1/4": 110 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8"Fx1/2"M
3 x		1/4" - 3/8" - 1/2"

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0795	195 pcs	Socket set	10,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
2 x		1/2": E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	

3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
2 x		3/8" x 5/16" - 1/2" x 5/16"
1 x		3/8"F - 1/2"M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		150 mm
3 x		1/4" - 3/8" - 1/2"
1 x		110 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
7 x		1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
3 x		1/4": PH1 - PH2 - PH3
2 x		1/4": PZ1 - PZ2
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB7 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
3 x		5/16": 8 - 10 - 12 mm

**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0795	195 pcs	CHROMEplus® Socket set	10,00

13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm
5 x		1/4": E4 - E5 - E6 - E7 - E8
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18
2 x		1/2": E20 - E24
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8"F - 1/2"M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		150 mm
3 x		1/4" - 3/8" - 1/2"
1 x		110 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
7 x		1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
3 x		1/4": PH1 - PH2 - PH3
2 x		1/4": PZ1 - PZ2
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30
8 x		1/4": TB7 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
3 x		5/16": 8 - 10 - 12 mm

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0216	216 pcs	Socket set	11,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
10 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 - 15 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
3 x		1/2": 17 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
8 x		1/2": E10 - E11 - E12 - E14 - E16 E18 - E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		110 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4": 205 mm	
1 x		150 mm	
2 x		1/2": T55 - T60	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": T8 - T10 - T15 - T20 - T25 - T30	
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30	
3 x		1/4": 4 - 5,5 - 6,5 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
1 x		5/16": TS50	

7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 50 mm
4 x		1/4": PH0 - PH1 - PH2 - PH3
4 x		1/4": PZ0 - PZ1 - PZ2 - PZ3
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
3 x		1/4": 4 - 5,5 - 7 mm
3 x		1/4": M5 - M6 - M8
2 x		1/4": 6 - 8 mm
3 x		1/4": 4 - 6 - 8 mm
3 x		1/4": 1 - 2 - 3 mm
3 x		5/16": PH2 - PH3 - PH4
3 x		5/16": PZ2 - PZ3 - PZ4
6 x		5/16": T30 - T40 - T45 - T50 - T55 - T60
6 x		5/16": TB30 - TB40 - TB45 - TB50 - TB55 - TB60
4 x		5/16": 7 - 8 - 10 - 12 mm
4 x		5/16": M5 - M6 - M8 - M10
3 x		5/16": 8 - 10 - 12 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0216	216 pcs	CHROMEplus® Socket set	11,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
14 x		1/2": 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	

3 x		1/2": E20 - E22 - E24
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
2 x		3/8" x 5/16" - 1/2" x 5/16"
1 x		3/8"F - 1/2"M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		110 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4": 205 mm
1 x		150 mm
2 x		1/2": T55 - T60
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
1 x		5/16": TS50
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 50 mm
4 x		1/4": PH0 - PH1 - PH2 - PH3
4 x		1/4": PZ0 - PZ1 - PZ2 - PZ3
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
3 x		1/4": 4 - 5,5 - 7 mm
3 x		1/4": M5 - M6 - M8
2 x		1/4": 6 - 8 mm
3 x		1/4": 4 - 6 - 8 mm
3 x		1/4": 1 - 2 - 3 mm
3 x		5/16": PH2 - PH3 - PH4
3 x		5/16": PZ2 - PZ3 - PZ4
6 x		5/16": T30 - T40 - T45 - T50 - T55 - T60
6 x		5/16": TB30 - TB40 - TB45 - TB50 TB55 - TB60
4 x		5/16": 7 - 8 - 10 - 12 mm
4 x		5/16": M5 - M6 - M8 - M10
3 x		5/16": 8 - 10 - 12 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm

## 1/4" TOOL CASES & TROLLEYS

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable steel storage case



1/4" 1/2"

917.4052	52 pcs	Socket set	6,25
11 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 13 mm	
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 - 30 - 32 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
3 x		1/4": PH1 - PH3 - PH4	
4 x		1/4": 3 - 4 - 5 - 6 mm	
2 x		1/2": 8 - 10 mm	
1 x		1/2": PH3	
5 x		1/2": 7 - 8 - 10 - 12 - 14 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		1/2": 250 mm	



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0670	70 pcs	Socket set	7,30
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
12 x		1/2": 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 17 - 19 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
6 x		1/4": T10 - T15 - T20 - T25 - T30 - T40	
3 x		1,5 - 2 - 2,5 mm	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2" x 3/8"	
1 x		1/2"	
1 x		1/2": 250 mm	
7 x		8 - 10 - 12 - 13 - 14 - 17 - 19 mm	

## Tool set for plumbing and heating mechanics

- Ideal set of compilation for plumbing, heating and air conditioning
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0695	95 pcs	Tool set for plumbing and heating mechanics	13,86
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	
1 x		1/2": 125 mm	
1 x		1/2"	
1 x		1/2": 270 mm	
1 x		1/2": 3/8" - 1/2" - 3/4" - 1"	
10 x		8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x			
1 x		200 mm	
1 x		250 mm	
1 x		250x25 mm	
1 x		38 mm	
3 x		HB	
1 x		300 mm	
1 x		2 m	
1 x		1/4": 911.2060	
1 x		1/4": 205 mm	
1 x		150 - 250 V	
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		17 x 19 mm	
1 x		250 mm	
1 x		Ø 10 - 32 mm	
1 x		160 mm	
1 x		3 - 28 mm	
1 x		3 - 42 mm	
1 x		240 mm	
1 x		1": 45° - 320 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

918.0702	102 pcs	CHROMEplus® Socket set	9,70
13 x		1/4": 4 - 4,5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
13 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 - 34 mm	
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm	
3 x		1/4": PH1 - PH2 - PH3	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40	
3 x		1/4": M4 - M5 - M6	
3 x		1/4": E6 - E7 - E8	
6 x		1/2": E10 - E12 - E14 - E16 - E18 E20	
2 x		1/2": 16 - 21 mm	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		5/16": PZ3	
2 x		5/16": 8 - 10 mm	
4 x		5/16": TB45 - TB50 - TB55 - TB60	
3 x		5/16": M8 - M10 - M12	
1 x		1/4"	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		F3/8" x M1/2"	
1 x		1/2"	
1 x		1/2" x 5/16"	
2 x		1/4" - 1/2"	
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm	

### Electricians tool set

- Ideal set for electricians
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0628	128 pcs	Electricians tool set	10,88
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm	
12 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4": 50 - 100 mm	
1 x		1/2": 125 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 110 mm	
1 x		28 mm	
1 x			
1 x		28 mm	
1 x		145 mm	
1 x		300 g	
3 x		HB	
1 x		250 mm	
1 x		250x25 mm	
1 x		38 mm	
1 x		2 m	
1 x		300 mm	
1 x		1/4": 911.2060	
1 x		1/4": 205 mm	

1 x		1/4": 145 mm
1 x		1/2": 250 mm
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		5 m
18 x		100 mm
10 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		150 - 250 V
4 x		2,5 - 4 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		160 mm
1 x		160 mm
1 x		170 mm
1 x		165 mm





**Universal tool kit**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0727		127 pcs	Universal tool kit	12,40
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm		
13 x		1/2": 10 - 13 - 14 - 16 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm		
2 x		1/2": 16 - 21 mm		
1 x		1/4": 911.2060		
2 x		1/4": 50 - 100 mm		
1 x		1/4"		
1 x		1/4": 110 mm		
1 x		1/4": 145 mm		
1 x		1/4"		
2 x		1/2": 125 - 250 mm		
1 x		F3/8" x M1/2"		
1 x		1/2"		
1 x		1/2": 250 mm		
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50		
2 x		5,5 - 6,5 mm		
2 x		PH1 - PH2		
1 x		1/4": 150 mm		
8 x		8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm		
1 x		160 mm		
1 x		180 mm		
1 x		200 mm		
1 x		240 mm		
1 x		200 mm		
1 x		145 mm		
1 x		300 g		
1 x		150 - 250 V		
1 x				
1 x		250 mm		

1 x		200 mm
1 x		150 mm
3 x		907.2131
1 x		
1 x		
1 x		0 - 150 mm
1 x		300 mm
1 x		5 m x 19 mm
1 x		
1 x		

**Universal tool kit**

- 6 point
- FlankTraction profile
- Removeable plastic storage trays
- Matt finish
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



1/4" 1/2"

911.0735		127 pcs	Universal tool kit	17,60
9 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 11 - 12 - 13 mm		
4 x		1/4": 8 - 9 - 10 - 13 mm		
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm		
1 x		1/4": 911.2060		
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50		
1 x		1/4": 100 mm		
1 x		1/4": 150 mm		
1 x		1/4"		
1 x		1/4"		
1 x		1/4": 145 mm		
1 x		1/2": 125 mm		
1 x		1/2"		
1 x		1/2": 250 mm		
1 x		1/2": 250 mm		
2 x		4 - 8 mm		
2 x		PH1 - PH2		
1 x		PH2		

2 x		PZ1 - PZ2
1 x		PZ2
11 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 mm
1 x		150 - 250 V
1 x		3,5 mm
2 x		PH1 - PH2
1 x		max. 2 kg
1 x		160 mm
1 x		160 mm
1 x		220 mm
1 x		240 mm
1 x		250 mm
1 x		10"
1 x		
1 x		160 mm
1 x		140 mm
1 x		165 mm
1 x		3 - 42 mm
1 x		300 mm
1 x		200 mm
1 x		200 mm
1 x		8 mm
1 x		190 mm
1 x		300 g
1 x		5 m x 19 mm
1 x		400 mm



**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



20 20

818.0886	143 pcs	Universal tool kit set	1288
12 x		1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
14 x		1/2": 10 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 110 mm	
1 x		1/4" x 1/4"	
1 x		3/8" F x 1/2" M	
1 x		1/2" x 5/16"	
3 x		5/16": 10 - 12 - 14 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": 8 - 10 mm	
4 x		5/16": T20 - T40 - T50 - T55	
1 x			
1 x			
1 x		300 g	
1 x			
1 x		145 mm	
1 x		250 mm	
1 x		38 mm	
1 x		270 mm	
1 x		1/4": 911 2060	
1 x		1/4": 205 mm	
1 x		1/4": 145 mm	
1 x		1/2": 250 mm	
8 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm	

1 x		0 - 150 mm
1 x		5 m
20 x		100 mm
1 x		130 - 630 mm
1 x		
10 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		150 - 250 V
3 x		3 - 5.5 - 6.5 mm
2 x		PH1 - PH2
1 x		PZ2
1 x		160 mm
1 x		160 mm
1 x		160 mm
1 x		240 mm
1 x		250 mm

**CHROMEplus® Tool kit**

- 6 point
- FlankTraction profile
- Removable plastic storage trays
- Mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



16 16

818.0885	90 pcs	CHROMEplus® Tool kit	1150
13 x		1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		1/2": 15 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4" x 1/4"	
1 x		1/4": 160 mm	
1 x		1/4"	

1 x		1/4": 140 mm
2 x		1/2": 125 - 250 mm
1 x		1/2"
1 x		1/2": F3/8" - M1/2"
1 x		1/2": 250 mm
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
5 x		1/4": PH0 - PH1 - 2 x PH2 - PH3
5 x		1/4": PZ0 - PZ1 - 2 x PZ2 - PZ3
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40
1 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm
2 x		5.5 - 6.5 mm
2 x		PH1 - PH2
1 x		240 mm
1 x		180 mm

**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



16 16

818.0888	130 pcs	Universal tool kit set	1414
12 x		1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
2 x		1/4" - 1/2"	
1 x		1/2": 250 mm	
1 x		1/4" x 1/4"	
1 x		28 mm	
1 x			

1 x		
1 x		0 - 150 mm
1 x		300 g
1 x		130 - 630 mm
1 x		300 mm
1 x		1/4": 011.2060
1 x		1/4": 150 mm
1 x		1/4": 205 mm
1 x		1/4": 145 mm
1 x		1/2": 250 mm
1 x		1/4"
8 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm
9 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50
1 x		
1 x		5 m
11 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
2 x		4 - 5 mm
2 x		PH1 - PH2
2 x		PZ1 - PZ2
1 x		150 - 250 V
1 x		3 mm
2 x		PH1 - PH2
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm
1 x		250 mm



1/4" TOOL CHESTS

Universal tool kit

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



19

911.2120 100 pcs Universal tool kit		19,80
12 x		1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
12 x		1/2": 14 - 15 - 16 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm
2 x		1/2": 16 - 21 mm
1 x		1/4": 011.2060
1 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm
4 x		1/4": 50 - 100 mm; 1/2": 125 - 250 mm
2 x		1/4": 100 mm; 1/2": 250 mm
1 x		1/4"
2 x		1/4" - 1/2"
2 x		1/4": 145 mm; 1/2": 250 mm
12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm
4 x		4,0 x 100 mm - 4,5 x 100 mm - 5,0 x 100 mm - 5,0 x 150 mm
2 x		PH1 x 75 mm - PH2 x 100 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10"



CHROMEplus Universal tool set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



20

912.2120 100 pcs CHROMEplus Universal tool set		19,50
13 x		1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
3 x		1/4": 8 - 10 - 13 mm
1 x		1/4": 50 mm
1 x		1/4"
1 x		1/4": 110 mm
1 x		1/4": 140 mm
3 x		1/4": 4 - 5.5 - 7 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm
2 x		1/2": 17 - 19 mm
2 x		1/2": 16 - 21 mm
2 x		1/2": 125 - 250 mm
1 x		1/2": F3B" x M 1/2"
1 x		1/2"
1 x		1/2": 250 mm
1 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
6 x		6 x 38 - 3 x 75 - 4 x 100 - 5.5 x 100 - 6.5 x 125 - 8 x 150 mm
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		10"
1 x		250 mm
1 x		300 g

**CHROMEplus® Universal tool set**

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



1/4" 1/2"

918.0200 99 pcs CHROMEplus® Universal tool set 19,50			
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
1 x		1/4": 50 mm	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4": 145 mm	
3 x		1/4": 4 - 4,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40	
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2": F3/8" x M 1/2"	
1 x		1/2"	
1 x		1/2": 250 mm	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm	
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm	
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		10"	
1 x		250 mm	
1 x		300 g	

**CHROMEplus® Universal tool set**

- With 3 drawers and upper insert storage
- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



1/4" 1/2"

918.0150 99 pcs CHROMEplus® Universal tool set 25,60			
13 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" 11/32" - 3/8" - 13/32" - 7/16" - 15/32" - 1/2" - 9/16"	
3 x		1/4": 5/16" - 3/8" - 1/2"	
1 x		1/4": 50 mm	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4": 140 mm	
3 x		1/4": 5/32" - 1/4" - 9/32"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16"	
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40	
12 x		1/2": 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" 13/16" - 7/8" - 15/16" - 1.1/16" - 1.3/16" - 1.1/4"	
2 x		1/2": 11/16" - 3/4"	
2 x		1/2": 16 - 21 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2": F3/8" x M 1/2"	
1 x		1/2"	
1 x		1/2": 250 mm	
1 x		1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" 7/32" - 1/4" - 5/16" - 3/8"	
12 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" 11/16" - 3/4" - 13/16" - 7/8" - 15/16"	
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm	
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm	
1 x		125 mm	
1 x		180 mm	
1 x		200 mm	
1 x		10"	
1 x		250 mm	
1 x		300 g	

**3/8" SOCKETS**
**Hexagonal socket**

- 6 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	mm	D1 mm	D2 mm	L mm	T mm	g
917.3806	6,0	10,0	18,0	28,0	5,0	20
917.3807	7,0	11,0	18,0	28,0	5,0	22
917.3808	8,0	12,0	18,0	28,0	9,0	24
917.3809	9,0	14,0	18,0	28,0	9,0	26
917.3810	10,0	15,0	18,0	28,0	9,0	30
917.3811	11,0	16,0	18,0	28,0	9,0	30
917.3812	12,0	17,0	18,0	28,0	9,0	32
917.3813	13,0	19,0	18,0	28,0	9,0	35
917.3814	14,0	20,0	18,0	29,0	11,0	40
917.3815	15,0	21,0	20,0	30,0	13,0	42
917.3816	16,0	22,0	21,0	30,0	13,0	48
917.3817	17,0	24,0	22,0	30,0	13,0	55
917.3818	18,0	25,0	23,0	30,0	13,0	60
917.3819	19,0	26,0	24,0	30,0	13,0	70
917.3820	20,0	27,0	25,0	31,0	13,0	75
917.3821	21,0	29,0	26,0	31,0	14,0	82
917.3822	22,0	30,0	26,0	32,0	15,0	85
917.4823	23,0	31,0	28,0	30,0	15,0	88
917.3824	24,0	31,0	27,0	32,0	16,0	88
917.3870	1/4"	10,0	18,0	30,0	6,0	20
917.3871	9/32"	11,0	18,0	30,0	7,0	22
917.3872	5/16"	12,0	18,0	30,0	7,0	24
917.3873	11/32"	13,0	18,0	30,0	7,0	26
917.3874	3/8"	14,0	18,0	30,0	9,0	26
917.3875	7/16"	16,0	16,0	27,0	10,0	30
917.3876	1/2"	18,0	18,0	30,0	12,0	30
917.3877	9/16"	20,0	20,0	30,0	13,0	30
917.3801	19/32"	19,0	20,8	30,0	13,0	40
917.3878	5/8"	22,0	22,0	30,0	13,0	40
917.3879	11/16"	23,0	24,0	30,0	14,0	50
917.3880	3/4"	25,0	26,0	30,0	15,0	60
917.3881	13/16"	21,0	28,0	32,0	16,0	70
917.3882	7/8"	29,0	30,0	32,0	18,0	80

**Hexagonal socket set**

- 6 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



3/8"

911.0608 11 pcs 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm 0,75			
911.0608	11 pcs	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0,75







	mm		L mm	D1 mm	g
918.4853	12		46,0	17,5	57
918.4854	13		49,0	18,0	59
918.4855	14		49,0	20,0	60
918.4856	15		49,0	22,0	65
918.4857	16		49,0	22,0	65
918.4858	17		49,0	24,3	70
918.4859	18		51,0	25,7	70
918.4861	19		51,0	25,7	75
918.4862		3/8"	44,0	14,5	55
918.4863		7/16"	46,0	15,5	57
918.4864		1/2"	49,0	19,0	59
918.4865		9/16"	49,0	20,0	60
918.4866		5/8"	49,0	22,0	65
918.4867		11/16"	49,0	24,3	70
918.4868		3/4"	49,0	25,7	75

### Torx E socket

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
911.4338	E4	7,0	17,0	28,0	5,0	25
911.4339	E5	7,0	18,0	28,0	5,0	25
911.4340	E6	9,0	18,0	28,0	5,0	25
911.4341	E7	10,0	18,0	28,0	6,0	25
911.4342	E8	11,0	18,0	28,0	6,0	25
911.4318	E10	13,0	18,0	28,0	9,0	30
911.4319	E11	14,0	18,0	28,0	9,0	30
911.4320	E12	15,0	18,0	28,0	9,0	30
911.4321	E14	17,0	18,0	28,0	9,0	35
911.4343	E16	18,0	19,0	28,0	9,0	40
911.4344	E18	19,0	19,0	28,0	9,0	40
911.4345	E20	19,0	20,0	28,0	9,0	40

### Torx E socket set

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



				g
911.3930	10 pcs	E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14 - E16 - E18		0,31



### CHROMEplus® Torx E socket

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



		D1 mm	D2 mm	L mm	T mm	g
918.3971	E4	7,0	17,0	28,0	5,0	25
918.3972	E5	7,0	18,0	28,0	5,0	25
918.3973	E6	9,0	18,0	28,0	5,0	25
918.3974	E7	10,0	18,0	28,0	6,0	25
918.3975	E8	11,0	18,0	28,0	6,0	25
918.3976	E10	13,0	18,0	28,0	9,0	30
918.3977	E11	14,0	18,0	28,0	9,0	30
918.3978	E12	15,0	18,0	28,0	9,0	30
918.3979	E14	17,0	18,0	28,0	9,0	35
918.3980	E16	18,0	23,0	28,0	9,0	40
918.3981	E18	19,0	24,0	28,0	9,0	40
918.3982	E20	19,0	17,0	28,0	9,0	40

### CHROMEplus® Torx E socket set

- Torx E
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



				g
918.3955	10 pcs	E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14 - E16 - E18		0,31

### 3/8" OPEN-ENDED AND RING SPANNER

#### Crawfoot wrench, hexagonal

- 6 point
- Internal square drive
- For manual operation
- Matt finish
- Chrome vanadium



	mm	L mm	T mm	g
913.3810	10,0	40,0	16,0	40
913.3811	11,0	37,0	13,0	40
913.3812	12,0	37,0	15,0	40
913.3813	13,0	36,0	14,0	40
913.3814	14,0	43,0	18,0	60
913.3815	15,0	42,0	20,0	60
913.3816	16,0	43,0	22,0	60
913.3817	17,0	48,0	23,0	80
913.3818	18,0	46,0	21,0	80
913.3819	19,0	44,0	22,0	80

#### Crawfoot wrench, hexagonal

- 6 point
- Internal square drive
- For manual operation
- Matt finish
- Chrome vanadium



				g
913.3800	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		0,63

#### CHROMEplus® 12 point crawfoot wrench

- 12 point
- Internal square drive
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	L mm	T mm	g
913.3910	10,0	36,0	13,0	40
913.3911	11,0	36,0	17,0	40
913.3912	12,0	37,0	14,0	40
913.3913	13,0	37,0	17,0	40
913.3914	14,0	41,0	19,0	60
913.3915	15,0	42,0	21,0	60
913.3916	16,0	43,0	22,0	60
913.3917	17,0	46,0	22,0	80
913.3919	19,0	46,0	23,0	80
913.3922	22,0	54,0	30,0	90

#### CHROMEplus® 12 point crawfoot wrench set

- 12 point
- Internal square drive
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



				g
913.3900	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 22 mm		0,50

#### Combination wrench, extra flat

- ideally suited for installing and removing screws and oil filter covers that are difficult to access when changing the oil filter
- 6 point
- Suitable for left and right side operation
- Internal square drive to DIN 3120 - ISO 1174
- For manual operation
- Phosphate finish



		mm	g
150.9586	3/8"	24,0	80
150.9587	3/8"	27,0	85
150.9588	3/8"	32,0	97
150.9589	3/8"	36,0	103
150.9591	3/8"	38,0	107



Ring spanner set, extra flat

- ideally suited for installing and removing screws and oil filter covers that are difficult to access when changing the oil filter
- 6 point
- Suitable for left and right side operation
- Internal square drive to DIN 3120 - ISO 1174
- For manual operation
- Phosphate finish
- Includes storage rail



150.9585	5 pcs	24 - 27 - 32 - 36 - 38 mm	507
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Joint ring wrench socket set (open)

- Hexagon (open)
- Special construction allows for the removal and tightening of hard-to-reach screws
- Universal usage
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case

**Application range:** universally suited to all pipe screws on injection systems, brake systems etc.



911.1710	7 pcs	Joint ring wrench socket set (open)	900
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consists of:

911.1711	3/8" Joint ring wrench socket, 11 mm	60	
911.1712	3/8" Joint ring wrench socket, 12 mm	70	
911.1713	3/8" Joint ring wrench socket, 14 mm	80	
911.1714	3/8" Joint ring wrench socket, 16 mm	140	
911.1715	3/8" Joint ring wrench socket, 17 mm	150	
911.1716	3/8" Joint ring wrench socket, 18 mm	160	
911.1717	3/8" Joint ring wrench socket, 19 mm	170	

3/8" SPARK PLUG SOCKETS

Spark plug socket

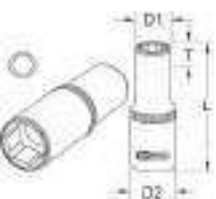
- 6 point
- DIN 3124 / ISO 3315
- FlankTraction profile
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the spark plugs
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



	Profile	mm	D1 mm	D2 mm	L mm	
911.3804		16,0	22,0	19,0	65,0	94
911.3823		18,0	26,0	21,0	65,0	136
911.3805		21,0	28,0	22,0	65,0	140
911.3909		5/8"	22,0	19,0	65,0	94
911.3908		13/16"	28,0	22,0	65,0	136

CHROMEplus® Spark plug socket

- 6 point
- DIN 3124 / ISO 3315
- FlankTraction profile
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the spark plugs
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



	Profile	mm	D1 mm	D2 mm	L mm	
918.3804		16,0	22,0	19,0	65,0	94
918.3805		18,0	26,0	23,0	64,0	94
918.3806		21,0	28,0	22,0	65,0	136
918.3992		5/8"	22,0	19,0	65,0	94
918.3991		13/16"	28,0	22,0	65,0	136

Special spark plug socket, thin-walled

- 12 point
- Double hexagon profile allows the pickup of hexagon and 12-point spark plugs
- Extra slim design
- For spark plugs with platinum electrodes for example Bosch 14 ZR
- With rubber stop for holding the spark plugs
- Internal square drive to DIN 3120 / ISO 1174
- For manual operation
- Matt finish
- Chrome vanadium

**Application range:** BMW E90 N 54 engine 335i from 2006, 1 Series (F20) 118i  
 Renault Modus, Twingo, Clio, Kangoo with 1.2 l 16V engine  
 Peugeot 207, 307  
 Citroën C4 1.4 and 1.6 l 16V engine, C5 2.0 l HPI engine  
 Mercedes Motor M156, engine M 276  
 Nissan Micra, Note  
 MINI 1.2 - 1.4 l 4 cyl from 2007  
 FORD 1.0 EcoBoost engine  
 Alfa 1.8 TBI engine  
 KIA



	Profile	mm	D1 mm	D2 mm	L mm	
911.3990		14,0	20,0	18,0	63,0	75

CHROMEplus® Special spark plug socket, thin-walled

- 12 point
- Double hexagon profile allows the pickup of hexagon and 12-point spark plugs
- Extra slim design
- For spark plugs with platinum electrodes for example Bosch 14 ZR
- With rubber stop for holding the spark plugs
- Internal square drive to DIN 3120 / ISO 1174
- For manual operation
- Mirror polished
- Chrome vanadium

**Application range:** BMW E90 N 54 engine 335i from 2006, 1 Series (F20) 118i  
 Renault Modus, Twingo, Clio, Kangoo with 1.2 l 16V engine  
 Peugeot 207, 307  
 Citroën C4 1.4 and 1.6 l 16V engine, C5 2.0 l HPI engine  
 Mercedes Motor M156, engine M 276  
 Nissan Micra, Note  
 MINI 1.2 - 1.4 l 4 cyl from 2007  
 FORD 1.0 EcoBoost engine  
 Alfa 1.8 TBI engine  
 KIA



	Profile	mm	D1 mm	D2 mm	L mm	
918.3990		14,0	20,0	18,0	65,0	75

### 3/8" BIT SOCKETS

#### Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.3946	4,0	18,0	50,0	24,0	45
911.3947	5,0	18,0	50,0	24,0	45
911.3878	5,5	18,0	50,0	24,0	45
911.3879	6,5	18,0	50,0	24,0	45
911.3880	8,0	18,0	50,0	24,0	50
911.3949	10,0	18,0	50,0	24,0	50
911.3948	12,0	18,0	50,0	24,0	50

#### CHROMEplus® bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3851	4,0	18,0	50,0	24,0	40
918.3852	5,0	18,0	50,0	24,0	40
918.3853	5,5	18,0	50,0	24,0	45
918.3854	6,5	18,0	50,0	24,0	45
918.3855	8,0	18,0	50,0	24,0	50
918.3986	10,0	18,0	50,0	24,0	50
918.3987	12,0	18,0	50,0	24,0	50

#### Bit socket for phillips head screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
911.3875	PH 1	18,0	50,0	24,0	35
911.3876	PH 2	18,0	50,0	24,0	45
911.3877	PH 3	18,0	50,0	24,0	50
911.2366	PH 4	18,0	50,0	24,0	55

### CHROMEplus® bit socket for Phillips screws PH

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.3868	PH 1	18,0	50,0	24,0	35
918.3869	PH 2	18,0	50,0	24,0	45
918.3891	PH 3	18,0	50,0	24,0	50
918.2366	PH 4	18,0	50,0	24,0	55

#### Bit socket for pozidriv screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
911.3881	PZ 1	18,0	50,0	24,0	40
911.3882	PZ 2	18,0	50,0	24,0	40
911.3883	PZ 3	18,0	50,0	24,0	55

#### CHROMEplus® bit socket for pozidriv screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	g
918.3877	PZ 1	18,0	50,0	24,0	40
918.3878	PZ 2	18,0	50,0	24,0	40
918.3892	PZ 3	18,0	50,0	24,0	55

### Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.3863	3,0	18,0	50,0	24,0	40
911.3864	4,0	18,0	50,0	24,0	43
911.3865	5,0	18,0	50,0	24,0	44
911.3866	6,0	18,0	50,0	24,0	45
911.3867	7,0	18,0	50,0	24,0	46
911.3868	8,0	18,0	50,0	24,0	47
917.3857	10,0	18,0	50,0	24,0	60
911.3862	12,0	18,0	50,0	24,0	65
917.3962	5/32"	18,0	50,0	24,0	40
917.3967	1/8"	18,0	50,0	24,0	47
917.3963	3/16"	18,0	50,0	24,0	43
917.3968	7/32"	18,0	50,0	24,0	60
917.3964	1/4"	18,0	50,0	24,0	44
917.3965	5/16"	18,0	50,0	24,0	45
917.3966	3/8"	18,0	50,0	24,0	46

#### Bit socket set for hexagon key screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Press fitted stud
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



		g
911.3945	7 pcs 4 - 5 - 6 - 7 - 8 - 10 - 12 mm	0,31

#### CHROMEplus® Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3861	3,0	18,0	50,0	24,0	40
918.3862	4,0	18,0	50,0	24,0	43
918.3863	5,0	18,0	50,0	24,0	44
918.3864	6,0	18,0	50,0	24,0	45
918.3865	7,0	18,0	50,0	24,0	46

	mm	D mm	L mm	T mm	g
918.3866	8,0	18,0	50,0	24,0	47
918.3867	10,0	18,0	50,0	24,0	60
918.3961	12,0	18,0	50,0	24,0	65
918.3967	1/8"	18,0	50,0	24,0	47
918.3962	5/32"	18,0	50,0	24,0	40
918.3963	3/16"	18,0	50,0	24,0	43
918.3968	7/32"	18,0	50,0	24,0	60
918.3964	1/4"	18,0	50,0	24,0	44
918.3965	5/16"	18,0	50,0	24,0	45
918.3966	3/8"	18,0	50,0	24,0	46

### CHROMEplus® bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
918.3921	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm			0,31

### Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.1561	4,0	18,0	100,0	74,0	50
911.1562	5,0	18,0	100,0	74,0	50
911.1563	6,0	18,0	100,0	74,0	50
911.1564	7,0	18,0	100,0	74,0	50
911.1565	8,0	18,0	100,0	74,0	60
911.1566	10,0	18,0	100,0	74,0	60
911.1567	12,0	18,0	100,0	74,0	60

### Bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
911.1560	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm			0,52

### CHROMEplus® bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3914	4,0	18,0	100,0	74,0	50
918.3915	5,0	18,0	100,0	74,0	50
918.3916	6,0	18,0	100,0	74,0	50
918.3917	7,0	18,0	100,0	74,0	50
918.3918	8,0	18,0	100,0	74,0	60
918.3919	10,0	18,0	100,0	74,0	60
918.3920	12,0	18,0	100,0	74,0	60

### CHROMEplus® bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
918.3960	7 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 mm			0,52

### Bit socket for hexagon screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
917.3860	3,0	18,0	50,0	24,0	45
917.3861	4,0	18,0	50,0	24,0	45
917.3862	5,0	18,0	50,0	24,0	45
917.2413	5,5	18,0	50,0	24,0	40
917.3863	6,0	18,0	50,0	24,0	45
917.3864	7,0	18,0	50,0	24,0	45
917.3868	8,0	18,0	50,0	24,0	45
917.3869	10,0	18,0	50,0	24,0	45

### Bit socket set for hexagon-screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
911.3922	7 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 mm			0,41

### CHROMEplus® bit socket for hexagon screws with ball end

- Ball end hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.3870	3,0	18,0	50,0	24,0	34
918.3871	4,0	18,0	50,0	24,0	34
918.3872	5,0	18,0	50,0	24,0	35
918.2413	5,5	18,0	50,0	24,0	40
918.3873	6,0	18,0	50,0	24,0	35
918.3874	7,0	18,0	50,0	24,0	40
918.3875	8,0	18,0	50,0	24,0	40
918.3876	10,0	18,0	50,0	24,0	45

### CHROMEplus® bit socket-set for hexagon screws with ball end

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
918.3772	7 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 mm			0,41

### Bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.3921	T9	18,0	50,0	24,0	42
911.3887	T10	18,0	50,0	24,0	45
911.3869	T15	18,0	50,0	24,0	45
911.3870	T20	18,0	50,0	24,0	45
911.3871	T25	18,0	50,0	24,0	45
911.3872	T27	18,0	50,0	24,0	45
911.3873	T30	18,0	50,0	24,0	45
911.3874	T40	18,0	50,0	24,0	45
911.3885	T45	18,0	50,0	24,0	50
911.3884	T50	18,0	50,0	24,0	70
911.3888	T55	18,0	50,0	24,0	70
911.3889	T60	18,0	50,0	24,0	70

### Bit socket set for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



		D mm	L mm	T mm	
911.3935	10 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			0,41

### CHROMEplus® bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.3768	T9	18,0	50,0	24,0	42
918.3879	T10	18,0	50,0	24,0	45
918.3880	T15	18,0	50,0	24,0	45
918.3881	T20	18,0	50,0	24,0	45
918.3882	T25	18,0	50,0	24,0	45
918.3883	T27	18,0	50,0	24,0	45
918.3884	T30	18,0	50,0	24,0	45
918.3885	T40	18,0	50,0	24,0	35
918.3886	T45	18,0	50,0	24,0	50
918.3887	T50	18,0	50,0	24,0	70
918.3888	T55	18,0	50,0	24,0	70
918.3889	T60	18,0	50,0	24,0	70

### CHROMEplus® bit socket set for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



		D mm	L mm	T mm	
918.3939	10 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			0,41

### Bit socket for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.1551	T20	18,0	100,0	74,0	50
911.1552	T25	18,0	100,0	74,0	50
911.1553	T27	18,0	100,0	74,0	50
911.1554	T30	18,0	100,0	74,0	60
911.1555	T40	18,0	100,0	74,0	60
911.1556	T45	18,0	100,0	74,0	60
911.1557	T50	18,0	100,0	74,0	60
911.1558	T55	18,0	100,0	74,0	80
911.1559	T60	18,0	100,0	74,0	100

### Bit socket set for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



		D mm	L mm	T mm	
911.1550	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			0,65

### CHROMEplus® bit socket for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.4011	T20	18,0	100,0	74,0	50
918.4012	T25	18,0	100,0	74,0	50
918.4013	T27	18,0	100,0	74,0	50
918.4014	T30	18,0	100,0	74,0	60
918.4015	T40	18,0	100,0	74,0	60
918.4016	T45	18,0	100,0	74,0	60
918.4017	T50	18,0	100,0	74,0	60
918.4018	T55	18,0	100,0	74,0	80
918.4019	T60	18,0	100,0	74,0	100

### CHROMEplus® bit socket set for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



		D mm	L mm	T mm	
918.1550	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			0,65

### Bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.3960	TB10	18,0	47,0	24,0	33
911.3961	TB15	18,0	47,0	24,0	34
911.3962	TB20	18,0	47,0	24,0	34
911.3963	TB25	18,0	47,0	24,0	34

		D mm	L mm	T mm	
911.3964	TB27	18,0	46,0	24,0	34
911.3965	TB30	18,0	64,0	24,0	35
911.3966	TB40	18,0	64,0	24,0	35
911.3967	TB45	18,0	64,0	24,0	38
911.3968	TB50	18,0	77,0	24,0	40
911.3969	TB55	18,0	77,0	24,0	45
911.3970	TB60	18,0	50,0	24,0	48

#### Bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



911.3940	10 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55				0,40

#### CHROMEplus® bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.3940	TB10	18,0	50,0	24,0	47
918.3941	TB15	18,0	50,0	24,0	47
918.3942	TB20	18,0	50,0	24,0	47
918.3943	TB25	18,0	50,0	24,0	47
918.3944	TB27	18,0	50,0	24,0	34
918.3945	TB30	18,0	50,0	24,0	34
918.3946	TB40	18,0	50,0	24,0	64
918.3947	TB45	18,0	50,0	24,0	39
918.3948	TB50	18,0	50,0	24,0	77
918.3949	TB55	18,0	50,0	24,0	77
918.3950	TB60	18,0	50,0	24,0	77

#### CHROMEplus® bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



918.3970	10 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55				0,40

#### Bit socket for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.3971	TB20	18,0	100,0	74,0	50
911.3972	TB25	18,0	100,0	74,0	50
911.3973	TB27	18,0	100,0	74,0	50
911.3974	TB30	18,0	100,0	74,0	60
911.3975	TB40	18,0	100,0	74,0	60
911.3976	TB45	18,0	100,0	74,0	60
911.3977	TB50	18,0	100,0	74,0	60
911.3978	TB55	18,0	100,0	74,0	80
911.3979	TB60	18,0	100,0	74,0	100

#### Bit socket set for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



911.3980	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60				0,65

#### CHROMEplus® bit socket for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.4001	TB20	18,0	100,0	74,0	50
918.4002	TB25	18,0	100,0	74,0	50
918.4003	TB27	18,0	100,0	74,0	50
918.4004	TB30	18,0	100,0	74,0	60
918.4005	TB40	18,0	100,0	74,0	60
918.4006	TB45	18,0	100,0	74,0	60
918.4007	TB50	18,0	100,0	74,0	60
918.4008	TB55	18,0	100,0	74,0	80
918.4009	TB60	18,0	100,0	74,0	100

#### CHROMEplus® bit socket set for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



918.3969	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60				0,65

#### Bit socket for XZN® screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.3918	M4	18,0	50,0	24,0	43
911.3915	M5	18,0	50,0	24,0	44
911.3916	M6	18,0	50,0	24,0	45
911.3917	M8	18,0	50,0	24,0	47
911.3920	M10	18,0	50,0	24,0	48

#### Bit socket for spline (XZN®) screws

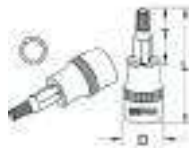
- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



911.3923	5 pcs	M4 - M5 - M6 - M8 - M10		150

### CHROMEplus® bit socket for Spline(XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

		D mm	L mm	T mm	9
918.3856	M4	18,0	50,0	24,0	43
918.3857	M5	18,0	50,0	24,0	44
918.3858	M6	18,0	50,0	24,0	45
918.3859	M8	18,0	50,0	24,0	47
918.3860	M10	18,0	50,0	24,0	48

### CHROMEplus® bit socket set for Spline(XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



3/8"

		9
918.3773	5 pcs M4 - M5 - M6 - M8 - M10	0,15

### 3/8" ADAPTERS

#### Bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	□	○	L mm	D1 mm	D2 mm	T mm	9
911.3894	3/8"	1/4"	25,0	12,0	17,0	11,0	20
911.4328	3/8"	5/16"	30,0	13,0	17,0	14,0	30

### CHROMEplus® bit adaptor socket

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 1/4" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

	□	○	L mm	D1 mm	D2 mm	T mm	9
918.3983	3/8"	1/4"	25,0	12,0	17,0	11,0	20
918.3984	3/8"	5/16"	30,0	13,0	17,0	14,0	30
918.3985	3/8"	10 mm	30,0	17,0	17,0	11,0	30

#### Bit adaptor socket with clamping ring

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 10 mm Bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium

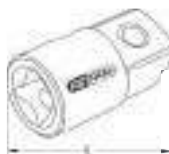


3/8"

	□	○	L mm	D1 mm	9
911.4331	3/8"	5/16"	28,0	13,0	25
911.4311	3/8"	10 mm	30,0	17,0	30

#### Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	□	■	L mm	9
911.3892	3/8"	1/2"	30,0	60

### CHROMEplus® adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

	□	■	L mm	9
918.3931	3/8"	1/2"	30,0	60

#### Reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	□	■	L mm	9
911.3897	3/8"	1/4"	30,0	60

#### CHROMEplus® reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

	□	■	L mm	9
918.3930	3/8"	1/4"	30,0	60

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66	

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66	

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

917.0707	7 pcs	Adaptor and reducing adaptor set		660	

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm			30	
911.1494	Adaptor, 1/4" Mx3/8" F			30	
911.3892	Adaptor, 3/8" Fx1/2" M			60	
911.1234	Adaptor, 1/2" F x 3/4" M			140	
911.3897	Reducing adaptor, 3/8" Fx1/4" M			60	
911.1233	Reducing adaptor, 1/2" F x 3/8" M			50	
911.3412	Reducing adaptor 3/4" F x 1/2" M			195	

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

918.0707	7 pcs	CHROMEplus® adaptor and reducing adaptor set		0,66	

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm			30	
918.1753	1/2" CHROMEplus Reducing adaptor, 1/2" F x 3/8" M			50	
918.1501	1/4" CHROMEplus Adaptor, 1/4" Fx3/8" M			30	
918.1754	1/2" CHROMEplus Adaptor, 1/2" Fx3/4" M			140	
918.3930	3/8" CHROMEplus Reducing adaptor, 3/8" F x 1/4" M			60	
918.3931	3/8" CHROMEplus Adaptor, 3/8" Fx1/2" M			60	
918.3412	CHROMEplus Reducing adaptor 3/4" F x 1/2" M			195	

### Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors Reducing adaptor
- For manual operation
- Matt finish
- Chrome vanadium

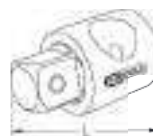


3/8"

911.1207	3/8"	1/2"	40,0	60	
911.3826	1/2"	3/8"	40,0	60	

### CHROMEplus® sliding / adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors Reducing adaptor
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

918.3807	1/2"	3/8"	40,0	60	
918.1449	1/4"	3/8"	40,0	60	

### 3/8" UNIVERSAL JOINTS

#### Universal joint

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Matt finish
- Chrome vanadium

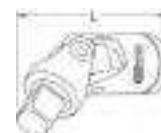


3/8"

911.3850	3/8"	3/8"	55,0	80	

### CHROMEplus® universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

918.3988	3/8"	3/8"	55,0	80	

### Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Matt finish
- Chrome vanadium



3/8"

			L mm	
917.3850	3/8"	3/8"	50,0	80

### CHROMEplus® power universal joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Mirror polished
- Chrome vanadium



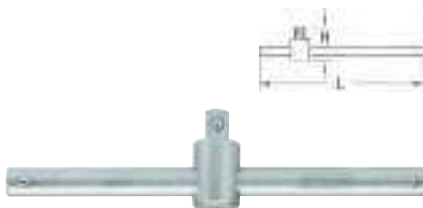
3/8"

			L mm	
919.3850	3/8"	3/8"	50,0	80

### 3/8" T-HANDLES

#### Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium

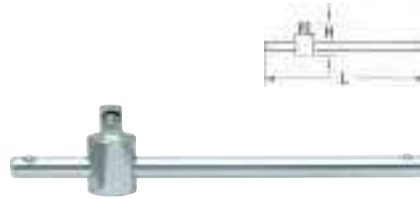


3/8"

		H mm	L mm	
911.3855	3/8"	40,0	160,0	160

### CHROMEplus® sliding T handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

		H mm	L mm	
918.3845	3/8"	40,0	160,0	160

### 3/8" EXTENSIONS

#### Extension

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	L mm	
911.3852	45,0	40
911.3801	75,0	50
911.4882	125,0	110
911.3802	150,0	160
911.3856	200,0	200
911.3803	250,0	240
911.4883	300,0	270
911.4884	500,0	420
911.4885	700,0	620

#### Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Matt finish
- Chrome vanadium



1/4" 3/8" 1/2"

911.0007	9 pcs Extension set	1,22
3 x	1/4" : 50 - 100 - 250 mm	
4 x	3/8" : 45 - 75 - 150 - 200 mm	
2 x	1/2" : 125 - 250 mm	

### CHROMEplus® extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

	L mm	
918.3769	45,0	40
918.3896	75,0	120
918.3897	150,0	150
918.3771	200,0	190
918.3898	250,0	240

### CHROMEplus® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

918.0007	9 pcs CHROMEplus® Extension set	1,22
3 x	1/4" : 50 - 100 - 250 mm	
4 x	3/8" : 45 - 75 - 150 - 200 mm	
2 x	1/2" : 125 - 250 mm	

### Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

	L mm	
911.3910	45,0	40
911.3911	75,0	80
911.3912	150,0	140
911.3913	200,0	190
911.3914	250,0	240



### Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



1/4" 3/8" 1/2"

		kg	
911.0009	9 pcs	Wobble extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

### CHROMEplus® wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

		L mm		kg	
918.3935		45,0		120	
918.3801		75,0		150	
918.3802		150,0		145	
918.3958		225,0		210	
918.3803		250,0		240	

### CHROMEplus® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		kg	
918.0009	9 pcs	CHROMEplus® Wobble extension set	1,22

### CHROMEplus® extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

		L mm		kg	
919.3801		75,0		70	
919.3804		150,0		140	
919.3806		250,0		250	

### CHROMEplus® extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



3/8"

		kg	
919.0383	3 pcs	75 - 150 - 250 mm	0,56

### CHROMEplus® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		kg	
919.0007	7 pcs	CHROMEplus® Extension set with interlock	1,24
2 x		1/4" : 100 - 150 mm	
3 x		3/8" : 75 - 150 - 250 mm	
2 x		1/2" : 125 - 250 mm	

### 3/8" MANUAL DRIVE TOOLS

#### Flexi head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Matt finish
- Chrome vanadium



3/8"

		Length mm		kg	
911.3919		210,0		210	

#### CHROMEplus® Flexi head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Mirror polished
- Chrome vanadium



3/8"

		L mm		head spare		kg	
918.3700		260,0		918.3826-1		390	
918.3826		400,0		918.3826-1		542	
918.3701		450,0		918.3826-1		615	

#### Offset handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium

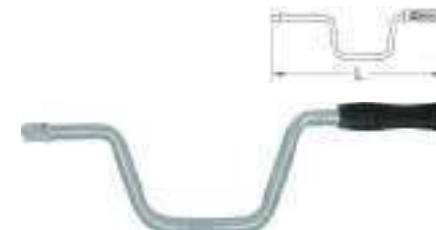


3/8"

		L mm		kg	
911.3925		180,0		198	

#### Crank handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



3/8"

		L mm		kg	
911.3950		190,0		482	

## 3/8" RATCHETS

### Mini hand reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



		Tooth			
3/8"		72		55	
914.3810	3/8"	72		55	

### Mini hand reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



1/4"	3/8"	1/2"			
914.1215	3 pcs	Mini hand reversible ratchet set		165	

### consists of:

914.1410	Mini hand reversible ratchet, 1/4", 72 teeth			50	
914.3810	Mini hand reversible ratchet, 3/8", 72 teeth			55	
914.1210	Mini hand reversible ratchet, 1/2", 72 teeth			60	



### Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium

3/8"	A mm	D mm	L mm	Repair set	g
914.3890	17,0	32,0	200,0	914.3897	130

### CHROMEplus® reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Lightweight recessed reverse lever
- Mirror polished
- Chrome vanadium

3/8"	A mm	D mm	L mm	Repair set	g
918.3890	17,0	32,0	200,0	914.3897	130

### CHROMEplus® reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Lightweight recessed reverse lever
- Mirror polished
- Chrome vanadium

3/8"	A mm	D mm	L mm	Repair set	g
918.3993	17,0	31,0	180,0	914.3897	540

### Rotation reversible ratchet with rotary handle

- According to DIN 3122 / ISO 3315
- The square is driven by means turning the hand grip
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- The grip can be rotated by 360°
- Conventional ratcheting is also possible
- Ideal for confined spaces
- With marking of the direction of rotation
- With exact gearing 60-teeth ratchet mechanism
- High-quality shaft drive
- Ergonomic 2 component handle
- Matt finish
- Chrome vanadium

3/8"	A mm	D mm	L mm	g
914.3825	19,0	37,0	245,0	440

### SlimPOWER reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Mirror polished
- Chrome vanadium



3/8"	A mm	D mm	L mm	Repair set	g
920.3890	14,0	26,0	190,0	920.3890-2	267

### Reversible ratchet

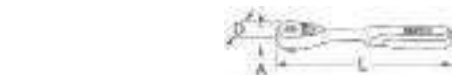
- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Matt finish
- Chrome vanadium



3/8"	A mm	D mm	L mm	Repair set	g
911.3800	16,0	32,0	200,0	911.3899	310

### CHROMEplus® reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Mirror polished
- Chrome vanadium



3/8"	A mm	D mm	L mm	Repair set	g
918.3800	16,0	32,0	200,0	911.3899	310

**CHROMEplus® flexible head reversible ratchet**

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.3997	16,0	31,0	150,0	914.3897	170

**MODIFIX® Mini T-handle ratchet, rotating head**

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- Multifunctional use
- Rotating shaft adjustable for constant tightening in the base of the rotating head
- Ergonomic 2-component handle with a soft zone
- Matt finish
- Chrome vanadium

**Application:** T-handle ratchet / screwdriver ratchet Adjustable in 2 positions 0° + 90°



	A mm	D mm	L mm	head, spare	
914.3815	20,0	30,0	165,0	914.3815-1	180

**Flexible head reversible ratchet**

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.3896	16,0	30,0	275,0	914.3895	260

**CHROMEplus® flexible head reversible ratchet with cranked shaft**

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 180° revolving head
- Cranked shaft
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Lightweight recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.3895	16,0	30,0	275,0	914.3895	230

**SlimPOWER telescopic-joint changeover ratchet**

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- 180° revolving head
- Fine gearing 72 teeth ratchet mechanism
- Adjustable in 6 steps
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.3820	14,0	28,0	258,0-373,0	914.3820-1	390,0

**3/8" SET ASSORTMENTS**

**CHROMEplus® spark plug service set**

- Mirror polished
- Chrome vanadium
- In durable plastic storage case



918.0607	7 pcs	CHROMEplus® spark plug service set	1,44
4 x		14 - 16 - 18 - 21 mm	
1 x		150 mm	
1 x		150 mm	
1 x		270 mm	

**Socket set**

- 12 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.3995	22 pcs	Socket set	2,00
15 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	
1 x		3/8"	
2 x		75 - 150 mm	
1 x		3/8"	
2 x		16 - 21 mm	
1 x		1/2" F x 3/8" M	

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



911.0626	26 pcs	Socket set	2,70
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
2 x		16 - 21 mm	
3 x		45 - 75 - 200 mm	
1 x		3/8"	
1 x		3/8"	
1 x		200 mm	

**CHROMEplus® socket set**

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		27 pcs CHROMEplus® socket set		2,90
13 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24 mm		
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
2 x		75 - 150 mm		
1 x		3/8"		
1 x		195 mm		

**CHROMEplus® socket set**

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		27 pcs CHROMEplus® socket set		2,94
13 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24 mm		
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
2 x		75 - 150 mm		
1 x		3/8"		
1 x		190 mm		

**CHROMEplus® Socket set**

- Imperial sizes
- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		40 pcs CHROMEplus® Socket set		3,13
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"		
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"		
2 x		5/8" - 13/16"		
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"		
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55		
5 x		M4 - M5 - M6 - M8 - M10		
2 x		75 - 150 mm		
1 x		3/8"		
1 x		160 mm		
1 x		195 mm		

**Socket set**

- 6 point
- Flank Traction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		27 pcs Socket set		2,94
13 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 22 - 24 mm		
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
2 x		75 - 150 mm		
1 x		3/8"		
1 x		190 mm		

**Socket set**

- 6 point
- Flank Traction profile
- Matt finish
- Chrome vanadium
- In durable steel storage case



		30 pcs Socket set		2,99
10 x		8 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 21 - 22 - 24 mm		
7 x		8 - 10 - 11 - 12 - 13 - 15 - 17 mm		
2 x		18 - 21 mm		
2 x		75 - 200 mm		
1 x		3/8"		
1 x		3/8"		
1 x		200 mm		

**Socket set**

- 6 point
- Flank Traction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case







		40 pcs Socket set		3,80
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"		
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"		

2 x		5/8" - 13/16"
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55
5 x		M4 - M5 - M6 - M8 - M10
1 x		160 mm
2 x		75 - 150 mm
1 x		3/8"
1 x		190 mm

**CHROMEplus® socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case
















			
958.0646	46 pcs	CHROMEplus® socket set	3,80
11 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
6 x		3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"	
2 x		5/8" - 13/16"	
7 x		1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	
5 x		M4 - M5 - M6 - M8 - M10	
1 x		160 mm	
2 x		75 - 150 mm	
1 x		3/8"	
1 x		190 mm	



**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case
















			
911.0661	61 pcs	Socket set	4,20
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm	
3 x		5,5 - 6,5 - 8 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	
2 x		16 - 21 mm	
2 x		75 - 250 mm	
1 x		3/8"	
1 x		3/8"	
1 x		200 mm	

**CHROMEplus® socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



			
918.0661	61 pcs	CHROMEplus® socket set	3,80
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm	















2 x		16 - 21 mm
3 x		5,5 - 6,5 - 8 mm
3 x		PH1 - PH2 - PH3
3 x		PZ1 - PZ2 - PZ3
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55
2 x		75 - 150 mm
1 x		3/8"
1 x		3/8"
1 x		200 mm



**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



			
951.0666	66 pcs	Socket set	4,67
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm	
2 x		16 - 21 mm	
3 x		5,5 - 6,5 - 8 mm	
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	
5 x		M4 - M5 - M6 - M8 - M10	
2 x		75 - 250 mm	
1 x		3/8"	
1 x		1/2" F x 3/8" M	
1 x		190 mm	



**CHROMEplus socket set**

- 6-point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



888.8888		66 pcs	CHROMEplus socket set	4.87
15 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm		
10 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm		
2 x		16 - 21 mm		
3 x		5.5 - 6.5 - 8 mm		
7 x		3 - 4 - 5 - 6 - 7 - 8 - 10 mm		
3 x		PH1 - PH2 - PH3		
3 x		PZ1 - PZ2 - PZ3		
10 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55		
5 x		M4 - M5 - M6 - M8 - M10		
2 x		75 - 250 mm		
1 x		3/8"		
1 x		1/2" F x 3/8" M		
1 x		190 mm		

**3/8" SET ASSORTMENTS**

**Torx Socket and bit set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



811.4801-0		30 pcs	Torx Socket and bit set	1.48
5 x		1/4": E4 - E5 - E6 - E7 - E8		
4 x		3/8": E10 - E11 - E12 - E14		
5 x		1/2": E16 - E18 - E20 - E22 - E24		
2 x		3/8" x 10 mm - 1/2" x 10 mm		
7 x		30 mm (T20 - T25 - T30 - T40 - T45 - T50 - T55)		
7 x		75 mm (T20 - T25 - T30 - T40 - T45 - T50 - T55)		

**Torx Bit socket set for Torx tamperproof screws**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



811.4801-3		30 pcs	Torx Bit socket set for Torx tamperproof screws	1.48
5 x		1/4": E4 - E5 - E6 - E7 - E8		
4 x		3/8": E10 - E11 - E12 - E14		
5 x		1/2": E16 - E18 - E20 - E22 - E24		
2 x		3/8" x 10 mm - 1/2" x 10 mm		
7 x		30 mm (TB20 - TB25 - TB30 - TB40 - TB45 - TB50 - TB55)		
7 x		75 mm (TB20 - TB25 - TB30 - TB40 - TB45 - TB50 - TB55)		

**Torx Socket set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



811.4800		31 pcs	Torx Socket set	1.40
6 x		1/4": T16 - T15 - T20 - T25 - T27 - T30		
3 x		5/16": T40 - T45 - T50		
3 x		1/4": TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm		
2 x		1/2": T55 - T60		
4 x		1/4": E5 - E6 - E7 - E8		
3 x		3/8": E10 - E12 - E14		
3 x		1/2": E16 - E18 - E20		
3 x		1/4" x 1/4" - 3/8" x 5/16" - 1/2" x 5/16"		
4 x		E5 x E8 - E7 x E11 - E10 x E12 - E14 x E18		

**Torx Socket and bit set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



811.4806		67 pcs	Torx Socket and bit set	2.90
2 x		3/8" x 10 mm - 1/2" x 1/4"		
12 x		1/4": E4 - E5 - E6 - E7 - E8, 5/8": E10 - E11 - E12 - E14, 1/2": E16 - E18 - E20		
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm		
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60		
5 x		M5 - M6 - M8 - M10 - M12		
2 x		8 - 10 mm		

2 x		PH2 - PH3
5 x		5 - 6 - 7 - 8 - 10 mm
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60
4 x		M6 - M8 - M10 - M12

### CHROMEplus® Socket set

- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8"

918.0699	99 pcs	CHROMEplus® Socket set	6,30
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"	
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm	
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"	
3 x		3/8": 16 - 18 - 21 mm	
3 x		3/8": 5,5 - 6,5 - 8 mm	
2 x		3/8": PH1 - PH2	
2 x		3/8": PZ1 - PZ2	
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		3/8": M4 - M5 - M6 - M8 - M10	
1 x		1/4": 150 mm	
1 x		1/4": 100 mm	
1 x		1/4"	
2 x		3/8": 75 - 150 mm	
1 x		3/8"	
1 x		3/8": 200 mm	



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8"

951.0699	100 pcs	Socket set	6,20
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2" - 9/16" - 13/32"	
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm	
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"	
3 x		3/8": 16 - 18 - 21 mm	
3 x		3/8": 5,5 - 6,5 - 8 mm	
2 x		3/8": PH1 - PH2	
2 x		3/8": PZ1 - PZ2	
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		3/8": M4 - M5 - M6 - M8 - M10	
1 x		1/4": 150 mm	
1 x		1/4": 100 mm	
2 x		3/8": 75 - 150 mm	
1 x		3/8"	
2 x		1/4" - 3/8"	

### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



3/8"

958.0699	100 pcs	CHROMEplus® socket set	6,20
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
10 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2" - 9/16" - 13/32"	
16 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm	
11 x		3/8": 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"	
5 x		3/8": 10 - 12 - 13 - 17 - 19 mm	
5 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8"	
3 x		3/8": 16 - 18 - 21 mm	
3 x		3/8": 5,5 - 6,5 - 8 mm	
2 x		3/8": PH1 - PH2	
2 x		3/8": PZ1 - PZ2	
5 x		3/8": 5 - 6 - 7 - 8 - 10 mm	
5 x		3/8": 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	
8 x		3/8": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		3/8": M4 - M5 - M6 - M8 - M10	
1 x		1/4": 150 mm	
1 x		1/4": 100 mm	
2 x		3/8": 75 - 150 mm	
1 x		3/8"	
2 x		1/4" - 3/8"	



### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

				kg
918.0724	124 pcs	CHROMEplus® Socket set		9,50
10 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
6 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 mm		
11 x		3/8": 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
8 x		3/8": E8 - E10 - E11 - E12 - E14 - E16 - E18 - E20		
8 x		1/2": 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm		
6 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 mm		
2 x		1/2": E22 - E24		
2 x		1/2": 16 - 21 mm		
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
2 x		3/8": 4 - 5,5 mm		
3 x		3/8": PH1 - PH2 - PH3		
3 x		3/8": PZ1 - PZ2 - PZ3		
5 x		3/8": 3 - 4 - 5 - 6 - 8 mm		
5 x		3/8": T20 - T30 - T40 - T45 - T50		
4 x		3/8": M4 - M5 - M6 - M8		
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40		
1 x		1/4"		
1 x		1/4"		
1 x		1/4": 100 mm		
2 x		3/8": 75 - 150 mm		
2 x		1/2": 125 - 250 mm		
3 x		1/4" - 3/8" - 1/2"		
2 x		1/2": F1/2" x M 3/8"		
3 x		1/4" - 3/8" - 1/2"		

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

				kg
917.0779	179 pcs	Socket set		9,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm		
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm		
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm		
1 x		3/8": 18 mm		
2 x		1/2": 16 - 21 mm		
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm		
3 x		1/4": PH0 - PH1 - PH2		
3 x		1/4": PZ0 - PZ1 - PZ2		
4 x		1/4": 3 - 4 - 5 - 6 mm		
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30		
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18		
2 x		1/2": E20 - E24		
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30		
1 x		1/4": TB7		
3 x		1/4": M5 - M6 - M8		
5 x		1/4": M5 - M6 - M7 - M8 - M9		
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45		
3 x		5/16": 8 - 10 - 12 mm		
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm		
2 x		5/16": PH3 - PH4		
2 x		5/16": PZ3 - PZ4		
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70		
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70		

7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 150 mm
1 x		1/4": 110 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8" Fx 1/2" M
3 x		1/4" - 3/8" - 1/2"

### Socket set





























- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

				kg
917.0795	195 pcs	Socket set		10,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm		
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm		
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18		
2 x		1/2": E20 - E24		
1 x		3/8": 18 mm		
2 x		1/2": 16 - 21 mm		
3 x		1/4" - 3/8" - 1/2"		
1 x		1/4" x 1/4"		
2 x		3/8" x 5/16" - 1/2" x 5/16"		



1 x		3/8" F - 1/2" M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		150 mm
3 x		1/4" - 3/8" - 1/2"
1 x		110 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
7 x		1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
3 x		1/4": PH1 - PH2 - PH3
2 x		1/4": PZ1 - PZ2
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB7 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
3 x		5/16": 8 - 10 - 12 mm












































**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0795	195 pcs	CHROMEplus® Socket set	10,00
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


13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm
5 x		1/4": E4 - E5 - E6 - E7 - E8
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18
2 x		1/2": E20 - E24
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8" F - 1/2" M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		150 mm
3 x		1/4" - 3/8" - 1/2"
1 x		110 mm
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
7 x		1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
3 x		1/4": PH1 - PH2 - PH3
2 x		1/4": PZ1 - PZ2
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB7 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
3 x		5/16": 8 - 10 - 12 mm

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0216	216 pcs	Socket set	11,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
10 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
3 x		1/2": 17 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		110 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4": 205 mm	
1 x		150 mm	
2 x		1/2": T55 - T60	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": T8 - T10 - T15 - T20 - T25 - T30	
6 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB30	
3 x		1/4": 4 - 5,5 - 6,5 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
1 x		5/16": TS50	

7 x		1,3 -1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 50 mm
4 x		1/4": PH0 - PH1 - PH2 - PH3
4 x		1/4": PZ0 - PZ1 - PZ2 - PZ3
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
3 x		1/4": 4 - 5,5 - 7 mm
3 x		1/4": M5 - M6 - M8
2 x		1/4": 6 - 8 mm
3 x		1/4": 4 - 6 - 8 mm
3 x		1/4": 1 - 2 - 3 mm
3 x		5/16": PH2 - PH3 - PH4
3 x		5/16": PZ2 - PZ3 - PZ4
6 x		5/16": T30 - T40 - T45 - T50 - T55 - T60
6 x		5/16": TB30 - TB40 - TB45 - TB50 - TB55 - TB60
4 x		5/16": 7 - 8 - 10 - 12 mm
4 x		5/16": M5 - M6 - M8 - M10
3 x		5/16": 8 - 10 - 12 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm

**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0216	216 pcs	CHROMEplus® Socket set	11,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
14 x		1/2": 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	

3 x		1/2": E20 - E22 - E24
1 x		3/8": 18 mm
2 x		1/2": 16 - 21 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
2 x		3/8" x 5/16" - 1/2" x 5/16"
1 x		3/8"F - 1/2"M
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
1 x		110 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4": 205 mm
1 x		150 mm
2 x		1/2": T55 - T60
3 x		1/4": PH0 - PH1 - PH2
3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm
4 x		1/4": 3 - 4 - 5 - 6 mm
1 x		5/16": TS50
7 x		1,3 -1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 50 mm
4 x		1/4": PH0 - PH1 - PH2 - PH3
4 x		1/4": PZ0 - PZ1 - PZ2 - PZ3
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40
8 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40
3 x		1/4": 4 - 5 - 6 mm
3 x		1/4": M5 - M6 - M8
3 x		1/4": 4 - 5,5 - 7 mm
3 x		1/4": M5 - M6 - M8
2 x		1/4": 6 - 8 mm
3 x		1/4": 4 - 6 - 8 mm
3 x		1/4": 1 - 2 - 3 mm
3 x		5/16": PH2 - PH3 - PH4
3 x		5/16": PZ2 - PZ3 - PZ4
6 x		5/16": T30 - T40 - T45 - T50 - T55 - T60
6 x		5/16": TB30 - TB40 - TB45 - TB50 TB55 - TB60
4 x		5/16": 7 - 8 - 10 - 12 mm
4 x		5/16": M5 - M6 - M8 - M10
3 x		5/16": 8 - 10 - 12 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
























**3/8" TOOL CASES & TROLLEYS**













**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



3/8"

			
911.0665	165 pcs Universal tool kit set	9,40	
17 x	 3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm		
1 x	 3/8": 150 mm		
1 x	 3/8"		
1 x	 3/8" x 1/4"		
1 x			
3 x	 150 mm		
1 x			
10 x			
1 x	 145 mm		
1 x	 300 g		
1 x	 130 - 630 mm		
1 x	 300 mm		
1 x	 1/4": 911.2060		
1 x	 1/4": 205 mm		
1 x	 3/8"		
9 x	 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
1 x	 5 m		
20 x	 100 mm		
34 x			
10 x	 8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm		












2 x	 PH00x2 - PH0x2,4 mm	
3 x	 1,4 - 2 - 2,4 mm	
3 x	 3 - 5,5 - 6,5 mm	
2 x	 PH1 - PH2	
1 x	 PZ2	
1 x	 150 - 250 V	
1 x	 0,75 - 6,0 mm	
1 x	 160 mm	
1 x	 180 mm	
1 x	 200 mm	
1 x	 240 mm	
1 x	 250 mm	

**CHROMEplus® universal tool kit set**

- 6 point
- FlankTraction profile
- Removeable plastic storage trays
- Mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



3/8"

			
918.0772	172 pcs CHROMEplus® universal tool kit set	19,00	
16 x	 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm		
2 x	 16 - 21 mm		
3 x	 5,5 - 6,5 - 8 mm		
4 x	 M4 - M5 - M6 - M8 - M10		
5 x	 5 - 6 - 7 - 8 - 10 mm		
8 x	 T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
2 x	 PH1 - PH2		
2 x	 PZ1 - PZ2		
1 x	 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
1 x	 T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50		

1 x		3/8"
1 x		3/8"
2 x		75 - 150 mm
1 x		250 mm
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm
4 x		6 x 38 mm - 3 x 75 mm 6,5 x 125 mm - 10 x 250 mm
3 x		PH 1 x 75 mm - PH 2 x 100 mm PH 2 x 38 mm
2 x		PZ 1 x 75 mm - PZ 2 x 38 mm
1 x		160 mm
1 x		165 mm
1 x		180 mm
1 x		250 mm
1 x		
1 x		13"
1 x		10"
1 x		10"
1 x		140 mm
1 x		300 g
1 x		
1 x		5 mm
1 x		12 mm
1 x		
1 x		
1 x		100 mm
1 x		max. 2 kg
1 x		
1 x		
1 x		12,5 x 200 mm



### 3/8" TOOL CHESTS

#### CHROMEplus® Universal tool kit set

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable steel tool chest



1/4" 3/8"

918.0250	99 pcs	CHROMEplus® Universal tool kit set	22,00
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
1 x		1/4": 50 mm	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4": 140 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T10 - T15 - T20 - T25 - T27 T30 - T40	
12 x		3/8": 8 - 10 - 12 - 13 - 14 - 15 - 17 - 18 - 19 - 20 - 22 - 24 mm	
2 x		3/8": 17 - 19 mm	
2 x		3/8": 16 - 21 mm	
2 x		3/8": 75 - 150 mm	
1 x		3/8": F1/4" x M 3/8"	
1 x		3/8"	
1 x		3/8": 200 mm	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm	
4 x		PH2 x 38 mm - PH1 x 75 mm PH2 x 100 mm - PH3 x 150 mm	
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		10"	
1 x		250 mm	
1 x		300 g	









**CHROMEplus® 12 Point socket set**

- 12 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/2"

918.0655	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0,72
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**12 Point socket, deep**

- 12 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	mm	D1 mm	D2 mm	L mm	T mm	g
917.1261	10,0		16,0	23,0	77,0	12,0	88
917.1285	11,0		17,0	17,0	76,0	13,0	110
917.1262	12,0		18,0	23,0	77,0	14,0	102
917.1263	13,0		19,0	23,0	77,0	16,0	109
917.1264	14,0		21,0	23,0	77,0	17,0	112
917.1265	15,0		22,0	23,0	77,0	17,0	105
917.1266	16,0		23,0	24,0	77,0	18,0	98
917.1267	17,0		24,0	24,0	77,0	18,0	140
917.1268	18,0		26,0	25,0	82,0	20,0	145
917.1269	19,0		27,0	26,0	82,0	22,0	139
917.1286	20,0		27,0	28,0	76,0	17,0	150
917.1270	21,0		29,0	29,0	82,0	24,0	156
917.1271	22,0		31,0	29,0	82,0	24,0	200
917.1272	24,0		33,0	29,0	82,0	26,0	250
917.1273	27,0		37,0	30,0	82,0	30,0	268
917.1274	30,0		41,0	33,0	82,0	33,0	333
917.1275	32,0		43,0	35,0	82,0	36,0	371
917.1276	34,0		46,0	37,0	82,0	37,0	455
917.1287		3/8"	15,0	16,0	76,0	13,0	90
917.1288		7/16"	17,0	17,0	76,0	13,0	100
917.1277		1/2"	19,0	23,0	77,0	16,0	109
917.1278		9/16"	21,0	23,0	77,0	17,0	112
917.1279		5/8"	23,0	24,0	77,0	18,0	94
917.1280		11/16"	25,0	25,0	77,0	18,0	122
917.1281		3/4"	27,0	26,0	82,0	22,0	139
917.1282		13/16"	29,0	29,0	82,0	22,0	156
917.1283		7/8"	31,0	29,0	82,0	24,0	179
917.1284		15/16"	33,0	29,0	82,0	26,0	250
917.1289		1"	35,0	34,0	76,0	19,0	270
917.5348		1.1/16"	36,5	36,5	82,0	32,0	290
917.5349		1.1/8"	38,0	38,0	82,0	32,0	300
917.5351		1.1/4"	43,0	43,0	82,0	32,0	380

**12 Point socket set, deep**

- 12 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

917.1750	10 pcs	10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 mm	1,50
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**CHROMEplus® 12 Point socket, deep**

- 12 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	mm	mm	D1 mm	D2 mm	L mm	T mm	g
918.1666	10,0		16,0	16,0	76,0	13,0	110
918.1668	11,0		17,0	17,0	76,0	13,0	110
918.1678	12,0		18,0	18,0	76,0	13,0	110
918.1679	13,0		19,0	19,0	76,0	13,0	120
918.1683	14,0		21,0	21,0	76,0	13,0	120
918.1684	15,0		22,0	22,0	76,0	15,0	140
918.1698	16,0		23,0	24,0	76,0	15,0	140
918.1711	17,0		24,0	24,0	76,0	15,0	140
918.1712	18,0		26,0	26,0	76,0	17,0	150
918.1713	19,0		27,0	27,0	76,0	17,0	150
918.1714	20,0		27,0	28,0	76,0	17,0	150
918.1715	21,0		27,0	28,0	76,0	19,0	190
918.1716	22,0		28,0	30,0	76,0	19,0	200
918.1717	24,0		30,0	32,0	76,0	19,0	250
918.1718	27,0		34,0	36,0	76,0	19,0	280
918.1719	30,0		35,0	37,0	76,0	21,0	300
918.1731	32,0		36,0	38,0	76,0	23,0	310
918.1734	34,0		45,0	36,5	76,0	37,0	430
918.1735		3/8"	15,0	16,0	76,0	13,0	90
918.1736		7/16"	17,0	17,0	76,0	13,0	100
918.1737		1/2"	19,0	19,0	76,0	13,0	120
918.1285		9/16"	21,0	21,0	76,0	13,0	109
918.1284		5/8"	22,5	24,0	76,0	16,0	120
918.1286		11/16"	25,0	24,0	76,0	17,0	150
918.1287		3/4"	30,0	27,0	76,0	17,0	180
918.1288		13/16"	28,5	28,5	76,0	22,0	195
918.1289		7/8"	31,0	30,0	76,0	19,0	240
918.1738		15/16"	33,0	32,0	76,0	19,0	212
918.1298		1"	35,0	34,0	76,0	19,0	270
918.5348		1.1/16"	36,5	36,5	82,0	32,0	290
918.5349		1.1/8"	38,0	38,0	82,0	32,0	300
918.5351		1.1/4"	43,0	43,0	82,0	32,0	380

**CHROMEplus® 12 Point socket set, deep**

- 6 point
- FlankTraction profile
- According to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail

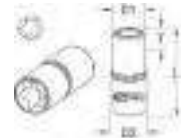


1/2"

918.0660	10 pcs	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	0,74
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**Torx E Socket**

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

		L mm	D1 mm	D2 mm	T mm	g
911.4333	E10	38,0	14,0	23,0	16,0	50
911.4334	E11	38,0	14,0	23,0	16,0	50
911.4335	E12	38,0	16,0	23,0	16,0	55
911.4336	E14	38,0	17,0	23,0	13,0	55
911.4322	E16	38,0	19,0	23,0	13,0	60
911.4323	E18	40,0	21,0	25,0	14,0	65
911.4324	E20	40,0	24,0	25,0	14,0	70
911.4325	E22	40,0	26,0	25,0	14,0	80
911.4326	E24	42,0	29,0	26,0	16,0	85

**Torx E Socket set**

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable steel storage case

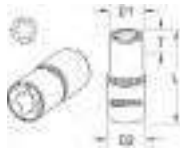


1/2"

911.4410	9 pcs	E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1,00
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### CHROMEplus® Torx E Socket

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		L mm	D1 mm	D2 mm	T mm	
918.1276	E10	38,0	14,0	23,0	16,0	50
918.1733	E11	38,0	14,0	23,0	16,0	50
918.1278	E12	38,0	16,0	23,0	16,0	55
918.1277	E14	38,0	17,0	23,0	13,0	55
918.1280	E16	38,0	19,0	23,0	13,0	60
918.1281	E18	40,0	21,0	25,0	14,0	65
918.1282	E20	40,0	24,0	25,0	14,0	70
918.1294	E22	40,0	26,0	25,0	14,0	80
918.1295	E24	42,0	29,0	26,0	16,0	85

### CHROMEplus® Torx E Socket set

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable steel storage case



1/2"

918.4410	8 pcs	E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1,00

### Torx E Socket, deep

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

		L mm	D1 mm	D2 mm	T mm	
911.4423	E10	78,0	14,0	25,0	8,0	100

		L mm	D1 mm	D2 mm	T mm	
911.4424	E11	78,0	15,0	25,0	12,0	100
911.4425	E12	78,0	16,0	25,0	12,0	110
911.4426	E14	78,0	17,0	25,0	13,0	100
911.4427	E16	78,0	18,0	25,0	14,0	115
911.4428	E18	78,0	20,0	25,0	16,0	130
911.4429	E20	78,0	24,0	25,0	17,0	160
911.4430	E22	78,0	26,0	25,0	17,0	195
911.4431	E24	78,0	28,0	25,0	18,0	230

### Torx E Socket set, deep

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/2"

911.4420	8 pcs	E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1,00

### CHROMEplus® Torx E Socket, deep

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		L mm	D1 mm	D2 mm	T mm	
918.1761	E10	78,0	14,0	25,0	8,0	100
918.1762	E11	78,0	15,0	25,0	12,0	100
918.1763	E12	78,0	16,0	25,0	12,0	110
918.1764	E14	78,0	17,0	25,0	13,0	100
918.1765	E16	78,0	18,0	25,0	14,0	115
918.1766	E18	78,0	20,0	25,0	16,0	130
918.1767	E20	78,0	24,0	25,0	17,0	160
918.1768	E22	78,0	26,0	25,0	17,0	195
918.1769	E24	78,0	28,0	25,0	18,0	230



### CHROMEplus® Torx E Socket set, deep

- Torx E
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/2"

918.4420	8 pcs	E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24	1,00

### 1/2" INSERTABLE OPEN-ENDED WRENCH

#### Insertable open-ended wrench

- For tightening and loosening pipe connections
- For manual operation
- Internal square drive adaptor to DIN 3120 / ISO 1174
- Special tool steel



913.1941	3/8"	18	140
913.1942	3/8"	22	150
913.1943	3/8"	24	160
913.1944	1/2"	27	170
913.1945	1/2"	32	180
913.1946	1/2"	34	220
913.1947	1/2"	36	230
913.1948	1/2"	37	240
913.1949	1/2"	38	280
913.1950	1/2"	41	380



### 12 point crawfoot wrench

- 12 point
- For tightening and loosening pipe connections
- For manual operation
- Slim execution
- For difficult to access areas
- Burnished
- Special tool steel
- In durable plastic storage case



	□	mm	g
913.1302	1/2"	21	94
913.1303	1/2"	22	112
913.1304	1/2"	24	120
913.1305	1/2"	27	153
913.1306	1/2"	30	170
913.1307	1/2"	32	168

### 12 point crawfoot wrench set

- 12 point
- Internal square drive
- For tightening and loosening pipe connections
- For manual operation
- Slim execution
- For difficult to access areas
- Burnished
- Special tool steel
- In durable plastic storage case



	g
913.1300 10 pcs 12 point crawfoot wrench set	2,14

consists of:

	g
913.1301 3/8" 12 point crawfoot wrench, 19mm	62
913.1302 1/2" 12 point crawfoot wrench, 21mm	94
913.1303 1/2" 12 point crawfoot wrench, 22mm	112
913.1304 1/2" 12 point crawfoot wrench, 24mm	120
913.1305 1/2" 12 point crawfoot wrench, 27mm	153
913.1306 1/2" 12 point crawfoot wrench, 30mm	170
913.1307 1/2" 12 point crawfoot wrench, 32mm	168
913.1308 3/4" 12 point crawfoot wrench, 36mm	337
913.1309 3/4" 12 point crawfoot wrench, 41mm	400
913.1310 3/4" 12 point crawfoot wrench, 46mm	632

### 1/2" SPARK PLUG SOCKETS

#### Socket for spark plugs

- DIN 3124 / ISO 3315
- FlankTraction profile
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the spark plugs
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



	Profile	mm	D1 mm	D2 mm	L mm	T mm	g
911.1590	○	14,0	22,0	22,0	65,0	16,0	60
911.1205	○	16,0	22,0	22,0	65,0	26,0	60
911.1512	○	18,0	26,0	21,0	65,0	23,0	60
911.1206	○	21,0	28,0	24,0	65,0	26,0	60
911.1513	○	13/16"	28,0	24,0	65,0	23,0	60
911.1514	○	5/8"	22,0	22,0	65,0	18,0	60

#### CHROMEplus® spark plug-socket

- DIN 3124 / ISO 3315
- FlankTraction profile
- Internal square to DIN 3120 / ISO 1174 with ball reception
- With rubber stop for holding the spark plugs
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



	Profile	mm	D1 mm	D2 mm	L mm	T mm	g
918.1390	○	14,0	22,0	22,0	65,0	16,0	60
918.1205	○	16,0	22,0	22,0	65,0	26,0	60
918.1207	○	18,0	26,0	21,0	65,0	23,0	60
918.1206	○	21,0	28,0	24,0	65,0	26,0	60
918.1391	○	5/8"	28,0	24,0	65,0	23,0	60
918.1392	○	13/16"	22,0	22,0	65,0	18,0	60

### 1/2" BIT SOCKETS

#### Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
917.1391	6,5	23,0	60,0	22,0	50
917.5343	7,0	23,0	60,0	22,0	50
917.1392	8,0	23,0	60,0	22,0	55
917.1393	10,0	23,0	60,0	22,0	60
917.1394	12,0	23,0	60,0	22,0	65
917.1395	14,0	25,0	60,0	20,0	80
917.1396	16,0	28,0	60,0	20,0	95
917.1311	18,0	27,0	60,0	20,0	110

#### CHROMEplus® Bit socket for slotted screws

- Slotted
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.5342	6,5	23,0	60,0	22,0	50
918.1790	7,0	23,0	60,0	22,0	50
918.1791	8,0	23,0	60,0	22,0	55
918.1792	10,0	23,0	60,0	22,0	60
918.1793	12,0	23,0	60,0	22,0	65
918.1794	14,0	25,0	60,0	20,0	80
918.1795	16,0	28,0	60,0	20,0	95
918.1796	18,0	27,0	60,0	20,0	110

#### Bit socket for phillips screws PH

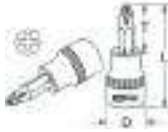
- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
917.1397	PH 1	24,0	55,0	18,0	80
917.1398	PH 2	24,0	55,0	18,0	80
917.1399	PH 3	24,0	55,0	18,0	80
917.1301	PH 4	24,0	55,0	18,0	80

### CHROMEplus® Bit socket for phillips screws PH

- PH
- For Phillips head screw
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
918.1635	PH 1	24,0	55,0	18,0	80
918.1636	PH 2	24,0	55,0	18,0	80
918.1637	PH 3	24,0	55,0	18,0	80
918.1739	PH 4	24,0	55,0	18,0	80

### Bit socket for phillips screws PH, long

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
917.1388	PH 1	22,0	110,0	72,0	120
917.1389	PH 2	22,0	110,0	72,0	120
917.1390	PH 3	22,0	110,0	72,0	120
917.1302	PH 4	22,0	110,0	72,0	125

### CHROMEplus® Bit socket for phillips screws PH, long

- PH
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
918.1685	PH 1	22,0	110,0	72,0	120
918.1686	PH 2	22,0	110,0	72,0	120
918.1687	PH 3	22,0	110,0	72,0	120
918.1756	PH 4	22,0	110,0	72,0	125

### Bit socket for pozidriv screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
917.1697	PZ 1	24,0	55,0	18,0	80
917.1698	PZ 2	24,0	55,0	18,0	80
917.1699	PZ 3	24,0	55,0	18,0	80
917.1303	PZ 4	24,0	55,0	18,0	85

### CHROMEplus® Bit socket for pozidriv screws PZ

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
918.1680	PZ 1	24,0	55,0	18,0	70
918.1681	PZ 2	24,0	55,0	18,0	70
918.1682	PZ 3	24,0	55,0	18,0	70
918.1757	PZ 4	24,0	55,0	18,0	85

### Bit socket for pozidriv screws PZ, long

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- Long execution
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
917.1325	PZ 1	21,0	110,0	72,0	110
917.1326	PZ 2	21,0	110,0	72,0	110
917.1327	PZ 3	21,0	110,0	72,0	110
917.1305	PZ 4	21,0	110,0	72,0	110

### CHROMEplus® Bit socket for pozidriv screws PZ, long

- PZ
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- Long execution
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		D mm	L mm	T mm	g
918.1688	PZ 1	22,0	110,0	72,0	110
918.1689	PZ 2	22,0	110,0	72,0	110
918.1690	PZ 3	22,0	110,0	72,0	110
918.1758	PZ 4	21,0	110,0	72,0	110

### Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	mm	D mm	L mm	T mm	g
911.1304	4,0		22,0	55,0	17,0	68
911.1305	5,0		22,0	55,0	17,0	68
911.1306	6,0		22,0	55,0	17,0	68
911.1307	7,0		22,0	55,0	17,0	70
911.1308	8,0		22,0	55,0	17,0	71
911.1309	9,0		22,0	55,0	17,0	74
911.1310	10,0		22,0	55,0	17,0	76
911.5301	11,0		22,0	55,0	17,0	80
911.1312	12,0		22,0	55,0	17,0	88
911.5302	13,0		22,0	90,0	17,0	90
911.1314	14,0		22,0	55,0	17,0	113
911.1317	17,0		22,0	55,0	17,0	150
911.1319	19,0		22,0	55,0	17,0	182
911.1322	22,0		22,0	55,0	17,0	195
911.1324	24,0		22,0	55,0	17,0	210
917.1316		3/16"	22,0	55,0	17,0	70
917.1317		7/32"	22,0	55,0	17,0	70
917.1318		1/4"	22,0	55,0	17,0	70
917.1319		9/32"	22,0	55,0	17,0	70
917.1320		5/16"	22,0	55,0	17,0	70
917.1321		3/8"	22,0	55,0	17,0	74
917.1322		1/2"	22,0	55,0	17,0	80
917.1323		9/16"	22,0	55,0	17,0	115
917.1324		5/8"	22,0	55,0	17,0	148
911.5304		3/4"	22,0	55,0	17,0	180



### Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

				kg
911.1320	7 pcs	5 - 6 - 7 - 8 - 10 - 12 - 14 mm		0,65

### Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- In durable steel storage case

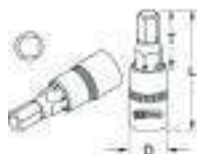


1/2"

				kg
911.1321	9 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm		2,30

### CHROMEplus® Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g
918.1604	4,0	22,0	55,0	17,0	70
918.1605	5,0	22,0	55,0	17,0	70
918.1606	6,0	22,0	55,0	17,0	70
918.1607	7,0	22,0	55,0	17,0	70
918.1608	8,0	22,0	55,0	17,0	70
918.1609	9,0	22,0	55,0	17,0	70

	mm	D mm	L mm	T mm	g
918.1610	10,0	22,0	55,0	17,0	80
918.5301	11,0	22,0	55,0	17,0	80
918.1612	12,0	22,0	55,0	17,0	100
918.5302	13,0	22,0	55,0	17,0	90
918.1614	14,0	22,0	55,0	17,0	110
918.1617	17,0	22,0	55,0	17,0	150
918.1619	19,0	22,0	55,0	17,0	170
918.1631	22,0	22,0	55,0	17,0	180
918.1633	24,0	22,0	55,0	17,0	190
918.1701	3/16"	22,0	55,0	17,0	60
918.1702	7/32"	22,0	55,0	17,0	70
918.1703	1/4"	22,0	55,0	17,0	70
918.1704	9/32"	22,0	55,0	17,0	70
918.1705	5/16"	22,0	55,0	17,0	85
918.1706	3/8"	22,0	55,0	17,0	90
918.1707	1/2"	22,0	55,0	17,0	100
918.1708	9/16"	22,0	55,0	17,0	110
918.1709	5/8"	22,0	55,0	17,0	150
918.5304	3/4"	22,0	55,0	17,0	180

### CHROMEplus® Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/2"

				kg
918.1335	7 pcs	5 - 6 - 7 - 8 - 10 - 12 - 14 mm		0,65

### CHROMEplus® Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable steel storage case



1/2"

				kg
918.1330	9 pcs	4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm		2,30



### Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g
917.1331	4,0	22,0	110,0	72,0	103
911.1325	5,0	22,0	110,0	72,0	105
911.1326	6,0	22,0	110,0	72,0	106
911.1327	7,0	22,0	110,0	72,0	108
911.1328	8,0	22,0	110,0	72,0	108
911.1329	9,0	22,0	110,0	72,0	110
911.1330	10,0	22,0	110,0	72,0	112
911.5353	11,0	22,0	110,0	72,0	115
911.1332	12,0	22,0	110,0	72,0	140
911.5354	13,0	22,0	110,0	72,0	142
917.1332	14,0	24,0	110,0	72,0	185
911.1337	17,0	26,0	110,0	72,0	255
911.1339	19,0	28,0	110,0	72,0	315

### Bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

				kg
911.1336	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm		0,75

### CHROMEplus® Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	mm	D mm	L mm	T mm	g
918.1654	4,0	22,0	110,0	72,0	103
918.1655	5,0	22,0	110,0	72,0	105
918.1656	6,0	22,0	110,0	72,0	106
918.1657	7,0	22,0	110,0	72,0	108
918.1658	8,0	22,0	110,0	72,0	108
918.1659	9,0	22,0	110,0	72,0	110
918.1660	10,0	22,0	110,0	72,0	112
918.1831	11,0	22,0	110,0	72,0	115
918.1662	12,0	22,0	110,0	72,0	140
918.1832	11,0	22,0	110,0	72,0	142
918.1664	14,0	22,0	110,0	72,0	185
918.1667	17,0	22,0	110,0	72,0	255
918.1669	19,0	22,0	110,0	72,0	315

### CHROMEplus® Bit socket set for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
918.1336	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm			0,88

### Bit socket for hexagon screws with ball end, long

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.1655	5,0	22,0	110,0	72,0	105
911.5312	5,0	22,0	240,0	122,0	200
911.1656	6,0	22,0	110,0	72,0	105
911.5315	6,0	22,0	200,0	202,0	200
911.5313	6,0	22,0	240,0	202,0	200
911.1657	7,0	22,0	110,0	72,0	107
911.1658	8,0	22,0	110,0	72,0	107
911.5316	8,0	22,0	200,0	162,0	200
911.5314	8,0	22,0	240,0	202,0	200
911.1659	9,0	22,0	110,0	72,0	110
911.1660	10,0	22,0	110,0	72,0	112
911.5317	10,0	22,0	200,0	162,0	210
911.1662	12,0	22,0	110,0	72,0	138
911.5318	12,0	22,0	200,0	162,0	220
911.5319	14,0	24,0	200,0	162,0	250
911.1667	17,0	26,0	110,0	72,0	249
911.1669	19,0	28,0	110,0	72,0	302



### Bit socket set for hexagon screws, long

- For Hexagon screws
- With ball end
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
911.1650	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm			0,88

### CHROMEplus® Bit socket for hexagon screws with ball end, long

- Ball end hexagon socket
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	mm	D mm	L mm	T mm	g
918.1771	5,0	22,0	110,0	72,0	104
918.5312	5,0	22,0	240,0	122,0	175
918.1772	6,0	22,0	110,0	72,0	105
918.5315	6,0	22,0	200,0	202,0	150
918.5313	6,0	22,0	240,0	202,0	180
918.1773	7,0	22,0	110,0	72,0	106
918.1774	8,0	22,0	110,0	72,0	107
918.5316	8,0	22,0	200,0	162,0	155
918.5314	8,0	22,0	240,0	202,0	190
918.1775	9,0	22,0	110,0	72,0	130
918.1776	10,0	22,0	110,0	72,0	130
918.5317	10,0	22,0	200,0	162,0	162
918.1777	12,0	22,0	110,0	72,0	138
918.5318	12,0	22,0	200,0	162,0	165
918.5319	14,0	24,0	200,0	162,0	170
918.1778	17,0	22,0	110,0	72,0	248
918.1779	19,0	22,0	110,0	72,0	300

### CHROMEplus® Bit socket set for hexagon screws, long

- For Hexagon screws
- With ball end
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	mm	D mm	L mm	T mm	g
918.1665	6 pcs	5 - 6 - 7 - 8 - 10 - 12 mm			0,88

### Bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
917.1333	T10	22,0	55,0	17,0	80
917.1334	T15	22,0	55,0	17,0	80
911.1361	T20	22,0	55,0	17,0	70
911.1362	T25	22,0	55,0	17,0	700
911.1363	T27	22,0	55,0	17,0	710
911.1364	T30	22,0	55,0	17,0	710
911.1365	T40	22,0	55,0	17,0	730
911.1366	T45	22,0	55,0	17,0	90
911.1367	T50	22,0	55,0	17,0	90
911.1368	T55	22,0	55,0	17,0	770
911.1369	T60	22,0	55,0	17,0	90
911.1370	T70	22,0	55,0	17,0	110



### Bit socket set for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- In durable steel storage case



1/2"				
911.1385	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60		1,50

### CHROMEplus® Bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.1620	T10	22,0	55,0	17,0	67
918.1621	T15	22,0	55,0	17,0	67
918.1622	T20	22,0	55,0	17,0	67
918.1623	T25	22,0	55,0	17,0	67
918.1624	T27	22,0	55,0	17,0	67
918.1625	T30	22,0	55,0	17,0	68
918.1626	T40	22,0	55,0	17,0	69
918.1627	T45	22,0	55,0	17,0	70
918.1628	T50	22,0	55,0	17,0	70
918.1629	T55	22,0	55,0	17,0	73
918.1630	T60	22,0	55,0	17,0	86
918.1632	T70	22,0	55,0	17,0	110

### CHROMEplus® Bit socket set for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable steel storage case



1/2"				
918.1385	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60		1,50

### Bit socket for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
911.1518	T10	22,0	110,0	72,0	102
911.1519	T15	22,0	110,0	72,0	102
911.1521	T20	22,0	110,0	72,0	104
911.1522	T25	22,0	110,0	72,0	104
911.1523	T27	22,0	110,0	72,0	104
911.1524	T30	22,0	110,0	72,0	105
911.1525	T40	22,0	110,0	72,0	105
911.1526	T45	22,0	110,0	72,0	109
911.1527	T50	22,0	110,0	72,0	108
911.1528	T55	22,0	110,0	72,0	110
911.1529	T60	22,0	110,0	72,0	135
911.1517	T70		110,0	72,0	180
911.5308	T80	26,0	110,0	72,0	240

### Bit socket set for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"				
911.1520	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60		1,24

### CHROMEplus® Bit socket for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	
918.1640	T10	22,0	110,0	72,0	120

		D mm	L mm	T mm	
918.1641	T15	22,0	110,0	72,0	120
918.1642	T20	22,0	110,0	72,0	120
918.1643	T25	22,0	110,0	72,0	120
918.1644	T27	22,0	110,0	72,0	120
918.1645	T30	22,0	110,0	72,0	120
918.1646	T40	22,0	110,0	72,0	120
918.1647	T45	22,0	110,0	72,0	120
918.1648	T50	22,0	110,0	72,0	120
918.1649	T55	22,0	110,0	72,0	130
918.1650	T60	22,0	110,0	72,0	150
918.1651	T70	22,0	110,0	72,0	180
918.5308	T80	22,0	110,0	72,0	240

### CHROMEplus® Bit socket set for Torx screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/2"				
918.1317	9 pcs	T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60		1,24

### Bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	
917.1335	TB10	22,0	55,0	17,0	65
917.1336	TB15	22,0	55,0	17,0	66
911.1371	TB20	22,0	55,0	17,0	90
911.1372	TB25	22,0	55,0	17,0	90
911.1373	TB27	22,0	55,0	17,0	90
911.1374	TB30	22,0	55,0	17,0	90
911.1375	TB40	22,0	55,0	17,0	90
911.1376	TB45	22,0	55,0	17,0	90
911.1377	TB50	22,0	55,0	17,0	90
911.1378	TB55	22,0	55,0	17,0	90
911.1379	TB60	22,0	55,0	17,0	90
911.1380	TB70	22,0	55,0	17,0	107



### Bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- In durable steel storage case



		9		
911.1386	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1,50	

### CHROMEplus® Bit socket for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	9
918.1720	TB10	18,0	55,0	24,0	80
918.1721	TB15	18,0	55,0	24,0	80
918.1722	TB20	18,0	55,0	24,0	68
918.1723	TB25	18,0	55,0	24,0	68
918.1724	TB27	18,0	55,0	24,0	68
918.1725	TB30	18,0	55,0	24,0	68
918.1726	TB40	18,0	55,0	24,0	69
918.1727	TB45	18,0	55,0	24,0	70
918.1728	TB50	18,0	55,0	24,0	70
918.1729	TB55	18,0	55,0	24,0	72
918.1730	TB60	18,0	55,0	24,0	84
918.1732	TB70	18,0	55,0	24,0	107

### CHROMEplus® Bit socket set for Torx tamperproof screws

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Short execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable steel storage case



		9		
918.1386	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1,50	

### Bit socket for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	9
917.1291	TB10	22,0	110,0	72,0	115
917.1292	TB15	22,0	110,0	72,0	115
917.1293	TB20	22,0	110,0	72,0	120
917.1294	TB25	22,0	110,0	72,0	120
917.1295	TB27	22,0	110,0	72,0	120
917.1296	TB30	22,0	110,0	72,0	130
917.1297	TB40	22,0	110,0	72,0	130
917.1298	TB45	22,0	110,0	72,0	130
917.1299	TB50	22,0	110,0	72,0	150
917.1251	TB55	22,0	110,0	72,0	150
917.1253	TB60	22,0	110,0	72,0	150
917.1304	TB70	22,0	110,0	72,0	155

### Bit socket set for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



		9		
917.1790	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1,50	

### CHROMEplus® Bit socket for Torx tamperproof screws, long

- For tamperproof Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



		D mm	L mm	T mm	9
918.1740	TB10	22,0	110,0	72,0	115
918.1741	TB15	22,0	110,0	72,0	115
918.1742	TB20	22,0	110,0	72,0	120
918.1743	TB25	22,0	110,0	72,0	120

		D mm	L mm	T mm	9
918.1744	TB27	22,0	110,0	72,0	120
918.1745	TB30	22,0	110,0	72,0	130
918.1746	TB40	22,0	110,0	72,0	130
918.1747	TB45	22,0	110,0	72,0	130
918.1748	TB50	22,0	110,0	72,0	150
918.1749	TB55	22,0	110,0	72,0	150
918.1750	TB60	22,0	110,0	72,0	150
918.1759	TB70	22,0	110,0	72,0	155

### CHROMEplus® Bit socket set for Torx tamperproof screws, long

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



		9		
918.1890	9 pcs	TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	1,50	

### Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	9
911.5305	M4	22,0	55,0	17,0	65
911.1340	M5	22,0	55,0	17,0	68
911.1341	M6	22,0	55,0	17,0	69
911.1347	M7	22,0	55,0	17,0	69
911.1342	M8	22,0	55,0	17,0	71
911.1313	M9	22,0	55,0	17,0	71
911.1343	M10	22,0	55,0	17,0	72
911.1344	M12	22,0	55,0	17,0	85
911.1345	M14	24,0	55,0	17,0	105
911.1346	M16	26,0	55,0	17,0	140
911.5306	M17	22,0	55,0	17,0	143
911.5307	M18	22,0	55,0	17,0	145

### Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



		9		
911.1349	6 pcs	M5 - M6 - M8 - M10 - M12 - M14	0,59	

### CHROMEplus® Bit socket for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	D mm	L mm	T mm	g	
918.5305	M4	22,0	55,0	17,0	65
918.1671	M5	22,0	55,0	17,0	70
918.1672	M6	22,0	55,0	17,0	70
918.1673	M8	22,0	55,0	17,0	70
918.1797	M9	22,0	55,0	17,0	95
918.1674	M10	22,0	55,0	17,0	80
918.1675	M12	22,0	55,0	17,0	100
918.1676	M14	22,0	55,0	17,0	110
918.1677	M16	22,0	55,0	17,0	140
918.5306	M17	26,0	55,0	17,0	143
918.5307	M18	28,0	55,0	17,0	145

### CHROMEplus® Bit socket set for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/2"

	D mm	L mm	T mm	g
918.1349	6 pcs	M5 - M6 - M8 - M10 - M12 - M14		0,59

### Bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- For loosening and tightening cylinder head screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	D mm	L mm	T mm	g	
911.1350	M5	22,0	110,0	72,0	107
911.1351	M6	22,0	110,0	72,0	109
911.1352	M8	22,0	110,0	72,0	109
911.1359	M9	22,0	110,0	72,0	112
911.1353	M10	22,0	110,0	72,0	112
911.1354	M12	22,0	110,0	72,0	138
911.1355	M14	22,0	110,0	72,0	179
911.1356	M16	22,0	110,0	72,0	250

### Bit socket set for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

	D mm	L mm	T mm	g
911.1358	6 pcs	M5 - M6 - M8 - M10 - M12 - M14		0,75

### CHROMEplus® Bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	D mm	L mm	T mm	g	
918.1691	M5	22,0	110,0	72,0	120
918.1692	M6	22,0	110,0	72,0	120
918.1693	M8	22,0	110,0	72,0	120
918.1699	M9	22,0	110,0	72,0	130
918.1694	M10	22,0	110,0	72,0	120
918.1695	M12	22,0	110,0	72,0	150
918.1696	M14	22,0	110,0	72,0	180
918.1697	M16	22,0	110,0	72,0	190

### CHROMEplus® Bit socket set for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



1/2"

	D mm	L mm	T mm	g
918.1358	6 pcs	M5 - M6 - M8 - M10 - M12 - M14		0,93

### Bit socket for RIBE® screws, long

- RIBE®
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	D mm	L mm	D mm	T mm	g
911.1921	M5	110,0	22,0	10,0	108
911.1922	M6	110,0	22,0	10,0	108
911.1923	M7	110,0	22,0	10,0	109
911.1993	M7	240,0	22,0	10,0	175
911.1924	M8	110,0	22,0	10,0	109
911.1994	M8	240,0	22,0	10,0	175
911.1925	M9	110,0	22,0	10,0	112
911.1926	M10	110,0	22,0	10,0	112
911.1980	M10	140,0	22,0	10,0	194
911.1995	M12	110,0	24,0	14,0	175
911.1996	M13	110,0	24,0	14,0	175
911.1997	M14	110,0	24,0	14,0	175

### Bit socket set for RIBE® screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



1/2"

	D mm	L mm	T mm	g
911.1335	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14		1,20

### CHROMEplus® RIBE® Bit socket

- RIBE®
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	D	D mm	L mm	T mm	
918.1806	M5	22,0	110,0	10,0	103
918.1807	M6	22,0	110,0	10,0	104
918.1808	M7	22,0	110,0	10,0	105
918.1811	M7	22,0	240,0	10,0	175
918.1809	M8	22,0	110,0	10,0	106
918.1812	M8	22,0	240,0	10,0	175
918.1810	M9	22,0	110,0	10,0	108
918.1818	M10	22,0	110,0	10,0	109
918.5309	M10	22,0	240,0	10,0	194
918.1813	M12	24,0	110,0	14,0	175
918.1814	M13	24,0	110,0	14,0	175
918.1815	M14	24,0	110,0	14,0	175

### CHROMEplus® Bit socket set for RIBE® screws, long

- RIBE®
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	D	D mm	L mm	T mm	
918.1340	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14		1,20	

### RIBE® Bit socket for tamperproof screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	D	D mm	L mm	T mm	
911.3951	M5	22,0	110,0	72,0	120
911.3952	M6	22,0	110,0	72,0	120
911.3953	M7	22,0	110,0	72,0	120
911.3954	M8	22,0	110,0	72,0	120
911.3955	M9	22,0	110,0	72,0	130
911.3956	M10	22,0	110,0	72,0	130
911.3957	M12	22,0	110,0	72,0	150
911.3958	M13	22,0	110,0	72,0	180
911.3959	M14	22,0	110,0	72,0	180



### RIBE® Bit socket set for tamperproof screws, long

- For tamperproof RIBE® profile
- RIBE® profile for tamperproof screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- With press fitted insert bit
- For manual operation
- Matt finish
- Chrome vanadium
- Includes storage rail



	D	D mm	L mm	T mm	
911.1630	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14		1,24	

### CHROMEplus® RIBE® Bit socket for tamperproof screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium



	D	D mm	L mm	T mm	
918.1780	M5	22,0	110,0	72,0	120
918.1781	M6	22,0	110,0	72,0	120
918.1782	M7	22,0	110,0	72,0	120
918.1783	M8	22,0	110,0	72,0	120
918.1784	M9	22,0	110,0	72,0	130
918.1785	M10	22,0	110,0	72,0	130
918.1786	M12	22,0	110,0	72,0	150
918.1787	M13	22,0	110,0	72,0	180
918.1788	M14	22,0	110,0	72,0	180

### CHROMEplus® RIBE® bit socket set for tamperproof screws, long

- For tamperproof RIBE® profile
- RIBE® profile for tamperproof screws
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Mirror polished
- Chrome vanadium
- Includes storage rail



	D	D mm	L mm	T mm	
918.1895	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14		1,24	

### CHROMEplus® Bit socket set

- Mirror polished
- Chrome vanadium
- In durable plastic storage case



	D	D mm	L mm	T mm	
918.1752	32 pcs	CHROMEplus® Bit socket set		6,30	
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
4 x		6 - 8 - 10 - 12 mm			
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
4 x		T30 - T40 - T50 - T60			
4 x		M5 - M6 - M8 - M10			
4 x		M6 - M8 - M10 - M12			

### GO THROUGH SOCKETS

#### 19 mm TRIPLEplus® Go through reversing ratchet

- 19 mm Hexagon drive
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- Extremely slim head
- Two component handle with soft zone
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	
918.4051	12,0	34,0	205,0	190

#### 19 mm TRIPLEplus® Go through extension

- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- Matt finish
- Chrome vanadium

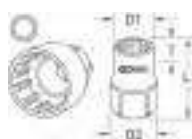


	A mm	D mm	L mm	
918.4052	19,0		75,0	110



**19 mm TRIPLEplus® Go through socket**

- TRIPLEplus® Profile
- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- Matt finish
- Chrome vanadium



**TRIPLEplus® Go through socket set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



	mm	L mm	D1 mm	D2 mm	T mm	kg
916.4060	10,0	32,0	16,0	16,0	12,0	40
916.4061	11,0	32,0	17,0	17,0	12,0	40
916.4062	12,0	32,0	18,0	18,0	12,0	40
916.4063	13,0	32,0	19,0	19,0	12,0	40
916.4064	14,0	32,0	21,0	21,0	12,0	40
916.4065	15,0	32,0	22,0	22,0	12,0	40
916.4066	16,0	32,0	24,0	24,0	12,0	40
916.4067	17,0	32,0	25,0	25,0	12,0	40
916.4068	18,0	32,0	26,0	26,0	12,0	40
916.4069	19,0	32,0	27,0	27,0	12,0	40
916.4071	21,0	32,0	29,0	29,0	12,0	40
916.4072	22,0	32,0	31,0	31,0	12,0	50
916.4074	24,0	32,0	33,0	33,0	12,0	50

**19 mm TRIPLEplus® Go through socket adaptor**

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation TRIPLEplus® go through reversing ratchet 918.4051
- With a push button quick release function
- Matt finish
- Chrome vanadium



3/8" 1/2"

	mm	L mm	kg
918.4053	3/8"	28,0	40
918.4054	1/2"	35,0	50



**CHROMEplus® Bit adaptor socket**

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 5/16" Bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	mm	L mm	D1 mm	D2 mm	T mm	kg	
918.1266	1/2"	5/16"	38,0	17,0	22,0	15,0	50

**Bit adaptor socket with clamping ring**

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 10 mm Bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	L mm	D1 mm	D2 mm	T mm	kg	
911.4312	1/2"	10mm	40,0	17,0	22,0	15,0	50
911.4351	1/2"	5/16"	38,0	17,0	22,0	20,0	25

**CHROMEplus® Bit adaptor socket with clamping ring**

- Clamping ring
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 10 mm Bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	mm	L mm	D1 mm	D2 mm	T mm	kg	
918.1271	1/2"	10mm	35,0	17,0	22,0	15,0	40
918.4351	1/2"	5/16"	38,0	17,0	22,0	14,0	59

**1/2" ADAPTERS**

**Bit adaptor socket**

- Internal square to DIN 3120 / ISO 1174 with ball reception
- For 5/16" bits with external hexagon drive to DIN 3126 / ISO 1173
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	L mm	D1 mm	D2 mm	T mm	kg	
911.1253	1/2"	5/16"	40,0	16,0	22,0	14,0	50

### Adaptor and reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

			L mm	
911.1233	1/2"	3/8"	46,0	50
911.1234	1/2"	3/4"	46,0	140

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

			L mm	
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66

### CHROMEplus® Adaptor and reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

			L mm	
918.1753	1/2"	3/8"	46,0	50
918.1754	1/2"	3/4"	46,0	140

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

			L mm	
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66

### Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- Also usably as adaptors and/or reducing adaptors Reducing adaptor
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

			L mm	
911.1207	3/8"	1/2"	40,0	60

### CHROMEplus® Sliding adaptor and reducing adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- To the use with extensions
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

			L mm	
918.1261	3/8"	1/2"	40,0	70

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

917.0707	7 pcs	Adaptor and reducing adaptor set	660

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm	30
911.1494	Adaptor, 1/4" M x 3/8" F	30
911.3892	Adaptor, 3/8" F x 1/2" M	60
911.1234	Adaptor, 1/2" F x 3/4" M	140
911.3897	Reducing adaptor, 3/8" F x 1/4" M	60
911.1233	Reducing adaptor, 1/2" F x 3/8" M	50
911.3412	Reducing adaptor 3/4" F x 1/2" M	195

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

918.0707	7 pcs	CHROMEplus® adaptor and reducing adaptor set	660

consists of:

514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm	30
918.1753	1/2" CHROMEplus Reducing adaptor, 1/2"F x 3/8"M	50
918.1501	1/4" CHROMEplus Adaptor, 1/4"Fx3/8"M	30
918.1754	1/2" CHROMEplus Adaptor, 1/2"Fx3/4"M	140
918.3930	3/8" CHROMEplus Reducing adaptor, 3/8"F x 1/4"M	60
918.3931	3/8" CHROMEplus Adaptor, 3/8"Fx1/2"M	60
918.3412	CHROMEplus Reducing adaptor 3/4"F x 1/2"M	195

1/2" UNIVERSAL JOINTS

Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- Matt finish
- Chrome vanadium

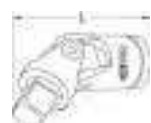


1/2"

			L mm	
911.1250	1/2"	1/2"	73,0	160

CHROMEplus® Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

			L mm	
918.1250	1/2"	1/2"	73,0	170



Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Matt finish
- Chrome vanadium



1/2"

			L mm	
917.1250	1/2"	1/2"	70,0	160

CHROMEplus® Power universal ball joint

- Ideal for use with electric screwdriver
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very low running rotation
- New joint construction
- Outstanding use of angles up to 45°
- Very breakage resistant
- Can be used by hand or with an electric screwdriver
- Mirror polished
- Chrome vanadium



1/2"

			L mm	
919.1250	1/2"	1/2"	70,0	160

1/2" T-HANDLES

Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium

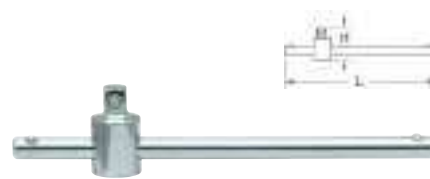


1/2"

	H mm	L mm	
911.1204	42,0	250,0	440

CHROMEplus® Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	H mm	L mm	
918.1263	42,0	250,0	360

1/2" EXTENSIONS

Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	L mm	
911.1235	50,0	0,10
911.1201	75,0	0,12
911.1202	125,0	0,18
911.1315	180,0	0,26
911.1203	250,0	0,38
911.1316	305,0	0,41
911.1835	375,0	0,57
911.1833	500,0	0,75
911.1834	700,0	1,10

Extension set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Hexagon drive
- For manual operation
- Matt finish
- Chrome vanadium



1/4" 3/8" 1/2"

911.0007	9 pcs Extension set	1,22
3 x	1/4" : 50 - 100 - 250 mm	
4 x	3/8" : 45 - 75 - 150 - 200 mm	
2 x	1/2" : 125 - 250 mm	

### CHROMEplus® Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	L mm	g
918.1274	50,0	90
918.1279	75,0	120
918.1202	125,0	180
918.1816	180,0	260
918.1203	250,0	420
918.1817	305,0	410

### CHROMEplus® Extension set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		L mm	g
918.0007	9 pcs	CHROMEplus® Extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

### Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	L mm	g
911.1381	50,0	90
911.1382	75,0	120
911.1383	125,0	180
911.1318	180,0	260
911.1384	250,0	340
911.1323	305,0	410
911.1838	375,0	580
911.1836	500,0	770
911.1837	700,0	1200

### Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Matt finish
- Chrome vanadium



1/4" 3/8" 1/2"

		L mm	g
911.0009	9 pcs	Wobble extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 200 mm	
2 x		1/2" : 125 - 250 mm	

### CHROMEplus® Wobble extension

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	L mm	g
918.1264	50,0	90
918.1267	75,0	120
918.1201	125,0	180
918.1661	180,0	260
918.1204	250,0	420
918.1663	305,0	410

### CHROMEplus® Wobble extension set

- Internal square to DIN 3120 / ISO 1174 with ball reception
- Wobble extension with ball lock
- 8° tilt angle to each side
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		L mm	g
918.0009	9 pcs	CHROMEplus® Wobble extension set	1,22
3 x		1/4" : 50 - 100 - 250 mm	
4 x		3/8" : 45 - 75 - 150 - 225 mm	
2 x		1/2" : 125 - 250 mm	



### CHROMEplus® Extension with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

	L mm	g
919.1201	75,0	130
919.1203	125,0	220
919.1206	250,0	450

### CHROMEplus® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



1/2"

		L mm	g
919.0123	3 pcs	75 - 125 - 250 mm	0,80

### CHROMEplus® Extension set with interlock

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Interlocking mechanism against accidental loosening
- For manual operation
- Mirror polished
- Chrome vanadium



1/4" 3/8" 1/2"

		L mm	g
919.0007	7 pcs	CHROMEplus® Extension set with interlock	1,24
2 x		1/4" : 100 - 150 mm	
3 x		3/8" : 75 - 150 - 250 mm	
2 x		1/2" : 125 - 250 mm	

## 1/2" MANUAL DRIVE TOOLS

### L-Handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	
911.1331	220,0	415

### Speed brace

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	
911.1338	400,0	500

### Flexi head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Matt finish
- Chrome vanadium



	L mm	
917.1425	370,0	550

### CHROMEplus® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Mirror polished
- Chrome vanadium



		L mm	head, spare	
918.1291	(A)	1/2"	360,0	918.1291-1 660
918.1297	(B)	1/2"	460,0	918.1292-1 1115
918.1292	(B)	1/2"	600,0	918.1292-1 1420
918.1293	(B)	1/2"	760,0	918.1292-1 1630

## 1/2" RATCHETS

### Mini hand reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



		Tooth	
914.1210	1/2"	72	60

### Mini hand reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Easy and handy to use
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- Ergonomic 2 component handle
- Chrome vanadium



914.1215	3 pcs	Mini hand reversible ratchet set		165

consists of:

914.1410	Mini hand reversible ratchet, 1/4", 72 teeth	50	
914.3810	Mini hand reversible ratchet, 3/8", 72 teeth	55	
914.1210	Mini hand reversible ratchet, 1/2", 72 teeth	60	



## Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
911.1200	18,0	42,0	250,0	911.1299	580

## CHROMEplus® Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 45 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.1200	18,0	42,0	250,0	911.1299	580

## Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.1290	20,5	40,0	250,0	914.1297	700

## CHROMEplus® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.1290	21,0	40,0	250,0	914.1297	600

### CHROMEplus® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.1393	21,0	40,0	250,0	914.1297	630

### Rotation reversible ratchet with rotary handle

- According to DIN 3122 / ISO 3315
- The square is driven by means turning the hand grip
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- The grip can be rotated by 360°
- Conventional ratcheting is also possible
- Ideal for confined spaces
- With marking of the direction of rotation
- With exact gearing 60-teeth ratchet mechanism
- High-quality shaft drive
- Ergonomic 2 component handle
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	
914.1295	40,0	43,0	290,0	700

### SlimPOWER reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
920.1290	34,0	32,0	245,0	920.1290-1	356

### SlimPOWER reversible ratchet set

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Extremely slim head
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
920.0002	2 pcs	1/4" + 1/2"			430

### Flexibel head reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Extra long
- 180° revolving head
- Reversible
- Exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Recessed reverse lever
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.1296	20,0	40,0	440,0	914.1297	800

### CHROMEplus® Telescopic reversible ratchet

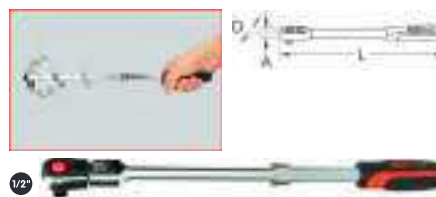
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- With exact gearing 36 teeth ratchet mechanism
- Infinitely variable
- With ejection mechanism on the ratchet head
- Ergonomic 2 component handle
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
918.1270	19,0	43,0	380,0-500,0	918.1275	1200

### SlimPOWER telescopic-joint changeover ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Very robust as a result of double pin technology
- 180° revolving head
- Fine gearing 72 teeth ratchet mechanism
- Adjustable in 7 steps
- With ejection mechanism on the ratchet head
- Ergonomic 2-component handle with a soft zone
- Matt finish
- Chrome vanadium



	A mm	D mm	L mm	Repair set	
914.1220	16,0	33,0	294,0-432,0	914.1220-1	620,0

### 1/2" SET ASSORTMENTS

#### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



	A mm	D mm	L mm	Repair set	
911.0620	20 pcs	Socket set			3,30
15 x				10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 22 - 24 - 27 - 30 - 32 mm	
2 x				125 - 250 mm	
1 x				1/2"	
1 x				1/2"	
1 x				250 mm	

#### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



	A mm	D mm	L mm	Repair set	
918.0625	22 pcs	CHROMEplus® Socket set			4,75
17 x				10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
2 x				125 - 250 mm	
1 x				1/2"	
1 x				3/8" x M1/2"	
1 x				380 - 500 mm	



**CHROMEplus Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		👤	
<b>915.9623</b> 23 pcs CHROMEplus Socket set		4,30	
18 x	 10-11-12-13-14-15-16-17-18-19-20-21-22-24-27-30-32-34 mm		
2 x	 125 - 250 mm		
1 x	 1/2"		
1 x	 3/8" x M1/2"		
1 x	 250 mm		

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
<b>915.9624</b> 24 pcs Socket set		4,30	
20 x	 8-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-27-30-32-34 mm		
2 x	 125 - 250 mm		
1 x	 1/2"		
1 x	 245 mm		

**CHROMEplus Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		👤	
<b>915.9624</b> 24 pcs CHROMEplus Socket set		4,30	
20 x	 8-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-27-30-32-34 mm		
2 x	 125 - 250 mm		
1 x	 1/2"		
1 x	 245 mm		

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable steel storage case



		👤	
<b>917.4826</b> 24 pcs Socket set		5,00	
17 x	 10-11-12-13-14-15-16-17-19-19-20-21-22-24-27-30-32 mm		
2 x	 16-21 mm		
2 x	 125 - 250 mm		
1 x	 1/2"		
1 x	 1/2"		
1 x	 250 mm		



**Socket set**

- 12 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
<b>915.9556</b> 24 pcs Socket set		3,80	
17 x	 10-11-12-13-14-15-16-17-19-19-20-21-22-24-27-30-32 mm		
1 x	 250 mm		
2 x	 125 - 250 mm		
1 x	 1/2"		
2 x	 16-21 mm		
1 x	 3/8" F x 1/2" M		

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
<b>915.9528</b> 20 pcs Socket set		4,30	
18 x	 10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-27-30-32 mm		
2 x	 16-21 mm		
1 x	 1/2"		
2 x	 125 - 250 mm		
1 x	 1/2"		
1 x	 250 mm		
3 x	 1.5-2-2.5 mm		

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/2"

918.0728	28 pcs	CHROMEplus® Socket set	4,28
18 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
2 x		16 - 21 mm	
1 x		1/2"	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		250 mm	
3 x		1,5 - 2 - 2,5 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/2"

951.0630	30 pcs	Socket set	5,87
15 x		3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"	
7 x		1/2" - 9/16" - 11/16" - 3/4" - 7/8" - 15/16" - 1"	
2 x		5/8" - 13/16"	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		1/2" F x 3/8" M	
1 x		370 mm	
1 x		245 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/2"

918.0635	35 pcs	CHROMEplus® Socket set	5,75
18 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
2 x		16 - 21 mm	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		F3/8" x M1/2"	
1 x		250 mm	

### CHROMEplus® Socket set

- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/2"

918.0830	30 pcs	CHROMEplus® Socket set	3,40
15 x		3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"	
7 x		1/2" - 9/16" - 11/16" - 3/4" - 7/8" - 15/16" - 1"	
2 x		5/8" - 13/16"	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		F1/2" x M3/8"	
1 x		380 mm	
1 x		250 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/2"

958.0630	30 pcs	CHROMEplus® Socket set	5,87
15 x		3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"	
7 x		1/2" - 9/16" - 11/16" - 3/4" - 7/8" - 15/16" - 1"	
2 x		5/8" - 13/16"	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		1/2" F x 3/8" M	
1 x		370 mm	
1 x		245 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/2"

951.0639	39 pcs	Socket set	5,90
20 x		8-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-27-30-32-34 mm	
10 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
4 x		14 - 16 - 18 - 21 mm	
2 x		125 - 250 mm	
1 x		3/8" x 1/2"	
1 x		1/2"	
1 x		245 mm	



**CHROMEplus Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



		👤	
888.8836	39 pcs	CHROMEplus Socket set	1,90
20 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 34 mm	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		345 mm	

**1/2" SET ASSORTMENTS**

**Torx Socket and bit set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
811.43891	39 pcs	Torx Socket and bit set	1,40
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10 mm	
7 x		30 mm (TB20 - T25 - T30 - T40 - T45 - T50 - T55)	
7 x		75 mm (T20 - T25 - T30 - T40 - T45 - T50 - T55)	

**Torx Bit socket set for Torx tamperproof screws**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
811.4391-3	30 pcs	Torx Bit socket set for Torx tamperproof screws	1,40
5 x		1/4": E4 - E5 - E6 - E7 - E8	
4 x		3/8": E10 - E11 - E12 - E14	
5 x		1/2": E16 - E18 - E20 - E22 - E24	
2 x		3/8" x 10 mm - 1/2" x 10 mm	
7 x		30 mm (TB20 - TB25 - TB30 - TB40 - TB45 - TB50 - TB55)	
7 x		75 mm (TB20 - TB25 - TB30 - TB40 - TB45 - TB50 - TB55)	

**Torx Socket set**

- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
811.4389	31 pcs	Torx Socket set	1,40
5 x		1/4": T10 - T15 - T20 - T25 - T27 - T30	
3 x		5/16": T40 - T45 - T50	
3 x		1/4": TB30 x 30 mm - TB25 x 75 mm - TB30 x 75 mm	
2 x		1/2": T55 - T60	
4 x		1/4": E5 - E6 - E7 - E8	
3 x		3/8": E10 - E12 - E14	
3 x		1/2": E16 - E18 - E20	
3 x		1/4" x 1/4" - 3/8" x 5/16" - 1/2" x 5/16"	
4 x		E6 x E8 - E7 x E11 - E10 x E12 - E14 x E18	

**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In very high-quality 2-component plastic case



		👤	
848.8047	47 pcs	Universal tool kit set	8,40
14 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24	
3 x		1/2": 16 - 18 - 21 mm	
14 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19	
1 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40	
1 x		2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	
1 x		3 - 48 V	
1 x		250 mm	
3 x		3 - 5,5 - 8 mm	
2 x		PH1 - PH2	
1 x		250 mm	
2 x		125 - 250 mm	
1 x		1/2"	
1 x		240 mm	
1 x		130 mm	
1 x		300 g	

**Tool kit**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



		👤	
811.43888	30 pcs	Tool kit	1,20

9 x		10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		1/4": PZ1 - PZ2 - T10 - T15 - T20 - T25 - T30 - T40
1 x		21 mm
1 x		250 mm
1 x		1/2"
1 x		1/2"
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		250 mm
3 x		4,5 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		200 mm
1 x		150 - 250 V
1 x		240 mm
1 x		180 mm
1 x		300 g
8 x		8 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm

### Torx Socket and bit set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

911.4305	57 pcs	Torx Socket and bit set	2,00
2 x		3/8" x 10mm - 1/2" x 1/4"	
12 x		1/4": E4 - E5 - E6 - E7 - E8; 3/8": E10 - E11 - E12 - E14; 1/2": E16 - E18 - E20	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		8 - 10 mm	
2 x		PH2 - PH3	
5 x		5 - 6 - 7 - 8 - 10 mm	
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x		M6 - M8 - M10 - M12	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

951.0668	68 pcs	Socket set	4,97
10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
20 x		1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 34 mm	
3 x		1/4": 4,5 - 6,5 - 8 mm	
3 x		1/4": PH1 - PH2 - PH3	
3 x		1/4": PZ1 - PZ2 - PZ3	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T15 - T20 - T25 - T27 - T30 - T40 - T45	
5 x		1/4": M4 - M5 - M6 - M8 - M10	
1 x		1/4"	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 150 mm	
2 x		1/4" - 1/2"	

### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

958.0668	68 pcs	CHROMEplus® socket set	4,97

10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
20 x		1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 34 mm
3 x		1/4": 4,5 - 6,5 - 8 mm
3 x		1/4": PH1 - PH2 - PH3
3 x		1/4": PZ1 - PZ2 - PZ3
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm
7 x		1/4": T15 - T20 - T25 - T27 - T30 - T40 - T45
5 x		1/4": M4 - M5 - M6 - M8 - M10
1 x		1/4"
1 x		1/4"
2 x		1/4": 50 - 100 mm
2 x		1/2": 125 - 250 mm
2 x		1/4" - 1/2"
1 x		1/4": 150 mm
2 x		1/4" - 1/2"

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

918.0678	78 pcs	CHROMEplus® Socket set	6,30
13 x		1/4": 4-4,5-5-5,5-6-7-8-9-10-11-12-13-14 mm	
8 x		1/4": 6-7-8-9-10-11-12-13 mm	
15 x		1/2": 13-14-15-16-17-18-19-20-21-22-24-27-30-32-34 mm	
5 x		1/2": 14-15-17-19-22 mm	
3 x		1/2": 16-18-21 mm	
2 x		1/4": PH1-PH2	
2 x		1/4": PZ1-PZ2	
6 x		1/4": 3-4-5-6-7-8 mm	
7 x		1/4": T10-T15-T20-T25-T27 T30-T40	
6 x		1/4": M4-M5-M6-M7-M8-M10	
1 x		1/4"	
2 x		1/4": 50-100 mm	
1 x		1/4"	
1 x		1/4"	

1 x		1/4": 145 mm
1 x		F3/8" x M1/2"
2 x		1/2": 125-250 mm
1 x		1/2"
1 x		1/2": 250 mm

1 x		F3/8" x M1/2"
1 x		1/2"
1 x		1/2" x 5/16"
1 x		1/2": 250 mm
2 x		1/2": 125 - 250 mm

2 x		5/16": PH3 - PH4
3 x		5/16": 8 - 10 - 12 mm
4 x		5/16": 8 - 10 - 12 - 14 mm
4 x		5/16": TB40 - TB45 - TB50 - TB55
5 x		0,9 - 1,27 - 1,5 - 2,0 - 2,5 mm

**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case

**Socket set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case

**CHROMEplus® Socket set**

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

1/4" 1/2"

1/4" 1/2"

		1/2"	
918.0694	94 pcs	CHROMEplus® Socket set	6,38
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4": 4 - 5,5 - 7 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB30	
2 x		1/4": 50 - 100 mm	
1 x		1/4": 150 mm	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
4 x		5/16": 8 - 10 - 12 - 14 mm	
4 x		5/16": T40 - T45 - T50 - T55	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
4 x		1 - 1,5 - 2 - 2,5 mm	
1 x		1/4"	

		1/2"	
917.0796	96 pcs	Socket set	6,30
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
1 x		1/2"	
1 x		3/8"Fx1/2"M	
1 x		1/4"	
1 x		1/2"x 5/16"	
1 x		110 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
3 x		1/4": 4 - 5,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB30	
2 x		5/16": PZ3 - PZ4	

		1/2"	
918.0796	96 pcs	CHROMEplus® Socket set	6,20
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
4 x		1/2": 14 - 15 - 17 - 19 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
1 x		1/2"	
1 x		3/8"Fx1/2"M	
1 x		1/4"	
1 x		1/2"x 5/16"	
1 x		110 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/2"	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
3 x		1/4": 4 - 5,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
6 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB30	
2 x		5/16": PZ3 - PZ4	

2 x		5/16": PH3 - PH4
3 x		5/16": 8 - 10 - 12 mm
4 x		5/16": 8 - 10 - 12 - 14 mm
4 x		5/16": TB40 - TB45 - TB50 - TB 55
5 x		0,9 - 1,27 - 1,5 - 2,0 - 2,5 mm

### Universal tool kit set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
917.0797	97 pcs	Universal tool kit set	9,00
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
1 x		1/4"	
1 x		1/2"	
1 x		1/2": 125 mm	
1 x		1/4": 100 mm	
1 x		1/4"	
1 x		1/2"	
3 x		PH0 - PH1 - PH2	
4 x		3 - 4 - 5,5 - 6,5 mm	
3 x		1/4": PH1 - PH2 - PH3	
3 x		1/4": PZ1 - PZ2 - PZ3	
3 x		1/4": 4 - 5,5 - 6,5 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x			
1 x		300 g	
1 x		160 mm	
1 x		200 mm	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
9 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	

### CHROMEplus® Universal tool set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
918.0797	97 pcs	CHROMEplus® Universal tool set	9,00
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
1 x		1/4"	
1 x		1/2"	
1 x		1/2": 125 mm	
1 x		1/4": 100 mm	
1 x		1/4"	
1 x		1/2"	
3 x		PH0 - PH1 - PH2	
4 x		3 - 4 - 5,5 - 6,5 mm	
3 x		1/4": PH1 - PH2 - PH3	
3 x		1/4": PZ1 - PZ2 - PZ3	
3 x		1/4": 4 - 5,5 - 6,5 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40	
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x			
1 x		300 g	
1 x		160 mm	
1 x		200 mm	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
9 x		T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

		kg	
951.0711	110 pcs	Socket set	7,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
8 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm	
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24	
3 x		1/2": 16 - 18 - 21 mm	
2 x		1/4": 4 - 5,5 mm	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
7 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30	
4 x		1/4": M4 - M5 - M6 - M8	
3 x		5/16": 8 - 10 - 12 mm	
2 x		5/16": PH3 - PH4	
2 x		5/16": PZ3 - PZ4	
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm	
5 x		5/16": T40 - T45 - T50 - T55 - T60	
1 x		1/4"	
1 x		1/2" x 5/16"	
1 x		1/4": 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/4"	
1 x		3/8" F x 1/2" M	
2 x		1/4" - 1/2"	
1 x		1/4": 150 mm	
2 x		1/4" - 1/2"	

**CHROMEplus® socket set**

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



11 12

		11 12	
		9.30	
9583711	110 pcs. CHROMEplus® socket set	7.80	
13 x	1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm		
8 x	1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
5 x	1/4": E4 - E5 - E6 - E7 - E8		
18 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm		
5 x	1/2": 14 - 15 - 17 - 19 - 22 mm		
9 x	1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24		
3 x	1/2": 16 - 18 - 21 mm		
2 x	1/4": 4 - 5.5 mm		
2 x	1/4": PH1 - PH2		
2 x	1/4": PZ1 - PZ2		
4 x	1/4": 3 - 4 - 5 - 6 mm		
7 x	1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30		
4 x	1/4": M4 - M5 - M6 - M8		
3 x	5/16": 8 - 10 - 12 mm		
2 x	5/16": PH3 - PH4		
2 x	5/16": PZ3 - PZ4		
5 x	5/16": 7 - 8 - 10 - 12 - 14 mm		
5 x	5/16": T40 - T45 - T50 - T55 - T60		
1 x	1/4"		
1 x	1/2" x 5/16"		
1 x	1/4": 100 mm		
2 x	1/2": 125 - 250 mm		
1 x	1/4"		
1 x	3/8" F x 1/2" M		
2 x	1/4" - 1/2"		
1 x	1/4": 150 mm		
2 x	1/4" - 1/2"		

**CHROMEplus® Socket set**

- 6 point
- Flank Traction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



13 14 15 16

		13 14 15 16	
		9.50	
9164738	124 pcs. CHROMEplus® Socket set	9.50	
10 x	1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm		
6 x	1/4": 5 - 6 - 7 - 8 - 9 - 10 mm		
11 x	3/8": 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
6 x	3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
9 x	3/8": E8 - E10 - E11 - E12 - E14 - E16 - E18 - E20		
8 x	1/2": 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm		
6 x	1/2": 10 - 12 - 13 - 14 - 17 - 19 mm		
2 x	1/2": E22 - E24		
2 x	1/2": 16 - 21 mm		
1 x	1/2": 15 - 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10 mm		
12 x	3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
2 x	3/8": 4 - 5.5 mm		
3 x	3/8": PH1 - PH2 - PH3		
3 x	3/8": PZ1 - PZ2 - PZ3		
5 x	3/8": 3 - 4 - 5 - 6 - 8 mm		
5 x	3/8": T20 - T30 - T40 - T45 - T50		
4 x	3/8": M4 - M5 - M6 - M8		
7 x	1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40		
1 x	1/4"		
1 x	1/4": 100 mm		
1 x	1/4": 100 mm		
2 x	3/8": 75 - 150 mm		
2 x	1/2": 125 - 250 mm		
3 x	1/4" - 3/8" - 1/2"		
2 x	1/2": F1/2" x M 3/8"		
3 x	1/4" - 3/8" - 1/2"		

**Socket set**

- 6 point
- Flank Traction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



17 18 19

		17 18 19	
		9.80	
9512701	151 pcs. Socket set	9.80	
13 x	1/4": 4 - 4.5 - 5 - 5.5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm		
18 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm		
6 x	1/4": 8 - 9 - 10 - 12 - 13 - 14 mm		
4 x	1/2": 17 - 18 - 19 - 22 mm		
2 x	1/2": 16 - 21 mm		
5 x	1/4": E4 - E5 - E6 - E7 - E8		
8 x	1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24		
3 x	1/4": 4 - 5.5 - 6.5 mm		
2 x	1/4": PH1 - PH2		
2 x	1/4": PZ1 - PZ2		
4 x	3/8": 3 - 4 - 5 - 6 mm		
9 x	1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30		
5 x	1/4": M4 - M5 - M6 - M7 - M8		
9 x	1/4": TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27		
8 x	1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45		
5 x	1/4": M5 - M6 - M7 - M8 - M9		
3 x	5/16": 8 - 10 - 12 mm		
5 x	5/16": 7 - 8 - 10 - 12 - 14 mm		
2 x	5/16": PH3 - PH4		
2 x	5/16": PZ3 - PZ4		
6 x	5/16": T40 - T45 - T50 - T55 - T60 - T70		
6 x	5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70		
2 x	5/16": M10 - M12		
2 x	5/16": M10 - M12		
1 x	1/4": 110 mm		
1 x	1/4": 150 mm		
2 x	1/4": 50 - 100 mm		
2 x	1/2": 125 - 250 mm		

1 x		3/8" x 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
9 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm

### CHROMEplus® socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 1/2"

958.0751	151 pcs	CHROMEplus® socket set	8,50	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm		
18 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm		
6 x		1/4": 8 - 9 - 10 - 12 - 13 - 14 mm		
4 x		1/2": 17 - 18 - 19 - 22 mm		
2 x		1/2": 16 - 21 mm		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 E20 - E24		
3 x		1/4": 4 - 5,5 - 6,5 mm		
2 x		1/4": PH1 - PH2		
2 x		1/4": PZ1 - PZ2		
4 x		3/8": 3 - 4 - 5 - 6 mm		
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 T30		
5 x		1/4": M4 - M5 - M6 - M7 - M8		
8 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27		
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45		
5 x		1/4": M5 - M6 - M7 - M8 - M9		
3 x		5/16": 8 - 10 - 12 mm		
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm		
2 x		5/16": PH3 - PH4		
2 x		5/16": PZ3 - PZ4		
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70		
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 TB70		
2 x		5/16": M10 - M12		

2 x		5/16": M10 - M12
1 x		1/4": 110 mm
1 x		1/4": 150 mm
2 x		1/4": 50 - 100 mm
2 x		1/2": 125 - 250 mm
1 x		3/8" x 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"
9 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0779	179 pcs	Socket set	9,00	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm		
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 30 - 32 mm		
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm		
1 x		3/8": 18 mm		
2 x		1/2": 16 - 21 mm		
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm		
3 x		1/4": PH0 - PH1 - PH2		
3 x		1/4": PZ0 - PZ1 - PZ2		
4 x		1/4": 3 - 4 - 5 - 6 mm		
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 T30		
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18		
2 x		1/2": E20 - E24		

11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 T20 - T25 - T27 - T30
1 x		1/4": TB7
3 x		1/4": M5 - M6 - M8
5 x		1/4": M5 - M6 - M7 - M8 - M9
8 x		1/4": TS10 - TS15 - TS20 - TS25 TS27 - TS30 - TS40 - TS45
3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 TB60 - TB70
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm
1 x		1/4": 150 mm
1 x		1/4": 110 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
2 x		1/2": 125 - 250 mm
3 x		1/4" - 3/8" - 1/2"
1 x		1/4" x 1/4"
1 x		3/8" x 5/16"
1 x		1/2" x 5/16"
1 x		3/8" Fx 1/2" M
3 x		1/4" - 3/8" - 1/2"



### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0795			
195 pcs	Socket set	10,00	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
2 x		1/2": E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
1 x		3/8"F - 1/2"M	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		150 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		110 mm	
3 x		1/4": PH0 - PH1 - PH2	
3 x		1/4": PZ0 - PZ1 - PZ2	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30	
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30	
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

918.0795			
195 pcs	CHROMEplus® Socket set	10,00	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 23 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
2 x		1/2": E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
1 x		3/8"F - 1/2"M	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		150 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		110 mm	
3 x		1/4": PH0 - PH1 - PH2	
3 x		1/4": PZ0 - PZ1 - PZ2	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30	
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30	
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
7 x		1 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm	

### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

917.0216			
216 pcs	Socket set	11,60	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm	
16 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
10 x		1/4": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 14 - 15 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
3 x		1/2": 17 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
8 x		1/2": E10 - E11 - E12 - E14 - E16 E18 - E20 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		110 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4": 205 mm	
1 x		150 mm	
2 x		1/2": T55 - T60	
2 x		1/4": PH1 - PH2	
2 x		1/4": PZ1 - PZ2	
6 x		1/4": T8 - T10 - T15 - T20 - T25 - T30	
6 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB30	
3 x		1/4": 4 - 5,5 - 6,5 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	
1 x		5/16": TS50	

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2"

		K1	
918.0216	216 pcs	CHROMEplus® Socket set	11,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
14 x		1/2": 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm	
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm	
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm	
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm	
5 x		1/4": E4 - E5 - E6 - E7 - E8	
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18	
3 x		1/2": E20 - E22 - E24	
1 x		3/8": 18 mm	
2 x		1/2": 16 - 21 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4" x 1/4"	
2 x		3/8" x 5/16" - 1/2" x 5/16"	
1 x		3/8"F - 1/2"M	
2 x		1/4": 50 - 100 mm	
1 x		3/8": 150 mm	
2 x		1/2": 125 - 250 mm	
1 x		110 mm	
3 x		1/4" - 3/8" - 1/2"	
1 x		1/4": 205 mm	
1 x		150 mm	
2 x		1/2": T55 - T60	
3 x		1/4": PH0 - PH1 - PH2	
3 x		1/4": PZ0 - PZ1 - PZ2	
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30	
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30	
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm	
4 x		1/4": 3 - 4 - 5 - 6 mm	

### 1/2" TOOL CASES & TROLLEYS

#### Tool set for plumbing and heating mechanics

- Ideal set of compilation for plumbing, heating and air conditioning
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

		K1	
911.0695	95 pcs	Tool set for plumbing and heating mechanics	13,86
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	
1 x		1/2": 125 mm	
1 x		1/2"	
1 x		1/2": 270 mm	
1 x		1/2": 3/8" - 1/2" - 3/4" - 1"	
10 x		8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x			
1 x		200 mm	
1 x		250 mm	
1 x		250x25 mm	
1 x		38 mm	
3 x		HB	
1 x		300 mm	
1 x		2 m	
1 x		1/4": 911.2060	
1 x		1/4": 205 mm	
1 x		150 - 250 V	
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		17 x 19 mm	
1 x		250 mm	
1 x		Ø 10 - 32 mm	
1 x		160 mm	
1 x		3 - 28 mm	

1 x		3 - 42 mm
1 x		240 mm
1 x		1": 45° - 320 mm

### CHROMEplus® Socket set

- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

		K1	
918.0702	102 pcs	CHROMEplus® Socket set	9,70
13 x		1/4": 4 - 4,5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
3 x		1/4": 8 - 10 - 13 mm	
13 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm	
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm	
3 x		1/4": PH1 - PH2 - PH3	
2 x		1/4": PZ1 - PZ2	
4 x		1/4": 3 - 4 - 5 - 6 mm	
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40	
3 x		1/4": M4 - M5 - M6	
3 x		1/4": E6 - E7 - E8	
6 x		1/2": E10 - E12 - E14 - E16 - E18 - E20	
2 x		1/2": 16 - 21 mm	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		5/16": PZ3	
2 x		5/16": 8 - 10 mm	
4 x		5/16": TB45 - TB50 - TB55 - TB60	
3 x		5/16": M8 - M10 - M12	
1 x		1/4"	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
1 x		F3/8" x M1/2"	
1 x		1/2"	
1 x		1/2" x 5/16"	
2 x		1/4" - 1/2"	
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm	



**Electricians tool set**

- Ideal set for electricians
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

		kg	
911.0628	128 pcs	Electricians tool set	10,88
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
12 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4": 50 - 100 mm	
1 x		1/2": 125 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 110 mm	
1 x		28 mm	
1 x			
1 x			
1 x		28 mm	
1 x		145 mm	
1 x		300 g	
3 x		HB	
1 x		250 mm	
1 x		250x25 mm	
1 x		38 mm	
1 x		2 m	
1 x		300 mm	
1 x		1/4": 911.2060	
1 x		1/4": 205 mm	



**Universal tool kit**

- 6 point
- FlankTraction profile
- Removeable plastic storage trays
- Matt finish
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



1/4" 1/2"

		kg	
911.0735	127 pcs	Universal tool kit	17,60
9 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 11 - 12 - 13 mm	
4 x		1/4": 8 - 9 - 10 - 13 mm	
13 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm	
1 x		1/4": 911.2060	
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50	
1 x		1/4": 100 mm	
1 x		1/4": 150 mm	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
1 x		1/4": 145 mm	
1 x		1/2": 125 mm	
1 x		1/2"	
1 x		1/2": 250 mm	
1 x		1/2": 250 mm	
2 x		4 - 8 mm	
2 x		PH1 - PH2	
1 x		PH2	
2 x		PZ1 - PZ2	
1 x		PZ2	
11 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 18 - 19 mm	
1 x		150 - 250 V	
1 x		3,5 mm	
2 x		PH1 - PH2	
1 x		max. 2 kg	
1 x		160 mm	

1 x		160 mm
1 x		220 mm
1 x		240 mm
1 x		250 mm
1 x		10"
1 x		
1 x		160 mm
1 x		140 mm
1 x		165 mm
1 x		3 - 42 mm
1 x		300 mm
1 x		200 mm
1 x		200 mm
1 x		8 mm
1 x		190 mm
1 x		300 g
1 x		5 m x 19 mm
1 x		400 mm

**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

		kg	
911.0649	149 pcs	Universal tool kit set	12,68
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
14 x		1/2": 10 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/4": 50 - 100 mm	
2 x		1/2": 125 - 250 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 110 mm	
1 x		1/4" x 1/4"	
1 x		3/8"F x 1/2"M	
1 x		1/2" x 5/16"	
3 x		5/16": 10 - 12 - 14 mm	
2 x		5/16": PH3 - PH4	

1 x		0 - 150 mm
1 x		5 m
20 x		100 mm
1 x		130 - 630 mm
1 x		
10 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		150 - 250 V
3 x		3 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		PZ2
1 x		160 mm
1 x		180 mm
1 x		160 mm
1 x		240 mm
1 x		250 mm
2 x		5/16": 8 - 10 mm
4 x		5/16": T40 - T45 - T50 - T55
1 x		
1 x		
1 x		300 g
1 x		
1 x		145 mm
1 x		200 mm
1 x		38 mm
1 x		270 mm
1 x		1/4": 911.2060
1 x		1/4": 205 mm
1 x		1/4": 145 mm
1 x		1/2": 250 mm
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm



### CHROMEplus® Tool kit

- 6 point
- FlankTraction profile
- Removeable plastic storage trays
- Mirror polished
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



1/4" 1/2"

		10	
918.0690	90 pcs	CHROMEplus® Tool kit	10,50
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
10 x		1/2": 15 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4"	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4" x 1/4"	
1 x		1/4": 185 mm	
1 x		1/4"	
1 x		1/4": 140 mm	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
1 x		1/2": F3/8" - M1/2"	
1 x		1/2": 250 mm	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
5 x		1/4": PH0 - PH1 - 2 x PH2 - PH3	
5 x		1/4": PZ0 - PZ1 - 2 x PZ2 - PZ3	
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
7 x		7 - 8 - 10 - 12 - 13 - 17 - 19 mm	
2 x		5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		240 mm	
1 x		180 mm	

### Universal tool kit

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

		10	
911.0727	127 pcs	Universal tool kit	12,40
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
13 x		1/2": 10 - 13 - 14 - 16 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm	
2 x		1/2": 16 - 21 mm	
1 x		1/4": 911.2060	
2 x		1/4": 50 - 100 mm	
1 x		1/4"	
1 x		1/4": 110 mm	
1 x		1/4": 145 mm	
1 x		1/4"	
2 x		1/2": 125 - 250 mm	
1 x		F3/8" x M1/2"	
1 x		1/2"	
1 x		1/2": 250 mm	
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50	
2 x		5,5 - 6,5 mm	
2 x		PH1 - PH2	
1 x		1/4": 150 mm	
8 x		8 - 9 - 10 - 11 - 13 - 14 - 17 - 19 mm	
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		240 mm	
1 x		200 mm	
1 x		145 mm	
1 x		300 g	
1 x		150 - 250 V	
1 x			
1 x		250 mm	

1 x		200 mm
1 x		150 mm
3 x		9372131
1 x		
1 x		
1 x		0 - 150 mm
1 x		300 mm
1 x		5 m x 10 mm
1 x		
1 x		

**Universal tool kit set**

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- Telescopic carrying handle
- In a classy aluminium trolley



911.808	130 pcs. Universal tool kit set	14,14
12 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
16 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm	
2 x	1/4": 50 - 100 mm	
2 x	1/2": 125 - 250 mm	
2 x		1/4" - 1/2"
1 x		1/2": 250 mm
1 x		1/4" x 1/4"
1 x		28 mm
1 x		
1 x		
1 x		0 - 150 mm
1 x		300 g
1 x		130 - 630 mm
1 x		300 mm
1 x		1/4": 911.2060
1 x		1/4": 150 mm
1 x		1/4": 205 mm
1 x		1/4": 145 mm
1 x		1/2": 250 mm

1 x		1/4"
9 x		1,0 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
3 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50
1 x		
1 x		5 m
11 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
2 x		4 - 8 mm
2 x		PH1 - PH2
2 x		PZ1 - PZ2
1 x		150 - 250 V
1 x		3 mm
2 x		PH1 - PH2
1 x		150 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm
1 x		250 mm

**1/2" TOOL CHESTS**

**Universal tool kit**

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



911.0190	100 pcs. Universal tool kit	13,90
12 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
12 x	1/2": 14 - 15 - 16 - 17 - 18 - 19 - 20 - 22 - 24 - 27 - 30 - 32 mm	
2 x	1/2": 16 - 21 mm	
1 x		1/4": 911.2060
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
4 x		1/4": 50 - 100 mm; 1/2": 125 - 250 mm
2 x		1/4": 100 mm; 1/2": 250 mm
1 x		1/4"
2 x		1/4" - 1/2"
2 x		1/4": 145 mm; 1/2": 250 mm

12 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm
4 x		4,0 x 100 mm - 4,5 x 100 mm - 5,0 x 100 mm - 5,0 x 150 mm
2 x		PH1 x 75 mm - PH2 x 100 mm
1 x		100 mm
1 x		180 mm
1 x		200 mm
1 x		10"



1  
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**CHROMEplus® Universal tool set**

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



19,50

**CHROMEplus® Universal tool set**

- With 3 drawers and upper insert storage
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



19,50

**CHROMEplus® Universal tool set**

- With 3 drawers and upper insert storage
- Imperial sizes
- 6 point
- FlankTraction profile
- Mirror polished
- Chrome vanadium
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- In durable steel tool chest



25,00

998.8100		Wipes: CHROMEplus® Universal tool set		19,50	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
3 x		1/4": 8 - 10 - 12 mm			
1 x		1/4": 50 mm			
1 x		1/4"			
1 x		1/4": 110 mm			
1 x		1/4": 140 mm			
3 x		1/4": 4 - 5,5 - 7 mm			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		1/2": 17 - 19 mm			
2 x		1/2": 16 - 21 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2": F3/8" x M 1/2"			
1 x		1/2"			
1 x		1/2": 250 mm			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
6 x		6 x 38 - 3 x 75 - 4 x 100 - 5,5 x 100 - 6,5 x 125 - 8 x 150 mm			
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm			
1 x		150 mm			
1 x		180 mm			
1 x		200 mm			
1 x		10"			
1 x		250 mm			
1 x		300 g			

998.8200		Wipes: CHROMEplus® Universal tool set		19,50	
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
3 x		1/4": 8 - 10 - 12 mm			
1 x		1/4": 50 mm			
1 x		1/4"			
1 x		1/4": 110 mm			
1 x		1/4": 145 mm			
3 x		1/4": 4 - 4,5 - 7 mm			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
12 x		1/2": 13 - 15 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		1/2": 17 - 19 mm			
2 x		1/2": 16 - 21 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2": F3/8" x M 1/2"			
1 x		1/2"			
1 x		1/2": 250 mm			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			
12 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm - 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm			
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm			
1 x		160 mm			
1 x		180 mm			
1 x		200 mm			
1 x		10"			
1 x		250 mm			
1 x		300 g			

998.8300		Wipes: CHROMEplus® Universal tool set		25,00	
13 x		1/4": 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 5/8" - 3/4" - 15/16" - 1"			
3 x		1/4": 5/16" - 3/8" - 1/2"			
1 x		1/4": 50 mm			
1 x		1/4"			
1 x		1/4": 110 mm			
1 x		1/4": 140 mm			
3 x		1/4": 5/32" - 1/4" - 9/32"			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
6 x		1/4": 3/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16"			
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
12 x		1/2": 7/32" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16" - 1 1/16" - 1 1/8" - 1 1/4"			
2 x		1/2": 1 1/16" - 3/4"			
2 x		1/2": 16 - 21 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2": F3/8" x M 1/2"			
1 x		1/2"			
1 x		1/2": 250 mm			
1 x		1/16" - 5/16" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
12 x		1/4": 5/16" - 3/8" - 7/16" - 1/2" - 5/8" - 3/4" - 15/16" - 1"			
6 x		6 x 38 mm - 3 x 75 mm - 4 x 100 mm - 5,5 x 100 mm - 6,5 x 125 mm - 8 x 150 mm			
4 x		PH2 x 38 mm - PH1 x 75 mm - PH2 x 100 mm - PH3 x 150 mm			
1 x		125 mm			
1 x		150 mm			
1 x		200 mm			
1 x		10"			
1 x		250 mm			
1 x		300 g			



### Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



	mm	D mm	L mm	T mm	g
911.3463	14,0	38,0	155,0	100,0	450
911.3464	17,0	38,0	155,0	100,0	540
911.3465	19,0	38,0	155,0	100,0	580
911.3466	22,0	38,0	155,0	100,0	610

### Bit socket for Torx screws

- Torx
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



		D mm	L mm	T mm	g
911.3467	T60	38,0	80,0	25,0	340
911.3468	T70	38,0	80,0	25,0	380
911.3469	T80	38,0	80,0	25,0	415
911.3471	T90	38,0	80,0	25,0	450
911.3472	T100	38,0	80,0	25,0	460

### 3/4" ADAPTERS

#### Reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



	□	■	L mm	g
911.3412	3/4	1/2"	56,0	195

### CHROMEplus® reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



	□	■	L mm	g
918.3412	3/4"	1/2"	56,0	195

### Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



	□	■	L mm	g
911.3473	3/4"	1"	60,0	335

### CHROMEplus® Adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



	□	■	L mm	g
918.3473	1"	3/4"	70,0	700

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



				g
911.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66



### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



				g
918.0106	6 pcs	1/4" x 3/8" - 3/8" x 1/4" - 3/8" x 1/2" - 1/2" x 3/8" - 1/2" x 3/4" - 3/4" x 1/2"		0,66

### Adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

		9	
917.0707	7 pcs	Adaptor and reducing adaptor set	660
1 x		1/4": 65 mm	
1 x		1/2"F x 3/8"M	
1 x		1/2"F x 3/4"M	
1 x		1/4"F x 3/8"M	
1 x		3/8"F x 1/4"M	
1 x		3/8"F x 1/2"M	
1 x		3/4"F x 1/2"M	

### CHROMEplus® adaptor and reducing adaptor set

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

		kg	
918.0707	7 pcs	CHROMEplus® adaptor and reducing adaptor set	0,66
1 x		1/4": 65 mm	
1 x		1/2"F x 3/8"M	
1 x		1/4"F x 3/8"M	
1 x		1/2"F x 3/4"M	
1 x		3/8"F x 1/4"M	
1 x		3/8"F x 1/2"M	
1 x		3/4"F x 1/2"M	

### 3/4" UNIVERSAL JOINTS

#### Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- Matt finish
- Chrome vanadium



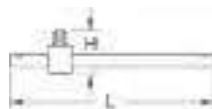
3/4"

		L mm		kg	
911.3460	3/4"	3/4	115,0	400	

### 3/4" T-HANDLES

#### Sliding T-handle

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



3/4"

		H mm		L mm		kg	
911.3405		16,0	450,0	1,22			

### 3/4" EXTENSIONS

#### Extensions

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



3/4"

		L mm		kg	
911.3402		100,0	420		
911.3403		200,0	730		
911.3404		400,0	1600		

### 3/4" MANUAL DRIVE TOOLS

#### L-Handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Chrome vanadium



3/4"

		L mm		D mm		kg	
911.4141		500,0	25,0	2,20			

#### L-Handle

- DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- For manual operation
- Matt finish
- Chrome vanadium



3/4"

		L mm		kg	
911.3520		320,0	0,96		
911.3420		480,0	1,20		

#### Flexi head drive handle

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- For manual operation
- Matt finish
- Chrome vanadium

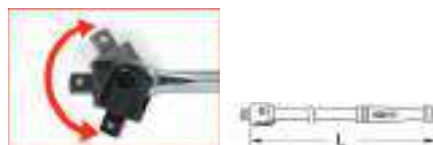


3/4"

		L mm		kg	
911.3470		500,0	2,00		

#### CHROMEplus® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Mirror polished
- Chrome vanadium



3/4"

		L mm		head spare		kg	
918.1801		1030,0	918.1801-1	3,80			

### 3/4" RATCHETS

#### Reversible ratchet

- DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Fine gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic handle
- Matt finish
- Chrome vanadium



3/4"

	A mm	D mm	L mm	Repair set	kg
911.3400	21,0	55,0	500,0	911.3498	1,98

#### Reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Maximum load capacity up to 1.750 Nm
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- Extremely substantial handle bar
- With ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Ideally suited for extreme loads
- Burnished head
- Matt finish
- Chrome vanadium



3/4"

	A mm	D mm	L mm	Repair set	kg
911.3415	35,0	70,0	520,0	911.3499	4,50

#### Reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Maximum load capacity up to 1.750 Nm
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- Extremely substantial handle bar
- With ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Ideally suited for extreme loads
- Burnished head
- Matt finish
- Chrome vanadium



3/4"

	A mm	D mm	L mm	Repair set	kg
911.3410	35,0	70,0	1000,0	911.3499	3,00

### CHROMEplus® Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



3/4"

	A mm	D mm	L mm	Repair set	kg
911.3401	30,0	63,0	500,0	911.3499	2,55

### CHROMEplus® Telescopic reversible ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Knurled handle
- Recessed reverse lever
- Mirror polished
- Chrome vanadium



3/4"

	A mm	D mm	L mm	Repair set	kg
911.3490	30,0	63,0	510-730	911.3499	3,35

### Adjustable lengths high torque ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- Infinitely variable
- Mirror polished
- Chrome vanadium



3/4"

	D mm	L mm	A mm	kg	
918.1805	3/4"	46,0	610-915	96,0	3,00

### 3/4" SOCKETS

#### Socket set

- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



3/4"

	A mm	D mm	L mm	Repair set	kg
911.0721	21 pcs	Socket set			14,50
16 x		19 - 21 - 22 - 23 - 24 - 26 - 27 - 29 - 30			
3 x		32 - 35 - 36 - 38 - 41 - 46 - 50 mm			
1 x		100 - 200 - 400 mm			
1 x		450 mm			
1 x		500 mm			

#### Socket set

- Imperial sizes
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In durable plastic storage case



3/4"

	A mm	D mm	L mm	Repair set	kg
911.0752	21 pcs	Socket set			14,00
16 x		3/4" - 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.3/16" - 1.1/4" - 1.5/16" - 1.3/8" - 1.7/16" - 1.1/2" - 1.5/8" - 1.3/4" - 2"			
3 x		100 - 200 - 400 mm			
1 x		450 mm			
1 x		500 mm			





## 1" ADAPTERS

### Reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Matt finish
- Chrome vanadium



			L mm	
911.4166	1"	3/4"	70,0	480

### CHROMEplus® reducing adaptor

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Mirror polished
- Chrome vanadium



			L mm	
918.4166	1"	3/4"	70,0	480



## 1" UNIVERSAL JOINTS

### Universal joint

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Flexible joint
- Matt finish
- Chrome vanadium



	L mm	
911.4161	140,0	1,48

## 1" T-HANDLES

### Sliding adaptor

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- To the use with extensions
- For manual operation
- Matt finish
- Chrome vanadium



	L mm	
911.1081	80,0	640

### Universal handle

- With ball lock
- For manual operation
- Matt finish
- Chrome vanadium



	D mm	L mm	
911.1021	28,0	540,0	2,55

## 1" EXTENSIONS

### CHROMEplus® Extension

- DIN 3123 / ISO 3316
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Mirror polished
- Chrome vanadium



	L mm	
911.1020	200,0	1,33
911.1040	400,0	2,35

## 1/4" MANUAL DRIVE TOOLS

### CHROMEplus® Flexible head drive handle

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideal for difficult to access areas
- Protects ratchet and torque wrenches from overloading
- Burnished head
- Mirror polished
- Chrome vanadium



	L mm	head square	
918.1802	1050,0	918.1802-1	3,80

## 1" RATCHETS

### Reversible ratchet

- According to DIN 3122 / ISO 3315
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Exact gearing 24-teeth ratchet mechanism
- Lightweight recessed reverse lever
- Ideally suited for extreme loads
- Burnished head
- With handle
- Mirror polished
- Chrome vanadium



	A mm	D mm	L mm	Replacement handle bar	Repair set	
911.1019	35,0	70,0	210,0	911.1021	911.1099	4,60

## 1" SET ASSORTMENTS

### Socket set

- 6 point
- Matt finish
- Chrome vanadium
- Robust 24 teeth ratchet mechanism
- In durable steel storage case



911.0815	14 pcs 36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	29,00
911.0822	21 pcs 36 - 38 - 41 - 46 - 50 - 54 - 55 - 58 - 60 - 63 - 65 - 67 - 70 - 71 - 75 - 77 - 80 mm	43,50

### Socket set

- 12 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- Robust 24 teeth ratchet mechanism
- In durable steel storage case



911.0814	14 pcs 36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	29,00
911.0824	21 pcs 36 - 38 - 41 - 46 - 50 - 54 - 55 - 58 - 60 - 63 - 65 - 67 - 70 - 71 - 75 - 77 - 80 mm	43,50

# KS TOOLS®

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POWER SOCKET WRENCH



Innovation is  
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## 1/4" POWER SOCKETS

### Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/4"

	mm	L mm	D1 mm	D2 mm	T mm	g
515.1501	4,0	23,0	10,0	13,0	3,0	12
515.1502	4,5	23,0	10,0	13,0	3,0	12
515.1503	5,0	23,0	10,0	13,0	3,0	12
515.1541	5,5	23,0	10,0	13,0	3,0	14
515.1542	6,0	23,0	10,0	13,0	3,0	14
515.1543	7,0	23,0	11,0	13,0	3,0	14
515.1544	8,0	23,0	12,0	13,0	3,5	14
515.1545	9,0	23,0	13,0	13,0	4,0	16
515.1546	10,0	23,0	14,0	13,0	5,0	16
515.1547	11,0	23,0	16,0	13,0	6,0	19
515.1548	12,0	23,0	17,0	13,0	6,0	19
515.1549	13,0	23,0	19,0	13,0	6,0	21
515.1550	14,0	23,0	20,0	13,0	7,0	21
515.1552	3/16"	23,0	9,0	13,0	3,0	14
515.1553	1/4"	23,0	10,0	13,0	3,0	14
515.1554	5/16"	23,0	13,0	13,0	3,0	14
515.1505	11/32"	23,0	13,0	10,0	4,0	15
515.1555	3/8"	23,0	14,0	13,0	4,0	16
515.1556	7/16"	23,0	16,0	13,0	6,0	19
515.1525	1/2"	23,0	17,0	14,0	6,0	22

### Torx E impact socket, short

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/4"

		L mm	D1 mm	D2 mm	T mm	g
515.0998	E4	25,0	7,0	12,0	6,0	10
515.0999	E5	25,0	8,0	12,0	6,0	10
515.1066	E6	25,0	8,0	12,0	7,0	11
515.1067	E7	25,0	8,0	12,0	8,0	11
515.1068	E8	25,0	11,0	12,0	8,0	12
515.1069	E10	25,0	14,0	14,0	10,0	14
515.1071	E11	25,0	14,0	14,0	10,0	14
515.1074	E12	25,0	14,0	14,0	10,0	15

## Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



1/4"

	mm	D mm	L mm	g
913.1473	6,0	17,0	32,0	40
913.1408	8,0	17,0	32,0	40
913.1410	10,0	17,0	32,0	40
913.1470	11,0	17,0	32,0	40
913.1412	12,0	17,0	32,0	40

## Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/4" 1/2"

			g
913.1460	15 pcs	Spiral profile impact socket set	1,10
8 x		1/2": 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 mm	
5 x		1/4": 6 - 8 - 10 - 11 - 12 mm	
2 x		1/4"	

## 1/4" POWER EXTENSIONS

### Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/4"

	L mm	D mm	g
515.1560	50,0	13,0	25
515.1580	100,0	13,0	48

## 1/4" IMPACT BALL JOINTS

### Power universal ball joint

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Very breakage resistant
- For machinery usage
- Phosphate finish
- Special steel



1/4"

			Length mm	g
515.1584	1/4"	1/4"	40,0	25

## 1/4" POWER ADAPTERS

### Impact socket adapter

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/4"

		L mm	D mm	g
515.1530	1/4"	3/8"	26,0	13,0

## Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

			g
515.0100	9 pcs	Impact adaptor and reducing adaptor set	1,78
1 x		1/4" F x 3/8" M	
1 x		3/8" F x 1/4" M	
1 x		3/8" F x 1/2" M	
1 x		1/2" F x 3/8" M	
1 x		1/2" F x 3/4" M	



### 12 Point impact socket

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



3/8"

			kg
515.0950	10 pcs	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm	1,65



### Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



3/8"

	mm	D mm	L mm	kg
913.3858	8,0	17,0	34,0	30
913.3860	10,0	15,0	34,0	30
913.3861	11,0	16,0	34,0	30
913.3862	12,0	18,0	34,0	40
913.3863	13,0	18,5	34,0	40
913.3864	14,0	20,5	34,0	40
913.3865	15,0	22,0	34,0	60
913.3866	16,0	22,5	34,0	60
913.3867	17,0	24,5	34,0	70
913.3868	18,0	26,0	34,0	80
913.3869	19,0	27,0	34,0	80

### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



3/8"

			kg
913.3855	10 pcs	Spiral profile impact socket set	660

consists of:

		kg
913.3860	3/8" Spiral profile impact socket, 10mm	30
913.3861	3/8" Spiral profile impact socket, 11mm	30
913.3862	3/8" Spiral profile impact socket, 12mm	40
913.3863	3/8" Spiral profile impact socket, 13mm	40
913.3864	3/8" Spiral profile impact socket, 14mm	40
913.3865	3/8" Spiral profile impact socket, 15mm	60
913.3866	3/8" Spiral profile impact socket, 16mm	60
913.3867	3/8" Spiral profile impact socket, 17mm	70
913.3869	3/8" Spiral profile impact socket, 19mm	80
913.3870	Burr arbor, 3/8", for 913.3855	30

### Torx E impact socket

- Torx E profile
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/8"

		L mm	D1 mm	D2 mm	T mm	kg
515.0970	E4	30,0	8,0	19,0	4,0	30
515.0980	E5	30,0	8,0	19,0	4,0	30
515.0981	E6	30,0	10,0	19,0	5,0	30
515.0982	E7	30,0	10,0	19,0	6,0	30
515.0983	E8	30,0	11,0	19,0	6,0	30
515.0984	E10	30,0	13,0	19,0	8,0	37
515.0996	E11	30,0	15,0	17,0	6,0	13
515.0985	E12	30,0	15,0	19,0	9,0	40
515.0986	E14	30,0	17,0	19,0	10,0	50
515.0997	E16	30,0	20,0	20,0	10,0	24

### 3/8" POWER BIT SOCKETS

#### Force bit socket for hexagon socket screws, short

- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/8"

	mm	Length mm	Ø mm	kg
515.1586	3,0	50,0	19,0	65
515.1587	4,0	50,0	19,0	65
515.1588	5,0	50,0	19,0	65
515.1589	6,0	50,0	19,0	65
515.1590	8,0	50,0	19,0	75
515.1591	10,0	60,0	19,0	80
515.1592	12,0	60,0	19,0	90

### 3/8" POWER EXTENSIONS

#### Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/8"

	L mm	D mm	kg
515.1534	75,0	19,0	85
515.1593	125,0	19,0	140
515.1535	150,0	19,0	150
515.1540	250,0	19,0	250

### 3/8" POWER BALL JOINTS

#### Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/8"

			L mm	D mm	kg
515.1533	3/8"	3/8"	53,0	24,0	105



### 3/8" POWER ADAPTERS

#### Impact adaptor

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



			L mm	D mm	
515.1531	3/8"	1/4"	32,0	22,0	20
515.1532	3/8"	1/2"	36,0	22,0	62

#### Impact adaptor and reducing adaptor set

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

			L mm	D mm	
515.0100	9 pcs	Impact adaptor and reducing adaptor set			1,78
1 x		1/4" F x 3/8" M			
1 x		3/8" F x 1/4" M			
1 x		3/8" F x 1/2" M			
1 x		1/2" F x 3/8" M			
1 x		1/2" F x 3/4" M			
1 x		3/4" F x 1/2" M			
1 x		3/8"			
1 x		1/2"			
1 x		3/4"			

### 3/8" POWER SECURING ELEMENTS

#### O-Ring

- For impact drivers and impact sockets
- For safeguard



	for sockets mm	D mm	B mm	
515.1536	6-12	13,0	4,0	10
515.1537	13-22	16,0	4,0	12

#### Connection pin for sockets

- For impact drivers and impact sockets
- For safeguard



	for sockets mm	D mm	L mm	
515.1538	6-12	2,5	14,0	10
515.1539	13-22	2,5	16,0	14

### 1/2" POWER SOCKETS

#### Hexagon impact socket, extra short

- 6 point
- Very flat design
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D1 mm	D2 mm	T mm	
515.0056	10,0	28,0	18,0	25,0	6,0	50
515.0057	11,0	28,0	18,0	25,0	6,0	50
515.0058	12,0	28,0	19,0	25,0	6,0	50
515.0059	13,0	28,0	20,0	25,0	6,0	51
515.0061	14,0	28,0	22,0	25,0	6,0	52
515.0062	15,0	28,0	23,0	25,0	6,0	55
515.0063	16,0	28,0	25,0	25,0	6,0	60
515.0064	17,0	28,0	26,0	26,0	6,0	65
515.0066	18,0	28,0	28,0	28,0	6,0	81
515.0067	19,0	28,0	28,0	28,0	11,0	74
515.0068	20,0	28,0	30,0	30,0	11,0	89
515.0069	21,0	28,0	30,0	30,0	11,0	85
515.0071	22,0	28,0	32,0	30,0	11,0	93
515.0072	23,0	28,0	34,0	30,0	11,0	100
515.0073	24,0	28,0	34,0	30,0	10,0	100

### Hexagon impact socket set, extra short

- 6 point
- Very flat design
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



515.0055	15 pcs Hexagon impact socket set, extra short 1,20

consists of:

515.0056	1/2" hexagon impact socket, extra short, 10,0 mm	50
515.0057	1/2" hexagon impact socket, extra short, 11,0 mm	50
515.0058	1/2" hexagon impact socket, extra short, 12,0 mm	50
515.0059	1/2" hexagon impact socket, extra short, 13,0 mm	51
515.0061	1/2" hexagon impact socket, extra short, 14,0 mm	52
515.0062	1/2" hexagon impact socket, extra short, 15,0 mm	55
515.0063	1/2" hexagon impact socket, extra short, 16,0 mm	60
515.0064	1/2" hexagon impact socket, extra short, 17,0 mm	65
515.0066	1/2" hexagon impact socket, extra short, 18,0 mm	81
515.0067	1/2" hexagon impact socket, extra short, 19,0 mm	74
515.0068	1/2" hexagon impact socket, extra short, 20,0 mm	89
515.0069	1/2" hexagon impact socket, extra short, 21,0 mm	85
515.0071	1/2" hexagon impact socket, extra short, 22,0 mm	93
515.0072	1/2" hexagon impact socket, extra short, 23,0 mm	100
515.0073	1/2" hexagon impact socket, extra short, 24,0 mm	100

#### Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D1 mm	D2 mm	T mm	
515.1008	8,0	38,0	15,0	24,0	8,0	57
515.1009	9,0	38,0	16,0	24,0	8,0	60
515.1010	10,0	38,0	17,0	24,0	10,0	60
515.1011	11,0	38,0	18,0	24,0	10,0	62
515.1012	12,0	38,0	20,0	24,0	10,0	64
515.1013	13,0	38,0	21,0	24,0	10,0	67
515.1014	14,0	38,0	22,0	24,0	11,0	69
515.1015	15,0	38,0	23,0	24,0	11,0	74
515.1016	16,0	38,0	25,0	24,0	11,0	72
515.1017	17,0	38,0	26,0	26,0	12,0	89
515.1018	18,0	38,0	27,0	28,0	13,0	111
515.1019	19,0	38,0	28,0	28,0	13,0	100
515.1020	20,0	38,0	30,0	30,0	13,0	121
515.1021	21,0	38,0	30,0	30,0	14,0	125

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12 point impact socket, deep

- 12 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	Ø	L	D1	D2	T	W
	mm	mm	mm	mm	mm	kg
515.0940	8,0	78,0	14,0	25,0	12,0	160
515.0941	9,0	78,0	15,8	25,0	12,0	160
515.0942	10,0	78,0	17,0	25,0	12,0	155
515.0943	11,0	78,0	18,4	25,0	13,0	160
515.0944	12,0	78,0	16,6	25,0	14,0	160
515.0945	13,0	78,0	18,4	25,0	12,0	160
515.0946	14,0	78,0	20,8	25,0	12,0	185
515.0947	15,0	78,0	23,3	30,0	15,0	210
515.0948	16,0	78,0	24,6	25,0	13,0	210
515.0949	17,0	78,0	25,8	30,0	17,0	230
515.0951	18,0	78,0	27,1	30,0	18,0	240
515.0952	19,0	78,0	28,3	30,0	20,0	250
515.0953	20,0	78,0	29,5	30,0	20,0	260
515.0954	21,0	78,0	30,8	30,0	22,0	275
515.0955	22,0	78,0	32,3	30,0	22,0	300
515.0956	23,0	78,0	33,3	30,0	24,0	230
515.0957	24,0	78,0	34,6	30,0	24,0	370
515.0971	25,0	78,0	35,8	30,0	24,0	340
515.0972	26,0	78,0	37,0	30,0	27,0	340
515.0973	27,0	78,0	38,3	30,0	27,0	430
515.0974	28,0	78,0	39,5	30,0	27,0	410
515.0975	29,0	78,0	40,8	30,0	27,0	410
515.0976	30,0	85,0	42,1	30,0	27,0	510
515.0977	31,0	85,0	43,3	30,0	31,0	410
515.0978	32,0	85,0	44,6	30,0	32,0	560

12 Point impact socket set, deep

- 12 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- On a magnetic storage rail



	W
	kg
515.1140	13 pcs 12 Point impact socket set, deep 2,70
10 x	12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm
1 x	1/2"
1 x	125 mm

Special drive shaft impact socket, long

- 12 point
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For use in a 1/2" impact wrench
- For machinery usage
- Phosphate finish
- Chrome molybdenum

Application range: Drive shafts, flange shafts, fuel injectors, Mercedes Truck Transmissions G2/24/26, Mercedes Actros etc.



	Ø	Length	W
	mm	mm	kg
150.1705	30,0	42	85,0 450
150.1706	32,0	44	85,0 490
150.1704	34,0	46	85,0 430
150.1707	36,0	50	85,0 520

Torx E impact socket, short

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	L	D1	D2	T	W
	mm	mm	mm	mm	kg
911.0975	E8	38,0	11,5	25,0	10,0 80
911.0958	E10	38,0	13,5	25,0	8,0 80
911.0976	E11	38,0	14,5	25,0	10,0 80
911.0959	E12	38,0	15,5	25,0	10,0 80
911.0961	E14	38,0	17,5	25,0	10,0 85
911.0962	E16	38,0	19,6	25,0	10,0 85
911.0963	E18	38,0	21,7	30,0	11,0 85
911.0964	E20	38,0	23,8	30,0	11,0 85
515.0979	E22	38,0	26,0	25,0	11,0 70
911.0969	E24	38,0	28,3	30,0	11,0 90

Impact socket set, short

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



	W
	kg
515.1106	7 pcs E10 - E12 - E14 - E16 - E18 - E20 - E24 1,45

Torx E impact socket, deep

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	L	D1	D2	T	W
	mm	mm	mm	mm	kg
515.1051	E10	75,0	13,0	22,0	8,0 150
515.1052	E11	75,0	14,0	22,0	21,0 150
515.1053	E12	75,0	16,0	22,0	21,0 150
515.1054	E14	75,0	16,0	22,0	18,0 170
515.1055	E16	75,0	19,0	22,0	20,0 180
515.1056	E18	75,0	20,0	22,0	19,0 200
515.1057	E20	75,0	24,0	22,0	20,0 240
515.1058	E22	75,0	26,0	24,0	34,0 280
515.1059	E24	75,0	28,0	26,0	21,0 320

Impact socket set

- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



	W
	kg
515.1050	9 pcs E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24 1,97

Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



	Ø	D	L	W
	mm	mm	mm	kg
913.1469	12,0	22,0	34,0	40
913.1468	13,0	22,0	34,0	50
913.1467	14,0	25,0	34,0	70
913.1466	15,0	25,0	34,0	70
913.1465	17,0	25,0	34,0	70
913.1464	19,0	27,0	34,0	90
913.1249	19,0	27,0	50,0	90

	mm	D mm	L mm	g
913.1250	20,0	27,0	50,0	110
913.1463	21,0	27,0	34,0	90
913.1252	22,0	27,0	50,0	120
913.1253	23,0	27,0	50,0	130
913.1462	24,0	27,0	34,0	110
913.1255	25,0	27,0	50,0	150
913.1461	27,0	27,0	34,0	110

### Spiral profile impact socket set, extra deep

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

	pcs		g
913.1240	6 pcs	Spiral profile impact socket set, extra deep	690

consists of:

		g
913.1249	Spiral profile impact socket, 1/2", 19mm, 50mm length	90
913.1250	Spiral profile impact socket, 1/2", 20mm	110
913.1252	Spiral profile impact socket, 1/2", 22mm	120
913.1253	Spiral profile impact socket, 1/2", 23mm	130
913.1255	Spiral profile impact socket, 1/2", 25mm	150

### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/4" 1/2"

	pcs		g
913.1460	15 pcs	Spiral profile impact socket set	1,10
8 x		1/2": 13 - 14 - 15 - 17 - 19 - 21 - 24 - 27 mm	
5 x		1/4": 6 - 8 - 10 - 11 - 12 mm	
2 x		1/4"	

### 1/2" WHEEL ASSEMBLY SOCKETS

#### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



1/2"

	pcs		g
913.1270	3 pcs	Spiral profile impact socket set	600

consists of:

		g
913.1271	Twist socket, 1/2", 17mm	140
913.1272	Twist socket, 1/2", 19mm	200
913.1273	Twist socket, 1/2", 21mm	210

#### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



1/2"

	pcs		g
913.1280	3 pcs	Spiral profile impact socket set	600

consists of:

		g
913.1281	Twist socket, 1/2", 17mm	130
913.1282	Twist socket, 1/2", 19mm	170
913.1283	1/2" Socket Extension	160



### Spiral profile impact socket set, extra deep

- Self-fastening and rejuvenating special profile with aggressive spiral nut
- For loosening badly damaged screws and nuts
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Positive connection
- Includes impact bar to extract or remove the damaged bolt or nut
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

	pcs		g
913.1290	4 pcs	Spiral profile impact socket set, extra deep	1,50

consists of:

		g
913.1291	Spiral profile impact socket, 1/2", 17mm	300
913.1292	Spiral profile impact socket, 1/2", 19mm	320
913.1293	Spiral profile impact socket, 1/2", 21mm	340
913.1295	Impact bar, 1/2", for 913.1290	540

### Hexagon impact socket set, deep

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



1/2"

	pcs		g
515.0103	3 pcs	17 - 19 - 21 mm	0,86

### Aluminium wheel impact socket, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome molybdenum



	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.2015	Green	15,0	85,0	21,0	25,0	23,0	515.2035	180
515.2017	Blue	17,0	85,0	24,0	30,0	23,0	515.2030	231
515.2019	Yellow	19,0	85,0	26,0	30,0	23,0	515.2031	235
515.2021	Red	21,0	85,0	28,0	30,0	23,0	515.2032	258
515.2022	Green	22,0	85,0	30,0	32,0	23,0	515.2033	320

### Aluminium wheel impact socket set, deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Square drive as per DIN 3121/ISO 1174 with backstop groove
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome molybdenum
- In durable plastic storage case



			kg
515.1005	3 pcs	17 - 19 - 21 mm	0,86
515.1006	4 pcs	17 - 19 - 21 - 22 mm	1,45
515.1007	5 pcs	15 - 17 - 19 - 21 - 22 mm	1,40

### Aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome molybdenum



	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.2040	Blue	17,0	150,0	28,0	30,0	31,0	515.2045	600
515.2041	Yellow	19,0	150,0	29,5	30,0	31,0	515.2046	650
515.2042	Red	21,0	150,0	31,0	30,0	31,0	515.2047	700

### Aluminium wheel impact socket set, extra deep

- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Chrome molybdenum
- In durable plastic storage case



			kg
515.1040	6 pcs	Aluminium wheel impact socket set, extra deep	1,45
3 x		17 mm - 19 mm - 21 mm	
3 x		17 mm - 19 mm - 21 mm	

### Special aluminium wheel impact socket, extra deep

- Specially for the wheel assembly and/or dismantling on aluminium sports wheels with deep lying wheel screws
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long and thin walled execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Phosphate finish
- Chrome molybdenum



	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.2043	17,0	130,0	28,0	30,0	19,0	515.2044	350



### special aluminium rims special profile power socket for Mercedes, long

- Especially for wheel mounting or disassembly of Mercedes special profile wheel bolts
- Square drive as per DIN 3121/ISO 1174 with backstop groove
- Long execution
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Phosphate finish
- Chrome molybdenum

**Application range:** Mercedes C-class (W204), CL-class (W216), GLK (W204), E-class (W211, W212, W207), M-class (W166), S-class (W221, W222), SLK (W172), **Maybach**



	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.2055	MS17	88,0	26,0	26,0	18,0	515.2056	257

### special aluminium rims special profile power socket for Hyundai / Kia, long

- Especially for wheel mounting or disassembly of Hyundai special profile wheel bolts
- Square drive as per DIN 3121/ISO 1174 with backstop groove
- Long execution
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeves interchangeable
- Phosphate finish
- Chrome molybdenum

**Application range:** Hyundai / Kia



		L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.2060	MS21	86,0	31,0	31,0	16,0	515.2061	280

### Aluminium wheel impact socket, deep

- Sturdy design
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



	Colour code	mm	L mm	D1 mm	D2 mm	T mm	Replacement sleeves	kg
515.1072	Green	15,0	85,0	22,0	30,0	25,0	515.2053	150
515.1073	Blue	17,0	85,0	24,5	30,0	24,0	515.2050	220
515.1075	Yellow	19,0	85,0	26,5	30,0	24,0	515.2051	235
515.1076	Red	21,0	85,0	28,0	30,0	28,0	515.2052	257
515.1077	Orange	22,0	85,0	30,0	32,0	28,0	515.2054	262

### Aluminium wheel impact socket set, deep

- Sturdy design
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1070	3 pcs	17 - 19 - 21 mm				0,78

### SlimPOWER Alloy rim impact socket, deep

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.0991	15,0	86,0	24,5	23,5	20,0	155
515.0992	17,0	86,0	26,0	26,0	20,0	220
515.0993	19,0	86,0	28,0	28,0	20,0	207
515.0994	21,0	86,0	30,0	30,0	20,0	251
515.0995	22,0	86,0	32,0	30,0	20,0	266



### SlimPOWER Alloy rim impact socket set

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.0989	2 pcs	17 - 19 mm				404

### SlimPOWER Alloy rim impact socket set

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.0990	3 pcs	17 - 19 - 21 mm				791

### SlimPOWER Alloy rim impact socket, extra deep

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.0617	17,0	150,0	26,5	29,0	20,0	385
515.0618	19,0	150,0	28,5	29,5	20,0	405
515.0619	21,0	150,0	30,0	29,5	20,0	425

### SlimPOWER Alloy rim impact socket set, extra deep

- Very robust execution
- Specially for the wheel assembly and/or dismantling
- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Plastic sleeves for the damage-free work on aluminium rims
- Plastic sleeve it protects the surfaces at the wheel screws/ nuts
- Plastic sleeves interchangeable
- Colour coded identifies the socket size
- Phosphate finish
- Chrome molybdenum



1/2"

Colour code	mm	L mm	D1 mm	D2 mm	T mm	kg
515.0621	2 pcs	17 - 19 mm				800
515.0622	3 pcs	17 - 19 - 21 mm				1300

### Magnet set for SlimPOWER alloy rims Kraft sockets

- Ideal supplement for the secure holding of wheel bolts and wheel nuts
- Only suitable for all SlimPOWER alloy rims Kraft sockets
- Spring-mounted magnet
- High retention force



1/2"

515.0625	3 pcs	Magnet set for SlimPOWER alloy rims Kraft sockets	30

consists of:

515.0623		Solenoid holder for 17 mm SlimPOWER alloy wheels impact socket	10
515.0624		Solenoid holder for 19 mm SlimPOWER alloy wheels impact socket	10
515.0626		Solenoid holder for 21 and 22 mm SlimPOWER alloy wheels impact socket	10



### Rim lock release tool for Toyota/Lexus/Hyundai

- For the quick and easy removal of wheel rim locks
- Left-turning clamping device
- Shaped in the key core then wedged in and then releasing on the thread and push it in so doing
- For manual operation
- Chrome molybdenum

Application range: Toyota, Lexus, Hyundai



913.1479		Rim lock release tool for Toyota/Lexus/Hyundai	260

### 1/2" POWER BIT SOCKETS

#### Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

		L mm	D mm	
911.0903	5,0	38,0	25,0	70
911.0904	6,0	38,0	25,0	72
911.0983	7,0	38,0	25,0	70
911.0905	8,0	38,0	25,0	77
911.0906	10,0	38,0	25,0	80
911.0907	12,0	38,0	25,0	135
911.0908	14,0	43,0	25,0	145
911.0909	17,0	43,0	25,0	155
911.0911	19,0	43,0	25,0	155
911.0984	1/8"	38,0	25,0	65
911.0985	5/32"	38,0	25,0	65
911.0986	3/16"	38,0	25,0	67
911.0987	7/32"	38,0	25,0	67
911.0988	1/4"	38,0	25,0	68
911.0989	5/16"	38,0	25,0	70
911.0990	3/8"	38,0	25,0	77
911.0991	7/16"	38,0	25,0	80
911.0992	1/2"	38,0	25,0	80
911.0993	9/16"	43,0	25,0	85
911.0994	5/8"	43,0	25,0	80

#### Impact bit socket set for hexagon screws, short

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



1/2"

515.1102	6 pcs	8 - 10 - 12 - 14 - 17 - 19 mm	1,45
515.1103	4 pcs	5 - 6 - 8 - 10 mm	1,00



### Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

		L mm	D mm	
911.0925	5,0	75,0	25,0	90
911.0926	6,0	75,0	25,0	92
911.0927	8,0	75,0	25,0	102
911.0928	10,0	75,0	25,0	130
911.0929	12,0	75,0	25,0	136
911.0930	14,0	75,0	25,0	136
911.0931	17,0	75,0	25,0	140
911.0932	19,0	75,0	25,0	210

#### Impact bit socket set for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



1/2"

515.1104	6 pcs	8 - 10 - 12 - 14 - 17 - 19 mm	1,70
515.1105	4 pcs	5 - 6 - 8 - 10 mm	1,35

#### Impact socket for Torx® screws, short

- Torx
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

		L mm	D mm	
911.0912	T30	57,0	25,0	75
911.0913	T40	57,0	25,0	77
911.0914	T45	57,0	25,0	80
911.0924	T50	57,0	25,0	82
911.0933	T55	57,0	25,0	84
911.0955	T60	60,0	25,0	90
911.0956	T70	60,0	25,0	93
911.0957	T80	60,0	25,0	95

### Impact bit socket set for Torx screws, short

- Torx
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

				kg
515.1107	8 pcs	T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	850	



### Impact socket for Torx® screws, long

- Torx
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

					L mm	D mm	kg
911.0995	T20	75,0	25,0	80			
911.0996	T25	75,0	25,0	80			
911.0915	T30	75,0	25,0	100			
911.0916	T40	75,0	25,0	83			
911.0917	T45	75,0	25,0	110			
911.0918	T50	75,0	25,0	133			
911.0919	T55	75,0	25,0	145			
911.0920	T60	75,0	25,0	160			
911.0921	T70	75,0	25,0	180			
911.0922	T80	75,0	25,0	200			

### Impact bit socket set for Torx screws, long

- Torx
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

				kg
911.0901	8 pcs	T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	1,05	

### Impact socket for RIBE® screws, long

- For tamperproof RIBE® profile
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

				L mm	D mm	kg
911.0935	M5	75,0	25,0	90		
911.0936	M6	75,0	25,0	90		
911.0937	M7	75,0	25,0	90		
911.0938	M8	75,0	25,0	90		
911.0939	M9	75,0	25,0	90		
911.0940	M10	75,0	25,0	100		
911.0941	M12	75,0	25,0	110		
911.0942	M13	75,0	25,0	120		
911.0943	M14	75,0	25,0	130		

### Impact bit socket set for RIBE® screws, long

- RIBE®
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

				kg
911.0934	9 pcs	M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14	1,10	

### Impact bit socket for spline (XZN®) screws, long

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

					L mm	D mm	T mm	kg
911.0945	M4	75,0	25,0	45,0	90			
911.0946	M5	75,0	25,0	45,0	90			
911.0947	M6	75,0	25,0	45,0	90			
911.0948	M8	75,0	25,0	45,0	90			
911.0949	M9	75,0	25,0	45,0	100			
911.0950	M10	75,0	25,0	45,0	100			
911.0951	M12	75,0	25,0	45,0	110			
911.0952	M14	75,0	25,0	45,0	130			
911.0953	M16	75,0	25,0	45,0	150			

### Impact bit socket set for spline (XZN®) screws

- Spline (XZN®)
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

				kg
911.0944	9 pcs	M4 - M5 - M6 - M8 - M9 - M10 - M12 - M13 - M16	1,14	

### 1/2" POWER EXTENSIONS

#### Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"

				L mm	D mm	kg
515.1152		50,0	25,0	105		
515.1134		75,0	25,0	220		
515.1135		125,0	25,0	425		
515.1153		175,0	25,0	370		
515.1136		250,0	25,0	440		



**Torsional torque limiter extension**

- Ideal for the time-saving pre-tightening of wheel bolts and nuts with impact wrenches
- Automatic tightening stop prevents damage to rims and bolts
- Combines the speed of impact wrenches with the precision of torque wrenches
- Absorbs excessive torque and limits to the respective torque
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded for better overview
- Chrome molybdenum



	Colour code	max N·m	Ø mm	Length mm	
515.1061		90	25,0	195,0	270
515.1062		100	25,0	195,0	270
515.1063		110	25,0	195,0	270
515.1064		120	25,0	195,0	270
515.1065		135	25,0	195,0	270

**Torsional torque limiter extension set**

- Ideal for the time-saving pre-tightening of wheel bolts and nuts with impact wrenches
- Automatic tightening stop prevents damage to rims and bolts
- Combines the speed of impact wrenches with the precision of torque wrenches
- Absorbs excessive torque and limits to the respective torque
- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3120 / ISO 1174
- For machinery usage
- Colour coded for better overview
- Chrome molybdenum



	Colour code	max N·m	Ø mm	Length mm	
515.1060	5 pcs	90 - 100 - 110 - 120 - 135 Nm			1,37

**1/2" POWER BALL JOINTS**

**Impact universal ball joint**

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finish
- Chrome molybdenum



			L mm	D mm	
515.1133	1/2"	1/2"	67,0	28,0	159



**1/2" POWER ADAPTERS**

**Impact adaptor**

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



			L mm	D mm	
515.1143	1/2"	3/8"	38,0	25,0	72
515.1144	1/2"	3/4"	48,0	30,0	165

**Impact adaptor and reducing adaptor set**

- Ideal set of compilation for adaptors and ball joints
- Chrome molybdenum
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4"

			L mm	D mm	
515.0100	9 pcs	Impact adaptor and reducing adaptor set			1,78
1 x		1/4" F x 3/8" M			
1 x		3/8" F x 1/4" M			
1 x		3/8" F x 1/2" M			
1 x		1/2" F x 3/8" M			
1 x		1/2" F x 3/4" M			
1 x		3/4" F x 1/2" M			
1 x		3/8"			
1 x		1/2"			
1 x		3/4"			

**1/2" POWER SECURING ELEMENTS**

**O-Ring**

- For impact drivers and impact sockets
- For safeguard



1/2"

	for sockets mm	D mm	B mm	
515.1137	6-16	19,0	4,0	10
515.1138	17-32	24,0	4,0	12

**Connection pin**

- For impact drivers and impact sockets
- For safeguard



1/2"

	for sockets mm	D mm	L mm	
515.1141	6-16	3,0	20,0	10
515.1142	17-32	3,0	26,0	14

## 3/4" POWER SOCKETS

### Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/4"

### Hexagon impact socket set

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



3/4"

Item No.	Qty	Dimensions (mm)	Weight (kg)
515.0210	8 pcs	24 - 27 - 29 - 30 - 32 - 34 - 36 - 38 mm	3,54

### Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/4"



Item No.	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1417	17,0	90,0	30,0	44,0	38,0	390
515.1418	18,0	90,0	31,0	44,0	38,0	590
515.1419	19,0	90,0	33,0	44,0	38,0	600
515.1420	20,0	90,0	34,0	44,0	38,0	610
515.1421	21,0	90,0	35,0	44,0	38,0	630
515.1422	22,0	90,0	37,0	44,0	38,0	640
515.1423	23,0	90,0	38,0	44,0	38,0	640
515.1424	24,0	90,0	39,0	44,0	38,0	640
515.1425	25,0	90,0	40,0	44,0	38,0	640
515.1426	26,0	90,0	41,0	44,0	38,0	650
515.1427	27,0	90,0	43,0	44,0	38,0	650
515.1428	28,0	90,0	44,0	44,0	38,0	650
515.1429	29,0	90,0	45,0	44,0	38,0	660
515.1430	30,0	90,0	46,0	44,0	38,0	680
515.1431	31,0	90,0	48,0	44,0	38,0	730
515.1432	32,0	90,0	49,0	44,0	38,0	740
515.1433	33,0	90,0	51,0	44,0	38,0	770
515.1434	34,0	90,0	51,0	44,0	38,0	790
515.1435	35,0	90,0	53,0	44,0	38,0	820
515.1436	36,0	90,0	54,0	44,0	38,0	840
515.1437	37,0	90,0	55,0	44,0	38,0	860
515.1438	38,0	90,0	56,0	44,0	38,0	880
515.1441	41,0	90,0	60,0	44,0	38,0	970
515.1443	43,0	90,0	63,2	44,0	38,0	1150
515.1446	46,0	90,0	66,0	44,0	38,0	1260
515.1450	50,0	90,0	71,0	54,0	38,0	1650

### Hexagon impact socket set

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable steel storage case



3/4"

Item No.	Qty	Dimensions (mm)	Weight (kg)
515.0510	8 pcs	24 - 27 - 29 - 30 - 32 - 33 - 34 - 36 mm	4,20

### Hexagon impact socket, extra deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/4"

Item No.	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1182	27,0	270,0	42,0	44,0	27,0	1,09
515.1183	30,0	270,0	46,0	44,0	30,0	1,14
515.1184	32,0	270,0	49,0	44,0	32,0	1,16
515.1191	27,0	400,0	42,0	44,0	27,0	1,25
515.1192	30,0	400,0	46,0	44,0	30,0	1,32
515.1193	32,0	400,0	49,0	44,0	32,0	1,36
515.1194	33,0	400,0	50,0	44,0	32,0	1,38

### Torx E impact socket, deep

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



3/4"

Item No.	Drive	L mm	D mm	kg
450.0451	E18	140,0	44,0	672
450.0452	E20	140,0	44,0	692
450.0453	E22	140,0	44,0	700
450.0454	E24	140,0	44,0	748



3/4" POWER BIT SOCKETS

Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finish
- Chrome molybdenum



	mm	L mm	D mm	g
515.0001	14,0	60,0	40,0	140
515.0002	17,0	60,0	40,0	280
515.0003	19,0	60,0	40,0	340
515.0004	21,0	60,0	40,0	340
515.0005	22,0	60,0	40,0	340
515.0006	24,0	60,0	40,0	340

Impact bit socket set

- Hexagon
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finish
- Chrome molybdenum
- In durable steel storage case



	g
515.0000 6 pcs 14 - 17 - 19 - 21 - 22 - 24 mm	2,52

Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	L mm	D mm	g
450.0461	17,0	140,0	44,0	672
450.0462	19,0	140,0	44,0	686
450.0463	22,0	140,0	44,0	710
450.0464	24,0	140,0	44,0	760

Impact bit socket for Torx, tamperproof, short

- Torx tamperproof
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finish
- Chrome molybdenum



		L mm	D mm	g
515.0016	TB70	60,0	40,0	270
515.0017	TB80	60,0	40,0	270
515.0018	TB90	60,0	40,0	280
515.0019	TB100	60,0	40,0	290

Impact socket for Torx® screws, long

- For Torx screws
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D mm	g
450.0441	T60	140,0	44,0	630
450.0442	T70	140,0	44,0	650
450.0443	T80	140,0	44,0	656
450.0444	T90	140,0	44,0	666
450.0445	T100	140,0	44,0	680

Impact bit socket, tamperproof, for spline (XZN®) screws

- Spline tamperproof
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Matt finish
- Chrome molybdenum



		L mm	D mm	g
515.0012	M16	60,0	40,0	270
515.0013	M18	60,0	40,0	270

Impact bit socket and impact socket set

- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



		g
450.0420 16 pcs	Impact bit socket and impact socket set	6,00

consists of:

		g
450.0422	Impact bit socket hex adaptor, 107mm, 17mm	360
450.0423	Impact bit socket hex adaptor, 107mm, 19mm	370
450.0425	Impact bit socket hex adaptor, 107mm, 22mm	380
450.0426	Impact bit socket hex adaptor, 107mm, 24mm	460
450.0427	Impact bit socket Torx adaptor, 107mm, T60	330
450.0428	Impact bit socket Torx adaptor, 107mm, T70	330
450.0429	Impact bit socket Torx adaptor, 107mm, T80	340
450.0430	Impact bit socket Torx adaptor, 107mm, T90	350
450.0431	Impact bit socket Torx adaptor, 107mm, T100	360
450.0433	Impact bit socket Torx E adaptor, 107mm, E18	470
450.0434	Impact bit socket Torx E adaptor, 107mm, E20	340
450.0435	Impact bit socket Torx E adaptor, 107mm, E22	370
450.0436	Impact bit socket Torx E adaptor, 107mm, E24	390
450.0437	3/4" impact bit socket adaptor, 22mm	260
450.0438	1" impact bit socket adaptor, 22mm	500
151.2104	Ball ended hexagon key wrench, long, 4mm	10

3/4" POWER EXTENSIONS

Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	L mm	D mm	g
515.1375	90,0	44,0	500
515.1376	100,0	44,0	540
515.1377	150,0	44,0	750
515.1378	175,0	44,0	850
515.1379	200,0	44,0	950
515.1381	250,0	44,0	1110



### Hexagon impact socket, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	L mm	D1 mm	D2 mm	T mm	kg
515.1822	22,0	90,0	39,0	51,0	16,0	0,71
515.1824	24,0	90,0	42,0	54,0	16,0	0,72
515.1827	27,0	90,0	46,0	54,0	19,0	0,80
515.1802	29,0	90,0	48,0	54,0	19,0	0,60
515.1830	30,0	90,0	49,0	54,0	19,0	0,80
515.1832	32,0	90,0	52,0	54,0	19,0	0,91
515.1833	33,0	90,0	54,0	54,0	23,0	0,91
515.1834	34,0	90,0	54,0	54,0	23,0	0,95
515.1808	35,0	90,0	54,0	54,0	23,0	0,68
515.1836	36,0	90,0	57,0	54,0	23,0	0,95
515.1838	38,0	90,0	59,0	54,0	23,0	0,99
515.1814	39,0	90,0	59,0	54,0	23,0	1,10
515.1841	41,0	90,0	63,0	54,0	40,0	1,20
515.1846	46,0	90,0	69,0	54,0	40,0	1,36
515.1850	50,0	100,0	74,0	54,0	40,0	1,57
515.1855	55,0	100,0	81,0	54,0	52,0	1,95
515.1860	60,0	120,0	87,0	54,0	52,0	2,82
515.1865	65,0	120,0	93,0	54,0	60,0	3,15
515.1870	70,0	125,0	99,0	54,0	60,0	3,34
515.1875	75,0	125,0	105,0	54,0	60,0	4,43
515.1880	80,0	125,0	112,0	54,0	75,0	4,76
515.1885	85,0	135,0	119,0	54,0	75,0	5,80
515.1890	90,0	135,0	124,0	54,0	75,0	6,10
515.1881	95,0	150,0	135,0	127,0	49,0	6,90
515.1882	100,0	150,0	140,0	127,0	54,0	7,20
515.1883	105,0	150,0	150,0	127,0	54,0	8,10
515.1884	110,0	160,0	155,0	127,0	62,0	8,90
515.1886	115,0	160,0	160,0	127,0	67,0	9,40
515.1887	120,0	170,0	165,0	127,0	67,0	10,10

### Hexagon impact socket set, deep

- 6 point
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable steel storage case



	pcs	mm	kg
515.0308	8 pcs	24 - 27 - 30 - 32 - 33 - 34 - 36 - 38 mm	4,20

### Hexagon torque impact socket, extra deep

- Ideal for controlled loosening of wheel screws and nuts with impact wrenches
- Internal square drive to DIN 3121 / ISO 1174
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	max N·m	L mm	D mm	T mm	kg
515.1461	24,0	350	300,0	54,0	24,0	1,38
515.1462	27,0	350	300,0	54,0	27,0	1,40
515.1463	27,0	450	300,0	54,0	27,0	1,58
515.1464	30,0	500	300,0	54,0	30,0	1,56
515.1465	32,0	450	300,0	54,0	32,0	1,60
515.1466	32,0	550	300,0	54,0	32,0	1,60
515.1467	32,0	600	300,0	54,0	33,0	1,60
515.1468	33,0	550	300,0	54,0	33,0	1,64
515.1469	33,0	600	300,0	54,0	36,0	1,64
515.1489	36,0	600	300,0	54,0	36,0	1,80



### Torx E impact socket, deep

- Torx E
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D mm	kg
450.0481	E18	145,0	51,0	992
450.0482	E20	145,0	51,0	1012
450.0483	E22	145,0	51,0	1020
450.0484	E24	145,0	51,0	1068

### 1" POWER BIT SOCKETS

#### Impact bit socket, hexagon

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	L mm	D mm	g
450.0476	17,0	75,0	54,0	620
450.0477	19,0	75,0	54,0	650
450.0478	22,0	75,0	54,0	675
450.0479	24,0	75,0	54,0	700
450.0485	27,0	75,0	54,0	730
450.0486	30,0	75,0	54,0	770
450.0487	32,0	75,0	54,0	900
450.0488	36,0	75,0	54,0	920

#### Impact bit socket for hexagon screws, long

- Hexagon socket
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	L mm	D mm	kg
450.0491	17,0	145,0	51,0	0,99
450.0492	19,0	145,0	51,0	1,01
450.0493	22,0	145,0	51,0	1,03
450.0494	24,0	145,0	51,0	1,08
450.0495	27,0	145,0	51,0	2,00
450.0496	30,0	145,0	51,0	2,03
450.0497	32,0	145,0	51,0	2,07
450.0498	36,0	145,0	51,0	2,11



### Impact socket for Torx® screws, long

- Torx
- Internal square drive to DIN 3121 / ISO 1174
- Long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



		L mm	D mm	kg
450.0471	T60	145,0	51,0	950
450.0472	T70	145,0	51,0	970
450.0473	T80	145,0	51,0	976
450.0474	T90	145,0	51,0	986
450.0475	T100	145,0	51,0	1000

### Impact bit socket and impact socket set

- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



		kg
450.0420	16 pcs Impact bit socket and impact socket set	6,00

consists of:

		kg
450.0422	Impact bit socket hex adaptor, 107mm, 17mm	360
450.0423	Impact bit socket hex adaptor, 107mm, 19mm	370
450.0425	Impact bit socket hex adaptor, 107mm, 22mm	380
450.0426	Impact bit socket hex adaptor, 107mm, 24mm	460
450.0427	Impact bit socket Torx adaptor, 107mm, T60	330
450.0428	Impact bit socket Torx adaptor, 107mm, T70	330
450.0429	Impact bit socket Torx adaptor, 107mm, T80	340
450.0430	Impact bit socket Torx adaptor, 107mm, T90	350
450.0431	Impact bit socket Torx adaptor, 107mm, T100	360
450.0433	Impact bit socket Torx E adaptor, 107mm, E18	470
450.0434	Impact bit socket Torx E adaptor, 107mm, E20	340
450.0435	Impact bit socket Torx E adaptor, 107mm, E22	370
450.0436	Impact bit socket Torx E adaptor, 107mm, E24	390
450.0437	3/4" impact bit socket adaptor, 22mm	260
450.0438	1" impact bit socket adaptor, 22mm	500
151.2104	Ball ended hexagon key wrench, long, 4mm	10

## 1" POWER EXTENSIONS

### Impact extension

- Square drive adaptor to DIN 3121 / ISO 1174
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	L mm	D mm	kg
515.1804	175,0	54,0	1,45
515.1816	208,0	54,0	2,10
515.1806	250,0	54,0	1,58
515.1807	300,0	54,0	1,96
515.1817	405,0	54,0	2,61

## 1" POWER BALL JOINTS

### Impact universal ball joint

- Square drive adaptor to DIN 3121 / ISO 1174
- Internal square drive to DIN 3121 / ISO 1174
- Suspension
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	□	■	L mm	D mm	kg
515.1801	1"	1"	130,0	54,0	1,38

## 1" POWER ADAPTERS

### Impact adaptor

- Square drive adaptor to DIN 3121 / ISO 1174 with ball lock
- Internal square drive to DIN 3121 / ISO 1174
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	□	■	L mm	D mm	kg
515.1798	1"	3/4"	75,0	54,0	0,57
515.1799	1"	1.1/2"	82,0	54,0	1,00

## 1" POWER SECURING ELEMENTS

### O-ring

- For impact drivers and impact sockets
- For safeguard



	for sockets mm	D mm	B mm	kg
515.1809	22-70	45,0	5,0	10

### Connection pin

- For impact drivers and impact sockets
- For safeguard



	for sockets mm	D mm	L mm	kg
515.1812	22-70	4,0	45,0	10

## 1.1/2" POWER SOCKETS

### Hexagon impact socket

- 6 point
- According to DIN 3129 / ISO 2725-2
- Internal square drive to DIN 3121 / ISO 1174
- Short execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



	mm	mm	D1 mm	D2 mm	T mm	L mm	kg
515.2120	36,0	1.7/16"	64,0	86,0	20,0	78,0	2,30
515.2121	37,0	-"	65,0	86,0	21,0	78,0	2,30
515.2122	38,0	1.1/2"	66,0	86,0	21,0	78,0	2,30
515.2123	40,0	1.9/16"	68,0	86,0	23,0	80,0	2,40
515.2239	41,0	1.5/8"	70,0	86,0	23,0	80,0	2,40
515.2125	42,0	1.11/16"	71,0	86,0	23,0	82,0	2,40
515.2126	43,0	1.3/4"	73,0	86,0	23,0	82,0	2,40
515.2240	45,0	-"	75,0	86,0	23,0	84,0	2,40
515.2128	46,0	1.13/16"	76,0	86,0	24,0	84,0	2,57



# TORQUE 4



**KS TOOLS**

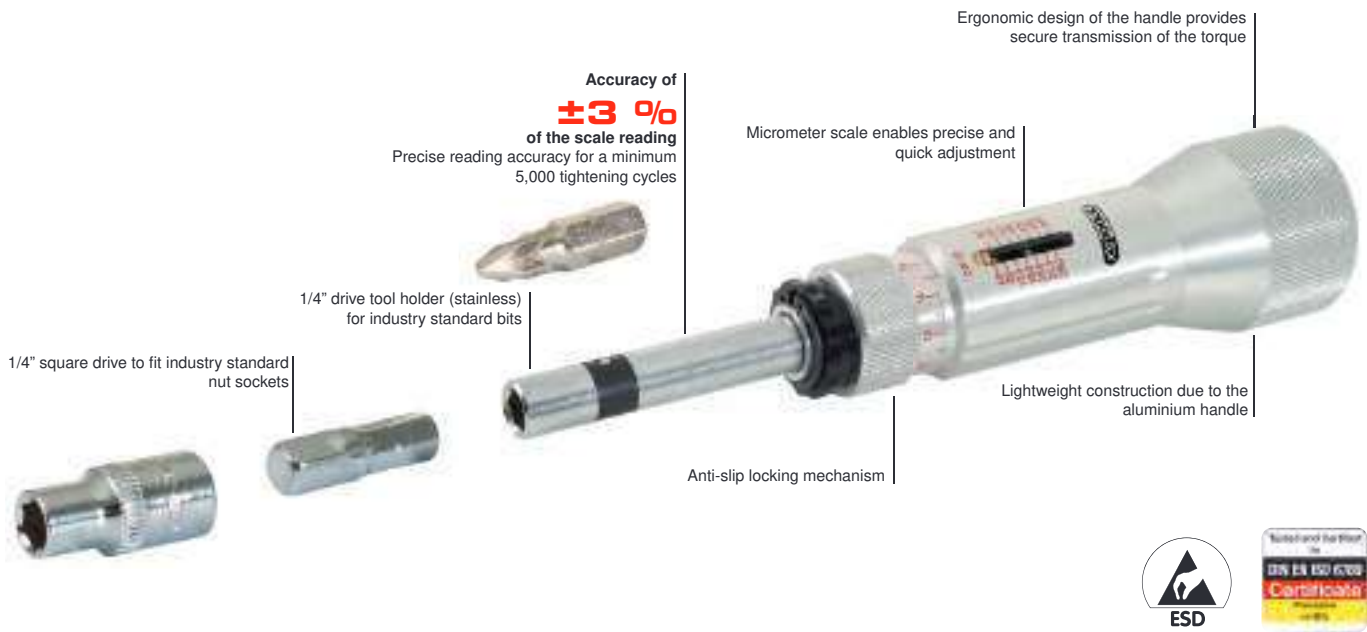
*Innovation is  
our mission!*



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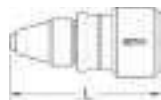
**TORQUE SCREWDRIVER**

This torque screwdriver is fitted with a friction clutch. This enables it to ratchet when the set value is achieved. As a result, it is not possible to over-tighten the screw. The torque screwdriver has fastening function in clockwise directions and is adjusted with the help of a micrometer scale.



**Precision torque testing instrument with dial indicator and drag indicator**

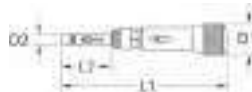
- Display accuracy:  $\pm 6\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled display in a clockwise and counter clockwise direction
- For testing, measuring, checking and making adjustments
- Display torque testing instrument with drag indicator
- Large vision panel for precise adjustment
- Tool mounting using a three jaw chuck
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range mNm	Measuring range cNm	Division mNm	Division cNm	Tightening chuck Ø mm	L mm	Ø mm
516.3310	1-9		0,2		1-6,5	83,0	290
516.3315	2-15		0,2		1-6,5	83,0	290
516.3320	4-30		0,5		1-6,5	83,0	290
516.3325	5-60		1		1-6,5	83,0	290
516.3330	10-120		2		1-6,5	83,0	290
516.3335	20-240		5		1-6,5	83,0	290
516.3410		1-15		0,2	1-8,5	102,0	600
516.3415		2-24		0,2	1-8,5	102,0	600
516.3420		4-36		0,5	1-8,5	102,0	600
516.3425		5-60		1,0	1-8,5	102,0	600
516.3430		10-90		2,0	1-8,5	102,0	600
516.3435		10-150		2,0	1-8,5	102,0	600

**ESD Torque screwdriver with micrometer scale**

- Actuation accuracy:  $\pm 6\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- With precision helical pressure spring
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Including a micrometre scale in Nm divisions for precise and fine adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range cNm	Division cNm	Division Nm	L1 mm	L2 mm	D1 mm	D2 mm	Ø mm
516.3210	1-15	0,1		111,0	26,0	16,0	10,0	60
516.3215	2-30	0,2		111,0	26,0	16,0	10,0	60
516.3220	5-60	0,5		111,0	26,0	25,0	10,0	99
516.3225	20-120	1,0		157,0	51,0	30,0	10,0	192
516.3235	40-300	1,0		157,0	51,0	34,0	10,0	214
516.3240	100-500	2,5		200,0	63,0	40,0	10,0	436
516.3245	400-1000		0,05	235,0	100,0	45,0	11,0	762

**Torque screwdriver with micrometer scale**

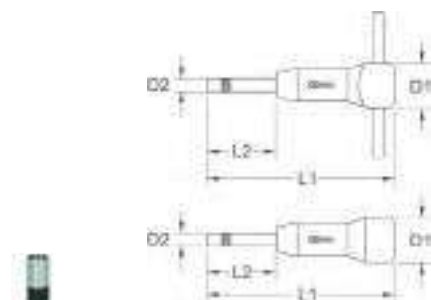
- Actuation accuracy:  $\pm 6\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- With precision helical pressure spring
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Including a micrometre scale in Nm divisions for precise and fine adjustment
- Ergonomic designed rubber handle provides secure torque transmission
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range Nm	Division Nm	L mm	L2 mm	D1 mm	D2 mm	Ø mm
516.3250	0,1 - 1,2	0,01	180,0	28,0	30,0	11,0	230
516.3255	1 - 6	0,10	200,0	30,0	35,0	11,0	450

### ESD Fixed adjustable torque screwdriver with colour coding

- Actuation accuracy:  $\pm 6\%$  tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- With precision helical pressure spring
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Ergonomic designed handle provides secure transmission of the torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range cNm	L1 mm	L2 mm	D1 mm	D2 mm	Colour code	g
516.3910	1 - 15	92,0	22,0	16,0	8,0	-	45
516.3915	5 - 60	102,0	40,0	25,0	10,0	-	94
516.3920	40 - 200	111,0	49,0	30,0	10,0	green	170
516.3925	100 - 500	126,0	56,0	35,0	10,0	red	220

### Pre-set torque screwdriver

- Actuation accuracy:  $\pm 6\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Ergonomic designed handle provides secure transmission of the torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range Nm	L mm	L2 mm	D1 mm	D2 mm	g
516.3930	0,2 - 1,2	132,0	25,0	30,0	11,0	185
516.3935	1 - 1,8	132,0	25,0	30,0	11,0	185
516.3940	1 - 6	200,0	25,0	30,0	11,0	445

### ESD Dial indicating torque screwdriver with a drag indicator

- Display accuracy:  $\pm 6\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled display in a clockwise and counter clockwise direction
- Torque screwdriver with a helical pressure spring
- Ergonomic designed handle provides secure transmission of the torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Electrostatically protect
- Lightweight construction due to the aluminium handle
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	Measuring range cNm	Division cNm	L1 mm	L2 mm	D1 mm	D2 mm	g
516.3260	20 - 100	2,0	222,0	130,0	48,0	12,0	290
516.3265	50 - 200	5,0	242,0	130,0	48,0	12,0	320
516.3270	100 - 500	20,0	300,0	188,0	48,0	14,0	420

### Stubby torque wrench with exact gearing reversible ratchet head

- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards

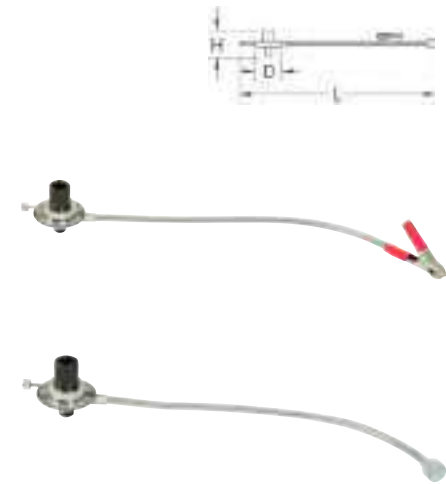


	Measuring range Nm	Division Nm	D mm	g	
516.3280	1/4"	3 - 15	0,50	18,0	190

### ROTARY ANGLE DISCS

#### Rotary angle disc

- For fastening screws at an angle
- Device for angle regulated fastening with a torque wrench
- Flexible arm
- Range 0° - 360°
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Optionally with a magnetic arm or claw arm



	Arm	Pitch	D mm	H mm	L mm	g	
516.1195	1/2" 1/2"	magnet	2°	67,0	63,0	480,0	170
516.1196	1/2" 1/2"	claw	2°	67,0	63,0	538,0	60
516.1197	3/4" 3/4"	magnet	2°	80,0	63,0	500,0	170
516.1198	3/4" 3/4"	claw	2°	80,0	87,0	698,0	60

## DIGITAL ANGLE OF ROTATION & TORQUE ADAPTERS

### Digital rotation protractor with magnet

- For fastening screws at an angle
- Magnetic
- digital angle display
- acoustic signal and LED display refer to reaching the set angle
- Right- and left-hand suit
- Angle precision:  $\pm 2\%$
- Resolution:  $0.1^\circ$
- Includes 2 AAA 1,5 V batteries
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards
- In durable plastic storage case



	Ø mm	Ⓜ
516.1191	55,0	720

### Digital torque adapter with protractor

- 1/2" square drive and output
- Right- and left-hand suit
- Clockwise torque precision: 3% and counterclockwise:  $\pm 4\%$
- Digital torque and rotation angle display
- acoustic signal and LED display indicate that the set angle of rotation or torque has been reached
- 5 selectable units (Nm, ft-lb, in-lb, kg-cm, degrees)
- Includes 2 AAA 1,5 V batteries
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards
- In durable plastic storage case



	□	○	Ø mm	Measuring range N-m	Ⓜ
516.1192	1/2"	1/2"	85,0	27-135	242
516.1193	1/2"	1/2"	85,0	40-200	242
516.1194	1/2"	1/2"	85,0	68-340	242



## TORQUE LIMITERS

### Torque limiter for spark plugs

- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



	□	■	N-m	D mm	L mm	Ⓜ
516.1501	3/8"	3/8"	18	28,0	51,5	165
516.1502	3/8"	3/8"	24	28,0	52,0	166

### Pre-set torque limiter with ball lock

- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Easy to operate
- For application with low torque
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Square drive in accordance with DIN 3120 - ISO 1174



	□	○	Measuring range N-m	D1 mm	D2 mm	L mm	Ⓜ
516.1503	3/8"	1/4"	0,5-5	22,0	11,0	75,0	90
516.1504	3/8"	1/4"	5-10	22,0	11,0	75,0	90

### Pre-set torque limiter with ball lock

- High accuracy
- For controlled fastening in clockwise and counter clockwise directions
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Easy to operate
- For application with low torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



3/8"

	□	■	Measuring range N-m	D1 mm	D2 mm	L mm	Ⓜ
516.1507	3/8"	3/8"	0,5-5	22,0	10,0	75,0	95
516.1508	3/8"	3/8"	5-10	22,0	10,0	75,0	95



# TORQUE WRENCH

- 1
- 2
- 3
- 4
- 5
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- 28
- 29
- 30

**Ratchet head:**  
A highly robust ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head.  
The direction of rotation can be changed by simply rotating the square drive. A sliding roller bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

**Serial number:**  
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

**Corrosion:**  
The robust steel pipe body is coated with a powder coating protection in order to ensure durable corrosion-proof properties.

**Micrometer scale:**  
Even fine adjustments can be made with the help of the white micrometer scale. The vision panel has been sized liberally and ensures that the micrometer value can be read off the scale in an optimal and simple manner using the magnifying glass. Thus, depending on the model, divisions of 1/0,5/0,1 or 0,025 Nm can be adjusted accurately.

**Handle end:**  
The desired torque can be adjusted and set by simply pulling the out locking knob, adjusting and then pushing in the locking knob at the end of the handle, using the ergonomic finger grips. A black ring on the locking knob indicates that the wrench must be set and adjusted for the required torque and also prevents inadvertent maladjustment of the wrench when using it.

**Two-component handle:**  
The new durable and ergonomic two-component handle ensures safe and effortless working, whereby the softer component prevents the hand from slipping and provides maximum safety.

**Scale with magnifying glass:**  
A double scale having Nm and Lbf•ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value. In order to be able to read off the scale in an optimal and simple manner, a strong magnifying glass is integrated in the vision panel.

Accuracy of **±3 %** of the scale reading  
Precise reading accuracy for a minimum 5,000 tightening cycles



1/4" - 1/2"

1/4" - 1"

9x12 mm

14x18 mm

## RATCHET HEADS

### PUSH BUTTON RELEASE

Quick-Lock mechanism on the ratchet head



### MUSHROOM HEAD WITH SQUARE

The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece. The torque wrenches can be upgraded to another drive size with the the range of accessories available.



### ROBUST LATCH HEAD

Robust ratchet mechanism for left and right tightening



## ERGOTORQUE® precision TORQUE WRENCH

### T-handle box wrench

- Enables quick pre-fastening of the screw connections
- Especially for using in confined spaces
- Especially suitable for rapid screw tightening with the T-handle
- It is simply to be used in place of the standard box wrench
- Ergonomically shaped T-handle
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



1/4" 3/8" 1/2"

	□	■	B mm	L mm	g
516.1404	3/8"	1/4"	83,0	72,0	51
516.1414	3/8"	3/8"	83,0	72,0	51
516.1424	1/2"	3/8"	100,0	83,0	97
516.1444	1/2"	1/2"	100,0	83,0	107

### Rotary square box wrench

- Enables quick pre-fastening of the screw connections, especially in constrained spaces
- Simple to be used in place of the standard box wrench
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With ejection mechanism on the ratchet head



1/4" 3/8" 1/2" 3/4" 1"

	□	■	D mm	L mm	g
516.1408	3/8"	1/4"	31,0	33,0	21
516.1418	3/8"	3/8"	31,0	33,0	21
516.1428	1/2"	3/8"	39,0	52,0	65
516.1448	1/2"	1/2"	39,0	52,0	65
516.1499	3/4"	3/4"	63,0	73,0	180
516.1492	1"	3/4"	83,0	78,0	380
516.1498	1"	1"	83,0	78,0	380

## ERGOTORQUE® precision torque wrench with rotary mushroom ratchet head

- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Torque setting by pulling out and pushing in the slide in knob at the end of the handle
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in Nm and lbf-ft divisions for precise adjustment
- Includes micrometer scale in Nm divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- With ejection mechanism on the ratchet head
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/4" 3/8" 1/2" 3/4" 1"

	■	N-m	Division Nm	lbf-ft	L mm	D mm	H mm	g
516.1402	1/4"	1-5	0,10	0,8 - 3,6	289,0	35,0	18,0	0,46
516.1412	1/4"	5-25	0,10	0,8 - 18	289,0	35,0	18,0	0,46
516.1422	3/8"	10-50	0,25	4 - 37	350,0	45,0	23,0	0,61
516.1432	1/2"	20-100	0,50	8 - 75	412,0	45,0	23,0	0,91
516.1442	1/2"	40-200	1,00	15 - 150	500,0	45,0	23,0	1,30
516.1472	1/2"	60-320	1,00	45 - 236	585,0	45,0	23,0	1,45
516.1482	1/2"	80-420	1,00	60 - 310	678,0	45,0	23,0	2,10
516.1490	3/4"	110-550	1,00	75 - 405	960,0	69,0	33,0	3,80
516.1493	3/4"	150-750	10,00	150 - 550	1250,0	69,0	33,0	7,30
516.1495	1"	200-1000	20,00	220 - 730	1500,0	90,0	36,0	5,80



## ERGOTORQUE® precision torque wrench with reversible ratchet head

- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Double scale in Nm and lbf-ft divisions for precise adjustment
- Includes micrometer scale in Nm divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 36 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



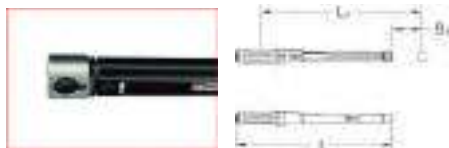
1/4" 3/8" 1/2"

	■	N-m	lbf-ft	Division Nm	L mm	D mm	H mm	g
516.1512	1/4"	5-25	0,8 - 18	0,10	289,0	35,0	18,0	0,46
516.1522	3/8"	10-50	4 - 37	0,25	350,0	45,0	23,0	0,61
516.1532	1/2"	20-100	8 - 75	0,50	412,0	45,0	23,0	0,91
516.1542	1/2"	40-200	15 - 150	1,00	500,0	45,0	23,0	1,30
516.1572	1/2"	60-320	45 - 236	1,00	585,0	45,0	23,0	1,45
516.1582	1/2"	80-420	60 - 310	1,00	678,0	45,0	23,0	2,10



### ERGOTORQUE® precision fine adjustment torque wrench with rectangular tool holder

- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Double scale in Nm and lbf·ft divisions for precise adjustment
- Includes micrometer scale in Nm divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



9x12 mm 14x18 mm

		N·m	lbf·ft	Division N·m	L mm	L mm	S mm	Kg
516.1612	9x12	5-25	0,8 - 18	0,10	280,0	245,0	17,5	0,30
516.1622	9x12	10-50	4 - 37	0,25	335,0	295,0	17,5	0,45
516.1632	9x12	20-100	8 - 75	0,50	375,0	335,0	17,5	0,60
516.1633	14x18	20-100	8 - 75	0,50	375,0	335,0	17,5	1,02
516.1642	9x12	40-200	15 - 150	1,00	465,0	425,0	17,5	0,85
516.1652	14x18	40-200	15 - 150	1,00	470,0	435,0	25,0	0,90
516.1672	14x18	60-320	45 - 236	1,00	565,0	530,0	25,0	1,20
516.1682	14x18	80-420	60 - 310	1,00	650,0	435,0	25,0	1,60
516.1690	14x18	110-550	74,0 - 405	1,00	920,0	875,0	25,0	3,75
516.1693	14x18	150-750	148 - 553	1,00	1120,0	1155,0	25,0	5,27

### ERGOTORQUE® precision fine adjustment torque wrench with rectangular tool holder

- Actuation accuracy:  $\pm 3\%$  tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Without scale - with a fixed adjustable value
- An audible and palpable signal when the desired torque value is achieved
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



9x12 mm 14x18 mm

		N·m	lbf·ft	L mm	L mm	S mm	Kg
516.1810	9x12	5-25	0,8 - 18	190,0	155,0	17,5	230
516.1820	9x12	10-50	4 - 37	250,0	210,0	17,5	300
516.1830	9x12	20-85	12 - 64	330,0	280,0	17,5	370
516.1840	14x18	40-200	15 - 150	410,0	370,0	25,0	780

### ERGOTORQUE® precision TORQUE WRENCH TOOLKIT

#### ERGOTORQUE® precision torque wrench with bag

- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Double scale in Nm and lbf·ft divisions for precise adjustment
- Large vision panel, precise adjustment using a magnifying glass
- With ejection mechanism on the ratchet head
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/2"

			Kg
516.1905	5 pcs	ERGOTORQUE® precision torque wrench with bag	2,50
1 x		40 - 200 N·m	
1 x		125 mm	
3 x		17 - 19 - 21 mm	

### ERGOTORQUE® precision torque wrench toolkit 5 - 25 Nm

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

			Kg
516.1415	32 pcs	ERGOTORQUE® precision torque wrench toolkit 5 - 25 Nm	4,73
1 x		5 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
1 x		3/8" x 1/4"	

### ERGOTORQUE® precision torque wrench toolkit 5-25 Nm

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organised



1/4"

			Kg
516.1515	31 pcs	ERGOTORQUE® precision torque wrench toolkit 5-25 Nm	4,99
1 x		5 - 25 N·m	
4 x		50 - 75 - 100 - 150 mm	
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
6 x		3 - 4 - 5 - 6 - 7 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	



**ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm**

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organized



116.1426		41 pcs		ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm		10,32	
1 x				10 - 50 Nm			
3 x				75 - 150 - 250 mm			
18 x				6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			
7 x				3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
11 x				T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
1 x				3/8"			

**ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm**

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organized



116.1428		49 pcs		ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		13,40	
1 x				20 - 100 Nm			
3 x				75 - 125 - 250 mm			
21 x				8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm			
11 x				4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm			
12 x				T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70			
1 x				1/2"			

**ERGOTORQUE® precision torque wrench toolkit 40 - 200 Nm**

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organized



116.1446		40 pcs		ERGOTORQUE® precision torque wrench toolkit 40 - 200 Nm		13,00	
1 x				40 - 200 Nm			
3 x				75 - 125 - 250 mm			
21 x				8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm			
11 x				4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm			
12 x				T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70			
1 x				1/2"			

**ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm**

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organized



116.1526		40 pcs		ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm		8,62	
1 x				10 - 50 Nm			
3 x				75 - 150 - 250 mm			
18 x				6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			
7 x				3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
11 x				T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			


**ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm**

- Set contents for universal applications
- Includes Torque wrench with rotary mushroom ratchet head
- Supplied in a metal carrying case with the tools clearly organized



116.1476		29 pcs		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm		13,66	
1 x				60 - 320 Nm			
3 x				75 - 125 - 250 mm			
21 x				8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm			
11 x				4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm			
12 x				T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70			
1 x				1/2"			



**ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm**

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organized



**ERGOTORQUE® precision torque wrench toolkit 60-320 Nm**

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organized



13,01		15,01	
48 pcs		48 pcs	
ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm	
1 x	20 - 100 Nm	1 x	60 - 320 Nm
3 x	75 - 125 - 250 mm	3 x	75 - 125 - 250 mm
21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70

13,01		15,01	
48 pcs		48 pcs	
ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm	
1 x	20 - 100 Nm	1 x	60 - 320 Nm
3 x	75 - 125 - 250 mm	3 x	75 - 125 - 250 mm
21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70

**ERGOTORQUE® precision torque wrench toolkit 40 - 200 Nm**

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organized



**ERGOTORQUE® precision torque wrench toolkit 60-420 Nm**

- Set contents for universal applications
- Includes torque wrench with reversible ratchet head
- Supplied in a metal carrying case with the tools clearly organized



**ERGOTORQUE® precision torque wrench toolkit 5 - 25 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organized



13,01		15,01	
48 pcs		48 pcs	
ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm	
1 x	40 - 200 Nm	1 x	60 - 420 Nm
3 x	75 - 125 - 250 mm	3 x	75 - 125 - 250 mm
21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70

13,01		15,01	
48 pcs		48 pcs	
ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm	
1 x	40 - 200 Nm	1 x	60 - 420 Nm
3 x	75 - 125 - 250 mm	3 x	75 - 125 - 250 mm
21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm	21 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 mm
11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm	11 x	4 - 5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 - 19 mm
12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70	12 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70

8,47		8,47	
33 pcs		33 pcs	
ERGOTORQUE® precision torque wrench toolkit 5 - 25 Nm		ERGOTORQUE® precision torque wrench toolkit 5 - 25 Nm	
1 x	5 - 25 Nm	13 x	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
14 x	7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	2 x	1/4" - 5/16"
2 x	1/4" - 5/16"	1 x	9 x 12
1 x	9 x 12	2 x	1/4" - 3/8"
2 x	1/4" - 3/8"		

**ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



100		ERGOTORQUE® precision torque wrench toolkit 10 - 50 Nm		8,90	
1 x		10 - 50 Nm			
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
2 x		1/4" - 5/16"			
1 x		9 x 12			
2 x		1/4" - 3/8"			

**ERGOTORQUE® precision torque wrench toolkit 40 - 200 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



100		ERGOTORQUE® precision torque wrench toolkit 40 - 200 Nm		9,12	
1 x		40 - 200 Nm			
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
2 x		1/4" - 5/16"			
1 x		9 x 12			
2 x		1/4" - 3/8"			

**ERGOTORQUE® precision torque wrench toolkit 80 - 420 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



100		ERGOTORQUE® precision torque wrench toolkit 80 - 420 Nm		16,68	
1 x		80 - 420 Nm			
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm			
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm			
1 x		5/16"			
1 x		14 x 18			
1 x		1/2"			

**ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



100		ERGOTORQUE® precision torque wrench toolkit 20 - 100 Nm		8,82	
1 x		20 - 100 Nm			
13 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
14 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
2 x		1/4" - 5/16"			
1 x		9 x 12			
2 x		1/4" - 3/8"			

**ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm**

- Set contents for universal applications
- Includes torque wrench with rectangular tool holder
- Supplied in a metal carrying case with the tools clearly organised



100		ERGOTORQUE® precision torque wrench toolkit 60 - 320 Nm		15,20	
1 x		60 - 320 Nm			
19 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 26 - 27 - 29 - 30 - 32 - 34 - 36 - 38 - 41 mm			
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm			
1 x		5/16"			
1 x		14 x 18			
1 x		1/2"			



# ALUTORQUEprecision

Torque wrench made from high-strength aluminium alloy

**Ratchet head:**  
A robust mechanism, optionally with a square drive for controlled fastening or with a double square for controlled clockwise and counter clockwise fastening is integrated into the head. The ALUTORQUEprecision torque wrench is also available with a rectangular reception and guarantees flexible working through this. The square drives can be expanded with pin ratchets so that the user can decide himself whether he wants to work with or without the ratcheting function. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

**Aluminium handle:**  
The new light, durable and ergonomic aluminium handle ensures simple and secure operation.

**Scale:**  
A double scale having N.m and lbf. in/lbf.ft divisions that can be read easily, is concealed under a large sized vision panel, which enables particularly accurate adjustment of the desired torque value.

**Serial number:**  
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

The robust and durable body is ideal for use in harsh environments in industry.

The desired torque can be adjusted and set using the folding mechanism by simply pulling out and pushing in the captive hexagon key wrench in connection with the locking knob at the end of the handle.

Accuracy of **±3 %** of the scale reading  
Precise reading accuracy for a minimum 5,000 tightening cycles

**Fast and Easy to Use Certificate**

## ALUTORQUEprecision torque wrench

- Release accuracy:  $\pm 3\%$  tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Depending on option with robust ratchet mechanism
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extensible to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



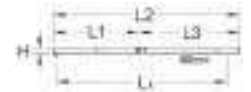
1/2" 3/4" 1"

			N·m	Division N·m	lbf·ft	Division lbf·ft	L mm	H mm	L1 mm	L2 mm	L3 mm		kg
516.5034	☑	1/2"	25-120	5,00	18-90	5,0	374	30,0	462,0	475,0			1,50
516.5035	☑	1/2"	25-120	5,00	18-90	5,0	374	30,0	462,0	475,0			1,50
516.5036	☑	1/2"	40-200	5,00	30-150	5,0	463	30,0	551,0	563,0			1,40
516.5037	☑	1/2"	40-200	5,00	30-150	5,0	463	30,0	551,0	563,0			1,30
516.5039	☑	1/2"	60-300	5,00	45-220	5,0	529	30,0	617,0	625,0			2,00
516.5040	☑	1/2"	60-300	5,00	45-220	5,0	529	30,0	671,0	625,0			2,00
516.5043	☑	3/4"	110-550	10,00	80-400	10,0	719	35,0	812,0	827,0			2,90
516.5044	☑	3/4"	110-550	10,00	80-400	10,0	719	35,0	812,0	827,0			2,90
516.5045	☑	3/4"	140-760	10,00	115-560	10,0	719	35,0	812,0	827,0			3,20
516.5046	☑	3/4"	155-760	10,00	115-560	10,0	719	35,0	812,0	827,0			3,20
516.5049	☑	3/4"	520-1000	10,00	380-730	10,0	1297	35,0	812,0	1413,0	762,0	516.5059	5,60
516.5050	☑	3/4"	520-1000	10,00	380-730	10,0	1297	35,0	812,0	1413,0	762,0	516.5059	5,60
516.5051	☑	1"	600-1500	25,00			1473	40,0	932,0	1608,0	925,0	516.5058	10,80
516.5052	☑	1"	600-1500	25,00			1473	40,0	932,0	1608,0	925,0	516.5058	10,80
516.5053	☑	1"	750-2000	50,00			2218	40,0	932,0	2353,0	925,0	516.5057+58	11,60
516.5054	☑	1"	750-2000	50,00			2218	40,0	932,0	2353,0	925,0	516.5057+58	11,60

## ALUTORQUEprecision TORQUE WRENCH

### ALUTORQUEprecision Pre-set torque wrench

- Release accuracy:  $\pm 3\%$  tolerance from the set scale value and better
- Use is almost all industrial production areas
- Depending on option with fast release function button
- Simple operation - fast and secure torque tightening
- Simple and/or double square for controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in in division for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Secure locking possibility
- Ergonomic and hand-friendly handle
- Light, robust and very workshop friendly
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Setting the torque by using the captive crank lever mechanism in the handle
- Comfortable setting through shapely, captive adjustment knob on the end of the handle
- Extendible to reduces the workload of the user
- Extremely low wear through force reductions through lever mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/2" 3/4" 1"

		N·m	Division Nm	lbf·ft	Division lbf·ft	L mm	H mm	L1 mm	L2 mm	L3 mm	kg
516.5104	☐	25-120	5,00	18-90	5,0	374	30,0	462,0			1,50
516.5105	☐	25-120	5,00	18-90	5,0	374	30,0	462,0			1,50
516.5106	☐	40-200	5,00	30-150	5,0	463	30,0	551,0			1,40
516.5107	☐	40-200	5,00	30-150	5,0	463	30,0	551,0			1,30
516.5108	☐	60-300	5,00	45-220	5,0	529	30,0	617,0			2,00
516.5109	☐	60-300	5,00	45-220	5,0	529	30,0	617,0			2,00
516.5112	☐	110-550	10,00	80-400	10,0	719	35,0	812,0			2,90
516.5113	☐	110-550	10,00	80-400	10,0	719	35,0	812,0			2,90
516.5114	☐	155-760	10,00	115-560	10,0	719	35,0	812,0			3,20
516.5115	☐	155-760	10,00	115-560	10,0	719	35,0	812,0			3,20
516.5119	☐	520-1000	10,00	380-730	10,0	1297	35,0	812,0	1413,0	762,0	5,60
516.5121	☐	600-1500	25,00			1473	40,0	932,0	1608,0	925,0	10,80
516.5120	☐	600-1500	25,00			1473	40,0	932,0	1608,0	925,0	10,80
516.5122	☐	750-2000	50,00			2218	40,0	932,0	2353,0	925,0	11,60
516.5123	☐	750-2000	50,00			2218	40,0	932,0	2353,0	925,0	11,60

### ALUTORQUEprecision Socket pipe for torque wrench

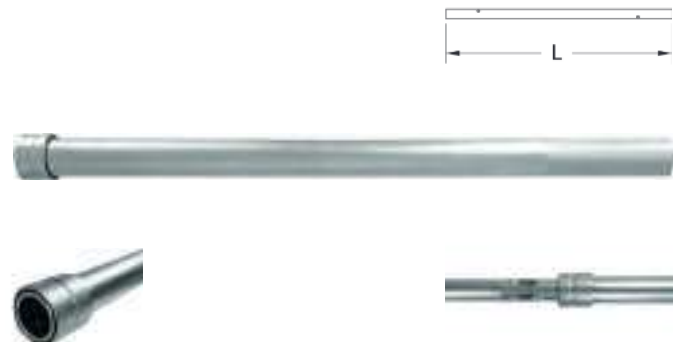
- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- Made of zinc coated steel



	L mm	Suitable for	kg
516.5056	400,0	516.5053	2,30
516.5057	745,0	516.5053, 516.5055	3,60
516.5058	762,0	516.5047, 516.5049	0,80

### ALUTORQUEprecision aluminium extension pipe for torque wrench

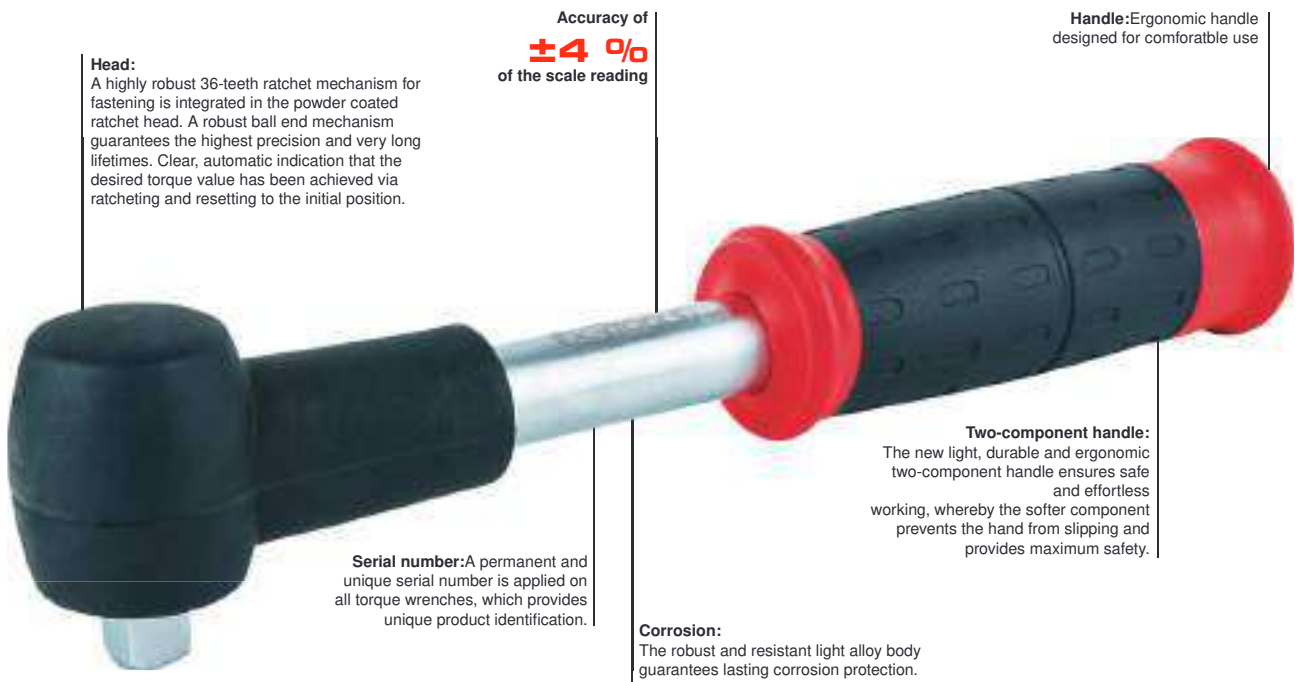
- To reach the high torque values easier with the lever arm extension
- Option and secure connection to the aluminium torque wrench
- To extend the lever arm
- With slightly anodised clamping nut
- Made of aluminium



	L mm	Suitable for	kg
516.5059	925,0	516.5051, 516.5053, 516.5055	3,40

SLIPPER TORQUE WRENCH

Fixed preset ratchet torque wrench without scale with automatic trigger via slipping function – no overtightening possible.



**Head:**  
A highly robust 36-teeth ratchet mechanism for fastening is integrated in the powder coated ratchet head. A robust ball end mechanism guarantees the highest precision and very long lifetimes. Clear, automatic indication that the desired torque value has been achieved via ratcheting and resetting to the initial position.

Accuracy of **±4 %** of the scale reading

**Handle:** Ergonomic handle designed for comfortable use

**Serial number:** A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

**Two-component handle:**  
The new light, durable and ergonomic two-component handle ensures safe and effortless working, whereby the softer component prevents the hand from slipping and provides maximum safety.

**Corrosion:**  
The robust and resistant light alloy body guarantees lasting corrosion protection.



Ratcheting operating principle

When a preset value is achieved the mechanism slips over the ball end (without the possibility of overtightening). The ratcheting torque wrench can then be used immediately again.



TECHNOLOGY



Pre-set Slipper torque wrench

- Release accuracy  $\pm 4\%$  Tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For serial and/or conveyor assembly lines
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Automatic reset in the initial position
- Without scale - with a fixed adjustable value
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Ergonomic and hand-friendly rubber handle
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards
- Delivery includes crank adjusting key



1/4" 3/8" 1/2"

	■	Measuring range N·m	lbf·ft	L mm	D mm	H mm	W kg
516.5000	1/4"	1-5	0,8-4	182,5	15,5	34,3	0,22
516.5001	1/4"	4-10	3-8	182,5	15,5	34,3	0,23
516.5002	3/8"	5-20	4-19	214,0	35,0	49,5	0,48
516.5003	3/8"	15-55	11-40	323,0	39,0	58,5	1,00
516.5004	1/2"	25-125	19-93	464,0	40,0	67,3	1,85

## INDUSTRIAL TORQUE WRENCH

Torque wrench made from fully chromed, slim steel construction for clockwise and counter clockwise movement

**Scale:**  
A double scale having N·m Lbf·in and Lbf·ft divisions that can be read easily, is concealed under the chromed steel pipe which enables particularly accurate adjustment of the desired torque value.



**Handle end:**  
The desired torque can be adjusted and set by simply pulling out and pushing in the rotating assembly.

**Micrometer scale:**  
Very precise adjustments can be made with the help of the white micrometer scale. The easily visible micrometer scale ensures optimal and simplified reading of the micrometer value. Thus, depending on the model, divisions of 5/1 / 0,5 N·m or lbf·in / lbf·ft can be adjusted accurately.

**Accuracy of  $\pm 3\%$  of the scale reading**  
Precise reading accuracy for a minimum 5,000 tightening cycles



**Ratchet head:**

A highly robust 72-tooth ratchet mechanism for clockwise and counter-clockwise movement is integrated in the polished ratchet head. A robust bearing mechanism in the interior of the wrench ensures the highest level of accuracy and long life. An audible and palpable signal indicates automatically that the desired torque value has been achieved.

**Steel handle:**

The new light, durable and ergonomic steel handle ensures simple and secure operation without any wear due to its fluting.

**Serial number:**

A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

**Corrosion:**

The slim, robust and resistant fully chromed steel body is ideal for use in industry.



### Industrial torque wrench with reversible ratchet head

- Release accuracy:  $\pm 3\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- including a micrometre scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine adjustment
- Clearly audible and noticeable torque release sign
- Exact gearing 72 teeth ratchet mechanism
- With ejection mechanism on the ratchet head
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/4" 3/8" 1/2" 3/4" 1"

### Industrial torque wrench with plug-in tool holder

- Release accuracy:  $\pm 3\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- Use is almost all industrial production areas
- For controlled fastening in clockwise and counter clockwise directions
- Double-scale Nm and lbf-ft and/or lbf-in division
- including a micrometre scale in Nm divisions and lbf-ft and/or lbf-in for precise and fine adjustment
- Clearly audible and noticeable torque release sign
- Setting the torque securely by turning the handle
- Secure locking function within the handle
- Long service-life and high holding times
- Highest precision and reliability even under tough long-term use
- With lock connector for 9x12 and/or 14x18 plug-in tools
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



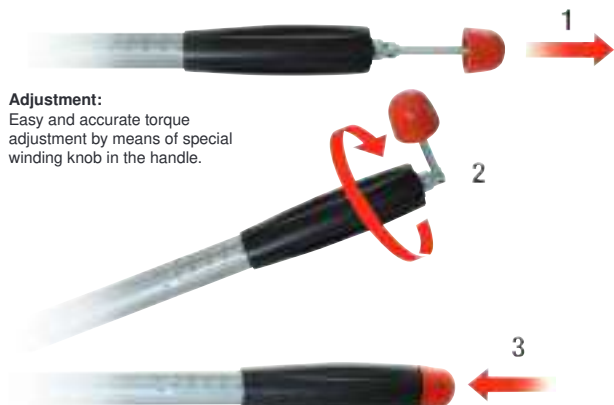
9x12 mm 14x18 mm

	Measuring range Nm	Tooth	Division Nm	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	D mm	L mm	kg
516.5150	1/4"	1-6	64	0,05	11.1-50.9		0,4	26,0	210,0	0,51
516.5151	1/4"	3-15	64	0,10	31-128		0,9	26,0	210,0	0,51
516.5152	1/4"	5-25	64	0,20	53-212		1,8	26,0	248,0	0,33
516.5153	3/8"	10-60	32	0,50	9.2-42.4	0,4	36,5	370,0	1,26	
516.5154	3/8"	20-100	32	0,50	16.6-71.9	0,4	36,5	433,0	1,02	
516.5155	1/2"	40-200	32	1,00	33-144	0,7	43,5	530,0	1,65	
516.5156	1/2"	60-340	32	2,00	52-243	1,5	43,5	610,0	1,80	
516.5157	3/4"	100-600	24	5,00	92-424	7,4	63,5	1050,0	4,97	
516.5158	3/4"	150-800	24	5,00	129-572	7,4	63,5	1240,0	6,05	
516.5159	3/4"	200-1000	24	5,00	166-719	7,4	63,5	1240,0	6,05	
516.5160	1"	300-1500	24	10,00	258-1070	14,7	70,0	1850,0	10,51	

	Measuring range Nm	Division Nm	lbf·in	lbf·ft	Division lbf·in	Division lbf·ft	L mm	L mm	S mm	kg
516.5063	9x12	1-6	0,05	11.1-50.9		0,4	197,0	183	17,5	0,46
516.5061	9x12	3-15	0,10	31-128		0,4	197,0	183	17,5	0,26
516.5062	9x12	5-25	0,20	53-212		0,4	227,0	213	17,5	0,30
516.5064	9x12	10-60	0,50	9.2-42.4	0,4	0,4	340,0	373	17,5	1,30
516.5065	9x12	20-100	0,50	16.6-71.9	0,4	0,4	403,0	373	17,5	1,30
516.5066	14x18	10-60	0,50	9.2-42.4	0,4	0,4	362,0	402,5	25,0	1,30
516.5067	14x18	20-100	0,50	16.6-71.9	0,4	0,4	425,0	402,5	25,0	1,30
516.5068	14x18	40-200	1,00	33-144	0,7	0,7	503,0	474	25,0	1,45
516.5069	14x18	60-340	2,00	52-243	1,5	1,5	583,0	554	25,0	1,60

## TORQUE WRENCH WITH CLOSE-GAP RELEASE

As a result of the close-gap release, the chance of over-tightening is reduced and, in addition, this mechanism enhances the accuracy when fastening the screw. A palpable and acoustic snap indicates that the desired torque value has been achieved - in addition the mechanism resets automatically to the initial position.

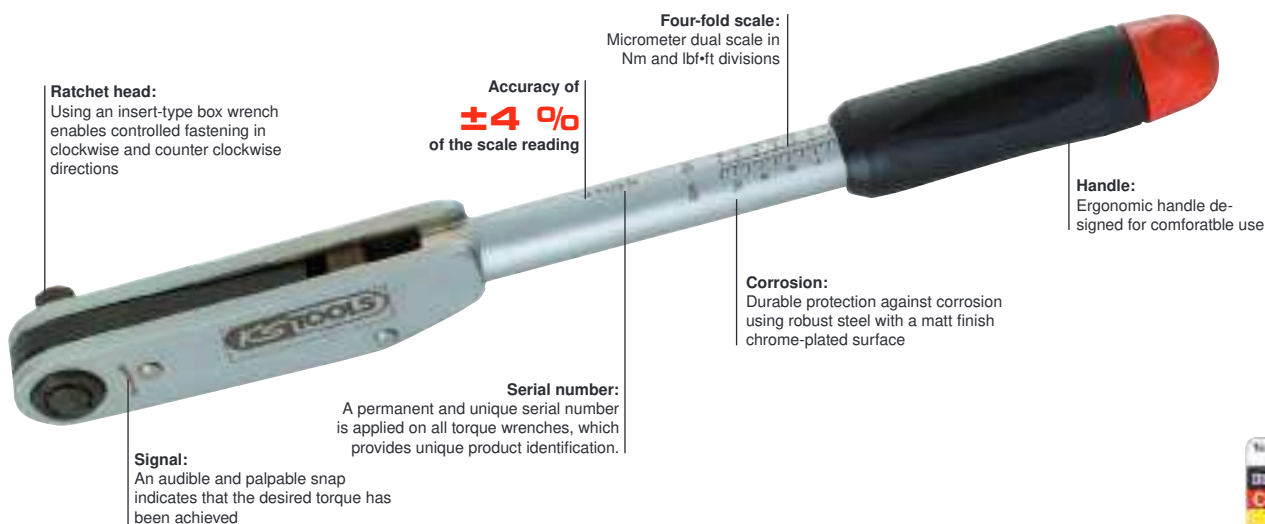


**Adjustment:**  
Easy and accurate torque adjustment by means of special winding knob in the handle.



CLOCKWISE FASTENING

COUNTER CLOCKWISE FASTENING



**Ratchet head:**

Using an insert-type box wrench enables controlled fastening in clockwise and counter clockwise directions

Accuracy of **±4 %** of the scale reading

**Four-fold scale:**  
Micrometer dual scale in Nm and lbf·ft divisions

**Handle:**  
Ergonomic handle designed for comfortable use

**Corrosion:**  
Durable protection against corrosion using robust steel with a matt finish chrome-plated surface

**Serial number:**  
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

**Signal:**  
An audible and palpable snap indicates that the desired torque has been achieved



### Torque wrench with close gap release

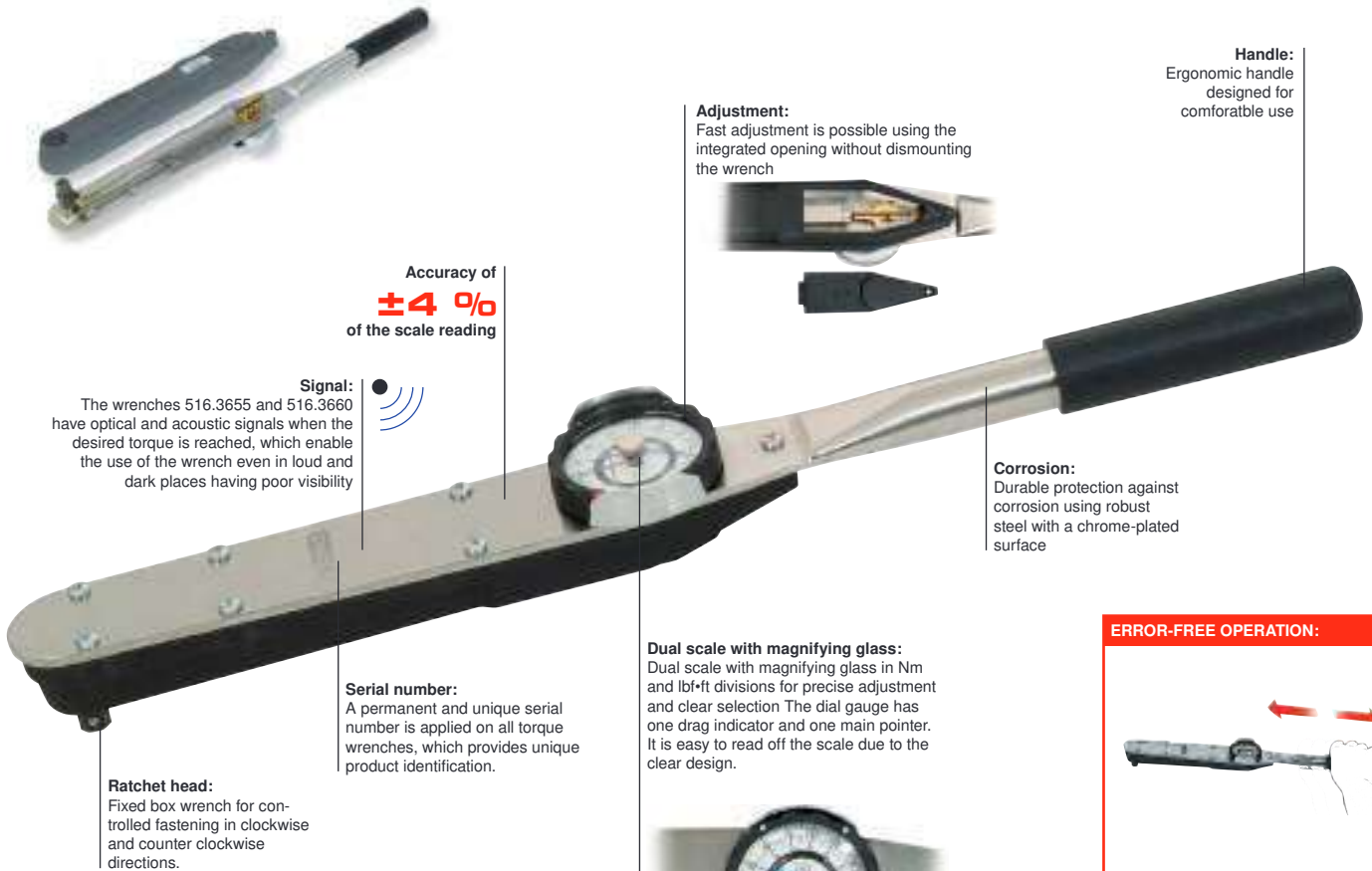
- Actuation accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Four fold scale in Nm, Kg·m, lbf·in und lbf·ft divisions for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is easy by pulling out, adjusting and pushing in the winder in the handle
- Secure locking possibility
- Ergonomic handle designed for comfortable use
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/4" 3/8" 1/2" 3/4" 1"

	■	N·m	lbf·ft	Division Nm	Division lbf·ft	L mm	⚖
516.3510	3/8"	2.5-11	2 - 8	0,50	0,5	300,0	0,56
516.3515	3/8"	5-33	4 - 24	1,00	1,0	405,0	0,69
516.3520	3/8"	12-68	10 - 50	2,00	2,0	480,0	1,00
516.3525	1/2"	12-68	10 - 50	2,00	2,0	480,0	1,00
516.3530	1/2"	25-150	20 - 110	5,00	2,0	575,0	1,70
516.3535	1/2"	50-250	40 - 180	10,00	5,0	605,0	2,30
516.3540	1/2"	70-350	50 - 260	10,00	10,0	815,0	3,00
516.3545	3/4"	140-800	120 - 580	20,00	20,0	935,0	6,50
516.3550	1"	200-1000	150 - 750	25,00	25,0	1030,0	9,70
516.3555	1"	500-2000	350 - 1500	50,00	50,0	1400,0	18,00

**PRECISION TORQUE TESTING INSTRUMENT WITH DIAL INDICATOR**



**Accuracy of**  
**±4 %**  
of the scale reading

**Signal:**  
The wrenches 516.3655 and 516.3660 have optical and acoustic signals when the desired torque is reached, which enable the use of the wrench even in loud and dark places having poor visibility

**Adjustment:**  
Fast adjustment is possible using the integrated opening without dismantling the wrench

**Handle:**  
Ergonomic handle designed for comfortable use

**Corrosion:**  
Durable protection against corrosion using robust steel with a chrome-plated surface

**Serial number:**  
A permanent and unique serial number is applied on all torque wrenches, which provides unique product identification.

**Dual scale with magnifying glass:**  
Dual scale with magnifying glass in Nm and lbf-ft divisions for precise adjustment and clear selection. The dial gauge has one drag indicator and one main pointer. It is easy to read off the scale due to the clear design.

**Ratchet head:**  
Fixed box wrench for controlled fastening in clockwise and counter clockwise directions.

**ERROR-FREE OPERATION:**

Using the torsion bar principle, and in contrast to conventional torque wrenches, it is possible to grip the torque wrench in any position, either using both hands or with an extension bar. Any shift in the value is ruled out thanks to the direct measurement at the wrench head.



**Dial Torque wrench with a drag indicator**

- Display accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled display in a clockwise and counter clockwise direction
- Display type torque wrench with dial indicator and drag indicator
- Double scale in Nm and lbf-ft divisions for precise adjustment
- Large vision panel for precise adjustment
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/4" 3/8" 1/2" 3/4" 1"

	■	N·m	In·lb	lbf·ft	Division Nm	Division in·lb	Division lbf·ft	L mm	Signal	🔗
516.3610	1/4"	0,7-3,5	6-30		0,10	1,0		270,0	-	0,73
516.3615	1/4"	1,8-9	15-75		0,20	1,0		270,0	-	0,73
516.3620	3/8"	3,6-18	30-150		0,50	2,0		270,0	-	0,73
516.3625	3/8"	6-30	50-250		0,50	5,0		270,0	-	0,73
516.3630	3/8"	14-70		10-50	2,00		1,0	270,0	-	0,73
516.3635	1/2"	50-250		34-170	5,00		5,0	560,0	-	1,40
516.3640	1/2"	70-350		50-250	10,00		5,0	560,0	-	1,40
516.3645	3/4"	96-480		70-350	10,00		10,0	675,0	-	3,20
516.3650	3/4"	160-800		120-600	25,00		10,0	1180,0	-	4,50
516.3655	1"	280-1400		200-1000	25,00		20,0	1970,0	+	9,00
516.3660	1"	560-2800		400-2000	50,00		40,0	3200,0	+	21,00



PUSH-FIT TOOLS - ACCESSORIES

We have a diverse range of plug-in tools within our range:

- Open
- Ring
- Ratchet
- Torx®
- Push-fit square mount
- Bit holder

In case our range does not have what you need, we would be pleased to manufacture push-fit tools based on your specifications.



**INFO:**  
In case our range does not have what you need, we would be pleased to manufacture push-fit tools based on your specifications.



**CAUTION:**  
The maximum torque loads of the push-fit tools are in line with DIN 899 and can be less than the maximum torque of the tool used.

CALCULATION OF CORRECTED DISPLAY AND SET VALUES

Push-fit jaw wrench

- With a locking pin
- Chrome-plated



	□	mm	S mm	B mm	H mm	⚙️
516.2213	14 x 18	13	25,0	30,0	7,0	120
516.2214	14 x 18	14	25,0	35,0	8,0	120
516.2215	14 x 18	15	25,0	38,0	9,0	125
516.2216	14 x 18	16	25,0	42,0	10,0	130
516.2217	14 x 18	17	25,0	42,0	10,0	130
516.2218	14 x 18	18	25,0	50,0	11,0	155
516.2219	14 x 18	19	25,0	50,0	11,0	150
516.2221	14 x 18	21	25,0	53,0	12,0	170
516.2222	14 x 18	22	27,5	60,0	13,0	185
516.2224	14 x 18	24	30,0	60,0	13,0	210
516.2226	14 x 18	26	30,0	66,0	14,0	220
516.2227	14 x 18	27	30,0	66,0	14,0	239
516.2227	14 x 18	29	30,0	66,0	14,0	246
516.2229	14 x 18	30	32,5	66,0	14,0	265
516.2230	14 x 18	32	32,5	74,0	15,0	275
516.2232	14 x 18	34	32,5	74,0	15,0	275
516.2234	14 x 18	36	32,5	82,0	15,0	307
516.2236	14 x 18	38	32,5	82,0	15,0	307
516.2238	14 x 18	41	32,5	82,0	15,0	307
516.2241	14 x 18	41	32,5	82,0	15,0	307

9x12 mm 14x18 mm

	□	N·m	lbf·ft	Division N·m	L mm	L mm	S mm	⚙️
516.1633	14 x 18	20 - 100	8 - 75	0.5	375.0	335.0	17.5	1020
516.1642	9 x 12	40 - 200	15 - 150	1.0	465.0	425.0	17.5	850
516.1652	14 x 18	40 - 200	15 - 150	1.0	470.0	435.0	25.0	900
516.1672	14 x 18	60 - 320	45 - 236	1.0	565.0	530.0	25.0	1200
516.1682	14 x 18	80 - 420	60 - 310	1.0	650.0	435.0	25.0	1600

Example: 516.2232 + 516.1672

Desired torque = 230 N·m

$$X_w = \frac{P_k \cdot L_k}{L_k \cdot S_k + S} = \frac{230 \text{ N·m} \cdot 530 \text{ mm}}{530 \text{ mm} \cdot 25 \text{ mm} + 32,5 \text{ mm}} = \frac{121900}{537,5} = 226,8 \text{ N·m}$$

Corrected set value: **226,8 N·m**

1  
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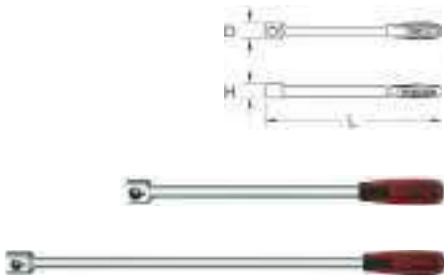
## PUSH FIT TOOLS

### CAUTION:

The maximum torque loads of the push-fit tools are in line with DIN 899 and can be less than the maximum torque of the tool used.

### ERGOTORQUE® plus universal wrench without torque function - with rectangular tool holder

- Ideal for loosening jammed screw connections
- Can untighten without any torque restraint
- Made of solid material
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- Snap tool holder available for replaceable 9x12 or 14x18 end tools

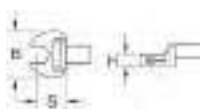


9x12 mm 14x18 mm

	□	L mm	D mm	H mm	g
516.4890	9x12	405,0	26,0	20,0	872
516.4895	14x18	635,0	28,0	26,0	1350

### Push fit flared wrench

- With a locking pin
- Chrome plated



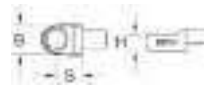
9x12 mm

	□	mm	S mm	B mm	H mm	g
516.2107	9x12	7	17,5	22,0	5,0	35
516.2108	9x12	8	17,5	22,0	5,0	35
516.2109	9x12	9	17,5	26,0	5,5	35
516.2110	9x12	10	17,5	26,0	5,5	35
516.2111	9x12	11	17,5	26,0	5,5	35
516.2112	9x12	12	17,5	30,0	7,0	35
516.2113	9x12	13	17,5	30,0	7,0	35
516.2114	9x12	14	17,5	35,0	8,0	40
516.2115	9x12	15	17,5	35,0	8,0	40
516.2116	9x12	16	20,0*	38,0	8,5	45
516.2117	9x12	17	20,0*	38,0	8,5	50
516.2118	9x12	18	20,0*	42,0	9,0	60
516.2119	9x12	19	20,0*	42,0	9,0	60



### Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated

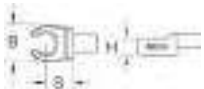


9x12 mm

	□	mm	S mm	B mm	H mm	g
516.2307	9x12	7	17,5	13,0	8,0	30
516.2308	9x12	8	17,5	14,2	8,0	30
516.2310	9x12	10	17,5	17,2	9,0	30
516.2311	9x12	11	17,5	18,5	9,0	30
516.2312	9x12	12	17,5	20,0	12,0	35
516.2313	9x12	13	17,5	21,5	12,0	35
516.2314	9x12	14	17,5	23,0	12,0	40
516.2315	9x12	15	17,5	24,2	12,0	40
516.2316	9x12	16	17,5	25,7	13,0	40
516.2317	9x12	17	17,5	27,2	13,0	40
516.2318	9x12	18	17,5	28,5	13,0	40
516.2319	9x12	19	17,5	30,3	13,0	40
516.2321	9x12	21	17,5	33,0	15,0	50
516.2322	9x12	22	17,5	34,5	15,0	50

### Open push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated



9x12 mm

	□	mm	S mm	B mm	g
516.2510	9x12	10	17,5	21,0	40
516.2511	9x12	11	17,5	22,5	40
516.2512	9x12	12	17,5	23,7	40
516.2513	9x12	13	17,5	25,2	40
516.2514	9x12	14	17,5	27,0	50
516.2517	9x12	17	17,5	31,5	65
516.2518	9x12	18	17,5	33,0	65
516.2519	9x12	19	17,5	34,5	65
516.2522	9x12	22	20,0*	39,0	65

### Torx-E push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated

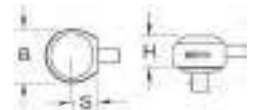


9x12 mm

	□	mm	S mm	B mm	H mm	g
516.3006	9x12	E 6	17,5	13,0	8,0	40
516.3008	9x12	E 8	17,5	14,2	8,0	45
516.3010	9x12	E 10	17,5	17,2	9,0	50
516.3012	9x12	E 12	17,5	18,5	9,0	50
516.3014	9x12	E 14	17,5	21,5	10,0	60

### Push fit fine toothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated



9x12 mm

1/4" 3/8" 1/2"

	□	mm	S mm	B mm	H mm	g
516.2614	9x12	1/4"	17,5	27,0	25,0	75
516.2638	9x12	3/8"	17,5	35,0	35,0	152
516.2612	9x12	1/2"	17,5	43,0	40,0	228

### Push fit square mount

- With a locking pin
- Chrome plated



9x12 mm

1/4" 3/8" 1/2"

	□	mm	S mm	B mm	H mm	g
516.2814	9x12	1/4"	17,5	20,0	14,0	70
516.2838	9x12	3/8"	17,5	20,0	14,0	76
516.2812	9x12	1/2"	17,5	20,0	14,0	80

\* Please note the changed values on the torque wrench!

### Push fit bit holder

- With a locking pin
- Chrome plated



9x12 mm

5/64" 1/4"

	□	○	S mm	B mm	H mm	g
516.2005	9x12	1/4"	17,5	14,0	10,0	47
516.2010	9x12	5/16"	17,5	16,0	12,5	47

### Push fit jaw wrench

- Snap lock tool holder available for replaceable 9x12 or 14x18 end tools
- With a locking pin
- Chrome plated

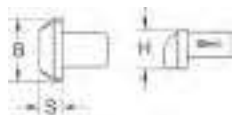


9x12 mm 14x18 mm

	□	■	S mm	B mm	H mm	g
516.2040	9x12	14 x 18	30,5"	31,0	26,0	120
516.2050	14x18	9 x 12	27,0"	28,0	21,0	120

### Push fit weld on head

- With a locking pin
- Burnished

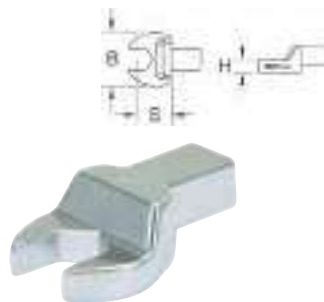


9x12 mm 14x18 mm

	□	Weld dimension mm	S mm	B mm	H mm	g
516.2060	9x12	8 x 14	14,5"	14,0	14,5	47
516.2070	14x18	11 x 25	12,0"	25,0	21,5	100

### Push fit flared wrench

- With a locking pin
- Chrome plated



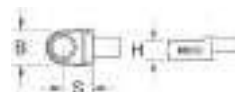
14x18 mm

	□	mm	S mm	B mm	H mm	g
516.2213	14x18	13	25,0	30,0	7,0	120
516.2214	14x18	14	25,0	35,0	8,0	120
516.2215	14x18	15	25,0	35,0	8,0	120
516.2216	14x18	16	25,0	38,0	9,0	125
516.2217	14x18	17	25,0	38,0	9,0	130
516.2218	14x18	18	25,0	42,0	10,0	130
516.2219	14x18	19	25,0	42,0	10,0	130
516.2221	14x18	21	25,0	50,0	11,0	155
516.2222	14x18	22	25,0	50,0	11,0	160
516.2224	14x18	24	27,5"	53,0	12,0	170
516.2226	14x18	26	30,0"	60,0	13,0	180
516.2227	14x18	27	30,0"	60,0	13,0	185
516.2229	14x18	29	30,0"	66,0	14,0	210
516.2230	14x18	30	30,0"	66,0	14,0	220
516.2232	14x18	32	32,5"	66,0	14,0	239
516.2234	14x18	34	32,5"	66,0	14,0	246
516.2236	14x18	36	32,5"	74,0	15,0	265
516.2238	14x18	38	32,5"	74,0	15,0	275
516.2241	14x18	41	32,5"	82,0	15,0	307



### Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated



14x18 mm

	□	mm	S mm	B mm	H mm	g
516.2413	14x18	13	25,0	21,5	11,0	120
516.2414	14x18	14	25,0	23,0	11,0	120
516.2415	14x18	15	25,0	24,2	11,0	115
516.2416	14x18	16	25,0	25,7	12,0	125
516.2417	14x18	17	25,0	27,2	12,0	125
516.2418	14x18	18	25,0	28,5	12,0	125
516.2419	14x18	19	25,0	30,5	12,0	125
516.2421	14x18	21	25,0	33,0	15,0	140
516.2422	14x18	22	25,0	34,5	15,0	140
516.2424	14x18	24	25,0	37,5	15,0	140
516.2427	14x18	27	25,0	41,5	17,0	150
516.2430	14x18	30	25,0	45,0	19,0	160
516.2432	14x18	32	25,0	47,5	19,0	165
516.2434	14x18	34	28,0"	50,5	19,0	195
516.2436	14x18	36	28,0"	53,0	19,0	195
516.2441	14x18	41	30,0"	59,0	20,0	225

### Torx-E Push fit ring spanner (box wrench)

- With a locking pin
- Chrome plated



14x18 mm

	□	mm	S mm	B mm	H mm	g
516.3114	14x18	E 14	25,0	22,5	11,0	130
516.3118	14x18	E 18	25,0	24,0	11,0	135
516.3120	14x18	E 20	25,0	29,0	13,0	150
516.3124	14x18	E 24	25,0	30,5	13,0	150

### Push fit fine toothed reversible ratchet head

- With a locking pin
- Fine toothed
- With release feature
- Chrome plated

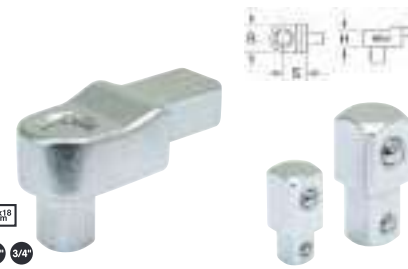


14x18 mm 1/2" 3/4"

	□	mm	S mm	B mm	H mm	g
516.2712	14x18	1/2"	25,0	43,0	43,0	260
516.2734	14x18	3/4"	25,0	70,0	60,0	795

### Push fit square mount

- With a locking pin
- Chrome plated



14x18 mm

1/2" 3/4"

	□	mm	S mm	B mm	H mm	g
516.2912	14x18	1/2"	25,0	27,0	18,0	210
516.2934	14x18	3/4"	25,0	40,0	25,0	400

### Push fit bit holder

- With a locking pin
- Chrome plated



14x18 mm

5/16"

	□	mm	S mm	B mm	H mm	g
516.2020	14x18	5/16"	25,0	16,0	12,5	115

\* Please note the changed values on the torque wrench!

## PUSH FIT TOOLKIT

### ERGOTORQUE® precision Refrigeration/air conditioning torque wrench tool set 20 - 100 Nm

- Set contents ideal for air conditioning and refrigeration engineers
- Actuation accuracy:  $\pm 5\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Changing the operating direction takes place by turning the torque wrench
- Double scale in Nm and lbf-ft divisions for precise adjustment
- Includes micrometer scale in Nm divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- With snap lock rectangular tool holder for 14x18 range of end tools
- Individually marked with serial number - unique product identification
- Including certificate according to DIN EN ISO 6789:2017(E) - traceable to national standards



VDE		CE		Icon	
114.122	4 pcs	ERGOTORQUE® precision Refrigeration/air conditioning torque wrench tool set 20 - 100 Nm	3.40		
1 x		20 - 100 Nm			
6 x		17 - 22 - 24 - 26 - 27 - 29 mm			
1 x		1/2"			

### Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock rectangular tool holder for 8x12 range of end tool
- Supplied in a metal carrying case with the tools clearly organized



VDE		CE		Icon	
114.070	25 pcs	Torque tool set with plug in tools	2.20		
1 x		5 - 50 Nm			
11 x		7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm			
10 x		7 - 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 mm			
6 x		10 - 11 - 12 - 13 - 14 - 17 mm			
1 x		3/8"			

### Torque tool set with plug in tools

- Set contents for universal applications
- With snap lock rectangular tool holder for 14x18 range of end tools
- Supplied in a metal carrying case with the tools clearly organized



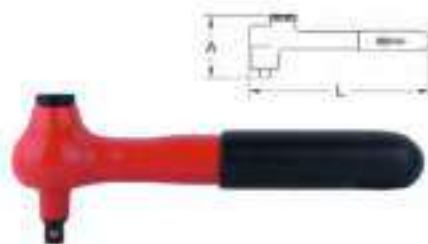
VDE		CE		Icon	
114.170	31 pcs	Torque tool set with plug in tools	5.00		
1 x		20 - 200 Nm			
13 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm			
16 x		13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 - 36 - 41 mm			
1 x		1/2"			



## VDE TORQUE WRENCH

### Feed torque wrench with protective insulation

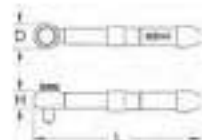
- Actuation accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in a clockwise direction
- Can unlighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - with a fixed adjustable value
- Hexagon socket holder in accordance with DIN 8126 - E6,3
- Individually marked with serial number - unique product identification
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



VDE		CE		Icon	
117.392	3/8"	5-35	70.0	218.0	420
117.391	1/2"	9-35	70.0	254.0	420

### Mini torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in a clockwise direction
- Can unlighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30-teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adapter to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



VDE		CE		Icon	
117.188	1/4"	2-10	40.0	41.0	200.0
117.189	1/4"	5-25	40.0	41.0	200.0
117.184	3/8"	5-25	40.0	42.0	200.0
117.185	1/2"	5-25	40.0	42.0	200.0

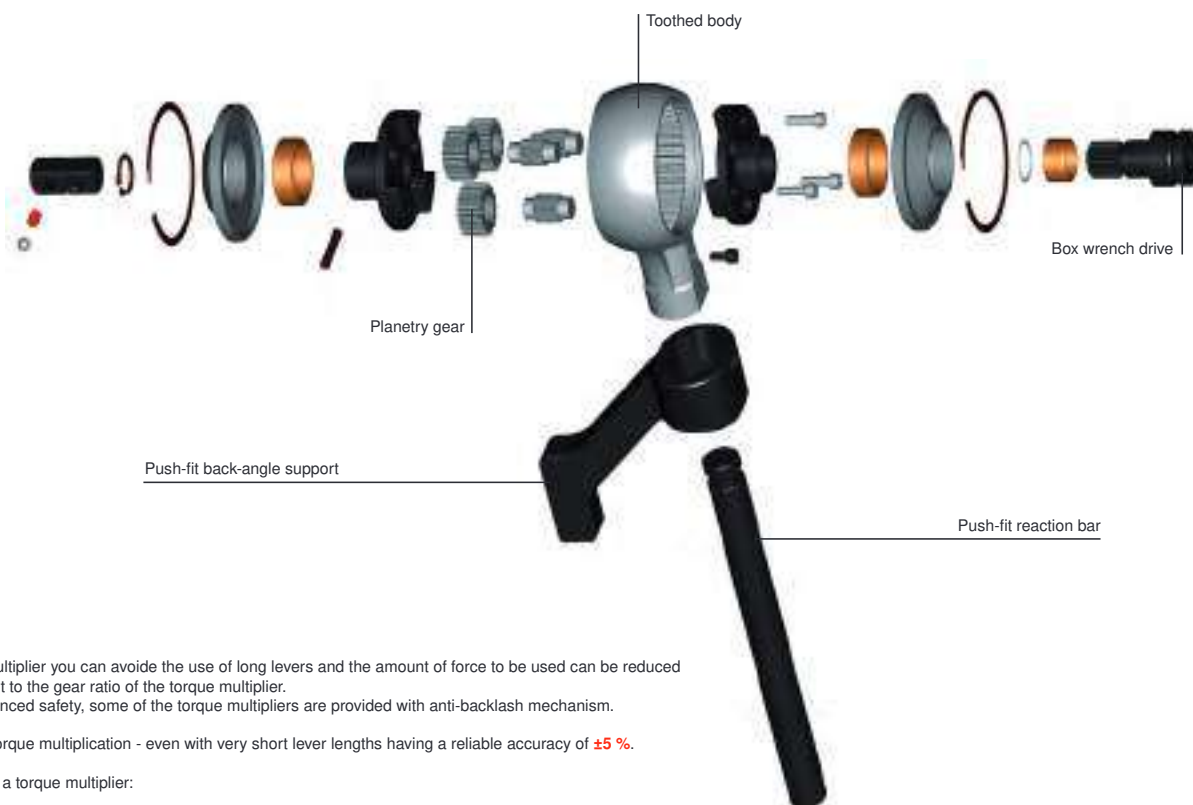
### Torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5,000 tightening cycles
- For controlled fastening in a clockwise direction
- Can unlighten without any torque restraint thanks to the anticlockwise latch
- Scale in Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30-teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adapter to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



VDE		CE		Icon	
117.390	3/8"	5-25	81.0	290.0	0.82
117.391	3/8"	5-50	81.0	370.0	1.97
117.391	1/2"	5-25	81.0	290.0	0.82
117.390	1/2"	5-50	81.0	370.0	1.97
117.392	1/2"	25-100	81.0	400.0	1.20
117.393	1/2"	40-225	81.0	500.0	1.91

# TORQUE CONVERTOR



By using a torque multiplier you can avoid the use of long levers and the amount of force to be used can be reduced by a factor equivalent to the gear ratio of the torque multiplier.  
For the sake of enhanced safety, some of the torque multipliers are provided with anti-backlash mechanism.

Ideal for controlled torque multiplication - even with very short lever lengths having a reliable accuracy of  $\pm 5\%$ .

Advantages of using a torque multiplier:

- Avoidance of long lever arms meaning you work more safely. Torque multipliers reduce the lever length or the force required by the user by a certain factor.
- The use of a long lever arm may not be possible owing to limitations on the space available.
- The torque multiplier means the torque is applied more accurately as it is applied continuously and slowly and therefore more accurately.

## Universal torque multiplier

- Robust loosening
- Designed for use with the crank handle supplied
- Integrated support device
- Square drive adaptor to DIN 3120 / ISO 1174
- 1:64 Torque ratio
- 4.000 Nm maximum output torque
- Including crank handle and one extension
- Indispensable as essential equipment on service vehicles
- Ideal for trucks, construction machines and agricultural machines
- Not suited for use with impact wrenches
- In durable plastic storage case

## Universal torque multiplier

- Accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- Single stage precision planetary gear for both directions
- Two support devices
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- Supplied in a metal storage case



## Torque converter, 1680 Nm

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Housing with angle scale ring
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 3/4"

				Nm	Nm	D mm	L mm	H mm	
516.3740	1/2"	6:1	3/4"	280	1680	100,0	128,0	106,0	4,90

### accessories:

516.3742	Spare square for 516.3740	0,10
516.3743	Straight strut for 516.3740	1,00



516.1151	3 pcs	Universal torque multiplier	8,54

consists of:

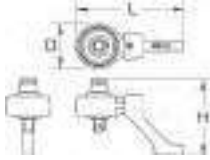
516.1152	1"	Crank handle for 516.1151	500
516.1153	1"	Extension for 516.1151	300



										1/2"	3/4"	1"
				Nm	Nm	D mm	L mm	H mm				
516.3700	1/2"	5:1	3/4"	260	1300	110,0	395,0	127,0	8,60			
516.3705	3/4"	5:1	1"	540	2700	110,0	395,0	127,0	4,40			

### Torque convertor, 2700 Nm

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With adjustable angular strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



3/4" 1"

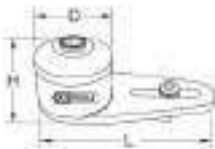
	□	○	■	↺	↻	D	L	H	kg
	Nm	Nm	mm	mm	mm	mm	mm	mm	
516.3745	3/4"	5.4:1	1"	500	2700	115,0	201,0	126,0	6,34

#### accessories:

		kg
516.3747	Spare square for 516.3745	0,24
516.3748	Angular strut for 516.3745	1,42

### Torque convertor, 3500 Nm

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- Moving strut with 1" socket mounting
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



3/4" 1"

	□	○	■	↺	↻	D	L	H	kg
	Nm	Nm	mm	mm	mm	mm	mm	mm	
516.3750	3/4"	4.5:1	1"	770	3500	108,0	264,0	130,0	7,30

#### accessories:

		kg
516.3752	Spare square for 516.3750	280

### Torque convertor, 4500 Nm

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing
- With straight strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism

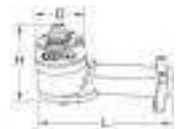


1/2" 1.5"

	□	○	■	↺	↻	D	L	H	kg
	Nm	Nm	mm	mm	mm	mm	mm	mm	
516.3755	1/2"	20:1	1.1/2"	225	4500	120,0	312,0	204,8	8,30

### Torque convertor, 6000 Nm

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1.5"

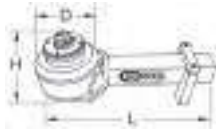
	□	○	■	↺	↻	D	L	H	kg
	Nm	Nm	mm	mm	mm	mm	mm	mm	
516.3760	1/2"	26:1	1.1/2"	230	6000	130,0	328,0	216,3	15,70

#### accessories:

		kg
516.3762	Spare shear pin for 516.3760	9

**Torque convertor, 9500 Nm**

- High accuracy:  $\pm 5\%$  Tolerance
- For controlled fastening in clockwise and counter clockwise directions
- Device for angle regulated fastening with a torque wrench
- With anti-backlash mechanism
- Encapsulated precision planetary gearing with backstop
- With adjustable strut
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Not suited for use with impact wrenches
- In durable plastic case incl. spare anti/backlash mechanism



1/2" 1/2"

	□	○	■	Nm	Nm	D mm	L mm	H mm	⚙️
516.3765	1/2"	26:1	1.1/2"	365	9500	184,0	505,0	214,9	30,30

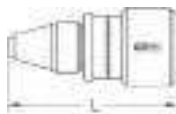
**accessories:**

		⚙️
516.3767	Spare shear pin for 516.3765	9

**TEST EQUIPMENT**

**Precision torque testing instrument with dial indicator and drag indicator**

- Display accuracy:  $\pm 6\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled display in a clockwise and counter clockwise direction
- For testing, measuring, checking and making adjustments
- Display torque testing instrument with drag indicator
- Large vision panel for precise adjustment
- Tool mounting using a three jaw chuck
- Individually marked with serial number - unique product identification
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



**Electronic accuracy tester for torque wrenches**

- High display accuracy:  $+1\%$  tolerance of the scale values, +/- 1 digit
- For checking or adjusting torque wrenches and torque screwdrivers
- For controlled display in a clockwise and counter clockwise direction
- Simple electronic tester with integrated torsion transducer
- Digital scale in Nm divisions for precise adjustment
- Display mode: First Peak (detection of first peak)
- Large LCD display for clear reading of the values
- With automatic reset and automatic shutdown
- Simple and comfortable operating
- Square drive by means of square adaptor
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards
- No main power required - includes 2 x AA 1.5 V LR26 batteries
- Includes reinforcement screw
- In durable plastic storage case



1/4" 3/8" 1/2" 3/4" 1"

	□	Measuring range Nm	L mm	B mm	H mm	⚙️
516.0100	1/4"+3/8"+1/2"+3/4"	5 - 500	180,0	130,0	147,0	4,82

	Measuring range mNm	Measuring range cNm	Division mNm	Division cNm	Tightening chuck Ø min	L mm	⚙️
516.3310	1-9		0,2		1-6,5	83,0	290
516.3315	2-15		0,2		1-6,5	83,0	290
516.3320	4-30		0,5		1-6,5	83,0	290
516.3325	5-60		1		1-6,5	83,0	290
516.3330	10-120		2		1-6,5	83,0	290
516.3335	20-240		5		1-6,5	83,0	290
516.3410		1-15		0,2	1-8,5	102,0	600
516.3415		2-24		0,2	1-8,5	102,0	600
516.3420		4-36		0,5	1-8,5	102,0	600
516.3425		5-60		1,0	1-8,5	102,0	600
516.3430		10-90		2,0	1-8,5	102,0	600
516.3435		10-150		2,0	1-8,5	102,0	600

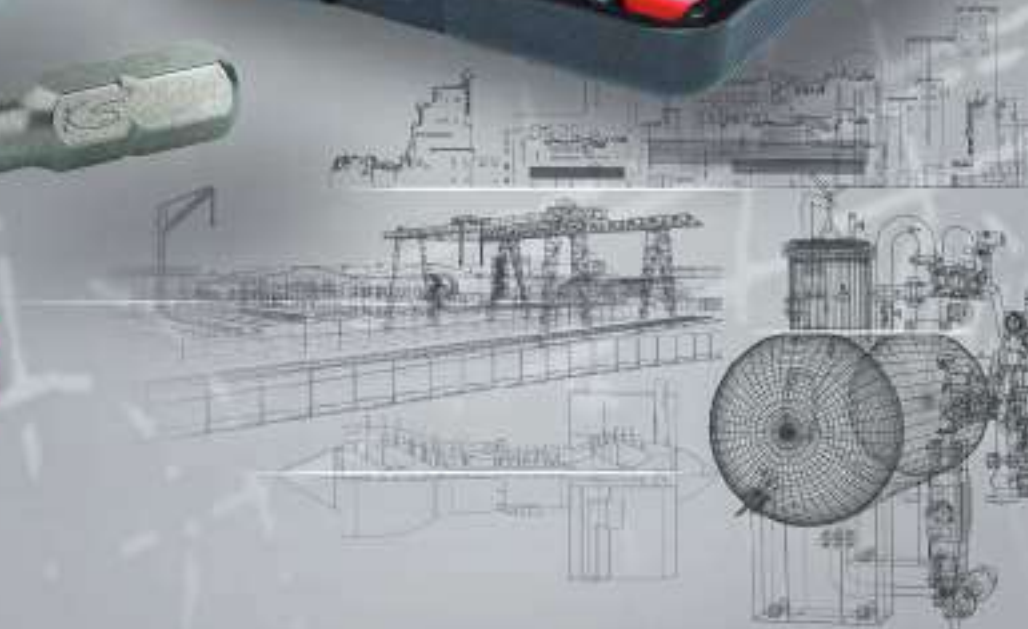


Confidence is good - torque control is better!





Innovation is  
our mission!





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## BIT HOLDERS

### Magnetic bit holder

- DIN 7427
- Magnetic
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Special tool steel



			H mm	L mm	
514.1102	1/4"	1/4"	10,0	50,0	50
514.1103	1/4"	1/4"	10,0	100,0	60

### Magnetic bit holder with depth adjustment

- Ideally suited for working in dry lining
- Magnetic
- Depth adjustment
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Special tool steel



			H mm	L mm	
514.1109	1/4"	1/4"	15,0	57-63	20

### 1/4" Quick change bit holder, magnetic, with locking system

- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Special tool steel



			H mm	L mm	
514.1104	1/4"	1/4"	15,0	50,0	50
514.1110	1/4"	1/4"	15,0	150,0	130
514.1111	1/4"	1/4"	15,0	305,0	250

### Magnetic quick release bit holder

- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Special tool steel



			H mm	L mm	
514.1114	1/4"	1/4"	16,0	65,0	50

### Magnetic quick release bit holder with joint

- Ideal for limited access areas
- 20° swing angle
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For 1/4" bit sockets with internal square drive according to DIN 3120 / ISO 1174
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Chrome vanadium



			H mm	L mm	
514.1136	1/4"	1/4"	15,0	90,0	56

			H mm	L mm	
514.1136	1/4"	1/4"	15,0	90,0	56

### STAINLESS STEEL quick release bit holder

- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



			H mm	L mm	
910.1114	1/4"	1/4"	16,0	65,0	50

### Auto slimlock magnetic quick release bit holder

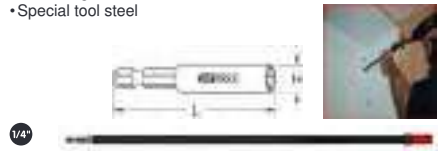
- Extremely slim design - ideal for hard to access areas
- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Special tool steel



			H mm	L mm	
514.1113	1/4"	1/4"	11,5	68,0	30

### Magnetic quick-change bit holder, extra long

- Quick change function and locking device
- Magnetic
- with freewheel sleeve
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Extra long execution
- Special tool steel



			H mm	L mm	
514.1148	1/4"	1/4"	12,0	457,0	200

### 2In1 quick change bit holder

- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- for 1/4" bit sockets with internal square drive according to DIN 3120 / ISO 1174
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Chrome vanadium



				Ø mm	L mm	
514.1126	1/4"	1/4"	1/4"	17	85,0	50

## ADAPTOR

### Square drive adaptor

- External hexagon drive
- 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fittings in trade and industry
- Chrome plated
- Special tool steel



			L mm	
911.1452	1/4"	1/4"	25,0	10
503.8232	5/16"	1/4"	21,0	8
503.8233	10,0	1/4"	24,5	10

### SDS chuck adaptor

- With SDS adaptor
- Thread 1/2" x 20 Pitch
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special tool steel



	H mm	L mm	
514.1134	18,0	65,0	40

### Square drive adaptor

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills
- Sand-blasted
- Special tool steel



			L mm	
514.1106	1/4"	1/4"	65,0	20
514.1107	3/8"	1/4"	65,0	30
514.1108	1/2"	1/4"	70,0	40

### Socket drive adaptor set

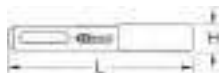
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills
- Sand-blasted
- Special tool steel



1/4"				
514.1105	3 pcs	1/4" - 3/8" - 1/2"		100

### Magnetic SDS bit holder

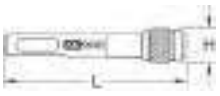
- With SDS adaptor
- Magnetic
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special tool steel



1/4"		H mm	L mm	
514.1130	1/4"	11,0	75,0	35

### Magnetic SDS quick release bit holder

- With SDS adaptor
- Magnetic
- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Special tool steel



1/4"		H mm	L mm	
514.1131	1/4"	14,0	78,0	40

### SDS socket drive adaptor

- With SDS adaptor
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Ideally suited for fittings in trade and industry
- For using in electric drivers and drills with SDS adaptor
- Sand-blasted
- Special tool steel



		L mm	
514.1132	3/8"	60,0	20
514.1133	1/2"	65,0	50

### SCREWDRIVER BITS

#### ERGOTORQUE<sup>plus</sup> bit screwdriver

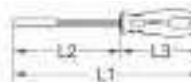
- Two component handle
- Extra short execution
- Magnetic
- Optimal power transmission
- 1/4" hexagonal holder for bits



1/4"		L mm	
159.1190	1/4"	63,0	30

#### ERGOTORQUE<sup>plus</sup> bit screwdriver

- For bits to DIN 3126 / C 6,3
- Two component handle
- Optimal power transmission
- Magnetic
- Blade made of chrome vanadium



1/4"		L1 mm	L2 mm	L3 mm	
159.2198	1/4"	250,0	150,0	100,0	100

#### ERGOTORQUE<sup>plus</sup> quick change bit screwdriver

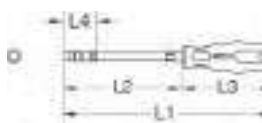
- For bits to DIN 3126 / C 6,3
- Two component handle
- Locking and fast change device
- Optimal power transmission
- Magnetic
- Blade made of chrome vanadium



1/4"		L1 mm	L2 mm	L3 mm	
159.2145	1/4"	200,0	100,0	100,0	100

#### ERGOTORQUE<sup>plus</sup> bit screwdriver

- Two component handle
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- 1/4" hexagonal holder for bits



1/4"		L1 mm	L2 mm	L3 mm	L4 mm	
159.1129	1/4"	200,0	150,0	50,0	8,0	200

### ERGOTORQUE<sup>plus</sup> bit screwdriver, extra long

- For bits to DIN 3126 / C 6,3
- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating



1/4"		L1 mm	L2 mm	L3 mm	L4 mm	
911.1172	1/4"	614,0	500,0	114,0	43,0	280

#### ERGOTORQUE<sup>plus</sup> bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Blade made of chrome vanadium



1/4"		L1 mm	L2 mm	L3 mm	
159.1198	1/4"	205,0	100,0	105,0	90

### RATCHET BIT SCREWDRIVER

#### Ratchet bit screwdriver

- Robust gearing with 24 teeth
- Ratchet function
- 180° multi adjustable blade
- For bits to DIN 3126 / C 6,3
- Magnetic
- Integrated bit magazine with 13 bits
- Ergonomically designed handle



1/4"		D mm	L1 mm	L2 mm	L3 mm	
911.2470	1/4"	10,0	190,0	82,0	108,0	380

#### T-handle ratchet bit screwdriver

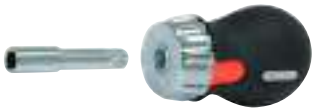
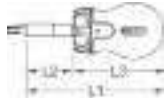
- Robust gearing with 24 teeth
- Ratchet function
- Locking and fast change device
- 45° two way revolving head
- For bits to DIN 3126 / C 6,3
- Fast change bit stop function
- Magnetic
- Integrated bit magazine with 5 bits
- Two component handle



1/4"		D mm	L1 mm	L2 mm	L3 mm	
911.2475	1/4"	15,0	140,0	26,0	114,0	380

### Mini ratchet screwdriver

- Ratchet function
- Exact gearing with 72 teeth
- For bits to DIN 3126 / C 6,3
- Magnetic
- Two component handle
- Blade mirror polished chrome



1/4"

	○	L1 mm	L2 mm	L3 mm	□
159.2061	1/4"	95,0	27,0	68,0	140

### Revolver ratchet bit screwdriver

- Ratchet function
- Exact gearing with 72 teeth
- Handle with double function (standard and pistol handle)
- For bits to DIN 3126 / C 6,3
- Magnetic
- 40 Nm maximum torque
- Integrated bit magazine
- Two component handle
- Blade mirror polished chrome



1/4"

	○	L1 mm	L2 mm	L3 mm	□
159.2051	1/4"	260,0	130,0	130,0	450

### BIT RATCHETS

#### Bit ratchet reversible with adaptor for sockets

- With 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Reversible
- Exact gearing with 72 teeth
- Extremely flat construction form
- Matt finished
- Special tool steel

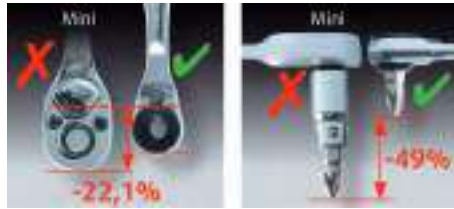


1/4"

	Length mm	○	□	□	
918.1595	2 pcs	100,0	1/4"	1/4"	98

consists of:

	□	□
918.1594	1/4" Bit reversing ratchet	70
503.8231	Socket adaptor f.bit ratchet, 1/4"x1/4"	6



#### Bit-joint change-over ratchet set with plug adapter for sockets

- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- With square drive according to DIN 3120 / ISO 1174 with ball lock
- Reversible
- 180° revolving head
- Fine gearing 72 teeth ratchet mechanism
- Infinitely variable
- With extension and 1/4" plug-in adapter
- Extremely flat construction form
- Matt finished
- Chrome vanadium



1/4"

	Length mm	○	□	□	
918.1590	3 pcs	119,0	1/4"	1/4"	104

consists of:

	□	□
503.8231	Socket adaptor f.bit ratchet, 1/4"x1/4"	6
918.1560	1/4" Bit-joint reversing ratchet, length 119mm	66
514.1124	1/4" extension, 100mm	33

#### CHROMEplus® bit reversing ratchet

- For bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Reversible
- Exact gearing with 72 teeth
- Two component handle
- Mirror polished
- Special tool steel



1/4"

	A mm	D mm	L mm	Repair set	□
918.1495	18,5	22,0	115,0	914.1494	160

#### Bit reversing ratchet

- For bits with 10 mm external hexagon drive
- Reversible
- Exact gearing with 72 teeth
- Two component handle
- Mirror polished
- Special tool steel

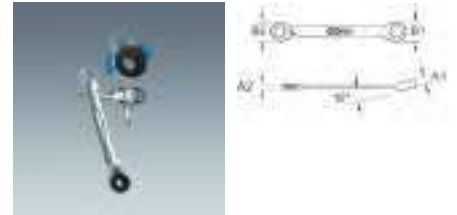


10 mm

	A mm	D mm	L mm	Repair set	□
914.3893	30,0	32,0	120,0	914.3494	180

#### GEARplus® mini reversible ratcheting spanner

- Especially handy and compact
- Rotating assembly
- One way angled head
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



	○	A1 mm	A2 mm	B1 mm	B2 mm	L mm	□
503.4691	1/4" x 1/4"	9,7	7,8	12,6	14,2	90,0	40



#### GEARplus® Double ratchet ring spanner

- FlankTraction profile
- In accordance to DIN 3110 / ISO 3318
- Straight form
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium



	□ mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	□
503.4511	8x10	7,3	6,5	20,0	17,0	128,0	40

#### GEARplus® mini reversible ratcheting spanner

- Especially handy and compact
- Rotating assembly
- Two side angled head
- Exact gearing with 72 teeth
- Mirror polished
- Chrome vanadium

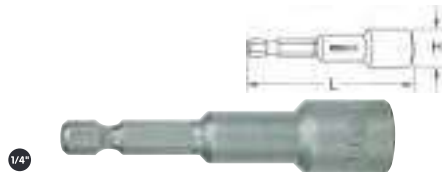


	○	A1 mm	A2 mm	B1 mm	B2 mm	L mm	□
503.4678	1/4" x 10mm	13,5	9,7	19,3	14,2	124,5	40
503.4679	1/4" x 5/16"	10,2	9,7	17,2	14,2	115,0	40

## 1/4" SCREWDRIVING TOOLS

### Drive socket, magnetic

- Magnetic
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- For a damage free inserting boring and unscrewing bolts
- Ideally suited for fittings in trade and industry
- Sand-blasted
- Special tool steel



	mm	L mm	H mm	g
122.2171	5,0	60,0	11,0	28
122.2172	6,0	60,0	11,0	28
122.2101	7,0	60,0	11,0	30
122.2102	8,0	60,0	12,0	30
122.2103	10,0	60,0	15,0	40
122.2173	12,0	60,0	18,0	49
122.2104	13,0	60,0	18,0	50

### Stud screwdriver

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- For a damage free inserting and unscrewing bolts from floor
- Ideally suited for fittings in trade and industry
- Sand-blasted
- Special tool steel



		L mm	H mm	g
122.2105	M6	50,0	12,0	20
122.2106	M8	50,0	12,0	20
122.2107	M10	50,0	12,0	20
122.2108	M12	50,0	14,0	20

### Bit and drive socket set

- Ideal set of compilation for plumbing, heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special tool steel
- In durable plastic storage case



	mm	L mm	H mm	g
122.2100	31 pcs	Bit and drive socket set		0,67
4 x		7 - 8 - 10 - 13 mm		

4 x		M6 - M8 - M10 - M12
1 x		50 mm
5 x		PH1 - 3 x PH2 - PH3
5 x		PZ1 - 3 x PZ2 - PZ3
2 x		5,5 - 6,5 mm
3 x		4 - 5 - 6 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40

## MICRO BITS

### Micro bit for slotted screws

- Slotted
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	mm	L mm	Content	g
503.8221	4,0	8,0	15,0	1	10

### Micro bit for phillips screws PH

- PH
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		mm	L mm	Content	g
503.8101	PH0	8,0	20,0	1	10
503.8102	PH1	8,0	20,0	1	10
503.8103	PH2	8,0	20,0	1	10

### Micro bit for hexagon screws

- Hexagon socket
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	mm	L mm	Content	g
503.8131	4,0	8,0	15,0	1	10
503.8132	5,0	8,0	15,0	1	10
503.8133	6,0	10,0	15,0	1	10
503.8134	7,0	10,0	15,0	1	10
503.8135	8,0	10,0	15,0	1	10

### Micro Bit for Torx screws

- Torx
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		mm	L mm	Content	g
503.8170	T8	8,0	23,0	1	5
503.8171	T10	8,0	23,0	1	10
503.8172	T15	8,0	23,0	1	10
503.8173	T20	8,0	23,0	1	10
503.8174	T25	8,0	23,0	1	10
503.8175	T27	8,0	23,0	1	10
503.8176	T30	8,0	23,0	1	10
503.8177	T40	10,0	23,0	1	10
503.8178	T45	10,0	23,0	1	10

### Micro Bit for Torx screws with front hole drilling

- For tamperproof Torx
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		mm	L mm	Content	g
503.8200	TB8	8,0	23,0	1	5
503.8201	TB10	8,0	23,0	1	10
503.8202	TB15	8,0	23,0	1	10
503.8203	TB20	8,0	23,0	1	10
503.8204	TB25	8,0	23,0	1	10
503.8205	TB27	8,0	23,0	1	10
503.8206	TB30	8,0	23,0	1	10
503.8207	TB40	10,0	23,0	1	10
503.8208	TB45	10,0	23,0	1	10

### Micro bit for spline screws

- Spline
- External hexagon drive and locking ring
- For hand usage with a GEARplus spanner 503.4511
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		mm	L mm	Content	g
503.8152	M5	8,0	23,0	1	10
503.8153	M6	10,0	23,0	1	10
503.8154	M8	10,0	23,0	1	10
503.8155	M10	10,0	23,0	1	10

### Micro bit set

- External hexagon drive and locking ring
- For manual operation
- Includes reversing GEARplus® bit ratchet ring spanner
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular micro-bits
- Nickel plated
- Special tool steel



503.4670	32 pcs	Micro bit set				520	
1 x		8 x 10 mm					
1 x		4 mm					
3 x		PH0 - PH1 - PH2					
5 x		4 - 5 - 6 - 7 - 8 mm					
4 x		5 - 6 - 8 - 10 mm					
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 T40 - T45					
9 x		TB8 - TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40 - TB45					

### MINI BITS

#### Mini bit for slotted screws

- Slotted
- Very flat design for hard to access places
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For manual operation with go-through-reversing ratchet 918.3072
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



918.3047		4,0	18,0	5	
918.3048		6,0	18,0	5	

### Mini bit for Phillips head screws PH

- PH
- Very flat design for hard to access places
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For manual operation with go-through-reversing ratchet 918.3072
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



918.3041	PH 0	18,0	5		
918.3042	PH 1	18,0	5		
918.3043	PH 2	18,0	5		

### Mini bit for pozidriv screws PZ

- PZ
- Very flat design for hard to access places
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For manual operation with go-through-reversing ratchet 918.3072
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



918.3044	PZ 0	18,0	5		
918.3045	PZ 1	18,0	5		
918.3046	PZ 2	18,0	5		

### Mini bit for hexagon screws

- Hexagon socket
- Very flat design for hard to access places
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For manual operation with go-through-reversing ratchet 918.3072
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



918.3049		3,0	18,0	5	
918.3051		4,0	18,0	5	
918.3052		5,0	18,0	5	
918.3053		6,0	18,0	5	

### Mini bit for Torx screws

- Torx
- Very flat design for hard to access places
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- For manual operation with go-through-reversing ratchet 918.3072
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



918.3054	T10	18,0	5		
918.3055	T15	18,0	5		
918.3056	T20	18,0	5		
918.3057	T25	18,0	5		
918.3058	T27	18,0	5		
918.3059	T30	18,0	5		
918.3060	T40	18,0	5		

### Go through socket and bit set

- Especially handy and compact
- Rotating assembly
- Very flat design for hard to access places
- Ratchet head offset at 15°
- Exact gearing with 72 teeth
- With reversing lever
- Matt finish
- Chrome vanadium
- In durable plastic case



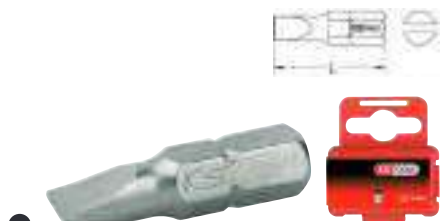
918.3050	31 pcs	Go through socket and bit set			420
10 x		5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
1 x		1/4" x 11 mm			
4 x		PH0 - PH1 - 2 x PH2			
3 x		PZ0 - PZ1 - PZ2			
2 x		4 - 6 mm			
4 x		3 - 4 - 5 - 6 mm			
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40			



## 1/4" BITS 25 mm

### Bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	0
911.3303	3,0	25,0	1	5
911.3304	3,0	25,0	5	35
911.3305	3,5	25,0	1	5
911.3306	3,5	25,0	5	35
911.2237	4,0	25,0	1	5
911.2238	4,0	25,0	5	40
911.2240	4,5	25,0	1	6
911.2241	4,5	25,0	5	40
911.2392	5,0	25,0	1	5
911.2492	5,0	25,0	5	35
911.2243	5,5	25,0	1	6
911.2244	5,5	25,0	5	40
911.2246	6,0	25,0	1	6
911.2247	6,0	25,0	5	40
911.2249	6,5	25,0	1	6
911.2250	6,5	25,0	5	40
911.3307	7,0	25,0	1	6
911.3308	7,0	25,0	5	40
911.2252	8,0	25,0	1	9
911.2253	8,0	25,0	5	58
911.3309	9,0	25,0	1	10
911.3310	9,0	25,0	5	66
911.3311	10,0	25,0	1	12
911.3312	10,0	25,0	5	74
911.3313	11,0	25,0	1	12
911.3314	11,0	25,0	5	74

### Bit for Phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	0
911.3333	PH000	25,0	1	6
911.3334	PH000	25,0	5	40
911.3335	PH00	25,0	1	6
911.3336	PH00	25,0	5	40
911.2396	PH0	25,0	1	5
911.2394	PH0	25,0	5	35
911.2201	PH1	25,0	1	5
911.2202	PH1	25,0	5	35
911.2204	PH2	25,0	1	5
911.2205	PH2	25,0	5	35
911.2207	PH3	25,0	1	6
911.2208	PH3	25,0	5	40
911.3337	PH4	25,0	1	6
911.3338	PH4	25,0	5	40

## Bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	0
911.2397	PZ0	25,0	1	5
911.2393	PZ0	25,0	5	5
911.2219	PZ1	25,0	1	5
911.2220	PZ1	25,0	5	35
911.2222	PZ2	25,0	1	5
911.2223	PZ2	25,0	5	35
911.2225	PZ3	25,0	1	6
911.2226	PZ3	25,0	5	40
911.3345	PZ4	25,0	1	12
911.3346	PZ4	25,0	5	74

### Bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel

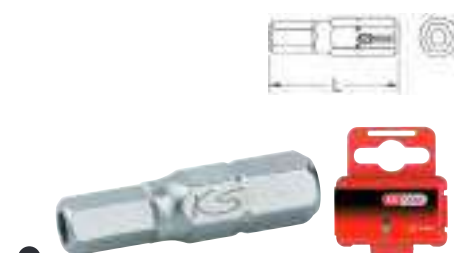


	mm	L mm	Content	0
911.3558	1,5	25,0	1	6
911.3559	1,5	25,0	5	40
911.2377	2	25,0	1	5
911.3561	2	25,0	5	6
911.2386	2,5	25,0	1	5
911.3563	2,5	25,0	5	40
911.2255	3	25,0	1	5
911.2256	3	25,0	5	35
911.2258	4	25,0	1	5
911.2259	4	25,0	5	35
911.2261	5	25,0	1	6
911.2262	5	25,0	5	40
911.7854	5,5	25,0	1	6
911.2264	6	25,0	1	6
911.2265	6	25,0	5	40
911.2267	7	25,0	1	6
911.2268	7	25,0	5	40
911.2270	8	25,0	1	9
911.2271	8	25,0	5	58
911.2399	10	25,0	1	10
911.3565	10	25,0	5	58
911.7855	1/20"	25,0	1	6
911.3566	1/16"	25,0	1	40
911.3611	1/16"	25,0	5	40
911.3567	5/64"	25,0	1	40
911.3612	5/64"	25,0	5	40
911.3568	3/32"	25,0	1	40
911.3613	3/32"	25,0	5	40
911.3569	7/64"	25,0	1	40
911.3614	7/64"	25,0	5	40
911.3570	1/8"	25,0	1	40
911.3615	1/8"	25,0	5	40

	mm	L mm	Content	0
911.3571	9/64"	25,0	1	40
911.3616	9/64"	25,0	5	40
911.3572	5/32"	25,0	1	40
911.3617	5/32"	25,0	5	40
911.3573	3/16"	25,0	1	40
911.3618	3/16"	25,0	5	40
911.3574	7/32"	25,0	1	40
911.3619	7/32"	25,0	5	40
911.3575	1/4"	25,0	1	40
911.3620	1/4"	25,0	5	40
911.3576	5/16"	25,0	1	42
911.3621	5/16"	25,0	5	40
911.3577	3/8"	25,0	1	58
911.3622	3/8"	25,0	5	40

### Bit for hexagon tamperproof screws

- Tamperproof hexagon
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	0
911.2934	2,0	25,0	1	5
911.2935	2,0	25,0	5	35
911.2937	2,5	25,0	1	5
911.2938	2,5	25,0	5	35
911.2940	3,0	25,0	1	5
911.2941	3,0	25,0	5	35
911.2943	4,0	25,0	1	5
911.2944	4,0	25,0	5	35
911.2946	5,0	25,0	1	6
911.2947	5,0	25,0	5	40
911.2949	6,0	25,0	1	6
911.2950	6,0	25,0	5	40
911.2952	1/8"	25,0	1	5
911.2953	1/8"	25,0	5	35
911.2955	3/32"	25,0	1	5
911.2956	3/32"	25,0	5	35
911.2958	5/32"	25,0	1	5
911.2959	5/32"	25,0	5	35
911.2961	5/64"	25,0	1	5
911.2962	5/64"	25,0	5	35
911.2964	7/64"	25,0	1	5
911.2965	7/64"	25,0	5	35
911.2967	9/64"	25,0	1	5
911.2968	9/64"	25,0	5	35
911.3582	1/16"	25,0	1	6
911.3583	1/16"	25,0	5	40
911.3584	3/16"	25,0	1	6
911.3585	3/16"	25,0	5	40
911.3586	7/32"	25,0	1	6
911.3587	7/32"	25,0	5	40
911.3588	1/4"	25,0	1	6
911.3589	1/4"	25,0	5	40
911.3590	5/16"	25,0	1	9
911.3591	5/16"	25,0	5	58
911.3592	3/8"	25,0	1	10
911.3593	3/8"	25,0	5	66



### Bit for hexagon screws with ball end

- Hexagon socket with ball end
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
911.7835	1,5	25,0	1	6
911.8395	1,5	25,0	5	40
911.7836	2	25,0	1	6
911.8396	2	25,0	5	40
911.3700	2,5	25,0	1	6
911.3701	2,5	25,0	5	40
911.3702	3	25,0	1	6
911.3703	3	25,0	5	40
911.7837	3,5	25,0	1	6
911.8397	3,5	25,0	5	40
911.3704	4	25,0	1	6
911.3705	4	25,0	5	40
911.3706	5	25,0	1	6
911.3707	5	25,0	5	40
911.3708	6	25,0	1	6
911.3709	6	25,0	5	40
911.3710	3/32"	25,0	1	6
911.3711	3/32"	25,0	5	40
911.4651	7/64"	25,0	1	6
911.3713	7/64"	25,0	5	6
911.3714	1/8"	25,0	1	40
911.3715	1/8"	25,0	5	6
911.4652	9/64"	25,0	1	6
911.3717	9/64"	25,0	5	40
911.3718	5/32"	25,0	1	6
911.3719	5/32"	25,0	5	40
911.3720	3/16"	25,0	1	6
911.3721	3/16"	25,0	5	40
911.3722	7/32"	25,0	1	6
911.3723	7/32"	25,0	5	40
911.3724	1/4"	25,0	1	6
911.3725	1/4"	25,0	5	40

### Bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel

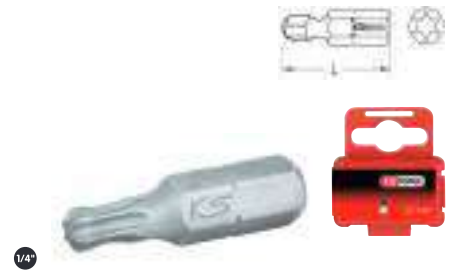


		L mm	Content	g
911.3351	T1	25,0	1	6
911.3352	T1	25,0	5	40
911.3353	T2	25,0	1	6
911.3354	T2	25,0	5	40
911.3355	T3	25,0	1	6
911.3356	T3	25,0	5	40
911.3357	T4	25,0	1	6
911.3358	T4	25,0	5	40
911.3359	T5	25,0	1	6
911.3360	T5	25,0	5	40
911.2334	T6	25,0	1	5
911.2335	T6	25,0	5	35
911.2303	T7	25,0	1	5
911.2304	T7	25,0	5	35
911.2306	T8	25,0	1	5
911.2307	T8	25,0	5	35
911.2309	T9	25,0	1	5
911.2310	T9	25,0	5	35
911.2312	T10	25,0	1	5
911.2313	T10	25,0	5	35
911.2315	T15	25,0	1	5
911.2316	T15	25,0	5	35
911.2318	T20	25,0	1	5
911.2319	T20	25,0	5	35
911.2321	T25	25,0	1	6
911.2322	T25	25,0	5	40
911.2324	T27	25,0	1	6
911.2325	T27	25,0	5	40
911.2327	T30	25,0	1	6
911.2328	T30	25,0	5	40
911.2330	T40	25,0	1	8
911.2331	T40	25,0	5	50
911.3363	T45	25,0	1	8
911.3364	T45	25,0	5	50

		L mm	Content	g
911.2286	TB15	25,0	5	35
911.2288	TB20	25,0	1	5
911.2289	TB20	25,0	5	35
911.2291	TB25	25,0	1	6
911.2292	TB25	25,0	5	40
911.2294	TB27	25,0	1	6
911.2295	TB27	25,0	5	40
911.2297	TB30	25,0	1	6
911.2298	TB30	25,0	5	40
911.2300	TB40	25,0	1	8
911.2301	TB40	25,0	5	50

### Bit for Torx screws with ball end

- Torx with ball end
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.3389	T10	25,0	1	6
911.3390	T10	25,0	5	40
911.3391	T15	25,0	1	6
911.3392	T15	25,0	5	40
911.3393	T20	25,0	1	6
911.3394	T20	25,0	5	40
911.3395	T25	25,0	1	6
911.3396	T25	25,0	5	40
911.3397	T30	25,0	1	6
911.3398	T30	25,0	5	40
911.3399	T40	25,0	1	6
911.3500	T40	25,0	5	40

### Bit for Torx PLUS screws

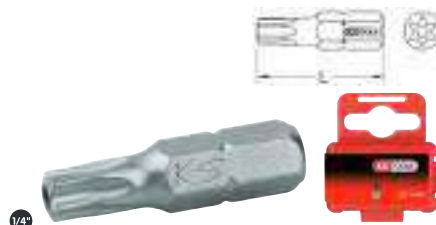
- Torx PLUS
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7838	IP 3	30,0	1	8
911.7839	IP 4	30,0	1	8
911.7841	IP 5	30,0	1	8
911.7842	IP 6	30,0	1	8
911.7843	IP 7	30,0	1	8
911.7844	IP 8	30,0	1	8
911.7845	IP 9	30,0	1	8
911.3240	IP 10	30,0	1	8
911.3241	IP 15	30,0	1	8
911.3242	IP 20	30,0	1	8
911.3243	IP 25	30,0	1	8
911.7846	IP 27	30,0	1	8
911.3244	IP 30	30,0	1	8
911.7847	IP 40	30,0	1	8

### Bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.2833	TB5	25,0	1	5
911.2836	TB6	25,0	1	35
911.2273	TB7	25,0	1	5
911.2274	TB7	25,0	5	35
911.2276	TB8	25,0	1	5
911.2277	TB8	25,0	5	35
911.2279	TB9	25,0	1	5
911.2280	TB9	25,0	5	35
911.2282	TB10	25,0	1	5
911.2283	TB10	25,0	5	35
911.2285	TB15	25,0	1	5



### Bit for tamperproof five star bits

- Five star, tamperproof
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel

**Application range:** Control devices, alternator, air quantity meter, exterior mirror, insertion pumps for pump-line-nozzle system, door lock fastening screw for **Volkswagen, Audi, Ford, Mercedes, Rover, Seat, Skoda, Volvo** etc.



		L mm	Content	g
911.3101	TS10	30,0	1	5
911.3111	TS10	30,0	5	35
911.3102	TS15	30,0	1	5
911.3112	TS15	30,0	5	35
911.3103	TS20	30,0	1	5
911.3113	TS20	30,0	5	35
911.3104	TS25	30,0	1	6
911.3114	TS25	30,0	5	40
911.3105	TS27	30,0	1	6
911.3115	TS27	30,0	5	40
911.3106	TS30	30,0	1	6
911.3116	TS30	30,0	5	50
911.3107	TS40	30,0	1	8
911.3117	TS40	30,0	5	50
911.3108	TS45	30,0	1	10

### Bit for spline screws

- Spline
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7831	M3	25,0	1	6
911.8392	M3	25,0	5	58
911.2341	M4	25,0	1	5
911.2342	M4	25,0	5	35
911.2344	M5	25,0	1	5
911.2345	M5	25,0	5	35
911.2347	M6	25,0	1	6
911.2348	M6	25,0	5	40
911.2350	M8	25,0	1	9
911.2351	M8	25,0	5	58
911.2353	M10	25,0	1	10

### Bit for square-head screws

- Internal square
- with external hexagon drive according to DIN 3126 / ISO 1173 Form - C 6.35
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7884	#00	25,0	1	6
911.3001	#0	25,0	1	5
911.3004	#1	25,0	1	5
911.3007	#2	25,0	1	5
911.3010	#3	25,0	1	5
911.7889	#4	25,0	1	6

### Bit for security screws

- Security
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
911.2910	4,0	25,0	1	5
911.2911	4,0	25,0	5	35
911.2913	6,0	25,0	1	6
911.2914	6,0	25,0	5	40
911.2916	8,0	25,0	1	9
911.2917	8,0	25,0	5	58
911.2919	10,0	25,0	1	10
911.2920	10,0	25,0	5	63
911.3594	12,0	25,0	1	8
911.3595	12,0	25,0	5	56

### Bit for RIBE® screws

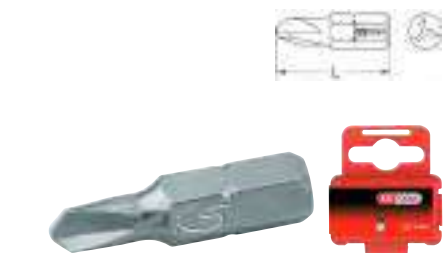
- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Phosphate finish
- Special tool steel



		L mm	Content	g
911.5260	M4	25,0	1	6
911.5261	M5	25,0	1	6
911.5262	M6	25,0	1	6
911.5263	M7	25,0	1	6
911.5264	M8	25,0	1	8
911.5265	M9	25,0	1	8

### Bit for TRIWING® screws

- TRIWING®
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7872	#0	25,0	1	6
911.8428	#0	25,0	5	40
911.3625	#1	25,0	1	6
911.3626	#1	25,0	5	40
911.3627	#2	25,0	1	6
911.3628	#2	25,0	5	40
911.3629	#3	25,0	1	6
911.3630	#3	25,0	5	40
911.2922	#4	25,0	1	5
911.2923	#4	25,0	5	35
911.3596	#5	25,0	1	6
911.3597	#5	25,0	5	40
911.2925	#6	25,0	1	6
911.2926	#6	25,0	5	40
911.2928	#8	25,0	1	6
911.2929	#8	25,0	5	40
911.2931	#10	25,0	1	8
911.2932	#10	25,0	5	50

### Bit for Torq-Set® screws

- Torq-Set®
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7891	#0	25,0	1	6
911.8426	#0	25,0	5	40
911.3631	#1	25,0	1	6
911.3632	#1	25,0	5	40
911.3633	#2	25,0	1	6
911.3634	#2	25,0	5	40
911.3635	#3	25,0	1	6
911.3636	#3	25,0	5	40
911.3637	#4	25,0	1	6
911.3638	#4	25,0	5	40
911.3639	#5	25,0	1	6
911.3640	#5	25,0	5	40
911.2901	#6	25,0	1	6
911.2902	#6	25,0	5	40
911.2904	#8	25,0	1	9
911.2905	#8	25,0	5	58
911.2907	#10	25,0	1	10
911.2908	#10	25,0	5	63
911.7892	1/4"	25,0	1	6
911.8427	1/4"	25,0	5	40

## 1/4" BIT SETS 25 mm

### Mini bit case

- Compact and handy design - fits into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremely slim, ideal in confined spaces
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- 4 mm special steel bits
- Box made from impact resistant plastic



911.2840			
11 pcs	Mini bit case	130	
2 x		5,5 - 6,5 mm	
4 x		PH1 - 2 x PH2 - PH3	
4 x		PZ1 - 2 x PZ2 - PZ3	
1 x		1/4"	

### Mini bit case

- Compact and handy design - fits into shirt or trouser pocket
- Ergonomic form for fatigue free working
- Integrated hexagon drive in the magazine can be used as an auxiliary screwdriver
- Folding bit magazine
- Includes AUTO SLIMLOCK bitholder with magnet and extension
- Extremely slim, ideal in confined spaces
- Precise and orderly arrangement of the popular 1/4" bits
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Nickel plated bits
- 4 mm special steel bits
- Box made from impact resistant plastic



911.2845			
11 pcs	Mini bit case	130	
4 x		T15 - T20 - T25 - T30	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
1 x		1/4"	

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes magnetic quick release bit holder and 1/4" socket adaptor
- Practical belt holder
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- In durable plastic case



911.2060			
32 pcs	Bit set	300	
1 x		1/4"	
1 x		1/4"	
3 x		PH1 - PH2 - PH3	
6 x		2 x PZ1 - 2 x PZ2 - 2 x PZ3	
3 x		5,5 - 6,5 - 8 mm	
3 x		4 - 5 - 6 mm	
15 x		2 x TB10 - 3 x TB15 - 2 x TB20 - 3 x TB25 - 3 x TB30 - 2 x TB40	

### CHROMEplus® bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes reversing GEARplus® bit ratchet ring spanner and 1/4" socket adaptor
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special tool steel
- Includes mirror polished chrome box



918.4520			
20 pcs	CHROMEplus® bit set	0,32	
1 x		1/4" x 1/4"	
1 x		1/4"	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
6 x		TB10 - TB15 - TB20 - TB25 - TB30 - TB40	

### CHROMEplus® bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes magnetic quick release bit holder and 1/4" socket adaptor
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes mirror polished chrome box



911.2070			
30 pcs	CHROMEplus® bit set	0,26	
1 x		1/4"	
1 x		1/4"	
4 x		PH1 - 2 x PH2 - PH3	
4 x		PZ1 - 2 x PZ2 - PZ3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	

### CHROMEplus® bit set

- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Precise arrangement of the popular 1/4" bits
- Exact gearing with 72 teeth
- Offset angle 5°
- Matt finish
- Chrome vanadium
- In high quality chrome box



918.4600			
31 pcs	CHROMEplus® bit set	0,60	
1 x		1/4"	
1 x		1/4"	
1 x		1/4"	
4 x		PH 1 - 2 x PH 2 - PH 3	
4 x		PZ 1 - 2 x PZ 2 - PZ 3	
3 x		4,5 - 5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

**CHROMEplus® bit set**

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes CHROMEplus® mini bit reversing ratchet and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Chrome plated
- Special tool steel
- Includes mirror polished chrome box



9154500		31 pcs	CHROMEplus® bit set	0,20
1 x		1/4" x 1/4"		
1 x		1/4"		
1 x		1/4"		
3 x		PH1 - PH2 - PH3		
3 x		PZ1 - PZ2 - PZ3		
3 x		4.5 - 5.5 - 6.5 mm		
3 x		4 - 5 - 6 mm		
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40		
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40		

**Torx PLUS bit set**

- Ideal set completion for Torx and Torx PLUS screws
- With external hexagon drive to DIN 3126 / ISO 1173 Form C 6,3 and C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel
- In durable plastic storage case

**Applications for TX PLUS:**  
flywheel / timing belt housing cover / general engine / transmission

**Applications for Tamper TX:**  
plug-in pumps of pump-free nozzle systems, air ratio meters, EWS3 immobiliser controller / injection pumps / alternators, etc.



9112120		30 pcs	Torx PLUS bit set	0,22
5 x		1/4" IP10 - IP15 - IP20 - IP25 - IP30		
5 x		10 mm IP40 - IP45 - IP50 - IP55 - IP60		
5 x		1/4" TS10 - TS15 - TS20 - TS25 - TS30		
5 x		10 mm TS40 - TS45 - TS50 - TS55 - TS60		
1 x		1/4"		
1 x		3/8" x 10 mm		

**Bit set**

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



9112006		100 pcs	Bit set	0,33
1 x		50 mm		
2 x		30 / 50 mm		
1 x		1/4"		
1 x		1/4"		
8 x		3 - 4 - 4.5 - 5 - 5.5 - 6 - 6.5 - 7 - 8 mm		
8 x		PH0 - PH1 - 5 x PH2 - PH3		
8 x		PZ0 - PZ1 - 5 x PZ2 - PZ3		
8 x		1.5 - 2 - 2.5 - 3 - 4 - 5 - 5.5 - 6 - 8 mm		
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"		
6 x		2 - 2.5 - 3 - 4 - 5 - 6 mm		
6 x		5/16" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"		
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40		
3 x		M5 - M6 - M8		
3 x		H1 - H2 - H3		
4 x		H1 - H2 - H3 - H4		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		
4 x		H0 - H1 - H2 - H3		

**Bit set**

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes quick release screwdriver bits and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" security bits
- Nickel plated
- Special tool steel
- In durable steel storage case



9112008		20 pcs	Bit set	0,40
1 x		1/4"		
1 x		1/4"		
9 x		TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40		
6 x		2 - 2.5 - 3 - 4 - 5 - 6 mm		
4 x		4 - 6 - 8 - 10 mm		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		
1 x		1/4"		

**Bit and drive socket set**

- Ideal set of completion for plumbing, heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special tool steel
- In durable plastic storage case



1022180		31 pcs	Bit and drive socket set	0,67
4 x		7 - 8 - 10 - 13 mm		
4 x		M6 - M8 - M10 - M12		
1 x		50 mm		
5 x		PH1 - 3 x PH2 - PH3		
5 x		PZ1 - 3 x PZ2 - PZ3		
2 x		5.5 - 6.5 mm		
3 x		4 - 5 - 6 mm		
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40		





### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes bit holder, bit ratchet, 1/4" socket adaptor and 1/4" mini-bit-screwdriver
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Sand-blasted
- Special tool steel
- In durable plastic storage case



1/4"

911.2080			99 pcs	Bit set	0,75
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm			
8 x		PH0 - PH1 - 5 x PH2 - PH3			
8 x		PZ0 - PZ1 - 5 x PZ2 - PZ3			
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm			
10 x		5/64" - 7/64" - 9/64" - 3/32" - 5/32" - 7/32" - 3/16" - 1/16" - 1/8" - 1/4"			
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm			
6 x		5/64" - 7/64" - 9/64" - 3/32" - 1/8" - 5/32"			
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45			
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40			
3 x		M5 - M6 - M8			
3 x		#1 - #2 - #3			
4 x		#1 - #2 - #3 - #4			
4 x		4 - 6 - 8 - 10 mm			
3 x		6 - 8 - 10 mm			
4 x		#0 - #1 - #2 - #3			

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes bit holder, 1/4" socket adaptor and 1/4" bit screwdriver
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



1/4"

911.2085			122 pcs	Bit set	1,15
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
2 x		30 - 50 mm			
1 x		1/4"			
10 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 1/2"			
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm			
5 x		PH0 - PH00 - PH1 - PH2 - PH3			
5 x		PZ0 - PZ00 - PZ1 - PZ2 - PZ3			
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm			
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"			
6 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 mm			
13 x		T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45			
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40			
3 x		M5 - M6 - M8			
3 x		#1 - #2 - #3			
4 x		4 - 6 - 8 - 10 mm			
4 x		4 - 6 - 8 - 10 mm			
3 x		6 - 8 - 10 mm			
4 x		#0 - #1 - #2 - #3			
9 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50			

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes bitholder and 1/4" socket adaptor
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



1/4"

911.2027			99 pcs	Bit set	0,75
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8			
5 x		PH0 - PH1 - 2 x PH2 - PH3			
5 x		PZ0 - PZ1 - 2 x PZ2 - PZ3			
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8			
6 x		2 - 2,5 - 3 - 4 - 5 - 6			
6 x		5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"			
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45			
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40			
3 x		M5 - M6 - M8			
3 x		#1 - #2 - #3			
4 x		#1 - #2 - #3 - #4			
4 x		4 - 6 - 8 - 10 mm			
3 x		6 - 8 - 10 mm			
4 x		#0 - #1 - #2 - #3			
3 x		4 - 5 - 6 mm			
3 x		TB15 - TB20 - TB30			
4 x		#1 - #2 - #3 - 4 #			
4 x		4 - 6 - 8 - 10 mm			
3 x		6 - 8 - 10 mm			

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes quick release bit holder
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



1/4"

		1,17	
911.2031	113 pcs	Bit set	1,17
1 x		1/4"	
1 x		1/4"	
3 x		PH2	
3 x		PZ2	
7 x		T10 - T15 - 3 x T20 - T25 - T30	
14 x		7 x 4 - 7 x 6 mm	
21 x		7 x PH1 - 7 x PH2 - 7 x PH3	
21 x		7 x PZ1 - 7 x PZ2 - 7 x PZ3	
21 x		7 x 4 - 7 x 5 - 7 x 6 mm	
14 x		2 x T10 - 2 x T15 - 2 x T20 - 2 x T25 - 2 x T27 - 2 x T30 - 2 x T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Practical belt holder
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- In durable plastic case



1/4"

		2,22	
911.2008	208 pcs	Bit set	2,22

1 x		1/4": 205 mm
1 x		1/4": 60 mm
1 x		1/4"
12 x		1/4": 2 - 2,5 - 3 - 3,5 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm
18 x		1/4": PH00 - PH0 - 5 x PH1 - 5 x PH2 - 5 x PH3 - PH4
17 x		1/4": PZ00 - PZ0 - 5 x PZ1 - 5 x PZ2 - 4 x PZ3 - PZ4
12 x		1/4": 1,5 - 2 - 2,5 - 3 - 3,5 - 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 mm
10 x		1/4": 1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"
6 x		1/4": 2 - 2,5 - 3 - 4 - 5 - 6 mm
6 x		1/4": 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"
3 x		1/4": 6 - 8 - 10 mm
13 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45
14 x		1/4": TB5 - TB6 - TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40 - TB45
3 x		1/4": M5 - M6 - M8
3 x		1/4": #1 - #2 - #3
4 x		1/4": #1 - #2 - #3 - #4
4 x		1/4": 4 - 6 - 8 - 10 mm
4 x		1/4": #0 - #1 - #2 - #3
9 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50
3 x		1/4": PH1 - PH2 - PH3
3 x		1/4": PZ1 - PZ2 - PZ3
5 x		1/4": 2,5 - 3 - 4 - 5 - 6 mm
7 x		1/4": TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
3 x		1/4": PH1 - PH2 - PH3
3 x		1/4": PZ1 - PZ2 - PZ3
5 x		1/4": 2,5 - 3 - 4 - 5 - 6 mm
3 x		1/4": 6 - 8 - 10 mm
7 x		1/4": TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
4 x		1/4": #1 - #2 - #3 - #4
4 x		1/4": 4 - 6 - 8 - 10 mm
10 x		4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm
10 x		5/32" - 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"

### 1/4" BITS 50 mm

### Bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

	mm	L mm	Content	
911.3315	1,5	50,0	1	10
911.3316	1,5	50,0	5	60
911.3317	2,0	50,0	1	10
911.3318	2,0	50,0	5	60
911.3319	2,5	50,0	1	10
911.3320	2,5	50,0	5	60
911.2746	3,0	50,0	1	10
911.2747	3,0	50,0	5	60
911.3321	3,5	50,0	1	10
911.3322	3,5	50,0	5	60
911.2749	4,0	50,0	1	10
911.2750	4,0	50,0	5	60
911.2752	4,5	50,0	1	10
911.2753	4,5	50,0	5	60
911.2755	5,0	50,0	1	10
911.2756	5,0	50,0	5	60
911.2758	5,5	50,0	1	10
911.2759	5,5	50,0	5	60
911.2761	6,0	50,0	1	10
911.2762	6,0	50,0	5	60
911.2764	6,5	50,0	1	12
911.2765	6,5	50,0	5	74
911.2767	7,0	50,0	1	12
911.2768	7,0	50,0	5	74
911.3323	8,0	50,0	1	17
911.3324	8,0	50,0	5	106
911.3325	9,0	50,0	1	18
911.3326	9,0	50,0	5	114
911.3327	10,0	50,0	1	20
911.3328	10,0	50,0	5	124
911.3329	11,0	50,0	1	20
911.3330	11,0	50,0	5	124
911.3331	12,0	50,0	1	22
911.3332	12,0	50,0	5	133

### Bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.3339	PH0	50,0	1	10
911.3340	PH0	50,0	5	60
911.2210	PH1	50,0	1	10
911.2211	PH1	50,0	5	60
911.2213	PH2	50,0	1	10
911.2214	PH2	50,0	5	60
911.2216	PH3	50,0	1	10
911.2217	PH3	50,0	5	60
911.3341	PH4	50,0	1	12
911.3342	PH4	50,0	5	74



### Bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fittings in trade and industry
- Can be used by hand or with an electric screwdriver
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.3347	PZ0	50,0	1	10
911.3348	PZ0	50,0	5	60
911.2228	PZ1	50,0	1	10
911.2229	PZ1	50,0	5	60
911.2231	PZ2	50,0	1	10
911.2232	PZ2	50,0	5	60
911.2234	PZ3	50,0	1	10
911.2235	PZ3	50,0	5	60
911.3349	PZ4	50,0	1	12
911.3350	PZ4	50,0	5	74

### Bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.2800	1,5	50,0	1	10
911.2801	1,5	50,0	5	60
911.2803	2,0	50,0	1	10
911.2804	2,0	50,0	5	60
911.2806	2,5	50,0	1	10
911.2807	2,5	50,0	5	60
911.2809	3,0	50,0	1	10
911.2810	3,0	50,0	5	60
911.2812	4,0	50,0	1	10
911.2813	4,0	50,0	5	60
911.2815	5,0	50,0	1	10
911.2816	5,0	50,0	5	60
911.2818	5,5	50,0	1	10
911.2819	5,5	50,0	5	60
911.2821	6,0	50,0	1	10
911.2822	6,0	50,0	5	60
911.2824	7,0	50,0	1	12
911.2825	7,0	50,0	5	74
911.3578	8,0	50,0	1	17
911.3579	8,0	50,0	5	100
911.3580	10,0	50,0	1	20
911.3581	10,0	50,0	5	116

### Bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fittings in trade and industry
- Can be used by hand or with an electric screwdriver
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.3365	T1	50,0	1	10
911.3366	T1	50,0	5	60
911.3367	T2	50,0	1	10
911.3368	T2	50,0	5	60
911.3369	T3	50,0	1	10
911.3370	T3	50,0	5	60
911.3371	T4	50,0	1	10
911.3372	T4	50,0	5	60
911.3373	T5	50,0	1	10
911.3374	T5	50,0	5	60
911.3375	T6	50,0	1	10
911.3376	T6	50,0	5	60
911.2716	T7	50,0	1	10
911.2717	T7	50,0	5	60
911.2719	T8	50,0	1	10
911.2720	T8	50,0	5	60
911.2722	T9	50,0	1	10
911.2723	T9	50,0	5	60
911.2725	T10	50,0	1	10
911.2726	T10	50,0	5	60
911.2728	T15	50,0	1	10
911.2729	T15	50,0	5	60
911.2731	T20	50,0	1	10
911.2732	T20	50,0	5	60
911.2734	T25	50,0	1	10
911.2735	T25	50,0	5	60
911.2737	T27	50,0	1	10
911.2738	T27	50,0	5	60
911.2740	T30	50,0	1	12
911.2741	T30	50,0	5	74
911.2743	T40	50,0	1	12
911.2744	T40	50,0	5	74

### Bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fittings in trade and industry
- Can be used by hand or with an electric screwdriver
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.7833	TB5	50,0	1	10
911.8393	TB5	50,0	5	74

		L mm	Content	
911.7834	TB6	50,0	1	10
911.8394	TB6	50,0	5	74
911.2770	TB7	50,0	1	10
911.2771	TB7	50,0	5	60
911.2773	TB8	50,0	1	10
911.2774	TB8	50,0	5	60
911.2776	TB9	50,0	1	10
911.2777	TB9	50,0	5	60
911.2779	TB10	50,0	1	10
911.2780	TB10	50,0	5	60
911.2782	TB15	50,0	1	10
911.2783	TB15	50,0	5	60
911.2785	TB20	50,0	1	10
911.2786	TB20	50,0	5	60
911.2788	TB25	50,0	1	10
911.2789	TB25	50,0	5	60
911.2791	TB27	50,0	1	10
911.2792	TB27	50,0	5	60
911.2794	TB30	50,0	1	12
911.2795	TB30	50,0	5	74
911.2797	TB40	50,0	1	12
911.2798	TB40	50,0	5	74

### Bit for Torx PLUS screws

- Torx PLUS
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	
911.8329	IP 1	50,0	1	10
911.8331	IP 2	50,0	1	10
911.8332	IP 3	50,0	1	10
911.8333	IP 4	50,0	1	10
911.8337	IP 6	50,0	1	10
911.8343	IP 9	50,0	1	10
911.8344	IP 10	50,0	1	10
911.8346	IP 15	50,0	1	10
911.8348	IP 20	50,0	1	10
911.8351	IP 25	50,0	1	10
911.8353	IP 27	50,0	1	10
911.8355	IP 30	50,0	1	12
911.8357	IP 40	50,0	1	12

### Bit for Torx PLUS tamperproof screws

- Torx PLUS
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver



1/4"

		L mm	Content	
911.8361	IPR 10	50,0	1	12
911.8363	IPR 15	50,0	1	12
911.8365	IPR 20	50,0	1	12
911.8367	IPR 25	50,0	1	12
911.8369	IPR 27	50,0	1	12
911.8372	IPR 30	50,0	1	12

### Bit for spline screws

- Spline
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Ideally suited for fittings in trade and industry
- Can be used by hand or with an electric screwdriver
- Nickel plated
- Special tool steel



		L mm	Content	g
911.2701	M3	50,0	1	10
911.2702	M3	50,0	5	60
911.2704	M4	50,0	1	10
911.2705	M4	50,0	5	60
911.2707	M5	50,0	1	10
911.2708	M5	50,0	5	60
911.2710	M6	50,0	1	10
911.2711	M6	50,0	5	64
911.2713	M8	50,0	1	15
911.2714	M8	50,0	5	89
911.7832	M10	50,0	1	25

### 1/4" BITS 75 mm

### Bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
911.7817	1,5	75,0	1	18
911.8403	1,5	75,0	5	108
911.7818	2,0	75,0	1	18
911.8404	2,0	75,0	5	108
911.7819	2,5	75,0	1	18
911.8405	2,5	75,0	5	108
911.7533	3,0	75,0	1	20
911.7733	3,0	75,0	5	110
911.7821	3,5	75,0	1	18
911.8406	3,5	75,0	5	108
911.7534	4,0	75,0	1	20
911.7734	4,0	75,0	5	110
911.7822	4,5	75,0	1	18
911.8407	4,5	75,0	5	108
911.7535	5,0	75,0	1	20
911.7735	5,0	75,0	5	110
911.7823	5,5	75,0	1	18
911.8408	5,5	75,0	5	108
911.7536	6,0	75,0	1	20
911.7736	6,0	75,0	5	110
911.7824	6,5	75,0	1	18

	mm	L mm	Content	g
911.8409	6,5	75,0	5	108
911.7537	7,0	75,0	1	17
911.7737	7,0	75,0	5	108
911.7825	8,0	75,0	1	20
911.8421	8,0	75,0	5	124
911.7826	9,0	75,0	1	25
911.8422	9,0	75,0	5	150
911.7827	10,0	75,0	1	25
911.8423	10,0	75,0	5	150
911.7828	11,0	75,0	1	30
911.8424	11,0	75,0	5	175
911.7829	12,0	75,0	1	35
911.8425	12,0	75,0	5	175

### Bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7814	PH000	75,0	1	20
911.8388	PH000	75,0	5	110
911.7815	PH00	75,0	1	20
911.8389	PH00	75,0	5	110
911.7816	PH0	75,0	1	20
911.8391	PH0	75,0	5	110
911.7530	PH1	75,0	1	20
911.7730	PH1	75,0	5	110
911.7531	PH2	75,0	1	20
911.7731	PH2	75,0	5	110
911.7539	PH3	75,0	1	20
911.7739	PH3	75,0	5	110

### Bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.7527	PZ1	75,0	1	20
911.7727	PZ1	75,0	5	110
911.7528	PZ2	75,0	1	20
911.7728	PZ2	75,0	5	110
911.7529	PZ3	75,0	1	20
911.7729	PZ3	75,0	5	110

### Bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
911.7558	2,0	75,0	1	20
911.7758	2,0	75,0	5	110
911.7559	2,5	75,0	1	20
911.7759	2,5	75,0	5	110
911.7560	3,0	75,0	1	20
911.7760	3,0	75,0	5	110
911.7561	4,0	75,0	1	20
911.7761	4,0	75,0	5	110
911.7562	5,0	75,0	1	20
911.7762	5,0	75,0	5	110
911.7563	6,0	75,0	1	20
911.7763	6,0	75,0	5	110

### Bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



		L mm	Content	g
911.3377	T7	75,0	1	20
911.3378	T7	75,0	5	110
911.3379	T8	75,0	1	20
911.3380	T8	75,0	5	110
911.3381	T9	75,0	1	20
911.3382	T9	75,0	5	110
911.7551	T10	75,0	1	20
911.7751	T10	75,0	5	110
911.7552	T15	75,0	1	20
911.7752	T15	75,0	5	110
911.7553	T20	75,0	1	20
911.7753	T20	75,0	5	110
911.7554	T25	75,0	1	20
911.7754	T25	75,0	5	110
911.7555	T27	75,0	1	20
911.7755	T27	75,0	5	110
911.7556	T30	75,0	1	17
911.7756	T30	75,0	5	108
911.7557	T40	75,0	1	18
911.7757	T40	75,0	5	108

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### Bit for hexagon tamperproof screws

- Tamperproof hexagon
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

	mm	L mm	Content	g
911.7510	2,0	75,0	1	20
911.7710	2,0	75,0	5	110
911.7511	2,5	75,0	1	20
911.7711	2,5	75,0	5	110
911.7512	3,0	75,0	1	20
911.7712	3,0	75,0	5	110
911.7513	4,0	75,0	1	20
911.7713	4,0	75,0	5	110
911.7514	5,0	75,0	1	20
911.7714	5,0	75,0	5	110
911.7515	6,0	75,0	1	20
911.7715	6,0	75,0	5	110

### Bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	g
911.7801	TB5	75,0	1	20
911.8374	TB5	75,0	5	110
911.7802	TB6	75,0	1	20
911.8375	TB6	75,0	5	110
911.7803	TB7	75,0	1	20
911.8376	TB7	75,0	5	110
911.7501	TB8	75,0	1	20
911.7701	TB8	75,0	5	110
911.7502	TB10	75,0	1	20
911.7702	TB10	75,0	5	110
911.7503	TB15	75,0	1	20
911.7703	TB15	75,0	5	110
911.7504	TB20	75,0	1	20
911.7704	TB20	75,0	5	110
911.7505	TB25	75,0	1	20
911.7705	TB25	75,0	5	110
911.7506	TB27	75,0	1	20
911.7706	TB27	75,0	5	110
911.7507	TB30	75,0	1	18
911.7707	TB30	75,0	5	107
911.7508	TB35	75,0	1	18
911.7708	TB35	75,0	5	107
911.7509	TB40	75,0	1	18
911.7709	TB40	75,0	5	107

### Bit for security screws

- Security
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel

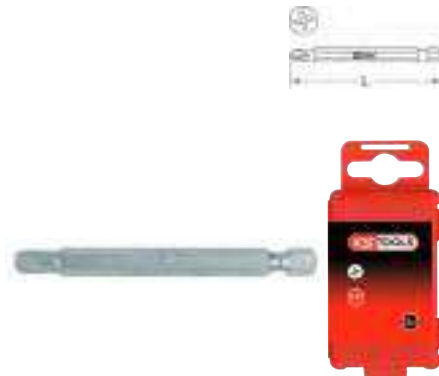


1/4"

	mm	L mm	Content	g
911.7523	4,0	75,0	1	20
911.7723	4,0	75,0	5	110
911.7524	6,0	75,0	1	20
911.7724	6,0	75,0	5	110
911.7525	8,0	75,0	1	18
911.7725	8,0	75,0	5	108
911.7526	10,0	75,0	1	18
911.7726	10,0	75,0	5	108
911.7812	12,0	75,0	1	20
911.8387	12,0	75,0	5	110

### Bit for Torq-Set® screws

- Torq-Set®
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	g
911.7804	#1	75,0	1	18
911.8378	#1	75,0	5	110
911.7805	#2	75,0	1	18
911.8379	#2	75,0	5	110
911.7806	#3	75,0	1	18
911.8381	#3	75,0	5	110
911.7807	#4	75,0	1	18
911.8382	#4	75,0	5	110
911.7516	#6	75,0	1	20
911.7716	#6	75,0	5	110
911.7517	#8	75,0	1	17
911.7717	#8	75,0	5	18
911.7518	#10	75,0	1	18
911.7718	#10	75,0	5	18

### Bit for TRIWING® screws

- TRIWING®
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	g
911.7808	#1	75,0	1	18
911.8384	#1	75,0	5	110
911.7809	#2	75,0	1	18
911.8385	#2	75,0	5	110
911.7811	#3	75,0	1	18
911.8386	#3	75,0	5	110
911.7519	#4	75,0	1	20
911.7719	#4	75,0	5	110
911.7520	#6	75,0	1	20
911.7720	#6	75,0	5	110
911.7521	#8	75,0	1	18
911.7721	#8	75,0	5	18
911.7522	#10	75,0	1	18
911.7722	#10	75,0	5	20

### 1/4" BIT SETS 75 mm

#### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- In durable plastic storage case



1/4"

		L mm	Content	g
911.7550	32 pcs Bit set			0,67
4 x	4 - 5 - 6 - 7 mm			
6 x	1 x PH1 - 3 x PH2 - 2 x PH3			
9 x	2 x PZ1 - 4 x PZ2 - 3 x PZ3			
6 x	2 - 2,5 - 3 - 4 - 5 - 6 mm			
7 x	T10 - T15 - T20 - T25 - T27 - T30 - T40			



### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" security bits
- Nickel plated
- Special tool steel
- In durable plastic storage case



1/4"

911.7532		32 pcs	Bit set	0,65
1 x		6 mm		
2 x		PH1 - PH2		
3 x		PZ1 - PZ2 - PZ3		
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm		
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40		
4 x		#1 - #2 - #3 - #4		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes quick release bit holder
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



1/4"

911.2031		113 pcs	Bit set	1,17
1 x		1/4"		
1 x		1/4"		
3 x		PH2		
3 x		PZ2		
7 x		T10 - T15 - 3 x T20 - T25 - T30		

14 x		7 x 4 - 7 x 6 mm
21 x		7 x PH1 - 7 x PH2 - 7 x PH3
21 x		7 x PZ1 - 7 x PZ2 - 7 x PZ3
21 x		7 x 4 - 7 x 5 - 7 x 6 mm
14 x		2 x T10 - 2 x T15 - 2 x T20 - 2 x T25 - 2 x T27 - 2 x T30 - 2 x T40
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40

### Bit set

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Includes bitholder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Orderly arrangement of the popular 1/4" bits
- Sand blasted
- Special tool steel
- In durable plastic storage case



1/4"

911.2027		99 pcs	Bit set	0,75
1 x		1/4"		
1 x		1/4"		
1 x		1/4"		
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8		
5 x		PH0 - PH1 - 2 x PH2 - PH3		
5 x		PZ0 - PZ1 - 2 x PZ2 - PZ3		
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8		
6 x		2 - 2,5 - 3 - 4 - 5 - 6		
6 x		5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"		
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40		
3 x		M5 - M6 - M8		
3 x		#1 - #2 - #3		
4 x		#1 - #2 - #3 - #4		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		
4 x		#0 - #1 - #2 - #3		
3 x		4 - 5 - 6 mm		
3 x		TB15 - TB20 - TB30		
4 x		#1 - #2 - #3 - 4 #		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		

### 1/4" TIN BITS 25 mm

#### TIN bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel



1/4"

		L mm	Content	
911.2620	4,0	25,0	1	5
911.2621	4,0	25,0	5	35
911.2622	5,5	25,0	1	6
911.2623	5,5	25,0	5	40
911.2632	6,5	25,0	1	6
911.2633	6,5	25,0	5	40
911.2634	8,0	25,0	1	6
911.2635	8,0	25,0	5	40

#### TIN bit for Phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel

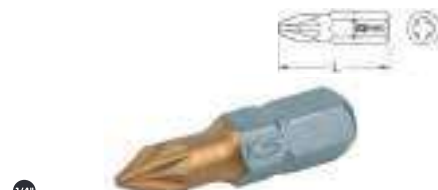


1/4"

		L mm	Content	
911.2636	PH1	25,0	1	5
911.2637	PH1	25,0	5	35
911.2638	PH2	25,0	1	6
911.2639	PH2	25,0	5	40
911.2640	PH3	25,0	1	6
911.2641	PH3	25,0	5	40

#### TIN bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel



1/4"

		L mm	Content	
911.2648	PZ1	25,0	1	5
911.2649	PZ1	25,0	5	35
911.2624	PZ2	25,0	1	6
911.2625	PZ2	25,0	5	40
911.2626	PZ3	25,0	1	6
911.2627	PZ3	25,0	5	40

### TIN bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel

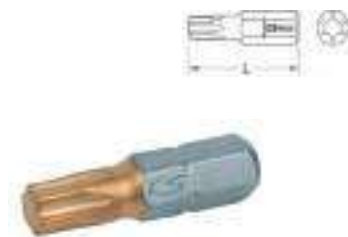


1/4"

	mm	L mm	Content	g
911.3664	2,0	25,0	1	6
911.3665	2,0	25,0	5	40
911.3666	2,5	25,0	1	6
911.3667	2,5	25,0	5	40
911.3668	3,0	25,0	1	6
911.3669	3,0	25,0	5	40
911.3670	4,0	25,0	1	6
911.3671	4,0	25,0	5	40
911.3672	5,0	25,0	1	6
911.3673	5,0	25,0	5	40
911.3674	6,0	25,0	1	6
911.3675	6,0	25,0	5	40
911.3676	8,0	25,0	1	8
911.3677	8,0	25,0	5	55
911.3678	10,0	25,0	1	10
911.3679	10,0	25,0	5	65

### TIN bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel

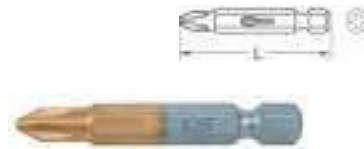


1/4"

	L mm	Content	g
911.3650	T10 25,0	1	6
911.3651	T10 25,0	5	40
911.3652	T15 25,0	1	6
911.3653	T15 25,0	5	40
911.3654	T20 25,0	1	6
911.3655	T20 25,0	5	40
911.3656	T25 25,0	1	6
911.3657	T25 25,0	5	40
911.3658	T27 25,0	1	6
911.3659	T27 25,0	5	40
911.3660	T30 25,0	1	6
911.3661	T30 25,0	5	40
911.3662	T40 25,0	1	6
911.3663	T40 25,0	5	40

### TIN bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel



1/4"

		L mm	Content	g
911.2642	PH1	50,0	1	10
911.2643	PH1	50,0	5	60
911.2644	PH2	50,0	1	10
911.2645	PH2	50,0	5	60
911.2646	PH3	50,0	1	10
911.2647	PH3	50,0	5	60

### TIN bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Extreme hard coating
- Especially for constant load during industrial applications
- Titanium nitride coated
- Special tool steel



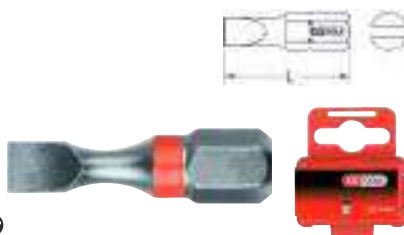
1/4"

		L mm	Content	g
911.3641	PZ1	50,0	1	10
911.3642	PZ1	50,0	5	60
911.3643	PZ2	50,0	1	10
911.3644	PZ2	50,0	5	60
911.3645	PZ3	50,0	1	10
911.3646	PZ3	50,0	5	60

### 1/4" TORSIONpower BITS 25 mm

#### TORSIONpower bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



1/4"

	mm	L mm	Content	g
918.3305	3,0	25,0	1	4
918.3306	3,0	25,0	5	40

	mm	L mm	Content	g
918.3310	4,0	25,0	1	4
918.3311	4,0	25,0	5	40
918.3315	5,0	25,0	1	5
918.3316	5,0	25,0	5	40
918.3320	6,0	25,0	1	5
918.3321	6,0	25,0	5	40

#### TORSIONpower bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



1/4"

		L mm	Content	g
918.3105	PH1	25,0	1	4
918.3106	PH1	25,0	5	28
918.3110	PH2	25,0	1	4
918.3111	PH2	25,0	5	40
918.3115	PH3	25,0	1	5
918.3116	PH3	25,0	5	40



#### TORSIONpower bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel

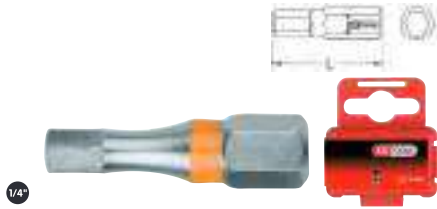


1/4"

		L mm	Content	g
918.3205	PZ1	25,0	1	4
918.3206	PZ1	25,0	5	40
918.3210	PZ2	25,0	1	4
918.3211	PZ2	25,0	5	40
918.3215	PZ3	25,0	1	5
918.3216	PZ3	25,0	5	40

### TORSIONpower bit for hexagon screws

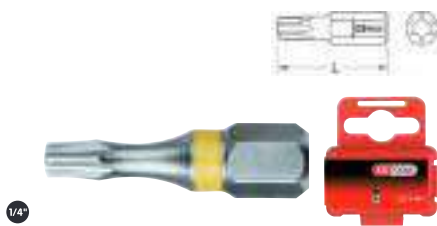
- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
918.3401	1,5	25,0	1	6
918.3402	1,5	25,0	5	40
918.3403	2	25,0	1	6
918.3404	2	25,0	5	40
918.3407	2,5	25,0	1	6
918.3408	2,5	25,0	5	40
918.3405	3	25,0	1	10
918.3406	3	25,0	5	40
918.3410	4	25,0	1	4
918.3411	4	25,0	5	40
918.3415	5	25,0	1	6
918.3416	5	25,0	5	40
918.3420	6	25,0	1	6
918.3421	6	25,0	5	40
918.3425	7	25,0	1	4
918.3426	7	25,0	5	40
918.3430	8	25,0	1	6
918.3431	8	25,0	5	40

### TORSIONpower bit for Torx screws

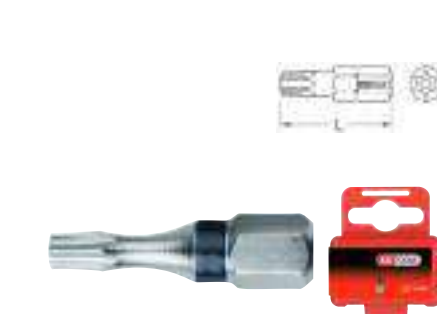
- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	L mm	Content	g	
918.4541	T6	25,0	1	4
918.4542	T6	25,0	5	40
918.4543	T7	25,0	1	4
918.4544	T7	25,0	5	40
918.4545	T8	25,0	1	4
918.4546	T8	25,0	5	40
918.4547	T9	25,0	1	4
918.4548	T9	25,0	5	40
918.3505	T10	25,0	1	4
918.3506	T10	25,0	5	40
918.3510	T15	25,0	1	4
918.3511	T15	25,0	5	40
918.3515	T20	25,0	1	4
918.3516	T20	25,0	5	40
918.3520	T25	25,0	1	4
918.3521	T25	25,0	5	40
918.3525	T27	25,0	1	5
918.3526	T27	25,0	5	40
918.3530	T30	25,0	1	5
918.3531	T30	25,0	5	34
918.3535	T40	25,0	1	6
918.3536	T40	25,0	5	37

### TORSIONpower bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Tamperproof
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	L mm	Content	g	
918.3605	TB10	25,0	1	4
918.3606	TB10	25,0	5	40
918.3610	TB15	25,0	1	4
918.3611	TB15	25,0	5	40
918.3615	TB20	25,0	1	4
918.3616	TB20	25,0	5	40
918.3620	TB25	25,0	1	4
918.3621	TB25	25,0	5	40
918.3625	TB27	25,0	1	5
918.3626	TB27	25,0	5	40
918.3630	TB30	25,0	1	5
918.3631	TB30	25,0	5	32
918.3635	TB40	25,0	1	6
918.3636	TB40	25,0	5	36

### 1/4" TORSIONpower BITS 75 mm

#### TORSIONpower bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
918.3350	3,0	75,0	1	20
918.3351	3,0	75,0	5	9
918.3355	4,0	75,0	1	20
918.3356	4,0	75,0	5	9
918.3360	5,0	75,0	1	20
918.3361	5,0	75,0	5	11
918.3365	6,0	75,0	1	20
918.3366	6,0	75,0	5	14



#### TORSIONpower bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	L mm	Content	g	
918.3150	PH1	75,0	1	20
918.3151	PH1	75,0	5	69
918.3155	PH2	75,0	1	20
918.3156	PH2	75,0	5	81
918.3160	PH3	75,0	1	20
918.3161	PH3	75,0	5	89

#### TORSIONpower bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	L mm	Content	g	
918.3250	PZ1	75,0	1	20
918.3251	PZ1	75,0	5	69
918.3255	PZ2	75,0	1	20
918.3256	PZ2	75,0	5	80
918.3260	PZ3	75,0	1	20
918.3261	PZ3	75,0	5	89

### TORSIONpower bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



	mm	L mm	Content	g
918.3450	3	75,0	1	20
918.3451	3	75,0	5	1
918.3455	4	75,0	1	20
918.3456	4	75,0	5	12
918.3460	5	75,0	1	20
918.3461	5	75,0	5	15
918.3465	6	75,0	1	20
918.3466	6	75,0	5	18

### TORSIONpower bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



		L mm	Content	g
918.3550	T10	75,0	1	20
918.3551	T10	75,0	5	27
918.3555	T15	75,0	1	20
918.3556	T15	75,0	5	28
918.3560	T20	75,0	1	20
918.3561	T20	75,0	5	29
918.3565	T25	75,0	1	20
918.3566	T25	75,0	5	30
918.3570	T27	75,0	1	20
918.3571	T27	75,0	5	33
918.3575	T30	75,0	1	15
918.3576	T30	75,0	5	90
918.3580	T40	75,0	1	17
918.3581	T40	75,0	5	103

### TORSIONpower bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- Tamperproof
- Color coding
- Ideally suited for fittings in trade and industry
- With torsion zone
- To cushion high level torque
- Longer service life
- Nickel plated
- Special tool steel



		L mm	Content	g
918.3650	TB10	75,0	1	20
918.3651	TB10	75,0	5	65
918.3655	TB15	75,0	1	20
918.3656	TB15	75,0	5	65
918.3660	TB20	75,0	1	20
918.3661	TB20	75,0	5	71
918.3665	TB25	75,0	1	20
918.3666	TB25	75,0	5	78
918.3670	TB27	75,0	1	20
918.3671	TB27	75,0	5	86
918.3675	TB30	75,0	1	15
918.3676	TB30	75,0	5	89
918.3680	TB40	75,0	1	17
918.3681	TB40	75,0	5	101

### 1/4" TORSIONpower BIT SETS

#### TORSIONpower Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes durable two component storage case



		L mm	Content	g
918.3000	15 pcs		TORSIONpower Bit-Box	140
1 x			1/4"	
2 x			4 - 6 mm	
2 x			PH1 - PH2	
2 x			PZ1 - PZ2	
3 x			3 - 4 - 5 mm	
5 x			T10 - T15 - T20 - T25 - T30	

### TORSIONpower Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes durable two component storage case



		L mm	Content	g
918.3020	15 pcs		TORSIONpower Bit-Box	140
1 x			1/4"	
7 x			T10 - T15 - T20 - T25 - T27 - T30 - T40	
7 x			T10 - T15 - T20 - T25 - T27 - T30 - T40	

### TORSIONpower Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes durable two component storage case



		L mm	Content	g
918.3030	32 pcs		TORSIONpower Bit-Box	750
1 x			1/4"	
1 x			1/4"	
4 x			4 - 5 - 6 - 7 mm	
4 x			PH1 - 2 x PH2 - PH3	
4 x			PZ1 - 2 x PZ2 - PZ3	
4 x			3 - 4 - 5 - 6 mm	
7 x			T10 - T15 - T20 - T25 - T27 - T30 - T40	
7 x			T10 - T15 - T20 - T25 - T27 - T30 - T40	

### TORSION<sup>power</sup> Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Colour-coded bits
- Reversible
- 180° revolving head
- The extension can also be used as a T-handle
- Fine gearing 72 teeth ratchet mechanism
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- With extension and 1/4" plug-in adapter
- Extremely flat construction form
- Matt finished
- Chrome vanadium
- Includes durable two component storage case



1/4"

918.3015			
918.3015	31 pcs	TORSION <sup>power</sup> Bit-Box	204
1 x		1/4"	
1 x		100 mm	
1 x		119 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
2 x		4 - 5 mm	
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm	
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40	

### TORSION<sup>power</sup> Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Practical belt holder
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes durable two component storage case



1/4"

918.3010			
918.3010	32 pcs	TORSION <sup>power</sup> Bit-Box	353
1 x		1/4"	

1 x		1/4"
4 x		3 - 4 - 5 - 6 mm
4 x		1 x PH1 - 2 x PH2 - 1 x PH3
4 x		1 x PZ1 - 2 x PZ2 - 1 x PZ3
4 x		3 - 4 - 5 - 6 mm
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40

### TORSION<sup>power</sup> Bit Socket Box

- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Colour-coded bits
- Reversible
- 180° revolving head
- The extension can also be used as a T-handle
- Fine gearing 72 teeth ratchet mechanism
- Ideally suited for fittings in trade and industry
- Precise and tidy arrangement of the most common 1/4" bits and sockets
- With extension and 1/4" plug-in adapter
- Extremely flat construction form
- Matt finished
- Chrome vanadium
- Includes durable two component storage case



1/4"

918.3005			
918.3005	33 pcs	TORSION <sup>power</sup> Bit Socket Box	405
10 x		5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
2 x		4 - 6 mm	
3 x		PH1 - 2 x PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
4 x		3 - 4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40	
1 x		1/4"	
1 x		100 mm	
1 x		1/4"	

### TORSION<sup>power</sup> Bit-Box

- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Color coding
- Includes magnetic quick release bit holder and 1/4" socket adapter
- Ideally suited for fittings in trade and industry
- Precise and orderly arrangement of the popular 1/4" bits
- Nickel plated
- Special tool steel
- Includes durable two component storage case



1/4"

918.3070			
918.3070	71 pcs	TORSION <sup>power</sup> Bit-Box	750
1 x		1/4"	
1 x		1/4"	
6 x		3 x 4 mm - 3 x 6 mm	
12 x		3 x PH1 - 6 x PH2 - 3 x PH3	
12 x		3 x PZ1 - 6 x PZ2 - 3 x PZ3	
9 x		3 x 4 mm - 3 x 5 mm - 3 x 6 mm	
15 x		3 x T10 - 2 x T15 - 2 x T20 - 2 x T25 - 2 x T27 - 2 x T30 - 2 x T40	
6 x		T15 - T20 - T25 - T27 - T30 T40	
2 x		4 - 6 mm	
4 x		2 x PH2 - 2 x PH3	
3 x		2x PZ1 - 2x PZ2	

### 5/16" BITS

#### Bit for slotted screws

- Slotted
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



5/16"

	mm	L mm	Content	
911.3680	5,5	30,0	1	10
911.3681	6,5	30,0	1	10
911.3682	7,0	30,0	1	10
911.5141	8,0	30,0	1	10
911.3683	9,0	30,0	1	10
911.5142	10,0	30,0	1	10
911.5143	12,0	30,0	1	10
911.3684	14,0	30,0	1	10
911.3685	16,0	30,0	1	10
911.3686	18,0	30,0	1	10
911.3687	20,0	30,0	1	10

### Bit for phillips screws PH

- PH
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.5132	PH1	30,0	1	10
911.5133	PH2	30,0	1	10
911.5134	PH3	30,0	1	10
911.5135	PH4	30,0	1	10

### Bit for pozidriv screws PZ

- PZ
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.5121	PZ1	30,0	1	10
911.5122	PZ2	30,0	1	10
911.5123	PZ3	30,0	1	10
911.5124	PZ4	30,0	1	10

### Bit for hexagon screws

- Hexagon socket
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.3695	3,0	30,0	1	10
911.3696	4,0	30,0	1	10
911.3697	5,0	30,0	1	10
911.5126	6,0	30,0	1	10
911.5127	7,0	30,0	1	10
911.5128	8,0	30,0	1	10
911.5129	10,0	30,0	1	10
911.5130	12,0	30,0	1	10
911.5131	14,0	30,0	1	10

### Bit for Torx screws

- Torx
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.3688	T20	30,0	1	10
911.3689	T25	30,0	1	10
911.3690	T27	30,0	1	10
911.3691	T30	30,0	1	10
911.5144	T40	30,0	1	10
911.5145	T45	30,0	1	10
911.5146	T50	30,0	1	10
911.5147	T55	30,0	1	10
911.5148	T60	30,0	1	10
911.5149	T70	30,0	1	15

### Bit for Torx tamperproof screws

- For tamperproof Torx
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.3692	TB25	30,0	1	10
911.3693	TB27	30,0	1	10
911.3694	TB30	30,0	1	10
911.5136	TB40	30,0	1	10
911.5137	TB45	30,0	1	10
911.5138	TB50	30,0	1	10
911.5139	TB55	30,0	1	10
911.5140	TB60	30,0	1	10
911.5152	TB70	30,0	1	15

### Bit for spline screws

- Spline
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Nickel plated
- Special tool steel



		L mm	Content	
911.5154	M4	30,0	1	10
911.5155	M5	30,0	1	10
911.5156	M6	30,0	1	10
911.5157	M8	30,0	1	10
911.5158	M10	30,0	1	10
911.5159	M12	30,0	1	10
911.3698	M14	30,0	1	10

### Bit for RIBE® screws

- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Phosphate finish
- Special tool steel



		L mm	Content	
911.3699	M4	38,0	1	10
911.5165	M5	38,0	1	10
911.5166	M6	38,0	1	10
911.5167	M7	38,0	1	10
911.5168	M8	38,0	1	20
911.5169	M10	38,0	1	20
911.5170	M12	38,0	1	30
911.3754	M14	38,0	1	30

### Bit for RIBE® screws

- RIBE®
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Phosphate finish
- Special tool steel



		L mm	Content	
911.5171	M7	100,0	1	40
911.5172	M8	100,0	1	50
911.5173	M9	100,0	1	60
911.5174	M10	100,0	1	70
911.5175	M12	100,0	1	80
911.5176	M13	100,0	1	90
911.5177	M14	100,0	1	100

### 5/16" BIT SETS

#### RIBE® Bit set

- Ideal set compilation for RIBE® screws
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 5/16" RIBE® bits
- Phosphate finish
- Special tool steel
- In durable plastic storage case



911.4306	14 pcs RIBE® Bit set	0,82
1 x	1/2"	
6 x	M5 - M6 - M7 - M8 - M10 - M12	
7 x	M7 - M8 - M9 - M10 - M12 - M13 - M14	

## 10 mm BITS 30 mm

### Bit for slotted screws

- Slotted
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	mm	L mm	Content	g
930.3015	8,0	30,0	1	40
930.3016	10,0	30,0	1	40

### Bit for phillips screws PH

- PH
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



		L mm	Content	g
930.3019	PH1	30,0	1	40
930.3017	PH2	30,0	1	40
930.3018	PH3	30,0	1	40

### Bit for pozidriv screws PZ

- PZ
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



		L mm	Content	g
930.3020	PZ1	30,0	1	40
930.3021	PZ2	30,0	1	40
930.3022	PZ3	30,0	1	40

### Bit for hexagon screws

- Hexagon socket
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



10 mm

	mm	L mm	Content	g
930.1004	4,0	30,0	1	40
930.1005	5,0	30,0	1	40
930.1006	6,0	30,0	1	40
930.1007	7,0	30,0	1	40
930.1008	8,0	30,0	1	40
930.1010	10,0	30,0	1	40
930.1012	12,0	30,0	1	40

### Bit for Torx screws

- Torx
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



10 mm

		L mm	Content	g
930.2010	T10	30,0	1	40
930.2015	T15	30,0	1	40
930.2020	T20	30,0	1	40
930.2025	T25	30,0	1	40
930.2027	T27	30,0	1	40
930.2030	T30	30,0	1	40
930.2040	T40	30,0	1	40
930.2045	T45	30,0	1	40
930.2050	T50	30,0	1	40
930.2055	T55	30,0	1	40
930.2060	T60	30,0	1	40

### Bit for Torx tamperproof screws

- For tamperproof Torx
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



10 mm

		L mm	Content	g
930.2110	TB10	30,0	1	40
930.2115	TB15	30,0	1	40

		L mm	Content	g
930.2120	TB20	30,0	1	40
930.2125	TB25	30,0	1	40
930.2127	TB27	30,0	1	40
930.2130	TB30	30,0	1	40
930.2140	TB40	30,0	1	40
930.2145	TB45	30,0	1	40
930.2150	TB50	30,0	1	40
930.2155	TB55	30,0	1	40
930.2160	TB60	30,0	1	40

### bit for Torx PLUS screws

- Torx PLUS
- External hexagon drive to DIN 3126 / ISO 1173 form C 8
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel

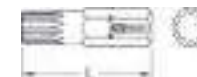


10 mm

		L mm	Content	g
911.3260	IP 40	30,0	1	13
911.3261	IP 45	30,0	1	14
911.3262	IP 50	30,0	1	16
911.3263	IP 55	30,0	1	20
911.3264	IP 60	30,0	1	25

### Bit for spline screws

- Spline
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



10 mm

		L mm	Content	g
930.3005	M5	30,0	1	40
930.3006	M6	30,0	1	12
930.3008	M8	30,0	1	40
930.3010	M10	30,0	1	40
930.3012	M12	30,0	1	40

### bit for tamper proof five star bits

- Five star, tamperproof
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



10 mm

		L mm	Content	g
911.3121	TS40	30,0	1	10
911.3122	TS45	30,0	1	11
911.3123	TS50	30,0	1	11
911.3124	TS55	30,0	1	13
911.3125	TS60	30,0	1	22

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## 10 mm BITS 75 mm

### Bit for hexagon screws

- Hexagon socket
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	mm	L mm	Content	kg
975.1004	4,0	75,0	1	70
975.1005	5,0	75,0	1	70
975.1006	6,0	75,0	1	43
975.1007	7,0	75,0	1	70
975.1008	8,0	75,0	1	70
975.1010	10,0	75,0	1	70
975.1012	12,0	75,0	1	70

### Bit for Torx screws

- Torx
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	L mm	Content	kg
975.2010	T10	1	70
975.2015	T15	1	70
975.2020	T20	1	70
975.2025	T25	1	70
975.2027	T27	1	70
975.2030	T30	1	70
975.2040	T40	1	70
975.2045	T45	1	70
975.2050	T50	1	70
975.2055	T55	1	70
975.2060	T60	1	70
975.2075	T70	1	70

### Bit for Torx tamperproof screws

- For tamperproof Torx
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	L mm	Content	kg
975.2110	TB10	1	70
975.2115	TB15	1	70
975.2120	TB20	1	70
975.2125	TB25	1	70
975.2127	TB27	1	70
975.2130	TB30	1	70
975.2140	TB40	1	70
975.2145	TB45	1	70
975.2150	TB50	1	70
975.2155	TB55	1	70
975.2160	TB60	1	70

## Bit for spline screws

- Spline
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	L mm	Content	kg
975.3005	M5	1	70
975.3006	M6	1	70
975.3008	M8	1	70
975.3010	M10	1	70
975.3012	M12	1	70

## 10 mm BITS 120 mm

### Bit for Torx screws

- Torx
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Sand-blasted
- Special tool steel



	L mm	Content	kg
975.4040	T40	1	80
975.4045	T45	1	80
975.4050	T50	1	80
975.4055	T55	1	80

## 10 mm BIT SETS

### Bit set

- Ideal set compilation for Torx screws
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm Torx bits
- Sand-blasted
- Special tool steel
- In durable steel storage case



	L mm	Content	kg
911.5020	15 pcs	Bit set	0,58
1 x		1/2" x 10 mm	
7 x		T20 - T25 - T30 - T40 - T45 - T50 - T55	
7 x		T20 - T25 - T30 - T40 - T45 - T50 - T55	

## Bit set

- Ideal set compilation for hexagon socket screws
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm hexagon socket bits
- Sand-blasted
- Special tool steel
- In durable steel storage case



	L mm	Content	kg
911.5040	15 pcs	Bit set	0,58
1 x		1/2" x 10 mm	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	

## Bit set

- Ideal set for spline screws
- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 1/2" socket adapter for 10 mm bits
- Ideally suited for fittings in trade and industry
- Sand-blasted
- Special tool steel
- In durable plastic storage case



	L mm	Content	kg
911.5030	11 pcs	Bit set	0,60
1 x		1/2" x 10 mm	
5 x		M5 - M6 - M8 - M10 - M12	
5 x		M5 - M6 - M8 - M10 - M12	



### Bit set

- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 3/8" + 1/2" socket adapter for 10 mm bits
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm bits
- Sand-blasted
- Special tool steel
- In durable steel storage case



		10 mm	
911.4304	42 pcs	Bit set	1,60
2 x		3/8" - 1/2"	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
8 x		T20 - T25 - T30 - T40 - T45 - T50 T55 - T60	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		8 - 10 mm	
2 x		PH2 - PH3	
4 x		5 - 6 - 8 - 10 mm	
8 x		T20 - T25 - T30 - T40 - T45 - T50 T55 - T60	
4 x		M6 - M8 - M10 - M12	

### Torx Socket and bit set

- Matt finish
- Chrome vanadium
- In durable plastic storage case



		1/4" 3/8" 1/2"	
911.4305	57 pcs	Torx Socket and bit set	2,00
2 x		3/8" x 10mm - 1/2" x 1/4"	
12 x		1/4": E4 - E5 - E6 - E7 - E8; 3/8": E10 - E11 - E12 - E14; 1/2": E16 - E18 - E20	
7 x		4 - 5 - 6 - 7 - 8 - 10 - 12 mm	
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		8 - 10 mm	
2 x		PH2 - PH3	
5 x		5 - 6 - 7 - 8 - 10 mm	
9 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60	
4 x		M6 - M8 - M10 - M12	

### Bit set

- 10 mm external hexagon
- Can be used by hand, electric screwdriver and impact drivers
- Includes 10 mm reversing ratchet
- Ideally suited for fittings in trade and industry
- Reinforced execution
- Precise arrangement of the popular 10 mm bits and sockets
- Sand-blasted
- Special tool steel
- In durable ABS storage case

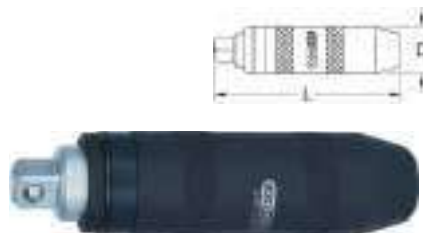


		10 mm	
911.4310	37 pcs	Bit set	1,60
1 x		10 mm	
6 x		5 - 6 - 7 - 8 - 10 - 12 mm	
8 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55	
5 x		M5 - M6 - M8 - M10 - M12	
2 x		PH2 - PH3	
8 x		T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55	
4 x		M6 - M8 - M10 - M12	
3 x		T40 - T45 - T50	

### 1/2" HAND IMPACT SCREWDRIVER

#### Hand-impact screwdriver

- Reversible
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 1/4 Revolution of the impact screwdriver through hammer blow (Parable mechanism)
- Optimal feed rate
- No slippage of the blade bit possible
- Ideal for loosening jammed screw connections
- Ideally suited for the automotive area
- Special tool steel



		1/2"	
515.1004	1/2"	D mm	L mm
		35,0	135,0
			950

### Hand impact screwdriver set

- Reversible
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 1/4 Revolution of the impact screwdriver through hammer blow (Parable mechanism)
- Optimal feed rate
- No slippage of the blade bit possible
- Ideal for loosening jammed screw connections
- Ideally suited for the automotive area
- Includes the most current impact bits, impact bit adaptor
- Special tool steel
- In durable plastic storage case



		1/2" 5/16"	
515.1003	11 pcs	Hand impact screwdriver set	1,00
1 x		1/2"	
1 x		1/2"	
6 x		5 - 6 - 8 - 10 - 12 - 14 mm	
3 x		PH1 - PH2 - PH3	

### Hand impact screwdriver set

- Reversible
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 1/4 Revolution of the impact screwdriver through hammer blow (Parable mechanism)
- Optimal feed rate
- No slippage of the blade bit possible
- Ideal for loosening jammed screw connections
- Ideally suited for the automotive area
- Includes the most current impact bits, impact bit adaptor
- Special tool steel
- In durable plastic storage case



		1/2" 5/16"	
515.1000	18 pcs	Hand impact screwdriver set	1,32
1 x		1/2"	
1 x		1/2" x 5/16"	
2 x		T30 - T40	
3 x		5 - 6 - 8 mm	
2 x		M8 - M10	
3 x		PH1 - PH2 - PH3	
6 x		5 - 6 - 8 - 10 - 12 - 14 mm	

# HEXAGON KEY WRENCHES



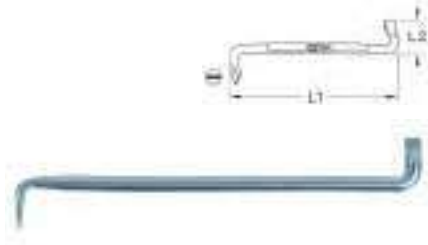
Innovation is  
our mission!

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## OFFSET SCREWDRIVER

### Offset screwdriver, slotted

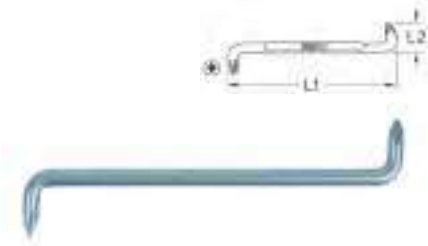
- Short execution
- DIN ISO 8764
- Continuous hardened
- Matt chrome
- Special tool steel



	D mm	L1 mm	L2 mm	⚙️
151.2674	3,5	90,0	12,4	10
151.2675	4,0	100,0	15,3	12
151.2676	5,5	125,0	20,4	25
151.2677	8,0	150,0	24,8	50
151.2678	10,0	175,0	32,8	135
151.2679	12,0	200,0	42,4	228

### Offset screwdriver, PH

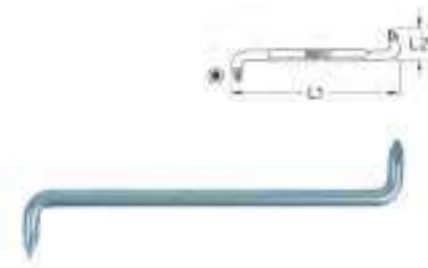
- Short execution
- DIN ISO 8764
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	⚙️
151.2680	PH 1 - PH 2	100,0	25,4	40
151.2681	PH 2 - PH 3	150,0	33,1	77
151.2682	PH 3 - PH 4	200,0	38,6	77

### Offset screwdriver, PZ

- Short execution
- DIN ISO 8764
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	⚙️
151.2683	PZ 1 - PZ 2	125,0	24,4	40
151.2684	PZ 3 - PZ 4	200,0	37,9	156

## HEXAGON KEY WRENCHES

### Hexagon key wrench

- Short execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Phosphate finish
- Special tool steel

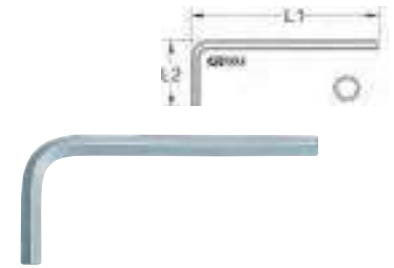


	⚙️ mm	⚙️	L1 mm	L2 mm	⚙️
151.26007	0,7		33,0	7,0	0,01
151.26009	0,9		33,0	11,0	0,01
151.26013	1,3		41,0	13,0	0,01
151.26015	1,5		46,5	15,5	0,01
151.2602	2,0		52,0	18,0	0,01
151.26025	2,5		58,5	20,5	0,01
151.2603	3,0		66,0	23,0	0,01
151.26035	3,5		69,5	25,5	0,01
151.2604	4,0		74,0	29,0	0,01
151.26045	4,5		80,0	30,5	0,02
151.2605	5,0		85,0	33,0	0,02
151.26055	5,5		90,0	35,0	0,02
151.2606	6,0		96,0	38,0	0,03
151.2607	7,0		102,0	41,0	0,04
151.2608	8,0		108,0	44,0	0,06
151.2609	9,0		114,0	47,0	0,08
151.2610	10,0		122,0	50,0	0,11
151.2611	11,0		129,0	53,0	0,15
151.2612	12,0		137,0	57,0	0,17
151.2613	13,0		145,0	63,0	0,25
151.2614	14,0		154,0	70,0	0,27
151.2616	16,0		168,0	76,0	0,40
151.2617	17,0		177,0	80,0	0,44
151.2618	18,0		188,0	84,0	0,60
151.2619	19,0		199,0	89,0	0,63
151.2621	21,0		211,0	96,0	0,70
151.2622	22,0		222,0	102,0	0,75
151.2624	24,0		248,0	114,0	0,82
151.2650	27,0		277,0	127,0	1,80
151.2651	30,0		315,0	142,0	2,52
151.2652	32,0		347,0	157,0	3,18
151.2653	36,0		391,0	176,0	4,52
151.2654		3/64"	45,0	14,0	0,01
151.2630		1/32"	45,0	14,0	0,01
151.2631		1/16"	45,0	15,0	0,01
151.2632		5/64"	50,0	16,0	0,01
151.2633		3/32"	51,0	17,0	0,01
151.2634		7/64"	54,0	20,0	0,01
151.2635		1/8"	57,0	22,0	0,01
151.2636		9/64"	63,0	23,0	0,01
151.2637		5/32"	65,0	25,0	0,01
151.2638		3/16"	70,0	29,0	0,02
151.2639		7/32"	80,0	32,0	0,03
151.2640		1/4"	87,0	32,0	0,04
151.2655		9/32"	95,0	35,0	0,04
151.2641		5/16"	98,0	40,0	0,08
151.2642		3/8"	110,0	45,0	0,11
151.2643		7/16"	124,0	48,0	0,13
151.2644		1/2"	133,0	50,0	0,15
151.2645		9/16"	152,0	57,0	0,25
151.2646		5/8"	160,0	59,0	0,40
151.2647		3/4"	180,0	70,0	0,62
151.2648		7/8"	200,0	80,0	0,74
151.2649		1"	248,0	114,0	0,82



## Hexagon key wrench

- Short execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel



	⚙️ mm	⚙️	L1 mm	L2 mm	⚙️
151.20213	1,3		41,0	13,0	10
151.20215	1,5		46,5	15,5	10
151.2022	2,0		52,0	18,0	10
151.20225	2,5		58,5	20,5	10
151.2023	3,0		66,0	23,0	10
151.20235	3,5		69,5	25,5	10
151.2024	4,0		74,0	29,0	10
151.20245	4,5		80,0	30,5	10
151.2025	5,0		85,0	33,0	20
151.20255	5,5		90,0	35,0	20
151.2026	6,0		96,0	38,0	30
151.2027	7,0		102,0	41,0	40
151.2028	8,0		108,0	44,0	60
151.2029	9,0		114,0	47,0	80
151.2030	10,0		122,0	50,0	110
151.2031	12,0		137,0	57,0	170
151.2038	13,0		145,0	63,0	250
151.2032	14,0		154,0	70,0	270
151.2039	16,0		168,0	76,0	400
151.2033	17,0		177,0	80,0	440
151.2034	19,0		199,0	89,0	630
151.2036	22,0		222,0	102,0	750
151.2831		1/20"	41,0	12,0	0,6
151.2082		1/16"	45,0	15,0	10
151.2083		5/64"	50,0	16,0	10
151.2084		3/32"	51,0	17,0	10
151.2085		7/64"	54,0	20,0	10
151.2086		1/8"	57,0	22,0	10
151.2087		9/64"	63,0	23,0	10
151.2088		5/32"	65,0	25,0	10
151.2089		3/16"	70,0	29,0	20
151.2090		7/32"	80,0	32,0	30
151.2091		1/4"	87,0	32,0	40
151.2092		5/16"	98,0	40,0	80
151.2093		3/8"	110,0	45,0	110
151.2094		7/16"	124,0	48,0	130
151.2095		1/2"	133,0	50,0	150
151.2096		9/16"	152,0	57,0	250
151.2097		5/8"	160,0	59,0	400
151.2098		3/4"	180,0	70,0	620
151.2099		7/8"	200,0	80,0	740

### Hexagon key wrench, long

- Long execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Phosphate finish
- Special tool steel



	⚙️ mm	⚙️	L1 mm	L2 mm	⚙️
151.27013	1,3		70,0	15,0	10
151.27015	1,5		75,0	15,0	10
151.2702	2,0		83,0	17,0	10
151.27025	2,5		90,0	20,0	10
151.2703	3,0		97,0	20,0	10



### Hexagon key wrench set

- In accordance to DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In a durable folding holder with two component housing



158.3540	8 pcs	2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	440

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.3212	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	434

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5080	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	304

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4590	14 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm	3,09

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Imperial sizes
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4540	9 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	434

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Imperial sizes
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5060	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	298

### Socket Allen key set, short

- Short execution
- DIN ISO 2936
- Imperial sizes
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4600	14 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8" - 1/2" - 9/16" - 5/8" - 3/4"	3,09

### Allen key set, long

- Long execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5040	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	401

### Allen key set, long

- Long execution
- DIN ISO 2936
- Imperial sizes
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5020	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	371

### Allen key set, extra long

- Extra long execution
- DIN ISO 2936
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4980	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	502

### Allen key set, extra long

- Extra long execution
- DIN ISO 2936
- Imperial sizes
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4960	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	492

### Allen key set, extra long

- Extra long execution
- DIN ISO 2936
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4640	14 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm	3,00







### Ball end hexagon socket wrench set, long

- Long execution
- DIN ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5100	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	416
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### Ball end hexagon socket wrench set, extra long

- Extra long execution
- DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4940	10 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm	498
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### Ball end hexagon socket wrench set, extra long

- Extra long execution
- DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable plastic storage case



151.2150	10 pcs	3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm	2,38
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### Ball end hexagon socket wrench set, extra long

- Extra long execution
- DIN ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4920	10 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"	449
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### Ball end hexagon socket wrench set, extra long

- Extra long execution
- DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4420	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	560
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### Ball end hexagon socket wrench set, extra long

- Extra long execution
- DIN ISO 2936
- Imperial sizes
- With ball head on the long end
- Ideal for difficult to access screws
- Each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4520	9 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	560
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### Ball end hexagon socket wrench set, extra long and 108° angled

- extra long version with 108° angled short side
- With ball head on the long end
- Ideal for difficult to access screws
- Each wrench width colour-coded
- Continuous hardened
- Matt chrome
- In durable folding holder
- Special tool steel



151.4560	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	560
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### Ball end hexagon socket wrench set, extra long and 108° angled

- extra long version with 108° angled short side
- Imperial sizes
- With ball head on the long end
- Ideal for difficult to access screws
- Each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4430	9 pcs	1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"	560
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### Double ball end hexagon socket wrench set, extremely long

- extremely long version
- DIN ISO 2936
- with ball head on the long end and the short end
- Ideal for difficult to access screws
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.3222	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	426
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### TORX-HEXAGON KEY WRENCH

#### Torx key wrench, short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	🔑
151.2894	T5	46,0	16,0	5
151.2341	T6	42,0	16,0	10
151.2342	T7	48,0	16,0	10
151.2343	T8	48,0	16,0	10
151.2344	T9	48,0	16,0	10
151.2345	T10	51,0	17,0	10
151.2346	T15	54,0	18,0	10
151.2347	T20	57,0	19,0	10
151.2348	T25	60,0	20,0	10
151.2349	T27	64,0	21,0	20
151.2350	T30	70,0	24,0	30
151.2351	T40	76,0	26,0	40
151.2352	T45	82,0	28,0	50
151.2353	T50	95,0	32,0	60
151.2354	T55	108,0	35,0	130
151.2355	T60	120,0	38,0	190
151.2356	T70	133,0	41,0	280
151.2357	T80	146,0	44,0	430

#### Torx key wrench, long

- Long execution
- Continuous hardened
- Matt chrome
- Special tool steel

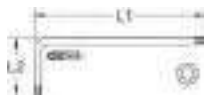


		L1 mm	L2 mm	🔑
151.2854	T5	72,0	13,0	10
151.2312	T6	66,0	16,0	10
151.2313	T7	71,0	16,0	10
151.2314	T8	76,0	16,0	10
151.2315	T9	80,0	16,0	10
151.2301	T10	86,0	17,0	10
151.2302	T15	90,0	18,0	10
151.2303	T20	95,0	19,0	10
151.2304	T25	100,0	20,0	20
151.2309	T27	105,0	21,0	30
151.2305	T30	114,0	24,0	40
151.2306	T40	124,0	26,0	70
151.2307	T45	133,0	28,0	100
151.2308	T50	152,0	32,0	140
151.2310	T55	171,0	35,0	180
151.2311	T60	190,0	38,0	280

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### Torx key wrench, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	
151.2893	T5	72,0	16,0	8
151.3171	T8	80,0	12,0	6
151.3161	T10	90,0	14,0	10
151.3162	T15	100,0	16,0	10
151.3163	T20	112,0	18,0	10
151.3164	T25	126,0	20,0	20
151.3165	T27	140,0	25,0	30
151.3166	T30	160,0	28,0	40
151.3167	T40	180,0	32,0	60
151.3168	T45	200,0	36,0	90
151.3169	T50	224,0	40,0	130

### Torx key wrench, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel



	Colour code	L1 mm	L2 mm		
151.4441	T8	light orange	80,0	12,0	6
151.4442	T10	pink	90,0	14,0	6
151.4443	T15	purple	100,0	16,0	9
151.4444	T20	blue	112,0	18,0	13
151.4445	T25	dark green	126,0	20,0	18
151.4446	T27	light green	150,0	25,0	26
151.4447	T30	light yellow	160,0	28,0	41
151.4448	T40	zinc yellow	180,0	32,0	63
151.4449	T45	orange	200,0	36,0	92
151.4451	T50	red	224,0	40,0	130
151.4452	T55	violet	250,0	45,0	236
151.4453	T60	turquoise	280,0	56,0	394
151.4454	T70	green	320,0	63,0	590
151.4455	T80	yellow	360,0	70,0	841

### TORX-HEXAGON KEY WRENCH SETS

#### Torx key wrench set

- Continuous hardened
- Matt chrome
- Special tool steel
- In a durable folding holder with two component housing



158.3510	8 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40	300

### Torx angle key wrench set, short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4900	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	228

### Torx angle key wrench set, short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4610	14 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	1,26

### Torx L-key set, long

- Long execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4880	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	325

### Torx L-key set, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4550	9 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	427

### Torx L-key set, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4860	10 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	433

### Torx L-key set, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- In durable folding holder
- Special tool steel



151.4760	9 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	433

### Torx L-key set, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder

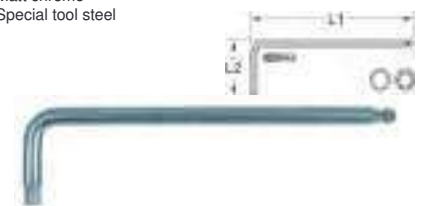


151.4440	14 pcs	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70 - T80	2,50

### TORX BALL ENDED KEY WRENCH

#### Ball head Torx angled pin wrench, long

- Long execution
- Continuous hardened
- Ball head on the long end
- Ideal for difficult to access screws
- Matt chrome
- Special tool steel

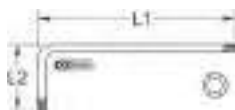


		L1 mm	L2 mm	
151.2834	T5	62,0	16,0	6
151.2835	T6	66,0	16,0	6

		L1 mm	L2 mm	
151.2836	T7	71,0	16,0	6
151.2837	T8	80,0	19,0	7
151.2838	T9	80,0	16,0	8
151.2401	T10	86,0	17,0	10
151.2402	T15	90,0	18,0	10
151.2403	T20	95,0	19,0	10
151.2404	T25	100,0	20,0	20
151.2839	T27	105,0	21,0	24
151.2405	T30	114,0	24,0	30
151.2406	T40	124,0	26,0	50
151.2407	T45	133,0	29,0	60
151.2408	T50	152,0	32,0	90

### Ball head Torx angled pin wrench, extra long

- Extra long execution
- DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel



	Colour code	L1 mm	L2 mm		
151.4271	T10	pink	92,0	19,0	5
151.4272	T15	purple	103,0	21,0	8
151.4273	T20	blue	116,0	22,0	12
151.4274	T25	dark green	120,0	24,0	18
151.4275	T27	light green	145,0	30,0	26
151.4276	T30	light yellow	165,0	33,0	40
151.4277	T40	zinc yellow	186,0	37,0	62
151.4278	T45	orange	207,0	41,0	91
151.4279	T50	red	234,0	47,0	130
151.4280	T55	violet	263,0	55,0	237
151.4281	T60	turquoise	295,0	70,0	400
151.4282	T70	green	335,0	80,0	595
151.4283	T80	yellow	380,0	88,0	850

### Ball Head Torx Angled L-key, extra long, 108° angled

- extra long version with 108° angled short side
- With ball head on the long end
- Ideal for difficult to access screws
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel



	Colour code	L1 mm	L2 mm		
151.4291	T10	pink	100,0	15,0	4
151.4292	T15	purple	105,0	16,0	6
151.4293	T20	blue	115,0	18,0	10
151.4294	T25	dark green	130,0	20,0	16
151.4295	T27	light green	145,0	20,0	20
151.4296	T30	light yellow	175,0	20,0	30
151.4297	T40	zinc yellow	195,0	24,0	56
151.4298	T45	orange	220,0	27,0	74
151.4299	T50	red	250,0	30,0	114

## TORX BALL ENDED KEY WRENCH SETS

### Ball head Torx angled socket wrench set, long

- Long execution
- With ball head on the long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5180	10 pcs T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50

### Ball head Torx angled socket wrench set, extra long

- Extra long execution
- With ball head on the long end
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.5210	9 pcs T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50

### Ball head Torx angled socket wrench set, extra long and 108° angled

- extra long version with 108° angled short side
- With ball head on the long end
- Ideal for difficult to access screws
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4530	9 pcs T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50

## TORX TAMPERPROOF HEXAGON KEY WRENCH

### Torx tamperproof key wrench, short

- Short execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel



	L1 mm	L2 mm		
151.2241	TB6	42,0	16,0	10
151.2242	TB7	48,0	16,0	10
151.2243	TB8	48,0	16,0	10
151.2244	TB9	48,0	16,0	10

	L1 mm	L2 mm		
151.2245	TB10	51,0	17,0	10
151.2246	TB15	54,0	18,0	10
151.2247	TB20	57,0	19,0	10
151.2248	TB25	60,0	20,0	10
151.2249	TB27	64,0	21,0	20
151.2250	TB30	70,0	24,0	30
151.2251	TB40	76,0	26,0	40
151.2252	TB45	82,0	28,0	50
151.2253	TB50	95,0	32,0	60
151.2254	TB55	108,0	35,0	130
151.2255	TB60	120,0	38,0	190

### Torx tamperproof key wrench, long

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel



	L1 mm	L2 mm		
151.2955	TB5	72,0	13,0	8
151.2212	TB6	66,0	16,0	10
151.2213	TB7	71,0	16,0	10
151.2214	TB8	76,0	16,0	10
151.2215	TB9	80,0	16,0	10
151.2201	TB10	86,0	17,0	10
151.2202	TB15	90,0	18,0	10
151.2203	TB20	95,0	19,0	10
151.2204	TB25	100,0	20,0	20
151.2209	TB27	105,0	21,0	30
151.2205	TB30	114,0	24,0	40
151.2206	TB40	124,0	26,0	70
151.2207	TB45	133,0	28,0	100
151.2208	TB50	152,0	32,0	140
151.2210	TB55	171,0	35,0	180
151.2211	TB60	190,0	38,0	280

### Torx tamperproof key wrench, extra long

- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel



	L1 mm	L2 mm		
151.3181	TB10	90,0	14,0	10
151.3182	TB15	100,0	16,0	10
151.3183	TB20	112,0	18,0	10
151.3184	TB25	126,0	20,0	20
151.3185	TB27	140,0	25,0	30
151.3186	TB30	160,0	28,0	40
151.3187	TB40	180,0	32,0	60
151.3188	TB45	200,0	36,0	90
151.3189	TB50	224,0	40,0	130

## TORX TAMPERPROOF KEY WRENCH SETS

### Torx tamperproof key wrench set

- Tamperproof
- Continuous hardened
- Matt chrome
- Special tool steel
- In a durable folding holder with two component housing



158.3530	8 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	300
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### Torx right-angle wrench set with bore, short

- Short execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4570	9 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	230
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### Torx right-angle wrench set with bore, short

- Short execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4840	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	224
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### Torx right-angle wrench set with bore, long

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4820	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	314
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## Torx right-angle wrench set with bore, extra long

- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



151.4580	9 pcs	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	441
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## Torx right-angle wrench set with bore, extra long

- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder

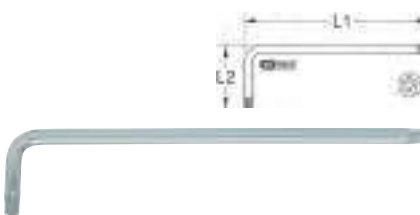


151.4800	10 pcs	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	427
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## FIVE STAR PROFILE TAMPERPROOF KEY WRENCH

### Five star profile tamperproof key wrench, extra long

- Extra long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	g
151.2469	TS8	80,0	12,0	8
151.2471	TS10	94,0	18,0	10
151.2472	TS15	104,0	20,0	10
151.2473	TS20	116,0	22,0	10
151.2474	TS25	130,0	25,0	20
151.2475	TS27	133,0	30,0	30
151.2476	TS30	167,0	34,0	40
151.2477	TS40	190,0	38,0	60
151.2478	TS45	190,0	44,0	90
151.2479	TS50	245,0	50,0	130



## FIVE STAR PROFILE TAMPERPROOF KEY WRENCH SETS

### Five star profile tamperproof key wrench set

- Long execution
- Bore hole at the short and long end
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder

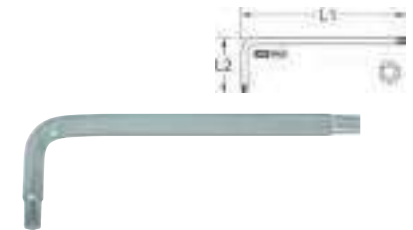


151.2482	10 pcs	TS8 - TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50	506
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## RIBE KEY WRENCH

### RIBE® Key wrench, Short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	g
151.4621	M4	57,0	20,0	8
151.4622	M5	64,0	21,0	15
151.4623	M6	70,0	24,0	23
151.4624	M8	82,0	28,0	40
151.4625	M10	108,0	36,0	90
151.4626	M12	108,0	36,0	130
151.4627	M14	125,0	45,0	200
151.4628	M16	140,0	55,0	310
151.4629	M18	140,0	55,0	350

### RIBE® Key wrench, extra long

- Extra long execution
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	g
151.2451	M4	144,0	29,0	20
151.2452	M5	165,0	33,0	30
151.2453	M6	186,0	38,0	40
151.2454	M7	197,0	41,0	80
151.2455	M8	208,0	44,0	90
151.2456	M9	219,0	47,0	150
151.2457	M10	234,0	50,0	170
151.2670	M12	262,0	57,0	256
151.2671	M14	294,0	70,0	397
151.2672	M16	337,0	80,0	595
151.2458	M18	379,0	89,0	849

### RIBE® Key wrench, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel



	Colour code	L1 mm	L2 mm	kg	
151.4501	M4	pink	112,0	20,0	0,01
151.4502	M5	purple	140,0	25,0	0,03
151.4509	M6	blue	160,0	28,0	0,04
151.4503	M8	green	200,0	36,0	0,10
151.4504	M10	light green	250,0	44,0	0,18
151.4505	M12	light yellow	250,0	45,0	0,26
151.4506	M14	yellow	280,0	56,0	0,40
151.4507	M16	orange	320,0	63,0	0,59
151.4508	M18	red	360,0	70,0	1,08

### RIBE HEXAGON KEY WRENCH SETS

#### RIBE® Key wrench set, short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



	kg
151.4620 9 pcs M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18	2,71

#### RIBE®-Angle L-key set, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



	kg
151.4500 9 pcs M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18	1,20

### SPLINE-HEXAGON KEY WRENCH (XZN®)

#### Multi-tooth (XZN®) right-angle pin wrench, short

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	kg
151.4101	M4	63,0	20,0	10
151.4102	M5	72,0	24,0	10
151.4103	M6	76,0	26,0	20
151.4104	M8	82,0	28,0	40
151.4105	M10	93,0	31,0	80
151.4106	M12	106,0	34,0	80
151.4107	M14	125,0	45,0	80
151.4108	M16	140,0	55,0	80
151.2673	M18	178,0	81,0	333

#### Spline key wrench, Extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel



	Colour code	L1 mm	L2 mm	kg	
151.4511	M4	pink	112,0	20,0	0,01
151.4512	M5	purple	140,0	25,0	0,03
151.4519	M6	blue	150,0	28,0	0,04
151.4513	M8	green	200,0	36,0	0,10
151.4514	M10	light green	250,0	44,0	0,18
151.4515	M12	light yellow	250,0	45,0	0,26
151.4516	M14	yellow	280,0	56,0	0,40
151.4517	M16	orange	320,0	63,0	0,59
151.4518	M18	red	360,0	70,0	1,08

### SPLINE-HEXAGON KEY WRENCH SETS (XZN®)

#### Spline key wrench set

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In sturdy sheet steel box



	kg
151.4100 5 pcs M5 - M6 - M8 - M10 - M12	150

### Spline key wrench setshort

- Short execution
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



	kg
151.4630 9 pcs M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18	2,71

#### Spline key wrench set, extra long

- Extra long execution
- each wrench width colour-coded
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable folding holder



	kg
151.4510 9 pcs M4 - M5 - M6 - M8 - M10 - M12 - M14 - M16 - M18	1,20

### T-HANDLE NUT SCREWDRIVER

#### T-handle socket screwdriver, long

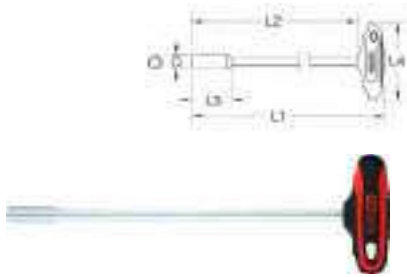
- Long execution
- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	kg
158.50055	5,5	9,9	264,0	230,0	10,0	95,0	80
158.5006	6	9,9	264,0	230,0	10,0	95,0	100
158.5007	7	10,1	264,0	230,0	10,0	95,0	120
158.5008	8	12,5	270,0	230,0	14,0	115,0	140
158.5009	9	13,6	270,0	230,0	12,0	115,0	150
158.5010	10	14,5	270,0	230,0	14,0	115,0	160
158.5011	11	15,7	270,0	230,0	15,0	115,0	180
158.5012	12	16,7	270,0	230,0	15,0	115,0	180
158.5013	13	17,6	270,0	230,0	16,0	115,0	180
158.5014	14	19,2	270,0	230,0	15,0	115,0	190

### T-handle socket screwdriver, extra long

- Extra long execution
- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
158.5408	8	12,6	390,0	350,0	13,0	115,0	180
158.5409	9	13,6	390,0	350,0	14,0	115,0	190
158.5410	10	14,7	390,0	350,0	15,0	115,0	220
158.5413	13	17,7	390,0	350,0	15,0	115,0	230
158.5414	14	19,1	390,0	350,0	16,0	115,0	250

### T-HANDLE SOCKET SCREWDRIVER SETS

#### T-handle socket screwdriver set

- FlankTraction profile
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In sturdy wall bracket



	mm	kg
158.5000	6 - 8 - 10 - 12 - 13 - 14 mm	1,40



### T-HANDLE HEXAGON SOCKET KEY WRENCH

#### T-handle hexagon key wrench

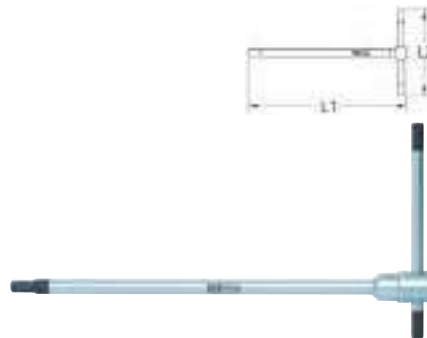
- Two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special tool steel



	mm	L1 mm	L2 mm	L3 mm	g
158.8032	2,0	130,0	100,0	80,0	20
158.80325	2,5	130,0	100,0	80,0	30
158.8033	3,0	130,0	100,0	80,0	30
158.8034	4,0	180,0	150,0	80,0	50
158.8035	5,0	185,0	150,0	100,0	100
158.8036	6,0	185,0	150,0	100,0	140
158.8037	7,0	185,0	150,0	100,0	157
158.8038	8,0	230,0	200,0	100,0	320
158.8040	10,0	235,0	200,0	115,0	360

#### 3 Way T-handle hexagonal key wrench

- Hexagonal profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium



	mm	L1 mm	L2 mm	g
158.5102	2,0	125,0	65,0	23
158.51025	2,5	125,0	65,0	23
158.5103	3,0	125,0	65,0	23
158.5104	4,0	180,0	90,0	59
158.51045	4,5	180,0	90,0	59
158.5105	5,0	180,0	90,0	60
158.5106	6,0	210,0	105,0	126
158.5108	8,0	250,0	125,0	208
158.5110	10,0	300,0	145,0	384
158.5147	12,0	320,0	165,0	570
158.5148	14,0	340,0	170,0	805

#### T-handle hexagon key wrench

- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	mm	L1 mm	L2 mm	L3 mm	g
151.2686	2,0	142,0	100,0	12,0	12
151.2687	2,5	142,0	100,0	12,0	15
151.2688	3,0	167,0	125,0	12,0	19
151.2841	3,5	192,0	150,0	14,0	27
151.2689	4,0	211,0	150,0	14,0	49
151.2690	4,5	211,0	150,0	14,0	60
151.2691	5,0	211,0	150,0	14,0	68
151.2692	6,0	236,0	175,0	14,0	91
151.2693	7,0	261,0	200,0	14,0	142
151.2694	8,0	279,0	200,0	16,0	175
151.2695	10,0	304,0	225,0	16,0	257
151.2956	5/64"	142,0	100,0	12,0	14
151.2842	3/32"	142,0	100,0	12,0	17
151.2843	7/64"	142,0	100,0	12,0	17
151.2844	1/8"	142,0	100,0	12,0	20
151.2845	9/64"	142,0	100,0	12,0	27
151.2846	5/32"	210,0	150,0	14,0	34
151.2847	3/16"	210,0	150,0	14,0	67
151.2848	7/32"	210,0	150,0	14,0	85
151.2849	1/4"	210,0	150,0	14,0	85
151.2851	5/16"	260,0	200,0	16,0	153
151.2852	3/8"	260,0	200,0	16,0	271

### T-HANDLE HEXAGON SOCKET KEY WRENCH SETS

#### T-handle key wrench set

- In accordance to DIN ISO 2936
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable wall holder



	pcs	mm	kg
158.8130	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	1,08

#### 3 Way T-handle hexagonal key wrench set

- Hexagonal profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium
- In durable plastic storage case



	pcs	mm	kg
158.5100	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	2,00

**T-HANDLE BALL ENDED-HEXAGON KEY WRENCHES**

**T-handle ball ended hexagon key wrench**

- With ball head on the long end
- Ideal for difficult to access screws
- Two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special tool steel



	mm	L1 mm	L2 mm	L3 mm	kg
151.8130	2,0	138,0	100,0	12,0	20
151.8131	2,5	140,0	100,0	13,0	30
151.8132	3,0	140,0	100,0	15,0	30
151.8133	4,0	188,0	150,0	15,0	50
151.8134	5,0	205,0	150,0	15,0	100
151.8135	6,0	205,0	150,0	15,0	140
151.8136	7,0	210,0	150,0	15,0	300
151.8137	8,0	250,0	200,0	15,0	320
151.8138	10,0	275,0	200,0	18,0	360
151.8139	12,0	275,0	200,0	20,0	420

**T-HANDLE BALL ENDED HEXAGON SOCKET KEY WRENCH SETS**

**T-handle ball ended hexagon key wrench set**

- With ball head on the long end
- Ideal for difficult to access screws
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	mm	kg
151.8155	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	440



**T-handle ball ended hexagon key wrench set**

- With ball head on the long end
- Ideal for difficult to access screws
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable plastic storage case

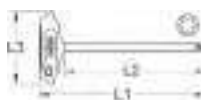


	mm	kg
151.8150	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 - 12 mm	1,80

**T-HANDLE TORX-KEY WRENCH**

**T-handle Torx key wrench**

- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	L3 mm	kg
158.8015	T5	130,0	100,0	80,0	18
158.8016	T6	130,0	100,0	80,0	18
158.8017	T7	130,0	100,0	80,0	18
158.8018	T8	130,0	100,0	80,0	33
158.8019	T9	130,0	100,0	80,0	38
158.8020	T10	130,0	100,0	80,0	38
158.8021	T15	130,0	100,0	80,0	30
158.8022	T20	130,0	100,0	80,0	30
158.8023	T25	135,0	100,0	100,0	50
158.8024	T27	135,0	100,0	100,0	100
158.8025	T30	235,0	200,0	100,0	300
158.8026	T40	235,0	200,0	100,0	300
158.8027	T45	285,0	250,0	100,0	320
158.8028	T50	290,0	250,0	115,0	360

**T-handle Torx key wrench set**

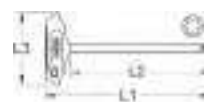
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable wall holder



	pcs	mm	kg
158.8160	9 pcs	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50	1,33

**T-handle Torx key wrench, long**

- Extra long execution
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	L3 mm	kg
158.8051	T10	403,0	373,0	80,0	30
158.8052	T15	403,0	373,0	80,0	30
158.8053	T20	403,0	373,0	100,0	40
158.8054	T25	408,0	373,0	100,0	40
158.8055	T27	408,0	373,0	100,0	40
158.8056	T30	408,0	373,0	100,0	45

**T-handle Torx key wrench set**

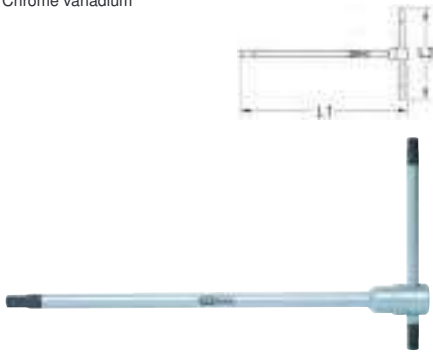
- Extra long execution
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



	pcs	mm	kg
158.8050	6 pcs	T10 - T15 - T20 - T25 - T27 - T30	375

### 3 Way T-handle Torx key wrench

- Torx profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium



		L1 mm	L2 mm	
158.5201	T10	125,0	65,0	23
158.5202	T15	125,0	65,0	23
158.5203	T20	125,0	65,0	23
158.5204	T25	180,0	90,0	59
158.5205	T27	180,0	90,0	59
158.5206	T30	180,0	90,0	60
158.5207	T40	180,0	90,0	126
158.5208	T45	180,0	90,0	208
158.5209	T50	250,0	125,0	384

### 3 Way T-handle Torx key wrench set

- Torx profile on three ends
- For difficult to access areas
- Matt finish
- Chrome finish with burnished tips
- Chrome vanadium
- In durable plastic storage case



		L1 mm	L2 mm	L3 mm	
158.5200	9 pcs T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50				1,88



### T-HANDLE TORX-BALL ENDED KEY WRENCH

#### T-handle ball ended Torx key wrench

- With ball head on the long end
- Ideal for difficult to access screws
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel

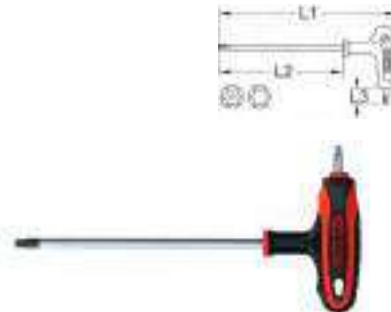


		L1 mm	L2 mm	L3 mm	
151.2751	T6	167,0	125,0	12,0	20
151.2752	T7	167,0	125,0	12,0	20
151.2753	T8	167,0	125,0	12,0	20
151.2754	T9	167,0	125,0	12,0	25
151.2755	T10	167,0	125,0	12,0	30
151.2756	T15	167,0	125,0	12,0	35
151.2757	T20	167,0	125,0	12,0	40
151.2758	T25	211,0	150,0	14,0	50
151.2759	T27	211,0	150,0	14,0	70
151.2760	T30	211,0	150,0	14,0	75
151.2761	T40	254,0	175,0	16,0	120
151.2853	T50	279,0	200,0	16,0	528

### T-HANDLE TORX TAMPERPROOF KEY WRENCH

#### T-handle Torx tamperproof key wrench

- Tamperproof
- Two component handle
- Continuous hardened
- Tip burnished
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	L3 mm	
151.8119	TB9	100,0	100,0	13,0	20
151.8121	TB10	140,0	100,0	13,0	20
151.8122	TB15	140,0	100,0	15,0	30
151.8123	TB20	140,0	100,0	15,0	30
151.8124	TB25	208,0	150,0	15,0	50
151.8125	TB27	208,0	150,0	15,0	100
151.8126	TB30	208,0	150,0	15,0	140
151.8127	TB40	260,0	200,0	15,0	300
151.8128	TB45	260,0	200,0	18,0	320
151.8129	TB50	280,0	200,0	20,0	360

### T-HANDLE TORX TAMPERPROOF KEY WRENCH SETS

#### T-handle Torx tamperproof key wrench set

- Tamperproof
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel



		L1 mm	L2 mm	L3 mm	
151.8165	8 pcs TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40				0,70



#### T-handle Torx tamperproof key wrench set

- Tamperproof
- Two component handle
- Continuous hardened
- Matt chrome
- Special tool steel
- In durable plastic storage case



		L1 mm	L2 mm	L3 mm	
151.8160	9 pcs TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50				1,80



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SCREWDRIVERS ↘



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our mission!*

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## ERGOTORQUE® WOOD SCREWDRIVER

### ERGOTORQUE® WOOD screwdriver for slotted screws

- DIN 5265 / ISO 2380
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm		
300.1001	3,5	170,0	75,0	95,0		50
300.1002	4,5	185,0	90,0	95,0		50
300.1003	5,5	200,0	100,0	100,0		70
300.1004	7,0	235,0	125,0	110,0		120
300.1016	8,0	270,0	150,0	120,0		160
300.1005	9,0	280,0	150,0	120,0		170
300.1006	10,0	300,0	175,0	125,0		220
300.1007	12,0	330,0	200,0	130,0		310
300.1008	14,0	390,0	250,0	140,0		360

### ERGOTORQUE® WOOD screwdriver for phillips screws PH

- DIN 8764
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		
300.1011	PH 1	175,0	80,0	95,0		50
300.1012	PH 2	220,0	100,0	120,0		90
300.1013	PH 3	270,0	150,0	120,0		170
300.1014	PH 4	340,0	200,0	140,0		330

### ERGOTORQUE® WOOD screwdriver for pozidriv screws PZ

- DIN 8764
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		
300.1021	PZ 1	175,0	80,0	95,0		50
300.1022	PZ 2	220,0	100,0	120,0		90
300.1023	PZ 3	270,0	150,0	120,0		170
300.1024	PZ 4	340,0	200,0	140,0		330

## ERGOTORQUE® WOOD screwdriver set

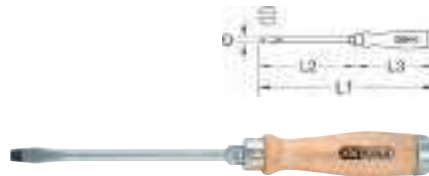
- Includes hexagon drive for a spanner or wrench
- Protective leather cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



300.1100	6 pcs	ERGOTORQUE® WOOD screwdriver set		420
4 x		3,5 - 4,5 - 5,5 - 7 mm		
2 x		PH1 - PH2		

### ERGOTORQUE® WOODmax screwdriver for slotted screws

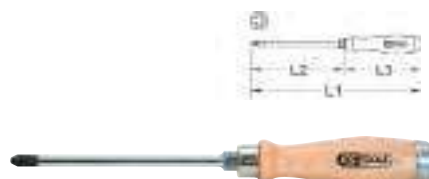
- DIN 5265
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm		
300.1051	3,5	175,0	75,0	100,0		50
300.1052	4,5	190,0	90,0	100,0		50
300.1053	5,5	205,0	100,0	105,0		70
300.1054	7,0	240,0	125,0	115,0		120
300.1055	8,0	275,0	150,0	125,0		170

### ERGOTORQUE® WOODmax screwdriver for phillips screws PH

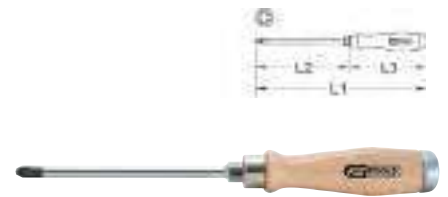
- DIN ISO 8764
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		
300.1061	PH 1	180,0	80,0	100,0		50
300.1062	PH 2	225,0	100,0	125,0		90
300.1063	PH 3	275,0	150,0	125,0		170

## ERGOTORQUE® WOODmax screwdriver for pozidriv screws PZ

- DIN ISO 8764
- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		
300.1071	PZ 1	180,0	80,0	100,0		50
300.1072	PZ 2	225,0	100,0	125,0		90
300.1073	PZ 3	275,0	150,0	125,0		170

### ERGOTORQUE® WOODmax screwdriver set

- Includes hexagon drive for a spanner or wrench
- Protective cap on the handle end
- Optimal power transmission
- Ergonomically formed, sealed beech wood handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



300.1050	6 pcs	ERGOTORQUE® WOODmax screwdriver set		500
4 x		3,5 - 4,5 - 5,5 - 7 mm		
2 x		PH1 - PH2		

### Punches

- Impact cap on the handle end
- Sealed beech wood handle
- Mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	
300.1081	190,0	100,0	6,0	70

## AWLE

### Awle

- Impact cap on the handle end
- Sealed beech wood handle
- Mirror polished
- Highly polished
- Chrome vanadium

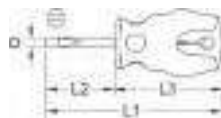


	L1 mm	L2 mm	D mm	g
300.1082	190,0	100,0	6,0	70

## ERGOTORQUEplus® SCREWDRIVER

### ERGOTORQUEplus® screwdriver for slotted screws, stubby

- DIN 5265
- Extra short blade
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1121	4,0	98,0	38,0	60,0	40
159.1122	5,0	98,0	38,0	60,0	40
159.1001	6,0	98,0	38,0	60,0	40
159.1123	6,5	98,0	38,0	60,0	40
159.1124	8,0	98,0	38,0	60,0	40

### ERGOTORQUEplus® screwdriver for phillips screws PH, stubby

- DIN ISO 8764
- Extra short blade
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1141	PH 1	98,0	38,0	60,0	40
159.1026	PH 2	98,0	38,0	60,0	40
159.1142	PH 3	98,0	38,0	60,0	40

### ERGOTORQUEplus® screwdriver for pozidriv screws PZ, stubby

- DIN ISO 8764
- Extra short blade
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1143	PZ 1	98,0	38,0	60,0	40
159.1046	PZ 2	98,0	38,0	60,0	40
159.1144	PZ 3	98,0	38,0	60,0	40

### ERGOTORQUEplus® screwdriver for Torx screws, short

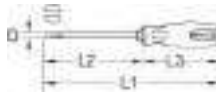
- Extra short blade
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1145	T20	98,0	38,0	60,0	47
159.1146	T25	98,0	38,0	60,0	47
159.1147	T27	98,0	38,0	60,0	47
159.1148	T30	98,0	38,0	60,0	47

### ERGOTORQUEplus® screwdriver for slotted screws

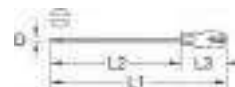
- DIN 5265
- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1002	3,0	155,0	75,0	80,0	40
159.1112	3,5	180,0	100,0	80,0	40
159.1003	4,0	155,0	75,0	80,0	40
159.1004	4,0	180,0	100,0	80,0	50
159.1114	4,0	305,0	200,0	105,0	180
159.1113	4,5	180,0	100,0	80,0	50
159.1115	5,5	180,0	75,0	105,0	40
159.1005	5,5	205,0	100,0	105,0	50
159.1006	5,5	230,0	125,0	105,0	50
159.1007	5,5	255,0	150,0	105,0	60
159.1008	6,5	230,0	125,0	105,0	60
159.1009	6,5	255,0	150,0	105,0	90
159.1010	8,0	265,0	150,0	115,0	130
159.1011	8,0	315,0	200,0	115,0	150
159.1012	10,0	315,0	200,0	115,0	180
159.1013	10,0	365,0	250,0	115,0	190

### ERGOTORQUEplus® screwdriver for slotted screws, extra long

- DIN 5265
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1107	5,5	405,0	300,0	105,0	100
159.1151	8,0	405,0	300,0	105,0	100

### 6 in 1 ERGOTORQUEplus® screwdriver

- DIN ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium

Universal use for Phillips screws PH1, PH2 and PH3 as well as for PZ1, PZ2 and PZ3.



	L1 mm	L2 mm	L3 mm	g
159.1100	230,0	125,0	105,0	30

### ERGOTORQUEplus® screwdriver for phillips screws PH

- DIN ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	g
159.1027	PH 0	155,0	75,0	80,0	30
159.1020	PH 1	180,0	75,0	105,0	40
159.1029	PH 1	205,0	100,0	105,0	70
159.1154	PH 1	255,0	150,0	105,0	90
159.1153	PH 1	305,0	200,0	105,0	110
159.1021	PH 2	205,0	100,0	105,0	70
159.1022	PH 2	230,0	125,0	105,0	80
159.1023	PH 2	255,0	150,0	105,0	90
159.1028	PH 2	305,0	200,0	105,0	110
159.1024	PH 3	265,0	150,0	115,0	130
159.1025	PH 3	315,0	200,0	115,0	150
159.1118	PH 4	310,0	200,0	110,0	250

### ERGOTORQUE<sup>plus</sup> screwdriver for phillips screws PH, extra long

- DIN ISO 8764
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1152	PH 1	405,0	300,0	105,0	90
159.1128	PH 2	405,0	300,0	105,0	100

### ERGOTORQUE<sup>plus</sup> screwdriver for pozidriv screws PZ

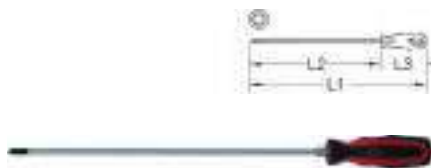
- DIN ISO 8764
- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm		
159.1047	PZ 0	155,0	75,0	80,0		30
159.1040	PZ 1	180,0	75,0	105,0		30
159.1049	PZ 1	205,0	100,0	105,0		30
159.1041	PZ 2	205,0	100,0	105,0		30
159.1042	PZ 2	230,0	125,0	105,0		60
159.1043	PZ 2	255,0	150,0	105,0		60
159.1044	PZ 3	265,0	150,0	115,0		130
159.1048	PZ 2	305,0	200,0	105,0		110
159.1045	PZ 3	315,0	200,0	115,0		150
159.1119	PZ 4	310,0	200,0	110,0		250

### ERGOTORQUE<sup>plus</sup> screwdriver for pozidriv screws PZ, extra long

- DIN ISO 8764
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1155	PZ 0	405,0	300,0	105,0	85
159.1156	PZ 1	405,0	300,0	105,0	90
159.1157	PZ 2	405,0	300,0	105,0	100
159.1158	PZ 3	405,0	300,0	105,0	220
159.1159	PZ 4	405,0	300,0	105,0	375

### ERGOTORQUE<sup>plus</sup> screwdriver for Torx screws

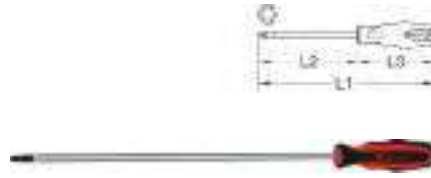
- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1131	T3	205,0	100,0	105,0	50
159.1132	T4	205,0	100,0	105,0	50
159.1133	T5	205,0	100,0	105,0	50
159.1134	T6	205,0	100,0	105,0	50
159.1135	T7	205,0	100,0	105,0	50
159.1030	T8	205,0	100,0	105,0	50
159.1031	T9	205,0	100,0	105,0	50
159.1032	T10	205,0	100,0	105,0	50
159.1033	T15	205,0	100,0	105,0	50
159.1034	T20	205,0	100,0	105,0	50
159.1035	T25	205,0	100,0	105,0	60
159.1036	T27	205,0	100,0	105,0	60
159.1037	T30	205,0	100,0	105,0	60
159.1038	T40	205,0	100,0	105,0	80
159.1136	T45	255,0	150,0	105,0	130

### ERGOTORQUE<sup>plus</sup> screwdriver for Torx screws, long

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1261	T20	405,0	300,0	105,0	100
159.1262	T25	405,0	300,0	105,0	100
159.1263	T27	405,0	300,0	105,0	100
159.1264	T30	405,0	300,0	105,0	100

### ERGOTORQUE<sup>plus</sup> Screwdriver for Torx screws with ball head

- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1235	T9	205,0	100,0	105,0	50
159.1236	T10	205,0	100,0	105,0	50
159.1237	T15	205,0	100,0	105,0	50
159.1238	T20	205,0	100,0	105,0	50
159.1239	T25	205,0	100,0	105,0	60
159.1241	T27	205,0	100,0	105,0	60
159.1242	T30	205,0	100,0	105,0	60

### ERGOTORQUE<sup>plus</sup> Screwdriver for Torx Plus screws

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1243	IP5	205,5	100,0	105,0	50
159.1244	IP6	205,5	100,0	105,0	50
159.1245	IP7	205,5	100,0	105,0	50
159.1246	IP8	205,5	100,0	105,0	50
159.1247	IP9	205,5	100,0	105,0	50
159.1248	IP10	205,5	100,0	105,0	50
159.1249	IP15	205,5	100,0	105,0	50
159.1251	IP20	205,5	100,0	105,0	50
159.1252	IP25	205,5	100,0	105,0	60
159.1253	IP30	205,5	100,0	105,0	60

### ERGOTORQUE<sup>plus</sup> screwdriver for Torx screws, tamperproof

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1059	TB7	205,0	100,0	105,0	50
159.1050	TB8	205,0	100,0	105,0	50
159.1051	TB9	205,0	100,0	105,0	50
159.1052	TB10	205,0	100,0	105,0	50
159.1053	TB15	205,0	100,0	105,0	50
159.1054	TB20	205,0	100,0	105,0	50
159.1055	TB25	205,0	100,0	105,0	60
159.1056	TB27	205,0	100,0	105,0	60
159.1057	TB30	205,0	100,0	105,0	60
159.1058	TB40	205,0	100,0	105,0	80

### ERGOTORQUE<sup>plus</sup> screwdriver for hexagon screws

- Two component handle
- Optimal power transmission
- Incorporates hexagon blade
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
159.1221	1,5	205,0	100,0	105,0	20
159.1222	2,0	205,0	100,0	105,0	20
159.1223	2,5	205,0	100,0	105,0	20
159.1224	3,0	205,0	100,0	105,0	20
159.1225	4,0	205,0	100,0	105,0	20
159.1226	5,0	205,0	100,0	105,0	60
159.1227	6,0	205,0	100,0	105,0	70
159.1228	8,0	205,0	100,0	105,0	130

### ERGOTORQUEplus® screwdriver for hexagon screws with ball end

- Two component handle
- Optimal power transmission
- Incorporates hexagon blade
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	g
159.1066	1,5	155,0	75,0	80,0	20
159.1067	2,0	205,0	100,0	105,0	20
159.1060	2,5	180,0	100,0	80,0	20
159.1061	3,0	180,0	100,0	80,0	20
159.1062	4,0	180,0	100,0	80,0	20
159.1063	5,0	205,0	100,0	105,0	60
159.1064	6,0	205,0	100,0	105,0	70
159.1065	8,0	205,0	100,0	105,0	130
159.1068	10,0	255,0	150,0	105,0	195
159.1069	12,0	255,0	150,0	105,0	230

### ERGOTORQUEplus® bit screwdriver

- Two component handle
- Extra short execution
- Magnetic
- Optimal power transmission
- 1/4" hexagonal holder for bits



	1/4"	L mm	g
159.1190	1/4"	63,0	30

### ERGOTORQUEplus® bit screwdriver

- For bits to DIN 3126 / C 6,3
- Two component handle
- Optimal power transmission
- Magnetic
- Blade made of chrome vanadium



	1/4"	L1 mm	L2 mm	L3 mm	g
159.2198	1/4"	250,0	150,0	100,0	100

### ERGOTORQUEplus® bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Blade made of chrome vanadium



	1/4"	L1 mm	L2 mm	L3 mm	g
159.1199	1/4"	550,0	450,0	100,0	175

### ERGOTORQUEplus® socket screwdriver

- Two component handle
- 6 point
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1126	6,0	10,8	259,0	150,0	109,0	9,3	155
159.1127	7,0	11,7	259,0	150,0	109,0	10,0	155
159.2128	8,0	11,9	259,0	150,0	109,0	10,0	155
159.1125	10,0	12,5	279,0	170,0	109,0	14,3	170

### ERGOTORQUEplus® socket screwdriver

- Two component handle
- 6 point
- Matt finish
- Chrome vanadium



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1265	3	6,6	150,0	150,0	105,0	4,3	60
159.1201	4	6,6	255,0	150,0	105,0	4,3	60
159.1266	4,5	7,6	150,0	150,0	105,0	4,4	70
159.1202	5	7,6	255,0	150,0	105,0	4,4	70
159.1203	5,5	8,2	255,0	150,0	105,0	4,8	80
159.1204	6	8,8	255,0	150,0	105,0	5,5	80
159.1205	7	10,0	255,0	150,0	105,0	6,8	110
159.1206	8	11,2	264,0	150,0	114,0	7,0	110
159.1207	9	13,9	264,0	150,0	114,0	9,3	110
159.1208	10	15,0	264,0	150,0	114,0	9,9	120
159.1209	11	16,5	264,0	150,0	114,0	10,3	130
159.1210	12	17,6	264,0	150,0	114,0	11,2	180
159.1211	13	17,6	264,0	150,0	114,0	11,6	180
159.1212	14	18,9	264,0	150,0	114,0	13,0	180

### ERGOTORQUEplus® quick change bit screwdriver

- For bits to DIN 3126 / C 6,3
- Two component handle
- Locking and fast change device
- Optimal power transmission
- Magnetic
- Blade made of chrome vanadium



	1/4"	L1 mm	L2 mm	L3 mm	g
159.2145	1/4"	200,0	100,0	100,0	100

### ERGOTORQUEplus® Soldering tip 4.5mm, diagonal

- For bits to DIN 3126
- Two component handle
- Includes clamping ring
- Optimal power transmission



	1/4"	L mm	g
159.1170	1/4"	110,0	50

### ERGOTORQUEplus® bit screwdriver

- Two component handle
- Flexible
- Limited torque
- Double spiral shaft
- Plastic protective coating
- 1/4" hexagonal holder for bits



	1/4"	L1 mm	L2 mm	L3 mm	L4 mm	g
159.1129	1/4"	200,0	150,0	50,0	8,0	200

### ERGOTORQUEplus® Square screwdriver

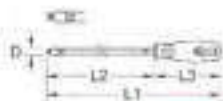
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating



	1/4"	D mm	L1 mm	L2 mm	L3 mm	g
159.1120	1/4"	15,0	200,0	150,0	50,0	150

**ERGOTORQUE<sup>plus</sup> square screwdriver, extra long**

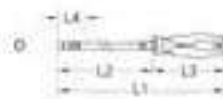
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating



Art. No.	D	L1	L2	L3	Weight	
	mm	mm	mm	mm	g	
815.1171	1/4"	120	614,0	500,0	154,0	260

**ERGOTORQUE<sup>plus</sup> bit screwdriver, extra long**

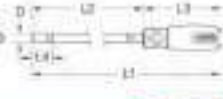
- For bits to DIN 3126 / C 6.3
- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating



Art. No.	D	L1	L2	L3	L4	Weight
	mm	mm	mm	mm	mm	g
815.1172	1/4"	414,0	500,0	114,0	45,0	260

**ERGOTORQUE<sup>plus</sup> socket screwdriver, extra long**

- Two component handle
- 5 point
- Flexible
- Ideal for deep seated screw-head clamps
- Limited torque
- Double spiral shaft
- Plastic protective coating
- Chrome vanadium



Art. No.	D	L1	L2	L3	L4	Weight	
	mm	mm	mm	mm	mm	g	
815.1176	6	11,8	614,0	500,0	114,0	6,9	270
815.1176	6	10,8	614,0	500,0	114,0	11,3	280
815.1177	7	11,7	614,0	500,0	114,0	11,3	280
815.1178	8	11,7	614,0	500,0	114,0	11,3	290

**ERGOTORQUE<sup>plus</sup> screwdriver for square socket screws**

- for square socket head screws to DIN 7504
- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium

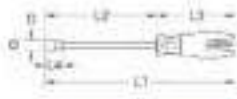


Art. No.	D	L1	L2	L3	Weight
	mm	mm	mm	mm	g
158.1192	40	98,0	38,0	60,0	47

Art. No.	D	L1	L2	L3	Weight
	mm	mm	mm	mm	g
158.1184	40	98,0	38,0	60,0	47
158.1183	40	135,0	75,0	60,0	94
158.1188	40	155,0	75,0	80,0	94
158.1183	41	135,0	75,0	80,0	94
158.1188	41	295,0	106,0	135,0	107
158.1187	42	295,0	106,0	135,0	107
158.1148	42	315,0	206,0	115,0	135
158.1189	42	485,0	306,0	135,0	157
158.1181	43	295,0	106,0	135,0	119
158.1182	44	315,0	206,0	115,0	135

**ERGOTORQUE<sup>plus</sup> socket screwdriver**

- for triangular bolts according to DIN 29424 and triangular nuts according to DIN 29425
- Two component handle
- 3-point
- Mat finish
- Chrome vanadium



Art. No.	D	L1	L2	L3	Weight
	mm	mm	mm	mm	g
158.1181	M4	295,0	156,0	135,0	122
158.1182	M5	295,0	156,0	135,0	122
158.1183	M6	295,0	156,0	135,0	122
158.1184	M8	295,0	156,0	135,0	122
158.1185	M10	295,0	156,0	135,0	150
158.1186	M12	295,0	156,0	135,0	160

**ERGOTORQUE<sup>plus</sup> screwdriver for TRI-WING screws**

- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



Art. No.	D	L1	L2	L3	Weight
	mm	mm	mm	mm	g
158.1254	40	160,0	88,0	60,0	90
158.1288	41	160,0	88,0	60,0	90
158.1290	42	160,0	90,0	60,0	90
158.1287	43	160,0	80,0	60,0	90
158.1258	44	295,0	106,0	135,0	107
158.1299	45	295,0	106,0	135,0	107

**ERGOTORQUE<sup>plus</sup> screwdriver for TORX-well screws**

- Two component handle
- Hexagon drive
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



Art. No.	D	L1	L2	L3	Weight
	mm	mm	mm	mm	g
158.1231	6,0	190,0	88,0	60,0	90
158.1232	6,0	295,0	106,0	135,0	107
158.1229	11,0	295,0	106,0	135,0	107

**ERGOTORQUE<sup>plus</sup> SCREWDRIVER SETS**

**ERGOTORQUE<sup>plus</sup> bit set**

- Two component handle
- Optimal power transmission
- Power screwdriver handle with fast change device
- Hardened blade
- Nickel plated
- Blade made of chrome vanadium
- In practical folding case



Art. No.	Set	Weight
158.2810	17 pcs. ERGOTORQUE <sup>plus</sup> bit set	750
1 x	1/4"	
1 x	5,5 mm	
3 x	PH1 - PH2 - PH3	
3 x	PZ1 - PZ2 - PZ3	
4 x	3 - 4 - 5 - 6 mm	
5 x	TB10 - TB15 - TB20 - TB25 - TB30	

**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



Art. No.	Set	Weight
158.0900	5 pcs. ERGOTORQUE <sup>plus</sup> screwdriver set	275
3 x	4 - 5,5 - 6,5 mm	
2 x	PH1 - PH2	

You can find more screwdrivers in the VDE section.



**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



13A.0016	4 pcs	ERGOTORQUE <sup>plus</sup> screwdriver set	700
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PH1 - PH2	

**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



13A.0020	6 pcs	ERGOTORQUE <sup>plus</sup> screwdriver set	740
4 x		3 - 4 - 5,5 - 6,5 mm	
2 x		PZ1 - PZ2	

**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



13A.0030	6 pcs	ERGOTORQUE <sup>plus</sup> screwdriver set	740
6 x		T10 - T15 - T20 - T25 - T30 - T40	

**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



13A.0040	5 pcs	ERGOTORQUE <sup>plus</sup> screwdriver set	800
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**ERGOTORQUE<sup>plus</sup> screwdriver and bit set**

- Two component handle
- Optimal power transmission
- Includes the most current 1/4" bits, bit holder and screwdriver
- Hardened blade
- Chrome finish with burnished tip
- Chrome vanadium
- In durable plastic storage case



13B.0160	32 pcs	ERGOTORQUE <sup>plus</sup> screwdriver and bit set	2,01
6 x		3 - 4 - 5,5 - 6,5 - 8 - 10 mm	
4 x		PH0 - PH1 - PH2 - PH3	
4 x		PZ0 - PZ1 - PZ2 - PZ3	
1 x		6 mm	
1 x		PH2	
1 x		100 mm	
1 x		1/4"	
7 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	

**ERGOTORQUE<sup>plus</sup> socket screwdriver set**

- Two component handle
- 6 point
- Matt finish
- Chrome vanadium



13A.1000	8 pcs	ERGOTORQUE <sup>plus</sup> socket screwdriver set	800
8 x		5 - 6 - 7 - 8 - 10 - 11 - 12 - 13 mm	

**ERGOTORQUE<sup>plus</sup> screwdriver set**

- Two component handle
- Flexible blade with double spiral shaft
- Limited torque
- Plastic protective coating
- Contains also the most current 1/4" bits and sockets
- In display box



13A.1100	10 pcs	ERGOTORQUE <sup>plus</sup> screwdriver set	1,30
1 x		1/4"	
1 x		1/4"	
1 x		7 mm	
3 x		5 - 6 - 8 mm	
2 x		5,5 - 6,5 mm	
2 x		PH1 - PH2	
6 x		T10 - T15 - T20 - T25 - T27 - T30	

**ERGOTORQUE<sup>max</sup>**

**ERGOTORQUE<sup>max</sup> 3-handle ratchet**

- DIN 3122 / ISO 3035
- With 1/4" square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Two component handle
- Reversible
- Exact gearing with 45 teeth
- With hanging hole
- Handy and compact
- Matt finish
- Chrome vanadium



13E.1100	1/4"	115,0	100,2	65,2	42
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**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for slotted screws, stubby**

- DIN 5265
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	Wt g
15L1191	6.5	85.0	38.0	60.0	40

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for phillips screws PH, stubby**

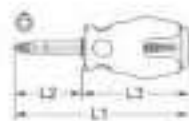
- DIN ISO 8764
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	L1 mm	L2 mm	L3 mm	Wt g	
15L1201	PH 1	85.0	38.0	60.0	40
15L1102	PH 2	85.0	38.0	60.0	40

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for pozidriv screws PZ, stubby**

- DIN ISO 8764
- Extra short blade
- Two component handle
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	L1 mm	L2 mm	L3 mm	Wt g	
15L1145	PZ 2	85.0	38.0	60.0	40

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for slotted screws**

- DIN 5265
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	D mm	L1 mm	L2 mm	L3 mm	Wt g
15L1123	3.5	165.0	60.0	105.0	70
15L1125	4.5	175.0	70.0	105.0	70
15L1212	4.5	205.0	100.0	90.0	125
15L1213	4.5	250.0	200.0	90.0	200
15L1126	5.5	205.0	100.0	105.0	150
15L1216	5.5	250.0	190.0	100.0	225
15L1218	5.5	350.0	290.0	100.0	340
15L1132	7.0	245.0	140.0	100.0	240
15L1133	8.0	265.0	160.0	100.0	240
15L1219	8.0	310.0	200.0	110.0	285
15L1136	10.0	265.0	160.0	105.0	300

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for phillips screws PH**

- DIN ISO 8764
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	L1 mm	L2 mm	L3 mm	Wt g	
15L1191	PH 0	165.0	60.0	105.0	120
15L1182	PH 1	165.0	60.0	105.0	120
15L1183	PH 1	255.0	250.0	100.0	470
15L1184	PH 2	205.0	500.0	100.0	220
15L1188	PH 3	350.0	350.0	100.0	550
15L1189	PH 3	250.0	190.0	100.0	290
15L1190	PH 4	305.0	300.0	105.0	580

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver for pozidriv screws PZ**

- DIN ISO 8764
- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	L1 mm	L2 mm	L3 mm	Wt g	
15L1142	PZ 0	165.0	60.0	105.0	120

	L1 mm	L2 mm	L3 mm	Wt g	
15L1145	PZ 1	165.0	60.0	105.0	150
15L1144	PZ 2	205.0	100.0	105.0	230
15L1146	PZ 3	250.0	150.0	105.0	250
15L1148	PZ 4	300.0	200.0	105.0	300

**ERGOTORQUE<sup>®</sup> max SCREWDRIVER SETS**
**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver set**

- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	Wt g	ERGOTORQUE <sup>®</sup> max hammer cap screwdriver set	Wt g
15L1166	3 x	5.5 - 7 - 8 mm PH1 - PH2 - PH3	1,33

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver set**

- Two component handle
- Hexagon drive
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3120 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with burnished tip
- Blade made of chrome vanadium



	Wt g	ERGOTORQUE <sup>®</sup> max hammer cap screwdriver set	Wt g
15L1168	3 x	5.5 - 7 - 8 mm PZ1 - PZ2 - PZ3	1,74

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver set**

- Two component handle
- Hexagon drive
- Includes T-handle ratchet
- Protective cap on the handle end
- Internal square drive adaptor to DIN 3126 / ISO 1174 in the hammer cap
- Ideal for usage with T-handle screwdriver drive and standard ratchet
- Optimal power transmission
- Hardened blade
- Chrome finish with brushed lips
- Blade made of chrome vanadium



ITEM NO.	7 pcs	ERGOTORQUE <sup>®</sup> max hammer cap screwdriver set	3.34
4 x		3,5 - 4,5 - 5,5 - 7 mm	
2 x		PH1 - PH2	
1 x		1/4"	

**ERGOTORQUE<sup>®</sup> max hammer cap screwdriver set**

- Two component handle
- Hexagon drive
- Includes T-handle ratchet
- Protective cap on the handle end
- Optimal power transmission
- Hardened blade
- Blade made of chrome vanadium
- In durable plastic storage case
- With safety clamping protection

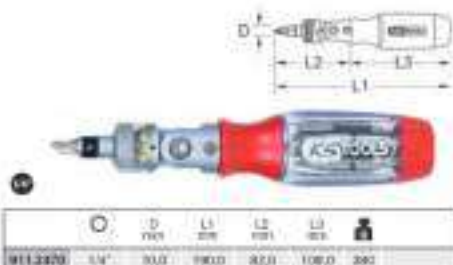


ITEM NO.	13 pcs	ERGOTORQUE <sup>®</sup> max hammer cap screwdriver set	3.50
5 x		3,5 - 5,5 - 7 - 8 - 10 mm	
5 x		PH2 - PH1 - PH0 - PH3 - PH4	
1 x		6 mm	
1 x		PH2	
1 x		1/4"	

**1/4" RATCHET BIT SCREWDRIVERS**

**Ratchet bit screwdriver**

- Robust gearing with 24 teeth
- Ratchet function
- 180° multi adjustable blade
- For bits to DIN 3126 / C 6,3
- Magnetic
- Integrated bit magazine with 13 bits
- Ergonomically designed handle



	D	L1	L2	L3	Icon	
911.2470	1/4"	93,0	190,0	82,0	100,0	292

**T-handle ratchet bit screwdriver**

- Robust gearing with 24 teeth
- Ratchet function
- Locking and fast change device
- 45° two way revolving head
- For bits to DIN 3126 / C 6,3
- Fast change bit stop function
- Magnetic
- Integrated bit magazine with 5 bits
- Two component handle



	D	L1	L2	L3	Icon	
911.2478	1/4"	53,0	180,0	26,0	114,0	292

**Mini ratchet screwdriver**

- Ratchet function
- Exact gearing with 72 teeth
- For bits to DIN 3126 / C 6,3
- Magnetic
- Two component handle
- Blade mini polished chrome



	L1	L2	L3	Icon	
138.2041	1/4"	65,0	27,0	66,0	140

**Revolver ratchet bit screwdriver**

- Ratchet function
- Exact gearing with 72 teeth
- Handle with double function (standard and pistol handle)
- For bits to DIN 3126 / C 6,3
- Magnetic
- 40 Nm maximum torque
- Integrated bit magazine
- Two component handle
- Blade mini polished chrome



	L1	L2	L3	Icon	
138.2031	1/4"	299,0	128,0	143,0	450



**MAGNETISING AND DE-MAGNETISING ATTACHMENT**

**Magnetizer and demagnetizer**

- Easy to use
- To magnetize by pulling the blade through
- To demagnetize by pulling the blade over the recess
- For screwdrivers, tweezers and similar tools made of steel
- Plastic housing



	L1	L2	L3	Icon
993.1206	47,0	15,0	20,0	71

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3  
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# PLIERS



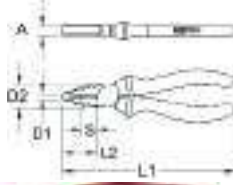
Innovation is  
our mission!

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## COMBINATION PLIERS

### SlimPOWER combination pliers

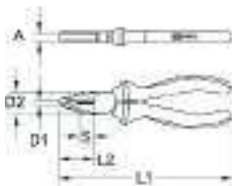
- In accordance to DIN ISO 5748
- Extra slim design
- Long cutting edge
- Suitable for wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
115.2101	10,0	6,0	24,0	160,0	35,0	15,0	195
115.2102	11,0	7,0	27,0	180,0	38,0	15,0	250
115.2103	12,0	7,0	30,0	205,0	43,0	20,0	300

### ERGOTORQUE® combination pliers

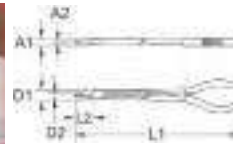
- In accordance to DIN ISO 5748
- Long cutting edge
- Suitable for wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
115.1020	11,0	7,0	24,0	160,0	35,0	15,0	300
115.1021	12,0	7,0	28,0	180,0	36,0	15,0	300
115.1022	12,0	7,0	32,0	200,0	41,0	20,0	390

### Double joint combination pliers, XL

- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel

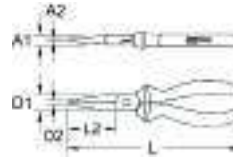


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
500.7210	10,4	5,2	17,3	300,0	40,0	360	

## FLAT PLIERS

### SlimPOWER flat pliers

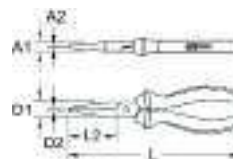
- In accordance to DIN ISO 5745
- Extra slim design
- Serrated execution
- Two component handle
- Titanium coated surface
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	9
115.2221	9,0	9,0	18,0	3,0	165,0	50,0	160

### ERGOTORQUE® flat pliers

- In accordance to DIN ISO 5745
- Serrated execution
- Two component handle
- Matt chrome
- Special tool steel

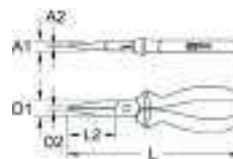


	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	9
115.1016	9,0	6,0	18,0	5,0	160,0	51,0	250
115.1017	13,0	8,0	20,0	7,0	200,0	65,0	260

## NEEDLE NOSE PLIERS

### SlimPOWER long nosed pliers

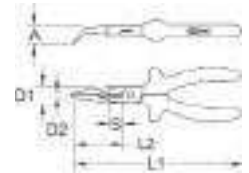
- In accordance to DIN ISO 5745
- Extra slim design
- Two component handle
- Long, straight jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
115.2201	9,0	2,0	18,0	3,0	160,0	48,0	12,0	160
115.2202	11,0	3,0	22,0	4,0	210,0	71,0	16,0	190

### SlimPOWER long nosed pliers, curved

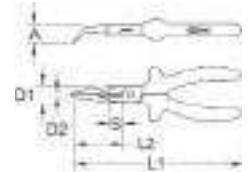
- In accordance to DIN ISO 5745
- Extra slim design
- Two component handle
- 45° curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
115.2113	24,7	22,0	4,0	210,0	70,0	16,0	185

### ERGOTORQUE® long nosed pliers, curved

- In accordance to DIN ISO 5745
- Two component handle
- 45° curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
115.1018	18,0	18,0	3,0	165,0	50,0	11,0	250
115.1019	27,0	22,0	5,0	210,0	67,0	16,0	260

### Double jointed long nosed pliers 45° curved, extra long

- Serrated execution
- With double joint
- Extremely narrow design
- Long nosed jaws
- 45° curved jaws
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	9
500.7163	10,2	5,6	17,7	335,0	72,0	450	

## TELEPHONE PLIERS

### ERGOTORQUE® telephone pliers

- In accordance to DIN ISO 5745
- Long nosed jaws
- Serrated execution
- Two component handle
- With intergrated cutting edge
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
115.1023	9,0	3,0	18,0	4,0	160,0	49,0	12,0	153
115.1024	11,0	3,0	22,0	4,0	200,0	75,0	16,0	230

### Double jointed flat pliers, extra long

- Serrated execution
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7161	10,2	4,6	17,7	340,0	75,0	450

## CUTTING PLIERS AND SIDE CUTTERS

### ERGOTORQUE® cutting pliers

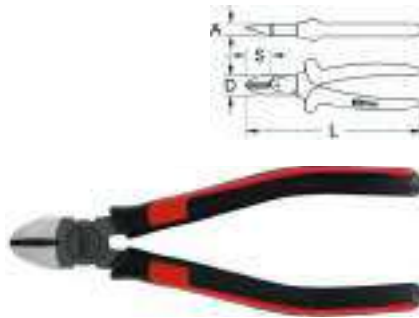
- In accordance to DIN ISO 5748
- Suitable for various types of wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
115.1015	31,0	160,0	7,0	24,0	270

### SlimPOWER diagonal side cutter

- In accordance to DIN ISO 5749
- Extra slim design
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.2231	10,5	20,0	160,0	18,5	170
115.2232	12,0	22,0	180,0	20,0	240
115.2233	12,0	24,0	200,0	22,0	290

### ERGOTORQUE® diagonal side cutter

- In accordance to DIN ISO 5749
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.1011	9,0	18,0	125,0	18,0	140
115.1012	11,0	22,0	160,0	20,0	260

### ERGOTORQUE® high leverage side cutter

- In accordance to DIN ISO 5749
- 30° angled head
- Long cutting edge
- Suitable for various types of wire
- Induction-hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	g
115.1013	12,0	29,0	180,0	21,0	260

### Double joint lateral cutter, XL

- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7201	10,2	4,8	17,7	290,0	26,0	400

### Mini bolt cutter, self-releasing

- Cutting performance up to 60-63 HRC
- Cutter head made of high quality special steel
- Induction-hardened precision cutting
- Phosphate finish
- Chrome molybdenum



	L mm	S mm	D mm	A mm	g
118.0015	205,0	14,0	34,0	17,0	270

## WIRE STRIPPER

### Automatic wire stripper

- Allows for stripping of any cable length, therefore ideal for retrofitting auxiliary heating systems, gas systems and other electrical consumers
- Automatically adjusts to the respective diameters
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- For copper and aluminium wires
- Plastic handle
- Durable clamping jaw for the adherence of the wire
- With return spring
- Smooth running mechanics
- Sturdy design

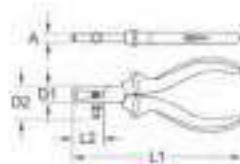


	Ø mm	AWG	D mm	L1 mm	L2 mm	g
115.1028	0,5-2,0	20-14	20,0	170,0	35,0	280
115.1029	1,0-3,2	18-8	20,0	170,0	35,0	280



**ERGOTORQUE® wire stripper**

- In accordance to DIN ISO 5032
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4,0 mm²
- Matt chrome
- Special tool steel



	A	B	D1	D2	L1	L2	Icon
	mm	mm	mm	mm	mm	mm	
118.1014	8,0	29,5	21,5	16,0	58,8	20,0	

**UNIVERSAL FLIER SETS**

**ERGOTORQUE® pliers set**

- Suitable for various types of wire
- Induction hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	Icon	ERGOTORQUE® pliers set	Unit
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	

**ERGOTORQUE® pliers set**

- Suitable for various types of wire
- Induction hardened precision cutting
- Two component handle
- Matt chrome
- Special tool steel



	Icon	ERGOTORQUE® pliers set	Unit
1 x		160 mm	
1 x		180 mm	
1 x		200 mm	
1 x		240 mm	

**WATER PUMP PLIERS**

**Water pump pliers**

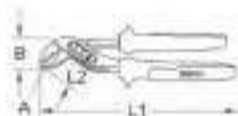
- In accordance to DIN 8976
- Toothed gripping surfaces
- Optimum power transfer
- Industrial and ground heads
- Red powder coating
- Chrome vanadium



	A	B	L1	L2	Icon
	mm	mm	mm	mm	
118.1060	33,0	30,0	175,0	30,0	160
118.2060	43,0	35,0	240,0	35,0	210
118.2060	53,0	45,0	300,0	42,0	260

**Water pump pliers**

- In accordance to DIN 8976
- With PVC dipped handle
- Toothed gripping surfaces
- Optimum power transfer
- Industrial and ground heads
- Chrome vanadium



	A	B	L1	L2	Icon
	mm	mm	mm	mm	
118.2001	36,0	30,0	290,0	34,0	200

**Water pump pliers, black**

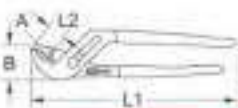
- In accordance to DIN 8976
- With PVC dipped handle
- Toothed gripping surfaces
- Optimum power transfer
- With grooved handle adjustment
- Chrome vanadium



	A	B	L1	L2	Icon
	mm	mm	mm	mm	
118.2060	45,0	35,0	250,0	40,0	240

**Professional water pump pliers**

- Toothed gripping surfaces
- Optimum power transfer
- With grooved handle adjustment
- Progressive teeth
- With PVC dipped handle
- Chrome vanadium



	A	B	L1	L2	Icon	
	mm	mm	mm	mm		
118.1060	7	45,0	45,0	205,0	59,0	200
118.2061	7	55,0	55,0	320,0	68,0	300
118.3062	11	77,0	74,0	420,0	74,0	430





**Water pump pliers**

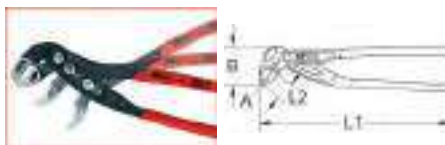
- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Asymmetric grip profile with offset teeth
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	Weight
115.2011	35,0	38,0	175,0	20,0	160
115.2010	45,0	47,0	240,0	25,0	360
115.2012	55,0	53,0	300,0	30,0	560
115.2016	90,0	80,0	415,0	30,0	1130

**Water pump pliers**

- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Double sided gripping jaws
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	Weight
115.8502	36,0	44,0	175,0	26,5	185
115.8000	51,0	54,0	250,0	33,5	340
115.8500	61,5	65,0	300,0	41,5	510

**WATER PUMP PLIER SETS**

**Water pump pliers set**

- In accordance to DIN 8976
- Toothed gripping surfaces
- Optimum power transfer
- 7 stage adjustment
- Industrial and ground heads
- Red powder coating
- Chrome vanadium



	Weight
115.0000 3 pcs 175 - 240 - 300 mm	1,20

**Water pump pliers set**

- With accurate industrial adjustment
- With safety clamping protection
- Optimum power transfer
- Double sided gripping jaws
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	Weight
115.8501 2 pcs 250 - 300 mm	960

**PIPE WRENCHES**

**Special pipe wrench**

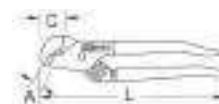
- 2-stage adjustment
- With PVC dipped handle
- Ideal for round turned pipe fittings
- Polished surface
- Chrome vanadium



	A mm	L mm	C mm	Weight
115.1361	0-16	178,0	23,0	180

**Special pipe wrench**

- 4 stage industrial adjustment
- With PVC dipped handle
- Optimum power transfer
- With grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium

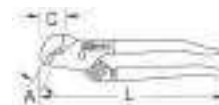


	A mm	L mm	Weight
115.1362	0-30	242,0	470



**Special pipe wrench**

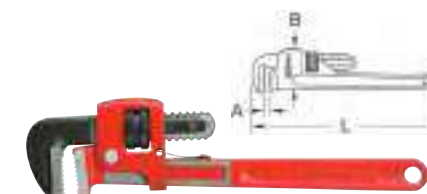
- 6 stage industrial adjustment
- With PVC dipped handle
- Optimum power transfer
- With grooved handle adjustment
- Polished surface
- Ideally suited for twisting both thrust and track rods
- Usably on axle joints and exhaust pipes
- Chrome vanadium



	A mm	L mm	C mm	Weight
115.1363	0-51	345,0	41,0	1,10

**One handed pipe pliers**

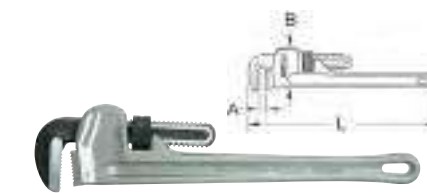
- Type "Stillson"
- Heavy execution
- Ground heads
- Infinitely variable
- Drop forged



	Ø	A mm	B mm	L mm	Weight
114.0008	3/4"	27,0	50,0	200,0	0,25
114.0010	1"	35,0	64,0	250,0	0,60
114.0012	1.1/4"	42,0	68,0	300,0	0,70
114.0014	1.1/2"	49,0	82,0	350,0	1,10
114.0018	2"	60,0	93,0	450,0	1,75
114.0024	2.1/2"	76,0	111,0	600,0	3,50
114.0036	3.1/2"	102,0	134,0	900,0	6,25

**One handed pipe pliers**

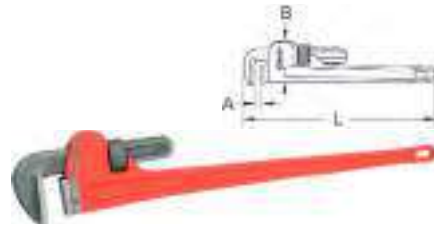
- Type "Stillson"
- Aluminium cast body
- Ground heads
- Infinitely variable
- Aluminium drop forged



	Ø	A mm	B mm	L mm	Weight
111.3100	1.1/2"	48,0	75,0	350,0	0,88
111.3200	2"	60,0	90,0	450,0	1,46
111.3300	2.1/2"	75,0	100,0	600,0	2,44

### One handed steel pipe pliers

- Type "Stillson"
- Ground heads
- Infinitely variable
- Die forged head
- Handle of steel



	Ø	A mm	B mm	L mm	kg
111.3500	3/4"	25,0	50,0	200,0	0,37
111.3505	1"	30,0	60,0	250,0	0,65
111.3510	1.1/4"	40,0	65,0	300,0	0,87
111.3515	1.1/2"	50,0	70,0	350,0	1,27
111.3520	2"	60,0	85,0	450,0	1,85
111.3525	2.1/2"	76,0	95,0	600,0	3,00
111.3530	3.1/2"	102,0	125,0	900,0	5,10
111.3535	4"	135,0	150,0	1030,0	9,10

### Pipe wrench with adjustable head

- Type "Stillson"
- Aluminium cast body
- Stepless adjustment via milled nut
- 160° revolving handle
- Aluminium handle



	Ø	A mm	B mm	L mm	kg
111.3550	1.1/2"	38,1	97,0	250,0	650

### Stillson-type pipe wrench with adjustable head

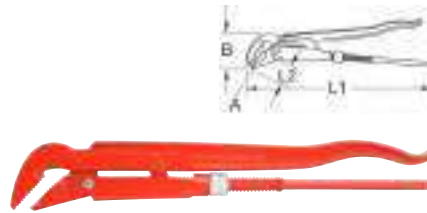
- Type "Stillson"
- steplessly adjustable via quick tensing mechanics
- Serrated execution
- With loosening lever
- upper jaw chrome-molybdenum
- lower jaw chrome vanadium
- Aluminium handle



	Clamping range mm	Length mm	kg
111.3540	8 - 31	260,0	610

### Offset pipe pliers, 45° angled

- In accordance to DIN 5234
- Swedish form
- Jaw 45° offset
- Infinitely variable
- Gear, contrary to the direction of rotation
- Red powder coating
- Chrome vanadium



	Ø	B mm	L1 mm	L2 mm	kg
112.1000	1"	65,0	320,0	65,0	0,75
112.1500	1.1/2"	70,0	430,0	75,0	1,38
112.2000	2"	75,0	580,0	85,0	2,75

### S Jaw angled pipe pliers, offset

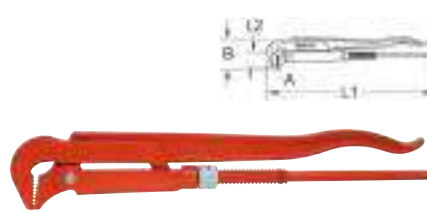
- In accordance to DIN 5234
- Jaw 45° offset
- Ground heads
- Infinitely variable
- Optimum power transfer
- Progressive teeth
- Red powder coating
- Drop forged
- Chrome vanadium



	Ø	B mm	L1 mm	L2 mm	kg
113.0500	1/2"	48,0	245,0	45,0	0,48
113.1000	1"	95,0	320,0	60,0	0,82
113.1500	1.1/2"	73,0	420,0	73,0	1,40
113.2000	2"	87,0	550,0	87,0	2,57
113.3000	3"	112,0	630,0	112,0	4,30

### Offset pipe pliers, 90° angled

- In accordance to DIN 5234
- Swedish form
- Jaw 90° offset
- Infinitely variable
- Gear, contrary to the direction of rotation
- Red powder coating
- Chrome vanadium



	Ø	B mm	L1 mm	L2 mm	kg
111.1000	1"	35,0	320,0	15,0	0,79
111.1500	1.1/2"	31,0	430,0	41,0	1,40
111.2000	2"	51,0	580,0	58,0	2,69
111.3000	3"	60,0	670,0	62,0	3,45

### Siphon pliers

- Ideally suited to a clean and damage-free removal of the interior mirror
- With 4 adjustable steps
- Isolated mouth for non-destructive working
- For screw fittings up to max. Ø 65 mm
- With PVC dipped handle
- For loosening pipe fittings
- Interchangeable jaw protector
- For hard to reach places
- Mirror polished
- Chrome vanadium



	A mm	C mm	L mm	Replacement jaws	kg
116.1200	20,0 - 65,0	45,0	225,0	116.1201	320



### Strap pipe pliers

- Ideally suited for the installation and removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- Belt made of reinforced, non-slip rubber
- Glass fibre reinforced handle



	Ø mm	L mm	kg
114.0150	110,0	190,0	180

### Strap pipe pliers

- Ideally suited for the installation and removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- Setting the filter diameter by using the tensioning element and also by turning the knob on the end of the handle
- Belt made of reinforced, non-slip rubber
- With metal handle



	Ø mm	L mm	
114.0160	160,0	250,0	1,00

### Strap wrench

- Ideally suited for the removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- non-slip, rubber-coated cotton fabric tape
- With metal handle
- Chrome plated
- Chrome vanadium



	mm	Ø mm	Ø	L mm	Replacement band	
114.0170	20,0	140,0	9/64"	220,0	114.0170-1	323
114.0171	25,0	200,0	13/64"	280,0	114.0171-1	590

### Chain pipe wrench

- Function is similar to a ratchet
- For hard to reach places
- Hardened teeth
- Drop forged
- Chrome vanadium



	Ø mm	L mm	
114.0040	110,0	390,0	1,36

### PIPE WRENCH SETS

#### Angled pipe pliers set

- In accordance to DIN 5234
- Jaw 45° offset
- Ground heads
- Infinitely variable
- Optimum power transfer
- Progressive teeth
- Red powder coating
- Drop forged
- Chrome vanadium



113.2100	3 pcs	1" - 1.1/2" - 2"		4,79

### FITTERS PLIERS

#### Fitters pliers

- With accurate industrial adjustment
- With safety clamping protection
- With setting scale
- Smooth, polished head area
- Optimum power transfer
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	
115.8510	50,0	50,0	250,0	60,0	350

#### Fitters plier

- 90° Jaw position
- Interchangeable jaw protector
- for screw connections up to max. Ø 35 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infinitely variable
- Red powder coating
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	Replacement jaws	
116.1000	25,4	81,0	315,0	54,0	116.1001	790

### Fitters wrench

- Interchangeable jaw protector
- For screw fittings up to max. Ø 60 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infinitely variable
- Matt chrome
- Chrome vanadium

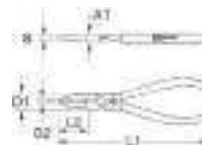


	A mm	B mm	L mm	Replacement jaws	
116.1002	60,0	47,0	265,0	116.1003	550

### CIRCLIP PLIERS FOR INTERNAL CIRCLIPS

#### Circlip pliers for internal circlips

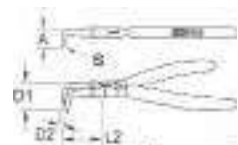
- In accordance to DIN 5256
- Durable, rolled precision tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	Ø mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm		
500.1034	J1	12-25	8,0	1,0	17,0	2,0	130,0	29,0	120
500.1035	J2	19-60	10,0	1,7	18,0	2,0	160,0	40,0	150
500.1036	J3	40-100	11,0	2,2	22,0	2,0	230,0	44,0	200

#### Circlip pliers for internal circlips, angled

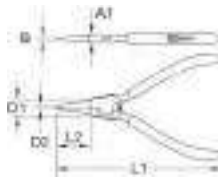
- In accordance to DIN 5256
- Durable, rolled precision tips
- 90° angled tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



	Ø mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm		
500.1031	J11	12-25	11,0	1,0	15,0	2,0	130,0	21,0	120
500.1032	J21	19-60	19,0	1,7	17,0	2,0	160,0	23,0	150
500.1033	J31	40-100	25,0	2,2	23,0	2,0	230,0	30,0	200

### Circlip pliers for internal circlips

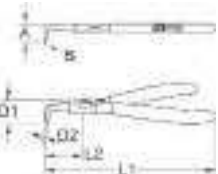
- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- Durable, straight version
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	Ø mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
119.2053	J1	12-25	7,5	1,2	15,0	2,7	135,0	30,0	80
119.2058	J2	19-60	9,5	1,6	18,0	5,0	180,0	40,0	150
119.2063	J3	40-100	10,0	2,5	20,0	6,0	230,0	50,0	250

### Circlip pliers for internal circlips, angled

- In accordance to DIN 5256
- Slip inhibiting machined precision tips
- 90° angled tips
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	Ø mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
119.2054	J11	12-25	16,5	1,0	14,5	2,5	125,0	20,0	80
119.2059	J21	19-60	21,0	1,5	18,0	3,0	165,0	25,0	150
119.2064	J31	40-100	25,0	2,0	20,0	5,0	210,0	35,0	250

### Double joint securing pliers for internal retaining rings with replaceable tips

- for internal retention ring Ø 8 - 30 mm
- 5 removable top pairs
- Tips with colour code
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Matt chrome
- Chrome vanadium



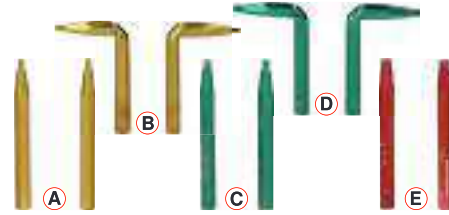
	Ø mm	g	
500.7035	11 pcs	8 - 30	400

consists of:

		g
500.7036	Double joint safety pliers for internal retaining rings, 345 mm	390
500.7017	Pair of tips for double joint securing pliers, 1,0 mm, straight	2
500.7018	Pair of tips for double joint securing pliers, 1,0 mm, bent 90°	2
500.7023	Pair of tips for double joint securing pliers, 1,3 mm, straight	2
500.7027	Pair of tips for double joint securing pliers, 1,3 mm, bent 90°	2
500.7029	Pair of tips for double joint securing pliers, 1,8 mm, straight	2

### Top couple for double joint securing pliers

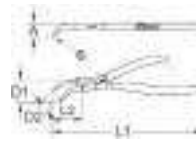
- Interchangeable tips
- suitable for external and internal retention ring double joint pliers 500.7016 and 500.7036
- Tops with colour code
- anodised



	Colour code	Ø mm	Form	g
500.7017	A	1,0	straight	2
500.7018	B	1,0	90° offset	2
500.7023	C	1,3	straight	2
500.7027	D	1,3	90° offset	2
500.7029	E	1,8	straight	2

### Wheel bearing circlip pliers, angled

- Durable precision tips
- Slip inhibiting machined precision tips
- 45° angled version
- With PVC dipped handle
- For assembly and disassembly of wheel bearing securing rings
- Can be used on the front and rear axle
- for all common wheel bearing retaining rings
- Chrome vanadium



	Ø mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
500.1038	J22	19-60	22,0	2,5	23,0	2,3	240,0	32,0	250

### Circlip pliers for internal circlips with 0° + 90° tips

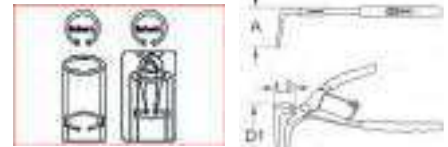
- For internal circlips
- Interchangeable tips
- For circlips according to DIN 472 / DIN 984
- Black powder coating
- Chrome vanadium



	Ø mm	D mm	S mm	L mm	g	
500.1340	J51/J5	122-300	3,5	66,0	540,0	2025

### Long-arm safety pliers for internal retaining rings, bent

- Durable, extra long precision points
- 90° angled tips
- Self opening
- With PVC dipped handle
- Ideal for brake calliper and transmission work
- Chrome vanadium

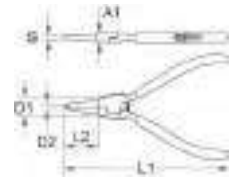


	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.1037	63,0	18,0	4,0	185,0	18,0	190

### CIRCLIP PLIERS FOR EXTERNAL CIRCLIPS

#### Circlip pliers for external circlips

- In accordance to DIN 5254
- Durable, straight precision tips
- Self-closing
- With PVC dipped handle
- Chrome vanadium



	Ø mm	A1 mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
500.1028	A1	10-25	8,0	1,0	18,0	1,0	130,0	28,0	120
500.1029	A2	19-60	10,0	2,0	30,0	6,0	160,0	38,0	150
500.1030	A3	40-100	11,0	3,0	33,0	6,0	230,0	44,0	200

#### Circlip pliers for external circlips, angled

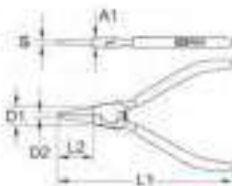
- In accordance to DIN 5254
- Durable precision tips
- 90° angled tips
- With PVC dipped handle
- Chrome vanadium



	Ø mm	A mm	S mm	D1 mm	D2 mm	L1 mm	L2 mm	g	
500.1025	A11	10-25	13,0	1,0	12,0	2,0	130,0	18,0	120
500.1026	A21	19-60	19,0	1,7	17,0	2,0	160,0	23,0	150
500.1027	A31	40-100	24,0	2,2	21,0	2,0	230,0	27,0	200

**Circlip pliers for external circlips**

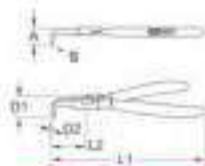
- In accordance to DIN 5254
- Slip inhibiting machined precision tip
- Durable - straight version
- Self-closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	A1	S	D1	D2	L1	L2	
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
199.2901	A1	10-25	8,0	1,0	13,5	3,5	150,0 20,0 30
199.2906	A2	10-25	9,0	1,5	15,0	4,5	175,0 40,0 150
199.2901	A3	40-90	10,0	2,5	29,0	6,0	280,0 90,0 250

**Circlip pliers for external circlips, angled**

- In accordance to DIN 5254
- Slip inhibiting machined precision tip
- 90° angled version
- Self-closing
- With rubber grip
- Power version
- Die forged
- Chrome vanadium



	A1	S	D1	D2	L1	L2	
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	
199.2902	A11	10-25	20,0	1,0	15,0	3,0	120,0 20,0 30
199.2907	A21	10-25	25,0	1,5	16,0	4,5	165,0 30,0 150
199.2902	A31	40-90	30,0	2,0	29,0	6,0	210,0 40,0 250

**Double joint securing pliers for external retaining rings with replaceable tips**

- For external retaining ring Ø 12 - 30 mm
- 5 removable top pairs
- Tips with colour code
- With double joint
- Extremely narrow design
- With PVC dipped handle
- For difficult to access areas
- Main chrome
- Chrome vanadium



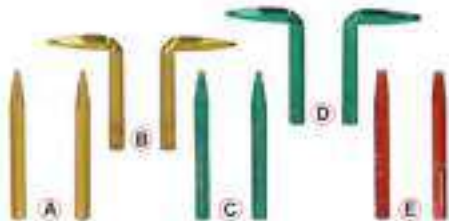
999.7916	11 pcs	12 - 30	400

consists of:

906.7016	Double joint safety pliers for external retaining rings, Ø13 mm	2	390
906.7017	Pair of tips for double joint securing pliers, 1,0 mm, straight	2	
906.7018	Pair of tips for double joint securing pliers, 1,0 mm, bent 90°	2	
906.7023	Pair of tips for double joint securing pliers, 1,2 mm, straight	2	
906.7027	Pair of tips for double joint securing pliers, 1,2 mm, bent 90°	2	
906.7028	Pair of tips for double joint securing pliers, 1,8 mm, straight	2	

**Top couple for double joint securing pliers**

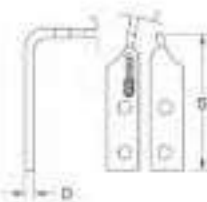
- Interchangeable tips
- Suitable for external and internal retaining ring double joint pliers 906.7016 and 906.7036
- Tips with colour code
- Anodised



	Interchangeable tip	D (mm)	Form	
906.7017	A	1,0	straight	2
906.7018	B	1,0	90°-bent	2
906.7023	C	1,2	straight	2
906.7027	D	1,2	90°-bent	2
906.7028	E	1,8	straight	2

**Circlip pliers for external circlips with 0° - 60° tips**

- For external security rings
- Interchangeable tips
- For circlips according to DIN 472 / DIN 994
- Black powder coating
- Chrome vanadium



	D	L	S	
	(mm)	(mm)	(mm)	
906.1346	A61A5	122-308	3,5	540,0 85,0 20x5



**CIRCLIP PLIER SETS FOR CIRCLIPS**

**Circlip pliers set with ratchet function**

- For inside and outside circlips
- With rubber grip
- Interchangeable tips
- 6 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium

Internal circlips: 78,0 mm - 150,0 mm  
External circlips: 30,0 mm - 150,0 mm



999.9300	14 pcs	Circlip pliers set with ratchet function 1,60

**Universal circlip pliers set**

- For inside and outside circlips
- Simply pier reconfiguration
- With rubber grip
- Interchangeable tips
- 16 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium



999.9320	10 pcs	Universal circlip pliers set	1,60
4 x		1,0 - 1,2 - 1,8 - 2,5 mm	
4 x		1,0 - 1,2 - 1,8 - 2,5 mm	
1 x		T20 mm	
1 x		T20 mm	

**Circlip pliers set with ratchet function**

- For inside and outside circlips
- With rubber grip
- Interchangeable tips
- 8 types of pliers by reversing the tips
- Includes disassembly and assembly heads
- Chrome vanadium

Internal circlips: 60,0 mm - 100,0 mm  
External circlips: 40,0 mm - 85,0 mm



999.9360	20 pcs	Circlip pliers set with ratchet function 1,60

### Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium



				9
119.2050	4 pcs	Circlip pliers set	455	

consists of:

				9
119.2051		Circlip pliers for external circlips, 10-25 mm	80	
119.2052		Circlip pliers for external circlips, angled, 12-25 mm	80	
119.2053		Circlip pliers for internal circlips, 12-25 mm	80	
119.2054		Circlip pliers for internal circlips, angled, 12-25 mm	80	

### Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium



				9
119.2055	4 pcs	Circlip pliers set	735	

consists of:

				9
119.2056		Circlip pliers for external circlips, 19-60 mm	150	
119.2057		Circlip pliers for external circlips, angled, 19-60 mm	150	
119.2058		Circlip pliers for internal circlips, 19-60 mm	150	
119.2059		Circlip pliers for internal circlips, angled, 19-60 mm	150	



### Circlip pliers set

- For inside and outside circlips
- With rubber grip
- 90° angled tips
- Durable, straight precision tips
- All outside circlips with opening spring
- Power version
- Chrome vanadium



				9
119.2060	4 pcs	Circlip pliers set	1000	

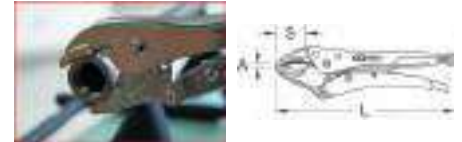
consists of:

				9
119.2061		Circlip pliers for external circlips, 40-100 mm	250	
119.2062		Circlip pliers for external circlips, angled, 40-100 mm	250	
119.2063		Circlip pliers for internal circlips, 40-100 mm	250	
119.2064		Circlip pliers for internal circlips, angled, 40-100 mm	250	

### LOCKING PLIERS

#### Locking pliers

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	9
115.1031	0-50	140,0	19,3	180
115.1032	0-55	175,0	24,0	340
115.1033	0-60	220,0	27,5	520



#### Power locking pliers

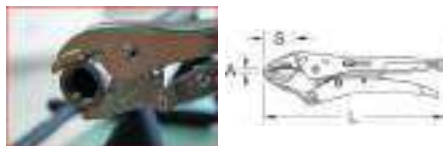
- Forged gripping jaws
- Prevents slipping even at high forces
- Well thought through jaw teeth
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	9
115.1196	0-40	175,0	30,0	400
115.1197	0-50	220,0	37,0	600

**Locking pliers with quick-release lever**

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and flat material
- To hold when welding
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	L mm	S mm	g
115.2031	0-30	125,0	21,0	300
115.2032	0-40	175,0	27,0	390
115.2033	0-55	225,0	30,0	600

**Wide jaw locking pliers**

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum

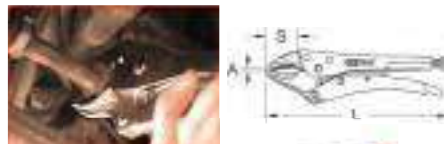


	A mm	L mm	S mm	g
115.1506	0-64	235,0	50,0	600



**Wide jaw locking pliers with quick-release lever**

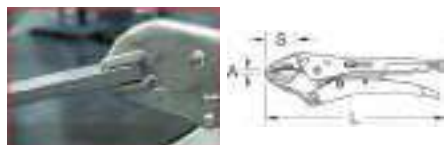
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and flat material
- To hold when welding
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	L mm	S mm	g
115.2006	0-65	230,0	51,0	620

**Locking pliers, straight jaws**

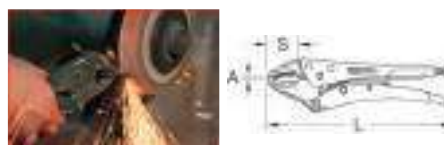
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Chrome vanadium



	A mm	L mm	S mm	g
115.1501	0-28,5	175,0	27,0	370
115.1502	0-45,5	225,0	30,0	600

**Locking pliers with quick-release lever, straight jaws**

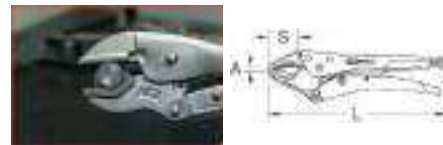
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and flat material
- To hold when welding
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	L mm	S mm	g
115.3011	0-40	175,0	25,0	400
115.3012	0-50	250,0	30,0	600

**Locking pliers, V jaws**

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	g
115.1151	0-25	185,0	24,0	400
115.1152	0-32	225,0	27,5	600

**Clamping pliers for pipes**

- Forged gripping jaws
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- With hexagonal nut for safe fastening
- For clamping pipes
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1504	0-30,5	175,0	29,5	360

**Clamping pliers for pipes**

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For clamping pipes
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	L mm	S mm	g
115.1505	0-86	255,0	118,0	500

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### Round jaw locking pliers with wire cutter

- For safe gripping of nuts and screw heads
- 3 level points prevents slipping and rounding
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Good adaptation to existing surfaces
- With wire cutting function
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	mm	L mm	kg
115.1175	11-19	175,0	370
115.1176	16-27	240,0	700

### Chain grip pliers

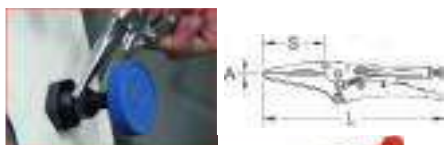
- For fastening and clamping of different profiles
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Ideal for confined spaces
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	Ø mm	Length mm	Replacement chain	kg
115.1171	150,0	220,0	115.1172	0,76

### Long nose locking pliers

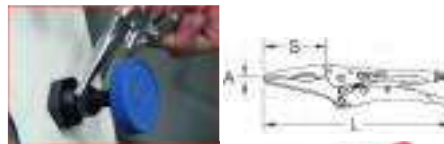
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	L mm	S mm	kg
115.1177	0-25	125,0	35	110

### Long-nose locking pliers with quick-release lever

- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With easy locking action
- For round and flat material
- To hold when welding
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	L mm	S mm	kg
115.2034	0-45	170,0	45,0	300
115.2035	0-60	205,0	53,0	500

### Wide and flat jaw locking pliers

- Forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For clamping of flat or bended metal sheets
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	B mm	C mm	L mm	kg
115.1076	0-50	80,0	40,0	210,0	465
115.1077	0-55	80,0	45,0	250,0	675

### Wide jaw flat die locking pliers with quick-release lever

- Forged gripping jaws
- With serrated locking action
- Size adjustment using the adjustment wheel
- For clamping of flat or bended metal sheets
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	C mm	L mm	B mm	kg
115.2076	0-40	45,0	205,0	80,0	600
115.2077	0-55	45,0	250,0	80,0	800

### Welding gripping pliers

- With malleable cast iron jaws
- Suitable for setting the welding points between the cut outs
- With loosening lever
- Size adjustment using the adjustment wheel
- To hold and adjust sheets and profiles
- With easy locking action
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	C mm	L mm	kg
115.1078	0-45	70,0	220,0	600
115.1079	0-55	70,0	260,0	780

### Welding gripping pliers with quick-release lever

- With malleable cast iron jaws
- Suitable for setting the welding points between the cut outs
- Size adjustment using the adjustment wheel
- To hold and adjust sheets and profiles
- With easy locking action
- Quick-release lever
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



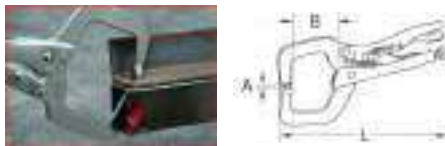
	A mm	C mm	L mm	kg
115.2078	0-45	70,0	220,0	710
115.2079	0-65	70,0	260,0	875





### Welding gripping pliers

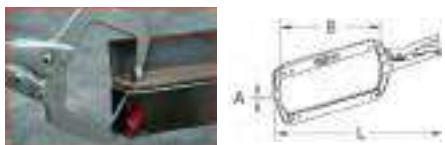
- Forged semi-circular gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	B mm	L mm	kg
115.1070	0-35	40,0	170,0	240

### Welding gripping pliers, extra long

- Round forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Large clamping depth for front and rear panels
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.1072	0-270	250,0	450,0	1,18



### Welding gripping pliers

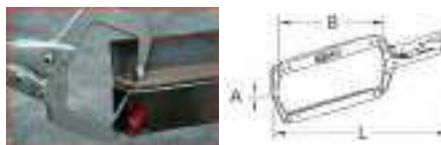
- Very good clamping capacity
- Round forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.1071	0-100	90,0	270,0	780

### Welding gripping pliers, extra long

- Round forged gripping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Large clamping depth for front and rear panels
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum



	A mm	B mm	L mm	kg
115.0573	0-295	415,0	610,0	1,50

### Welding clamp gripping pliers with quick-release lever

- Very good clamping capacity
- Round forged gripping jaws
- Quick-release lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	B mm	L mm	kg
115.2008	0-45	45,0	165,0	300
115.2009	0-90	85,0	280,0	900



### Welding gripping pliers with movable clamping jaws

- Flat gripping jaws
- Movable clamping jaws
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome vanadium



	A mm	B mm	L mm	kg
115.1178	0-25	25,0	125,0	0,15
115.1073	0-35	40,0	170,0	0,24
115.1074	0-100	70,0	285,0	0,78
115.1075	0-270	240,0	420,0	1,25
115.0570	0-420	395,0	610,0	1,54

### Welding gripping pliers with movable clamping jaws

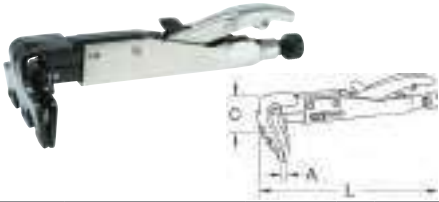
- Flat gripping jaws
- Movable clamping jaws
- Quick-release lever
- With easy locking action
- Size adjustment using the adjustment wheel
- For profiled bulky components
- Good adaptation to existing surfaces
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated
- Chrome molybdenum
- Two component handle



	A mm	B mm	L mm	kg
115.2013	0-30	40,0	175,0	0,30
115.2014	0-85	75,0	290,0	0,85

### Welding gripping pliers

- For applications that need a straight jaw
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for spot welding
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1080	0-20	56,0	205,0	548

### Welding gripping pliers

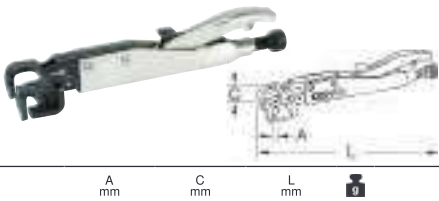
- For applications that required double curved jaws
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for fitting and mounting of body parts
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1081	0-20	39,0	230,0	568

### Welding gripping pliers

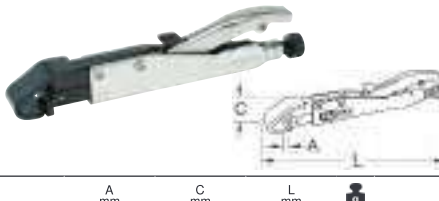
- For applications that required double curved jaws
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- For welding of the hole between the panels
- Also suitable for U-profile
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1082	0-15	26,0	215,0	562

### Welding gripping pliers

- For applications that need a angled jaw
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- Ideal for welding in the fold
- Also suitable for U-profile
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1083	0-20	30,0	210,0	509

### Welding gripping pliers

- For applications that need a straight jaw
- Slim design
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- For right angled terminals in the fold
- For difficult to access areas
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1084	0-16	30,0	195,0	488

### Welding gripping pliers set

- For applications that need a straight jaw
- Extra slim design
- Jaws from special steel
- With easy locking action
- Quick-release lever
- Size adjustment using the adjustment wheel
- For right angled terminals in the fold
- For difficult to access areas
- For welding of the hole between the panels
- Also suitable for U profile
- Ideal for spot welding
- Nickel plated handle
- Chrome molybdenum



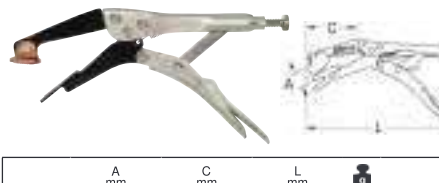
		g
115.1085	5 pcs Welding gripping pliers set	2,62

consists of:

		g
115.1080	Welding self grip pliers, 205 mm	548
115.1081	Welding self grip pliers, 230 mm	568
115.1082	Welding self grip pliers, 215 mm	562
115.1083	Welding self grip pliers, 210 mm	509
115.1084	Welding self grip pliers, 195 mm	488

### Welding gripping pliers

- Flat gripping jaws
- Movable clamping jaws
- Serrated execution
- No sticking to the electrode
- Quick-release lever
- With easy locking action
- Good adaptation to existing surfaces
- Copper alloy clamping jaws
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Nickel plated handle
- Chrome molybdenum



	A mm	C mm	L mm	g
115.1180	0-70	85,0	240,0	500

### Special clamping gripping pliers

- For the cutting of plastic pipes
- Enormous time and cost saving
- Suitable for narrow hard to access areas
- Versatile use
- With loosening lever
- With easy locking action
- Size adjustment using the adjustment wheel
- Black lacquer
- Chrome molybdenum



	Size mm	Ø mm	Length mm	g
450.0350	1	8 / 9 / 10 / 11 / 12	260,0	775
450.0351	2	7 / 9 / 10 / 12 / 14	265,0	775
450.0352	3	15 / 16 / 18	255,0	636

### RIVETING PLIERS

#### Plastic rivet pliers set included rivets

- Suitable for plastic rivets
- Narrow head pliers
- Can be used in hard to access areas
- 90° angled rivet head
- With rubber grip
- Includes 40 plastic rivets
- Die-cast metal body

Plastic rivets: 5.0x15.8 - 5.0x17.2 - 6.3x25.2 - 6.6x17.2 mm



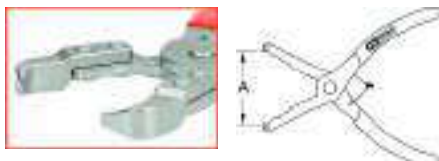
		g
150.9650	41 pcs Plastic rivet pliers set included rivets	760

consists of:

		g
150.9651	Plastic rivet pliers	580
150.9652	Replacement rivets pack of 10, 17,2x6,6mm	20
150.9653	Replacement rivets pack of 10, 25,2x6,3mm	22
150.9654	Replacement rivets pack of 10, 17,2x5mm	15
150.9655	Replacement rivets pack of 10, 15,8x5mm	16

### Push pin pliers, straight

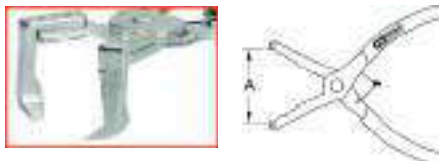
- for the removal of reusable plastic rivets, push rivets and clips
- removes the pin and anchor without damage
- angled tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



Form	A mm	Length mm		
911.8181	straight	0-35	185,0	190

### Push pin pliers, angled

- for the removal of reusable plastic rivets, push rivets and clips
- removes the pin and anchor without damage
- angled tips
- Self opening
- With PVC dipped handle
- Chrome vanadium



Form	A mm	Length mm		
911.8182	angled	0-28	175,0	200

### Anchor rivet pliers

- Suitable for anchor rivets
- With PVC dipped handle
- Die-cast metal body

Anchor rivets: 4 - 5 - 6 - 8 mm (5/32" - 3/16" - 15/64" - 5/16")

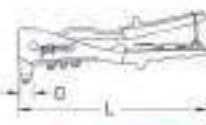


A mm	L mm		
150.9580	30,0	230,0	438

### Standard hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Magazine and key in the riveter body
- Narrow head pliers
- With safety lock on the handle end
- With rubber grip
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



D mm	L mm		
150.9510	21,0	270,0	920

### Standard hand riveting tool set

- Suitable for blind rivets
- Four interchangeable mouthpieces
- Magazine and key in the riveter body
- Includes 200 blind rivets
- With rubber grip
- Die-cast metal body

Blind rivets: 2,4 - 3,2 - 4,0 - 4,8 mm



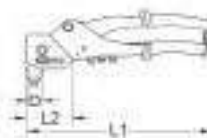
150.9520	205 pcs	Standard hand riveting tool set	1,25

### Hand rivet tool

- Suitable for blind rivets
- 360° rotating head
- For difficult to access areas
- Narrow head pliers
- With safety lock on the handle end
- Including four interchangeable mouthpieces
- Die-cast metal body

Blind rivets, aluminium: 2,4 - 3,2 - 4,0 - 4,8 mm

Blind rivets, steel: 2,4 - 3,2 - 4,0 - 4,8 mm



D mm	L1 mm	L2 mm		
150.9540	21,0	290,0	70,0	751

### Universal hand riveting tool set

- Suitable for blind rivets, blind rivet nuts and hollow metal dowels
- 360° rotating head
- For difficult to access areas
- Four interchangeable mouthpieces and nut rivet pulling inserts
- Die-cast metal body

Blind rivets: 2.4mm-3.2mm-4.0mm-4.8mm

Rivet nuts: M3-M4-M5-M6

Cavity metal dowels: 3.0 - 6.0 mm



150.9610	10 pcs	Universal hand riveting tool set	1,96

### Hand rivet tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- No tool necessary to change the mouthpieces
- Low effort due to innovative lever technology
- Narrow head pliers
- With safety lock on the handle end
- With rubber grip
- Body made of special tool steel

Blind rivets, aluminium: 2,4 - 3,2 - 4,0 - 4,8 mm

Blind rivets, steel: 2,4 - 3,2 - 4,0 - 4,8 mm



max rivet ø mm	L mm	D mm		
150.9605	4,8	200,0	22,0	520

### Hand rivet tool

- Suitable for blind rivets
- Including five interchangeable mouthpieces
- No tool necessary to change the mouthpieces
- Low effort due to innovative lever technology
- Narrow head pliers
- With collecting container for rivet mandrel
- With rubber grip
- Body made of special tool steel

Blind rivets, aluminium: 2,4 - 3,2 - 4,0 - 4,8 - 6,4 mm

Blind rivets, steel: 2,4 - 3,2 - 4,0 - 4,8 mm



max rivet ø mm	L1 mm	L2 mm	D mm		
150.9625	6,4	315,0	40,0	23,0	920

### 3 in 1 riveting tool set

- Suitable for blind rivets, blind rivet nuts and ribbing
- With 2 ribbing inserts
- Including 5 interchangeable mouthpieces and 6 interchangeable rivet nut pulling spindles
- No tool necessary to change the mouthpieces
- Low effort due to innovative lever technology
- Narrow head pliers
- With rubber grip
- Body made of special tool steel

Blind rivets, aluminum: 2.4 - 3.2 - 4.0 - 4.8 - 6.4 mm  
Blind rivets, steel: 2.4 - 3.2 - 4.0 - 4.8 mm  
Rivet nuts: M3 - M4 - M5 - M6 - M8 - M10



152.9000		15 pcs	3 in 1 riveting tool set	2.67
1 x		290 mm		
5 x		2.4 - 3.2 - 4.0 - 4.8 - 6.4 mm		
6 x		M3 - M4 - M5 - M6 - M8 - M10		
1 x				
1 x				

### Long arm hand riveting tool

- Suitable for blind rivets
- Including four interchangeable mouthpieces
- Extra-long lever arms
- High power transmission
- Magazine and key in the riveter body
- With rubber grip
- Die-cast metal body

Blind rivets: 2.4 - 3.2 - 4.0 - 4.8 mm



D mm	L1 mm	L2 mm	Icon
152.9300	21.0	413.0	1.30

### Universal riveting tool

- Suitable for blind rivets, blind rivet nuts and hollow metal dowels
- Retractable legs for increased power consumption
- Mouthpiece magazine integrated in the handle
- Two component handle
- Die-cast metal body

Blind rivets: 2.4 - 3.2 - 4.0 - 4.8 - 6.4 mm



D mm	L1 mm	L2 mm	Icon
152.9000	30.0	212.0	1.30

### Universal riveting tool set

- Suitable for blind rivets, blind rivet nuts and hollow metal dowels
- Retractable legs for increased power consumption
- Mouthpiece magazine integrated in the handle
- Two component handle
- Die-cast metal body

Blind rivets: 2.4 - 3.2 - 4.0 - 4.8 - 6.4 mm  
Rivet nuts: M4 - M5 - M6 - M8 - M10



152.9030		17 pcs	Universal riveting tool set	2.67
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consists of:

150.9570		Mouthpiece for riveting 2.4mm	10
150.9571		Mouthpiece for riveting 3.2mm	10
150.9572		Mouthpiece for riveting 4.0mm	10
150.9573		Mouthpiece for riveting 4.8mm	10
150.9574		Mouthpiece for riveting 6.4mm	10
150.9608-1		Collection cassette for 150.9608	100
150.9632		Replacement (ref) heads for magazine 150.9630	40
150.9634		Rivet nut pulling spindle for riveting tools 152.9630, M4	40
150.9635		Rivet nut pulling spindle for riveting tools 152.9630, M5	40
150.9636		Rivet nut pulling spindle for riveting tools 152.9630, M6	40
150.9607		Universal riveting tool, 315 mm	1000
150.9638		Rivet nut pulling spindle for riveting tools 152.9630, M8	70
150.9640		Rivet nut pulling spindle for riveting tools 152.9630, M10	70
150.9642		Combination spanner 8.5 - 5.5 mm, for 152.9630	15
150.9643		Combination spanner 17 - 12 mm, for 152.9630	20
150.9644		Combination spanner 18 - 15 mm, for 152.9630	20
151.2028		Hexagon key wrench, short, 3 mm	30

### CRIMPING PLIERS

#### Wire and ferrule pliers

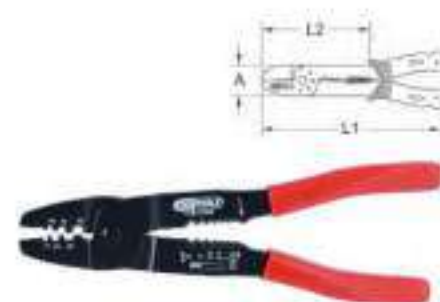
- For cable cutting and wire stripping
- For the proper crimping of legs and plug connectors
- Suitable for insulated and non-insulated cable end sleeves
- Ideal leverage
- Easy solderless pressing on in one work step
- With PVC dipped handle
- Pliers body made of flat steel



D mm	L1 mm	L2 mm	Icon
118.1236	62.5 - 25	155.0	305
118.1237	6.5 - 18.0	222.0	240

### Crimp pliers for not insulated, opened cable connector

- Ideally suited for connecting not insulated contacts
- For stripping of wires from 0.5 - 6.0 mm<sup>2</sup>
- Cut wires up to 6.0 mm<sup>2</sup>
- For crimping blade terminals 2.5 / 4.8 / 6.0 mm and other contacts with open crimp sleeves
- With PVC dipped handle
- Pliers body from special steel
- Material strength 3 mm



A mm	L1 mm	L2 mm	Icon
118.1200	30.0	202.0	100

### Multifunction pliers for insulated and non insulated cable terminals

- For professional cable cutting and stripping wires from 0.75 - 6.0 mm<sup>2</sup>
- For crimping cable terminals and connectors from 1.5 - 6.0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel



A mm	L1 mm	L2 mm	Icon
118.1201	41.0	229.0	210

### Multifunction crimping pliers set

- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0.75 - 6.0 mm<sup>2</sup>
- For crimping cable terminals and connectors from 1.5 - 6.0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable plastic storage case



118.1220		271 pcs	Multifunction crimping pliers set	140
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### 5-in-1 crimping pliers with bent handle

- Versatile long-nose pliers to crimp, strip, cut, bend and shape
- Serrated jaws
- Perfect for stripping and crimping wires
- With integrated screw extractor and wire cutters
- Ergonomic design
- Perfect for hard-to-reach places
- Extremely robust and reliable
- Optimum power transmission with rotary and train movements
- With PVC dipped handle
- Chrome vanadium



	Ø mm	AWG	L1 mm	L2 mm	
115.1238	0,3 - 6,0	10/12/14/16/18/20/22	190,0	110,0	280

### Crimping pliers for non insulated terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1425	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220,0	50,0	34,0	115.1415 491

### Crimping pliers for insulated terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1430	1,5/2,5/6,0/10,0	20-18/16-14/12-10/8	220,0	50,0	34,0	115.1416 487

### Crimping pliers for pin terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1440	0,5/0,75/1,0/1,5/2,5/4,0	22/20/18/16-14/12-10	220,0	50,0	34,0	115.1418 499
115.1450	6,0/10,0/16,0	10/8/6	220,0	50,0	34,0	115.1420 499

### Crimping pliers for spade terminals

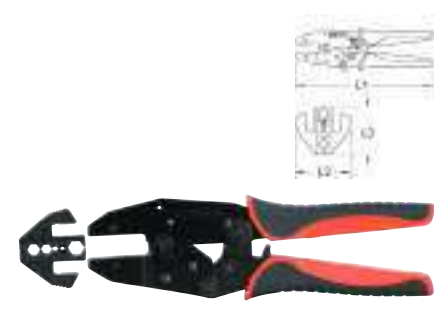
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1435	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220,0	50,0	34,0	115.1417 499
115.1455	2,5/10,5/6,0/10,0	14-22/8-6	220,0	50,0	34,0	115.1421 505

### Crimping pliers for coaxial terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1445	1,7/2,5/0,5,4/0,8,2/3	RG58/RG59/RG62	220,0	50,0	34,0	115.1419 491

### Crimping pliers for Western terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy change of crimp inserts
- Through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1460	RJ22	22-24	220,0	50,0	34,0	115.1422 500
115.1465	RJ11/RJ12	22-24	220,0	50,0	34,0	115.1423 505
115.1470	RJ45	22-24	220,0	50,0	34,0	115.1424 505

### Electricians crimping pliers set

- Ideal configuration for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel



	Ø mm²	AWG	L1 mm	L2 mm	L3 mm	
115.1480	3 pcs	Electricians crimping pliers set				910

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B



### Net working crimping pliers set

- Ideal configuration for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



		kg	
115.1490	5 pcs	Net working crimping pliers set	1,05
1 x		220 mm	
1 x		AWG: 22 - 14 - 6 - 8, H	
1 x		AWG: 22 - 24, G1	
1 x		AWG: 22 - 24, G2	
1 x		AWG: 22 - 24, G3	

### Crimping pliers for Solarlok

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	kg
115.1520	6,0 / 4,0 / 2,5 / 1,5	10 - 15	220,0	50,0 34,0	115.1412 540

### Crimping plier for solar coupler MC 3

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	kg
115.1521	4,0 / 6,0 / 2,5	12 / 10 / 14	220,0	50,0 34,0	115.1413 545

### Crimping pliers for solar coupler MC 4

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	kg
115.1522	2,5 / 4,0 / 6,0	14 / 12 / 10	220,0	50,0 34,0	115.1414 550

### Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping tool
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel
- Including self-closing and damage-free automatic wire stripper



		kg	
115.1400	283 pcs	Universal crimping tool set with automatic wire stripper	2,37
1 x		220 mm	
1 x		Ø 0,5 - 4,0 mm, H	
1 x		Ø 1,5 - 10,0 mm, B	
1 x		Ø 0,5 - 6,0 mm, C	
1 x		Ø 0,5 - 4,0 mm, D	
1 x		RG 58 - RG 71, E	
1 x		1,0 - 3,2 mm	
1 x			

### WIRE PROCESSING PLIERS

#### Wire twisting pliers

- Anticlockwise
- Serrated execution
- 30° angled jaws
- With additional cutting
- Enables precise, in seconds wire twisting
- Suitable for wire up to 1,0 mm
- Narrow nose for optimal mobility
- Burnished
- Special tool steel



	B mm	L1 mm	L2 mm	S mm	kg
116.1301	10,0	215,0	40,0	10,0	230
116.1302	12,0	265,0	60,0	13,0	360

#### Rabbit pliers

- In accordance to DIN ISO 9242
- With PVC dipped handle
- Ground heads
- For cutting and twisting tie wire
- Oil-hardened
- Black surface
- Special tool steel



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	kg
116.1404	18,0	19,0	26,0	190,0	17,0	350
116.1401	20,0	19,0	29,0	220,0	17,0	400
116.1400	25,0	20,0	36,0	250,0	17,0	400
116.1403	26,0	20,0	37,0	280,0	17,0	500

#### Heavy pincers

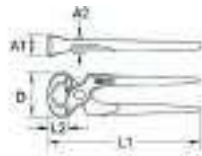
- In accordance to DIN ISO 9243
- With PVC dipped handle
- Ground heads
- For heavy applications
- Oil-hardened
- Black surface
- Special tool steel



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	kg
116.1300	24,0	23,0	52,0	200,0	23,0	410

### Self opening Rabitz pliers

- In accordance to DIN ISO 9242
- With PVC dipped handle
- Ground heads
- Self-opening handle with internal spring
- For cutting and twisting tie wire
- Oil-hardened
- Black surface
- Special tool steel



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	kg
116.1411	23,0	20,0	30,0	220,0	17,0	400
116.1410	27,0	22,0	36,0	250,0	19,0	400
116.1412	25,0	21,0	35,0	280,0	18,0	400

### BOLT CUTTERS

#### Mini bolt cutter, self-releasing

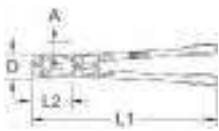
- Cutting performance up to ~64 HRC
- Cutter head made of high quality special steel
- Induction-hardened precision cutting
- Two component handle
- Phosphate finish
- Chrome molybdenum



	L mm	S mm	D mm	A mm	kg
119.0005	215,0	23	38,0	17,0	350

#### Bolt cutters

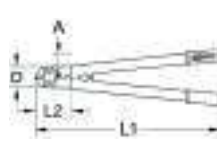
- Cutting performance up to 40 HRC
- With pipe handle
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Induction-hardened precision cutting
- Phosphate finish
- Special tool steel



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	kg
118.0118	20,0	65,0	450,0	115,0	118.0119	1,50
118.0124	22,0	85,0	600,0	136,0	118.0125	2,50
118.0130	27,0	95,0	750,0	155,0	118.0131	4,88
118.0136	35,0	110,0	900,0	170,0	118.0137	6,70
118.0142	40,0	120,0	1050,0	195,0	118.0143	6,70

### Bolt cutters

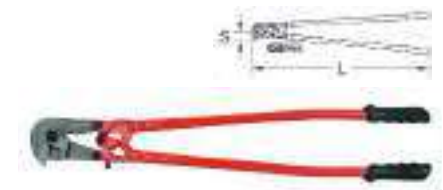
- Cutting performance up to 40 HRC
- With forged arms
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Induction-hardened precision cutting
- Phosphate finish
- Special tool steel



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	kg
118.0218	20,0	65,0	460,0	120,0	118.0119	2,60
118.0224	25,0	82,0	610,0	135,0	118.0125	2,90
118.0230	30,0	95,0	760,0	155,0	118.0131	3,20
118.0236	35,0	110,0	900,0	170,0	118.0137	5,40

#### Reinforcement steel mesh cutter

- Cutting performance up to 40 HRC
- With adjustable cutters
- Low separating force effort
- Limit stop with extra-large buffer area
- Unproblematic gripping of flat lying construction steels



	S mm	L mm	kg
118.0246	45,0	820,0	2,79

### SADDLER PLIERS

#### Upholstery clamp pliers set

- Straps for attaching bolster clamps to vehicle seats
- For all common bolster clamps
- Includes 100 clamps
- With PVC dipped handle
- Chrome vanadium



	kg
118.0160 101 pcs Upholstery clamp pliers set	310

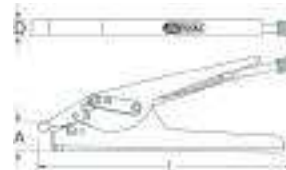
consists of:

	kg
118.0161 Clamps, 100 pcs	85
118.0162 Seat clamp pliers	180

### CABLE TIE GUNS

#### Cable tie gun

- Ideally suited for tensioning and flush cutting of plastic cable ties
- For plastic cable ties from 2.4 to 9.0 mm width
- Stepless tension force adjustment
- Special tool steel



	A mm	D mm	L mm	kg
115.1027	17,0	19,0	190,0	210

### REVOLVING PUNCH PLIERS

#### Revolving punch pliers

- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium



	L1 mm	L2 mm	kg
118.0041	220,0	10,0	325

#### Revolving punch and eyelet pliers

- Ideal for working with eyelets
- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium



	L1 mm	L2 mm	kg
118.0042	220,0	10,0	325

### Revolving punch pliers, normal hand

- Up to 70% power savings
- With an ergonomic, molded handle
- With inspection panel
- Automatic locking device
- Interchangeable hole punches
- Nickel plated
- Chrome vanadium



	L1 mm	L2 mm	
118.0043	250,0	10,0	430

### Joggler pliers

- Self opening
- For punching straight and bent sheet metal
- Up to 1.25 mm thickness
- Radius to 40,0 mm
- Hole diameter 5 mm
- Lower power usage
- Special tool steel



	L mm	hole diameter	
118.0057	300,0	max. 5 mm	1,00

### Seaming pliers

- For folding of sheet metal
- 45° angled jaws
- Insulated handle
- Cast iron



	L mm	B mm	
222.1602	260,0	52,0	670

## PUNCHED HOLE AND JOGGLER PLIERS

### Mini jogger pliers

- Self opening
- For the flanging of sheet metal and body parts
- Up to 1 mm thickness
- Particularly suitable for thin sheet metal edges, curves and arches
- Lower power usage
- Hardened flanging jaws
- Special tool steel



	L mm	T mm	
118.0056	220,0	13,0	900

### Punched hole and jogger pliers

- Self opening
- Fast conversion by simply turning the head
- For the flanging and punching sheet metal and body parts
- Punching up to 1,25 mm thickness
- Hole diameter 5 mm
- Lower power usage
- Special tool steel



	L mm	T mm	hole diameter	
118.0055	285,0	13,0	max. 5 mm	1,23

### Seaming pliers

- For folding of sheet metal
- 90° angled jaws
- Insulated handle
- Cast iron



	L mm	B mm	
222.1603	260,0	52,0	760

## PIPE PULL-IN PLIERS

### Pipe pull-in pliers, angled

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Embossing punch for all round and square pipes
- Optimised utilisation through angled head
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



	Length mm	
123.0051	225,0	440

### Joggler pliers

- Self opening
- For the flanging of sheet metal and body parts
- Up to 1 mm thickness
- Lower power usage
- Hardened flanging jaws
- Special tool steel



	L mm	T mm	
118.0058	280,0	13,0	1,00

## PLUMBER PLIERS

### Seaming pliers

- For folding of sheet metal
- Straight design
- Insulated handle
- Cast iron



	L mm	B mm	
222.1601	280,0	52,0	660



### Pipe pull-in pliers, straight

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Embossing punch for all round and square pipes
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



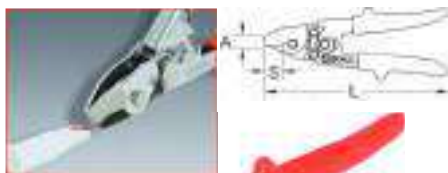
	Length mm	
123.0050	265,0	480



### CARTRIDGE TIP PLIERS

#### Cartridge tip pliers

- Ideally suited to cut the ejection nozzle of cartridges or bags as required
- With toothed cutting blade made from solid steel
- Safety locking device
- Allows for the required V cut for windscreen seals and therefore optimised adhesive trim
- Easy to use
- With PVC dipped handle
- Chrome vanadium



	A mm	L mm	S mm	
140.2220	33,0	210,0	20,0	420



### HOSE STRP CUTTER PLIERS

#### Hose strap cutter, angled

- For cutting off earless hose clamps
- For connections on axle boots, cooler and fuel hoses
- Insulated handle
- Chrome vanadium



	Length mm	
115.1186	220,0	345

### SOLDERING WIRE HOLDING FORCEPS

#### Soldering wire pliers

- For the safe fixing of braded wire
- Prevents kinking of the solder connection
- The locking device of the pliers means that these can be stored so that both hands are free for soldering
- No more burning fingers
- Slim design for hard-to-access areas
- Adjustable arm for optimal application
- With self opening internal spring
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



	A mm	C mm	L mm	
115.1052	9-74	65,0	245,0	260

### SPARK PLUG CONNECTOR PLIERS

#### Spark plug connector double joint pliers, long

- Long design specially for engines with deep seating of the spark plugs
- Universal usage
- Ideal for heat protection connectors
- Double joint means the pliers require less space to open and grab
- 45° angled gripper sleeves
- Secure handling thanks to plier tips with milled inner profile
- Very long plier arms
- Wide safety clearance to the hot unit
- For damage-free removal and insertion of spark plug connectors, even when the engine is warm
- With PVC dipped handle
- Chrome vanadium



	Ø mm	Length mm	
500.7166	8,0	340,0	400
500.7167	13,0	340,0	400
500.7205	19,0	320,0	420



### CIRCUIT STOPPER PLIERS

#### Hose clamp gripper

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 60.0 mm (2.3/8")
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 °C
- Special plastic



	Hose externap-Ø mm	
115.5052	15,0	80
115.5053	30,0	130
115.5054	60,0	160

### Hose clamp plier set

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 60.0 mm (2.3/8")
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 °C
- Special plastic



115.5050	3 pcs Hose clamp plier set	370	

consists of:

115.5052	Hose clamp gripper, 15mm	80	
115.5053	Hose clamp gripper, 30mm	130	
115.5054	Hose clamp gripper, 60mm	160	

### Hose clamp pliers 90°

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 35.0 mm (1.3/8")
- Angled design for use in confined spaces
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 °C
- Special plastic



	Hose external-Ø mm		
115.5057	15,0	55	
115.5058	23,0	95	
115.5059	35,0	130	



### Hose clamp pliers set, 90° angled

- For simple clamping of flexible for hoses from 15.9 mm (5/8") up to 35.0 mm (1.3/8")
- Angled design for use in confined spaces
- For stopping the flow
- The hose is a broad area squeezed against the stable support surface, damaging the hose is avoided
- Variable adjustment with locking function
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Heat resistant up to 160 °C
- Special plastic



115.5055	3 pcs Hose clamp pliers set, 90° angled	370	

consists of:

115.5057	Hose clamp gripper 90°, Ø 15mm	55	
115.5058	Hose clamp gripper 90°, Ø 23mm	95	
115.5059	Hose clamp gripper 90°, Ø 35mm	130	

### Stepless hose clamp pliers, angled

- Stepless
- To simply clamp flexible hose lines of 20.0 to 74.0 mm
- For stopping the flow
- The hose is squeezed against the stable bearing area, any damage to the hose is avoided
- Flexible jaws enable universal use
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Burnished
- Special tool steel



	Hose external-Ø mm		
115.5012	20,0	70	
115.5013	35,0	320	
115.5014	74,0	505	

### Stepless hose clamp-off pliers set, angled

- Stepless
- To simply clamp flexible hose lines of 20.0 to 74.0 mm
- For stopping the flow
- The hose is squeezed against the stable bearing area, any damage to the hose is avoided
- Flexible jaws enable universal use
- Prevents petrol, oil, water and radiator anti-freeze from escaping during maintenance work
- Ideal for use in passenger cars, vans and large vans, commercial vehicles, tractors, agricultural machinery, construction machinery and industrial applications
- Burnished
- Special tool steel



115.5010	3 pcs Stepless hose clamp-off pliers set, angled	895	

consists of:

115.5012	Stepless hose clamp pliers, angled, Ø 20.0 mm	70	
115.5013	Stepless hose clamp pliers, angled, Ø 35.0 mm	320	
115.5014	Stepless hose clamp pliers, angled, Ø 74.0 mm	505	





**KS TOOLS**

*Innovation is  
our mission!*

**PLIERS**

**CLASSIC**

**ERGOTORQUE**

**ULTIMATE**

**GRIP Xtreme**



PRECISION TOOLS



Innovation is  
our mission!

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## MAGNETIC LIFTER

### 2in1 telescopic magnetic holder with washing nozzle cleaning and adjustment tool

- Load capacity to 0.5 kg
- With telescopic function
- Practical service tool
- With sturdy, scriber-like centre
- With narrow cleaning rod
- Ideally suited to the cleaning and adjustment of windscreen washer nozzles
- Also suited to the adjustment of headlight washer nozzles
- With mounting clip for breast pocket
- Includes protective covers
- Aluminium



	Head Ø mm	Length mm	
550.1001	8,0	150,0 - 675,0	25

### Telescopic magnetic lifter

- Load capacity to 1.5 kg
- Magnet power raised 35% due to energy safety cap
- Stainless steel



	Head Ø mm	Length mm	
550.1004	13,0	178,0 - 675,0	70

### Telescopic magnetic lifter

- Load capacity to 1.5 kg
- With telescopic function
- Magnet power raised 35% due to energy safety cap
- Stainless steel



	Head Ø mm	Length mm	
550.1002	18,0	178,0 - 665,0	80

### Telescopic magnetic lifter

- Load capacity to 2 kg
- With telescopic function
- Clip for the breast pocket
- Special tool steel



	Head Ø mm	Length mm	
550.1000	13,0	130,0 - 630,0	30

### Telescopic magnetic lifter

- Load capacity to 5 kg
- With rotary head
- With telescopic function
- Magnet power raised 35% due to energy safety cap
- Stainless steel



	Head Ø mm	Length mm	
550.1003	18,0	200,0 - 700,0	90

### Flexible magnetic holder

- Load capacity to 200 g
- Flexible shaft
- 4 mm with a very thin magnetic seat
- One component handle



	Length mm	
550.1032	400,0	20

### Flexible magnet lifter

- Load capacity to 2 kg
- Detachable inner cover
- Magnet power raised 35% due to energy safety cap
- Special tool steel



	Head Ø mm	Length mm	
550.1010	10,0	585,0	130



### 2in1 telescopic magnetic jack with washing nozzle cleaning and adjustment tool

- Load capacity to 2.5 kg
- With telescopic function
- With flexible magnetic head
- Practical service tool
- With sturdy, scriber-like centre
- With narrow cleaning rod
- Ideally suited to the cleaning and adjustment of windscreen washer nozzles
- Also suited to the adjustment of headlight washer nozzles
- With mounting clip for breast pocket
- Includes protective covers
- Aluminium



	Head Ø mm	Length mm	
550.1023	11,0	150,0 - 590,0	60



### Flexible magnet lifter

- Flexible shaft
- Two component handle
- Special tool steel



	Load capacity kg	Head Ø mm	Length mm	
550.1025	1	13,0	510,0	185
550.1026	2	16,0	510,0	200
550.1027	3	19,0	510,0	200

## CLAW GRIP

### Flexible pick up tool

- Flexible
- Circular diameter max. 20.0 mm
- Stainless steel



	Ø mm	Length mm	
550.1301	20	600,0	150

## INSPECTION MIRRORS WITHOUT ILLUMINATION

### Search mirror with protective insulation

- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



	Ø mm	Length mm		
117.1630	22	175,0		20

### Mechanics mirror

- For visual monitoring and troubleshooting
- Ideal for difficult to access areas
- Special tool steel



	D mm	L mm	
118.0086	12,0	130,0	4
118.0087	21,0	130,0	9
118.0088	27,0	130,0	16

### Telescopic magnifying glass

- With telescopic function
- Single ball joint
- 360° revolving
- Impact proof acrylic glass
- Special tool steel



	Width mm	Height mm	Length mm	
550.1009	44,0	63,5	178,0 - 660,0	50

### Telescopic mechanics mirror

- With telescopic function
- For visual monitoring and troubleshooting
- Double ball joint
- Head swiveling in all directions
- Clip for the breast pocket
- Ideal for difficult to access areas
- Special tool steel



	D mm	L mm	
550.1030	32,0	178 - 530	40

### Telescopic inspection mirror

- With telescopic function
- For visual monitoring and troubleshooting
- Single ball joint
- Head swivels in all directions
- Impact resistant mirror
- Stainless steel



	Width mm	Height mm	Length mm	
550.1007	45,0	63,0	178,0 - 675,0	100

### Telescopic inspection mirror

- With telescopic function
- For visual monitoring and troubleshooting
- Single ball joint
- Mirror out of stainless steel with plate-glass
- Stainless steel



	Width mm	Height mm	Length mm	
550.1019	57,0	63,0	178,0 - 630,0	100

### Telescopic inspection mirror

- With telescopic function
- For visual monitoring and troubleshooting
- Single ball joint
- Stainless steel mirror



	Width mm	Height mm	Length mm	
550.1021	57,0	95,0	195,0 - 685,0	100

### Magnetic welding mirrors

- Mirror chrome
- Flexible arm
- Special tool steel



	B mm	L1 mm	L2 mm	
903.6000	70,0	500,0	80,0	470

### Flexible inspection mirror

- Flexible arm
- adjustable by pressing the button
- Special tool steel



	B mm	L1 mm	L2 mm	
500.7823	45,0	495,0	70,0	225

### Telescopic set

- With telescopic function
- Telescopic-Magnet up to 1.5 kg
- Magnet power raised 35% due to energy safety cap
- Telescopic-Inspection mirror, 45.0 x 63.0 mm
- Length 178,0-860,0 mm
- Special tool steel
- In durable plastic storage case



550.1102	2 pcs Telescopic set	280

### consists of:

550.1007	Telescopic inspection mirror, 178-675mm, 45x63mm	100
550.1002	Telescopic magnetic lifter Øhead=18mm, 178-665mm	80

## INSPECTION MIRROR WITH LIGHTING

### Flexible inspection lamp with magnet and mirror

- Ideal for very long network independent working
- Halogen lamp
- Flexible long shaft, 400 mm
- With optional attachable flexible mirror (20 x 35 mm)
- With optional clip-on light-flooded magnet
- Includes extension 500 mm
- Approx. 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing



	Length mm	Ø mm	Spare tools	
550.1138	600,0	7,0	550.1188	215

### Flexible inspection mirror with lighting

- Ideal for very long network independent working
- LED light source
- For visual monitoring and troubleshooting
- Double ball joint
- Approx. 60 hours lamp duration
- 1 x CR2032 battery included
- Impact proof housing



#### Technical data:

Illumination period max: 60 hour  
Light source: LED

	Length mm	Width mm	Height mm	
550.1136	285,0 - 875,0	50,0	80,0	85

### HOOK TOOLS

#### Hook, 90° short, 180° short

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1041	Hook, 90° short, 180° short	11

#### Hook, 45° long, 90° long

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1042	Hook, 45° long, 90° long	11

#### Hook tool set

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1040	2 pcs Hook tool set	30

#### consists of:

550.1041	Hook, 90° short, 180° short bent	11
550.1042	Hook, 45° long, 90° long	11

### Magnet and hook tool set

- Ideal for removing and use of O rings and seals
- With telescopic magnet attachment and replaceable hook
- Storage compartment in the handle for the various attachments
- Special tool steel



550.1080	6 pcs Magnet and hook tool set	70

#### consists of:

550.1081	Basic unit	35
550.1082	Telescopic magnet attachment, 90-390 mm	13
550.1083	Hook attachment, straight, 75 mm	5
550.1084	Hook attachment, 90°, 75 mm	5
550.1085	Hook attachment, 120°, 75 mm	5
550.1086	Hook attachment, lateral bend, 75 mm	5

#### Hook, straight

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1046	60,0	27

#### Hook, 45°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1047	60,0	27

#### Hook, 90°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1048	60,0	27

### Hook, 135°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1049	60,0	27

### Hook, straight

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1071	215,0	91

### Hook, 90°

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1072	240,0	105

### Hook, sickle

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1073	185,0	88

### Hook tool set

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1045	4 pcs Hook tool set	120



550.1045	4 pcs Hook tool set	120

#### consists of:

550.1046	Hook, straight	27
550.1047	Hook, 45° offset	27
550.1048	Hook, 90° offset	27
550.1049	Hook, 135° bent	27



**Master hook tool set**

- Ideal for removing and use of O rings and seals
- Special tool steel



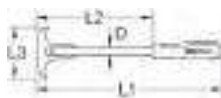
550.1070	9 pcs	Master hook tool set	680
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consists of:

550.1046	Hook, straight	27
550.1047	Hook, 45° offset	27
550.1048	Hook, 90° offset	27
550.1049	Hook, 135° bent	27
550.1071	Hook, large, straight	91
550.1072	Hook, large, 90° bent	105
550.1073	Hook, large, sickle	88
550.1074	T hook, S form small, 120mm	42
550.1075	T hook, S form large, 165mm	96

**Gasket ring dismantling tool**

- sickle-shaped
- For the removal of washers
- Long durability through hardened leverage
- Universal usage
- Two component handle
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	L3 mm	D mm	
550.1060	300,0	195,0	85,0	12,0	380

**PRECISION SCREWDRIVER**

**4 in 1 Precision mechanical screwdriver for PH screws**

- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- 4 mm special steel bits



911.2171	130,0	PH000 - PH00 - PH0 - PH1	40
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**4 in 1 Precision mechanical screwdriver for PZ screws**

- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- 4 mm special steel bits



911.2172	130,0	PZ000 - PZ00 - PZ0 - PZ1	40
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**4 in 1 Precision mechanical screwdriver for slotted screws**

- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- 4 mm special steel bits



911.2173	130,0	1,5mm - 2,0mm - 2,5mm - 3,0mm	40
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**4 in 1 Precision mechanic screwdriver for Torx screws**

- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- 4 mm special steel bits



911.2174	130,0	T6 - T7 - T8 - T9	40
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**Precision screwdriver set**

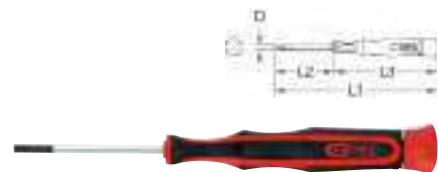
- Reversible interchangeable bits
- Twist end cap
- Clip for the breast pocket
- Plastic handle
- 4 mm special steel bits



911.2175	4 pcs	Precision screwdriver set	150
1 x		PH000 - PH00 - PH0 - PH1	
1 x		PZ000 - PZ00 - PZ0 - PZ1	
1 x		1,5 - 2,0 - 2,5 - 3,0 mm	
1 x		T6 - T7 - T8 - T9	

**Precision screwdriver for slotted screws**

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	D	L1 mm	L2 mm	L3 mm	
500.7701	0,8		145,0	50,0	95,0	10
500.7141	1,0		145,0	50,0	95,0	10
500.7702	1,2		145,0	50,0	95,0	10
500.7108	1,4		145,0	50,0	95,0	10
500.7756	1,8		145,0	50,0	95,0	12
500.7109	2,0		145,0	50,0	95,0	15
500.7759	2,0		195,0	100,0	95,0	15
500.7110	2,4		145,0	50,0	95,0	20
500.7762	2,4		195,0	100,0	95,0	25
500.7111	3,0		145,0	50,0	95,0	20
500.7763	3,0		195,0	100,0	95,0	25
500.7764	3,0		245,0	150,0	95,0	32
500.7713	3,5		145,0	50,0	95,0	20
500.7142	4,0		145,0	50,0	95,0	20
500.7765	4,0		195,0	100,0	95,0	25
500.7766	4,0		245,0	150,0	95,0	32
500.7144		1/16"	145,0	50,0	95,0	10
500.7145		3/32"	145,0	50,0	95,0	10
500.7146		9/64"	145,0	50,0	95,0	20

**Precision screwdriver for phillips screws PH**

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		Ø mm	L1 mm	L2 mm	L3 mm	
500.7126	PH 000	1,6	145,0	50,0	95,0	10
500.7106	PH 00	2,0	145,0	50,0	95,0	15
500.7831	PH 00	2,0	170,0	75,0	95,0	23
500.7107	PH 0	2,4	145,0	50,0	95,0	20
500.7128	PH 1	3,0	145,0	50,0	95,0	20
500.7125	PH 1	3,5	145,0	50,0	95,0	20
500.7129	PH 1	4,0	145,0	50,0	95,0	20
500.7833	PH 1	4,0	170,0	75,0	95,0	18
500.7834	PH 1	4,0	245,0	150,0	95,0	35

**Precision screwdriver for pozidriv screws PZ**

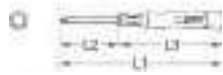
- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		Ø mm	L1 mm	L2 mm	L3 mm	
500.7156	PZ 0	3,0	145,0	50,0	95,0	15
500.7157	PZ 1	4,0	145,0	50,0	95,0	15

### Precision screwdriver for Torx screws

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
500.7726	T1	145,0	50,0	95,0	15
500.7727	T2	145,0	50,0	95,0	15
500.7728	T3	145,0	50,0	95,0	15
500.7729	T4	145,0	50,0	95,0	15
500.7140	T5	145,0	50,0	95,0	10
500.7112	T6	145,0	50,0	95,0	10
500.7113	T7	145,0	50,0	95,0	15
500.7114	T8	145,0	50,0	95,0	20
500.7115	T9	145,0	50,0	95,0	20
500.7116	T10	145,0	50,0	95,0	20
500.7117	T15	145,0	50,0	95,0	25
500.7124	T20	145,0	50,0	95,0	25

### Precision screwdriver for Torx tamperproof screws

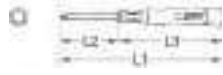
- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
500.7151	TB7	145,0	50,0	95,0	20
500.7152	TB8	145,0	50,0	95,0	20
500.7153	TB9	145,0	50,0	95,0	20
500.7154	TB10	145,0	50,0	95,0	20
500.7155	TB15	145,0	50,0	95,0	25
500.7730	TB20	145,0	50,0	95,0	18

### Precision screwdriver for Torx-PLUS screws

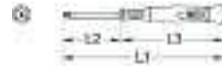
- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
500.7806	IP1	145,0	50,0	95,0	10
500.7807	IP2	145,0	50,0	95,0	10
500.7813	IP4	145,0	50,0	95,0	20
500.7814	IP5	145,0	50,0	95,0	10
500.7815	IP6	145,0	50,0	95,0	20
500.7816	IP7	145,0	50,0	95,0	20
500.7817	IP8	145,0	50,0	95,0	20
500.7818	IP9	145,0	50,0	95,0	20
500.7819	IP10	145,0	50,0	95,0	20
500.7821	IP15	145,0	50,0	95,0	20
500.7822	IP20	145,0	50,0	95,0	20

### Precision screwdriver for Torx-PLUS screws with bore

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



		L1 mm	L2 mm	L3 mm	
500.7808	IPR3	145,0	50,0	95,0	10
500.7809	IPR4	145,0	50,0	95,0	10
500.7811	IPR5	145,0	50,0	95,0	10
500.7812	IPR6	145,0	50,0	95,0	10

### Precision screwdriver for hexagon screws

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



	D mm	D	L1 mm	L2 mm	L3 mm	
500.7721	0,7		145,0	50,0	95,0	10
500.7722	0,9		145,0	50,0	95,0	10
500.7723	1,3		145,0	50,0	95,0	10
500.7119	1,5		145,0	50,0	95,0	10
500.7120	2,0		145,0	50,0	95,0	10
500.7121	2,5		145,0	50,0	95,0	15
500.7122	3,0		145,0	50,0	95,0	20
500.7123	3,5		145,0	50,0	95,0	20
500.7718		0,05"	145,0	50,0	95,0	15
500.7147		1/16"	145,0	50,0	95,0	10
500.7724		5/64"	145,0	50,0	95,0	10
500.7148		3/32"	145,0	50,0	95,0	15
500.7725		7/64"	145,0	50,0	95,0	15
500.7149		1/8"	145,0	50,0	95,0	20

### precision mechanic screwdriver for hexagon socket screws - with ball head

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium



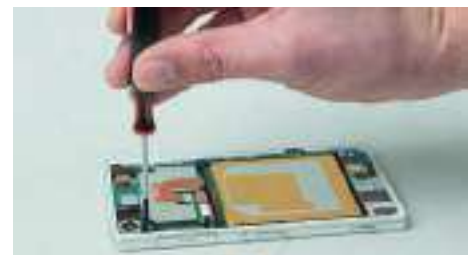
	D mm	D	L1 mm	L2 mm	L3 mm	
500.7779	1,3		145,0	50,0	95,0	14
500.7785	1,5		145,0	50,0	95,0	14
500.7786	2,0		145,0	50,0	95,0	15
500.7787	2,5		145,0	50,0	95,0	17
500.7788	3,0		145,0	50,0	95,0	19
500.7789		1/16"	145,0	50,0	95,0	14
500.7791		5/64"	145,0	50,0	95,0	15
500.7792		3/32"	145,0	50,0	95,0	16
500.7793		7/64"	145,0	50,0	95,0	19
500.7794		1/8"	145,0	50,0	95,0	19
500.7795		9/64"	145,0	50,0	95,0	20
500.7796		5/32"	145,0	50,0	95,0	20

### Precision screwdriver for external hexagon screws

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Blades made from special steel



	D mm	D	L1 mm	L2 mm	L3 mm	
500.7731	1,5		165,0	75,0	90,0	10
500.7767	1,8		165,0	75,0	90,0	10
500.7130	2,0		165,0	75,0	90,0	10
500.7131	2,5		165,0	75,0	90,0	10
500.7132	3,0		165,0	75,0	90,0	15
500.7133	3,2		165,0	75,0	90,0	30
500.7134	3,5		165,0	75,0	90,0	30
500.7135	4,0		165,0	75,0	90,0	30
500.7733	4,5		165,0	75,0	90,0	22
500.7734	5,0		165,0	75,0	90,0	22
500.7735	5,5		165,0	75,0	90,0	25
500.7768	6,0		165,0	75,0	90,0	30
500.7769	7,0		165,0	75,0	90,0	30
500.7136		3/32"	165,0	75,0	90,0	20
500.7137		7/64"	165,0	75,0	90,0	20
500.7738		1/8"	165,0	75,0	90,0	22
500.7138		9/64"	165,0	75,0	90,0	30
500.7771		5/32"	165,0	75,0	90,0	20
500.7139		11/64"	165,0	75,0	90,0	30
500.7772		3/16"	165,0	75,0	90,0	20
500.7773		7/32"	165,0	75,0	90,0	20
500.7774		1/4"	165,0	75,0	90,0	20



### PRECISION SCREWDRIVER SETS

#### Precision screwdriver set Torx

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium
- In durable ABS storage case



500.7160	7 pcs	Precision screwdriver set Torx	100
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	

### Precision screwdriver set PH and slotted

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium
- In durable ABS storage case



500.7165	7 pcs	Precision screwdriver set PH and slotted	100
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	



### Precision screwdriver set PH, slotted and Torx

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case



500.7170	14 pcs	Precision screwdriver set PH, slotted and Torx	200
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	

### Precision screwdriver set

- Electrostatically protect
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Two component handle
- Hardened blade
- Chrome finish with burnished tips
- Blade made of chrome vanadium
- In durable plastic storage case



500.7150	37 pcs	Precision screwdriver set	1,80
6 x		PH000 - PH00 - PH0 x 3,0 - PH0 x 2,0 - PH1 x 3,5 - PH1 x 4,0	
7 x		1,0 - 2,0 - 3,0 - 4,0 mm - 1/16" - 3/32" - 9/64"	
2 x		T5 - T6	
7 x		1,5 - 2,0 - 2,5 - 3,0 - 1/16" - 3/32" - 1/8"	
10 x		2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 - 3/32" - 7/64" - 9/64" - 1.1/64"	
5 x		TB7 - TB8 - TB9 - TB10 - TB15	

### Precision tool set

- Electrostatically protect
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Hardened blade
- Chrome finish with burnished surface
- Two component handle
- Black chrome
- Blades made from special steel



500.7180	10 pcs	Precision tool set	400
1 x		125 mm	
1 x		100 mm	
1 x		145 mm	
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	

### Precision tool set

- Electrostatically protect
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Hardened blade
- Chrome finish with burnished surface
- Two component handle
- Black chrome
- Blades made from special steel



500.7190	21 pcs	Precision tool set	1,40
2 x		125 - 130 mm	
1 x		100 mm	
1 x		100 mm	
1 x		125 mm	
1 x		150 mm	
1 x		145 mm	
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	

### MAGNETIZERS AND DEMAGNETIZERS

#### Magnetizer and demagnetizer

- Easy to use
- To magnetise by pulling the blade through
- To demagnetise by pulling the blade over the recess
- For screwdrivers, tweezers and similar tools made of steel
- Plastic housing



	Width mm	Height mm	Length mm	
550.1126	15,0	20,0	47,0	70

## PRECISION PLIERS

### Mounting clamp pliers

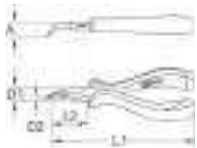
- 3 way adjustable locking
- Toothed gripping surfaces
- Anti glare - no annoying reflection
- Matt finish
- Stainless special steel



	L mm	S mm	
500.7006	140,0	35,0	30
500.7007	160,0	40,0	40

### Precision long nosed pliers, curved

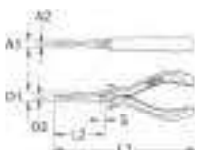
- Electrostatically protect
- Suitable for wire
- 45° curved jaws
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7022	12,0	18,0	7,0	130,0	33,0	80

### Precision telephone pliers

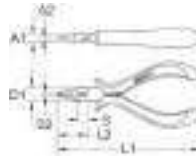
- Electrostatically protect
- Suitable for wire
- Extra long jaws
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
500.7032	7,0	2,0	12,0	3,0	160,0	55,0	8,0	90

### Precision telephone pliers

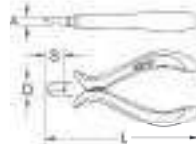
- Electrostatically protect
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
500.7021	7,0	2,0	12,0	3,0	130,0	29,0	8,0	80

### Precision diagonal side cutter

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A mm	D mm	L mm	S mm	
500.7024	7,0	13,0	120,0	15,0	80

### Precision cutting pliers

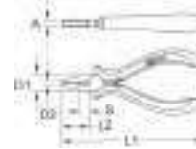
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	
500.7025	18,0	110,0	7,5	14,0	80

### Precision combination pliers

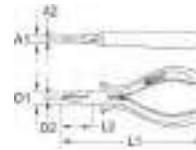
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
500.7030	7,0	10,0	15,0	120,0	22,0	8,0	90

### Precision flat pliers

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7028	7,0	2,0	13,0	3,0	125,0	27,0	80



## PRECISION PLIER SETS

### Precision pliers set

- Electrostatically protect
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Black chrome
- Special tool steel



9			
500.7020	5 pcs	Precision pliers set	420
1 x		130 mm	
1 x		120 mm	
1 x		110 mm	
1 x		120 mm	
1 x		160 mm	

### Precision tool set

- Electrostatically protect
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Hardened blade
- Chrome finish with burnished surface
- Two component handle
- Black chrome
- Blades made from special steel



9			
500.7180	10 pcs	Precision tool set	400
1 x		125 mm	
1 x		100 mm	
1 x		145 mm	
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	

### Precision tool set

- Electrostatically protect
- Includes precision screwdrivers and tweezers
- Suitable for wire
- Serrated execution
- Induction-hardened precision cutting
- Self opening double spring
- Twist end cap
- Ergonomically shaped electronic screwdriver handle
- Hardened blade
- Chrome finish with burnished surface
- Two component handle
- Black chrome
- Blades made from special steel



10			
500.7190	21 pcs	Precision tool set	1,40
2 x		125 - 130 mm	
1 x		100 mm	
1 x		100 mm	
1 x		125 mm	
1 x		150 mm	
1 x		145 mm	
3 x		PH00 - PH0 - PH1	
4 x		1,4 - 2,0 - 2,4 - 3,0 mm	
7 x		T6 - T7 - T8 - T9 - T10 - T15 - T20	



## ESD PRECISION PLIERS

Tweezers can be found in the VDE and general electrician tool kits section.

### ESD long-nose pliers – straight – without cut

- Electrostatically protect
- Suitable for wire
- Short, straight jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	9
500.7064	6,5	1,0	10,0	2,0	130,0	23,0	62

### ESD long-nose pliers – straight – with cut

- Electrostatically protect
- Suitable for wire
- Short, straight jaws
- With cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	9
500.7065	6,5	1,0	10,0	2,0	130,0	23,0	62

### ESD long-nose pliers – curved – without cut

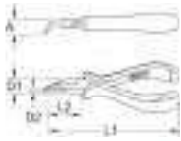
- Electrostatically protect
- Suitable for wire
- Short, curved jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	9
500.7066	10,0	10,0	2,0	130,0	20,0	62

### ESD long-nose pliers – curved – with cut

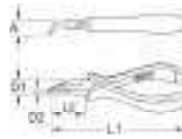
- Electrostatically protect
- Suitable for wire
- Short, curved jaws
- With cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7067	10,0	10,0	2,0	130,0	20,0	62

### ESD long-nose pliers – curved – without cut

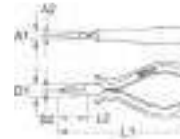
- Electrostatically protect
- Suitable for wire
- Long, curved jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7070	14,0	10,0	2,0	140,0	26,0	62
500.7073	20,0	12,5	2,4	155,0	33,0	93

### ESD flat pliers

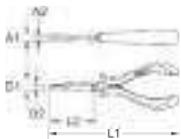
- Electrostatically protect
- Suitable for wire
- Short jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7075	6,5	3,5	10,0	1,5	130,0	22,0	61

### ESD long-nose pliers – straight – without cut

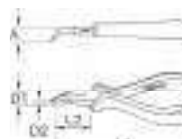
- Electrostatically protect
- Suitable for wire
- Long, straight jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7068	6,5	1,0	10,0	2,0	140,0	32,0	68
500.7077	7,5	1,2	12,5	2,4	155,0	40,0	93

### ESD long-nose pliers – curved – with cut

- Electrostatically protect
- Suitable for wire
- Long, curved jaws
- With cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7071	14,0	10,0	2,0	140,0	26,0	68

### ESD round pliers

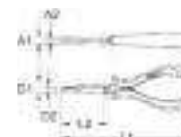
- Electrostatically protect
- Suitable for wire
- Short jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7076	6,0	1,0	10,0	2,0	130,0	20,0	62

### ESD long-nose pliers – straight – with cut

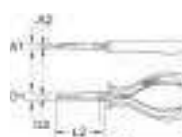
- Electrostatically protect
- Suitable for wire
- Long, straight jaws
- With cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7069	6,5	1,0	10,0	2,0	140,0	32,0	68
500.7072	7,5	1,2	12,5	2,4	155,0	40,0	93

### ESD needle-nose pliers – straight – without cut

- Electrostatically protect
- Suitable for wire
- Very fine, long jaws
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7074	7,5	1,2	11,0	2,0	150,0	37,0	93

### ESD long-nose pliers – straight – without cut

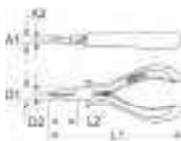
- Electrostatically protect
- Suitable for wire
- Short, straight jaws
- Ultra-fine precision tips for extremely fine work
- Without cut
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	
500.7078	6,5	0,1	10,0	0,2	130,0	22,0	62

**ESD flat pliers**

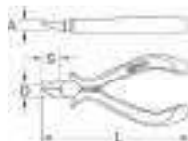
- Electrostatically protect
- Suitable for wire
- Long jaws
- Without cut
- Induction-hardened precision cutting, 61-63 HRC
- Self opening double spring
- Two component handle
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7079	7,5	4,5	12,0	1,5	150,0	40,0	82

**ESD mini side cutters**

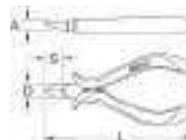
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Short, pointed head with grooving
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7082	6,0	9,0	120,0	9,0	55

**ESD side cutters**

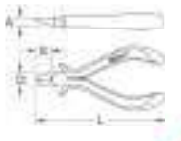
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head with wire holder
- With control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7085	7,5	11,0	125,0	13,0	75

**ESD mini side cutters**

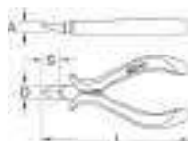
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Small, oval head
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7080	6,0	9,0	120,0	9,0	55

**ESD side cutters**

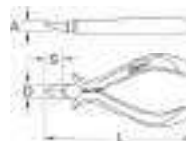
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head
- With control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7083	7,5	11,0	125,0	13,0	70

**ESD side cutters**

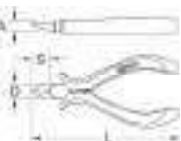
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.3 mm/AWG 28
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Pointed head
- With control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7086	7,5	11,0	125,0	13,0	62

**ESD mini side cutters**

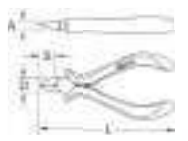
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 0.8 mm/AWG 20
- Copper wire: 1.5 mm/AWG 15
- Small, pointed head
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7081	6,0	9,0	120,0	9,0	55

**ESD side cutters**

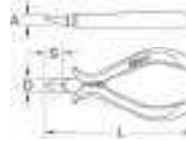
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval head
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7084	7,5	11,0	125,0	13,0	70

**ESD side cutters**

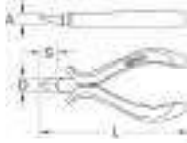
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Pointed head
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	g
500.7087	7,5	11,0	125,0	13,0	62

### ESD side cutters

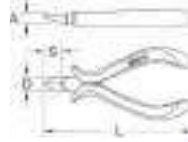
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.7 mm/AWG 21
- Flexible steel: 1.0 mm/AWG 18
- Copper wire: 1.5 mm/AWG 15
- Oval, sturdy head
- With control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7088	9,0	14,5	135,0	20,0	105

### ESD carbide side cutters

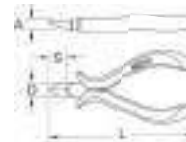
- Electrostatically protect
- Suitable for wire
- Hard metal cutting edge in plier head for the highest cutting performance
- Induction-hardened precision cutting, 84-86 HRA
- Oval head
- With special control only for glass fibre (e.g. Kevlar)
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7091	7,5	11,0	125,0	10,0	62

### ESD mini angled cutters

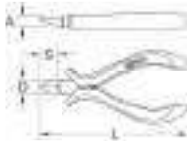
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.4 mm/AWG 26
- Medium wire: 1.0 mm/AWG 18
- Flexible wire: 1.2 mm/AWG 16
- Straight head for working in small spaces
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7094	6,5	10,0	120,0	12,0	64

### ESD side cutters

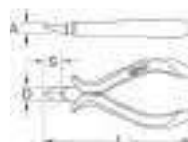
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Flexible steel: 1.5 mm/AWG 15
- Copper wire: 2.0 mm/AWG 12
- Pointed, sturdy head
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7089	9,0	14,5	135,0	18,0	105

### ESD carbide side cutters

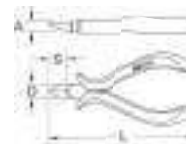
- Electrostatically protect
- Suitable for wire
- Hard metal cutting edge in plier head for the highest cutting performance
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.4 mm/AWG 26
- Hard wire: 0.8 mm/AWG 20
- Flexible wire: 1.8 mm/AWG 13
- Pointed head with grooves for working in hard to access places
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7092	7,5	11,0	125,0	10,0	62

### ESD mini carbide oblique cutter

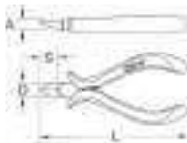
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.6 mm/AWG 22
- Hard wire: 1.0 mm/AWG 18
- Flexible wire: 2.0 mm/AWG 12
- Straight head for working in small spaces
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7095	6,5	10,0	120,0	12,0	62

### ESD carbide side cutters

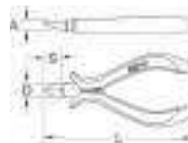
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 84-86 HRA
- Piano wire: 0.6 mm/AWG 22
- Hard wire: 1.0 mm/AWG 18
- Flexible wire: 2.0 mm/AWG 12
- Oval head
- With control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7090	7,5	11,0	125,0	10,0	62

### ESD end cutters

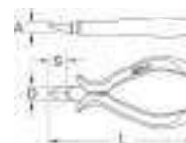
- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Medium wire: 0.6 mm/AWG 22
- Flexible wire: 0.8 mm/AWG 20
- Slim jaws
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7093	6,5	11,0	130,0	5,0	70

### ESD mini angled cutters

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.5 mm/AWG 24
- Medium wire: 1.2 mm/AWG 16
- Flexible wire: 1.6 mm/AWG 14
- Wide head with long cutters
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D mm	L mm	S mm	G
500.7096	7,5	11,0	125,0	18,0	64



**ESD mini side cutter**

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Medium wire: 0.6 mm/AWG 22
- Flexible wire: 0.8 mm/AWG 22
- Slim jaws with small cutting edges
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
500.7097	10,0	120,0	17,0	2,5	63

**ESD side cutter**

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting, 61-63 HRC
- Hard wire: 0.5 mm/AWG 24
- Medium wire: 1.2 mm/AWG 16
- Flexible wire: 1.6 mm/AWG 14
- Wide head with long cutters
- With subtle control
- Self opening double spring
- Two component handle
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	g
500.7098	11,0	125,0	6,0	15,0	74

**ESD wire strippers**

- Electrostatically protect
- With internal brass adjusting screw
- Suitable for PVC, Teflon etc.
- Induction-hardened precision cutting
- Medium wire: 0.8 mm/AWG 20
- Self opening double spring
- Two component handle
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
500.7099	12,0	32,0	18,0	140,0	50,0	90

**ESD PRECISION PLIER SETS**

**ESD pliers service map**

- Electrostatically protect
- Suitable for wire
- Induction-hardened precision cutting
- Self opening double spring
- Two component handle
- Special tool steel



			g
500.7019	6 pcs	ESD pliers service map	620
1 x		140 mm	
1 x		140 mm	
1 x		130 mm	
1 x		120 mm	
1 x		125 mm	
1 x		120 mm	



**SOLDERING TIN SUCTION PUMP**

**Desoldering pump**

- double seal
- Dirt-repellent



	Length mm	g
500.7780	200,0	580

**GAS SOLDERING EQUIPMENT**

**Mini pocket soldering torch**

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- Optimal for light soldering
- Filled with standard lighter gas / ISO butan gas
- Compact construction
- With safety lock



	Length mm	Height mm	g
960.1110	70,0	115,0	130

**Mini pocket soldering torch**

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- For melting, hard soldering, small soldering jobs
- Filled with standard lighter gas / ISO butan gas
- Compact construction
- With child-proofing and switch-off function



	Length mm	Height mm	g
960.1215	75,0	110,0	112

**Small soldering torch**

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- Optimal for fine soldering
- Filled with standard lighter gas / ISO butan gas
- With table stand



	Length mm	Height mm	g
960.1200	110,0	140,0	350

### Small soldering torch with flame reflector

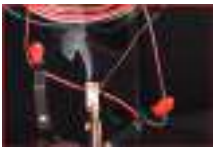
- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- Optimal for fine soldering
- With shrink mirror/flame reflector
- Filled with standard lighter gas / ISO butan gas
- With table stand



	Length mm	Height mm	
960.1210	110,0	135,0	350

### Micro soldering terminal set

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- without piezo ignition
- can be started with an external ignition source (e.g. with a lighter or mini pocket soldering device)
- Perfect for fine working
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic case



960.1265 8 pcs Micro soldering terminal set	210

consists of:

960.1163 Soldering tip 3.5mm, chisel	3
960.1164 Soldering tip 4.5mm, diagonal	3
960.1165 Soldering tip knife	3
960.1167 Soldering sponge, round	12
960.1168 Solder wire coil, 95mm	25
960.1266 Soldering iron without Piezo ignition	50
960.1267 Soldering head, screwed-in soldering tips	12
960.1268 Soldering tip	3



### Micro soldering terminal set

- Gas operated micro soldering device up to 1,300°C / 2,450°F
- With piezo ignition
- Perfect for fine working
- Gas supply totally adjustable
- Filled with standard lighter gas / ISO butan gas
- Includes different attachments soldering wire and soldering sponge
- In durable plastic case



960.1160 11 pcs Micro soldering terminal set	370

consists of:

960.1161 Soldering iron with Piezo ignition	80
960.1162 Soldering head, screwed-in soldering tips	9
960.1163 Soldering tip 3.5mm, chisel	3
960.1164 Soldering tip 4.5mm, diagonal	3
960.1165 Soldering tip knife	3
960.1166 Flame adaptor	3
960.1167 Soldering sponge, round	12
960.1168 Solder wire coil, 95mm	25
960.1169 Protective cap for 960.1160	14
960.1170 Housing for additional adaptors, for 960.1160	7
960.1268 Soldering tip	3

## PRECISION MECHANICS ACCESSORIES

### Precision mechanics lifter

- removes stuck components from printed circuit boards
- Two component handle
- through hardened blade
- Matt finish
- Chrome molybdenum



	L1 mm	L2 mm	
500.7775	150,0	50,0	16

### Soldering wire pliers

- For the safe fixing of braded wire
- Prevents kinking of the solder connection
- The locking device of the pliers means that these can be stored so that both hands are free for soldering
- No more burning fingers
- Slim design for hard-to-access areas
- Adjustable arm for optimal application
- With self opening internal spring
- Includes locking mechanism
- With PVC dipped handle
- Chrome molybdenum



	A mm	C mm	L mm	
115.1052	9-74	65,0	245,0	260






**KS TOOLS**

*Innovation is  
our mission!*

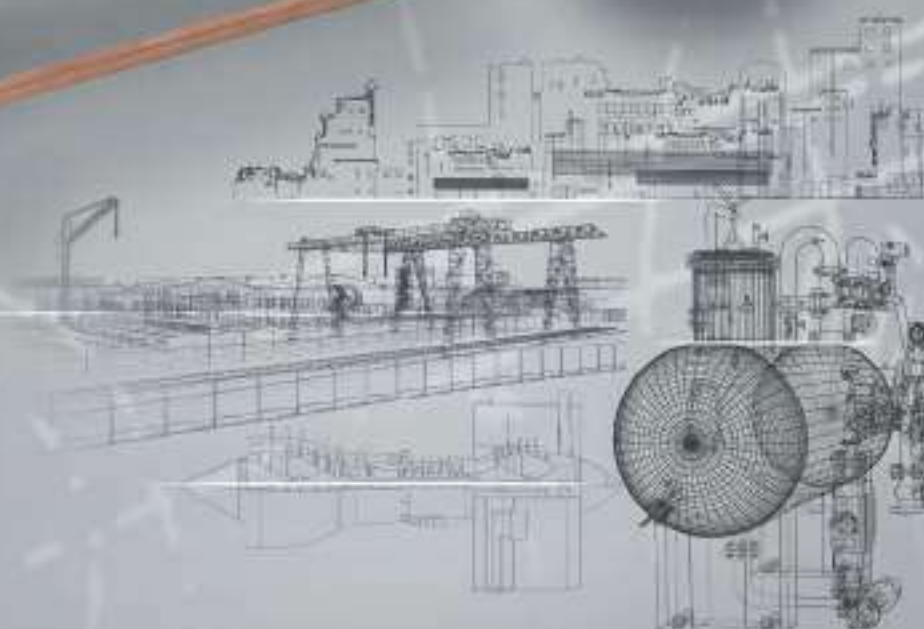
**PRECISION TOOLS**



NON SPARKING TOOLS 10



Innovation is  
our mission!



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## NON SPARKING HOSE COUPLING WRENCHES & HOOK WRENCHES

### BRONZEplus Coupling spanner A-B-C

- For fire brigade (Storz) couplings A - B - C
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg
963.8205	14	440,0	800

### BRONZEplus Coupling spanner B-C

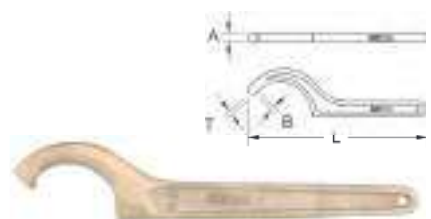
- For fire brigade (Storz) couplings B - C
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg
963.8206	12	280,0	450

### BRONZEplus hook wrench with spigot

- In accordance to DIN 1810 Form B
- With spigot for for cross drilled nuts to DIN 1816
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Span width mm	A mm	B mm	L mm	T mm	kg
963.8210	12-14	3,0	1,5	110,0	2,0	0,03
963.8211	16-20	3,0	2	110,0	2,5	0,03
963.8212	25-28	4,0	2,5	135,0	3,0	0,05
963.8213	30-32	4,0	2,5	135,0	4,0	0,05
963.8214	34-36	5,0	3	170,0	4,0	0,10
963.8215	40-42	5,0	3	170,0	4,0	0,10
963.8216	45-50	6,0	3,5	205,0	5,0	0,19
963.8217	52-55	6,0	3,5	205,0	5,0	0,19
963.8218	58-62	7,0	4	240,0	5,0	0,24
963.8219	68-75	7,0	4	240,0	6,0	0,20
963.8220	80-90	8,0	5	280,0	6,0	0,41
963.8221	95-100	8,0	5	280,0	8,0	0,41
963.8222	110-115	10,0	6	335,0	8,0	0,73
963.8223	120-130	10,0	6	335,0	8,0	0,73
963.8224	135-145	12,0	7	390,0	8,0	1,15
963.8225	155-165	12,0	7	390,0	8,0	1,15
963.8226	180-195	14,0	8	465,0	10,0	1,41
963.8227	205-220	14,0	8	465,0	10,0	1,84

### BRONZEplus pivot hook wrench with pin

- In accordance to DIN 1810 Form A
- With pin for for slotted nuts to DIN 981
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Span width mm	A mm	B mm	L mm	T mm	kg
963.8207	32-75	8,0	6,0	205,0	5,0	230
963.8208	50-120	10,0	7,0	285,0	6,0	450
963.8209	115-170	12,0	10,0	310,0	7,0	500

## NON SPARKING SPECIAL BITS

### BRONZEplus Slide claw

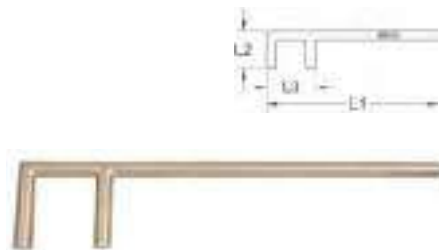
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	kg
963.8228	30-40	500,0	720

### BRONZEplus valve hook

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L1 mm	L2 mm	L3 mm	kg
963.8229	13	300,0	50,0	30,0	0,35
963.8230	13	350,0	55,0	35,0	0,60
963.8231	16	400,0	60,0	40,0	0,68
963.8232	16	450,0	65,0	45,0	1,10
963.8233	19	500,0	70,0	50,0	1,20
963.8234	22	600,0	75,0	60,0	2,00
963.8235	25	700,0	80,0	70,0	3,00
963.8236	28	800,0	85,0	80,0	5,30

### BRONZEplus Face pin spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Pin key mm	Stud Ø mm	L mm	kg
963.8237	35,0	5,0	180,0	150

### BRONZEplus Adjustable face pin spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Stud Ø mm	Hit pin height mm	Length mm	kg
963.0029	3,0	4,0	160,0	75

### BRONZEplus hand key

- In accordance to DIN 87311
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	A mm	L mm	kg
963.8238	36x60	60,0	370,0	0,65
963.8239	48x80	80,0	430,0	2,60
963.8240	62x102	102,0	550,0	1,30

### BRONZEplus B-hand key

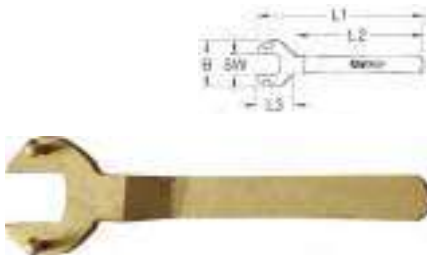
- In accordance to DIN 87311
- Handle insulated with plastic against cold
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg
963.8241	36x60	330,0	0,60
963.8242	48x80	470,0	1,40
963.8243	62x102	600,0	2,60

### BRONZEplus Spanner for tanker valve

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Type	Ø mm	Stud Ø mm	B mm	L1 mm	L2 mm	L3 mm	kg
963.8244	A	64,0	32,0	20,0	90,0	660,0	500,0	1,80
963.8245	B	64,0	32,0	20,0	90,0	650,0	500,0	1,60
963.8246	C	95,0	47,5	20,0	90,0	690,0	500,0	2,50

### BRONZEplus universal barrel key

- For 22 barrel clasps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	D1 mm	D2 mm	kg
963.8270	18 x 22	380,0	27,0	6,0	1,25

### BRONZEplus universal barrel key

- For current plug cover caps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D1 mm	D2 mm	L mm	kg
963.8271	38,0	52,0	300,0	600

### BRONZEplus universal barrel key

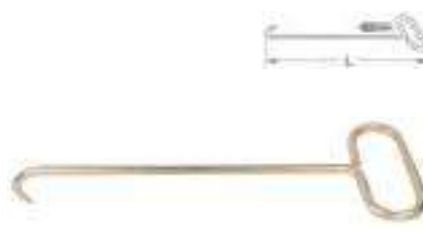
- For current barrel clasps
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D1 mm	D2 mm	D3 mm	D4 mm	L mm	kg
963.8272	70,0	70,0	65,0	95,0	400,0	1,70

### BRONZEplus Sewer lid hook

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	kg
963.8273	500,0	770

### BRONZEplus Sewer lid hook, reinforced

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	kg
963.8274	700,0	1,20

### NON SPARKING BOX SPANNERS

#### BRONZEplus box spanner, offset

- 4 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	D1 mm	D2 mm	L1 mm	L2 mm	T mm	kg
963.8247	8	18,0	8,0	150,0	33,0	15,0	90
963.8248	9	20,0	8,0	160,0	35,0	15,0	100
963.8249	10	22,0	8,0	175,0	37,0	15,0	120
963.8250	12	24,0	10,0	215,0	42,0	18,0	220
963.8251	13	26,0	10,0	230,0	45,0	18,0	280
963.8252	14	27,0	12,0	240,0	45,0	18,0	280
963.8253	17	32,0	14,0	280,0	51,0	22,0	330

#### BRONZEplus socket

- 3-point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	D1 mm	D2 mm	L mm	kg
963.8254	6	16,0	25,0	40,0	70
963.8255	8	18,0	25,0	40,0	80
963.8256	10	22,0	25,0	40,0	80
963.8257	12	24,0	25,0	40,0	90
963.8258	16	30,0	25,0	50,0	150
963.8259	20	37,0	28,0	50,0	220
963.8260	25	44,0	32,0	60,0	400







### BRONZEplus Crowfoot wrench, hexagonal

- 6 point
- Internal square drive
- For manual operation
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	T mm	g
963.8493	13	40,0	15,0	50
963.8494	14	40,0	15,0	50
963.8495	15	43,0	20,0	80
963.8496	16	43,0	20,0	80
963.8497	17	43,0	20,0	80
963.8498	18	49,0	22,0	110
963.8499	19	49,0	22,0	120
963.8500	20	49,0	22,0	130
963.8501	21	52,0	26,0	150
963.8502	22	52,0	26,0	170
963.8503	23	52,0	29,0	200
963.8504	24	55,0	29,0	200
963.8505	25	55,0	32,0	220
963.8506	26	59,0	32,0	220
963.8507	27	59,0	32,0	250
963.8508	28	59,0	32,0	270
963.8509	29	63,0	34,0	300
963.8510	30	63,0	34,0	320
963.8511	32	67,0	37,0	350
963.8512	36	76,0	42,0	570
963.8513	41	86,0	48,0	620
963.8514	46	97,0	55,0	750
963.8515	50	105,0	60,0	800



### BRONZEplus Special extender for crowfoot spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	L mm	g
963.8516	1/2	150,0	200
963.8517	1/2	250,0	400

### NON SPARKING FRICTION RATCHETS

#### BRONZEplus Construction ratchet

- 6 point
- With centring point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	g
963.1105	17	230,0	0,62
963.1106	19	240,0	0,65
963.1107	21	250,0	0,83
963.1108	22	260,0	0,83
963.1109	24	270,0	1,02
963.1110	26	280,0	1,05
963.1111	27	285,0	1,10
963.1112	30	300,0	1,32
963.1113	32	315,0	1,10
963.1114	35	325,0	1,63
963.1115	36	330,0	1,67
963.1116	41	330,0	1,95

#### BERYLLIUMplus Friction ratchet

- 12 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	g
962.0109	9	150,0	0,15
962.0111	11	150,0	0,15
962.0113	13	155,0	0,16
962.0114	14	155,0	0,16
962.0117	17	200,0	0,26
962.0119	19	200,0	0,26
962.0122	22	220,0	0,34
962.0124	24	220,0	0,34
962.0127	27	245,0	0,56
962.0130	30	280,0	0,84
962.0132	32	280,0	0,84
962.0136	36	290,0	1,18
962.0141	41	295,0	1,23
962.0146	46	360,0	2,06
962.0150	50	360,0	2,23
962.0155	55	440,0	2,90
962.0160	60	440,0	2,90



### 1/4" DRIVE NON SPARKING SOCKETS

#### BERYLLIUMplus socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L mm	g
962.1404	4,0	10,0	15,0	25,0	10
962.14045	4,5	10,0	15,0	25,0	10
962.1405	5,0	11,0	15,0	25,0	10
962.14055	5,5	11,0	15,0	25,0	10
962.1406	6,0	12,0	15,0	25,0	10
962.1407	7,0	13,0	15,0	25,0	10
962.1408	8,0	14,0	15,0	25,0	20
962.1409	9,0	15,0	15,0	25,0	20
962.1410	10,0	16,0	15,0	25,0	20
962.1411	11,0	18,0	15,0	25,0	20
962.1412	12,0	19,0	15,0	27,0	30
962.1413	13,0	20,0	15,0	27,0	30
962.1414	14,0	22,0	15,0	27,0	30

#### BERYLLIUMplus reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	□	A mm	D mm	L mm	g
962.1490	1/4"	15,0	30,0	150,0	200

#### BERYLLIUMplus Ratchet handle with coupler

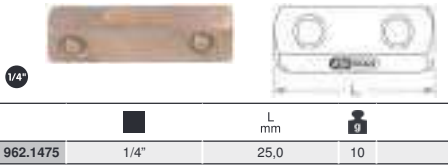
- Square drive to DIN 3120 / ISO 1174 with ball lock
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	□	A mm	D mm	L mm	g
962.1491	1/4"	14,0	36,0	150,0	320

### BERYLLIUMplus Coupler

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1475	1/4"	L mm	g
		25,0	10

### BERYLLIUMplus Extension

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1450	1/4"	L mm	g
		55,0	20
962.1451	1/4"	100,0	60
962.1452	1/4"	200,0	100

### BERYLLIUMplus Swivel handle

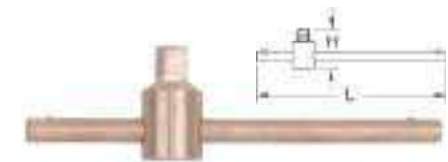
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1455	1/4"	L mm	g
		165,0	160
962.1456	1/4"	215,0	350

### BERYLLIUMplus sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1460	1/4"	H mm	L mm	g
		28,0	200,0	160

### BERYLLIUMplus Square drive screwdriver

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1465	1/4"	L1 mm	L2 mm	L3 mm	g
		140,0	55,0	85,0	90

### BERYLLIUMplus adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1470	1/4"	1/2"	L mm	g
			30,0	40
963.1280	1/2"	1/4"	40,0	60

### BERYLLIUMplus universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



962.1480	1/4"	1/4"	L mm	g
			55,0	70

### BERYLLIUMplus Socket set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- In durable plastic storage case



962.1485	15 pcs	BERYLLIUMplus Socket set	1000
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm	
1 x		100 mm	
1 x		250 mm	

### 1/2" DRIVE NON SPARKING SOCKETS

#### BRONZEplus socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L mm	g
963.1204	6	14,0	24,0	40,0	70
963.1205	7	14,0	24,0	40,0	80
963.1206	8	15,0	24,0	40,0	50
963.1207	9	16,0	24,0	40,0	50
963.1208	10	17,0	24,0	40,0	50
963.1209	11	19,0	24,0	40,0	50
963.1210	12	20,0	24,0	40,0	50
963.1211	13	20,0	24,0	40,0	50
963.1212	14	24,0	24,0	40,0	80
963.1213	15	25,0	25,0	40,0	90
963.1214	16	25,0	25,0	40,0	60
963.1215	17	26,0	26,0	40,0	90
963.1216	18	29,0	27,0	40,0	120
963.1217	19	30,0	28,0	40,0	130
963.1218	20	31,0	28,0	40,0	130
963.1219	21	32,0	28,0	40,0	100
963.1220	22	33,0	28,0	40,0	110
963.1221	23	34,0	31,0	40,0	120
963.1222	24	35,0	31,0	40,0	150
963.1223	25	36,0	32,0	40,0	130
963.1224	26	37,0	34,0	40,0	180
963.1225	27	38,0	34,0	40,0	150
963.1226	28	40,0	36,0	40,0	200
963.1227	29	42,0	36,0	40,0	220
963.1228	30	43,0	40,0	40,0	250
963.1229	32	45,0	42,0	42,0	240
963.1230	34	48,0	42,0	50,0	300
963.1231	36	50,0	42,0	50,0	380
963.1341	41	57,0	44,0	50,0	560

	mm	D1 mm	D2 mm	L mm	g
963.1249	1/4"	15,0	24,0	40,0	50
963.1250	5/16"	15,0	24,0	40,0	50
963.1251	11/32"	16,0	24,0	40,0	50
963.1252	3/8"	17,0	24,0	40,0	50
963.1253	13/32"	18,0	24,0	40,0	50
963.1254	7/16"	19,0	24,0	40,0	50
963.1255	1/2"	21,0	24,0	40,0	50
963.1256	9/16"	23,0	24,0	40,0	80
963.1257	19/32"	24,0	24,0	40,0	90
963.1258	5/8"	26,0	26,0	40,0	60
963.1259	11/16"	28,0	26,0	40,0	90
963.1260	3/4"	29,0	26,0	40,0	130
963.1261	25/32"	31,0	26,0	40,0	130
963.1262	13/16"	32,0	26,0	40,0	130
963.1263	7/8"	33,0	28,0	40,0	110
963.1264	15/16"	35,0	31,0	40,0	120
963.1265	1"	36,0	34,0	40,0	130
963.1266	1.1/16"	39,0	34,0	40,0	150
963.1267	1.1/8"	41,0	36,0	40,0	220
963.1268	1.3/16"	43,0	40,0	40,0	250
963.1269	1.1/4"	45,0	42,0	42,0	240



### BRONZEplus socket, long

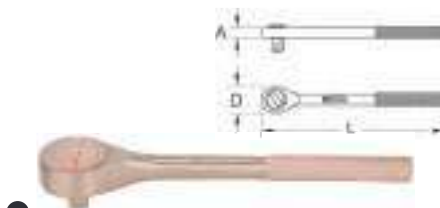
- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L mm	g
963.1232	10	19,0	25,0	77,0	110
963.1233	12	20,0	25,0	77,0	170
963.1234	13	21,0	25,0	77,0	170
963.1235	14	22,0	25,0	77,0	110
963.1236	15	25,0	25,0	77,0	120
963.1237	16	25,0	25,0	77,0	170
963.1238	17	27,0	27,0	77,0	140
963.1239	18	28,0	28,0	82,0	250
963.1240	19	30,0	28,0	82,0	180
963.1241	21	32,0	28,0	82,0	260
963.1242	22	33,0	28,0	82,0	210
963.1243	24	36,0	30,0	82,0	250
963.1244	27	40,0	30,0	82,0	400
963.1245	30	44,0	32,0	82,0	510
963.1246	32	46,0	32,0	82,0	550
963.1247	34	48,0	34,0	82,0	710
963.1248	36	50,0	34,0	82,0	760

### BERYLLIUMplus reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	g
962.1290	23,0	54,0	250,0	590

### BERYLLIUMplus Ratchet handle with coupler

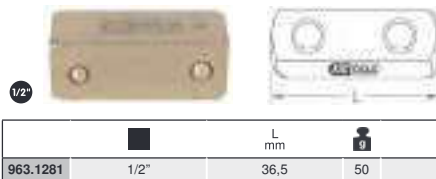
- Square drive to DIN 3120 / ISO 1174 with ball lock
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	g
962.1291	17,0	45,0	250,0	430

### BRONZEplus Coupler

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



### BRONZEplus extension

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.1270	100,0	180
963.1271	200,0	270
963.1272	250,0	360

### BRONZEplus flexi drive handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.1273	215,0	350
963.1274	250,0	560
963.1275	300,0	920
963.1276	380,0	590

### BRONZEplus sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L mm	g
963.1277	46,0	250,0	450
963.1278	46,0	320,0	550

### BRONZEplus adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.1279	22,0	120
963.1280	40,0	60

### BRONZEplus universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.1282	70,0	170

### BRONZEplus L-Handle

- In accordance to DIN ISO 2936
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.1283	220,0	260
963.1284	260,0	400

### BRONZEplus Speed brace

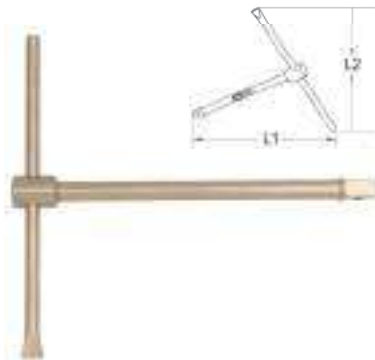
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	1/2"	L mm	g
963.1285	1/2"	410,0	700

### BRONZEplus T-handle

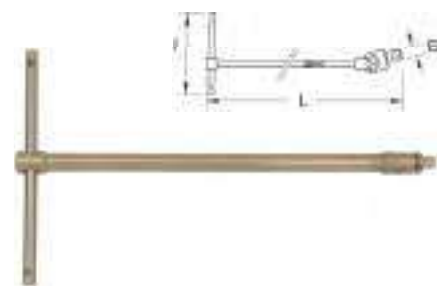
- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	1/2"	L1 mm	L2 mm	g
963.1286	1/2"	245,0	220,0	500

### BRONZEplus T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With flexible head
- For difficult to access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	1/2"	B mm	I mm	L mm	g
963.1287	1/2"	12,5	250,0	460,0	760

### BRONZEplus Bit socket for slotted screws

- Slotted
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	g
963.1292	4,0	25,0	60,0	9,0	140
963.1293	6,0	25,0	60,0	9,0	140
963.1294	8,0	25,0	60,0	9,0	140
963.1295	10,0	25,0	60,0	9,0	140

### BRONZEplus Bit socket for phillips head screws PH

- PH
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		D mm	L mm	T mm	g
963.1296	PH 1	25,0	60,0	8,0	140
963.1297	PH 2	25,0	60,0	8,0	140
963.1298	PH 3	25,0	60,0	8,0	140
963.1299	PH 4	25,0	60,0	8,0	140

### BRONZEplus Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	g
963.1300	4	25,0	60,0	12,0	110
963.1301	5	25,0	60,0	12,0	70
963.1302	6	25,0	60,0	12,0	70
963.1303	7	25,0	60,0	12,0	110
963.1304	8	25,0	60,0	12,0	80
963.1305	9	25,0	60,0	12,0	110
963.1306	10	25,0	60,0	12,0	110
963.1307	12	25,0	60,0	12,0	120
963.1308	14	25,0	60,0	12,0	130
963.1309	17	25,0	60,0	12,0	140
963.1310	19	25,0	60,0	12,0	230

### BRONZEplus Bit socket for hexagon screws, long

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	g
963.1311	5	25,0	90,0	12,0	90
963.1312	5	25,0	180,0	12,0	100
963.1313	6	25,0	90,0	12,0	80
963.1314	6	25,0	140,0	12,0	120
963.1315	6	25,0	160,0	12,0	130
963.1316	7	25,0	100,0	12,0	90
963.1317	8	25,0	90,0	12,0	90
963.1318	8	25,0	120,0	12,0	160
963.1319	10	25,0	140,0	12,0	150
963.1320	12	25,0	140,0	12,0	190
963.1321	14	25,0	140,0	12,0	250

### BRONZEplus Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case



		g
963.1288	11 pcs BRONZEplus Socket set	5,30
9 x	10 - 11 - 13 - 14 - 15 - 17 - 19 - 22 - 24 mm	
1 x	100 mm	
1 x	250 mm	

		g
963.1289	23 pcs BRONZEplus Socket set	4,10
22 x	10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32 mm	
1 x	250 mm	

963.1290	24 pcs	BRONZEplus Socket set	2,00
22 x		10-11-12-13-14-15-16-17-18-19-20-21 22-23-24-25-26-27-28-29-30-32 mm	
1 x		250 mm	
1 x		250 mm	

963.1291	26 pcs	BRONZEplus Socket set	4,10
22 x		10-11-12-13-14-15-16-17-18-19-20 21-22-23-24-25-26-27-28-29-30-32 mm	
1 x		250 mm	
1 x		250 mm	
1 x		320 mm	
1 x		380 mm	

### BRONZEplus Bit socket set for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In wooden box with spark-free hinges



963.1322	9 pcs	BRONZEplus Bit socket set for hexagon screws	1,24
9 x		1/2": 5-6-7-8-9-10-12-14-17 mm	

963.1323	11 pcs	BRONZEplus Bit socket set for hexagon screws	2,99
1 x		1/2"	
1 x		1/2": 250 mm	
9 x		1/2": 5-6-7-8-9-10-12-14-17 mm	

963.1324	15 pcs	BRONZEplus Bit socket set for hexagon screws	2,79
9 x		1/2": 5-6-7-8-9-10-12-14-17 mm	
6 x		1/2": 5/90-6/90-8/90-10/140-12/140-14/140 mm	

### 3/4" DRIVE NON SPARKING SOCKETS

#### BRONZEplus socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L mm	g
963.3405	18	31,0	36,0	60,0	180
963.3406	19	32,0	36,0	60,0	180
963.3407	21	34,0	36,0	60,0	180
963.3408	22	36,0	36,0	60,0	180
963.3409	24	38,0	36,0	55,0	350
963.3410	25	39,0	36,0	55,0	350
963.3411	26	40,0	36,0	50,0	330
963.3412	27	41,0	36,0	50,0	300
963.3413	28	42,0	38,0	50,0	300
963.3414	29	43,0	38,0	50,0	300
963.3415	30	45,0	38,0	50,0	310
963.3416	32	48,0	40,0	60,0	430
963.3417	33	50,0	40,0	60,0	450
963.3418	34	50,0	40,0	60,0	470
963.3419	35	51,0	44,0	55,0	400
963.3420	36	52,0	44,0	60,0	430
963.3421	38	55,0	46,0	60,0	490
963.3422	41	64,0	50,0	65,0	560
963.3423	42	64,0	50,0	65,0	600
963.3424	46	68,0	50,0	65,0	840
963.3425	50	72,0	55,0	70,0	1080
963.3426	55	80,0	60,0	70,0	900
963.3427	58	80,0	60,0	60,0	950
963.3428	60	82,0	60,0	70,0	1290

		D1 mm	D2 mm	L mm	g
963.3429	7/8"	36,0	36,0	60,0	180
963.3430	15/16"	39,0	36,0	55,0	350
963.3431	1"	39,0	36,0	55,0	350
963.3432	1.1/16"	41,0	36,0	50,0	300
963.3433	1.1/8"	41,0	36,0	50,0	300
963.3434	1.1/4"	48,0	40,0	60,0	430
963.3435	1.5/16"	50,0	40,0	60,0	400
963.3436	1.3/8"	52,0	44,0	55,0	400
963.3437	1.7/16"	55,0	46,0	60,0	430
963.3438	1.1/2"	55,0	46,0	60,0	490
963.3439	1.9/16"	55,0	46,0	60,0	490
963.3440	1.5/8"	64,0	50,0	65,0	560
963.3441	1.11/16"	64,0	50,0	65,0	560
963.3442	1.3/4"	68,0	50,0	65,0	600
963.3443	1.13/16"	68,0	50,0	65,0	840
963.3444	1.7/8"	68,0	50,0	65,0	1000
963.3445	2"	72,0	55,0	70,0	700



#### BERYLLIUMplus reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		A mm	D mm	L mm	g
962.3490	3/4"	22,0	59,0	300,0	1,90

#### BERYLLIUMplus Ratchet handle with coupler

- Square drive to DIN 3120 / ISO 1174 with ball lock
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		A mm	D mm	L mm	g
962.3491	3/4"	22,0	60,0	500,0	1,80

#### BRONZEplus Coupler

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		L mm	g
963.3457	3/4"	51,5	130

### BRONZEplus extension

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.3446	3/4"	100,0	0,35
963.3447	3/4"	250,0	0,70
963.3448	3/4"	380,0	1,67
963.3449	3/4"	430,0	1,50

### BRONZEplus flexi drive handle

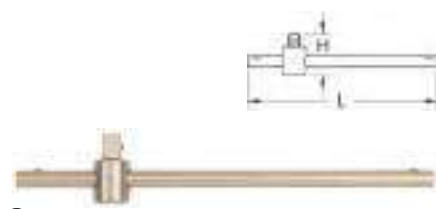
- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.3450	3/4"	380,0	1,40
963.3451	3/4"	460,0	1,30
963.3452	3/4"	550,0	1,95

### BRONZEplus sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	H mm	L mm	kg
963.3453	3/4"	65,0	260,0	0,60
963.3454	3/4"	65,0	500,0	1,48

### BRONZEplus adaptor and reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	■	L mm	kg
963.3455	3/4"	1"	61,0	300
963.3456	3/4"	1/2"	57,0	150

### BRONZEplus universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	■	L mm	kg
963.3458	3/4"	3/4"	85,0	550
963.3459	3/4"	3/4"	106,0	570

### BRONZEplus L-Handle

- In accordance to DIN ISO 2936
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.3460	3/4"	300,0	800

### BRONZEplus Speed brace

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.3461	3/4"	380,0	1,25

### BRONZEplus T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L1 mm	L2 mm	kg
963.3462	3/4"	260,0	250,0	850

### BRONZEplus T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With flexible head
- For difficult to access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	B mm	I mm	L mm	kg
963.3463	3/4"	20,0	300,0	560,0	1,20

### BRONZEplus Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	kg
963.3465	14	36,0	80,0	18,0	350
963.3466	17	36,0	80,0	18,0	390
963.3467	19	36,0	80,0	18,0	440
963.3468	22	36,0	80,0	18,0	480
963.3469	24	36,0	80,0	18,0	520
963.3470	27	36,0	80,0	18,0	550
963.3471	30	36,0	80,0	18,0	570
963.3472	32	36,0	80,0	18,0	590
963.3473	36	36,0	80,0	18,0	620
963.3474	41	36,0	90,0	18,0	720
963.3475	46	36,0	90,0	18,0	820

### BRONZEplus Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case



963.3464	12 pcs	BRONZEplus Socket set				12,70	
7 x		36 - 38 - 41 - 46 - 50 - 55 - 60 mm					
1 x		380 mm					
1 x		300 mm					
1 x		500 mm					
1 x		380 mm					

### 1" DRIVE NON SPARKING SOCKETS

#### BRONZEplus socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

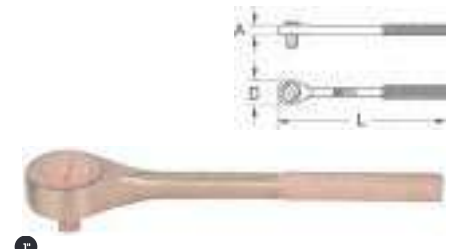


		D1 mm	D2 mm	L mm	
963.0088	19	33,0	46,0	55,0	0,28
963.0089	21	35,0	46,0	55,0	0,30
963.0091	22	37,0	46,0	55,0	0,33
963.0092	24	39,0	47,0	55,0	0,34
963.0093	26	42,0	47,0	55,0	0,35
963.0094	27	44,0	48,0	55,0	0,36
963.0095	29	46,0	48,0	60,0	0,37
963.0096	30	48,0	50,0	60,0	0,41
963.1005	32	50,0	50,0	60,0	0,51
963.1006	36	52,0	50,0	65,0	0,55
963.1007	41	63,0	50,0	70,0	0,73
963.1008	42	63,0	50,0	65,0	0,71
963.1009	46	67,0	52,0	65,0	0,71
963.1010	50	72,0	52,0	70,0	0,93
963.1011	55	78,0	60,0	75,0	1,13
963.1012	60	83,0	60,0	75,0	1,35
963.1013	65	90,0	65,0	75,0	1,50
963.1014	70	98,0	75,0	85,0	1,75
963.1015	75	104,0	75,0	85,0	2,30
963.1016	80	110,0	85,0	85,0	2,50
963.1017	85	116,0	85,0	90,0	2,80
963.1018	90	120,0	90,0	85,0	4,40
963.1019	95	130,0	95,0	85,0	4,50
963.1020	100	136,0	95,0	85,0	4,60

		D1 mm	D2 mm	L mm	
963.1021	1.7/16"	52,0	50,0	65,0	0,55
963.1022	1.1/2"	54,0	50,0	65,0	0,68
963.1023	1.5/8"	63,0	50,0	70,0	0,73
963.1024	1.11/16"	65,0	50,0	65,0	0,71
963.1025	1.13/16"	68,0	52,0	65,0	0,71
963.1026	1.7/8"	69,0	52,0	65,0	0,73
963.1027	2"	70,0	52,0	70,0	0,93
963.1028	2.1/16"	73,0	60,0	70,0	0,95
963.1029	2.3/16"	77,0	60,0	75,0	1,13
963.1030	2.3/8"	82,0	65,0	75,0	1,13
963.1031	2.1/4"	80,0	65,0	75,0	1,35
963.1032	2.7/16"	83,0	65,0	75,0	1,40
963.1033	2.9/16"	90,0	70,0	75,0	1,50
963.1034	2.5/8"	91,0	70,0	75,0	1,55
963.1035	2.3/4"	96,0	75,0	85,0	1,75
963.1037	2.15/16"	103,0	80,0	85,0	2,30
963.1038	3"	104,0	80,0	85,0	2,35
963.1039	3.1/8"	110,0	80,0	85,0	2,50
963.1040	3.3/8"	116,0	85,0	90,0	2,80
963.1041	3.1/2"	120,0	90,0	90,0	4,40
963.1042	3.3/4"	130,0	95,0	90,0	4,50
963.1043	3.7/8"	135,0	95,0	90,0	4,60
963.1044	4.1/4"	113,0	85,0	90,0	5,00

### BERYLLIUMplus reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Reversible
- Gearing with 45 teeth
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		A mm	D mm	L mm	
962.1090	1"	30,0	72,0	550,0	340

### BERYLLIUMplus Ratchet handle with coupler

- Square drive to DIN 3120 / ISO 1174 with ball lock
- The direction of rotation (clockwise and counter clockwise) can be changed by simply rotating the square drive piece
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		A mm	D mm	L mm	
962.1091	1"	23,0	72,0	550,0	3,50



### BRONZEplus Coupler

- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		L mm	
963.1051	1"	68,0	300

### BRONZEplus extension

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		L mm	
963.1045	1"	100,0	0,80
963.1046	1"	250,0	1,40
963.1047	1"	400,0	2,09

### BRONZEplus flexi drive handle

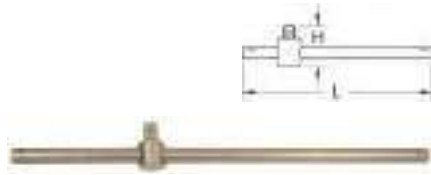
- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		L mm	
963.1048	1"	380,0	1,20

### BRONZEplus sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	H mm	L mm	kg
963.1049	1"	76,0	700,0	2,80

### BRONZEplus reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	■	L mm	kg
963.1050	1"	3/4"	75,0	540

### BRONZEplus universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	□	■	L mm	kg
963.1052	1"	1"	141,0	1,45



### BRONZEplus Bit socket for hexagon screws

- Hexagon socket
- In accordance with DIN 7422
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D mm	L mm	T mm	kg
963.1056	17	47,0	90,0	23,0	0,58
963.1057	19	47,0	90,0	23,0	0,67
963.1058	22	47,0	90,0	23,0	0,71
963.1059	24	47,0	90,0	23,0	0,77
963.1060	27	47,0	90,0	23,0	0,86
963.1061	30	47,0	90,0	23,0	0,91
963.1062	32	47,0	90,0	23,0	0,95
963.1063	36	47,0	90,0	23,0	0,99
963.1064	41	47,0	100,0	23,0	1,20
963.1065	46	47,0	100,0	23,0	1,40

### BRONZEplus L-Handle

- In accordance to DIN ISO 2936
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.1053	1"	300,0	1,00

### BRONZEplus Speed brace

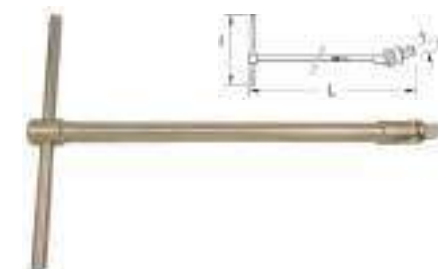
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	L mm	kg
963.1054	1"	380,0	1,40

### BRONZEplus T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive in accordance to DIN 3122 / ISO 1174 with ball lock
- With flexible head
- For difficult to access areas
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	■	B mm	I mm	L mm	kg
963.1055	1"	25,0	400,0	660,0	1,70

### BRONZEplus Socket set

- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In durable plastic storage case



	■	kg
963.1066	23 pcs BRONZEplus Socket set	33,10
10 x	36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	
10 x	1.1/2" - 1.5/8" - 1.7/8" - 2" - 2.1/16" - 2.1/4" - 2.3/8" - 2.9/16" - 2.3/4" - 3"	
2 x	250 - 400 mm	
1 x	550 mm	

	■	kg
963.1067	13 pcs BRONZEplus Socket set	21,10
10 x	36 - 41 - 46 - 50 - 55 - 60 - 65 - 70 - 75 - 80 mm	
2 x	250 - 400 mm	
1 x	550 mm	



## 1 1/2" DRIVE NON SPARKING SOCKETS

### BRONZEplus socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	D1 mm	D2 mm	L mm	kg
963.0001	55	81,0	74,0	90,0	2,30
963.0002	60	87,0	74,0	90,0	2,50
963.0003	65	94,0	74,0	95,0	2,85
963.0004	70	99,0	80,0	98,0	3,10
963.0005	75	105,0	80,0	100,0	3,40
963.0006	80	112,0	80,0	105,0	3,80
963.0007	85	118,0	80,0	110,0	4,20
963.0008	90	124,0	90,0	115,0	4,49

## NON SPARKING SCREWDRIVERS

### BERYLLIUMplus screwdriver for slotted screws

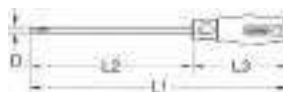
- Slotted
- In accordance to DIN ISO 2380-2 / 2380-1 Form A
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0911	3,0	165,0	75,0	90,0	30
962.0307	4,0	152,0	50,0	102,0	35
962.0308	4,0	177,0	75,0	102,0	40
962.0309	4,0	202,0	100,0	102,0	45
962.0912	4,5	200,0	100,0	100,0	30
962.0913	4,5	250,0	150,0	100,0	60
962.0311	5,0	177,0	75,0	102,0	65
962.0312	5,0	202,0	100,0	109,0	70
962.0914	6,0	200,0	100,0	100,0	80
962.0314	6,0	134,0	125,0	109,0	95
962.0915	6,0	250,0	150,0	100,0	90
962.0916	8,0	260,0	150,0	110,0	130
962.0315	8,0	321,0	200,0	121,0	155
962.0316	9,0	371,0	250,0	121,0	175
962.0917	10,0	320,0	200,0	120,0	190
962.0317	10,0	371,0	250,0	121,0	195
962.0918	10,0	420,0	300,0	120,0	230
962.0319	11,0	421,0	300,0	121,0	175
962.0321	11,0	421,0	350,0	121,0	300
962.0322	12,0	521,0	400,0	121,0	430

### BERYLLIUMplus screwdriver for slotted screws, parallel blade

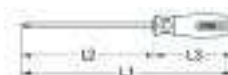
- With parallel blade
- Slotted
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0920	3,0	165,0	75,0	90,0	20
962.0921	4,0	240,0	150,0	100,0	20
962.0922	5,0	250,0	150,0	100,0	30
962.0923	6,0	300,0	200,0	100,0	110
962.0924	6,5	400,0	300,0	100,0	150

### BERYLLIUMplus screwdriver for Phillips screws PH

- PH
- In accordance to DIN 5262 / ISO 8764-1
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		L1 mm	L2 mm	L3 mm	kg
962.0900	PH 0	150,0	60,0	90,0	30
962.0011	PH 1	152,0	50,0	102,0	45
962.0901	PH 1	170,0	80,0	90,0	60
962.0012	PH 1	202,0	100,0	102,0	70
962.0902	PH 2	200,0	100,0	100,0	90
962.0013	PH 2	234,0	125,0	109,0	95
962.0014	PH 2	259,0	150,0	109,0	105
962.0903	PH 3	250,0	150,0	100,0	170
962.0015	PH 3	321,0	200,0	121,0	185
962.0016	PH 3	371,0	250,0	121,0	200
962.0904	PH 4	310,0	200,0	110,0	270
962.0017	PH 4	471,0	350,0	121,0	280
962.0018	PH 4	521,0	400,0	121,0	300
962.0019	PH 4	571,0	450,0	121,0	320

### BERYLLIUMplus screwdriver set

- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0805	4 pcs				320
4 x		3 (75 mm) - 4,5 (100 mm) - 6 - 8 (150 mm)			

### BERYLLIUMplus screwdriver set

- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0808	4 pcs				400
4 x				PH1 - PH2 - PH3 - PH4	

### BERYLLIUMplus screwdriver set

- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0806	6 pcs				500
4 x				4,5 - 6 (100 mm) - 6 - 8 (150 mm)	
2 x				PH1 - PH2	

### BERYLLIUMplus screwdriver set

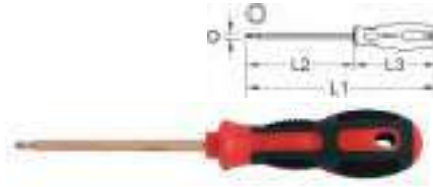
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
962.0807	10 pcs				1,20
6 x				4,5 - 6 (100 mm) - 4,5 - 6 - 8 (150 mm) - 10 (200 mm)	
4 x				PH1 - PH2 - PH3 - PH4	

### BERYLLIUM<sup>plus</sup> screwdriver for Torx screws

- Torx
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		L1 mm	L2 mm	L3 mm	g
962.0930	T5	160,0	70,0	90,0	30
962.0931	T6	160,0	70,0	90,0	70
962.0932	T7	160,0	70,0	90,0	70
962.0933	T8	160,0	70,0	90,0	70
962.0934	T9	160,0	70,0	90,0	70
962.0935	T10	170,0	80,0	90,0	80
962.0936	T15	170,0	80,0	90,0	80
962.0937	T20	190,0	90,0	100,0	80
962.0938	T25	190,0	90,0	100,0	100
962.0939	T27	210,0	110,0	100,0	100
962.0940	T30	210,0	110,0	100,0	110
962.0941	T40	220,0	120,0	100,0	120
962.0942	T45	230,0	120,0	110,0	140
962.0943	T50	230,0	120,0	110,0	150

### BRONZE<sup>plus</sup> screwdriver for hexagon screws

- 6 point
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1068	3,0	190,0	100,0	90,0	40
963.1069	4,0	190,0	100,0	90,0	50
963.1070	5,0	200,0	100,0	100,0	60
963.1071	6,0	225,0	125,0	100,0	90
963.1072	8,0	260,0	150,0	110,0	140
963.1073	10,0	260,0	150,0	110,0	210
963.1074	12,0	280,0	150,0	130,0	280

### BRONZE<sup>plus</sup> screwdriver for hexagon screws, angled

- 6 point
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1505	3,0	153,0	75,0	20,0	40
963.1506	4,0	153,0	75,0	25,0	40
963.1507	5,0	180,0	80,0	28,0	50
963.1508	6,0	180,0	80,0	32,0	100
963.1509	8,0	240,0	120,0	36,0	140
963.1510	10,0	240,0	120,0	40,0	220
963.1511	12,0	240,0	120,0	45,0	290

### BERYLLIUM<sup>plus</sup> screwdriver for hexagon screws with ball end

- 6 point
- With hanging hole
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
962.0950	3,0	190,0	100,0	90,0	30
962.0951	4,0	190,0	100,0	90,0	50
962.0952	5,0	200,0	100,0	100,0	60
962.0953	6,0	225,0	125,0	100,0	90
962.0954	8,0	260,0	150,0	110,0	140
962.0955	10,0	260,0	150,0	110,0	210
962.0956	12,0	280,0	150,0	130,0	280

### NON SPARKING OFFSET SCREWDRIVERS

### BRONZE<sup>plus</sup> key wrench for hexagon socket screws, short

- 6 point
- Short execution
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	g
962.04015	1,5	55,0	13,0	0,01
962.0402	2,0	55,0	13,0	0,01
962.04025	2,5	55,0	13,0	0,01
963.1519	3,0	60,0	25,0	0,01
963.1520	4,0	70,0	30,0	0,01
963.1521	5,0	80,0	32,0	0,02
963.1522	6,0	90,0	37,0	0,04
963.1523	7,0	95,0	43,0	0,04
963.1524	8,0	100,0	44,0	0,07
963.1525	9,0	105,0	44,0	0,07
963.1526	10,0	115,0	45,0	0,10
963.1527	11,0	119,0	48,0	0,13
963.1528	12,0	125,0	52,0	0,13
963.1529	13,0	132,0	54,0	0,20
963.1530	14,0	140,0	58,0	0,25
963.1531	17,0	160,0	65,0	0,32
963.1532	18,0	170,0	69,0	0,50
963.1533	19,0	180,0	72,0	0,57
963.1534	22,0	200,0	77,0	0,95
963.1535	24,0	224,0	82,0	1,25
963.1536	27,0	250,0	93,0	1,80
963.1537	30,0	280,0	105,0	2,50
963.1538	32,0	315,0	116,0	3,10
963.1539	36,0	355,0	128,0	4,50
963.1540	41,0	400,0	140,0	5,30
962.0420	3/64"	55,0	13,0	0,01
962.0421	1/16"	55,0	13,0	0,01
962.0422	5/64"	55,0	13,0	0,01
962.0423	3/32"	55,0	13,0	0,01
962.0424	1/8"	60,0	24,0	0,01
962.0425	5/32"	70,0	30,0	0,02

	mm	L1 mm	L2 mm	g
963.1541	3/16"	80,0	31,0	0,02
963.1542	7/32"	80,0	37,0	0,02
963.1543	1/4"	90,0	37,0	0,04
963.1544	5/16"	100,0	44,0	0,07
963.1545	3/8"	120,0	45,0	0,10
963.1546	7/16"	119,0	48,0	0,13
963.1547	1/2"	125,0	55,0	0,18
963.1548	9/16"	140,0	58,0	0,25
963.1549	5/8"	140,0	63,0	0,30
963.1550	11/16"	160,0	65,0	0,32
963.1551	3/4"	180,0	73,0	0,57
963.1552	7/8"	200,0	77,0	0,95
963.1553	1"	224,0	85,0	1,26
963.1554	1.1/16"	216,0	93,0	3,08
963.1555	1.1/8"	230,0	95,0	3,30
963.1556	1.1/4"	230,0	116,0	3,30
963.1557	1.5/16"	235,0	116,0	3,52
963.1558	1.3/8"	235,0	128,0	3,52
963.1559	1.7/16"	241,0	128,0	3,74
963.1560	1.1/2"	241,0	128,0	3,74
963.1561	1.5/8"	241,0	140,0	3,74

### BRONZE<sup>plus</sup> Hexagon key wrench set in a folding holder, short

- 6 point
- Short execution
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g
963.1512	8 pcs 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm 280
963.1513	9 pcs 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm 280
963.1514	10 pcs 1/16" - 5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8" 300

### BRONZE<sup>plus</sup> key wrench for hexagon socket screws, extra long

- 6 point
- Extra long execution
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	g
963.1562	3,0	126,0	25,0	100
963.1563	4,0	142,0	30,0	30
963.1564	5,0	160,0	32,0	40
963.1565	6,0	180,0	37,0	30
963.1566	8,0	200,0	44,0	70
963.1567	10,0	205,0	45,0	120
963.1568	12,0	250,0	52,0	190
963.1569	14,0	280,0	58,0	300
963.1570	17,0	320,0	65,0	380
963.1571	19,0	360,0	72,0	490

**BRONZEplus Hexagon key wrench set in a folding holder, extra long**

- 6 point
- Long execution
- In accordance to DIN ISO 2936
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1515	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			400
963.1516	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			480

**BERYLLIUMplus key wrench for hexagon socket screws with ball end, short**

- 6 point
- Short execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
962.0440	1,5	45,0	13,0		10
962.0441	2,0	50,0	16,0		10
962.0442	2,5	55,0	18,0		10
962.0443	3,0	63,0	20,0		10
962.0444	4,0	70,0	25,0		10
962.0445	5,0	80,0	28,0		20
962.0446	6,0	90,0	32,0		30
962.0447	7,0	95,0	34,0		40
962.0448	8,0	100,0	36,0		60
962.0449	10,0	115,0	40,0		110
962.0450	12,0	130,0	45,0		210
962.0451	14,0	140,0	48,0		260

**BERYLLIUMplus key wrench for hexagon socket screws with ball end, extra long**

- 6 point
- Extra long execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
962.0460	3,0	126,0	20,0		10
962.0461	4,0	140,0	25,0		20
962.0462	5,0	160,0	28,0		30
962.0463	6,0	180,0	32,0		50
962.0464	7,0	190,0	34,0		80
962.0465	8,0	200,0	36,0		100
962.0466	10,0	224,0	40,0		180
962.0467	12,0	250,0	45,0		290
962.0468	14,0	290,0	48,0		370

**BRONZEplus Hexagon key wrench set in a folding holder, with ball end**

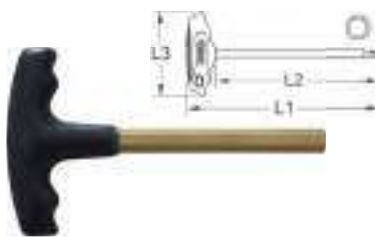
- 6 point
- In accordance to DIN ISO 2936
- With ball head on the long end
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1517	8 pcs	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			250
963.1518	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			260

**BRONZEplus T-handle hexagon key wrench**

- 6 point
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1572	3,0	143,0	100,0	75,0	20
963.1573	4,0	143,0	100,0	75,0	30
963.1574	5,0	155,0	100,0	91,0	40
963.1575	6,0	155,0	100,0	91,0	40
963.1576	8,0	155,0	100,0	91,0	60
963.1577	10,0	155,0	100,0	91,0	80
963.1578	12,0	155,0	100,0	91,0	160
963.1579	14,0	155,0	100,0	91,0	200

**BRONZEplus T-handle hexagon key wrench, long**

- 6 point
- Extra long execution
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
963.1580	3,0	195,0	150,0	75,0	30
963.1581	4,0	195,0	150,0	75,0	40
963.1582	5,0	205,0	150,0	91,0	60
963.1583	6,0	205,0	150,0	91,0	100
963.1584	8,0	205,0	150,0	91,0	130
963.1585	10,0	205,0	150,0	91,0	140
963.1586	12,0	205,0	150,0	91,0	160
963.1587	14,0	205,0	150,0	91,0	190

**BERYLLIUMplus T-handle hexagon key wrench with ball end**

- 6 point
- One component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	L3 mm	g
962.0960	3,0	145,0	100,0	75,0	40
962.0961	4,0	145,0	100,0	75,0	40
962.0962	5,0	205,0	150,0	91,0	650
962.0963	6,0	205,0	150,0	91,0	90
962.0964	8,0	205,0	150,0	91,0	120
962.0965	10,0	255,0	200,0	91,0	230
962.0966	12,0	255,0	200,0	91,0	300
962.0967	14,0	255,0	200,0	91,0	380

**BRONZEplus Key wrench**

- Slotted
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L mm	g
963.1588	4,0	125,0	50
963.1589	6,0	130,0	100
963.1590	10,0	140,0	90
963.1591	13,0	190,0	240

**BRONZEplus offset screwdriver for square head screws**

- 4 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L1 mm	L2 mm	kg
963.1592	10	200,0	37,0	0,20
963.1593	11	200,0	37,0	0,20
963.1594	12	200,0	42,0	0,20
963.1595	13	200,0	45,0	0,20
963.1596	14	220,0	45,0	0,40
963.1597	15	220,0	48,0	0,40
963.1598	16	220,0	48,0	0,40
963.1599	17	250,0	51,0	0,60
963.1600	18	250,0	53,0	0,60
963.1601	19	250,0	55,0	0,60
963.1602	20	300,0	57,0	1,00
963.1603	21	300,0	57,0	1,00
963.1604	22	300,0	59,0	1,00
963.1605	24	360,0	63,0	1,60
963.1606	25	360,0	63,0	1,60
963.1607	27	360,0	69,0	1,60
963.1608	28	440,0	69,0	3,20
963.1609	30	440,0	75,0	3,20
963.1610	32	440,0	81,0	3,20

### NON SPARKING PLIERS

#### BRONZEplus one handed pipe wrench

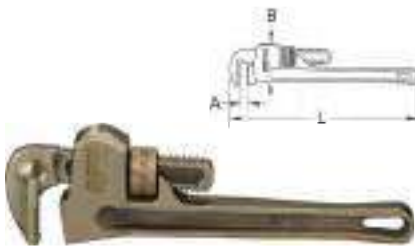
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	B mm	L mm	kg
963.1705	38,0	50,0	240,0	0,42
963.1706	45,0	50,0	240,0	0,47
963.1707	48,0	53,0	290,0	0,78
963.1708	58,0	64,0	350,0	1,00
963.1709	65,0	64,0	350,0	1,20
963.1710	70,0	75,0	425,0	1,60
963.1711	80,0	80,0	500,0	2,20
963.1712	105,0	90,0	575,0	3,70

#### BRONZEplus pipe wrench

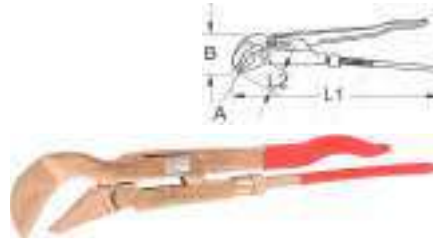
- In accordance to DIN 5234
- 90° angled
- S-shaped jaw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	B mm	L mm	kg
963.0021	25,0	48,0	183,0	0,35
963.0022	30,0	59,0	239,0	0,60
963.0023	40,0	68,0	275,0	0,84
963.0024	50,0	72,0	315,0	1,15
963.0025	60,0	83,0	400,0	1,95
963.0026	70,0	96,0	530,0	3,00
963.0027	85,0	121,0	780,0	5,00
963.0028	110,0	152,0	1090,0	8,50

#### BERYLLIUMplus swedish pipe wrench

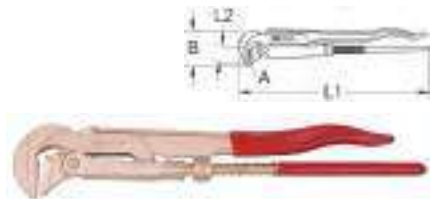
- In accordance to DIN 5234
- 45° angled
- S-shaped jaw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A	B mm	L1 mm	L2 mm	kg
962.4005	1"	60,0	200,0	38,0	0,82
962.4006	1.1/2"	70,0	300,0	50,0	1,57
962.4007	2"	72,0	350,0	65,0	3,20
962.4008	3"	100,0	600,0	75,0	4,10
962.4009	4"	122,0	900,0	100,0	6,20

#### BERYLLIUMplus adjustable pipe wrench

- In accordance to DIN 5234
- 90° angled
- S-shaped jaw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A	B mm	L1 mm	L2 mm	kg
962.4015	1.1/2"	80,0	435,0	50,0	1,57
962.4016	2"	95,0	540,0	65,0	3,20

#### BERYLLIUMplus adjustable spanner

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	mm	A mm	B mm	C mm	L mm	kg
962.1108	18	9,0	45,0	18,0	150,0	0,10
962.1109	26	10,0	55,0	20,0	200,0	0,20
962.1110	30	11,0	65,0	30,0	250,0	0,40
962.1111	36	12,0	83,0	34,0	300,0	0,70
962.1112	46	15,0	105,0	47,0	380,0	1,40
962.1113	53	17,0	123,0	51,0	450,0	2,70
962.1114	67	19,0	145,0	62,0	600,0	5,10

#### BRONZEplus chain pipe wrench

- Function is similar to a ratchet
- Light execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg
963.1713	50	600,0	1,70
963.1714	100	600,0	2,50
963.1715	150	600,0	3,00
963.1716	450	1600,0	8,00

#### BRONZEplus chain pipe wrench

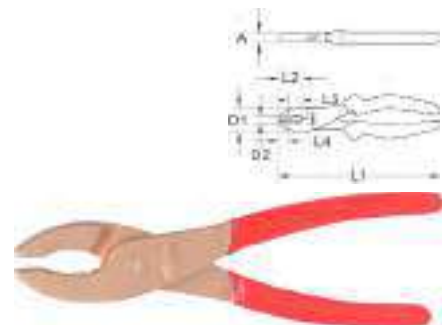
- Function is similar to a ratchet
- American version
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	kg
963.1717	38	510,0	2,65
963.1718	65	685,0	4,50
963.1719	100	915,0	11,50
963.1720	300	1830,0	30,30

#### BERYLLIUMplus pipe wrench

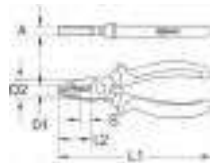
- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	kg
962.0607	12,0	30,0	15,0	210,0	40,0	25,0	15,0	370

### BERYLLIUMplus combination pliers

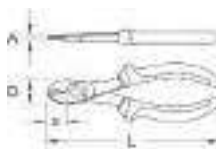
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Two component handle



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0620	10,0	7,0	24,0	160,0	33,0	12,0	350
962.0621	14,0	9,0	29,0	200,0	38,0	16,0	420

### BERYLLIUMplus high leverage side cutter

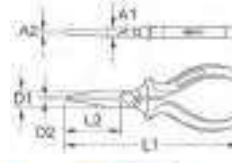
- In accordance to DIN ISO 5749
- Two component handle
- For different wire types
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	S mm	
962.0617	14,0	30,0	190,0	24,0	290

### BERYLLIUMplus flat pliers

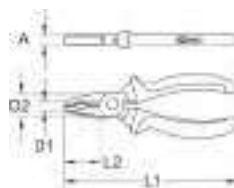
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0630	9,0	2,5	18,0	3,2	160,0	48,0	50	
962.0631	11,0	4,0	21,0	5,0	200,0	85,0	150	

### BERYLLIUMplus combination pliers, adjustable

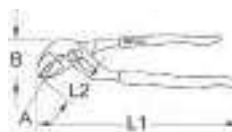
- Two component handle
- Adjustable
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0623	14,0	9,0	29,0	200,0	38,0	340	

### BERYLLIUMplus waterpump pliers

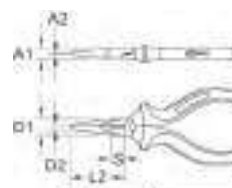
- In accordance to DIN ISO 8976
- Insulated handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	B mm	L1 mm	L2 mm	S mm	
962.0605	30,0	53,0	250,0	33,0	350	

### BERYLLIUMplus telephone pliers

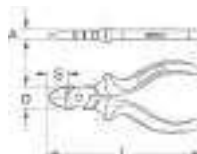
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0610	11,0	3,0	22,0	4,0	180,0	60,0	10,0	300

### BERYLLIUMplus side cutters

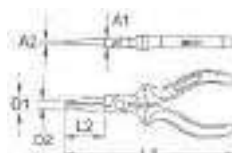
- In accordance to DIN ISO 5749
- Two component handle
- For different wire types
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L mm	S mm	
962.0616	10,0	23,0	165,0	20,0	200
962.0333	13,0	29,0	200,0	29,0	410

### BERYLLIUMplus round nosed pliers

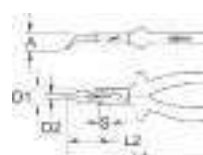
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Substantial through joint
- Two component handle



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0625	3,0	10,0	20,0	3,0	160,0	36,0	90	
962.0626	5,0	12,0	25,0	4,0	200,0	54,0	160	

### BERYLLIUMplus telephone pliers, offset

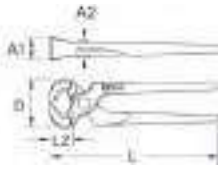
- 45° angled tips
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- Insulated handle



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
962.0612	9,0	20,0	4,0	180,0	50,0	9,0	290

### BERYLLIUMplus pincers

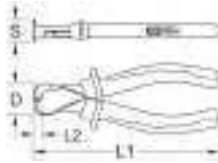
- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A1 mm	A2 mm	D mm	L1 mm	L2 mm	kg
962.0640	16,0	14,0	43,0	175,0	19,0	430
962.0641	20,0	18,0	53,0	200,0	23,0	520

### BERYLLIUMplus side cutter

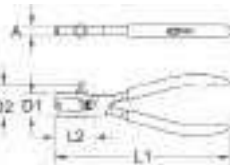
- Strong execution
- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	S mm	kg
962.0615	30,0	175,0	9,0	28	260

### BERYLLIUMplus wire stripper

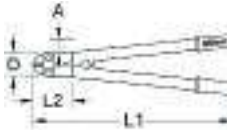
- With spring and locking screw
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	kg
962.0635	10,0	25,0	28,0	170,0	40,0	260

### BERYLLIUMplus Bolt cutters

- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	D mm	L1 mm	L2 mm	kg
962.0619	62,0	78,0	620,0	140,0	3,40

### BRONZEplus Non-sparking locking pliers

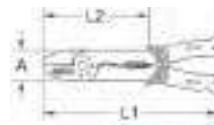
- Forged gripping jaws
- Serrated execution
- Size adjustment using the adjustment wheel
- With loosening lever
- With easy locking action
- For round and flat material
- To hold when welding
- No flaring under the strongest loads
- Loosening under continuous pressure of a national
- Very breakage resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	L mm	S mm	kg
963.0331	16,0	254,0	42,0	700

### BERYLLIUMplus Crimping pliers

- With PVC dipped handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	A mm	kg
962.0636	200,0	120,0	40,0	120



### BERYLLIUMplus pliers set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



			kg
962.0650	4 pcs	BERYLLIUMplus pliers set	1,50
1 x		200 mm	
1 x		165 mm	
1 x		180 mm	
1 x		250 mm	

### NON SPARKING TWEEZERS

#### BRONZEplus tweezers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	kg
963.5604	100,0	100

#### BRONZEplus neat tweezers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	kg
963.5605	150,0	30

### BRONZEplus flat nose tweezers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.5606	100,0	30	

### NON SPARKING DRILLS

#### BERYLLIUMplus twist drill

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	Content	g
962.9606	6,0	100,0	60,0	1	20
962.9607	7,0	120,0	70,0	1	30
962.9608	8,0	140,0	80,0	1	50
962.9609	9,0	160,0	100,0	1	70
962.9610	10,0	180,0	120,0	1	100
962.9611	11,0	200,0	130,0	1	120
962.9612	12,0	220,0	150,0	1	170
962.9613	13,0	240,0	160,0	1	220
962.9614	14,0	260,0	180,0	1	280
962.9615	15,0	280,0	200,0	1	360
962.9616	16,0	300,0	220,0	1	440
962.9617	17,0	300,0	220,0	1	500
962.9618	18,0	320,0	230,0	1	600
962.9619	19,0	320,0	230,0	1	700
962.9620	20,0	330,0	240,0	1	800

#### BERYLLIUMplus twist drill set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)
- In durable plastic storage case



	pcs	Content	g
962.9630	15	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20mm	4,00

### NON SPARKING SAWS

#### BRONZEplus hack saw frame

- For saw blade length 300 mm
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	H mm	g
963.5108	300	200	0,90

#### BERYLLIUMplus hack saw blade for hack saw frame

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L2 mm	L3 mm	B mm	D mm	g
962.9034	300,0	1,0-1,3	12,0	0,6	30

#### BERYLLIUMplus hand saw

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	H mm	g
962.9035	370,0	90,0	500

#### BERYLLIUMplus hand saw, heavy duty

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	H mm	g
962.9036	700,0	120,0	770

### NON SPARKING WIRE BRUSHES

#### BRONZEplus tin bronze wire brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9580	125,0	55,0	300

#### BRONZEplus tin bronze wire brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	rows	H mm	L1 mm	L2 mm	g
963.9581	3	30,0	350,0	120,0	190
963.9582	4	30,0	350,0	120,0	210
963.9583	5	30,0	350,0	120,0	190

#### BRONZEplus tin bronze wire handbrush, curled

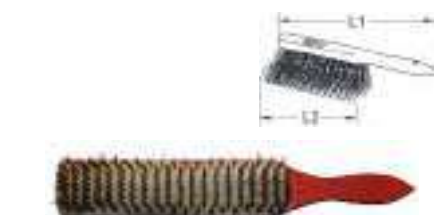
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	rows	H mm	L1 mm	L2 mm	g
963.9584	3	30,0	290,0	120,0	110
963.9585	4	30,0	290,0	120,0	130
963.9586	5	30,0	290,0	120,0	150

#### BRONZEplus tin bronze wire hand broom, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	g
963.9587	310,0	150,0	320

### BRONZEplus Hand brush

- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	
963.9590	245,0	60,0	50,0	480

### BRONZEplus round wire broom

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	
963.9591	240,0	60,0	65,0	0,40

### BRONZEplus Brush, spark-plug cleaning, round wire

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	
963.9593	15,0	225,0	80,0	40

### BRONZEplus tube brush, wire curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	
963.9594	300,0	40

### BRONZEplus brush end, wire curled

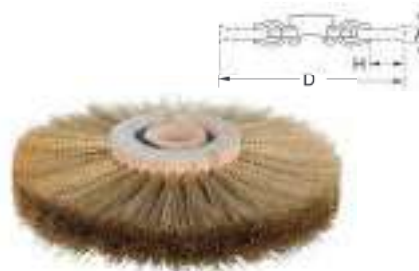
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D1 mm	D2 mm	H mm	L mm	
963.9595	26,0	6,0	30,0	80,0	640

### BRONZEplus tin bronze wire wheel brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	A mm	D mm	H mm	
963.9596	45,0	150,0	20,0	520

### BRONZEplus tin bronze wire cup brush, curled

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	H mm	L mm	
963.9597	85,0	20,0	35,0	700



### NON SPARKING FILES

#### BERYLLIUMplus flat file

- In accordance to DIN 7261 Form A
- Two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		B mm	L1 mm	L2 mm	
962.7301	1	25,0	360,0	245,0	330
962.7302	3	25,0	360,0	245,0	330

#### BERYLLIUMplus half round file

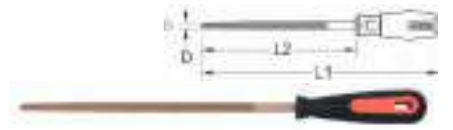
- In accordance to DIN 7261 Form E
- Two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		B mm	L1 mm	L2 mm	
962.7101	1	22,0	365,0	250,0	340
962.7102	3	22,0	365,0	250,0	340

#### BERYLLIUMplus round file

- In accordance to DIN 7261 Form F
- Two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



		D mm	L1 mm	L2 mm	
962.7201	1	8,0	360,0	250,0	180
962.7202	3	8,0	360,0	250,0	180

### NON SPARKING KNIVES

#### BERYLLIUMplus cutter

- Durable and fixed blade
- With plastic handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	B mm	L mm	S mm	
962.9030	30,0	180,0	80	60



### BRONZE<sup>plus</sup> cutter

- Durable and fixed blade
- With wooden handle
- Reinforced execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	B mm	L mm	S mm	
963.9510	30,0	300,0	200	300

### NON SPARKING SHEARS

#### BERYLLIUM<sup>plus</sup> metal shears

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	S mm	
962.9015	300,0	120,0	70,0	450

#### BERYLLIUM<sup>plus</sup> Ideal pattern

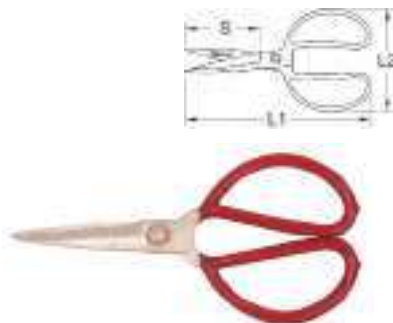
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	L mm	S mm	
962.9016	35,0	280,0	50	520

### BERYLLIUM<sup>plus</sup> universal shear

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	S mm	
962.9017	210,0	110,0	80,0	300

#### BERYLLIUM<sup>plus</sup> universal shear

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	S mm	
962.9018	220,0	90,0	100	450

#### BERYLLIUM<sup>plus</sup> hedge shears

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	S mm	
962.9033	520,0	300	1,40

### NON SPARKING CUTTING TOOLS

#### BRONZE<sup>plus</sup> reaping hook

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	
963.9651	380,0	220,0	200,0	800

#### BRONZE<sup>plus</sup> draw knife

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	
963.5705	650,0	250,0	1,50

### NON SPARKING SCRAPERS

#### BRONZE<sup>plus</sup> deck scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	
963.9520	200,0	22,0	210
963.9521	255,0	40,0	480
963.9522	300,0	50,0	570

#### BRONZE<sup>plus</sup> deck scraper with handle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	
963.9523	380,0	280,0	38,0	780

### BRONZEplus spray booth scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9530	235,0	75,0	450

### BRONZEplus flat scraper

- In accordance to DIN 8350 Form A
- Work areas ground
- Two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	B mm	D mm	L1 mm	L2 mm	g
963.9531	37,0	6,0	315,0	205,0	290

### BRONZEplus triangular scraper

- In accordance to DIN 8350 Form C
- Work areas ground
- Two component handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	B mm	L1 mm	L2 mm	g
963.9532	16,0	365,0	255,0	220

### BRONZEplus ship scraper

- In accordance to DIN 8350 Form C
- Work areas ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	g
963.9533	420,0	100,0	70,0	650

### BRONZEplus scraper with handle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9534	480,0	95,0	620

### BRONZEplus scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9535	220,0	75,0	0,58
963.9536	220,0	100,0	0,83
963.9537	220,0	125,0	0,88
963.9538	220,0	150,0	1,02

### BRONZEplus scraper, concave

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9539	240,0	100,0	0,90
963.9540	240,0	150,0	1,35

### NON SPARKING FLANGE SPREADERS

#### BRONZEplus flange spreader

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	mm	L mm	B mm	T mm	kg
963.5607	46	300,0	60,0	55,0	7,20

### NON SPARKING HAMMERS

#### BRONZEplus ball pin hammer

- With fibreglass handle
- English type
- Surfaces polished ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D1 mm	D2 mm	L1 mm	L2 mm	kg
963.0323	200	23,0	23,0	270,0	80,0	0,23
963.0324	300	26,0	26,0	285,0	90,0	0,34
963.0325	350	29,0	28,0	310,0	101,0	0,45
963.0326	600	34,0	37,0	345,0	116,0	0,68
963.0327	750	38,0	34,0	355,0	127,0	0,91
963.0328	950	40,0	38,0	355,0	137,0	1,13
963.0329	1100	42,0	41,0	405,0	147,0	1,35

#### BRONZEplus ball pin hammer

- With hickory handle
- American form
- Surfaces polished ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D1 mm	D2 mm	L1 mm	L2 mm	kg
963.2105	100	20,0	17,0	310,0	50,0	0,25
963.2106	150	24,0	20,0	310,0	55,0	0,30
963.2107	200	25,0	21,0	310,0	60,0	0,35
963.2108	300	30,0	25,0	310,0	65,0	0,45
963.2109	400	34,0	18,0	340,0	70,0	0,60
963.2110	500	36,0	30,0	340,0	75,0	0,66
963.2111	600	38,0	32,0	340,0	80,0	0,76
963.2112	700	40,0	34,0	340,0	85,0	0,86
963.2113	800	42,0	36,0	380,0	90,0	0,97
963.2114	900	44,0	38,0	380,0	95,0	1,06
963.2115	1000	45,0	40,0	380,0	100,0	1,17
963.2116	1300	50,0	42,0	400,0	110,0	1,47
963.2117	1500	52,0	44,0	400,0	120,0	1,67
963.2118	2000	54,0	46,0	400,0	130,0	2,20

#### BRONZEplus ball pin hammer

- In accordance to DIN 1041
- With hickory handle
- Head and edge areas ground
- Rounded edges
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)





### BRONZEplus Hand hammer

- In accordance to DIN 1041
- With hickory handle
- American form
- Surfaces polished ground
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2120	700	30,0	310,0	115,0	0,90
963.2121	1200	40,0	400,0	135,0	1,40
963.2122	1600	40,0	400,0	140,0	1,85

### BRONZEplus machinist's hammer

- With hickory handle
- American form
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2140	100	20,0	310,0	50,0	0,24
963.2141	300	28,0	310,0	65,0	0,44
963.2142	500	32,0	310,0	80,0	0,64
963.2143	600	33,0	340,0	90,0	0,74
963.2144	800	36,0	340,0	100,0	0,95
963.2145	900	37,0	380,0	110,0	1,10
963.2146	1100	38,0	380,0	120,0	1,25

### BRONZEplus brick hammer

- With hickory handle
- American form
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	S mm	kg
963.2163	700	22,0	360,0	170,0	34,0	840

### BRONZEplus Set hammer

- In accordance to DIN 1041
- With hickory handle
- Head and edge areas ground
- Rounded edges
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2125	1500	42,0	395,0	145,0	1,70

### BRONZEplus claw hammer

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	L3 mm	kg
963.2150	300	24,0	310,0	110,0	25,0	440
963.2151	400	29,0	340,0	120,0	30,0	540
963.2152	500	32,0	340,0	125,0	30,0	640
963.2153	600	35,0	340,0	135,0	30,0	740

### BRONZEplus scaling hammer

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	L1 mm	L2 mm	S mm	kg
963.2170	200	280,0	115,0	19,0	0,25
963.2171	400	310,0	125,0	27,0	0,50
963.2172	500	310,0	140,0	30,0	0,62
963.2173	600	310,0	145,0	32,0	0,75
963.2174	800	340,0	150,0	35,0	0,95
963.2175	900	340,0	155,0	38,0	1,10
963.2176	1400	380,0	160,0	45,0	1,60

### BRONZEplus Hole/Drift punch

- With hickory handle
- Head and edge areas ground
- Rounded edges
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2130	1000	32,0	400,0	140,0	1,15
963.2131	2000	45,0	600,0	160,0	2,15
963.2132	3000	50,0	900,0	180,0	3,80
963.2133	5000	60,0	900,0	220,0	5,80

### BRONZEplus brick hammer

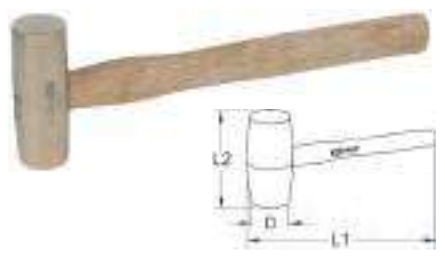
- In accordance to DIN 5108
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	S mm	kg
963.2160	600	27,0	310,0	120,0	40,0	0,70
963.2161	800	35,0	310,0	135,0	45,0	0,90
963.2162	1000	40,0	400,0	145,0	48,0	1,15

### BRONZEplus mallet

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2180	900	45,0	380,0	75,0	1,10
963.2181	1800	60,0	380,0	85,0	2,00
963.2182	2700	70,0	790,0	90,0	3,00

### BRONZEplus cutoff hammer

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2595	1300	40,0	400,0	140,0	1,53
963.2596	2100	45,0	400,0	155,0	2,62

### BRONZEplus pin punch

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	g	D mm	L1 mm	L2 mm	kg
963.2405	800	8,0	340,0	140,0	0,95
963.2406	800	10,0	340,0	140,0	0,95
963.2407	1200	12,0	380,0	160,0	1,40
963.2408	1200	16,0	380,0	160,0	1,40

### BRONZEplus securing for hammers

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



		kg
963.5602	up to 2 kg	80
963.5603	2 - 6 kg	140

### NON SPARKING AXES

#### BRONZEplus hoe

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	S mm	L mm	kg
963.9605	120,0	950,0	2,30

#### BRONZEplus hatchet

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
963.9606	50,0	480,0	155,0	110,0	1,45
963.9607	70,0	610,0	185,0	110,0	1,50

#### BRONZEplus axe

- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	D mm	L1 mm	L2 mm	L3 mm	kg
963.9608	60,0	750,0	185,0	130,0	1,60
963.9609	60,0	900,0	185,0	130,0	2,20

### BRONZEplus fireman's axe

- In accordance to DIN 14900
- With hickory handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	L3 mm	kg
963.9610	800,0	240,0	100,0	2,60

### BERYLLIUMplus fireman's hatchet

- With fibreglass handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	A mm	L1 mm	L2 mm	L3 mm	kg
962.9032	27,0	400,0	200,0	85,0	900

### BRONZEplus hand pick

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9611	420,0	220,0	2,15

## NON SPARKING PICKS

### BRONZEplus miner's pick

- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9612	890,0	400,0	2,20

### BRONZEplus fireman's hook

- In accordance to DIN 14851
- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Width mm	kg
963.9613	380,0	176,0	1,80

### BRONZEplus pick axe

- In accordance to DIN 20109
- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9620	800,0	400,0	2,15
963.9621	950,0	500,0	3,50
963.9622	950,0	550,0	4,00

### BRONZEplus pick axe

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9623	950,0	650,0	4,10

## NON SPARKING CHISELS

### BRONZEplus flat chisel

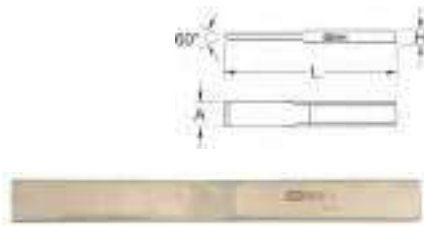
- In accordance to DIN 6453
- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	H mm	kg
963.2415	150,0	20,0	8,0	200
963.2416	200,0	25,0	8,0	320
963.2417	250,0	25,0	10,0	550
963.2418	300,0	25,0	10,0	560
963.2419	400,0	30,0	12,0	630
963.2420	450,0	30,0	12,0	750
963.2421	500,0	30,0	12,0	920

### BRONZEplus slitting chisel

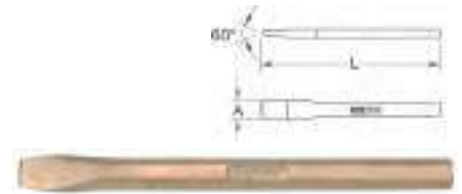
- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	H mm	kg
963.2430	200,0	25,0	5,0	360
963.2431	250,0	25,0	5,0	460
963.2432	300,0	25,0	5,0	550

### BRONZEplus bricklayer's chisel

- In accordance to DIN 7254
- Burr-free cutting
- 6 point
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	kg
963.2440	200,0	6,0	0,15
963.2441	150,0	8,0	0,04
963.2442	150,0	10,0	0,12
963.2443	150,0	14,0	0,20
963.2444	200,0	14,0	0,25
963.2445	250,0	14,0	0,30
963.2446	300,0	14,0	0,40
963.2447	150,0	17,0	0,30
963.2448	250,0	17,0	0,45
963.2449	300,0	17,0	0,55
963.2450	200,0	19,0	0,50
963.2451	250,0	19,0	0,60
963.2452	350,0	19,0	0,85
963.2453	400,0	19,0	1,00
963.2454	250,0	22,0	0,85
963.2455	300,0	22,0	1,00
963.2456	500,0	22,0	1,60
963.2457	600,0	22,0	2,00
963.2458	250,0	27,0	0,58
963.2459	300,0	32,0	0,85



### BRONZEplus cross cut chisel

- In accordance to DIN 6451
- Flat oval form
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	H mm	kg
963.2470	150,0	8,0	18,0	250
963.2471	200,0	8,0	20,0	340
963.2472	250,0	8,0	22,0	480
963.2473	300,0	10,0	25,0	640

### BRONZEplus cross cut chisel

- In accordance to DIN 6451
- 6 point
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	
963.2480	200,0	14,0	270
963.2481	250,0	14,0	330
963.2482	300,0	17,0	550
963.2483	400,0	19,0	960

### BRONZEplus pointed chisel

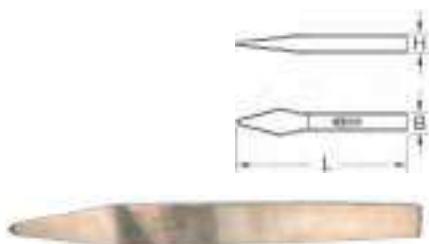
- In accordance to DIN 6451
- 6 point
- Burr-free cutting
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	S mm	
963.2490	200,0	14,0	270
963.2491	250,0	14,0	330
963.2492	300,0	17,0	550
963.2493	400,0	19,0	960

### BRONZEplus concrete chisel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	H mm	B mm	
963.2505	380,0	33,0	33,0	5,00

### NON SPARKING PIN PUNCHES & PUNCHES

#### BRONZEplus scriber

- For marking of work pieces
- Straight and 70° bent tip
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Ø mm	
963.2510	190,0	4,0	50
963.2511	225,0	6,0	50

#### BRONZEplus offset pin

- For marking of work pieces
- Straight and 90° bent tip
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	Ø mm	
963.2515	300,0	100,0	13,0	0,20
963.2516	450,0	150,0	19,0	1,30
963.2517	450,0	150,0	16,0	0,93
963.2518	450,0	150,0	24,0	2,00
963.2519	450,0	150,0	27,0	2,30
963.2520	450,0	150,0	30,0	3,30
963.2521	500,0	150,0	16,0	1,30
963.2522	600,0	200,0	20,0	2,40
963.2523	800,0	200,0	22,0	3,40

#### BRONZEplus square blade awl

- For piercing and widening of holes
- Two component handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	Ø mm	
963.2525	180,0	100,0	5,0	80

### BRONZEplus pin punch set

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In a roll bag



963.2560	6 pcs	BRONZEplus pin punch set	310
1 x		4 mm	
5 x		1 - 2 - 3 - 4 - 5 mm	

#### BRONZEplus pin punch

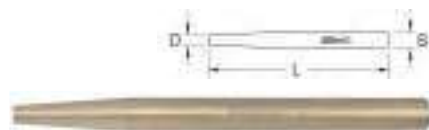
- In accordance to DIN 6450
- Conical form
- Strong execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	
963.2561	120,0	1,0	8,0	40
963.2562	120,0	2,0	8,0	40
963.2563	120,0	3,0	8,0	40
963.2564	120,0	4,0	8,0	40
963.2565	120,0	5,0	10,0	60
963.2530	150,0	6,0	13,0	100
963.2531	150,0	7,0	17,0	100
963.2532	200,0	8,0	21,0	320
963.2533	250,0	12,0	24,0	450
963.2534	250,0	13,0	30,0	600

#### BRONZEplus pin punch

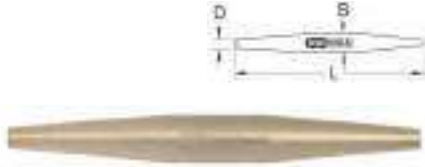
- In accordance to DIN 6450
- Conical form
- Extra strong execution
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	
963.2535	220,0	5,0	16,0	280
963.2536	230,0	10,0	19,0	420
963.2537	250,0	13,0	24,0	880

### BRONZEplus pin punch

- Barrel type
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	9
963.2540	200,0	8,0	17,0	230
963.2541	200,0	8,0	21,0	360
963.2542	200,0	10,0	24,0	270
963.2543	200,0	13,0	27,0	630
963.2544	200,0	18,0	30,0	880
963.2545	200,0	22,0	32,0	1050

### BRONZEplus centre punch

- In accordance to DIN 7250
- Shaft coded
- Beveled
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	9
963.2550	100,0	3,0	30
963.2551	110,0	4,0	60
963.2552	125,0	5,0	100
963.2553	150,0	6,0	200

### BRONZEplus split pin puncher set

- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)
- In a roll bag



		9
963.2590	6 pcs 3 - 4 - 5 - 6 - 8 - 10 mm	440

### BRONZEplus split pin puncher

- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	9
963.2591	110,0	3,0	9,0	35
963.2592	110,0	4,0	10,0	40
963.2593	120,0	5,0	11,0	78
963.2594	120,0	6,0	12,0	86
963.2597	130,0	8,0	14,0	178
963.2598	140,0	10,0	16,0	205

### BRONZEplus taper punch

- 4 point
- In accordance to DIN 6450
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	9
963.2566	500,0	5,0	20,0	1,20

### BRONZEplus straight pin

- In accordance to DIN 6451
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	9
963.2570	85,0	8,0	12,0	40
963.2571	90,0	10,0	14,0	50
963.2572	100,0	13,0	16,0	70
963.2573	110,0	16,0	20,0	100
963.2574	140,0	19,0	25,0	180
963.2575	160,0	21,0	28,0	270
963.2576	200,0	25,0	30,0	450
963.2577	240,0	29,0	35,0	630

### BRONZEplus setting punch

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	S mm	9
963.2580	180,0	5,0	12,0	110
963.2581	200,0	6,0	13,0	150
963.2582	200,0	8,0	16,0	220
963.2583	200,0	9,0	20,0	340
963.2584	230,0	10,0	22,0	460
963.2585	250,0	11,0	25,0	620
963.2586	280,0	12,0	27,0	870
963.2587	320,0	14,0	30,0	1260
963.2588	350,0	15,0	32,0	1570
963.2589	380,0	16,0	36,0	2230

### BRONZEplus thread cleaning pin

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Ø mm	L mm	9
963.9505	6,0	300,0	20
963.9506	10,0	300,0	180
963.9507	13,0	300,0	350

### BERYLLIUMplus caulking tool

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	B mm	L mm	9
962.0202	2,0	150,0	370
962.0203	3,0	160,0	410
962.0204	4,0	180,0	390
962.0205	5,0	200,0	520
962.0206	6,0	200,0	420
962.0207	7,0	220,0	500
962.0208	8,0	220,0	520
962.0209	9,0	220,0	520
962.0210	10,0	250,0	600
962.0212	12,0	250,0	540



## NON SPARKING CONSTRUCTION TOOLS

### BRONZEplus rust scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9545	600,0	75,0	0,53
963.9546	800,0	75,0	0,62
963.9547	1000,0	75,0	0,74
963.9548	1200,0	75,0	1,16

### BRONZEplus brick trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9550	215,0	130,0	350
963.9551	240,0	135,0	540

### BRONZEplus plastering trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9552	280,0	120,0	810

### BRONZEplus pointed trowel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9553	180,0	92,0	180

### BRONZEplus jointing trowel

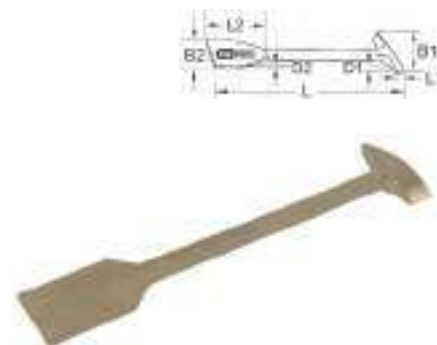
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9554	100,0	10,0	100

### BRONZEplus pick scraper

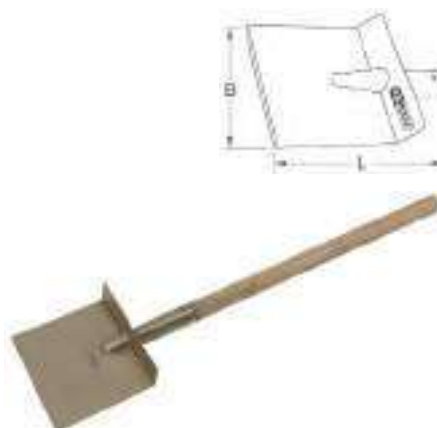
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B1 mm	B2 mm	D1 mm	D2 mm	L1 mm	L2 mm	kg
963.9565	480,0	110,0	70,0	20,0	10,0	40,0	125,0	1,20

### BRONZEplus floor scraper

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	kg
963.9570	170,0	150,0	720



### BRONZEplus deck scraper

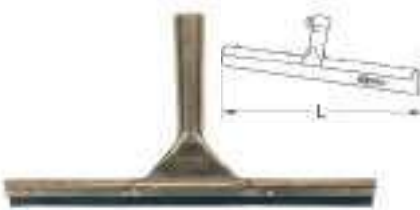
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	g
963.9575	150,0	75,0	500
963.9576	235,0	125,0	800

### BRONZEplus rubber pusher

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	g
963.9592	300,0	300

### Non-sparking buckets

- Revolving stop handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant



	Material	H mm	D mm	g
963.5505	10 brass	270,0	185,0	1,46
963.5506	12 aluminium	290,0	200,0	0,74

### NON SPARKING SPATULAS

#### BRONZEplus wide scraper, stiff blade

- With wooden handle
- With hanging hole
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

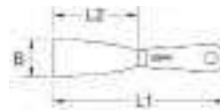


	L1 mm	L2 mm	B mm	g
963.9560	195,0	80,0	120,0	250
963.9561	195,0	80,0	140,0	270
963.9562	205,0	90,0	160,0	300
963.9563	205,0	90,0	180,0	350



#### BERYLLIUMplus scraper, flexible blade

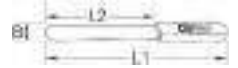
- With wooden handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	g
962.0301	200,0	95,0	25,0	75
962.0302	200,0	95,0	30,0	85
962.0303	200,0	95,0	40,0	95
962.0304	200,0	95,0	50,0	105
962.0305	200,0	95,0	60,0	115
962.9031	200,0	95,0	75,0	130
962.0306	200,0	95,0	100,0	145

### BRONZEplus spatula

- With wooden handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

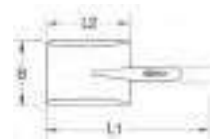


	L1 mm	L2 mm	B mm	g
963.9515	260,0	150,0	25,0	350
963.9516	350,0	230,0	40,0	800
963.9517	490,0	355,0	50,0	1750

### NON SPARKING SHOVELS & FORKS

#### BRONZEplus spades

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	g
963.9630	1250,0	260,0	180,0	straight 3,50
963.9631	1250,0	260,0	180,0	D handle 3,65



### BRONZEplus folding spade

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9632	670,0	210,0	160,0	1,30

### BRONZEplus round point shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm		 kg
963.9635	1400,0	340,0	260,0	straight	1,85
963.9636	1000,0	340,0	260,0	D handle	1,85

### BRONZEplus shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm		 kg
963.9637	1400,0	400,0	270,0	straight	1,95
963.9638	1000,0	400,0	270,0	D handle	1,95

### BRONZEplus hand shovel

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9639	540,0	220,0	180,0	720

### BRONZEplus manure fork

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9645	1600,0	330,0	230,0	1,64

### BRONZEplus spade fork

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9646	1000,0	290,0	180,0	2,10

### BRONZEplus hay fork

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9647	1600,0	290,0	180,0	1,28

### BRONZEplus fork for gun cotton

- Without handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	B mm	 kg
963.9648	200,0	140,0	90,0	0,60
963.9649	370,0	250,0	150,0	1,80

### BRONZEplus rake

- With beech handle
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

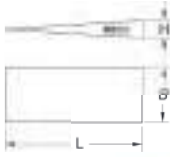


	L mm	B mm	H mm	 kg
963.9650	1600,0	360,0	90,0	1,53

## NON SPARKING WEDGES

### BRONZEplus wedge

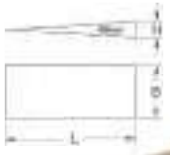
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	kg
963.2205	80,0	15,0	6,0	0,04
963.2206	90,0	50,0	10,0	0,20
963.2207	100,0	50,0	10,0	0,21
963.2208	105,0	19,0	13,0	0,10
963.2209	150,0	25,0	13,0	0,25
963.2210	150,0	30,0	13,0	0,28
963.2211	150,0	38,0	19,0	0,40
963.2212	150,0	40,0	13,0	0,35
963.2213	180,0	32,0	13,0	0,30
963.2214	180,0	50,0	10,0	0,40
963.2215	180,0	50,0	19,0	0,70
963.2216	200,0	38,0	25,0	0,90
963.2217	200,0	38,0	41,0	1,30
963.2218	200,0	40,0	40,0	1,38
963.2219	200,0	50,0	19,0	0,80
963.2220	215,0	50,0	32,0	1,40
963.2221	230,0	40,0	20,0	1,00

### BRONZEplus wedge with hole

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	hole diameter	kg
963.2225	100,0	30,0	15,0	6 mm	220

### BRONZEplus space wedge

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	A mm	kg
963.2226	250,0	50,0	5,0	1,2	200

## BRONZEplus nosekey

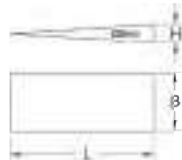
- for a positive connection of the shaft and hub
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	kg
963.2230	340,0	20,0	40,0	2,60
963.2231	340,0	30,0	40,0	2,80
963.2232	400,0	30,0	40,0	3,50

## BRONZEplus stone wedge

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	H mm	kg
963.2235	120,0	50,0	44,0	1,10
963.2236	150,0	45,0	45,0	1,40
963.2237	190,0	55,0	47,0	2,00
963.2238	240,0	60,0	50,0	3,00

## BRONZEplus straight gasket knife with mandrel

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	S mm	kg
963.9655	400,0	25,0	220	300

## BRONZEplus round gasket knife

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	S mm	kg
963.9656	690,0	30,0	400	1,20
963.9657	1240,0	40,0	800	2,00

## NON SPARKING PRY BARS

### BRONZEplus pry bar/crowbar

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	kg
963.9705	300,0	14,0	0,40
963.9706	450,0	9,0	1,10
963.9707	600,0	19,0	1,50
963.9708	750,0	22,0	2,50
963.9709	900,0	22,0	3,00

### BRONZEplus wrecking bar

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	D mm	kg
963.9715	300,0	14,0	0,40
963.9716	450,0	19,0	1,10
963.9717	600,0	19,0	1,50
963.9718	750,0	22,0	2,50
963.9719	900,0	22,0	3,00

## NON SPARKING CROWBARS

### BRONZEplus crowbar

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	S mm	kg
963.9720	450,0	19,0	1,10
963.9721	600,0	19,0	1,50
963.9722	750,0	22,0	2,50
963.9723	900,0	22,0	3,00
963.9724	1000,0	22,0	3,30
963.9725	1250,0	27,0	6,10
963.9726	1500,0	27,0	7,30
963.9727	1800,0	30,0	11,10
963.9728	2000,0	30,0	12,30

### BRONZEplus crowbar with point and edge

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Ø mm	
963.9730	1000,0	30	6,15
963.9731	1250,0	30	7,70
963.9732	1500,0	30	9,25
963.9733	1800,0	30	11,10
963.9734	2000,0	30	12,30

### BRONZEplus crowbar with point and claw

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Ø mm	
963.9735	1000,0	30	6,15
963.9736	1250,0	30	7,70
963.9737	1500,0	30	9,25
963.9738	1800,0	30	11,10
963.9739	2000,0	30	12,30

### BRONZEplus crowbar with edge and ball end

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Ø mm	
963.9745	1000,0	30	6,15
963.9746	1250,0	30	7,70
963.9747	1500,0	30	9,25
963.9748	1800,0	30	11,10
963.9749	2000,0	30	12,30

### BRONZEplus crowbar with point and ball end

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Ø mm	
963.9755	1000,0	30	6,15
963.9756	1250,0	30	7,70
963.9757	1500,0	30	9,25
963.9758	1800,0	30	11,10
963.9759	2000,0	30	12,30

### BRONZEplus lifting rod

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	B mm	
963.9765	650,0	20,0	2,00
963.9766	800,0	20,0	2,70
963.9767	1000,0	20,0	3,40
963.9768	1250,0	25,0	6,20
963.9769	1500,0	25,0	7,70

### BRONZEplus bending lever

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm		
963.9775	200,0	5,0	19	0,66
963.9776	300,0	5,0	19	1,00
963.9777	400,0	5,0	19	1,30
963.9778	500,0	5,0	19	1,60
963.9779	600,0	5,0	19	2,00

### BRONZEplus tyre lever

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	
963.9785	200,0	20,0	350
963.9786	300,0	25,0	470
963.9787	400,0	30,0	600
963.9788	500,0	35,0	770
963.9789	600,0	38,0	900

### BRONZEplus tyre lever, heavy and robust execution

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	A mm	
963.9790	600,0	25,0	1,00

### BRONZEplus crate opener

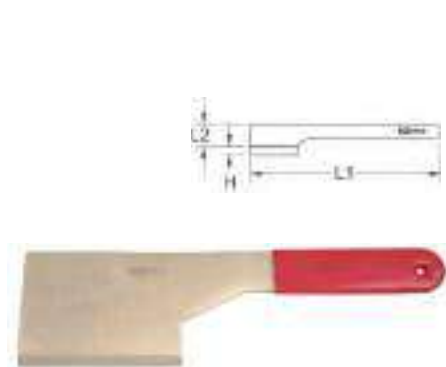
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	L3 mm	
963.5105	22,0	230,0	70,0	30,0	490

### BRONZEplus carbide drum opener

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	H mm	L1 mm	L2 mm	
963.5106	10,0	300,0	75,0	750

### NON SPARKING DRUM LIFTERS

#### BRONZEplus drum lifter

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	Max load kg	
963.5107	1060,0	600	3,80

### NON SPARKING SHACKLES

#### BERYLLIUMplus shackle

- Straight design
- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	D mm	L mm	B mm	
962.9520	25,0	40,0	30,0	100
962.9521	28,0	78,0	37,0	150

## NON SPARKING PIPE CUTTERS

### BRONZEplus pipe cutter

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)

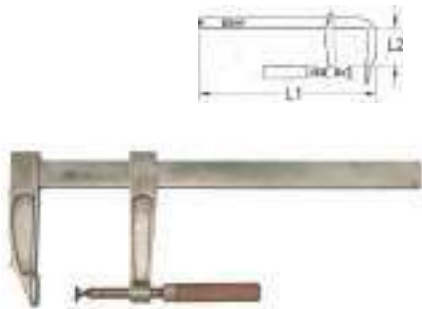


	Ø mm	L1 mm	kg
963.5109	50,0	340,0	2,50

## NON SPARKING CLAMPING TOOLS

### BRONZEplus tension clamp

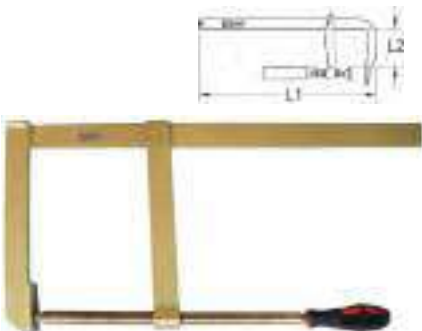
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	kg
963.5020	480,0	130,0	2,10

### BRONZEplus deep tension clamp

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L1 mm	L2 mm	kg
963.5021	480,0	250,0	3,70

## BRONZEplus bench vice

- With swivel base
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	C1 mm	C2 mm	kg
963.5005	100,0	90,0	6,50
963.5006	130,0	125,0	15,50
963.5007	150,0	150,0	26,50
963.5008	170,0	170,0	27,40

## NON SPARKING NEEDLES

### BERYLLIUMplus hearing needle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	Ø mm	kg
962.0220	250,0	6,0	70
962.0221	300,0	8,0	150
962.0222	400,0	7,0	160
962.0223	500,0	10,0	330

### BERYLLIUMplus hearing needle with ball end

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	Ø mm	kg
962.0224	500,0	6,0	130

### BERYLLIUMplus needle

- Non-sparking
- Explosion proof
- Corrosion resistant
- Very breakage resistant
- Copper Beryllium (Non-Ferrous-Alloy)



	L mm	Ø mm	kg
962.0225	180,0	3,0	20

## NON SPARKING OIL PUMPS

### BRONZEplus portable manual oil pump

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	L mm	kg
963.5805	1350,0	5,00

## NON SPARKING HOISTS

### BRONZEplus hand lift truck

- Pallet truck capacity 2.0 t
- Fork length approx. 1.100 mm
- Guide rod length approx. 1.250 mm
- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Load capacity kg	Total length mm	Width mm	Total depth mm	kg
963.5905	2000	1.100,0	470,0	1250,0	120,00

### BRONZEplus chain hoist

- Non-sparking
- Explosion proof
- Corrosion resistant
- Wear resistant
- Aluminium-Bronze (Non-Ferrous-Alloy)



	Chain length	Max capacity t	kg
963.9905	2 chains à 2,5 m	0,5 t	10,20
963.9906	2 chains à 2,5 m	1,0 t	13,60
963.9907	2 chains à 2,5 m	1,5 t	15,60
963.9908	2 chains à 2,5 m	2,0 t	22,00
963.9909	2 chains à 3 m	3,0 t	23,60
963.9910	2 chains à 3 m	5,0 t	36,00
963.9911	2 chains à 3 m	10,0 t	68,50
963.9912	2 chains à 3 m	16,0 t	187,00



Innovation is  
our mission!

**NON SPARKING  
TOOLS**

**BRONZE *plus***  
**BERYLLIUM *plus***

- Chemical industries
- Petro refineries
- Oil and gas carriages
- Pipeline business
- Drilling platforms
- Fuel service (cleaning etc.)
- Gas and electricity works
- Varnishing
- Federal armed forces, army
- Civil defence and civil protection
- Fire department

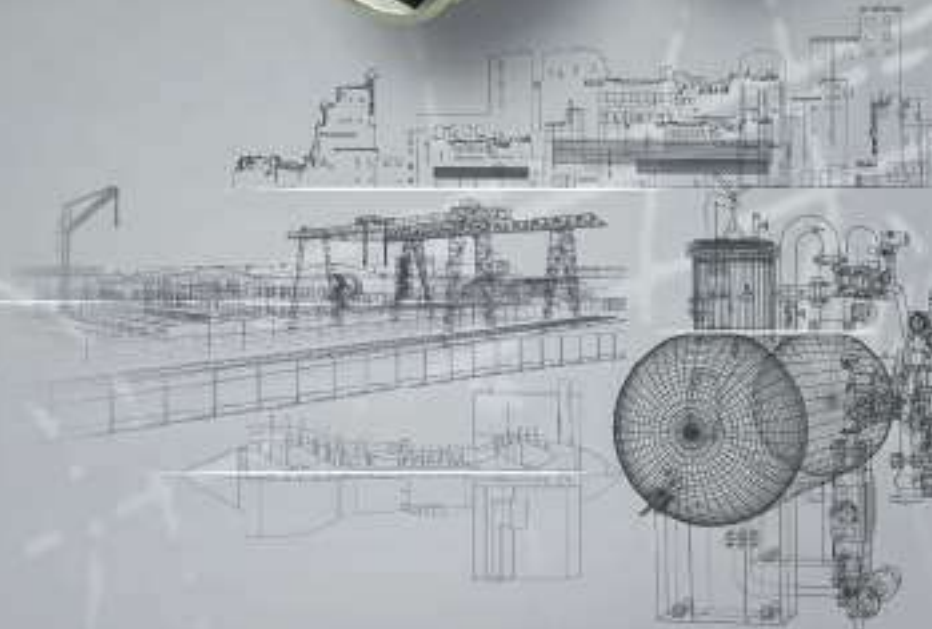
You can use it on all places where sparks create potential danger of explosion and fire. For the activities which require the use (application) of a hundred percent non-magnetic and extremely rustproof tools.



STAINLESS STEEL TOOLS /  
NON-MAGNETIC TITANIUM TOOLS



Innovation is  
our mission!



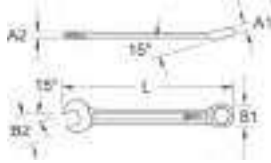


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## STAINLESS STEEL SPANNERS

### STAINLESS STEEL Combination spanners, offset

- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
964.0108	8	5,5	4,6	12,8	18,5	125,0	26
964.0110	10	6,5	4,8	15,8	23,2	145,0	42
964.0111	11	6,9	5,2	16,9	25,3	155,0	47
964.0112	12	7,7	5,2	18,7	27,2	165,0	60
964.0113	13	8,3	6,0	20,0	29,4	175,0	68
964.0114	14	8,4	6,0	21,0	30,8	185,0	87
964.0115	15	8,7	6,4	22,5	32,5	195,0	98
964.0117	17	9,3	6,8	25,3	35,9	215,0	119
964.0119	19	10,5	7,4	28,1	40,7	235,0	162

### STAINLESS STEEL combination spanner set, offset

- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Ring head 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

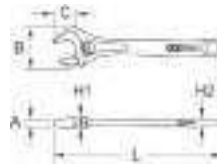


	mm	kg
964.0130	6 pcs 8 - 10 - 12 - 13 - 17 - 19 mm	621
964.0135	9 pcs 8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm	842



## STAINLESS STEEL Adjustable wrench

- In accordance to DIN 3117 Form A
- Jaw 15° offset
- Swedish type design
- With mm scale
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	kg
964.1301	18	6,0	43,0	17,0	12,0	5,0	150,0	120
964.1302	24	6,0	52,0	24,0	14,0	6,0	200,0	245
964.1303	30	7,0	67,0	29,0	15,0	7,0	250,0	390
964.1304	36	10,0	77,0	33,0	19,0	8,0	300,0	645
964.1305	46	13,0	96,0	45,0	22,0	9,0	375,0	1175
964.1306	55	13,0	114,0	49,0	26,0	11,0	450,0	1865
964.1307	65	19,0	135,0	55,0	34,0	14,0	600,0	3325

## STAINLESS STEEL Open end spanner, 5,5x7mm

- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B1 mm	B2 mm	L mm	kg
964.2201	5,5x7	4,0	13,0	14,0	94,0	0,05
964.2202	6x7	4,0	13,0	14,0	94,0	0,05
964.2203	8x9	5,0	19,0	23,0	122,0	0,06
964.2204	8x10	5,0	19,0	23,0	122,0	0,05
964.2205	9x11	5,0	22,0	26,0	135,0	0,06
964.2206	10x12	5,0	22,0	26,0	135,0	0,06
964.2207	12x14	7,0	32,0	26,0	150,0	0,09
964.2208	14x17	7,0	32,0	36,0	165,0	0,12
964.2209	16x18	7,0	33,0	36,0	170,0	0,12
964.2210	17x19	8,0	35,0	38,0	185,0	0,15
964.2211	19x22	8,0	40,0	44,0	200,0	0,19
964.2212	22x24	9,0	44,0	47,0	230,0	0,27
964.2213	24x27	10,0	46,0	51,0	250,0	0,34
964.2214	27x30	10,0	50,0	64,0	275,0	0,49
964.2215	30x32	12,0	60,0	64,0	285,0	0,75

## STAINLESS STEEL Open end spanner set

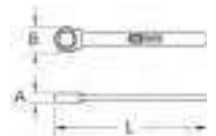
- DIN 3113 Form A / ISO 3318 / ISO 7738
- Jaw 15° offset
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	kg
964.2240	9 pcs 8x10 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2,01
964.2245	11 pcs 8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2,55
964.2250	13 pcs 5,5x7 - 6x7 - 8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2,64

## STAINLESS STEEL Single ring wrench

- FlankTraction profile
- Straight form
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A mm	B mm	L mm	kg
964.1012	12	11,0	22,0	145,0	0,10
964.1014	14	11,0	26,0	145,0	0,10
964.1017	17	12,0	29,0	150,0	0,13
964.1019	19	12,0	31,0	158,0	0,16
964.1022	22	13,0	36,0	185,0	0,18
964.1024	24	13,0	39,0	197,0	0,23
964.1027	27	14,0	44,0	223,0	0,30
964.1030	30	14,0	50,0	253,0	0,39
964.1032	32	15,0	50,0	253,0	0,46
964.1034	34	15,0	53,0	270,0	0,55
964.1036	36	15,0	55,0	290,0	0,63
964.1038	38	16,0	58,0	30,0	0,71
964.1041	41	17,0	62,0	315,0	0,84
964.1045	45	19,0	71,0	325,0	1,23
964.1046	46	19,0	71,0	325,0	1,21
964.1048	48	21,0	75,0	325,0	1,49
964.1050	50	21,0	75,0	340,0	1,45
964.1055	55	22,0	80,0	360,0	1,95
964.1056	56	22,0	80,0	360,0	1,95
964.1060	60	24,0	89,0	380,0	2,26
964.1065	65	27,0	96,0	415,0	2,75
964.1070	70	27,0	104,0	425,0	3,26
964.1075	75	28,0	114,0	440,0	3,13

### STAINLESS STEEL ring spanner offset

- FlankTraction profile
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Thin walled
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	kg
964.1101	5,5x7	6,0	6,0	10,0	12,0	119,0	0,04
964.1102	6x7	6,0	7,0	12,0	13,0	170,0	0,05
964.1103	8x9	6,0	7,0	12,0	14,0	175,0	0,05
964.1104	8x10	5,0	6,0	13,0	15,0	175,0	0,05
964.1105	9x11	6,0	7,0	16,0	20,0	200,0	0,08
964.1106	10x12	6,0	7,0	16,0	19,0	200,0	0,07
964.1107	12x14	7,0	8,0	19,0	21,0	220,0	0,11
964.1108	14x17	9,0	9,0	22,0	26,0	250,0	0,15
964.1109	16x18	9,0	9,0	24,0	27,0	255,0	0,18
964.1110	17x19	9,0	10,0	26,0	29,0	260,0	0,19
964.1111	19x22	11,0	11,0	29,0	33,0	300,0	0,24
964.1112	22x24	12,0	13,0	32,0	35,0	320,0	0,38
964.1113	24x27	13,0	14,0	36,0	40,0	350,0	0,39
964.1114	27x30	13,0	15,0	40,0	42,0	370,0	0,46
964.1115	30x32	14,0	15,0	44,0	47,0	400,0	0,59

### STAINLESS STEEL ring spanner offset set

- FlankTraction profile
- In accordance to DIN 838 / ISO 1085 / ISO 10104 / ISO 3318
- Ring head 75° offset
- Thin walled
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



		kg
964.1140	9 pcs 8x10 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 30x32 mm	2,16
964.1145	11 pcs 8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2,69
964.1150	13 pcs 5,5x7 - 6x7 - 8x10 - 9x11 - 10x12 - 12x14 - 14x17 - 17x19 - 19x22 - 22x24 - 24x27 - 27x30 - 30x32 mm	2,78

### 1/4" STAINLESS STEEL POINT SOCKETS

#### STAINLESS STEEL hex socket

- 6 point
- In accordance to DIN 3124 / ISO 2725
- Internal square to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/4"

	mm	D1 mm	D2 mm	L mm	T mm	kg
964.1404	4,0	6,8	11,9	25,0	5,0	11
964.14045	4,5	7,4	11,9	25,0	5,0	11
964.1405	5,0	8,1	11,9	25,0	6,0	11
964.14055	5,5	8,7	11,9	25,0	6,0	11
964.1406	6,0	9,3	11,9	25,0	7,0	11
964.1407	7,0	10,7	11,9	25,0	7,0	12
964.1408	8,0	11,9	11,7	25,0	7,0	11
964.1409	9,0	12,9	11,7	25,0	12,0	12
964.1410	10,0	13,9	12,4	25,0	12,0	14
964.1411	11,0	15,7	13,8	25,0	14,0	17
964.1412	12,0	16,8	14,7	25,0	14,0	21
964.1413	13,0	17,8	15,4	25,0	14,0	22
964.1414	14,0	19,3	16,4	25,0	14,0	26

#### STAINLESS STEEL Square drive screwdriver

- Square drive adaptor in accordance to DIN 3120 / ISO 1174
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- With T-handle
- Rust-proof and acid resistant
- Stainless steel



1/4"

		L1 mm	L2 mm	L3 mm	kg
910.2451	1/4"	160,0	90,0	15,0	8

### STAINLESS STEEL Socket set

- Can be used by hand or with an electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- With T-handle
- Rust-proof and acid resistant
- Stainless steel



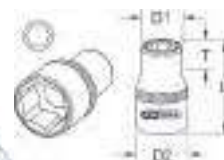
1/4"

		kg
910.2450	9 pcs STAINLESS STEEL Socket set	340
8 x	1/4": 4 - 5 - 6 - 7 - 8 - 10 - 12 - 13 mm	
1 x	1/4"	

### 1/2" STAINLESS STEEL POINT SOCKETS

#### STAINLESS STEEL hex socket

- 6 point
- FlankTraction profile
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/2"

	mm	D1 mm	D2 mm	L mm	T mm	kg
964.1208	8	13,0	22,0	37,0	14,0	43
964.1209	9	14,0	22,0	38,0	13,0	43
964.1210	10	15,0	22,0	37,0	14,0	43
964.1211	11	17,0	22,0	38,0	13,0	48
964.1212	12	18,0	21,0	38,0	16,0	45
964.1213	13	19,0	22,0	37,0	15,0	48
964.1214	14	20,0	22,0	37,0	18,0	50
964.1215	15	22,0	22,0	38,0	19,0	55
964.1216	16	22,0	22,0	38,0	19,0	55
964.1217	17	24,0	22,0	38,0	21,0	60
964.1218	18	25,0	23,0	38,0	21,0	70
964.1219	19	26,0	23,0	38,0	20,0	65
964.1220	20	27,0	24,0	38,0	21,0	80
964.1221	21	28,0	25,0	38,0	21,0	75
964.1222	22	30,0	26,0	38,0	21,0	90
964.1223	23	32,0	27,0	40,0	22,0	120
964.1224	24	32,0	28,0	40,0	22,0	115
964.1225	25	34,0	29,0	42,0	27,0	145
964.1226	26	36,0	30,0	42,0	27,0	165
964.1227	27	36,0	31,0	43,0	26,0	155

	mm	D1 mm	D2 mm	L mm	T mm	kg
964.1228	28	38,0	34,0	42,0	27,0	185
964.1229	29	40,0	34,0	45,0	27,0	225
964.1230	30	40,0	34,0	45,0	28,0	210
964.1231	31	42,0	36,0	44,0	27,0	230
964.1232	32	42,0	36,0	44,0	27,0	230

### STAINLESS STEEL uni joint

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	1/2"	1/2"	L mm	kg
964.1240	1/2	1/2"	85,0	295

### STAINLESS STEEL Sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	H mm	L mm	kg
964.1241	47,0	400,0	310

### STAINLESS STEEL extension

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	kg
964.1244	100,0	240
964.1245	200,0	355
964.1246	250,0	460

### STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	kg
964.1247	335,0	565

### STAINLESS STEEL Reversible ratchet

- Reversible
- With ejection mechanism on the ratchet head
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D mm	L mm	kg
964.1248	23,0	47,0	235,0	605

### 3/4" STAINLESS STEEL SOCKETS

#### STAINLESS STEEL hex socket

- 6 point
- FlankTraction profile
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	D1 mm	D2 mm	L mm	T mm	kg
964.3417	17	27,0	35,0	50,0	33,0	0,25
964.3419	19	30,0	35,0	50,0	33,0	0,25
964.3422	22	33,0	36,0	55,0	25,0	0,27
964.3424	24	36,0	36,0	55,0	25,5	0,31
964.3427	27	38,0	38,0	55,0	33,0	0,31
964.3430	30	43,5	38,0	60,0	36,0	0,41
964.3432	32	45,0	38,0	60,0	34,0	0,47
964.3434	34	47,0	38,0	60,0	34,0	0,48
964.3436	36	52,0	40,0	60,0	34,0	0,51
964.3441	41	58,0	43,0	65,0	36,0	0,66
964.3446	46	64,0	46,0	65,0	38,0	0,77
964.3450	50	68,0	47,0	70,0	42,0	0,91
964.3455	55	75,0	54,0	73,0	43,0	1,10
964.3460	60	81,0	55,0	80,0	46,0	1,30
964.3465	65	87,0	55,0	85,0	46,0	1,55

### STAINLESS STEEL uni joint

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	kg
964.3470	110,0	2500

### STAINLESS STEEL Sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	H mm	L mm	kg
964.3471	55,0	400,0	1,21

### STAINLESS STEEL extension

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	kg
964.3472	100,0	0,44
964.3473	200,0	0,86
964.3474	250,0	1,05

### STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	kg
964.3475	390,0	3,12

1" STAINLESS STEEL SOCKETS

STAINLESS STEEL nut joint

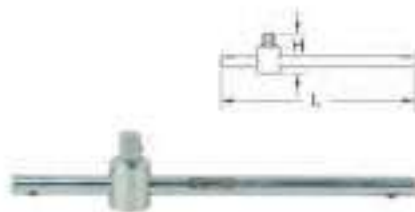
- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	H mm	Weight
994.270	132.0	180	

STAINLESS STEEL sliding T-bar

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	H mm	L mm	Weight
994.290	52.5	490.0	1.90

STAINLESS STEEL extension

- For manual operation
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	Weight
994.290	292.0	1.91

STAINLESS STEEL crank

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

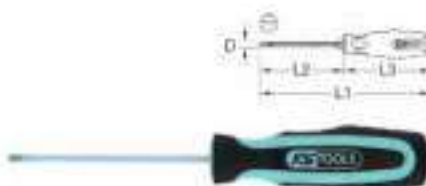


	L mm	H mm	Weight
994.270	390.0	4.00	

STAINLESS STEEL SCREWDRIVER

STAINLESS STEEL Slotted screwdriver

- Two component handle
- Optimal power transmission
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	D mm	L1 mm	L2 mm	L3 mm	Weight
153.160	2.0	155.0	75.0	80.0	40
153.160	4.0	195.0	75.0	80.0	40
153.160	5.0	225.0	108.0	125.0	50
153.160	6.0	295.0	108.0	135.0	60
153.160	8.0	265.0	158.0	115.0	100

STAINLESS STEEL PHILLIPS® screwdriver

- Two component handle
- Optimal power transmission
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L1 mm	L2 mm	L3 mm	Weight	
153.100	PH 1	190.0	75.0	135.0	40
153.101	PH 2	295.0	108.0	135.0	70
153.102	PH 3	195.0	158.0	115.0	100

STAINLESS STEEL POZI® screwdriver

- Two component handle
- Optimal power transmission
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L1 mm	L2 mm	L3 mm	Weight	
153.190	PZ 1	108.0	75.0	105.0	40
153.191	PZ 2	208.0	100.0	108.0	70
153.192	PZ 3	168.0	115.0	115.0	100

STAINLESS STEEL bit screwdriver

- Two component handle
- Optimal power transmission
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L1 mm	L2 mm	L3 mm	Weight	
153.180	1/4"	208.0	100.0	108.0	100

STAINLESS STEEL Screwdriver set

- Two component handle
- Optimal power transmission
- Hardened blade
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	Weight
153.200 8 pc. STAINLESS STEEL Screwdriver set	1.60
4 x	3 - 5 - 6 - 8 mm
2 x	PH1 - PH2
2 x	PZ1 - PZ2

### STAINLESS STEEL Combination tool set

- Can be used by hand or with an electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable metal case



		STAINLESS STEEL Combination tool set		kg	
910.2460	48 pcs			2,83	
2 x		3x75 mm, 6x100 mm			
2 x		PH1x75 mm, PH2x100 mm			
2 x		PZ1x75 mm, PZ2x100 mm			
1 x		1/4"x100 mm			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			
1 x		910.2455			

### 1/4" STAINLESS STEEL BITS

#### STAINLESS STEEL quick release bit holder

- Quick change function and locking device
- For 1/4" Bits with external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand, electric screwdriver and drills
- Ideally suited for fittings in trade and industry
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

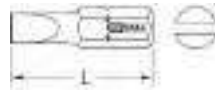


		H mm		L mm		kg	
910.1114	1/4"	1/4"	16,0	65,0	50		



### STAINLESS STEEL bit for slotted screws

- Slotted
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



		L mm		Content		kg	
910.2234	3,0	25,0	1	4			
910.2233	3,0	25,0	5	30			
910.2238	5,5	25,0	1	4			
910.2237	5,5	25,0	5	30			
910.2244	6,5	25,0	1	4			
910.2243	6,5	25,0	5	30			

### STAINLESS STEEL bit for hexagon screws

- Hexagon socket
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



		L mm		Content		kg	
910.2259	4,0	25,0	1	4			
910.2258	4,0	25,0	5	30			
910.2262	5,0	25,0	1	5			
910.2261	5,0	25,0	5	30			
910.2265	6,0	25,0	1	5			
910.2264	6,0	25,0	5	30			

### STAINLESS STEEL bit for phillips screws PH

- PH
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



		L mm		Content		kg	
910.2202	PH1	25,0	1	4			
910.2201	PH1	25,0	5	30			
910.2205	PH2	25,0	1	4			
910.2204	PH2	25,0	5	30			
910.2208	PH3	25,0	1	4			
910.2207	PH3	25,0	5	30			

### STAINLESS STEEL bit for pozidriv screws PZ

- PZ
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

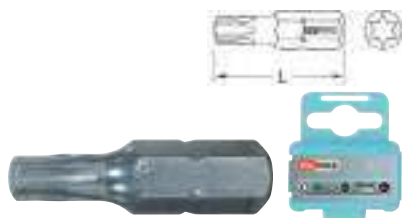


		L mm		Content		kg	
910.2220	PZ1	25,0	1	4			
910.2219	PZ1	25,0	5	30			
910.2223	PZ2	25,0	1	4			
910.2222	PZ2	25,0	5	30			
910.2226	PZ3	25,0	1	4			
910.2225	PZ3	25,0	5	30			



### STAINLESS STEEL bit for Torx screws

- Torx
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

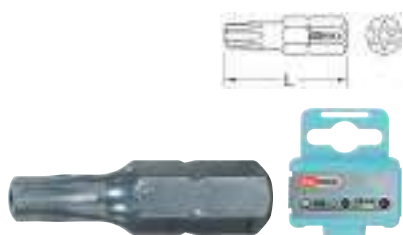


1/4"

		L mm	Content	9
910.2313	T10	25,0	1	5
910.2312	T10	25,0	5	30
910.2316	T15	25,0	1	5
910.2315	T15	25,0	5	30
910.2319	T20	25,0	1	5
910.2318	T20	25,0	5	30
910.2322	T25	25,0	1	5
910.2321	T25	25,0	5	30
910.2328	T27	25,0	1	4
910.2327	T27	25,0	5	30
910.2331	T30	25,0	1	4
910.2330	T30	25,0	5	30
910.2336	T40	25,0	1	4
910.2335	T40	25,0	5	30

### STAINLESS STEEL bit for Torx tamperproof screws

- For tamperproof Torx
- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



1/4"

		L mm	Content	9
910.2343	TB10	25,0	1	6
910.2342	TB10	25,0	5	30
910.2346	TB15	25,0	1	6
910.2345	TB15	25,0	5	30
910.2349	TB20	25,0	1	6
910.2348	TB20	25,0	5	30
910.2352	TB25	25,0	1	6
910.2351	TB25	25,0	5	30
910.2358	TB27	25,0	1	4
910.2357	TB27	25,0	5	30
910.2361	TB30	25,0	1	4
910.2360	TB30	25,0	5	30
910.2366	TB40	25,0	1	4
910.2365	TB40	25,0	5	30

### STAINLESS STEEL Bits set

- Can be used by hand or with an electric screwdriver
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable plastic case



			9
910.2455	32 pcs	STAINLESS STEEL Bits set	296
1 x		1/4"	
1 x		1/4"	
4 x		3 - 4 - 5,5 - 6,5 mm	
4 x		PH1 - 2 x PH2 - PH3	
4 x		PZ1 - 2 x PZ2 - PZ3	
4 x		3 - 4 - 5 - 6 mm	
7 x		T10 - T15 - T20 - T25 - T27 - T30 T40	
7 x		TB10 - TB15 - TB20 - TB25 - TB27 TB30 - TB40	

### STAINLESS STEEL bit set

- With external hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for external working
- Precise arrangement of the popular 1/4" Bits
- Practical belt holder
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel
- In durable two component storage case



1/4"

			9
910.2055	18 pcs	STAINLESS STEEL bit set	190
1 x		1/4"	
2 x		5,5 - 6,5 mm	
3 x		4 - 5 - 6 mm	
3 x		PH1 - PH2 - PH3	
3 x		PZ1 - PZ2 - PZ3	
6 x		T10 - T15 - T20 - T25 - T27 - T30	

### STAINLESS STEEL KEY WRENCHES

#### STAINLESS STEEL Mini hex key

- Short execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	L1 mm	L2 mm	9
964.03015	1,5	45,0	14,0	1
964.0302	2,0	50,0	16,0	2
964.03025	2,5	56,0	18,0	3
964.0303	3,0	63,0	20,0	5
964.0304	4,0	70,0	25,0	10
964.0305	5,0	80,0	28,0	18
964.0306	6,0	90,0	32,0	30
964.0308	8,0	100,0	36,0	60
964.0310	10,0	112,0	40,0	105

#### STAINLESS STEEL Mini hex key set, short

- Short execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



			9
964.0315	7 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	98

#### STAINLESS STEEL Mini hex key set, short

- Short execution
- In accordance to DIN ISO 2936
- Continuous hardened
- Handle with double function (holder / T-handle)
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel

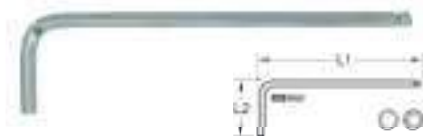


			9
964.0320	9 pcs	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	282

1  
2  
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### STAINLESS STEEL Hex key, ball end, long

- Long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	L1 mm	L2 mm	g
964.04015	1,5	62,0	14,0	1
964.0402	2,0	75,0	16,0	2
964.04025	2,5	85,0	18,0	4
964.0403	3,0	90,0	20,0	7
964.0404	4,0	100,0	25,0	14
964.0405	5,0	115,0	28,0	25
964.0406	6,0	135,0	32,0	41
964.0408	8,0	150,0	36,0	84
964.0410	10,0	170,0	40,0	145

### STAINLESS STEEL Hex key set, ball end, long

- Long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0415 7 pcs 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	118

### STAINLESS STEEL Hex key set, ball end, long

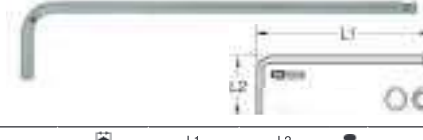
- Long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0420 9 pcs 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	368

### STAINLESS STEEL Hex key, ball end, extra long

- Extra long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	L1 mm	L2 mm	g
964.05015	1,5	90,0	14,0	2
964.0502	2,0	100,0	16,0	3
964.05025	2,5	112,0	18,0	5
964.0503	3,0	126,0	20,0	8
964.0504	4,0	140,0	25,0	18
964.0505	5,0	160,0	28,0	31
964.0506	6,0	180,0	32,0	51
964.0508	8,0	200,0	36,0	104
964.0510	10,0	224,0	40,0	182

### STAINLESS STEEL Hex key set, ball end, extra long

- Extra long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0515 7 pcs 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 mm	157

### STAINLESS STEEL Hex key set, ball end, extra long

- Extra long execution
- In accordance to DIN ISO 2936
- With ball head on the long end
- Ideal for difficult to access screws
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0520 9 pcs 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	458

### STAINLESS STEEL Torx tamperproof key wrench, long

- Long execution
- In accordance to DIN ISO 2936
- Bore hole at the short and long end
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	mm	L1 mm	L2 mm	g
964.0601	TB10	86,0	17,0	6
964.0602	TB15	90,0	18,0	9
964.0603	TB20	95,0	19,0	12
964.0604	TB25	100,0	20,0	16
964.0605	TB27	105,0	21,0	24
964.0606	TB30	114,0	24,0	31
964.0607	TB40	124,0	26,0	46
964.0608	TB45	133,0	29,0	64
964.0609	TB50	152,0	32,0	91

### STAINLESS STEEL Torx tamperproof key wrench set, long

- Long execution
- In accordance to DIN ISO 2936
- Bore hole at the short and long end
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0615 7 pcs TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40	162

### STAINLESS STEEL Torx tamperproof key wrench set, long

- Long execution
- In accordance to DIN ISO 2936
- Bore hole at the short and long end
- Handle with double function (holder / T-handle)
- Continuous hardened
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- In durable folding holder
- Stainless steel



	g
964.0620 9 pcs TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50	334



## STAINLESS STEEL PLIERS

### STAINLESS STEEL Waterpump pliers

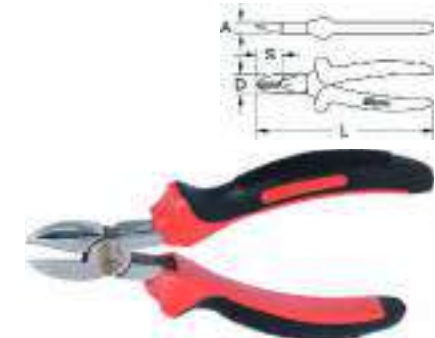
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	B mm	L1 mm	L2 mm	g
964.1801	37,0	45,0	220,0	35,0	265
964.1802	50,0	45,0	260,0	35,0	345

### STAINLESS STEEL Diagonal side cutter

- In accordance to DIN ISO 5749
- Two component handle
- Long cutting edge
- For different wire types
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D mm	L mm	S mm	g
964.1601	11,0	22,0	150,0	22,0	208

### STAINLESS STEEL Universal pliers

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L mm	g
964.1701	10,0	9,0	31,0	200,0	25,0	9,0	4,0	13,0	230	

## STAINLESS STEEL Combination pliers

- In accordance to DIN ISO 5748
- Long cutting edge
- Suitable for wire
- Two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
964.0203	11,0	7,0	29,0	200,0	40,0	13,0	330

### STAINLESS STEEL Telephone pliers

- Long nosed jaws
- Serrated execution
- Two component handle
- With integrated cutting edge
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
964.1501	10,0	2,0	17,0	4,0	150,0	49,0	12,0	165



## STAINLESS STEEL TWEEZERS

### STAINLESS STEEL Tweezers

- Long, fine tips
- Smooth, curved gripping surfaces
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	g
964.2901	150,0	35
964.2902	200,0	50

## STAINLESS STEEL HAMMERS

### STAINLESS STEEL Pin hammer

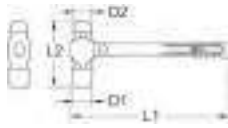
- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	g	D mm	L1 mm	L2 mm	g
964.2041	500	28,0	320,0	120,0	0,65
964.2042	1000	33,0	340,0	120,0	1,15
964.2043	1500	42,0	360,0	160,0	1,75
964.2044	2000	48,0	400,0	165,0	2,46
964.2045	3000	54,0	900,0	187,0	4,00
964.2046	5000	65,0	900,0	215,0	6,00

### STAINLESS STEEL Pin hammer

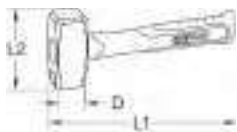
- With fibreglass handle
- Surfaces polished ground
- Rounded edges
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	g	D1 mm	D2 mm	L1 mm	kg
964.2101	230	22,0	22,0	270,0	0,31
964.2102	340	23,0	23,0	285,0	0,43
964.2103	440	28,0	28,0	310,0	0,60
964.2104	680	32,0	32,0	345,0	0,95
964.2105	910	36,0	36,0	355,0	1,07
964.2106	1130	38,0	38,0	355,0	1,31

### STAINLESS STEEL Club hammer

- In accordance to DIN 6475
- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

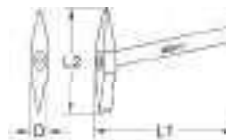


	g	D mm	L1 mm	L2 mm	kg
964.2001	450	30,0	310,0	80,0	0,60
964.2002	900	38,0	400,0	91,0	1,20
964.2003	1350	44,0	400,0	105,0	1,65
964.2004	1800	48,0	400,0	115,0	2,10
964.2005	2250	49,0	400,0	119,0	2,55
964.2006	2700	55,0	700,0	130,0	3,40
964.2007	3600	55,0	900,0	141,0	4,50
964.2008	4500	58,0	900,0	154,0	5,40
964.2009	5400	67,0	900,0	170,0	6,30
964.2010	6300	70,0	900,0	184,0	7,20
964.2011	7200	72,0	900,0	191,0	8,10
964.2012	8100	80,0	900,0	200,0	9,00



### STAINLESS STEEL welding hammer

- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Pane polished ground
- Rounded edges
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	g	D mm	L1 mm	L2 mm	kg
964.2021	300	27,0	340,0	210,0	450

### STAINLESS STEEL test hammer

- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Rounded edges
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant

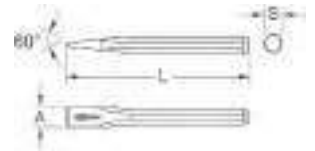


	g	D mm	L1 mm	L2 mm	kg
964.2031	250	18,0	320,0	112,0	350
964.2032	500	22,0	360,0	132,0	700

### STAINLESS STEEL CHISELS

#### STAINLESS STEEL Flat chisel

- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	A mm	S mm	kg
964.3101	160,0	18,0	16,0	230
964.3102	160,0	20,0	18,0	290
964.3103	180,0	22,0	20,0	423
964.3104	250,0	24,0	22,0	725
964.3105	300,0	26,0	24,0	1255
964.3106	400,0	30,0	26,0	1560
964.3107	450,0	30,0	26,0	1755
964.3108	500,0	36,0	30,0	2705

### STAINLESS STEEL PRY BAR

#### STAINLESS STEEL Crow bar

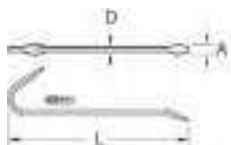
- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	D1 mm	D2 mm	L mm	S mm	kg
964.3201	16,0	18,0	300,0	16,0	0,48
964.3202	16,0	18,0	400,0	16,0	0,64
964.3203	18,0	20,0	500,0	18,0	1,00
964.3204	20,0	22,0	500,0	20,0	1,24
964.3205	20,0	22,0	600,0	20,0	1,49
964.3206	22,0	24,0	600,0	22,0	1,80
964.3207	22,0	24,0	700,0	22,0	2,09
964.3208	25,0	26,0	750,0	25,0	2,90
964.3209	25,0	26,0	800,0	25,0	3,09
964.3210	30,0	32,0	800,0	30,0	4,45
964.3211	25,0	26,0	1000,0	25,0	3,86
964.3212	28,0	30,0	1000,0	28,0	4,84
964.3213	30,0	32,0	1000,0	30,0	5,56
964.3214	25,0	26,0	1200,0	25,0	4,64
964.3215	28,0	30,0	1200,0	28,0	5,81
964.3216	30,0	32,0	1200,0	30,0	6,68
964.3217	28,0	30,0	1500,0	28,0	7,26
964.3218	30,0	32,0	1500,0	30,0	8,34

### STAINLESS STEEL Crow bar

- Quenched and tempered
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	D1 mm	D2 mm	L mm	S mm	g
964.3301	18,0	24,0	400,0	16,0	0,75
964.3302	18,0	24,0	600,0	16,0	1,05
964.3303	20,0	28,0	800,0	18,0	2,01
964.3304	22,0	32,0	1000,0	20,0	2,87
964.3305	22,0	32,0	1200,0	20,0	3,45



### STAINLESS STEEL CUTTING AND SCRAPING

#### STAINLESS STEEL Cutter

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	B mm	S mm	L mm	g
964.3001	18,0	75,0	180,0	75
964.3002	30,0	140,0	250,0	95

### Stainless steel scraper

- With wooden handle
- Ground
- Polished
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	B mm	g
907.2261	225,0	25,0	70
907.2262	225,0	38,0	70
907.2263	225,0	50,0	70
907.2264	225,0	63,0	70
907.2265	225,0	75,0	80

### STAINLESS STEEL Chisel scraper

- Ideal for removing of stickers, seal and glue residues
- Also suitable for the removal and chiselling of plates or welding spots
- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	B mm	D mm	L mm	g
907.2211	32,0	1,2	230,0	105
907.2213	20,0	1,2	176,0	90
907.2212	32,0	2,5	230,0	140
907.2214	20,0	2,5	176,0	100



### STAINLESS STEEL Chisel scraper set

- Ideal for removing of stickers, seal and glue residues
- Also suitable for the removal and chiselling of plates or welding spots
- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



				g
907.2210	4 pcs	32 x 1,2; 32 x 2,5; 25 x 1,2; 25 x 2,5 mm		580

### EDELSTAHL OIL PUMPS

#### EDELSTAHL portable manual oil pump

- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel

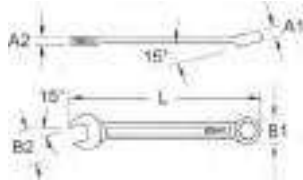


	Length mm	g
964.5805	1350,0	3380

## TITANplus SPANNERS

### TITANplus combination spanner, offset

- FlankTraction profile
- In accordance to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
965.0206	6	5,6	6,0	11,0	13,0	112,0	16
965.0207	7	6,0	6,0	12,0	17,0	112,0	16
965.0208	8	6,0	6,2	13,0	18,0	123,0	18
965.0209	9	6,6	6,6	14,5	21,0	132,0	20
965.0210	10	7,0	7,0	16,0	23,0	142,0	22
965.0211	11	7,6	7,6	17,5	25,0	152,0	24
965.0212	12	8,2	8,0	19,0	27,0	162,0	26
965.0213	13	8,5	7,0	21,0	28,0	175,0	60
965.0214	14	8,8	9,0	22,0	31,0	182,0	30
965.0215	15	9,2	9,2	24,0	33,0	192,0	32
965.0216	16	9,8	9,2	26,0	35,0	192,0	32
965.0217	17	10,0	10,0	26,5	37,0	212,0	36
965.0219	19	10,9	10,9	29,5	41,0	232,0	40
965.0301	5/16"	6,2	6,2	13,0	19,0	123,0	18
965.0302	3/8"	7,0	7,0	16,0	23,0	142,0	22
965.0303	7/16"	7,6	7,6	17,5	25,0	152,0	24
965.0304	1/2"	8,4	8,4	20,5	29,0	172,0	28
965.0305	9/16"	8,8	9,0	22,0	31,0	182,0	30
965.0306	5/8"	10,0	10,0	26,5	37,0	212,0	36
965.0307	11/16"	10,0	10,0	26,0	37,0	212,0	36
965.0308	3/4"	10,9	7,0	29,5	41,0	235,0	80

### TITANplus combination spanner set, offset

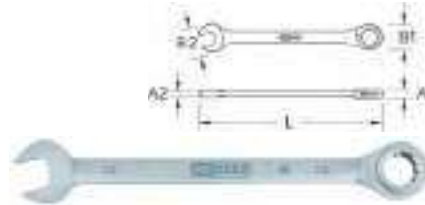
- FlankTraction profile
- In accordance to DIN 3113
- Jaw 15° offset
- Ring head 15° offset
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	g
965.0248 8 pcs 8 - 9 - 10 - 11 - 12 - 14 - 17 - 19 mm	500

### TITANplus combination ratcheting spanner

- FlankTraction profile
- In accordance to DIN 3113/ISO 3318
- Jaw 15° offset
- Straight form
- Exact gearing with 45-teeth
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A1 mm	A2 mm	B1 mm	B2 mm	L mm	g
965.1008	8	7,5	4,5	18,0	19,0	140,0	20
965.1010	10	7,8	5,0	21,0	22,0	150,0	28
965.1011	11	8,0	5,2	22,5	24,0	160,0	32
965.1012	12	8,5	5,5	24,0	26,0	170,0	36
965.1013	13	8,8	5,8	25,5	28,0	180,0	46
965.1014	14	9,5	6,2	27,2	30,0	190,0	54
965.1017	17	10,0	7,5	33,0	36,0	215,0	88

### TITANplus adjustable spanner

- In accordance to DIN 3117
- Jaw 15° offset
- Swedish type design
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	g
965.0008	28	7,6	56,0	25,0	13,0	7,0	200,0	138
965.0010	30	9,0	68,5	28,0	16,0	9,0	250,0	270

### TITANplus adjustable spanner set

- In accordance to DIN 3117
- Jaw 15° offset
- Swedish type design
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	g
965.2006 2 pcs 8" - 10"	410

### TITANplus double open ended spanner

- In accordance to DIN 3110
- Jaw 15° offset
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A mm	B1 mm	B2 mm	g
965.0107	6x7	4,0	15,0	17,0	16
965.0109	8x9	5,0	19,0	23,0	22
965.0110	10x12	6,0	23,0	27,0	30
965.0134	11x14	5,5	25,0	29,0	23
965.0111	12x13	5,9	27,0	31,0	30
965.0113	13x15	6,5	31,0	36,0	57
965.0114	14x15	5,9	31,0	37,0	30
965.0115	15x17	7,4	35,0	39,0	39
965.0116	16x18	7,4	37,0	41,0	39
965.0117	17x19	7,4	38,0	44,0	39
965.0120	7/32" - 1/4"	4,0	15,0	17,0	16
965.0121	1/4" - 5/16"	4,0	15,0	17,0	16

### TITANplus double open ended spanner set

- In accordance to DIN 3110
- Jaw 15° offset
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

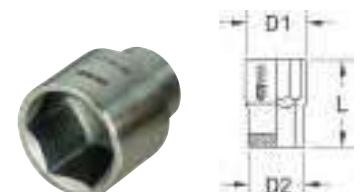


	g
965.0148 8 pcs 6x7 - 8x9 - 10x12 - 11x14 - 13x15 - 15x17 - 16x18 - 17x19 mm	450

## TITANplus SOCKETS

### TITANplus hexagonal socket

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



3/8"

	mm	D1 mm	D2 mm	L mm	g
965.3808	8	31,0	13,0	31,0	25
965.3809	9	31,0	14,0	31,0	25
965.3810	10	31,0	21,0	31,0	26
965.3811	11	31,0	21,0	31,0	26
965.3812	12	31,0	21,0	31,0	27
965.3813	13	31,0	21,0	31,0	27
965.3814	14	31,0	21,0	34,0	28
965.3815	15	34,0	22,0	34,0	32
965.3816	16	34,0	22,0	34,0	32
965.3817	17	34,0	24,0	34,0	38
965.3818	18	34,0	25,0	34,0	40
965.3819	19	34,0	26,0	34,0	45
965.3901	5/16"	31,0	21,0	31,0	26
965.3902	3/8"	31,0	21,0	31,0	27
965.3903	7/16"	31,0	21,0	31,0	26
965.3904	1/2"	31,0	21,0	31,0	27
965.3905	9/16"	34,0	22,0	31,0	28
965.3906	5/8"	34,0	22,0	34,0	32
965.3907	11/16"	34,0	24,0	34,0	46
965.3908	1.1/16"	42,0	25,0	40,0	87
965.3909	1.1/4"	42,0	25,0	40,0	101

### TITANplus hexagonal socket, long

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- Long execution
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	D1 mm	D2 mm	L mm	T mm	g
965.3857	17	25,0	21,0	95,0	25,0	100

### TITANplus socket set

- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	D1 mm	D2 mm	L mm	T mm	g
965.2001	9 pcs	5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 1.1/16" - 1.1/4"				400

### TITANplus socket set

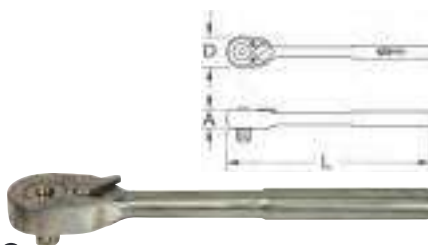
- 6 point
- In accordance to DIN 3124 / ISO 2725-1
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	D1 mm	D2 mm	L mm	T mm	g
965.2002	13 pcs	TITANplus socket set				500
12 x			8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
1 x			17 mm			

### TITANplus reversible ratchet

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Toothed with 30 teeth
- With ejection mechanism on the ratchet head
- With reversing lever
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	A mm	D mm	L mm	g
965.3800	3/8"	28,0	36,0	200,0	184

### TITANplus universal joint

- In accordance to DIN 3123 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	D mm	L mm	g
965.3804	3/8	3/8"	52,0	39

### TITANplus extension

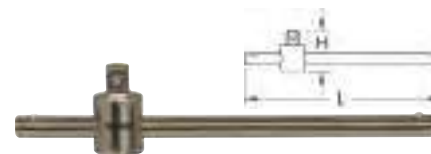
- Based on DIN 3122 / ISO 3316
- Square drive to DIN 3120 / ISO 1174 with ball lock
- Internal square to DIN 3120 / ISO 1174 with ball reception
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	L mm	g
965.3801	3/8"	100,0	70
965.3802	3/8"	200,0	138

### TITANplus sliding T-handle

- In accordance to DIN 3122 / ISO 3315
- Square drive to DIN 3120 / ISO 1174 with ball lock
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	H mm	L mm	g
965.3803	3/8"	34,0	180,0	90

### TITANplus box wrench set

- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

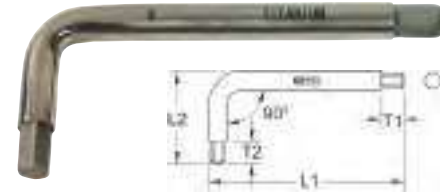


	mm	L mm	g
965.2010	5 pcs	TITANplus box wrench set	500
1 x		3/8"	
2 x		17 mm - 9/16"	
1 x		17 mm	
1 x		100 mm	

## TITANplus HEXAGON KEY WRENCHES

### TITANplus key wrench for hexagon socket screws

- 6 point
- In accordance to DIN ISO 2936
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	mm	mm	L1 mm	L2 mm	T1 mm	T2 mm	g
965.0401	1,5		45,0	14,0	2,0	2,0	1
965.0402	2,0		50,0	16,0	2,0	2,0	2
965.04025	2,5		62,0	20,0	2,5	2,5	2
965.0403	3,0		63,0	20,0	4,0	4,0	5
965.0423	3,0		66,0	17,0	3,0	3,0	4
965.0404	4,0		70,0	25,0	5,0	5,0	8
965.0424	4,0		75,0	18,0	5,0	5,0	6
965.0405	5,0		80,0	28,0	7,0	7,0	13
965.0425	5,0		86,0	20,0	8,0	8,0	11
965.0406	6,0		90,0	32,0	8,0	8,0	20
965.0407	7,0		95,0	34,0	10,0	10,0	28
965.0408	8,0		100,0	36,0	12,0	12,0	44
965.0409	9,0		106,0	38,0	15,0	15,0	65
965.0410	10,0		112,0	40,0	15,0	15,0	72
965.0411	11,0		118,0	42,0	18,0	18,0	87
965.0412	12,0		125,0	45,0	20,0	20,0	110
965.0414	14,0		140,0	56,0	20,0	20,0	190
965.0501		1/16"	45,0	14,0	2,0	2,0	1
965.0502		5/64"	50,0	16,0	2,0	2,0	2
965.0503		3/32"	56,0	18,0	3,0	3,0	2
965.0504		7/64"	63,0	20,0	4,0	4,0	4
965.0505		1/8"	63,0	20,0	4,0	4,0	5
965.0506		9/64"	70,0	25,0	5,0	5,0	8
965.0507		5/32"	70,0	25,0	5,0	5,0	8
965.0508		3/16"	80,0	28,0	7,0	7,0	13
965.0509		7/32"	90,0	32,0	8,0	8,0	20
965.0510		1/4"	95,0	34,0	10,0	10,0	27
965.0511		5/16"	100,0	36,0	12,0	12,0	44
965.0512		3/8"	106,0	38,0	15,0	15,0	67
965.0513		7/16"	125,0	45,0	20,0	20,0	108
965.0514		1/2"	140,0	56,0	20,0	20,0	183

### TITANplus key wrench set for hexagon socket screws

- 6 point
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	pcs	mm	g
965.2004	17 pcs	1,5 - 2 - 2,5 - 3 - 3,4 - 4 - 5 - 5,6 - 7 - 8 - 9 - 10 - 11 - 12 - 14 mm	750

## TITANplus SCREWDRIVERS

### TITANplus screwdriver for slotted screws

- Slotted
- In accordance to DIN ISO 2380-2 / 2380-1 Form A
- Two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	D mm	L1 mm	L2 mm	L3 mm	g
965.0910	2,4	151,0	75,0	75,5	22
965.0911	3,2	126,0	50,0	75,5	24
965.0912	3,2	176,0	100,0	75,5	26
965.0913	3,2	276,0	200,0	75,5	32
965.0914	4,8	193,0	100,0	93,0	47
965.0915	6,4	235,0	125,0	110,0	88
965.0916	7,9	268,0	150,0	118,0	114

### TITANplus screwdriver for Phillips screws

- PH
- Based on DIN 5265 / DIN ISO 8765-1
- Two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



		L1 mm	L2 mm	L3 mm	g
965.0900	PH 0	136,0	75,0	75,5	45
965.0901	PH 1	173,0	75,0	93,0	46
965.0902	PH 2	260,0	150,0	110,0	91
965.0903	PH 3	268,0	150,0	118,0	117
965.0904	PH 4	318,0	200,0	118,0	176

### TITANplus screwdriver set

- Two component handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

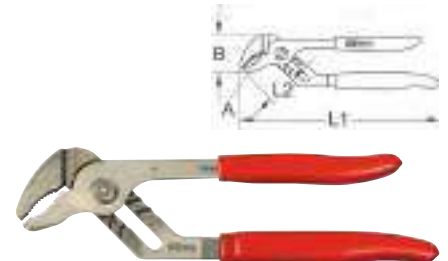


	pcs	mm	g
965.2005	10 pcs	TITANplus screwdriver set	1,05
6 x		2,4 - 3,2 (125 mm) - 3,2 (175 mm) - 4,8 - 6,4 - 7,9 mm	
4 x		PH0 - PH1 - PH2 - PH3	

## TITANplus PLIERS

### TITANplus waterpump pliers

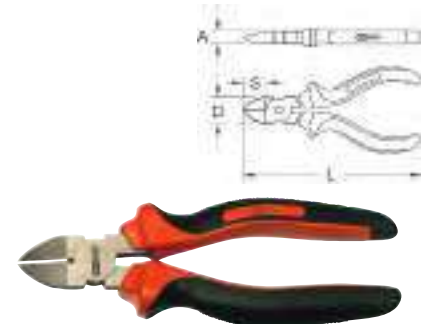
- In accordance to DIN ISO 8976
- 4-way adjustable
- Insulated handle
- With 4-step grooving
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	A mm	B mm	L1 mm	L2 mm	g
965.0605	65,0	24,0	250,0	34,0	255

### TITANplus diagonal side cutter

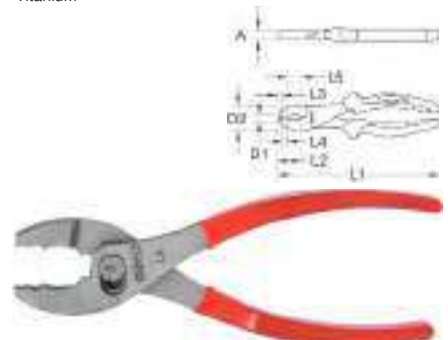
- In accordance to DIN ISO 5749
- Two component handle
- For different wire types
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	A mm	D mm	L mm	S mm	g
965.0615	10,0	20,0	160,0	22,5	132

### TITANplus universal pliers

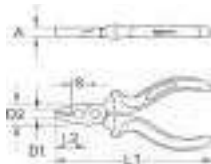
- Two component handle
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	g
965.0625	11,0	7,0	32,0	200,0	30,0	7,0	6,0	16,0	173

### TITANplus combination pliers

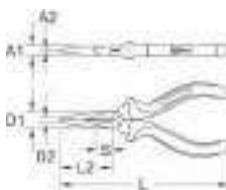
- In accordance to DIN ISO 5748
- Two component handle
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
965.0620	11,0	6,0	25,0	160,0	31,0	10,0	138

### TITANplus telephone pliers

- In accordance to DIN ISO 5745
- Long nosed jaws
- Serrated execution
- Two component handle
- With intergrated cutting edge
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	g
965.0610	10,0	4,0	20,0	4,0	170,0	65,0	14,0	139

### TITANplus pliers set

- Two component handle
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



			g
965.2011	4 pcs	TITANplus pliers set	700
1 x		250 mm	
1 x		170 mm	
1 x		160 mm	
1 x		200 mm	

### TITANplus TWEEZERS

#### TITANplus tweezers

- Long, fine tips
- Smooth, curved gripping surfaces
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

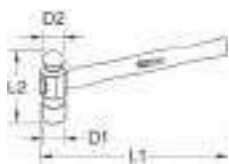


	B mm	L mm	g
965.1301	12,0	150,0	25

### TITANplus HAMMER

#### TITANplus fitters hammer

- With lacquered wooden handle
- Additional head security
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	D1 mm	D2 mm	L1 mm	L2 mm	g
965.1101	32,0	30,0	315,0	105,0	540

### TITANplus PRY BAR

#### TITANplus pry bar

- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

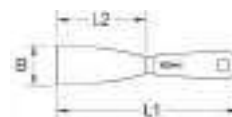


	D mm	L mm	A mm	g
965.2300	20,0	457,0	20,0	744

### TITANplus SCRAPER

#### TITANplus spatula

- With wooden handle
- With hanging hole
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	L1 mm	L2 mm	B mm	g
965.9000	210,0	90,0	30,0	36

### TITANplus CUTTING TOOLS

#### TITANplus universal knife

- Durable and fixed blade
- With plastic handle
- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium



	B mm	S mm	L mm	g
965.1102	25,0	130	250,0	75

#### TITANplus universal shear

- 100% anti-magnetic
- Light (up to 42% lighter than steel)
- Extreme mechanical and thermal load capacity
- Rust-proof and acid resistant
- Extremely long service life
- Titanium

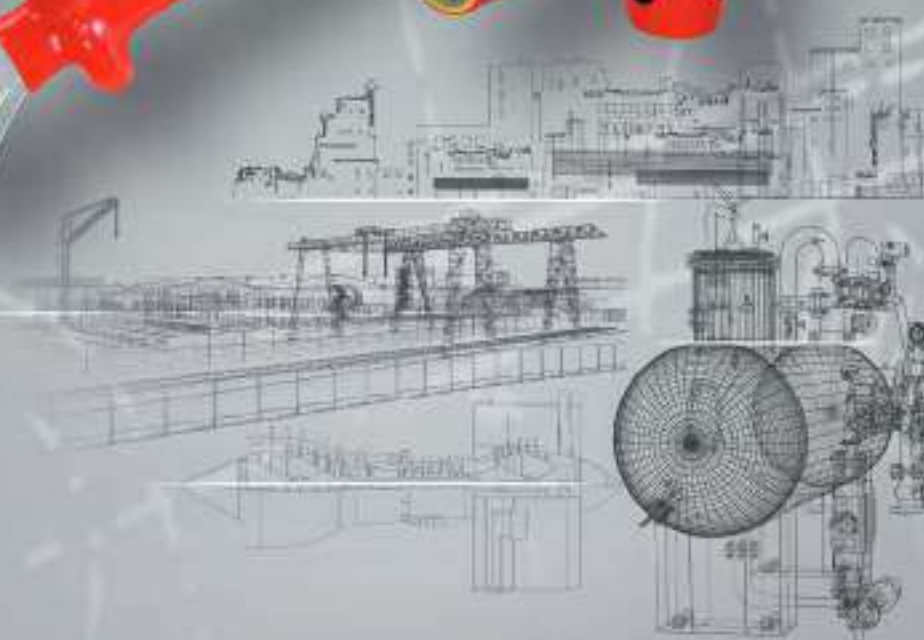


	L1 mm	L2 mm	S mm	g
965.1302	225,0	72,0	122,0	162

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Innovation is  
our mission!





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## TORQUE WRENCHES WITH PROTECTIVE INSULATION

### Fixed torque wrench with protective insulation

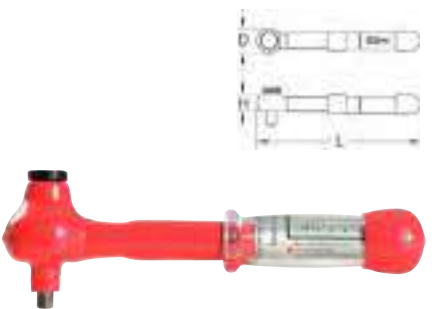
- Actuation accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - with a fixed adjustable value
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	A mm	L mm	⚡	⚙️
117.3922	3/8"	5-35	78,0	210,0	1000V	420
117.1001	1/2"	5-35	78,0	250,0	1000V	420

### Mini torque wrench with protective insulation and reversible ratchet head

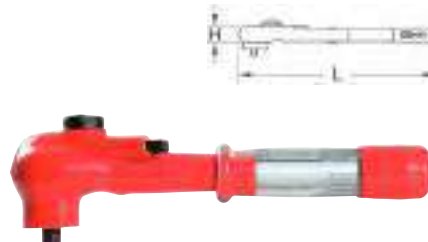
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	D mm	H mm	L mm	⚡	⚙️
117.1400	1/4"	2-10	40,0	41,0	200,0	1000V	400
117.1402	1/4"	5-25	40,0	41,0	200,0	1000V	420
117.1184	3/8"	5-25	40,0	42,0	200,0	1000V	440
117.1185	1/2"	5-25	40,0	42,0	200,0	1000V	440

### Torque wrench with protective insulation and reversible ratchet head

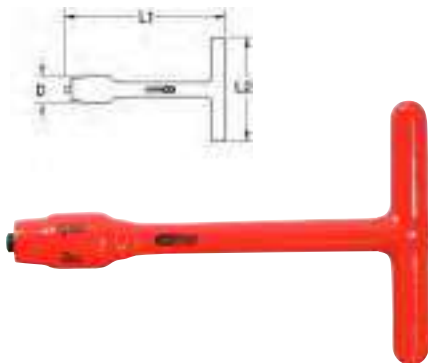
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	H mm	L mm	⚡	⚙️
117.3805	3/8"	5-25	51,0	280,0	1000V	0,92
117.3810	3/8"	5-50	51,0	370,0	1000V	1,07
117.1301	1/2"	5-25	61,0	280,0	1000V	0,93
117.1300	1/2"	5-50	61,0	370,0	1000V	1,10
117.1302	1/2"	20-100	61,0	460,0	1000V	1,20
117.1303	1/2"	40-220	61,0	530,0	1000V	1,30

### Fixed T-handle torque limiter with protective insulation

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



	■	N·m	D mm	L mm	I mm	⚡	⚙️
117.3806	3/8"	12	36,5	270,0	165,0	1000V	540
117.3807	3/8"	18	36,5	270,0	165,0	1000V	540
117.3808	3/8"	25	36,5	270,0	165,0	1000V	540

### Fixed torque limiter with protective insulation

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



	□	■	N·m	D1 mm	D2 mm	L mm	⚡	⚙️
117.3802	3/8"	3/8"	12	23,0	27,5	92,0	1000V	310
117.3803	3/8"	3/8"	18	23,0	27,5	92,0	1000V	310
117.3804	3/8"	3/8"	25	23,0	27,5	92,0	1000V	310

## SPANNER WITH PROTECTIVE INSULATION

### Sliding spanner with protective insulation

- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Chrome vanadium



	■	A mm	B mm	C mm	H1 mm	H2 mm	L mm	⚡	⚙️
117.1250	24,0	12,0	55,0	30,0	8,0	14,0	200,0	1000V	310
117.1253	30,0	14,0	77,0	40,0	14,0	19,0	250,0	1000V	540
117.1254	34,0	17,5	78,0	48,0	17,5	18,0	300,0	1000V	830

### Sliding spanner with protective insulation

- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Burnished
- Chrome vanadium



	■	A mm	B mm	C mm	H1 mm	H2 mm	L mm	⚡	⚙️
117.4270	27	13,0	57,5	20,0	13,0	18,5	210,0	1000V	329
117.4271	31	15,0	68,5	30,0	15,0	20,0	260,0	1000V	530
117.4272	34	17,5	79,0	36,0	17,5	23,0	315,0	1000V	800



### Tool set with insulated tools

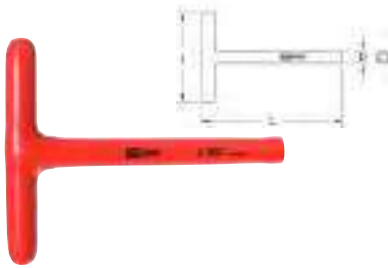
- 6 point
- In accordance to DIN 7445
- Insulated handle to IEC 60900
- Chrome vanadium



mm	D mm	I mm	L mm	⚡	⚙️
117.1255	5 pcs	5,5 - 7 - 8 - 10 - 13 mm			630

### T-handle socket wrench with protective insulation

- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



mm	D mm	I mm	L mm	⚡	⚙️
117.1771	10	17,0	165,0	200,0	320
117.1772	11	19,0	165,0	200,0	380
117.1773	12	19,0	165,0	200,0	370
117.1774	13	20,0	165,0	200,0	370
117.1775	14	24,0	165,0	200,0	370
117.1776	16	26,0	165,0	200,0	420
117.1777	17	26,0	165,0	200,0	430
117.1778	18	29,0	165,0	200,0	460
117.1779	19	30,0	165,0	200,0	440
117.1781	20	32,0	165,0	200,0	460
117.1782	22	33,0	165,0	200,0	570
117.1783	24	35,0	165,0	200,0	590

### T-handle socket wrench with protective insulation, long

- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



mm	D mm	I mm	L mm	⚡	⚙️
117.1725	8	17,0	165,0	300,0	350
117.1726	10	20,0	165,0	300,0	380

mm	D mm	I mm	L mm	⚡	⚙️
117.1727	11	20,0	165,0	300,0	430
117.1728	12	20,0	165,0	300,0	430
117.1729	13	20,0	165,0	300,0	420
117.1730	14	23,0	165,0	300,0	440
117.1731	17	28,0	165,0	300,0	520
117.1732	19	32,0	165,0	300,0	590
117.1733	22	33,0	165,0	300,0	690
117.1734	24	33,5	165,0	300,0	780

### T-handle socket wrench with protective insulation

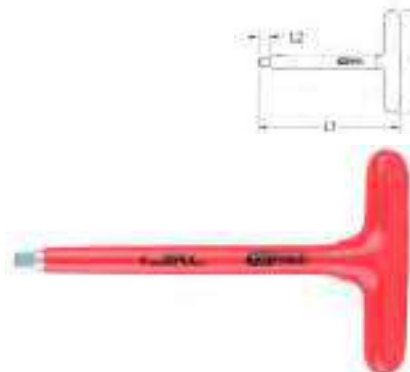
- Insulated to IEC 60900
- Magnetic
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



mm	D mm	I mm	L mm	⚡	⚙️
117.2422	4	8,1	95,0	210,0	164
117.2423	5	8,5	95,0	210,0	166
117.2424	6	11,7	95,0	210,0	170
117.2425	7	13,5	95,0	210,0	172
117.2426	8	15,0	95,0	210,0	173
117.2427	9	11,2	95,0	210,0	182
117.2428	10	18,0	95,0	210,0	190
117.2429	11	19,8	95,0	210,0	200
117.2431	12	19,8	95,0	210,0	204
117.2432	13	20,5	95,0	210,0	208
117.2433	14	23,2	95,0	210,0	224

### T-handle socket wrench with protective insulation

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- Chrome vanadium



mm	I mm	L1 mm	L2 mm	⚡	⚙️
117.3919	1/4"	92,0	160,0	8,0	151
117.3920	3/8"	155,0	200,0	11,0	350
117.3921	1/2"	155,0	200,0	15,0	490

### Cross wrench with protective insulation

- 6 point
- Insulated handle to IEC 60900
- No contact between the steel hexagon drive
- Made from impact resistant plastic
- Chrome vanadium



mm	L1 mm	L2 mm	⚡	⚙️
117.1701	10x11x12x13	140,0	55,0	230
117.1702	10x11x13x17	140,0	55,0	230
117.1704	10x12x14x17	140,0	55,0	230
117.1705	10x13x14x17	140,0	55,0	230
117.1706	11x12x13x17	140,0	55,0	230
117.1707	11x13x14x17	140,0	55,0	230
117.1708	13x17x19x22	140,0	55,0	340
117.1709	14x17x19x22	140,0	55,0	340

### Cross wrench with protective insulation

- 6 point
- Insulated handle to IEC 60900
- No contact between the steel hexagon drive
- Made from impact resistant plastic
- Centre cross reinforced with hard fibre
- Chrome vanadium



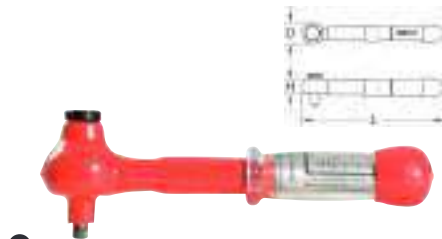
mm	L1 mm	L2 mm	⚡	⚙️
117.1720	10x13x14x17	220,0	92,0	430



### 1/4" RANGE WITH PROTECTIVE INSULATION

#### Mini torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	D mm	H mm	L mm	⚡	⚙️
117.1400	1/4"	2-10	40,0	41,0	200,0	⚡ 1000V	400
117.1402	1/4"	5-25	40,0	41,0	200,0	⚡ 1000V	420

#### Reversible ratchet with protective insulation

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



	■	A mm	L mm	⚡	⚙️
117.1401	1/4"	54,5	141,0	⚡ 1000V	128

#### Extension with protective insulation

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



	■	L mm	⚡	⚙️
117.1451	1/4"	50,0	⚡ 1000V	40
117.1452	1/4"	75,0	⚡ 1000V	45
117.1453	1/4"	100,0	⚡ 1000V	56
117.1454	1/4"	150,0	⚡ 1000V	68

### socket with protective insulation

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



	⌀ mm	D1 mm	D2 mm	L mm	⚡	⚙️
117.1404	4	16,0	10,0	37,0	⚡ 1000V	14
117.1405	5	16,5	11,5	37,0	⚡ 1000V	12
117.1406	6	16,5	12,0	37,0	⚡ 1000V	12
117.1407	7	16,5	13,5	37,0	⚡ 1000V	15
117.1408	8	16,5	15,5	37,0	⚡ 1000V	15
117.1409	9	16,5	16,5	37,0	⚡ 1000V	16
117.1410	10	16,5	17,5	37,0	⚡ 1000V	18
117.1411	11	16,5	20,0	37,0	⚡ 1000V	18
117.1412	12	16,5	21,0	37,0	⚡ 1000V	24
117.1413	13	16,5	22,0	37,0	⚡ 1000V	26
117.1414	14	16,5	24,0	37,0	⚡ 1000V	29

### Socket with protective insulation, long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



	⌀ mm	D1 mm	D2 mm	L mm	⚡	⚙️
117.2341	4	16,5	9,5	55,0	⚡ 1000V	22
117.2342	5	16,5	10,5	55,0	⚡ 1000V	24
117.2343	6	16,5	12,5	55,0	⚡ 1000V	28
117.2344	7	16,5	13,5	55,0	⚡ 1000V	30
117.2345	8	16,5	16,5	55,0	⚡ 1000V	31
117.2346	9	16,5	16,5	55,0	⚡ 1000V	38
117.2347	10	16,5	18,5	55,0	⚡ 1000V	48
117.2348	11	16,5	19,5	55,0	⚡ 1000V	57
117.2349	12	16,5	21,5	55,0	⚡ 1000V	60
117.2351	13	16,5	21,5	55,0	⚡ 1000V	64
117.2352	14	16,5	21,5	55,0	⚡ 1000V	78

### socket with protective insulation

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



	⌀	D1 mm	D2 mm	L mm	⚡	⚙️
117.2401	3/16"	16,5	11,7	38,0	⚡ 1000V	12
117.2402	1/4"	16,5	13,0	38,0	⚡ 1000V	12
117.2403	5/16"	16,5	15,1	38,0	⚡ 1000V	15
117.2404	3/8"	16,5	17,8	38,0	⚡ 1000V	18
117.2405	7/16"	16,5	19,8	38,0	⚡ 1000V	18
117.2406	1/2"	16,5	21,6	38,0	⚡ 1000V	26
117.2407	9/16"	16,5	24,0	38,0	⚡ 1000V	28

#### Bit socket with protective insulation for hexagon socket screws

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



	⌀ mm	D mm	L mm	⚡	⚙️
117.1415	3	16,5	44,0	⚡ 1000V	13
117.1416	4	16,5	44,0	⚡ 1000V	13
117.1417	5	16,5	44,0	⚡ 1000V	14
117.1418	6	16,5	44,0	⚡ 1000V	15
117.1419	8	16,5	44,0	⚡ 1000V	19

#### Bit socket with protective insulation for Torx screws

- Torx
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



		D mm	L mm	⚡	⚙️
117.2471	T8	15,0	45,0	⚡ 1000V	13
117.2472	T10	15,0	45,0	⚡ 1000V	13
117.2473	T15	15,0	45,0	⚡ 1000V	13
117.2474	T20	15,0	45,0	⚡ 1000V	14
117.2475	T25	15,0	45,0	⚡ 1000V	15
117.2476	T27	15,0	45,0	⚡ 1000V	15
117.2477	T30	15,0	45,0	⚡ 1000V	19

### Bit holder with protective insulation

- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Magnetic
- For bits to DIN 3126 / C 6,3
- Chrome vanadium



1/4"

	□	○	D1 mm	D2 mm	L mm	⚡	⚙️
117.1420	1/4"	1/4"	16,0	16,5	40,0	1000V	240

### 1/4" SETS WITH PROTECTIVE INSULATION

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



1/4"

	□	○	D1 mm	D2 mm	L mm	⚡	⚙️
117.1877	22 pcs	Socket-set with insulated tools					1,60
1 x		1/4"					
4 x		1/4": 50 - 75 - 100 - 150 mm					
1 x		1/4"					
1 x		1/4"					
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm					
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm					

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



1/4"

	□	○	D1 mm	D2 mm	L mm	⚡	⚙️
117.1876	21 pcs	Socket-set with insulated tools					1,00
1 x		1/4": 5 - 25 Nm					
3 x		1/4": 75 - 100 - 150 mm					
2 x		1/4"					
5 x		1/4": 6 - 8 - 10 - 13 - 14 mm					
3 x		1/4": 5 - 6 - 8 mm					
3 x		1/4": 4 - 5,5 - 6,5 mm					
2 x		1/4": PH1 - PH2					
2 x		1/4": PZ1 - PZ2					

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



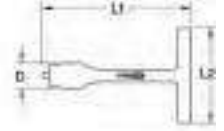
1/4"

	□	○	D1 mm	D2 mm	L mm	⚡	⚙️
117.1878	21 pcs	Socket-set with insulated tools					1,90
1 x		1/4": 5 - 25 Nm					
4 x		1/4": 50 - 75 - 100 - 150 mm					
1 x		1/4"					
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm					
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm					

### 3/8" RANGE WITH PROTECTIVE INSULATION

#### Fixed T-handle torque limiter with protective insulation

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can tighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock

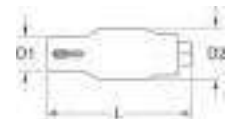


3/8"

	■	N-m	D mm	L mm	I mm	⚡	⚙️
117.3806	3/8"	12	36,5	270,0	165,0	1000V	540
117.3807	3/8"	18	36,5	270,0	165,0	1000V	540
117.3808	3/8"	25	36,5	270,0	165,0	1000V	540

#### Fixed torque limiter with protective insulation

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can tighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



3/8"

	□	■	N-m	D1 mm	D2 mm	L mm	⚡	⚙️
117.3802	3/8"	3/8"	12	23,0	27,5	92,0	1000V	310
117.3803	3/8"	3/8"	18	23,0	27,5	92,0	1000V	310
117.3804	3/8"	3/8"	25	23,0	27,5	92,0	1000V	310



**Fixed torque wrench with protective insulation**

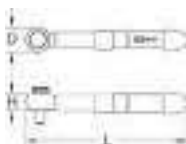
- Actuation accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - with a fixed adjustable value
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	A mm	L mm	⚡	⚖
117.3922	3/8"	5-35	78,0	210,0	1000V	420

**Mini torque wrench with protective insulation and reversible ratchet head**

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	D mm	H mm	L mm	⚡	⚖
117.1184	3/8"	5-25	40,0	42,0	200,0	1000V	440

**Torque wrench with protective insulation and reversible ratchet head**

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



	■	N·m	H mm	L mm	⚡	⚖
117.3805	3/8"	5-25	51,0	280,0	1000V	0,92
117.3810	3/8"	5-50	51,0	370,0	1000V	1,07

**Reversible ratchet with protective insulation**

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



	■	A mm	L mm	⚡	⚖
117.3801	3/8"	73,0	200,0	1000V	350

**Reversible ratchet with protective insulation**

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Chrome vanadium



	■	A mm	L mm	⚡	⚖
117.3800	3/8"	78,0	205,0	1000V	370

**Extension with protective insulation**

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



	■	L mm	⚡	⚖
117.2301	3/8"	75,0	1000V	85
117.3851	3/8"	125,0	1000V	140
117.3852	3/8"	250,0	1000V	280

**Extension with protective insulation and screw locking**

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With screw adjustment on the square drive
- Chrome vanadium



	■	L mm	⚡	⚖
117.3823	3/8"	125,0	1000V	140
117.3825	3/8"	250,0	1000V	280

**Bit holder with protective insulation**

- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Magnetic
- For bits to DIN 3126 / C 6,3
- Chrome vanadium

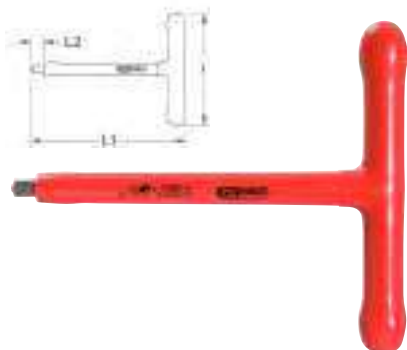


	□	○	D1 mm	D2 mm	L mm	⚡	⚖
117.3811	3/8"	1/4"	25,0	13,0	125,0	1000V	165
117.3812	3/8"	1/4"	25,0	13,0	250,0	1000V	250



### T-handle socket wrench with protective insulation and screw lock

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



3/8"

	□	I mm	L1 mm	L2 mm	⚡	⚙️
117.3820	3/8"	165,0	200,0	15,0	⚡	250

### socket with protective insulation

- 12 point
- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



3/8"

	⚙️	⚡	D1 mm	D2 mm	L mm	⚡	⚙️
117.3831	6		23,0	14,0	48,0	⚡	30
117.3832	7		23,0	15,0	48,0	⚡	30
117.3833	8		23,0	16,0	48,0	⚡	30
117.3834	9		23,0	17,0	48,0	⚡	35
117.3835	10		23,0	19,5	48,0	⚡	35
117.3836	11		23,0	19,5	48,0	⚡	35
117.3837	12		23,0	20,5	48,0	⚡	40
117.3838	13		23,0	23,0	48,0	⚡	40
117.3839	14		23,0	23,5	48,0	⚡	40
117.3840	15		23,0	26,0	48,0	⚡	45
117.3841	16		23,0	26,5	48,0	⚡	45
117.3842	17		23,0	28,0	48,0	⚡	50
117.3843	18		23,0	30,0	48,0	⚡	50
117.3844	19		23,0	30,0	48,0	⚡	60
117.3845	20		23,0	32,0	48,0	⚡	60
117.3846	21		23,0	33,5	48,0	⚡	60
117.3847	22		23,0	37,5	48,0	⚡	60
117.3813	23		22,5	34,0	48,0	⚡	91
117.3848	24		23,0	38,5	48,0	⚡	60
117.1020		1/4"	22,0	13,0	48,0	⚡	30
117.1021		5/16"	22,0	15,5	48,0	⚡	30
117.1022		3/8"	22,0	19,0	48,0	⚡	31
117.1023		7/16"	22,0	20,0	48,0	⚡	32
117.1024		1/2"	22,0	23,0	48,0	⚡	40
117.1025		9/16"	22,0	24,5	48,0	⚡	40
117.1026		5/8"	22,0	26,5	48,0	⚡	42
117.1027		11/16"	22,0	29,0	48,0	⚡	50
117.1028		3/4"	22,0	30,0	48,0	⚡	60
117.1029		13/16"	22,0	32,0	48,0	⚡	60
117.1030		7/8"	22,0	36,0	48,0	⚡	60
117.1031		15/16"	22,0	37,0	48,0	⚡	91

### Socket with protective insulation, long

- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



3/8"

	Profile	⚙️	D1 mm	D2 mm	L mm	⚡	⚙️
117.1090	○	10	22,0	18,0	80,0	⚡	60
117.1091	○	11	22,0	19,5	80,0	⚡	60
117.1092	○	12	22,0	21,0	80,0	⚡	70
117.1093	○	13	22,0	23,0	80,0	⚡	70
117.1094	○	14	22,0	24,0	80,0	⚡	80
117.1095	○	15	22,0	26,0	80,0	⚡	80
117.1096	○	16	22,0	27,0	80,0	⚡	110
117.1097	○	17	22,0	28,0	80,0	⚡	110
117.3881	○	18	22,0	29,5	80,0	⚡	138
117.3882	○	19	22,0	30,5	80,0	⚡	180
117.3883	○	22	22,0	34,5	80,0	⚡	180
117.3884	○	24	22,0	37,5	80,0	⚡	213

### Socket with protective insulation, extra long

- 12 point
- FlankTraction profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Insulated handle to IEC 60900
- Chrome vanadium



3/8"

	⚙️	D1 mm	D2 mm	L mm	⚡	⚙️
117.3853	10	23,0	19,0	135,0	⚡	180
117.3854	11	23,0	20,0	135,0	⚡	185
117.3855	12	23,0	22,0	135,0	⚡	200
117.3856	13	23,0	22,0	135,0	⚡	210
117.3857	14	23,0	26,0	135,0	⚡	220
117.3858	17	23,0	29,0	135,0	⚡	240
117.3859	19	23,0	31,0	135,0	⚡	260
117.3860	22	23,0	35,0	135,0	⚡	280

### Torx E socket with protective insulation

- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium



3/8"

		D1 mm	D2 mm	L mm	⚡	⚙️
117.2376	E4	23,0	10,8	45,0	⚡	40
117.2377	E5	23,0	12,3	45,0	⚡	40
117.2378	E6	23,0	13,5	45,0	⚡	40
117.2379	E7	23,0	13,7	45,0	⚡	45
117.2381	E8	23,0	15,5	45,0	⚡	45
117.2382	E10	23,0	17,2	45,0	⚡	48
117.2383	E11	23,0	18,0	45,0	⚡	50
117.2384	E12	23,0	19,0	45,0	⚡	50
117.2385	E14	23,0	20,5	45,0	⚡	54
117.2386	E16	23,0	23,1	45,0	⚡	56
117.2387	E18	23,0	25,0	45,0	⚡	58
117.2388	E20	23,0	27,0	45,0	⚡	58

### Torx E socket with protective insulation, long

- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium



3/8"

		D1 mm	D2 mm	L mm	⚡	⚙️
117.2363	E4	23,0	9,4	72,0	⚡	50
117.2364	E5	23,0	10,9	72,0	⚡	50
117.2365	E6	23,0	12,3	72,0	⚡	50
117.2366	E7	23,0	13,1	72,0	⚡	55
117.2367	E8	23,0	14,5	72,0	⚡	55
117.2368	E10	23,0	16,2	72,0	⚡	58
117.2369	E11	23,0	17,0	72,0	⚡	60
117.2371	E12	23,0	18,0	72,0	⚡	60
117.2372	E14	23,0	20,6	72,0	⚡	64
117.2373	E16	23,0	23,0	72,0	⚡	66
117.2374	E18	23,0	24,8	72,0	⚡	68
117.2375	E20	23,0	26,0	72,0	⚡	68



**Bit socket with protective insulation for PZ screws**

- PZ
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

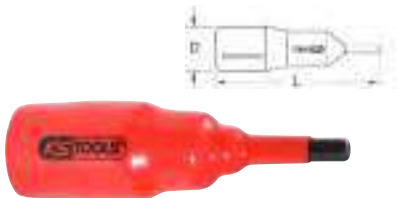


3/8"

		D mm	L mm	⚡	⚖
117.1739	PZ 1	22,0	95,0	1000V	60
117.1740	PZ 2	22,0	95,0	1000V	58
117.1741	PZ 3	22,0	95,0	1000V	70

**Bit socket with protective insulation for hexagon socket screws**

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

	mm	D mm	L mm	⚡	⚖
117.1735	4	22,0	54,0	1000V	40
117.1736	5	22,0	54,0	1000V	40
117.1737	6	22,0	54,0	1000V	40
117.1738	8	22,0	54,0	1000V	40

**Bit socket with protective insulation for hexagon socket screws, long**

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

	mm	D mm	L mm	⚡	⚖
117.3861	4	23,0	82,0	1000V	45
117.3862	5	23,0	82,0	1000V	50
117.3863	6	23,0	82,0	1000V	50
117.3864	8	23,0	82,0	1000V	65
117.3865	10	23,0	82,0	1000V	80
117.3866	12	23,0	82,0	1000V	85
117.3867	4	23,0	116,0	1000V	70
117.3868	5	23,0	116,0	1000V	75
117.3869	6	23,0	116,0	1000V	76
117.3870	8	23,0	116,0	1000V	75
117.3871	10	23,0	116,0	1000V	80
117.3872	12	23,0	116,0	1000V	85
117.3873	5	23,0	180,0	1000V	100
117.3874	6	23,0	180,0	1000V	100
117.3875	5	23,0	270,0	1000V	115
117.3876	6	23,0	270,0	1000V	120
117.3877	8	23,0	270,0	1000V	140
117.3878	10	23,0	270,0	1000V	170

**Bit socket with protective insulation for Torx screws, short**

- Torx
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

		D mm	L mm	⚡	⚖
117.2454	T10	20,0	65,0	1000V	40
117.2455	T15	20,0	65,0	1000V	40
117.2456	T20	20,0	65,0	1000V	45
117.2457	T25	20,0	65,0	1000V	45
117.2458	T27	20,0	65,0	1000V	50
117.2459	T30	20,0	65,0	1000V	55
117.2461	T40	20,0	65,0	1000V	58

**Bit socket with protective insulation for Torx screws, long**

- Torx
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

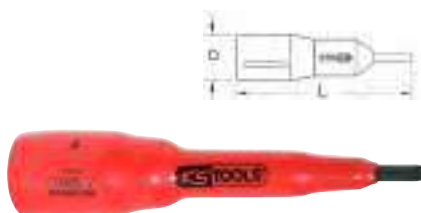


3/8"

		D mm	L mm	⚡	⚖
117.2462	T10	20,0	100,0	1000V	65
117.2463	T15	20,0	100,0	1000V	68
117.2464	T20	20,0	100,0	1000V	70
117.2465	T25	20,0	100,0	1000V	74
117.2466	T27	20,0	100,0	1000V	75
117.2467	T30	20,0	100,0	1000V	78
117.2468	T40	20,0	100,0	1000V	82

**Bit socket with protective insulation for multi-tooth (XZN®) screws**

- Spline (XZN®)
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



3/8"

	mm	D mm	L mm	⚡	⚖
117.3893	M8	23,0	95,0	1000V	85
117.3894	M10	23,0	95,0	1000V	90
117.3895	M12	23,0	95,0	1000V	95

**Bit holder with protective insulation**

- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Magnetic
- For bits to DIN 3126 / C 6,3
- Chrome vanadium



3/8"

		D mm	L mm	⚡	⚖	
117.2313	3/8"	1/4"	55,0	45,0	1000V	34
117.2314	3/8"	8 mm	55,0	50,0	1000V	36

**Reducing adapter with protective insulation**

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium



		D mm	L mm	⚡	⚖	
117.1189	1/4"	3/8"	17,0	39,0	1000V	60
117.3885	3/8"	1/2"	23,0	52,0	1000V	80
117.1190	3/8"	1/4"	22,0	86,0	1000V	60
117.1285	1/2"	3/8"	20,0	75,0	1000V	220



### 3/8" SETS WITH PROTECTIVE INSULATION

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1882</b>	16 pcs	Socket-set with insulated tools	3,80
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8": 5 - 6 - 8 mm	
1 x		25 Nm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1885</b>	16 pcs	Socket-set with insulated tools	3,40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
3 x		3/8": 13 - 17 - 19 mm	
4 x		3/8": 5 - 6 - 8 - 10 mm	
1 x		3/8": 5 mm	
1 x		2,5 mm	
2 x		5 - 6 mm	
1 x		Ø 25mm	
1 x		160 mm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1888</b>	13 pcs	Socket-set with insulated tools	2,40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1850</b>	16 pcs	Socket-set with insulated tools	4,00
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8": 5 - 6 - 8 mm	
1 x		3,5 mm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1881</b>	14 pcs	Socket-set with insulated tools	3,87
1 x		3/8": 5 - 50 Nm	
2 x		3/8": 125 - 250 mm	
5 x		3/8": 10 - 13 - 14 - 17 - 19 mm	
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm	
1 x		3/8": 95 - 150 mm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

<b>117.1886</b>	13 pcs	Socket-set with insulated tools	2,56
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

			kg
117.1887	11 pcs	Socket-set with insulated tools	1,80
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

			kg
117.1889	11 pcs	Socket-set with insulated tools	1,75
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	



1/2" RANGE WITH PROTECTIVE INSULATION

Fixed torque wrench with protective insulation

- Actuation accuracy:  $\pm 4\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - with a fixed adjustable value
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/2"

	■	N·m	A mm	L mm	⚡	g
117.1001	1/2"	5-35	78,0	250,0	1000V	420

Torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy:  $\pm 4\%$  tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- Exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



1/2"

	■	N·m	H mm	L mm	⚡	g
117.1301	1/2"	5-25	61,0	280,0	1000V	0,93
117.1300	1/2"	5-50	61,0	370,0	1000V	1,10
117.1302	1/2"	20-100	61,0	460,0	1000V	1,20
117.1303	1/2"	40-220	61,0	530,0	1000V	1,30

Reversible ratchet with protective insulation

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



1/2"

	■	A mm	L mm	⚡	g
117.1201	1/2"	90,0	245,0	1000V	700

Reversible ratchet with protective insulation

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Special tool steel



1/2"

	■	A mm	L mm	⚡	g
117.1200	1/2"	88,0	245,0	1000V	750

Extension with protective insulation

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



1/2"

	■	L mm	⚡	g
117.2302	1/2"	75,0	1000V	88
117.1251	1/2"	125,0	1000V	212
117.1252	1/2"	250,0	1000V	395



### Extension with protective insulation and screw locking

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 250mm with screw locking on the outside square
- 125mm with screw locking also from closed hexagon socket, Torx, XZN Sockets from below through the inside square of the extension
- Chrome vanadium

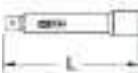


1/2"

	■	L mm	⚡	⚙️
117.1202	1/2"	125,0	1000V	211
117.1203	1/2"	250,0	1000V	406

### Extension with protective insulation

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium

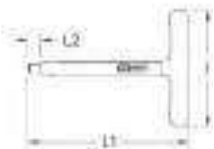


1/2"

	■	L mm	⚡	⚙️
117.1229	1/2"	125,0	1000V	198
117.1231	1/2"	250,0	1000V	374

### T-handle socket wrench with protective insulation and screw lock

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium

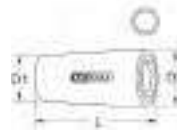


1/2"

	■	L mm	L1 mm	L2 mm	⚡	⚙️
117.1205	1/2"	165,0	200,0	15,0	1000V	490

### socket with protective insulation

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

	■	D1 mm	D2 mm	L mm	⚡	⚙️
117.1208	8	26,0	17,0	55,0	1000V	65
117.1209	9	26,0	19,0	55,0	1000V	65
117.1210	10	26,0	20,0	55,0	1000V	70
117.1211	11	26,0	21,0	55,0	1000V	75
117.1212	12	26,0	22,0	55,0	1000V	75
117.1213	13	26,0	23,5	55,0	1000V	75
117.1214	14	26,0	25,0	55,0	1000V	80
117.1215	15	26,0	26,0	55,0	1000V	80
117.1216	16	26,0	26,5	55,0	1000V	85
117.1217	17	26,0	28,5	55,0	1000V	90
117.1218	18	26,0	31,0	55,0	1000V	85
117.1219	19	26,0	31,5	55,0	1000V	100
117.1220	20	26,0	33,0	55,0	1000V	100
117.1221	21	26,0	34,5	55,0	1000V	120
117.1222	22	26,0	35,0	55,0	1000V	120
117.1223	23	26,0	36,0	55,0	1000V	125
117.1224	24	26,0	37,0	55,0	1000V	140
117.1226	26	26,0	39,0	61,0	1000V	175
117.1227	27	26,0	41,0	61,0	1000V	195
117.1228	28	26,0	44,0	61,0	1000V	190
117.1230	30	26,0	46,0	61,0	1000V	230
117.1232	32	26,0	49,5	61,0	1000V	280

### Socket with protective insulation, long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

	■	D1 mm	D2 mm	L mm	⚡	⚙️
117.1333	8	26,0	19,0	94,0	1000V	105
117.1334	10	26,0	21,0	94,0	1000V	110
117.1335	11	26,0	21,0	94,0	1000V	130
117.1336	12	26,0	22,0	94,0	1000V	145
117.1337	13	26,0	23,5	94,0	1000V	145
117.1338	14	26,0	25,5	94,0	1000V	145
117.1339	15	26,0	27,0	94,0	1000V	145
117.1340	16	26,0	28,0	94,0	1000V	160
117.1341	17	26,0	29,0	94,0	1000V	180
117.1342	18	26,0	30,0	94,0	1000V	190
117.1343	19	26,0	30,5	94,0	1000V	210
117.1344	21	26,0	35,0	94,0	1000V	215
117.1345	22	26,0	35,5	94,0	1000V	230

	■	D1 mm	D2 mm	L mm	⚡	⚙️
117.1346	23	26,0	36,0	94,0	1000V	235
117.1347	24	26,0	39,0	94,0	1000V	250
117.1348	27	26,0	42,0	94,0	1000V	390
117.1349	30	26,0	46,5	94,0	1000V	420
117.1350	32	26,0	48,5	94,0	1000V	460

### Socket with protective insulation, extra long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

	■	D1 mm	D2 mm	L mm	⚡	⚙️
117.1371	13	26,0	23,5	145,0	1000V	250
117.1372	14	26,0	25,5	145,0	1000V	260
117.1373	17	26,0	29,0	145,0	1000V	280
117.1374	19	26,0	30,5	145,0	1000V	295
117.1375	22	26,0	35,5	145,0	1000V	310
117.1376	24	26,0	29,0	145,0	1000V	330
117.1377	27	26,0	42,0	145,0	1000V	350
117.1378	30	26,0	46,5	145,0	1000V	380
117.1379	32	26,0	48,5	145,0	1000V	410

### Socket with protective insulation, extra long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



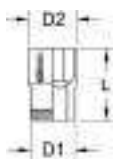
1/2"

	■	D1 mm	D2 mm	L mm	⚡	⚙️
117.1381	13	26,0	23,5	255,0	1000V	485
117.1382	14	26,0	25,5	255,0	1000V	500
117.1383	17	26,0	29,0	255,0	1000V	530
117.1384	19	26,0	30,5	255,0	1000V	550
117.1385	22	26,0	35,5	255,0	1000V	580
117.1386	24	26,0	39,0	255,0	1000V	605
117.1387	27	26,0	42,0	255,0	1000V	635
117.1388	30	26,0	46,5	255,0	1000V	660
117.1389	32	26,0	48,5	255,0	1000V	670



### Socket with protective insulation, imperial

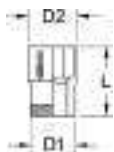
- 12 point
- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



	1/2"	D1 mm	D2 mm	L mm	⚡	⚙️
117.1351	5/16"	26,0	18,0	55,0	1000V	70
117.1352	3/8"	26,0	19,5	55,0	1000V	70
117.1353	7/16"	26,0	21,0	55,0	1000V	75
117.1354	15/32"	26,0	21,5	55,0	1000V	75
117.1355	1/2"	26,0	24,5	55,0	1000V	75
117.1356	9/16"	26,0	25,0	55,0	1000V	80
117.1357	5/8"	26,0	26,5	55,0	1000V	85
117.1358	11/16"	26,0	29,0	55,0	1000V	90
117.1361	3/4"	26,0	30,0	55,0	1000V	100
117.1359	25/32"	26,0	29,5	55,0	1000V	85
117.1362	13/16"	26,0	34,5	55,0	1000V	110
117.1363	7/8"	26,0	35,5	59,0	1000V	120
117.1364	15/16"	26,0	38,0	59,0	1000V	140
117.1368	1"	26,0	39,5	59,0	1000V	175
117.1369	1.1/8"	26,0	45,0	59,0	1000V	190
117.1367	1.1/4"	26,0	49,0	59,0	1000V	280

### Torx E socket with protective insulation

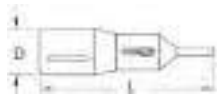
- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium



	1/2"	D1 mm	D2 mm	L mm	⚡	⚙️
117.2353	E10	23,0	17,0	55,0	1000V	70
117.2354	E11	23,0	20,0	55,0	1000V	70
117.2355	E12	23,0	20,0	55,0	1000V	75
117.2356	E14	23,0	21,0	55,0	1000V	80
117.2357	E16	23,0	24,0	55,0	1000V	85
117.2358	E18	23,0	26,0	55,0	1000V	88
117.2359	E20	23,0	28,0	55,0	1000V	90
117.2361	E22	23,0	29,0	55,0	1000V	100
117.2362	E24	23,0	32,0	55,0	1000V	100

### Bit socket with protective insulation for hexagon socket screws

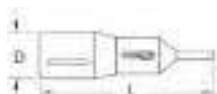
- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



	1/2"	mm	D mm	L mm	⚡	⚙️
117.1151		4	26,0	95,0	1000V	80
117.1152		5	26,0	95,0	1000V	80
117.1153		6	26,0	95,0	1000V	85
117.1154		8	26,0	95,0	1000V	95
117.1155		10	26,0	95,0	1000V	105
117.1156		12	26,0	95,0	1000V	125
117.1157		14	26,0	95,0	1000V	170
117.1158		17	26,0	95,0	1000V	185
117.1159		19	26,0	95,0	1000V	195

### Bit socket with protective insulation for hexagon socket screws, long

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium

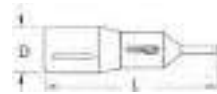


	1/2"	mm	D mm	L mm	⚡	⚙️
117.1161		4	26,0	118,0	1000V	95
117.1162		5	26,0	118,0	1000V	100
117.1163		6	26,0	118,0	1000V	100
117.1164		8	26,0	118,0	1000V	110
117.1165		10	26,0	118,0	1000V	110
117.1166		12	26,0	118,0	1000V	160



### Bit socket with protective insulation for hexagon socket screws, extra long

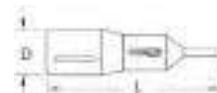
- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



	1/2"	mm	D mm	L mm	⚡	⚙️
117.1171		5	26,0	156,0	1000V	110
117.1172		6	26,0	156,0	1000V	110
117.1173		5	26,0	267,0	1000V	125
117.1174		6	26,0	267,0	1000V	145
117.1175		8	26,0	267,0	1000V	155
117.1176		10	26,0	267,0	1000V	190

### Bit socket with protective insulation for Torx screws, short

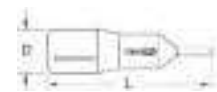
- Torx
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



	1/2"		D mm	L mm	⚡	⚙️
117.2434		T20	25,0	75,0	1000V	70
117.2435		T25	25,0	75,0	1000V	75
117.2436		T27	25,0	75,0	1000V	77
117.2437		T30	25,0	75,0	1000V	78
117.2438		T40	25,0	75,0	1000V	80
117.2439		T45	25,0	75,0	1000V	84
117.2441		T50	25,0	75,0	1000V	90
117.2442		T55	25,0	75,0	1000V	94
117.2443		T60	25,0	75,0	1000V	98

### Bit socket with protective insulation for Torx screws, long

- Torx
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



	1/2"		D mm	L mm	⚡	⚙️
117.2444		T20	25,0	100,0	1000V	88
117.2445		T25	25,0	100,0	1000V	92
117.2446		T27	25,0	100,0	1000V	94
117.2447		T30	25,0	100,0	1000V	95
117.2448		T40	25,0	100,0	1000V	98
117.2449		T45	25,0	100,0	1000V	100
117.2451		T50	25,0	100,0	1000V	100
117.2452		T55	25,0	100,0	1000V	106
117.2453		T60	25,0	100,0	1000V	114

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### Reducing adaptor with protective insulation

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium



	1/2"	3/8"	D mm	L mm	⚡	kg
117.1285	1/2"	3/8"	20,0	75,0	1000V	2,20

### 1/2" SETS WITH PROTECTIVE INSULATION

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



	1/2"	kg
117.1883	15 pcs Socket-set with insulated tools	3,99
1 x	1/2"	
2 x	1/2": 125 - 250 mm	
1 x	1/2"	
8 x	1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x	1/2": 5 - 6 - 8 mm	

### Socket-set with insulated tools

- In accordance to DIN 7448 / 7434 / 7449
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120
- In durable plastic storage case



	1/2"	kg
117.0600	9 pcs Socket-set with insulated tools	2,07
1 x	270 mm	
7 x	10 - 13 - 14 - 16 - 17 - 19 - 21 mm	
1 x	125 mm	

#### Socket-set with insulated tools

- Insulated handle to IEC 60900
- In durable plastic storage case



	1/2"	kg
117.1860	16 pcs Socket-set with insulated tools	4,50
1 x	1/2"	
2 x	1/2": 125 - 250 mm	
1 x	1/2"	
8 x	1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x	1/2": 5 - 6 - 8 mm	
1 x	3,5 mm	

### 3/4" RANGE WITH PROTECTIVE INSULATION

#### Reversible ratchet with protective insulation

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



	3/4"	A mm	L mm	⚡	kg
117.1187	3/4"	111,5	500,0	1000V	2,00

#### socket with protective insulation

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



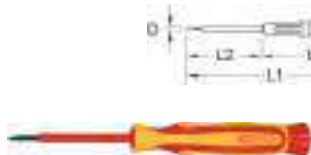
	mm	D1 mm	D2 mm	L mm	⚡	kg
117.3930	19	38,0	26,0	68,0	1000V	200
117.3931	21	38,0	39,0	68,0	1000V	210
117.3932	22	38,0	40,0	70,0	1000V	230
117.3933	24	38,0	43,0	70,0	1000V	230
117.3934	26	38,0	45,0	72,0	1000V	240
117.3935	27	38,0	47,0	72,0	1000V	270
117.3936	28	38,0	48,0	72,0	1000V	290
117.3937	30	38,0	50,0	74,0	1000V	310
117.3938	32	38,0	52,0	74,0	1000V	320
117.3939	36	38,0	58,0	82,0	1000V	460
117.3940	38	38,0	60,0	82,0	1000V	500
117.3941	41	38,0	62,0	82,0	1000V	540
117.3942	46	38,0	70,0	82,0	1000V	630
117.3943	50	38,0	75,0	82,0	1000V	750
117.3944	55	38,0	82,0	88,0	1000V	860
117.3945	60	38,0	90,0	88,0	1000V	910



**SCREWDRIVERS WITH PROTECTIVE INSULATION**

**Precision screwdriver with protective insulation for slotted screws**

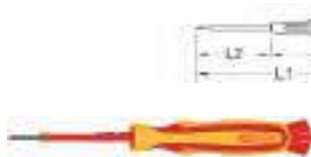
- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	⚙️
500.6138	1,5	132,0	40,0	92,0	☞	16
500.6139	1,8	132,0	40,0	92,0	☞	16
500.6140	2,0	132,0	40,0	92,0	☞	16
500.6141	2,5	152,0	60,0	92,0	☞	18
500.6142	3,0	152,0	60,0	92,0	☞	21
500.6143	3,5	152,0	60,0	92,0	☞	21

**Precision screwdriver with protective insulation for Phillips screws PH**

- PH
- Insulated to IEC 60900
- Twist end cap
- Color coding
- Hardened blade
- Burnished tip
- Blades made from special steel



		L1 mm	L2 mm	L3 mm	⚡	⚙️
500.6136	PH 00	132,0	40,0	92,0	☞	16
500.6137	PH 0	152,0	60,0	92,0	☞	16
500.6144	PH 1	152,0	60,0	92,0	☞	21



**ERGOTORQUE® VDE screwdriver for slotted screws**

- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	⚙️
117.0541	2	140,0	60,0	80,0	☞	30
117.0502	2,5	155,0	75,0	80,0	☞	32
117.0504	3,0	180,0	100,0	80,0	☞	35
117.0506	3,5	180,0	100,0	80,0	☞	38
117.0508	4,0	180,0	100,0	80,0	☞	41
117.0542	4,5	230,0	125,0	105,0	☞	92
117.0543	4,5	290,0	175,0	115,0	☞	164
117.0544	4,5	315,0	200,0	115,0	☞	230
117.0512	5,5	230,0	125,0	105,0	☞	92
117.0545	5,5	290,0	175,0	115,0	☞	164
117.0514	6,5	255,0	150,0	105,0	☞	111
117.0516	8,0	290,0	175,0	115,0	☞	164
117.0518	10,0	315,0	200,0	115,0	☞	230

**ERGOTORQUE® VDE screwdriver for phillips screws PH**

- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



		L1 mm	L2 mm	L3 mm	⚡	⚙️
117.0522	PH 0	140,0	60,0	80,0	☞	32
117.0524	PH 1	185,0	80,0	105,0	☞	38
117.1521	PH 1	265,0	150,0	115,0	☞	152
117.0526	PH 2	205,0	100,0	105,0	☞	95
117.1523	PH 2	315,0	200,0	115,0	☞	230
117.0528	PH 3	265,0	150,0	115,0	☞	152
117.1526	PH 4	315,0	200,0	115,0	☞	230

**ERGOTORQUE® VDE screwdriver for pozidriv screws PZ**

- PZ
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



		L1 mm	L2 mm	L3 mm	⚡	⚙️
117.0532	PZ 0	140,0	60,0	80,0	☞	32
117.0534	PZ 1	185,0	80,0	105,0	☞	38
117.1533	PZ 1	265,0	150,0	115,0	☞	152
117.0536	PZ 2	205,0	100,0	105,0	☞	95
117.1534	PZ 2	315,0	200,0	115,0	☞	230
117.0538	PZ 3	265,0	150,0	115,0	☞	152
117.1535	PZ 4	315,0	200,0	115,0	☞	230

**Hexagon socket screwdriver with protective insulation**

- Hexagon socket
- In accordance to DIN 7439
- Insulated to IEC 60900
- Burnished
- Chrome vanadium



	mm	L1 mm	L2 mm	L3 mm	⚡	⚙️
117.1631	1,5	156,0	75,0	81,0	☞	16
117.1632	2,0	156,0	75,0	81,0	☞	18
117.1633	2,5	181,0	100,0	81,0	☞	34
117.1634	3,0	181,0	100,0	81,0	☞	36
117.1635	4,0	231,0	125,0	106,0	☞	43
117.1636	5,0	256,0	150,0	106,0	☞	67
117.1637	6,0	291,0	175,0	116,0	☞	83
117.1638	8,0	316,0	200,0	116,0	☞	116

**Insulated screwdriver for internal Torx screws**

- Torx
- Insulated to IEC 60900
- Burnished
- Special tool steel



		L1 mm	L2 mm	L3 mm	⚡	⚙️
117.2235	T5	140,0	60,0	80,0	☞	32
117.2236	T6	140,0	60,0	80,0	☞	33
117.2237	T7	140,0	60,0	80,0	☞	33
117.2238	T8	140,0	60,0	80,0	☞	35
117.2239	T9	140,0	60,0	80,0	☞	36
117.0551	T10	170,0	80,0	90,0	☞	27
117.0552	T15	170,0	80,0	90,0	☞	28
117.0553	T20	190,0	100,0	90,0	☞	36
117.0554	T25	190,0	100,0	90,0	☞	61
117.0555	T27	230,0	125,0	105,0	☞	86
117.0556	T30	205,0	115,0	90,0	☞	93
117.0557	T40	290,0	175,0	115,0	☞	155
117.0558	T45	290,0	175,0	115,0	☞	163

**ERGOTORQUE VDE Screwdriver for square socket screws**

- Internal square
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



		L1 mm	L2 mm	L3 mm	⚡	⚙️
117.0591	#1	160,0	80,0	80,0	☞	27
117.0592	#1	255,0	150,0	105,0	☞	92
117.0593	#2	180,0	100,0	80,0	☞	41
117.0594	#2	315,0	200,0	115,0	☞	230
117.0595	#3	265,0	150,0	115,0	☞	115

**Bit screwdriver with protective insulation and magazine**

- Insulated to IEC 60900
- Magnetic
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



	D	L1	L2	L3	L4	L5	⚡	👤
1171625	1/4"	125	200,0	100,0	110,0	260,0	II	110


**SCREWDRIVER SETS WITH PROTECTIVE INSULATION**
**Precision screwdriver set with protective insulation**

- Insulated to IEC 60900
- Twist end cap
- Color coding
- Hardened blade
- Burnished tip
- Blade made of chrome vanadium
- In durable ABS storage case



		👤
1172852	7 pcs Precision screwdriver set with protective insulation	310
2 x	PH0 - PH00	
5 x	1,5 - 1,8 - 2,0 - 2,5 - 3,0 mm	

**ERGOTORQUE® VDE screwdriver set**

- In accordance to DIN 5264 / 7437 / 7438 / 8754
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



	👤
1172840	5 pcs ERGOTORQUE® VDE screwdriver set
1 x	PH1
3 x	2,5 - 4,0 - 5,5 mm
1 x	3,0 mm

**ERGOTORQUE® VDE screwdriver set**

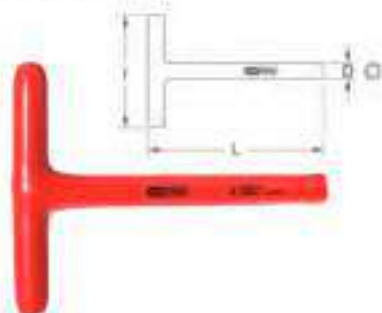
- In accordance to DIN 5264 / 7437 / 7438 / 8754
- Insulated to IEC 60900
- Two component handle
- Burnished
- Special tool steel



	👤
1172850	6 pcs ERGOTORQUE® VDE screwdriver set
3 x	PH0 - PH1 - PH2
4 x	2,5 - 4,0 - 5,5 - 6,5 mm
1 x	3,0 mm

**KEY WRENCHES WITH PROTECTIVE INSULATION**
**T-handle socket wrench with protective insulation**

- Insulated to IEC 60900
- Magnetic
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



	D	L	L1	⚡	👤
1171743	1/4"	14,3	100,0	110,0	164
1171744	1/4"	14,3	300,0	110,0	242
1171745	1/4"	14,3	350,0	95,0	315

**Allen key with protective insulation**

- Hexagon socket
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specialty for cable branch clamping
- Matt chrome
- Chrome vanadium



	L1	L2	⚡	👤
1171681	3	125,0	24,0	23
1171682	4	125,0	40,0	23
1171683	5	143,0	47,0	45
1171684	6	143,0	50,0	43
1171685	8	156,0	60,0	115
1171686	10	225,0	51,0	228
1171687	12	265,0	60,0	258

**Allen key with protective insulation**

- Hexagon socket
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specialty for cable branch clamping
- Matt chrome
- Chrome vanadium



	L1	L2	⚡	👤
1172484	1/8"	105,0	24,0	23
1172485	5/32"	105,0	26,0	23
1172486	3/16"	125,0	41,0	31
1172487	7/32"	143,0	46,0	54
1172488	1/4"	143,0	47,0	61
1172489	5/16"	156,0	51,0	100
1172491	3/8"	245,0	55,0	220
1172492	1/2"	345,0	60,0	258



### Angle socket wrench with protective insulation

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



1/2"

	■	L1 mm	L2 mm	⚡	⚙️
117.1403	1/2"	280,0	70,0	1000V	470

### T-Handle Torx L-key with protective insulation

- Insulated handle to IEC 60900
- Extremely versatile
- Burnished
- Chrome vanadium



### T-handle Allen key with protective insulation

- Hexagon socket
- Insulated handle to IEC 60900
- Extremely versatile
- Burnished
- Chrome vanadium



	⚙️	I mm	D mm	L1 mm	L2 mm	⚡	⚙️
117.1671	3	65,0	5,0	120,0	17,5	1000V	80
117.1673	4	65,0	10,0	120,0	19,0	1000V	85
117.1674	4	104,0	15,0	160,0	22,0	1000V	145
117.1675	4	64,0	10,0	200,0	18,0	1000V	150
117.1676	4	94,0	13,0	250,0	19,0	1000V	168
117.1677	5	65,0	11,0	120,0	20,0	1000V	85
117.1678	5	105,0	15,0	160,0	21,0	1000V	250
117.1679	5	65,0	10,0	200,0	18,0	1000V	150
117.1681	5	105,0	15,0	250,0	20,0	1000V	168
117.1682	6	90,0	11,0	120,0	20,0	1000V	110
117.1683	6	105,0	15,0	160,0	21,0	1000V	250
117.1684	6	65,0	11,0	200,0	19,0	1000V	150
117.1742	6	105,0	8,0	250,0	20,0	1000V	307
117.1685	8	105,0	15,0	160,0	21,0	1000V	260
117.1686	8	160,0	13,0	200,0	22,0	1000V	325
117.1687	8	100,0	17,0	250,0	22,0	1000V	360
117.1688	10	160,0	15,0	200,0	20,0	1000V	390
117.1689	10	160,0	15,0	250,0	20,0	1000V	420
117.1691	10	160,0	15,0	300,0	20,0	1000V	450
117.1692	11	160,0	15,0	200,0	20,0	1000V	400
117.1693	12	160,0	16,0	200,0	20,0	1000V	420
117.1694	13	160,0	16,0	200,0	21,0	1000V	450
117.1695	14	160,0	17,0	200,0	21,0	1000V	490
117.1696	17	160,0	20,0	200,0	21,0	1000V	640



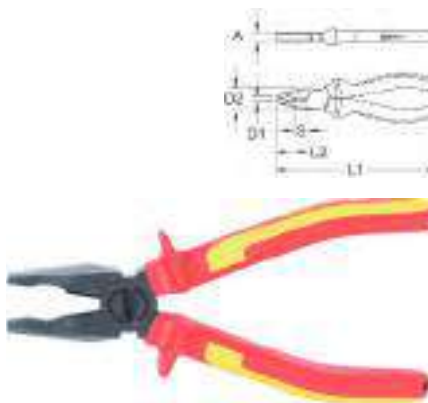
		I mm	D mm	L1 mm	L2 mm	⚡	⚙️
117.2412	T10	63,0	4,0	120,0	13,0	1000V	85
117.2413	T15	63,0	4,0	120,0	13,0	1000V	90
117.2414	T20	103,0	5,0	120,0	13,0	1000V	90
117.2415	T25	103,0	5,0	160,0	15,0	1000V	135
117.2416	T27	103,0	6,0	160,0	15,0	1000V	150
117.2417	T30	103,0	6,0	160,0	15,0	1000V	160
117.2418	T40	103,0	7,0	200,0	15,0	1000V	210
117.2419	T45	103,0	7,0	200,0	15,0	1000V	330
117.2421	T50	103,0	8,0	200,0	15,0	1000V	410



### PLIERS WITH PROTECTIVE INSULATION

#### ERGOTORQUE® VDE combination pliers

- In accordance to DIN ISO 5748
- Wrap around insulation to IEC 60900
- Two component handle
- Suitable for wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1111	10,0	6,0	24,0	170,0	35,0	2,4	1000V	310
117.1112	11,0	7,0	27,0	185,0	38,5	2,5	1000V	380
117.1113	12,0	7,0	30,0	210,0	42,5	3,0	1000V	400

### 1000V high leverage combination pliers

- In accordance to DIN ISO 5746
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Extra heavy execution
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1278	8,5	6,0	25,0	160,0	36,5	13,0	1000V	230
117.1275	11,0	7,5	28,0	185,0	40,0	16,5	1000V	290
117.1276	11,5	8,0	28,0	205,0	43,0	18,0	1000V	390
117.1279	13,0	8,0	35,0	250,0	53,0	21,5	1000V	570

#### 1000V combination pliers

- In accordance to DIN ISO 5244
- Insulated handle to IEC 60900
- With coated working head
- Also suitable for hard wire
- Extra heavy execution
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1711	16,0	8,0	30,0	185,0	38,0	16,0	1000V	280
117.1712	16,0	8,5	32,5	205,0	44,0	18,5	1000V	350

#### ERGOTORQUE® VDE cable stripper

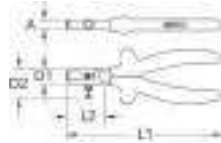
- In accordance to DIN ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1114	10,0	17,5	31,5	160,0	36,0	1000V	210

### 1000V wire strippers

- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1271	9,5	18,5	31,5	160,0	44,0		180

### 1000V wire strippers

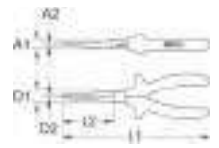
- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm<sup>2</sup>
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1225	10,0	24,0	40,0	185,0	61,0		260

### 1000V drawing pliers

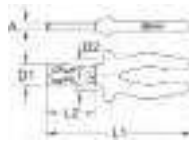
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1714	7,5	6,5	19,0	4,5	200,0	65,0		220

### 1000V wire strippers

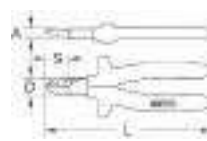
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm<sup>2</sup>
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1272	10,5	28,5	47,5	160,0	20,0		220

### 1000V electrical side cutters

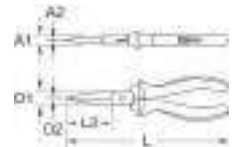
- Insulated handle to IEC 60900
- For cutting, stripping and crimping
- Wire strippers for wires from 1,5 mm<sup>2</sup> + 2,5 mm<sup>2</sup>
- For crimping of insulated cable lugs with Ø 1,5 mm + 2,5 mm
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		
117.1281	10,5	22,0	175,0	27,0		320

### ERGOTORQUE® VDE flat pliers

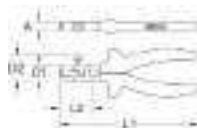
- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1125	9,0	3,8	18,0	3,0	170,0	49,5		210

### 1000V wire strippers

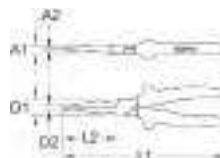
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- With coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1713	11,0	18,5	20,0	160,0	34,0		180

### 1000V drawing pliers

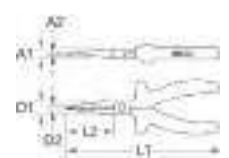
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1280	7,5	6,5	17,0	4,5	200,0	65,0		220

### 1000V flat pliers

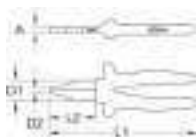
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1289	8,5	5,5	15,0	3,5	160,0	50,0		210

**1000V flat pliers**

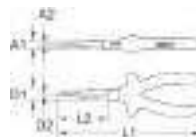
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1298	9,0	17,0	4,5	160,0	34,0	⚡	200

**1000V long jaw flat pliers**

- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With long jaws
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1716	13,0	7,5	18,5	4,5	160,0	50,0	⚡	130

**ERGOTORQUE® VDE long nosed pliers**

- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Long jaws
- Suitable for medium and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1117	9,0	2,9	18,0	3,2	165,0	48,0	2,5	⚡	177
117.1118	11,0	3,5	22,0	4,5	215,0	69,0	2,5	⚡	291

**1000V flat pliers**

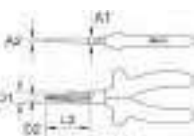
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1715	11,0	11,0	19,0	5,0	160,0	36,0	⚡	190

**1000V long jaw round pliers**

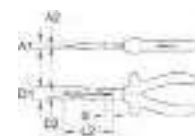
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With round and long jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1290	9,0	2,5	14,0	5,5	160,0	47,5	⚡	205

**1000V long nosed pliers**

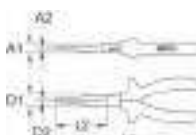
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1291	9,5	2,5	16,0	4,0	200,0	74,0	⚡	230
117.1293	9,0	2,0	15,5	3,0	160,0	55,0	⚡	170

**1000V long jaw flat pliers**

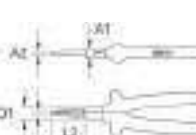
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1299	7,0	8,5	16,0	4,0	160,0	51,0	⚡	210

**1000V round pliers**

- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With round, short and strong jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.1297	10,0	3,5	14,0	6,0	160,0	33,0	⚡	180

**1000V long nosed pliers**

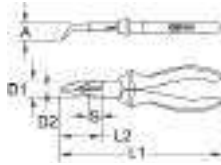
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1717	10,0	3,5	17,5	4,0	160,0	55,0	10,0	⚡	180
117.1718	10,5	3,5	18,0	5,0	200,0	74,0	14,0	⚡	230

### ERGOTORQUE® VDE long nosed pliers, curved

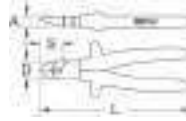
- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🛡️
117.1120	9,0	18,0	3,2	165,0	48,0	2,5	⚡	210
117.1121	11,0	22,0	5,0	205,0	70,0	2,5	⚡	310

### 1000V lead sealing pliers

- Insulated handle to IEC 60900
- Combined with side cutter
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1268	10,0	20,0	160,0	15,0	⚡ 1000V	220

### 1000V side cutters

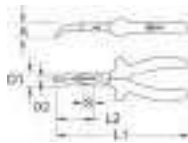
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Working head coated
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1721	26,0	25,5	160,0	22,0	⚡ 1000V	230
117.1722	27,0	27,0	180,0	25,0	⚡ 1000V	330

### 1000V long nosed pliers, curved

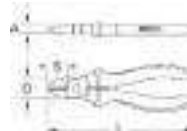
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🛡️
117.1294	9,5	15,5	4,0	160,0	51,0	11,0	⚡ 1000V	170
117.1292	9,5	17,0	4,0	200,0	78,0	14,0	⚡	210

### ERGOTORQUE® VDE diagonal side cutters

- In accordance to DIN ISO 5749
- Wrap around insulation to IEC 60900
- Two component handle
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1119	10,0	20,0	160,0	20,0	⚡	210

### 1000V high leverage side cutter

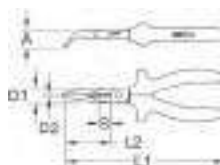
- In accordance to DIN ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Lower power usage
- 40% power saving
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1234	12,0	28,5	200,0	25,0	⚡ 1000V	380

### 1000V long nosed pliers, curved

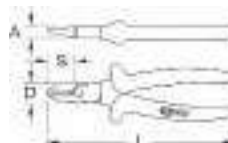
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	🛡️
117.1719	12,0	5,0	19,0	200,0	79,0	14,0	⚡ 1000V	220

### 1000V side cutters

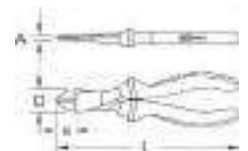
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1277	11,0	21,5	160,0	24,0	⚡	270
117.1288	11,0	21,5	180,0	24,0	⚡	330

### ERGOTORQUE® VDE high leverage side cutters

- In accordance to DIN ISO 5749
- Wrap around insulation to IEC 60900
- Two component handle
- For all types of wire
- Lower power usage
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	🛡️
117.1115	12,0	30,0	190,0	22,5	⚡	330
117.1116	12,5	30,0	205,0	22,5	⚡	370

1000V high leverage side cutter

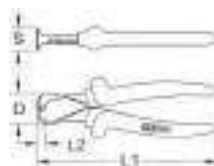
- In accordance to DIN ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Lower power usage
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	⚙️
117.1282	12,0	26,0	180,0	21,0	1000V	320
117.1283	12,5	29,0	205,0	24,0	1000V	370
117.1284	13,5	33,0	260,0	30,0	1000V	580

1000V cutting pliers

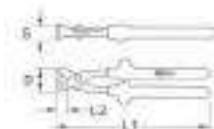
- In accordance to DIN ISO 5748
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	D mm	L mm	L2 mm	S mm	⚡	⚙️
117.1198	30,0	160,0	6,5	23,0	1000V	280

1000V rabbit pliers

- Insulated handle to IEC 60900
- For soft wire
- For cutting and twisting tie wire
- Induction-hardened precision cutting
- Phosphate finish
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.1204	36,0	250,0	16,0	25,0	1000V	480

ERGOTORQUE® VDE water pump pliers

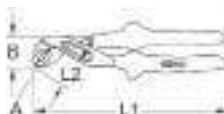
- In accordance to DIN ISO 8976
- Wrap around insulation to IEC 60900
- Two component handle
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fatener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	⚙️
117.2000	33,0	42,0	240,0	32,0	1000V	420

1000V water pump pliers

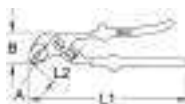
- In accordance to DIN ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fatener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	⚙️
117.1273	39,0	35,0	250,0	51,0	1000V	350
117.1274	65,0	47,0	300,0	65,0	1000V	690

1000V water pump pliers

- In accordance to DIN ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Heavy execution
- Through flexible head with flat-die thread rolling
- Optimum power transfer
- With zip fatener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	⚙️
117.1207	54,0	56,0	260,0	35,0	1000V	560

PLIERS WITH TOOL SAFETY MECHANISM & PROTECTIVE INSULATION

1000V power combination pliers with safety eyelet for safety line

- In accordance to DIN ISO 5746
- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙️
117.2201	11,5	8,0	28,0	205,0	43,0	18,0	1000V	400

1000V Wire Stripper with safety line safety eyelet

- In accordance to DIN ISO 5232
- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,5 - 5,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.2202	9,5	18,5	31,5	160,0	44,0	1000V	190

1000V Diagonal cutter with safety eyelet for safety rope

- In accordance to DIN ISO 5232
- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	⚙️
117.2204	11,0	21,5	160,0	24,0	1000V	270

1000V flat nose pliers with safety eyelet for safety line

- In accordance to DIN ISO 5745
- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙️
117.2203	9,5	2,5	16,0	4,0	200,0	74,0	1000V	230

### 1000V Single hand cable cutter with safety eyelet for safety line

- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- Suitable for wire up to 25 mm<sup>2</sup>
- Suitable for multi-strand wire up to 50 mm<sup>2</sup>
- Suitable for ultra-wire up to 70 mm<sup>2</sup>
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.2206	22,0	18,0	31,0	215,0	32,0	1000V	360

### 1000V water pump pliers with safety eyelet for safety line

- In accordance to DIN ISO 8976
- integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm		
117.2205	39,0	35,0	240,0	51,0	1000V	390

### lifeline

- for attaching to trousers and tools
- easy to fasten
- ideal for work at great heights
- Universal usage
- aluminium carabiner



	Length mm	
117.2207	480 - 1500	50



### PLIERS SETS WITH PROTECTIVE INSULATION

#### ERGOTORQUE® VDE pliers set

- Wrap around insulation to IEC 60900
- Two component handle
- Matt chrome
- Special tool steel



117.1100	4 pcs	ERGOTORQUE® VDE pliers set	1,44
1 x		175 mm	
1 x		165 mm	
1 x		150 mm	
1 x		250 mm	

#### 1000V pliers set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



117.1700	4 pcs	1000V pliers set	1,55
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	



#### ERGOTORQUE® VDE pliers set

- Wrap around insulation to IEC 60900
- Two component handle
- Matt chrome
- Special tool steel



117.1110	3 pcs	ERGOTORQUE® VDE pliers set	930
1 x		175 mm	
1 x		165 mm	
1 x		150 mm	

#### 1000V pliers set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



117.1710	3 pcs	1000V pliers set	0,82
1 x		185 mm	
1 x		200 mm	
1 x		160 mm	

**ERGOTORQUE® VDE pliers set**

- Wrap around insulation to IEC 60900
- Two component handle
- Matt chrome
- Chrome vanadium



117.1160			
117.1160	4 pcs	ERGOTORQUE® VDE pliers set	1,20
1 x		200 mm	
1 x		160 mm	
1 x		180 mm	
1 x		160 mm	

**ERGOTORQUE® VDE plier and screwdriver set**

- Wrap around insulation to IEC 60900
- Two component handle
- Matt chrome / burnished
- Special tool steel



117.1170			
117.1170	5 pcs	ERGOTORQUE® VDE plier and screwdriver set	0,86
1 x		200 mm	
1 x		160 mm	
2 x		4 - 5,5 mm	
1 x		PH2	

**1000V electronic set**

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



117.1104			
117.1104	9 pcs	1000V electronic set	930
1 x		115 mm	
1 x		115 mm	
1 x		115 mm	
1 x		115 mm	
1 x		115 mm	
1 x		115 mm	
1 x		145 mm	
1 x		145 mm	
1 x		175 mm	

**1000V pliers set**

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



117.1760			
117.1760	4 pcs	1000V pliers set	0,95
1 x		200 mm	
1 x		160 mm	
1 x		185 mm	
1 x		160 mm	

**ERGOTORQUE® VDE pliers and screwdriver set**

- Wrapped and insulated handle to IEC 60900
- Pliers dip insulated
- Screwdrivers with two component handle
- Matt chrome / burnished
- Special tool steel



117.1770			
117.1770	5 pcs	ERGOTORQUE® VDE pliers and screwdriver set	0,69
1 x		200 mm	
1 x		160 mm	
2 x		4 - 5,5 mm	
1 x		PH2	

**1000V pliers and screwdriver set**

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



117.1875			
117.1875	10 pcs	1000V pliers and screwdriver set	2000
1 x		185 mm	
1 x		160 mm	
1 x		160 mm	
1 x		160 mm	
1 x		3,0 mm	
4 x		2,5 - 4 - 5,5 - 6,5 mm	
1 x		PH1	

### 1000V pliers set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel
- Force variant



117.1873	6 pcs	1000V pliers set	2,50	
1 x		185 mm		
1 x		160 mm		
1 x		200 mm		
1 x		200 mm		
1 x		160 mm		
1 x		260 mm		



### CABLE CUTTING

#### 1000V electrical shear

- Insulated handle to IEC 60900
- Only suitable for copper and aluminium wire
- For the cutting of thin wires and sheet metals
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		
117.1206	9,0	14,0	180,0	38,0		170

### 1000V cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm <sup>2</sup>	A mm	D mm	L mm	S mm		
117.4277	6,0	22,0	11,0	24,0	160,0	15,0		238
117.4278	10,0	38,0	13,0	29,0	210,0	18,0		370
117.4279	20,0	60,0	15,0	32,0	250,0	26,0		600

### ERGOTORQUE® VDE cable shear

- Wrap around insulation to IEC 60900
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- For squeeze free cutting of and on more wiry copper and aluminium cables
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Two component handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.1122	10,0	10,8	24,5	165,0	15,0		200
117.1123	12,5	13,0	29,0	215,0	17,5		270
117.1124	15,0	13,5	45,0	245,0	31,0		550

### 1000V cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm <sup>2</sup>	A mm	D mm	L mm	S mm		
117.1269	15,0	50,0	13,5	38,0	240,0	25,0		455

### 1000V single handed cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm<sup>2</sup>
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm <sup>2</sup>	A mm	D mm	L mm	S mm		
117.1107	15,0	50,0	10,0	23,5	165,0	24,0		250
117.1108	20,0	60,0	12,0	28,5	200,0	27,0		350

### 1000V single handed cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- No bruising, slight shaping of the cable
- With precision screw joint
- Suitable for wire up to 16 mm<sup>2</sup>
- Suitable for multi strand wire up to 25 mm<sup>2</sup>
- Suitable for ultra wire up to 50 mm<sup>2</sup>
- Not suited for steel wire and hard pulled copper cables
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm		
117.1286	15,0	12,0	25,0	160,0	20,0		250

### 1000V single handed cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel

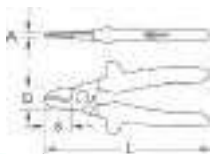


	Ø mm	Cutting ratio mm <sup>2</sup>	A mm	D mm	L mm	S mm		
117.1287	17,0	35,0	15,0	27,0	165,0	25,0		240



1000V single handed cable shear

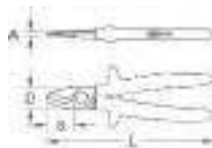
- Insulated handle to IEC 60900
- With coated working head
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	S mm	⚡	kg
117.1103	17,0	35,0	13,0	31,0	165,0	20,5	1000V	280
117.1109	20,0	50,0	18,0	33,5	210,0	34,0	1000V	400

1000V single handed cable shear

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- Suitable for wire up to 25 mm²
- Suitable for multi-strand wire up to 50 mm²
- Suitable for ultra-wire up to 70 mm²
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	⚡	kg
117.1259	22,0	18,0	31,0	215,0	32,0	1000V	360

1000V two cut cable shear

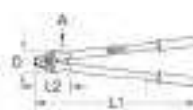
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Precision blade for easy and clean cut
- With before and after cut
- With after adjustable screw joint
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	⚡	kg
117.1270	20,0	50,0	13,5	33,0	200,0	83,0	48,0	1000V	365

Cable shears with protective insulation

- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- With interchangeable cutter head
- Knife head made out of special alloyed steel
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	⚡	kg
117.1260	26,0	150,0	16,0	80,0	600,0	80,0	117.1258	1000V	2,70
117.1261	33,0	180,0	17,0	86,0	700,0	105,0	117.1263	1000V	3,30

Storage bag for cable shears with protective insulation

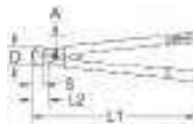
- From black synthetic leather
- For storage and protection of insulated cable shears



	L mm	B mm	kg	
117.1262	650,0	95 - 190	→ 117.1260 + 117.1261	241

Cable shears with protective insulation

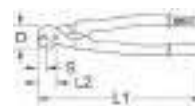
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	⚡	kg
117.1264	27,0	150,0	15,0	59,0	500,0	58,0	37,0	1000V	1,48

Cable shears with protective insulation

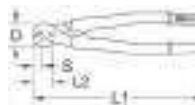
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Cutting ratio mm²	D mm	L1 mm	L2 mm	S mm	⚡	kg
117.4281	95,0	58,0	310,0	35,0	25,0	1000V	0,82
117.4282	150,0	66,0	460,0	41,0	30,0	1000V	1,40
117.4283	325,0	90,0	600,0	55,0	46,0	1000V	2,50
117.4284	500,0	90,0	800,0	75,0	54,0	1000V	3,80

Wire rope cable shears with protective insulation

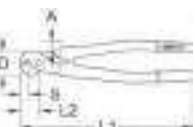
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower power usage
- Matt chrome
- Special tool steel



	Cutting ratio steel mm²	Cutting ratio wire mm²	D mm	L1 mm	L2 mm	S mm	⚡	kg
117.4285	7	60	58,0	310,0	30,0	20,0	1000V	0,95
117.4286	10	100	66,0	450,0	34,0	21,0	1000V	1,40
117.4287	14	150	91,0	600,0	45,0	24,0	1000V	2,60

Wire rope cable shears with protective insulation

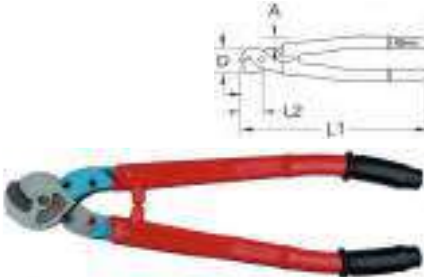
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower power usage
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	⚡	kg
117.1266	20,0	120,0	19,0	90,0	600,0	84,0	17,0	117.1267	1000V	1,80

### Wire rope cable shears with protective insulation

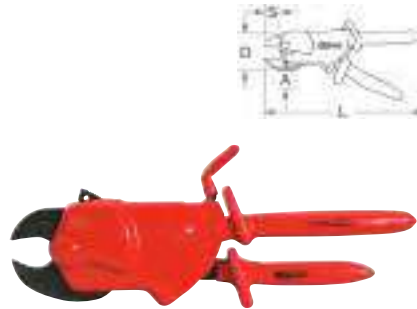
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower power usage
- Matt chrome
- Special tool steel



	D mm	Cutting ratio mm <sup>2</sup>	A mm	L1 mm	L2 mm	⚡	kg
117.4280	35 - 50	500,0	30,0	800,0	80,0	1000V	3,90

### One-hand ratchet cable shears with protective insulation

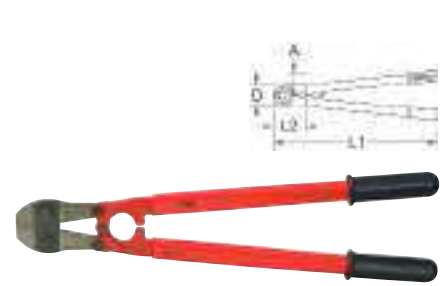
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Working head coated
- Automatic reserve through spring return
- Cutting edge process can be interrupted in every position
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	kg
117.1245	40,0	80,0	290,0	35,0	1000V	1,00
117.1246	40,0	85,0	310,0	40,0	1000V	1,15

### Bolt cutter with protective insulation

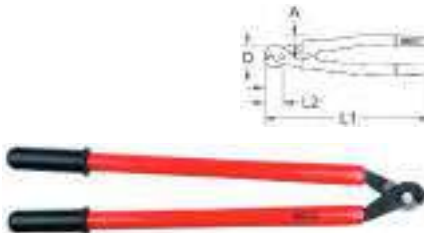
- Insulated handle to IEC 60900
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Induction-hardened precision cutting
- Phosphate finish
- Special tool steel



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	⚡	kg
117.1256	8,0	79,0	610,0	115,0	117.1257	1000V	2,70

### Wire rope shears with protective insulation

- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower power usage
- Matt chrome
- Special tool steel



	Cutting edge steel mm <sup>2</sup>	Cutting edge wire mm <sup>2</sup>	D mm	A mm	L1 mm	L2 mm	⚡	kg
117.1101	9	16	54,0	37,0	700,0	45,0	1000V	2,40

### Ratchet cable shears with protective insulation

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- Ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



	Ø mm	Cutting ratio mm <sup>2</sup>	D mm	L1 mm	L2 mm	⚡	kg
117.1248	62,0	840,0	150,0	400,0	90,0	1000V	2,20
117.1249	80,0	1000,0	190,0	530,0	110,0	1000V	3,15



### ELECTRICIAN'S KNIVES

#### Cable knife with protective insulation

- Insulated to IEC 60900
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	g
117.1295	18,5	50,0	210,0	1000V	105

### Cable shears with protective insulation, telescopic handle

- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With telescopic handle
- With interchangeable cutter head
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm <sup>2</sup>	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	⚡	kg
117.1233	31,0	185,0	82,0	360-520	63,0	35,0	117.2234	1000V	2,00

### Ratchet cable shears with protective insulation

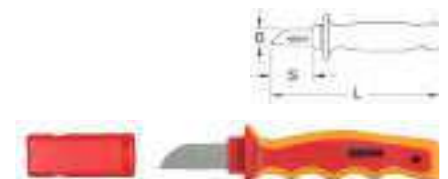
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- Ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



	Ø mm	Ø mm	D mm	L1 mm	L2 mm	kg
117.1102	52,0	25,0	135,0	310,0	110,0	0,92

#### Cable knife with protective insulation

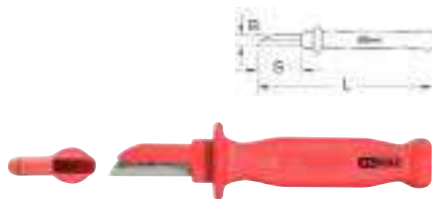
- Insulated to IEC 60900
- Two component handle
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	g
117.1397	16,7	53,0	205,0	1000V	90

**Cable knife with protective insulation**

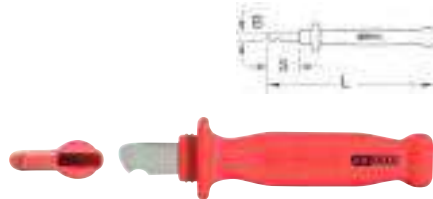
- Insulated to IEC 60900
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1390	18,5	50,0	210,0		115

**Dismantling knife with protective insulation**

- Insulated to IEC 60900
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1391	19,0	35,0	182,0		95

**Gutta percha knife with protective insulation**

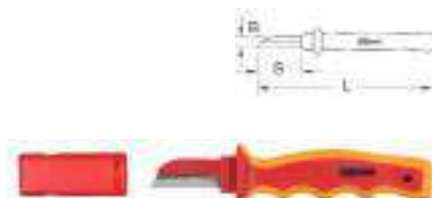
- Insulated to IEC 60900
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1393	12,0	50,0	200,0		95

**Cable knife with protective insulation**

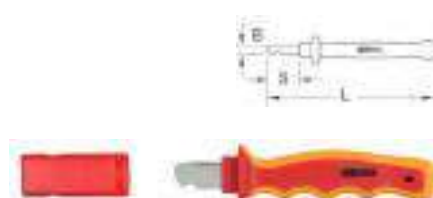
- Insulated to IEC 60900
- Two component handle
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1304	20,3	53,0	205,0		99

**Dismantling knife with protective insulation**

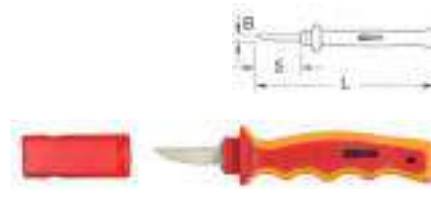
- Insulated to IEC 60900
- Two component handle
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1305	19,0	35,0	185,0		92

**Gutta percha knife with protective insulation**

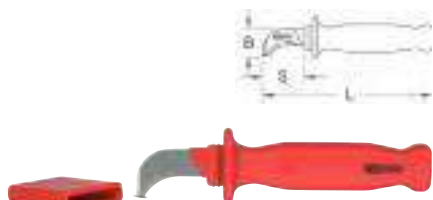
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1326	12,0	50,0	250,0		85

**Cable knife with protective insulation and hook blade**

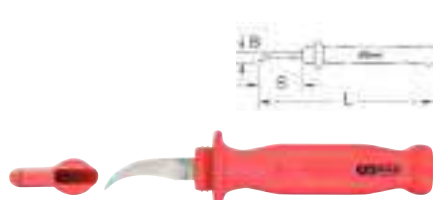
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1296	28,0	40,0	200,0		100

**Paper section knives with protective insulation**

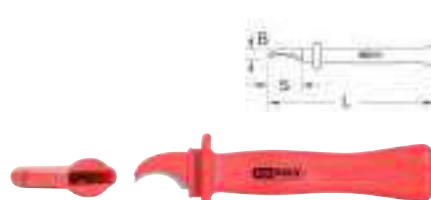
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1392	19,0	50,0	205,0		90

**Settling knife with protective insulation**

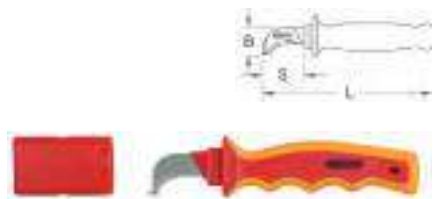
- Insulated to IEC 60900
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1394	21,0	35,0	165,0		75

**Cable knife with protective insulation and hook blade**

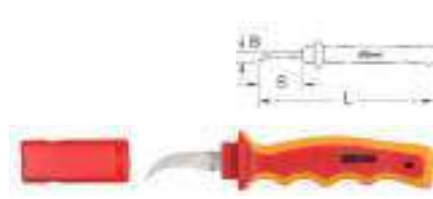
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1331	30,0	47,0	200,0		92

**Paper section knives with protective insulation**

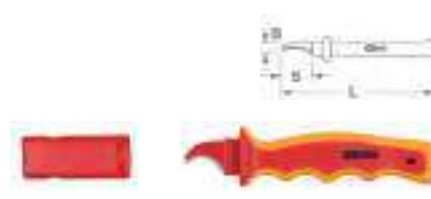
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1320	17,0	56,0	210,0		83

**Settling knife with protective insulation**

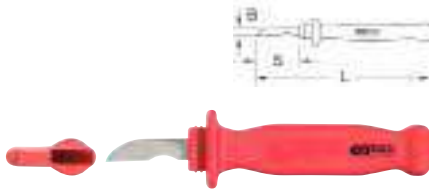
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1328	21,2	30,0	180,0		87

### Cable stripping blades with protective insulation

- Insulated to IEC 60900
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1395	13,0	45,0	195,0		95

### Cable stripping blades with protective insulation

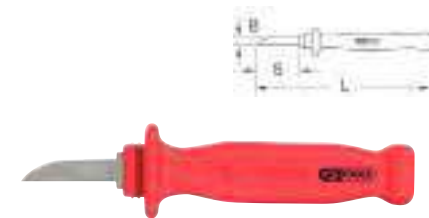
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1329	13,0	45,0	200,0		83

### Cable stripping blades with protective insulation

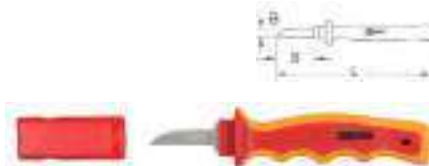
- Insulated to IEC 60900
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1396	11,0	50,0	200,0		95

### Cable stripping blades with protective insulation

- Insulated to IEC 60900
- Two component handle
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1360	11,0	50,0	200,0		86

### Cable sheath cutter with protective insulation

- Insulated to IEC 60900
- With durable and straight blade
- For stripping all insulation layers from cables
- Replaceable double knife
- Cutting depth adjustable
- Suitable for longitudinal and round cutting



	L mm	Ø Wire mm	Replacement blades		
117.3901	240,0	> 25,0	117.3902		250

### Cable knife with protective insulation and replaceable blade

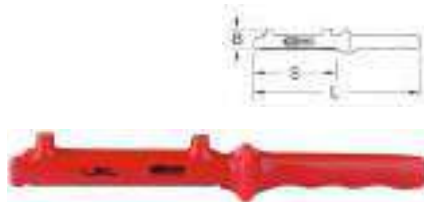
- Insulated to IEC 60900
- With durable, partially insulated and replaceable blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With built-in protective cap



	B mm	S mm	L mm		Replacement blades	
117.1148	21,5	45,0	189,0		117.1149	67

### Cable sheath saw with protective insulation

- Insulated handle to IEC 60900
- Extremely versatile
- Adjustable and replaceable saw blade



	B mm	L mm	S mm			
117.4273	40,0	330,0	175,0	117.4274		570

### Insulation stripping pliers

- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



	Ø mm	D mm	L mm	
117.1370	25-52	140,0	300,0	670
117.1366	45-75	150,0	300,0	878

### Dismantling pliers with protective insulation

- Insulated to IEC 60900
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



	Ø mm	D mm	L mm		
117.1365	25-52	140,0	300,0		690

### COUNTERHOLDER WITH PROTECTIVE INSULATION

#### Counterholder with protective insulation

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 0 - 15 mm



		L mm		
117.1168	0-15	240,0		280

#### Counterholder with protective insulation

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 15 - 40 mm



		L mm		
117.1169	15-40	220,0		380



### Counterholder with protective insulation

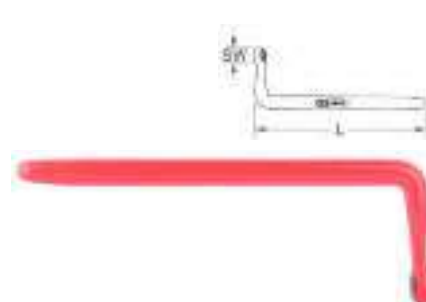
- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 25 - 50 mm



	mm	L mm	⚡	g
117.1183	25-50	300,0	1000V	610

### Counterholder with protective insulation

- FlankTraction profile
- Insulated handle to IEC 60900
- Chrome vanadium
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights



	mm	L mm	⚡	g
117.3960	10	210,0	1000V	100
117.3961	12	210,0	1000V	110
117.3962	13	220,0	1000V	110
117.3963	14	220,0	1000V	130
117.3964	15	220,0	1000V	160
117.3965	16	260,0	1000V	220
117.3966	17	260,0	1000V	240
117.3967	18	260,0	1000V	280
117.3968	19	260,0	1000V	290
117.3969	20	260,0	1000V	290
117.3970	22	280,0	1000V	310
117.3971	24	280,0	1000V	360

### ALIGNING TOOLS WITH PROTECTIVE INSULATION

#### Aligning tool

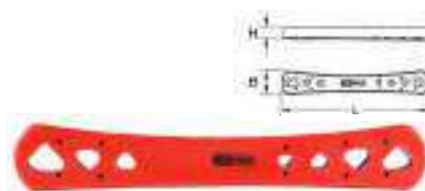
- For sector-shaped conductors
- Made from impact resistant plastic
- For aligning 3- or 4-wire sector-shaped conductors



	Conductor	L mm	B mm	⚡	g
117.3915	95-150	80,0	35,0	1000V	69
117.3916	185-240	80,0	43,0	1000V	113

#### Aligning tool

- For 50/70/95/150/185/240 mm<sup>2</sup> sector-shaped conductors
- Made from impact resistant plastic
- For aligning sector-shaped conductors



3/8"

	L mm	B mm	H mm	⚡	g
117.1723	248,0	40,0	15,0	1000V	132

### SAWS WITH PROTECTIVE INSULATION

#### Hacksaw with protective insulation

- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	g
117.1321	280,0	150,0	80,0	997.1216	225

#### Hacksaw with protective insulation

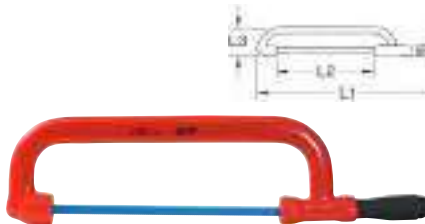
- Insulated handle to IEC 60900
- With plastic screw for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	g
117.1265	265,0	145,0	100,0	997.1216	180

#### Hacksaw with protective insulation, heavy-duty version

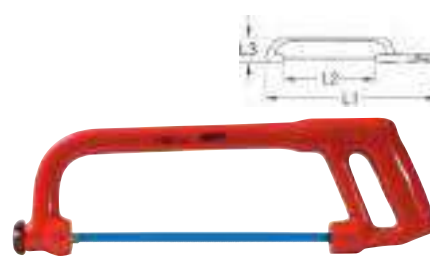
- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- Heavy execution
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	g
117.1323	520,0	330,0	130,0	129.6620-24	770

#### Hacksaw with protective insulation

- Insulated handle to IEC 60900
- Heavy execution
- With plastic screw for tensioning the saw blade

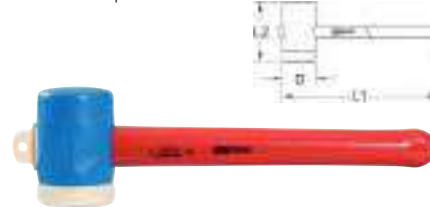


	L1 mm	L2 mm	L3 mm	⚡	g
117.1325	450,0	275,0	140,0	129.6620-24	700

### HAMMER WITH PROTECTIVE INSULATION

#### Plastic hammer with protective insulation

- Insulated to IEC 60900
- Made from plastic
- Without metal parts



	D mm	L1 mm	L2 mm	⚡	g
117.1131	55,0	300,0	82,0	1000V	325

#### Soft-face hammer with protective insulation

- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil



	D mm	L1 mm	L2 mm	head spare	⚡	g
117.1126	25,0	300,0	105,0	117.1128	1000V	560
117.1127	35,0	310,0	115,0	117.1129	1000V	790

### CABLE PROTECTION

#### cable protection wedge

- separates a cut cable from the adjacent cable
- made of nylon

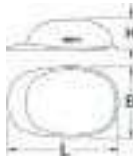


	L1 mm	L2 mm	⚡	g
117.2321	122,0	48,0	1000V	57

## INDUSTRIAL SAFETY

### Work protective hardhat

- DIN EN 397
- Special plastic



	Colour code	L mm	B mm	H mm	
117.1608		290,0	225,0	175,0	370
117.1609		290,0	225,0	175,0	370
117.1610		290,0	225,0	175,0	370

### Electrician's face shield

- DIN EN 397
- Fault arc tested to DGVV GS-ET-29, test level W(LBP) = 158 kJ (corresponds to prospective test short-circuit current 4 kA/0,5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm<sup>2</sup>
- Colour rendering index > 90%
- Light transmission: > 88%
- Suitable for standard electrician's hardhat
- Face shield for 117.1608-117.1610



	Arc task		
117.1780	class 1		278

### Electrician's face shield

- DIN EN 166
- Fault arc tested to DGVV GS-ET-29, test level W(LBP) = 318 kJ (corresponds to prospective test short-circuit current 7 kA/0,5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm<sup>2</sup>
- Colour rendering index > 90%
- Colour rendering index > 90%
- Suitable for standard electrician's hardhat
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied



	Arc task		
117.1796	class 2		525

### Carrying bag for work helmet

- Made out of red leather
- With carrying strap



	B mm	H mm	
117.1612	500,0	480,0	500

### Safety rubber boots with protective insulation

- For working enviroment of voltages AC 1000 V and DC 1500 V
- In accordance with new standard EN 50321
- With steel bar



	Size mm		
117.1613	39		3,00
117.1614	40		3,00
117.1615	41		3,00
117.1616	42		3,00
117.1617	43		3,00
117.1618	44		3,00
117.1619	45		3,00
117.1620	46		3,00
117.1621	47		3,00

### Under gloves

- Made out of fine mutton cloth



	L mm	
117.1660	260,0	225

### Electrician protective glove with natural latex insulation

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

**Attention:** Over-gloves are necessary for mechanical protection!



	Thickness mm	Electrosoft Class	Size mm	L mm		
117.1663	1,0	0	9	360,0		215
117.1664	1,0	0	10	360,0		215
117.1132	2,0	1	10	360,0		250
117.1133	2,0	3	10	410,0		690
117.1134	2,5	4	10	410,0		890

### Electrician protective glove with natural latex insulation

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

**Attention:** Over-gloves are necessary for mechanical protection!



	Thickness mm	Size mm	Electrosoft Class	L mm		
117.2315	1,0	8	0	400,0		215
117.1661	1,0	9	0	400,0		215
117.1662	1,0	10	0	400,0		215
117.1762	2,0	10	0	410,0		470
117.1756	1,0	9	00	410,0		168
117.1757	1,0	10	00	410,0		189
117.2316	1,0	11	0	400,0		215

### Pneumatic electrician protective glove tester

- For the testing of insulated gloves
- Always carry out before starting work



	D mm	L mm	
117.1666	110,0	140,0	800

### Protection pocket for electricians gloves

- Belt pocket made out of canvas
- For the storage and protection of the electricians gloves



	B mm	H mm	kg
117.1665	180,0	200,0	200

### Pull-on gloves for electrician's protective gloves

- Waterproof
- Treated with silicone
- Leather gloves for dielectric gloves
- Velcro fastening on the back of the hand
- Split leather cuff
- For protecting against mechanical risks
- Full-grain calf leather

**Caution:** This insulating-glove cover is required for mechanical protection (rubbing, cuts, pricks) in conjunction with dielectric gloves!



	Size mm	L mm	kg
117.1560	10	320,0	175

### Rubber cover sheet with protective insulation, transparent

- Insulation according to DIN EN 61112
- transparent cloth
- cold-resistant and highly flexible



	Thickness mm	B mm	L mm	kg
117.2303	0,5	130,0	130,0	0,03
117.2304	0,5	200,0	200,0	0,10
117.2305	0,5	250,0	350,0	0,12
117.2306	0,5	500,0	500,0	0,18
117.2307	0,5	600,0	600,0	0,22
117.2308	0,5	1000,0	1000,0	0,68
117.2309	0,5	1200,0	1200,0	0,80
117.2311	0,5	1300,0	5000,0	40,00

### Rubber cover with protective insulation

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



	Thickness mm	B mm	L mm	kg
117.1651	1,0	130,0	130,0	0,04
117.1652	1,0	250,0	350,0	0,21
117.1653	1,0	500,0	500,0	0,43
117.1654	1,0	600,0	600,0	0,70
117.1655	1,0	1000,0	1000,0	1,80
117.1656	1,0	1200,0	1000,0	2,95
117.1657	1,0	1000,0	10000,0	16,75
117.1658	1,0	1200,0	10000,0	20,10

### Rubber cover with protective insulation

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



	Thickness mm	B mm	L mm	kg
117.1746	1,6	130,0	130,0	0,03
117.1747	1,6	250,0	250,0	0,22
117.1748	1,6	500,0	500,0	0,44
117.1749	1,6	600,0	600,0	0,72
117.1750	1,6	1000,0	1000,0	1,90
117.1751	1,6	1200,0	1200,0	3,10
117.1752	1,6	1000,0	10000,0	18,60
117.1753	1,6	1200,0	10000,0	25,60

### Insulating mat

- Insulation in accordance with IEC 61111 Class 2



	Thickness mm	B mm	L mm	kg
117.3819	3,0	1000,0	1000,0	3,42
117.1398	3,0	1000,0	10000,0	40,00
117.1754	4,5	1000,0	1000,0	6,00
117.1755	4,5	1000,0	10000,0	60,00

### Protective bag for insulating mat

- Made out of red leather
- With carrying strap



	B mm	L mm	kg
117.1399	230,0	1000,0	900

### Red/white diagonal striped foil barrier tape

- For safeguarding and indicating hazard areas
- In accordance with ASR A1.3 and BGV A8
- High tear resistance
- Block diagonal stripes in red/white
- For outdoor and indoor use
- Polyethylene
- In stable unwinding box



	Width mm	Length mm	kg
917.3899	80,0	500,0	2,50

### Scissor barrier made of plastic

- Ideally suited for closing off danger areas or areas with restricted access
- Secure stand thanks to fillable legs e.g. with sand
- Perfect warning effect thanks to black and yellow scissors with reflectors
- Variably adjustable in width up to 2500 mm
- Folded only 24 cm wide and therefore space-saving to store away
- Very low weight ensures easy transport
- Supplied in pairs
- Made of PE plastic



	Content	Height mm	min. width mm	Max width mm	kg
117.1545	2 pcs	960,0	240,0	2500,0	5,00

### Hybrid warning sign - flash for working on hybrid and electric vehicles

- Warning against hazardous voltage
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite



	Thickness mm	Height mm	kg
917.3898	5	200,0	66

### Hybrid warning sign - switch for working on hybrid and electric vehicles

- Do not switch on, work is currently in progress
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite



	Thickness mm	Ø mm	g
917.3897	5	200	84

### Warning and information signs

- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite



	Width mm	Height mm	Thickness mm	g
117.2478	660,0	1000,0	1,5	160
117.2479	410,0	595,0	1,5	384
117.2481	410,0	595,0	1,5	384
117.2483	200,0	237,0	1,6	58
117.2482	200,0	120,0	1,6	178

### TWEEZERS & SEARCH MIRROR WITH PROTECTIVE INSULATION

#### Tweezers with protective insulation, curved

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



	B mm	L mm	⚡	g
117.1623	11,5	145,0	1000V	35
117.1624	15,5	200,0	1000V	72

#### Tweezers with protective insulation, straight

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



	B mm	L mm	⚡	g
117.1626	11,0	130,0	1000V	30
117.1627	13,5	130,0	1000V	30
117.1628	15,0	145,0	1000V	55
117.1629	15,5	200,0	1000V	72

#### Search mirror with protective insulation

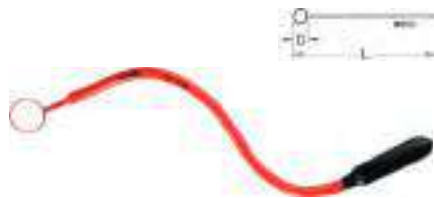
- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



	Ø mm	Length mm	⚡	g
117.1630	22	175,0	1000V	20

#### Search mirror with protective insulation

- Insulated handle to IEC 60900
- Flexible
- Insulated



	Magnification	Ø mm	Length mm	⚡	g
117.2408	0 x	40	590,0	1000V	334
117.2409	0 x	58	590,0	1000V	350
117.2411	4 x	54	590,0	1000V	350

#### Flexible magnetic jack with protective insulation

- Insulated handle to IEC 60900
- Flexible shaft
- Special tool steel



	Load capacity kg	Ø mm	Length mm	⚡	g
117.2322	0,25	14,0	420,0	1000V	23
117.2323	1,0	15,0	470,0	1000V	180
117.2324	1,8	16,5	520,0	1000V	325

### VOLTAGE TESTERS

#### Test lamp 6 - 24 V

- Test tip protected through a cap
- Ideal for helping to locate short circuits and breaks
- With shielded crocodile clamp
- Stainless steel probe
- Brass housing and cap



	Length mm	g
550.1504	125,0	30

#### Polarity and voltage tester 3 - 48 V

- Universal test device for the vehicle electrics and electronics to test the voltage and polarity
- To troubleshoot electronic components and prevent damage caused by incorrectly coupled lines
- Two light-emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp
- Test tip and reproducing stylus tip made of stainless steel



	Length mm	g
550.1503	140,0	70

#### Tension verifier with protection insulation 150 - 250 V

- In accordance to DIN ISO 0680
- Slot blade with hollow grinding
- Blade nickel plated
- Clip for the breast pocket
- With inspection panel



	D mm	L1 mm	L2 mm	L3 mm	g
911.2188	3	140,0	65,0	80,0	14

#### Tension verifier with protection insulation 100 - 500 V

- In accordance to DIN ISO 0680
- Slot blade with hollow grinding
- Blade nickel plated
- Clip for the breast pocket
- With inspection panel



	D mm	L1 mm	L2 mm	L3 mm	g
911.2176	3,0	140,0	64,0	75,0	15



### Tension verifier with protection insulation 100 - 500 V

- In accordance to DIN ISO 0680
- Slot blade with hollow grinding
- Blade nickel plated
- With inspection panel



	D mm	L1 mm	L2 mm	L3 mm	
911.2177	3,5	180,0	97,0	83,0	27

### Polarity and voltage tester with protective insulation 6 - 400 V

- In accordance to DIN ISO 0680
- For the professional, multi-stage voltage and polarity test
- Light-emitting diodes indicate voltage as well as polarity
- For direct and alternating voltage
- With rotating field and phase display
- Shielded test tips
- Stainless steel probe



#### Technical data:

Readout:	light-emitting diodes/LE
Display level:	6 - 400 V
Power requirement:	140 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP40
AC voltage range alternating voltage:	6 - 50 - 120 - 230 - 400 V
DC voltage range direct voltage:	6 - 50 - 120 - 230 - 400 V

550.1501		180

### Universal voltage tester with protective insulation 12 - 500 V

- In accordance to DIN ISO 0680
- For direct and alternating voltage
- With rotating field and phase display



#### Technical data:

Readout:	light-emitting diodes/LE
Display level:	12 - 500 V
Power requirement:	140 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP40
AC voltage range alternating voltage:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V
DC voltage range direct voltage:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V

550.1502		180

### Voltage tester with protective insulation, double pole 12 - 1000 V

- Tested and accredited in accordance with international standard
- Insulated to IEC IEN 61243-3 (DIN VDE 0682-401)
- Voltage class B
- DC and AC voltage shown by LED indicators
- Rotary field and phase display via LCD
- Single-pole external conductor test (phase)
- Rotating field test
- Polarity test
- Deliberate tripping of a 30 mA ELCB
- With vibration alarm



#### Technical data:

Readout:	LED/LCD
Display level:	12 - 1000 V
Power requirement:	200 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 500 Hz
Protection class:	IP64
AC voltage range alternating voltage:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V
DC voltage range direct voltage:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V

117.1503		210

### Voltage test ball with protective insulation, double pole 50 - 1000 V

- Tested and accredited in accordance with international standard
- Insulated to IEC EN 61243-3 (DIN VDE 0682-401)
- Corresponds to EMC requirements in accordance with DIN EN 61326
- DC and AC voltage shown by LED indicators
- Rotating field and phase displayed via LEDs
- With display of rotating field direction (clockwise and anti-clockwise)
- Deliberate tripping of a 30 mA ELCB



#### Technical data:

Readout:	LED/LCD
Display level:	50 - 1000 V
Power requirement:	300 mA
Allowable duty cycle:	30 s
Frequency range:	0 - 100 Hz
Protection class:	IP65
AC voltage range alternating voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
DC voltage range direct voltage:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
Overvoltage category:	CAT IV 600 V CAT III 1000 V
Test voltage:	6 kV

117.4266		620

### Electronic multifunctional tester 6 - 24 V with 5 metres of cable

- Ideal standard lamp with many test functions
- With replaceable probe for the optional expansion with commercially available inspection and test components
- High speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- Immediate continuity test of switches, relays, diodes, fuses, wiring harnesses etc.
- For the operation of electronic components, such as relays, fuel pumps, window motors, switches, lamps etc.
- For determining poor ground connections
- Immediate polarity determination via red/green LED display
- Changing acoustic signals depending on the polarity
- Power can be supplied immediately at the push of a button with the tester
- Built-in bimetallic short circuit fuse (7.5 A), therefore no fuse wear during troubleshooting
- Cable with shielded crocodile clamp and pole terminals
- 5 metre cable length
- Stainless steel probe



#### Technical data:

Cable length:	5 m
Test probe diameter:	4 mm

	Application area	Replacement test tip	
150.1670	6 - 24 V DC	150.1671	500

### Electronic multifunctional tester 6 - 24 V with 25 metres of cable

- Ideal standard lamp with many test functions
- With replaceable probe for the optional expansion with commercially available inspection and test components
- High speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- Immediate continuity test of switches, relays, diodes, fuses, wiring harnesses etc.
- For the operation of electronic components, such as relays, fuel pumps, window motors, switches, lamps etc.
- For determining poor ground connections
- Immediate polarity determination via red/green LED display
- Changing acoustic signals depending on the polarity
- Power can be supplied immediately at the push of a button with the tester
- Built-in bimetallic short circuit fuse (7.5 A), therefore no fuse wear during troubleshooting
- Cable with shielded crocodile clamp and pole terminals
- 25 metre cable length
- Stainless steel probe



#### Technical data:

Cable length:	25 m
Test probe diameter:	4 mm

	Application area	Replacement test tip	
150.1655	6 - 24 V DC	150.1671	1,26

### Digital Multimeter incl. test probes

- Specially developed professional multimeter for automotive and commercial electrics and electronics
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V,  $\mu\text{A}/\text{mA}/\text{A}$ , therefore incorrect connection is impossible
- Central 19-digit rotary switch
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- Charge state shown in display
- With integrated glass fuse 250mA / 600V, 10A / 600V – 32 x 6 mm to protect the circuits
- Includes measuring line set with probes
- With on/off switch and automatic temperature shutdown
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

#### Functions:

- DC and AC voltage measurement
- DC and AC current measurement
- Resistance measurement
- Diode test (with acoustic signal)
- Continuity test (with acoustic signal)
- Data hold function
- Battery check indicator



#### Technical data:

Co-current flow:	20 $\mu\text{A}$ - 10 A
DC voltage:	200 mV - 600 V
AC voltage:	200 V - 600 V
Resistance measurement:	200 Ohm - 2 MOhm
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	250mA/600V; 10A/600V
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	Length mm	Width mm	Depth mm	
150.1495	138,0	69,0	31,0	342



### Digital multimeter, including test prods and crocodile clamps

- Specially developed high quality multimeter for automotive and commercial electrics and electronics
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V,  $\mu\text{A}/\text{mA}/\text{A}$ , therefore incorrect connection is impossible
- central 11-digit rotary switch
- Automatic measuring range selection
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- with integrated glass fuse 300mA/600V; 10A/600V - 32 x 6 mm to protect the circuits
- including double test lead set with test prods and crocodile clips
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

#### Functions:

- Continuity test (with acoustic signal)
- Temperature measurement
- Diode test (with acoustic signal)
- Capacity
- Frequency measurement
- Data hold function
- Automatic measuring range selection



#### Technical data:

Co-current flow:	326 $\mu\text{V}$ - 10 A
Capacity measurement:	326 nF - 32.6 $\mu\text{F}$
DC voltage:	326 mV - 600 V
Alternating current :	326 $\mu\text{V}$ - 10 A
AC voltage:	3,26 V - 600 V
Resistance measurement:	326 Ohm - 32,6 MOhm
Frequency measurement:	32,60 - 150kHz
Temperature measurement:	-55° C ~ 1000° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	300mA/600V
Fuse protection S2 (power-test socket) :	10A/600V
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	Length mm	Width mm	Depth mm	
150.1480	189,0	91,0	31,5	834

### Multimeter, including test prods, crocodile clamps, inductive clamp and temperature probe

- Specially developed high quality multimeter for automotive and commercial electrics and electronics
- With enhanced function for rpm measurement
- Ignition timing ascertainment up to 8-cylinder engines possible (Dwell function)
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V,  $\mu\text{A}/\text{mA}/\text{A}$ , therefore incorrect connection is impossible
- Central 23-digit rotary switch
- With automatic area selection
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- With integrated glass fuse 250V (500 mA) – 20 x 5 mm to protect the circuits
- Includes measuring line set with test prods, crocodile clamps, inductive clamp and temperature probe
- With on/off switch and automatic temperature shutdown
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

#### Functions:

- DC and AC voltage measurement
- DC and AC current measurement
- Resistance measurement
- Dwell
- Diode test (with acoustic signal)
- RPM measurement
- Temperature-automatic shutdown
- Frequency measurement
- Battery check indicator



#### Technical data:

Co-current flow:	326 $\mu\text{A}$ - 10 A
Alternating current :	326 $\mu\text{A}$ - 10 A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200 kHz
Speed measurement:	300 - 12000 rpm
Temperature accuracy :	23° C $\pm$ 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	500mA/350V (20x5mm)
Fuse protection S2 (power-test socket) :	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)
Temperature measurement:	-20° to +760° C (-4° to 1400° F)

	Length mm	Width mm	Depth mm	
150.2040	189,0	91,0	31,5	500





### Digital amp pliers 600 A

- Very easy to read display
- Ideal for alternating current tests
- Max. pliers opening of 27.0 mm
- Max. measurable conductor diameter of 29.0 mm including automatic switch-off after approx. 15 min
- LED display
- Includes probes and temperature gauge
- In a practical storage case

#### Functions:

- DC and AC voltage
- AC current measurement
- Resistance
- Diode test
- Continuity test
- Temperature measurement
- Data hold function
- Peak hold function



#### Technical data:

DC voltage:	600 V
Alternating current :	200 A, 600 A
AC voltage:	600 V
Resistance measurement:	2 megaohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Storage temperature:	0° to +50° C (14° to 122° F)
Working temperature:	-20° to +60° C (30° to 140° F)

150.0925	3 pcs	Digital amp pliers 600 A	655
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#### consists of:

150.0926	Digital amp pliers 600 V	370
150.0927	Probe set, 600 A	75
150.0928	Temperature gauge	20



#### Technical data:

Co-current flow:	0,01 - 200 A
DC voltage:	0,1 - 400 V
Alternating current :	0,01 - 200 A
AC voltage:	0,1 - 400 V
Resistance measurement:	32 - 32000 ohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	3x 1,5V AAA (not in the delivery)
Storage temperature:	-10° to +60° C (-4° to 140° F)
Working temperature:	-10° to +50° C (14° to 122° F)

	Length mm	Width mm	Depth mm	
150.1745	185,0	42,0	30,0	160



### Digital amp pliers 1000 A

- Very easy to read display
- Ideal for direct and alternating current tests
- Max. pliers opening of 45.0 mm
- Max. measurable conductor diameter of 40.0 mm including automatic switch-off after approx. 15 min
- LED display
- Includes probes and temperature gauge
- Includes 3 x AAA batteries
- In a practical storage case

#### Functions:

- DC and AC voltage
- Resistance
- Diode test
- Continuity test
- Capacity measurement
- Frequency measurement
- Frequency measurement with pliers
- Temperature measurement
- Duty cycle
- Data hold function
- Peak hold function



#### Technical data:

Co-current flow:	400 A, 1000 A
DC voltage:	1000 V
Alternating current :	400 A, 1000 A
AC voltage:	700 V
Resistance measurement:	32 megaohm
Capacity measurement:	40 uF
Frequency measurement:	100 kHz
Temperature accuracy :	-40° C / +750° C
Power requirement:	3x 1,5V AAA batteries
Storage temperature:	10° to +50° C (50° to 122° F)
Working temperature:	5° to +35° C (41° to 95° F)

150.0929	3 pcs	Digital amp pliers 1000 A	480
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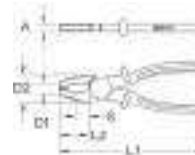
#### consists of:

150.0928	Temperature gauge	20
150.0938	Probe set, 1000 A	65
150.0934	Digital amp pliers 1000A	260

### PLASTIC PLIERS / CLAMPS WITH PROTECTIVE INSULATION

#### Plastic combination pliers with protective insulation and cutting function

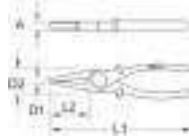
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	
117.1639	15,0	15,0	37,0	200,0	39,0	14,0	152

### Plastic flat nose pliers with protective insulation

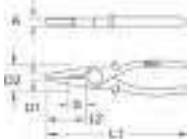
- Insulated to IEC 60900
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	9
117.1640	9,0	6,0	32,0	200,0	55,0	1000V	106

### Plastic flat nose pliers with protective insulation

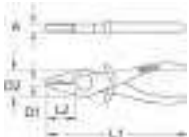
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.1641	9,0	6,0	32,0	190,0	55,0	14,0	1000V	108

### Plastic flat nose pliers with protective insulation

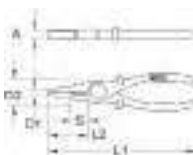
- Insulated to IEC 60900
- Suitable for meter assembly and closure
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.1642	11,0	10,0	38,0	180,0	37,0		1000V	85

### Plastic combination pliers with protective insulation

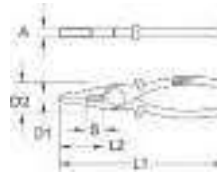
- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.1765	11,5	6,0	32,0	185,0	33,0	19,0	1000V	130

### Plastic combination pliers with protective insulation

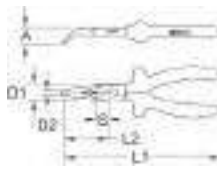
- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.1766	5,0	10,0	32,0	225,0	72,0	20,0	1000V	140

### Plastic combination pliers with protective insulation

- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.1767	5,0	10,0	32,0	230,0	110,0	20,0	1000V	140

### Plastic telephone pliers with protective insulation

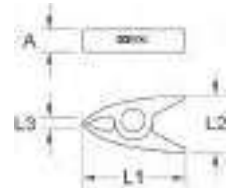
- Insulated to IEC 60900
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	9
117.2318	29,0	32,6	6,6	195,0	70,0	47,0	1000V	112

### Plastic clamp with protective insulation, small

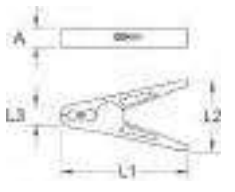
- Insulated to IEC 60900
- Extra small execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



	A mm	L1 mm	L2 mm	L3 mm	⚡	9
117.1643	15,0	80,0	44,0	10,0	1000V	30

### Plastic clamp with protective insulation, large

- Insulated to IEC 60900
- In large execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



	A mm	L1 mm	L2 mm	L3 mm	⚡	9
117.1644	16,0	160,0	94,0	27,0	1000V	70

### BRUSH WITH PROTECTIVE INSULATION

#### Dust brush with protective insulation, straight

- Insulated to IEC 60900
- With hanging hole
- Short execution
- No electric run
- Made from plastic



	B mm	L mm	⚡	9
117.1645	25,0	180,0	1000V	11

### Dust brush with protective insulation, curved

- Insulated to IEC 60900
- With hanging hole
- Long and angled execution
- No electric run
- Made from plastic



	B mm	L mm	⚡	👤
117.1646	25,0	400,0	1000V	70
117.1647	35,0	400,0	1000V	75
117.1648	50,0	400,0	1000V	80

### SEALS & HOODS WITH PROTECTIVE INSULATION

#### Grommet with protective insulation and clamping cap

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- With cross cut cover
- Made out of tough elastic insulating material



	D mm	L mm	⚡	👤
117.4234	10,0	40,0	1000V	10
117.4241	10,0	75,0	1000V	10
117.4235	10,0	100,0	1000V	11
117.4236	15,0	100,0	1000V	16
117.4242	20,0	100,0	1000V	20
117.4237	25,0	100,0	1000V	30
117.4243	30,0	115,0	1000V	40
117.4238	40,0	135,0	1000V	68
117.4239	50,0	155,0	1000V	99
117.4240	60,0	140,0	1000V	140

#### Grommet with protective insulation

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- Made out of tough elastic insulating material



	D mm	L mm	⚡	👤
117.1784	2,0	40,0	1000V	1
117.1785	3,0	40,0	1000V	1
117.1786	4,0	40,0	1000V	1
117.1787	5,0	40,0	1000V	1
117.1788	7,0	50,0	1000V	1
117.1789	10,0	70,0	1000V	5
117.1790	15,0	110,0	1000V	17
117.1791	20,0	110,0	1000V	21
117.1792	25,0	110,0	1000V	22
117.1793	30,0	120,0	1000V	38
117.1794	35,0	140,0	1000V	49
117.1795	40,0	140,0	1000V	62

### Counter nozzle with protective insulation

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



		D mm	L mm	⚡	👤
117.4244	#1	12,0	80,0	1000V	6
117.4245	#2	12,0	80,0	1000V	6
117.4246	#3	12,0	80,0	1000V	6

#### Push-on grommet with protective insulation

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



	D mm	L mm	⚡	👤
117.4247	6,0	40,0	1000V	1
117.4248	6,0	60,0	1000V	1
117.4249	8,0	40,0	1000V	1
117.4250	10,0	30,0	1000V	1
117.4251	10,0	40,0	1000V	1
117.4252	10,0	60,0	1000V	1
117.4253	12,0	90,0	1000V	6
117.4254	15,0	110,0	1000V	14
117.4255	20,0	110,0	1000V	20
117.4256	25,0	110,0	1000V	20
117.4257	30,0	110,0	1000V	37
117.4258	40,0	110,0	1000V	37

#### Push-on grommet with protective insulation

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Made out of tough elastic insulating material



	D mm	B mm	L mm	⚡	👤
117.1768	30,0	60,0	140,0	1000V	77
117.1769	40,0	80,0	140,0	1000V	113

### Cover and protective hood with protective insulation

- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡	👤
117.1797	160,0	80,0	1000V	320
117.1798	160,0	300,0	1000V	700

### Cover and protective hood with protective insulation

- Insulated to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡	👤
117.1799	100,0	130,0	1000V	225

### Cover and protective hood with protective insulation

- Insulated to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡	👤
117.4201	100,0	130,0	1000V	330

### Cover and protective hood with protective insulation

- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4202	160,0	80,0		390
117.4203	160,0	220,0		832

### Covers for gable insulators

- Insulated to IEC 60900
- With plastic buttons
- Must also be firmly secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4204	270,0	240,0		760

### Covers for gable insulators

- Insulated to IEC 60900
- With plastic buttons
- Must also be firmly secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



	L mm	B mm		
117.4205	270,0	115,0		813

### NH push-on fuse handle with protective insulation

- With contact knife in accordance with DIN 43620 Part 1 of the sizes 00-3
- For low-voltage high-breaking-capacity fuse
- For nominal voltage up to 600V ac voltage



	L mm	B mm		
117.1622	380,0	225,0		460
117.4263	445,0	225,0		451

### Cover with protective insulation for a fuse strip

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Plastic handle for operation
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



	Thickness mm	B mm	L mm	T mm		
117.1611	1,0	85,0	760,0	195,0		680

### Cover with protective insulation for a fuse strip

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



	Thickness mm	B mm	L mm	T mm		
117.1659	1,0	85,0	760,0	195,0		680

### Extension sheet with protective insulation

- Tested to VDE 0680/1
- To extend the cover



	Thickness mm	B mm	L mm		Push buttons	
117.1690	1,0	470,0	500,0		5	300
117.1380	1,0	800,0	500,0		8	500

### Cover with protective insulation for 2 to 4 fuse strips

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0690/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- 2 plastic handles for operation
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension



	Thickness mm	B mm	L mm	T mm		
117.1698	1,0	430,0	760,0	195,0		1,15

### Cover with protective insulation for 2 to 4 fuse strips

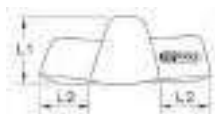
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension



	Thickness mm	B mm	L mm	T mm		
117.1699	1,0	430,0	760,0	195,0		1,15

### Cover and protective hood with protective insulation

- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm		
117.4220	140,0	100,0		280

### NH protective cap with protective insulation

- Made from soft PVC
- Moulded protective cap for covering spring contacts



	L mm	B mm		
117.4225	170,0	135,0		135
117.4226	260,0	135,0		190

### NH protective cap with protective insulation

- Made from soft PVC
- Moulded protective cap for covering 2 spring contacts
- Where LVHRC fuse is used



	L mm	B mm		
117.4223	320,0	170,0		350

### Conductor cable cover with protective insulation for overhead lines NS

- Complete sheathing of overhead line conductors
- Class 0
- For diameters up to 20 mm



	Length m	D mm		
117.4259	2,50	25,0		360
117.4260	5,00	25,0		600

### Mounting handle with protective insulation

- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



	L mm	B mm		
117.4261	165,0	95,0		150

### Mounting handle with protective insulation, screw-on

- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



	L mm	B mm		
117.4262	165,0	95,0		187

### PUNCH WITH PROTECTIVE INSULATION

#### Punch with protective insulation

- Insulated handle to IEC 60900
- With T-handle
- Burnished
- Chrome vanadium



	I mm	D mm	L mm		
117.1649	90,0	4,0	100,0		130

### EX+LED PROTECTED LAMPS

#### LED lamp with protective insulation

- Insulated handle to IEC 60900
- For the illumination of cable ducts and switch cabinets
- White illuminant
- Includes AA-Lithium batteries



	D mm	L mm	Replacement battery		
117.1650	28,0	90,0	AA-Lithium		80



## EXPANSION WEDGES WITH PROTECTIVE INSULATION

### Plastic expansion wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- Without flute
- Made from impact resistant plastic



	L mm	B mm		
117.4267	160,0	15,0	1000V	60

### Plastic wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- With sharp edges
- With large impact head
- Made from impact resistant plastic



	B mm	L mm		
117.1667	28,0	170,0	1000V	90

### Plastic expansion wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- Without flute
- Oval form without sharp edges
- Short execution
- Made from impact resistant plastic



	B mm	L mm		
117.1668	30,0	150,0	1000V	40

### Plastic expansion wedge

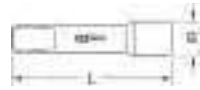
- For working environment of voltages AC 1000 V and DC 1500 V
- With wide groove for all current cable scissors
- Oval form without sharp edges
- Made from impact resistant plastic



	B mm	L mm		
117.1669	20,0	170,0	1000V	100

## Plastic expansion wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- For the assembly of cable branch clamps
- No slipping in the cutting of cable strand
- Made from impact resistant plastic



	B mm	L mm		
117.1670	38,0	197,0	1000V	55

## Plastic expansion wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- Without flute
- Oval form without edges
- Long execution with large impact head
- Made from impact resistant plastic



	B mm	L mm		
117.1680	53,0	225,0	1000V	225

## Plastic expansion wedge

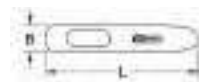
- For working environment of voltages AC 1000 V and DC 1500 V
- Specially for assembly of cable branch terminals
- Groove width 22 mm
- Made from impact resistant plastic
- As an aid for cutting cable wires



	A mm	L mm	B mm		
117.4268	20,0	270,0	50,0	1000V	170

## Beading chisels

- For NKBA cables
- 70 mm chamfer
- 30 mm radius
- Made from impact resistant plastic



	L mm	B mm		
117.4269	140,0	25,0	1000V	58

## FOLDING RULES

### Plastic folding rule, white

- Insulated in accordance with IEC 60900:2004
- Made from glass-fibre reinforced plastic
- Without metal parts



	Length mm		
300.0066	1,00	1000V	600

## UNIVERSAL ENCLOSURE KEYS

### Mini universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Die cast zinc

	6 mm
	7 - 8 mm
	9 mm
	3 - 5 mm
	PH 2
	7 mm



	Width mm	Length mm	
130.1010	42,0	42,0	100

### Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

	6 mm
	7 - 8 mm
	9 mm
	3 - 5 mm
	PH 2
	7 mm



	Width mm	Length mm	
130.1015	71,0	71,0	200



Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	5 mm
■	7 mm
■	8 mm
■ ■ ■	4 - 10 mm
▲	9 - 10 mm
⊕	PH 2
⊖	7 mm



	Width mm	Length mm	
130.1020	61,0	90,0	200

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Fourfold pivot mechanism
- Die cast zinc

■	6 mm
■	7 mm
■	8 mm
▲	7 mm
▲	8 - 9 mm
●	3 - 5 mm
○	
◐	6 mm



	Width mm	Length mm	
130.1046	100,0	114,0	358

Universal switchgear cabinet key, magnetic

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- with double rotating mechanism
- Die cast zinc

■	5 mm
■	6 - 7 mm
■	8 - 9 mm
▲	5 - 6 mm
▲	6 - 7 mm
▲	8 - 9 mm
●	3 - 5 mm
□	24 1/4"
■	1/4"



	Width mm	Length mm	
130.1041	38,0	95,0	86

SHEARS

Universal workshop shear

- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade



	L mm	S mm	
118.0010	140,0	43,0	100

Universal workshop shear

- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade
- Two component handle



	L mm	S mm	
118.0013	143,0	46,0	100

Universal workshop shear

- Robust short shears
- For various application areas
- With cable cutter
- Practical and very sharp
- Includes belt bag with cut protection



	L mm	S mm	
118.0060	140,0	42,0	170



Scissor set for hoses and plastic pipes

- ideal for angle-precise and clean cutting of rubber hoses, plastic pipes and various plastic profiles, such as cable ducts
- for rubber hoses with or without textile cover
- fittings for 16, 19 and 25 mm pipes included
- with prism for 90° profile
- with adjustable angle stop up to 45°
- In durable plastic storage case



123.0075 7 pcs Scissor set for hoses and plastic pipes	490

consists of:

123.0076 scissor-shaped with blades	290
123.0077 fitting for Ø 16 and 19 mm	30
123.0078 fitting for Ø 25 mm	78
123.0079 prism for 90° profile	63
123.0084 straight fitting	37
123.0086 angular stop	36
151.2604 Hexagon key wrench phosphate finish, short, 4mm	10

1  
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### Plastic pipe cutter Ø 0 - 32 mm

- Teflon coated cutting blades
- Aluminium die cast body



	Ø mm	H mm	L mm		
222.1001M	0 - 32,0	71,0	205,0	222.1011M	320

### Plastic pipe cutting pistol Ø 6 - 35 mm

- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		
222.1100	6,0 - 35,0	160,0	190,0	222.1101	630

### Plastic pipe cutting pistol Ø 6 - 42 mm

- Two stage cutting range 6 to 26 mm + 6 - 42 mm
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body

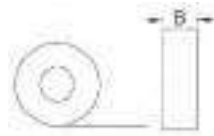


	Ø mm	H mm	L mm		
222.3100	6,0 - 42,0	220,0	210,0	222.3101	750

### ELECTRICAL INSULATING TAPE

#### PVC insulation tape set

- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0 °C to +90 °
- Multicoloured assortment



		B mm	Length m	
141.6010	8 pcs	19,0	10,00	150

#### Self welding repair tape

- Excellent weather resistance
- Easy to apply due to high elasticity
- Insulates air and water tight, due to self welding characteristics
- Temperature resistance of -40 °C to +90 °C
- With a tape thickness of 0,5 mm
- Made from Polyisobutylene tape
- For a range of applications in electrical, plumbing and automotive



	Colour code	B mm	Length m	
141.6000		18,0	10,00	100
141.6001		38,0	10,00	210

#### Adhesive tape with protective insulation

- For working environment of voltages AC 1000 V and DC 1500 V
- On a roll



	Colour code	B mm	Length m		
117.4231		52,0	10,00		105
117.4232		102,0	10,00		190
117.4233		102,0	10,00		190

### INSTALLATION TOOLS

#### Cable retraction wire

- ideal for retraction or laying of cables or lines
- with rounded off metal head, the retraction aid can be easily pushed through the tubes
- with eye for fastening the cable or line
- Perlon wire



	Ø mm	Length m	
150.0960	3,0	10,00	140
150.0970	4,0	20,00	270

#### cable pull aid

- low friction and high strength
- flexible head attachment
- for navigating in pipes with several bends
- Robust plastic housing



	Ø mm	Length m	
115.1113	3,0	30,00	1,20

### ELECTRICIANS PEN KNIFE

#### Electricians pen knife

- Blade folds away
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



	B mm	L mm	S mm	
907.2185	37,0	185,0	70,0	60

### Electricians pen knife

- Retractable blades
- With straight blade
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



	B mm	L mm	S mm	g
907.2186	37,0	185,0	70,0	90

### Electricians pen knife

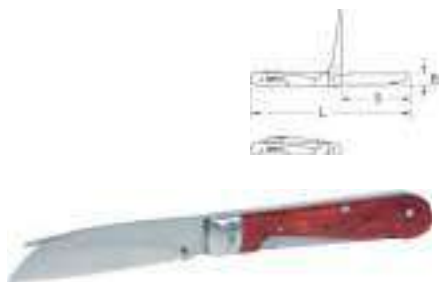
- Blade folds away
- With a straight blade that ensures a powerful cut
- With stripping function for cables
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



	B mm	L mm	S mm	g
907.2187	15,0	195,0	85,0	60

### Electricians pen knife

- Retractable blades
- With straight blade and extra narrow pointed blade that provides for a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



	B mm	L mm	S mm	g
907.2188	19,0	198,0	90,0	60

### STRIPPING TOOLS

#### Universal cable knife

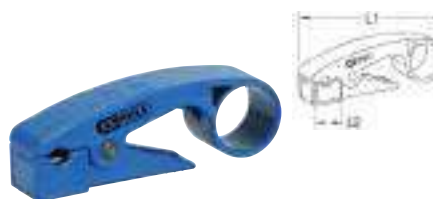
- For the slitting and stripping of round cable
- Hook blade for the stripping of insulated and flat cable
- Internal knife with adjustable cutting depth, rotating mounting



	Ø mm	B mm	L mm	S mm	g
907.2184	28,0	18,0	175,0	24,0	100

#### Stripping tool for coaxial cable

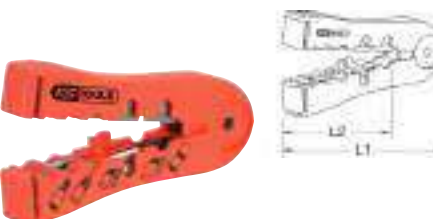
- Round cut
- Safe and portable form
- 3-stage stripping
- For a stripping capacity of 9,4 - 7,5 mm



	mm <sup>2</sup>	L1 mm	L2 mm	g
115.1243	7,5	90,0	18,0	50

#### Stripping tool for data cable

- Round cut
- For the stripping of flat and flat oval data cables
- Safety locking device for safe storage



	mm <sup>2</sup>	L1 mm	L2 mm	g
115.1241	2,5-12,0	105,0	72,0	40

#### Multifunction stripping tool

- Round- and length cutting function
- Stripping function
- Cutting function
- For the stripping of flexible and large wire
- Safety locking device for safe storage
- Includes replacement knife set



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	g
115.1251	0,2-0,8	30-20	117,0	85,5	96
115.1252	0,8-2,6	20-10	117,0	85,5	96

### Insulation stripping knife

- For stripping all standard round cables
- Cutting depth can be adjusted exactly to thickness of sheath
- The knife automatically switches from round to longitudinal cutting
- Retaining bracket adjustable
- Complete stripping of insulation



	mm <sup>2</sup>	Ø Wire mm	AWG	L mm	g
115.1003	0,5-6,0	4,0-28,0	20-10	143,0	120

### Insulation stripping knife

- For stripping external insulation layers
- Stripping insulation from single- and multiple-wire conductors
- Round and longitudinal cutting



	mm <sup>2</sup>	Ø Wire mm	L mm	g
115.1007	0,5-16,0	4,0-12,0	137,0	81

### Insulation stripping knife

- Basic stripping of insulation from conductors
- The scanning system automatically adapts to the conductor cross-section
- The stranded conductor can then be twisted



	mm <sup>2</sup>	AWG	L mm	g
115.1001	0,5-6,0	20-10	158,0	116

### Round cable insulation stripper

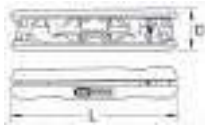
- For round cables and damp-proof cables
- Flush stripping of insulation even in areas that are hard to access, e.g. in ceilings and walls, in junction and distribution boxes and switch cabinets



	Ø Wire mm	L mm	g
115.1006	8,0-13,0	125,0	43

### Coaxial cable insulation strippers

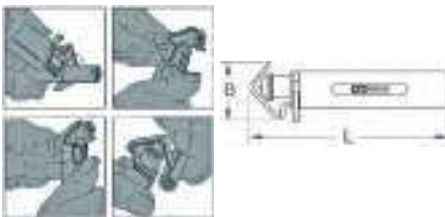
- Gradual stripping of insulation from all coaxial cables with an outer diameter of 4.8 - 7.5 mm
- Equally suitable for flexible cables and 3 x 0.75 mm<sup>2</sup>, 10 mm<sup>2</sup> and 16 mm<sup>2</sup> cables



	Ø Wire mm	L mm	g
115.1002	4,8-7,5	110,0	30

### Universal stripping tool

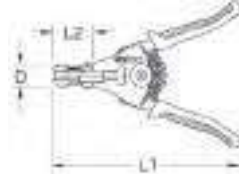
- With round cutting and longitudinal cutting function
- Suited for spiral cutting of hard insulation
- Variable cut depth adjustment through thumb wheel
- For a maximum insulation strength of up to 4,5 mm



	mm <sup>2</sup>	B mm	L mm	Replacement blades	g
115.1256	6-25	41,0	138,0	115.1257	138

### Automatic wire stripper

- Allows for stripping of any cable length, therefore ideal for retrofitting auxiliary heating systems, gas systems and other electrical consumers
- Automatically adjusts to the respective diameters
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- For copper and aluminium wires
- Plastic handle
- Durable clamping jaw for the adherence of the wire
- With return spring
- Smooth running mechanics
- Sturdy design



	Ø mm	AWG	D mm	L1 mm	L2 mm	g
115.1028	0,5-2,0	20-14	20,0	170,0	35,0	280
115.1029	1,0-3,2	18-8	20,0	170,0	35,0	280



### Universal stripping tool

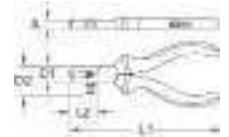
- For insulated cables
- With round cutting and longitudinal cutting function
- Suitable for stripping insulation from damp-proof cables, and for cutting plastic pipes
- Replaceable blade



	mm <sup>2</sup>	g
117.4275	6,0-28,0	117.4276 60

### Wire stripper

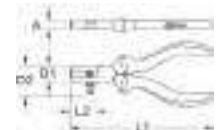
- In accordance to DIN ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- With PVC dipped handle
- For wires from 0,5 - 4.0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1314	9,0	20,5	33,0	176,0	39,0	170

### ERGOTORQUE® wire stripper

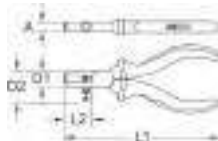
- In accordance to DIN ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4.0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	g
115.1014	9,0	20,5	33,0	165,0	39,0	300

### ERGOTORQUE® VDE cable stripper

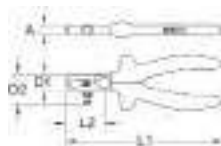
- In accordance to DIN ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1114	10,0	17,5	31,5	160,0	36,0		210

### 1000V wire strippers

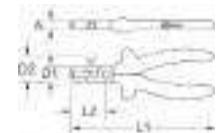
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1271	9,5	18,5	31,5	160,0	44,0		180

### 1000V wire strippers

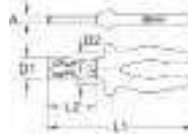
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- With coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm<sup>2</sup>
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1713	11,0	18,5	20,0	160,0	34,0		180

### 1000V wire strippers

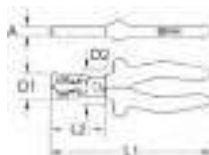
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm<sup>2</sup>
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1272	10,5	28,5	47,5	160,0	20,0	220	

### 1000V wire strippers

- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm<sup>2</sup>
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1225	10,0	24,0	40,0	185,0	61,0		260

### CRIMPING TOOLS

#### Multifunction pliers for insulated and non insulated cable terminals

- For professional cable cutting and stripping wires from 0,75 - 6,0 mm<sup>2</sup>
- For crimping cable terminals and connectors from 1,5 - 6,0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel



	A mm	L1 mm	L2 mm	
115.1231	40,0	220,0	130,0	230

### Multifunction crimping pliers set

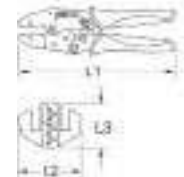
- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0,75 - 6,0 mm<sup>2</sup>
- For crimping cable terminals and connectors from 1,5 - 6,0 mm<sup>2</sup>
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable plastic storage case



115.1230	271 pcs	Multifunction crimping pliers set 560

### Crimping pliers for non insulated terminals

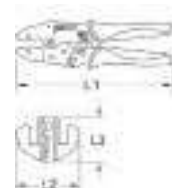
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



		AWG	L1 mm	L2 mm	L3 mm		
115.1425	0,5-1,0/1,5-2,5/4,0-6,0	22-18/16-14/12-10	220,0	50,0	34,0	115.1415	491

### Crimping pliers for insulated terminals

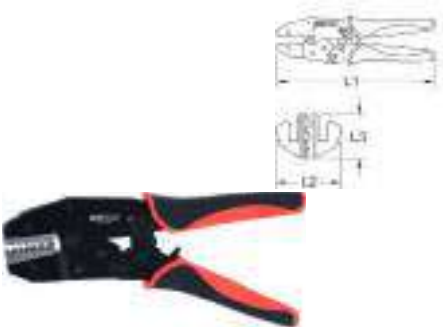
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



		AWG	L1 mm	L2 mm	L3 mm		
115.1430	1,5/2,5/6,0/10,0	20-18/16-14/12-10/8	220,0	50,0	34,0	115.1416	487

### Crimping pliers for pin terminals

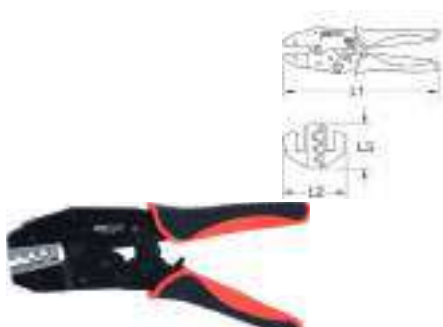
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1440	0,5/0,75/1,0/1,5/2,5/4,0	22/20/18/16/14/12-10	220,0	50,0	34,0	115.1418	499
115.1450	6,0/10,0/16,0	10/8/6	220,0	50,0	34,0	115.1420	499

### Crimping pliers for spade terminals

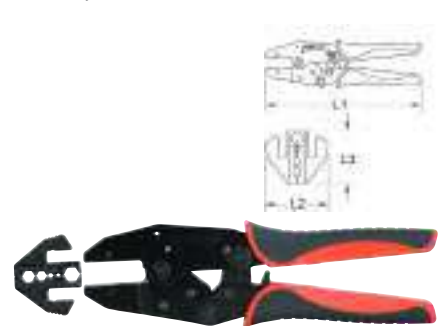
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1435	0,5-1,0/1,5-2,5/4,0-6,0	20-18/16-14/12-10	220,0	50,0	34,0	115.1417	499
115.1455	2,5/0,5/8,0/10,0	14-22/8-6	220,0	50,0	34,0	115.1421	505

### Crimping pliers for coaxial terminals

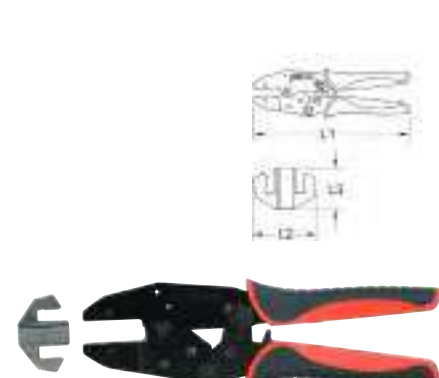
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1445	1,72/2,5/5,4/0,6/8,23	RG58/RG59/RG62	220,0	50,0	34,0	115.1419	491

### Crimping pliers for Western terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy change of crimp inserts
- Through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1460	RJ22	22-24	220,0	50,0	34,0	115.1422	500
115.1465	RJ11/RJ12	22-24	220,0	50,0	34,0	115.1423	505
115.1470	RJ45	22-24	220,0	50,0	34,0	115.1424	505

### Electricians crimping pliers set

- Ideal configuration for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel



115.1480	3 pcs	Electricians crimping pliers set	910
1 x		220 mm	
1 x		Ø 0,5 - 4,0 mm, H	
1 x		Ø 1,5 - 10,0 mm, B	



### Net working crimping pliers set

- Ideal configuration for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel

115.1490	5 pcs	Net working crimping pliers set	1,05
1 x		220 mm	
1 x		AWG: 22 - 14 - 6 - 8, H	
1 x		AWG: 22 - 24, G1	
1 x		AWG: 22 - 24, G2	
1 x		AWG: 22 - 24, G3	

### Crimping pliers for Solarlok

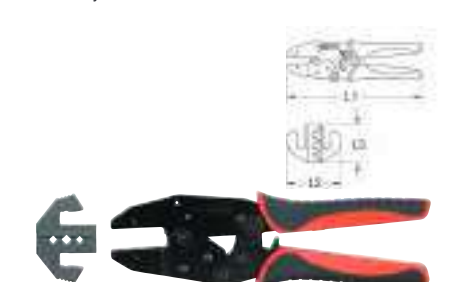
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1520	6,0 / 4,0 / 2,5 / 1,5	10 - 15	220,0	50,0	34,0	115.1412	540

### Crimping plier for solar coupler MC 3

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm		
115.1521	4,0 / 6,0 / 2,5	12 / 10 / 14	220,0	50,0	34,0	115.1413	545

**Crimping pliers for solar coupler MC 4**

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm <sup>2</sup>	AWG	L1 mm	L2 mm	L3 mm	kg
115.1522	2,5 / 4,0 / 6,0	14 / 12 / 10	220,0	50,0	34,0	115.1414 550

**Universal crimping tool set with automatic wire stripper**

- Extremely robust and reliable crimping tool
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel
- Including self-closing and damage-free automatic wire stripper



	kg
115.1400 283 pcs Universal crimping tool set with automatic wire stripper	2,37

1 x		220 mm
1 x		Ø 0,5 - 4,0 mm, H
1 x		Ø 1,5 - 10,0 mm, B
1 x		Ø 0,5 - 6,0 mm, C
1 x		Ø 0,5 - 4,0 mm, D
1 x		RG 58 - RG 71, E
1 x		1,0 - 3,2 mm
1 x		

**Cable routing aid set**

- this set facilitates the handling of cables in modern vehicles with cable-intensive networks
- prevents damage to cable insulation
- helps the user to thread or pull out cables or probes if there are obstacles or components with sharp edges
- different diameters and lengths provide various options for adaptation
- rounded opening at the handle end allows cables or probes to be handled easily without causing damage
- with 4 different attachments
- Two component handle



	kg
150.1025 5 pcs Cable routing aid set	0,33

1 x		115 mm
2 x		127 mm: Ø 6,0 / 8,0 mm, 11,0 / 13,0 mm
2 x		227 mm: Ø 6,0 / 8,0 mm, 11,0 / 13,0 mm

**ELECTRICIAN'S TOOL KITS**

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



	kg
117.1877 22 pcs Socket-set with insulated tools	1,60

1 x		1/4"
4 x		1/4": 50 - 75 - 100 - 150 mm
1 x		1/4"
1 x		1/4"
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



	kg
117.1876 21 pcs Socket-set with insulated tools	1,00

1 x		1/4": 5 - 25 Nm
3 x		1/4": 75 - 100 - 150 mm
2 x		1/4"
5 x		1/4": 6 - 8 - 10 - 13 - 14 mm
3 x		1/4": 5 - 6 - 8 mm
3 x		1/4": 4 - 5,5 - 6,5 mm
2 x		1/4": PH1 - PH2
2 x		1/4": PZ1 - PZ2

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



	kg
117.1878 21 pcs Socket-set with insulated tools	1,90

1 x		1/4": 5 - 25 Nm
4 x		1/4": 50 - 75 - 100 - 150 mm
1 x		1/4"
10 x		1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



	kg
117.1882 16 pcs Socket-set with insulated tools	3,80

1 x		3/8"
2 x		3/8": 125 - 250 mm
1 x		3/8"
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm
3 x		3/8": 5 - 6 - 8 mm
1 x		25 Nm

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1850	16 pcs	Socket-set with insulated tools	4,00
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
8 x		3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm	
3 x		3/8": 5 - 6 - 8 mm	
1 x		3,5 mm	

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1885	16 pcs	Socket-set with insulated tools	3,40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
3 x		3/8": 13 - 17 - 19 mm	
4 x		3/8": 5 - 6 - 8 - 10 mm	
1 x		3/8": 5 mm	
1 x		2,5 mm	
2 x		5 - 6 mm	
1 x		Ø 25mm	
1 x		160 mm	

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1881	14 pcs	Socket-set with insulated tools	3,87
1 x		3/8": 5 - 50 Nm	
2 x		3/8": 125 - 250 mm	
5 x		3/8": 10 - 13 - 14 - 17 - 19 mm	
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm	
1 x		3/8": 95 - 150 mm	

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1888	13 pcs	Socket-set with insulated tools	2,40
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1886	13 pcs	Socket-set with insulated tools	2,56
1 x		3/8"	
2 x		3/8": 125 - 250 mm	
1 x		3/8"	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

### Socket-set with insulated tools

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



3/8"

117.1887	11 pcs	Socket-set with insulated tools	1,80
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	



**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



			kg
117.1889	11 pcs	Socket-set with insulated tools	1,75
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- Chrome vanadium
- In durable plastic storage case



			kg
117.1883	15 pcs	Socket-set with insulated tools	3,99
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x		1/2": 5 - 6 - 8 mm	

**Socket-set with insulated tools**

- In accordance to DIN 7448 / 7434 / 7449
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120
- In durable plastic storage case



			kg
117.0600	9 pcs	Socket-set with insulated tools	2,07
1 x		270 mm	
7 x		10 - 13 - 14 - 16 - 17 - 19 - 21 mm	
1 x		125 mm	

**Socket-set with insulated tools**

- Insulated handle to IEC 60900
- In durable plastic storage case



			kg
117.1860	16 pcs	Socket-set with insulated tools	4,50
1 x		1/2"	
2 x		1/2": 125 - 250 mm	
1 x		1/2"	
8 x		1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
3 x		1/2": 5 - 6 - 8 mm	
1 x		3,5 mm	

**Tool set with insulated tools**

- Insulated handle to IEC 60900
- Plastic case with foam protection material
- Special tool steel



			kg
117.1870	20 pcs	Tool set with insulated tools	4,50
1 x		205 mm	
1 x		160 mm	
1 x		200 mm	
1 x		180 mm	
1 x		160 mm	
1 x		160 mm	
1 x		6 - 400 V	
3 x		8 - 10 - 13 mm	
6 x		2,5 - 3,5 - 5,5 - 6,5 - 8,0 - 10,0 mm	
2 x		PH1 - PH2	
1 x		210 mm	
1 x		182 mm	

**Tool set with insulated tools**

- Insulated handle to IEC 60900
- Foam material inserts in durable plastic case
- Special tool steel



			kg
117.1840	26 pcs	Tool set with insulated tools	5,00
1 x		205 mm	

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30

1 x		160 mm
1 x		200 mm
1 x		1/2"
1 x		250 mm
1 x		210 mm
1 x		182 mm
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm
1 x		6 - 400 V
4 x		3,5 - 5,5 - 6,5 - 8,0 mm

#### Tool set with insulated tools

- Insulated handle to IEC 60900
- Made out of red leather
- With carrying strap
- Special tool steel



			kg
<b>117.1872</b>	14 pcs	Tool set with insulated tools	4,50
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		210 mm	
3 x		2,5 - 4,0 - 5,5 mm	
4 x		7 - 8 - 9 - 10 mm	
1 x		Gr. 10	
1 x		200 mm	
1 x		12 - 750 V	



#### Basic electricians tool set

- Ideal starter set
- Aluminium edges
- With carrying handle
- Black leather carrying case



			kg
<b>117.0180</b>	30 pcs	Basic electricians tool set	9,00
1 x			
1 x		300 g	
1 x		1000 g	
1 x		Ø 16 mm	
1 x		Ø 16 mm	
1 x		40 mm	
1 x		# 2	
1 x		2 m	
1 x			
1 x		400 mm	
1 x		3 mm	
4 x		3,5 - 4 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	

#### Basic electricians tool set

- Ideal starter set
- With carrying handle
- Durable metal case



			kg
<b>117.0181</b>	30 pcs	Basic electricians tool set	8,83
1 x			
1 x		300 g	
1 x		1000 g	
1 x		Ø 16 mm	
1 x		Ø 16 mm	
1 x		40 mm	
1 x		# 2	
1 x		2 m	
1 x			
1 x		400 mm	
1 x		3 mm	
4 x		3,5 - 4 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	

### Premium Max electricians tool set

- Carrying handle
- An extendable pull handle
- Pull handle with locking knob
- Aluminium edges
- Two rollers
- Durable ABS storage case



<b>117.0195</b>	195 pcs	Premium Max electricians tool set	13,20
1 x		10" , 250 mm	
1 x			
1 x			
1 x		1/4": 918.0646	
1 x		1/4"	
1 x		1/4": 911.2026	
1 x		500 g	
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x		3 m x 19 mm	
1 x		500.7165	
1 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
1 x		3 mm	
4 x		2,5 - 4 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	
1 x		200 mm	
1 x		250 mm	

### Premium electricians tool set

- Carrying strap and handle
- Durable nylon case



<b>117.0190</b>	132 pcs	Premium electricians tool set	11,21
1 x			
1 x		300 g	
1 x		1000 g	
1 x		Ø 16 mm	
1 x		Ø 16 mm	
1 x		40 mm	
1 x		# 2	
1 x		2 m	
1 x			
1 x		6 - 400 V	
1 x			
1 x		400 mm	
1 x			
1 x		1/4": 911.2060	
1 x		1/4": 918.0640	
1 x		2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0 mm	
1 x			
1 x		5 m x 19 mm	
1 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x		8" , 200 mm	
1 x		3,0 mm	
4 x		3,5 - 4,0 - 5,5 - 6,5 mm	
3 x		PH 0 - PH 1 - PH 2	
1 x		160 mm	
1 x		150 mm	
1 x		175 mm	
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	

### Electricians tool set

- Ideal set for electricians
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

<b>911.0628</b>	128 pcs	Electricians tool set	10,88
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
12 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x		1/4": 50 - 100 mm	
1 x		1/2": 125 mm	
2 x		1/4" - 1/2"	
1 x		1/4": 110 mm	
1 x		28 mm	
1 x			
1 x			
1 x		28 mm	
1 x		145 mm	
1 x		300 g	
3 x		HB	
1 x		250 mm	
1 x		250x25 mm	
1 x		38 mm	
1 x		2 m	
1 x		300 mm	
1 x		1/4": 911.2060	
1 x		1/4": 205 mm	

1 x		1/4": 145 mm
1 x		1/2": 250 mm
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		5 m
18 x		100 mm
10 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		150 - 250 V
4 x		2,5 - 4 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		160 mm
1 x		160 mm
1 x		170 mm
1 x		165 mm



#### Tool set with insulated tools

- Insulated handle to IEC 60900
- Made out of red leather
- With carrying strap
- Special tool steel



<b>117.1830</b>	36 pcs	Tool set with insulated tools	9,40
1 x		205 mm	
1 x		160 mm	
1 x		200 mm	
1 x		160 mm	
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
7 x		10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
1 x		3/8"	
2 x		8 - 9 mm	
2 x		4,0 - 5,5 mm	
1 x		210 mm	
1 x		182 mm	
1 x		130 x 130 x 1,6 mm	
1 x		250 x 350 x 1,6 mm	
1 x		1000 x 1000 x 1,6 mm	
2 x		80 mm	
2 x		160 mm	
1 x		Ø 30 mm	
1 x		12 - 750 V	

#### Professional electricians tool set

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- With carrying strap



<b>117.1871</b>	55 pcs	Professional electricians tool set	13,34
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		160 mm	
1 x		215 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
1 x		1/2"	
2 x		125 - 250 mm	
1 x		1/2"	
9 x		10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm	
1 x		210 mm	
1 x		182 mm	
3 x		130 x 130 mm	
3 x		250 x 350 mm	
3 x		500 x 500 mm	
2 x		80 mm	
6 x		160 mm	
1 x		Gr. 9	
1 x		260 mm	
4 x		2,5 - 4,0 - 5,5 - 6,5 mm	

### Professional electricians tool set

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- With carrying strap



117.1820			
117.1820	53 pcs	Professional electricians tool set	13,00
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		160 mm	
1 x		215 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
6 x		10 - 13 - 14 - 17 - 19 - 22 mm	
1 x		1/2"	
2 x		125 - 250 mm	
1 x		1/2"	
9 x		10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 24 mm	
1 x		210 mm	
1 x		182 mm	
3 x		130 x 130 mm	
3 x		250 x 350 mm	
3 x		500 x 500 mm	
2 x		80 mm	
4 x		160 mm	
1 x		# 9	
1 x		260 mm	
4 x		2,5 - 4,0 - 5,5 - 6,5 mm	

### Professional electricians tool set

- Insulated handle to IEC 60900
- Robust hard shell toolcase



117.1810			
117.1810	30 pcs	Professional electricians tool set	9,40
1 x		185 mm	
1 x		160 mm	
1 x		200 mm	
1 x		200 mm	
1 x		160 mm	
1 x		160 mm	
1 x		180 mm	
2 x		5 - 6 mm	
5 x		2,5 - 4,0 - 5,5 - 6,5 - 8,0 mm	
2 x		PH1 - PH2	
2 x		PZ1 - PZ2	
4 x		5,5 - 6,0 - 7,0 - 8,0 mm	
1 x		210 mm	
1 x		175 mm	
1 x		215 mm	
1 x		12 - 750 V	
1 x		380 mm	
1 x		Gr. 10	
1 x		260 mm	
1 x		10 m	

### Hard shell toolcase, empty

- Strong hard protective case made from impact resistant plastic with hardened aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locking fastening catches
- Carrying handle with telescopic removable frame
- Capacity up to 30 kg



117.1810-99		
117.1810-99	Hard shell toolcase, empty	5,00

### Toolcase, empty

- Made out of red leather
- With carrying strap
- Front and middle wall can be folded down
- Robust design to hold approx. 50 tools and protective parts of your choice
- Chromed fittings



117.1820-99		
117.1820-99	Toolcase, empty	4,30

### Toolcase, empty

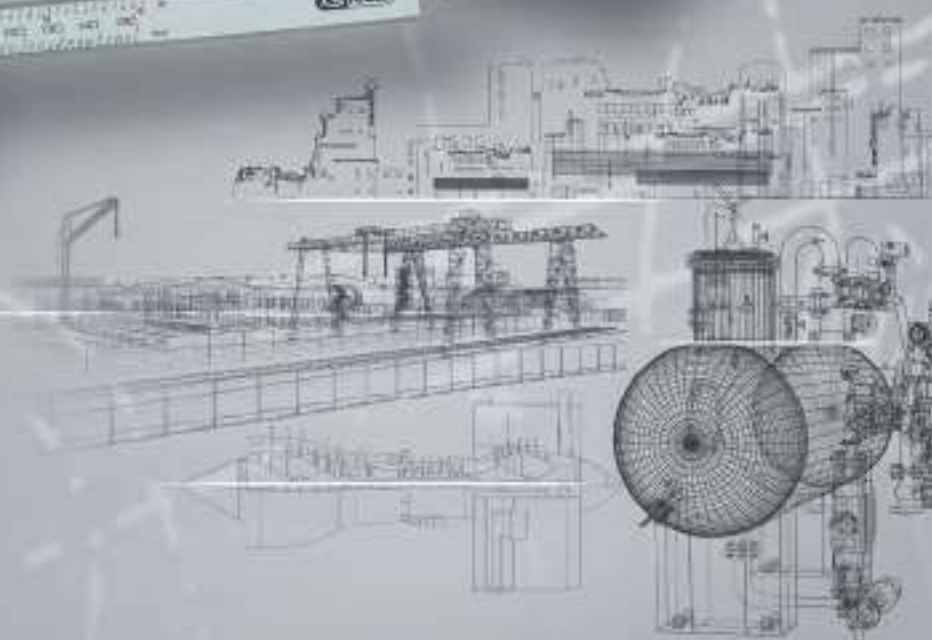
- Made out of red leather
- With carrying strap
- Front wall removable
- Durable sheet metal base
- Tool holders for 40 VDE tools and choice of protection
- Specially for meter assembly



117.1830-99		
117.1830-99	Toolcase, empty	3,40



Innovation is  
our mission!



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## ANALOGUE VERNIER CALLIPERS

### Pocket vernier calliper 0 - 150 mm

- In accordance with DIN 862
- Instant declaration
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- Thread table
- Entirely hardened, finely engineered
- Stainless steel
- In leather case



Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge		
300.0510	0 - 150	40,0	235,0	+/- 0,05	flat	145

### Workshop vernier calliper 0 - 300 mm

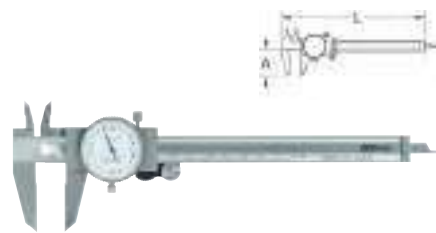
- In accordance with DIN 862
- Locking screw
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge		
300.0515	0 - 300	55,0	415,0	+/- 0,05	flat	250

### Dial vernier calliper 0 - 150 mm

- In accordance with DIN 862
- Fixed adjusting screw and revolving scale reading
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm divisions
- Thread table
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge	Pointer revolution mm		
300.0547	0 - 150	40,0	236,0	+/- 0,02	flat	1,0	215

### Workshop vernier calliper without points 0 - 500 mm

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Measuring range mm	A mm	L mm	Display accuracy mm		
300.0541	0 - 200	60,0	315,0	+/- 0,05	360
300.0542	0 - 250	90,0	365,0	+/- 0,05	390
300.0543	0 - 300	90,0	415,0	+/- 0,05	415
300.0544	0 - 400	125,0	550,0	+/- 0,05	950
300.0545	0 - 500	150,0	650,0	+/- 0,05	1495
300.0546	0 - 500	200,0	650,0	+/- 0,05	1980

### Brake drum calliper 0 - 500 mm

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- Scale division in black
- Fine adjustment
- Measuring bar in mm divisions
- Thread table
- Internal measure has direct reading
- Entirely hardened, finely engineered
- Stainless steel



Inner measuring range mm	Outer measuring range mm	A mm	L mm	Display accuracy mm		
300.0525	0 - 300	40 - 340	95,0	410,0	+/- 0,02	500
300.0530	0 - 500	60 - 560	150,0	660,0	+/- 0,05	1380



## DIGITAL VERNIER CALLIPERS

### Digital vernier calliper 0 - 150 mm

- In accordance with DIN 862
- With fixed adjusting screw and fine rolling adjustment
- For external, internal, step and depth measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- mm/imperial switching
- Thread table
- Reset (to zero) in every position possible
- Large LCD display - figure height 10.0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge		
300.0532	0 - 150	40,0	235,0	+/- 0,03	flat	300

### IP67 digital vernier calliper 0 - 150 mm

- Accuracy according to works standard
- Protection class IP67
- Locking screw
- For external, internal, step and depth measurements
- Scale division in blue
- Measuring bar in mm divisions
- mm/imperial switching
- Thread table
- Reset (to zero) in every position possible
- Large LCD display figure height 6.0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



Measuring range mm	A mm	L mm	Display accuracy mm	Depth gauge		
300.0531	0 - 150	40,0	240,0	+/- 0,03	flat	150



### Workshop vernier calliper without points 0 - 1000 mm

- In accordance with DIN 862
- Locking screw
- For external and internal measurements
- mm/imperial switching
- Reset (to zero) in every position possible
- Knife points
- Fine adjustment
- Large LCD display figure height 6,0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0559	0 - 300	90,0	440,0	+/- 0,03	1,14
300.0562	0 - 500	150,0	670,0	+/- 0,03	2,86
300.0563	0 - 1000	150,0	1220,0	+/- 0,03	4,90

### BRAKE DISK VERNIER CALLIPERS

#### Brake disk vernier calliper 0 - 90 mm

- In accordance with DIN 862
- Locking screw
- Scale division in black
- Precision scale division in mm
- Drag nonius for fixation of measured values
- Vernier and scale satin finish
- Stainless steel
- In durable case

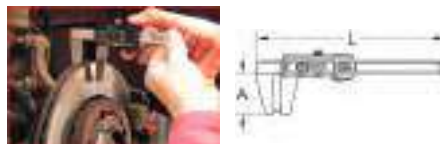


	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0535	0 - 60	55,0	162,0	+/- 0,01	130
300.0536	0 - 90	120,0	255,0	+/- 0,01	135



### Digital brake disk vernier calliper 0 - 60 mm

- In accordance with DIN 862
- Locking screw
- For internal measurements
- Scale division in black
- Measuring bar in mm and imperial divisions
- mm/imperial switching
- Hold button for fixing measured value
- Reset (to zero) in every position possible
- Large LCD display - figure height 10.0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0540	0 - 60	55,0	160,0	+/- 0,03	130

### Digital brake drum vernier calliper 0 - 100 mm

- In accordance with DIN 862
- mm/imperial switching
- Hold button for fixing measured value
- Reset (to zero) in every position possible
- LCD display - figure height 6,0 mm
- With automatic switching off
- Stainless steel, hardened
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0539	0 - 100	95,0	207,0	+/- 0,03	155

### Brake disc calliper gauge 200 - 400 mm

- Allows identification of the brake disc diameter without disassembling the wheels
- Universal usage
- Quick identification of the braking system
- No wrong ordering of brake pads or brake discs
- Quick and efficient
- Saves a lot of time

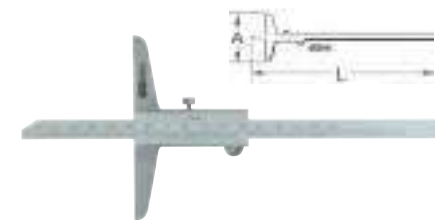


	Measuring range mm	Length mm	kg
300.0506	200 - 400	455,0	1,52

### DEPTH VERNIER CALLIPERS

#### Depth gauge 0 - 500 mm

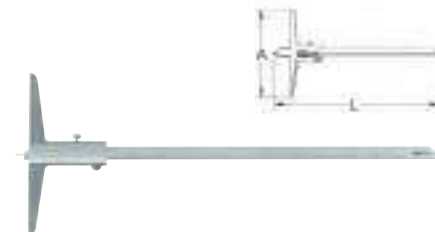
- In accordance with DIN 862
- Locking screw
- Vernier scale two sided accurate laser scales
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0571	0 - 150	100,0	225,0	+/- 0,02	160
300.0572	0 - 200	100,0	275,0	+/- 0,02	174
300.0573	0 - 250	100,0	340,0	+/- 0,02	180
300.0574	0 - 300	125,0	382,0	+/- 0,02	285
300.0575	0 - 300	150,0	382,0	+/- 0,02	300
300.0576	0 - 400	150,0	480,0	+/- 0,02	370
300.0577	0 - 500	150,0	580,0	+/- 0,02	406

#### Depth vernier calliper with feeler pin 0 - 500 mm

- In accordance with DIN 862
- Locking screw
- Vernier scale two sided accurate laser scales
- Scale division in black
- Measuring bar in mm divisions
- Entirely hardened, finely engineered
- Hardened feeler pin
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Ø Feeler pin mm	kg
300.0551	0 - 80	50,0	160,0	+/- 0,02	1,0	70
300.0552	0 - 150	100,0	231,0	+/- 0,02	1,5	150
300.0553	0 - 200	100,0	281,0	+/- 0,02	1,5	170
300.0554	0 - 300	150,0	390,0	+/- 0,02	2,0	300
300.0561	0 - 500	150,0	590,0	+/- 0,02	2,0	406



### Digital depth vernier calliper 0 - 500 mm

- In accordance with DIN 862
- Locking screw
- For depth measurements
- Scale division in black
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display - figure height 10.0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0549	0 - 500	200,0	580,0	+/- 0,03	1,15

### MARK-OUT VERNIER CALLIPER

#### Marking Caliper 0 - 500 mm

- Locking screw
- Scale division in black
- Precision scale division in mm
- Drag nonius for fixation of measured values
- Vernier and scale satin finish
- Stainless steel
- In durable case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.1561	0 - 160	100,0	275,0	+/- 0,05	645
300.1562	0 - 250	140,0	375,0	+/- 0,05	745
300.1563	0 - 300	160,0	425,0	+/- 0,05	825
300.1564	0 - 500	160,0	625,0	+/- 0,05	1065

### MICROMETER & MOUNT

#### Micrometer

- In accordance with DIN 863
- With measurement locking screw
- Measuring force rule through ratchet sensation
- Spindle made out of hardened steel
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Spindle mm	Drum mm	Spindle pitch mm	kg
300.0555	0-25	30,0	130,0	+/- 0,01	6,5	17,0	0,5	300
300.0556	25-50	35,0	165,0	+/- 0,01	6,5	17,0	0,5	315
300.0557	50-75	46,0	190,0	+/- 0,01	6,5	17,0	0,5	370
300.0558	75-100	58,0	220,0	+/- 0,01	6,5	17,0	0,5	485

### Digital outside micrometre

- DIN 863
- With measurement locking screw
- Measuring force rule through ratchet sensation
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- 2 mm feed enables quick measurement
- IP54
- Large LCD display
- With automatic switching off
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	Spindle mm	Drum mm	Spindle pitch mm	kg
300.0580	0-25	24,0	160,0	+/- 0,01	6,5	17,0	0,5	310
300.0581	25-50	32,0	180,0	+/- 0,01	6,5	17,0	0,5	320
300.0582	50-75	45,0	205,0	+/- 0,01	6,5	17,0	0,5	370
300.0583	75-100	57,0	220,0	+/- 0,01	6,5	17,0	0,5	390

### Holder for external micrometers

- For external micrometers up to 300 mm
- Clamp opening 16mm
- Clamping jaws made out of plastic
- Inclined locking facility
- Heavy standing foot
- Cast iron



		kg
300.0680	Holder for external micrometers	1,80

### Digital tire pressure and thread gauge 0,35 - 6,80 bar

- Precise and repeatable LCD measurement
- For depth measurements
- For tire pressure measurements
- Measurement with acoustic signal
- Pressure measurement range can be switched between bar, kpa and PSI
- Low energy consumption due to automatic shutdown
- Includes batteries, key chain and belt clip



	Measuring range bar	Profit depth blade in mm	kg
100.4060	0,35-6,80	0,0-15,0	90

### Digital depth gauge 0 - 25 mm

- In accordance with DIN 862
- Locking screw
- For depth measurements
- mm/imperial switching
- Reset (to zero) in every position possible
- Large LCD display figure height 8.0 mm
- With automatic switching off
- Entirely hardened, finely engineered
- Stainless steel
- In durable plastic case



	Measuring range mm	A mm	L mm	Display accuracy mm	kg
300.0550	0 - 25	40,0	125,0	+/- 0,03	100

### Set of outside micrometres

- In accordance with DIN 863
- With measurement locking screw
- Measuring force rule through ratchet sensation
- Spindle made out of hardened steel
- Measuring surfaces with hard metal tips
- With hand warmth insulation
- Stainless steel
- In durable plastic storage case



		kg
300.0538	4 pcs Set of outside micrometres	1,57

consists of:

300.0555	Micrometer, 0-25mm	300
300.0556	Micrometer, 0-50mm	315
300.0557	Micrometer, 50-75mm	370
300.0558	Micrometer, 75-100mm	485

## DIAL GAUGES

### Precision dial indicator gauge 0 - 10 mm

- In accordance with DIN 878
- With securing screw and turnable dial face
- Shockproof
- Splash proofed
- Measuring tip protected against contamination by a bellowed sleeve
- Clamping shaft  $\varnothing$  8 mm H6
- With 2 measuring scales
- Spindle and clamping shaft made from stainless steel
- In durable plastic case



Measuring range mm	D mm	Display accuracy mm	Pointer resolution mm	
300.0560	0 - 10	60,0	+/- 0,01	260

### Digital precision dial indicator gauge 0 - 10 mm

- mm/imperial switching
- Reset (to zero) in every position
- Large LCD display figure height 6,0 mm
- Clamping shaft  $\varnothing$  8 mm H6
- With automatic switching off
- Spindle and clamping shaft made from stainless steel



Measuring range mm	D mm	Display accuracy mm		
300.0565	0 - 10	60,0	+/- 0,02	280



### Precision-dial indicator gauge with zero setting 0 - 0.08 mm

- DIN 2270
- high performance and anti-magnetic due to its high-quality brass base body
- Tolerance marks
- Gem storage for enhanced sensitivity
- Carbide needle
- 230° turning range of the stylus
- In total there are 3 dovetails for mounting brackets
- Stylus length 16.5 mm
- In durable plastic storage case



Measuring range mm	D mm	L1 mm	L2 mm	Display accuracy mm		
300.0564	0 - 0,08	30,0	75,0	16,5	+/- 0,01	220

### Precision-dial indicator gauge 0 - 30 mm

- in accordance with ISO 9001
- with standard dial
- for measuring thickness of wires, sheet metal, films, threads etc.
- suitable for direct and comparative measurements
- with rotating scale
- Button made out of stainless steel
- Bracket made from cast iron
- In durable plastic case



Measuring range mm	D mm	H mm	Display accuracy mm	Pointer resolution mm		
300.0624	0 - 30 mm	60,0	140	+/- 0,01	1,0	300

### Magnetic measurement stand with 2 joints

- For clamping of the dial indicator
- Revolving base
- Transverse arm with joint and fine adjustment
- With on and off switchable magnetic base
- High adhesive force on burnished steel and cast areas
- Also adhesive on convolutions
- Foot with prismatic base and stop area mounted edges
- With dial gauge reception  $\varnothing$  8 mm



Radius mm	Magnet foot L x W x H mm	Total depth mm	Adhesive force N	Stand $\varnothing$ mm		
300.0625	180,0	60x50x55	280,0	600,0	16,0	1,80



### Magnetic measurement stand with 3 joints

- For clamping of the dial indicator
- Revolving base
- Transverse arm with joint and fine adjustment
- With on and off switchable magnetic base
- High adhesive force on burnished steel and cast areas
- Also adhesive on convolutions
- Foot with prismatic base and stop area mounted edges
- With dial gauge reception  $\varnothing$  8 mm



Radius mm	Magnet foot L x W x H mm	Total depth mm	Adhesive force N	Stand $\varnothing$ mm		
300.0623	280,0	50x55x60	380,0	600,0	12,0	1,70

## MEASURING TOOL SET

### Measuring tool set

- Practical assortment for daily workshop usage
- Includes accurate machined protective foam insert
- In durable plastic storage case



150.2240	7 pcs Measuring tool set	1,66

consists of:

300.0555	Micrometer, 0-25mm	300
300.0510	Pocket vernier calliper 0-150mm, 235mm	145
300.0102	Flexible steel rule, 200mm	11
300.0293	Square DIN 875/0, 100mm	115
300.0300	Scribe, 190mm	10
300.0402	Precision spring pointed dividers, 138mm	120
300.0632	Precision straight edge, 100mm	80

### Brake disc measuring tool set

- For measuring the radial and axial runout of wheel hubs and brake discs
- Exact positioning of the dial gauge on the test object with magnetic dial gauge holder
- Quick and easy attachment of stand with prismatic support and activated magnets
- Precise setting of the measuring scale with adjustable tolerance marks
- With rotating, knurled outer ring
- Suitable for measuring the brake disc thickness, and for detection of irregularities and distortion
- With measured value fixing lever and measuring force control with ratchet function
- In durable plastic storage case



150.2230	3 pcs	Brake disc measuring tool set	4,00

consists of:

300.0625	Magnetic measurement stand with 2 joints	1,80	
300.0560	Precision dial indicator gauge 0 - 10 mm	0,26	
300.0556	Micrometer, 0-50mm	0,32	

### THREAD- & FEELER GAUGES

#### Welding seam gauge

- For measuring the welded seams at right angled welded corners
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel

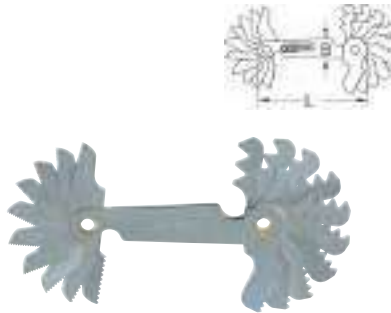


300.0619	12	3,0-3,5-4,0-4,5-5,0-5,5-6,0-6,5-7,0-8,0-10,0-12,0	50



#### Thread gauge

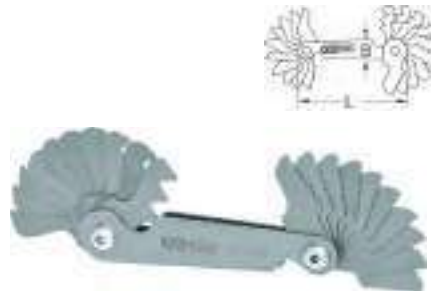
- For controlling and increasing the interior thread and outside thread
- Imperial sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



	Tooth pitch	for thread size	B mm	L mm	
301.0090	22	4-4,5-5-6-7-8-9-10-11-12-13-14-16-18 20-22-24-32-40-48-56-64 speed	12,2	66,5	40

#### Thread gauge

- For controlling and increasing the interior thread and outside thread
- Metric sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



	Tooth pitch	for thread size	B mm	L mm	
301.0095	20	0,40-0,45-0,50-0,60-0,70-0,75-0,80-1,00-1,25-1,50-1,75-2,00-2,50-3,00-3,50-4,00-4,50-5,00-5,50-6,00mm	12,2	66,5	40

#### Trapezoid steel thread gauge

- For threads according to DIN 103
- Equipped with 12 blades for pitch 2 - 20mm
- Flank angle 30°
- Blades made out of hardened spring steel



	Thread	Measuring range mm	L mm	B mm	
300.0622	30°	2-3-4-5-6-7-8-9-10-12-16-20	120,0	40,0	150

#### TORX® gauge

- For testing of Torx and E profiles
- Measuring caps fan shaped on a ring
- Individually marked with size
- Measuring caps made from plastic



300.0610	20 pcs	E1xT5 - E2xT6 - E4xT7 - E5xT8 - E6xT9 - E7xT10 - E8xT15 - E10xT20 - E11xT25 - E12xT27 - E14xT30 - E16xT35 - E18xT40 - E20xT45 - E22xT47 - E24xT50 - E26xT55 - E28xT60 - E30xT70	50

#### Feeler gauge

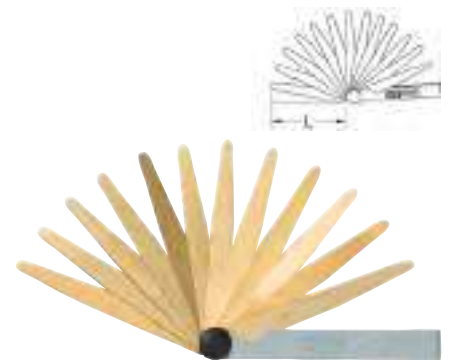
- For the testing of intervals, contact distances etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made out of hardened spring steel



	Tooth pitch	Measuring range mm	L mm	
300.0600	20	0,05-0,10-0,15-0,20-0,25-0,30-0,35-0,40-0,45-0,50-0,55-0,60-0,65-0,70-0,75-0,80-0,85-0,90-0,95-1,00	100,0	88

#### Antimagnetic brass feeler gauge

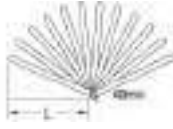
- For the testing of intervals, contact distances etc.
- Feeler gauge conical tapered
- Fixing nut
- Leaves individually marked with size
- Blades made of brass



	Tooth pitch	Measuring range mm	L mm	
300.0611	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	100,0	55
300.0612	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	100,0	70
300.0613	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	100,0	85

**Piston tolerance gauge**

- For the testing of intervals, contact distances etc.
- Feeler gauge cylindrical
- Blades fan shaped on a ring
- Leaves individually marked with size
- Blades made out of hardened spring steel



	Tooth pitch	Measuring range mm	L mm	
300.0614	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	150,0	30
300.0617	8	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5	200,0	50
300.0615	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	150,0	80
300.0618	13	0,05-0,1-0,15-0,2-0,25-0,3-0,4-0,5-0,6-0,7-0,8-0,9-1,0	200,0	150
300.0616	20	0,05-0,1-0,15-0,2-0,25-0,3-0,35-0,4-0,45-0,5-0,55-0,6-0,65-0,7-0,75-0,8-0,85-0,9-0,95-1,0	150,0	150

**SQUARES**

**Square**

- In accordance with DIN 875/0
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances finely ground and aligned
- Stock and cross section finely ground and aligned
- Stainless steel



	L1 mm	L2 mm	H mm	S mm	
300.0291	50,0	40,0	12,0	5,0	40
300.0292	75,0	50,0	15,0	5,0	70
300.0293	100,0	70,0	20,0	5,0	115
300.0294	150,0	100,0	25,0	5,0	210
300.0295	200,0	130,0	30,0	6,0	350
300.0296	250,0	165,0	35,0	7,0	850
300.0297	300,0	200,0	40,0	8,0	1300



**Square**

- In accordance with DIN 875/2
- Ideal for accurate working in precision mechanical engineering and shop floor use
- Perpendicularity-, Parallelism- and smoothness tolerances ground
- Stock area and cross area ground
- Special tool steel



	L1 mm	L2 mm	H mm	S mm	
300.0254	75,0	50,0	15,0	5,0	80
300.0255	100,0	70,0	20,0	5,0	100
300.0256	150,0	100,0	25,0	5,0	240
300.0257	200,0	130,0	30,0	6,0	450
300.0258	250,0	165,0	35,0	7,0	550
300.0259	300,0	175,0	40,0	8,0	800
300.0260	400,0	200,0	45,0	10,0	1100
300.0261	500,0	250,0	50,0	10,0	1600

**Square**

- Ideal for general working
- Machined on all sides
- Steel



	L1 mm	L2 mm	H mm	S mm	
300.0231	100,0	70,0	20,0	5,0	115
300.0232	150,0	100,0	20,0	5,0	175
300.0233	200,0	130,0	20,0	5,0	250
300.0234	250,0	160,0	25,0	5,0	375
300.0235	300,0	180,0	25,0	5,0	525
300.0236	400,0	230,0	30,0	5,0	615
300.0237	500,0	280,0	30,0	5,0	870
300.0238	600,0	330,0	30,0	5,0	1400
300.0239	750,0	375,0	30,0	5,0	1550
300.0241	1000,0	500,0	30,0	5,0	2910

**Square**

- In accordance with DIN 875/1
- For the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances finely ground and aligned
- Stock and cross section finely ground and aligned
- Special tool steel



	L1 mm	L2 mm	H mm	S mm	
300.0199	75,0	50,0	15,0	5,0	80
300.0200	100,0	70,0	20,0	5,0	100
300.0201	150,0	100,0	25,0	5,0	250
300.0202	200,0	130,0	30,0	6,0	500
300.0203	250,0	165,0	35,0	7,0	700
300.0204	300,0	200,0	40,0	8,0	1150
300.0205	400,0	265,0	40,0	8,0	1180
300.0206	500,0	330,0	40,0	8,0	2800



**Square with stock**

- Ideal for general working
- With stock
- Machined on all sides
- Steel



	L1 mm	L2 mm	H mm	I mm	J mm	K mm	
300.0270	100,0	70,0	20,0	5,0	5,0	20,0	170
300.0271	150,0	100,0	20,0	5,0	5,0	20,0	260
300.0272	200,0	130,0	20,0	5,0	5,0	20,0	340
300.0273	250,0	160,0	25,0	5,0	5,0	25,0	530
300.0274	300,0	180,0	25,0	5,0	5,0	25,0	620
300.0275	400,0	230,0	30,0	6,0	6,0	30,0	1160
300.0276	500,0	280,0	30,0	6,0	6,0	30,0	1440
300.0277	600,0	330,0	30,0	6,0	6,0	30,0	1720
300.0278	750,0	375,0	30,0	6,0	6,0	30,0	2060
300.0279	1000,0	500,0	30,0	6,0	6,0	30,0	2760

### Square with stock

- In accordance with DIN 875/2
- Ideal for accurate working in precision mechanical engineering and shop floor use
- With stock
- Perpendicularity-, Parallelism- and smoothness tolerances ground
- Stock area and cross area ground
- Special tool steel



	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g
300.0281	75,0	50,0	15,0	5,0	5,0	15,0	100
300.0282	100,0	70,0	20,0	5,0	5,0	20,0	155
300.0283	150,0	100,0	25,0	5,0	5,0	25,0	330
300.0284	200,0	130,0	30,0	6,0	6,0	30,0	650
300.0285	250,0	165,0	35,0	7,0	7,0	35,0	750
300.0286	300,0	175,0	35,0	7,0	7,0	35,0	1200
300.0287	400,0	200,0	40,0	8,0	8,0	40,0	1480
300.0288	500,0	250,0	40,0	8,0	8,0	40,0	2300

### Square with stock

- In accordance with DIN 875/1
- For the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances finely ground and aligned
- Stock and cross section finely ground and aligned
- With stock
- Special tool steel



	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g
300.0209	75,0	50,0	15,0	5,0	5,0	15,0	100
300.0210	100,0	70,0	20,0	5,0	5,0	20,0	150
300.0211	150,0	100,0	25,0	5,0	5,0	25,0	400
300.0212	200,0	130,0	30,0	6,0	6,0	30,0	700
300.0213	250,0	165,0	35,0	7,0	7,0	35,0	1100
300.0214	300,0	200,0	40,0	8,0	8,0	40,0	1600
300.0215	400,0	265,0	40,0	8,0	8,0	40,0	2700
300.0216	500,0	330,0	40,0	8,0	8,0	40,0	4360



### Square with stock

- In accordance with DIN 875/0
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Perpendicularity-, Parallelism- and smoothness tolerances finely ground and aligned
- Stock and cross section finely ground and aligned
- With stock
- Stainless steel



	L1 mm	L2 mm	H mm	I mm	J mm	K mm	g
300.0311	50,0	40,0	14,0	5,5	4,5	18,0	60
300.0312	75,0	50,0	18,5	5,5	4,5	17,5	100
300.0313	100,0	70,0	20,0	5,5	5,0	23,4	185
300.0314	150,0	100,0	24,0	5,5	6,0	23,4	330
300.0315	200,0	130,0	28,5	6,0	6,0	27,5	560
300.0316	250,0	165,0	36,0	8,0	7,0	32,0	1050
300.0317	300,0	200,0	39,0	8,0	8,0	38,0	1490

### Precision hard square

- In accordance with DIN 875/00
- For inspection and test working in light cold processing
- Perpendicularity-, Parallelism- and smoothness tolerances finely ground and aligned
- Stock and cross section finely ground and aligned
- Hardened
- Stainless steel



	L1 mm	L2 mm	H mm	S mm	g
300.0318	25,0	20,0	5,0	3,5	40
300.0319	40,0	28,0	5,0	3,5	80



### Cabinetmakers square with aluminium stock

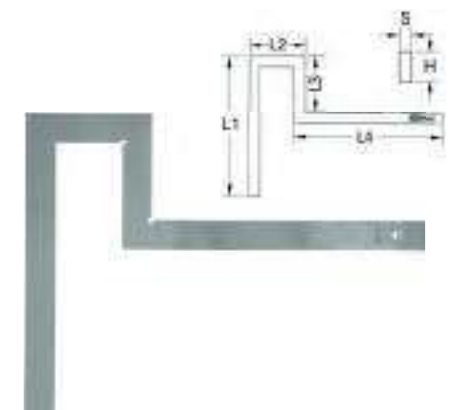
- Stock made from aluminium
- Upper edge divisions 1 mm
- Lower edge divisions 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Blade made from cast iron



	L1 mm	L2 mm	g
300.0220	250,0	140,0	70

### flange bracket

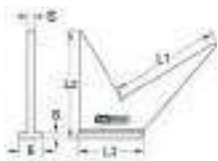
- ideal for precise work in pipeline construction
- for aligning the flanges
- Stainless steel



	L1 mm	L2 mm	L3 mm	L4 mm	H mm	S mm	g
300.1121	300,0	65,0	105,0	300,0	30,0	6,0	1,12
300.1122	400,0	65,0	115,0	400,0	30,0	6,0	1,44
300.1123	500,0	70,0	125,0	500,0	30,0	6,0	1,68
300.1124	500,0	70,0	125,0	600,0	30,0	6,0	2,00
300.1125	500,0	95,0	125,0	800,0	30,0	6,0	2,40
300.1126	500,0	95,0	125,0	1000,0	30,0	6,0	2,90

### Mitre angle

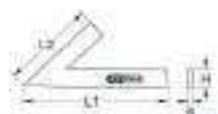
- In accordance with DIN 875/2
- Ideal for the most accurate working and inspection in precision mechanical engineering
- Stock and cross section finely ground and aligned
- With stock
- Special tool steel



	L1 mm	L2 mm	L3 mm	S mm	B mm	🔑
300.0217	107,0	92,0	47,0	5,0	25,0	400
300.0218	128,0	110,0	59,0	5,0	25,0	450
300.0219	155,0	130,0	70,0	5,0	25,0	500

### Sharpening angle 45°

- In accordance with DIN 875/2
- For the most accurate working and inspection in precision mechanical engineering
- Stock and cross section finely ground and aligned
- With stock
- Special tool steel



	L1 mm	L2 mm	S mm	H mm	🔑
300.0224	200,0	130,0	5,0	25	280

### Adjustable square with steel blade

- Blade made from steel
- Ideal for simple metal working
- Wing nut for locking
- Channel for the adjustment of the angle
- Chrome plated
- Spring steel



	L mm	🔑
300.0327	200,0	180
300.0328	250,0	200
300.0329	300,0	220
300.0330	400,0	240
300.0331	500,0	260

### Adjustable square

- Ideal for simple metal working
- Head stock out of wood
- Wing nut for locking
- Channel for the adjustment of the angle
- Chrome plated
- Spring steel



	L mm	Blade	🔑
300.0240	250,0	wood	100

### PROTRACTOR

#### Protractor with open arch

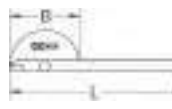
- Ideal for measuring of angles 0 - 180°
- Half round open arch
- Locking screw
- Degree graduation 1°
- With large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish
- Stainless steel



	L mm	B mm	🔑
300.0640	120,0	100,0	150
300.0641	150,0	140,0	200
300.0642	200,0	170,0	300
300.0643	300,0	220,0	500
300.0644	500,0	320,0	1400
300.0645	600,0	320,0	1450
300.0646	800,0	320,0	1500
300.0647	600,0	420,0	2600
300.0648	800,0	420,0	2900
300.0649	1000,0	420,0	3400

#### Protractor

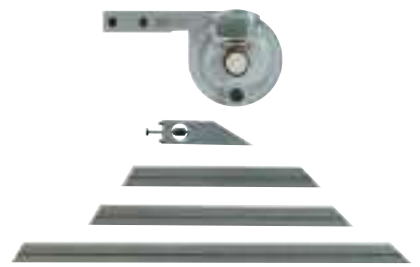
- Ideal for measuring of angles 0 - 180°
- Half round arch
- Locking screw
- Divisions printed in two directions
- Two direction scale in mm division in upper and lower edge
- Units engraved
- Scale division in black
- Anti glare matt finish
- Stainless steel



	L mm	B mm	🔑
300.0700	220,0	90,0	70
300.0701	400,0	200,0	150

### Universal protractor

- Ideal for the measuring of angles on workpieces, devices and machines
- Also can be used as a ruler, cross and mitre square
- Locking screw
- Reading with magnifying glass for viewing field over the entire vernier scale
- Fine adjustment through geared wheel and toothed rim
- Indicating dial reading 4 x 90°
- Vernier scale reading 1/12° - 5 angular minutes
- Units engraved
- Anti glare matt finish matt chrome
- Includes 3 measuring bars 150 mm, 200 mm und 300 mm
- Stainless steel
- In durable plastic case



	D mm	L mm	🔑
300.0207	70,0	300,0	600

### FOLDING RULES

#### Wooden folding rule, yellow

- Out of ten yellow dividers
- Outside visible joints with spring fittings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood



	Length m	Width mm	Number of links	🔑
300.0060	2,00	16,0	10	100

#### Wooden folding rule, white

- Out of ten white dividers
- Outside visible joints with brass spring fittings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale-red marking
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood



	Length m	Width mm	Number of links	🔑
300.0062	2,00	16,0	10	110

### Wooden folding rule, white/yellow

- Out of ten white/yellow dividers
- Outside visible joints with brass spring fittings
- Through riveted joints
- Two sided mm divisions on the upper and lower edge
- Large decimal scale-red marking
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Beech wood



	Length m	Width mm	Number of links	
300.0063	2,00	16,0	10	100

### Plastic folding rule, yellow

- Out of ten yellow dividers
- Durable special joint connection
- Two sided mm divisions on the upper and lower edge
- Large decimal scale
- Scale division in black
- Overall length 2 meters
- Measuring accuracy according to EC accuracy class III
- Glass fibre reinforced and bends resistant ABS-plastic



	Length m	Width mm	Number of links	
300.0061	2,00	16,0	10	100

### Plastic folding rule, white

- Insulated in accordance with IEC 60900:2004
- Made from glass-fibre reinforced plastic
- Without metal parts



	Length m		
300.0066	1,00	1000V	600

## REEL TAPE MEASURES

### Tape measure with locking device and belt clip

- Yellow varnished steel strip
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Plastic tape guide
- Wrist strap
- Measuring accuracy according to EC accuracy class II
- Weathering spring band steel
- Dual component plastic housing



	Length m	Tape width mm	
300.0113	3,00	16,0	100
300.0114	5,00	19,0	220
300.0115	5,00	25,0	190
300.0116	8,00	25,0	210

### Tape measure with locking device and belt clip

- Yellow laquered, abrasion proof polyamide coated steel tape
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Metallic tape guide
- Wrist strap
- Measuring accuracy according to EC accuracy class II
- Flexible, kink proof weathering spring band steel
- ABS two component housing



	Length m	Tape width mm	
300.0131	3,00	16,0	100
300.0132	5,00	19,0	150
300.0133	5,00	25,0	150
300.0134	8,00	25,0	370
300.0135	10,00	30,0	690

### Tape measure with locking device, belt clip and magnetic stop

- Yellow laquered, abrasion proof polyamide coated steel tape
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Magnetic stop
- Measuring accuracy according to EC accuracy class II
- Flexible, kink proof weathering spring band steel
- ABS two component housing



	Length m	Tape width mm	
300.0143	5,00	25,0	150

### Electrical tape measure with brake and belt clip, digital

- yellow laquered, abrasion-resistant and acrylic-coated steel strip
- mm divisions on the upper and lower edge
- Scale division in black
- Decimal in red marking
- Automatic tape returns and tape locking
- Wrist strap
- Flexible, kink proof weathering spring band steel
- ABS two component housing



	Length m	Tape width mm	
300.1111	5,00	19,0	235

### Enclosed tape measure with plastic tape

- Yellow glass fibre reinforced plastic tape
- Stretch, abrasion resistant and washable
- Measuring begins at 100 mm after measurement stop
- cm division on the lower edge
- Large decimal scale-red marking
- Scale division in black
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant, ABS plastic housing



	Length m	Tape width mm	
300.0040	10,00	10,0	350
300.0041	20,00	10,0	400
300.0042	30,00	10,0	550
300.0043	50,00	10,0	690

### Frame tape measure with yellow steel tape

- Yellow laquered, abrasion proof polyamide coated steel tape
- Measuring begins at 100 mm after measurement stop
- mm division on the lower edge
- Large decimal scale-red marking
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant, ABS plastic housing



	Length m	Tape width mm	
300.0055	30,00	13,0	800
300.0056	50,00	13,0	1000

### Frame tape measure with yellow steel tape

- Yellow laquered, abrasion proof polyamide coated steel tape
- mm division on the lower edge
- Large decimal scale
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class II
- Glass fibre reinforced and bend resistant plastic
- Impact resistant steel framework with plastic handle



	Length m	Tape width mm	
300.0049	20,00	13,0	800
300.0050	30,00	13,0	900
300.0051	50,00	13,0	1000



### Reel tape measure with plastic tape

- White glass fibre reinforced plastic tape
- Stretch, abrasion resistant and washable
- Large decimal scale
- Scale division in black
- Two ball bearings guarantee easy winding in and out
- Good handling through the crank arm and locking position
- Measuring accuracy according to EC accuracy class III
- Impact resistant steel framework with plastic handle



	Length m	Tape width mm	
300.0052	20,00	13,0	800
300.0053	30,00	13,0	900
300.0054	50,00	13,0	1000

### SPIRIT LEVELS

#### Digital inclinometer

- ideal for measuring incline angles
- strong magnetic pedestal
- LCD backlight
- for absolute and relative measurements
- Includes belt pouch
- Plastic housing with aluminium frame
- Measurement unit: °degrees



#### Technical data:

Display accuracy:	+/-0,1°
Resolution:	+/-0,1°
Working range:	4 x 90°
Operating temperature:	+0°C to +55°C
Power requirement:	2 x 1.5V AAA battery

	Width mm	Height mm	Depth mm	
300.0208	60,0	60,0	25,0	110

#### Aluminium profile spirit level with fine adjustment

- Smooth aluminium rectangular profile
- Light profile weight
- Accurate to 0,5 mm per meter
- 4 robust Acrylglas-vials (0° + 45° + 90°)
- Fine adjustment
- 1,8 mm wall thickness
- With hanging hole
- Aluminium



	L mm	B mm	H mm	
204.5610	600,0	22,0	50,0	250
204.5810	800,0	22,0	50,0	350
204.5910	1000,0	22,0	50,0	450



#### Aluminium profile spirit level

- Smooth aluminium rectangular profile
- Light profile weight
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas vials (0° + 45° + 90°)
- 1,8 mm wall thickness
- With hanging hole
- Aluminium



	L mm	B mm	H mm	
204.5400	400,0	22,0	50,0	320
204.5500	500,0	22,0	50,0	390
204.5600	600,0	22,0	50,0	300
204.5800	800,0	22,0	50,0	350
204.5900	1000,0	22,0	50,0	730

#### Heavy aluminium die cast spirit level

- Skeleton profile
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas vials (0° + 45° + 90°)
- Very high torsional stiffness
- All sides of the level can be used as the reading edge
- Measuring area and front sides milled
- With hanging hole
- Aluminium



	L mm	B mm	H mm	
204.4410	400,0	23,0	44,0	200
204.4610	600,0	23,0	44,0	400
204.4810	800,0	23,0	44,0	600

#### Aluminium profile spirit level, magnetic

- DIN 877
- Smooth aluminium rectangular profile
- Light profile weight
- Accurate to 0,5 mm per meter
- 2 robust Acrylglas vials (0° + 90°)
- With hanging hole
- Magnetic
- Aluminium



	L mm	B mm	H mm	
204.5470	400,0	21,0	50,0	280
204.5471	600,0	21,0	50,0	280

#### Spirit level, magnetic

- DIN 877
- Skeleton profile
- 2 through handles for easier handling
- Accurate to 0,5 mm per meter
- 3 robust Acrylglas-block vials (0° + 90° + angle vial)
- With hanging hole
- Magnetic
- made of stabilised cast iron
- Shock-absorbing end caps



	L mm	B mm	H mm	
204.5480	600,0	25,0	54,0	280
204.5481	800,0	25,0	54,0	300

#### Heavy aluminium die cast spirit level in torpedo form

- Skeleton profile
- Accurate to 0,5 mm per meter
- 2 robust Acrylic vials (0° + 90°)
- Very high torsional stiffness
- Torpedo form
- Measuring area milled
- With hanging hole
- Made from aluminium die cast



	L mm	B mm	H mm	
204.4400	400,0	23,0	47,0	260
204.4500	500,0	23,0	47,0	300
204.4600	600,0	23,0	47,0	400
204.4800	800,0	23,0	47,0	650
204.4900	1000,0	23,0	47,0	800

### Heavy aluminium die cast spirit level in torpedo form, magnetic

- Skeleton profile
- Accurate to 0,5 mm per meter
- 2 robust Acrylglas vials (0° + 90°)
- Very high torsional stiffness
- Torpedo form
- Magnetic
- Measuring area milled
- With hanging hole
- Made from aluminium die cast



	L mm	B mm	H mm	kg
204.6400	400,0	23,0	47,0	470
204.6500	500,0	23,0	47,0	600
204.6600	600,0	23,0	47,0	600
204.6800	800,0	23,0	47,0	1000

### Spirit level with a frame

- DIN 877
- made of stabilised cast iron
- Lateral surfaces are fitted with anti-slip insulating plates
- Accurate to 0.04 mm per metre
- 1 robust Acrylglas-block vial (0°)
- Vial is protected behind transparent Plexiglas
- in a durable metal case



	L mm	B mm	H mm	kg
204.5487	200,0	200,0	42,5	2,00

### Digital aluminium profile spirit level

- for calculating angles, inclinations, gradients and mean values
- 2 robust Acrylglas vials (0° + 90°)
- Smooth aluminium rectangular profile
- Light profile weight
- Accurate to 0,5 mm per meter
- with HOLD function
- 1.8 mm wall thickness
- With hanging hole
- Aluminium



	Length mm	Width mm	Height mm	kg
204.5490	416,0	21,0	50,0	430

### Digital angle finder with spirit level

- ideal for measuring angles on workpieces
- smooth aluminium rectangular profile with adjustable angle arm
- 2 robust Acrylglas vials (0° + 90°)
- Light profile weight
- Accurate to 0,5 mm per meter
- with fine adjustment and zero pressure switch
- With hanging hole
- Aluminium



	Length mm	Width mm	Height mm	Measuring range	kg
204.5591	305,0	23,0	52,0	0° - 225°	390

### GAUGES & RULES

#### Semi flexible steel ruler

- Upper edge 1 mm
- Lower edge 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish reflection free
- Rounded edges
- Measuring accuracy according to EC accuracy class II
- Rust-proof
- Hard tempered spring steel



	L mm	H mm	kg
300.0110	300,0	30,0	70
300.0111	500,0	30,0	105
300.0112	1000,0	30,0	245
300.0117	1500,0	30,0	370
300.0118	2000,0	30,0	490

#### Flexible steel ruler

- Upper edge 1/2 mm
- Lower edge 1 mm
- Large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish reflection free
- Rounded edges
- Measuring accuracy according to EC accuracy class II
- Rust-proof
- Hard tempered spring steel



	L mm	H mm	kg
300.0101	150,0	13,0	9
300.0102	200,0	13,0	11
300.0103	250,0	13,0	14
300.0104	300,0	13,0	16
300.0105	500,0	13,0	37

### circumferential tape measure

- for precise measurement of diameter and circumference
- Large decimal scale
- Units engraved
- Scale division in black
- Anti glare matt finish reflection free
- Rounded edges
- Measuring accuracy according to EC accuracy class I
- Stainless steel



	Circumference from mm	Circumference to mm	Ø from mm	Ø to mm	kg
300.0171	60	950	20	300	120
300.0172	940	2200	300	700	140
300.0173	2190	3460	700	1100	160

#### Precision ruler

- mm division on the upper edge
- Chamfer
- Without protective layer
- With hanging hole
- Finely polished and zinc plated
- Steel



	L mm	H mm	S mm	kg
300.0121	300,0	50,0	5,0	186
300.0122	500,0	50,0	5,0	292
300.0123	600,0	50,0	5,0	350
300.0124	800,0	50,0	5,0	460
300.0125	1000,0	50,0	5,0	600

#### Precision straightedge

- For the inspection and the exact working on cylinder heads
- In accordance with DIN 874/1
- Double T profile rail with rear 5 hand slots
- On edge and flat sides examination process
- With hanging hole
- Steel



	L mm	H mm	S mm	kg
152.1090	600,0	30,0	16,0	2,10



### Hard metal scriber in ball-point pen form

- For marking of work pieces
- Straight form
- Hardened and interchangeable hard metal tips
- Pocket clip
- Protection through foldaway needle tip
- Adjustable and lead bow mine
- Metal housing



	L mm	D mm	Replacement tip	g
300.0302	150,0	8,0	300.0303	40

### Precision straightedge

- In accordance with DIN 874/00
- Hand warmth protection
- Test area precise and finely engineered
- Flatness tolerance for highest accuracy
- For controlled and test working in the light gap procedure
- Hardened
- Stainless steel



	L mm	H mm	g
300.0630	50,0	25,0	40
300.0631	75,0	25,0	60
300.0632	100,0	25,0	80
300.0633	125,0	25,0	100
300.0634	150,0	25,0	120
300.0635	200,0	25,0	160
300.0636	300,0	25,0	240
300.0637	400,0	25,0	320
300.0638	500,0	25,0	400
300.0639	600,0	25,0	480

### MARKING GAUGE & SCRIBER

#### Scriber

- For marking of work pieces
- Straight and 70° bent tip
- Knurled handle
- Hardened point
- Burnished
- Special tool steel



	L mm	D mm	g
300.0300	190,0	4,0	10

#### Hard metal scriber

- For marking of work pieces
- Straight form
- With hard metal tip
- Pocket clip
- Hardened point
- Chrome plated
- Special tool steel



	L mm	D mm	g
300.0301	145,0	5,0	60

### Mechanics marking gauge

- Revolving base
- Fine adjustment by means of a fixed adjusting screw
- For simple marking of work pieces
- With hardened scribing iron
- Bar made out of stainless steel
- Prism shaped socket made out of cast iron



	B mm	H mm	T mm	g
300.0627	100,0	300,0	80,0	700
300.0628	400,0	400,0	80,0	750
300.0629	500,0	500,0	80,0	780



### PRECISION BUTTONS

#### Precision inside calipers

- Extra square edged legs
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	g
300.1584	100,0	109,0	40
300.1585	125,0	109,0	40
300.1586	150,0	110,0	50
300.1587	175,0	186,0	100
300.1588	200,0	211,0	100
300.1589	250,0	265,0	200
300.1591	300,0	313,0	250
300.1592	400,0	413,0	300
300.1593	500,0	513,0	400
300.1594	600,0	613,0	500
300.1595	800,0	817,0	1000
300.1596	1000,0	1017,0	1200

#### Precision outside calipers

- Extra square edged legs
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	g
300.1571	100,0	109,0	40
300.1572	125,0	109,0	40
300.1573	150,0	110,0	50
300.1574	175,0	186,0	100
300.1575	200,0	211,0	100
300.1576	250,0	265,0	200
300.1577	300,0	313,0	250
300.1578	400,0	413,0	350
300.1579	500,0	513,0	450
300.1581	600,0	613,0	550
300.1582	800,0	817,0	1150
300.1583	1000,0	1017,0	1400



## DIVIDERS

### Pointed dividers with regulating arc

- Square edged irgs and riveted hinge
- Locking screw
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0416	200,0	150,0	135
300.0417	270,0	200,0	190
300.0418	350,0	250,0	275
300.0419	430,0	300,0	320

### Pointed dividers without regulating arc

- Square edged irgs and riveted hinge
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0412	300,0	150,0	125
300.0413	400,0	200,0	180
300.0414	500,0	250,0	245
300.0415	600,0	300,0	295

### Precision spring gap dividers inside callipers

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0421	144,0	200,0	120
300.0422	200,0	250,0	160
300.0423	245,0	300,0	205
300.0424	300,0	355,0	240

### Precision spring pointed dividers

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0402	138,0	200,0	120
300.0404	190,0	255,0	160
300.0405	235,0	300,0	200
300.0406	280,0	360,0	235

### Precision spring pointed dividers with pencil holder

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0411	210,0	260,0	150

### Precision spring pointed dividers with interchangeable tips

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Interchangeable tips
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	Replacement tip	
300.0429	130,0	190,0	300.0434	120
300.0431	190,0	260,0	300.0434	155
300.0432	240,0	300,0	300.0434	205
300.0433	285,0	355,0	300.0434	245



### Precision spring gryphon dividers outside callipers

- Extra square edged legs
- Through stay spindle and fast clamping nut
- Hardened points
- Ground and finely polished
- Special tool steel



	Radius mm	Length mm	
300.0425	180,0	200,0	135
300.0426	190,0	260,0	185
300.0427	235,0	310,0	225
300.0428	280,0	345,0	260

### Universal marking gauge with stop roller

- Ideal for simple marking of work pieces
- Vernier calliper 1/128"
- Interchangeable tip
- Locking screw
- Measuring bar with mm divisions
- Hardened
- Stainless steel



	Measuring range mm	L mm	Display accuracy mm	Replacement tip	
300.0626	200,0	265,0	0,2	300.0651	200

### Precision beam compass

- In accordance with DIN 866/B
- Interchangeable tips
- Fine adjustment
- Measuring bar with mm divisions
- Position slider with reference marker
- Hardened
- Stainless steel



	Measuring range mm	L mm	Display accuracy mm	Replacement tip	
300.0407	0 - 500	660,0	0,1	300.0410	1,18
300.0408	0 - 1000	1170,0	0,1	300.0410	2,24

## MEASURING EQUIPMENT

### Rod thermometer

- Controls temperature of air streams through air channels
- Controls the water temperature
- With long and narrow measuring instruments
- Scale with °C and °F measurements



	Length mm	Working range °C	Working range °F	
150.1963	210,0	0 - 200	0 - 400	27

### Infrared thermometer

- Laser pistol for non contact temperature measurement
- Ideally suited for the automotive sector, industrial, and construction usage Chemical and foodstuffs industry
- Laser measuring beam with a red measuring point
- Illuminating Display
- LCD Digital display
- Automatic switching off
- Includes 9V block battery
- Sturdy plastic housing

**Application range:** In turning motors, difficult to access places, fluids, under current line directions, in heating appliances, gas and, air-conditioning, coolant systems, brake discs aggressive chemicals and groceries



#### Technical data:

Switchable:	°C / °F
Working range:	-20 °C - 500 °C
Emission factor:	adjust to 0.95
Power output max:	1mW
Power requirement:	9V block battery

150.3040	Infrared thermometer	135



### Photoelectric rev counter

- Portable laser measuring instrument, digital
- For touchless measuring of the rotating speed / number of revolutions
- LED display 18mm
- Automatic back up: last test result / maximum and minimum value
- Laser aim point to focus exactly on the measuring point
- Solid state RPM measurement by reflectors supplied



#### Technical data:

Working range:	2,5 - 99.999 U/min
Measuring distance:	50-500 mm
Resolution:	0.1 RPM up to 999.9, 1 RPM from 1000
Display accuracy:	0,05% +/- 1
Power requirement:	3x 1,5V AAA (not in the delivery)
Dimensions:	185x73x37mm
Working temperature:	0° / +50 °C

455.0130	Photoelectric rev counter	415

### accessories:

455.0131	Reflective tape stripes 200 x 12 mm, pack of 3	1

### Digital tire pressure and thread gauge 0,35 - 6,80 bar

- Precise and repeatable LCD measurement
- For depth measurements
- For tire pressure measurements
- Measurement with acoustic signal
- Pressure measurement range can be switched between bar, kpa and PSI
- Low energy consumption due to automatic shutdown
- Includes batteries, key chain and belt clip



#### Technical data:

Readout:	3.1/2" LCD readout
Operating settings:	0°C - 50°C (32°F - 50°F) < 75% air humidity
Response time:	1 second
Loading gage "Strength":	0-40 mils (0-1000 µm)
Display accuracy:	+/- 4 dgts up 0 to 7,8 mils +/- 10 dgts up 0 to 199 µm +/- (3% + 4 dgts) up 7,9 mils to 40 mils +/- (3% + 10 dgts) up 200 to 1000 µm

	H mm	B mm	T mm	
150.3010	148,0	105,0	42,0	280



	Measuring range bar	Profil depth blade in mm	
100.4060	0,35-6,80	0,0-15,0	90

### Digital tire pressure gauge

- Precise and repeatable LCD measurement
- For tire pressure measurements
- Pressure measurement range can be switched between bar, kpa and PSI
- Low energy consumption due to automatic shutdown
- Self-calibrating
- With valve lighting
- Includes batteries



	Measuring range bar	Length mm	B mm	
100.4055	0,2-10	135,0	55,0	60

### Digital moisture meter

- for fast and precise testing of the moisture content
- Exact measurement of the boiling point possible
- particularly suitable for industrial and construction applications
- Easy to read LCD display
- Automatic switching off
- 4 LR44 1.5V batteries included
- Sturdy plastic housing

**Application range:** Wood, cardboard, building materials, etc.



#### Technical data:

Storage temperature: -10° to +60° C (-4° to 140° F)  
 Operating temperature: 0° C up to +40° C  
 Measuring range humidity: < 85 % RH

	Length mm	Width mm	Height mm	
150.3225	85,0	46,0	16,0	41



### BATTERY TESTER

### Acidimeter for battery fluid

- For the inspection of the acidity of the battery fluid
- Easy to use: Suction, read, release
- Glass cylinder length is 14,5 cm
- With suction bellows
- Acid density can be read directly with a hydrometer



	L mm	
550.1680	280,0	107

### Refractometer - optical tester for battery fluid and antifreeze

- For the quick and accurate testing of acidity in the battery fluid and the antifreeze content
- Can also be used for coolant and windscreen wiper fluid
- Adjustable eye piece with rubber viewing rest
- With automatic temperature compensation (ATC)
- Also suitable in ambient temperatures of less than 10° C
- Reading correction function by means of bimetallic measurement
- High quality design made from aluminium
- Good readability due to defined dividing lines
- Recalibration possible
- Includes calibration screwdriver and pipette
- In practical plastic case



#### Technical data:

Battery acid: acid density (measuring range 1.1 to 1.4 kg/l)  
 Coolant water Propylene: temperature resistance (measuring range -5° to -50° C)  
 Coolant water Ethylene: temperature resistance (measuring range -5° to -50° C)  
 Windscreen water: antifreeze (measuring range -10° to -40° C)

	D mm	L mm	Glass face mm	
550.1290	40,0	149,0	40 x 13	630

### Refractometer - optical tester for battery fluid, antifreeze and AdBlue® additives

- For the quick and accurate testing of the acidity of the battery fluid, the antifreeze content and the AdBlue® additives
- Can also be used for coolant and windscreen wiper fluid
- Adjustable eye piece with rubber viewing rest
- With automatic temperature compensation (ATC)
- Also suitable in ambient temperatures of less than 10° C
- Reading correction function by means of bimetallic measurement
- High quality design made from aluminium
- Good readability due to defined dividing lines
- Recalibration possible
- Includes calibration screwdriver and pipette
- In practical plastic case

\*AdBlue® is a registered trademark of the Verband der Automobilindustrie e.V (VDA).



#### Technical data:

Battery acid: acid density (measuring range 1.1 to 1.4 kg/l)  
 Coolant water Propylene: temperature resistance (measuring range -5° to -50° C)  
 Coolant water Ethylene: temperature resistance (measuring range -5° to -50° C)  
 Windscreen water: antifreeze (measuring range -10° to -40° C)  
 For AdBlue® additives (VRA): urea content (measuring range 5% - 40%)

	D mm	L mm	Glass face mm	
550.1285	40,0	160,0	40 x 13	480

## FROST PROTECTION TESTER

### Antifreeze tester

- For quick and precise testing of antifreeze
- For ethylene glycol/water mixture in the cooling circuit for passenger cars, commercial vehicles etc.
- Also allows for a visual inspection for rust and other impurities
- Also suitable in ambient temperatures of less than 10°C
- Easy to read with the pendulum display (up to -43°C/-45°F)
- High-quality design
- Plastic housing
- Good readability



		9	
550.1241	Antifreeze tester	120	

## MEASURING BEAKER, JUG AND FUNNEL

### Measuring cup set

- Configuration of practical measuring cup sizes
- For a wide range of uses
- Transparent
- Break-resistant
- Red primed scale division
- Resistant to oil, petrol and acid
- With handle and spout
- PE (polyethylene)

Scales: L/ml, cups, Oz, quart



		9	
150.9205	3 pcs 250 - 500 - 1.000 ml	227	



### Measuring cup with flexible outlet spout

- For a wide range of uses
- Flexible, funnel-shaped spout allows for a clean drainage
- Suitable for oil, chemicals, petrol, acid, anti-freeze fluid and non-acidic fluids
- Break-resistant
- Steady
- With a graduation scale
- With practical carry handle
- Special plastic



		Spout		9	
150.9234	1	150.9236	150		
150.9235	2	150.9236	250		
150.9001	3	150.9003	310		
150.9002	5	150.9003	440		

### Single-use colour mixer with cover

- Single-use colour mixer for mixing all types of paint
- Solvent resistant plastic
- Cover for optimal storage
- With mix scale
- Also suitable for water-based paints



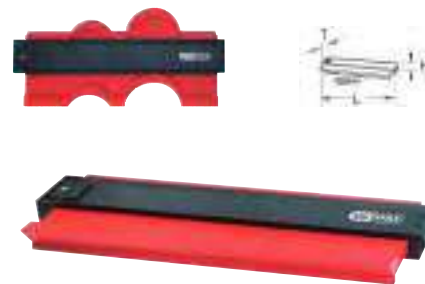
	Material	Colour code	Content	Content	9	
500.8056	polypropylene	transparent	400	25	420	
500.8057	polypropylene	transparent	650	25	620	
500.8058	polypropylene	transparent	1300	25	1100	
500.8059	polypropylene	transparent	2240	25	1700	

## GENERAL TOOLS

### Contour gauge

- For quickly removing and transferring bodywork contours
- Precise and accurate work results
- Easy handling
- with 250 mm/10" long scale/divided into mm/inches
- 45 mm insertion depth
- With 4 magnets on the reverse
- Distortion-resistant design
- Plastic

Application range: Body work/Model construction/Joiner/Tiler



	H mm	T mm	L mm	9	
140.2147	20,0	100,0	280,0	421	

### Gap wedge

- For adjusting when installing bodywork parts
- Original size can be decreased with gauge beforehand by an undamaged side
- Also suitable for rapid comparison measurement
- With measuring scale
- With handle
- Plastic



	Length mm	Measuring range mm	9	
150.1569	155,0	0,5 - 120,0	25	





*Innovation is  
our mission!*



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## INTERNAL EXTRACTORS

### Precision internal extractor

- Centering shaft
- For the removal of secure bearings and bushes
- Special tool steel



	A mm	M	mm	mm	T mm	max N·m	kg
660.0101	5-7	M10	10	13	30,0	3	50
660.0102	6-8	M10	10	13	30,0	3	50
660.0103	7-9	M10	10	13	30,0	7	50
660.0104	8-10	M10	10	13	30,0	7	50
660.0105	9-12	M10	10	13	30,0	12	50
660.0106	10-13	M10	10	13	30,0	15	50
660.0107	12-15	M10	10	13	30,0	15	50
660.0108	13-17	M10	10	13	50,0	24	70
660.0109	14-19	M10	10	13	60,0	28	90
660.0111	15-20	M10	10	13	60,0	28	90
660.0112	16-21	M10	10	13	60,0	32	90
660.0113	18-23	M10	10	17	60,0	40	110
660.0114	20-25	M10	10	17	60,0	40	110
660.0115	22-27	M10	10	17	60,0	40	110
660.0116	25-30	M10	10	17	60,0	40	120
660.0117	25-40	M10	13	19	45,0	45	260
660.0118	28-35	M10	10	17	60,0	45	280
660.0119	30-37	M10	17	22	70,0	45	280
660.0121	35-42	M10	17	22	70,0	45	280
660.0122	38-45	M10	17	22	70,0	45	290
660.0123	40-47	M10	17	22	70,0	45	300
660.0124	43-50	M10	17	22	70,0	45	310
660.0125	40-75	G 3/8"	17	27	100,0	45	760
660.0126	45-55	G 3/8"	19	27	100,0	45	650
660.0127	50-60	G 3/8"	19	27	100,0	45	680
660.0128	70-115	G 3/8"	19	27	130,0	45	1400

### Double ended support for internal extractor

- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	max N·m	mm	Internal extractors	mm	kg
660.0601	35-75	30	12	M10	M16x1,5 x 136	0,70
660.0602	60-130	60	19	M10xG3/8"	M24x1,5 x 160	1,60
660.0603	60-130	60	19	G3/8"	M24x1,5 x 160	1,50
660.0605	55-205	100	22	G3/8"	G1/2"x14g x 210	3,80

### Slide hammer

- Flexible removal tool
- Internal thread for holding various pullers, bolts and hooks
- Ideal for removing ball bearings, wheel hubs etc.
- Ideal for limited access areas
- Special tool steel



	L1 mm	L2 mm	D1 mm	D2 mm	mm	kg
660.0501	170	40,0	10,0	30,0	M10	0,40
660.0502	170	80,0	10,0	50,0	M10	0,90
660.0503	250	100,0	16,0	45,0	M10	1,30
660.0504	250	100,0	16,0	45,0	M10+G3/8"	1,40
660.0505	250	100,0	16,0	60,0	G3/8"	2,60

## INTERNAL EXTRACTORS SETS

### Precision internal extractor set ø 10,0 - 37,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case
- For pulling/hitting the pilot bearing



	kg
660.0014	2,42

consists of:

	kg
660.0106	50
660.0109	90
660.0114	110
660.0116	120
660.0119	280
660.0601	700
660.0501	400



### Precision internal extractor set ø 10,0 - 45,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	kg
660.0011	2,36

consists of:

	kg
660.0106	50
660.0109	90
660.0114	110
660.0116	120
660.0119	280
660.0122	290
660.0601	700

### Precision internal extractor set ø 10,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	kg
660.0012	4,92

consists of:

	kg
660.0106	50
660.0109	90
660.0114	110
660.0116	120
660.0119	280
660.0122	290
660.0125	760
660.0601	700
660.0602	1600

### Precision internal extractor set $\phi$ 15,0 - 75,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



660.0015	5 pcs	Precision internal extractor set $\phi$ 15,0 - 75,0 mm	3,60

consists of:

660.0111	Precision internal extractor, 15-20mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0117	Precision internal extractor, 25-40mm	260	
660.0125	Precision internal extractor, 40-75mm	760	
660.0602	Double ended support for internal extractor, 60-130mm, M10xG3/8"	1600	

### Precision internal extractor set $\phi$ 10,0 - 115,0 mm

- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



660.0013	10 pcs	Precision internal extractor set $\phi$ 10,0 - 115,0 mm	9,72

consists of:

660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0128	Precision internal extractor, 70-115mm	1400	
660.0605	Double ended support for internal extractor, 55-205mm	3800	

## INTERNAL EXTRACTORS & PULLER SETS

### Precision internal extractor and puller set 10 - 45 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



660.0022	10 pcs	Precision internal extractor and puller set 10 - 45 mm	5,58

consists of:

660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0601	Double ended support for internal extractor, 35-75mm	700	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, $\phi$ 5-32mm	1400	

### Precision internal extractor and puller set 10 - 75 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



660.0023	13 pcs	Precision internal extractor and puller set 10 - 75 mm	11,60

consists of:

660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0603	Double ended support for internal extractor, 60-130mm, G3/8"	1500	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.0103	Universal 2 arm puller, 50-160mm, legs 150mm	3000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, $\phi$ 5-32mm	1400	

### Precision internal extractor and puller set 10 - 115 mm

- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Centering shaft
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



660.0021	14 pcs	Precision internal extractor and puller set 10 - 115 mm	15,63

consists of:

660.0106	Precision internal extractor, 10-13mm	50	
660.0109	Precision internal extractor, 14-19mm	90	
660.0114	Precision internal extractor, 20-25mm	110	
660.0116	Precision internal extractor, 25-30mm	120	
660.0119	Precision internal extractor, 30-37mm	280	
660.0122	Precision internal extractor, 38-45mm	290	
660.0125	Precision internal extractor, 40-75mm	760	
660.0128	Precision internal extractor, 70-115mm	1400	
660.0601	Double ended support for internal extractor, 35-75mm	700	
660.0605	Double ended support for internal extractor, 55-205mm	3800	
620.0101	Universal 2 arm puller, 20-90mm, legs 100mm	1000	
620.0103	Universal 2 arm puller, 50-160mm, legs 150mm	3000	
620.3101	Pole clamp 2-jaw puller, 10-60mm	160	
670.0221	Draw off lining, $\phi$ 5-32mm	1400	



## BALL BEARING EXTRACTORS

### Universal ball bearing extractor set

- Less risk of slippage due to automatically closing pulling arm
- 13 puller variants possible
- Extremely robust spindle with inductively hardened thread
- Excellent power transfer
- Special tool steel
- In durable steel storage case



				kg
650.0010	37 pcs	Universal ball bearing extractor set		8,00

consists of:

				kg
650.0011	Ball bearing extractor without legs, 26mm			300
650.0012	Ball bearing extractor without legs, 34mm			400
650.0013	Ball bearing extractor without legs, 41mm			500
650.0014	Ball bearing extractor without legs, 49mm			900
650.0015	Ball bearing extractor without legs, 63mm			1200
655.0011	Adaptor legs for ball bearing extractor, 4 pcs ISO 6000			100
655.0012	Adaptor legs for ball bearing extractor, 4 pcs ISO 6004			100
655.0013	Adaptor legs for ball bearing extractor, 4 pcs ISO 6006			200
655.0014	Adaptor legs for ball bearing extractor, 4 pcs ISO 6007			200
655.0015	Adaptor legs for ball bearing extractor, 4 pcs ISO 6009			300
655.0016	Adaptor legs for ball bearing extractor, 4 pcs ISO 6011			400
655.0017	Adaptor legs for ball bearing extractor, 4 pcs ISO 6208			600
655.0018	Adaptor legs for ball bearing extractor, 4 pcs ISO 6209			800

### Ball bearing extractor without legs

- Consists of adaptor and spindle
- For ball bearings in waves or housings
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	Ø mm	mm	mm	kg
650.0011	26	M10 x 150	12	0,30
650.0012	34	M12 x 199	14	0,40
650.0013	41	M14x1,5 x 200	17	0,50
650.0014	49	M18x1,5 x 240	19	0,90
650.0015	63	G1/2"x14g x 230	22	1,20

### Adaptor legs for ball bearing extractor, 4 pcs

- Can be used with adaptor legs and spindles available separately
- For ball bearings in waves or housings
- Special tool steel



	L mm	Suitable for ISO bearing	kg
655.0011	120	6000, 6001, 6002, 6003, 6200	100
655.0012	120	6004, 6005, 6201, 6202	100
655.0013	130	6006, 6203, 6300	200
655.0014	130	6007, 6008, 6204, 6205, 6301, 6302	200
655.0015	150	6009, 6010, 6206, 6303, 6304	300
655.0016	150	6011, 6012, 6207, 6305	400
655.0017	190	6208, 6306	600
655.0018	190	6209- 6212, 6307- 6310, 6403- 6406, 6410	800

### Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influences uniformly on the interior and outside ring
- Special tool steel
- In durable plastic storage case
- Suited for ISO bearings: 6004-6010, 6201-6206, 6300-6304

Ideal for use in SKF, FAG, Timken, NTN bearings etc.  
Adaptor diameter: 5.5 - 6 - 8 mm



				kg
700.1500	21 pcs	Universal ball bearing puller set		0,82

consists of:

			kg
700.1501	Extension set long, 2 pcs, for 700.1500		110
700.1502	Centre point, for 700.1500		30
700.1503	Tie rod set, 2 pcs, for 700.1500		60
700.1504	Ball head bearing adaptor set, 2 pcs, Ø 5.5 mm		24
700.1505	Ball head bearing adaptor set, 2 pcs, Ø 6.0 mm		24
700.1506	Ball head bearing adaptor set, 2 pcs, Ø 8.0 mm		26
700.1507	Extension set short, 2 pcs, for 700.1500		30
700.1508	U disc for tie rod, pack of 4, for 700.1500		10
700.1509	Spindle, for 700.1500		164
700.1510	Traverse, for 700.1500		202
700.1511	Nut set for tie rod, 2 pcs, for 700.1500		10

### Universal ball bearing puller set

- For simple and fast removing of ball bearings without removal of the shaft
- Pulling power influences uniformly on the interior and outside ring
- Special tool steel
- In durable plastic storage case
- Suited for ISO bearings: 6207-6211, 6205-6208, 6303-6305

Ideal for use in SKF, FAG, Timken, NTN bearings etc.  
Adaptor diameter: 11 - 12.5 - 15 mm



				kg
700.1600	21 pcs	Universal ball bearing puller set		1,69

consists of:

			kg
700.1601	Extension set long, 2 pcs, for 700.1600		204
700.1602	Centre point, for 700.1600		50
700.1603	Tie rod set, 2 pcs, for 700.1600		178
700.1604	Ball head bearing adaptor set, 2 pcs, Ø 11.0 mm		88
700.1605	Ball head bearing adaptor set, 2 pcs, Ø 12.5 mm		96
700.1606	Ball head bearing adaptor set, 2 pcs, Ø 15.0 mm		110
700.1607	Extension set short, 2 pcs, for 700.1600		88
700.1608	U disc for tie rod, pack of 4, for 700.1600		10
700.1609	Spindle, for 700.1600		130
700.1610	Traverse, for 700.1600		345
700.1611	Nut set for tie rod, 2 pcs		10

## BEARING AND BUSH DRIVER

### Brass and aluminium punch

- For extracting bearing, bolts and bushes etc.
- Rimmed handle for better control
- Brass / Aluminium



	Material	Ø mm	Length mm	kg
156.0415	brass	20,0	300,0	1,13
156.0416	aluminium	30,0	300,0	1,89





### Bearing punch set Ø 10.0 - 14.0 mm

- In durable plastic storage case



156.0440	10 pcs	Bearing punch set Ø 10.0 - 14.0 mm	240

#### consists of:

156.0436	Punch holder without impact, with hand protection	100
156.0441	Polyamide punch adaptor set, 2 pcs, Ø 10mm	10
156.0442	Polyamide punch adaptor set, 2 pcs, Ø 12mm	10
156.0443	Polyamide punch adaptor set, 2 pcs, Ø 14mm	10
156.0449	Aluminium punch adaptor set, 2 pcs, Ø 10mm	10
156.0450	Aluminium punch adaptor set, 2 pcs, Ø 12mm	10
156.0451	Aluminium punch adaptor set, 2 pcs, Ø 14mm	20
156.0457	Brass punch adaptor set, 2 pcs, Ø 10mm	20
156.0458	Brass punch adaptor set, 2 pcs, Ø 12mm	20
156.0459	Brass punch adaptor set, 2 pcs, Ø 14mm	50

### Bearing punch set Ø 25.0 mm

- In durable plastic storage case



156.0425	7 pcs	Bearing punch set Ø 25.0 mm	640

#### consists of:

156.0426	Punch holder without impact	360
156.0447	Polyamide punch adaptor set, 2 pcs, Ø 25mm	20
156.0455	Aluminium punch adaptor set, 2 pcs, Ø 25mm	50
156.0463	Brass punch adaptor set, 2 pcs, Ø 25mm	150

### Universal bearing and bush driver set

- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 18.0 - 65.0 mm
- Pressure plates are for the two driving spindles
- Special tool steel
- In durable plastic storage case



700.1350	51 pcs	Universal bearing and bush driver set	8,00

#### consists of:

700.1348	Reception adaptor, 45mm	500
700.1349	Impact drive knurled grip, 220mm	42
700.1351	Pressure plate, 18mm	12
700.1352	Pressure plate, 19mm	14
700.1353	Pressure plate, 20mm	16
700.1354	Pressure plate, 21mm	20
700.1355	Pressure plate, 22mm	22
700.1356	Pressure plate, 23mm	27
700.1357	Pressure plate, 24mm	30
700.1358	Pressure plate, 25mm	34
700.1359	Pressure plate, 26mm	38
700.1360	Pressure plate, 27mm	43
700.1361	Pressure plate, 28mm	47
700.1362	Pressure plate, 29mm	50
700.1363	Pressure plate, 30mm	53
700.1364	Pressure plate, 31mm	59
700.1365	Pressure plate, 32mm	65
700.1366	Pressure plate, 33mm	68
700.1367	Pressure plate, 34mm	72
700.1368	Pressure plate, 35mm	77
700.1369	Pressure plate, 36mm	82
700.1370	Pressure plate, 37mm	89
700.1371	Pressure plate, 38mm	94
700.1372	Pressure plate, 39mm	97
700.1373	Pressure plate, 40mm	105
700.1374	Pressure plate, 41mm	111
700.1375	Pressure plate, 42mm	119
700.1376	Pressure plate, 43mm	125
700.1377	Pressure plate, 44mm	132
700.1378	Pressure plate, 45mm	138
700.1379	Pressure plate, 46mm	144
700.1380	Pressure plate, 47mm	153
700.1381	Pressure plate, 48mm	159
700.1382	Pressure plate, 49mm	165
700.1383	Pressure plate, 50mm	172
700.1384	Pressure plate, 51mm	181
700.1385	Pressure plate, 52mm	188
700.1386	Pressure plate, 53mm	196
700.1387	Pressure plate, 54mm	205
700.1388	Pressure plate, 55mm	213
700.1389	Pressure plate, 56mm	221
700.1390	Pressure plate, 57mm	231
700.1391	Pressure plate, 58mm	238
700.1392	Pressure plate, 59mm	247
700.1393	Pressure plate, 60mm	258
700.1394	Pressure plate, 61mm	266
700.1395	Pressure plate, 62mm	276
700.1396	Pressure plate, 63mm	284
700.1397	Pressure plate, 64mm	294
700.1398	Pressure plate, 65mm	305
700.1399	Support plate, 74mm	500

### Universal bearing and bush driver set

- for gentle driving of bearing and radial sealing rings
- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 70.0 - 150.0 mm
- Pressure plates are for the two driving spindles
- Special tool steel
- In durable plastic storage case



150.9710	21 pcs	Universal bearing and bush driver set	19,13

#### consists of:

150.9712	Adaptor for Hydraulic thrust bolt, 45,5 mm	44
150.9713	Retaining adapter, 55 mm	217
150.9714	Repellent spike with knurling, 273,0 mm	1077
150.9715	Pressure plate, 70 mm	353
150.9716	Pressure plate, 75 mm	406
150.9717	Pressure plate, 80 mm	465
150.9718	Pressure plate, 85 mm	524
150.9719	Pressure plate, 90 mm	593
150.9720	Pressure plate, 95 mm	659
150.9721	Pressure plate, 100 mm	733
150.9722	Pressure plate, 105 mm	812
150.9723	Pressure plate, 110 mm	893
150.9724	Pressure plate, 115 mm	977
150.9725	Pressure plate, 120 mm	1065
150.9726	Pressure plate, 125 mm	1157
150.9727	Pressure plate, 130 mm	1255
150.9728	Pressure plate, 135 mm	1349
150.9729	Pressure plate, 140 mm	1457
150.9730	Pressure plate, 145 mm	1563
150.9731	Pressure plate, 150 mm	1676
151.2603	Hexagon key wrench phosphate finish, short, 3mm	10

### POLE TERMINAL EXTRACTOR

#### Universal pole terminal and wiper arm puller 2-arm pattern

- 2-jaw
- ideally suited for removing the battery terminal and wiper arms
- Locking handle
- With conical tension screw for proportional tension force distribution
- Self-centring jaw puller
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	D mm	E mm	F mm	G mm	
700.1190	15	32	1,2 M8 x 50	2,5	9	10,5	11	0,30

### Pole clamp 2-jaw puller

- 2-jaw
- Ideally suited for removing the battery pole terminal
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Screwed
- Sturdy hook
- Special tool steel



	A mm	B mm	max. t	mm	D mm	E mm	F mm	G mm	mm	mm
620.3101	10-60	40	1	M8x85	10	1	5	12	8	160
620.3102	10-70	44/74	1,2	M8x85	10	1	5	12	8	200
620.3103	10-90	84	2	M10x105	12	1,8	10	20	12	340

### 3-jaw pole terminal extractor with t-bar

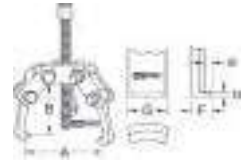
- 3-jaw
- Ideally suited for removing the battery pole terminal
- Locking handle
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Screwed
- Sturdy hook
- Special tool steel



	A mm	B mm	max. t	mm	D mm	E mm	F mm	G mm	mm	mm
700.1167	10-60	40	0,75	M10 x 60	2,3	5,5	12,3	10,0	181	
700.1168	10-60	60	1,0	M10 x 80	3,0	5,5	12,5	10,0	215	
700.1169	10-70	80	1,0	M10 x 100	3,0	8,0	15,2	14,1	323	

### Pole clamp 3 arm puller

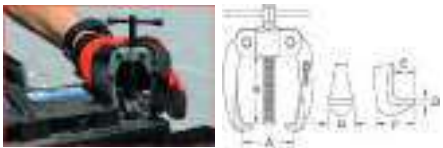
- Uniform load distribution and centered tightening
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max. t	mm	D mm	E mm	F mm	G mm	mm	mm
630.3101	10-60	40	1,2	M8 x 85	10	1	5	12	8	0,20
630.3102	10-70	44/74	1,3	M8 x 85	10	1	5	12	8	0,30
630.3103	10-90	84	2,5	M10 x 105	12	1,8	10	20	12	0,50

### Universal pole terminal and wiper arm puller 2-arm pattern

- 2-jaw
- ideally suited for removing the battery terminal and wiper arms
- Locking handle
- Extremely robust spindle with inductively hardened thread
- Screwed
- Sturdy hook
- Special tool steel



	A mm	B mm	max. t	mm	D mm	E mm	F mm	G mm	mm	mm
700.1164	10-60	40	0,5	M10 x 60	2,6	5,5	12,8	10,0	145	
700.1165	10-60	60	0,5	M10 x 80	3,7	5,8	12,4	10,1	173	
700.1166	10-70	80	0,5	M10 x 100	4,0	9,2	16,8	14,0	245	

### Universal windscreen wiper arm puller 2-jaw with t-bar

- Heavy execution
- 2-jaw
- Ideally suited to the protective removal of windscreen wiper arms
- Locking handle
- With narrow socket for tight spaces
- With conical self-tensioning clamping screws for proportional tension force distribution
- Self-centring jaw puller
- Extremely robust spindle with inductively hardened thread
- Special tool steel



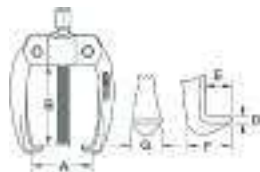
	A mm	B mm	max. t	mm	D mm	E mm	F mm	G mm	mm	mm
700.1179	45	37	1,2	M10 x 105	5	8	16	8	284	



**UNIVERSAL 2 ARM PULLER**

**Universal 2 arm puller**

- Robust spindle with hexagon drive
- 640.4103 with locking handle
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	270
620.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	300
620.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	610

**Universal 2 arm puller**

- for the removal of small parts
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Pulling hooks are automatically pressed against the part to be pulled off
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.0073	10-50	40	1	M8x85	10	1,5	6,5	15	8,5	200
620.0074	10-50	40	1	M8x85	10	2,2	7	12	12	200



**Universal windscreen wiper arm puller set 2/4-jaws**

- 2/4-jaws
- each with 2 extra-slim size and pairs of arms with varying width
- Ideally suited to removal of windscreen wiper arms
- Pulling spindle for damage-free support to the rear wiper blades
- Option of working with wide or narrow arms
- Ball bearing mounted centring point
- With narrow socket for tight spaces
- Prevents damage to the bodywork and the windscreen wiper arm
- External drive hexagonal socket 13.0 mm
- Special tool steel



			G kg
700.1242	6 pcs	Universal windscreen wiper arm puller set 2/4-jaws	690

consists of:

	X	G kg
700.1245	1 Spindle M12 x 90 mm for 700.1242	150
700.1246	1 Traverse arm, 6 point	100
700.1247	2 Puller arm – slim type	100
700.1248	2 Puller arm – wide type	100

**Universal 2 arm puller**

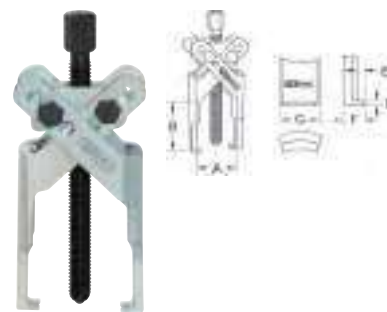
- Legs are adjustable in the working depth
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.5201	6-100	70/85	1,5	M10 x 105	12	2,5	4,5	8,5	23	0,40
620.5202	10-140	85/120	3,5	M14x1,5 x 130	17	3,5	5	10	31	0,90
620.5203	15-140	125/155	4,5	M14x1,5 x 200	17	3,5	5	10	31	1,10

**Universal 2 arm puller set with narrow legs**

- Legs are adjustable in the working depth
- Ideal for confined spaces
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.5301	6-100	70/85	1	M10 x 105	12	2,5	4,5	8,5	11	0,40
620.5302	15-140	125/155	2	M14x1,5 x 200	17	3,5	5	11	12	1,00

**Basic universal 2 arm puller**

- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0,68
620.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1,14
620.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2,00
620.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	3,50

**Universal 2 arm puller**

- Legs double ended usable
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	key mm	D mm	E mm	F mm	G mm	G kg	
620.3001	20-150	85	3,5	M14x1,5 x 130	17	2	9	21	12	0,90
620.3002	40-220	130	4	M18x1,5 x 240	19	4	11	25	21	2,20

### Universal 2 arm puller

- Legs are adjustable in the working depth
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg
620.3401	20-170	130	3,5	M14x1,5 x 130	17	2	11	23	1,00
620.3402	20-230	200	4	M18x1,5 x 240	19	4,5	16	33	2,30

### Universal bearing ring puller 2 arm with clamping yoke

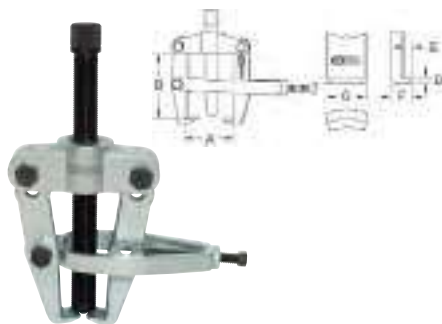
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Pressure peak centers itself optimally in the cone of the hub boring
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg	
700.1260	90	100	1,2	M16 x 150	17	6,5	8,5	22,5	27,1	1,76

### Universal 2 arm puller set with clamping yoke

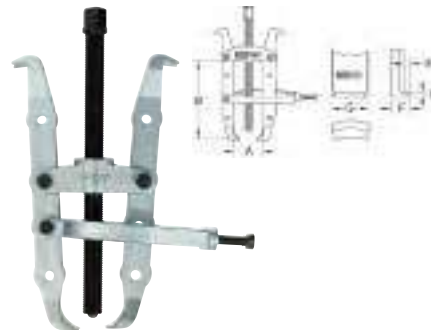
- Shearing action increases the pressing power when removing
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.5401	80	90	5	M18 x 1,5 x 130	19	3	12	26	24	1,70
620.5402	100	110	6	G1/2"x14g x 210	22	3	14	25	24	2,60
620.5403	150	150	8	G1/2"x14g x 210	22	3	14	25	24	3,40

### Universal 2 arm puller set with clamping yoke

- Legs are adjustable in the working depth
- Legs double ended usable
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Ideally suited for flush sitting bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.5501	110	170	5	M18x1,5 x 240	19	3	12	25	24	2,30
620.5502	150	270	6	G1/2"x14g x 270	22	3	14	25	24	4,10
620.5503	150	330	8	G1/2"x14g x 270	22	3	14	25	24	4,50

### Universal 2 arm puller set with hardened steel legs

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg
620.1301	15-80	100	70-130	3,5	M14x1,5 x 130	17	3	12	22	0,90
620.1302	15-120	100	80-170	3,5	M14x1,5 x 130	17	3	12	22	1,00
620.1303	20-160	150	110-210	6	G1/2"x14g x 210	22	4	16	30	2,70
620.1304	20-200	150	120-250	6	G1/2"x14g x 210	27	4	16	30	3,00
620.1305	40-250	200	170-300	8	G3/4"x14g x 280	27	6,5	23	43	6,50
620.1306	40-350	200	190-400	8	G3/4"x14g x 280	27	6,5	23	43	7,60



### Universal 2 arm puller

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4" / G1"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg
620.0101	20-90	100	70-130	4,5	M14x1,5 x 140	17	3	13	25	1,00
620.0102	25-130	100	80-180	4,5	M14x1,5 x 140	17	3	13	25	1,20
620.0103	50-150	150	105-220	6,5	G1/2"x14g x 210	22	4	16	35	3,00
620.0104	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	3,30
620.0105	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	7,40
620.0106	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	8,50
620.0107	110-520	200	195-600	13	G3/4"x14g x 280	27	5	25	54	13,00
620.0108	170-640	225	250-720	18	G1"x11g x 310	36	10	33	55	23,70

### Universal 2 arm puller

- Legs are adjustable in the working depth
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel

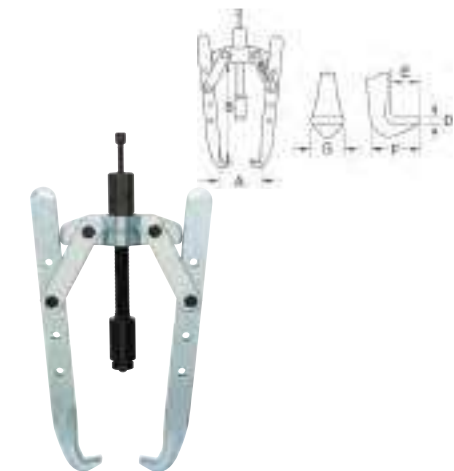


	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.3601	18-100	85	2,5	M10 x 105	12	2	10	20	14	0,40
620.3602	20-200	150	3,5	M14x1,5 x 130	17	3	14	25	18	1,20
620.3603	35-250	220	4	M18x1,5 x 240	19	4	20	35	25	2,80
620.3604	50-300	250	6	G1/2"x14g x 270	22	5	25	48	30	5,40
620.3605	50-350	350	6	G1/2"x14g x 270	22	5	25	48	30	6,10
620.3606	50-400	400	6	G1/2"x14g x 270	22	5	25	48	30	6,40
620.3607	50-450	450	6	G1/2"x14g x 270	22	5	25	48	30	6,90
620.3608	50-500	500	6	G1/2"x14g x 270	22	5	25	48	30	7,00
620.3609	50-500	650	6	G1/2"x14g x 270	22	5	25	48	30	8,40
620.3610	50-500	1000	6	G1/2"x14g x 270	22	5	25	48	30	11,00



**Hydraulic universal 2 arm puller**

- Legs are adjustable in the working depth
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A	B	C	max	Hydraulic	D	E	F	G	Kg
	mm	mm	mm	t	spindle	mm	mm	mm	mm	
620.3801	50-300	175	12	615.0002	32	5	25	48	30	5,70
620.3802	50-350	275	12	615.0002	32	5	25	48	30	6,40
620.3803	50-400	325	12	615.0002	32	5	25	48	30	6,70
620.3804	50-450	375	12	615.0002	32	5	25	48	30	7,20
620.3805	50-500	425	12	615.0002	32	5	25	48	30	7,30
620.3806	50-500	575	12	615.0002	32	5	25	48	30	8,70

**Universal puller 2 and 3 arm**

- Legs double ended usable
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	max	mm	D	E	F	G	Kg	
	mm	mm	t	mm	mm	mm	mm	mm		
700.1120	70	75	1,2	3/8"x24g x 120	13	3,2	8,4	20	8,4	0,96
700.1130	120	150	1,2	M14x1,25 x 175	16	7,2	7	17,8	7,0	1,83

**Universal 2 arm puller set with extended legs**

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	Hydraulic	D	E	F	G	Kg	
	mm	mm	mm	t	spindle	mm	mm	mm	mm		
620.0501	20-90	200	70-130	4,5	M14x1,5 x 140	17	3	13	25	20	1,50
620.0502	25-130	200	80-180	4,5	M14x1,5 x 140	17	3	13	25	20	1,70
620.0503	50-160	300	105-220	6,5	G1/2"x14g x 210	22	4	16	35	25	4,00
620.0504	80-200	300	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	4,30
620.0505	80-250	300	160-330	11	G3/4"x14g x 280	27	5	25	54	35	9,20
620.0506	80-350	300	160-350	11	G3/4"x14g x 280	27	5	25	54	35	10,30
620.0507	110-520	300	195-600	13	G3/4"x14g x 280	27	5	25	54	35	14,80
620.0508	80-250	400	160-330	11	G3/4"x14g x 280	27	5	25	54	35	10,50
620.0509	80-350	400	160-420	11	G3/4"x14g x 280	27	5	25	54	35	11,60
620.0510	110-520	400	195-600	13	G3/4"x14g x 280	27	5	25	54	35	16,10
620.0511	80-250	500	160-330	11	G3/4"x14g x 280	27	5	25	54	35	11,90
620.0512	80-350	500	160-420	11	G3/4"x14g x 280	27	5	25	54	35	13,00
620.0513	110-520	500	195-600	13	G3/4"x14g x 280	27	5	25	54	35	17,50

**Universal 2 + 3 arm puller**

- Legs double ended usable
- Through reversing the arms internal and external applications are possible
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	Hydraulic	D	E	F	G	Kg	
	mm	mm	mm	t	spindle	mm	mm	mm	mm		
620.0301	50-160	145	105-220	12	615.0002	32	4	16	35	25	3,40
620.0302	50-200	145	120-270	12	615.0002	32	4	16	35	25	3,80
620.0303	80-250	125	160-330	12	615.0003	36	5	25	54	35	8,00
620.0304	80-350	125	160-420	12	615.0003	36	5	25	54	35	9,00
620.0305	110-520	125	195-600	12	615.0003	36	5	25	54	35	13,50
620.0306	170-640	125	250-720	12	615.0003	36	5	25	54	35	21,00
620.0307	170-640	210	250-720	15	615.0004	41	10	33	55	50	27,00

**Hydraulic universal 2 arm puller**

- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Includes hydraulic thrust spindle
- Lower power usage
- Special tool steel



	A	B	C	max	Hydraulic	D	E	F	G	Kg	
	mm	mm	mm	t	spindle	mm	mm	mm	mm		
620.0701	50-160	225	105-220	12	615.0002	13	4	16	35	25	3,90
620.0702	50-200	225	120-270	12	615.0002	13	4	16	35	25	4,80
620.0703	80-250	225	160-330	12	615.0002	13	5	25	54	35	9,80
620.0704	80-350	225	160-420	12	615.0002	13	5	25	54	35	10,80
620.0705	110-520	225	195-600	12	615.0002	13	5	25	54	35	15,30
620.0706	80-250	325	160-330	12	615.0002	13	5	25	54	35	11,10
620.0707	80-350	325	160-420	12	615.0002	13	5	25	54	35	12,10
620.0708	110-520	325	195-600	12	615.0002	13	5	25	54	35	16,60
620.0709	80-250	425	160-330	12	615.0002	13	5	25	54	35	12,50
620.0710	80-350	425	160-420	12	615.0002	13	5	25	54	35	13,50
620.0711	110-520	425	195-600	12	615.0002	13	5	25	54	35	18,00

	A	B	C	max	mm	D	E	F	G	Kg	
	mm	mm	mm	t	mm	mm	mm	mm	mm		
640.4203	60	65	90	2,0	G3/8"x1,06p x 110	13	3	10	18	11	0,47
640.4204	90	100	130	5,0	G3/16"x2,0p x 190	17	4	15,5	29	17	1,60
640.4205	165	170	170	7,0	G3/4"x2,0p x 285	22	4	15,5	29	17	3,20



### Quick release universal 2 arm puller

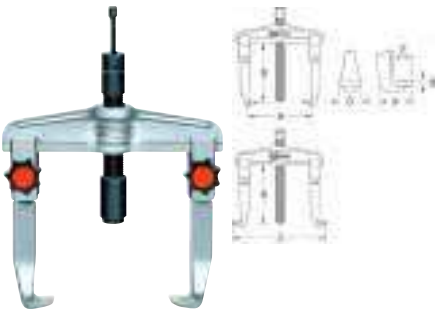
- Quick release function
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2" / G3/4"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.1701	20-90	100	70-130	4,5	M14x1,5 x 130	17	3	13	25	20	1,00
620.1702	25-130	100	80-180	4,5	M14x1,5 x 130	17	3	13	25	20	1,20
620.1703	50-160	150	108-220	6,5	G1/2"x14g x 210	22	4	16	35	25	3,00
620.1704	60-200	150	120-270	6,5	G1/2"x14g x 210	22	4	16	35	25	3,30
620.1705	80-250	200	160-330	11	G3/4"x14g x 280	27	5	25	54	35	7,40
620.1706	80-350	200	160-420	11	G3/4"x14g x 280	27	5	25	54	35	8,50

### Hydraulic quick release universal 2 arm puller

- Quick release function
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.1901	50-160	145	105-220	12	615.0003	32	4	16	35	25	3,40
620.1902	50-200	145	120-270	12	615.0003	32	4	16	35	25	3,80
620.1903	80-250	125	160-330	12	615.0004	32	5	25	54	35	8,00
620.1904	80-350	125	160-420	12	615.0004	32	5	25	54	35	9,00



### Hydraulic quick release universal 2 arm puller with extended legs

- Quick release function
- Long execution
- even load distribution and centred pull-off
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Lower power usage
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.0075	80-250	225	160-330	12	615.0003	13	5	25	54	35	9,80
620.0076	80-250	325	160-330	12	615.0003	13	5	25	54	35	11,10
620.0077	80-250	425	160-330	12	615.0003	13	5	25	54	35	12,50
620.0078	80-350	225	160-420	12	615.0003	13	5	25	54	35	10,80
620.0079	80-350	325	160-420	12	615.0003	13	5	25	54	35	12,10
620.0081	80-350	425	160-420	12	615.0003	13	5	25	54	35	13,80
620.0082	110-520	225	195-600	12	615.0003	13	5	25	54	35	15,30
620.0083	110-520	325	195-600	12	615.0003	13	5	25	54	35	16,60
620.0084	110-520	425	195-600	12	615.0003	13	5	25	54	35	18,30
620.0085	140-640	225	225-715	12	615.0003	13	5	25	54	35	19,80
620.0086	140-640	325	225-715	12	615.0003	13	5	25	54	35	21,10
620.0087	140-640	425	225-715	12	615.0003	13	5	25	54	35	22,50

### Universal 2 arm puller set with extremely narrow legs

- Narrow execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.0041	20-90	100	70-130	2,5	M14x1,5 x 130	17	3,6	8	14	14	1,00
620.0042	25-130	100	80-180	2,5	M14x1,5 x 130	17	3,6	8	14	14	1,20
620.0043	50-160	150	105-220	5	G1/2"x14 x 210	22	5	7,5	15	27	2,90
620.0044	60-200	150	120-270	5	G1/2"x14 x 210	22	5	7,5	15	27	3,20

### Universal 2 arm puller set with narrow legs

- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.0023	20-90	100	90-170	3,5	M14x1,5 x 130	17	2	8	14	28	1,00
620.0024	25-130	100	95-175	3,5	M14x1,5 x 130	17	2	8	14	28	1,20
620.0901	20-90	100	70-130	4,5	M14x1,5 x 140	17	3,6	6	13	27	1,00
620.0902	25-130	100	80-180	4,5	M14x1,5 x 140	17	3,6	6	13	27	1,20
620.0903	50-160	150	105-220	6,5	G1/2"x14g x 210	22	5	8	17	40	3,00
620.0904	60-200	150	120-270	6,5	G1/2"x14g x 210	22	5	8	17	40	3,30

### Universal 2 arm puller set with extremely narrow and extended legs

- extremely pointed hook foot
- Ideal for confined spaces
- Long execution
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
620.0027	20-90	120	70-130	3,5	M14x1,5 x 130	17	2	8	14	28	1,10
620.0028	20-90	200	70-130	3,5	M14x1,5 x 130	17	2	8	14	28	1,50
620.0029	20-90	250	70-130	3,5	M14x1,5 x 130	17	2	8	14	28	1,70
620.0031	25-130	120	80-180	3,5	M14x1,5 x 130	17	2	8	14	28	1,30
620.0032	25-130	200	80-180	3,5	M14x1,5 x 130	17	2	8	14	28	1,70
620.0033	25-130	250	80-180	3,5	M14x1,5 x 130	17	2	8	14	28	1,90

**Universal 2 arm puller set with extremely narrow and extended legs**

- Narrow execution
- Long execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0051	20-90	120	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	1,10	
620.0052	20-90	200	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	1,50	
620.0053	20-90	250	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	1,70	
620.0054	25-130	120	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	1,30	
620.0055	25-130	200	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	1,70	
620.0056	25-130	250	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	1,90	
620.0057	50-160	120	105-220	5	G1/2"x14 x 210	22	5	7,5	15	27	3,50
620.0058	50-160	300	105-220	5	G1/2"x14 x 210	22	5	7,5	15	27	4,00
620.0059	60-200	120	220-270	5	G1/2"x14 x 210	22	5	7,5	15	27	3,80
620.0061	60-200	300	120-270	5	G1/2"x14 x 210	22	5	7,5	15	27	4,30

**Universal 2 arm puller set with narrow and extended legs**

- Ideal for confined spaces
- Long execution
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0001	20-90	120	70-130	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,10
620.0002	20-90	200	70-130	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,50
620.0003	20-90	250	70-130	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,70
620.0004	25-130	120	80-180	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,30
620.0005	25-130	200	80-180	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,70
620.0006	25-130	250	80-180	4.5	M14x1,5 x 130	17	3,6	8	14	28	1,90
620.0007	50-160	120	105-220	6.5	G1/2"x14 x 210	22	5	7,5	15	40	3,50
620.0008	50-160	300	105-220	6.5	G1/2"x14 x 210	22	5	7,5	15	40	4,00
620.0009	60-200	120	220-270	6.5	G1/2"x14 x 210	22	5	7,5	15	40	3,80
620.0011	60-200	300	120-270	6.5	G1/2"x14 x 210	22	5	7,5	15	40	4,30

**Quick release universal 2 arm puller set with narrow legs**

- Quick release function
- Ideal for confined spaces
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0025	20-90	100	70-130	3.5	M14x1,5 x 130	17	2	8	14	28	1,00
620.0026	25-130	100	80-180	3.5	M14x1,5 x 130	17	2	8	14	28	1,20
620.1101	20-90	100	70-130	4.5	M14x1,5 x 140	17	3,6	6	13	27	1,00
620.1102	25-130	100	80-180	4.5	M14x1,5 x 140	17	3,6	6	13	27	1,20
620.1103	50-160	150	105-220	6.5	G1/2"x14 x 210	22	5	8	17	40	3,00
620.1104	60-200	150	120-270	6.5	G1/2"x14 x 210	22	5	8	17	40	3,30

**Quick adjustment universal 2 arm puller set with extremely narrow legs**

- Quick release function
- Narrow execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0045	20-90	100	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,00
620.0046	25-130	100	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,20
620.0047	50-160	150	105-220	5	G1/2"x14 x 210	22	5	7,5	15	27	2,90
620.0048	60-200	150	120-270	5	G1/2"x14 x 210	22	5	7,5	15	27	3,20

**Quick adjustment universal 2 arm puller set with extremely narrow and extended legs**

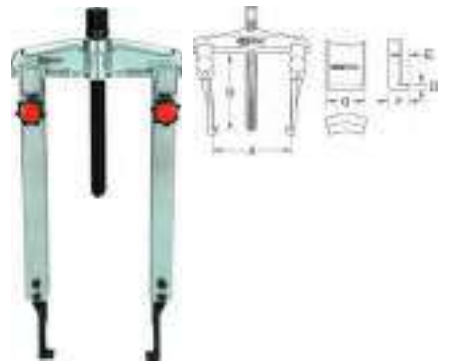
- Quick release function
- extremely pointed hook foot
- Ideal for confined spaces
- Long execution
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0034	20-90	120	70-130	3.5	M14x1,5 x 130	17	2	8	14	28	1,10
620.0035	20-90	200	70-130	3.5	M14x1,5 x 130	17	2	8	14	28	1,50
620.0036	20-90	250	70-130	3.5	M14x1,5 x 130	17	2	8	14	28	1,70
620.0037	25-130	120	80-180	3.5	M14x1,5 x 130	17	2	8	14	28	1,30
620.0038	25-130	200	80-180	3.5	M14x1,5 x 130	17	2	8	14	28	1,70
620.0039	25-130	250	80-180	3.5	M14x1,5 x 130	17	2	8	14	28	1,90

**Quick adjustment universal 2 arm puller set with extremely narrow and extended legs**

- Quick release function
- Narrow execution
- Long execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A	B	C	max	mm	D	E	F	G	G	
	mm	mm	mm	t	mm	mm	mm	mm	mm	mm	
620.0062	20-90	120	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,10
620.0063	20-90	200	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,50
620.0064	20-90	250	70-130	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,70
620.0065	25-130	120	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,30
620.0066	25-130	200	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,70
620.0067	25-130	250	80-180	2.5	M14x1,5 x 130	17	3,6	8	14	14	1,90
620.0068	50-160	120	105-220	5.0	G1/2"x14 x 210	22	5	7,5	15	27	3,50
620.0069	50-160	300	105-220	5.0	G1/2"x14 x 210	22	5	7,5	15	27	4,00
620.0071	60-200	120	220-270	5.0	G1/2"x14 x 210	22	5	7,5	15	27	3,80
620.0072	60-200	300	120-270	5.0	G1/2"x14 x 210	22	5	7,5	15	27	4,30

### Quick adjustment universal 2 arm puller set with narrow and extended legs

- Quick release function
- Ideal for confined spaces
- Long execution
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
620.0012	20-90	120	70-130	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,10
620.0013	20-90	200	70-130	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,50
620.0014	20-90	250	70-130	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,70
620.0015	25-130	120	80-180	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,30
620.0016	25-130	200	80-180	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,70
620.0017	25-130	250	80-180	4,5	M14x1,5 x 130	17	3,6	8	14	28	1,90
620.0018	50-160	220	105-220	6,5	G1/2"x14 x 210	17	5	7,5	15	40	3,50
620.0019	50-160	300	105-220	6,5	G1/2"x14 x 210	17	5	7,5	15	40	4,00
620.0021	60-200	220	120-270	6,5	G1/2"x14 x 210	17	5	7,5	15	40	3,80
620.0022	60-200	300	120-270	6,5	G1/2"x14 x 210	17	5	7,5	15	40	4,30

### UNIVERSAL 2 ARM PULLER SET

#### Universal puller set

- Through reversing the arms internal and external applications are possible
- Two armed traverse for 2 or 3 hooks
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel

**Application range:** Gear wheels, bearings, pinions, synchroniser hubs etc.



	A mm	B mm	max t	max N·m	mm	mm	kg	
700.1320	8 pcs	120	260	4,5	80	M14 1,5x180	17	3,54

consists of:

	kg	
700.1311	Spindle, M14x1,5	180
700.1312	Two armed traverse	485
700.1321	Draw-off arm, 120mm	260
700.1322	Draw-off arm, 230mm	540
700.1323	Draw-off arm, 280mm	640

#### Universal puller set

- Legs double ended usable
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	kg	
700.1100	11 pcs Universal puller set	4,39

consists of:

	kg	
700.1120	Uni puller 2 and 3 leg, 70mm	0,96
700.1130	Uni puller 2 and 3 leg, 120mm	1,83
700.1140	Bearing splitter, for max. Ø 50 mm	1,15

#### Quick adjustment universal puller set

- Quick release function
- Ideal for confined spaces
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	A mm	B mm	mm	max t	kg	
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5	2,30

consists of:

	kg	
620.1701	Quick release universal 2 arm puller	1,00
630.1701	Quick release 3 arm puller	1,30
980.1090	Special thread grease for puller and pusher spindles	0,01

#### Quick adjustment universal puller set

- Quick release function
- Ideal for confined spaces
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	A mm	B mm	mm	max t	kg	
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	5,5	6,50

consists of:

	kg	
620.1703	Quick release universal 2 arm puller, 50-160mm	3,00
630.1703	Quick release 3 arm puller, 50-160mm	3,50
980.1090	Special thread grease, tube	0,01

#### Hydraulic universal 2 + 3 arm puller set

- Less risk of slippage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Lower power usage
- Special tool steel
- In durable plastic storage case



	kg	
700.1200	22 pcs Hydraulic universal 2 + 3 arm puller set	16,40

consists of:

700.1202	Puller legs, 4"	410	
700.1203	Puller legs, 6"	600	
700.1204	Puller legs, 8"	840	
700.1205	Yoke f.2 legs, quickly modified	300	
700.1206	Yoke f.3 legs, quickly modified	760	
700.1207	Thrust bolt extension, 20 mm	50	
700.1208	Thrust bolt extension, 35 mm	130	
700.1209	Thrust bolt extension, 85 mm	320	
700.1210	Pulling ring f.hydraulic thrust bolt	322	
700.1220	Separator/puller tool, for max. Ø 105 mm	2540	
700.1221	Yoke f.bearing separator tool	1480	
700.1222	Extension f.bearing separator tool, 185mm	1060	
700.1223	Spigot f.bearing separator tool, 235mm	1110	
700.1400-1	Hydraulic spindle 10 t, AG 1.1/2"x16G	1344	

**Universal 2 + 3 arm puller set**

- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Excellent power transfer
- Special tool steel
- In durable plastic storage case



700.1300	12 pcs	Universal 2 + 3 arm puller set	6,69

consists of:

700.1311	Spindle, M14x1,5	180	
700.1312	Two armed traverse	485	
700.1313	Three armed traverse	675	
700.1314	Draw-off arm, 100mm	250	
700.1315	Draw-off arm, 210mm	530	
700.1316	Draw-off arm, 260mm	640	



**UNIVERSAL 3 ARM PULLER**

**Universal 3 arm puller**

- With tension screw for proportional tension force distribution
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.0015	10-60	45	2,5	M10x105	12	1	5	12	8	400
630.0016	15-70	65	3,0	M10x105	12	1	5	12	8	500
630.0017	20-100	80	3,5	M10x150	12	1,8	10	20	12	800

**Universal 3 arm puller with slide hammer**

- With tension screw for proportional tension force distribution
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	D mm	E mm	F mm	G mm	kg
630.0018	10-60	45	2,5	1	5	12	8	1,30
630.0019	15-70	65	3,0	1	5	12	8	1,70
630.0021	20-100	80	3,5	1,8	10	20	12	2,00

**Basic universal 3 arm puller**

- Uniform load distribution and centered tightening
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.4301	10-100	80	2,5	M12x1,25 x 162	14	4	12	26	13	0,91
630.4302	10-120	120	3	M14x1,5 x 193	17	5	14	30	16	1,49
630.4303	20-160	160	3,5	M18x1,5 x 243	19	6	18	36	20	2,50
630.4304	20-200	200	4	M22x2 x 293	24	7	22	40	24	4,20

**Universal 3 arm puller**

- Legs double ended usable
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.3001	20-150	85	4	M14x1,5 x 130	17	2	9	21	12	1,20
630.3002	40-220	130	4,5	M18x1,5 x 240	19	4	11	25	21	2,90

**Universal 3 arm puller**

- Locking handle
- Uniform load distribution and centered tightening
- Ideally suited for extracting small parts
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.4101	10-60	45	2,5	M10x1 x 90	12	2	9	18	10	300
630.4102	10-70	65	3	M10x1 x 110	12	2	9	18	10	300
630.4103	10-100	80	3,5	M12x1,25 x 140	14	2,3	12	25	13	800

**3-jaw pole terminal extractor with t-bar**

- 3-jaw
- Ideally suited for removing the battery pole terminal
- Locking handle
- Automatic pressure on the legs
- Extremely robust spindle with inductively hardened thread
- Screwed
- Sturdy hook
- Special tool steel



	A mm	B mm	max t mm	mm	D mm	E mm	F mm	G mm	kg
700.1167	10-60	40	0,75	M10 x 60	2,3	5,5	12,3	10,0	181
700.1168	10-60	60	0,8	M10 x 80	3,0	5,5	12,5	10,0	215
700.1169	10-70	80	1,0	M10 x 100	3,0	8,0	15,2	14,1	323

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**Universal 3 arm puller**

- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	Kg
630.3401	20-170	130	4	M14x1,5 x 130	17	2	11	23	1,30
630.3402	20-230	200	4,5	M18x1,5 x 240	19	4,5	16	33	3,10

**Hydraulic universal 3 arm puller**

- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Pulling hooks are automatically pressed against the part to be pulled off
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
630.0027	50- 350	135- 195	90- 105	15	M11x1,5 x 100	17	5	25	48	30	12,50
630.0028	50- 350	135- 195	95- 140	15	M11x1,5 x 100	17	5	25	48	30	13,50
630.0029	50- 350	135- 195	90- 130	15	M11x1,5 x 100	17	5	25	48	30	14,00
630.0031	50- 350	135- 175	100- 175	15	M11x1,5 x 100	17	5	25	48	30	14,50
630.0032	50- 350	135- 180	100- 180	15	M11x1,5 x 100	17	5	25	48	30	15,00

**Universal 3 arm puller**

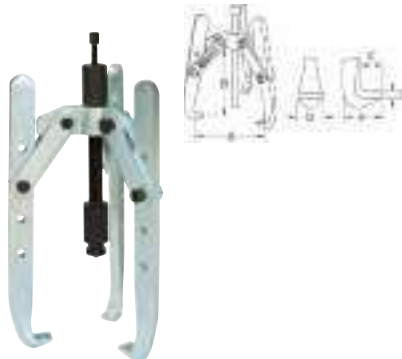
- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
630.3601	18-100	85	3	M10 x 105	12	2	10	20	14	0,50
630.3602	20-200	150	4	M14x1,5 x 130	17	3	14	25	18	1,70
630.3603	35-250	220	4,5	M18x1,5 x 240	19	4	20	36	25	3,90
630.3604	50-300	250	12	G1/2"x14g x 270	22	5	25	48	30	7,30
630.3605	50-350	350	12	G1/2"x14g x 270	22	5	25	48	30	8,30
630.3606	50-400	400	12	G1/2"x14g x 270	22	5	25	48	30	8,80
630.3607	50-450	450	12	G1/2"x14g x 270	22	5	25	48	30	9,40
630.3608	50-500	500	12	G1/2"x14g x 270	22	5	25	48	30	10,00
630.3609	50-500	650	12	G1/2"x14g x 270	22	5	25	48	30	11,60
630.3610	50-500	1000	12	G1/2"x14g x 270	22	5	25	48	30	16,00

**Hydraulic universal 3 arm puller**

- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Wide range of arms and hydraulic spindles available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
630.3801	50-300	250	12	M14x1,5 x 100	17	5	25	48	30	12,50
630.3802	50-350	350	12	M14x1,5 x 100	17	5	25	48	30	13,50
630.3803	50-400	400	12	M14x1,5 x 100	17	5	25	48	30	14,00
630.3804	50-450	450	12	M14x1,5 x 100	17	5	25	48	30	14,50
630.3805	50-500	500	12	M14x1,5 x 100	17	5	25	48	30	15,00
630.3806	50-500	650	12	M14x1,5 x 100	17	5	25	48	30	16,60
630.3807	50-500	1000	12	M14x1,5 x 100	17	5	25	48	30	21,50

**Universal puller 2 and 3 arm**

- Legs double ended usable
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
700.1120	70	75	1,2	3/8"x24g x 120	13	3,2	8,4	20	8,4	960
700.1130	120	150	1,2	M14x1,25 x 175	16	7,2	7	17,8	7,0	1830

**Universal 3 arm puller**

- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Excellent power transfer
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
630.0101	20-90	100	70- 140	5,5	M14x1,5 x 130	17	3	13	25	20	1,30
630.0102	25- 130	100	75- 155	5,5	M14x1,5 x 130	17	3	13	25	20	1,50
630.0103	50- 160	150	130- 220	7	G1/2"x14g x 210	22	4	16	35	25	3,50
630.0104	50- 200	150	130- 255	7	G1/2"x14g x 210	22	4	16	35	25	4,00

**Quick release 3 arm puller**

- Quick release
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	Kg	
630.1701	20-90	100	15- 145	5,5	M14x1,5 x 130	17	3	13	25	20	1,30
630.1702	25- 130	100	15- 170	5,5	M14x1,5 x 130	17	3	13	25	20	1,50
630.1703	50- 160	150	75- 185	7	G1/2"x14g x 210	22	4	16	35	25	3,50
630.1704	60- 200	150	85- 225	7	G1/2"x14g x 210	22	4	16	35	25	4,00

**Hydraulic universal 3 arm puller**

- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle	D mm	E mm	F mm	G mm	Kg	
630.0301	50- 160	145	125- 215	12	615.0003	32	4	16	35	25	4,00
630.0302	60- 200	145	150- 255	12	615.0003	32	4	16	35	25	4,40

### Hydraulic quick release universal 3 arm puller

- Quick release function
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Excellent power transfer
- Special tool steel



	A mm	B mm	C mm	max t	Hydraulic spindle mm	D mm	E mm	F mm	G mm	kg	
630.1901	50-100	145	75-145	12	615.0002	32	4	16	35	25	4,00
630.1902	50-200	145	135-265	12	615.0002	32	4	16	35	25	4,40

### Universal 2 + 3 arm puller

- Legs double ended usable
- Through reversing the arms internal and external applications are possible
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
640.4203	60	65	90	2,0	G3/8"x1,06px110	13	3	10	18	11	0,47
640.4204	90	100	130	5,0	G9/16"x2,0px190	17	4	15,5	29	17	1,60
640.4205	165	170	170	7,0	G3/4"x2,0px285	22	4	15,5	29	17	3,20

### Universal 3 arm puller set with extremely narrow legs

- Narrow execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
630.0003	20-90	100	120-260	3	M14x1,5 x 130	17	8	14	14	14	1,30
630.0004	25-130	100	70-180	3	M14x1,5 x 130	17	8	14	14	14	1,50
630.0005	50-160	150	200-420	5	G1/2"x14 x 210	22	7,5	15	27	27	3,50
630.0006	60-200	150	110-270	5	G1/2"x14 x 210	22	7,5	15	27	27	4,00

### Universal 3 arm puller set with narrow legs

- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
630.0001	20-90	100	120-260	4	M14x1,5 x 130	17	2	8	14	28	1,30
630.0002	25-130	100	160-340	4	M14x1,5 x 130	17	2	8	14	28	1,50
630.0901	20-90	100	35-115	5	M14x1,5 x 130	17	3,6	6	13	27	1,30
630.0902	25-130	100	40-145	5	M14x1,5 x 130	17	3,6	6	13	27	1,50
630.0903	50-160	150	65-175	6,5	G1/2"x14 x 210	22	5	8	17	40	3,50
630.0904	60-200	150	120-230	6,5	G1/2"x14 x 210	22	5	8	17	40	4,00

### Quick adjustment universal 3 arm puller set with extremely narrow legs

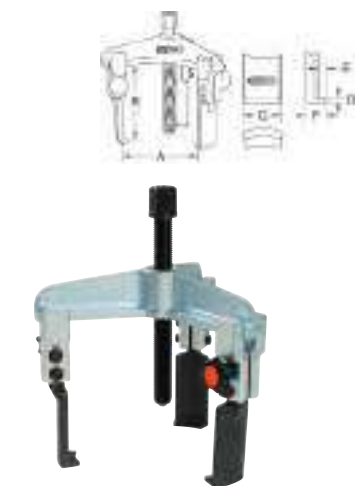
- Quick release function
- Narrow execution
- extremely pointed hook foot
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
630.0007	20-90	100	70-130	3	M14x1,5 x 130	17	3,6	14	14	14	1,30
630.0008	25-130	100	140-340	3	M14x1,5 x 130	17	3,6	14	14	14	1,50
630.0009	50-160	150	200-420	5	G1/2"x14 x 210	22	5	15	27	27	3,50
630.0011	60-200	150	120-260	5	G1/2"x14 x 210	22	5	15	27	27	4,00

### Quick release 3 arm puller set with narrow legs

- Quick release
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Hydraulic spindles available for thread G1/2"
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t	mm	D mm	E mm	F mm	G mm	kg	
630.1101	20-90	100	80-125	5	M14x1,5 x 130	17	3,6	6	13	27	1,30
630.1102	25-130	100	90-150	5	M14x1,5 x 130	17	3,6	6	13	27	1,50
630.1103	50-160	150	115-195	6,5	G1/2"x14 x 210	22	5	8	17	40	3,50
630.1104	60-200	150	115-215	6,5	G1/2"x14 x 210	22	5	8	17	40	4,00

## UNIVERSAL 3 ARM PULLER SET

### Universal puller set

- Legs double ended usable
- Reception star for 2 or 3 hooks
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



				kg
700.1100	11 pcs	Universal puller set		4,39

#### consists of:

				kg
700.1120		Uni puller 2 and 3 leg, 70mm		0,96
700.1130		Uni puller 2 and 3 leg, 120mm		1,83
700.1140		Bearing splitter, for max. Ø 50 mm		1,15

### Quick adjustment universal puller set

- Quick release function
- Ideal for confined spaces
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	A mm	B mm	mm	max t	kg	
625.1701	7 pcs	20 - 90	100	M14 x 1,5	5,5	2,30

#### consists of:

				kg
620.1701		Quick release universal 2 arm puller, 20-90mm		1,00
630.1701		Quick release 3 arm puller, 20-90mm		1,30
980.1090		Special thread grease, tube		0,01

### Quick adjustment universal puller set

- Quick release function
- Ideal for confined spaces
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



	A mm	B mm	mm	max t	kg	
625.1703	7 pcs	50 - 160	150	G1/2"x14Gg	5,5	6,50

#### consists of:

				kg
620.1703		Quick release universal 2 arm puller, 50-160mm		3,00
630.1703		Quick release 3 arm puller, 50-160mm		3,50
980.1090		Special thread grease, tube		0,01

### Hydraulic universal 2 + 3 arm puller set

- Less risk of slippage due to automatically closing pulling arm
- 8 length positions possible
- Extremely robust spindle with inductively hardened thread
- Lower power usage
- Special tool steel
- In durable plastic storage case



				kg
700.1200	22 pcs	Hydraulic universal 2 + 3 arm puller set		16,40

#### consists of:

				kg
700.1202		Puller legs, 4"		410
700.1203		Puller legs, 6"		600
700.1204		Puller legs, 8"		840
700.1205		Yoke f.2 legs, quickly modified		300
700.1206		Yoke f.3 legs, quickly modified		760
700.1207		Thrust bolt extension, 20 mm		50
700.1208		Thrust bolt extension, 35 mm		130
700.1209		Thrust bolt extension, 85 mm		320
700.1210		Pulling ring f.hydraulic thrust bolt		322
700.1220		Separator/puller tool, for max. Ø 105 mm		2540
700.1221		Yoke f.bearing separator tool		1480
700.1222		Extension f.bearing separator tool, 185mm		1060
700.1223		Spigot f.bearing separator tool, 235mm		1110
700.1400-1		Hydraulic spindle 10 t, AG 1.1/2"x16G		1344

### Universal 2 + 3 arm puller set

- Slim hooks
- Ideal for confined spaces
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Excellent power transfer
- Special tool steel
- In durable plastic storage case



				kg
700.1300	12 pcs	Universal 2 + 3 arm puller set		6,69

#### consists of:

				kg
700.1311		Spindle, M14x1,5		180
700.1312		Two armed traverse		485
700.1313		Three armed traverse		675
700.1314		Draw-off arm, 100mm		250
700.1315		Draw-off arm, 210mm		530
700.1316		Draw-off arm, 260mm		640

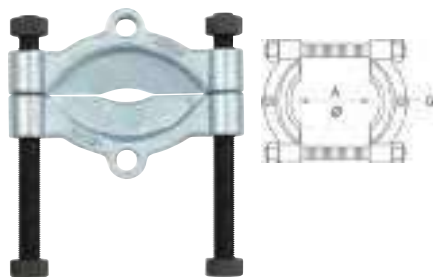




## SEPARATOR PULLER TOOL

### Separator puller tool

- To be used with separately available separator device
- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	G	mm	mm	kg
605.0501	5-60	M12	M10 x 120	17	0,40
605.0502	12-75	M12	M12 x 140	19	0,70
605.0503	22-115	M16	M16 x 200	24	1,90
605.0504	25-155	M20	M20 x 250	30	4,20
605.0505	30-220	M20	M24 x 410	36	12,00
605.0506	40-280	M24	M30 x 500	41	15,80

### Yoke for bearing separator tool

- For use with the separator
- The train bolts are screwed into the threads of the separator
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special tool steel



	A mm	B mm	G	max t	mm	mm	kg
605.0111	40-115	150	M12	2	M14x1,5 x 130	17	0,80
605.0112	45-140	150	M12	2,5	M14x1,5 x 130	17	1,10
605.0113	55-205	210	M16	4	G1/2"x14g x 210	22	2,70
605.0114	90-260	315	M20	5	G1/2"x14g x 210	22	5,20
605.0115	100-360	305	M20	7	G3/4"x14g x 280	27	8,80
605.0116	140-435	320	M24	13	G1"x11g x 370	36	16,70

### Hydraulic thrust bolt with yoke for bearing separator tool

- For use with the separator
- The train bolts are screwed into the threads of the separator
- Includes hydraulic thrust spindle
- Excellent power thrust
- Special tool steel



	A mm	B mm	G	max t	mm	Hydraulic spindle mm	kg
605.0301	55-205	135	M16	12	M16 x 280	615.0002	32
605.0302	90-260	240	M20	12	M20x1,5 x 370	615.0002	32
605.0303	100-360	230	M20	12	M20x1,5 x 370	615.0003	36
605.0304	140-435	230	M24	15	M24x1,5 x 460	615.0004	41

## SEPARATOR PULLER TOOL SET

### Separator set inclusive with yoke ø 5,0 - 60,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



			kg
605.0001	3 pcs	Separator set inclusive with yoke ø 5,0 - 60,0 mm	1,90

consists of:

		kg
605.0501	Separator puller tool, 5-60mm	0,40
605.0111	Yoke for bearing separator tool, 40-115mm	0,80
605.0401	Extension for pressure rod, M12 x100mm	0,20

### Separator set inclusive with yoke ø 12,0 - 75,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Special tool steel
- In durable plastic storage case



			kg
605.0002	3 pcs	Separator set inclusive with yoke ø 12,0 - 75,0 mm	2,40

consists of:

		kg
605.0502	Separator puller tool, 12-75mm	0,70
605.0112	Yoke for bearing separator tool, 45-140mm	1,10
605.0402	Extension for pressure rod, M12 x100mm	0,20

## Separator set inclusive with yoke ø 22,0 - 115,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special tool steel
- In durable plastic storage case



			kg
605.0003	3 pcs	Separator set inclusive with yoke ø 22,0 - 115,0 mm	6,10

consists of:

		kg
605.0503	Separator puller tool, 22-115mm	1,90
605.0113	Yoke for bearing separator tool, 55-205mm	2,70
605.0403	Extension for pressure rod, M16 x100mm	0,40

## Separator set inclusive with yoke ø 25,0 - 155,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special tool steel
- In durable plastic storage case



			kg
605.0004	3 pcs	Separator set inclusive with yoke ø 25,0 - 155,0 mm	11,48

consists of:

		kg
605.0504	Separator puller tool, 25-155mm	4,20
605.0114	Yoke for bearing separator tool, 90-260mm	5,20
605.0404	Extension for pull rod, M20 x 1,5 x 100mm	0,70

### Separator set inclusive with yoke ø 30,0 - 220,0 mm

- For the removal of secure bearings and bushes
- Extremely robust spindle with inductively hardened thread
- Hydraulic thrust spindle available
- Special tool steel
- In durable steel storage case



			kg
605.0005	3 pcs	Separator set inclusive with yoke ø 30,0 - 220,0 mm	29,00

consists of:

			kg
605.0505	Separator puller tool, 30-220mm	12,00	
605.0115	Yoke for bearing separator tool, 100-360mm	8,80	
605.0405	Extension for pull rod, M20 x 1,5 x 100mm	0,70	

### UNIVERSAL 3 ARM PULLER, HEAVY EXECUTION

#### Universal 3 arm puller

- extremely robust design
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.0012	100-380	200	210-410	15	G1"x11 x 310	36	5	25	54	35	21,00
630.0013	120-520	200	215-450	15	G1"x11 x 310	36	5	25	54	35	25,00
630.0014	120-650	200	215-500	15	G1"x11 x 310	36	5	25	54	35	27,00

### Universal 3 arm puller, heavy execution

- extremely robust design for extreme loads
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Lower power usage
- Special tool steel



	A mm	B mm	C mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.0023	100-390	185	240-410	15	M14x1,5 x 100	17	5	25	54	35	22,00
630.0024	120-520	185	250-450	15	M14x1,5 x 100	17	5	25	54	35	26,30
630.0025	120-650	185	250-500	15	M14x1,5 x 100	17	5	25	54	35	28,00

#### Universal 3 arm puller

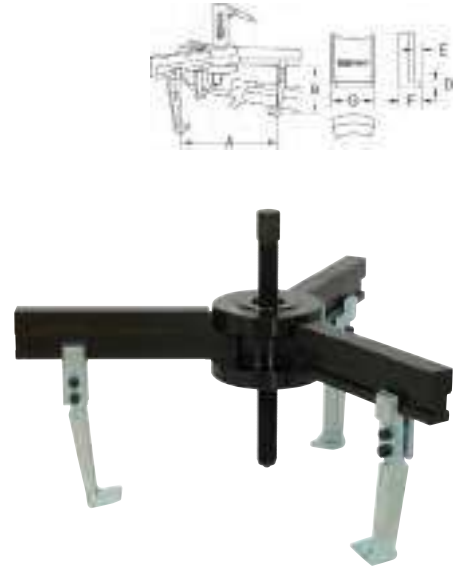
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Draw off arms radial revolving
- Wide range of arms and hydraulic spindles available
- Extremely robust spindle with inductively hardened thread
- Special tool steel



	A mm	B mm	C mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.2301	150-700	200	250-650	15	G1"x11g x 370	36	10	33	55	50	42,50

### Universal 3 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	mm	max t mm	D mm	E mm	F mm	G mm	kg
640.2315	150-700	200	M68x2	15	10	33	55	50	38,00
640.2317	150-700	200	G1"x11g	17	10	33	55	50	40,00

#### Universal 3 arm puller, heavy execution

- extremely robust design for extreme loads
- Uniform load distribution and centered tightening
- Through reversing the arms internal and external applications are possible
- Different leg variants available
- Includes hydraulic thrust spindle
- Lower power usage
- Special tool steel

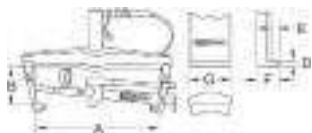


	A mm	B mm	C mm	max t mm	mm	D mm	E mm	F mm	G mm	kg	
630.0026	150-700	275	500-720	15	M14x1,5 x 100	17	10	33	55	50	47,60

## HYDRAULIC PULLERS AND PUMP

### Universal 2 arm puller for using with hydraulic cylinder

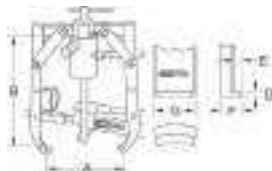
- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0210	640	225	10	10	33	55	50	20,00
640.0215	640	225	15	10	33	55	50	20,00
640.0217	640	225	17	10	33	55	50	21,50

### Universal 2 arm puller for using with hydraulic cylinder

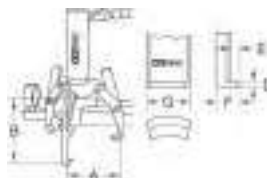
- Consists of traverse and legs
- Through reversing the arms internal and external applications are possible
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0220	420	290	20	17	16	32	32	11,50
640.0230	700	400	30	24	23	48	40	20,00
640.0250	1000	700	50	35	42	87	50	50,00

### Universal 3 arm puller for using with hydraulic cylinder

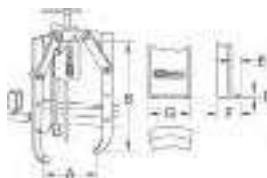
- Consists of traverse and legs
- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg
640.0310	350	250	UNC2.1/4" x 14	10	5	25	48	30	9,50
640.0315	350	250	M68 x 2	15	5	25	48	30	7,50
640.0317	350	250	G 1"x11g	17	5	25	48	30	8,50

### Universal 3 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.0320	420	290	20	17	16	32	32	17,00
640.0330	700	400	30	24	23	48	40	30,00
640.0350	1000	700	50	35	42	87	50	70,00

### Hydraulic universal 3 arm puller

- Consists of traverse and legs
- Legs are adjustable in the working depth
- Traverse arm radial revolving and interchangeable
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel



	A mm	B mm	mm	max t	D mm	E mm	F mm	G mm	kg
640.2415	500	440	M68x2	15	17	16	32	32	22,00
640.2417	500	440	G1"x11g	17	17	16	32	32	24,00

### Universal 3 arm puller for using with hydraulic cylinder

- Consists of traverse and legs
- Traverse arm radial revolving and interchangeable
- Legs are adjustable in the working depth
- Uniform load distribution and centered tightening
- Without hydraulic compression spindle / without hydraulic cylinder
- Without hydraulic pump
- Special tool steel

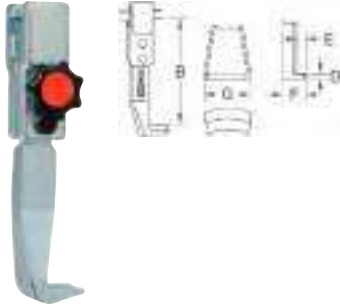


	A mm	B mm	max t	D mm	E mm	F mm	G mm	kg
640.2420	500	270	20	17	16	32	32	27,00
640.2430	750	310	30	24	23	48	40	26,00
640.2450	1000	660	50	35	42	87	50	106,00

## ACCESSORIES

### Quick adjustment puller legs

- Quick release function
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	
615.1101	100	3	13	25	20	200
615.1102	150	4	16	35	25	700
615.1103	200	3	13	25	20	500

### Puller legs, extremely narrow design

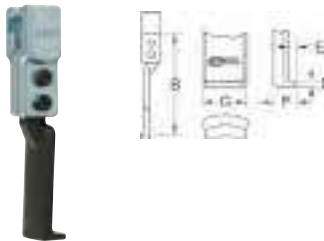
- Ideal for confined spaces
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	
615.1011	100	3,6	8,0	14	14	250
615.1012	120	3,6	8,0	14	14	300
615.1013	200	3,6	8,0	14	14	500
615.1014	250	3,6	8,0	14	14	600
615.1015	150	5,0	7,5	15	27	600
615.1016	220	5,0	7,5	15	27	650
615.1017	300	5,0	7,5	15	27	1100

### Puller legs, narrow design

- Ideal for confined spaces
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	
615.0901	100	3,6	6	13	27	200
615.1031	120	3,6	8	14	28	280
615.0902	200	3,6	6	13	27	500
615.0903	250	3,6	6	13	27	600
615.0904	100	2	6	13	27	200
615.0905	200	2	6	13	27	500
615.0906	250	2	6	13	27	1100
615.0907	150	5	8	17	40	600
615.0908	220	5	8	17	40	800
615.0909	300	5	8	17	40	1800

### Quick adjustment puller legs, extremely narrow design

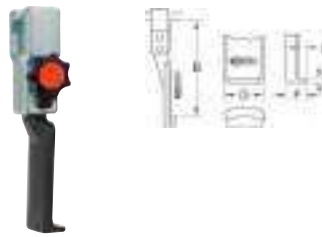
- Quick release function
- Ideal for confined spaces
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	
615.1021	100	3,6	8	14	14	250
615.1022	120	3,6	8	14	14	300
615.1023	200	3,6	8	14	14	500
615.1024	250	3,6	8	14	14	600
615.1025	150	5,0	7,5	15	27	600
615.1026	220	5,0	7,5	15	27	650
615.1027	300	5,0	7,5	15	27	1100

### Quick adjustment puller legs, narrow design

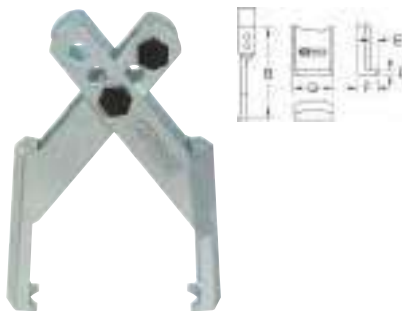
- Quick release function
- Ideal for confined spaces
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	
615.1001	100	3,6	6	13	27	250
615.1041	120	3,6	8	14	28	300
615.1002	200	3,6	6	13	27	500
615.1003	250	3,6	6	13	27	600
615.1004	100	2,0	6	13	27	250
615.1005	200	2,0	6	13	27	500
615.1006	250	2,0	6	13	27	600
615.1007	150	5,0	8	17	40	650
615.1008	220	5,0	8	17	40	900
615.1009	300	5,0	8	17	40	1100

### Pair of puller legs

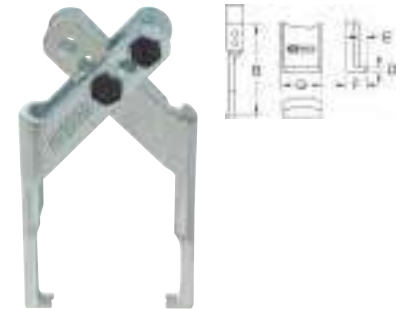
- Legs are adjustable in the working depth
- for 2-arm pullers
- Special tool steel



	For pullers	B mm	D mm	E mm	F mm	G mm	
615.5201	620.5201	70-85	2,5	4,5	8,5	23	180
615.5202	620.5202	85-120	3,5	5	10	31	450
615.5203	620.5203	125-155	3,5	5	10	31	550

### Pair of puller legs, narrow design

- Legs are adjustable in the working depth
- for 2-arm pullers
- Ideal for confined spaces
- Special tool steel



	For pullers	B mm	D mm	E mm	F mm	G mm	
615.5301	620.5301	70-85	2,5	4,5	8,5	11	150
615.5302	620.5302	85-120	3,5	5	11	12	500

### Puller legs

- For puller legs with quick adjustment
- Prevents slipping
- Special tool steel



	For pullers	B mm	D mm	E mm	F mm	G mm	
615.5401	620.5401	90	3	12	26	24	260
615.5402	620.5402	110	3	14	25	24	320
615.5403	620.5403	150	3	14	25	24	420

### Puller legs

- For 2 arm pullers with quick adjustment
- Legs are adjustable in the working depth
- Legs double ended usable
- Special tool steel



	For pullers	B mm	D mm	E mm	F mm	G mm	
615.5501	620.5501	170	3	12	25	24	530
615.5502	620.5502	270	3	14	25	24	800
615.5503	620.5503	330	3	14	25	24	850

**Puller legs double ended usable**

- Legs double ended usable
- For 2 arm and 3 arm pullers
- Special tool steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.3001	620.3001+630.3001	85	2	9	21	12	100
615.3002	620.3002+630.3002	130	4	11	25	21	320

**Puller legs**

- Legs are adjustable in the working depth
- For 2 arm and 3 arm pullers
- Special tool steel

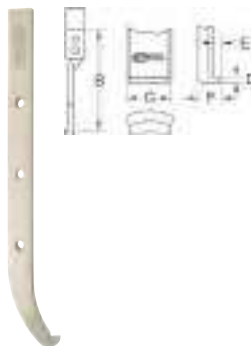


For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.3601	620.3601+630.3601	85	3	14	25	18	100
615.3602	620.3602+630.3602	150	4	20	36	25	260
615.3603	620.3603+630.3603	220	5	25	48	30	650
615.3604	620.3604+630.3604	250	5	25	48	30	1200
615.3605	620.3605+630.3605	350	5	25	48	30	1600
615.3606	620.3606+630.3606	400	5	25	48	30	1800
615.3607	620.3607+630.3607	450	5	25	48	30	2000
615.3608	620.3608+630.3608	500	5	25	48	30	2200
615.3609	620.3609+630.3609	650	5	25	48	30	2800
615.3610	620.3610+630.3610	1000	5	25	48	30	4200



**Puller legs**

- For 2 arm and 3 arm hydraulic pullers
- Special tool steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
645.0251	640.0210-17 +640.2315-17	225	10	33	55	50	2,10
645.0252	640.0210-17 +640.2315-17	300	10	33	55	50	3,00
645.0253	640.0210-17 +640.2315-17	400	10	33	55	50	3,70
645.0254	640.0210-17 +640.2315-17	500	10	33	55	50	4,40
645.0261	640.0220	290	17	16	32	32	3,30
645.0262	640.0230	400	24	23	48	40	6,50
645.0263	640.0250	700	35	42	87	50	17,00
645.0351	640.0310-17	250	5	25	48	30	1,80
645.0352	640.0310-17	350	5	25	48	30	1,90
645.0353	640.0310-17	400	5	25	48	30	2,00
645.0354	640.0310-17	500	5	25	48	30	2,20
645.0361	640.0320	290	17	16	32	32	3,30
645.0362	640.0330	400	24	23	48	40	6,50
645.0363	640.0350	700	35	42	87	50	17,00
645.2461	640.2415-17	440	17	16	32	32	3,30
645.2462	640.2420	270	17	16	32	32	3,30
645.2463	640.2430	310	24	23	48	40	6,50
645.2464	640.2450	660	35	42	87	50	17,00

**Puller legs, forged ground steel**

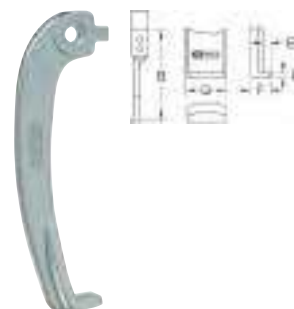
- For 2 arm and 3 arm basic universal puller
- Special tool steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.4101	620.4101+630.4101	45	2	9	18	10	40
615.4102	620.4102+630.4102	65	2	9	18	10	50
615.4103	620.4103+630.4103	80	2,3	12	25	13	100

**Puller legs, forged ground steel**

- For 2 arm and 3 arm basic universal puller
- Special tool steel



For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.4301	620.4301+630.4301	80	4	12	26	13	130
615.4302	620.4302+630.4302	120	5	14	30	16	210
615.4303	620.4303+630.4303	160	6	18	35	20	350
615.4304	620.4304+630.4304	200	7	22	40	24	600

**Puller legs**

- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	max t	D mm	E mm	F mm	G mm	kg
615.0101	100	4,5	3	13	25	20	250
615.0102	150	6,5	4	16	35	25	650
615.0103	200	11,0	5	25	54	35	1650
615.0104	225	11,0	10	33	50	55	2150

**Puller legs, extra long design**

- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	kg
615.0501	200	3	13	25	20	0,50
615.0502	300	4	16	35	25	1,10
615.0503	300	5	25	54	35	2,50
615.0504	400	5	25	54	35	3,20
615.0505	500	5	25	54	35	3,90
615.0506	300	10	33	55	50	3,00
615.0507	400	10	33	55	50	3,70
615.0508	500	10	33	55	50	4,40

### Quick adjustment puller legs, long design

- Quick release function
- For 2 arm and 3 arm pullers
- Special tool steel



	B mm	D mm	E mm	F mm	G mm	kg
615.1051	225	5,0	25,0	54	35	0,52
615.1052	325	5,0	25,0	54	35	1,25
615.1053	425	5,0	25,0	54	35	3,25

### Puller legs

- Legs are adjustable in the working depth
- For 2 arm and 3 arm pullers
- Special tool steel



	For pullers		B mm	D mm	E mm	F mm	G mm	kg
615.3401	620.3401+630.3401	130	2	11	23	16	150	
615.3402	620.3402+630.3402	200	4,5	16	33	20	400	

### Special thread grease for puller and pusher spindles and nuts subjected high loads

- Lubricant for components subjected to high static loads, e.g. threaded spindles
- Prevents excessive wear and seizing
- Irregularities in the surface to be protected are completely filled
- Minimises the friction thanks to the closed surface
- Effective protection against corrosion
- Increases the service life of threaded spindles
- Ensures reliable function even at high temperatures up to max. 1200°C



		kg
980.1085	Special thread grease, gun	22
980.1090	Special thread grease, tube	5

### Spindle

- Extremely robust spindle with inductively hardened thread
- Special tool steel



	mm	L mm	H mm	Ø mm	mm	kg
610.1401	12	150	15	10	M10	100
610.1402	14	190	20	12	M12	200
610.1701	17	60	21	14	M14 x 1,5	100
610.1702	17	130	21	14	M14 x 1,5	200
610.1703	17	200	21	14	M14 x 1,5	300
610.1704	17	250	21	14	M14 x 1,5	550
610.1705	17	60	20	16	M16 x 1,5	100
610.1706	17	70	20	16	M16 x 1,5	100
610.1707	17	90	20	16	M16 x 1,5	200
610.1901	19	70	20	18	M18 x 1,5	200
610.1902	19	130	20	18	M18 x 1,5	300
610.1903	19	170	20	18	M18 x 1,5	400
610.1904	19	240	20	18	M18 x 1,5	500
610.2201	22	110	23	21	G1/2"x14g	300
610.2202	22	160	23	21	G1/2"x14g	400
610.2203	22	175	23	21	G1/2"x14g	500
610.2204	22	210	23	21	G1/2"x14g	600
610.2205	22	235	23	21	G1/2"x14g	700
610.2206	22	270	23	21	G1/2"x14g	800
610.2701	27	180	35	26	G3/4"x14g	1000
610.2702	27	280	35	26	G3/4"x14g	1300
610.2703	27	360	35	26	G3/4"x14g	1700
610.3601	36	310	45	33	G1"x11g	2300
610.3602	36	360	45	33	G1"x11g	2650
610.3603	36	455	45	33	G1"x11g	3100
700.5612	21	113	27	16	M16 x 130	188

### Hydraulic compression spindle

- Maximum pressure with little effort
- Special tool steel



	L mm	H mm	max t	Ø Body mm	Body mm	Pressure spindle mm	mm	kg
615.0001	260	23	12	41	UN 1,1/2"x16	M11xØ5	17	1,60
615.0002	410	55	12	32	G1/2"x14	M10xØ9	13	1,10
615.0003	410	55	12	36	G3/4"x14	M10xØ9	13	1,60
615.0004	460	80	15	41	G1"x11	M11x1,5x100	17	3,50

### Spare traverse

- For hydraulic 2 arm puller
- Special tool steel



	max t	For pullers	kg
645.0210	10	640.0210	16,00
645.0215	15	640.0215	15,00
645.0217	17	640.0217	16,00
645.0220	20	640.0220	5,00
645.0230	30	640.0230	8,00
645.0250	50	640.0250	16,00

### Spare traverse

- For hydraulic 3 arm puller
- Special tool steel



	max t	For pullers	kg
645.0310	10	640.0310	4,00
645.0315	15	640.0315	3,50
645.0317	17	640.0317	4,50
645.0320	20	640.0320	7,00
645.0330	30	640.0330	11,50
645.0350	50	640.0350	20,00
645.2315	15	640.2315	10,00
645.2317	17	640.2317	12,50
645.2415	15	640.2415	10,00
645.2417	17	640.2417	12,50
645.2420	20	640.2420	15,00
645.2430	30	640.2430	27,00
645.2450	50	640.2450	27,00

### Traverse arm for hydraulic gear puller

- For hydraulic 3 arm puller
- Special tool steel



	For pullers	kg
645.2316	640.2315-17	7,00
645.2416	640.2415-17	4,00
645.2421	640.2420	4,00
645.2431	640.2430	5,00
645.2451	640.2450	10,00

### Universal clamping yoke

- For universal 2 arm puller
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Special tool steel



	A mm	kg
615.5101	10-130	800

## CYLINDER

### Hydraulic press

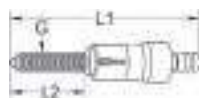
- For mechanical pullers
- Power increase with the normal pressure spindle
- Maximum pressure with little effort
- Special tool steel



	L mm	H mm	max t	Hydraulic lit mm	Key mm	kg
640.0160	150,0	75,0	8	8	M14x1,5 x 60	0,80
640.0165	180,0	90,0	15	12	M14x1,5 x 85	1,80

### Spindle hydraulic cylinder

- Simply working with spring withdrawal
- Necessary minimal oil volume 120 cm<sup>3</sup> = 0,12 l
- Maximum pressure with little effort
- Special tool steel



	L1 mm	L2 mm	Stroke mm	G	max t	kg
640.0130	3/8" - 18 NPT	403	150,0	156,0	G1"x11g	17 4,50

### Flat hydraulic cylinder

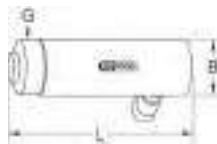
- Simply working with spring withdrawal
- Maximum pressure with little effort
- Special tool steel
- Locating bore 10t = dimension 36,6mm x Ø 7,1
- Locating bore 20t = dimension 49,3mm x Ø10,0



	L mm	H mm	Stroke mm	Minimal oil volume cm <sup>3</sup>	max t	kg
640.0140	3/8" - 18 NPT	140	42	12,0	18/0,018	10 1,60
640.0150	3/8" - 18 NPT	170	51	11,0	32/0,032	20 2,80

### Single screw hydraulic cylinder

- Simply working with spring withdrawal
- Interchangeable pressure piece
- Maximum pressure with little effort
- Special tool steel

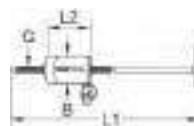


	L mm	B mm	Stroke mm	G	max t	kg
640.0110	3/8" - 18 NPT	403	247	156,0	UNC2.1/4x14	10 4,00
640.0120	3/8" - 18 NPT	423	271	152,0	M68x2	15 7,00

### Hollow piston hydraulic cylinder with spindle

- Simply working with spring withdrawal
- Nickel plated centre tube
- Maximum pressure with little effort
- Special tool steel

**Mounting thread at cylinder:** 1.) 2 threaded hole with cylinder base (tube side) 2.) external thread: 20t=3-7/8"x12G30t=4-1/2"x12G50t=6-1/4"x12G



	L1 mm	L2 mm	B mm	Stroke mm	G	max t	kg
640.0170	3/8" - 18 NPT	670	162,0	98 49,0	UNC1"-8	20 10,60	
640.0180	3/8" - 18 NPT	790	178,0	114 64,0	UNC1.1/4"-7	30 15,20	
640.0190	3/8" - 18 NPT	975	247,0	159 76,0	UNC1.5/8"-5,1/2"	50 40,50	

## HYDRAULIC HAND PUMP

### Hydraulic hand pump

- Single stage
- Reverse valve for advance and return stroke
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Usable tank volume 2081cm<sup>3</sup> = 2.081l



	L mm	B mm	H mm	Flow rate per hub cm <sup>3</sup>	kg
640.0010	3/8" - 18 NPT	585	133	119	2,62 9,00

### Pneumatic hydraulic pump

- Pneumatic working
- For simply agent press cylinders
- Safety valve for overload protection
- Includes pressure tube 1.8 meters
- Usable tank volume 2081cm<sup>3</sup> = 2.081l
- Operating pressure max. 700 bar
- Output per stroke:  
0.8 l/min up to 200 bar  
0.1 l/min up to 700 bar



	L mm	B mm	H mm	kg
640.0020	3/8" - 18 NPT	255	130	200 11,00

### Electric hydraulic pump

- Two stepped for simply agent press cylinders
- Safety valve for overload protection
- Usable tank volume 1900 cm<sup>3</sup> = 1.9l
- Includes pressure tube 1.8 meters
- Motor specification 0.37kW - 220/230 V - 50/60 hertz, single phase (3.2 amps)
- 1. Step: max. 13 bar
- 2. Step: max. 700 bar
- Output per stroke:  
1. Step: 3.31 l/min  
2. Step: 0.32 l/min

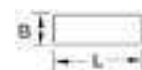


	L mm	B mm	H mm	kg
640.0030	3/8" - 18 NPT	244	244	362 14,00

## SAFETY COVERING FOIL

### Safety covering foil

- Two ply welded
- High tearing resistance
- Variable adjustment
- UV resistant
- Temperature range of -25°C to +50°C

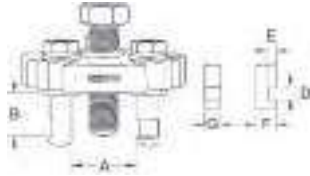


	B mm	L mm	max t	kg
610.0100	510,0	915,0	18	3,90

## UNIVERSAL BELT PULLER

### Universal belt pulley puller 3 arm

- For the damage free drawing off of pulley belts
- Universal suitable for several diameters and different hole divisions
- Less space requirement through compact method of building
- Suited for work on engines in the vehicle or removed
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	H mm
150.3130	90	30	2,5	M16x1,5 x 75	24	10	6	11	900

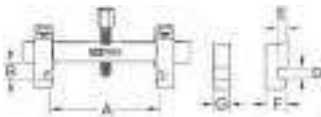
#### accessories:

150.3133	Spare traverse for 150.3130	300



### Universal belt pulley puller 2 arm

- For grooved belt pulleys
- Draw off arms with locking device
- Clamping yoke compresses the legs firmly
- Prevents slipping
- Less space requirement through compact method of building
- Suited for work on engines in the vehicle or removed
- Special tool steel



	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	H mm
150.3170	40-165	30	2,5	M12 x 75	17	10	9	18	1600

## Universal camshaft solid wheel puller 2 arm

- Four special hooks for 5 and 6 armed spoked wheels
- Suitable for many VAG models
- Extremely robust spindle with inductively hardened thread
- Special tool steel

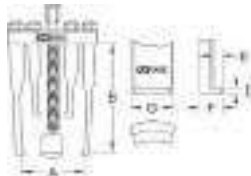


	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	H mm
670.0211	130	44	2,5	M14x1,5 x 55	17	4	9	20	15

## STEERING WHEEL PULLER

### Universal steering wheel puller 2 arm for passenger cars

- Suitable for quick, clean and damage-free removal of the steering wheel
- Short and long hooks as well as pressure piece for spindle
- Suitable for universal use due to longitudinal grooves in the puller bridge
- Extremely robust spindle with inductively hardened thread
- Special tool steel



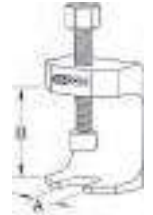
	A mm	B mm	max t	mm	D mm	E mm	F mm	G mm	H mm
670.0201	90	135	2,5	M14x1,5 x 130	17	5	3,5	11	7,5



## WINDSCREEN WIPER ARM PULLER

### Universal windscreen wiper arm puller with fork

- With pulling yoke
- Ideally suited to the protective removal of windscreen wiper arms
- Pulling spindle with brass cap for damage-free support on the washer arm shaft
- Extremely robust spindle with inductively hardened thread
- Spindle guidance is carried out in a moving sleeve
- Prevents damage to the bodywork and the windscreen wiper arm
- With narrow socket for tight spaces
- Special tool steel



	A mm	B mm	mm	mm
700.1198	23,5	48	8	240

### Universal windscreen wiper arm puller with pulling yoke

- With pulling yoke
- Ideally suited to the protective removal of windscreen wiper arms
- Pulling spindle for damage-free support to the rear wiper blades
- Extremely robust spindle with inductively hardened thread
- Prevents damage to the bodywork and the windscreen wiper arm
- With adjustment dial for manual operation
- With narrow socket for tight spaces
- Special tool steel



	A mm	B mm	mm	mm
700.1193	16	28	M8 x 45	11



### Universal windscreen wiper arm puller with pulling yoke

- Heavy execution
- With pulling yoke
- Ideally suited to the protective removal of windscreen wiper arms
- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Extremely robust spindle with inductively hardened thread
- Spindle guidance is carried out in a moving sleeve
- Prevents damage to the bodywork and the windscreen wiper arm
- With narrow socket for tight spaces
- Special tool steel



	A mm	B mm	mm	mm	kg
700.1191	26	48	M8 x 75	13	450

### Universal windscreen wiper arm puller with pulling yoke

- Heavy execution
- With pulling yoke
- Ideally suited to the protective removal of windscreen wiper arms
- Spindle end with brass cap to prevent damage to the windscreen wiper arm
- Extremely robust spindle with inductively hardened thread
- Spindle guidance is carried out in a moving sleeve
- Prevents damage to the bodywork and the windscreen wiper arm
- With narrow socket for tight spaces
- Special tool steel



	A mm	B mm	mm	mm	kg
700.1192	16	41	M10 x 80	17	510

### Universal windscreen wiper arm puller 2 arm

- 2-jaw
- Ideally suited to the protective removal of windscreen wiper arms
- Hollow puller spindle for damage-free support on the wiper arm shaft with washer nozzle
- Extremely robust spindle with inductively hardened thread
- Prevents damage to the bodywork and the windscreen wiper arm
- Internal square drive adaptor to DIN 3120 / ISO 1174
- Special tool steel

**Application range:** especially for VAG rear windscreen wiper with integrated washer nozzle



	A mm	B mm	mm	mm	D mm	E mm	F mm	G mm	kg
700.1185	10-60	34	M12x1,25 x 34	17	3	5	14	15	1,00

### Universal windscreen wiper arm puller set

- Ideally suited to disassembly of windscreen wiper arms
- Includes impact hammer puller
- Universally fitting puller set suitable for approx. 450 windscreen wipers, 300 vehicles and 30 car brands
- Self-stiffening or recessed built-in washer arms are quickly disassembled with this set
- Alternatively can be used mechanically or with an impact spindle
- Prevents damage to the bodywork and the windscreen wiper arm
- Special tool steel
- In durable plastic storage case



			kg
700.1240	13 pcs	Universal windscreen wiper arm puller set	3,81

consists of:

		kg
700.1231	Slide hammer with fork spanner	1130
700.1232	Spindle, 95mm, M12	170
700.1233	Fork #1, opening 22mm, H=50mm	110
700.1234	Fork #2, opening 25mm, H=50mm	140
700.1235	Fork #3, opening 16mm, H=60mm	150
700.1236	Fork #4, opening 25mm, H=41mm	110
700.1237	Fork #5, opening 30mm, H=50mm	150
700.1238	Fork #6, opening 20mm, H=50mm	100
700.1239	Fork #7, opening 17mm, H=55mm	100
700.1241	Fork #8, opening 16mm, H=80mm	170
700.1242	Universal 2 arm wiper arm puller set, 6 pcs	690
700.1243	Spindel extension for 700.1232 and 700.1242	20
700.1244	Hollow spindle adaptor for 700.1232 and 700.1242	20

### BALL JOINT PULLERS

#### Vibro-Impact Universal Ball Joint Puller Bell 30 x 58 mm

- Pressure pieces in the spindle rotating mouted
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0060	30	58	22	18	1,10

#### Vibro-Impact Universal Ball Joint Puller Bell 32 x 90 mm

- Pressure pieces in the spindle rotating mouted
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0061	32	90	24	25	2,51

#### Vibro-Impact Universal Ball Joint Puller Bell 39 x 58 mm

- Pressure pieces in the spindle rotating mouted
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- Without inspection panel
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0062	39	58	24	25	2,83

#### Vibro-Impact Universal Ball Joint Puller Bell 32 x 40 mm

- Pressure pieces in the spindle rotating mouted
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel



	A mm	B mm	mm	mm	kg
460.1020	32,0	40,0	22,0	19,0	1,50

### Vibro-Impact Universal Ball Joint Puller Bell 39 x 60 mm

- Pressure pieces in the spindle rotating mounted
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel

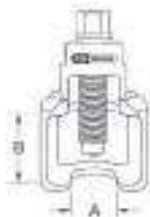


	A mm	B mm	mm	mm	kg
450.0066	39	60	26	39	3,80

### Vibro-Impact Universal Ball Joint Puller Bell 39 x 59 mm

- Ball mounted rotatably in the spindle
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel

**Application range:** Universally applicable for commercial vehicles 3.5-8.t



	A mm	B mm	mm	mm	kg
460.0475	32,0	90,0	24,0	26,0	2,70

### Vibro-Impact Universal Ball Joint Puller Bell 35 x 60 mm

- Ball mounted rotatably in the spindle
- Trapezoidal spindle
- High release force due to rotary shock pulse with impact wrench
- Impact screws create pressure and vibration at the same time, through which the secure ball joint connections and quickly and safely removed
- Less space required
- Cast forged execution
- With inspection panel
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0085	35	60	M27 x 130	24	2,52

### Universal ball joint ejector

- For many automobiles and commercial vehicles
- Special tool steel



	A mm	B mm	max t	mm	mm	g
670.0061	23	55	4	17	M16x1,5x60	800
670.0062	28	55	4	17	M16x1,5x60	800
670.0063	34	63	4	19	M18x1,5x70	900

### Universal ball joint extractor

- Tools for pushing out support and guide joints as well as
- Tie rod joint pin consisting of steering lever, axle beam/arm and stabilizers
- Universally applicable in the range of passenger cars to vans
- Compact and stable design
- Extremely robust spindle with inductively hardened thread and pressure ball
- In durable plastic storage case



		mm	kg
670.0060	3 pcs	23 - 28 - 34 mm	2,90

### Universal ball joint separator

- For many automobiles and commercial vehicles
- Special tool steel



	A mm	B mm	C mm	max N-m	mm	mm	kg
670.0101	18	40	40	50	M14x1,5x60	17	0,30
670.0102	25	50	50	120	M16x1,5x60	17	0,70
670.0103	29	60	60	160	M18x1,5x75	19	1,00
670.0104	40	80	80	280	G1/2"x14gx110	22	2,10
670.0105	45	100	90	400	G3/4"x14gx125	27	2,80

### Universal ball joint separator

- For a professional disassembly of the ball joints on the upper wishbone
- Optimal positioning through compact design
- Special tool steel

**Application range:** Volkswagen T4 bus / Multivan / California / pickup etc.



	A mm	B mm	C mm	max N-m	mm	mm	kg
670.0106	56	80	100	280	G1/2"x14gx110	22	2,10

### Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Special tool steel



	A mm	B mm	C mm	mm	mm	kg
450.0075	45	75	63	24	M22 x 135	1,63
450.0076	55	100	76	24	M22 x 135	1,84

### Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spaces
- Spindle hexagonal with additional drive point
- Forged
- Special tool steel



	A mm	B mm	mm	mm	kg
700.5610	24	0-55	M16 x 90	20	1,05

### Universal ball joint separator 4 stage adjustable

- Separator 4 stage adjustable
- Spindle hexagonal with additional drive point
- Forged
- Special tool steel
- Stage 1: 24 mm
- Stage 2: 30 mm
- Stage 3: 40 mm
- Stage 4: 45 mm



	A mm	B mm	mm	mm	kg
700.5630	20	24-45	M14 x 105	18	1,50

### Universal ball joint separator

- Extra flat execution
- Forged
- Special tool steel



	A mm	B mm	mm	mm	kg
700.5620	18	20-37	M14 x 85	16	0,97

### Universal ball joint separator

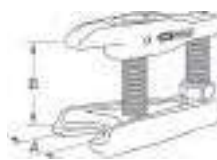
- Extra strong execution
- Forged
- Special tool steel



	A mm	B mm	mm	mm	kg
700.5625	20	20-37	M12 x 85	16	1,07

### Universal ball joint extractor

- Robust model for loosening the track heads and push pole heads
- Optimal positioning through compact design and slim fork piece
- Adjustment of the clamp by means of the spindle
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0070	32	75	M22 x 90	30	2,49
450.0071	45	80	M22 x 90	30	2,61

### Ball joint puller for commercial vehicle, mechanical

- Massive execution for loosening the track heads and push pole heads
- Enormous power through lever transmission
- Special tool steel



	A mm	B mm	mm	mm	kg
450.0051	36	70	M24x3x160	34	4,34

### Hydraulic universal ball joint separator

- Massive execution for loosening the track heads and push pole heads
- for fork-opening diameters of up to 36 mm
- Enormous power through lever transmission
- Excellent power transfer
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
450.0050	36	70	10	17	1.1/2"x16G	6,55

### Universal ball joint separator

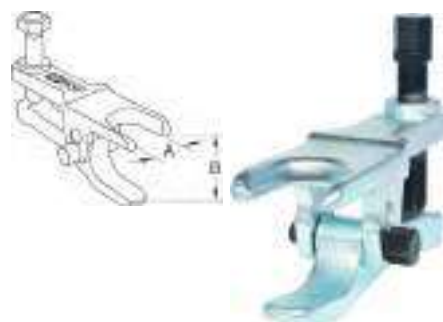
- Massive execution for loosening the track heads and push pole heads
- suitable for many heavy trucks, buses and low-floor buses
- Enormous power through lever transmission
- including 3 exchangeable pressure peaks
- Special tool steel



	A mm	B mm	mm	kg
460.1030	39,0	70,0	19,0	6,00

### Universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many vehicles + transporter
- Also suitable for aluminum undercarriages
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0121	24	50	3,5	17	M16x1,5x70	1,40
670.0122	24	60-80	3,5	17	M15x1,5x90	1,80

### Universal ball joint separator 2 stage adjustable

- Separator 2 stage adjustable
- Ideal for confined spaces
- Extremely high clamping range
- Spindle hexagonal with additional drive point
- Forged
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
700.5615	18-24	23-110		M16 x 130	16	1,20

### Universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many vehicles
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0111	18-22	50	3,5	19	M14x1,5x48	0,90

### Universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many vehicles + moderately heavy trucks
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0131	36	90	10	22	G1/2"x14gx110	3,70

### Universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many heavy trucks, buses and low-floor buses
- For bolts Ø 35.0 - 45.0 mm
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0161	45	115	20	27	G3/4"x14gx125	6,40

### Hydraulic universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0141	36	90	10	17	1.1/2"x16G	4,70

### Universal ball joint separator without hydraulic cylinder

- For separating the ball plug when removing the ball joints
- Suitable for many vehicles + moderately heavy trucks
- For bolts Ø 27.0 - 36.0 mm
- Special tool steel
- For use with 640.0140



	A mm	B mm	max t	Adjusting screw mm	Ambose spindle mm	mm	kg
670.0151	36	90	10	M18x1,5x120	G1/2"x14gx110	22	3,50

### Hydraulic universal ball joint separator

- For separating the ball plug when removing the ball joints
- Suitable for many heavy trucks, buses and low-floor buses
- For bolts Ø 35.0 - 45.0 mm
- Special tool steel



	A mm	B mm	max t	mm	mm	kg
670.0171	45	115	20	17	M14x1,5x50	7,00

### Universal ball joint separator without hydraulic cylinder

- For separating the ball plug when removing the ball joints
- Suitable for many heavy trucks, buses and low-floor buses
- For bolts Ø 35.0 - 45.0 mm
- Special tool steel
- For use with 640.0140 / 640.0150




	A mm	B mm	max t	mm	mm	kg
670.0181	45	115	20	27	G3/4"x14gx125	6,00




**Universal ball joint remover set with changeable forks**

- With interchangeable forks Ø 20/22/24/27/30 mm
- For separating the ball plug when removing the ball joints
- Quick changes of the individual pressure forks due to the spring breaker system
- Maximum separation height: 125.0 mm
- In durable plastic storage case



			
450.0970	7 pcs	Universal ball joint remover set with changeable forks	6,00


consists of:

			
450.0971	Universal ball pin ejector device	2000	
450.0972	Pressure spindle	380	
450.0973	Fork, Ø 20 mm	520	
450.0974	Fork, Ø 22 mm	520	
450.0975	Fork, Ø 24 mm	520	
450.0976	Fork, Ø 27 mm	520	
450.0977	Fork, Ø 30 mm	520	

**Wheel hub impact puller**

- suitable for removing 4 and 5-hole wheel hubs
- Holes from 100 to 150 mm
- With 1.2 kg impact force
- Optimal grip with plastic handle
- Ideally used when replacing wheel bearings
- Simple handling
- Special tool steel




	Rim diameter Ø mm	Bolt Ø mm	Hammer Ø mm	Slide rail Ø mm	Adaptor thread mm	
670.0001	100-150	max. 14	60	60	M16 x 1,5	3,70

**WHEEL HUB EXTRACTOR & DRIVE SHAFT EJECTOR**

**Flange extractor set**

- In order to separate the flanges in pipes to enable gasket changing or maintenance works
- For screws M16 - M24
- Special tool steel




	Ø mm	Key mm	mm	
670.0251	2 pcs	80-250	M24x-1,5x110	24

**Separating and assembly fork**

- For quick loosening of track and steering rod ends steering arms and additional controlling parts
- Ideal for confined spaces
- Special tool steel

**Caution:** The separating and mounting fork damages the dust sleeve




	A mm	L mm	
670.0091	18	330,0	0,90
670.0092	23	330,0	0,90
670.0093	31	330,0	1,10
670.0094	35	330,0	1,30
670.0095	45	330,0	1,50

**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special tool steel




			
670.0013	5 pcs	Universal wheel hub extractor set	3,60

**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special tool steel




			
670.0014	6 pcs	Universal wheel hub extractor set	4,10


**Universal wheel hub extractor set**

- For bolt circle diameter up to 250 mm
- Clamp foot hole for bolts 14 mm, 18 mm + 22 mm
- Special tool steel



			
670.0015	7 pcs	Universal wheel hub extractor set	4,60


**accessories:**

			
670.0017	Traverse bar for weehl hub extractor set	820	
670.0018	Puller leg +reception ring Ø14mm + Ø18mm	540	
670.0019	Reception ring Ø 14mm	22	
670.0020	Reception ring Ø 18mm	16	
610.2701	Spindle, 27mm, G3/4"x14Gx180mm	1000	


**Universal wheel bearing puller and drive shaft puller, hydraulic**

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special tool steel
- In durable plastic storage case



			
700.1400	11 pcs	Universal wheel bearing puller and drive shaft puller, hydraulic	9,34

consists of:

			
700.1400-1	Hydraulic spindle 10 t, AG 1.1/2"x16G	1,34	
700.1400-2	Disc traverse, 100mm	0,92	
700.1400-3	Puller pull arm set, 5 pcs	0,50	
700.1400-4	Impact socket 30mm, L=200mm	0,94	
700.1400-5	Impact spindle	2,02	
700.1400-7	Extension small	0,06	

### Wheel hub and bearing dismantling set

- Special tool for expressing the joint hubs or drawing off of the wheel hub
- Massive tool, made out of a one piece
- Special tool steel



Part No.	Qty	Description	Weight (kg)
700.1410	7 pcs	Wheel hub and bearing dismantling set	4,80

consists of:

Part No.	Description	Weight (kg)
700.1400-1	Hydraulic spindle 10 t, AG 1.1/2"x16G	1,34
700.1411	Wheel hub puller without spindle	2,55
700.1412	Conical ring set, 5 pcs	0,15

### DRAW OFF LINING

#### Draw off lining

- For drawing off the shoulder housings interior ring of light machines, motor parts and other machine parts
- Special tool steel



Part No.	Ø mm	L mm	max N-m	mm	mm	Weight (kg)
670.0221	5-32	135	60	17	M14x1,5 x 130	1,40

### STUD BOLT PULLER

#### Stud bolt puller

- For screwing in or extracting out stud bolts
- Right and left clamping function
- also for lengthy stud bolts
- Special tool steel



Part No.	Ø mm	max N-m	Weight (kg)
670.0231	5 - 15	120	360
670.0232	10 - 19	120	400
670.0233	18 - 28	120	450

### Stud bolt puller

- For screwing in or extracting out stud bolts
- Right and left clamping function
- also for lengthy stud bolts
- Special tool steel



Part No.	Ø mm	max N-m	Weight (kg)
670.0241	5 - 20	120	400

### Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special tool steel



1/2"

Part No.	Ø mm	Weight (kg)
150.1640	23-45	310

### Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special tool steel



1/2"

Part No.	Ø mm	Weight (kg)
150.1642	25-55	800



### Stud bolt puller

- External hexagon drive
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium



Part No.	Thread	Length	Weight (kg)
152.1005	M5	3/8"	150
152.1006	M6	1/2"	160
152.1007	M7	1/2"	160
152.1008	M8	1/2"	170
152.1010	M10	1/2"	180
152.1012	M12	1/2"	200
152.1014	M14	1/2"	200

### Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagonal socket 21.0 mm
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- allows quick and effortless insertion and removal of studs, dowel screws, threaded rods etc.
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



Part No.	Qty	Thread	Weight (kg)
152.1100	4 pcs	M6 - M8 - M10 - M12	0,79

**Screw bolt puller set**

- External hexagon drive
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



				kg
152.1101	7 pcs	M5 - M6 - M7 - M8 - M10 - M12 - M14		1,50

**Screw extractor set**

- For screws from M3 - M18
- Enable the loosening of screws and bolts with turned off heads
- Conical tapered spiral
- In durable plastic case



				kg
150.1330	6 pcs	M3-M6 - M6-M8 - M8-M11 - M11-M14 - M14-M18 - M18-M24		64

**NUT SPLITTER**

**Mechanical nut splitter set**

- For splashing on tight and overtightened nuts without damaging the threaded bolt
- Suitable for nuts to a tensile strength class 6
- Special tool steel



				kg
700.1180	4 pcs	Mechanical nut splitter set		1,58

consists of:

			kg
700.1181	Nut splitter, 9-12mm		90
700.1182	Nut splitter, 12-16mm		170
700.1183	Nut splitter, 16-22mm		380
700.1184	Nut splitter, 22-27mm		660

**Hydraulic nut splitter set**

- For splashing on tight and overtightened nuts without damaging the threaded bolt
- Working range 7.0 - 36 mm
- Induction hardened in the cutting area
- Suitable for nuts to a tensile strength class 10
- Excellent power transfer
- Special tool steel
- In durable plastic storage case



				kg
700.1170	7 pcs	Hydraulic nut splitter set		5,00

consists of:

			kg
700.1150	Nut splitter, hydraulic, 7-21mm		700
700.1163	Nut splitter, hydraulic, 22-36mm		3600
700.1151	Replacement chisel small		50
700.1152	Replacement plate small		50
700.1161	Replacement chisel small		100
700.1162	Replacement plate small		100
151.2073	Hexagon key wrench, long, 3/8"		110

**Hydraulic nut splitter**

- Small execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 5 t
- Suitable for narrow spaces



	mm	L mm	kg
700.1150	7-21	210,0	700

**Hydraulic nut splitter**

- Small execution
- Suitable for nuts to a tensile strength class 10
- Compressive force max. 15 t
- Suitable for narrow spaces
- Exchangeable chisel



	mm	Length mm	kg
630.0022	22-36	290,0	2,90

**Hydraulic nut splitter set**

- Large execution
- Suitable for nuts to a tensile strength class 10
- Work pressure max. 13 t
- In durable plastic storage case



				kg
700.1160	4 pcs	22 - 36 mm; M14 - M24		3,80

consists of:

			kg
700.1161	Replacement chisel small		100
700.1162	Replacement plate small		100
700.1163	Nut splitter, hydraulic, 22-36mm		3600
151.2073	Hexagon key wrench, long, 3/8"		110



Innovation is our mission!



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## BORING AIDS

### Epoxy metal Quicksteel

- Optimal adhesive power
- Enables durable repair
- Mechanical preparation after the curing possible
- Firmly set after 15 minutes
- Cures after 60 minutes completely
- Also suitable for use under water
- Temperature resistant up to 260 °C
- Approx three years use duration
- Resistant to oil, diesel, petrol and battery acid

**Application range:** Metal, glass, plastic, ceramics, wood, concrete optical fiber reinforced plastic etc.



500.1015	Epoxy metal Quicksteel	80
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### Screw grab screw assistance

- Increases the static friction by up to 400%
- Residue free washes off and non-toxic
- Immediate effect without waiting
- Applicable for all screw heads
- Unlimited storage

**Application range:** In rounded turned screw heads



Content		
500.1010	15 ml	250

## STUD BOLT REMOVAL AND INSERTION TOOLS

### Stud bolt puller

- For screwing in or extracting out stud bolts
- Right and left clamping function
- also for lengthy stud bolts
- Special tool steel



	Ø mm	max N·m	Ø mm	Ø mm
670.0231	5 - 15	120	19 mm	360
670.0232	10 - 19	120	19 mm	400
670.0233	18 - 28	120	19 mm	450

### Stud bolt puller

- For screwing in or extracting out stud bolts
- Right and left clamping function
- also for lengthy stud bolts
- Special tool steel



	Ø mm	max N·m	Ø mm	Ø mm
670.0241	5 - 20	120	19 mm	400

### Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special tool steel



	Ø mm	Ø mm	1/2"	Ø mm
150.1640	23-45	31-35	1/2"	300

### Eccentric clamping and turning device

- For the removal and rotation of the round or hexagonal track rod joints (steering and wheel end)
- Due to the knurled eccentric cam it allows from optimal grip even at the joints without drive (round)
- For use on the workbench or directly on the vehicle
- Additional stopper prevents slipping during the splitting process
- Special tool steel



	Ø mm	Ø mm	1/2"	Ø mm
150.1642	25-55	25-46	1/2"	800

### Stud bolt puller

- External hexagon drive
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium



		3/8"	Ø mm	Ø mm
152.1005	M5	3/8"	19 mm	150
152.1006	M6	1/2"	21 mm	160
152.1007	M7	1/2"	21 mm	160
152.1008	M8	1/2"	21 mm	170
152.1010	M10	1/2"	21 mm	180
152.1012	M12	1/2"	21 mm	200
152.1014	M14		24 mm	200
152.1016	M16		24 mm	303
152.1018	M18	3/4"	36 mm	838
152.1002	M20	3/4"	36 mm	818
152.1003	M22		36 mm	748
152.1004	M24		36 mm	728
152.1029	M30		46 mm	1677

### Screw bolt puller set

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagonal socket 21.0 mm
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- allows quick and effortless insertion and removal of studs, dowel screws, threaded rods etc.
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



			kg
152.1100	4 pcs	M6 - M8 - M10 - M12	0,79

consists of:

		Ø mm
152.1006	Stud bolt puller, M6	160
152.1008	Stud bolt puller, M8	170
152.1010	Stud bolt puller, M10	180
152.1012	Stud bolt puller, M12	200

### Screw bolt puller set

- External hexagon drive
- With right and left hand clamping function
- Safe clamping due to 3 rollers
- Stud screws can be screwed in or out without using counter nuts on the bolt
- Also for extra long studs that will go through the through socket
- Mirror polished
- Chrome vanadium
- In durable plastic storage case



152.1101	7 pcs	M5 - M6 - M7 - M8 - M10 - M12 - M14	1,50	

#### consists of:

152.1005	Stud bolt puller, M5	150	
152.1006	Stud bolt puller, M6	160	
152.1007	Stud bolt puller, M7	160	
152.1008	Stud bolt puller, M8	170	
152.1010	Stud bolt puller, M10	180	
152.1012	Stud bolt puller, M12	200	
152.1014	Stud bolt puller, M14	200	

### Stud bolt extraction and insertion tool set

- For screwing in or extracting out stud bolts
- With external hexagonal socket drive 17.0 mm and 19.0 mm
- Very flat compact and robust execution
- Right and left clamping function
- also for lengthy stud bolts
- Special tool steel
- In durable plastic storage case



670.0255	12 pcs	Stud bolt extraction and insertion tool set	544

#### consists of:

670.0256	Expansion sleeve, 2 pcs	M10 x 1.5	60
670.0257	Expansion sleeve, 2 pcs	M10 x 1.25	60
670.0258	Expansion sleeve, 2 pcs	M8 x 1.25	40
670.0259	Expansion sleeve, 2 pcs	M6 x 1.0	60
670.0263	Mounting sleeve,	M10 x 1.5	40
670.0264	Mounting sleeve,	M10 x 1.25	40
670.0266	Mounting sleeve,	M8 x 1.25	40
670.0267	Mounting sleeve,	M6 x 1.0	40



### Stud extractor set

- Set contents for extensive applications
- For removing of threaded bolts, studding and screws
- No damage of the thread
- Only negligible enlarging of the threaded bolt through special profile extractor pin
- For screws and bolts M5 - M16
- Special tool steel
- In durable plastic storage case



150.1305	25 pcs	Stud extractor set	650

#### extractor pin:

Size mm	Ø mm	Ø	Thread	L mm	Extractor pin incl thrust bolt	
150.0521	1	3,2	1/8" M5 - M6	60,0	150.0511S	150
150.0522	2	4,8	3/16" M7 - M8	70,0	150.0512S	180
150.0523	3	6,4	1/4" M9 - M10	78,0	150.0513S	230
150.0524	4	8,0	5/16" M12	83,0	150.0514S	300
150.0525	5	8,7	11/32" M14 - M16	94,0	150.0515S	350

#### extractor nut:

Size mm	Pin dim	mm	L mm	
150.0511	1	10,0	16,0	130
150.0512	2	11,0	16,0	230
150.0513	3	13,0	16,0	350
150.0514	4	14,0	16,0	470
150.0515	5	17,0	16,0	590

#### drill:

	Ø mm	Ø	Drill bush	L mm	
150.1305-21	3,2	1/8"	1 - 4	65,0	20
150.1305-22	4,8	3/16"	5 - 7	86,0	20
150.1305-23	6,4	1/4"	8	101,0	20
150.1305-24	8,0	5/16"	9	117,0	20
150.1305-25	8,7	11/32"	10	125,0	20

#### bushes:

Size mm	Inner Ø 1 mm	Inner Ø 2 mm	Inner Ø 1	Inner Ø 2	L mm		
150.0501	1	4,0	3,2	5/32"	1/8"	30,0	3
150.0502	2	4,8	3,2	3/16"	1/8"	30,0	8
150.0503	3	4,8	3,2	3/16"	1/8"	30,0	10
150.0504	4	4,8	3,2	3/16"	1/8"	30,0	14
150.0505	5	6,0	4,8		3/16"	30,0	12
150.0506	6	7,0	4,8	9/32"	3/16"	30,0	14
150.0507	7	7,0	4,8	9/32"	3/16"	30,0	18
150.0508	8	7,0	4,8	9/32"	3/16"	30,0	22
150.0509	9	9,0	6,5		1/4"	30,0	17
150.0510	10	9,5	6,5	3/16"	1/4"	30,0	21

### SPIRAL PROFILE SOCKETS

#### Spiral profile socket nut

- Very flat compact and robust execution
- Rejuvenating special profile with aggressive spiral nut
- Bites firmly to give a firm connection between stuck nut and head
- Can be used with a socket or ring spanner
- Phosphate finish
- Chrome molybdenum



		mm	
913.3881	M8	16,0	10
913.3882	M10	16,0	10
913.3883	M11	18,0	10
913.3884	M12	19,0	10
913.3885	M13	19,0	20
913.3886	M14	21,0	20
913.3887	M15	23,0	20
913.3888	M16	24,0	30
913.3889	M17	26,0	40
913.3890	M19	27,0	40

### Spiral profile socket nut set

- For loosening and unscrewing of fixed bolt and nuts with damaged "round turned" threads or heads
- Special, left handed cutting edge thread with 6 conical reducing cutting edges
- Very flat compact and robust execution
- The drive can be used alternatively with a socket ring or combination spanner
- In durable plastic storage case



				9
913.3880	10 pcs	M8 - M10 - M11 - M12 - M13 - M14 - M15 - M16 - M17 - M19		300

consists of:

			9
913.3881	Spiral profile socket nut, M8		10
913.3882	Spiral profile socket nut, M10		10
913.3883	Spiral profile socket nut, M11		10
913.3884	Spiral profile socket nut, M12		10
913.3885	Spiral profile socket nut, M13		20
913.3886	Spiral profile socket nut, M14		20
913.3887	Spiral profile socket nut, M15		20
913.3888	Spiral profile socket nut, M16		30
913.3889	Spiral profile socket nut, M17		40
913.3890	Spiral profile socket nut, M19		40

### Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



	mm	D mm	L mm	9
913.1473	6,0	17,0	32,0	40
913.1408	8,0	17,0	32,0	40
913.1410	10,0	17,0	32,0	40
913.1470	11,0	17,0	32,0	40
913.1412	12,0	17,0	32,0	40
913.1413	13,0	19,0	32,0	40

### Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



			9
913.1450	4 pcs	Spiral profile socket set	200

consists of:

			9
913.1408	1/4" Spiral profile impact socket, 8mm		40
913.1410	1/4" Spiral profile impact socket, 10mm		40
913.1412	1/4" Spiral profile impact socket, 12mm		40
913.1413	1/4" Spiral profile impact socket, 13mm		40

### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



			9
913.1460	15 pcs	Spiral profile impact socket set	1,10

consists of:

			9
913.1473	1/4" Spiral profile impact socket, 6mm		40
913.1408	1/4" Spiral profile impact socket, 8mm		40
913.1410	1/4" Spiral profile impact socket, 10mm		40
913.1470	1/4" Spiral profile impact socket, 11mm		40
913.1412	1/4" Spiral profile impact socket, 12mm		40
913.1468	1/2" Spiral profile impact socket, 13mm		50
913.1467	1/2" Spiral profile impact socket, 14mm		70
913.1466	1/2" Spiral profile impact socket, 15mm		70
913.1465	1/2" Spiral profile impact socket, 17mm		70
913.1464	1/2" Spiral-Profile-Force-Plug, 19mm		90
913.1463	1/2" Spiral profile impact socket, 21mm		90
913.1462	1/2" Spiral profile impact socket, 24mm		110
913.1461	1/2" Spiral profile impact socket, 27mm		110

### Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



	mm	D mm	L mm	9
913.3858	8,0	17,0	34,0	30
913.3860	10,0	15,0	34,0	30
913.3861	11,0	16,0	34,0	30
913.3862	12,0	18,0	34,0	40
913.3863	13,0	18,5	34,0	40
913.3864	14,0	20,5	34,0	40
913.3865	15,0	22,0	34,0	60
913.3866	16,0	22,5	34,0	60
913.3867	17,0	24,5	34,0	70
913.3868	18,0	26,0	34,0	80
913.3869	19,0	27,0	34,0	80

### Spiral profile socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum
- Includes storage rail



			9
913.3850	4 pcs	Spiral profile socket set	200

consists of:

			9
913.3858	3/8" Spiral profile impact socket, 8mm		30
913.3860	3/8" Spiral profile impact socket, 10mm		30
913.3862	3/8" Spiral profile impact socket, 12mm		40
913.3863	3/8" Spiral profile impact socket, 13mm		40



### Spiral profile impact socket set

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Drive out pin
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



3/8"			
913.3855	10 pcs	Spiral profile impact socket set	660

consists of:

913.3860	3/8" Spiral profile impact socket, 10mm	30	
913.3861	3/8" Spiral profile impact socket, 11mm	30	
913.3862	3/8" Spiral profile impact socket, 12mm	40	
913.3863	3/8" Spiral profile impact socket, 13mm	40	
913.3864	3/8" Spiral profile impact socket, 14mm	40	
913.3865	3/8" Spiral profile impact socket, 15mm	60	
913.3866	3/8" Spiral profile impact socket, 16mm	60	
913.3867	3/8" Spiral profile impact socket, 17mm	70	
913.3868	3/8" Spiral profile impact socket, 18mm	80	
913.3869	3/8" Spiral profile impact socket, 19mm	80	
913.3870	Burr arbor, 3/8", for 913.3855	30	



### Spiral profile impact socket

- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Rejuvenating special profile with aggressive spiral nut
- For turning off of screws with rounded or turned heads
- Bites firmly to give a firm connection between stuck nut and head
- Phosphate finish
- Chrome molybdenum



1/2"			
	mm	L mm	
913.1469	12,0	34,0	40
913.1468	13,0	34,0	50
913.1467	14,0	34,0	70
913.1466	15,0	34,0	70
913.1465	17,0	34,0	70
913.1464	19,0	34,0	90
913.1249	19,0	50,0	90
913.1250	20,0	50,0	110
913.1463	21,0	34,0	90
913.1252	22,0	50,0	120
913.1253	23,0	50,0	130
913.1462	24,0	34,0	110
913.1255	25,0	50,0	150
913.1461	27,0	34,0	110

### SPECIAL EXTRACTOR TOOLS

#### Spiral profile impact socket set

- Dual profile sockets have spiral grooves and hexagonal profiles
- Self-fastening and rejuvenating special profile with aggressive spiral nut
- For loosening badly damaged screws and nuts
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Positive connection
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"			
913.1280	3 pcs	Spiral profile impact socket set	600

consists of:

913.1281	Twist socket, 1/2", 17mm	130	
913.1282	Twist socket, 1/2", 19mm	170	
913.1283	1/2" Socket Extension	160	

### Spiral profile impact socket set

- Dual profile sockets have fine and coarse spiral groove profiles
- Self-fastening and rejuvenating special profile with aggressive spiral nut
- For loosening badly damaged screws and nuts
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Positive connection
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"			
913.1270	3 pcs	Spiral profile impact socket set	600

consists of:

913.1271	Twist socket, 1/2", 17mm	140	
913.1272	Twist socket, 1/2", 19mm	200	
913.1273	Twist socket, 1/2", 21mm	210	

#### Spiral profile impact socket, extra deep

- Self-fastening and rejuvenating special profile with aggressive spiral nut
- For loosening badly damaged screws and nuts
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum



1/2"			
	mm	Length mm	
913.1291	17,0	145,0	300
913.1292	19,0	145,0	320
913.1293	21,0	145,0	340

### Spiral profile impact socket set, extra deep

- Self-fastening and rejuvenating special profile with aggressive spiral nut
- For loosening badly damaged screws and nuts
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Positive connection
- Includes impact bar to extract or remove the damaged bolt or nut
- Extra long execution
- For machinery usage
- Phosphate finish
- Chrome molybdenum
- In durable plastic storage case



1/2"

			9
913.1290	4 pcs	Spiral profile impact socket set, extra deep	1,50

consists of:

			9
913.1291	Spiral profile impact socket, 1/2", 17mm	300	
913.1292	Spiral profile impact socket, 1/2", 19mm	320	
913.1293	Spiral profile impact socket, 1/2", 21mm	340	
913.1295	Impact bar, 1/2", for 913.1290	540	



### SPIRAL SCREW AND BOLT EXTRACTORS

#### Spiral extractor

- Extra short execution
- With external drive hexagonal socket 13.0 mm
- Slightly conical tapered spiral
- Can also be used for broken screws and stud bolts
- Counter effect motion guarantees easy extraction
- Special tool steel

**Application range:** Hexagon head, brakes + Water pumps, Spline drives etc.



	D	L mm	9
150.1371	1/8"	36,0	20
150.1373	3/16"	36,0	20
150.1375	1/4"	36,0	20
150.1381	1/2"	36,0	20
150.1386	3 mm	36,0	20
150.1387	4 mm	36,0	20
150.1388	5 mm	36,0	20
150.1389	5,5 mm	36,0	30
150.1390	6 mm	36,0	30
150.1391	8 mm	36,0	30
150.1392	10 mm	36,0	30
150.1393	11 mm	36,0	30
150.1394	12 mm	36,0	40
150.1395	14 mm	36,0	40

#### Captive bolt extractor set

- Extra short execution
- With external drive hexagonal socket 13.0 mm
- Slightly conical tapered spiral
- Can also be used for broken screws and stud bolts
- Counter effect motion guarantees easy extraction
- Special tool steel
- In durable plastic storage case

**Application range:** Hexagon head, brakes + water pumps, spline drives etc.



			9
150.1385	15 pcs	Captive bolt extractor set	360

consists of:

			9
150.1371	Spiral extractor, 1/8"	20	
150.1373	Spiral extractor, 3/16"	20	
150.1375	Spiral extractor, 1/2"	20	
150.1381	Spiral extractor, 1/2"	20	
150.1386	Spiral extractor, 3mm	20	
150.1387	Spiral extractor, 4mm	20	
150.1388	Spiral extractor, 5mm	20	
150.1389	Spiral extractor, 5,5mm	30	
150.1390	Spiral extractor, 6mm	30	
150.1391	Spiral extractor, 8mm	30	
150.1392	Spiral extractor, 10mm	30	
150.1393	Spiral extractor, 11mm	30	
150.1394	Spiral extractor, 12mm	40	
150.1395	Spiral extractor, 14mm	40	



#### Screw extractor set

- For screws from M3 - M18
- Enable the loosening of screws and bolts with turned off heads
- Conical tapered spiral
- In durable plastic case



			9
150.1330	6 pcs	M3-M6 - M6-M8 - M8-M11 - M11-M14 - M14-M18 - M18-M24	64

consists of:

			9
150.1330-1	Screw extractor M3-M6	4	
150.1330-2	Screw extractor M6-M8	7	
150.1330-3	Screw extractor M8-M11	13	
150.1330-4	Screw extractor M11-M14	22	
150.1330-5	Screw extractor M14-M18	40	
150.1330-6	Screw extractor M18-M24	100	

**SPECIAL PROFILE EXTRACTOR**

**Special hexagon socket screw extractor bit**

- Ideal for loosening and opening screws and bolts whose head is damaged or worn off
- Special, left-handed thread with conical tapered cutting edges
- For manual operation
- Special tool steel



1/4"

		L mm	
150.7061	HE1,5	50,0	12
150.7062	HE2	50,0	12
150.7063	HE2,5	50,0	14
150.7064	HE3	50,0	16
150.7065	HE4	50,0	16
150.7066	HE5	50,0	16
150.7067	HE6	50,0	16
150.7068	HE8	38,0	20
150.7069	HE10	38,0	24

**Special Torx Screw Extractor Bit**

- Ideal for loosening and opening screws and bolts whose head is damaged or worn off
- Special, left-handed thread with conical tapered cutting edges
- TE10 to TE40 = 6.3 mm hexagonal
- TE50 to TE55 = 10.0 mm hexagonal
- For manual operation
- Special tool steel



1/4" 30 mm

		L mm	
150.7016	TE10	50,0	45
150.7017	TE15	50,0	45
150.7018	TE20	50,0	45
150.7019	TE25	50,0	45
150.7021	TE27	50,0	45
150.7022	TE30	50,0	45
150.7023	TE40	50,0	55
150.7024	TE50	38,0	65
150.7026	TE55	38,0	65



consists of:

918.3505	1/4" TORSIONpower Bit Torx, 25mm, T10	4
918.3510	1/4" TORSIONpower Bit Torx, 25mm, T15	4
918.3515	1/4" TORSIONpower Bit Torx, 25mm, T20	4
918.3520	1/4" TORSIONpower Bit Torx, 25mm, T25	4
918.3525	1/4" TORSIONpower Bit Torx, 25mm, T27	5
918.3530	1/4" TORSIONpower Bit Torx, 25mm, T30	5
918.3535	1/4" TORSIONpower Bit Torx, 25mm, T40	6
918.1271	1/2" Bit adaptor socket, for bits 10mm	40
514.1113	1/4" Auto slimlock magnetic quick release bit holder, 65mm	30
150.7016	1/4" Special Torx Screw Extractor Bit, TE10	45
150.7017	1/4" Special Torx Screw Extractor Bit, TE15	45
150.7018	1/4" Special Torx Screw Extractor Bit, TE20	45
150.7019	1/4" Special Torx Screw Extractor Bit, TE25	45
150.7021	1/4" Special Torx Screw Extractor Bit, TE27	45
150.7022	1/4" Special Torx Screw Extractor Bit, TE30	45
150.7023	1/4" Special Torx Screw Extractor Bit, TE40	55
150.7024	10 mm special Torx Screw Extractor Bit, TE50	65
150.7026	10 mm special Torx Screw Extractor Bit, TE55	65
150.7061	1/4" special hexagonal screw extractor bit, HE 1.5	12
150.7062	1/4" special hexagonal screw extractor bit, HE 2	12
150.7063	1/4" special hexagonal screw extractor bit, HE 2.5	14
150.7064	1/4" special hexagonal screw extractor bit, HE 3	16
150.7065	1/4" special hexagonal screw extractor bit, HE 4	16
150.7066	1/4" special hexagonal screw extractor bit, HE 5	16
150.7067	1/4" special hexagonal screw extractor bit, HE 6	16
150.7068	10 mm special hexagonal screw extractor bit, HE 8	20
150.7069	10 mm special hexagonal screw extractor bit, HE 10	24
918.3401	1/4" TORSIONpower Bit hexagonal, 25mm, 1,5mm	6
918.3403	1/4" TORSIONpower Bit hexagonal, 25mm, 1,5mm	6
918.3407	1/4" TORSIONpower Bit hexagonal, 25mm, 1,5mm	6
918.3405	1/4" TORSIONpower Bit hexagonal, 25mm, 3mm	10
918.3410	1/4" TORSIONpower Bit hexagonal, 25mm, 4mm	4
918.3415	1/4" TORSIONpower Bit hexagonal, 25mm, 5mm	6
918.3420	1/4" TORSIONpower Bit hexagonal, 25mm, 6mm	6

**Torx and hexagon socket screw extractor set**

- Ideal for loosening and opening screws and bolts whose head is damaged or worn off
- Special left-hand cutting thread with tapered cutting edges for Torx screws and specially shaped extractors for hexagon socket screws
- Including TORSIONpower bits for Torx and hexagon socket screws
- Bits with torsion zone for cushioning of the torque peak
- Includes magnetic quick release bit holder and 1/2" socket adapter
- Colour-coded bits
- For manual operation
- Longer service life
- Nickel plated
- Special tool steel
- In durable plastic case



1/4" 30 mm

150.7060	34 pcs Torx and hexagon socket screw extractor set	520

**Special nuts extractor set**

- For loosening and unscrewing of fixed nuts with damaged "round turned" heads
- Special, left-handed thread with 6 conical tapered cutting edges
- Very flat compact and robust execution
- The drive can be used alternatively with a socket or ring spanner



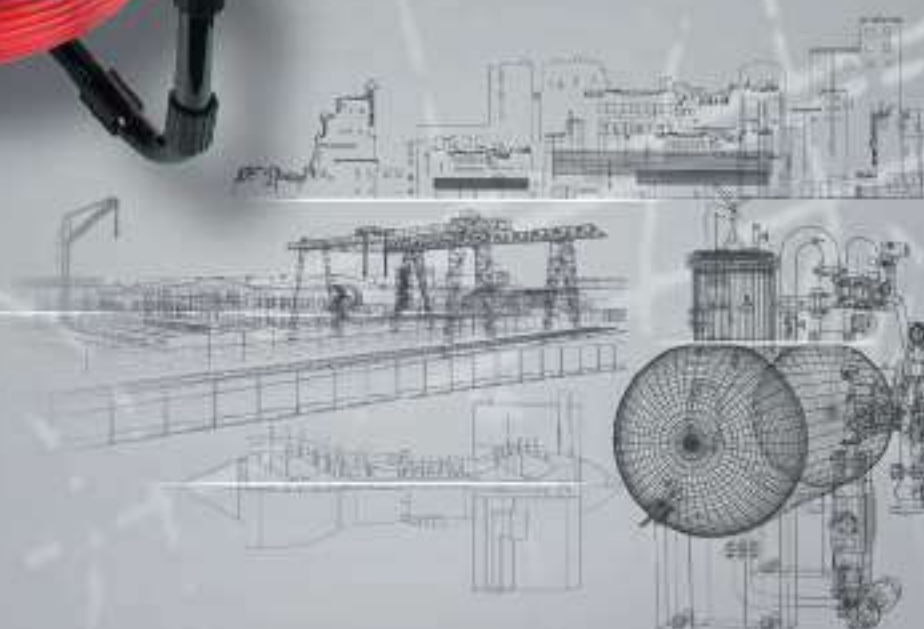
913.1415	12 pcs 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	63,5



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*Innovation is  
our mission!*





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## WI-FI VIDEOSCOPE SETS

### Wi-Fi video scope set with Ø 3.9 mm 0° HD front camera probe

- Easy to connect to your smartphone via Wi-Fi
- For Android smartphone (via Android System 4.4+) and iPhone IOS system (via IOS 8.0)
- 3.9 mm HD camera
- Cable-free and easy to set up
- Photos and videos are saved directly to your smartphone
- 4 adjustable mini LED lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature from -15 °C to +50 °C
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- Versitile usage
- Transmitter with integrated battery, charging indicator light and light
- About 60 minutes of continuous operation possible
- Transmitter is charged via USB
- Including USB adapter, which allows the camera to be connected to a laptop or PC
- Included hook, magnet and mirror



#### Technical data:

Operating time :	ca. 60 min
Operating temperature:	-15 °C to +50 °C
Bend radius:	15 mm
Protection class:	IP67
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Aperture angle:	60°
Focused depth of field:	1 - 1,5 cm
Resistance:	Engine oil-resistant probe
Connection:	USB 2.0
Light source:	4 dimmable white mini LED lamps
Rechargeable battery:	3,7 V / 800 mAh
Battery technologie:	Lithium-ion

550.7520	7 pcs	Wi-Fi video scope set with Ø 3.9 mm 0° HD front camera probe	240
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#### consists of:

550.7511	Wi-Fi transmitter	50
550.7522	Wi-Fi video scope set 0°, Ø 3.9 mm	23
550.7527	Wi-Fi video scope telescopic holder for probe Ø 3.9 mm	55
550.7516	USB adapter	7
550.7523	Wi-Fi video scope hook attachment for probe Ø 3.9 mm	2
550.7524	Wi-Fi video scope magnetic attachment for probe Ø 3.9 mm	3
550.7526	Wi-Fi video scope mirror attachment for probe Ø 3.9 mm	2

### Wi-Fi video scope set with Ø 5.5 mm 0° HD front camera probe

- Easy to connect to your smartphone via Wi-Fi
- For Android smartphone (via Android System 4.4+) and iPhone IOS system (via IOS 8.0)
- 5.5mm HD camera
- Cable-free and easy to set up
- Photos and videos are saved directly to your smartphone
- 6 adjustable mini LED lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature from -15 °C to +50 °C
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- Versitile usage
- Transmitter with integrated battery, charging indicator light and light
- About 60 minutes of continuous operation possible
- Transmitter is charged via USB
- Including USB adapter, which allows the camera to be connected to a laptop or PC
- Included hook, magnet and mirror



#### Technical data:

Operating time :	ca. 60 min
Operating temperature:	-15 °C to +50 °C
Bend radius:	15 mm
Protection class:	IP67
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Aperture angle:	60°
Focused depth of field:	3 - 6 cm
Resistance:	Engine oil-resistant probe
Connection:	USB 2.0
Light source:	6 dimmable white mini LED lamps
Rechargeable battery:	3,7 V / 800 mAh
Battery technologie:	Lithium-ion

550.7510	7 pcs	Wi-Fi video scope set with Ø 5.5 mm 0° HD front camera probe	250
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#### consists of:

550.7511	Wi-Fi transmitter	50
550.7512	Wi-Fi video scope set 0°, Ø 5.5 mm	180
550.7513	Wi-Fi video scope telescopic holder for probe Ø 5.5 - 6.0 mm	55
550.7516	USB adapter	7
550.7517	Wi-Fi video scope hook attachment for probe Ø 5.5 mm	2
550.7518	Wi-Fi video scope magnetic attachment for probe Ø 5.5 mm	3
550.7519	Wi-Fi video scope mirror attachment for probe Ø 5.5 mm	2

### Wi-Fi video scope set with Ø 6.0 mm 0° and 90° HD front camera probe, switchable

- Easy to connect to your smartphone via Wi-Fi
- For Android smartphone (via Android System 4.4+) and iPhone IOS system (via IOS 8.0)
- 6.0mm HD camera
- Cable-free and easy to set up
- Photos and videos are saved directly to your smartphone
- 4 mini LED lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature from -15 °C to +50 °C
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- Versitile usage
- Transmitter with integrated battery, charging indicator light and light
- About 60 minutes of continuous operation possible
- Transmitter is charged via USB
- Including USB adapter, which allows the camera to be connected to a laptop or PC



#### Technical data:

Operating time :	ca. 60 min
Operating temperature:	-15 °C to +50 °C
Bend radius:	15 mm
Protection class:	IP67
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Aperture angle:	60°
Focused depth of field:	1 - 1,5 cm
Resistance:	Engine oil-resistant probe
Connection:	USB 2.0
Light source:	6 dimmable white mini LED lamps
Rechargeable battery:	3,7 V / 800 mAh
Battery technologie:	Lithium-ion

550.7540	4 pcs	Wi-Fi video scope set with Ø 6.0 mm 0° and 90° HD front camera probe, switchable	150
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#### consists of:

550.7511	Wi-Fi transmitter	50
550.7541	Wi-Fi video scope set switchable, 0° and 90°, Ø 6.0 mm	31
550.7513	Wi-Fi video scope telescopic holder for probe Ø 5.5 - 6.0 mm	55
550.7516	USB adapter	7

## WI-FI VIDEOSCOPE ACCESSORIES

### Wi-Fi transmitter

- Transmitter with integrated battery, charging indicator light and light
- About 60 minutes of continuous operation possible
- Transmitter is charged via USB
- for all Wi-Fi videoscopes



Head Ø mm	Length mm	Weight g
550.7511	Wi-Fi transmitter	50

### Wi-Fi video scope probe 0°, Ø 3.9 mm

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- flexible PVC-casing
- Connectable to Wi-Fi video scope 550.7511



#### Technical data probe:

Protection class:	IP67
Aperture angle:	60°
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Focused depth of field:	1 - 1,5 cm
Operating temperature:	-15°C to +50°C
Light source:	6 dimmable white mini LED lamps

Head Ø mm	Aperture angle	Length mm	Weight g
550.7522	0	1005,0	23

### Wi-Fi video scope probe 0°, Ø 5.5 mm

- 6 adjustable mini LED lamps
- Bend radius max. 15 mm
- flexible PVC-casing
- Connectable to Wi-Fi video scope 550.7511



#### Technical data probe:

Protection class:	IP67
Aperture angle:	60°
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Focused depth of field:	3 - 6 cm
Operating temperature:	-15°C to +50°C
Light source:	6 dimmable white mini LED lamps

Head Ø mm	Aperture angle	Length mm	Weight g
550.7512	0°	1120,0	180

### Wi-Fi video scope probe switchable, 0° and 90°, Ø 6.0 mm

- with 2 single cameras and 2 light sources
- 6 adjustable mini LED lamps
- Bend radius max. 15 mm
- flexible PVC-casing
- Connectable to Wi-Fi video scope 550.7511



#### Technical data probe:

Protection class:	IP67
Aperture angle:	60°
Camera resolution:	1600 x 1200 (YUV), 1280 x 720 (photograph) = 2.0 mega pixel
Focused depth of field:	1 - 1,5 cm
Operating temperature:	-15°C to +50°C
Light source:	6 dimmable white mini LED lamps

Head Ø mm	Aperture angle	Length mm	Weight g
550.7541	0 + 90	990,0	31

### Wi-Fi video scope telescope holder for probes Ø 3.9 mm

- With telescopic function
- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 3.9 mm
- for 550.7522



Length mm	Weight g
550.7527	150 - 1150

### Wi-Fi video scope telescope holder for probes Ø 5.5 - 6.0 mm

- With telescopic function
- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 5.5 - 6.0 mm
- for 550.7512 and 550.7541



Length mm	Weight g
550.7513	150 - 1150

### Wi-Fi video scope hook attachment for probe Ø 3.9 mm

- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 3.9 mm
- for 550.7522



Head Ø mm	Length mm	Weight g
550.7523	3,9	77,0

### Wi-Fi video scope hook attachment for probe Ø 5.5 mm

- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 5.5 mm
- for 550.7512



Head Ø mm	Length mm	Weight g
550.7517	5,5	77,0

### Wi-Fi Video scope Magnetic attachment for probes Ø 3.9 mm

- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 3.9 mm
- for 550.7522



Head Ø mm	Length mm	Weight g
550.7524	3,9	78,0

### Wi-Fi Video scope Magnetic attachment for probes Ø 5.5 mm

- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 5.5 mm
- for 550.7512



Head Ø mm	Length mm	Weight g
550.7518	5,5	78,0

### Wi-Fi video scope mirror attachment for probe Ø 3.9 mm

- Special tool steel
- for Wi-Fi video scope probes with a head Ø of 3.9 mm
- for 550.7522



Head Ø mm	Length mm	Weight g
550.7526	3,9	43,0

### Wi-Fi videoscope mirror attachment for probe Ø 5.5 mm

- Special tool steel
- for Wi-Fi videoscope probes with a head Ø of 5.5 mm
- for 550.7512



	Head Ø mm	Length mm	
550.7519	5,5	43,0	2

### USB adapter

- for all Wi-Fi videoscopes



550.7516	USB adapter	7

### HD VIDEOSCOPE SETS

#### HD video scope set with Ø 6.0 mm 0° and 90° HD front camera probe, switchable

- 6.0mm HD camera
- 6 adjustable mini LED lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature of -10°C to +60°C
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in AVI-format
- Versatile usage
- with integrated battery, charging indicator lamp and light
- About 150 minutes of continuous operation possible
- The device is charged via USB
- Includes 2 GB memory cards
- With practical carrying bag



#### Technical data hand held unit:

Screen:	3,5"
Picture storage format:	JPEG
Video format:	AVI
Storage medium:	microSD
Operating time :	approx. 150 min
Rechargeable battery:	1500 mAh
Battery technologie:	Li-polymer
Connection:	USB 2.0

#### technical data sensor:

Operating temperature:	-10°C to +60°C
Bend radius:	5 cm
Protection class:	IP67
Aperture angle:	65°
Camera resolution:	1280 (H) x 720 (V)
Focused depth of field:	3 ~ 8 cm
Light source:	6 dimmable white mini LED lamps
Resistance:	Oil-resistant

550.7500	5 pcs 0° and 90° HD front camera probe, switchable	520

consists of:

550.7501	HD videoscope basic unit, 3,5"	255
550.7504	USB charging cable	30
550.7507	HD video scope set switchable, 0° and 90°, Ø 6.0 mm	85
550.7508	Magnet for 550.7507	20
550.7594	2 GB microSD card	5

#### HD video scope set with Ø 4.5 mm 0° and 90° HD front camera probe, switchable

- 4,5 mm HD camera
- 6 adjustable mini LED lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature of -10°C to +60°C
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in AVI-format
- Versatile usage
- with integrated battery, charging indicator lamp and light
- About 150 minutes of continuous operation possible
- The device is charged via USB
- Includes 2 GB memory cards
- With practical carrying bag



#### Technical data hand held unit:

Screen:	3,5"
Picture storage format:	JPEG
Video format:	AVI
Storage medium:	microSD
Operating time :	approx. 150 min
Rechargeable battery:	1500 mAh
Battery technologie:	Li-polymer
Connection:	USB 2.0

#### technical data sensor:

Operating temperature:	-10°C to +60°C
Bend radius:	5 cm
Protection class:	IP67
Aperture angle:	65°
Camera resolution:	1280 (H) x 720 (V)
Focused depth of field:	3 ~ 8 cm
Light source:	6 dimmable white mini LED lamps
Resistance:	Oil-resistant

550.7530	7 pcs 0° and 90° HD front camera probe, switchable	525

consists of:

550.7501	HD videoscope basic unit, 3,5"	255
550.7504	USB charging cable	30
550.7594	2 GB microSD card	5
550.7529	Accessories set for HD videoscope Ø 4.5 mm, 3 pcs	3
550.7528	HD video scope set switchable, 0° and 90°, Ø 4.5 mm	75

### HD VIDEOSCOPE ACCESSORIES

#### HD video scope probe, 0°, Ø 3.9 mm

- 6 adjustable mini LED lamps
- Bend radius max. 5 cm
- connectable to HD videoscope 550.7501



#### Technical data probe:

Bend radius:	5 cm
Protection class:	IP67
Aperture angle:	65°
Camera resolution:	1280 (H) x 720 (V)
Focused depth of field:	3 ~ 8 cm
Operating temperature:	-10°C to +60°C
Light source:	6 dimmable white mini LED lamps

	Head Ø mm		Length mm	
550.7506	3,9	0°	1000,0	46

#### HD video scope set switchable, 0° and 90°, Ø 6.0 mm

- 6 adjustable mini LED lamps
- Bend radius max. 5 cm
- connectable to HD videoscope 550.7501



#### Technical data probe:

Bend radius:	5 cm
Protection class:	IP67
Aperture angle:	65°
Camera resolution:	1280 (H) x 720 (V)
Focused depth of field:	3 ~ 8 cm
Operating temperature:	-10°C to +60°C
Light source:	6 dimmable white mini LED lamps

	Head Ø mm		Length mm	
550.7507	6,0	0° + 90°	1000,0	85

#### HD video scope set switchable, 0° and 90°, Ø 4.5 mm

- 6 adjustable mini LED lamps
- Bend radius max. 5 cm
- connectable to HD videoscope 550.7501



#### Technical data probe:

Bend radius:	5 cm
Protection class:	IP67
Aperture angle:	65°
Camera resolution:	1280 (H) x 720 (V)
Focused depth of field:	3 ~ 8 cm
Operating temperature:	-10°C to +60°C
Light source:	6 dimmable white mini LED lamps

	Head Ø mm		Length mm	
550.7528	4,5	0° + 90°	1000,0	75

## ULTIMATE<sup>vision</sup> MASTER VIDEOSCOPE SETS

### ULTIMATE<sup>vision</sup> MASTER Videoscope set

- Adjustable function for the angle of vision through the one way sending device
- 3 adjustable Mini-LED-lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature of + 0°C to +55°C
- Excellent picture quality and viewing through special camera in the probe head
- Optionally expandable with other probes
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on a TV monitor with AV cable possible
- Multi lingual menu (14 languages)
- Versatile usage
- Incl. 4xAA batteries
- 2 component housing protects against light impacts
- With high quality foam protection material
- In durable plastic storage case

#### Scope of delivery:

- Basic unit
- AV cable
- 8 GB SD card
- USB data cable
- Battery set 4xAAA
- Selected videoscope probe

### ULTIMATE<sup>vision</sup> MASTER Videoscope set with 90° front camera probe, semi-rigid spiral shaft, 6-pcs



Ø	1 m	2 m	3 m
3,9 mm	550.7391	550.7392	550.7393

### ULTIMATE<sup>vision</sup> MASTER Videoscope set with 150°/0° camera probe, flexible PVC shaft 6-pcs



Ø	1 m	2 m	3 m
6,0 mm		550.7612	550.7613

### ULTIMATE<sup>vision</sup> MASTER Videoscope set with 0° + 90° probe, reversible, 6-pcs



#### Technical data hand held unit:

Screen:	3,5" TFT LCD VGA
Output format:	NTSC and PAL
Picture storage format:	AVI, JPG (640x480)
Storage medium:	SD card up to a max. 32 GB
Battery:	4 x AA
Operating time :	ca. 4 h
Operating temperature:	-20°C to +60°C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG

Ø	1 m	2 m	3 m
4,9 mm	550.7049	550.7462	550.7463



### ULTIMATE<sup>vision</sup> MASTER Videoscope set with 0° front camera probe, semi-rigid spiral shaft, 6-pcs

### ULTIMATE<sup>vision</sup> MASTER Videoscope set with 0° front camera probe, semi-rigid spiral shaft, 6-pcs

#### technical data sensor:

Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of field:	1 cm - 6 cm
AV Magnification:	is up to 15° over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40° line of vision 90° - aperture angle 36° line of vision 110° - aperture angle 32°
Light source:	2 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm



Ø	1 m	2 m	3 m
5,5 mm	550.7055	550.7502	550.7503



Ø	1 m	2 m	3 m
8,5 mm	550.7801	550.7802	550.7803

#### consists of:

Part Number	Description	Quantity
550.7999	ULTIMATE <sup>vision</sup> basic unit, 3,5" LCD	340
550.5008	8 GB SD card	12
550.5003	AV cable, 1m	20
550.5018	USB data cable	30

## ULTIMATE<sup>vision</sup> MASTER CAMERA PROBE

### ULTIMATE<sup>vision</sup> Cable extension

- Cable diameter: 8.5 mm
- Connection diameter: 16 mm
- Universal for all ULTIMATE<sup>vision</sup> Videoscope applicable



	Length m	
550.7854	3,00	600

### ULTIMATE<sup>vision</sup> MASTER 90° front camera probe semi rigid spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE<sup>vision</sup> MASTER video-scope



#### Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of field:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnification:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		Length m	
550.7351	3,9	90°	1,00	180
550.7352	3,9	90°	2,00	250
550.7353	3,9	90°	3,00	320

### ULTIMATE<sup>vision</sup> MASTER Camera probe reversible, 0° and 90°

- Contains 2 cameras and 2 independent light sources
- Bend radius max. 15 mm
- semi rigid spiral shaft
- The tip of the probe's head is threaded for convenient attachment of different accessories (mirror / hook / magnet)
- Compatible with KS Tools ULTIMATE<sup>vision</sup> MASTER video-scope



#### Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of field:	1 cm - 6 cm
AV Magnification:	is up to 15" over cinch
Operating temperature:	+0°C to +60°C
Light source:	2 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		Length m	
550.7491	4,9	0°/90°	1,00	105
550.7492	4,9	0°/90°	2,00	105
550.7493	4,9	0°/90°	3,00	105

### ULTIMATE<sup>vision</sup> MASTER 0° front camera probe semi rigid spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE<sup>vision</sup> MASTER video-scope



#### Technical data probe:

Format:	semi rigid
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of field:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnification:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		Length m	
550.7551	5,5	0°	1,00	140
550.7552	5,5	0°	2,00	140
550.7553	5,5	0°	3,00	140

### ULTIMATE<sup>vision</sup> MASTER front camera probe 150°/0° flexible PVC shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATE<sup>vision</sup> MASTER video-scope



#### Technical data probe:

Format:	flexible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Operating temperature:	+0°C to +55°C
Line of vision:	0°, revolving in 2 directions each to 150°
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of field:	1 cm - 6 cm
AV Magnification:	is up to 15" over cinch
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

	Head Ø mm		Length m	
550.7602	6,0	150°/0°	2,00	180
550.7603	6,0	150°/0°	3,00	220

### ULTIMATE<sup>vision</sup> MASTER 0° front camera probe semi rigid spiral shaft

- 6 adjustable mini LED lamps
- Bend radius max. 30 mm
- Suitable for connection to ULTIMATE<sup>vision</sup> MASTER video-scope



#### Technical data probe:

Format:	semi rigid
Bend radius:	min. 30 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of field:	1 cm - 6 cm
Operating temperature:	+0°C to +55°C
AV Magnification:	is up to 10" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 90° - aperture angle 36°
Light source:	6 dimmable white mini LED lamps
Brightness:	0 ~ 420 LUX / 4 cm

	Head Ø mm		Length m	
550.7851	8,5	0°	1,00	140
550.7852	8,5	0°	2,00	140
550.7853	8,5	0°	3,00	140

### ULTIMATEvision MASTER videoscope set with sensor drum

- Probe with dimensionally stable pushrod
- Flexible probe head for optimum bend flexibility
- 8 dimmable white mini LED lamps
- Mobile and network independent system
- Abrasion resistant, spring sheathed probe head shaft
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- 1.5 times digital zoom function
- Horizontal picture reflection function
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on large monitor with AV cable
- Data transfer directly through USB cable possible
- SD port for SD card
- Multi lingual menu (14 languages)
- Wide range of applications in pipes and shafts
- 2 Component housing protects against light impacts
- Including meter counter
- In durable plastic storage case

Contents:  
 Sensor drum with pushrod + camera head  
 Basic unit ULTIMATE vision MASTER  
 Meter counter  
 2 GB SD card



#### Technical data hand held unit:

Screen: 3,5" TFT LCD VGA  
 Output format: NTSC and PAL  
 Picture storage format: AVI, JPG (640x480)  
 Storage medium: SD card up to a max. 32 GB  
 Battery: 4 x AA  
 Operating time : ca. 4 h  
 Operating temperature: -20°C to +60°C  
 Language manual: DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG  
 Length: 24,3 mm  
 Ø: 28,0 mm

#### Technical data probe head:

Aperture angle: diagonal 150.8°  
 Camera resolution: 320 (H) x 240 (V) = 76,800 Pixel  
 Focused depth of field: 10 ~ ∞ mm  
 AV Magnification: is up to 15" over cinch  
 Light source: 8 dimmable white mini LED lamps  
 Brightness: 33 Lux  
 Operating temperature: -20°C to +60°C  
 Camera protection: designed out of sapphire glasse camera sheath made out of stainless steel max. 30 mm  
 Bend radius: max. 30 mm  
 Application: 40-100mm - 90° bend flexibility above Ø50mm

#### Technical data drum with pushrod:

Length: 30,00 mm  
 Ø: 6 mm  
 Bend radius: min. 150 mm  
 Operating temperature: -10°C up tp +70°C  
 Protection class: IP 65  
 Drum Ø: 300 mm

		9	
550.7221	3 pcs	ULTIMATEvision MASTER videoscope set with sensor drum	10,60

### Aluminium adaptor for videoscope

- for use with 500.7221



	Ø mm	Length mm	9
550.7229	50,0	36,0	61

### Brush for videoscope

- for use with 500.7221
- For centric use of the camera



	DN	Length mm	9
550.7228	100	150,0	64
550.7227	150	150,0	151

### ULTIMATEvision MASTER PROBE ACCESSORIES

#### ULTIMATEvision MASTER 2 in 1 Magnet sleeve + hook attachment

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9
550.7459	4,9	2

#### ULTIMATEvision MASTER Mirror attachment

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9	
550.7555	5,5	70°	3
550.7556	5,5	90°	3
550.7557	5,5	110°	3

### ULTIMATEvision MASTER Magnet sleeve

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9
550.7559	5,5	2

### ULTIMATEvision MASTER Hook attachment

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9
550.7558	5,5	2

### ULTIMATEvision MASTER Mirror attachment

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9	
550.7857	8,5	70°-110°	2

### ULTIMATEvision MASTER Magnet sleeve

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9
550.7859	8,5	3

### ULTIMATEvision MASTER Hook attachment

- Suitable for connection to ULTIMATEvision MASTER videoscope



	Head Ø mm	9
550.7858	8,5	2

# SUPERCHARGED

## ULTIMATEvision SUPERCHARGED VIDEOSCOPE SETS

### ULTIMATEvision SUPERCHARGED Videoscope set

- Adjustable function for the angle of vision through the one way sending device
- 3 adjustable Mini-LED-lamps
- Mobile and network independent system
- Optimal handling through network or independent working
- Probes substantially stronger and less breakage, there no glass fiber cable
- Working temperature of + 0 °C to +55 °C
- Excellent picture quality and viewing through special camera in the probe head
- Optionally expandable with other probes
- Very good picture and video quality
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on a TV monitor with AV cable possible
- Multi lingual menu (14 languages)
- Versatile usage
- Incl. 4xAA batteries
- 2 component housing protects against light impacts
- With high quality foam protection material
- In durable plastic storage case

#### Scope of delivery:

- Basic unit
- Mirror attachment
- AV cable
- 8 GB SD card
- USB data cable
- Battery set 4xAA
- Selected videoscope probe



#### Technical data hand held unit:

Screen:	3,5" TFT LCD VGA
Output format:	NTSC and PAL
Picture storage format:	AVI, JPG (640x480)
Storage medium:	SD card up to a max. 32 GB
Battery:	4 x AA
Operating time :	ca. 4 h
Operating temperature:	-20 °C to +60 °C
Language manual:	DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG

#### technical data sensor:

Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	640 (H) x 480 (V) = 307,200 Pixel
Focused depth of field:	1 cm - 6 cm
AV Magnification:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40° line of vision 90° - aperture angle 36° line of vision 110° - aperture angle 32°
Light source:	2 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

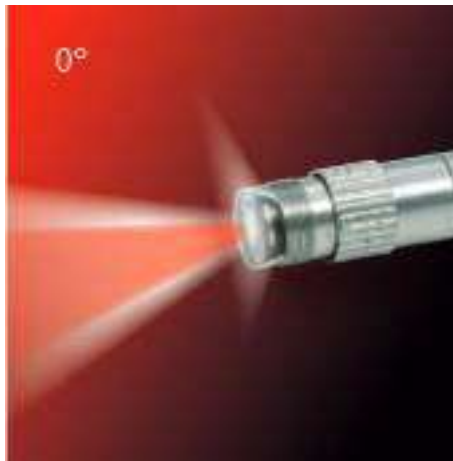
#### consists of:

Part No.	Description	Quantity
550.7999	ULTIMATEvision basic unit, 3, 5" LCD	340
550.5008	8 GB SD card	12
550.5003	AV cable, 1m	20
550.5018	USB data cable	30

### ULTIMATEvision SUPERCHARGED Videoscope set with 0° front camera probe, flexible spiral shaft, 7-pcs



Ø	1 m	2 m	3 m
5,5 mm	550.8055	550.8002	



### ULTIMATEvision SUPERCHARGED Videoscope set with 0° front camera probe, flexible PVC-shaft, 7 pcs



Ø	1 m	2 m	3 m
6,0 mm	550.8061	550.8062	

### ULTIMATEvision SUPERCHARGED CAMERA PROBE

#### ULTIMATEvision Cable extension

- Cable diameter: 8.5 mm
- Connection diameter: 16 mm
- Universal for all ULTIMATEvision Videoscope applicable



Part No.	Length m	Weight g
550.7854	3,00	600

### ULTIMATEvision SUPERCHARGED 0° front camera probe flexible spiral shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATEvision SUPERCHARGED videoscope



#### Technical data probe:

Format:	flexible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel
Protection class:	IP 67
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76.800 Pixel
Focused depth of field:	1 cm - 6 cm
Operating temperature:	0 °C to 75 °C
AV Magnification:	is up to 15" over cinch waterproof to a max. of 1m
Resistance:	oil and petrol resistant probe
Light source:	4 dimmable white mini LED lamps
Brightness:	0 ~ 275 LUX / 4cm

Part No.	Head Ø mm	Angle	Length m	Weight g
550.8551	5,5	0°	1,00	140
550.8552	5,5	0°	2,00	140



### ULTIMATEvision SUPERCHARGED 0° front camera probe flexible PVC shaft

- 4 adjustable mini LED lamps
- Bend radius max. 15 mm
- Suitable for connection to ULTIMATEvision SUPERCHARGED videoscope



#### Technical data probe:

Format:	flexible PVC casing
Bend radius:	min. 15 mm
Lens type:	aspherical
Camera protection:	designed out of sapphire glasse camera sheath made out of stainless steel IP 67
Protection class:	
Aperture angle:	horizontal 46° - vertical 34° - diagonal 56°
Camera resolution:	320 (H) x 240 (V) = 76,800 Pixel
Focused depth of field:	1 cm - 6 cm
Operating temperature:	0°C to 75°C
AV Magnification:	is up to 15" over cinch
Resistance:	waterproof to a max. of 1m oil and petrol resistant probe
Mirror attachment:	line of vision 70° - aperture angle 40° line of vision 90° - aperture angle 36° line of vision 110° - aperture angle 32°

	Head Ø mm		Length m	
550.8601	6,0	150°	1,00	140
550.8602	6,0	150°	2,00	140

### ULTIMATEvision SUPERCHARGED PROBE ACCESSORIES

### ULTIMATEvision SUPERCHARGED Mirror attachment

- Suitable for connection to ULTIMATEvision SUPERCHARGED videoscope



	Head Ø mm		
550.8555	5,5	70°	3
550.8556	5,5	90°	3
550.8557	5,5	110°	3

### ULTIMATEvision SUPERCHARGED Hook attachment

- Suitable for connection to ULTIMATEvision SUPERCHARGED videoscope



	Head Ø mm	
550.8558	5,5	3

### ULTIMATEvision SUPERCHARGED Mirror attachment

- Suitable for connection to ULTIMATEvision SUPERCHARGED videoscope



	Head Ø mm		
550.8605	6,0	70°	3
550.8606	6,0	90°	3
550.8607	6,0	110°	3

### GENERAL ACCESSORIES

### AV cable

- Suitable for all ULTIMATEvision Videoscopes
- Does not transmit sound
- Available plugs: AV jack on video cinch



	Length m	
550.5003	1,00	20

### 8 GB SD card

- Suitable for all ULTIMATEvision Videoscopes



550.5008	8 GB SD card	12

### USB-Data cable

- Suitable for all ULTIMATEvision Videoscopes



550.5018	USB-Data cable	30

### Alcohol cleaning set

- Suitable for all ULTIMATEvision Videoscopes



550.7998	Alcohol cleaning set	50

### USB video grabber

- Just process the files and then burn DVDs, VCDs and more
- Live image broadcasting to TV and laptop
- Supports qualitative high-quality video resolution
- With video software
- Universal serial bus specification Rev.2.0
- NTSC, PAL, video format
- Video and audio input
- USB bus power



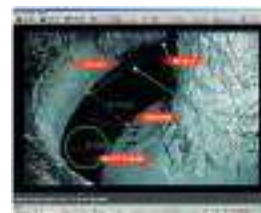
#### Technical data:

Main memory:	256 MB
Operating system:	Windows 2000, XP, 7, Vista 32 bit
Hard disc capacity:	50 MB (free)
USB port:	USB 2.0

550.8603	USB video grabber	135

### Measurement software

- Only usable in association with ULTIMATEvision MASTER videoscope with 0° 5,5 mm probe
- Ideal for bonding in technical documentation
- Only now with this software it is possible to correctly estimate, measure and interpret damages
- Measuring of angles
- Measuring of gaps
- Measurement of radius
- Calculation of areas
- Saving of the arranged photos
- JPEG data format
- Contains distance blade in the delivery



550.5015	Measurement software	300



Innovation is  
our mission!

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## REVERSIBLE RATCHET

### SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



1/4"

#### Technical data:

Square drive:	1/4"
Max. tightening torque:	30 Nm
Max. loosening torque:	30 Nm
No load current:	300 r.p.m.
Vibration acceleration:	< 4,3 m/s <sup>2</sup>
Noise performance level:	98,1 dbA
Noise pressure level:	87,1 dbA
Recommended torque:	25 Nm
Air consumption:	240 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5505	35,5	135,0	400

### SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



3/8"

#### Technical data:

Square drive:	3/8"
Max. tightening torque:	30 Nm
Max. loosening torque:	30 Nm
No load current:	300 r.p.m.
Vibration acceleration:	< 4,3 m/s <sup>2</sup>
Noise performance level:	98,1 dbA
Noise pressure level:	87,1 dbA
Recommended torque:	25 Nm
Air consumption:	240 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5510	35,5	135,0	400

### SlimPOWER mini-pneumatic-reversing ratchet

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Triple teeth
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	30 Nm
Max. loosening torque:	30 Nm
No load current:	300 r.p.m.
Vibration acceleration:	< 4,3 m/s <sup>2</sup>
Noise performance level:	98,1 dbA
Noise pressure level:	87,1 dbA
Recommended torque:	25 Nm
Air consumption:	240 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5515	35,5	135,0	400

### MONSTER high-performance pneumatic-reversing ratchet

- recoilless, gentle on wrists
- suitable for manual traction up to 271 Nm
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle to the sides
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



3/8"

#### Technical data:

Square drive:	3/8"
Max. tightening torque:	81 Nm
Max. loosening torque:	81 Nm
No load current:	300 r.p.m.
Vibration acceleration:	< 4,51 m/s <sup>2</sup>
Noise performance level:	103,6 dbA
Noise pressure level:	92,6 dbA
Air consumption:	60,3 l/min
Recommended torque:	60 Nm
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.3825	50,0	340,0	1,42

### MONSTER high-performance pneumatic-reversing ratchet

- recoilless, gentle on wrists
- suitable for manual traction up to 350 Nm
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle to the sides
- With ratchet head reversing lever (clockwise and anticlockwise)
- Easy operation
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	81 Nm
Max. loosening torque:	81 Nm
No load current:	300 r.p.m.
Vibration acceleration:	< 4,51 m/s <sup>2</sup>
Noise performance level:	103,6 dbA
Noise pressure level:	92,6 dbA
Air consumption:	60,3 l/min
Recommended torque:	60 Nm
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1185	50,0	340,0	1,44

## DIE & ANGLE DRILLING MACHINES

### SlimPOWER mini-pneumatic straight drill

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Not reversible
- With quick-action drill chuck clamping width 0,6 - 6,0mm
- For hard to reach places
- Ideally suited for car bodywork and industrial working
- Stepless speed regulation
- Vibration dampened through double bearing guides
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Chuck capacity:	0,6 - 6
Chuck thread reception:	3/8" x 24 UNF
Capacity:	186 Watt
No load current:	7000 r.p.m.
Vibration acceleration:	< 3,3 m/s <sup>2</sup>
Noise performance level:	97,4 dbA
Noise pressure level:	86,4 dbA
Air consumption:	240 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5520	35,5	145,0	400

### Pneumatic straight drill

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Not reversible
- With quick release chuck capacity 0 - 10 mm
- For hard to reach places
- Ideally suited for car bodywork and industrial working
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened through double bearing guides
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Chuck capacity:	1 - 10
Chuck thread reception:	3/8" x 24 UNF
Capacity:	370 Watt
No load current:	4000 r.p.m.
Vibration acceleration:	< 2,8 m/s <sup>2</sup>
Noise performance level:	101,7 dbA
Noise pressure level:	90,7 dbA
Air consumption:	350 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	 kg
515.5435	46,0	225,0	900

### SlimPOWER mini-pneumatic angle drill

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Not reversible
- With gear rim drill chuck – span width 1 – 6.5mm
- For hard to reach places
- Ideally suited for car body work
- Stepless speed regulation
- Vibration dampened through double bearing guides
- Includes 1/4" coupling connector
- Very compact construction
- Robust housing



#### Technical data:

Chuck capacity:	0,6 - 6
Chuck thread reception:	3/8" x 24 UNF
Capacity:	186 Watt
No load current:	5000 r.p.m.
Vibration acceleration:	< 6,6 m/s <sup>2</sup>
Noise performance level:	99,3 dbA
Noise pressure level:	88,3 dbA
Air consumption:	240 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	 kg
515.5525	90,0	145,0	700



### Pneumatic angle drill

- Angled design
- With planetary gearing
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Not reversible
- With gear rim drill chuck width 0 - 10 mm
- For hard to reach places
- Ideally suited for car body work
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened through double bearing guides
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Chuck capacity:	1 - 10
Chuck thread reception:	3/8" x 24 UNF
Capacity:	370 Watt
No load current:	1900 r.p.m.
Vibration acceleration:	< 3,5 m/s <sup>2</sup>
Noise performance level:	101,9 dbA
Noise pressure level:	90,9 dbA
Air consumption:	350 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	 kg
515.5465	115,0	205,0	1070

### SPOT WELD DRILLING MACHINES

#### Fastdrill pneumatic spot weld drill set

- Special drive for high torque
- With non slip soft grip handle
- Air exhaust through the handle
- Suitable for continuous duty
- Ideally suited for internal and external spot welds
- For carbide spot weld drills
- Detailed guide
- Revolving and removable frame to the fixation on the object
- Feed achievement through pneumatic-cylinder
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust machined housing



#### Technical data:

Drive in mm	8 mm
Capacity:	280 Watt
No load current:	1000 r.p.m.
Vibration acceleration:	< 0,72 m/s <sup>2</sup>
Noise performance level:	95,4 dbA
Noise pressure level:	82,4 dbA
Air consumption:	340 l/min
Operating pressure:	6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	 kg
515.1310 3 pcs Fastdrill pneumatic spot weld drill set	2,40

#### consists of:

	 kg
515.1311 Fastdrill pneumatic spot weld drill	1,85
515.1312 Bracket, small, for Fastdrill	0,55
515.1314 T-handle wrench	0,04



## PIN & DIE GRINDERS

### Pneumatic pencil grinder, 70.000 rpm

- Straight design
- Air exhaust through the used air tube
- Ideal for carbide, corundum and tungsten carbide burrs
- For working in hard to access areas
- Very handy and compact construction
- Suitable for different repair works
- With stepless speed regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector and chuck wrench
- Aluminium housing



#### Technical data:

Hose length:	1 m
Tube diameter:	5 mm
Chuck capacity:	3 mm
Capacity:	150 KW
No load current:	70000 r.p.m.
Vibration acceleration:	< 0,80 m/s <sup>2</sup>
Noise performance level:	86 dbA
Noise pressure level:	74 dbA
Air consumption:	140 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 6,35 mm
Connection thread:	1/4"PT

	D mm	L mm	g
515.3198	16,0	132,0	330

### SlimPOWER mini-pneumatic die grinder, straight

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Chuck:	6 mm
Capacity:	220 Watt
No load current:	25000 r.p.m.
Vibration acceleration:	< 2,6 m/s <sup>2</sup>
Noise performance level:	95,6 dbA
Noise pressure level:	84,6 dbA
Air consumption:	283 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5530	35,0	123,0	300

### Pneumatic die grinder

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Very handy and compact construction
- Secure operation lever with locking device
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Chuck:	6 mm
Capacity:	370 Watt
No load current:	23000 r.p.m.
Vibration acceleration:	< 2,0 m/s <sup>2</sup>
Noise performance level:	101,1 dbA
Noise pressure level:	90,1 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5410	45,0	188,0	620

### Long shaft die grinder

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in deep lying areas
- Secure operation lever with locking device
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Chuck:	6 mm
Capacity:	370 Watt
No load current:	23000 r.p.m.
Vibration acceleration:	< 2,4 m/s <sup>2</sup>
Noise performance level:	102,6 dbA
Noise pressure level:	91,6 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5415	26,0	350,0	1,15

### SlimPOWER mini-pneumatic angled die grinder

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Chuck:	6 mm
Capacity:	220 Watt
No load current:	19000 r.p.m.
Vibration acceleration:	< 3,5 m/s <sup>2</sup>
Noise performance level:	97,9 dbA
Noise pressure level:	86,9 dbA
Air consumption:	283 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5535	75,0	123,0	300

### SlimPOWER mini-pneumatic angled die grinder

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Chuck:	6 mm
Capacity:	220 Watt
No load current:	18000 r.p.m.
Vibration acceleration:	< 6,5 m/s <sup>2</sup>
Noise performance level:	97,8 dbA
Noise pressure level:	86,8 dbA
Air consumption:	283 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5540	70,0	270,0	700

### Pneumatic angled die grinder

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For HM mills, mini cutting discs and grinding heads with a 6 mm shaft
- Ideal for grinding, polishing and engraving work
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Angle size:	80 mm
Chuck:	6 mm
Capacity:	370 Watt
No load current:	18000 r.p.m.
Vibration acceleration:	< 4,4 m/s <sup>2</sup>
Noise performance level:	101 dbA
Noise pressure level:	90,0 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5420	85,0	200,0	0,78

### ROD GRINDER ACCESSORIES

#### Clamping mandrel

- High performances thin disks
- Special tool steel



	Shank mm	Profile	g
515.3017	6,0	round	72



### High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel



	RPM max	D1 mm	D2 mm	H mm	Content	g
515.5056	30600	50,0	10	1,1	50	650
337.2005	13300	50,0	6,0	1,0	25	100
515.5057	20100	75,0	10	1,5	50	710

### Reinforced grinding disc

- For universal usage
- High level of flexibility
- Consistent high cutting power

Ideal for use in metal and stainless steel.

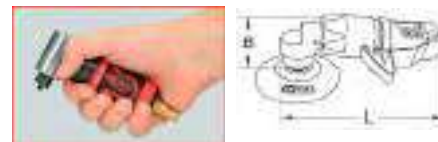


	RPM max	D1 mm	D2 mm	H mm	Content	g
515.5058	22000	59,0	9,56	4,0	25	600

### GRINDING MACHINES

#### SlimPOWER mini-pneumatic grinding machine

- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Receiver: External thread
- Robust housing
- Incl. three grinding discs



#### Technical data:

Capacity:	220 Watt
No load current:	19000 r.p.m.
Sponge diameter:	50 + 75 mm
Polishing sponge diameter:	46 mm
Vibration acceleration:	< 3,5 m/s <sup>2</sup>
Noise performance level:	96,8 dbA
Noise pressure level:	85,8 dbA
Air consumption:	283 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

	B mm	L mm	g
515.5585	40,0	120,0	300

### Grinding disc

- With Velcro receiver
- With internal thread receiver



	Ø mm	Material	Content	g
515.5101	46,0	flexible	5	275
515.5102	75,0	flexible	5	125
515.5103	46,0	rigid	5	55

### Grinding pads

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges

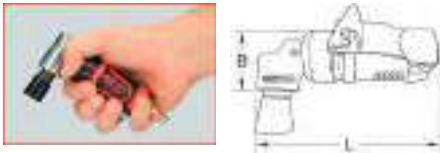


	Ø mm	Grain	Content	g
515.5119	50,0	320	10	16
515.5116	75,0	320	10	19
515.5118	50,0	400	10	16
515.5115	75,0	400	10	19
515.5117	50,0	600	10	16
515.5114	75,0	600	10	19



### SlimPOWER mini-pneumatic grinding machine for large pads

- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- For screw in pads with 50.0 mm diameter
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing



#### Technical data:

- No load current: 19000 r.p.m.
- Vibration acceleration: < 3,5 m/s<sup>2</sup>
- Noise performance level: 96,8 dbA
- Noise pressure level: 85,8 dbA
- Air consumption: 283 l/min
- Min. tube diameter: 3/8" - 10 mm
- Operating pressure: max. 6,3 bar (90 psi)
- Connection thread: 1/4"NPT

	B mm	L mm	g
515.5570	65,0	120,0	300

### Grinding pads

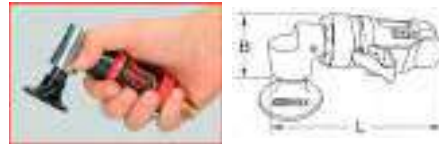
- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges
- With external thread receiver



	Material	Ø mm	Grain	Colour code	Content	g
515.5071		26,7	60	brown	10	10
515.5072		26,7	80	brown	10	20
515.5073		26,7	150	purple	10	20
515.5074		26,7	300	blue	10	20
515.5075	Strip Rad	26,7		black	10	25

### SlimPOWER mini-pneumatic grinding machine for large pads

- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- For screw in pads with 50.0 mm diameter
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing



#### Technical data:

- No load current: 19000 r.p.m.
- Vibration acceleration: < 3,5 m/s<sup>2</sup>
- Noise performance level: 96,8 dbA
- Noise pressure level: 85,8 dbA
- Air consumption: 283 l/min
- Min. tube diameter: 3/8" - 10 mm
- Operating pressure: max. 6,3 bar (90 psi)
- Connection thread: 1/4"NPT

	B mm	L mm	g
515.5580	70,0	120,0	300

### Grinding pads

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges
- With external thread receiver



	Material	Ø mm	Grain	Colour code	Content	g
515.5081	Scouring wool	50,0		white	10	60
515.5083	Sand paper	50,0	80	brown	10	60
515.5084	Sand paper	50,0	150	purple	10	60
515.5082	Sand paper	50,0	240	brown	10	30
515.5085	Sand paper	50,0	300	blue	10	60
515.5086	Strip Rad	50,0		purple	10	100
515.5087	Strip Rad	50,0		black	10	100

### BELT SANDER

#### Pneumatic belt grinder

- With non slip soft grip handle
- Air exhaust through the handle
- Working head is 360° adjustable
- Adjustable for quick sanding belt change
- Ideal for narrow areas (10 mm belt width)
- Secure operation lever with locking device
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing
- For sanding belts with a length of 330 mm



#### Technical data:

- Belt speed: 1188 m/min
- No load current: 18000 r.p.m.
- Vibration acceleration: < 1,01 m/s<sup>2</sup>
- Noise performance level: 81 dbA
- Noise pressure level: 73 dbA
- Air consumption: 142 l/min
- Operating pressure: max. 6,3 bar (90 psi)
- Min. tube diameter: 3/8" - 10 mm
- Connection thread: 1/4"PT

	L1 mm	L2 mm	g
515.3549	150,0	170,0	800

### Abrasive belts for pneumatic belt grinders

- Abrasive belts for pneumatic belt grinders 515.3549



	Grain	Total length mm	Content	g
515.3551	80	330	10	60
515.3552	100	330	10	80
515.3553	120	330	10	100





## RANDOM ORBIT SANDERS

### Mini orbit sander

- For hard to reach places and improvement work
- With non slip soft grip handle
- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing
- Grinding disc with Velcro



#### Technical data:

Oscillating circuit:	2,5 mm
No load current:	15000 r.p.m.
Vibration acceleration:	< 0,77 m/s <sup>2</sup>
Noise performance level:	94 dbA
Noise pressure level:	81 dbA
Air consumption:	113 l/min
Operating pressure:	max. 5,2 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"

	B mm	L mm	
515.5111	140,0	117,0	700

### Mini pneumatic random orbital sander set

- For hard to reach places and improvement work
- With non slip soft grip handle
- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing
- Grinding disc with Velcro
- In durable plastic storage case



#### Technical data:

Oscillating circuit:	2,5 mm
No load current:	15000 r.p.m.
Vibration acceleration:	< 0,77 m/s <sup>2</sup>
Noise performance level:	94 dbA
Noise pressure level:	81 dbA
Air consumption:	113 l/min
Operating pressure:	max. 5,2 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"

515.5110 63 pcs Mini pneumatic random orbital sander set	1,45

consists of:

515.5111	Mini random orbital sander	700
515.5119	Grinding pads, grit 320 Ø 50mm, pack of 10	16
515.5118	Grinding pads, grit 400 Ø 50mm, pack of 10	16
515.5117	Grinding pads, grit 600 Ø 50mm, pack of 10	16
515.5116	Grinding pads, grit 320 Ø 75mm, pack of 10	19
515.5115	Grinding pads, grit 400 Ø 75mm, pack of 10	19
515.5114	Grinding pads, grit 600 Ø 75mm, pack of 10	19
515.5113	Grinding disc Ø 46.0 mm	13
515.5112	Grinding disc Ø76.5 mm	20

### Grinding disc

- With Velcro receiver
- With external thread receiver



	Ø mm	Material	Content	
515.5113	46,0	flexible	5	13
515.5112	76,5	flexible	5	20

### Grinding pads

- For polishing rough surfaces made from wood, metal, varnish and natural stone
- For breaking edges



	Ø mm	Grain	Content	
515.5119	50,0	320	10	16
515.5116	75,0	320	10	19
515.5118	50,0	400	10	16
515.5115	75,0	400	10	19
515.5117	50,0	600	10	16
515.5114	75,0	600	10	19



### Fine-sanding pneumatic random orbital sander with dust extraction

- Air exhaust through the used air tube
- With ergonomic design for fatigue free working
- Compact construction height and light composite housing for controlled working
- For sanding or polishing
- Alternatively can be used with dust bag or industrial vacuum cleaner
- Includes fabric dust collection bag
- With 6 punched hole in pitch circle: 80 mm / Ø 11 mm
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Oscillating circuit:	2,5 mm
Velcro disc receiver:	Ø 152,4 mm = 6"
Hose length:	2 m
Capacity:	240 Watt
No load current:	10000 r.p.m.
Vibration acceleration:	< 0,80 m/s <sup>2</sup>
Noise performance level:	71 dbA
Noise pressure level:	60 dbA
Air consumption:	255 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	D mm	L mm	
515.3061	150,0	196,0	1,50

### Coarse sanding pneumatic random orbital sander with dust extraction

- Air exhaust through the used air tube
- With ergonomic design for fatigue free working
- Compact construction height and light composite housing for controlled working
- For sanding or polishing
- Alternatively can be used with dust bag or industrial vacuum cleaner
- Includes fabric dust collection bag
- With 6 punched hole in pitch circle: 80 mm / Ø 11 mm
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Oscillating circuit:	5 mm
Velcro disc receiver:	Ø 152,4 mm = 6"
Hose length:	2 m
Capacity:	240 Watt
No load current:	10000 r.p.m.
Vibration acceleration:	< 0,80 m/s <sup>2</sup>
Noise performance level:	71 dbA
Noise pressure level:	60 dbA
Air consumption:	225 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	1/4" - 6,35 mm
Connection thread:	1/4"PT

	D mm	L mm	
515.3066	150,0	100,0	900

## MULTIGRINDER

### Pneumatic multi-grinder set

- For removing underbody coating, sealant, rust, corrosion, clingages, paints, films, text as well as for paint stripping
- With non slip soft grip handle
- For hard to reach places
- Air exhaust through the handle
- Easy operation
- Ideal for grinding and erasing work
- For working in hard to access areas
- Vibration dampened
- Includes 1/4" coupling connector
- Robust housing
- In durable plastic storage case



#### Technical data:

No load current:	4000 r.p.m.
Vibration acceleration:	< 0,7 m/s <sup>2</sup>
Noise performance level:	100 dbA
Noise pressure level:	89,0 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" NPT

			kg
515.5430	8 pcs	Pneumatic multi-grinder set	4,70

#### consists of:

			kg
515.5431	Multi-grinder with handle, 212 mm	1400	
515.5432	Film eraser, light execution, Ø100 mm	260	
515.5433	Brush strip coarse	250	
515.5434	Brush strip fine	325	
515.5436	Attachment for brush strip	900	
515.5437	Grinding wheel, pack of 2	80	
515.5438	Attachment for grinding wheel	375	



## ERASER

### Pneumatic erasing machine

- Straight design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Ideal for removing of stickers glue and color remainders
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Tool holder:	5/16" - 24 mm
Capacity:	370 Watt
No load current:	4000 r.p.m.
Vibration acceleration:	< 1,6 m/s <sup>2</sup>
Noise performance level:	102,5 dbA
Noise pressure level:	91,5 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" NPT

	B mm	L mm	Eraser wheel	kg
515.5445	45,0	200,0	515.1243	0,76

### Mandrel for stripe removing pad

- with internal M8 thread
- Tension pin shaft Ø 6 mm
- for fastening film erasure discs on drilling machines



	size internal thread	Length mm	kg
515.1218	M8	40,0	25

### Stripe removing pad

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders



#### Technical data:

Speed:	4000 rpm
Shaft:	M8

	Width mm	Ø mm	Content	kg
515.1243	15,0	90,0	1	110
515.1285	15,0	90,0	6	660

### Stripe removing pad with lamellae

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders



#### Technical data:

Speed:	4000 rpm
Shaft:	M8

	Width mm	Ø mm	Content	kg
515.1247	24,0	100	1	0,29
515.1366	24,0	100	6	1,74

### Stripe removing pad with lamellae

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders



#### Technical data:

Speed:	4000 rpm
Shaft:	M8

	Width mm	Ø mm	Content	kg
515.1248	20,0	90	1	160
515.1368	20,0	90	6	960

### Stripe removing pad with lamellae

- For removing of stickers, glue and color remainders on varnished areas
- Includes neutral colored rubber eraser preventing a smearing on the surface
- Not suitable for pneumatic die grinders



#### Technical data:

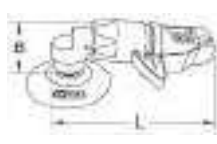
Speed: 4000 rpm  
Shaft: M8

	Width mm	Ø mm	Content	
515.1249	26,5	100	1	0,26
515.1369	26,5	100	6	1,56

## BURNISHER

### SlimPOWER mini-pneumatic burnisher

- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Receiver: External thread
- Includes 3 Velcro receivers
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Capacity: 186 Watt  
No load current: 5000 r.p.m.  
Sponge diameter: 50 + 75 mm  
Polishing sponge diameter: 46 mm  
Vibration acceleration: < 3,3 m/s<sup>2</sup>  
Noise performance level: 96,9 dbA  
Noise pressure level: 85,9 dbA  
Air consumption: 240 l/min  
Min. tube diameter: 3/8" - 10 mm  
Operating pressure: max. 6,3 bar (90 psi)  
Connection thread: 1/4"NPT

	B mm	L mm	
515.5590	55,0	140,0	600



### Grinding disc

- With Velcro receiver
- With internal thread receiver



	Ø mm	Material	Content	
515.5101	46,0	flexible	5	275
515.5102	75,0	flexible	5	125
515.5103	46,0	rigid	5	55

### Burnishing pads

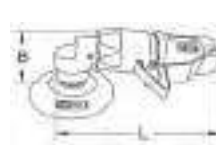
- For burnishing of smooth surfaces



	Ø mm	Material	Colour code	Content	
515.5126	50,0	plastic	yellow	5	10
515.5122	85,0	plastic	yellow	5	55
515.5127	50,0	plastic	white	5	10
515.5123	85,0	plastic	white	5	55
515.5128	50,0	plastic	black	5	10
515.5129	50,0	leather		5	48
515.5124	80,0	leather		5	80

### Pneumatic polisher

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- Ideal for polishing work
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Receiver: External thread
- Including 1 velcro holder Ø 75 mm
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Capacity: 370 Watt  
No load current: 3000 r.p.m.  
Polishing sponge diameter: 85 mm  
Vibration acceleration: < 0,9 m/s<sup>2</sup>  
Noise performance level: 103,2 dbA  
Noise pressure level: 92,2 dbA  
Air consumption: 350 l/min  
Min. tube diameter: 3/8" - 10 mm  
Operating pressure: max. 6,3 bar (90 psi)  
Connection thread: 1/4"NPT

	B mm	L mm	
515.5455	9,0	210,0	1140

### mini burnishing machine

- For hard to reach places and improvement work
- With non slip soft grip handle
- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Grinding disc with Velcro
- Robust housing
- Receiver: Internal thread



#### Technical data:

Capacity: 150 Watt  
No load current: 2500 r.p.m.  
Polishing sponge diameter: 75 mm  
Vibration acceleration: < 0,77 m/s<sup>2</sup>  
Noise performance level: 92 dbA  
Noise pressure level: 81 dbA  
Air consumption: 113 l/min  
Min. tube diameter: 3/8" - 10 mm  
Operating pressure: max. 5,2 bar  
Connection thread: 1/4"

	B mm	L mm	
515.5121	110,0	120,0	1000

### Mini pneumatic burnisher set

- For hard to reach places and improvement work
- With non slip soft grip handle
- Angled design
- Air exhaust through the handle
- For one hand operation
- Ideal for curved cutting
- For working in hard to access areas
- Vibration dampened
- Very compact construction
- Grinding disc with Velcro
- Includes 1/4" coupling connector
- Receiver: Internal thread
- Robust housing
- In durable plastic storage case



#### Technical data:

No load current: 2500 r.p.m.  
Vibration acceleration: < 0,77 m/s<sup>2</sup>  
Noise performance level: 94 dbA  
Noise pressure level: 81 dbA  
Air consumption: 113 l/min  
Operating pressure: max. 5,2 bar  
Min. tube diameter: 3/8" - 10 mm  
Connection thread: 1/4"

	B mm	L mm	
515.5120	5 pcs	Mini pneumatic burnisher set	1,80

consists of:

515.5121	1/4" mini burnishing machine	1000
515.5122	Burnishing pads yellow, Ø 85,0mm, pack of 5	55
515.5123	Burnishing pads white, Ø 85,0mm, pack of 5	55
515.5124	Burnishing pads lambskin Ø 80,0mm, pack of 5	80
515.5112	Grinding disc Ø76.5 mm	20

### Grinding disc

- With Velcro receiver
- With external thread receiver



	Ø mm	Material	Content	
515.5113	46,0	flexible	5	13
515.5112	76,5	flexible	5	20

### Burnishing pads

- For burnishing of smooth surfaces



	Ø mm	Material	Colour code	Content	
515.5126	50,0	plastic	yellow	5	10
515.5122	85,0	plastic	yellow	5	55
515.5127	50,0	plastic	white	5	10
515.5123	85,0	plastic	white	5	55
515.5128	50,0	plastic	black	5	10
515.5129	50,0	leather		5	48
515.5124	80,0	leather		5	80

### Pneumatic polisher

- Handy and ergonomic housing
- Polishing with a fast and excellent work result
- Lateral handle for better guidance of the polisher
- Air exhaust through the handle to the sides
- For two-hand operation
- Stepless speed regulation
- Includes 1/4" coupling connector



#### Technical data:

Capacity:	450 Watt
No load current:	3500 r.p.m.
Sponge diameter:	150 mm
Polishing sponge diameter:	145 mm
Vibration acceleration:	< 1,20 m/s <sup>2</sup>
Noise performance level:	80 dbA
Noise pressure level:	91 dbA
Air consumption:	110 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Tool holder:	5/16" UNF
Connection thread:	1/4"

	H mm	B mm	L mm	
515.3063	158,0	123,0	240,0	2200

## CHISEL HAMMER

### Pneumatic chisel hammer

- With non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Universal application for work on exhaust systems
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Ultra light housing from two component plastic



#### Technical data:

Chisel holder:	10,2 mm
Number of blows:	2200 strokes/min
Vibration acceleration:	< 11,55 m/s <sup>2</sup>
Noise performance level:	100 dbA
Noise pressure level:	100 dbA
Air consumption:	114 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	L mm	
515.3881	292,0	2,17

### Vibro impact pneumatic chisel hammer set

- With non slip soft grip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Ideal for industry
- Efficient, gentle loosening of screw fittings
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing from two component plastic



#### Technical data:

Chisel holder:	10,2
Number of blows:	2200 strokes/min
Vibration acceleration:	< 11,55
Noise performance level:	100 dbA
Noise pressure level:	100 dbA
Air consumption:	114 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

515.3880	6 pcs Vibro impact pneumatic chisel hammer set	5,70

consists of:

515.3881	Pneumatic chisel hammer	2,17
515.3882	Handle f. pneumatic-chisel hammer	1,55
515.3886	Pneumatic chisel track rod loosener, 110 mm	0,14
515.3887	Pneumatic chisel hammer, 110 mm	0,15
515.3888	Pneumatic chisel loosening adapter, 130 mm	0,16
515.3889	Pneumatic chisel loosening mandrel, 100x25x12 mm	0,19



### Impact tie rod tool

- Vibration supported release of tracking rods, contoured screws or screws in the axle area etc.
- Adjustable in connection with a pneumatic chisel hammer
- Thanks to the special vibrating mandrel, an impact impulse is given to the screws to be released
- which loosens the rust and aids the release process
- Pneumatic chisel adapter (10 mm) for use with pneumatic chisel hammers on the market
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Special tool steel



	Width mm	Length mm	opening mm	
150.1608	50,0	290,0	27,0	2,36

### Vibro-Impact ball joint releaser

- Vibration supported release on ball joints
- Adjustable, e.g. conical seat connections to wheel bearing houses and wishbones
- Pneumatic chisel adapter (10 mm) for use with pneumatic chisel hammers on the market
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Special tool steel



	Length mm	Width mm	Height mm	Drive	
515.3884	68,0	40,0	130,0	Ø 10 mm	340

### Vibro-Impact punch

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal use for bodywork and chassis repair
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel

**Application:** Cutting exhausts, loosening of ball joint, extracting bolts and cutting metal sheets



	Ø mm	
515.3961	6,5	95

### Burr arbor

- suitable for compressed air chisel with 10.0 mm collection
- universally useable for body, chassis and engine repairs
- Extension of the working range
- Using the vibration and impact impulse of the compressed air hammer
- Robust chisel forged out of one piece

**Application range:** for desorption of valve guides, screws etc.



	Ø mm	
515.3851	5,0	155
515.3852	5,5	160
515.3853	6,0	165
515.3854	7,0	170
515.3856	9,0	175
515.3857	10,0	180
515.3858	11,0	185
515.3859	12,0	190

### Vibro-Impact exhaust chisel

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal application for work on exhaust systems
- Specially designed sounds enable the exhaust pipe (inner or outer) to be replaced to be correctly separated from the remaining one, without damaging it.
- Rotatable
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel



	Suitable for	
515.3962	Internal pipe	190
515.3963	External pipe	190

### Vibro-Impact sheet metal cutting tool with anti-rotation device

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal use for bodywork and chassis repair
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel

**Application:** Cutting exhausts, loosening of ball joint, extracting bolts and cutting metal sheets



	Width mm	
515.3964	20,0	160

### Vibro-Impact flat chisel with anti-rotation device

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal use for bodywork and chassis repair
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel

**Application:** Cutting exhausts, loosening of ball joint, extracting bolts and cutting metal sheets



	Width mm	
515.3965	19,0	220

### Vibro-Impact half-round chisel with anti-rotation device

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal use for bodywork and chassis repair
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel

**Application:** Cutting exhausts, loosening of ball joint, extracting bolts and cutting metal sheets



	Width mm	
515.3966	26,0	210

### Vibro-Impact Separating Fork

- Suitable for use with industry-standard percussion hammers (10.0 mm holder)
- Universal use for bodywork and chassis repair
- Extension of the working range
- Utilisation of vibration and shock pulse of Vibro Power pneumatic hammer
- Robust chisel forged out of one piece
- Special tool steel

**Application:** Cutting exhausts, loosening of ball joint, extracting bolts and cutting metal sheets



515.3967	Vibro Power fork separator 20mm	295
515.3968	Vibro Power fork separator 24mm	375
515.3969	Vibro Power fork separator 35mm	395

### High-performance vibro-impact pneumatic chisel hammer

- With non slip handle
- Air exhaust through the handle
- Ergonomic designed handle
- Air exhaust integrated in the handle
- Ideal for industry
- Efficient, gentle loosening of screw fittings
- With stepless impact regulation
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light housing from two component plastic



#### Technical data:

Chisel holder:	15 mm
Number of blows:	2500 blows/min
Vibration acceleration:	20,4 m/s <sup>2</sup>
Noise performance level:	115 dbA
Noise pressure level:	104 dbA
Air consumption:	210 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"NPT

515.4880	High-performance vibro-impact pneumatic chisel hammer	5,40

### Vibro-Impact tie rod remover

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	kg
515.4881	295,0	1,43

### Vibro-Impact Flat Chisel, XL

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	kg
515.4882	290,0	670

### Vibro-Impact hammer insert

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	kg
515.4883	295,0	1,46

### Vibro-Impact Pointed Chisel, XL

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	kg
515.4884	290,0	630

### Vibro-Impact concave insert

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	kg
515.4885	295,0	1,42

### Vibro-Impact Drifters

- Pneumatic chisel adapter (15 mm) for use with pneumatic chisel hammers on the market
- Extension of the working range
- Utilisation of the vibration and impact impulse of the high-performance vibro-impact
- Robust chisel forged out of one piece
- Special tool steel



	Length mm	Width mm	kg
515.4886	225,0	20,0	550

### NEEDLE SCALER

#### Pneumatic needle scaler

- In handy pistol design
- Air exhaust through the housing
- For removing and/or derusting of coatings and solid metal parts
- Is coarser than a sand blasting and finer than rust hammers
- Equipped with 19 needles of 3 mm a piece
- With adjustable needle cover
- Cold insulated handle
- Includes 1/4" coupling connector
- Robust steel housing



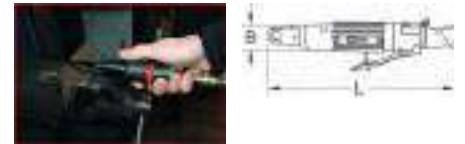
- Technical data:**
- Needle amount: 19 pcs à 3 mm
  - Number of blows: 3200 blows/min
  - Vibration acceleration: < 8,70 m/s<sup>2</sup>
  - Noise performance level: 110 dbA
  - Noise pressure level: 97 dbA
  - Air consumption: 170 l/min
  - Operating pressure: max. 6,3 bar (90 psi)
  - Min. tube diameter: 3/8" - 10 mm
  - Connection thread: 1/4"PT

	B mm	D mm	L mm	Replacement needle pack	kg
515.3070	205,0	45,0	330,0	515.3071	2,60

### COMPRESSED AIR TOOLS

#### SlimPOWER mini-pneumatic reciprocating bodywork key hole saw

- Air exhaust through the used air tube to the rear
- For one hand operation
- For works in car body panels, beams and profile
- Secure operation lever with locking device
- Suitable for small sawing radius
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

- Stroke: 7,9 mm
- Cutting strokes: 5760 strokes/min
- Capacity: 186 Watt
- Vibration acceleration: < 28,8 m/s<sup>2</sup>
- Noise pressure level: 90,3 dbA
- Noise performance level: 101,3 dbA
- Air consumption: 240 l/min
- Operating pressure: max. 6,3 bar (90 psi)
- Min. tube diameter: 3/8" - 10 mm
- Connection thread: 1/4"NPT

	B mm	L mm		kg
515.5545	36,0	170,0	129.3740-129.3746	500

#### Jigsaw blades

- Flexible and shatter proof
- ideal for non-ferrous metal, stainless steel, sheet steel, car body sheet, pressed materials and resopal

**Suitable for:** Ober, KS, Pneutec, CP, KS 515.3000 und 515.3200



	No. teeth	TPI	D mm	L mm	Content	kg
129.3740	80	32	1,0	100,0	5	30
129.3742	60	24	1,0	100,0	5	30
129.3744	45	18	1,0	100,0	5	30
129.3746	35	14	2,0	100,0	5	30



**Pneumatic oscillating cutter**

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector and blade changing spanner
- Ultra light robust housing special plastic



**Technical data:**

Oscillating speed:	20000
No load current:	20000 r.p.m.
Vibration acceleration:	< 14,8
Noise performance level:	103,7 dbA
Noise pressure level:	92,7 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5451	66,0	208,0	0,92

**Pneumatic oscillating cutter set**

- Angled design
- Air exhaust through the handle
- For one handed operation with ergonomic design
- For the professional dismantling of vehicle discs
- Universal blade reception for all standard blades
- Stepless speed regulation
- Cold insulated handle
- Includes 1/4" coupling connector and blade changing spanner
- Ultra light robust housing special plastic
- In durable plastic storage case



**Technical data:**

Oscillating speed:	20000
No load current:	20000 r.p.m.
Vibration acceleration:	< 14,8 m/s <sup>2</sup>
Noise performance level:	103,7 dbA
Noise pressure level:	92,7 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

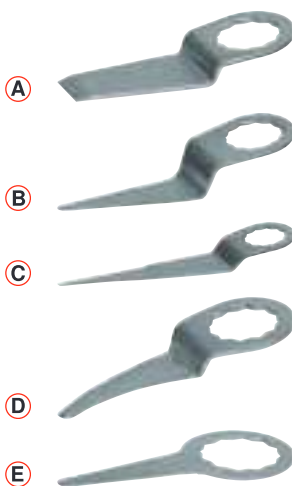
	B mm	L mm	kg
515.5450	6 pcs	Pneumatic oscillating cutter set	2,05

consists of:

		kg
515.5451	Pneumatic oscillating cutter, 208mm	920
140.2252	Scraping blade offset, width 16mm	20
140.2255	Cutting blade straight, offset, 50mm	20
140.2256	Cutting blade straight, offset, 90mm	30
140.2261	Cutting blade angled, offset, depth 55mm	20
140.2263	Cutting blade straight, depth 35mm	10

**Cutting / scraper blades**

- For the pneumatic oscillating cutter
- Special tool steel



		kg
140.2252	(A) Scraping blade offset, width 16mm	20
140.2255	(B) Cutting blade straight, offset, 50mm	20
140.2256	(C) Cutting blade straight, offset, 90mm	30
140.2261	(D) Cutting blade angled, offset, depth 55mm	20
140.2263	(E) Cutting blade straight, depth 35mm	10

**Cutting / scraper blades**

- For the pneumatic oscillating cutter
- Special tool steel



		kg
515.5093	(A) Scraper blade, curved, offset, blade length 18mm	13
515.5094	(B) Scraper blade, curved, offset, blade length 36mm	13
515.5095	(C) Scraper blade, curved, offset, blade length 63mm	13
515.5096	(D) Scraper blade, curved, offset, blade length 90mm	25
515.5097	(E) Scraper blade, curved, straight, blade length 24 mm	12

**LONG-DISC CUTTER**

**SlimPOWER mini-pneumatic disc cutter, short**

- Air exhaust through the handle
- For cutting wheels up to Ø 50.4 x 1.1 x 9.5 mm
- For grinding wheels up to Ø 59.0 x 4.0 x 9.56mm
- Ideal for loosening worn down and/or rusted connections
- Adjustable sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



**Technical data:**

Tool holder:	9,6 mm
Capacity:	220 Watt
No load current:	19000 r.p.m.
Vibration acceleration:	< 3,7 m/s <sup>2</sup>
Noise performance level:	95,4 dbA
Noise pressure level:	84,4 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5550	60,0	125,0	400

**SlimPOWER mini-pneumatic long-disc cutter**

- Air exhaust through the handle
- For cutting wheels up to Ø 75.0 x 1.35 x 9.56 mm
- Ideal for loosening worn down and/or rusted connections
- Fixed sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



**Technical data:**

Tool holder:	9,6 mm
Capacity:	220 Watt
No load current:	18000 r.p.m.
Vibration acceleration:	< 2,8 m/s <sup>2</sup>
Noise performance level:	98,7 dbA
Noise pressure level:	87,7 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5555	50,0	230,0	500

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### SlimPOWER mini-pneumatic disc cutter, long

- Air exhaust through the handle
- For cutting wheels up to Ø 75.0 x 1.35 x 9.56 mm
- Ideal for loosening worn down and/or rusted connections
- Fixed sparkguard
- For working in inaccessible places
- Long service life
- Secure operation lever with locking device
- Stepless speed regulation
- Vibration dampened
- Very compact construction
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Tool holder:	9,6 mm
Capacity:	220 Watt
No load current:	18000 r.p.m.
Vibration acceleration:	< 3,2 m/s <sup>2</sup>
Noise performance level:	98,4 dbA
Noise pressure level:	87,4 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5560	50,0	275,0	700



### Pneumatic short disc cutter

- Air exhaust through the handle
- For cut-off wheels up to Ø 100 x 1.6 x 16mm
- Ideal for loosening worn down and/or rusted connections
- Adjustable sparkguard
- For working in inaccessible places
- Long service life
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light Aluminium housing



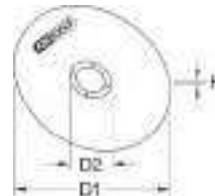
#### Technical data:

Tool holder:	6,3 mm
No load current:	15000 r.p.m.
Vibration acceleration:	< 5,8 m/s <sup>2</sup>
Noise performance level:	104,8 dbA
Noise pressure level:	93,8 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	Replacement cut-off wheels	kg
515.5475	60,0	345,0	337.2010	1,41

### High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

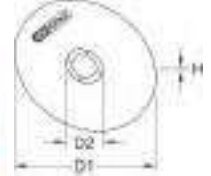


	RPM max	D1 mm	D2 mm	H mm	Content	kg
515.5056	30600	50,0	10	1,1	50	650
515.5057	20100	75,0	10	1,5	50	710

### High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

Ideal for use in very thin materials until 2.5 mm, tool steel, sheet metal, thin walled pipes and profiles all type suited for locksmiths, car body building, sanitary and heating fitting, plumbing, sheet metal processing, carpentry, joinery, roofing, metal processing and all motor vehicles businesses.

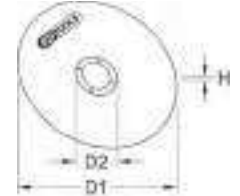


	RPM max	D1 mm	D2 mm	H mm	Content	kg
337.2010	15250	100,0	16,0	1,6	25	1,20

### Reinforced grinding disc

- For universal usage
- High level of flexibility
- Consistent high cutting power

Ideal for use in metal and stainless steel.



	RPM max	D1 mm	D2 mm	H mm	Content	kg
515.5058	22000	59,0	9,56	4,0	25	600

### Pneumatic cut-off sander

- Air exhaust through the handle
- For one handed operation with ergonomic design
- For cutting wheels up to Ø 75 mm x 10 mm
- With safety cover
- For cutting metal sheet and steel
- Secure operation lever with locking device
- For working in inaccessible places
- Stepless speed regulation
- Number of revolutions adjustable through regulating screw
- Vibration dampened
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Capacity:	370 Watt
No load current:	23000 r.p.m.
Vibration acceleration:	< 6,2 m/s <sup>2</sup>
Noise performance level:	103,2 dbA
Noise pressure level:	92,2 dbA
Air consumption:	350 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"NPT

	B mm	L mm	kg
515.5440	85,0	200,0	0,82





## PNEUMATIC VIBRO-EXTRACTOR

### Glow plug pneumatic vibration screwdriver set

- Ideal for loosening and extracting jammed glow plugs
- Especially suitable in glow plugs jammed by corrosion and/or soot coal
- Produces controlled vibration impulse
- Suitable for all current glow plugs
- Loosening torque in 4 stages in accordance with manufacturer guidelines
- Extensive cost intensive repairs can be avoided through dismantling glow plugs
- Includes 1/4" coupling connector
- In durable steel storage case



#### Technical data:

Square drive:	1/4"
Max. tightening torque:	40 Nm
Max. loosening torque:	1 = 10 Nm 2 = 20 Nm 3 = 30 Nm 4 = 40 Nm
No load current:	7500 r.p.m.
Vibration acceleration:	< 2,52 m/s <sup>2</sup>
Noise performance level:	104 dbA
Noise pressure level:	88 dbA
Recommended torque:	42 Nm
Air consumption:	128 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Max. screw size:	M16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

				kg
152.1060	5 pcs	Glow plug pneumatic vibration screwdriver set	1,80	

#### consists of:

			kg
152.1061	Vibration impact gun, 1/4", 10-40Nm	900	
152.1062	Long impact socket, 1/4", 8mm	30	
152.1063	Long impact socket, 1/4", 10mm	40	
152.1064	Long impact socket, 1/4", 12mm	50	
152.1065	Uni joint, 1/4"	40	

## IMPACT WRENCHES

### MONSTER Xtremelight mini bit pneumatic impact driver with forward/reverse rocker

- Ideally suited for work in confined spaces
- With practical rocker switch (left / right)
- Easy operation
- 3 stage torque adjustment
- High performance pin hammer mechanism
- Vibration dampened
- Air connection can be swivelled through 150°
- Long service life
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Square drive:	1/4"
Max. tightening torque:	108 Nm
Max. loosening torque:	108 Nm
No load current:	12000 r.p.m.
Vibration acceleration:	7 m/s <sup>2</sup>
Noise performance level:	109 dbA
Noise pressure level:	98 dbA
Recommended torque:	79 Nm
Air consumption:	59 l/min
Operating pressure:	max. 6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

				kg
515.3835	55,0	140,0	0,55	

### MONSTER Xtremelight mini pneumatic impact driver with forward/reverse rocker

- Ideally suited for work in confined spaces
- With practical rocker switch (left / right)
- Easy operation
- 3 stage torque adjustment
- High performance pin hammer mechanism
- Vibration dampened
- Air connection can be swivelled through 150°
- Long service life
- Includes 1/4" coupling connector
- Robust housing



1/4"

#### Technical data:

Square drive:	1/4"
Max. tightening torque:	108 Nm
Max. loosening torque:	108 Nm
No load current:	12000 r.p.m.
Vibration acceleration:	7 m/s <sup>2</sup>
Noise performance level:	109 dbA
Noise pressure level:	98 dbA
Recommended torque:	79 Nm
Air consumption:	59 l/min
Operating pressure:	max. 6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

				kg
515.1470	55,0	140,0	0,55	

### MONSTER Xtremelight mini pneumatic impact driver with forward/reverse rocker

- Ideally suited for work in confined spaces
- With practical rocker switch (left / right)
- Easy operation
- 3 stage torque adjustment
- High performance pin hammer mechanism
- Vibration dampened
- Air connection can be swivelled through 150°
- Long service life
- Includes 1/4" coupling connector
- Robust housing



3/8"

#### Technical data:

Square drive:	3/8"
Max. tightening torque:	108 Nm
Max. loosening torque:	108 Nm
No load current:	12000 r.p.m.
Vibration acceleration:	7 m/s <sup>2</sup>
Noise performance level:	109 dbA
Noise pressure level:	98 dbA
Recommended torque:	79 Nm
Air consumption:	59 l/min
Operating pressure:	max. 6 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

				kg
515.3830	55,0	140,0	0,55	

## Noise reducing hose

- for BOXXER, miniMONSTER and MONSTER impact wrenches
- up to 40% sound absorption
- Minimum wear on coupling and plug nipple
- Minimal dust turbulence in the working area



			kg
515.1211	Noise reducing hose	300	

### miniMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance industrial jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light Aluminium housing



3/8"

#### Technical data:

Square drive:	3/8"
Max. tightening torque:	1 = 270 Nm 2 = 640 Nm 3 = 965 Nm
Max. loosening torque:	1390 Nm
No load current:	10000 r.p.m.
Vibration acceleration:	< 9,18 m/s <sup>2</sup>
Noise performance level:	113 dbA
Noise pressure level:	102 dbA
Recommended torque:	615 Nm
Air consumption:	135 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

				kg
515.1190	95,0	190,0	1,34	

### miniMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance industrial jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light Aluminium housing



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 270 Nm 2 = 640 Nm 3 = 965 Nm
Max. loosening torque:	1390 Nm
No load current:	10000 r.p.m.
Vibration acceleration:	< 9,18 m/s <sup>2</sup>
Noise performance level:	113 dbA
Noise pressure level:	102 dbA
Recommended torque:	615 Nm
Air consumption:	135 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1270	95,0	190,0	1,34

### Protective Cover for miniMONSTER

- suitable for Mini Monster Impact Wrenches 515.1190 and 515.1270
- Protective cover minimises damage from daily use to impact wrenches
- Transparent
- Silicon



		kg
515.1272	for 515.1190 and 515.1270	50

### MONSTER High performance pneumatic angle impact wrench

- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Air exhaust through the handle
- Easy operation
- 2-fold torque preselection
- Ring in handle proximity for right / left running for better operating convenience
- High performance double hammer mechanism
- Vibration dampened
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	271 Nm
Max. loosening torque:	271 Nm
No load current:	4150 r.p.m.
Vibration acceleration:	< 8,24 m/s <sup>2</sup>
Noise performance level:	105,4 dbA
Noise pressure level:	94,4 dbA
Air consumption:	105 l/min
Recommended torque:	244 Nm
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1625	55,5	350,0	1,57

### miniMONSTER Xtremelight High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- Easy to change lever for right and left handers
- 3 stage torque adjustment
- High performance industrial jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light Aluminium housing

3/8"

#### Technical data:

Square drive:	3/8"
Max. tightening torque:	1 = 270 Nm 2 = 640 Nm 3 = 965 Nm
Max. loosening torque:	1390 Nm
No load current:	10000 r.p.m.
Vibration acceleration:	< 9,18 m/s <sup>2</sup>
Noise performance level:	113 dbA
Noise pressure level:	102 dbA
Recommended torque:	615 Nm
Air consumption:	135 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3855	90,0	185,0	1,08

### miniMONSTER Xtremelight High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- Easy to change lever for right and left handers
- 3 stage torque adjustment
- High performance industrial jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- ultra light composite housing



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 270 Nm 2 = 640 Nm 3 = 965 Nm
Max. loosening torque:	1390 Nm
No load current:	10000 r.p.m.
Vibration acceleration:	< 9,18 m/s <sup>2</sup>
Noise performance level:	113 dbA
Noise pressure level:	102 dbA
Recommended torque:	615 Nm
Air consumption:	135 l/min
Operating pressure:	max. 6,3 bar
Max. screw size:	M 16
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.1150	90,0	185,0	1,08

### Protective Cover for miniMONSTER Xtremelight

- suitable for Mini Monster Xtremelight Impact Wrenches 515.1150 + 515.3855
- Protective cover minimises damage from daily use to impact wrenches
- Transparent
- Silicon



		kg
515.1273	for 515.1150 + 515.3855	50

### THE miniDEVIL high performance impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance jumbo mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



1/2"

#### Technical data:

Square drive:	1/2"
Max. tightening torque:	1 = 210 Nm 2 = 503 Nm 3 = 755 Nm
Max. loosening torque:	1084 Nm
No load current:	9000 r.p.m.
Vibration acceleration:	<10,36 m/s <sup>2</sup>
Noise performance level:	115 dbA
Noise pressure level:	106 dbA
Recommended torque:	488 Nm
Air consumption:	169 l/min
Operating pressure:	6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	L mm	B mm	kg
515.1315	180,0	115,0	1,20

### THE DEVIL high performance impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



1/2"

#### Technical data:

Square drive: 1/2"  
 Max. tightening torque:  
 1 = 490 Nm  
 2 = 660 Nm  
 3 = 870 Nm  
 Max. loosening torque: 1600 Nm  
 No load current: 8500 r.p.m.  
 Vibration acceleration: 17,5 m/s<sup>2</sup>  
 Noise performance level: 100,9 dbA  
 Noise pressure level: 89,9 dbA  
 Recommended torque: 550 Nm  
 Air consumption: 169 l/min  
 Operating pressure: 6,3 bar (90 psi)  
 Min. tube diameter: 3/8" - 10 mm  
 Connection thread: 1/4"PT

	B mm	L mm	kg
515.1200	170,0	185,0	2,10

### BOXXER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



1/2"

#### Technical data:

Square drive: 1/2"  
 Max. tightening torque:  
 1 = 408 Nm  
 2 = 544 Nm  
 3 = 745 Nm  
 Max. loosening torque: 1290 Nm  
 Vibration acceleration: < 13,56 m/s<sup>2</sup>  
 Measuring uncertainty vibration acceleration: 1,83 m/s<sup>2</sup>  
 No load current: 7930 r.p.m.  
 Noise performance level: 104 dbA  
 Noise pressure level: 88 dbA  
 Air consumption: 128 l/min  
 Operating pressure: max. 6,3 bar (90 psi)  
 Min. tube diameter: 1/2" - 12,7 mm  
 Max. screw size: M 16  
 Connection thread: 1/4"PT

	B mm	L mm	kg
515.1195	175,0	200,0	1,99

### MONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



1/2"

#### Technical data:

Square drive: 1/2"  
 Max. tightening torque:  
 1 = 510 Nm  
 2 = 680 Nm  
 3 = 931 Nm  
 Max. loosening torque: 1690 Nm  
 No load current: 7930 r.p.m.  
 Vibration acceleration: < 17,9 m/s<sup>2</sup>  
 Noise performance level: 98 dbA  
 Noise pressure level: 87 dbA  
 Recommended torque: 542 Nm  
 Air consumption: 178 l/min  
 Operating pressure: max. 6,3 bar  
 Max. screw size: M 16  
 Min. tube diameter: 1/2" - 12,7 mm  
 Connection thread: 1/4"PT

	B mm	L mm	kg
515.1210	175,0	200,0	2,15

### MONSTER High Performance Pneumatic impact wrench set

- With ergonomic soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance pin hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Light aluminium housing
- In durable plastic storage case



1/2"

	B mm	L mm	kg
515.5150	175,0	200,0	2,15
17 pcs	MONSTER High Performance Pneumatic impact wrench set		5,69
1 x		1690 Nm	
10 x		12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
3 x		17 - 19 - 21 mm	
1 x		1/4"	
1 x		125 mm	
1 x		68 mm	

### THE DEVIL high performance impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



3/4"

#### Technical data:

Square drive: 3/4"  
 Max. tightening torque:  
 1 = 660 Nm  
 2 = 1010 Nm  
 3 = 1290 Nm  
 Max. loosening torque: 2000 Nm  
 No load current: 8500 r.p.m.  
 Vibration acceleration: 17,25 m/s<sup>2</sup>  
 Noise performance level: 100,9 dbA  
 Noise pressure level: 91 dbA  
 Recommended torque: 860 Nm  
 Air consumption: 196 l/min  
 Operating pressure: 6,3 bar (90 psi)  
 Min. tube diameter: 3/8" - 10 mm  
 Connection thread: 1/4"PT

	B mm	L mm	kg
515.3400	170,0	185,0	2,20

### MONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- With practical clockwise and anticlockwise switch
- Easy operation
- 3 stage torque adjustment
- High performance double hammer mechanism
- Long service life
- Cold insulated handle
- Includes 1/4" coupling connector
- Ultra light aluminium housing



3/4"

#### Technical data:

Square drive: 3/4"  
 Max. tightening torque:  
 1 = 510 Nm  
 2 = 680 Nm  
 3 = 931 Nm  
 Max. loosening torque: 1690 Nm  
 No load current: 7930 r.p.m.  
 Vibration acceleration: < 13,56 m/s<sup>2</sup>  
 Noise performance level: 104 dbA  
 Noise pressure level: 88 dbA  
 Recommended torque: 542 Nm  
 Air consumption: 178 l/min  
 Operating pressure: max. 6,3 bar  
 Max. screw size: M 16  
 Min. tube diameter: 1/2" - 12,7 mm  
 Connection thread: 1/4"PT

	B mm	L mm	kg
515.3785	175,0	200,0	2,20

### superMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- Short anvil
- With four-stage torque adjustment for tightening and loosening
- Easy operation
- Low vibration
- Air exhaust integrated in the handle
- Low sound level
- High performance double hammer mechanism
- Including bore hole for locking pin
- Long service life
- Cold insulated handle
- Includes 1/2" coupling connector
- Ultra light aluminium housing



#### Technical data:

Square drive:	3/4"
Max. tightening torque:	1 = 919 Nm 2 = 1523 Nm 3 = 2145 Nm
Max. loosening torque:	3405 Nm
Vibration acceleration:	< 12,57 m/s <sup>2</sup>
Measuring uncertainty vibration acceleration:	1,73 m/s <sup>2</sup>
No load current:	6200 r.p.m.
Noise performance level:	104,5 dbA
Noise pressure level:	115,5 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/4" - 19 mm
Max. screw size:	M 38
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3250	230,0	350,0	6,70

### superMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- Long anvil
- With four-stage torque adjustment for tightening and loosening
- Easy operation
- Low vibration
- Air exhaust integrated in the handle
- Low sound level
- High performance double hammer mechanism
- Including bore hole for locking pin
- Long service life
- Cold insulated handle
- Includes 1/2" coupling connector
- Ultra light aluminium housing



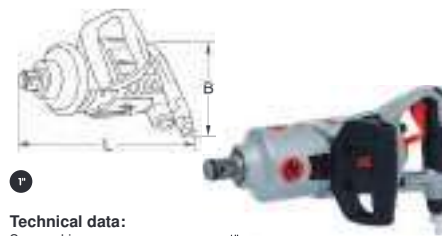
#### Technical data:

Square drive:	3/4"
Max. tightening torque:	1 = 919 Nm 2 = 1523 Nm 3 = 2145 Nm
Max. loosening torque:	3405 Nm
Vibration acceleration:	< 12,88 m/s <sup>2</sup>
Measuring uncertainty vibration acceleration:	1,77 m/s <sup>2</sup>
No load current:	6200 r.p.m.
Noise performance level:	104,5 dbA
Noise pressure level:	115,5 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/4" - 19 mm
Max. screw size:	M 38
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3260	230,0	504,0	7,76

### superMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- Short anvil
- With four-stage torque adjustment for tightening and loosening
- Easy operation
- Low vibration
- Air exhaust integrated in the handle
- Low sound level
- High performance double hammer mechanism
- Including bore hole for locking pin
- Long service life
- Cold insulated handle
- Includes 1/2" coupling connector
- Ultra light aluminium housing



#### Technical data:

Square drive:	1"
Max. tightening torque:	1 = 919 Nm 2 = 1523 Nm 3 = 2145 Nm
Max. loosening torque:	3405 Nm
Vibration acceleration:	< 12,57 m/s <sup>2</sup>
Measuring uncertainty vibration acceleration:	1,73 m/s <sup>2</sup>
No load current:	6200 r.p.m.
Noise performance level:	104,5 dbA
Noise pressure level:	115,5 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/4" - 19 mm
Max. screw size:	M 38
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3270	230,0	350,0	6,75

### superMONSTER High Performance Pneumatic impact wrench

- With non slip soft grip handle
- Air exhaust through the handle
- Long anvil
- With four-stage torque adjustment for tightening and loosening
- Easy operation
- Low vibration
- Air exhaust integrated in the handle
- Low sound level
- High performance double hammer mechanism
- Including bore hole for locking pin
- Long service life
- Cold insulated handle
- Includes 1/2" coupling connector
- Ultra light aluminium housing



#### Technical data:

Square drive:	1"
Max. tightening torque:	1 = 919 Nm 2 = 1523 Nm 3 = 2145 Nm
Max. loosening torque:	3405 Nm
Vibration acceleration:	< 12,88 m/s <sup>2</sup>
Measuring uncertainty vibration acceleration:	1,77 m/s <sup>2</sup>
No load current:	6200 r.p.m.
Noise performance level:	104,5 dbA
Noise pressure level:	115,5 dbA
Air consumption:	283 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/4" - 19 mm
Max. screw size:	M 38
Connection thread:	1/2"PT

	B mm	L mm	kg
515.3280	230,0	504,0	7,82

### RIVETING TOOLS PISTOL

#### Pneumatic riveting tool pistol

- Air exhaust through the handle
- For one handed operation with ergonomic design
- For pop rivet working
- Cold insulated
- Includes 1/4" coupling connector
- Robust aluminium housing



#### Technical data:

Rivet sizes:	2,4 - 3,2 - 4,0 - 4,8 mm
Stroke length:	14 mm
Driving power:	8677,5 N
Vibration acceleration:	< 1,20 m/s <sup>2</sup>
Noise performance level:	98,6 dbA
Noise pressure level:	85 dbA
Air consumption:	1 l/stroke
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3102	195,0	290,0	1,50

#### Pneumatic riveting tool pistol

- Air exhaust through the handle
- For one handed operation with ergonomic design
- For professional riveting, continuous operation
- For steel, aluminium, stainless steel or copper riveting up to 6,4 mm
- With 6 mouth pieces, 4,8 mm is pre assembled
- Especially low noise level
- Cold insulated
- Includes 1/4" coupling connector
- Robust aluminium housing



#### Technical data:

Rivet sizes:	2,4 - 3,2 - 4 - 4,8 - 5,6 - 6,4mm
Stroke length:	19 mm
Driving power:	13839,5 N
Vibration acceleration:	< 0,60 m/s <sup>2</sup>
Noise performance level:	85 dbA
Noise pressure level:	73,3 dbA
Air consumption:	1,8 l/stroke
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	B mm	L mm	kg
515.3101	210,0	340,0	2,00

## AXLE BOOTS ASSEMBLY DEVICES

### Pneumatic assembly tool for CV joint boots

- Air exhaust through the handle
- Suitable for all universal car axle boots (soft)
- Also suitable for all-wheel vehicles and small transporters
- For drive shaft joint diameters from 25 - 110mm
- With 8 extremely robust spreader arms
- Spreading of the articulated arms by compressed air
- Air pressure is regulated through a button
- No additional lubricant necessary
- With integrated safety valve
- Includes 1/4" coupling connector
- Light and robust design



#### Technical data:

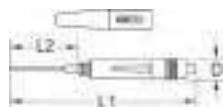
max. Expansion diameter:	25 - 110 mm
Operating pressure:	max. 8 bar
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"PT

	Width mm	Length mm	
515.3100	200,0	450,0	2,27

## OILS & GREASES

### Precision oiler

- In ball point pen form
- Practical pocket clip
- Protective cap
- Oil dosage through pushing a button
- Smallest angles and corners reached
- Suitable for a wide range of applications
- Light aluminium housing



	D mm	L1 mm	L2 mm	
550.1035	15,0	140,0	50,0	50

### Mini grease gun set

- Grease gun for maintenance work
- Precise, exact dosage per pressure button with return spring
- For exchangeable cartridges and bucket goods
- Includes long, rigid nozzle and an additional nozzle extension
- Tube contents 110 g



980.1095	3 pcs	Mini grease gun set	265

#### accessories:

980.1096	Lubricant for mini grease gun, 110 g	110	
980.1097	Replacement tip for mini grease gun, 1 mm	1	
980.1098	Extension tube for mini grease gun, 120 mm	20	

### Pneumatic tool oil

- For the lubrication of pneumatic tools
- With lockable nozzle



	Content	
515.3361	100 ml	250
515.3362	1000 ml	1100



## GREASE GUN

### Pneumatic grease gun for stroke by stroke conveyance of grease

- Air exhaust through the handle
- For one handed operation with balanced ergonomic design
- For cartridges and buckets and/or also for loose grease
- Includes flexible hose and nozzle
- Includes 1/4" coupling connector
- Grease feeding: one stroke per trigger actuation



#### Technical data:

Output pressure:	260 bar
Output per stroke cm <sup>3</sup> :	1,30
Capacity:	400 g
Air consumption:	170 l/min
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

	B mm	L mm	
515.3900	165,0	400,0	1,50

### 2in1 Pneumatic grease gun for stroke by stroke and constant conveyance of grease

- Air exhaust through the handle
- For one handed operation with balanced ergonomic design
- For cartridges and buckets and/or also for loose grease
- Including nozzle and flexible high-pressure hose
- Includes 1/4" coupling connector
- Adjuster wheel for switching between stroke by stroke and constant greasing
- Grease conveyance: One stroke per trigger operation or constant



#### Technical data:

Output pressure:	331 bar
Hauling capacity:	0,62 cm <sup>3</sup> /min
Capacity:	450 g
Air consumption:	34 l/min
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

	B mm	L mm	
515.3925	177,0	420,0	1,43

### Quick-Lock coupling for grease guns

- Ideal for commercially available manual, battery operated and pneumatic grease guns
- Secure greasing during maintenance work without holding in place
- Uncoupling up to over 690 bar pressure possible
- No grease loss under high load operation
- No spraying when uncoupling
- Simple and secure loosening, even under high pressure through lever actuation
- For all common grease nipple types according to DIN and SAE
- With integrated check valve
- Integrated seal for long service life
- Very low wear
- With 4 hardened tool steel jaws



		Length mm	Height mm	
980.1108	1/8"PT	74,0	38,0	100

### 90° Lubricant adaptor

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Tapered and ball grease nipples



		Length mm	
980.1101	1/8"PT	114,0	150

### Tube extension

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Tapered and ball grease nipples



		Length mm	
980.1102	1/8"PT	390,0	240

### Extension, straight

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Cone, funnel, ball and flat grease nipples



		Length mm	
980.1103	1/8"PT	155,0	230

### 90° flat nipple adaptor

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** flat grease nipples



		Length mm	
980.1104	1/8"PT	135,0	160

### Rubber grease tip

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** funnel grease nipples

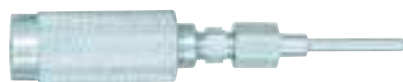


		Length mm	
980.1105	1/8"PT	155,0	150

### Needle shaped tip

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** funnel grease nipples



		Length mm	
980.1106	1/8"PT	135,0	143

### 360° Adaptor, adjustable

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Tapered and ball grease nipples



		Length mm	
980.1107	1/8"PT	185,0	265

### Flexible hose with nozzle

- Made from rubber
- Includes sliding sleeve for break-proof connection
- For use with the manually operated grease gun



		Total length mm	
980.1011	1/8"PT	300,0	60
980.1012	1/8"PT	500,0	70

### Nozzle

- Made from metal
- Four-jaw nozzle
- For use with the manually operated grease gun



980.1013	1/8"PT	30

### Nozzle extension

- Made from metal
- Includes four-jaw nozzle
- For use with the manually operated grease gun



		Total length mm	
980.1014	1/8"PT	160,0	70

### Grease gun adaptor set

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Cone, funnel, ball and flat grease nipples



980.1100	7 pcs	Grease gun adaptor set	1,99
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consists of:

		Length mm	
980.1101	90° Lubricant adaptor	114,0	150
980.1102	Tube extension, 300 mm	390,0	240
980.1103	Straight extension	155,0	230
980.1104	90° flat nipple adaptor	135,0	160
980.1105	Rubber grease tip	155,0	150
980.1106	Needle shaped tip	135,0	143
980.1107	360° Adaptor, adjustable	185,0	265

### WHEEL FILLING GAUGE

#### Tyre filling gauge

- For one handed operation with ergonomic design
- with rubber-coated manometer
- manometer with bar and psi scale
- With filling lever and pressure release button
- long hose with integrated moment plug nipple
- With hanging hole
- Includes 1/4" coupling connector
- Robust rubber coated housing



#### Technical data:

Working range:	0 - 11 bar 9 - 160 psi
Hose length:	490 mm
Operating pressure:	max 6,3 bar (90 psi)
Connection thread:	1/4"PT

515.1950	Tyre filling gauge	600
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### Tyre filling gauge

- For one handed operation with ergonomic design
- with rubber-coated manometer
- manometer with bar and psi scale
- With filling lever and pressure release button
- extra long hose with integrated instant nipple plug
- With hanging hole
- Includes 1/4" coupling connector
- Robust rubber coated housing



#### Technical data:

Working range:	0 - 12 bar 0 - 174 psi
Hose length:	1000 mm
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

515.1920	Tyre filling gauge	420
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### Calibrated tyre filling gauge

- For one handed operation with ergonomic design
- with rubber-coated manometer
- Manometer with bar scale
- With filling lever and pressure release button
- Hose with integrated locking male nipple
- With hanging hole
- Includes 1/4" coupling connector
- Robust rubber coated housing



#### Technical data:

Working range:	0 - 10 bar 0 - 140 psi
Hose length:	400 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4"PT

515.1960	Calibrated tyre filling gauge	450
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### Tyre filling gauge

- For one hand operation
- with rubber-coated manometer
- Manometer with bar and psi scale
- With filling lever and pressure release button
- Hose with integrated locking male nipple
- Robust rubber coated housing



#### Technical data:

Working range:	0 - 15 bar 0 - 220 psi
Hose length:	350 mm
Operating pressure:	11 bar (160 psi)
Connection thread:	1/4"PT

515.1905	Tyre filling gauge	120
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### Digital tyre filling gauge

- For one hand operation
- With rubber coated display
- Manometer with digital display
- With filling lever and pressure release button
- Hose with integrated locking male nipple
- With automatic switch-on and off
- Large LCD display
- Includes 1/4" coupling connector
- Switchable: Bar, PSI, KPA, Kg/cm<sup>2</sup>



#### Technical data:

Working range:	0 - 14 bar 0 - 200 psi
Battery:	2x 1,5V (AAA)
Hose length:	500 mm
Operating pressure:	max. 6,3 bar (90 psi)
Working temperature:	- 15°C to + 60°C
Connection thread:	1/4"PT

515.1970	Digital tyre filling gauge	490
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### SPRAY GUNS

#### Pneumatic combination spray gun

- For underbody coating or acoustic protection or body cavity sealing with wax
- Handy and light
- For standard 1000 ml cartridges
- Attached, flexible 500 mm-hose with spreader nozzle for all-round wax mist permits unproblematic wax application in cavities and interspaces
- Easy application of the underbody coating (or acoustic protection) with standard installed nozzles
- Application tip: Open cartridge, immerse suction pipe and screw in cartridge. Finished!
- Robust housing
- Includes 1/4" coupling connector



#### Technical data:

Air consumption:	225 l/min
Min. tube diameter:	1/4" - 6,35 mm
Operating pressure:	6,3 bar (90 psi)
Connection thread:	1/4"PT

515.5065	L mm	400
	220,0	

### Pneumatic sand blaster

- Ideal for specific working
- With integrated storage tank 600 cm<sup>3</sup>
- Suitable for blasting material grain size 46-100
- Suitable for quartz sand, glass beads, plastic granulate, aluminium oxide, standard corundum and glass granulate
- Supply for blasting material can be switched off and therefore also be used as normal pneumatic guns
- ABS tank
- Robust steel handle
- Steel nozzle, maintenance-free

**Application range:** Paint stripping, paint removal, rust removal, cleaning, surface cleaning



#### Technical data:

Operating pressure:	max. 6,3 bar (90 psi)
Air consumption:	200 l/min
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" NPT

	Length mm	Height mm	Ø mm	kg
515.1909	260,0	280,0	5,0	1,30

## PNEUMATIC CLEANING GUNS

### Pneumatic cleaning gun

- Ideal for professional cleaning of cushions, door pillars, ventilation channels, carpets, foot mats, fabric seats etc.
- Pneumatic-operated with simple handling
- Unique, cyclonic, ball bearing mounted rotation cleaning technology
- Efficient and energy-saving using targeted air turbulence
- For all possible surfaces, cleaned damp or dry
- Also suitable for hard-to-reach places, e.g. between seats and seams
- Cleaned surfaces also dry extremely quickly thanks for the fine misted cleaning solution
- With pressure regulator
- Includes 360° rotating and 30° angled ball joint and plug nipple



#### Technical data:

No load current:	8000 r.p.m.
Vibration acceleration:	< 3,9 m/s <sup>2</sup>
Noise performance level:	106 dbA
Noise pressure level:	95 dbA
Air consumption:	160 l/min
Operating pressure:	max. 6,3 bar (90 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4" PT

		kg
515.1980	1.000 ml	680

### Cleaning Brush-Adaptor

- Ideal addition for cleaning the interior
- Can be used in conjunction with compressed-air cleaning guns (515.1980)
- With screw connection
- Plastic housing



		kg
515.1983	Cleaning Brush-Adaptor	27

### Cleaning Brush

- Ideal addition for cleaning the interior
- Can be used in conjunction with compressed-air cleaning guns (515.1980)
- With hanging hole
- Plastic housing



		kg
515.1986	Cleaning Brush	60

### Pneumatic cleaning gun set with suction hose

- Ideal for professional cleaning of cushions, door pillars, ventilation channels, carpets, foot mats, fabric seats etc.
- Pneumatic-operated with simple handling
- Unique, cyclonic, ball bearing mounted rotation cleaning technology
- Efficient and energy-saving using targeted air turbulence
- For all possible surfaces, cleaned damp or dry
- Also suitable for hard-to-reach places, e.g. between seats and seams
- Cleaned surfaces also dry extremely quickly thanks for the fine misted cleaning solution
- increases the suction power and subsequent vacuuming is no longer necessary
- does not kick up dust and dirt
- no respirator mask is required
- simple and flexible handling
- With pressure regulator
- Includes 360° rotating and 30° angled ball joint and plug nipple



#### Technical data:

Vibration acceleration:	< 3,9 m/s <sup>2</sup>
Noise performance level:	109 dbA
Noise pressure level:	98 dbA
Air consumption:	120 l/min
Min. tube diameter:	3/8" - 10 mm
Operating pressure:	max. 6,3 bar (90 psi)
Connection thread:	1/4" PT
Hose length:	1,8 m

		kg
515.1935	1.000 ml	1,15

consists of:

		kg
515.1936	Suction hose, 1,8 m	180
515.1937	Suction adapter Ø32 - 42 mm	57
515.1938	Pneumatic cleaning gun with suction device	881

### Soda compressed air cleaning gun

- Suitable for cleaning and removing paint, colours, etc.
- For all possible surfaces, such as glass, plastic, rubber, wood, stone, etc.
- Soda blasting agent neither heats nor warps the panel
- Pneumatic-operated with simple handling
- Efficient and environmentally-friendly cleaning with NaHCO<sub>3</sub> (soda)
- Air exhaust through the handle
- Cold insulated handle
- Includes 1/4" coupling connector



#### Technical data:

Operating pressure:	max. 6,3 - 8,2 bar (90 - 120 psi)
Min. tube diameter:	3/8" - 10 mm
Connection thread:	1/4"
Air consumption:	57 l/min

		kg
515.1919	Soda compressed air cleaning gun	1,47

### Soda blasting agent

- Suitable for cleaning and removing paint, colours, etc.
- For all possible surfaces, such as glass, plastic, rubber, wood, stone, etc.
- Soda blasting agent neither heats nor warps the panel
- Efficient and environmentally-friendly cleaning with NaHCO<sub>3</sub> (soda)
- In a practical 5 kg bucket



#### Technical data:

Water content:	< 0,25%
Chloride content:	< 150 ppm
Sulphate content:	< 150 ppm
sieve fraction:	< 0,5 mm: 95%

		kg
515.1923	Soda blasting agent	5375



## PRESSURISED AIR PISTOL CARTRIDGES

### Pneumatic cartridge pistols 310 ml

- For working with cartridges and soft packs
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Perfect run in the cartridge cylinder with the telescopic principle and therefore no cylinder tipping or air intake
- Drip-free mechanism
- Step-free controllable feed
- With two adapters for cartridges and bags
- With safety pressure release valve
- Includes pneumatic regulator for discharge speed
- Handy and ergonomic dual component housing
- Aluminium housing
- Plastic handle



#### Technical data:

Compressive force:	90 kg
Operating pressure:	max. 6,3 bar (90psi)
Max. flow rate:	40 l/min
Noise pressure level:	70 dbA
Connection thread:	1/4"PT

	Length mm	Height mm	Replacement nozzle	
515.1975	400,0	200,0	980.1001	1,00

### Pneumatic cartridge pistols 600 ml

- For working with cartridges and soft packs
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Perfect run in the cartridge cylinder with the telescopic principle and therefore no cylinder tipping or air intake
- Drip-free mechanism
- Step-free controllable feed
- With two adapters for cartridges and bags
- With safety pressure release valve
- Includes pneumatic regulator for discharge speed
- Handy and ergonomic dual component housing
- Aluminium housing
- Plastic handle



#### Technical data:

Compressive force:	90 kg
Operating pressure:	max. 6,3 kg/cm <sup>2</sup> (90psi)
Max. flow rate:	40 l/min
Noise pressure level:	70 dbA
Connection thread:	1/4"PT

	Length mm	Height mm	Replacement nozzle	
515.1985	620,0	200,0	980.1001	1,30

## AIR BLOW OUT TOOLS

### Compressed blow out pen

- In ball point pen form
- Practical pocket clip
- Controllable air volume
- With 2,5 mm nozzle
- With Euro connection
- Direct air coupling suitable for connection
- Light aluminium housing



#### Technical data:

Input pressure:	max. 12 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. flow rate:	360 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4"PT

	D mm	L1 mm	L2 mm	
515.1908	10,0	110,0	70,0	150

### Protective shield for compressed-blowing pistols

- Optimal protection for fluids spraying back or particles when blowing
- Suitable to be attached on the compressed-air blowing pistol
- Ideal for models with 6 mm nozzle diameter
- Stable protection shield made from see-through plastic
- Safe and easy use



	D1 mm	D2 mm	
515.1912	6,0	100,0	50

### Pneumatic blow out pistol with extension

- Ergonomic handle
- Controllable air volume
- With 2,5 mm nozzle
- Direct air coupling suitable for connection
- Easy to operate
- With hanging hole
- Includes 1/4" coupling connector
- Solid metal base body
- Robust metal housing



#### Technical data:

Input pressure:	max. 15 bar
Operating pressure:	max. 6,3 bar (90 psi)
Max. flow rate:	130 l/min
Noise pressure level:	90 dbA
Connection thread:	1/4"PT

	L1 mm	L2 mm	L3 mm	L4 mm	
515.1930	125,0	110,0	75,0	125,0	180

## Telescopic pneumatic blow out pistol

- With stepless extendable nozzle
- Telescopic blast pipe in length and angle adjustable 90 - 190 mm / 360°
- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



	L2 mm	L3 mm	L4 mm	
515.1907	120,0	90,0	195,0	200

### Telescopic pneumatic blow out pistol with protective shield

- With stepless extendable nozzle
- Telescopic blast pipe in length and angle adjustable 90 - 190 mm / 360°
- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



515.1906 2 pcs	Telescopic pneumatic blow out pistol with protective shield 250

#### consists of:

515.1907	Air operated blow pistol, telescopic, 90-190mm 200
515.1912	Protective shield for compressed-blowing pistols Ø100mm 50



### Pneumatic blow out pistol with flow regulation

- With universal mouth piece
- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Input pressure: max. 15 bar  
 Operating pressure: max. 6,3 bar (90 psi)  
 Max. flow rate: 300 l/min  
 Noise pressure level: 90 dbA  
 Connection thread: 1/4"PT

	L1 mm	L2 mm	L3 mm	
515.1901	235,0	100,0	75,0	150

### Universal pneumatic blow out pistol

- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

Input pressure: max. 15 bar  
 Operating pressure: max. 6,3 bar (90 psi)  
 Max. flow rate: 300 l/min  
 Noise pressure level: 90 dbA  
 Connection thread: 1/4"PT

	L1 mm	L2 mm	L3 mm	
515.1902	235,0	95,0	75,0	170
515.1903	470,0	330,0	75,0	240
515.1904	650,0	510,0	75,0	280

### Pneumatic blow out pistol set

- Ideal for cleaning and removing of foreign objects
- Ergonomic handle
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Slip proof handle
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



515.1921 3 pcs Pneumatic blow out pistol set	690
1 x  95 mm	
1 x  330 mm	
1 x  510 mm	

### Pneumatic air blow gun, long

- With 90° side nozzle and Venturi nozzle
- Ideal for cleaning and removing of foreign objects also in hard to reach places
- Grip area with insulated lance to protect it from cold
- Controllable air volume
- With hanging function
- Direct air coupling suitable for connection
- Easy to operate
- Long execution
- Includes 1/4" coupling connector
- Increased efficiency due to Venturi nozzle
- 90° side nozzle enables cleaning of cooling fins
- Ultra light robust housing from special plastic
- Metal pipe



#### Technical data:

Input pressure: max. 15 bar  
 Operating pressure: max. 6,3 bar (90 psi)  
 Max. flow rate: 540 l/min  
 Noise pressure level: 90 dbA  
 Connection thread: 1/4"PT

515.1915 3 pcs Pneumatic air blow gun, long	510

#### consists of:

515.1916 Pneumatic blow out pistol, 1100 mm	400
515.1917 90° side nozzle	20
515.1918 Venturi nozzle	65

### VACUUMS

### Pneumatic suction and blow gun

- Includes reinforced fabric dust collection bag
- Versatile usage
- Includes 1/4" coupling connector
- Robust housing



#### Technical data:

Operating pressure: max. 6,3 bar (90 psi)  
 Max. flow rate: 96 l/min  
 Noise performance level: 97 dbA  
 Noise pressure level: 92 dbA  
 Min. tube diameter: 3/8" - 10 mm  
 Connection thread: 1/4"

	L mm	
515.5090	145,0	670

### PNEUMATIC FLUSH GUN

### Cooling system pneumatic flush gun

- ideal for fast and efficient rinsing of the cooling system
- restores optimum operation of the cooling system
- can be used without solvents or aggressive chemicals
- works in conjunction with compressed air and water, increasing the water pressure
- the cooling system flush gun is equipped with a standard 1/2" / Ø 13 mm water connection
- universal rubber nozzle with various diameters 19.0 / 29.0 / 32.0 / 36.5 and 40.0 mm
- for all common coolant hoses
- Includes 1/4" coupling connector
- Ultra light robust housing special plastic



#### Technical data:

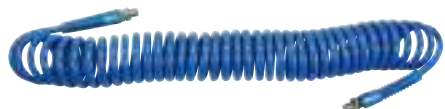
Input pressure: max. 8,5 bar  
 Operating pressure: max. 6,3 bar (90 psi)  
 Connection thread: 1/4"PT

	Ø mm	Total length mm	
515.1216	19,0 / 29,0 / 32,0 / 36,5 / 40,0	350,0	300

## PNEUMATIC HOSE

### PU pneumatic spiral coiled tube

- Flexible, crush resistant polyurethane hose
- Tube ends with anti kink device
- Rotating fitting
- Flexible in cold
- Oil and petrol resistant



#### Technical data:

Temperature constancy: -40°C - +70°C  
Max. pressure: 12 bar

	Tube inner Ø mm	Connection	Hose length m	suitable coupling	suitable inlet connector	
515.3330	6	G1/4" OT	8,0	515.3483	515.3492	0,60
515.3335	8	G1/4" OT	15,0	515.3483	515.3492	1,20
515.3340	10	G3/8" OT	15,0	515.3484	515.3493	1,80



### PU-pneumatic tube

- High quality pneumatic hose
- Suitable for pneumatic and water
- Light and crush free material
- Suitable accessories
- Long service life
- Oil and petrol resistant



#### Technical data:

Temperature constancy: -40°C - +70°C  
Max. pressure: 15 bar

	Ø Tube mm	Connection	Hose length m	suitable coupling	suitable inlet connector	
515.3344	6 x 9	G1/4" OT	20,0	515.3483	515.3492	1,00
515.3345	9 x 12	G1/4" OT	20,0	515.3483	515.3492	1,75

### Compressed air hose with signal fluorescent colour

- more flexible compressed air hose
- Light and crush free material
- the fluorescent colour of Signal hose is easily detectable and prevents tripping
- abrasion-resistant
- Long service life
- not silicon-free
- Oil and petrol resistant



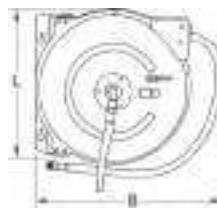
#### Technical data:

Temperature constancy: -40°C - +65°C  
Max. pressure: 20 bar

	Tube inner Ø mm	Hose length m	suitable coupling	suitable inlet connector	
515.3420	10,0	10,0	515.3487	515.3496	3,00

### Automatic pneumatic hose reel Ø 10 mm x 15 m

- With wall mounting bracket
- For pneumatic and water
- Drum 180° freely tiltable by means of wall mounting
- Flexible, crush resistant Hybrid-Polymer hose
- Automatic hose return
- with feed guide
- Multi gearlock per rotation
- Device adjusting lock
- Include 1,5 m connecting hose
- Impact resistant plastic housing



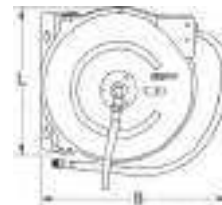
#### Technical data:

Tube diameter: 10,0 mm  
Hose length: 15 + 1,5 m  
Max. pressure: 20,0 bar  
Connection thread: 1/4"

	B mm	L mm	
515.3440	585,0	410,0	7,02

### Automatic pneumatic hose reel Ø 13 mm x 15 m

- With wall mounting bracket
- For pneumatic and water
- Drum 180° freely tiltable by means of wall mounting
- Flexible, crush resistant Hybrid-Polymer hose
- Automatic hose return
- with feed guide
- Multi gearlock per rotation
- Device adjusting lock
- Include 1,5 m connecting hose
- Impact resistant plastic housing



#### Technical data:

Tube diameter: 13,0 mm  
Hose length: 15 + 1,5 m  
Max. pressure: 20,0 bar  
Connection thread: 3/8"

	B mm	L mm	
515.3445	660,0	455,0	10,20

## AIR SERVICE UNIT

### Pneumatic water trap

- For separating condensation
- Assembly directly in the access direction
- Made out of sintered metal



1/4"

	size outside thread	size internal thread	Ø mm	Length mm	
515.3370	1/4"	1/4"	14	88,0	140

### Pneumatic side oiler

- For automatic oiling of pneumatic tools
- To test oil state through transparent visibility glass
- Compact execution
- Usable in most pneumatic tool
- Extends the service life of pneumatic tools
- Refillable
- Assembly directly in the access direction



1/4"

	size outside thread	size internal thread	Ø mm	Length mm	
515.3360	1/4"	1/4"	17	54,0	110

### Air service unit

- Suitable for wall mounting
- Consists of filter pressure reducer, oil regulator and manometer
- Inspection glass for fluid inspection
- For the assembly of pneumatic tools
- Output pressure regulates independent of the input pressure
- Filters dirt particles and condensation
- With adjustable oil regulator
- With integrated wall mounting bracket



#### Technical data:

Max. pressure:	16 bar
Max. working pressure:	12 bar
Pressure gauge:	0,5 - 12 bar
Allowable temperature range:	-10° - +55° C
Air pressure up to 6,3 bar:	1/4" = 1800 l/min 3/8" = 5000 l/min 1/2" = 5000 l/min
Filter pressure more inferior:	1/4" = 30 ml 3/8" = 50 ml 1/2" = 50 ml
Oil trap:	1/4" = 40 ml 3/8" = 170 ml 1/2" = 170 ml

	Connection	B mm	L1 mm	L2 mm	kg
515.3355	1/4"	140,0	200,0	135,0	0,43
515.3350	3/8"	140,0	200,0	135,0	1,14
515.3356	1/2"	140,0	200,0	135,0	1,30

### PNEUMATIC ADAPTERS & COUPLINGS



### Metal ball joint fitting nipple

- Prevents damage to the compressed air hose
- 360° rotatable and 30° angleable
- for compressed air hoses 1/4" male thread
- Ideal for use with spray guns
- Metal body
- Diameter 7,2 mm



	size outside thread	mm	Length mm	kg
515.3395	1/4"	21	56,0	50

### Metal ball joint fitting nipple

- Prevents damage to the compressed air hose
- Joint absorbs pivoting movements when used with spray gun
- 360° rotatable and 30° angleable
- for compressed air hoses 1/4" female thread
- Ideal for use with spray guns
- Metal body
- Diameter 7,2 mm



	size internal thread	mm	Length mm	kg
515.3394	1/4"	16	46,0	30

### Metal air inlet connector

- for compressed air hoses 1/4" male thread
- Steel body
- Surface nickel-plated
- Diameter 7,75 mm

**Application range:** Germany (Standard), Austria, Slovenia, Hungary, China, India, Portugal, Russia, Poland, Romania, Turkey



	size outside thread	mm	Length mm	kg
999.9086	1/4"	15	40,0	23

### Metal air inlet connector with hose tail

- For compressed air hoses 10 mm
- Steel body
- Surface nickel-plated

**Application range:** Germany (Standard), Austria, Slovenia, Hungary, China, India, Portugal, Russia, Poland, Romania, Turkey



	D1 mm	D2 mm	L mm	kg
999.9093	10,0	7,6	45,0	15

### Metal air inlet connector

- for compressed air hoses 1/4" male thread
- Steel body
- Surface nickel-plated
- Diameter 7,75 mm

**Application range:** Switzerland, Holland, Belgium, France



	size outside thread	mm	Length mm	kg
999.9087	1/4"	15	44,0	23

### Metal air inlet connector with hose tail

- For compressed air hoses 10 mm
- Steel body
- Surface nickel-plated

**Application range:** Switzerland, Holland, Belgium, France



	D1 mm	D2 mm	L mm	kg
999.9094	10,0	7,6	58,0	26

### Metal air inlet connector

- for compressed air hoses 1/4" male thread
- Steel body
- Surface nickel-plated
- Diameter 7,75 mm

**Application range:** Italy, Spain



	size outside thread	mm	Length mm	kg
999.9088	1/4"	15	45,0	23

### Metal air inlet connector with hose tail

- For compressed air hoses 10 mm
- Steel body
- Surface nickel-plated

**Application range:** Italy, Spain



	D1 mm	D2 mm	L mm	kg
999.9095	10,0	4,9	58,5	26

### Metal air inlet connector

- for compressed air hoses 1/4" male thread
- Steel body
- Surface nickel-plated
- Diameter 7,75 mm

**Application range:** South Korea, China, Japan



	size outside thread	mm	Length mm	kg
999.9089	1/4"	15	40,0	25

### Male coupling with male thread

- Body made of brass
- Diameter 7,2 mm



	size outside thread	Ø mm	Length mm	g
515.3489	1/4"	17	33,0	20
515.3490	3/8"	19	33,0	25
515.3491	1/2"	24	35,0	41

### 2-stage compressed air safety coupling

- With one handed operation
- 2-level safety removal function
- Stage 1: Compressed air device is depressurised
- Stage 2: Compressed air hose can be safely uncoupled
- Self sealing on the coupling
- Diameter 7,0 mm



	size outside thread	Ø mm	Length mm	g
999.9092	1/4"	4,9	77,5	54

### 2-Level compressed air safety coupling with hose nozzle

- With one handed operation
- 2-level safety removal function
- Stage 1: Compressed air device is depressurised
- Stage 2: Compressed air hose can be safely uncoupled
- Self sealing on the coupling
- Diameter 7,0 mm



	Ø mm	Ø mm	Length mm	g
999.9096	9,0	19	95,0	52
999.9097	11,0	19	96,0	54
999.9098	14,5	19	98,0	62

### Coupling with male thread

- With one handed operation
- Self sealing on the coupling
- Body made of brass
- Diameter 7,2 mm



	size outside thread	Ø mm	Length mm	g
515.3480	1/4"	22	40,0	70
515.3481	3/8"	22	41,0	90
515.3482	1/2"	22	43,0	90

### Brass coupling with female thread

- Self sealing on the coupling
- Unilaterally closing off
- Body made of brass
- Diameter 7,2 mm



	size internal thread	Ø mm	Length mm	g
515.3483	1/4"	22	41,0	80
515.3484	3/8"	22	41,0	85
515.3485	1/2"	24	43,0	90

### Brass male coupling with female thread

- Body made of brass
- Diameter 7,2 mm



	size internal thread	Ø mm	Length mm	g
515.3492	1/4"	17	33,0	22
515.3493	3/8"	19	33,0	22
515.3494	1/2"	24	35,0	40

### Brass Coupling with hose connector

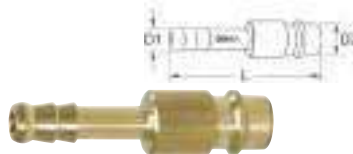
- With one handed operation
- Roller locking
- Check valve
- Body made of brass



	Ø mm	Length mm	g
515.3486	6,0	55,0	70
515.3487	9,0	55,0	80
515.3488	13,0	55,0	90

### Male coupling with hose connector

- Body made of brass



	D1 mm	D2 mm	L mm	g
515.3495	6,0	7,2	44,0	10
515.3496	9,0	7,2	44,0	20
515.3497	13,0	7,2	46,0	25

### Brass reducing nipple

- Body made of brass
- Diameter 7,2 mm



	size outside thread	size internal thread	Ø mm	Length mm	g
515.3383	3/8"	1/4"	19	14,0	10
515.3384	1/4"	3/8"	24	26,0	30
515.3385	3/8"	1/2"	24	26,0	50
515.3386	1/2"	3/8"	19	18,0	60

### Brass reducing nipple

- Body made of brass
- Diameter 7,2 mm



	size outside thread	Ø mm	Length mm	g
515.3380	1/4"	17	23,0	20
515.3381	3/8"	19	23,0	30
515.3382	1/2"	24	30,0	50

### Compressed air pressure reducer of maximum 10 bar to 6.2 bar

- Regulates the air flow volume and protects pneumatic tools
- Can be installed in the compressed air line or directly to the compressed air device
- Maximum input pressure 10 bar
- Output pressure is 6.2 bar
- Includes 1/4" coupling connector and adapter
- Metal body
- Diameter 7,2 mm



	Ø mm	Length mm	g
515.3366	48	62,0	142

### Brass pneumatic regulator

- With regulation wheel
- For regulating the air flow volume
- Assembly directly in the access direction
- Completely lockable
- Body made of brass



	size outside thread	size internal thread	Ø mm	Length mm	g
515.3365	1/4"	1/4"	18	43,0	80

### Brass pneumatic 3 way separator

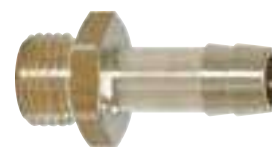
- Connection of 3 outlet lines 1/4" female thread to one inlet line
- Body made of solid brass



	size internal thread	Ø mm	Length mm	g
515.3375	1/4"	19	32,0	160

### Brass hose nipple with male thread

- Inner cone 45°
- Body made of brass

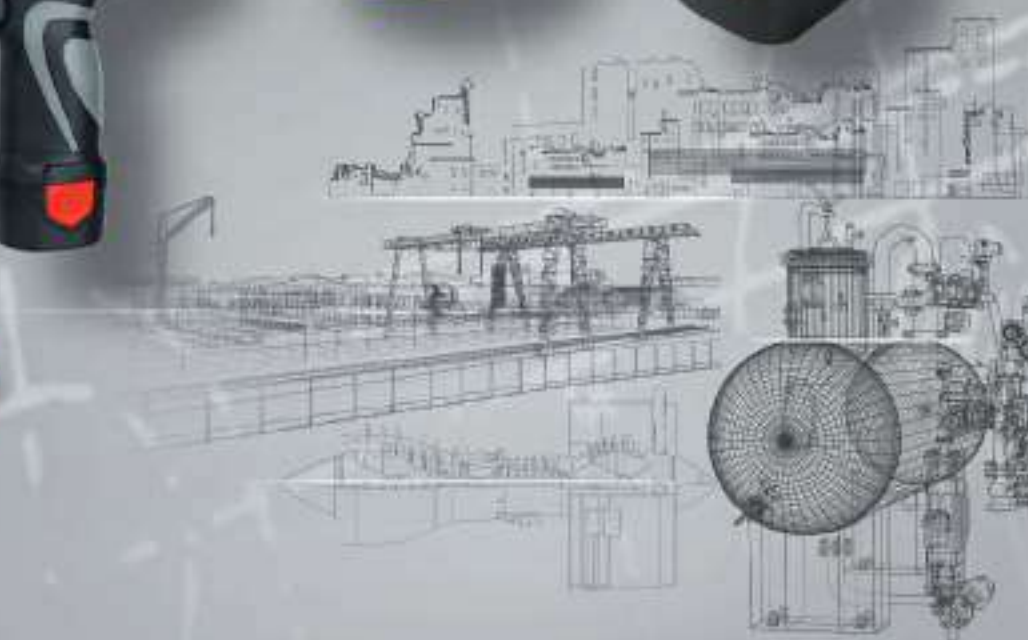


	size outside thread	Ø mm	Ø mm	Length mm	g
515.3387	1/4"	6,0	17	35,0	20
515.3388	1/4"	9,0	17	35,0	20
515.3389	3/8"	9,0	19	36,0	30
515.3390	3/8"	13,0	19	42,0	30
515.3391	1/2"	9,0	24	40,0	50
515.3392	1/2"	13,0	24	46,0	50

Ear protection can be found in the Industrial safety & workwear section.



Innovation is our mission!

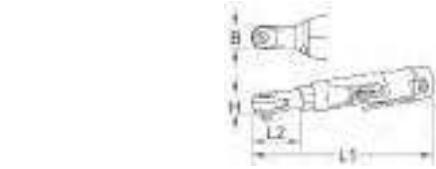


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## CORDLESS REVERSIBLE RATCHETS

### Cordless reversible ratchet

- Lightweight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



1/4"

#### Technical data:

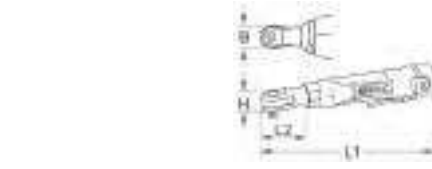
Drive:	1/4"
Electrical Voltage:	10,8 V
Speed:	220 rpm
Torque max.	34 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah
Weight (basic unit + battery):	905 g

	L1	L2	B	H	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
	mm	mm	mm	mm					
515.3499	275	60	30	35	515.3595	515.3592	0	0	1,00
515.3500	275	60	30	35	515.3595	515.3592	1	1	1,90
515.3501	275	60	30	35	515.3595	515.3592	2	1	2,10



### Cordless reversible ratchet

- Lightweight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



3/8"

#### Technical data:

Drive:	3/8"
Electrical Voltage:	10,8 V
Speed:	220 rpm
Torque max.	49 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah
Weight (basic unit + battery):	980 g

	L1	L2	B	H	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
	mm	mm	mm	mm					
515.3504	270	55	30	35	515.3595	515.3592	0	0	1,00
515.3505	270	55	30	35	515.3595	515.3592	1	1	1,90
515.3506	270	55	30	35	515.3595	515.3592	2	1	2,10

### Cordless reversible ratchet

- Lightweight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing



1/2"

#### Technical data:

Drive:	1/2"
Electrical Voltage:	10,8 V
Speed:	180 rpm
Torque max.	62 Nm
No load current:	5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah
Weight (basic unit + battery):	1,30 kg

	L1	L2	B	H	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
	mm	mm	mm	mm					
515.3509	300,0	80,0	40,0	45,0	515.3595	515.3592	0	0	1,20
515.3510	300,0	80,0	40,0	45,0	515.3595	515.3592	1	1	2,10
515.3511	300,0	80,0	40,0	45,0	515.3595	515.3592	2	1	2,30

## CORDLESS IMPACT WRENCH

### Cordless impact screwdriver

- Lightweight
- Handy and ergonomic dual component housing
- Tool holder female hexagon 6 point to DIN 3163 - E6,3
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With industrial hammer mechanism
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



1/4"

#### Technical data:

Drive:	1/4"
Electrical Voltage:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	117 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 1,5 Ah

	L	B	H	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
	mm	mm	mm					
515.3539	190,0	55,0	195,0	515.3595	515.3592	0	0	1,50
515.3540	190,0	55,0	195,0	515.3595	515.3592	1	1	2,40
515.3541	190,0	55,0	195,0	515.3595	515.3592	2	1	2,60

### Cordless impact wrench

- Lightweight
- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With industrial hammer mechanism
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



3/8"

#### Technical data:

Drive:	3/8"
Electrical Voltage:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	117 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah
Weight (basic unit + battery):	1,10 kg

	L	B	H	Spare carbon brushes set	Battery pack	Number of batteries	Charger	kg
	mm	mm	mm					
515.3514	190,0	55,0	195,0	515.3595	515.3592	0	0	1,80
515.3515	190,0	55,0	195,0	515.3595	515.3592	1	1	2,40
515.3516	190,0	55,0	195,0	515.3595	515.3592	2	1	2,60





### Cordless impact wrench with torque control

- Handy and ergonomic dual component housing
- Square drive adaptor to DIN 3120 / ISO 1174
- With practical clockwise and anticlockwise reversing function
- With 6 torque-stages
- With industrial hammer mechanism
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Drive:	1/2"
Electrical Voltage:	18 V
Speed:	0 - 1800 rpm
Torque max.	539 Nm
Torque stages:	6 stages
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 4,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3524	256,0	80,0	273,0	515.3596	515.3599	0	0	2,50
515.3525	256,0	80,0	273,0	515.3596	515.3599	1	1	3,80
515.3526	256,0	80,0	273,0	515.3596	515.3599	2	1	4,60

### CORDLESS DRILL MACHINES

#### Cordless screwdriver

- Lightweight
- Handy and ergonomic dual component housing
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With torque control
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Drive:	1/4"
Electrical Voltage:	10,8 V
Speed:	0 - 400 rpm
Torque max.	24 Nm
Torque stages:	1 - 16 stages
No load current:	2,9 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3529	148,0	55,0	190,0	515.3595	515.3592	0	0	1,50
515.3530	148,0	55,0	190,0	515.3595	515.3592	1	1	2,40
515.3531	148,0	55,0	190,0	515.3595	515.3592	2	1	2,60

### CORDLESS GRINDER

#### Cordless high performance grinder

- Lightweight
- Handy and ergonomic dual component housing
- Ideal for carbide, corundum and tungsten carbide burrs
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Chuck capacity:	3 mm
Electrical Voltage:	10,8 V
Speed:	22000 rpm
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3544	145,0	50,0	180,0	515.3595	515.3592	0	0	1,20
515.3545	145,0	50,0	180,0	515.3595	515.3592	1	1	2,10
515.3546	145,0	50,0	180,0	515.3595	515.3592	2	1	2,30

### Cordless drill machine

- Lightweight
- Handy and ergonomic dual component housing
- Universal use through robust quick release chuck
- With practical clockwise and anticlockwise reversing function
- Stepless controllable motor speed through electronic switch
- With torque control
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Chuck capacity:	1 - 10 mm
Electrical Voltage:	10,8 V
Speed:	0 - 1870 rpm
Torque max.	24 Nm
No load current:	3,5 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3534	190,0	55,0	200,0	515.3595	515.3592	0	0	1,60
515.3535	190,0	55,0	200,0	515.3595	515.3592	1	1	2,50
515.3536	190,0	55,0	200,0	515.3595	515.3592	2	1	2,70

### Cordless grinder

- Lightweight
- Handy and ergonomic dual component housing
- For powerful grinding and polishing on small areas
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Speed:	3200 rpm
Velcro disc receiver:	Ø 75 mm
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3548	130,0	50,0	185,0	515.3595	515.3592	0	0	1,30
515.3550	130,0	50,0	185,0	515.3595	515.3592	1	1	2,20
515.3558	130,0	50,0	185,0	515.3595	515.3592	2	1	2,40

## CORDLESS ANGLE GRINDER

### Cordless angle grinder

- Lightweight
- Handy and ergonomic dual component housing
- For powerful grinding and polishing on small areas
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Velcro disc receiver:	Ø 115 mm = 4.1/2"
Electrical Voltage:	18.0 V
Speed:	7000 r.p.m.
No load current:	8,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 4,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.4109	390,0	56,0	80,0	515.3596	515.3599	0	0	3,78
515.4110	390,0	56,0	80,0	515.3596	515.3599	1	1	5,03
515.4111	390,0	56,0	80,0	515.3596	515.3599	2	1	5,83

## CORDLESS POLISHER

### Cordless polisher

- Handy and ergonomic dual component housing
- Polishing with a fast and excellent work result
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- Blow mould plastic housing
- With lambswool bonnet
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	18 V
Speed:	1600 - 2300 rpm
Polishing sponge diameter:	Ø 125 mm / 5"
No load current:	3 A
Charging time:	1 hour
Rechargeable battery:	18 V - 4,0 Ah
Weight (basic unit + battery):	2,5 kg

	L mm	B mm	H mm	Replacement lambswool bonnet	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.3554	420,0	60,0	100,0	515.3552	515.3596	515.3599	0	0	4,00
515.3555	420,0	60,0	100,0	515.3552	515.3596	515.3599	1	1	5,30
515.3756	360,0	60,0	100,0	515.3552	515.3596	515.3599	2	1	6,06

## CORDLESS GREASE GUN

### Cordless grease gun 400 ml

- Handy and ergonomic dual component housing
- For standard grease cartridges or direct filling
- Ideal for heavy greasing with counter pressure
- With flexible 750 mm filling tube
- Carbon brushes interchangeable
- High performance lithium-ion battery
- With a rechargeable battery that can be process up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- In durable plastic storage case



#### Technical data:

Operating pressure:	420 bar / 42 MPa
NLGI class:	< 2
Grease filling:	75 g / min
Capacity of the unit:	400 ml
No load current:	3 A
Operating current:	2,0 ~ 5,5 A
Charging time:	1 hour
Rechargeable battery:	18 V - 4,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.3559	237,0	80,0	487,0	515.3596	515.3599	0	0	5,40
515.3560	237,0	80,0	487,0	515.3596	515.3599	1	1	6,70
515.3561	237,0	80,0	487,0	515.3596	515.3599	2	1	7,50

### Grease gun adaptor set

- For standard hand, cordless and pneumatic grease guns
- Adaptor with sliding sleeve for break-proof connection
- Straight and angled grease nipple
- For grease nipples out of steel, brass and stainless steel

**Application range:** Cone, funnel, ball and flat grease nipples



		kg
980.1100	7 pcs Grease gun adaptor set	1,99

consists of:

		Length mm	kg
980.1101	90° Lubricant adaptor	114,0	150
980.1102	Tube extension, 300 mm	390,0	240
980.1103	Straight extension	155,0	230
980.1104	90° flat nipple adaptor	135,0	160
980.1105	Rubber grease tip	155,0	150
980.1106	Needle shaped tip	135,0	143
980.1107	360° Adaptor, adjustable	185,0	265

## CORDLESS CARTRIDGE GUN

### Cordless cartridge gun 310 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	310 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.3569	410,0	138,0	245,0	515.3595	515.3592	0	0	3,60
515.3570	410,0	138,0	245,0	515.3595	515.3592	1	1	4,50
515.3571	410,0	138,0	245,0	515.3595	515.3592	2	1	4,70



### Cordless cartridge gun 400 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	400 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3574	450,0	138,0	245,0	515.3596	515.3592	0	0	3,70
515.3575	450,0	138,0	245,0	515.3596	515.3592	1	1	4,60
515.3576	450,0	138,0	245,0	515.3596	515.3592	2	1	4,80

### Cordless cartridge gun 600 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	600 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3579	560,0	138,0	245,0	515.3595	515.3592	0	0	4,10
515.3580	560,0	138,0	245,0	515.3595	515.3592	1	1	5,10
515.3581	560,0	138,0	245,0	515.3595	515.3592	2	1	5,20

## RECHARGEABLE BATTERIES AND CHARGERS

### Universal spare batteries

- High performance lithium-ion battery
- Impact resistant polyethylene housing



#### Technical data:

Battery type:	Lithium-ion high performance rechargeable battery
Charging time:	1 hour
Working temperature:	-5° / +45°

		Ah	L mm	B mm	H mm	
515.3592	10,8 V	1,5	60,5	54,0	84,8	200

### Universal push in batteries

- High performance lithium-ion battery
- Integrated automatic safety switching off
- With control LED to discharge
- Impact resistant polyethylene housing
- Ca. 1 hour charge time



#### Technical data:

Battery type:	Lithium-ion high performance rechargeable battery
Charging time:	1 hour
Working temperature:	-5° / +45°

		Ah	L mm	B mm	H mm	
515.3597	10,8 V	1,5	73,0	80,0	109,6	300
515.3599	18 V	3,0	73,0	80,0	129,8	800

### Universal fast charger

- Suitable for 10,8 V Ah lithium ion high performance rechargeable battery
- Integrated automatic safety switching off
- Impact resistant polyethylene housing



#### Technical data:

Battery type:	10,8 V
Charging time:	1 hour
Charging voltage:	AC 100 - 240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

	L mm	B mm	H mm	
515.3590	145,0	100,0	55,0	500

### Universal fast charger

- Suitable for 18,0 V Ah lithium ion high performance rechargeable battery
- Integrated automatic safety switching off
- Impact resistant polyethylene housing



#### Technical data:

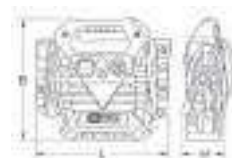
Battery type:	10,8 V - 18,0 V
Charging time:	1 hour
Charging voltage:	AC 100 - 240 V ~ 50 / 60 Hz
Working temperature:	-5° / +45°

	L mm	B mm	H mm	
515.3591	175,0	115,0	65,0	700

## BATTERY BOOSTER MOBILE STARTING AID

### 12 V Battery Booster - mobile starting aid 700 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- Charge control indicator at press of button
- Acoustic warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Impact-resistant housing with rubberised base area



#### Technical data:

Battery:	12 Volt / 22 Ah
Starting current:	700 A
Peak current:	2200 A
Cable cross section:	35 mm <sup>2</sup>
Battery charger:	12V DC / 4 A

	L mm	B mm	H mm	Charger spare	Charging cable	
550.1710	405,0	380,0	160,0	550.1711	550.1712	10,00

### 12 V Battery Booster - mobile starting aid 850 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With external safety fuse
- Charge control indicator
- Acoustic warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Impact proof housing



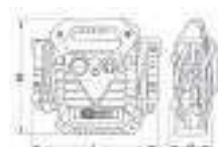
#### Technical data:

Battery:	12 Volt / 22 Ah
Starting current:	850 A
Peak current:	2500 A
Cable cross section:	35 mm <sup>2</sup>
Battery charger:	12V DC / 1,5 A

	L mm	B mm	H mm	Charger spare	Charging cable	
550.1810	380,0	410,0	160,0	550.1811	550.1812	12,10

### 12 V + 24 V battery booster - mobile emergency starter 2340 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With external safety fuse
- Charge control indicator
- Acoustic warning tone if the polarity is reversed
- 1.65 m cable length
- With sturdy 50 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Robust, movable housing



#### Technical data:

Battery:	2 x 12 Volt / 25 Ah
Starting current:	2340/1170 A
Peak current:	6200/3100 A
Cable cross section:	50 mm <sup>2</sup>
Battery charger:	12V DC / 4 A

	L mm	B mm	H mm	Charger spare	Charging cable	
550.1825	390,0	535,0	285,0	550.1826	550.1812	24,18

### 12 V + 24 V Battery Booster - mobile starting aid 3000 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integral electronics protection (voltage peak protected)
- Heavy-duty copper cable, cross-section 75 mm<sup>2</sup>
- 2.0 m cable length
- Intelligent, fully-integrated 3-stage automatic charging unit
- Multi-function display with coloured LED bars
- Intelligent protective circuits
- Polarity protection optical/acoustic
- Current-free cable connection to the vehicle battery
- Robust, wheeled housing with cable storage compartments
- Delivery scope includes vehicle charging cable



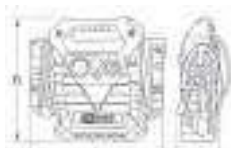
#### Technical data:

Battery:	2 x 12 Volt / 50 Ah
Starting current:	3000 / 1500 A
Peak current:	7200 / 3400 A
Cable cross section:	75 mm <sup>2</sup>

	L mm	B mm	H mm	
550.1725	450,0	300,0	750,0	47,00

### 12 V + 24 V Battery Booster - mobile starting aid 1400 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- Charge control indicator at press of button
- Acoustic warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Automatic mains charger and cable set included in scope of supply
- Cable can be conveniently stored on the housing
- Impact-resistant housing with rubberised base area



#### Technical data:

Battery:	2 x 12 Volt / 22 Ah
Starting current:	1400 / 700 A
Peak current:	4400 / 2200 A
Cable cross section:	35 mm <sup>2</sup>
Battery charger:	12V DC / 4 A

	L mm	B mm	H mm	Charger spare	Charging cable	
550.1720	405,0	380,0	180,0	550.1721	550.1712	18,00

### 12 V + 24 V Battery Booster - mobile starting aid 1700 A

- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With external safety fuse
- Charge control indicator
- Acoustic warning tone if the polarity is reversed
- 1.72 m cable length
- With sturdy 50 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Battery charger, cable set and safety fuse included in the delivery
- Cable can be conveniently stored on the housing
- Impact proof housing



#### Technical data:

Battery:	2 x 12 Volt / 22 Ah
Starting current:	1700/850 A
Peak current:	5000/2500 A
Cable cross section:	50 mm <sup>2</sup>
Battery charger:	12V DC / 4 A
Safety fuse:	500 A

	L mm	B mm	H mm	Charger spare	Replacement fuse	Charging cable	
550.1820	390,0	410,0	200,0	550.1826	550.1821	550.1812	24,18

### CONDENSER BOOSTER / MOBILE STARTING AID

#### 12 V capacitor booster – mobile emergency starter 720 A

- Based on super capacitor technology
- Battery-free emergency starter
- Maintenance-free
- Can be stored for unlimited periods without re-charging
- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With integrated automatic fuse protection
- Charge control indicator
- Acoustic and optical warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 35 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Impact proof housing



#### Technical data:

Capacitor:	12 Volt / 288 FARAD
Starting current:	720 A
Peak current:	2250 A
Cable cross section:	35 mm <sup>2</sup>
Battery charger:	12V DC / 2 A
Safety fuse:	500 A

	L mm	B mm	H mm	Charger spare	Replacement fuse	
550.1830	380,0	410,0	160,0	550.1831	550.1832	4,20

**12 V capacitor booster – mobile emergency starter 1800 A**

- Based on super capacitor technology
- Battery-free emergency starter
- Maintenance-free
- Can be stored for unlimited periods without re-charging
- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With integrated automatic fuse protection
- Charge control indicator
- Acoustic and optical warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 50 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Impact proof housing



**Technical data:**

Capacitor:	12 Volt / 500 FARAD
Starting current:	1800 A
Peak current:	9000 A
Cable cross section:	50 mm <sup>2</sup>
Battery charger:	12V DC / 3 A
Safety fuse:	1000 A

	L mm	B mm	H mm	Charger spare	Replacement fuse	kg
550.1840	380,0	410,0	160,0	550.1841	550.1842	8,20

**12 V / 24 V capacitor booster – mobile emergency starter 4700 A / 3700 A**

- Based on super capacitor technology
- Battery-free emergency starter
- Maintenance-free
- Can be stored for unlimited periods without re-charging
- Ideal for petrol and diesel engines in cars through to transporters
- Fully insulated terminal clamps (1000 A)
- Integrated electronics protection
- With integrated automatic fuse protection
- Charge control indicator
- Acoustic and optical warning tone if the polarity is reversed
- 1.6 m cable length
- With sturdy 50 mm<sup>2</sup> cable cross section
- Current-free cable connection to the vehicle battery
- Supplied with battery charger and cable set
- Cable can be conveniently stored on the housing
- Impact proof housing



**Technical data:**

Capacitor:	12 Volt / 24 Volt / 3400 FARAD
Starting current:	4700/3700 A
Peak current:	20.000/10.000 A
Cable cross section:	50 mm <sup>2</sup>
Battery charger:	12V DC / 3 A
Safety fuse:	1000 A

	L mm	B mm	H mm	Charger spare	Replacement fuse	kg
550.1850	380,0	410,0	160,0	550.1841	550.1842	16,50

**HEAT GUNS**

**Heat blow gun set**

- High-performance hot-air gun with two supply levels
- Seamless temperature regulation
- Adjustment wheel with marking for 6 temperature settings
- Stand for high up-right assembly
- Includes 4 different replacement nozzles
- Supply level 1: 200-300 l/min (max. 450 °C)
- Supply level 2: 350-500 l/min (max. 650 °C)
- Temperature settings: 1≈50 °C/2≈100 °C/3≈200 °C/4≈350 °C/5≈550 °C/6≈650 °C

**Application range:** Removing paint, soldering pipes, shrinking PVS, welding and bending plastics, drying, thawing etc.



			kg
960.1190	5 pcs	Heat blow gun set	1,11

**consists of:**

			kg
960.1191		Heat blow gun	670
960.1192		Broad blast pipe 75 mm	20
960.1193		Reflector blast pipe	20
960.1194		Restrictor 45mm	20
960.1195		Restrictor 14mm	50

**Digital heat blow gun set**

- High-performance hot-air gun with two supply levels
- Digital seamless temperature regulation
- Includes jig for up-right assembly
- 10 blower levels
- Includes 4 different replacement nozzles
- LCD display
- Power: 2000W
- Supply level 1: 200-300 l/min (max. 450 °C)
- Supply level 2: 350-500 l/min (max. 650 °C)
- Temperature settings: 1≈50 °C/2≈100 °C/3≈200 °C/4≈350 °C/5≈550 °C/6≈650 °C

**Application range:** Removing paint, soldering pipes, shrinking PVS, welding and bending plastics, drying, thawing etc.



			kg
960.1175	5 pcs	Digital heat blow gun set	850

consists of:

			kg
960.1176		Heat blow gun, digital	740
960.1192		Broad blast pipe 75 mm	20
960.1193		Reflector blast pipe	20
960.1194		Restrictor 45mm	20
960.1195		Restrictor 14mm	50



## INDUCTION DEVICES

### Induction Heat Gun Set

- For loosening rusted and seized connections
- For loosening "insoluble" glued connections
- Induction principle
- Pinpoint heating in seconds
- Heating of components up to max. 790 °C (red-hot)

**Application range:** Screws, nuts and bolts, exhaust clamps and pipes, lambda probes, running gear, stuck bearings, ball joints, steering (e.g. tracking adjustment screws), chemically micro-encapsulated threaded connections (bonded), warming of bearing housings during dismantling and assembly



#### Technical data:

Capacity: 1000 Watt

			kg
500.8480	6 pcs	Induction Heat Gun Set	1,47

#### consists of:

			kg
500.8481	Induction heat gun, 1000 Watt		1320
500.8482	Induction coils 30mm, standard		31
500.8483	Induction coils 40mm, standard		39
500.8484	Induction coils 50mm, standard		43
500.8486	Induction coil, malleable, universal, length 750 mm		37
500.8487	Induction coil, round		37



### Standard Induction coils

- For loosening rusted and seized connections
- For loosening "insoluble" glued connections
- Induction principle
- Pinpoint heating in seconds
- Heating of components to max. 780 °C (red hot)
- Can be used together with induction heat pistol 500.8420-1

**Application range:** Screws, nuts and bolts, exhaust clamps and pipes, lambda probes, running gear, stuck bearings, ball joints, steering (e.g. tracking adjustment screws), chemically micro-encapsulated threaded connections (bonded), warming of bearing housings during dismantling and assembly



	Ø mm	Length mm	kg
500.8431	15	220,0	48
500.8432	19	220,0	53
500.8433	22	220,0	54
500.8434	26	220,0	54
500.8435	32	220,0	64
500.8436	38	220,0	70
500.8437	45	220,0	77

### Induction coils, extra long

- For loosening rusted and seized connections
- For loosening "insoluble" glued connections
- Induction principle
- Pinpoint heating in seconds
- Heating of components to max. 780 °C (red hot)
- Extra long
- Can be used together with induction heat pistol 500.8420-1

**Application range:** Screws, nuts and bolts, exhaust clamps and pipes, lambda probes, running gear, stuck bearings, ball joints, steering (e.g. tracking adjustment screws), chemically micro-encapsulated threaded connections (bonded), warming of bearing housings during dismantling and assembly



	Ø mm	Length mm	kg
500.8421	15	330,0	50
500.8422	19	330,0	72
500.8423	22	330,0	76
500.8424	26	330,0	81
500.8425	32	330,0	84
500.8426	38	330,0	88
500.8427	45	330,0	96



### Induction pad

- Heat-resistant material
- Gentle on painted surfaces
- Flat and flexible surface
- Simple handling
- Can be used together with induction heat pistol 500.8420-1

**Application range:** Removal of stickers, type plates, emblems, decorative strips, self-adhesive films and small trims on painted surfaces



	mm	Length mm	kg
500.8440	100 x 100	260,0	175

### Semi-rigid deformable induction coil

- Preformed, extra long execution, max. 330 mm
- Ideal for deep applications
- Can be used together with induction heat pistol 500.8420-1

**Application range:** Screws, nuts and bolts, exhaust clamps and pipes, lambda probes, running gear, stuck bearings, ball joints, steering (e.g. tracking adjustment screws), chemically micro-encapsulated threaded connections (bonded), warming of bearing housings during dismantling and assembly



	Length mm	kg
500.8445	595,0	42

### Fully flexible induction coil cable

- Flexibel like a cable
- Ideal for deep applications
- Perfect adaption to the application
- Can be used together with induction heat pistol 500.8420-1

**Application range:** Screws, nuts and bolts, exhaust clamps and pipes, lambda probes, running gear, stuck bearings, ball joints, steering (e.g. tracking adjustment screws), chemically micro-encapsulated threaded connections (bonded), warming of bearing housings during dismantling and assembly



	Length mm	kg
500.8450	800,0	62



**KS TOOLS**

*Innovation is our mission!*

**CORDLESS BATTERY TOOLS**

**LITHIUM ION TECHNOLOGY**

- The high performance cordless tools for the perfect job
- Working without cables with Lithium ion technology
- Ergonomic design, perfect weight distribution





Innovation is  
our mission!



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## HEAD LAMPS

### perfectLight headlamp with focus 140 lumen

- Ideal for very long network independent working
- 3 Watt CREE Chip Power LED
- Luminous flux 140 Lumen
- Up to 100 m light range
- Zoom from spot to flood light
- With multifunctional-button: 1W / 3W / Blink
- Adjustable front and head band for comfort and to stay in place
- Lamp can be additionally tilted in 5 click stops
- Weatherproof protection IPX3
- 3 hours lamp duration
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Illumination period max:	3 hour
Headlight range:	100,0 m
Light current max.:	140 lumen
Luminosity:	3 W
Light source:	3 watt CREE chip power LED
Weatherproof protection:	IPX3
Working temperature:	-10° / +45°C

	Ø mm	Height mm	Depth mm	g
150.1238	30,0	40,0	65,0	170

### perfectLight Headlamp with Motion Sensor 120 Lumen

- Ideal for very long network independent working
- Extremely powerful light CREE XP-G2 front LED
- 120 lumen luminous flux
- Up to 40 m light range
- Motion sensor for switching on and off
- 2 brightness levels
- Fast and secure hold due to adjustable headband
- Flexible positioning
- Ingress protection according to IP54
- Shock and impact resistant
- 14 hours burn time at low brightness level, 7 hours burn time at high brightness level
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Illumination period min:	7 hour
Illumination period max:	14 hour
Headlight range:	40,0 m
Light current min.:	60 lumen
Light current max.:	120 lumen
Luminosity:	2 W
Light source:	CREE XP-G2 LED
Weatherproof protection:	IP54
Working temperature:	-10° / +40°C

	Width mm	Height mm	Depth mm	g
150.4410	64,0	48,0	44,0	105

## FLASHLIGHT

### perfectLight torch 85 lumen

- Ideal for very long network independent working
- 1 Watt CREE Chip LED
- 85 Lumens luminous flux
- 25 m headlight range
- Ideal for smock and shirt pockets
- Clip for the breast pocket
- Weatherproof protection IPX3
- 5 - 10 hours lamp duration
- Includes 2 x AA 1,5 V batteries
- Ultra light and impact resistant aluminium housing



#### Technical data:

Illumination period min:	5 hour
Illumination period max:	10 hour
Headlight range:	25,0 m
Light current max.:	85 lumen
Luminosity:	1 W
Light source:	1 watt CREE chip LED
Weatherproof protection:	IPX3
Working temperature:	-10° / +45°C

	Ø mm	Length mm	g
150.4370	16,0	140,0	92

### perfectLight torch 50 Lumen

- Ideal for very long network independent working
- High power LED
- 50 Lumens luminous flux
- Up to 50 m light range
- With practical wrist strap
- Ingress protection according to IP54
- ca 10 hours lamp duration
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Illumination period max:	10 hour
Headlight range:	50,0 m
Light current max.:	50 lumen
Luminosity:	1 W
Light source:	High power LED
Weatherproof protection:	IP54
Working temperature:	-10° / +40°C

	Ø mm	Length mm	g
150.4415	28,0	100,0	84



### perfectLight torch 130 Lumen

- Ideal for very long network independent working
- Powerful CREE, XP-G LED
- Luminous flux 130 Lumen
- Up to 125 m light range
- Focusable light beam
- With practical wrist strap
- Robust rubber coating
- Ingress protection according to IP54
- Shock and impact resistant
- Approx. 7 hours burn time
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Illumination period max:	7 hour
Headlight range:	125,0 m
Light current max.:	130 lumen
Luminosity:	2,5 W
Light source:	CREE XP-G LED
Weatherproof protection:	IP54
Working temperature:	-10° / +40°C

	Ø mm	Length mm	g
150.4420	32,0	110,0	130

### perfectLight 12+24V-LED torch 130 Lumen

- Ideal for very long network independent working
- Powerful LED
- Luminous flux 130 Lumen
- Up to 100 m light range
- Focusable light beam
- With removable plastic protection handle
- Splash water protected according to IP30
- Easily and quickly rechargeable over the 12+24V cigarette lighter socket
- 2 hours charging time
- 1 hour burn time



#### Technical data:

Illumination period max:	1 hour
Headlight range:	100,0 m
Light current max.:	130 lumen
Luminosity:	2 W
Light source:	CREE XP-G LED
Weatherproof protection:	IP30
Working temperature:	-10° / +40°C
Battery technologie:	Lithium-ion
Battery capacity:	0,55 Ah
Battery voltage:	3,7 V

	Ø mm	Length mm	g
150.4425	30,0	128,0	100

## INSPECTION LAMPS

### Flexible inspection lamp with magnet

- Ideal for very long network independent working
- Halogen lamp
- Flexible long shaft, 400 mm
- With optional clip-on light-flooded magnet
- Includes extension 500 mm
- Approx. 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing



#### Technical data:

Illumination period max:	60 hour
Light current max.:	10000 lumen
Luminosity:	3,2 W
Light source:	Halogen

	Ø mm	Length mm	Spare bulb	g
550.1185	7,0	600,0	550.1188	120

### Flexible inspection lamp with magnet and mirror

- Ideal for very long network independent working
- Halogen lamp
- Flexible long shaft, 400 mm
- With optional attachable flexible mirror (20 x 35 mm)
- With optional clip-on light-flooded magnet
- Includes extension 500 mm
- Approx. 60 hours lamp duration
- Includes 3 x AA batteries
- Impact proof housing



#### Technical data:

Illumination period max:	60 hour
Light current max.:	10000 lumen
Luminosity:	3,2 W
Light source:	Halogen

	Ø mm	Length mm	Spare bulb	g
550.1138	7,0	600,0	550.1188	215

### Flexible inspection mirror with lighting

- Ideal for very long network independent working
- LED light source
- For visual monitoring and troubleshooting
- Double ball joint
- Approx. 60 hours lamp duration
- 1 x CR2032 battery included
- Impact proof housing



#### Technical data:

Illumination period max:	60 hour
Light source:	LED

	Length mm	Width mm	Height mm	g
550.1136	285,0 - 875,0	50,0	80,0	85

### Flexible inspection set

- Ideal for very long network independent working
- Halogen lamp
- Flexible shaft
- Includes flexible fibreglass attachment
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Includes 3 x 1,5 V AAA batteries
- Impact proof housing



#### Technical data:

Illumination period max:	60 hour
Light current max.:	192 lumen
Luminosity:	3,2 W
Light source:	Halogen

			g
550.1160	4 pcs	Flexible inspection set	230

### perfectLight 5 + 1 Inspection Lamp 100 Lumen

- Ideal for very long network independent working
- Powerful spot LED
- Extremely powerful light COB front LED
- 3 light modes: two brightness levels and a spot
- 3 luminous fluxes: COB Front 50 and 100 Lumen and spot-light 25 Lumen luminous flux
- with belt clip
- Ingress protection according to IP20
- 3 hours lamp duration
- Includes 3 x AAA 1,5V batteries
- impact-resistant polycarbonate housing



#### Technical data:

Illumination period max:	3 hour
Headlight range:	10,3 m
Light current min.:	25 lumen
Light current max.:	100 lumen
Luminosity:	1,5 W
Light source:	5 + 1 SMD LED
Weatherproof protection:	IP20
Shock resistance level:	IK07
Working temperature:	-10° / +40° C

	Length mm	g
150.4435	163,0	67

### perfectLight 3-in-1 Mini Inspection Lamp 200 Lumen, foldaway

- Ideal for very long network independent working
- Powerful spot LED
- Extremely powerful light COB front LED
- Inspection light, working light and flashlight in one
- 120 lumen luminous flux and spotlight 30 lumen
- 270° foldaway housing
- Ultra slim and compact design
- Extremely powerful illumination
- Magnetic
- With hooks for flexible positioning
- Ingress protection according to IP20
- 2 hours charging time
- 2.5 hours / 6 hours lamp duration



#### Technical data:

Illumination period min:	2,5 hour
Illumination period max:	6 hour
Headlight range:	12,7 m
Light current min.:	30 lumen
Light current max.:	120 lumen
Luminosity:	1,2 W
Light source:	COB LED
Weatherproof protection:	IP20
Shock resistance level:	IK07
Working temperature:	-10° / +40° C
Battery technologie:	Lithium-ion
Battery capacity:	0,7 Ah
Battery voltage:	3,7 V

	Length mm	g
150.4430	215,0	228

### Flexible inspection lamp 400 Lumen

- Ideal for very long network independent working
- 6 Watt LED + LED headlight
- Luminous flux 400 Lumen
- Flexible shaft
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- Ingress protection according to IP20
- Shock and impact resistant
- 4-5 hours charging time
- 4 hours lamp duration
- Impact resistant ABS housing
- Housing body covered with high quality rubber



#### Technical data:

Illumination period max:	4 hour
Headlight range:	10,0 m
Light current max.:	400 lumen
Luminosity:	6 W
Light source:	6 Watt LED + LED headlight
Weatherproof protection:	IP20
Shock resistance level:	IK07
Working temperature:	0° / +40° C
Battery technologie:	Lithium-ion
Battery capacity:	2,2
Battery voltage:	7,4 V
AC voltage range alternating voltage:	110 - 230 V
DC voltage range direct voltage:	12 - 24 V

	Ø mm	Length mm	g
150.4345	45,0	715,0	390

## UV LAMPS

### Flexible UV inspection lamp

- Ideal for very long network independent working
- LED UV lamp
- Flexible shaft
- Localizes leaks in air conditioning systems
- Clip for the breast pocket
- Approx. 60 hours lamp duration
- Impact proof housing



	Ø mm	Length mm	Spare bulb	
550.1165	7,5	450,0	550.1167	150

### LED COB Stripe Inspection lamp 190 lumens with UV spot LED

- Ideal for very long network independent working
- Extremely powerful light COB front LED
- Powerful UV spot LED
- 2 light modes: one brightness level and a UV spot
- 2 light flux strengths: COB front 190 lumens and spotlight 60 lumens light flux
- With 90° rotating belt clip
- Ingress protection according to IP20
- 4 hours lamp duration
- Magnetic
- Micro-USB charging connector
- With lithium-ion high performance rechargeable battery
- Impact resistant ABS housing



#### Technical data:

Illumination period max:	4 hour
Headlight range:	10,0 m
Lumen:	190 lumen
Light source:	LED COB Stripe + 1 UV LED
Weatherproof protection:	IP20
Working temperature:	-10° to +40° C
Battery capacity:	0,8 Ah
Battery voltage:	3,7 V
Rechargeable battery:	3,7 V / 800 mAh

	Length mm	
550.1173	183,0	71

### LED COB Stripe Inspection lamp 350 lumens with UV spot LED and laser pointer

- Ideal for very long network independent working
- Extremely powerful light COB front LED
- Powerful UV spot LED
- 3 light modes: Stripe COB, spot LED and UV spotlight
- 2 light flux strengths: COB stripe 350 lumen and spotlight 120 lumen light flux
- With 120° rotating belt clip
- With laser pointer
- Ingress protection according to IP20
- Magnetic
- 3 hours lamp duration
- USB-C charging port
- With charge level indicator
- With lithium-ion high performance rechargeable battery
- Aluminium housing



#### Technical data:

Illumination period max:	3 hour
Lumen:	550 / 250 lumen
Light source:	LED COB Stripe + 1 UV LED
Weatherproof protection:	IP20
Working temperature:	-10° to +40° C
Battery capacity:	0,8 Ah
Battery voltage:	3,7 V
Rechargeable battery:	3,7 V / 800 mAh

	Length mm	
150.4400	165,0	100



### Cordless UV leak detection light set

- Wireless design
- LED UV lamp
- Extremely high light power
- Ideal for locating leaks in air conditioning pipes
- Great for detecting leaks at close range
- Includes UV glasses
- Compatible with all industry-standard leak detection additives
- Includes 3 x AAA batteries
- Impact proof housing



550.1190	2 pcs	Cordless UV leak detection light set	400

#### consists of:

550.1191	Battery-powered UV leak detection lamp	150	
550.1182	UV glasses	42	

### UV leak detection light set

- UV lamp
- Extremely high light power
- Ideal for locating leaks in air conditioning pipes
- Great for detecting leaks at close range
- Revolving head
- Self-powering by attaching crocodile clips to a 12V battery
- With long cable for flexible use
- Includes UV glasses
- Compatible with all industry-standard leak detection additives
- Impact proof housing



550.1180	2 pcs	UV leak detection light set	460

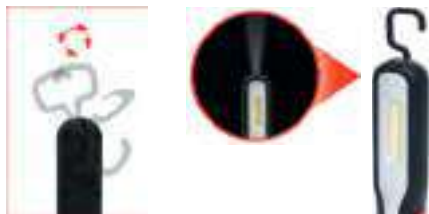
#### consists of:

550.1181	UV leak detection lamp	360	
550.1182	UV glasses	42	

## HAND LAMPS

### perfectLight Hand Lamp 200 Lumen, foldaway

- Ideal for very long network independent working
- Powerful spot LED
- Extremely powerful light COB front LED
- 200 lumen luminous flux and spotlight 50 lumen
- Revolving hooks for suspending
- Foldaway magnetic stand
- Ingress protection according to IP20
- Shock and impact resistant
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Illumination period max:	6 hour
Headlight range:	19,4 m
Light current min.:	50 lumen
Light current max.:	200 lumen
Luminosity:	2,5 W
Light source:	COB LED
Weatherproof protection:	IP20
Shock resistance level:	IK07
Working temperature:	-10° / +40°C

	Length mm	Width mm	Depth mm	
150.4445	205,0	39,0	28,0	120

### perfectLight Hand Lamp 500 Lumen

- Ideal for very long network independent working
- Powerful spot LED
- Extremely powerful light CREE XP-E2 front LED
- 3 light modes: two brightness levels and a spot
- 3 luminous fluxes: Front 250 and 500 Lumen and spotlight 175 Lumen luminous flux
- Revolving hooks for suspending
- Foldaway magnetic stand
- Includes automatic turn off charging station
- Splash water protected according to IP65
- Shock and impact resistant
- 5 hours charging time
- 6 hours / 3 hours lamp duration
- Housing body covered with high quality rubber



#### Technical data:

Illumination period min:	3 hour
Illumination period max:	6 hour
Headlight range:	61,5 m
Light current min.:	175 lumen
Light current max.:	500 lumen
Luminosity:	4 W
Light source:	CREE XP-E2
Weatherproof protection:	IP65
Shock resistance level:	IK07
Working temperature:	-10° / +40°C
Battery technology:	Lithium-ion
Battery capacity:	2,2 Ah
Battery voltage:	3,8 V

	Length mm	Width mm	Depth mm	
150.4440	190,0	60,0	29,0	240



### perfectLight Hand Lamp 600 Lumen

- Ideal for very long network independent working
- High power LED spot
- COB LED Stripe dimmable
- 600 lumen luminous flux and spotlight 120 lumen
- Magnetic stand can be rotated through 360° and tilted through 45
- Micro-USB charging connector on the side
- Fold-out hook for suspension
- Capacity indicator
- Ingress protection according to IP20
- Shock and impact resistant
- 4 hours charging time
- 15 hours burn time at lowest level
- 2 hours burn time at highest level
- Ultra slim COB LED housing (11 x 21mm) for particularly difficult to access places
- Plastic housing body covered with high-quality rubber



#### Technical data:

Illumination period min:	2 hour
Illumination period max:	15 hour
Headlight range:	20,0 m
Light current min.:	120 lumen
Light current max.:	600 lumen
Luminosity:	3 W
Light source:	COB LED
Weatherproof protection:	IP20
Shock resistance level:	IK07
Working temperature:	-10° / +40°C
Battery technology:	Lithium-ion
Battery capacity:	2,6 Ah
Battery voltage:	3,7 V

	Length mm	Width mm	Depth mm	
150.4460	385,0	34,0	34,0	246

### perfectLight Hand Lamp 420 Lumen, foldaway

- Ideal for very long network independent working
- 6 Watt Citizen Power LED
- Luminous flux 420 Lumen
- Housing 180° foldable
- Revolving hooks for suspending
- Magnetic
- With control LED to discharge
- Includes automatic turn off charging station
- Weatherproof protection IP64
- Shock and impact resistant
- 3 hours charging time
- 3 hours lamp duration
- Impact resistant Polycarbonate housing
- Housing body covered with high quality rubber



#### Technical data:

Illumination period max:	3 hour
Headlight range:	10,0 m
Light current max.:	420 lumen
Luminosity:	6 W
Light source:	6 W CITIZEN POWER LED
Weatherproof protection:	IP64
Shock resistance level:	IK00
Working temperature:	-5° / +45°
Battery technology:	Li-polymer
Battery capacity:	3,5 Ah
Battery voltage:	3,7 V

	Length mm	Ø mm	
150.4310	290,0	56,0	560

## INSPECTION HAND LAMPS

### Pro workshop inspection hand lamp 8 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP20
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp



#### Technical data:

Luminosity:	8 W
Cable length:	5 m
Cable:	H05RN-F 2x1,0 mm²
AC voltage range alternating voltage:	220 - 240 V
Protection class:	II
Weatherproof protection:	IP20

	Ø mm	Length mm	
550.1376	30,0	500,0	660

### Pro XL workshop inspection hand lamp 11 watts

- Industrial quality
- Double insulation
- Protection pipe out of polycarbonate
- Impact resistant - impact strength IK09
- High quality rubber hand grip casing
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP20
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp



#### Technical data:

Luminosity:	11 W
Cable length:	5 m
Cable:	H05RN-F 2x1,0 mm <sup>2</sup>
AC voltage range alternating voltage:	220 - 240 V
Protection class:	II
Weatherproof protection:	IP20

	Ø mm	Length mm	
550.1381	35,0	630,0	710

### Professional XXL LED workshop inspection hand lamp with expander holder 1,300 lumens

- Industrial quality
- Protection pipe out of polycarbonate
- Optimum lighting
- Self-clamping
- Span width 1.270 - 2.100 mm
- Expanding bracket with large, adjustable and rubber coated hooks
- Impact resistant - impact strength IK09
- Revolving hooks for suspending
- With contour connector according to CEE 7/17
- Ingress protection according to IP44



#### Technical data:

Light current max.:	1300 lumen
Luminosity:	15 W
Adjustable length:	1.270-2.100 mm
Cable length:	5 m
Cable:	H05RN-F 2x1,0 mm <sup>2</sup>
AC voltage range alternating voltage:	220 - 240 V
Protection class:	II
Weatherproof protection:	IP 44

	Ø mm	Length mm	
150.4297	35,0	1270,0	2,30



### ACCESSORIES FOR FLASH LIGHTS

#### Magnet holder for workshop lamps

- Universal mouting clip for workshop lamps
- Extra large pivoting range
- Magnet completely rubberised
- Stop peg out of spring steel



	max Ø pipe mm	Ø magnetic base mm	
150.4219	43,0	31,0	79

#### Workshop cable reel

- Practical and space-saving
- Extra strong, automatic return mechanism
- With endstopper
- With feed guide
- 180° freely revolving
- Cable working length 15 m
- Connection cable 1.5 m
- Loadable when coiled: 1000 W
- Loadable when uncoiled: 3000 W
- Metal wall reinforcement rail 205 mm
- Only for indoor use



#### Technical data:

Cable:	H07RN-F 3x1,5 mm <sup>2</sup>
Work cable length m:	15 m
Connection cable length:	1,0 m
Operational voltage:	230 V
Weatherproof protection:	IP34
amperage A:	10 A

150.4217	Workshop cable reel 5,54

### WORK LAMPS

#### perfectLight LED-Mini-Working Light 900 Lumen

- Ideal for very long network independent working
- Extremely powerful light COB front LED
- 2 luminous fluxes: 450 and 900 lumens
- Ingress protection according to IP54
- 6 AA 1,5V batteries included
- Housing cover also rubber
- Fold-out stand



#### Technical data:

Illumination period min:	3 hour
Illumination period max:	12 hour
Light current min.:	450 lumen
Light current max.:	900 lumen
Luminosity:	12 W
Light source:	COB LED
Weatherproof protection:	IP54
Shock resistance level:	IK07
Working temperature:	-10° / +40°C

	Height mm	Width mm	Depth mm	
150.4450	185,0	195,0	45,0	580

#### Professional cold light work lamp 36 watts

- Industrial quality
- 2.900 lumens luminous flux
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



#### Technical data:

Light current max.:	2900 lumen
Luminosity:	36 W
Cable length:	5 m
Voltage:	230 V
Accessory outlet:	-
Protection class:	II
Weatherproof protection:	IP54

	Height mm	Width mm	Depth mm	Spare sub	
150.4255	230,0	340,0	110,0	150.4256	2,36

### Professional cold light work lamp 72 watts

- Industrial quality
- 5.800 lumens luminous flux
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- With 2 x 230 V isolated outlet on the back
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



#### Technical data:

Light current max.:	5800 lumen
Luminosity:	72 W
Cable length:	5 m
Voltage:	230 V
Accessory outlet:	2 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	Height mm	Width mm	Depth mm	Spare bulb	
150.4260	285,0	495,0	110,0	150.4261	5,02

### Professional cold light work lamp 108 watts

- Industrial quality
- 8.700 lumens luminous flux
- Polycarbonate protection glass
- Housing cover also rubber
- Impact resistant impact strength IK10
- Hooks for double sided applications and pedestal with contour connector according to CEE 7/17
- With 1 x 230 V isolated outlet on the back
- Ingress protection according to IP54
- With integrated connector
- Lamp extension tube interchangeable
- Includes lamp
- Blow mould plastic housing



#### Technical data:

Light current max.:	8700 lumen
Luminosity:	108 W
Cable length:	5 m
Voltage:	230 V
Accessory outlet:	1 x 230 V Schuko
Protection class:	II
Weatherproof protection:	IP54

	Height mm	Width mm	Depth mm	Spare bulb	
150.4265	290,0	500,0	110,0	150.4261	5,82



### ACCESSORIES FOR WORK LAMPS

#### Extending tripod for work lights

- Universal stand for working lamps
- Lamp holder with welded-in 10mm steel thread
- Optimal illuminating guaranteed
- Secure stand
- Extremely compact transportation size
- On fold away tripod foot part
- Fully adjustable via 360° locking system
- Working height from 1.35m to 3m
- With cable holder device
- Powder-coated steel construction
- Maximum load of 10kg



	Height min in mm	Height max in mm	Load capacity kg	
150.4491	1350,0	3000,0	10	6,00

#### Extending tripod for work lights with castors

- Universal stand for working lamps
- Robust castors for uneven surfaces
- Universal lamp holder by welded 10mm steel thread
- Ensures optimal illumination 2 rollers lockable
- 2 rollers lockable
- Extremely compact transportation size
- On fold away tripod foot part
- Fully adjustable via 360° locking system
- Working height from 0.70m to 1.90m
- With cable holder device
- Powder-coated steel construction
- Maximum load of 10kg

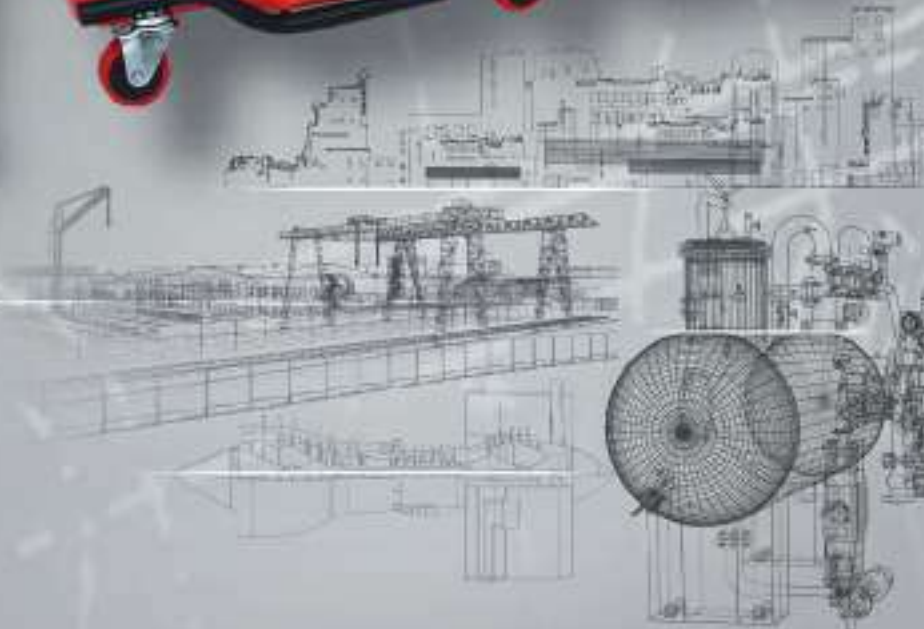


	Height min in mm	Height max in mm	Load capacity kg	
150.4492	700,0	1900,0	10	6,00





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our mission!





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## WORKBENCHES

### Mechanics workbench

- Mobile workbench ideally for vice work
- Foldable for transporting
- Wooden work surface
- Metal protective edge
- High level of stability due to splayed table legs



	Total depth mm	Width mm	Depth mm	
914.1300	850,0	1070,0	620,0	40,00

### Mechanics workbench

- Mobile workbench ideally for vice work
- Foldable for transporting
- Laminated wooden work surface
- Waterproof and resistant to chemicals
- Metal protective edge
- High level of stability due to splayed table legs



	Total depth mm	Width mm	Depth mm	
914.2000	850,0	1220,0	620,0	34,00

## WORKBENCHES

### Workbench

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- With floor levelling screws (0 - 45mm)
- High level of stability
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Electrostatic powder coating
- Worktop solid beech



	Total depth mm	Width mm	Depth mm	
865.0013	840,0	1200,0	500,0	27,00

### Workbench with 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- With floor levelling screws (0 - 45mm)
- High level of stability
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating
- Worktop solid beech



	Total depth mm	Width mm	Depth mm	
865.0012	840,0	600,0	600,0	42,00

### Workbench with 3 drawers

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- With floor levelling screws (0 - 45mm)
- High level of stability
- Worktop solid beech
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating



	Total depth mm	Width mm	Depth mm	
865.0010	840,0	600,0	600,0	51,00

### Workbench with 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating



**Technical data:**  
Total load capacity: 400,0 kg

	Total depth mm	Width mm	Depth mm	
865.0001	840,0	1200,0	600,0	71,00

### PROFI workbench with 2 doors

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Electrostatic powder coating



**Technical data:**  
Total load capacity: 400,0 kg

	Total depth mm	Width mm	Depth mm	
865.0002	840,0	1200,0	600,0	85,00



### Workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating



**Technical data:**  
Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	
865.0003	840,0	1200,0	600,0	86,00

### Workbench with 4 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- With floor levelling screws (0 - 45mm)
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0006	840,0	1200,0	500,0	99,00

### Workbench with 8 drawers

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- With floor levelling screws (0 - 45mm)
- High level of stability
- Worktop solid beech
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0007	840,0	1200,0	600,0	113,00

### Mobile workbench with 6 drawers

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Worktop solid beech
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- With two castor wheels 200 mm with rolling and turning brake
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0011	840,0	1200,0	600,0	103,00

### Workbench with 6 drawers

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- Metal protective edge
- High stability due to all metal parts being welded
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0004	840,0	1200,0	600,0	86,00

### Mobile workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- Worktop solid beech
- Metal protective edge
- High stability due to all metal parts being welded
- Lockable door
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Two castor wheels Ø 125 mm with rolling and turning brake
- Drawers with non-slip rubber mat
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	kg
865.0101	840,0	1200,0	600,0	71,00



### XXL workbench with 3 drawers and 1 door

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- General construction from robust steel square type tube
- High stability due to all metal parts being welded
- Lockable door
- Worktop solid beech
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	
865.0201	840,0	2000,0	680,0	86,00

### BACK WALL SYSTEMS

#### Extension back wall system for workbenches

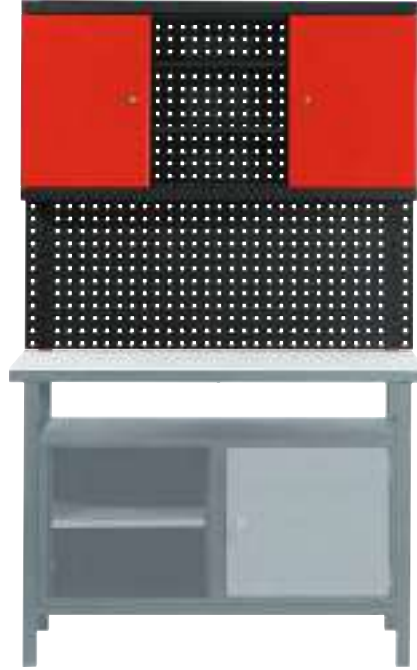
- 2 x posts
- 2 x hole wall
- for additional tools
- clearly organised workspace
- steel sheet construction



	Total depth mm	Width mm	Depth mm	
865.0008	710,0	1200,0	8,00	

#### Extension back wall system for workbenches with cupboard

- 2 x posts
- 1 x hole wall
- 1 x high level cupboard system, lockable
- for additional tools
- clearly organised workspace
- steel sheet construction



	Total depth mm	Width mm	Depth mm	
865.0009	710,0	1200,0	200,0	38,00

### WALL CUPBOARDS

#### Toolbox with 2 doors

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Central locking system on all doors through the cylinder lock
- Cupboard back wall with hole system
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- 2 mounting rails with 4 connection holes
- Continuous opening without stop
- Electrostatic powder coating



	Total depth mm	Width mm	Depth mm	
865.0205	470,0	970,0	200,0	22,00

### CLOAKROOM CUPBOARD

#### Cloakroom stand

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Base and reinforced doors
- All parts have electrostatic powder coating
- Compartment with hat base, clothes rail and 3 adjustable coat hooks
- Lockable by cylinder lock



	Compartment	Total depth mm	Width mm	Depth mm	
850.0502	2	1800,0	600,0	500,0	26,00
850.0503	3	1800,0	890,0	500,0	35,00

### HINGED DOOR CABINET

#### Lockable cupboard

- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Front side edges are rounded
- Inside recumbent hinges and locking bar
- 4 shelves have universal height adjustment
- Internal storage wall with square punching, approx. 340 mm high
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total load capacity: 400,0 kg  
Load capacity of each drawer: 35,0 kg

	Total depth mm	Width mm	Depth mm	
865.0000	1920,0	780,0	380,0	84,00

### Lockable cupboard

- High quality welded sheet metal
- High level of stability
- Reinforced doors with 3-point safety lock
- Inside recumbent hinges and locking bar
- Galvanised shelves can be adjusted in 25 mm intervals
- Load capacity per shelf max. 60 kg with even load distribution
- Powder coated



#### Technical data:

Total load capacity: 400,0 kg

	Total depth mm	Width mm	Depth mm	
865.0005	1950,0	950,0	500,0	68,00

### BENCH VICES

#### Bench vice

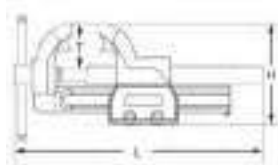
- With swivel base
- Interchangeable jaws
- Includes pipe vice attachment
- Absolutely parallel with adjustable centric drive
- Extra high possible clamping jaws shaped by large embossed casting
- Large anvil for straightening and compression work
- Induction hardened jaws and anvil
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel



	Jaw length mm	Jaw length mm	Clamping range mm	
914.0004	4"	100,0	120,0	8,70
914.0005	5"	130,0	140,0	11,00
914.0006	6"	150,0	160,0	14,50
914.0008	8"	200,0	200,0	20,50

### Bench vice

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special tool steel



	Jaw length mm	Clamping range mm	T mm	H mm	L mm	Cut-off ø mm	
914.0026	100,0	100,0	70,0	143,0	290,0	12,0	5,00
914.0031	125,0	120,0	83,5	163,0	360,0	14,0	11,00
914.0036	150,0	180,0	100,0	212,0	450,0	16,0	20,00
914.0041	175,0	210,0	112,0	243,0	535,0	18,0	29,00

#### Turntable for bench vice

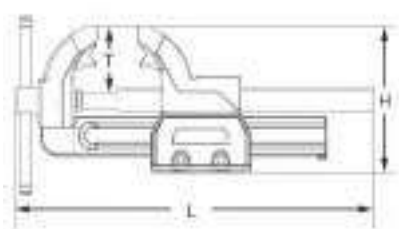
- Ideal supplement for KS-vices 914.0027 - 914.0041
- Enables accurate positioning of the workpiece
- 360° freely rotatable
- Safe and quick locking via handle
- Flat and stable construction
- Inclusive fastening screws for vice



		Ø mm	
914.0027	914.0026	90,0	1,40
914.0032	914.0031	120,0	2,80
914.0037	914.0036	147,0	3,75
914.0042	914.0041	167,0	4,85

### Parallel vice with round plate

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special tool steel



		Jaw length mm	
914.0025	2 pcs	90,0	6,40
914.0030	2 pcs	120,0	13,80
914.0035	2 pcs	147,0	23,75
914.0040	2 pcs	167,0	33,85



#### Aluminium bench vice protective jaws with textured surface

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For coarse to medium fine work pieces
- Fine textured
- Aluminium



	Protective jaws mm	
914.0080	100,0	170
914.0081	120,0	210
914.0082	140,0	240
914.0083	160,0	260
914.0084	175,0	290

### Aluminium bench vice protective jaws with trapezoid notches

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For different shaped materials
- For trapezoid use
- Aluminium



	Protective jaws mm	
914.0085	100,0	145
914.0086	120,0	187
914.0087	140,0	210
914.0088	160,0	226
914.0089	175,0	248

### Aluminium bench vice protective jaws with rubber insert

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For thin walled wood and plastic parts
- Smooth
- Aluminium / rubber



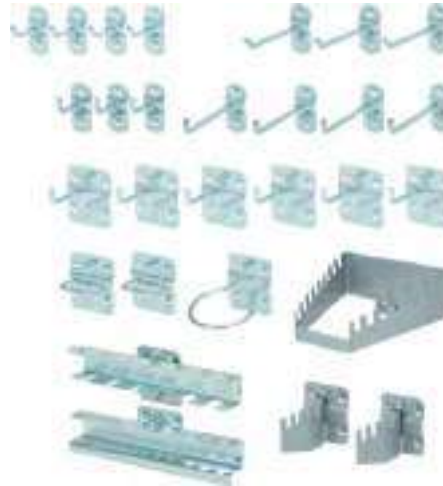
	Protective jaws mm	
914.0090	100,0	163
914.0091	120,0	207
914.0092	140,0	224
914.0093	160,0	204
914.0094	175,0	276



### HOOK ASSORTMENT

#### Hook assortment for hole wall system

- creates an overview of the work area
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



860.0888	28 pcs	Hook assortment for hole wall system	1,78
1 x		150 x 55 mm	
1 x		65 x 25 mm	
2 x		55 mm	
2 x		150 mm	
1 x		150 x 55 mm	
1 x		150 x 55 mm	
14 x		3 x 35 mm - 4 x 50 mm - 4 x 75 mm 3 x 100 mm	
6 x		35 mm	

#### Tool holder with straight end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0801	6,0	50,0	30
860.0802	6,0	100,0	40
860.0803	6,0	150,0	40

#### Double tool holder with straight end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0820	6,0	35,0	60
860.0821	6,0	50,0	80
860.0822	6,0	75,0	110

#### Tool holder with angled hook end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0804	6,0	50,0	30
860.0805	6,0	100,0	40
860.0806	6,0	150,0	50
860.0807	6,0	200,0	60

#### Double tool holder with angled hook end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0812	6,0	35,0	60
860.0813	6,0	50,0	60
860.0814	6,0	75,0	80
860.0815	6,0	150,0	110

### Tool holder with vertical hook end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0809	6,0	35,0	30
860.0810	6,0	75,0	40
860.0811	6,0	125,0	90

### Tool clip, double small

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	
860.0829	6,0	40
860.0830	10,0	40
860.0831	13,0	40
860.0832	16,0	40
860.0833	19,0	50

### Pliers holder depth 20 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	
860.0837	35,0	60
860.0838	55,0	50
860.0839	75,0	60

### Double tool holder with vertical hook end Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0816	6,0	35,0	60
860.0817	6,0	50,0	70
860.0818	6,0	75,0	90
860.0819	6,0	150,0	100

### Tool clip, single large

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	
860.0834	25,0	50
860.0835	28,0	50
860.0836	32,0	50

### Round holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	
860.0840	65,0	25,0	70

### Tool clip, single small

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	
860.0824	6,0	20
860.0825	10,0	20
860.0826	13,0	20
860.0827	16,0	20
860.0828	19,0	20

### Angled hook for nuts and sockets Ø 6 mm

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	
860.0823	6,0	40,0	30

### Power tool holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	
860.0841	40,0	50
860.0842	60,0	70
860.0843	80,0	80

### Tool holder 3 way

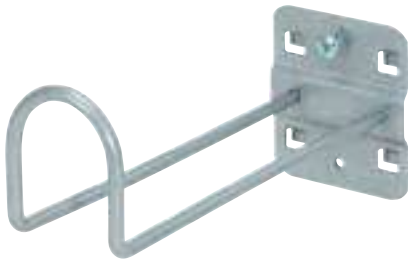
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	g
860.0844	6,0	150,0	150

### Cable holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	H mm	g
860.0874	150,0	37,0	50,0	110
860.0875	200,0	37,0	50,0	120

### Tool holder for euro blister packaging

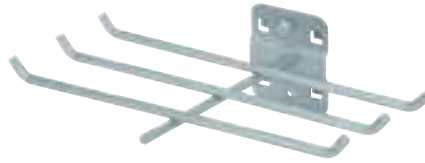
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	g
860.0876	125,0	40,0	80
860.0877	150,0	40,0	90

### Six way tool holder hook ends 45° angled

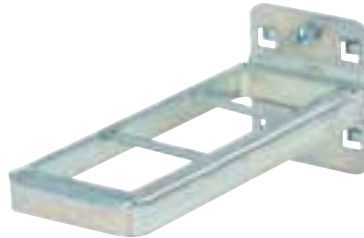
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	L mm	B mm	g
860.0845	6,0	240,0	140,0	240

### Combination holder

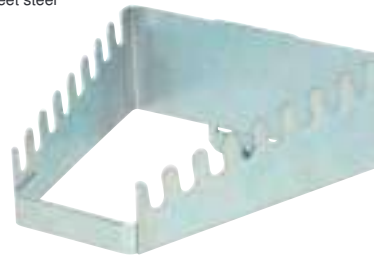
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	g
860.0846	150,0	55,0	110

### Spanner holder horizontal

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	g
860.0849	8	150,0	55,0	200

### Screwdriver holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	g
860.0850	6	150,0	55,0	170
860.0851	12	150,0	55,0	320

### Drill- and hexagon socket holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	g
860.0852	14	150,0	55,0	200
860.0853	28	150,0	55,0	550

### Saw holder

- To be used in pairs
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	g
860.0854	4	150,0	70

### Pipe holder

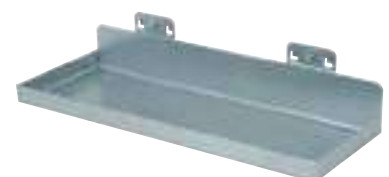
- To be used in pairs
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	Ø mm	B mm	g
860.0855	60,0	35,0	100
860.0856	100,0	35,0	150

### Storage shelf without partition

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	g
860.0857	350,0	125,0	1,10
860.0858	450,0	150,0	1,50



### Lin bin holder single

- For size 7 and 8
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



860.0859	Lin bin holder single	60

### Base plate

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



860.0860	Base plate	20
860.0861	Base plate	40

### Lin bin holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		B mm	H mm	
860.0862		550,0	40,0	520
860.0863		550,0	60,0	660

### Spanner holder tapered for 10 spanners

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		No. holes	L mm	B mm	H mm	
860.0864		5	145/75,0	50,0	220,0	310
860.0865		5	225/125,0	50,0	255,0	480

### Can holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		No. holes	Ø mm	L mm	
860.0866		1	70,0	100,0	170
860.0867		3	70,0	300,0	580

### Pipe holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		L mm	B mm	
860.0868		230,0	70,0	700

### Small component tray with partition

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		L mm	B mm	
860.0847		150,0	55,0	240

### Small component tray without partition

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		L mm	B mm	
860.0848		150,0	55,0	210

### Universal tool holder self drill

- With plastic pad for DIY drilling
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



		L mm	B mm	
860.0869		70,0	120,0	340
860.0870		45,0	390,0	1030

### Universal tool storage box

- With wooden insert for DIY drilling
- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel

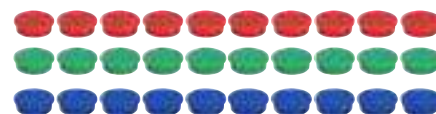


		L mm	B mm	H mm	
860.0871		125,0	310,0	55,0	1,25



### Magnet set, pack of 10

- Different colours
- Ideally suited for metal surfaces
- Plastic coated magnet



		Colour code	Ø mm	
860.0882			25,0	90
860.0883			25,0	90
860.0884			25,0	100

### Sheet steel tray

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	
860.0878	250,0	435,0	1390

### Socket holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	
860.0873	9	390,0	30,0	150

### Paper roll holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	L mm	B mm	H mm	
860.0879	100,0	355,0	120,0	710

### Document holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	B mm	H mm	
860.0880	220,0	310,0	750

### Works order holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	B mm	H mm	
860.0881	220,0	310,0	690

### Drill holder for MK 2 and MK 3 shafts

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	
860.0886	16	395,0	85,0	570

### Bit holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	L mm	B mm	
860.0887	7	35,0	150,0	150

### Hexagon socket holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- For Ø 1 - 11 mm
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



	No. holes	B mm	H mm	
860.0872	11	145,0	70,0	190

### Socket holder for 1/2" sockets

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- fixing screws included
- Baseplate thickness 1,5 mm
- Zinc coated
- Sheet steel



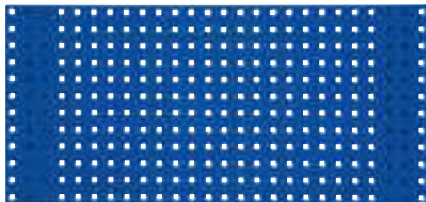
	No. holes	
860.0894	6	200
860.0895	13	360



## HOLE WALL

### Hole wall gentian blue

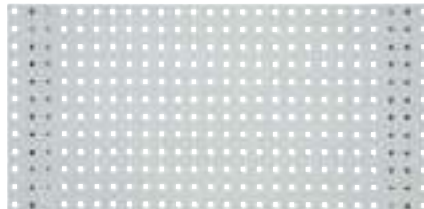
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889EB	5010	500,0	450,0	2,00
860.0890EB	5010	1000,0	450,0	5,00
860.0891EB	5010	1500,0	450,0	7,00
860.0892EB	5010	2000,0	450,0	9,00

### Hole wall light grey

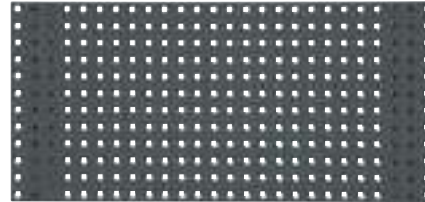
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889LG	7035	500,0	450,0	2,00
860.0890LG	7035	1000,0	450,0	5,00
860.0891LG	7035	1500,0	450,0	7,00
860.0892LG	7035	2000,0	450,0	9,00

### Hole wall slate grey

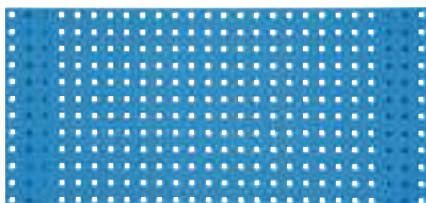
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889SG	7015	500,0	450,0	2,00
860.0890SG	7015	1000,0	450,0	5,00
860.0891SG	7015	1500,0	450,0	7,00
860.0892SG	7015	2000,0	450,0	9,00

### Hole wall sky blue

- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889HB	5015	500,0	450,0	2,00
860.0890HB	5015	1000,0	450,0	5,00
860.0891HB	5015	1500,0	450,0	7,00
860.0892HB	5015	2000,0	450,0	9,00

### Hole wall pure white

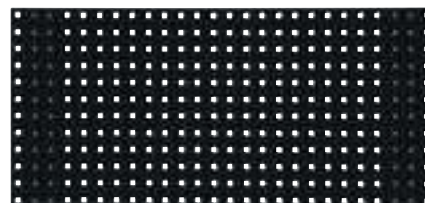
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889RW	9010	500,0	450,0	2,00
860.0890RW	9010	1000,0	450,0	5,00
860.0891RW	9010	1500,0	450,0	7,00
860.0892RW	9010	2000,0	450,0	9,00

### Hole wall jet black

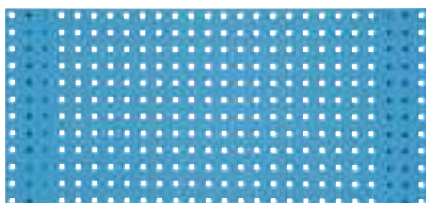
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889TS	9005	500,0	450,0	2,00
860.0890TS	9005	1000,0	450,0	5,00
860.0891TS	9005	1500,0	450,0	7,00
860.0892TS	9005	2000,0	450,0	9,00

### Hole wall light blue

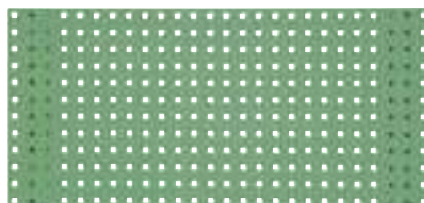
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889LB	5012	500,0	450,0	2,00
860.0890LB	5012	1000,0	450,0	5,00
860.0891LB	5012	1500,0	450,0	7,00
860.0892LB	5012	2000,0	450,0	9,00

### Hole wall reseda green

- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889RG	6011	500,0	450,0	2,00
860.0890RG	6011	1000,0	450,0	5,00
860.0891RG	6011	1500,0	450,0	7,00
860.0892RG	6011	2000,0	450,0	9,00

### Hole wall bright gold

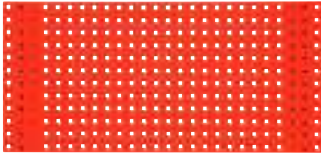
- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889VG	1023	500,0	450,0	2,00
860.0890VG	1023	1000,0	450,0	5,00
860.0891VG	1023	1500,0	450,0	7,00
860.0892VG	1023	2000,0	450,0	9,00

### Hole wall bright red

- Versatile and practical
- 1,25 mm thick steel sheet
- Beveled all around
- Impact and scratch resistant plastic coating
- Electrostatic powder coating



	RAL	L mm	B mm	kg
860.0889VR	3020	500,0	450,0	2,00
860.0890VR	3020	1000,0	450,0	5,00
860.0891VR	3020	1500,0	450,0	7,00
860.0892VR	3020	2000,0	450,0	9,00

### SERVICE TROLLEYS

#### Tyres platform trolley, 150kg

- Solid construction of steel sheet
- Firmly fixed grasping handle made from steel tube
- Grasping handle is hinged and locked with safety security catches without any tools
- In minimal time
- Rubber surrounding edges protect the trolley and surroundings from damage
- With 4 ball bearing rubber wheels, 2 with steering
- Load area has a plastic covering



#### Technical data:

Total load capacity: 150 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
800.0015	810,0	740,0	480,0	9,20

#### ECOline Workshop service trolley

- Made from robust sheet steel construction
- Easy to move, even with heavy loads
- All shelves with high retaining border
- Internal dimension 565 x 395 mm
- With side pull handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- High level of stability



#### Technical data:

Tray internal dimensions: 565 x 395 mm  
Total load capacity: 150 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
890.0001	850,0	680,0	425,0	12,60

#### ECOline Workshop-Service Trolley with Perforated Plate Cover

- Made from robust sheet steel construction
- Easy to move, even with heavy loads
- All shelves with high retaining border
- Internal dimension 565 x 395 mm
- lateral perforated steel cover for use with extra tools
- lockable at the back
- clearly organised workspace
- With side pull handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- High level of stability



#### Technical data:

Tray internal dimensions: 565 x 395 mm  
Total load capacity: 150 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
890.0006	850,0	682,0	426,0	20,00

#### Workshop service trolley

- Made from robust sheet steel construction
- Easy to move, even with heavy loads
- With side pull handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- High level of stability



#### Technical data:

Total load capacity: 300 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
890.0009	1205,0	978,0	488,0	25,50

#### Workshop service trolley

- Extremely substantial plastic construction
- Without screws easily constructed
- Distance between the ground 30 cm
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Total load capacity: 200 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
800.0020	1010,0	860,0	480,0	12,10

#### Workshop service trolley with lining

- Extremely substantial plastic construction
- Equipment lining
- Without screws easily constructed
- Distance between the ground 30 cm
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Total load capacity: 200 kg  
Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
800.0021	1010,0	860,0	480,0	12,10

### Workshop service trolley with 2 drawers

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Drawer internal dimensions: 520 x 430 x 85 mm  
 Total load capacity: 200 kg  
 Load capacity of each drawer: 35 kg  
 Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
800.0030	1010,0	860,0	480,0	14,20

### Workshop service trolley with 2 drawers and lining

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Drawer internal dimensions: 520 x 430 x 85 mm  
 Total load capacity: 200 kg  
 Load capacity of each drawer: 35 kg  
 Wheel diameter: 100 mm

	H mm	B mm	T mm	kg
800.0031	1010,0	860,0	480,0	15,00

### Service trolley

- Ideally suited as mobile PC station, exhaust gas test station or as storage and operation trolley for diagnostic equipment
- Also suitable for customer service entrainment
- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Lockable door
- With several openings for passing the cord
- Ball bearing drawer runners
- Drawers are extendable
- Front side edges are rounded
- Internal hinges and cylinder lock
- 2 shelves, universal adjustable in height
- Four castor wheels Ø 125 mm with rolling and turning brake
- Electrostatic powder coating



#### Technical data:

Drawer internal dimensions: 300 x 450 x 55 mm  
 Total load capacity: 150 kg  
 Load capacity of each drawer: 25 kg  
 Wheel diameter: 125 mm

	Total depth mm	Width mm	Depth mm	kg
865.0020	1155,0	500,0	500,0	47,00



### Paper trolley with 2 shelves

- Ideally suited to masking painting
- Mobile paper dispenser with 2 shelves for up to 2 paper rolls
- Suitable for covering paper and covering sheets up to 45 cm
- Supplied with adjustable tape pressure rollers
- Includes gun holder on one side
- Problem-free and graded separation with use of a sharp blade
- With practical storage compartments
- With two sturdy wheels
- Including handles for easy manoeuvring
- Robust construction from steel pipe



	Total depth mm	Width mm	Depth mm	kg
140.2382	920,0	660,0	600,0	11,00

### Paper trolley with 3 shelves

- Ideally suited to masking painting
- Mobile paper giver with 4 shelves for up to 6 paper rolls
- Suitable for covering paper and covering sheets up to 90 cm
- Supplied with adjustable tape pressure rollers
- Simple replacing of paper rolls
- Multi-adjustable for different lengths
- Includes gun holder on both sides
- With 4 sturdy, steerable castors
- Including bracket for easy manoeuvring
- Robust construction from steel pipe



	Total depth mm	Width mm	Depth mm	kg
140.2350	1130,0	1240,0	540,0	29,00

## PLATFORM

### Aluminium work platform

- Skid proof profile on the platform stage
- Chequer plate profile on the steps
- No tipping over through obliquely placed standing feet
- Double-sided access
- Large platform for safe standing
- Safety clips for added security
- Beams and step made from aluminium
- Easy to store as the unit is fully collapsible
- The gripped plastic feet protect the surface and add stability
- Secure stand makes working easier
- Can be used to assemble screens, engine bay work, work on the roof, commercial vehicle pit work etc.
- Universal suitable in very high vehicles e.g. motor homes, small vehicles, truck and buses, terrain vehicles
- Heavy aluminium construction



#### Technical data:

Platform dimensions: 960 x 300 mm  
Total load capacity: 150 kg

	L mm	B mm	H mm	kg
800.0960	1270,0	446,0	495,0	7,30

### Safety assembly step

- No tipping over through obliquely placed standing feet
- Anti slip, hot dip galvanised, with the frame riveted lattice rustproof
- Step to DIN 50976
- Massive and distortion stiff steel tube construction
- Base frame plastic coated
- The gripped plastic feet protect the surface and add stability
- Applicable e.g. panel assembly, engine compartment works, roof works truck pit working
- Universal suitable in very high vehicles e.g. motor homes, small vehicles, truck and buses, terrain vehicles



#### Technical data:

Surface area: 690 x 620  
Steel grating: 590 x 290  
Total load capacity: 300 kg

	kg
450.0960 Safety assembly step	14,00

## SUPPORTS

### Windscreen table with rubber protective pads

- Ideally suited to holding the windscreen when removing, or removing adhesive material
- four movable rubber suction cups hold the disc securely in position and protect it from scratches
- Fully adjustably
- For nearly all windscreen sizes
- Foldable to save space during storage
- Robust construction
- Capacity up to 50 kg with rubber suction cup
- Capacity up to 300 kg without rubber suction cup
- Made from zinc coated steel tube



#### Technical data:

max. Load: 50 kg  
Suction cup diameter: 125,0 mm

	Length mm	Width mm	Height mm	Rubber pad	kg
140.2225	1030,0	50,0	1040,0	140.2225-1	8,40

### Universal storage table

- Ideally suited to holding the windscreen when removing, or removing adhesive material
- Holding tube with non-slip, coated padding offer optimal grip and prevent scratches
- Fully adjustably
- For nearly all windscreen sizes
- Foldable to save space during storage
- Robust construction
- Capacity up to 80 kg
- Made from zinc coated steel tube



#### Technical data:

max. Load: 80 kg

	Length mm	Width mm	Height mm	Pad	kg
140.2226	1030,0	900,0	940,0	140.2226-1	6,60

## Universal storage table with rollers

- Ideally suited to holding the windscreen when removing, or removing adhesive material
- Holding tube with non-slip, coated padding offer optimal grip and prevent scratches
- For nearly all windscreen sizes
- Foldable to save space during storage
- 4 substantial wheels, 2 with locking brakes
- Simple handling
- Capacity up to 100 kg
- Robust construction from steel pipe



#### Technical data:

max. Load: 100 kg

	Length mm	Width mm	Height mm	Pad	kg
140.2227	900,0	760,0	930,0	140.2228	8,00

## Universal Telescopic-Multi-purpose trolley with rollers

- Ideally suited to bodywork restoration, in the painting area or for filing screens when removing, or applying adhesive material etc.
- Holding tube with non-slip, coated padding offer optimal grip and prevent scratches
- The multi-talented universal use, since width and height are fully adjustable and lockable
- For nearly all windscreen sizes
- Can also be used as a work bench or for carrying parts
- After use space saving folding away
- With 4 stable castors with locking brakes
- Simple handling
- Capacity up to 100 kg
- Robust construction made from square tube



#### Technical data:

max. Load: 100 kg

	Length mm	min. width mm	Max width mm	Height min in mm	Height max in mm	kg
500.8100	860,0	257,0	1380,0	845,0	1320,0	23,50

## TRANSPORT SACK TROLLEY

### Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- Effortless receiving and transporting of packages, carton and all other objects
- made from round pipes, solid weld
- Very wide shovel base
- Equipped with 2 fixed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

max. Load capacity kg: 250,0 kg  
 Tyre size: Ø 260 x 85 mm  
 Shovel/base dimensions: W 400 x D 170 mm

	L mm	B mm	H mm	kg
160.0225	430,0	550,0	1100,0	10,00

### Transport sack trolley with pneumatic wheels

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- Effortless receiving and transporting of packages, carton and all other objects
- made from round pipes, solid weld
- Fold away shovel base
- Equipped with 2 fixed wheels with pneumatic tyres
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

max. Load capacity kg: 250,0 kg  
 Tyre size: Ø 260 x 85 mm  
 Shovel/base dimensions: W 400 x D 170 mm

	L mm	B mm	H mm	kg
160.0226	775,0	550,0	1100,0	10,00

### Transport sack trolley with full rubber three staged wheels

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- Effortless receiving and transporting of packages, carton and all other objects
- made from round pipes, solid weld
- Fold away shovel base
- Problem free overcoming of stairs
- Full rubber three staged wheels
- Perfectly suitable in industry and business



#### Technical data:

max. Load capacity kg: 250,0 kg  
 Tyre size: Ø 160 x 30 mm  
 Shovel/base dimensions: W 400 x D 170 mm

	L mm	B mm	H mm	kg
160.0227	900,0	610,0	1285,0	15,00

### Transport sack trolley with full rubber tyres

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- Effortless receiving and transporting of packages, carton and all other objects
- made from round pipes, solid weld
- Equipped with 2 fixed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

max. Load capacity kg: 250,0 kg  
 Tyre size: Ø 255 x 46 mm  
 Shovel/base dimensions: W 400 x D 170 mm

	L mm	B mm	H mm	kg
160.0228	430,0	560,0	1100,0	17,00

### Transport sack trolley with full rubber tyres

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- Effortless receiving and transporting of packages, carton and all other objects
- made from round pipes, solid weld
- Fold away shovel base
- Equipped with 2 fixed full rubber wheels
- Safety handles and slip protection
- Perfectly suitable in industry and business



#### Technical data:

max. Load capacity kg: 250,0 kg  
 Tyre size: Ø 255 x 46 mm  
 Shovel/base dimensions: W 400 x D 170 mm

	L mm	B mm	H mm	kg
160.0229	775,0	560,0	1100,0	19,00

### Bottle trolley

- Steel tubular structure with deep-welded joints
- Ideal for the storage of 10 litre nitrogen bottles
- With safety chain for transport
- Includes hose attachment
- Integrated tray for accessories
- Stable fully-rubber wheels
- Secure and easy to use
- Special tool steel



#### Technical data:

max. Load capacity kg: 85,0 kg  
 Tyre size: Ø 160 mm

	Length mm	Width mm	Height mm	kg
160.0247	275,0	305,0	1170,0	4,46

### Radiator transport trolley

- Practical transport trolley to transport radiators
- With automatic brake
- Max. payload: 150 kg
- Max. height 370 mm
- Special tool steel



	B mm	H mm	SL mm	SB mm	kg
160.0230	610,0	980,0	420,0	195,0	30,00

### Professional wheel trolley

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- for effortless collection and transport of tyres and rims
- made from round pipes, solid weld
- 2 large pneumatic tyres
- with 2 solid rubber guide rollers
- with improved stability and tilting safety
- Optimal transportation due to traverse brake stop



**Technical data:**  
 Wheel size fixed rollers: Ø 260 mm (pneumatic tyres)  
 Wheel size steer rollers: Ø 125 mm (solid rubber)  
 Max. bucket dimensions: Ø 730 mm

	Max load kg	L mm	B mm	H mm	kg
160.0055	150,0	850,0	715,0	1610,0	15,00

### Wheel and drum banded trolleys

- Steel tubular structure with deep-welded joints
- easy and flexible transport even in small rooms
- for effortless collection and transport of tyres and rims
- For wheels between 10" and 18" diameter, depending on tyre cross-section
- suitable for the transport of liquid barrels
- made from round pipes, solid weld
- Equipped with 2 puncture-proof wheels
- with improved stability and tilting safety



**Technical data:**  
 Wheel size fixed rollers: Ø 255 mm  
 Max. bucket dimensions: Ø 600 mm

	Max load kg	L mm	B mm	H mm	kg
160.0063	280,0	1180,0	530,0	1150,0	21,70

### KNEE AND LIE DOWN MATS

#### Protection mat

- Guarantees safety-conscious working on a flat surface
- Moisture and dirt resistant
- Work garments and knees stay dry, clean and protected
- 3 layered padded construction from soft material
- Integrated hand grip
- Petrol and oil resistant



	L mm	B mm	H mm	kg
500.8040	480,0	320,0	36,0	200
500.8045	1150,0	550,0	36,0	760

#### Mat with handle

- Guarantees safety-conscious working on a flat surface
- Moisture and dirt resistant
- Work garments and knees stay dry, clean and protected
- Insulated
- Can be folded together
- Integrated hand grip
- Petrol and oil resistant



	L mm	B mm	H mm	kg
500.8002	1022,0	440,0	40,0	1,05

### STRETCHER

#### Drivable stretcher and folding seat

- For the use of lying and sitting
- Interlocking mechanism against accidental loosening
- Padded execution for fatigue free working
- Washable cushion
- Shallow depth for comfortable working
- six polyvinyl chloride swivel castors with ball bearings
- Black powder coated metal frame



**Technical data:**  
 Total load capacity: 90 kg

	L mm	B mm	H mm	Substrate roll	kg
500.8011	1040,0	490,0	85,0	500.8012	9,50



### Drivable stretcher and folding seat

- For the use of lying and sitting
- Interlocking mechanism against accidental loosening
- Padded execution for fatigue free working
- Tool storage tray in the foot well
- Washable cushion
- Shallow depth for comfortable working
- Adjustable head rest
- seven polyvinyl chloride swivel castors with ball bearings
- Black powder coated metal frame



**Technical data:**  
Total load capacity: 90 kg

	L mm	B mm	H mm	Substitute roll	kg
500.8000	1200,0	420,0	145,0	500.8001	12,40

### Mobile seat

- Padded head support
- Shaped arm areas for optimal movement freedom
- Includes safe tool recesses
- six polyvinyl chloride swivel castors with ball bearings
- Easy to clean
- Maximum capacity up to 120 kg
- Solid construction made from plastic



**Technical data:**  
Total load capacity: 120 kg

	L mm	B mm	H mm	Substitute roll	kg
500.8090	1030,0	480,0	115,0	500.8091	5,00

### Mobile seat

- for use when lying down
- Padded execution for fatigue free working
- Washable cushion
- Shallow depth for comfortable working
- extra stable, ball bearing mounted, solid rubber castors
- Black powder coated metal frame
- maximum weight up to 180 kg



**Technical data:**  
Total load capacity: 180 kg

	L mm	B mm	H mm	Substitute roll	kg
500.8003	1160,0	540,0	120,0	500.8003-R001P	10,50

## STOOLS

### Mobile stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- four ball-bearing polyvinyl chloride swivel castors
- Maximum capacity up to 90 kg
- Construction from robust steel square tube



**Technical data:**  
Total load capacity: 90 kg  
Number of direct rollers: 4

	L mm	B mm	H mm	Substitute roll	kg
500.8020	365,0	360,0	360,0	500.8022	4,00

### Mobile and height adjustable stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Hydraulic height adjustment
- extra stable, ball bearing mounted, solid rubber castors
- maximum weight up to 135 kg
- Durable metal construction



**Technical data:**  
Total load capacity: 135 kg  
Number of direct rollers: 5

	B mm	Height min in mm	Height max in mm	Substitute roll	kg
500.8004	360,0	463,0	580,0	500.8004-R001P	7,80

## AXLE STANDS

### Aluminium axle stand set

- Especially light and stable
- High level of stability due to the diameter of the base plate
- Safety locking bolt with chain
- Suits itself especially well in combination with jack for the safe bracing of a load
- Aluminium



	Max load t	Stroke way mm	Min total height mm	Max total height mm	kg
160.0315	3,0	140,0	260,0	400,0	2,20



### Mobile and height adjustable stool

- Robust and mobile stool
- Storage area for the protection of tools and small parts
- Washable cushion
- Hydraulic height adjustment
- five ball-bearing polyvinyl chloride swivel castors
- Maximum capacity up to 90 kg
- Durable metal construction



**Technical data:**  
Total load capacity: 90 kg  
Number of direct rollers: 5

	B mm	Height min in mm	Height max in mm	Substitute roll	kg
500.8030	370,0	420,0	540,0	500.8031	7,30

### Steel chassis stand with quick lock

- Solid construction
- For heavy vehicles weights
- High level of stability due to large sturdy base plate
- Lifting bar made from cast steel
- Quick adjustments
- Height adjustment has 13 stages
- Suits itself especially well in combination with jack for the safe bracing of a load
- Delivery takes place in parts
- Made from solid steel
- 160.0377 / 160.0378 with turnstile



	Max load t	Min total height mm	Max total height mm	kg
160.0373	10	450,0	750,0	21,50
160.0374	10	650,0	1100,0	26,50
160.0377	20	420,0	660,0	26,00
160.0378	20	665,0	1170,0	29,00
160.0379	25	415,0	640,0	25,50
160.0380	25	675,0	1050,0	35,50

### Steel axle stands with quick adjustment

- 4 feet on each stand
- Solid construction
- For heavy vehicles weights
- High level of stability
- Lifting bar made from cast steel
- Quick adjustments
- Supplied in pairs
- Height adjustment has 13 stages
- Suits itself especially well in combination with jack for the safe bracing of a load
- Made from solid steel



	Max load t	Stroke way mm	Min total height mm	Max total height mm	kg
160.0370	3,0	130,0	276,0	420,0	6,40
160.0371	6,0	205,0	382,0	600,0	1,40

### Spindle support stand

- Variably adjustable via spindle
- 3-foot chassis stand
- Solid construction
- For heavy vehicles weights
- High level of stability
- Collapsible, so saves a lot of space
- Suits itself especially well in combination with jack for the safe bracing of a load
- Made from solid steel



	Max load t	Min total height mm	Max total height mm	kg
160.0441	12,0	456,0	710,0	17,50
160.0442	12,0	710,0	1065,0	25,00

### Underhoist stand with pedal

- Ideal for all work when extra support is needed
- Stable trapeze threaded spindle
- Secure stand thanks to the large foot
- Infinitely variable
- Smooth-operating with axial bearings
- Foot pedal for precise adjustments (20 mm)
- The ideal workshop assistant in many situations



	Load capacity kg	Min total height mm	Max total height mm	kg
160.0342	750	1360,0	2030,0	15,00

### LIFTING TOOLS

#### Hydraulic bottle jack 2 - 50 t

- Security valve against overload
- Telescopic piston pole
- Additional spindle for extension (not in 30 and 50 t executions)
- Two piece lever arms
- For heavy vehicles weights
- Suitable for narrow spaces
- High level of stability
- Ideally suited in combination with jack for the neutralizing and bracing of a load
- Heavy steel construction



	Max load t	mm lift height mm	max lift height mm	Hydraulic lift mm	Screw extension mm	Dimension of base plate mm	kg
160.0350	2,0	181,0	345,0	116,0	48,0	88 x 92	2,90
160.0351	3,0	194,0	372,0	118,0	60,0	92 x 100	3,80
160.0352	5,0	216,0	413,0	127,0	70,0	96 x 112	5,10
160.0354	10,0	230,0	460,0	150,0	80,0	110 x 127	7,10
160.0356	15,0	230,0	460,0	150,0	80,0	113 x 136	9,30
160.0358	20,0	242,0	452,0	150,0	60,0	144 x 155	11,90
160.0359	30,0	285,0	465,0	180,0	-	190 x 155	21,70
160.0360	50,0	300,0	480,0	180,0	-	218 x 176	30,70

#### SlimPOWER hydraulic aluminium trolley jack 2 t

- Especially light aluminum jack
- Very shallow depth for use under low vehicles
- Large base for safe standing
- Raising with the pump lever and foot lever is possible
- With foot pedal to bridge the empty stroke
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Integrated screw tray
- The lower area of the pump lever is coated with foam material
- Problem free movement due to lightweight and secure handling
- Lifting plate diameter 135 mm
- Overload protection through pressure relief valve
- Ideally suited for daily workshop use
- Extremely heavy aluminium construction



	Max capacity t	Stroke way mm	min lift height mm	max lift height mm	Total length mm	Spore lifting plate	kg
161.0365	2,0	370,0	90,0	460,0	790,0	161.0365-R047P	26,80

### Hydraulic steel trolley jack 3 t

- Large base for safe standing
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 135 mm
- Overload protection through pressure relief valve
- Ideally suited for daily workshop use
- Heavy steel construction



	Max capacity t	Stroke way mm	min lift height mm	max lift height mm	Total length mm	Spare lifting plate	kg
161.0366	3,0	350,0	120,0	470,0	628,0	161.0366-R007P	35,00

### ULTIMATE<sup>line</sup> Hydraulic steel trolley jack

- Very shallow depth for use under low vehicles
- Large base for safe standing
- Raising with the pump lever and foot lever is possible
- With foot pedal to bridge the empty stroke
- Controlled releasing through the turning of the pump lever
- Raising with small pump lifts to the maximum height
- Good maneuverability through two oil and acid resistant nylon direct castors
- Intergrated screw tray
- The lower area of the pump lever is coated with foam material
- Lifting plate diameter 120 mm
- Overload protection through pressure relief valve
- Ideally suited for daily workshop use
- Heavy steel construction



	Max capacity t	Stroke way mm	Min total height mm	Max total height mm	Total length mm	Spare lifting plate	kg
161.0367	2,0	415,0	80,0	495,0	760,0	161.0371	32,00



### Pneumatic hydraulic trolley jack 30 t / 15 t

- Hydraulic jack for vehicles up to max. 30t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



	Max capacity t	L mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0739	30 / 15	430,0	150,0	139,0	75,0	45,0	24,00



### Jack for forklifts, hydraulic 4 - 5 t

- Specially developed for forklifts, agricultural and industrial vehicles
- Combination lifting jack with scissor action
- Scissor capacity of 4 tons and cylinder capacity of 5 tons
- Steel wheels



	Max capacity t	Stroke way mm	min lift height mm	max lift height mm	Total length mm	kg
160.0716	5,0	365,0	75,0	440,0	700,0	44,00

### Pneumatic hydraulic trolley jack 40 t / 20 t

- Hydraulic jack for vehicles up to max. 40 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



	Max capacity t	L mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0741	40 / 20	480,0	1300,0	150,0	139,0	75,0	45,0	40,00

### Pneumatic hydraulic trolley jack 40 t / 20 t

- Hydraulic jack for vehicles up to max. 40 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



Max capacity t	L mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0742	40 / 20	600,0	1300,0	170,0	169,0	75,0	45,0 53,00

### Pneumatic hydraulic trolley jack 60 / 40 t / 22 / 11 t

- Hydraulic jack for vehicles up to max. 60 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



Max capacity t	L mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0744	60 / 40 / 22 / 11	905,0	1380,0	150,0	243,0	75,0	45,0 66,00

### Underhoist stand with pedal

- Ideal for all work when extra support is needed
- Stable trapeze threaded spindle
- Secure stand thanks to the large foot
- Infinitely variable
- Smooth-operating with axial bearings
- Foot pedal for precise adjustments (20 mm)
- The ideal work shop assistant in many situations



	Load capacity kg	Min total height mm	Max total height mm	kg
160.0342	750	1360,0	2030,0	15,00

### Pneumatic hydraulic trolley jack 40 t / 20 / 10 t

- Hydraulic jack for vehicles up to max. 40 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



Max capacity t	L mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0743	40 / 20 / 10	830,0	1380,0	130,0	159,0	75,0	45,0 44,00

### Pneumatic hydraulic trolley jack 80 / 50 t

- Hydraulic jack for vehicles up to max. 80 t
- Large lifting base for safe standing
- Short and compact design
- Extremely light weight ideal for the mobile usage
- Overload protection through overload pressure valve
- Maximum lift is reached using one of the two adaptors included
- Very short and transportable design
- Folding handle
- Easy running oil and acid resistant solid rubber wheels
- Suitable for narrow spaces
- Ideally suited for daily workshop use
- Durable steel construction



Max capacity t	L mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	kg
160.0745	80 / 50	930,0	1380,0	230,0	213,0	75,0	45,0 106,00

### Hydraulic transmission jack

- Ideal for installing and removing motors, transmissions, couplings etc.
- Uncomplicated lifting with hydraulic foot pump
- Continuous adjustment allows for precise positioning
- Slow release of the load possible with hand wheel
- Includes overload valve
- With integrated safety stop handle
- High stability due to wide wheel spacing
- Good manoeuvrability through four oil and acid resistant nylon direct castors
- Extra-large covering for lifting
- Wide wheel spacing ensures more stability and manoeuvrability when loaded
- Robust shape



	Max load kg	min lift height mm	max lift height mm	Width mm	kg
160.0327	300	1200,0	2040,0	610,0	32,00
160.0324	500	1200,0	2040,0	610,0	34,00
160.0329	1000	1200,0	2040,0	610,0	48,00

### Hydraulic transmission jack

- Ideal for safe installation
- Heavy execution
- Uncomplicated lifting with hydraulic foot pump
- Continuous adjustment allows for precise positioning
- Especially wide working area
- Slow release of the load possible with the foot pump
- Includes overload valve
- With integrated safety stop handle
- Ground plate can be inclined and adjusted into position/horizontal + 40 mm/inclination -10°/+20°
- Includes 420 mm wide support rail with support chains for secure tensioning
- Chains can be adjusted from 130-430 mm
- Transmission holder attached to the piston rod
- Includes transmission holder
- Good manoeuvrability through four oil and acid resistant nylon direct castors
- Extra-large covering for lifting
- Wide wheel spacing ensures more stability and manoeuvrability when loaded
- Robust shape



	Max load kg	max lift height mm	min lift height mm	Length mm	Width mm	
160.0334	500	1870,0	880,0	700,0	800,0	67,00

### Universal assembly stool

- Ideal for installing and removing engines, transmission and support frames
- Suitable for transmission jacks with an attachment diameter of 25, 30 and 35 mm
- With four arms that can swivel sideways and can be adjusted in length
- For up to 75 kg
- Supporting plates height adjustable with non slip feet
- Simple handling and quick repair
- Stable construction
- Special tool steel



	Max load kg	Length mm	
160.0146	75	700,0 - 960,0	13,00

### Folding workshop crane

- Hand lever pump for lifting
- Finely controllable reduction valve
- Made out of rectangle pipe, welded frame
- Stable construction
- Safety load hooks
- Telescopic crane jib with 4 sided adjustment of the length
- 4 fixed and 2 controllable castors (due to this there is problem free positioning over the load to be lifted)
- Flat feet enable a simple access under low vehicles
- Good maneuverability due to the ball bearing metal castors
- Adjustable load capacity
- Chassis in slightly splayed form and can be folded away
- Ideal for lifting works in the motor vehicle workshop
- For the removal and replacement of engines
- Raising of motorcycles in special works



	Max load kg	H mm	L mm	A mm	
161.0020	1000	1440,0	1550,0	1006,0 - 1330,0	73,30

### Load positioning device

- Makes balancing the load on the crane easier depending on the shape of the parts to be lifted during installation and assembly
- Easy balance adjustment with the hand lever
- Supplied with 4 load chains
- Axle distance 320 mm
- Can be combined with work shop crane for units



	Max load kg	Height mm	Width mm	
160.0018	680	560,0	430,0	5,60

### Load positioning device

- Makes balancing the load on the crane easier depending on the shape of the parts to be lifted during installation and assembly
- Easy balance adjustment with the hand lever
- Supplied with 4 load chains
- Centre distance: 400 mm
- Can be combined with work shop crane for units like the engine block, transmission, etc.

**Application range:** Volvo FH, FM, FMX and NH Series



#### Technical data:

max. Load: 2.000 kg

	Width mm	Height mm	
460.5255	445,0	190,0	5,40

### COLLECTION CONTAINER

#### Flexible funnel with aluminium body

- Ideally suited to a clean and control draining of all fluids, e.g. oil, coolant, brake fluid, fuel etc.
- Resistant to petrol, diesel, oil, coolant, hydraulic and brake fluid
- Also suitable as a funnel for filling
- Shape is maintained and can be altered at any time
- Free malleable, therefore can be adapted for extremely tight spaces
- Problems with draining fluids are a thing of the past
- The heavy-duty construction can be fit to any desired shape and used again
- Easy to clean
- Temperature resistance of -34 to +232 °C
- Aluminium frame
- Outer skin made from nitrile rubber



	Length mm	Width mm	
150.9303	372,0	170,0	240

### Drain pan 7.5 litres

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluids
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock and impact resistant



	Ø mm	H mm	kg
150.9359	385,0	130,0	620

### Drain pan 17 litres

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluids
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock and impact resistant



	Ø mm	H mm	kg
150.9360	445,0	145,0	1,07

### Drain pan 17 litres

- With three carry handles
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluids
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock and impact resistant



	B mm	H mm	L mm	kg
150.9357	340,0	120,0	600,0	1,06

### Mobile drain pan, 30 litres, extra flat with castors

- With five carry handles
- 12.0 cm high, extra flat edges
- Safe and clean pouring with the closed contained and spout
- Ideally suited to collecting different fluids
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- With four steerable castors
- Practical, quick and friendly to the environment
- Includes removable sieve
- Screwed connection with rubber seal for safe transport
- Shock and impact resistant



	B mm	H mm	L mm	kg
150.9354	600,0	120,0	850,0	5,60

### Drain pan 55 litres, extra flat

- With four carry handles
- 11.0 cm high, extra flat edges
- Safe and clean pouring with the self-contained overflow edge and spout
- Ideally suited to collecting different fluids
- Suitable for oil, chemicals, petrol, acid and anti-freeze fluid
- Also suitable for cleaning parts
- Practical, quick and friendly to the environment
- Shock and impact resistant
- Polyethylene



	L mm	B mm	H mm	kg
150.9358	1030,0	724,0	110,0	6,80



### Mobile oil draining device 60 litre

- Basic unit for old oil capture and re-filling
- Pneumatic pressure emptying with manometer and safety valve
- Emptying takes approximately 3 minutes at 0.8 bar
- Heavy deposits can also be removed via a plate on the underside
- Mobile and connectible container with extra-large plastic wheels
- With carry handle
- Stop cock and clamping screws to release pressure
- Extremely manoeuvrable and ideal for workshop design
- Centrally mounted and height-adjustable round drip pan
- Side filling display with measuring scales
- Includes clear fabric hose for draining



### Vacuum fluid extractor suction pump 9.5 litre

- Ideal for quick, clean and simple suction, intake and emptying of fluids
- Suitable for engine oil, transmission oil, hydraulic oil, brake fluid, water etc.
- For pneumatic use with a compressor or manual use with the integrated hand pump
- Select a suitable probe and suck easily using the vacuum principle
- Suction process automatically stopped when housing is full, preventing fluids from spilling over
- With integrated pressure relief valve for more safety
- With high-quality pump housing and strengthened pump head
- Includes 4 probes for different uses
- Ideally suited to hard-to-reach places thanks to the included, long suction hose
- The suction hose is resistant to petrol and oil
- Polyethylene



#### Technical data:

- Work pressure: 5-11,5 bar
- Capacity: 9,5 l
- Operating temperature: +0°C to +55°C
- Filling hose length: 1,5 m
- Max. flow rate: 125 l/min

160.0790	5 pcs	Vacuum fluid extractor suction pump 9,5 litre	5,00
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### WORKSHOP EQUIPMENT

#### Mobile cleaning station for small parts

- Mounted metal reservoir with 60 lt tank capacity
- Includes compressed air operated drying pistol
- Cleaning brush with strong bristles
- Emptying of the collecting container by means of pneumatic air
- Includes level indicator display
- Safety valve for the vacuum production and pressure emptying
- High quality 2 m tube and compressed air pistol
- Good maneuverability due to the two solid rubber direct castors
- Storage compartment for small parts
- Includes stop handles
- Especially suitable for use in the car industry
- Ideally suited for removing of stubborn soiling
- Base unit made out of cast iron



#### Technical data:

- Operating pressure: 8,6 bar (125 psi)
- Collecting tank: 760 x 525 x 220 mm

	L mm	B mm	H mm	kg
160.0040	490,0	390,0	1040,0	54,00

#### Technical data:

- Capacity of container: 60 l
- Capacity of catch: ca.16 l
- Collection container dimensions: 490 x 580 x 1040 mm
- Collection pan dimensions: Ø 380 mm
- Height adjustment: 1040 - 1700 mm

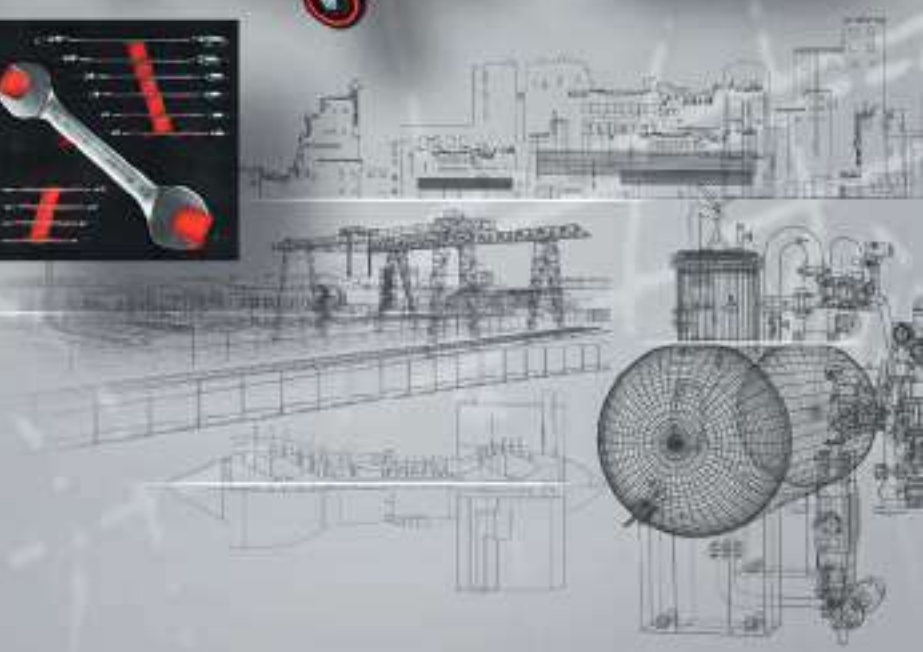
	kg	kg
160.0001	60	32,00



TOOLBOX / INSERT MODULE SYSTEM



Innovation is our mission!





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1/1 SCS - SOCKET WRENCH 1/4" + 1/2" - METRIC	578	
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## TOOL BAGS AND BOXES

### Textile hammer holder with belt loop

- Ideal for claw hammer
- Unrestricted movement enables total freedom
- Made out of tear resistant polyester webbing
- With rust proof loop



		g
850.0304	Textile hammer holder with belt loop	130



### Professional tool belt

- Multi functional with many pockets and holders
- Universal size - stepless adjustable up to 120 cm size
- Includes case for a mobile phone
- 2 Hammer holders with rust free metal hooks
- Hook for a tape measure
- Strong belt upholstery for a high level of comfort
- Made out of tear resistant polyester webbing



		g
850.0302	Professional tool belt	920

### SMARTBAG universal tool case

- Practical arrangement of compartments in the internal and external areas
- Ideal for accommodating of tools and accessories
- Padded carry handle
- Shoulder strap with strengthening in the shoulder area
- Through flexible hood locking with hook and loop fastener
- Includes 2 small part component trays
- Numerous pockets
- Strong design due to the plastic reinforcement
- Made out of tear resistant polyester webbing



	L mm	B mm	H mm	kg
850.0300	420,0	230,0	260,0	2,25

### SMARTBAG universal tool case XL

- Practical arrangement of compartments in the internal and external areas
- Ideal for accommodating of tools and accessories
- Padded carry handle
- Shoulder strap with strengthening in the shoulder area
- Through flexible hood locking with hook and loop fastener
- Numerous pockets
- Strong design due to the plastic reinforcement
- Made out of tear resistant polyester webbing



	L mm	B mm	H mm	kg
850.0325	520,0	250,0	340,0	2,40

### ROLLBAG Toolcase with telescopic trolley, empty

- 8 practically arranged storage pockets on the outside area
- 15 practically arranged storage pockets in the internal area
- ideal for tools, accessories and documents
- Padded carry handle
- robust zip
- Strong design due to the plastic reinforcement
- With wide rollers and standing feet for firm standing
- Telescopic carrying handle
- Made out of tear resistant polyester webbing



	L mm	B mm	H mm	kg
850.0305	500,0	280,0	400,0	3,25

### ROLLBAG universal tool case XL with telescopic trolley

- Practical arrangement of compartments in the internal and external areas
- Ideal for accommodating of tools and accessories
- Padded carry handle
- Shoulder strap with strengthening in the shoulder area
- Through flexible hood locking with hook and loop fastener
- Numerous pockets
- Strong design due to the plastic reinforcement
- With wide rollers and standing feet for firm standing
- Telescopic carrying handle
- Made out of tear resistant polyester webbing



	L mm	B mm	H mm	kg
850.0335	490,0	330,0	420,0	4,70

### SMARTBACKPACK Rucksack Telescope-Trolley

- 4 practically arranged external storage pockets
- 18 practically arranged storage pockets in the internal area
- with extra internal tool pockets for quick reach
- ideal for tools, accessories and documents
- with tape measure holder and hooks for insulation tape
- Padded carry handle
- robust zip
- Strong design due to the plastic reinforcement
- with wide rollers and standing feet for stability
- Telescopic carrying handle
- Made out of tear resistant polyester webbing
- maximum weight up to 40 kg



	L mm	B mm	H mm	kg
850.0334	330,0	270,0	460,0	3,60

### ABS hard protective tool case

- Strong hard protective case made from impact resistant plastic
- 1 tool board for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0520	465,0	335,0	150,0	6,00

### ABS hard protective case with removable telescopic trolley

- Strong hard protective case made from impact resistant plastic
- Document compartment in upper lid
- 2 tool boards for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Carrying handle with telescopic removable frame
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0530	435,0	310,0	160,0	6,00

### ABS hard protective tool case with aluminium frame

- Strong hard protective case made from impact resistant plastic with aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locks
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0540	471,0	338,0	154,0	3,40

### ABS hard protective tool case with hardened aluminium frame

- Strong hard protective case made from impact resistant plastic with hardened aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locking fastening catches
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0560	460,0	310,0	180,0	4,50

### Leather tool case

- Strong tool case made from environment friendly quality leather
- Edges reinforced with aluminum capping
- Folding front wall enables easy access to the tools
- 18 practically arranged storage pockets in the internal area
- 2 Loops on the side walls
- Inner area completely reinforced
- Lockable with two fastening catches
- Standing feet for sensitive surfaces
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0310	420,0	150,0	250,0	2,60

### TOOL BOXES

#### Sheet steel toolbox, 5 compartments

- with riveted hinges
- Compartments can be pulled all the way out
- Highly stable
- Double-seamed edges
- Lockable with padlock
- Red powder coating
- Made of electrolytically galvanised sheet steel



	L mm	B mm	H mm	kg
999.0120	420,0	200,0	190,0	3,45
999.0125	550,0	200,0	190,0	5,60

### Universal plastic tool box

- Multi-functional for various storage possibilities
- Includes 2 removable trays for small parts
- Capacity up to 10 kg
- Made from robust plastic



	L mm	B mm	H mm	kg
850.0505	450,0	240,0	260,0	1,70

### Mobile plastic sheet steel tool box

- Strong hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Made of 3 interchangeable stackable parts
- Lockable with two fastening catches
- Telescopic carrying handle
- With wide rollers and standing feet for firm standing
- Load capacity up to 75 kg



	L mm	B mm	H mm	kg
850.0340	520,0	320,0	720,0	15,00

### Plastic sheet steel toolboxes

- Strong hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Includes a removable tray for small parts
- Lockable with two fastening catches
- With retractable two component handle
- Lockable with padlock
- Capacity up to 30 kg



	L mm	B mm	H mm	kg
850.0345	582,0	298,0	255,0	3,25
850.0350	470,0	238,0	203,0	2,00
850.0355	395,0	180,0	170,0	1,40

### Plastic sheet steel toolbox set

- Sturdy hard protective case made from impact resistant plastic and sheet steel
- Multi-functional for various storage possibilities
- Includes a removable tray for small parts
- Lockable with two fastening catches
- With retractable two component handle
- Lockable with padlock
- Capacity up to 30 kg



				kg
850.0360	3 pcs	Plastic sheet steel toolbox set		6,70

#### consists of:

				kg
850.0345	Plastic sheet steel toolboxes	582x298x255mm		3,25
850.0350	Plastic sheet steel toolbox	470x238x203mm		2,00
850.0355	Plastic sheet steel toolbox	395x180x170mm		1,40

## TOOL CHESTS

### Tool chest with 3 drawers - red

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- With integrated storage compartment in the lid
- upper storage dimension: 515 mm x 250 mm x 55 mm
- Ball bearing drawer runners
- Drawers are 90% extendable
- Drawers with non-slip rubber mat
- Continuous handle with 2,5 mm contrasting chrome plated steel
- Good comprehensive view due to possibility of marking the individual drawers
- Includes interchangeable paper strip in the handle strip



#### Technical data:

Drawer internal dimensions: 445 mm x 220 mm x 40 mm  
 Total load capacity: 50 kg  
 Load capacity of each drawer: 10 kg

	L mm	B mm	H mm	kg
891.0003	520,0	260,0	302,0	11,68

### Tool chest with 3 drawers - black

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking of all drawers through lid opening and lid closure
- Lid locked by cylinder lock
- With integrated storage compartment in the lid
- upper storage dimension: 515 mm x 250 mm x 55 mm
- Ball bearing drawer runners
- Drawers are 90% extendable
- Drawers with non-slip rubber mat
- Continuous handle with 2,5 mm contrasting chrome plated steel
- Good comprehensive view due to possibility of marking the individual drawers
- Includes interchangeable paper strip in the handle strip



#### Technical data:

Drawer internal dimensions: 445 mm x 220 mm x 40 mm  
 Total load capacity: 50 kg  
 Load capacity of each drawer: 10 kg

	L mm	B mm	H mm	kg
801.0003	520,0	260,0	302,0	12,27

### Sheet steel tool chest

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Metal clasps simply lockable
- reinforced handles
- Special tool steel



	L mm	B mm	H mm	kg
999.0150	550,0	300,0	300,0	6,20
999.0160	670,0	350,0	350,0	9,80
999.0170	800,0	350,0	350,0	11,30
999.0180	850,0	350,0	350,0	13,80
999.0190	1000,0	480,0	365,0	18,50

### Sheet steel tool chest with shelf

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Metal clasps simply lockable
- Includes a removable tray for small parts
- reinforced handles
- Special tool steel



	L mm	B mm	H mm	kg
999.0155	550,0	300,0	300,0	7,30
999.0165	670,0	350,0	350,0	13,50
999.0175	800,0	350,0	350,0	15,80
999.0185	850,0	350,0	350,0	16,00
999.0195	1000,0	480,0	365,0	22,00

### Sheet steel tool chest

- Extremely robust and stable steel construction with 1,5 mm sheet steel - distortion resistant
- multi-point locking system
- recessed safety lock
- Lid unbreakable due to nested construction
- protected, tamper-proof hinges
- Lid with gas pressure dampers
- Rear panel with cable passage that can be closed from the inside
- Foldable handles



	L mm	B mm	H mm	T	kg
999.0550	913,0	455,0	470,0	180	35,00
999.0560	1120,0	650,0	595,0	350	79,00
999.0570	1780,0	650,0	595,0	550	120,00



## SERVICE TROLLEYS

### ECOline Workshop service trolley

- Made from robust sheet steel construction
- Easy to move, even with heavy loads
- All shelves with high retaining border
- Internal dimension 565 x 395 mm
- With side pull handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- High level of stability



#### Technical data:

Tray internal dimensions:	565 x 395 mm
Total load capacity:	150 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
890.0001	850,0	680,0	425,0	12,60

### Workshop service trolley

- Extremely substantial plastic construction
- Without screws easily constructed
- Distance between the ground 30 cm
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Tray internal dimensions:	710 x 440 mm
Total load capacity:	200 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
800.0020	1010,0	860,0	480,0	12,10

### Workshop service trolley with 2 drawers

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Drawer internal dimensions:	520 x 430 x 85 mm
Total load capacity:	200 kg
Load capacity of each drawer:	35 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
800.0030	1010,0	860,0	480,0	14,20

### ECOline Workshop-Service Trolley with Perforated Plate Cover

- Made from robust sheet steel construction
- Easy to move, even with heavy loads
- All shelves with high retaining border
- Internal dimension 565 x 395 mm
- lateral perforated steel cover for use with extra tools
- lockable at the back
- clearly organised workspace
- With side pull handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- High level of stability



#### Technical data:

Tray internal dimensions:	565 x 395 mm
Total load capacity:	150 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
890.0006	850,0	682,0	426,0	20,00

### Workshop service trolley with lining

- Extremely substantial plastic construction
- Equipment lining
- Without screws easily constructed
- Distance between the ground 30 cm
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Tray internal dimensions:	710 x 440 mm
Total load capacity:	200 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
800.0021	1010,0	860,0	480,0	12,10

### Workshop service trolley with 2 drawers and lining

- Extremely substantial plastic construction
- Without screws easily constructed
- Two ball bearing drawer runner guides
- With two handles
- 2 castor wheels 100 mm
- 2 castor wheels with brake 100 mm
- High level of stability
- Light profile weight
- Columns made out of anodised aluminum



#### Technical data:

Drawer internal dimensions:	520 x 430 x 85 mm
Total load capacity:	200 kg
Load capacity of each drawer:	35 kg
Wheel diameter:	100 mm

	H mm	B mm	T mm	kg
800.0031	1010,0	860,0	480,0	15,00

### Service trolley

- Ideally suited as mobile PC station, exhaust gas test station or as storage and operation trolley for diagnostic equipment
- Also suitable for customer service entrainment
- Robust and stable steel construction with 1,0 mm sheet steel distortion resistant
- High level of stability
- Lockable door
- With several openings for passing the cord
- Ball bearing drawer runners
- Drawers are extendable
- Front side edges are rounded
- Internal hinges and cylinder lock
- 2 shelves, universal adjustable in height
- Four castor wheels Ø 125 mm with rolling and turning brake
- Electrostatic powder coating



#### Technical data:

Drawer internal dimensions: 300 x 450 x 55 mm  
 Total load capacity: 150 kg  
 Load capacity of each drawer: 25 kg  
 Wheel diameter: 125 mm

	Total depth mm	Width mm	Depth mm	kg
865.0020	1155,0	500,0	500,0	47,00

### TOOLBOX TOOLBOX

#### TOOLBOX Tool carriage / assembly trolley, collapsible and lockable

- Very stable steel construction with 1.0 mm sheet steel - distortion resistant
- High level of stability
- With additional, adjustable storage area for the middle shelves (for small parts, vernier calliper etc.)
- With four separating plates to divide the middle shelves
- Spacious lower compartment made of stainless steel
- Can be lowered
- Lockable with in-built cylinder lock
- Telescopic handles and with locking button
- Includes circumferential corner protection (rubber profile)
- Robust ABS work surface with storage recesses
- With two lateral, ergonomic handles
- With two fixed wheels Ø 160 mm
- With two steering wheels Ø 75 mm with rolling and turning brake
- Electrostatic powder coating



#### Technical data:

Tray internal dimensions: 620 x 272 mm  
 Total load capacity: 80,0 kg

	H mm	B mm	T mm	kg
895.0015	1060,0	720,0	330,0	21,00

### TOOLBOX PVC worktop

- ideal as bespoke work surface
- suitable for TOOLBOX only
- joint free
- warp-resistant
- smooth work surface
- PVC



	L mm	B mm	H mm	kg
895.0006	400,0	267,0	17,0	3,40

### TOOLBOX MDF worktop

- ideal as bespoke work surface
- suitable for TOOLBOX only
- joint free
- warp-resistant
- glued plywood
- protective coating
- smooth work surface
- MDF



	L mm	B mm	H mm	kg
895.0004	400,0	267,0	17,0	1,20

### TOOLBOX MDF worktop, stainless steel coated

- ideal as bespoke work surface
- suitable for TOOLBOX only
- joint free
- warp-resistant
- glued plywood
- protective coating
- smooth work surface
- stainless steel-covered MDF



	L mm	B mm	H mm	kg
895.0005	400,0	267,0	17,0	2,04

### ECOline TOOLBOX

#### ECOline BLACK/RED Toolbox with 7 drawers

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Cabinet top has a 5 mm durable foam insert mat
- Full width metal handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

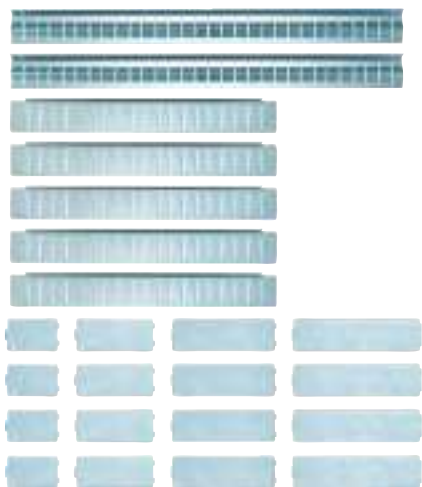
Total capacity: W 678 x H 920 x D 459 mm  
 Drawer internal dimensions: 565 x 395 mm  
 Total load capacity: 250,0 kg  
 Load capacity of each drawer: 25,0 kg

	no	75 mm	150 mm	kg
896.0007	7	6	1	41,40



### Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- options to store various tools
- Suitable for ECOline, BASICline, MASTERline and ULTIMATEline
- Individually adjustable
- Sheet steel



		<b>kg</b>
875.9940	23 pcs. Drawer divider set	3,00

#### consists of:

		<b>kg</b>
875.9941	Fix panel 565x50x1,5 mm	258
875.9942	Fix panel 393x50x1,5 mm	252
875.9943	Big panel 188x50x1,5 mm	116
875.9944	Big panel 150x50x1,5 mm	90
875.9945	Middle panel 112x50x1,5 mm	69
875.9946	Small panel 79,4 x 50 x 1,5 mm	46



### BASICline TOOLBOX

#### BASICline BLACK/RED Toolbox with 7 drawers

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width metal handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity:	W 678 x H 990 x D 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

836.0007	7	5	2	51,29

#### BASICline BLACK/RED Toolbox top chest with 4 drawers

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with Toolbox



#### Technical data:

Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

836.0014	4	4	-	36,00

### BASICline BLACK/SILVER Toolbox with 7 drawers

- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width metal handle
- Two fixed wheels Ø 100 mm
- Two castor wheels Ø 100 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity:	W 678 x H 990 x D 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

838.0007	7	5	2	51,29

#### BASICline BLACK/SILVER Toolbox top chest with 4 drawers

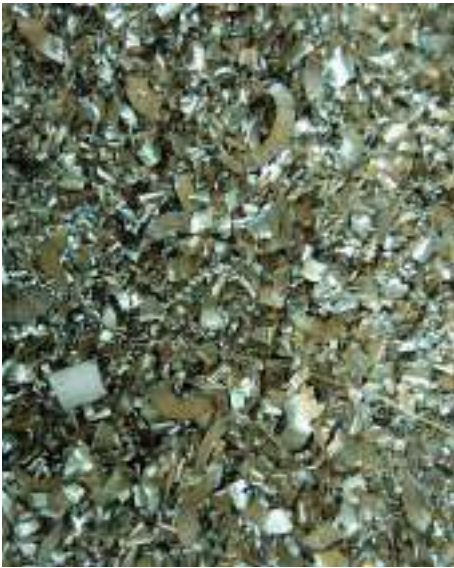
- Robust and stable steel construction with 0,8 mm sheet steel - distortion resistant
- High level of stability
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted carry handles
- Side mounted handle
- Combination with Toolbox



#### Technical data:

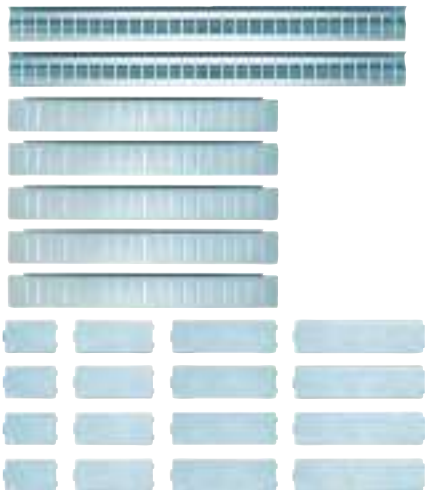
Total capacity:	B 678 x H 451 x T 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	175,0 kg
Load capacity of each drawer:	30,0 kg

838.0014	4	4	-	36,00



### Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- options to store various tools
- Suitable for ECOLine, BASICLine, MASTERLine and ULTIMATELine
- Individually adjustable
- Sheet steel



875.9940	23 pcs	Drawer divider set	3,00

consists of:

875.9941	Fix panel 565x50x1,5 mm	258	
875.9942	Fix panel 393x50x1,5 mm	252	
875.9943	Big panel 188x50x1,5 mm	116	
875.9944	Big panel 150x50x1,5 mm	90	
875.9945	Middle panel 112x50x1,5 mm	69	
875.9946	Small panel 79,4 x 50 x 1,5 mm	46	

### RACINGline TOOLBOX

#### RACINGline BLACK/RED Toolbox with 7 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- With polyurethan corner protection
- Drawers are 90% extendable
- Robust ABS work surface with storage recesses
- Full width metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total capacity:	W 788 x H 976 x D 496 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

826.0007	7	5	2	52,40

#### RACINGline BLACK/RED Toolbox with 7 drawers and 1 door

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Lockable door
- Ball bearing drawer runners
- With polyurethan corner protection
- Drawers are 90% extendable
- Robust ABS work surface with storage recesses
- Full width metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total capacity:	W 1150 x H 945 x D 459 mm
Drawer internal dimensions:	565 x 395 mm
Door dimensions:	H 711 x W 433.5 mm
Total load capacity:	450,0 kg
Load capacity of each drawer:	30,0 kg

827.0007	7	5	2	75,00





## RACINGline+ TOOLBOX

### RACINGline+ BLACK/RED Toolbox with 7 drawers

- Stainless steel worktop
- ABS border with compartments for small parts
- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- With polyurethan corner protection
- Drawers are 90% extendable
- Full width metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total capacity:	W 678 x H 945 x D 459 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	350,0 kg
Load capacity of each drawer:	30,0 kg

	no	75 mm	150 mm	kg
826.1007	7	5	2	52,40



### RACINGline+ BLACK/RED Toolbox with 7 drawers and 1 door

- Stainless steel worktop
- ABS border with compartments for small parts
- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- With polyurethan corner protection
- Drawers are 90% extendable
- Full width metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total capacity:	W 1150 x H 945 x D 459 mm
Drawer internal dimensions:	565 x 395 mm
Door dimensions:	H 711 x W 433,5 mm
Total load capacity:	450,0 kg
Load capacity of each drawer:	30,0 kg

	no	75 mm	150 mm	kg
827.1007	7	5	2	75,00

### Drawer divider set

- can only be used for drawers with internal dimensions 565 x 395mm with handle strip in the inlay area
- Only for RACINGLine
- options to store various tools
- Individually adjustable
- Sheet steel



			kg
875.9950	34 pcs	Drawer divider set	3,89

#### consists of:

	X		kg
875.9951	4	Fix panel 566x43,5x1,2 mm	280
875.9952	6	Fix panel 393 x 51 x 1,2 mm	200
875.9953	6	Big panel 193 x 50 x 1,2 mm	90
875.9954	6	Big panel 155 x 50 x 1,2 mm	70
875.9955	6	Middle panel 117 x 50 x 1,2 mm	50
875.9956	6	Small panel 79 x 50 x 1,2 mm	45

## MASTERline TOOLBOX

### MASTERline BLACK/RED Toolbox with 7 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity:	W 727 x H 1005 x D 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	450 kg
Load capacity of each drawer:	40 kg

	no	75 mm	150 mm	kg
876.0007	7	5	2	68,00

### MASTERline BLACK/RED Toolbox top chest with 4 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with Toolbox



#### Technical data:

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	250 kg
Load capacity of each drawer:	40 kg

	no	75 mm	150 mm	kg
876.0014	4	4	-	38,00

### MASTERline BLACK/SILVER Toolbox with 7 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity: W 727 x H 1005 x D 460 mm  
 Drawer internal dimensions: 565 x 395 mm  
 Total load capacity: 450 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
878.0007	7	5	2	68,00

### MASTERline BLACK/SILVER Toolbox top chest with 4 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with Toolbox



#### Technical data:

Total capacity: B 727 x H 451 x T 460 mm  
 Drawer internal dimensions: 565 x 395 mm  
 Total load capacity: 250 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
878.0014	4	4	-	38,00

### MASTERline BLACK/SILVER Toolbox with 2 shelf parts

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating



#### Technical data:

Total capacity: B 993 x H 1000 x T 460 mm  
 Drawer internal dimensions: 565 x 395 mm  
 Total load capacity: 800 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
878.0006	6	3	3	88,00

### MASTERline BLACK/SILVER Toolbox with 8 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity: W 910 x H 995 x D 460 mm  
 Drawer internal dimensions: 752 x 395 mm  
 Total load capacity: 800 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
878.0008	8	7	1	80,00



### MASTERline Toolbox with 11 drawers + 2 shelf parts black/silver

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Wooden cabinet top 38 mm
- Full width polyurethane coated metal handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity: W 1158 x H 1005 x D 720 mm  
 Drawer internal dimensions: 565 x 395 mm  
 Total load capacity: 1000 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
878.0012	11	8	3	173,00

### MASTERline Toolbox with 16 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width polyurethane coated metal handle
- With two fixed wheels Ø 132 mm
- With two castor wheels Ø 132 mm with rolling and turning brake
- Side mounted handle
- Electrostatic powder coating
- Can be combined with a top chest
- 2 stage locking mechanism
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock



#### Technical data:

Total capacity: W 1157,5 x H 1000 x D 481 mm  
 Drawer internal dimensions:  
 7 x 375 x 398 x 75 mm  
 7 x 569 x 398 x 75 mm  
 1 x 375 x 398 x 154 mm  
 1 x 569 x 398 x 154 mm

Total load capacity: 800 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
876.0016	16	14	2	124,00
878.0016	16	14	2	124,00

### MASTERline large Toolbox with 8 drawers

- Very stable steel construction with 0,9 mm sheet steel - distortion resistant
- High level of stability
- Rear and side walls with metal peg board for mounting different accessories
- Ball bearing drawer runners
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Side mounted handle
- Electrostatic powder coating
- Combination with Toolbox
- two folding carrying handles each
- 2 stage locking mechanism
- Handle locking system prevents unintentional opening
- Central locking system on all drawers through the cylinder lock



#### Technical data:

Total capacity: W 1157,5 x H 454,5 x D 481 mm  
 Drawer internal dimensions:  
 4 x 375 x 398 x 75 mm  
 4 x 569 x 398 x 75 mm

Total load capacity: 400 kg  
 Load capacity of each drawer: 40 kg

	no	75 mm	150 mm	kg
876.0018	8	8	-	61,00
878.0018	8	8	-	61,00

### MASTERline ACCESSORIES

#### Rear wall system for toolbox

- for additional tools
- clearly organised workspace
- Consisting of 2 square peg board 70 x 45 cm
- steel sheet construction
- for ULIMATE und MASTERline toolbox



	Colour code	B mm	H mm	kg
885.9901	●	727,0	90,0	8,00

#### MASTERline wooden worktop

- Can be used instead of the rubber mat
- Multiplex Beech Plywood
- joint free
- warp-resistant
- glued plywood
- protective coating
- smooth work surface



	L mm	B mm	H mm	kg
875.9915	450,0	710,0	18,0	5,00

#### MASTERline alu grooved top

- Can be used instead of the rubber mat
- Easy to maintain
- Surface is lightly corrugated
- Ideal for use as a work surface



	L mm	B mm	H mm	kg
875.9920	460,0	727,0	2,0	2,50

### MASTERline storage tray insert

- Storage tray for small parts
- Suitable for use in the Toolbox drawer
- Smooth surface



	Colour code	L mm	B mm	H mm	kg
875.9925	●	570,0	153,0	10,0	0,95
875.9926	●	570,0	153,0	10,0	0,95

### 220 V Cable reel

- Clamping device
- Ideal for heavy use on construction sites, in the workshop and industrial areas
- 10 Meter cable length
- Drum body out of special plastic
- 4 Protected socket outlets
- Overheating protection
- Control lamp for overheating and overload
- 4 x Safety plugs



	B mm	H mm	kg
875.9930	238,0	290,0	1,20

### Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- options to store various tools
- Suitable for ECOline, BASICline, MASTERline and ULTIMATEline
- Individually adjustable
- Sheet steel



	kg
875.9940 23 pcs Drawer divider set	3,00

#### consists of:

	kg
875.9941 Fix panel 565x50x1,5 mm	258
875.9942 Fix panel 393x50x1,5 mm	252
875.9943 Big panel 188x50x1,5 mm	116
875.9944 Big panel 150x50x1,5 mm	90
875.9945 Middle panel 112x50x1,5 mm	69
875.9946 Small panel 79,4 x 50 x 1,5 mm	46

## ULTIMATE<sup>line</sup> TOOLBOX

### ULTIMATE<sup>line</sup> RED/SILVER Toolbox with 7 drawers

- Extremely robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stability and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- With side mounted handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

	no	75 mm	150 mm	kg
886.0007	7	5	2	70,70

### ULTIMATE<sup>line</sup> RED/SILVER Toolbox top chest with 4 drawers

- Extremely robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stability and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with Toolbox



#### Technical data:

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

	no	75 mm	150 mm	kg
886.0014	4	4	-	38,20

## ULTIMATE<sup>line</sup> BLACK/SILVER Toolbox with 7 drawers

- Extremely robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stability and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Robust ABS work surface with tool holders and storage recesses
- With side mounted handle
- Two fixed wheels Ø 125 mm
- Two castor wheels Ø 125 mm with rolling and turning brake
- Full width aluminium drawer handle
- Electrostatic powder coating
- Can be combined with a top chest



#### Technical data:

Total capacity:	B 739 x H 1013 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	600 kg
Load capacity of each drawer:	45 kg

	no	75 mm	150 mm	kg
888.0007	7	5	2	70,70

### ULTIMATE<sup>line</sup> BLACK/SILVER Toolbox top chest with 4 drawers

- Extremely robust and stable steel construction with 1,0 mm sheet steel - distortion resistant
- Due to secure steel plate construction highly resilient
- Very high level of stability and safety - as a maximum one drawer can be opened at a time
- Robust corner protection due to the aluminium reinforcement
- Receased rear and side walls with metal peg board for mounting different accessories
- Handle locking system prevents unintentional opening
- Central locking system with individual drawer locking system
- Independent central locking can be disabled if required
- Ball bearing drawer runners with automatic spring return
- Drawers are 100% extendable
- Drawers with non-slip rubber mat
- Cabinet top has a 10 mm durable foam insert mat
- Full width aluminium drawer handle
- Electrostatic powder coating
- Combination with Toolbox



#### Technical data:

Total capacity:	B 727 x H 451 x T 460 mm
Drawer internal dimensions:	565 x 395 mm
Total load capacity:	300 kg
Load capacity of each drawer:	45 kg

	no	75 mm	150 mm	kg
888.0014	4	4	-	38,20

## ULTIMATE<sup>line</sup> ACCESSORIES

### Rear wall system for toolbox

- for additional tools
- clearly organised workspace
- Consisting of 2 square peg board 70 x 45 cm
- steel sheet construction
- for ULIMATE und MASTER<sup>line</sup> toolbox



Colour code	B mm	H mm	kg
885.9901	727,0	90,0	8,00

### ULTIMATE<sup>line</sup> wooden worktop

- Multiplex Beech Plywood
- joint free
- warp-resistant
- glued plywood
- protective coating
- smooth work surface



	L mm	B mm	H mm	kg
885.9915	335,0	625,0	18,0	5,00

### ULTIMATE<sup>line</sup> alu grooved top

- Can be used instead of the ABS plate
- Easy to maintain
- Surface is lightly corrugated
- Ideal for use as a work surface



	L mm	B mm	H mm	kg
885.9920	625,0	335,0	1,6	1,31

### 220 V Cable reel

- Clamping device
- Ideal for heavy use on construction sites, in the workshop and industrial areas
- 10 Meter cable length
- Drum body out of special plastic
- 4 Protected socket outlets
- Overheating protection
- Control lamp for overheating and overload
- 4 x Safety plugs



	B mm	H mm	
875.9930	238,0	290,0	1,20

### ULTIMATEline storage tray

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Enlarges the surface working area
- Working surface: 375 x 308 mm
- When not in use can fold away
- Ideal for documents, laptop, small parts etc.



	Colour code	L mm	B mm	H mm	
885.9935	●	420,0	360,0	27,0	3,20
885.9936	●	420,0	360,0	27,0	3,20

### ULTIMATEline universal tray

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Internal measurements: 338 x 180 mm
- Ideal for documents



	Colour code	L mm	B mm	H mm	
885.9945	●	340,0	75,0	180,9	0,84
885.9946	●	340,0	75,0	180,9	0,84

### Drawer divider set

- For use only in drawers with inside dimensions 565 x 395 mm
- options to store various tools
- Suitable for ECOline, BASICline, MASTERline and ULTIMATEline
- Individually adjustable
- Sheet steel



875.9940 23 pcs Drawer divider set	3,00

consists of:

875.9941 Fix panel 565x50x1,5 mm	258
875.9942 Fix panel 393x50x1,5 mm	252
875.9943 Big panel 188x50x1,5 mm	116
875.9944 Big panel 150x50x1,5 mm	90
875.9945 Middle panel 112x50x1,5 mm	69
875.9946 Small panel 79,4 x 50 x 1,5 mm	46



### ULTIMATEline paper roll holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- for paper rolls to a max. Ø 350 mm and max. 320 mm wide



	Colour code	L mm	B mm	H mm	
885.9940	●	368,0	75,0	52,0	0,60
885.9941	●	368,0	75,0	52,0	0,60

### ULTIMATEline small part storage tray

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- With fixed dividers
- When not in use can fold away
- Ideal for small parts, screws etc.



	Colour code	L mm	B mm	H mm	
885.9950	●	368,0	50,0	52,0	0,40
885.9951	●	368,0	50,0	52,0	0,40



### ULTIMATEline universal can holder

- suitable for hole measurements 10 x 10 mm - hole distance 38 mm
- Without separating strip
- When not in use can fold away
- Ideal for cans, bottles etc.



	Colour code	L mm	B mm	H mm	kg
885.9955	●	368,0	80,8	52,0	0,50
885.9956	●	368,0	80,8	52,0	0,50

### ULTIMATEline carrier truck

- Mobilizes Toolbox sets
- Handle foam coated
- Extendable handle
- Two fixed wheels Ø 75 mm
- Two castor wheels Ø 75 mm with brake
- steel sheet construction



	Colour code	L mm	B mm	H mm	kg
885.9930	●	780,0	480,0	170,0	7,60
885.9931	●	780,0	480,0	170,0	7,60



### ULTIMATEline storage tray insert

- Storage tray for small parts
- Suitable for use in the Toolbox drawer
- Smooth surface



	Colour code	L mm	B mm	H mm	kg
885.9925	●	570,0	153,0	10,0	0,95
885.9926	●	570,0	153,0	10,0	0,95



### ULTIMATEline suction pads

- Slide on
- With revolving suction cup with 80 kg of lifting force
- 2 dead centre heads
- Quick-release lever
- With intake mechanics and fast change device
- Suitable for all smooth materials with gas density surfaces



	Colour code	Ø mm	L mm	kg
885.9960	●	120,0	330,0	1,75
885.9961	●	120,0	330,0	1,75

### ULTIMATEline work tray

- Slide on
- Pivoting
- Ideal for documents, laptop etc.



	Colour code	L mm	B mm	H mm	kg
885.9910	●	190,0	188,0	35,0	1,20
885.9911	●	190,0	188,0	35,0	1,20



# The right combination:



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# SCS - SAFETY CONTROL SYSTEM

## The benefits:

- 3-coloured inserts create a clear structure and protect the quality tools from damage or loss.
- Safety foam inserts with high precision, 3D CNC parts.
- the red signal colour is for completeness checks - a visible red colour means a tool is missing.
- Completely flexible thanks to individual combinations
- no tools confused with each other
- perfect tool organisation
- Tailored inserts in each workshop Toolbox
- oil resistant
- easy to clean



## MODULAR BUILDING BLOCK SYSTEM

Best flexibility and organisation



create "your own" Toolbox....

With our unique system inlay configuration you can design your Toolbox to your exact requirements. Due to our user friendly foam inlays, you can simply configure each drawer by category (tool type) with a neat and tidy presentation.

It is ideal when you want to work away from your Toolbox as you can take each inlay individually, meaning you have the right tool for the job.

COMPLETELY FLEXIBLE



For each individual tool, the 3D CNC computer technology mills a tailored part.



The tailored parts mean a quick glance is all that's needed to know where the corresponding tool belongs. This saves a lot of time.

Thanks to the finely detailed characters, the size of the tool can be seen before removing it.



Three-layer three-colour system: the top layer is black, the middle layer is white and the bottom layer is red.

The foam inserts are oil-resistant, extremely flexible and easy to wash.



**TOOLBOX SYSTEM INLAY SETS**

**TOOLBOX universal system tray set for 2 trays with 175 premium tools**

- System insert
- suitable for TOOLBOX
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality foam



713.0175	175 pcs	TOOLBOX universal system tray set for 2 trays with 175 premium tools	7,90
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713.0155		TOOLBOX socket wrench and combination wrench set, 154 pcs	
713.4021		TOOLBOX pliers and combination wrench set, 21 pcs	

**SCS SYSTEM INSERT SETS**

**Set of universal system inserts for 3 drawers with 116 premium tools**

- Ideal set for universal use
- Fits 3 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



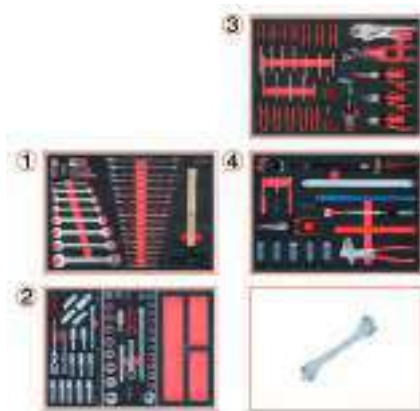
715.0116	116 pcs	Set of universal system inserts for 3 drawers with 116 premium tools	14,00
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711.3031		SCS Spanner and hammer set, 31 pcs, 1/1 system insert	
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712.0057		SCS 1/4"-1/2" socket set, 57 pcs, 2/3 system insert	
713.6004		SCS Pliers set, 4 pcs, 1/3 system insert	
712.0011		SCS ERGOTORQUE-plus screwdriver set, 11 pcs, 2/3 system insert	
713.8013		SCS Pin driving tools and hammer set, 13 pcs, 1/3 system insert	

**Set of universal system inserts for 4 drawers with 131 premium tools**

- Ideal set for universal use
- Suitable for 4 tool trolley drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



715.0131	131 pcs	Set of universal system inserts for 4 drawers with 131 premium tools	20,00
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711.3031		SCS Spanner and hammer set, 31 pcs, 1/1 system insert	
713.0027		SCS 1/4"-1/2" CHROMEplus spark plug service set, 27 pcs, 1/3 system insert	
713.0028		SCS Socket set, 28 pcs, 1/3 system insert	

713.0000		SCS Uni inlay, empty, 1/3 system insert	
711.6027		SCS screwdriver and pliers set, 27 pcs, 1/1 system insert	
711.0016		SCS Wheel service inlay, 16 pcs, 1/1 system insert	

**Set of universal system inserts for 3 drawers with 215 premium tools**

- Ideal set for universal use
- Fits 3 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



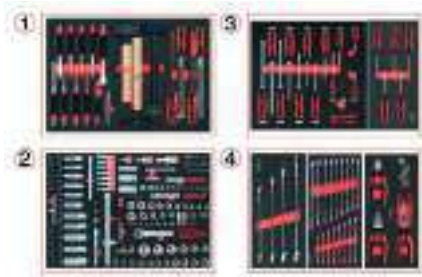
713.0215	215 pcs	Set of universal system inserts for 3 drawers with 215 premium tools	12,64
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711.0013		Screwdriver and pliers set, 12 pcs, 1/1 system insert	
711.0027		Spanner set, 24 pcs, 1/1 system insert	
711.0179		1/4"-3/8"+1/2" socket set, 179 pcs, 1/1 system insert	



**Set of universal system inserts for 4 drawers with 241 premium tools**

- Ideal set for universal use
- Suitable for 4 tool trolley drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



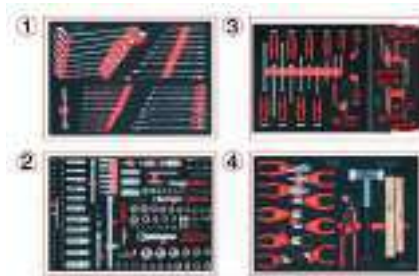
713.7241	241 pcs	Set of universal system inserts for 4 drawers with 241 premium tools	21,86
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711.0018		SCS File, chisel and hammer set, 18 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
712.0013		SCS ERGOTORQUE-max screwdriver set, 13 pcs, 2/3 system insert
713.9005		SCS ERGOTORQUE-plus screwdriver set, Torx tamperproof, 5 pcs, 1/3 system insert

713.0004		SCS Combination spanner set, 4 pcs, 1/3 system insert
713.0017		SCS Combination spanner set, 17 pcs, 1/3 system insert
713.6004		SCS Pliers set, 4 pcs, 1/3 system insert

**Set of universal system inserts for 4 drawers with 251 premium tools**

- Ideal set for universal use
- Suitable for 4 tool trolley drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



713.0251	251 pcs	Set of universal system inserts for 4 drawers with 251 premium tools	22,22
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711.0036		SCS wrench set, 36 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
712.0013		SCS ERGOTORQUE-max screwdriver set, 13 pcs, 2/3 system insert
713.2009		SCS Torx T-handle hex key set, 9 pcs, 1/3 system insert
711.9013		SCS Pliers and hammer set, 13 pcs, 1/1 system insert

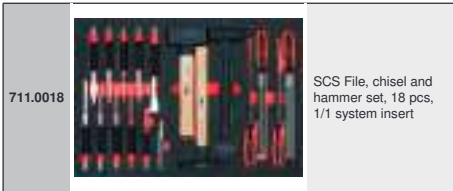
**Set of universal system inserts for 5 drawers with 251 premium tools**

- Ideal set for universal use
- Fits 5 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



715.0251	251 pcs	Set of universal system inserts for 5 drawers with 251 premium tools	20,61
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711.3031		SCS Spanner and hammer set, 31 pcs, 1/1 system insert
712.0057		SCS 1/4"+1/2" socket set, 57 pcs, 2/3 system insert
713.0101		SCS 1/4" Bit set, 101 pcs, 1/3 system insert
711.6027		SCS screwdriver and pliers set, 27 pcs, 1/1 system insert
713.2008		SCS Measuring tool insert, 8 pcs, 1/3 system insert
713.5006		SCS Circlip pliers set, 6 pcs, 1/3 system insert
713.1003		SCS Grip pliers set, 3 pcs, 1/3 system insert



711.0018

SCS File, chisel and hammer set, 18 pcs, 1/1 system insert

**Set of universal system inserts for 7 drawers with 269 premium tools**

- Ideal set for universal use
- Fits 7 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



713.0269	269 pcs	Set of universal system inserts for 7 drawers with 269 premium tools	30,78
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712.0021

SCS chisel and measuring instrument set, 21 pcs, 2/3 system insert



713.0015

SCS 1/2" Bit socket set, 15 pcs, 1/3 system insert



713.0008

SCS ERGOTORQUE-plus T-handle hex key set, 9 pcs, 1/3 system insert



713.2009

SCS Torx T-handle hex key set, 9 pcs, 1/3 system insert



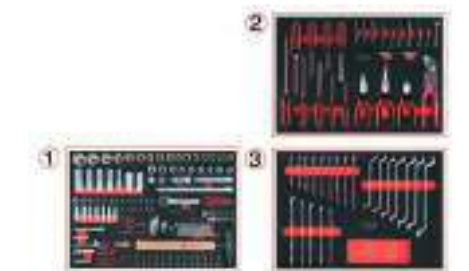
713.5004

SCS T-handle hex key set, 4 pcs, 1/3 system insert



**Set of universal system inserts for 3 drawers with 296 premium tools**

- Ideal set for universal use
- Fits 3 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



713.0296	296 pcs	Set of universal system inserts for 3 drawers with 296 premium tools	12,28
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711.0026

SCS Combination spanners set, 26 pcs, 1/1 system insert



781.0128

SCS CHROMEplus 1/4"+3/8"+1/2" Socket set, 128 pcs, 1/1 system insert



711.0022

SCS screwdriver and hook set, 22 pcs, 1/1 system insert



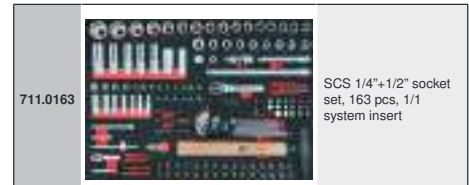
711.5018

SCS Pliers and file set, 18 pcs, 1/1 system insert



711.7017

SCS chisel and hammer set, 17 pcs, 1/1 system insert



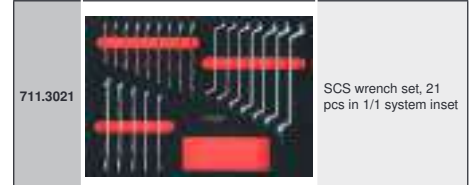
711.0163

SCS 1/4"+1/2" socket set, 163 pcs, 1/1 system insert



711.0112

SCS screwdriver and pliers set, 112 pcs in 1/1 system insert



711.3021

SCS wrench set, 21 pcs in 1/1 system insert

**Set of universal system inserts for 5 drawers with 299 premium tools**

- Ideal set for universal use
- Fits 5 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



**Set of universal system inserts for 3 drawers with 310 premium tools**

- Ideal set for universal use
- Fits 3 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



**Set of universal system inserts for 6 drawers with 310 premium tools**

- Ideal set for universal use
- Fits 6 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



715.0299	299 pcs	Set of universal system inserts for 5 drawers with 299 premium tools	29,00
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713.0310	310 pcs	Set of universal system inserts for 3 drawers with 310 premium tools	18,69
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715.0310	310 pcs	Set of universal system inserts for 6 drawers with 310 premium tools	43,00
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781.4031		SCS Spanner and hammer set, 31 pcs, 1/1 system insert
711.0080		SCS 1/4"+3/8"+1/2" socket set, 80 pcs, 1/1 system insert
713.2047		SCS 1/4" socket set, 47 pcs, 1/3 system insert
713.0101		SCS 1/4" Bit set, 101 pcs, 1/3 system insert
713.0006		SCS ERGOTORQUE-plus screwdriver set, 6 pcs, 1/3 system insert
711.1016		SCS Universal tool set, 16 pcs, 1/1 system insert
711.0018		SCS File, chisel and hammer set, 18 pcs, 1/1 system insert

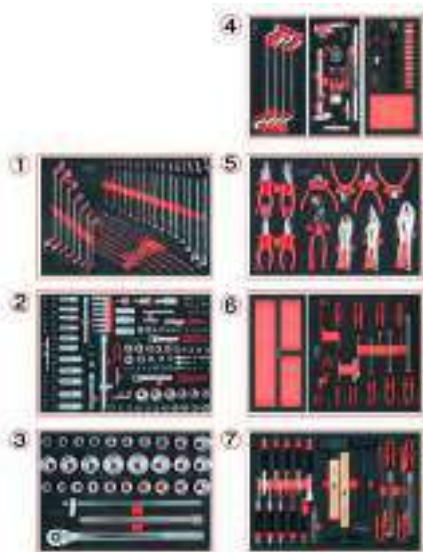
711.0151		SCS 1/4"+3/8"+1/2" socket set, 151 pcs, 1/1 system insert
711.0124		SCS Hammer, chisel-, plier- and bit-set, 124 pcs, 1/1 system insert
711.0035		SCS wrench set, 35 pcs, 1/1 system insert



711.0041		SCS wrench set, 41 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
711.1031		SCS 3/4" socket set, 31 pcs, 1/1 system insert
711.1012		SCS Pliers set, 12 pcs, 1/1 system insert
711.0025		SCS ERGOTORQUE-plus screwdriver set, 25 pcs, 1/1 system insert
711.1021		SCS Chisel and hammer set, 21 pcs, 1/1 system insert

**Set of universal system inserts for 7 drawers with 316 premium tools**

- Ideal set for universal use
- Fits 7 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

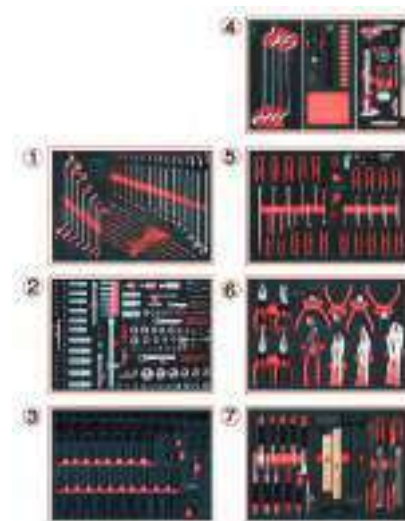


711.0102		SCS Pliers set, 12 pcs, 1/1 system insert
712.0012		SCS ERGOTORQUE-plus screwdriver set, 12 pcs, 2/3 system insert
713.0000		SCS Uni inlay, empty, 1/3 system insert
711.0018		SCS File, chisel and hammer set, 18 pcs, 1/1 system insert

711.0124		SCS Hammer-, chisel-, plier- and bit-set, 124 pcs, 1/1 system insert
918.3050		1/4" + 11 mm Go through socket and bit set, 31 pcs

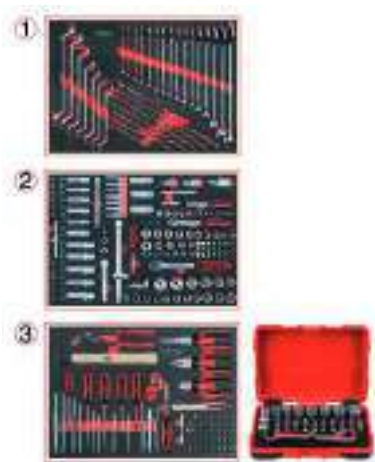
**Set of universal system inserts for 7 drawers with 378 premium tools**

- Ideal set for universal use
- Fits 7 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



**Set of universal system inserts for 3 drawers with 341 premium tools**

- Ideal set for universal use
- Fits 3 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



715.0316	316 pcs	Set of universal system inserts for 7 drawers with 316 premium tools	46,00
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715.0378	378 pcs	Set of universal system inserts for 7 drawers with 378 premium tools	37,00
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711.0035		SCS wrench set, 35 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
711.1031		SCS 3/4" socket set, 31 pcs, 1/1 system insert
713.2004		SCS Ring spanner set, offset, 4 pcs, 1/3 system insert
713.2008		SCS Measuring tool insert, 8 pcs, 1/3 system insert
713.0019		SCS Impact socket wrench and bit set, 19 pcs, 1/3 system insert

713.0341	341 pcs	Set of universal system inserts for 3 drawers with 341 premium tools	20,00
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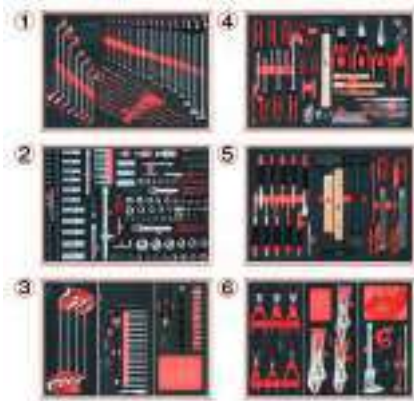
711.0035		SCS wrench set, 35 pcs, 1/1 system insert
711.0151		SCS 1/4"+3/8"+1/2" socket set, 151 pcs, 1/1 system insert

711.0035		SCS wrench set, 35 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
711.0073		3/8"+1/2" SCS Impact socket wrench set, 73 pcs, 1/1 system insert
713.2004		SCS Ring spanner set, offset, 4 pcs, 1/3 system insert

713.0019		SCS Impact socket wrench and bit set, 19 pcs, 1/3 system insert
713.2008		SCS Measuring tool insert, 8 pcs, 1/3 system insert
711.1029		SCS Screwdriver set, 29 pcs, 1/1 system insert
711.1012		SCS Pliers set, 12 pcs, 1/1 system insert
711.0018		SCS File, chisel and hammer set, 18 pcs, 1/1 system insert

**Set of universal system inserts for 6 drawers with 404 premium tools**

- Ideal set for universal use
- Fits 6 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



715.0404	404 pcs	Set of universal system inserts for 6 drawers with 404 premium tools	32,00	
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711.0035		SCS wrench set, 35 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert

713.2004		SCS Ring spanner set, offset, 4 pcs, 1/3 system insert
713.0101		SCS 1/4" Bit set, 101 pcs, 1/3 system insert
713.0019		SCS Impact socket wrench and bit set, 19 pcs, 1/3 system insert
711.1033		SCS ERGOTORQUE VDE pliers and screwdriver set, 33 pcs, 1/1 system insert
711.0018		SCS File, chisel and hammer set, 18 pcs, 1/1 system insert
713.5006		SCS Circlip pliers set, 6 pcs, 1/3 system insert
713.1003		SCS Grip pliers set, 3 pcs, 1/3 system insert
713.3005		SCS Measuring tool insert, 5 pcs, 1/3 system insert



**Set of universal system inserts for 8 drawers with 418 premium tools**

- Ideal set for universal use
- Fits 8 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



713.9418	418 pcs	Set of universal system inserts for 8 drawers with 418 premium tools	41,98	
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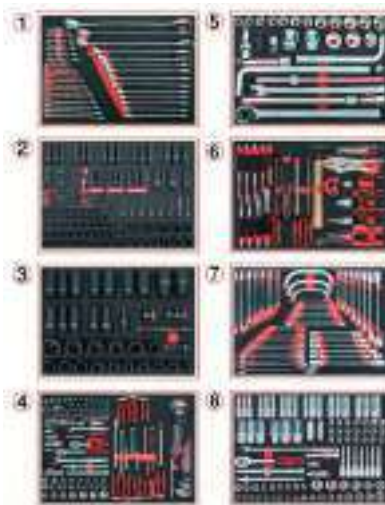
711.0035		SCS wrench set, 35 pcs, 1/1 system insert
711.0180		SCS 1/4"+3/8"+1/2" socket set, 180 pcs, 1/1 system insert
711.5018		SCS Pliers and file set, 18 pcs, 1/1 system insert
711.0023		SCS hammer and wrench set, 23 pcs, 1/1 system insert
712.0013		SCS ERGOTORQUE-max screwdriver set, 13 pcs, 2/3 system insert
713.9005		SCS ERGOTORQUE-plus screwdriver set, Torx tamperproof, 5 pcs, 1/3 system insert

713.3009		SCS Torx T-handle hex key set, 9 pcs, 1/3 system insert
713.5004		SCS T-handle hex key set, 4 pcs, 1/3 system insert
713.0014		SCS GEARplus ratchet combination spanner set, 14 pcs, 1/3 system insert
783.2005		SCS CHROMEplus halfmoon spanner set, 5 pcs, 1/3 system insert
713.0021		SCS 3/8" Bit socket set, 21 pcs, 1/3 system insert
713.0032		SCS 1/2" Bit socket set, 32 pcs, 1/3 system insert
713.0027		SCS 1/4"-1/2" CHROMEplus spark plug service set, 27 pcs, 1/3 system insert
713.0012		SCS Impact socket set, 1/2", 12 pcs, 1/3 system insert
713.0019		SCS Impact socket wrench and bit set, 19 pcs, 1/3 system insert



**Set of universal system inserts for 8 drawers with 484 premium tools**

- Ideal set for universal use
- Fits 8 Toolbox drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



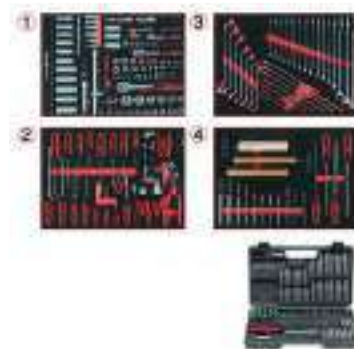
715.0484	484 pcs	Set of universal system inserts for 8 drawers with 484 premium tools	90,54
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711.1036		SCS wrench set, 36 pcs 1/1 system insert
711.0102		1/4"+3/8"+1/2" SCS impact socket wrench set, 102 pcs, 1/1 system insert
711.1035		3/4" SCS impact socket wrench set, 35 pcs, 1/1 system insert
711.0118		1/4"+3/8" SCS Socket set, 118 pcs 1/1 system insert
711.0029		3/4" SCS Socket set, 29 pcs 1/1 system insert
711.2021		SCS File, chisel and pliers set, 21 pcs, 1/1 system insert

711.0048		SCS wrench set, 48 pcs 1/1 system inset
711.0095		1/2" SCS Socket set, 95 pcs 1/1 system inset

**Set of universal system inserts for 4 drawers with 515 premium tools**

- Ideal set for universal use
- Suitable for 4 tool trolley drawers
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



713.0515	515 pcs	Set of universal system inserts for 4 drawers with 515 premium tools	21,79
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711.0195		1/4"+3/8"+1/2" socket set, 195 pcs, 1/1 system insert
711.3035		Wrench set, 35 pcs, 1/1 system insert
711.1059		Pliers and screwdriver set, 59 pcs, 1/1 system insert
711.1018		File, chisel and hammer set, 18 pcs, 1/1 system insert
911.2008		1/4" Bit set, 208 pcs

## TOOLBOX MODULE INSERTS

### TOOLBOX Socket and combination wrench set

- System insert
- suitable for TOOLBOX
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality foam



	L mm	B mm	H mm	kg
<b>713.0155</b> 154 pcs	272,0	620,0	35,0	5,00
13 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
17 x	1/2": 10-11-12-13-14-15-16-17-18-19-20-21-22-24-27-30-32 mm			
1 x	50 mm			
2 x	30 - 50 mm			
1 x	1/4"			
1 x	1/4"			
9 x	3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm			
8 x	PH0 - PH1 - 5 x PH2 - PH3			
8 x	PZ0 - PZ1 - 5 x PZ2 - PZ3			
9 x	1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm			
10 x	1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"			
6 x	2 - 2,5 - 3 - 4 - 5 - 6 mm			
6 x	5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"			
9 x	T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45			
9 x	TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40			
3 x	M5 - M6 - M8			
3 x	#1 - #2 - #3			
4 x	#1 - #2 - #3 - #4			
4 x	4 - 6 - 8 - 10 mm			
3 x	6 - 8 - 10 mm			
4 x	#0 - #1 - #2 - #3			
2 x	1/4": 50 - 100 mm			
2 x	1/2": 125 - 250 mm			
1 x	3/8"Fx1/2"M			
2 x	1/4" + 1/2"			
2 x	1/4" + 1/2"			
14 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
1 x	3 m			



## TOOLBOX pliers and screwdriver set

- System insert
- suitable for TOOLBOX
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality foam



	L mm	B mm	H mm	kg
<b>713.4021</b> 21 pcs	272,0	620,0	35,0	2,90
1 x	500 g			
1 x	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			
5 x	3 - 4 - 5 - 6,5 - 8 mm			
3 x	PH1 - PH2 - PH3			
1 x	1/4"			
1 x	160 mm			
1 x	180 mm			
1 x	240 mm			

## 1/3 SCS - SPANNER - METRIC

### SCS Combination spanner set

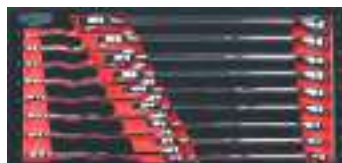
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
<b>713.0017</b> 17 pcs	390,0	188,0	35,0	1,80
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			

### SCS CHROMEplus® combination spanner set

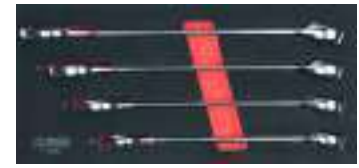
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
<b>783.0017</b> 17 pcs	390,0	188,0	35,0	2,40
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			

## SCS Combination spanner set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
<b>713.0004</b> 4 pcs	390,0	188,0	35,0	1,65
4 x	24 - 27 - 30 - 32 mm			

## SCS CHROMEplus® combination spanner set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
<b>783.0004</b> 4 pcs	390,0	188,0	35,0	1,78
4 x	24 - 27 - 30 - 32 mm			

## SCS GEARplus® ratchet combination spanner set, including adaptors

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
<b>713.0014</b> 14 pcs	390,0	188,0	35,0	1,50
10 x	8 - 10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
1 x	1/4"			
3 x	1/4" - 3/8" - 1/2"			



**SCS GEARplus® reversing ratchet combination spanner set, including adapters**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
713.9314 14 pcs	290.0	188.0	35.0	1.56
10 x	8 - 10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19			
1 x	1/4"			
3 x	1/4" - 3/8" - 1/2"			

**SCS Double open ended spanner set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
713.9911 11 pcs	290.0	188.0	35.0	1.75
11 x	8/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm			

**SCS CHROMEplus® double open ended spanner set**

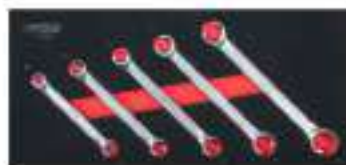
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
782.9911 11 pcs	290.0	188.0	35.0	1.75
11 x	8/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 17x19 - 20x22 - 21x23 - 24x27 - 30x32			

**SCS Open double ring spanner set, offset**

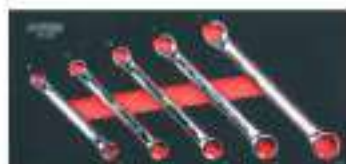
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
713.0005 5 pcs	290.0	188.0	35.0	0.56
5 x	8x10 - 10x11 - 12x13 - 14x15 - 17x19 mm			

**SCS CHROMEplus® Open double ring spanner set, offset**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
782.0005 5 pcs	290.0	188.0	35.0	0.56
5 x	8x10 - 10x11 - 12x13 - 14x15 - 17x19 mm			

**SCS double ring spanner set, 75° offset**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
713.0007 7 pcs	290.0	188.0	35.0	1.08
7 x	8/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm			

**CHROMEplus® double ring spanner set, 75° offset**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
782.0007 7 pcs	290.0	188.0	35.0	1.08
7 x	8/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm			

**SCS Double ring spanner set, 75° offset**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
713.2004 4 pcs	290.0	188.0	35.0	1.74
4 x	20 x 22 - 21 x 23 - 24 x 27 - 30 x 32 mm			

**SCS CHROMEplus® double ring spanner set, 75° offset**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	Weight
782.2004 4 pcs	290.0	188.0	35.0	1.74
4 x	20 x 22 - 21 x 23 - 24 x 27 - 30 x 32 mm			





### SCS Double swivel wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>713.1005</b> 5 pcs	390,0	188,0	35,0	920
5 x	8 x 9 - 10 x 11 - 12 x 13 - 14 x 15 16 x 17 mm			

### SCS Pipe head box wrench set

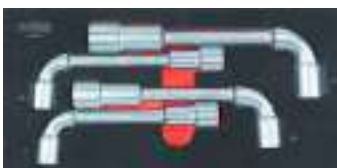
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>713.2011</b> 11 pcs	390,0	188,0	35,0	2,70
11 x	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 mm			

### SCS pipe head box wrench set

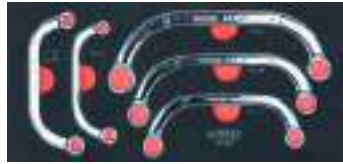
- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>713.4004</b> 4 pcs	390,0	188,0	35,0	3,00
4 x	21 - 22 - 24 - 27 mm			

### SCS CHROMEplus® half moon- and manifold spanner set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>783.2005</b> 5 pcs	390,0	188,0	35,0	0,90
5 x	10 x 12 - 11 x 13 - 14 x 17 - 16 x 18 19 x 22 mm			

### 1/3 SCS - SOCKET WRENCH 1/4" - METRIC

#### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>713.4030</b> 30 pcs	390,0	188,0	35,0	0,90
12 x	4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
3 x	4 - 5,5 - 8 mm			
2 x	PH1 - PH2			
2 x	PZ1 - PZ2			
5 x	3 - 4 - 5 - 6 - 8 mm			
2 x	50 - 150 mm			
1 x	150 mm			
1 x	1/4"			
1 x	110 mm			
1 x	140 mm			



### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>783.4030</b> 30 pcs	390,0	188,0	35,0	0,95
12 x	4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
3 x	4 - 5,5 - 8 mm			
2 x	PH1 - PH2			
2 x	PZ1 - PZ2			
5 x	3 - 4 - 5 - 6 - 8 mm			
2 x	50 - 150 mm			
1 x	150 mm			
1 x	1/4"			
1 x	110 mm			
1 x	140 mm			

#### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
<b>713.4037</b> 37 pcs	390,0	188,0	35,0	0,95
12 x	4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
6 x	E4 - E5 - E6 - E7 - E8 - E10			
5 x	3 - 4 - 5 - 6 - 8 mm			
9 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40			
1 x	100 mm			
1 x	150 mm			
1 x	1/4"			
1 x	110 mm			
1 x	140 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>783.4037</b>	37 pcs	390,0	188,0	35,0	1,05
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
6 x		E4 - E5 - E6 - E7 - E8 - E10			
5 x		3 - 4 - 5 - 6 - 8 mm			
9 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40			
1 x		100 mm			
1 x		150 mm			
1 x		1/4"			
1 x		110 mm			
1 x		140 mm			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>713.0040</b>	40 pcs	390,0	188,0	35,0	0,94
10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
3 x		1/4": 8 - 10 - 13 mm			
3 x		1/4": 4,5 - 6,5 - 8 mm			
3 x		1/4": PH1 - PH2 - PH3			
3 x		1/4": PZ1 - PZ2 - PZ3			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
7 x		1/4": TB10 - TB15 - TB20 TB25 TB27 - TB30 - TB40			
2 x		1/4": 50 - 150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>783.0040</b>	40 pcs	390,0	188,0	35,0	0,98
10 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
3 x		1/4": 8 - 10 - 13 mm			
3 x		1/4": 4,5 - 6,5 - 8 mm			
3 x		1/4": PH1 - PH2 - PH3			
3 x		1/4": PZ1 - PZ2 - PZ3			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
7 x		1/4": TB10 - TB15 - TB20 TB25 TB27 - TB30 - TB40			
2 x		1/4": 50 - 150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>713.0042</b>	42 pcs	390,0	188,0	35,0	1,30
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm			
3 x		4 - 4,5 - 8 mm			
5 x		3 - 4 - 5 - 6 - 8 mm			
2 x		PH1 - PH2			
2 x		PZ1 - PZ2			
1 x		1/4"Fx3/8"M			
2 x		50 - 100 mm			
1 x		150 mm			
1 x		1/4"			
1 x		110 mm			
1 x		140 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>783.0042</b>	42 pcs	390,0	188,0	35,0	1,30
12 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
11 x		4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm			
3 x		4 - 5 - 8 mm			
5 x		3 - 4 - 5 - 6 - 8 mm			
1 x		PH2			
3 x		PZ1 - PZ2 - PZ4			
1 x		1/4"Fx3/8"M			
2 x		50 - 150 mm			
1 x		150 mm			
1 x		1/4"			
1 x		110 mm			
1 x		140 mm			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
<b>713.0045</b>	45 pcs	390,0	188,0	35,0	1,01
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm			
7 x		1/4": E4 - E5 - E6 - E7 - E8 - E10 E11			
3 x		1/4": 4 - 5,5 - 8 mm			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40			
2 x		1/4": 50 - 150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



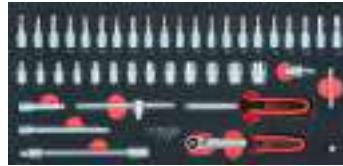
1/4"

		L mm	B mm	H mm	
783.0045	45 pcs	390,0	188,0	35,0	1,18
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
7 x		1/4": E4 - E5 - E6 - E7 - E8 - E10 - E11			
3 x		1/4": 4 - 5,5 - 8 mm			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
2 x		1/4": 50 - 150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			



### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

		L mm	B mm	H mm	
713.2046	46 pcs	390,0	188,0	35,0	1,10
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
3 x		4 - 5,5 - 7 mm			
3 x		PH1 - PH2 - PH3			
2 x		PZ1 - PZ2			
6 x		3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40			
2 x		50 - 100 mm			
1 x		150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
4 x		1 - 1,5 - 2 - 2,5 mm			
1 x		1/4" x 1/4"			
1 x		1/4"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

		L mm	B mm	H mm	
783.2046	46 pcs	390,0	188,0	35,0	1,13
13 x		4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
3 x		4 - 5,5 - 7 mm			
3 x		PH1 - PH2 - PH3			
2 x		PZ1 - PZ2			
6 x		3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40			
2 x		50 - 100 mm			

1 x		150 mm
1 x		1/4"
1 x		1/4"
1 x		1/4"
4 x		1 - 1,5 - 2 - 2,5 mm
1 x		1/4" x 1/4"
1 x		1/4"

### SCS Universal bit set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

		L mm	B mm	H mm	
713.0101	101 pcs	390,0	188,0	35,0	1,30
1 x		1/4"			
1 x		100 mm			
1 x		60 mm			
1 x		190 mm			
1 x		30 mm			
1 x		1/4"			
3 x		75 mm x (4 - 5 - 6 mm)			
3 x		75 mm x (TB15 - TB20 - TB30)			
4 x		75 mm x (#1 - #2 - #3 - #4)			
3 x		75 mm x (6 - 8 - 10 mm)			
4 x		75 mm x (4 - 6 - 8 - 10 mm)			
9 x		25 mm x (3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm)			
9 x		25 mm x (1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm)			
12 x		25 mm x (2 - 2,5 - 3 - 4 - 5 - 6 mm - 5/32" - 9/64" - 1/8" - 7/64" - 3/32" 5/64")			
4 x		25 mm x (#1 - #2 - #3 - #4)			
4 x		25 mm x (#0 - #1 - #2 - #3)			
4 x		25 mm x (4 - 6 - 8 - 10 mm)			
9 x		25 mm x (T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45)			
3 x		25 mm x (T8 - T10 - T15 - T20 - T25 - T27 - T30 - T35 - T40)			
9 x		25 mm x (6 - 8 - 10 mm)			
3 x		25 mm x (M5 - M6 - M8)			
3 x		25 mm x (#1 - #2 - #3)			
5 x		25 mm x (PH0 - PH1 - 2 x PH2 - PH3)			
5 x		25 mm x (PZ0 - PZ1 - 2 x PZ2 - PZ3)			

**1/3 SCS - SOCKET WRENCH 1/4" - IMPERIAL**

**SCS Socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg
<b>713.2047</b> 47 pcs	390,0	188,0	35,0	1,26
10 x	5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
10 x	5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
3 x	4 - 5 - 7 mm			
2 x	PH1 - PH2			
5 x	1/8" - 5/32" - 3/16" - 7/32" - 1/4"			
6 x	T10 - T15 - T20 - T25 - T30 - T40			
4 x	M4 - M5 - M6 - M8			
2 x	50 - 100 mm			
1 x	150 mm			
1 x	1/4"			
1 x	1/4"			
1 x	110 mm			
1 x	1/4"			

2 x		50 - 100 mm
1 x		150 mm
1 x		1/4"
1 x		1/4"
1 x		110 mm
1 x		1/4"

**1/3 SCS - SOCKET WRENCH 3/8" - METRIC**

**SCS Socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

	L mm	B mm	H mm	kg
<b>713.1017</b> 17 pcs	390,0	188,0	35,0	1,38
12 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
3 x	75 - 150 - 250 mm			
1 x	3/8"			
1 x	190 mm			

**SCS Socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

	L mm	B mm	H mm	kg
<b>713.2024</b> 24 pcs	390,0	188,0	35,0	1,54
14 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
5 x	4 - 5 - 6 - 8 - 10 mm			
1 x	3/8"			
1 x	160 mm			
2 x	150 - 250 mm			
1 x	3/8"			

**SCS CHROMEplus® Socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

	L mm	B mm	H mm	kg
<b>783.2024</b> 24 pcs	390,0	188,0	35,0	1,62
14 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
5 x	4 - 5 - 6 - 8 - 10 mm			
1 x	3/8"			
1 x	160 mm			
2 x	150 - 250 mm			
1 x	3/8"			

**SCS CHROMEplus® socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg
<b>783.2047</b> 47 pcs	390,0	188,0	35,0	1,26
10 x	5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
10 x	5/32" - 3/16" - 7/32" - 1/4" - 9/32" 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
3 x	4 - 5 - 7 mm			
2 x	PH1 - PH2			
5 x	1/8" - 5/32" - 3/16" - 7/32" - 1/4"			
6 x	T10 - T15 - T20 - T25 - T30 - T40			
4 x	M4 - M5 - M6 - M8			

**SCS CHROMEplus® socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

	L mm	B mm	H mm	kg
<b>783.1017</b> 17 pcs	390,0	188,0	35,0	1,60
12 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm			
3 x	75 - 150 - 250 mm			
1 x	3/8"			
1 x	190 mm			



### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

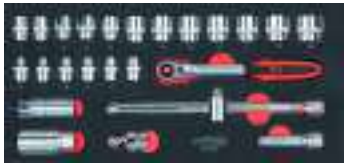


3/8"

		L mm	B mm	H mm	kg
713.3025	25 pcs	390,0	188,0	35,0	2,06
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			
2 x		16 - 21 mm			
2 x		75 - 250 mm			
1 x		3/8"			
1 x		3/8"			
1 x		1/2" x 3/8"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
783.3025	25 pcs	390,0	188,0	35,0	2,06
18 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 mm			
2 x		16 - 21 mm			
2 x		75 - 250 mm			
1 x		3/8"			
1 x		3/8"			
1 x		1/2" x 3/8"			



### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
713.0036	36 pcs	390,0	188,0	35,0	1,67
13 x		3/8": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm			
6 x		3/8": E6 - E7 - E8 - E10 - E12 - E14			
2 x		1/4": PH1 - PH2			
4 x		1/4": 5 - 6 - 7 - 8 mm			
6 x		1/4": T10 - T15 - T20 - T25 - T30 - T40			
2 x		3/8": 150 - 250 mm			
1 x		3/8"			
1 x		3/8"			
1 x		3/8"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
783.0036	36 pcs	390,0	188,0	35,0	1,84
13 x		3/8": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 21 - 22 mm			
6 x		3/8": E6 - E7 - E8 - E10 - E12 - E14			
2 x		1/4": PH1 - PH2			
4 x		1/4": 5 - 6 - 7 - 8 mm			
6 x		1/4": T10 - T15 - T20 - T25 - T30 - T40			
2 x		3/8": 150 - 250 mm			
1 x		3/8"			
1 x		3/8"			
1 x		3/8"			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
713.0021	21 pcs	390,0	188,0	35,0	1,06
8 x		3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
2 x		8 - 10 mm			
8 x		T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50			
3 x		M5 - M6 - M10			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
783.0021	21 pcs	390,0	188,0	35,0	1,03
8 x		3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
2 x		8 - 10 mm			
8 x		T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50			
3 x		M5 - M6 - M10			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

		L mm	B mm	H mm	kg
713.0039	39 pcs	390,0	188,0	35,0	1,83
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
5 x		3/8": 5,5 - 6,5 - 8 - 10 - 12 mm			
3 x		3/8": PH1 - PH2 - PH3			
3 x		3/8": PZ1 - PZ2 - PZ3			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm			
7 x		3/8": T20 - T25 - T27 - T30 - T40 T45 - T50			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

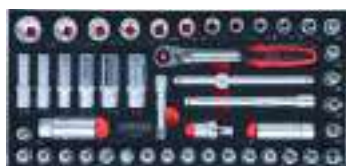


	L mm	B mm	H mm	kg
783.0039 39 pcs	390,0	188,0	35,0	1,84
8 x	3/8"	E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14		
5 x	3/8"	5,5 - 6,5 - 8 - 10 - 12 mm		
3 x	3/8"	PH1 - PH2 - PH3		
3 x	3/8"	PZ1 - PZ2 - PZ3		
7 x	3/8"	T20 - T25 - T27 - T30 - T40 - T45 - T50		
6 x	3/8"	4 - 5 - 6 - 7 - 8 - 10 mm		
7 x	3/8"	T20 - T25 - T27 - T30 - T40 - T45 - T50		

### 1/3 SCS - SOCKET WRENCH 3/8" - IMPERIAL

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
713.4046 46 pcs	390,0	188,0	35,0	2,74
11 x	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"			
6 x	3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"			
2 x	5/8" - 13/16"			
7 x	1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
10 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			
5 x	M4 - M5 - M6 - M8 - M10			
2 x	75 - 150 mm			
1 x	3/8"			
1 x	160 mm			
1 x	3/8"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Made from high quality foam
- Mirror polished



	L mm	B mm	H mm	kg
783.4046 46 pcs	390,0	188,0	35,0	3,00
11 x	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8"			
6 x	3/8" - 7/16" - 1/2" - 9/16" - 11/16" - 3/4"			
2 x	5/8" - 13/16"			
7 x	1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
10 x	T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			
5 x	M4 - M5 - M6 - M8 - M10			
2 x	75 - 150 mm			
1 x	3/8"			
1 x	160 mm			
1 x	3/8"			



### 1/3 SCS - SOCKET WRENCH 1/2"

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
713.5005 5 pcs	390,0	188,0	35,0	1,85
1 x	1/2"			
2 x	125 - 250 mm			
1 x	250 mm			
1 x	250 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
783.5005 5 pcs	390,0	188,0	35,0	1,60
1 x	1/2"			
2 x	125 - 250 mm			
1 x	250 mm			
1 x	250 mm			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
713.3018 18 pcs	390,0	188,0	35,0	2,14
14 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
1 x	1/2"			
2 x	125 - 250 mm			
1 x	1/2"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
783.3018 18 pcs	390,0	188,0	35,0	2,25
14 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
1 x	1/2"			
2 x	125 - 250 mm			
1 x	1/2"			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>713.4024</b>	24 pcs	390,0	188,0	35,0	3,60
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		16 - 21 mm			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		3/8" x 1/2"			
1 x		1/2"			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>783.4024</b>	24 pcs	390,0	188,0	35,0	3,16
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
2 x		16 - 21 mm			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		3/8" x 1/2"			
1 x		1/2"			



### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>713.4025</b>	25 pcs	390,0	375,0	35,0	2,87
16 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm			
5 x		E10 - E12 - E14 - E16 - E18			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		245 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>783.4025</b>	25 pcs	390,0	375,0	35,0	2,95
16 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 mm			
5 x		E10 - E12 - E14 - E16 - E18			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		245 mm			



### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>713.0028</b>	28 pcs	390,0	188,0	35,0	3,24
11 x		12 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
13 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 30 mm			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		245 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>783.0028</b>	28 pcs	390,0	188,0	35,0	3,31
11 x		12 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
13 x		8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 30 mm			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		245 mm			

### SCS Hexagonal socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>713.0026</b>	26 pcs	390,0	188,0	35,0	2,59
19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm			



### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
783.0026	26 pcs	390,0	188,0	35,0	2,51
19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
713.4026	26 pcs	390,0	375,0	35,0	2,61
19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm			

### SCS CHROMEplus® socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
783.4026	26 pcs	390,0	375,0	35,0	2,60
19 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
7 x		6 - 7 - 8 - 9 - 10 - 12 - 14 mm			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
713.2010	10 pcs	390,0	188,0	35,0	1,09
5 x		5 - 6 - 7 - 8 - 10 mm			
5 x		4 - 6 - 7 - 8 - 10 mm			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
783.2010	10 pcs	390,0	188,0	35,0	1,01
5 x		5 - 6 - 7 - 8 - 10 mm			
5 x		4 - 6 - 7 - 8 - 10 mm			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

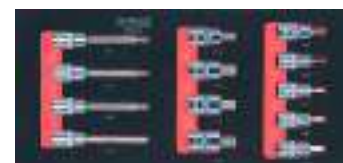


1/2"

		L mm	B mm	H mm	
713.0013	13 pcs	390,0	188,0	35,0	1,54
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
4 x		6 - 7 - 8 - 10 mm			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
783.0013	13 pcs	390,0	188,0	35,0	1,50
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
4 x		6 - 7 - 8 - 10 mm			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
713.0015	15 pcs	390,0	188,0	35,0	1,75
9 x		5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm			
6 x		5 - 6 - 8 - 10 - 12 - 14 mm			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
783.0015	15 pcs	390,0	188,0	35,0	1,61
9 x		5 - 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 mm			
6 x		5 - 6 - 8 - 10 - 12 - 14 mm			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>713.4010</b> 10 pcs	390,0	188,0	35,0	1,24
6 x	M5 - M8 - M10 - M12 - M14 - M16			
4 x	M8 - M9 - M12 - M14			

### SCS CHROMEplus® Bit socket set for Torx screws

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

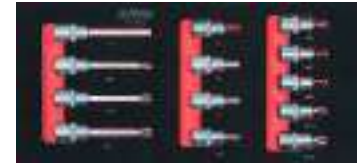


1/2"

	L mm	B mm	H mm	kg
<b>783.4019</b> 19 pcs	390,0	188,0	35,0	1,88
9 x	T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
9 x	T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
1 x	E1 x T5 - E30 x T70			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>713.2013</b> 13 pcs	390,0	188,0	35,0	1,36
4 x	5 - 6 - 7 - 8 mm			
1 x	10 mm			
5 x	M5 - M6 - M8 - M10 - M12			
3 x	M8 - M10 - M12			

### SCS CHROMEplus® Bit socket set for spline (XZN®) screws

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>783.4010</b> 10 pcs	390,0	188,0	35,0	1,18
6 x	M5 - M8 - M10 - M12 - M14 - M16			
4 x	M8 - M10 - M12 - M14			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>713.9011</b> 11 pcs	390,0	188,0	35,0	1,40
5 x	5 - 6 - 7 - 8 - 10 mm			
1 x	T70 x 110 mm			
2 x	T45 - T55 x 140 mm			
3 x	M8 - M10 - M12			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>783.2013</b> 13 pcs	390,0	188,0	35,0	1,23
4 x	5 - 6 - 7 - 8 mm			
1 x	10 mm			
5 x	M5 - M6 - M8 - M10 - M12			
3 x	M8 - M10 - M12			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>713.4019</b> 19 pcs	390,0	188,0	35,0	1,88
9 x	T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
9 x	T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
1 x	E1 x T5 - E30 x T70			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>783.9011</b> 11 pcs	390,0	188,0	35,0	1,40
5 x	5 - 6 - 7 - 8 - 10 mm			
1 x	T70 x 110 mm			
2 x	T45 - T55 x 140 mm			
3 x	M8 - M10 - M14			

### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg
<b>713.4013</b> 13 pcs	390,0	188,0	35,0	2,69
5 x	T30 - T40 - T45 - T50 - T55			
4 x	M6 - M8 - M9 - M12			
4 x	M6 - M8 - M10 - M12			

### SCS CHROMEplus® bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>783.4013</b>	13 pcs	390,0	188,0	35,0	2,75
5 x		T30 - T40 - T45 - T50 - T55			
4 x		M6 - M8 - M9 - M12			
4 x		M6 - M8 - M10 - M12			



### SCS Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>713.0032</b>	32 pcs	390,0	188,0	35,0	3,50
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
4 x		6 - 8 - 10 - 12 mm			
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
4 x		T30 - T40 - T50 - T60			
4 x		M5 - M6 - M8 - M10			
4 x		M6 - M8 - M10 - M12			

### SCS CHROMEplus® Bit socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>783.0032</b>	32 pcs	390,0	188,0	35,0	6,30
8 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
4 x		6 - 8 - 10 - 12 mm			
8 x		T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60			
4 x		T30 - T40 - T50 - T60			
4 x		M5 - M6 - M8 - M10			
4 x		M6 - M8 - M10 - M12			

### 1/3 SCS - SOCKET WRENCH 1/4" + 1/2" - METRIC

### SCS Torx E-Profile tool set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>713.2025</b>	25 pcs	390,0	188,0	35,0	1,20
9 x		1/4": E4 - E5 - E6 - E8, 1/2": E10 - E12 - E14 - E18 - E20			
5 x		1/2": T40 - T45 - T50 - T55 - T60			
7 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30			
4 x		E6 x E8 - E10 x E12 - E14 x E18 E20 x E24			



### SCS CHROMEplus® Torx-E-profile tool set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>783.2025</b>	25 pcs	390,0	188,0	35,0	1,20
9 x		1/4": E4 - E5 - E6 - E8, 1/2": E10 - E12 - E14 - E18 - E20			
5 x		1/2": T40 - T45 - T50 - T55 - T60			
7 x		1/4": TB8 - TB10 - TB15 - TB20 TB25 - TB27 - TB30			
4 x		E6 x E8 - E10 x E12 - E14 x E18 E20 x E24			

### SCS Socket set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>713.3047</b>	47 pcs	390,0	188,0	35,0	2,14
8 x		1/4": 5 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
3 x		1/4": 4 - 4,5 - 5,5 mm			
5 x		1/4": 2 - 3 - 4 - 5 - 6 mm			
2 x		1/4": PH1 - PH2			
2 x		1/4": PZ1 - PZ2			
5 x		1/4": T10 - T15 - T20 - T25 - T30			
1 x		1/4"			
1 x		1/4"			
1 x		1/4": 100 mm			
1 x		1/4"			
14 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2"			

**SCS CHROME<sup>plus</sup> socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10 11

	L mm	B mm	H mm	Icon
<b>383.3901</b> 47 pcs	300,0	180,0	35,5	3.80
8 x	1/4": 5 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
3 x	1/4": 4 - 4,5 - 5,5 mm			
5 x	1/4": 2 - 3 - 4 - 5 - 6 mm			
2 x	1/4": PH1 - PH2			
2 x	1/4": PZ1 - PZ2			
5 x	1/4": T10 - T15 - T20 - T25 - T30			
1 x	1/4"			
1 x	1/4"			
1 x	1/4": 100 mm			
1 x	1/4"			
1 x	1/4"			
14 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 mm			
2 x	1/2": 125 - 250 mm			
1 x	1/2"			

**SCS Bit socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10 11

	L mm	B mm	H mm	Icon
<b>383.9001</b> 31 pcs	300,0	180,0	35,5	1.30
7 x	1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
5 x	1/2": T30 - T40 - T45 - T50 - T55			
5 x	1/4": E5 - E6 - E7 - E8 - E10			
6 x	1/2": E10 - E12 - E14 - E16 - E18 - E20			
1 x	TB10 - TB15 - TB20 - TB25 - TB30 - TB40 - TB45 - TB50			


**SCS CHROME<sup>plus</sup> spark plug service set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10 11 12

	L mm	B mm	H mm	Icon
<b>783.9001</b> 27 pcs	300,0	180,0	35,5	3.25
20 x	1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm 1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
1 x	3/8"			
1 x	3/8" - 150 mm			
1 x	3/8" - 150 mm			
4 x	14 - 16 - 18 - 21 mm			

**1/3 SCS - IMPACT SOCKET WRENCH - METRIC**
**SCS Impact socket set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10

	L mm	B mm	H mm	Icon
<b>713.9012</b> 10 pcs	300,0	180,0	35,5	3.05
12 x	10 - 13 - 14 - 16 - 17 - 18 - 19 - 21 - 22 - 23 - 24 - 27 mm			

**SCS CHROME<sup>plus</sup> Bit socket set for Torx screws**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10 11

	L mm	B mm	H mm	Icon
<b>783.9001</b> 31 pcs	300,0	180,0	35,5	1.15
7 x	1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
5 x	1/2": T30 - T40 - T45 - T50 - T55			
5 x	1/4": E5 - E6 - E7 - E8 - E10			
6 x	1/2": E10 - E12 - E14 - E16 - E18 - E20			
1 x	TB10 - TB15 - TB20 - TB25 - TB30 - TB40 - TB45 - TB50			

**1/3 SCS - SOCKET WRENCH 1/4" + 3/8" + 1/2" - METRIC**
**SCS Spark plug service set**

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



10 11 12

	L mm	B mm	H mm	Icon
<b>713.9001</b> 27 pcs	300,0	180,0	35,5	3.25
20 x	1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm 1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
1 x	3/8"			
1 x	3/8" - 150 mm			
1 x	3/8" - 150 mm			
4 x	14 - 16 - 18 - 21 mm			



### SCS impact socket wrench and bit set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



5/16" 1/2"

	L mm	B mm	H mm	kg	
713.0019	19 pcs	390,0	188,0	35,0	2,11
5 x		1/2": 10 - 13 - 14 - 17 - 19 mm			
4 x		5/16": 4 - 5 - 6 - 7 mm			
4 x		5/16": PH1 - PH2 - PH3 - PH4			
4 x		5/16": 5 - 8 - 10 - 14 mm			
1 x		1/2" x 5/16"			
1 x		1/2": 135 mm			

### SCS impact socket and bit set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



5/16" 1/2"

	L mm	B mm	H mm	kg	
713.2023	23 pcs	390,0	188,0	35,0	3,10
5 x		1/2": 10 - 13 - 14 - 17 - 19 mm			
4 x		1/2": 17 - 19 - 21 - 22 mm			
1 x		1/2": 38 mm			
1 x		1/2": 135 mm			
4 x		5/16": 5 - 8 - 10 - 14 mm			
4 x		5/16": PH1 - PH2 - PH3 - PH4			
4 x		5/16": 5 - 6 - 7 - 10 mm			



### 1/3 SCS - SCREWDRIVER

#### SCS ERGOTORQUEplus® screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.0006	6 pcs	390,0	188,0	35,0	0,43
4 x		4 - 5,5 - 6,5 - 8 mm			
2 x		PH1 - PH2			

#### SCS ERGOTORQUEplus® screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.1006	6 pcs	390,0	188,0	35,0	0,84
4 x		4,0 - 5,5 - 6,5 - 8,0 mm			
2 x		PZ1 - PZ2			

#### SCS T-handle Torx-key wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.2009	9 pcs	390,0	188,0	35,0	1,35
9 x		(T10 - T15 - T20 - T25 - T27 - T30) x 100, T40 x 200 (T45 - T50) x 250 mm			



#### SCS ERGOTORQUEplus® screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.9005	5 pcs	390,0	188,0	35,0	0,25
5 x		TB10 - TB15 - TB20 - TB25 - TB27			

#### SCS ERGOTORQUEplus® socket screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.3006	6 pcs	390,0	188,0	35,0	0,65
6 x		5,5 - 6 - 7 - 8 - 9 - 10 mm			

#### SCS CHROMEplus® T-handle hex key wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
713.0008	8 pcs	390,0	188,0	35,0	1,10
8 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm			

### SCS Torx T-handle key wrench-set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.3009	9 pcs	390,0	188,0	35,0	1,39
9 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50			

### SCS T-handle hex key wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.4006	6 pcs	390,0	188,0	35,0	0,41
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm			

### SCS ERGOTORQUE<sup>plus</sup> T-handle key wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.5004	4 pcs	390,0	188,0	35,0	0,64
4 x		7 - 8 - 10 - 13 mm			



### 1/3 SCS - PLIERS

#### SCS Pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.6004	4 pcs	390,0	188,0	35,0	1,18
1 x		160 mm			
1 x		180 mm			
1 x		200 mm			
1 x		240 mm			

#### SCS Circlip pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.5006	6 pcs	390,0	188,0	35,0	0,80
2 x		10 - 25 mm, 19 - 60 mm			
1 x		19 - 60 mm			
2 x		12 - 25 mm, 19 - 60 mm			
1 x		19 - 60 mm			

#### SCS automatic grip pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.1003	3 pcs	390,0	188,0	35,0	1,08
2 x		175 - 250 mm			
1 x		150 mm			

### SCS grip pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.8004	4 pcs	390,0	188,0	35,0	1,86
2 x		175 - 250 mm			
1 x		150 mm			
1 x		285 mm			

#### SCS Pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.9004	4 pcs	390,0	188,0	35,0	1,25
1 x		180 mm			
1 x		160 mm			
1 x		160 mm			
1 x		250 mm			

#### SCS pliers and scraper set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	
713.1004	4 pcs	390,0	188,0	35,0	0,66
1 x		160 mm			
1 x		160 mm			
2 x		25x200 - 12,5x300 mm			

### SCS hammer and grip pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2003	3 pcs	390,0	188,0	35,0	1,11
2 x		175 - 250 mm			
1 x		200 g			

### 1/3 SCS - VDE

#### SCS VDE socket wrench set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2018	18 pcs	390,0	188,0	35,0	1,47
15 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 16 17 - 18 - 19 - 20 - 22 mm			
2 x		125 - 250 mm			
1 x		205 mm			

#### SCS VDE screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2007	7 pcs	390,0	188,0	35,0	0,68
4 x		2,5 - 3,0 - 3,5 - 4,0 mm			
3 x		PH1 - PH2 - PH3			

### SCS VDE screwdriver set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2006	6 pcs	390,0	188,0	35,0	0,58
4 x		4,0 - 5,5 - 6,5 - 8,0 mm			
2 x		PZ1 - PZ2			

### SCS Insulated pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.0003	3 pcs	390,0	188,0	35,0	1,00
1 x		160 mm			
1 x		200 mm			
1 x		208 mm			

### SCS VDE pliers set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.7004	4 pcs	390,0	188,0	35,0	1,11
1 x		156 mm			
1 x		175 mm			
1 x		165 mm			
1 x		240 mm			

### 1/3 SCS - MEASURING AND CHECKING TOOL

#### SCS Measuring tool set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.3005	5 pcs	390,0	188,0	35,0	0,58
1 x		230 mm			
1 x		190 mm			
1 x		E1 x T5 - E30 x T70			
1 x		0 - 150 mm			
1 x		5 m x 19 mm			

#### SCS Measuring tool set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2008	8 pcs	390,0	188,0	35,0	1,19
1 x		0 - 10 mm			
1 x		0 - 150 mm			
1 x		300 x 13 x 0,5 mm			
1 x		3 m x 16 mm			
1 x					
1 x					
1 x		100 mm			
1 x					



### 1/3 SCS - PULLER

#### SCS Puller set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

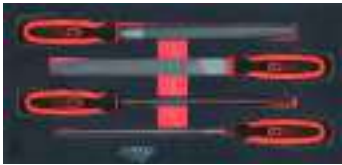


		L mm	B mm	H mm	kg
713.2005	5 pcs	390,0	188,0	35,0	1,63
3 x					
1 x					
1 x					

### 1/3 SCS - WORKSHOP SUPPLIES

#### SCS Workshop file set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.3004	4 pcs	390,0	188,0	35,0	0,86
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			

#### SCS chisel and hammer set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.0009	9 pcs	390,0	188,0	35,0	1,04
1 x		130 mm			
1 x		130 mm			
1 x		2 - 3 - 4 - 5 - 6 - 8 mm			
1 x		300 g			

### SCS Universal tool set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.2014	14 pcs	390,0	188,0	35,0	0,75
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
1 x		200 g			
1 x		12,5 x 300 mm			
1 x		0,1 - 1,0 mm			
1 x		3 m x 16 mm			

#### SCS Drive punch and hammer set

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.8013	13 pcs	390,0	188,0	35,0	1,75
1 x					
1 x		2 - 3 - 4 - 5 - 6 - 8			
1 x		500 g			
1 x		160 mm			

### 1/3 SCS - EMPTY INSERTS

#### SCS Universal system insert for tools or small parts (empty)

- 1/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
713.0000		390,0	188,0	35,0	0,10

### Anti slip mat

- Thickness 10 mm
- Uncut for self modelling



	L mm	B mm	kg
800.0920	10000,0	600,0	2,50

### 2/3 SCS - SPANNER - METRIC

#### SCS Combination spanners set, offset

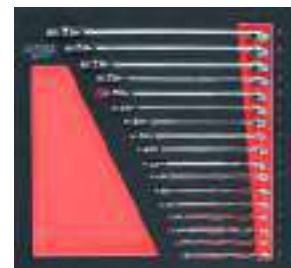
- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
712.2017	17 pcs	390,0	375,0	35,0	1,90
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm			

#### SCS Combination spanners set, offset

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
782.2017	17 pcs	390,0	375,0	35,0	2,40
17 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 21 - 22 - 24 mm			



**SCS Combination spanners set, offset**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.3005	5 pcs	300,0	375,0	35,0	2,19
5 x	23 - 24 - 27 - 30 - 32 mm				

**SCS CHROMEplus Combination spanners set, offset**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.3006	5 pcs	300,0	375,0	35,0	2,26
5 x	23 - 24 - 27 - 30 - 32 mm				

**SCS Combination spanners set, offset**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0007	27 pcs	300,0	375,0	35,0	2,27
1 x	1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm				
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm				

**SCS CHROMEplus Combination spanners set, offset**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0007	27 pcs	300,0	375,0	35,0	2,27
1 x	1.5 - 2 - 2.5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm				
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm				

**SCS GEARplus ratchet combination spanner set, including adaptors**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.1818	16 pcs	300,0	198,0	35,0	1,68
1 x	1/4" x 10 mm				
3 x	1/4" x 10 mm - 3/8" x 13 mm 1/2" x 19 mm				
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm				

**SCS GEARplus reversing ratchet combination spanner set, including adaptors**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0018	16 pcs	300,0	198,0	35,0	1,68
1 x	1/4" x 10 mm				
3 x	1/4" x 10 mm - 3/8" x 13 mm 1/2" x 19 mm				
12 x	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm				

**SCS Double open ended spanner set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.3011	11 pcs	300,0	375,0	35,0	2,81
11 x	6/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 - 36x41 mm				

**SCS CHROMEplus double open ended spanner set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.3011	11 pcs	300,0	375,0	35,0	4,40
11 x	6/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 - 36x41 mm				

**SCS Double ring spanner set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.5011	11 pcs	300,0	375,0	35,0	1,30
11 x	6/7 - 8/9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 mm				

### SCS double ring spanner set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0900	9 pcs	360,0	375,0	35,0	1,70
9 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 mm				

### SCS CHROMEplus double ring spanner set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0900	9 pcs	360,0	375,0	35,0	1,90
9 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 mm				

### SCS Double revolving head spanner set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0914	14 pcs	360,0	375,0	35,0	2,45
2 x	10 x 11 - 12 x 13 mm				
5 x	T15 x T20 - T25 x T27 - T30 x T40 - T45 x T50 - T55 x T60				
4 x	E6 x E8 - E10 x E12 - E14 x E16 - E22 x E24				
3 x	3 x 4 - 5 x 6 - 8 x 10 mm				

### SCS Pipe head box wrench set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam

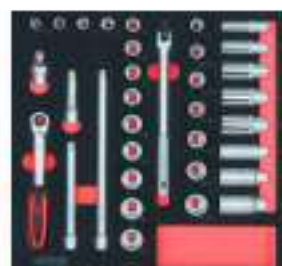


	L mm	B mm	H mm	Weight	
712.7010	11 pcs	390,0	375,0	35,0	5,20
11 x	8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm				

### 2/3 BCS - SOCKET WRENCH 3/8" - METRIC

#### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0934	24 pcs	390,0	375,0	35,0	5,00
13 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
7 x	1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 7/8"				
5 x	10 - 13 - 17 - 19 - 22 mm				
3 x	16 - 18 - 21 mm				
3 x	75 - 150 - 250 mm				
1 x	3/8"				
1 x	260 mm				
1 x	3/8"				



### SCS CHROMEplus socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0934	34 pcs	390,0	375,0	35,0	5,80
13 x	10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
7 x	1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" - 7/8"				
5 x	10 - 13 - 17 - 19 - 22 mm				
3 x	16 - 18 - 21 mm				
3 x	75 - 150 - 250 mm				
1 x	3/8"				
1 x	250 mm				
1 x	3/8"				

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight	
712.0932	53 pcs	390,0	375,0	35,0	5,30
8 x	3/8" E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14				
6 x	3/8" 4 - 5 - 6 - 7 - 8 - 10 mm				
5 x	3/8" 4 - 5 - 6 - 8 - 10 mm				
7 x	3/8" T20 - T25 - T27 - T30 - T40 - T45 - T50				
7 x	3/8" T820 - T825 - T827 - T830 - T840 - T845 - T850				
3 x	3/8" M5 - M6 - M8				
6 x	3/8" 4 - 5 - 6 - 7 - 8 - 10 mm				
7 x	3/8" T20 - T25 - T27 - T30 - T40 - T45 - T50				
3 x	3/8" M5 - M6 - M8				

### SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8"

	L mm	B mm	H mm	kg	
782.1052	52 pcs	390,0	375,0	35,0	2,45
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14			
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm			
5 x		3/8": 4 - 5 - 6 - 8 - 10 mm			
7 x		3/8": T20 - T25 - T27 - T30 - T40 - T45 - T50			
7 x		3/8": TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50			
4 x		3/8": M5 - M6 - M8 - M10			
6 x		3/8": 4 - 5 - 6 - 7 - 8 - 10 mm			
7 x		3/8": T20 - T25 - T27 - T30 - T40 - T45 - T50			



### 2/3 SCS - SOCKET WRENCH 1/2" - METRIC

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
712.0026	26 pcs	390,0	375,0	35,0	3,93
21 x		1/2": 10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-26-27-28-30-32-34 mm			
2 x		1/2": 125 - 250 mm			

1 x		1/2": 250 mm
1 x		1/2"
1 x		1/2"

### SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
782.0026	26 pcs	390,0	375,0	35,0	3,92
21 x		1/2": 10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-26-27-28-30-32-34 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2": 250 mm			
1 x		1/2"			
1 x		1/2"			

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
712.1029	29 pcs	390,0	375,0	35,0	6,18
24 x		10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32-34-36 mm			
1 x		1/2"			
2 x		150 - 250 mm			
1 x		380 mm			
1 x		1/2"			

### CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

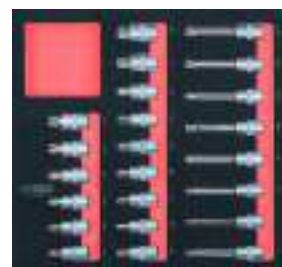


1/2"

	L mm	B mm	H mm	kg	
782.1029	29 pcs	390,0	375,0	35,0	4,80
24 x		10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32-34-36 mm			
1 x		1/2"			
2 x		150 - 250 mm			
1 x		380 mm			
1 x		1/2"			

### SCS Bit socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
712.0023	23 pcs	390,0	375,0	35,0	2,90
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M10 - M12 - M14			
4 x		6 - 7 - 8 - 9 mm			



### SCS CHROMEplus® Bit socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>782.0023</b>	23 pcs	390,0	375,0	35,0	2,70
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
6 x		M5 - M8 - M10 - M12 - M14 - M16			
4 x		M8 - M10 - M12 - M14			
4 x		6 - 7 - 8 - 9 mm			

### SCS Bit socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>712.0029</b>	29 pcs	390,0	375,0	35,0	3,50
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
8 x		M5 - M6 - M8 - M9 - M10 - M12 - M14 - M16			
2 x		M8 - M12 x 110 mm			
1 x		M12 x 140 mm			
5 x		6 - 7 - 8 - 9 - 10 mm			
1 x		50 mm			
3 x		50 - 125 - 250 mm			



### SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>782.0029</b>	29 pcs	390,0	375,0	35,0	3,53
9 x		5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 - 19 mm			
8 x		M5 - M6 - M8 - M9 - M10 - M12 - M14 - M16			
2 x		M8 - M12 x 110 mm			
1 x		M12 x 140 mm			
5 x		6 - 7 - 8 - 9 - 10 mm			
1 x		50 mm			
3 x		50 - 125 - 250 mm			

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>712.0039</b>	39 pcs	390,0	375,0	35,0	3,60
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60			
5 x		M6 - M8 - M9 - M12 - M14			
9 x		M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14			
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10			
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50			



### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
<b>712.4040</b>	40 pcs	390,0	375,0	35,0	6,18
4 x		E16 - E18 - E20 - E24			
16 x		10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 - 27 - 30 - 32 - 34 mm			
5 x		10 - 12 - 14 - 17 - 19 mm			
2 x		12 - 14 mm			
2 x		10 - 12 mm			
2 x		T55 - T60			
2 x		T55 - T60			
3 x		TB50 - TB55 - TB60			
2 x		M12 - M14			
2 x		M12 - M14			

### SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
782.4040	40 pcs	390,0	375,0	35,0	1,55
4 x		E16 - E18 - E20 - E24			
16 x		10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 21 - 22 - 24 - 27 - 30 - 32 - 34 mm			
5 x		10 - 12 - 14 - 17 - 19 mm			
2 x		12 - 14 mm			
2 x		10 - 12 mm			
2 x		T55 - T60			
2 x		T55 - T60			
3 x		TB50 - TB55 - TB60			
2 x		M12 - M14			
2 x		M12 - M14			

### 2/3 SCS - SOCKET WRENCH 1/2" - IMPERIAL

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
712.6030	30 pcs	390,0	375,0	35,0	5,30
15 x		3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"			
7 x		1/2" - 9/16" - 11/16" - 3/4" - 7/8" 15/16" - 1"			
2 x		5/8" - 13/16"			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		3/8" F x 1/2" M			
1 x		380 mm			
1 x		1/2"			

### SCS CHROMEplus® Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
782.6030	30 pcs	390,0	375,0	35,0	5,30
15 x		3/8" - 7/16" - 1/2" - 9/16" - 19/32" - 5/8" - 11/16" - 3/4" 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"			
7 x		1/2" - 9/16" - 11/16" - 3/4" - 7/8" 15/16" - 1"			
2 x		5/8" - 13/16"			
2 x		125 - 250 mm			
1 x		1/2"			
1 x		3/8" F x 1/2" M			
1 x		380 mm			
1 x		1/2"			

### 2/3 SCS - SOCKET WRENCH 1/4" + 1/2" - METRIC

### SCS Socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
712.0057	57 pcs	390,0	375,0	35,0	4,31
9 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
20 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm			
3 x		1/4": 4,5 - 6 - 6,5 mm			
2 x		1/4": PH1 - PH3			
2 x		1/4": PZ1 - PZ2			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x		1/4": T15 - T20 - T25 - T30			

2 x		1/4": 50 - 150 mm
2 x		1/2": 125 - 250 mm
1 x		1/2"
1 x		1/4"
1 x		1/4"
2 x		1/4" - 1/2"
2 x		1/4" - 1/2"

### SCS CHROMEplus® socket set

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
782.0057	57 pcs	390,0	375,0	35,0	4,30
9 x		1/4": 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
20 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-24-26-27-28-30-32 mm			
3 x		1/4": 4,5 - 6 - 6,5 mm			
2 x		1/4": PH1 - PH3			
2 x		1/4": PZ1 - PZ2			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x		1/4": T15 - T20 - T25 - T30			
2 x		1/4": 50 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/2"			
1 x		1/4"			
1 x		1/4"			
2 x		1/4" - 1/2"			
2 x		1/4" - 1/2"			



**2/3 SCS - SOCKET WRENCH 1/4" + 3/8" + 1/2" - METRIC**

**SCS Torx socket wrench set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



2/3 SCS

	L mm	B mm	H mm	Icon
<b>TKL8907</b>	57 pcs	200,0	275,0	35,0 2,31
7 x				1/4" E4 - E5 - E6 - E7 - E8 - E10 - E11
2 x				3/8" E12 - E14
4 x				1/2" E16 - E18 - E20 - E24
2 x				3/8" T40 - T45
3 x				1/2" T50 - T55 - T60
1 x				1/4" T20
10 x				1/4" TB7 - TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
1 x				1/4" x 1/4"
1 x				3/8" x 10 mm
1 x				1/4"
8 x				T6 - T9 - T10 - T15 - T20 - T25 - T27 - T30
2 x				T6 - T7
11 x				T6 - T7 - T8 - T9 - T15 - T20 - T25 - T27 - T30 - T40
4 x				E1xE6 - E11xE12 - E14xE18 - E20xE24

**2/3 SCS - SCREWDRIVER**

**SCS ERGOTORQUEplus screwdriver set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Icon
<b>TKL8911</b>	11 pcs	200,0	275,0	35,0 1,30

1 x		6 mm
6 x		3 - 4 - 5,5 - 6,5 - 8 - 10 mm
1 x		PH2
3 x		PH1 - PH2 - PH3

**SCS ERGOTORQUEplus screwdriver set**

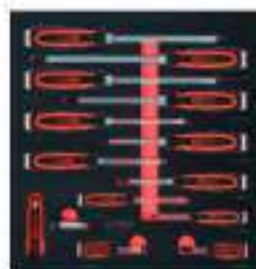
- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Icon
<b>TKL8912</b>	12 pcs	200,0	275,0	35,0 1,00
5 x		3 - 4 - 5,5 - 6,5 - 8 - 10 mm		
3 x		PH1 - PH2 - PH3		
1 x		PZ1		
1 x		6 mm		
1 x		PH2		
1 x		2,4 mm		

**SCS ERGOTORQUEplus screwdriver set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Icon
<b>TKL8913</b>	15 pcs	200,0	275,0	35,0 3,04
5 x		3,5 - 5,5 - 7 - 8 - 10 mm		
5 x		PH0 - PH1 - PH2 - PH3 - PH4		
1 x		6 mm		
1 x		PH2		
1 x		1/4"		

**SCS ERGOTORQUEplus screwdriver set**

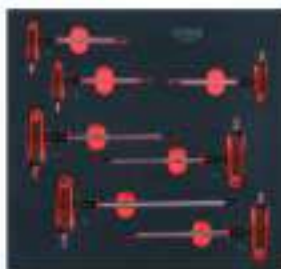
- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Icon
<b>TKL8920</b>	20 pcs	200,0	275,0	35,0 1,30
1 x		6 mm		
3 x		3 - 5,5 - 6 mm		
1 x		PH2		
3 x		PH1 - PH2 - PH3		
1 x		PZ2		
3 x		PZ1 - PZ2 - PZ3		
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm		

**SCS ERGOTORQUEplus T-handle Torx tamperproof key wrench set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

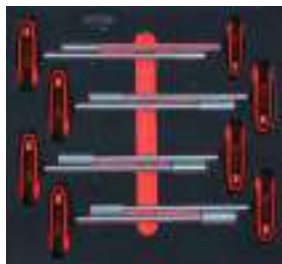


	L mm	B mm	H mm	Icon
<b>TKL8901</b>	7 pcs	200,0	275,0	30,0 0,84
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40		



**SCS ERGOTORQUEplus® T-handle socket screwdriver set**

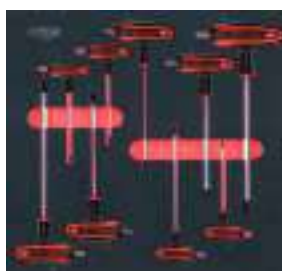
- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.1008	390,0	375,0	35,0	1,50
8 x	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			

**SCS ERGOTORQUEplus® T-handle hexagon socket key wrench set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.4009	390,0	375,0	35,0	1,55
9 x	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			



**2/3 SCS - WORKSHOP SUPPLIES**

**SCS chisel and measuring instrument set**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.0021	390,0	375,0	35,0	1,91
5 x	Ø 3 - 4 - 5 - 6 - 8 mm			
3 x	Ø 4 - 5 - 6 mm			
4 x	Ø 3 - 4 - 5 - 6 mm			
1 x	Ø 5 mm			
1 x	250 mm			
1 x	150 mm			
1 x	320 mm			
1 x	0 - 150 mm			
1 x	0,05 - 1,00 mm			
1 x	E1xT5 - E30xT70			
1 x	0,4 - 6,0 mm			
1 x	3 - 48 V			

**2/3 SCS - EMPTY INSERTS**

**SCS Universal system insert for tool or small parts (empty)**

- 2/3 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.0001	390,0	375,0	35,0	0,10

**Anti slip mat**

- Thickness 10 mm
- Uncut for self modelling



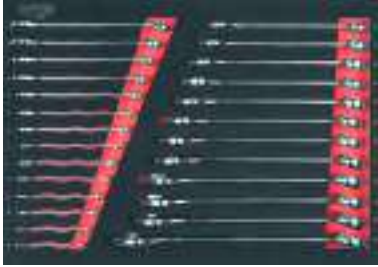
	L mm	B mm	kg
800.0920	10000,0	600,0	2,50



### 1/1 SCS - SPANNER - METRIC

#### SCS combination wrench set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.0026	26 pcs	390,0	564,0	35,0	5,50
26 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32 mm				

#### SCS CHROMEplus® combination spanner set

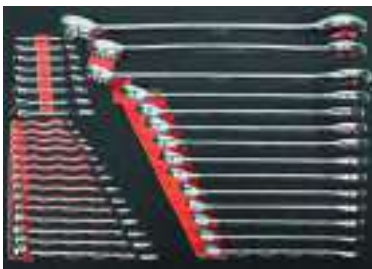
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
781.0026	26 pcs	390,0	564,0	35,0	5,50
26 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32 mm				

#### SCS spanner set

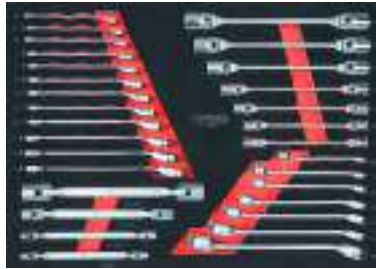
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.1036	36 pcs	390,0	564,0	35,0	8,46
28 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-26-27-28-29-30-32-34-36-38 mm				
8 x	10-11-12-13-14-15-16-17 mm				

#### SCS spanner set

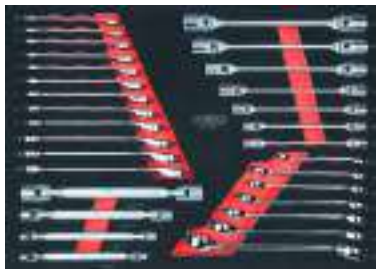
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.2030	30 pcs	390,0	564,0	35,0	4,82
12 x	8-9-10-11-12-13-14-15-16-17-18-19 mm				
7 x	6x7-8x9-10x11-12x13-14x15-16x17-18x19				
4 x	E6xE8-E10xE12-E14xE16-E22xE24				
7 x	8x10-12x13-13x14-14x15-17x19-19x22-24x27				

#### SCS CHROMEplus® spanner set

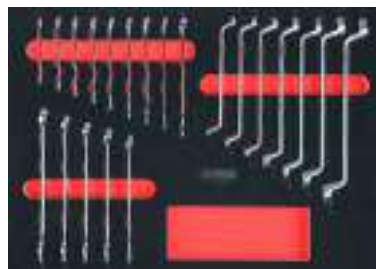
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
781.2030	30 pcs	390,0	564,0	35,0	5,20
12 x	8-9-10-11-12-13-14-15-16-17-18-19 mm				
7 x	6x7-8x9-10x11-12x13-14x15-16x17-18x19				
4 x	E6xE8-E10xE12-E14xE16-E22xE24				
7 x	8x10-12x13-13x14-14x15-17x19-19x22-24x27				

#### SCS Spanner set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.3021	21 pcs	390,0	564,0	35,0	2,14

14 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19			
7 x	6x7-8x9-10x11-12x13-14x15-16x17-18x19			

#### Spanner set

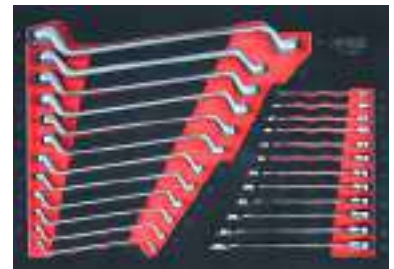
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



	L mm	B mm	H mm	kg	
711.0027	24 pcs	390,0	564,0	35,0	2,76
16 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19-21-22 mm				
8 x	10x11-12x13-14x15-16x17-18x19-20x22 mm				

#### SCS Spanner set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.0024	24 pcs	390,0	564,0	35,0	4,70
12 x	6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23-24x27-27x30-30x32 mm				
12 x	8-9-10-11-12-13-14-15-16-17-18-19 mm				

#### SCS CHROMEplus® spanner set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

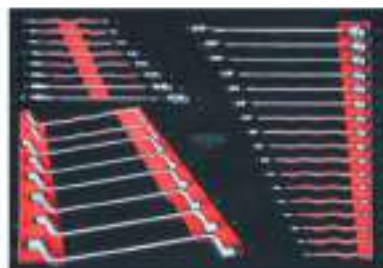


	L mm	B mm	H mm	kg	
781.0024	24 pcs	390,0	564,0	35,0	4,67
12 x	6x7-8x9-10x11-12x13-14x15-16x17-17x19-18x19-20x22-21x23-24x27-30x32 mm				
12 x	8-9-10-11-12-13-14-15-16-17-18-19 mm				



**SCS spanner set**

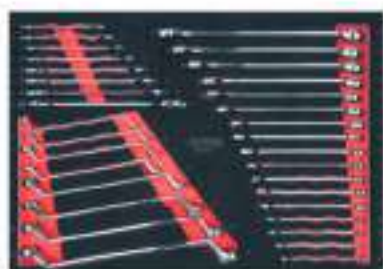
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	W	
T11.0002	33 pcs	300.0	54x3	35.0	4.25
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 - 21x23 mm				

**SCS CHROMEplus® spanner set**

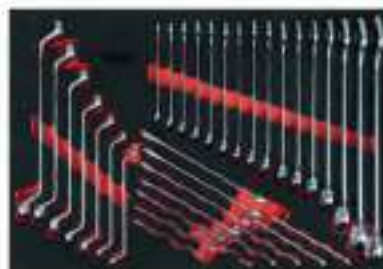
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	W	
T8C0005	33 pcs	300.0	54x3	35.0	4.70
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 21x23 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 - 21x23 mm				

**Spanner set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam

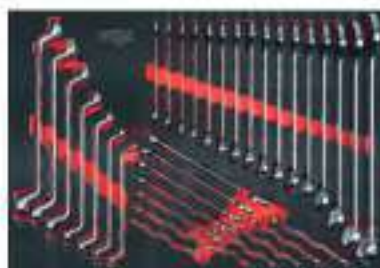


	L mm	D mm	H mm	W	
T11.3008	33 pcs	300.0	54x3	35.0	3.90

21 x	6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-24-27-30-32 mm	
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19	

**SCS spanner set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	W	
T11.0006	35 pcs	300.0	56x3	35.0	4.05
21 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm				
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm				
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 mm				

**SCS CHROMEplus® spanner set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

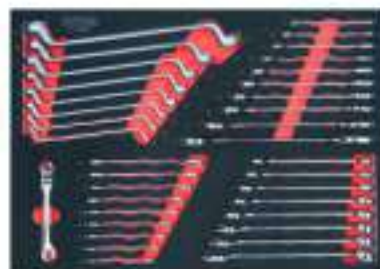


	L mm	D mm	H mm	W	
T8C.0022	35 pcs	300.0	56x3	35.0	6.24
21 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm				
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 mm				
7 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 mm				



**SCS Wrench set**

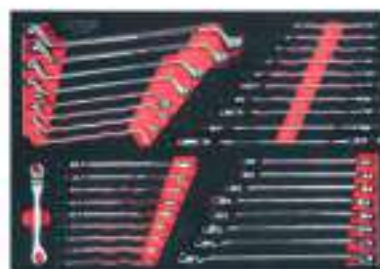
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	W	
T11.0008	35 pcs	300.0	54x3	35.0	4.80
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm				
10 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 - 21x23 mm				
1x	11 mm				

**SCS CHROMEplus® wrench set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	D mm	H mm	W	
T8C0006	34 pcs	300.0	54x3	35.0	5.60
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm				
10 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18 x19 - 21x23 mm				
1x	11 mm				

**SCS Wrench set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

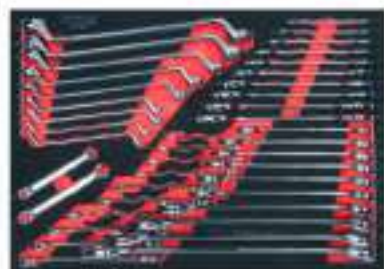


	L mm	D mm	H mm	W	
T11.0009	41 pcs	300.0	54x3	35.0	6.80

20 x		6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-22-24-27-30-32 mm
10 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23-24x27 mm
2 x		8x10-10x11 mm
9x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23 mm

**SCS CHROME<sup>plus</sup> wrench set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam






**SCS spanner set**





- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam








**SCS spanner set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	W mm	
7813041	41 pcs	290,0	94,0	25,0	2,91
20 x		6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-22-24-27-30-32 mm			
10 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23-24x27 mm			
2 x		8x10-10x11 mm			
9x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23 mm			

	L mm	B mm	H mm	W mm	
7118842	42 pcs	290,0	94,0	25,0	6,50
18 x		6-7-8-9-10-11-12-13-14-15-16-17-18-19-21-22-24-27 mm			
12 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-24x27-26x28-28x31-30x33 mm			
5 x		8x10-10x11-12x13-14x15-17x19 mm			
7 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19 mm			

	L mm	B mm	H mm	W mm	
7110048	48 pcs	300,0	94,0	25,0	7,52
7 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19			
11 x		8-10-11-12-13-14-16-18-17-18-19			
8 x		8x10-10x12-12x13-14x15-17x19-19x21-24x27-30x32			
3 x		10x12-11x13-14x17			
12 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23-22x24-24x27-30x32			
7 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19			







**SCS spanner set**





- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam


**SCS Spanner and pliers set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam

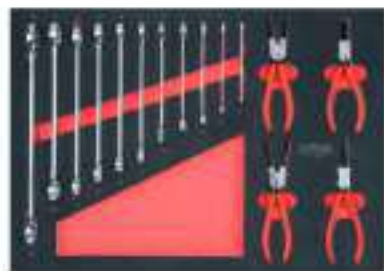


	L mm	B mm	H mm	W mm	
7118847	47 pcs	290,0	94,0	25,0	6,50
7 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19 mm			
12 x		8-9-10-11-12-13-14-15-16-17-18-19 mm			
19 x		10-11-12-13-14-15-16-17-18-19 mm			
8 x		8x10-10x11-12x13-14x15-17x19-19x21-24x27-30x32 mm			
7 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19 mm			
3 x		10x12-11x13-14x17 mm			

	L mm	B mm	H mm	W mm	
7112012	12 pcs	300,0	94,0	25,0	2,37
9 x		6x7-8x9-10x11-12x13-14x15-16x17-18x19-20x22-21x23			
1 x		160 mm			
1 x		160 mm			
1 x		240 mm			

**SCS double ring spanner and pliers set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Wt	
T11.2016	15 pcs	260.0	544.0	35.0	2.22
11 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 21x23 - 24x27 - 30x32 mm				
1 x	160 mm				
1 x	160 mm				
1 x	160 mm				
1 x	160 mm				

**SCS double spanner and bit set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Wt	
T11.3018	15 pcs	300.0	564.0	30.0	3.73
11 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 - 24x27 - 30x32 - 36x41				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				



**SCS combination wrench and screwdriver set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Wt	
T11.5027	27 pcs	300.0	564.0	30.0	5.66
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 - 24 mm				
5 x	3 - 4 - 6.5 - 8 - 10 mm				
2 x	PH1 - PH2				
1 x	6 mm				
1 x	PH2				
1 x	2.4 mm				

**SCS CHROMEplus® combination wrench and screwdriver set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Wt	
T11.2022	26 pcs	300.0	564.0	30.0	4.11
21 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm				
6 x	3x155 - 4x165 - 4x180 - 5.5x200 - 6.5x250 - 8x265 mm				
2 x	PH1 - PH2				

**SCS Spanner and hammer set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



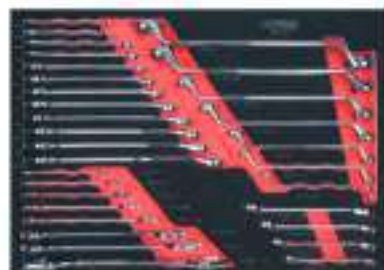
	L mm	B mm	H mm	Wt	
T11.3021	31 pcs	300.0	564.0	35.0	3.71
17 x	6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm				
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm				
1 x					
1 x	600 g				



1/1 SCS - SPANNER - IMPERIAL

**SCS CHROMEplus® wrench set inch**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Wt	
T11.0021	31 pcs	300.0	564.0	35.0	5.30
4 x	1/4" x 5/16" - 3/8" x 7/16" - 1/2" x 9/16" - 5/8" x 11/16"				
12 x	1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 15/16"				
7 x	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16				
8 x	1/4x5/16 - 3/8x7/16 - 1/2x9/16 - 5/8x11/16 - 3/4x13/16 - 7/8x15/16				

### SCS spanner and hammer set, imperial

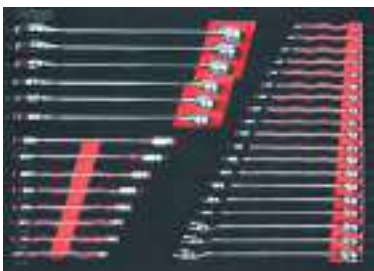
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
781.4031	31 pcs	390,0	564,0	35,0	7,40
16 x		1/4" - 5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4" - 13/16" - 7/8" - 5/16" - 1" - 1.1/16" - 1.1/8" - 1.1/4"			
9 x		1/4" x 5/16" - 3/8" x 7/16" - 1/2" x 9/16" - 9/16" x 5/8" - 5/8" x 11/16" - 11/16" x 3/4" - 3/4" x 7/8" - 15/16" x 1" - 1.1/8" x 1.1/4"			
1 x		500 g			

### SCS combination wrench set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.3033	33 pcs	390,0	564,0	35,0	5,77
8 x		5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4"			
25 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 mm			

### SCS CHROMEplus® combination spanner set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
781.3033	33 pcs	390,0	564,0	35,0	7,24

8 x		5/16" - 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4"
25 x		6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 mm



### 1/1 SCS - SOCKET WRENCH 1/4" - METRIC

#### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4"

	L mm	B mm	H mm	kg	
711.1095	95 pcs	390,0	564,0	35,0	3,72
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
8 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
3 x		1/4": 50 - 100 - 150 mm			
1 x		3,0 - 5,5 - PH1 - PH2			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
5 x		3 - 4 - 5,5 - 6,5 - 8 mm			
4 x		PH0 - PH1 - PH2 - PH3			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
1 x		11 x 115 mm			



### 1/1 SCS - SOCKET WRENCH 1/2" - METRIC

#### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>711.0061</b>	61 pcs	390,0	564,0	35,0	8,52
19 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-24-26-27-28-30-32 mm			
1 x		3/4": 32 mm			
2 x		1/2": 10 - 13 mm			
2 x		1/2": 17 - 19 mm			
4 x		1/2": 5 - 6 - 8 - 10 mm			
6 x		1/2": 5 - 6 - 7 - 8 - 9 - 10 mm			
5 x		1/2": T25 - T45 - T50 - T55 - T60			
1 x		1/2": T45			
5 x		1/2": M6 - M8 - M10 - M12 - M14			
4 x		1/2": M8 - M10 - M12 - M14			
1 x		1/2": M16			
1 x		1/2": M9			
1 x		3/4": M18			
2 x		1/2": 125 - 250 mm			
3 x		1/2": 50 - 125 - 250 mm			
1 x		1/2": 250 mm			
1 x		3/8"F x 1/2"M			
1 x		1/2"			
1 x		1/2"			



### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>781.0061</b>	61 pcs	390,0	564,0	35,0	8,49
19 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-24-26-27-28-30-32 mm			
1 x		3/4": 32 mm			
2 x		1/2": 10 - 13 mm			
2 x		1/2": 17 - 19 mm			
4 x		1/2": 5 - 6 - 8 - 10 mm			
6 x		1/2": 5 - 6 - 7 - 8 - 9 - 10 mm			
5 x		1/2": T25 - T45 - T50 - T55 - T60			
1 x		1/2": T45			
5 x		1/2": M6 - M8 - M10 - M12 - M14			
4 x		1/2": M8 - M10 - M12 - M14			
1 x		1/2": M16			
1 x		1/2": M9			
1 x		3/4": M18			
2 x		1/2": 125 - 250 mm			
3 x		1/2": 50 - 125 - 250 mm			
1 x		1/2": 250 mm			
1 x		3/8"F x 1/2"M			
1 x		1/2"			
1 x		1/2"			

#### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

		L mm	B mm	H mm	
<b>711.0066</b>	66 pcs	390,0	564,0	35,0	8,73

19 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-26-27-28-30-32 mm			
9 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
2 x		1/2": 17 - 19 mm			
9 x		1/2": 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm			
9 x		1/2": T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
4 x		1/2": TB30 - TB40 - TB45 - TB50			
2 x		1/2": 125 - 250 mm			
2 x		1/2": 50 - 250 mm			
1 x		1/2": 250 mm			
2 x		3/8"F x 1/2"M - 1/2"F x 3/8"M			
1 x		1/2"			
1 x		1/2"			
1 x		1/2": 380 mm			
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24			

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

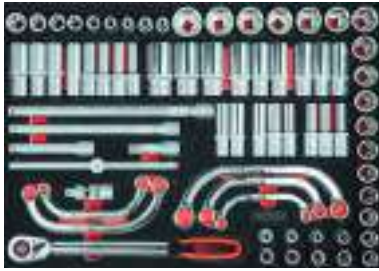


1/2"

		L mm	B mm	H mm	
<b>781.0066</b>	66 pcs	390,0	564,0	35,0	8,70
19 x		1/2": 10-11-12-13-14-15-16-17-18-19 20-21-22-23-26-27-28-30-32 mm			
9 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
2 x		1/2": 17 - 19 mm			
9 x		1/2": 6 - 7 - 8 - 9 - 10 - 12 - 14 - 17 19 mm			
9 x		1/2": T20 - T25 - T27 - T30 - T40 - T45 T50 - T55 - T60			
4 x		1/2": TB30 - TB40 - TB45 - TB50			
2 x		1/2": 125 - 250 mm			
2 x		1/2": 50 - 250 mm			
1 x		1/2": 250 mm			
2 x		3/8"F x 1/2"M - 1/2"F x 3/8"M			
1 x		1/2"			
1 x		1/2"			
1 x		1/2": 380 mm			
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24			

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
711.0071	71 pcs	390,0	564,0	35,0	10,90
25 x		8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32-34mm			
17 x		10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
9 x		E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
8 x		E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
4 x		1/2": 75 - 125 - 250 - 305 mm			
1 x		1/2": 250 mm			
1 x		1/2"			
1 x		1/2": 380 - 500 mm			
5 x		10x12 - 11x13 - 14x17 - 16x18 - 19x22 mm			

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
711.0095	95 pcs	390,0	564,0	35,0	12,94
24 x		1/2": 8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32			
24 x		1/2": 8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-32			
2 x		1/2": 16 - 21			
9 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
7 x		1/2": 6 - 7 - 8 - 10 - 12 - 14 - 17 mm			
7 x		1/2": T30 - T40 - T45 - T50 - T55 - T60 - T70			
7 x		1/2": TB30 - TB40 - TB45 - TB50 - TB55 - TB60 - TB70			
2 x		1/2": 8 - 10 mm			

5 x		1/2": M5 - M6 - M8 - M10 - M12
1 x		1/2"
1 x		1/2" 370 mm
2 x		1/2": 125 - 250 mm
1 x		1/2"
1 x		1/2"
1 x		1/2"
1 x		1/2"F x 3/8"M
1 x		1/2"F x 3/4"M

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
711.0053	53 pcs	390,0	564,0	35,0	6,75
1 x		2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0 mm			
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50			
2 x		10 x 11 - 12 x 13 mm			
5 x		T15 x T20 - T25 x T27 - T30 x T40 - T45 x T50 - T55 x T60			
4 x		E6 x E8 - E10 x E12 - E14 x E16 - E22 x E24			
3 x		3 x 4 - 5 x 6 - 8 x 10 mm			
5 x		M6 - M8 - M9 - M12 - M14			
9 x		TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55 - TB60			
9 x		M5 - M6 - M7 - M8 - M9 - M10 - M12 - M13 - M14			

### SCS Chisels, spanners, bit socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/2"

	L mm	B mm	H mm	kg	
711.0106	106 pcs	390,0	564,0	35,0	7,98

4 x		3/8": T10 - T15 - T20 - T30
12 x		1/2": T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55 - T60 - T70
8 x		1/2": 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 mm
7 x		1/2": M5 - M6 - M7 - M8 - M10 - M12 - M14
6 x		10x11 - 12x14 - 13x15 - 16x18 - 17x19 - 22x24 mm
10 x		8 - 10 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm
1 x		1/4"
1 x		1/4"
3 x		18x100 - 18x125 - 24x175 mm
4 x		Ø 3 - 4 - 5 - 6 mm
5 x		1/4": PH0 - PH1 - 2xPH2 - PH3
5 x		1/4": PZ0 - PZ1 - 2xPZ2 - PZ3
9 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40
9 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
7 x		1/4": 2 - 3 - 4 - 5 - 6 - 7 - 8 mm
4 x		1/4": 4 - 5 - 6 - 8 mm
6 x		1/4": 3 - 4 - 4,5 - 5,5 - 6 - 6,5 mm
4 x		1/4": #0 - #1 - #2 - #3
1 x		1/4" x 1/4"

### 1/1 SCS - SOCKET WRENCH 3/4" - METRIC

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/4"

	L mm	B mm	H mm	kg	
711.0029	29 pcs	390,0	564,0	35,0	19,00
17 x		3/4": 17 - 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 - 34 - 35 - 36 - 38 - 41 - 46 - 50			
3 x		3/4": 100 - 200 - 400 mm			
1 x		3/4": 450 mm			
1 x		3/4": 500 mm			
1 x		3/4": 500 mm			
2 x		3/4": 320 - 480 mm			
1 x		3/4"			
1 x		3/4"			
1 x		3/4"F x 1/2"M			
1 x		3/4"F x 1"M			

### SCS socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.1031	31 pcs	390,0	564,0	35,0	15,93
14 x		3/4": 19 - 21 - 22 - 23 - 24 - 26 - 27 - 30 - 32 - 36 - 38 - 41 - 46 - 50 mm			
14 x		3/4": 3/4" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.3/16" - 1.1/4" - 1.3/8" - 1.7/16" - 1.1/2" - 1.5/8" - 1.3/4" - 2"			
1 x		3/4": 400 mm			
1 x		3/4": 450 mm			
1 x		3/4": 500 mm			

### SCS impact socket wrench set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.5031	31 pcs	390,0	564,0	35,0	18,76
15 x		17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm			
10 x		17 - 18 - 19 - 21 - 22 - 24 - 27 - 28 - 30 - 32 mm			
1 x		3/4"			
4 x		100 - 150 - 200 - 250 mm			
1 x		3/4": 450 mm			



### SCS impact socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.2033	33 pcs	390,0	564,0	35,0	18,95
15 x		19 - 21 - 22 - 23 - 24 - 27 - 28 - 30 - 32 - 33 - 34 - 36 - 38 - 41 - 46 mm			
14 x		19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 - 34 - 36 - 38 - 41 - 46 mm			
2 x		3/4"F x 1/2"M - 3/4"F x 1"M			
1 x		1/2"			
1 x		150 mm			



### SCS impact socket wrench set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.1035	35 pcs	390,0	564,0	35,0	19,42
16 x		3/4": 17 - 19 - 21 - 22 - 23 - 24 - 27 - 28 - 30 - 32 - 33 - 34 - 36 - 38 - 41 - 46 mm			
14 x		3/4": 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 - 34 - 36 - 38 - 41 - 46 mm			
3 x		3/4": 100 - 200 mm			
1 x		3/4"			
1 x		3/4"F x 1/2"M			
1 x		3/4"F x 1"M			



### 1/1 SCS - SOCKET WRENCH 1/4" + 3/8" - METRIC

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



		L mm	B mm	H mm	kg
711.0118	118 pcs	390,0	564,0	35,0	6,16
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
17 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
8 x		3/8": E8 - E10 - E11 - E12 - E14 - E16 - E18 - E20			
7 x		1/4": 2 - 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x		1/4": T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
8 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40			
7 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40			
2 x		1/4": 50 - 100 mm			
2 x		3/8": 75 - 150 mm			
1 x		1/4"			
1 x		3/8"			
1 x		1/4": 145 mm			
1 x		3/8": 210 mm			
1 x		60 mm			
1 x		150 mm			
1 x		1/4" x 150 mm			
2 x		1/4" - 3/8"			
1 x		1/4"F x 3/8"M			
1 x		3/8"F x 1/4"M			
1 x		150 - 670 mm			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50			
4 x		3,5 - 5,5 - 7 - 8 mm			
5 x		PH0 - PH1 - PH2 - PH3 - PH4			



**SCS CHROMEplus® socket set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8"

		L mm	B mm	H mm	kg
<b>781.0136</b>	136 pcs	390,0	564,0	35,0	6,58
12 x		1/4": 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm			
17 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 E11 - E12 - E14			
3 x		3/8": 16 - 18 - 21 mm			
2 x		1/4": 4 - 5,5 mm			
5 x		1/4": PH0 - PH1 - PH2 - PH3 - PH4			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
9 x		1/4": T7 - T8 - T10 - T15 - T20 - T25 T27 - T30 - T40			
8 x		1/4": TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
8 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
9 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
2 x		1/4": 50 - 150 mm			
4 x		3/8": 50 - 75 - 150 - 250 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
4 x		E6xE8 - E10xE12 - E14xE16 E22xE24			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			

**SCS Socket set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8"

		L mm	B mm	H mm	kg
<b>711.1136</b>	136 pcs	390,0	564,0	35,0	7,60
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm			
16 x		3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 mm			
14 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 - 20 - 21 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
3 x		3/8": 16 - 18 - 21 mm			
7 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm			
3 x		1/4": 4 - 5,5 - 6,5 mm			
3 x		1/4": PH1 - PH2 - PH3			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
1 x		3/8": T25			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
3 x		1/4": 50 - 100 - 150 mm			
3 x		3/8": 75 - 150 - 250 mm			
1 x		1/4": 150 mm			
1 x		1/4"			
1 x		1/4"			
1 x		1/4"			
3 x		1/4"Fx3/8"M - 3/8"Fx1/4"M 1/2"Fx3/8"M			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
1 x		3/8"			





### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

1/4" 3/8"

		L mm	B mm	H mm	kg
<b>781.1136</b>	136 pcs	390,0	564,0	35,0	7,63
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
16 x		3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
14 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
8 x		3/8": E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14			
3 x		3/8": 16 - 18 - 21 mm			
7 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm			
3 x		1/4": 4 - 5,5 - 6,5 mm			
3 x		1/4": PH1 - PH2 - PH3			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
7 x		1/4": T10 - T15 - T20 - T25 - T27 - T30 - T40			
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			
1 x		3/8": T25			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
3 x		1/4": 50 - 100 - 150 mm			
3 x		3/8": 75 - 150 - 250 mm			
1 x		1/4": 150 mm			
1 x		1/4"			
1 x		1/4"			
3 x		1/4"Fx3/8"M - 3/8"Fx1/4"M - 1/2"Fx3/8"M			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
1 x		3/8"			

1/4" 3/8"

		L mm	B mm	H mm	kg
<b>711.0144</b>	144 pcs	390,0	564,0	35,0	5,82
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
17 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14			
3 x		3/8": 16 - 18 - 21 mm			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		1/4": T7 - T8 - T9 - T10 - T15 - T20 - T25			
8 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
8 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			
9 x		3/8": TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55			
3 x		1/4": 50 - 100 - 150 mm			
3 x		3/8": 75 - 150 - 250 mm			
1 x		1/4"			
1 x		1/2"Fx3/8"M			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
1 x		1/4"			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

1/4" 3/8"

		L mm	B mm	H mm	kg
<b>781.0144</b>	144 pcs	390,0	564,0	35,0	6,50
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
17 x		3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 mm			
12 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
6 x		1/4": E4 - E5 - E6 - E7 - E8 - E10			
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14			
3 x		3/8": 16 - 18 - 21 mm			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
7 x		1/4": T7 - T8 - T9 - T10 - T15 - T20 - T25			
8 x		1/4": TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40			
6 x		1/4": M4 - M5 - M6 - M7 - M8 - M10			
8 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 - T45 - T50 - T55			
9 x		3/8": TB15 - TB20 - TB25 - TB27 - TB30 - TB40 - TB45 - TB50 - TB55			
3 x		1/4": 50 - 100 - 150 mm			
3 x		3/8": 75 - 150 - 250 mm			
1 x		1/4"			
1 x		1/2"Fx3/8"M			
2 x		1/4" - 3/8"			
2 x		1/4" - 3/8"			
1 x		1/4"			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

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## 1/1 SCS - SOCKET WRENCH 1/4" + 1/2" - METRIC

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>711.0058</b>	58 pcs	390,0	564,0	35,0	4,45
11 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
20 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x		1/4": 4 - 5,5 - 6,5 - 8 mm			
4 x		1/4": PH1 - PH2 - PH3 - PH4			
3 x		1/4": PZ1 - PZ2 - PZ3			
2 x		1/4" - 1/2"			
2 x		1/4": 50 - 150 mm			
2 x		1/2": 125 - 250 mm			
2 x		1/4" x 110 mm - 1/2" x 250 mm			
1 x		1/4" x 150 mm			
2 x		1/4" - 1/2"			

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>781.0058</b>	58 pcs	390,0	564,0	35,0	4,41
11 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 - 14 mm			
20 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 8 mm			
4 x		1/4": 4 - 5,5 - 6,5 - 8 mm			
4 x		1/4": PH1 - PH2 - PH3 - PH4			
3 x		1/4": PZ1 - PZ2 - PZ3			

2 x		1/4" - 1/2"
2 x		1/4": 50 - 150 mm
2 x		1/2": 125 - 250 mm
2 x		1/4" x 110 mm - 1/2" x 250 mm
1 x		1/4" x 150 mm
2 x		1/4" - 1/2"

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>711.0135</b>	135 pcs	390,0	564,0	35,0	9,27
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm			
21 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24			
2 x		1/2": 17 - 19 mm			
1 x		3/4": 36 mm			
3 x		1/4": 4 - 5,5 - 6,5 mm			
3 x		1/4": PH1 - PH2 - PH3			
2 x		1/4": PZ1 - PZ2			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
10 x		1/4": T7 - T8 - T9 - T10 - T15 - T20 T25 - T27 - T30 - T40			
9 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40			
9 x		1/2": 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 19 mm			
5 x		1/2": T40 - T45 - T50 - T55 - T60			
3 x		1/2": M6 - M8 - M10			
1 x		1/2": T25			
2 x		1/4": 50 - 150 mm			
2 x		1/2": 125 - 250 mm			
2 x		1/4" - 1/2"			
1 x		1/4"			
1 x		1/2" F x 3/4" M			
2 x		1/4" - 1/2"			
2 x		1/4" - 1/2"			
4 x		T6 - T7 - T8 - T9			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

2 x		1/4" - 1/2"
4 x		T6 - T7 - T8 - T9
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

	L mm	B mm	H mm	kg	
<b>781.0135</b>	135 pcs	390,0	564,0	35,0	9,50
12 x		1/4": 4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 - 14 mm			
21 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 30 - 32 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24			
2 x		1/2": 17 - 19 mm			
1 x		3/4": 36 mm			
3 x		1/4": 4 - 5,5 - 6,5 mm			
3 x		1/4": PH1 - PH2 - PH3			
2 x		1/4": PZ1 - PZ2			
6 x		1/4": 3 - 4 - 5 - 6 - 7 - 8 mm			
10 x		1/4": T7 - T8 - T9 - T10 - T15 - T20 T25 - T27 - T30 - T40			
9 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30 - TB40			
9 x		1/2": 5 - 6 - 7 - 8 - 10 - 12 - 14 - 17 19 mm			
5 x		1/2": T40 - T45 - T50 - T55 - T60			
3 x		1/2": M6 - M8 - M10			
1 x		1/2": T25			
2 x		1/4": 50 - 150 mm			
2 x		1/2": 125 - 250 mm			
2 x		1/4" - 1/2"			
1 x		1/4"			
1 x		1/2" F x 3/4" M			
2 x		1/4" - 1/2"			
2 x		1/4" - 1/2"			
4 x		T6 - T7 - T8 - T9			
1 x		TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 1/2"

		L mm	B mm	H mm	kg
711.0163	163 pcs	390,0	564,0	35,0	7,24
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm			
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
7 x		1/4": 6 - 7 - 8 - 9 - 10 - 12 - 13 mm			
5 x		1/2": 14 - 15 - 17 - 19 - 22 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
8 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E24			
2 x		1/2": 16 - 21 mm			
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm			
3 x		1/4": PH0 - PH1 - PH2			
3 x		1/4": PZ0 - PZ1 - PZ2			
4 x		1/4": 3 - 4 - 5 - 6 mm			
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30			
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
1 x		1/4": TB7			
3 x		1/4": M5 - M6 - M8			
5 x		1/4": M5 - M6 - M7 - M8 - M9			
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45			
3 x		5/16": 8 - 10 - 12 mm			
2 x		5/16": PH3 - PH4			
2 x		5/16": PZ3 - PZ4			
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm			
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70			
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70			
3 x		1/4" - 5/16" - 1/2"			
2 x		1/4" - 1/2"			
1 x		3/8" F x 1/2" M			
2 x		1/4": 50 - 100 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			

1 x		1/4"
2 x		1/4" - 1/2"
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm
1 x		500 g

### 1/1 SCS - SOCKET WRENCH 3/8" + 1/2" - METRIC

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



3/8" 1/2"

		L mm	B mm	H mm	kg
711.0098	98 pcs	390,0	564,0	35,0	7,50
17 x		3/8": 6-7-8-9-10-11-12-13-14-15-16-17- 18-19-20-21-22mm			
24 x		1/2": 8-9-10-11-12-13-14-15-16-17-18-19 - 20-21-22-23-24-25-26-27-28-29-30-32mm			
9 x		3/8": E4 - E5 - E6 - E7 - E8 - E10 - E11 E12 - E14			
9 x		1/2": E10 - E11 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
3 x		3/8": 16 - 18 - 21 mm			
7 x		3/8": 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
9 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50 - T55			
9 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50 - TB55			
3 x		3/8": 75 - 150 - 250 mm			
2 x		1/2": 125 - 250 mm			
2 x		1/2" Fx 3/8" M - 3/8" Fx 1/2" M			
2 x		3/8" - 1/2"			
2 x		3/8" - 1/2"			



### 1/1 SCS - SOCKET WRENCH 1/4" + 3/8" + 1/2" - METRIC

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0075	75 pcs	390,0	564,0	35,0	1,15
12 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 18 - 19 - 21 - 22 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
4 x		3/8": E10 - E11 - E12 - E14			
4 x		1/2": E16 - E18 - E20 - E24			
2 x		3/8": T40 - T45			
3 x		1/2": T50 - T55 - T60			
2 x		1/4": T6 - T25			
10 x		1/4": TB7 - TB8 - TB9 - TB10 - TB15 TB20 - TB25 - TB27 - TB30 - TB40			
3 x		3/8": 75 - 150 - 250 mm			
2 x		3/8"x10mm - 1/4"x1/4"			
1 x		3/8"			
1 x		1/4"			
1 x		3/8"			
11 x		T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30 - T40			
8 x		T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
2 x		T6 - T7			
4 x		E6xE8 - E10xE12 - E14xE18 E20xE24			

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg
<b>711.0090</b> 90 pcs	390,0	564,0	35,0	5,26
15 x				3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 21 - 22 mm
4 x				3/8": 10 - 11 - 12 - 13 mm
5 x				1/4": E4 - E5 - E6 - E7 - E8
4 x				3/8": E10 - E11 - E12 - E14
4 x				1/2": E16 - E18 - E20 - E24
7 x				3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm
3 x				1/2": 33 mm - 5/16" - 11/32"
3 x				1/4": PH1 - PH2 - PH3
2 x				1/4": T8 - T10
1 x				3/8": 8 mm
2 x				3/8": T40 - T45
3 x				3/8": M6 - M8 - M10
2 x				1/4": T6 - T25
9 x				1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - T27 - TB30 - TB40
3 x				3/8": 75 - 150 - 250 mm
2 x				3/8" - 1/4"
2 x				3/8"Fx1/4"M - 3/8"Fx1/2"M
1 x				3/8"
1 x				3/8"
2 x				1/4" - 3/8"
11 x				T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
4 x				E6xE8 - E10xE12 - E14xE18 E20xE24



### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg
<b>781.0090</b> 90 pcs	390,0	564,0	35,0	5,07
15 x				3/8": 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 15 - 16 - 17 - 18 - 19 - 21 - 22 mm
4 x				3/8": 10 - 11 - 12 - 13 mm
5 x				1/4": E4 - E5 - E6 - E7 - E8
4 x				3/8": E10 - E11 - E12 - E14
4 x				1/2": E16 - E18 - E20 - E24
7 x				3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 mm
3 x				1/2": 33 mm - 5/16" - 11/32"
3 x				1/4": PH1 - PH2 - PH3
2 x				1/4": T8 - T10
1 x				3/8": 8 mm
2 x				3/8": T40 - T45
3 x				3/8": M6 - M8 - M10
2 x				1/4": T6 - T25
9 x				1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - T27 - TB30 - TB40
3 x				3/8": 75 - 150 - 250 mm
2 x				3/8" - 1/4"
2 x				3/8"Fx1/4"M - 3/8"Fx1/2"M
1 x				3/8"
1 x				3/8"
2 x				1/4" - 3/8"
11 x				T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 T27 - T30 - T40
4 x				E6xE8 - E10xE12 - E14xE18 E20xE24



### SCS socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg	
<b>711.0128</b>	128 pcs	390,0	564,0	35,0	8,51
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
12 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
20 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
3 x		3/8": 16 - 18 - 21 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
5 x		1/4": T7 - T8 - T9 - T10 - T15			
7 x		1/4": TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
1 x		3/8": PH2			
6 x		3/8": 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50			
8 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
4 x		1/2": 10 - 12 - 14 - 17 mm			
3 x		1/2": T55 - T60 - T70			
3 x		1/2": TB55 - TB60 - TB70			
4 x		1/2": M10 - M12 - M14 - M16			
1 x		1/2": M16			
2 x		1/4": 50 - 150 mm			
2 x		3/8": 75 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			
3 x		1/4" - 3/8" - 1/2"			
3 x		1/4" - 3/8" - 1/2"			

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg	
<b>781.0128</b>	128 pcs	390,0	564,0	35,0	8,58
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
10 x		1/4": 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 12 - 13 mm			
12 x		3/8": 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 16 - 17 - 18 - 19 mm			
20 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
3 x		3/8": 16 - 18 - 21 mm			
5 x		1/4": 3 - 4 - 5 - 6 - 7 mm			
5 x		1/4": T7 - T8 - T9 - T10 - T15			
7 x		1/4": TB10 - TB15 - TB20 - TB25 TB27 - TB30 - TB40			
1 x		3/8": PH2			
6 x		3/8": 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x		3/8": T15 - T20 - T25 - T27 - T30 - T40 T45 - T50			
8 x		3/8": TB15 - TB20 - TB25 - TB27 TB30 - TB40 - TB45 - TB50			
5 x		3/8": M4 - M5 - M6 - M8 - M10			
4 x		1/2": 10 - 12 - 14 - 17 mm			
3 x		1/2": T55 - T60 - T70			
3 x		1/2": TB55 - TB60 - TB70			
4 x		1/2": M10 - M12 - M14 - M16			
1 x		1/2": M16			
2 x		1/4": 50 - 150 mm			
2 x		3/8": 75 - 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			
3 x		1/4" - 3/8" - 1/2"			
3 x		1/4" - 3/8" - 1/2"			

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.0151</b>	151 pcs	390,0	564,0	35,0	9,60
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm			
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 17 - 18 - 19 mm			
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
6 x		3/8": E10 - E11 - E12 - E14 - E16 E18			
2 x		1/2": E20 - E24			
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm			
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm			
5 x		1/2": 16 - 17 - 18 - 19 - 22			
1 x		3/8": 18 mm			
2 x		1/2": 16 - 21 mm			
4 x		1/4": 3 - 4 - 5 - 6 mm			
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm			
3 x		1/4": PH0 - PH1 - PH2			
3 x		1/4": PZ0 - PZ1 - PZ2			
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30			
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 TB25 - TB27 - TB30			
5 x		7 - 8 - 10 - 12 - 14 mm			
3 x		8 - 10 - 12 mm			
2 x		PH 3 - PH 4			
2 x		PZ 3 - PZ 4			
6 x		T40 - T45 - T50 - T55 - T60 - T70			
6 x		TB40 - TB45 - TB50 - TB55 - TB60 TB70			
2 x		1/4": 50 - 100 mm			
1 x		3/8": 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4"			
1 x		1/4"			
3 x		1/4"x1/4" - 3/8"x5/16" - 1/2"x5/16"			
1 x		3/8"F x 1/2"M			
3 x		1/4" - 3/8" - 1/2"			



3 x		1/4" - 3/8" - 1/2"
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm

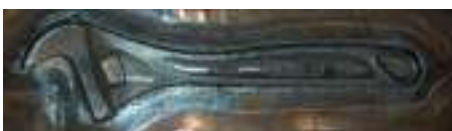
### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg
<b>711.0160</b> 160 pcs	390,0	564,0	35,0	9,37
13 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
9 x	1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
16 x	3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 mm			
21 x	1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
2 x	3/8": 16 - 21 mm			
2 x	1/4": PH1 - PH2			
8 x	1/4": 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x	1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40			
5 x	1/4": M4 - M5 - M6 - M8 - M10			
7 x	10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x	10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x	10 mm: M5 - M6 - M8 - M10 - M12			
7 x	10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x	10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x	10 mm: M5 - M6 - M8 - M10 - M12			
2 x	1/4": 50 - 150 mm			
2 x	3/8": 75 - 150 mm			
2 x	1/2": 125 - 250 mm			
1 x	1/2"			
1 x	1/4"			
2 x	3/8"x10mm - 1/2"x10mm			
3 x	1/4" - 3/8" - 1/2"			
3 x	1/4" - 3/8" - 1/2"			
1 x	TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			



### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	kg
<b>781.0160</b> 160 pcs	390,0	564,0	35,0	8,95
13 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
9 x	1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm			
16 x	3/8": 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 mm			
21 x	1/2": 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 26 - 27 - 28 - 30 - 32 mm			
2 x	3/8": 16 - 21 mm			
2 x	1/4": PH1 - PH2			
8 x	1/4": 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 mm			
8 x	1/4": T8 - T10 - T15 - T20 - T25 - T27 T30 - T40			
5 x	1/4": M4 - M5 - M6 - M8 - M10			
7 x	10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x	10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x	10 mm: M5 - M6 - M8 - M10 - M12			
7 x	10 mm: 4 - 5 - 6 - 7 - 8 - 10 - 12 mm			
8 x	10 mm: T20 - T25 - T30 - T40 - T45 T50 - T55 - T60			
5 x	10 mm: M5 - M6 - M8 - M10 - M12			
2 x	1/4": 50 - 150 mm			
2 x	3/8": 75 - 150 mm			
2 x	1/2": 125 - 250 mm			
1 x	1/2"			
1 x	1/4"			
2 x	3/8"x10mm - 1/2"x10mm			
3 x	1/4" - 3/8" - 1/2"			
3 x	1/4" - 3/8" - 1/2"			
1 x	TS10 - TS15 - TS20 - TS25 - TS27 TS30 - TS40 - TS45 - TS50			
1 x	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			



### Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam

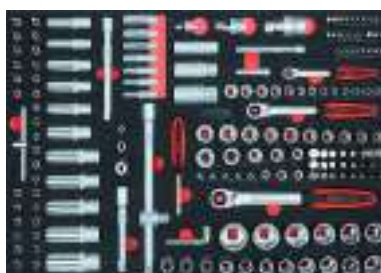


	L mm	B mm	H mm	kg
<b>711.0179</b> 179 pcs	390,0	564,0	35,0	8,10
13 x	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
10 x	3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
17 x	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
7 x	1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm			
6 x	3/8": 10 - 11 - 12 - 13 - 14 - 15 mm			
5 x	1/2": 16 - 17 - 18 - 19 - 22 mm			
5 x	1/4": E4 - E5 - E6 - E7 - E8			
6 x	3/8": E10 - E11 - E12 - E14 - E16 - E18			
2 x	1/2": E20 - E24			
1 x	3/8": 18 mm			
2 x	1/2": 16 - 21 mm			
3 x	1/4" - 3/8" - 1/2"			
1 x	1/4" x 1/4"			
2 x	3/8" x 5/16" - 1/2" x 5/16"			
1 x	3/8" F - 1/2" M			
2 x	1/4": 50 - 100 mm			
1 x	3/8": 150 mm			
2 x	1/2": 125 - 250 mm			
1 x	150 mm			
3 x	1/4" - 3/8" - 1/2"			
1 x	150 mm			
3 x	1/4": PH0 - PH1 - PH2			
3 x	1/4": PZ0 - PZ1 - PZ2			
8 x	1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
8 x	1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30			
4 x	1/4": 4 - 5,5 - 6,5 - 7 mm			
4 x	1/4": 3 - 4 - 5 - 6 mm			
7 x	1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm			
11 x	1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
1 x	1/4": TB7			

3 x		1/4": M5 - M6 - M8
7 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40
5 x		1/4": M5 - M6 - M7 - M8 - M9
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
3 x		5/16": 8 - 10 - 12 mm

### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

	L mm	B mm	H mm	Weight
711.0180	180 pcs	390,0	564,0	35,0 8,24
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm		
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18		
1 x		3/8": 18 mm		
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm		
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm		
2 x		1/2": E20 - E24		
2 x		1/2": 16 - 21 mm		
4 x		1/4": 3 - 4 - 5 - 6 mm		
3 x		1/4": 4 - 5 - 6,5 mm		
3 x		1/4": PH0 - PH1 - PH2		
3 x		1/4": PZ0 - PZ1 - PZ2		
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30		
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30		
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30		
1 x		1/4": TB7		
3 x		1/4": M5 - M6 - M8		
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45		
5 x		1/4": M5 - M6 - M7 - M8 - M9		

3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
1 x		1/4": T8
3 x		1/4" - 3/8" - 1/2"
2 x		1/2": 125 - 250 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
1 x		1/4"
1 x		1/2"Fx3/8"M
3 x		1/4" - 3/8" - 1/2"
1 x		1/4"
3 x		1/4" - 3/8" - 1/2"
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm

### SCS CHROMEplus® socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

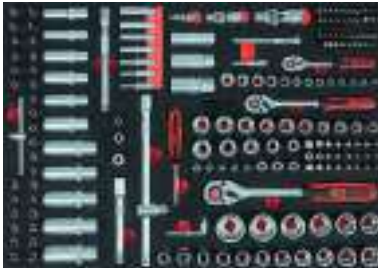
	L mm	B mm	H mm	Weight
781.0180	180 pcs	390,0	564,0	35,0 8,24
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 11 - 12 - 13 - 14 mm		
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		
5 x		1/4": E4 - E5 - E6 - E7 - E8		
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm		
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm		
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18		
1 x		3/8": 18 mm		
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm		
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm		
2 x		1/2": E20 - E24		
2 x		1/2": 16 - 21 mm		
4 x		1/4": 3 - 4 - 5 - 6 mm		
3 x		1/4": 4 - 5 - 6,5 mm		
3 x		1/4": PH0 - PH1 - PH2		

3 x		1/4": PZ0 - PZ1 - PZ2
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 T27 - T30
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
1 x		1/4": TB7
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
3 x		5/16": 8 - 10 - 12 mm
5 x		5/16": 7 - 8 - 10 - 12 - 14 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
6 x		5/16": T40 - T45 - T50 - T55 - T60 - T70
6 x		5/16": TB40 - TB45 - TB50 - TB55 - TB60 - TB70
1 x		1/4": T8
3 x		1/4" - 3/8" - 1/2"
2 x		1/2": 125 - 250 mm
2 x		1/4": 50 - 100 mm
1 x		3/8": 150 mm
1 x		1/4"
1 x		1/2"Fx3/8"M
3 x		1/4" - 3/8" - 1/2"
1 x		1/4"
3 x		1/4" - 3/8" - 1/2"
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm



### Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0195	195 pcs	390,0	564,0	35,0	7,82
13 x		1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm			
10 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm			
17 x		1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 24 - 27 - 30 - 32 mm			
7 x		1/4": 4 - 5 - 6 - 7 - 8 - 9 - 10 mm			
6 x		3/8": 10 - 11 - 12 - 13 - 14 - 15 mm			
5 x		1/2": 16 - 17 - 18 - 19 - 22 mm			
5 x		1/4": E4 - E5 - E6 - E7 - E8			
6 x		3/8": E10 - E11 - E12 - E14 - E16 - E18			
2 x		1/2": E20 - E24			
1 x		3/8": 18 mm			
2 x		1/2": 16 - 21 mm			
3 x		1/4" - 3/8" - 1/2"			
1 x		1/4" x 1/4"			
2 x		3/8" x 5/16" - 1/2" x 5/16"			
1 x		3/8"F - 1/2"M			
2 x		1/4": 50 - 100 mm			
1 x		3/8": 150 mm			
2 x		1/2": 125 - 250 mm			
1 x		1/4" 110 mm			
3 x		1/4" - 3/8" - 1/2"			
1 x		150 mm			
3 x		1/4": PH0 - PH1 - PH2			
3 x		1/4": PZ0 - PZ1 - PZ2			
8 x		1/4": T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30			
8 x		1/4": TB8 - TB9 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30			
4 x		1/4": 4 - 5,5 - 6,5 - 7 mm			
4 x		1/4": 3 - 4 - 5 - 6 mm			
7 x		1,3 - 1,5 - 2 - 2,5 - 3 - 4 - 5 mm			
3 x		1/4": 4 - 5 - 6 mm			
3 x		1/4": PH1 - PH2 - PH3			

2 x		1/4": PZ1 - PZ2
11 x		1/4": T5 - T6 - T7 - T8 - T9 - T10 - T15 - T20 - T25 - T27 - T30
8 x		1/4": TB7 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
3 x		1/4": M5 - M6 - M8
8 x		1/4": TS10 - TS15 - TS20 - TS25 - TS27 - TS30 - TS40 - TS45
5 x		1/4": M5 - M6 - M7 - M8 - M9
5 x		5/16": 6 - 7 - 8 - 10 - 12 mm
2 x		5/16": PH3 - PH4
2 x		5/16": PZ3 - PZ4
3 x		5/16": 8 - 10 - 12 mm
6 x		5/16": T30 - T40 - T45 - T50 - T55 - T60
6 x		5/16": TB30 - TB40 - TB45 - TB50 - TB55 - TB60

### 1/1 SCS - SOCKET WRENCH 1/4" + 3/8" + 1/2" - IMPERIAL

#### SCS Socket set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1/4" 3/8" 1/2"

		L mm	B mm	H mm	kg
711.0080	80 pcs	390,0	564,0	35,0	7,35
9 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
5 x		3/8": 1/2" - 9/16" - 5/8" - 11/16" - 3/4"			
8 x		1/2": 13/16" - 7/8" - 15/16" - 1" - 1.1/16" - 1.1/8" - 1.3/16" - 1.1/4"			
9 x		1/4": 3/16" - 7/32" - 1/4" - 9/32" - 5/16" - 11/32" - 3/8" - 7/16" - 1/2"			
7 x		3/8": 3/8" - 7/16" - 1/2" - 9/16" - 5/8" - 11/16" - 3/4"			
3 x		1/2": 13/16" - 7/8" - 15/16"			
4 x		1/4": 1/8" - 5/32" - 3/16" - 7/32"			
7 x		3/8": 1/8" - 5/32" - 3/16" - 7/32" - 1/4" - 5/16" - 3/8"			
4 x		1/2": 3/8" - 1/2" - 9/16" - 5/8"			
3 x		1/4": 50 - 100 - 150 mm			
4 x		3/8": 50 - 75 - 150 - 250 mm			
2 x		1/2": 125 - 250 mm			
2 x		3/8" - 1/2"			
3 x		1/4" - 3/8" - 1/2"			
1 x		5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 7/16" - 1/2" - 9/16"			





**SCS Socket set**

- 1/1 System insert
- Suitable for toolbox and tool case
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



11 12 13

	L mm	B mm	H mm	Icon
<b>T11.005</b> 75 pcs	300.0	54.0	35.0	3.25
9 x	1/4" 3/16" 7/32" 1/4" 9/32" 5/16" 11/32" 3/8" 7/16" 1/2"			
6 x	3/8" 1/2" 4/16" 5/8" 11/16" 3/4" 7/8"			
15 x	10" 20" 316" 1/2" 316" 5/8" 11/16" 3/4" 13/16" 7/8" 15/16" 1" 1 1/16" 1 1/8" 1 3/16" 1 1/4"			
9 x	1/4" 3/16" 7/32" 1/4" 9/32" 5/16" 11/32" 3/8" 7/16" 1/2"			
8 x	3/8" 3/8" 7/16" 1/2" 9/16" 5/8" 11/16" 3/4" 13/16"			
8 x	1/2" 1/2" 9/16" 5/8" 11/16" 3/4" 13/16" 7/8" 15/16"			
5 x	1/4" 1/4" 5/32" 3/16" 7/32" 1/4"			
7 x	3/8" 1/2" 5/32" 3/16" 7/32" 1/4" 5/16" 3/8"			
8 x	1/2" 3/16" 1/4" 9/32" 5/16" 3/8" 1/2" 9/16" 5/8"			

**1/1 SCS - IMPACT SOCKET WRENCH**

**SCS Impact socket wrench set**

- 1/1 System insert
- Suitable for toolbox and tool case
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



11 12

	L mm	B mm	H mm	Icon
<b>T11.007</b> 73 pcs	300.0	54.0	35.0	14.74
10 x	3/8" 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 mm			

9 x	3/8" 8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm
1 x	1/4" x 3/8" M
1 x	3/8" x 1/4" M
1 x	3/8" x 1/2" M
1 x	3/8"
1 x	3/8" 75 mm
23 x	10" 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm
20 x	1/2" 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 28 - 29 - 30 - 32 mm
1 x	1/2"
3 x	10" 75 - 125 - 250 mm
1 x	1/2" x 3/8" M
1 x	1/2" x 3/4" M

**SCS Impact socket wrench set**

- 1/1 System insert
- Suitable for toolbox and tool case
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



11 12 13

	L mm	B mm	H mm	Icon
<b>T11.012</b> 102 pcs	300.0	54.0	35.0	11.44
10 x	3/8" 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 19 mm			
9 x	3/8" 8 - 10 - 11 - 12 - 13 - 14 - 16 - 17 - 19 mm			
22 x	10" 8 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 32 mm			
18 x	1/2" 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 - 21 - 22 - 23 - 24 - 27 - 28 - 30 mm			
8 x	1/4" E4 - E5 - E6 - E7 - E8 - E10 - E11 - E12			
9 x	3/8" E5 - E6 - E7 - E8 - E10 - E11 - E12 - E14 - E16			
8 x	1/2" E10 - E12 - E14 - E16 - E18 - E20 - E22 - E24			
4 x	1/2" 6 - 8 - 10 - 12 mm			
4 x	1/2" T30 - T40 - T45 - T50			
1 x	1/4" 50 mm			
1 x	3/8" 75 mm			
3 x	1/2" 75 - 125 - 250 mm			
1 x	1/2"			
1 x	3/8" x 1/4" M			
1 x	1/2" x 3/8" M			
1 x	3/8" x 1/2" M			
1 x	1/2" x 3/4" M			

**SCS Impact socket set**

- 1/1 System insert
- Suitable for toolbox and tool case
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



11 12 13

	L mm	B mm	H mm	Icon
<b>T11.008</b> 33 pcs	300.0	54.0	35.0	15.55
15 x	1/4" 19 - 21 - 22 - 23 - 24 - 27 - 28 - 30 - 32 - 33 - 34 - 35 - 38 - 41 - 45 mm			
14 x	1/4" 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 - 34 - 35 - 38 - 41 - 45 mm			
2 x	3/4" x 1/2" M - 3/4" x 1" M			
1 x	1/2"			
1 x	150 mm			



**SCS Impact socket wrench set**

- 1/1 System insert
- Suitable for toolbox and tool case
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



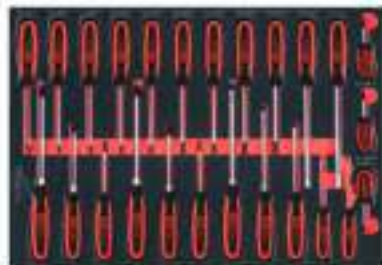
11 12 13

	L mm	B mm	H mm	Icon
<b>T11.006</b> 35 pcs	300.0	54.0	35.0	16.67
16 x	3/4" 17 - 19 - 21 - 22 - 23 - 24 - 27 - 28 - 30 - 32 - 33 - 34 - 35 - 38 - 41 - 45 mm			
14 x	3/4" 19 - 21 - 22 - 23 - 24 - 27 - 30 - 32 - 33 - 34 - 35 - 38 - 41 - 45 mm			
3 x	3/4" 100 - 200 mm			
1 x	3/4"			
1 x	3/4" x 1/2" M			
1 x	3/4" x 1" M			

### 1/1 SCS - SCREWDRIVER

#### SCS ERGOTORQUE<sup>plus</sup> screwdriver set

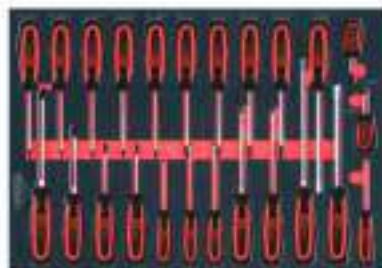
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
T11.0024	21 pcs	290,0	205,0	21,0	2,30
1 x	PH2				
3 x	PH1 - PH2 - PH3				
1 x	PZ2				
3 x	PZ1 - PZ2 - PZ3				
1 x	6 mm				
5 x	3 - 4 - 5,5 - 6,5 - 8 mm				
9 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
2 x	6 - 7 mm				

#### SCS ERGOTORQUE<sup>plus</sup> screwdriver set

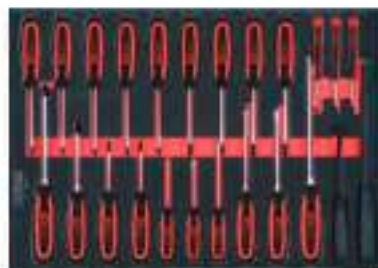
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
T11.0024	24 pcs	300,0	205,0	30,0	3,60
1 x	6 mm				
7 x	(2,5 - 3 - 4) x 155 mm, 4 x 180 mm, (5,5 - 6,5) x 230 mm, 8 x 265 mm				
1 x	PH2				
4 x	PH0 - PH1 - PH2 - PH3				
9 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
2 x	7 - 8 mm				

### SCS Screwdriver set

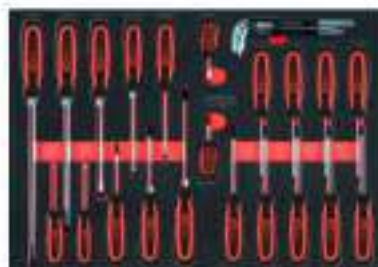
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
T11.0024	24 pcs	290,0	205,0	21,0	1,60
5 x	3x(155 - 4x155 - 4x180 - 5,5x230 - 6,5x230 - 8x265 mm				
4 x	PH0 - PH1 - PH2 - PH3				
3 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
3 x	T8 - T6 - T7				
2 x	11x115 - 15x180 mm				

### SCS screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

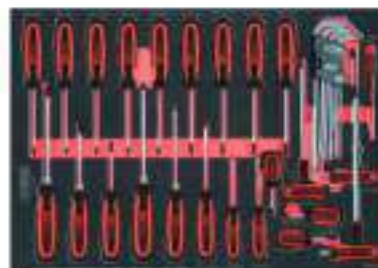


	L mm	B mm	H mm	Weight	
T11.1029	20 pcs	290,0	205,0	20,0	2,81
1 x	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm				
1 x	6 mm				
7 x	3 - 4 - 5,5 - 6,5 - 8 - 10 - 10				
1 x	PH2				
3 x	PH1 - PH2 - PH3				
9 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				



### SCS ERGOTORQUE<sup>plus</sup> screwdriver set

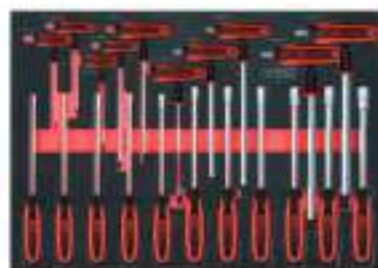
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight	
T11.0024	34 pcs	290,0	205,0	21,0	2,30
1 x	1,5 - 2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 7,0 - 8,0 - 10,0 mm				
3 x	5 - 6 - 8 mm				
1 x	6 mm				
5 x	(3 - 4) x 155 mm, 5,5 x 205 mm, 6,5 x 230 mm, 8 x 265 mm				
1 x	PH2				
3 x	PH1 - PH2 - PH3				
9 x	PZ2				
2 x	T8 - T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
1 x	2 mm				

### SCS ERGOTORQUE<sup>plus</sup> screwdriver and T-handle set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam

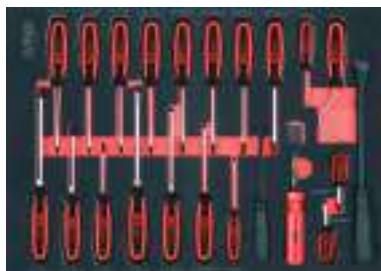


	L mm	B mm	H mm	Weight	
T11.0021	21 pcs	300,0	205,0	25,0	3,30
10 x	2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 - 12 mm				
11 x	4 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 13 mm				



### SCS screwdriver and hook set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.0022</b>	22 pcs	390,0	564,0	35,0	1,65
1 x	6 mm				
4 x	4 x 155 mm, 5,5 x 205 mm - 6,5 x 230 mm, 8 x 265 mm				
1 x	PH2				
3 x	PH1 - PH2 - PH3				
8 x	T9 - T10 - T15 - T20 - T25 - T27 T30 - T40				
1 x	90°				
1 x	185 mm				
2 x	11 x 115 - 15 x 185 mm				
1 x	25 x 200 mm				

### Screwdriver and pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.0013</b>	12 pcs	390,0	564,0	35,0	1,78
1 x	180 mm				
1 x	180 mm				
1 x	200 mm				
1 x	240 mm				
3 x	PH1 - PH2 - PH3				
5 x	3 - 4 - 5,5 - 6,5 - 8 mm				

### SCS ERGOTORQUE® pliers and screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.1023</b>	23 pcs	390,0	564,0	35,0	4,90
1 x	180 mm				
1 x	210 mm				
1 x	180 mm				
1 x	200 mm				
2 x	175 - 220 mm				
4 x	3,5 x 185 - 5,5 x 205 - 7 x 230 - 8 x 230 mm				
4 x	PH0 x 165 - PH1 x 185 - PH2 x 185 - PH3 x 255 mm				
1 x	235 mm				
1 x	0,05 - 1 mm				
7 x	8x10 - 10x12 - 12x13 - 14x15 - 14x17 - 17x19 - 19x21 mm				

### SCS Screwdriver and pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.6027</b>	27 pcs	390,0	564,0	35,0	3,85
1 x	160 mm				
1 x	180 mm				
1 x	200 mm				
1 x	250 mm				
1 x	240 mm				
4 x	5,5 - 6,5 x 100 - 6 x 38 - 8 x 150 mm				
3 x	PH1 x 75 - PH2 x 38 - PH2 x 100 mm				
7 x	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40				
1 x	2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm				

### SCS Screwdriver and pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.1027</b>	27 pcs	390,0	564,0	35,0	3,85
1 x	160 mm				
1 x	180 mm				
1 x	200 mm				
1 x	250 mm				
1 x	240 mm				
4 x	5,5 x 100 - 6 x 38 - 6,5 x 125 - 8 x 150 mm				
3 x	PH1 x 75 - PH2 x 38 - PH2 x 100 mm				
7 x	TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40				
8 x	5/64" - 3/32" - 1/8" - 5/32" - 3/16" - 1/4" - 5/16" - 3/8"				

### Pliers and screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



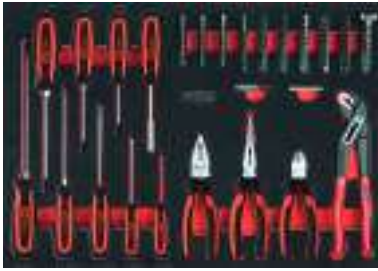
	L mm	B mm	H mm	kg	
<b>711.1059</b>	59 pcs	390,0	564,0	35,0	3,84
1 x	160 mm				
1 x	180 mm				
1 x	200 mm				
1 x	240 mm				
1 x	6 mm				
6 x	3 - 4 - 5,5 - 6,5 - 8 - 10 mm				
1 x	PH2				
4 x	PH0 - PH1 - PH2 - PH3				
4 x	PZ0 - PZ1 - PZ2 - PZ3				
1 x	1/4"				

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
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16  
17  
18  
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22  
23  
24  
25  
26  
27  
28  
29  
30

1 x		1/4"
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		T10 - T15 - T20 - T25 - T30 - T40 - T45 - T50
7 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 mm
7 x		TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB40
7 x		T10 - T15 - T20 - T25 - T27 - T30 - T40

### SCS Screwdriver and pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
711.0112	112 pcs	390,0	564,0	35,0 2,90
5 x		3x155 - 4x180 - 5,5x230 - 6,5x255 - 8x315 mm		
3 x		PH1 - PH2 - PH3		
1 x		1/4"		
1 x		180 mm		
1 x		180 mm		
1 x		200 mm		
1 x		240 mm		
1 x		60 mm		
2 x		25 - 50 mm		
1 x		1/4"		
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm		
8 x		PH0 - PH1 - 5 x PH2 - PH3 -		
8 x		PZ0 - PZ1 - 5 x PZ2 - PZ3		
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm		
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"		
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm		
6 x		5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32"		
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40		
3 x		M5 - M6 - M8		
3 x		#1 - #2 - #3		
4 x		#1 - #2 - #3 - #4		
4 x		4 - 6 - 8 - 10 mm		
3 x		6 - 8 - 10 mm		
4 x		#0 - #1 - #2 - #3		



### SCS VDE pliers and screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
711.0124	124 pcs	390,0	564,0	35,0 4,20
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 5,5 - 6 - 8 mm		
6 x		2 - 2,5 - 3 - 4 - 5 - 6 mm		
9 x		3 - 4 - 4,5 - 5 - 5,5 - 6 - 6,5 - 7 - 8 mm		
8 x		PH 0 - PH 1 - 5x PH 2 - PH 3		
8 x		PZ 0 - PZ 1 - 5x PZ 2 - PZ 3		
9 x		T8 - T10 - T15 - T20 - T25 - T27 - T30 - T40 - T45		
9 x		TB8 - TB10 - TB15 - TB20 - TB25 - TB27 - TB30 - TB35 - TB40		
3 x		M5 - M6 - M8		
3 x		6 - 8 - 10 mm		
4 x		#1 - #2 - #3 - #4		
4 x		4 - 6 - 8 - 10 mm		
10 x		1/16" - 5/64" - 3/32" - 7/64" - 1/8" - 9/64" - 5/32" - 3/16" - 7/32" - 1/4"		
6 x		1/8" - 3/32" - 5/32" - 5/64" - 7/64" - 9/64"		
4 x		#0 - #1 - #2 - #3		
3 x		#1 - #2 - #3		

1 x		1/4"
1 x		1/4"
2 x		30 - 50 mm
1 x		25 mm
1 x		
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm
3 x		4 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		9,5 mm
1 x		3 mm
1 x		130 mm
1 x		130 mm
6 x		2 - 3 - 4 - 4 - 5 - 6 - 8 mm
1 x		300 g
1 x		18 mm
1 x		3 m x 16 mm

### 1/1 SCS - PLIERS

#### SCS Pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	
711.5009	9 pcs	390,0	564,0	35,0 2,49
1 x		250 mm		
1 x		240 mm		
1 x		160 mm		
1 x		180 mm		
1 x		160 mm		
1 x		160 mm		
1 x		160 mm		
1 x		160 mm		
1 x		160 mm		
1 x		160 mm		

### SCS Pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.1012</b>	12 pcs	390,0	564,0	35,0	3,39
1 x	180 mm				
1 x	210 mm				
1 x	180 mm				
1 x	200 mm				
2 x	125 - 250 mm				
1 x	225 mm				
1 x	240 mm				
1 x	160 mm				
1 x	160 mm				
1 x	160 mm				
1 x	160 mm				

### SCS Pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.1016</b>	16 pcs	390,0	564,0	35,0	4,78
1 x	180 mm				
1 x	210 mm				
1 x	180 mm				
2 x	160 - 200 mm				
1 x	250 mm				
1 x	150 mm				
1 x	220 mm				

1 x	240 mm
1 x	160 mm
1 x	160 mm
1 x	160 mm
1 x	160 mm
1 x	270 mm
1 x	270 mm
1 x	280 mm

### SCS Circlip pliers and T-Handles set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.0012</b>	12 pcs	390,0	564,0	35,0	2,78
8 x	7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm				
1 x	19 - 60 mm				
1 x	19 - 60 mm				
1 x	19 - 60 mm				
1 x	19 - 60 mm				
1 x	19 - 60 mm				



### SCS pliers and hammer set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.9013</b>	13 pcs	390,0	564,0	35,0	3,83
1 x	180 mm				
1 x	165 mm				
1 x	180 mm				
1 x	240 mm				
2 x	10 - 28 mm, 19 - 60 mm				
1 x	19 - 60 mm				
2 x	12 - 25 mm, 19 - 60 mm				
1 x	19 - 60 mm				
1 x	850 g				
2 x	300 - 500 g				

### SCS Pliers and file set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.5018</b>	18 pcs	390,0	564,0	35,0	4,30
1 x	125 mm				
1 x	165 mm				
1 x	180 mm				
1 x	200 mm				

1 x		250 mm
1 x		240 mm
1 x		180 mm
1 x		150 mm
1 x		150 mm
1 x		150 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		0 - 150 mm
1 x		0,01 - 1,0 mm
1 x		5 m
1 x		145 mm

**SCS pliers and wrench set**

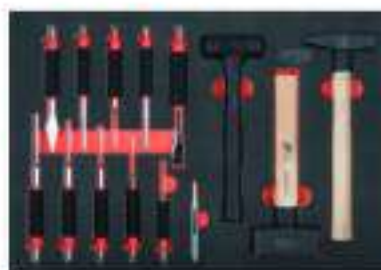
- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high-quality three-coloured foam



	L mm	B mm	H mm	Weight
<b>T11.2008</b>	36 pcs	290,0	164,0	35,0 3,90
1 x		250 mm		
1 x		240 mm		
1 x		125 mm		
1 x		150 mm		
1 x		200 mm		
1 x		150 mm		
1 x		150 mm		
1 x		150 mm		
1 x		150 mm		
4 x		T6 - T7 - T8 - T9		
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm		
1 x		T810 - T815 - T820 - T825 - T827 - T830 - T840 - T845 - T850		
1 x		130 - 630 mm		
1 x		510 mm, Ø = 15 mm		
1 x		140 mm		
1 x		145 mm		

**1/1 SCS - HAMMER & CHISEL**
**SCS chisel and hammer set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight
<b>T11.0018</b>	14 pcs	290,0	104,0	35,0 0,56
1 x		5 mm		
6 x		Ø 3 - (2 x 4) - 5 - 6 - 8 mm		
1 x		5 mm		
1 x		10 mm		
1 x		20 mm		
1 x		7 mm		
1 x		300 g		
1 x		1000 g		
1 x		350 g		

**SCS file, chisel and hammer set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	Weight
<b>T11.0018</b>	16 pcs	290,0	104,0	35,0 4,00
1 x		350 g		
1 x		300 g		
1 x		1000 g		
1 x		Ø 5 mm		
6 x		Ø 3 - (2 x 4) - 5 - 6 - 8 mm		
1 x		20 x 210 mm		
1 x		7 x 150 mm		

1 x		10 x 185 mm
1 x		0 x 185 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm
1 x		200 mm

**File, chisel and hammer set**

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality two-coloured foam



	L mm	B mm	H mm	Weight
<b>T11.0018</b>	18 pcs	290,0	104,0	35,0 3,70
1 x		300 g		
1 x		1000 g		
7 x		Ø 2 - 3 - (2 x 4) - 5 - 6 - 8 mm		
1 x		Ø 5 mm		
1 x		Ø 3 mm		
1 x				
1 x		12 mm		
1 x		26 mm		
1 x		200 mm		
1 x		200 mm		
1 x		200 mm		
1 x		200 mm		





### SCS File, chisel and pliers set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.2021</b>	21 pcs	390,0	564,0	35,0	5,60
5 x	Ø 3 - 4 - 5 - 6 - 8 mm				
1 x	5 mm				
1 x	10 mm				
1 x	20 mm				
1 x	7 mm				
1 x	300 g				
1 x	1000 g				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				
1 x	240 mm				
1 x	210 mm				
1 x	180 mm				
1 x	160 mm				
1 x	230 mm				
1 x	5 m x 19 mm				
1 x	160 mm				

### SCS chisel and hammer set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.1021</b>	21 pcs	390,0	564,0	35,0	4,50
3 x	2 - 3 - 4 mm				
5 x	3 - 4 - 5 - 6 - 8 mm				
1 x	7 mm				
1 x	10 mm				
2 x	150 - 200 mm				
1 x	25 x 200 mm				
1 x	15 x 185 mm				
1 x	300 g				
1 x	1000 g				
1 x	350 g				
1 x	30 x 195 mm				
1 x	170 mm				
1 x	130 - 630 mm				
1 x	510 mm				

### 1/1 SCS - WORKSHOP SUPPLIES

### SCS Wheel service tool set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.0016</b>	16 pcs	390,0	564,0	35,0	3,84
1 x	20 - 200 Nm				

1 x		1/2"
1 x		370 mm
1 x		310 mm
1 x		0,30 Nm
1 x		0,45 Nm
1 x		130 mm
1 x		200 mm
1 x		300 mm
1 x		22 mm
1 x		250 mm
5 x		15 - 17 - 19 - 21 - 22 mm

### SCS pliers, hammer and file set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm		
<b>711.6017</b>	17 pcs	390,0	564,0	35,0	5,24
1 x	180 mm				
1 x	180 mm				
1 x	200 mm				
1 x	210 mm				
1 x	240 mm				
1 x	250 mm				
2 x	150 - 200 mm				
1 x	300 g				
1 x	1000 g				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				
1 x	200 mm				
1 x	170 mm				
1 x	130 - 630 mm				
1 x	5 m x 19 mm				

### SCS Chisel and hammer set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



1 x		300 g
1 x		200 g
1 x		12,5 x 300 mm
1 x		225 mm
1 x		140 mm
1 x		5 m x 19 mm



### SCS pliers and chisel set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.7017</b>	17 pcs	390,0	564,0	35,0	4,00
5 x		3 x 4 x 5 x 6 x 8 mm			
1 x		5 mm			
1 x		10 mm			
1 x		20 mm			
1 x		7 mm			
1 x		300 g			
1 x		500 g			
1 x		25 x 200 mm			
1 x		15 x 185 mm			
1 x		30 mm			
1 x		170 mm			
1 x		5 m			
1 x		5 m x 19 mm			

### SCS pliers, file and drift punch set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.2022</b>	22 pcs	390,0	564,0	35,0	6,07
1 x		180 mm			
1 x		180 mm			
1 x		200 mm			
1 x		210 mm			
1 x		240 mm			
1 x		250 mm			
4 x		4 x 5 x 6 x 8 mm			
1 x		5 mm			
1 x		10 mm			
1 x		20 mm			
1 x		7 mm			
1 x		300 g			
1 x		1000 g			
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			
1 x		200 mm			
1 x		18 mm			
1 x		5 m x 19 mm			

	L mm	B mm	H mm	kg	
<b>711.1022</b>	22 pcs	390,0	564,0	35,0	5,20
1 x		125 mm			
1 x		160 mm			
1 x		180 mm			
1 x		200 mm			
1 x		240 mm			
1 x		250 mm			
1 x		180 mm			
1 x		AWG 20 - 18, 16 - 14, 12 - 10			
5 x		3 - 4 - 5 - 6 - 8 mm			
1 x		5 mm			
1 x		10 mm			
1 x		20 mm			
1 x		7 mm			
1 x		300 g			
1 x		350 g			
1 x		25 x 200 mm			
1 x		30 mm			
1 x		170 mm			

### SCS hammer and pin punch set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.0017</b>	17 pcs	390,0	564,0	35,0	2,24
1 x		10 x 11 mm			
2 x		6 - 7 mm			
5 x		3 - 4 - 5 - 6 - 8 mm			
1 x		8 mm			
2 x		125 - 175 mm			

### SCS ERGOTORQUE® pliers and screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
<b>711.8027</b>	27 pcs	390,0	564,0	35,0	3,65



1 x		180 mm
4 x		3 - 4 - 5 - 6 mm
1 x		Ø 8 mm
2 x		125 - 175 mm
1 x		6 mm
5 x		3 - 4 - 6,5 - 8 - 10 mm
1 x		PH2 mm
2 x		PH1 - PH2
5 x		T10 - T15 - T20 - T25 - T30
1 x		2,4 mm
1 x		160 mm
1 x		180 mm
1 x		200 mm
1 x		240 mm

### SCS hammer and wrench set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.0023	23 pcs	390,0	564,0	35,0	3,71
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 10 - 18 mm			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
4 x		3 - 4 - 5 - 6 mm			
1 x		8 mm			
2 x		125 - 175 mm			
1 x		240 mm			
1 x		300g			
1 x		200g			
1 x		0,05 - 1 mm			
1 x		510 mm			
1 x		3 m			



### SCS ERGOTORQUE® VDE pliers and screwdriver set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.1033	33 pcs	390,0	564,0	35,0	6,00
1 x		160 mm			
1 x		180 mm			
1 x		200 mm			
1 x		240 mm			
1 x		6 mm			
5 x		3 - 4 - 6,5 - 8 - 10 mm			
1 x		2,4 mm			
1 x		PH2			
3 x		PH1 - PH2 - PH3			
1 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 7 - 8 - 10 mm			
4 x		3 - 4 - 5 - 6 mm			
1 x		8 mm			
2 x		125 - 175 mm			
1 x		300 g			

### SCS screwdriver and measuring instrument set

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg	
711.1041	41 pcs	390,0	564,0	35,0	3,70
1 x		6 mm			
3 x		4 - 5,5 - 8 mm			
1 x		PH2			
3 x		PH1 - PH2 - PH3			

1 x		PZ2
3 x		PZ1 - PZ2 - PZ3
1 x		230 mm
1 x		200 mm
1 x		12,5 x 300 mm
4 x		3 - 4 - 5 - 6 mm
5 x		3 - 4 - 5 - 6 - 8 mm
3 x		4 - 5 - 6 mm
1 x		5 mm
1 x		2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		
1 x		100 mm
1 x		E1xT5 - E30xT70
1 x		0 - 150 mm
1 x		3 - 48 V

### 1/1 SCS - EMPTY INSERTS

#### SCS Universal system insert for tool or small parts (empty)

- 1/1 System insert
- Suitable for toolbox and tool cases
- Firm arrangement due to precise embedding
- Oil and chemical resistant
- Insert made from high quality three-coloured foam



	L mm	B mm	H mm	kg
712.0000	390,0	564,0	35,0	0,40

### PU-foam sheets for self cutting

- Thickness 10 mm
- Uncut for self modelling



	L mm	B mm	H mm	kg
711.0000	390,0	564,0	35,0	0,95

### Anti slip mat

- Thickness 10 mm
- Uncut for self modelling



	L mm	B mm	kg
800.0920	10000,0	600,0	2,50

CUTTING TOOLS 2020



Innovation is our mission!

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**COOLANT**

**Cooling lubricant stick**

- Suitable for working with centre bits, countersinks and stepped drills
- Contents 18g
- To prolong the service life



	Volume g	9
390.0190	18	44

**HSS-R TWIST DRILLS**

**HSS-R Twist drill short**

- DIN 1897 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Ideally suited for thin walled working
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	9
330.5020	2,0	38,0	12,0	10	7
330.5021	2,1	38,0	12,0	10	10
330.5022	2,2	40,0	13,0	10	12
330.5023	2,3	40,0	13,0	10	12
330.5024	2,4	43,0	14,0	10	15
330.5025	2,5	43,0	14,0	10	15
330.5026	2,6	43,0	14,0	10	16
330.5027	2,7	46,0	16,0	10	25
330.5028	2,8	46,0	16,0	10	26
330.5029	2,9	46,0	16,0	10	28
330.5030	3,0	46,0	16,0	10	30
330.5031	3,1	49,0	18,0	10	31
330.5032	3,2	49,0	18,0	10	32
330.5033	3,3	49,0	18,0	10	33
330.5034	3,4	52,0	20,0	10	34
330.5035	3,5	52,0	20,0	10	35
330.5036	3,6	52,0	20,0	10	37
330.5037	3,7	52,0	20,0	10	40
330.5038	3,8	55,0	22,0	10	42
330.5039	3,9	55,0	22,0	10	44
330.5040	4,0	55,0	22,0	10	45
330.5041	4,1	55,0	22,0	10	47
330.5042	4,2	55,0	22,0	10	49
330.5043	4,3	58,0	24,0	10	55
330.5044	4,4	58,0	24,0	10	57
330.5045	4,5	58,0	24,0	10	60
330.5046	4,6	58,0	24,0	10	62
330.5047	4,7	58,0	24,0	10	63
330.5048	4,8	62,0	26,0	10	72
330.5049	4,9	62,0	26,0	10	73

	D mm	L1 mm	L2 mm	Content	9
330.5050	5,0	62,0	26,0	10	75
330.5051	5,1	62,0	26,0	10	77
330.5052	5,2	62,0	26,0	10	78
330.5053	5,3	62,0	26,0	10	80
330.5054	5,4	66,0	28,0	10	95
330.5055	5,5	66,0	28,0	10	97
330.5056	5,6	66,0	28,0	10	99
330.5057	5,7	66,0	28,0	10	103
330.5058	5,8	66,0	28,0	10	105
330.5059	5,9	66,0	28,0	10	107
330.5060	6,0	66,0	28,0	10	110
330.5061	6,1	70,0	31,0	10	125
330.5062	6,2	70,0	31,0	10	128
330.5063	6,3	70,0	31,0	10	130
330.5064	6,4	70,0	31,0	10	133
330.5065	6,5	70,0	31,0	10	135
330.5066	6,6	70,0	31,0	10	138
330.5067	6,7	70,0	31,0	10	140
330.5068	6,8	74,0	34,0	10	170
330.5069	6,9	74,0	34,0	10	175
330.5070	7,0	74,0	34,0	10	180
330.5071	7,1	74,0	34,0	10	183
330.5072	7,2	74,0	34,0	10	185
330.5073	7,3	74,0	34,0	10	187
330.5074	7,4	74,0	34,0	10	188
330.5075	7,5	74,0	34,0	10	190
330.5076	7,6	79,0	36,0	10	220
330.5077	7,7	79,0	36,0	10	225
330.5078	7,8	79,0	36,0	10	230
330.5079	7,9	79,0	36,0	10	235
330.5080	8,0	79,0	36,0	10	240
330.5085	8,5	79,0	36,0	10	270
330.5090	9,0	84,0	40,0	10	310
330.5095	9,5	84,0	40,0	10	360
330.5100	10,0	89,0	43,0	10	420

**HSS-R Twist drill**

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	9
330.1003	0,3	19,0	3,0	10	1
330.1004	0,4	20,0	5,0	10	1
330.1005	0,5	22,0	6,0	10	1
330.1006	0,6	24,0	7,0	10	1
330.1007	0,7	28,0	9,0	10	1
330.1008	0,8	30,0	10,0	10	1
330.1009	0,9	32,0	11,0	10	1
330.1010	1,0	34,0	12,0	10	5
330.1011	1,1	36,0	14,0	10	5
330.1012	1,2	38,0	16,0	10	5
330.1013	1,3	38,0	16,0	10	5
330.1014	1,4	40,0	18,0	10	5
330.1015	1,5	40,0	18,0	10	5
330.1016	1,6	43,0	20,0	10	10
330.1017	1,7	43,0	20,0	10	10
330.1018	1,8	46,0	22,0	10	10
330.1019	1,9	46,0	22,0	10	10
330.1020	2,0	49,0	24,0	10	10
330.1021	2,1	49,0	24,0	10	20
330.1022	2,2	53,0	27,0	10	20
330.1023	2,3	53,0	27,0	10	20

	D mm	L1 mm	L2 mm	Content	9
330.1024	2,4	57,0	30,0	10	20
330.1025	2,5	57,0	30,0	10	20
330.1026	2,6	57,0	30,0	10	40
330.1027	2,7	61,0	33,0	10	40
330.1028	2,8	61,0	33,0	10	40
330.1029	2,9	61,0	33,0	10	40
330.1030	3,0	65,0	33,0	10	40
330.1031	3,1	65,0	36,0	10	40
330.1032	3,2	65,0	36,0	10	40
330.1033	3,3	70,0	36,0	10	40
330.1034	3,4	70,0	39,0	10	40
330.1035	3,5	70,0	39,0	10	40
330.1036	3,6	70,0	39,0	10	50
330.1037	3,7	70,0	39,0	10	50
330.1038	3,8	75,0	43,0	10	50
330.1039	3,9	75,0	43,0	10	50
330.1040	4,0	75,0	43,0	10	50
330.1041	4,1	75,0	43,0	10	80
330.1042	4,2	75,0	43,0	10	80
330.1043	4,3	80,0	47,0	10	80
330.1044	4,4	80,0	47,0	10	80
330.1045	4,5	80,0	47,0	10	80
330.1046	4,6	80,0	47,0	10	100
330.1047	4,7	80,0	47,0	10	100
330.1048	4,8	86,0	52,0	10	100
330.1049	4,9	86,0	52,0	10	100
330.1050	5,0	86,0	52,0	10	100
330.1051	5,1	86,0	52,0	10	130
330.1052	5,2	86,0	52,0	10	130
330.1053	5,3	86,0	52,0	10	130
330.1054	5,4	93,0	57,0	10	130
330.1055	5,5	93,0	57,0	10	130
330.1056	5,6	93,0	57,0	10	150
330.1057	5,7	93,0	57,0	10	150
330.1058	5,8	93,0	57,0	10	150
330.1059	5,9	93,0	57,0	10	150
330.1060	6,0	93,0	57,0	10	150
330.1061	6,1	101,0	63,0	10	180
330.1062	6,2	101,0	63,0	10	180
330.1063	6,3	101,0	63,0	10	180
330.1064	6,4	101,0	63,0	10	180
330.1065	6,5	101,0	63,0	10	180
330.1066	6,6	101,0	63,0	10	250
330.1067	6,7	101,0	63,0	10	250
330.1068	6,8	109,0	69,0	10	250
330.1069	6,9	109,0	69,0	10	250
330.1070	7,0	109,0	69,0	10	250
330.1071	7,1	109,0	69,0	10	260
330.1072	7,2	109,0	69,0	10	260
330.1073	7,3	109,0	69,0	10	260
330.1074	7,4	109,0	69,0	10	260
330.1075	7,5	109,0	69,0	10	260
330.1076	7,6	117,0	75,0	10	330
330.1077	7,7	117,0	75,0	10	330
330.1078	7,8	117,0	75,0	10	330
330.1079	7,9	117,0	75,0	10	330
330.1080	8,0	117,0	75,0	10	330
330.1081	8,1	117,0	75,0	10	350
330.1082	8,2	117,0	75,0	10	350
330.1083	8,3	117,0	75,0	10	350
330.1084	8,4	117,0	75,0	10	350
330.1085	8,5	117,0	75,0	10	350
330.1086	8,6	125,0	81,0	10	430
330.1087	8,7	125,0	81,0	10	430
330.1088	8,8	125,0	81,0	10	430
330.1089	8,9	125,0	81,0	10	430
330.1090	9,0	125,0	81,0	10	430
330.1091	9,1	125,0	81,0	10	480
330.1092	9,2	125,0	81,0	10	480
330.1093	9,3	125,0	81,0	10	480
330.1094	9,4	125,0	81,0	10	480
330.1095	9,5	125,0	81,0	10	480
330.1096	9,6	133,0	87,0	10	275
330.1097	9,7	133,0	87,0	10	275
330.1098	9,8	133,0	87,0	10	275
330.1099	9,9	133,0	87,0	10	275
330.1100	10,0	133,0	87,0	5	275
330.1101	10,1	133,0	87,0	5	300
330.1102	10,2	133,0	87,0	5	300
330.1103	10,3	133,0	87,0	5	300
330.1104	10,4	133,0	87,0	5	300
330.1105	10,5	133,0	87,0	5	300
330.1106	10,6	142,0	94,0	5	350
330.1107	10,7	142,0	94,0	5	350
330.1108	10,8	142,0	94,0	5	350
330.1109	10,9	142,0	94,0	5	350
330.1110	11,0	142,0	94,0	5	350

	D mm	L1 mm	L2 mm	Content	
330.1111	11,1	142,0	94,0	5	385
330.1112	11,2	142,0	94,0	5	385
330.1113	11,3	142,0	94,0	5	385
330.1114	11,4	142,0	94,0	5	385
330.1115	11,5	142,0	94,0	5	385
330.1116	11,6	142,0	94,0	5	440
330.1117	11,7	142,0	94,0	5	440
330.1118	11,8	142,0	94,0	5	440
330.1119	11,9	151,0	101,0	5	440
330.1120	12,0	151,0	101,0	5	440
330.1121	12,1	151,0	101,0	5	490
330.1122	12,2	151,0	101,0	5	490
330.1123	12,3	151,0	101,0	5	490
330.1124	12,4	151,0	101,0	5	490
330.1125	12,5	151,0	101,0	5	490
330.1126	12,6	151,0	101,0	5	515
330.1127	12,7	151,0	101,0	5	515
330.1128	12,8	151,0	101,0	5	515
330.1129	12,9	151,0	101,0	5	515
330.1130	13,0	151,0	101,0	5	515
330.1135	13,5	160,0	108,0	1	110
330.1140	14,0	160,0	108,0	1	115
330.1145	14,5	169,0	114,0	1	120
330.1150	15,0	169,0	114,0	1	125
330.1155	15,5	178,0	120,0	1	130
330.1160	16,0	178,0	120,0	1	135
330.1165	16,5	184,0	125,0	1	140
330.1170	17,0	184,0	125,0	1	145
330.1175	17,5	191,0	130,0	1	150
330.1180	18,0	191,0	130,0	1	155
330.1185	18,5	198,0	135,0	1	160
330.1190	19,0	198,0	135,0	1	165
330.1195	19,5	205,0	140,0	1	170
330.1200	20,0	205,0	140,0	1	175

#### HSS-R Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.1610 19 pcs	0,60

#### HSS-R Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.1620 19 pcs	0,60

#### HSS-R Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.1613 25 pcs	1,30

#### HSS-R Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.1623 25 pcs	3,35

#### HSS-R Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.1640 170 pcs	4,15

### HSS-R Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- Black, tempered surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



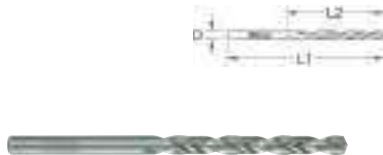
		10		10	
330.1650	230 pcs	per 10 x: 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.3 - 3.5 - 4.0 - 4.2 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 6.8 - 7.0 - 7.5 - 8.0		7,40	
		per 5 x: 8.5 - 9.0 - 9.5 - 10.0 - 10.5 - 11.0 - 11.5 - 12.0 - 12.5 - 13.0 mm			

### HSS-G TWIST DRILLS

#### HSS-G Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	10
330.2003	0,3	19,0	3,0	10	1
330.2004	0,4	20,0	5,0	10	1
330.2005	0,5	22,0	6,0	10	1
330.2006	0,6	24,0	7,0	10	1
330.2007	0,7	28,0	9,0	10	1
330.2008	0,8	30,0	10,0	10	1
330.2009	0,9	32,0	11,0	10	1
330.2010	1,0	34,0	12,0	10	1

	D mm	L1 mm	L2 mm	Content	10
330.2011	1,1	36,0	14,0	10	1
330.2012	1,2	38,0	16,0	10	1
330.2013	1,3	38,0	16,0	10	1
330.2014	1,4	40,0	18,0	10	1
330.2015	1,5	40,0	18,0	10	20
330.2016	1,6	43,0	20,0	10	10
330.2017	1,7	43,0	20,0	10	10
330.2018	1,8	46,0	22,0	10	10
330.2019	1,9	46,0	22,0	10	10
330.2020	2,0	49,0	24,0	10	10
330.2021	2,1	49,0	24,0	10	20
330.2022	2,2	53,0	27,0	10	20
330.2023	2,3	53,0	27,0	10	20
330.2024	2,4	57,0	30,0	10	20
330.2025	2,5	57,0	30,0	10	20
330.2026	2,6	61,0	30,0	10	40
330.2027	2,7	61,0	33,0	10	40
330.2028	2,8	61,0	33,0	10	40
330.2029	2,9	61,0	33,0	10	40
330.2030	3,0	61,0	33,0	10	40
330.2031	3,1	65,0	36,0	10	40
330.2032	3,2	65,0	36,0	10	40
330.2033	3,3	65,0	36,0	10	40
330.2034	3,4	70,0	39,0	10	40
330.2035	3,5	70,0	39,0	10	40
330.2036	3,6	70,0	39,0	10	50
330.2037	3,7	70,0	39,0	10	50
330.2038	3,8	75,0	43,0	10	50
330.2039	3,9	75,0	43,0	10	50
330.2040	4,0	75,0	43,0	10	50
330.2041	4,1	75,0	43,0	10	80
330.2042	4,2	75,0	43,0	10	80
330.2043	4,3	80,0	47,0	10	80
330.2044	4,4	80,0	47,0	10	80
330.2045	4,5	80,0	47,0	10	80
330.2046	4,6	80,0	47,0	10	100
330.2047	4,7	80,0	47,0	10	100
330.2048	4,8	86,0	52,0	10	100
330.2049	4,9	86,0	52,0	10	100
330.2050	5,0	86,0	52,0	10	100
330.2051	5,1	86,0	52,0	10	130
330.2052	5,2	86,0	52,0	10	130
330.2053	5,3	86,0	52,0	10	130
330.2054	5,4	93,0	57,0	10	130
330.2055	5,5	93,0	57,0	10	130
330.2056	5,6	93,0	57,0	10	150
330.2057	5,7	93,0	57,0	10	150
330.2058	5,8	93,0	57,0	10	150
330.2059	5,9	93,0	57,0	10	150
330.2060	6,0	93,0	57,0	10	150
330.2061	6,1	101,0	63,0	10	180
330.2062	6,2	101,0	63,0	10	180
330.2063	6,3	101,0	63,0	10	180
330.2064	6,4	101,0	63,0	10	180
330.2065	6,5	101,0	63,0	10	180
330.2066	6,6	101,0	63,0	10	250
330.2067	6,7	101,0	63,0	10	250
330.2068	6,8	109,0	69,0	10	250
330.2069	6,9	109,0	69,0	10	250
330.2070	7,0	109,0	69,0	10	250
330.2071	7,1	109,0	69,0	10	260
330.2072	7,2	109,0	69,0	10	260
330.2073	7,3	109,0	69,0	10	260
330.2074	7,4	109,0	69,0	10	260
330.2075	7,5	109,0	69,0	10	260
330.2076	7,6	117,0	75,0	10	330
330.2077	7,7	117,0	75,0	10	330
330.2078	7,8	117,0	75,0	10	330
330.2079	7,9	117,0	75,0	10	330
330.2080	8,0	117,0	75,0	10	330
330.2081	8,1	117,0	75,0	10	350
330.2082	8,2	117,0	75,0	10	350
330.2083	8,3	117,0	75,0	10	350
330.2084	8,4	117,0	75,0	10	350
330.2085	8,5	117,0	75,0	10	350
330.2086	8,6	125,0	81,0	10	430
330.2087	8,7	125,0	81,0	10	403
330.2088	8,8	125,0	81,0	10	430
330.2089	8,9	125,0	81,0	10	430
330.2090	9,0	125,0	81,0	10	430
330.2091	9,1	125,0	81,0	10	480
330.2092	9,2	125,0	81,0	10	480
330.2093	9,3	125,0	81,0	10	480
330.2094	9,4	125,0	81,0	10	480
330.2095	9,5	125,0	81,0	10	480
330.2096	9,6	133,0	87,0	10	275
330.2097	9,7	133,0	87,0	10	275

	D mm	L1 mm	L2 mm	Content	10
330.2098	9,8	133,0	87,0	10	275
330.2099	9,9	133,0	87,0	10	275
330.2100	10,0	133,0	87,0	5	275
330.2101	10,1	133,0	87,0	5	300
330.2102	10,2	133,0	87,0	5	300
330.2103	10,3	133,0	87,0	5	300
330.2104	10,4	133,0	87,0	5	300
330.2105	10,5	133,0	87,0	5	300
330.2106	10,6	133,0	87,0	5	350
330.2107	10,7	142,0	94,0	5	350
330.2108	10,8	142,0	94,0	5	350
330.2109	10,9	142,0	94,0	5	350
330.2110	11,0	142,0	94,0	5	350
330.2111	11,1	142,0	94,0	5	385
330.2112	11,2	142,0	94,0	5	385
330.2113	11,3	142,0	94,0	5	385
330.2114	11,4	142,0	94,0	5	385
330.2115	11,5	142,0	94,0	5	385
330.2116	11,6	142,0	94,0	5	440
330.2117	11,7	142,0	94,0	5	440
330.2118	11,8	142,0	94,0	5	440
330.2119	11,9	151,0	101,0	5	440
330.2120	12,0	151,0	101,0	5	440
330.2121	12,1	151,0	101,0	5	490
330.2122	12,2	151,0	101,0	5	490
330.2123	12,3	151,0	101,0	5	490
330.2124	12,4	151,0	101,0	5	490
330.2125	12,5	151,0	101,0	5	490
330.2126	12,6	151,0	101,0	5	515
330.2127	12,7	151,0	101,0	5	515
330.2128	12,8	151,0	101,0	5	515
330.2129	12,9	151,0	101,0	5	515
330.2130	13,0	151,0	101,0	5	515
330.2135	13,5	160,0	108,0	1	110
330.2140	14,0	160,0	108,0	1	115
330.2145	14,5	169,0	114,0	1	120
330.2150	15,0	169,0	114,0	1	125
330.2155	15,5	178,0	120,0	1	130
330.2160	16,0	178,0	120,0	1	135

### HSS-G Twist drill, long

- DIN 340 Typ N
- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



	D mm	L1 mm	L2 mm	Content	10
330.7025	2,5	95,0	62,0	10	40
330.7030	3,0	100,0	66,0	10	50
330.7031	3,1	106,0	69,0	10	50
330.7032	3,2	106,0	69,0	10	60
330.7033	3,3	106,0	69,0	10	65
330.7034	3,4	112,0	73,0	10	65
330.7035	3,5	112,0	73,0	10	70
330.7036	3,6	112,0	73,0	10	75
330.7037	3,7	112,0	73,0	10	75
330.7038	3,8	119,0	78,0	10	80
330.7039	3,9	119,0	78,0	10	80
330.7040	4,0	119,0	78,0	10	85
330.7041	4,1	119,0	78,0	10	90
330.7042	4,2	119,0	78,0	10	95
330.7043	4,3	126,0	82,0	10	110
330.7044	4,4	126,0	82,0	10	115
330.7045	4,5	126,0	82,0	10	120
330.7046	4,6	126,0	82,0	10	130
330.7047	4,7	126,0	82,0	10	135
330.7048	4,8	132,0	87,0	10	140

	D mm	L1 mm	L2 mm	Content	
330.7049	4,9	132,0	87,0	10	145
330.7050	5,0	132,0	87,0	10	150
330.7051	5,1	132,0	87,0	10	150
330.7052	5,2	132,0	87,0	10	160
330.7053	5,3	132,0	87,0	10	170
330.7054	5,4	139,0	91,0	10	190
330.7055	5,5	139,0	91,0	10	195
330.7056	5,6	139,0	91,0	10	200
330.7057	5,7	139,0	91,0	10	205
330.7058	5,8	139,0	91,0	10	210
330.7059	5,9	139,0	91,0	10	220
330.7060	6,0	139,0	91,0	10	225
330.7061	6,1	148,0	97,0	10	255
330.7062	6,2	148,0	97,0	10	260
330.7063	6,3	148,0	97,0	10	265
330.7064	6,4	148,0	97,0	10	270
330.7065	6,5	148,0	97,0	10	270
330.7066	6,6	148,0	97,0	10	275
330.7067	6,7	148,0	97,0	10	275
330.7068	6,8	156,0	102,0	10	360
330.7069	6,9	156,0	102,0	10	370
330.7070	7,0	156,0	102,0	10	375
330.7071	7,1	156,0	102,0	10	380
330.7072	7,2	156,0	102,0	10	380
330.7073	7,3	156,0	102,0	10	385
330.7074	7,4	156,0	102,0	10	390
330.7075	7,5	156,0	102,0	10	390
330.7076	7,6	165,0	109,0	10	480
330.7077	7,7	165,0	109,0	10	485
330.7078	7,8	165,0	109,0	10	485
330.7079	7,9	165,0	109,0	10	490
330.7080	8,0	165,0	109,0	10	495
330.7081	8,1	165,0	109,0	10	500
330.7082	8,2	165,0	109,0	10	505
330.7083	8,3	165,0	109,0	10	510
330.7084	8,4	165,0	109,0	10	520
330.7085	8,5	165,0	109,0	10	525
330.7086	8,6	175,0	115,0	10	620
330.7087	8,7	175,0	115,0	10	630
330.7088	8,8	175,0	115,0	10	635
330.7089	8,9	175,0	115,0	10	640
330.7090	9,0	175,0	115,0	10	645
330.7091	9,1	175,0	115,0	10	660
330.7092	9,2	175,0	115,0	10	670
330.7093	9,3	175,0	115,0	10	680
330.7094	9,4	175,0	115,0	10	690
330.7095	9,5	175,0	115,0	10	720
330.7096	9,6	184,0	121,0	10	800
330.7097	9,7	184,0	121,0	10	810
330.7098	9,8	184,0	121,0	10	815
330.7099	9,9	184,0	121,0	10	820
330.7100	10,0	184,0	121,0	10	825
330.7105	10,5	184,0	121,0	5	450
330.7110	11,0	195,0	128,0	5	525
330.7115	11,5	195,0	128,0	5	575
330.7120	12,0	205,0	134,0	5	660
330.7125	12,5	205,0	134,0	5	735
330.7130	13,0	205,0	134,0	5	765

### HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm			0,60

### HSS-G Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm			0,60

### HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile Bronze, brass, brushed aluminium alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm			1,30

### HSS-G Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm			1,30



### HSS-G Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2640	170 pcs	per 10 x:	4,15
		1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0	
		per 5 x:	
		8,5 - 9,0 - 9,5 - 10,0 mm	

### HSS-G Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 118° pointed angle
- 20 - 30° spiral angle
- High concentricity accuracy
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, malleable tempered and cast iron.



330.2650	230 pcs	per 10 x:	7,40
		1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,2 - 3,5 - 4,0 - 4,2 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 6,8 - 7,0 - 7,5 - 8,0	
		per 5 x:	
		8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	

### HSS-G CO TWIST DRILLS

#### HSS-G Co 5 Twist drill short

- DIN 1897 Typ N
- Right hand cutting
- Relieved cone has a ground point
- From 3 mm split point according to DIN 1412 C
- 135° pointed angle
- 20 - 30° spiral angle
- Gold coated surface
- High performance steel

Ideally suitable in steel, cast steel I up to 1,100 N/mm<sup>2</sup> tensile, rust and acid steady steels, V2a, V4a, cast and tempered iron.



	D mm	L1 mm	L2 mm	Content	🔑
330.6020	2,0	38,0	12,0	10	7
330.6025	2,5	43,0	14,0	10	15
330.6030	3,0	46,0	16,0	10	30
330.6031	3,1	49,0	18,0	10	31
330.6032	3,2	49,0	18,0	10	32
330.6033	3,3	49,0	18,0	10	33
330.6034	3,4	52,0	20,0	10	34
330.6035	3,5	52,0	20,0	10	35
330.6036	3,6	52,0	20,0	10	37
330.6037	3,7	52,0	20,0	10	40
330.6038	3,8	55,0	22,0	10	42
330.6039	3,9	55,0	22,0	10	44
330.6040	4,0	55,0	22,0	10	45
330.6041	4,1	55,0	22,0	10	47
330.6042	4,2	55,0	22,0	10	49
330.6043	4,3	58,0	24,0	10	55
330.6044	4,4	58,0	24,0	10	57
330.6045	4,5	58,0	24,0	10	60
330.6046	4,6	58,0	24,0	10	62
330.6047	4,7	58,0	24,0	10	63
330.6048	4,8	62,0	26,0	10	72
330.6049	4,9	62,0	26,0	10	73
330.6050	5,0	62,0	26,0	10	75
330.6051	5,1	62,0	26,0	10	77
330.6052	5,2	62,0	26,0	10	78
330.6053	5,3	62,0	26,0	10	80
330.6054	5,4	66,0	28,0	10	95
330.6055	5,5	66,0	28,0	10	97
330.6056	5,6	66,0	28,0	10	99
330.6057	5,7	66,0	28,0	10	103
330.6058	5,8	66,0	28,0	10	105
330.6059	5,9	66,0	28,0	10	107
330.6060	6,0	66,0	28,0	10	110
330.6061	6,1	70,0	31,0	10	125
330.6062	6,2	70,0	31,0	10	128
330.6063	6,3	70,0	31,0	10	130
330.6064	6,4	70,0	31,0	10	133
330.6065	6,5	70,0	31,0	10	135
330.6066	6,6	70,0	31,0	10	138
330.6067	6,7	70,0	31,0	10	140
330.6068	6,8	74,0	34,0	10	170
330.6069	6,9	74,0	34,0	10	175
330.6070	7,0	74,0	34,0	10	180
330.6071	7,1	74,0	34,0	10	183
330.6072	7,2	74,0	34,0	10	185
330.6073	7,3	74,0	34,0	10	187
330.6074	7,4	74,0	34,0	10	188
330.6075	7,5	74,0	34,0	10	190
330.6076	7,6	79,0	36,0	10	220
330.6077	7,7	79,0	36,0	10	225
330.6078	7,8	79,0	36,0	10	230
330.6079	7,9	79,0	36,0	10	235
330.6080	8,0	79,0	36,0	10	240
330.6085	8,5	79,0	36,0	10	270
330.6090	9,0	84,0	40,0	10	310
330.6095	9,5	84,0	40,0	10	360
330.6100	10,0	89,0	43,0	10	420
330.6102	10,2	89,0	43,0	10	435
330.6105	10,5	89,0	43,0	5	210

	D mm	L1 mm	L2 mm	Content	🔑
330.6110	11,0	95,0	47,0	5	255
330.6115	11,5	95,0	47,0	5	260
330.6120	12,0	102,0	51,0	5	285
330.6125	12,5	102,0	51,0	5	290
330.6130	13,0	102,0	51,0	5	295

#### HSS-G Co 5 Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.



	D mm	L1 mm	L2 mm	Content	🔑
330.3003	0,3	19,0	3,0	10	1
330.3004	0,4	20,0	5,0	10	1
330.3005	0,5	22,0	6,0	10	1
330.3006	0,6	24,0	7,0	10	1
330.3007	0,7	28,0	9,0	10	1
330.3008	0,8	30,0	10,0	10	1
330.3009	0,9	32,0	11,0	10	1
330.3010	1,0	34,0	12,0	10	1
330.3011	1,1	36,0	14,0	10	1
330.3012	1,2	38,0	16,0	10	1
330.3013	1,3	38,0	16,0	10	1
330.3014	1,4	40,0	18,0	10	1
330.3015	1,5	40,0	18,0	10	1
330.3016	1,6	43,0	20,0	10	1
330.3017	1,7	43,0	20,0	10	10
330.3018	1,8	46,0	22,0	10	10
330.3019	1,9	46,0	22,0	10	10
330.3020	2,0	49,0	24,0	10	10
330.3021	2,1	49,0	24,0	10	10
330.3022	2,2	53,0	27,0	10	10
330.3023	2,3	53,0	27,0	10	20
330.3024	2,4	57,0	30,0	10	20
330.3025	2,5	57,0	30,0	10	20
330.3026	2,6	57,0	30,0	10	40
330.3027	2,7	61,0	33,0	10	40
330.3028	2,8	61,0	33,0	10	40
330.3029	2,9	61,0	33,0	10	40
330.3030	3,0	61,0	33,0	10	40
330.3031	3,1	65,0	36,0	10	40
330.3032	3,2	65,0	36,0	10	40
330.3033	3,3	65,0	36,0	10	40
330.3034	3,4	70,0	39,0	10	40
330.3035	3,5	70,0	39,0	10	40
330.3036	3,6	70,0	39,0	10	50
330.3037	3,7	70,0	39,0	10	50
330.3038	3,8	75,0	43,0	10	50
330.3039	3,9	75,0	43,0	10	50
330.3040	4,0	75,0	43,0	10	50
330.3041	4,1	75,0	43,0	10	80
330.3042	4,2	75,0	43,0	10	80
330.3043	4,3	80,0	47,0	10	80
330.3044	4,4	80,0	47,0	10	80
330.3045	4,5	80,0	47,0	10	80
330.3046	4,6	80,0	47,0	10	100
330.3047	4,7	80,0	47,0	10	100
330.3048	4,8	86,0	52,0	10	100
330.3049	4,9	86,0	52,0	10	100



	D mm	L1 mm	L2 mm	Content	
330.3050	5,0	86,0	52,0	10	100
330.3051	5,1	86,0	52,0	10	130
330.3052	5,2	86,0	52,0	10	130
330.3053	5,3	86,0	52,0	10	130
330.3054	5,4	93,0	57,0	10	130
330.3055	5,5	93,0	57,0	10	130
330.3056	5,6	93,0	57,0	10	150
330.3057	5,7	93,0	57,0	10	150
330.3058	5,8	93,0	57,0	10	150
330.3059	5,9	93,0	57,0	10	105
330.3060	6,0	93,0	57,0	10	150
330.3061	6,1	101,0	63,0	10	180
330.3062	6,2	101,0	63,0	10	180
330.3063	6,3	101,0	63,0	10	180
330.3064	6,4	101,0	63,0	10	180
330.3065	6,5	101,0	63,0	10	180
330.3066	6,6	101,0	63,0	10	250
330.3067	6,7	101,0	63,0	10	250
330.3068	6,8	109,0	69,0	10	250
330.3069	6,9	109,0	69,0	10	250
330.3070	7,0	109,0	69,0	10	250
330.3071	7,1	109,0	69,0	10	260
330.3072	7,2	109,0	69,0	10	260
330.3073	7,3	109,0	69,0	10	260
330.3074	7,4	109,0	69,0	10	260
330.3075	7,5	109,0	69,0	10	260
330.3076	7,6	117,0	75,0	10	330
330.3077	7,7	117,0	75,0	10	330
330.3078	7,8	117,0	75,0	10	330
330.3079	7,9	117,0	75,0	10	330
330.3080	8,0	117,0	75,0	10	330
330.3081	8,1	117,0	75,0	10	350
330.3082	8,2	117,0	75,0	10	350
330.3083	8,3	117,0	75,0	10	350
330.3084	8,4	117,0	75,0	10	350
330.3085	8,5	117,0	75,0	10	350
330.3086	8,6	125,0	81,0	10	430
330.3087	8,7	125,0	81,0	10	430
330.3088	8,8	125,0	81,0	10	430
330.3089	8,9	125,0	81,0	10	430
330.3090	9,0	125,0	81,0	10	430
330.3091	9,1	125,0	81,0	10	480
330.3092	9,2	125,0	81,0	10	480
330.3093	9,3	125,0	81,0	10	480
330.3094	9,4	125,0	81,0	10	480
330.3095	9,5	125,0	81,0	10	480
330.3096	9,6	133,0	87,0	10	275
330.3097	9,7	133,0	87,0	10	275
330.3098	9,8	133,0	87,0	10	275
330.3099	9,9	133,0	87,0	10	275
330.3100	10,0	133,0	87,0	5	275
330.3101	10,1	133,0	87,0	5	300
330.3102	10,2	133,0	87,0	5	300
330.3103	10,3	133,0	87,0	5	300
330.3104	10,4	133,0	87,0	5	300
330.3105	10,5	133,0	87,0	5	300
330.3106	10,6	133,0	87,0	5	350
330.3107	10,7	142,0	94,0	5	350
330.3108	10,8	142,0	94,0	5	350
330.3109	10,9	142,0	94,0	5	350
330.3110	11,0	142,0	94,0	5	350
330.3111	11,1	142,0	94,0	5	385
330.3112	11,2	142,0	94,0	5	385
330.3113	11,3	142,0	94,0	5	385
330.3114	11,4	142,0	94,0	5	385
330.3115	11,5	142,0	94,0	5	385
330.3116	11,6	142,0	94,0	5	440
330.3117	11,7	142,0	94,0	5	440
330.3118	11,8	142,0	94,0	5	440
330.3119	11,9	151,0	101,0	5	440
330.3120	12,0	151,0	101,0	5	440
330.3121	12,1	151,0	101,0	5	490
330.3122	12,2	151,0	101,0	5	490
330.3123	12,3	151,0	101,0	5	490
330.3124	12,4	151,0	101,0	5	490
330.3125	12,5	151,0	101,0	5	490
330.3126	12,6	151,0	101,0	5	515
330.3127	12,7	151,0	101,0	5	515
330.3128	12,8	151,0	101,0	5	515
330.3129	12,9	151,0	101,0	5	515
330.3130	13,0	151,0	101,0	5	515
330.3135	13,5	160,0	108,0	1	110
330.3140	14,0	160,0	108,0	1	115
330.3145	14,5	169,0	114,0	1	120
330.3150	15,0	169,0	114,0	1	125
330.3155	15,5	178,0	120,0	1	130
330.3160	16,0	178,0	120,0	1	135

### HSS-G Co 5 Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel



330.3610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm			0,60

### HSS-G Co 5 Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel



330.3620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm			0,60

### HSS-G Co 5 Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel



330.3613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm			1,30

### HSS-G Co 5 Twist Drill Set in steel storage case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel



330.3623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm			1,30

### HSS-G Co 5 Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.



Item No.	Quantity	Drill Sizes (mm)	Weight (kg)
330.3640	170 pcs	per 10 x: 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 7.0 - 7.5 - 8.0 per 5 x: 8.5 - 9.0 - 9.5 - 10.0 mm	4,15

### HSS-G Co 5 Twist drill set in metal case

- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- Gold coated surface
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 1,100 N/mm<sup>2</sup> tensile, compensation steel and stainless steel, rustproof and acid steady steel and warm and cold forged steel.



Item No.	Quantity	Drill Sizes (mm)	Weight (kg)
330.3650	230 pcs	per 10 x: 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.2 - 3.5 - 4.0 - 4.2 - 4.5 - 5.0 - 5.5 - 6.0 - 6.5 - 6.8 - 7.0 - 7.5 - 8.0 per 5 x: 8.5 - 9.0 - 9.5 - 10.0 - 10.5 - 11.0 - 11.5 - 12.0 - 12.5 - 13.0 mm	7,40

### HSS TIN TWIST DRILLS

#### HSS-TiN Twist drill

- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- With TiN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



Item No.	D mm	L1 mm	L2 mm	Content	
330.4003	0,3	19,0	3,0	10	1
330.4004	0,4	20,0	5,0	10	1
330.4005	0,5	22,0	6,0	10	1
330.4006	0,6	24,0	7,0	10	1
330.4007	0,7	28,0	9,0	10	1
330.4008	0,8	30,0	10,0	10	1
330.4009	0,9	32,0	11,0	10	1
330.4010	1,0	34,0	12,0	10	1
330.4011	1,1	36,0	14,0	10	1
330.4012	1,2	38,0	16,0	10	1
330.4013	1,3	38,0	16,0	10	1
330.4014	1,4	40,0	18,0	10	1
330.4015	1,5	40,0	18,0	10	1
330.4016	1,6	43,0	20,0	10	10
330.4017	1,7	43,0	20,0	10	10
330.4018	1,8	46,0	22,0	10	10
330.4019	1,9	46,0	22,0	10	10
330.4020	2,0	49,0	24,0	10	10
330.4021	2,1	49,0	24,0	10	20
330.4022	2,2	53,0	27,0	10	20
330.4023	2,3	53,0	27,0	10	20
330.4024	2,4	57,0	30,0	10	20
330.4025	2,5	57,0	30,0	10	20
330.4026	2,6	57,0	30,0	10	40
330.4027	2,7	61,0	33,0	10	40
330.4028	2,8	61,0	33,0	10	40
330.4029	2,9	61,0	33,0	10	40
330.4030	3,0	61,0	33,0	10	40
330.4031	3,1	65,0	36,0	10	40
330.4032	3,2	65,0	36,0	10	40
330.4033	3,3	65,0	36,0	10	40
330.4034	3,4	70,0	39,0	10	40
330.4035	3,5	70,0	39,0	10	40
330.4036	3,6	70,0	39,0	10	50
330.4037	3,7	70,0	39,0	10	50
330.4038	3,8	75,0	43,0	10	50
330.4039	3,9	75,0	43,0	10	50
330.4040	4,0	75,0	43,0	10	50
330.4041	4,1	75,0	43,0	10	80
330.4042	4,2	75,0	43,0	10	80
330.4043	4,3	80,0	47,0	10	80
330.4044	4,4	80,0	47,0	10	80
330.4045	4,5	80,0	47,0	10	80
330.4046	4,6	80,0	47,0	10	100
330.4047	4,7	80,0	47,0	10	100
330.4048	4,8	86,0	52,0	10	100
330.4049	4,9	86,0	52,0	10	100

Item No.	D mm	L1 mm	L2 mm	Content	Weight (kg)
330.4050	5,0	86,0	52,0	10	100
330.4051	5,1	86,0	52,0	10	130
330.4052	5,2	86,0	52,0	10	130
330.4053	5,3	86,0	52,0	10	130
330.4054	5,4	93,0	57,0	10	130
330.4055	5,5	93,0	57,0	10	130
330.4056	5,6	93,0	57,0	10	150
330.4057	5,7	93,0	57,0	10	150
330.4058	5,8	93,0	57,0	10	150
330.4059	5,9	93,0	57,0	10	150
330.4060	6,0	93,0	57,0	10	150
330.4061	6,1	101,0	63,0	10	180
330.4062	6,2	101,0	63,0	10	180
330.4063	6,3	101,0	63,0	10	180
330.4064	6,4	101,0	63,0	10	180
330.4065	6,5	101,0	63,0	10	180
330.4066	6,6	101,0	63,0	10	250
330.4067	6,7	101,0	63,0	10	250
330.4068	6,8	109,0	69,0	10	250
330.4069	6,9	109,0	69,0	10	250
330.4070	7,0	109,0	69,0	10	250
330.4071	7,1	109,0	69,0	10	260
330.4072	7,2	109,0	69,0	10	260
330.4073	7,3	109,0	69,0	10	260
330.4074	7,4	109,0	69,0	10	260
330.4075	7,5	109,0	69,0	10	260
330.4076	7,6	117,0	75,0	10	330
330.4077	7,7	117,0	75,0	10	330
330.4078	7,8	117,0	75,0	10	330
330.4079	7,9	117,0	75,0	10	330
330.4080	8,0	117,0	75,0	10	330
330.4081	8,1	117,0	75,0	10	350
330.4082	8,2	117,0	75,0	10	350
330.4083	8,3	117,0	75,0	10	350
330.4084	8,4	117,0	75,0	10	350
330.4085	8,5	117,0	75,0	10	350
330.4086	8,6	125,0	81,0	10	430
330.4087	8,7	125,0	81,0	10	430
330.4088	8,8	125,0	81,0	10	430
330.4089	8,9	125,0	81,0	10	430
330.4090	9,0	125,0	81,0	10	430
330.4091	9,1	125,0	81,0	10	480
330.4092	9,2	125,0	81,0	10	480
330.4093	9,3	125,0	81,0	10	480
330.4094	9,4	125,0	81,0	10	480
330.4095	9,5	125,0	81,0	10	480
330.4096	9,6	133,0	87,0	10	275
330.4097	9,7	133,0	87,0	10	275
330.4098	9,8	133,0	87,0	10	275
330.4099	9,9	133,0	87,0	10	275
330.4100	10,0	133,0	87,0	5	275
330.4101	10,1	133,0	87,0	5	300
330.4102	10,2	133,0	87,0	5	300
330.4103	10,3	133,0	87,0	5	300
330.4104	10,4	133,0	87,0	5	300
330.4105	10,5	133,0	87,0	5	300
330.4106	10,6	133,0	87,0	5	350
330.4107	10,7	142,0	94,0	5	350
330.4108	10,8	142,0	94,0	5	350
330.4109	10,9	142,0	94,0	5	350
330.4110	11,0	142,0	94,0	5	350
330.4111	11,1	142,0	94,0	5	385
330.4112	11,2	142,0	94,0	5	385
330.4113	11,3	142,0	94,0	5	385
330.4114	11,4	142,0	94,0	5	385
330.4115	11,5	142,0	94,0	5	385
330.4116	11,6	142,0	94,0	5	440
330.4117	11,7	142,0	94,0	5	440
330.4118	11,8	142,0	94,0	5	440
330.4119	11,9	151,0	101,0	5	440
330.4120	12,0	151,0	101,0	5	440
330.4121	12,1	151,0	101,0	5	490
330.4122	12,2	151,0	101,0	5	490
330.4123	12,3	151,0	101,0	5	490
330.4124	12,4	151,0	101,0	5	490
330.4125	12,5	151,0	101,0	5	490
330.4126	12,6	151,0	101,0	5	515
330.4127	12,7	151,0	101,0	5	515
330.4128	12,8	151,0	101,0	5	515
330.4129	12,9	151,0	101,0	5	515
330.4130	13,0	151,0	101,0	5	515
330.4135	13,5	160,0	108,0	1	110
330.4140	14,0	160,0	108,0	1	115
330.4145	14,5	169,0	114,0	1	120
330.4150	15,0	169,0	114,0	1	125
330.4155	15,5	178,0	120,0	1	130
330.4160	16,0	178,0	120,0	1	135

### HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



		kg	
330.4610	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0,66

### HSS-G Twist drill set in metal case

- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



		kg	
330.4613	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1,36

### HSS-TiN Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



		kg	
330.4620	19 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 mm	0,66

### HSS-TiN Twist drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 338 Typ N
- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 130° pointed angle
- 20 - 30° spiral angle
- High heat hardness constancy
- For heavy loading
- TIN coated surface
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brushed aluminum alloy, graphite, nickel silver, sintered iron malleable tempered and cast iron.



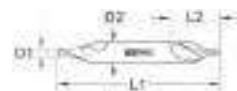
		kg	
330.4623	25 pcs	1,0 - 1,5 - 2,0 - 2,5 - 3,0 - 3,5 - 4,0 - 4,5 - 5,0 - 5,5 - 6,0 - 6,5 - 7,0 - 7,5 - 8,0 - 8,5 - 9,0 - 9,5 - 10,0 - 10,5 - 11,0 - 11,5 - 12,0 - 12,5 - 13,0 mm	1,36

### CENTRE DRILLS

#### HSS Centre drill

- DIN 333 form A
- Right hand cutting
- 60° centre angle
- 120° pointed angle
- For production of center borings
- Surface without discolouration
- High performance steel

Ideally suited for production of center borings according to DIN 332 form A.

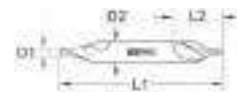


	D1 mm	D2 mm	L1 mm	L2 mm	Content	kg
330.1201	1,00	3,15	32,0	7,3	1	10
330.1202	1,50	4,00	36,0	9,3	1	10
330.1203	2,00	5,00	40,0	11,5	1	10
330.1204	2,50	6,30	46,0	15,4	1	20
330.1205	3,15	8,00	51,0	18,0	1	20
330.1206	4,00	10,00	56,0	20,0	1	22
330.1207	5,00	12,50	64,0	22,0	1	30
330.1208	6,30	15,00	72,0	30,0	1	30

#### HSS Centre drill

- DIN 333 form R
- Right hand cutting
- 60° centre angle
- 120° pointed angle
- For production of center borings
- Surface without discolouration
- High performance steel

Ideally suited for production of center borings according to DIN 332 form R.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	kg
330.1211	1,00	3,15	32,0	7,3	1	10
330.1212	1,50	4,00	36,0	9,3	1	10
330.1213	2,00	5,00	40,0	11,5	1	10
330.1214	2,50	6,30	46,0	15,4	1	20
330.1215	3,15	8,00	51,0	18,0	1	20
330.1216	4,00	10,00	56,0	20,0	1	22
330.1217	5,00	12,50	64,0	22,0	1	30
330.1218	6,30	15,00	72,0	30,0	1	30

### SPOT WELD DRILLS

#### HSS Spot weld cutter

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and fast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel

Ideally suitable with pneumatic drill, electric drill and rechargeable battery drill.



	D mm	D	L mm	Replacement crowns	Center point	Content	kg
332.0951	8,0	5/16	72,0	332.0952	332.0955	1	30
332.0953	10,0	3/8	72,0	332.0954	332.0955	1	30

### HSS Spot weld cutter set

- Right hand cutting
- Interchangeable crowns
- Milling machine depth adjustable
- For efficient and fast working
- For loosening of spot welds
- No deformation of the sheet metal
- Special high performance steel

Ideally suitable with pneumatic drill, electric drill and rechargeable battery drill.

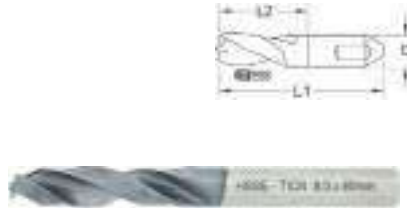


Part No.	Quantity	Size	Content
332.0950	2 pcs	8 - 10 mm	100

### HSSE TiCN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel

Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Part No.	D mm	L1 mm	L2 mm	Content
332.0308	8,0	80,0	30,0	1 20
332.0310	10,0	90,0	35,0	1 40

### HSSE TiN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine



Part No.	D mm	L1 mm	L2 mm	Content
332.0809	8,0	44,0	23,0	10 134

### HSSE Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- Surface without discolouration
- High performance steel

Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Part No.	D mm	L1 mm	L2 mm	Content
332.0106	6,0	70,0	25,0	1 10
332.0108	8,0	80,0	30,0	1 20
332.0110	10,0	90,0	35,0	1 40

### HSS Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.

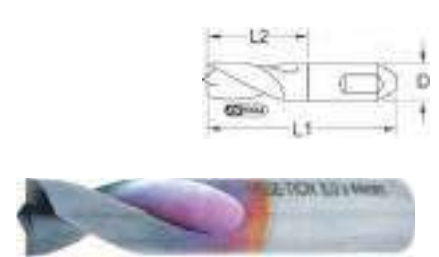


Part No.	D mm	L1 mm	L2 mm	Content
332.0408	6,5	44,0	15,0	1 10
332.0708	8,0	44,0	15,0	1 10

### HSSE TiCN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiCN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.



Part No.	D mm	L1 mm	L2 mm	Content
332.0608	8,0	44,0	15,0	1 10

### HSSE TiN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiN coated surface
- High performance steel

Ideally suited in a hand drilling machine.  
For drilling of plastic sheet, copper, zinc, aluminum, brass and steel sheet.



Part No.	D mm	L1 mm	L2 mm	Content
332.0206	6,0	70,0	25,0	1 10
332.0208	8,0	80,0	30,0	1 20
332.0210	10,0	90,0	35,0	1 40

### HSSE TiN Spot weld drill

- Right hand cutting
- Centre tip has a ground point
- Accurate polished
- For burr free drilling without using a centre punch
- For the drilling of welding points
- TiN coated surface
- High performance steel

Ideally suited in a pneumatic drill and vario milling machine.



Part No.	D mm	L1 mm	L2 mm	Content
332.0508	6,5	44,0	15,0	1 10
332.0808	8,0	44,0	15,0	1 10

### HSSE Double ended spot weld drill

- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Dual-sided adjustment
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel

Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-malleable- and cast iron



Part No.	D mm	L1 mm	L2 mm	Content
332.0908	8,0	70,0	16,3	1 20

**HSS Double ended spot weld drill set**

- Right hand cutting
- Relieved cone has a ground point
- Cutting edge has thinning point
- 135° pointed angle
- Dual-sided adjustment
- Extra short and durable
- For thin walled materials
- Surface without discolouration
- High performance steel

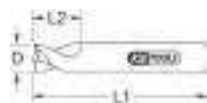
Ideally suitable in steel, cast steel and high and low alloyed steel up to 900 N/mm<sup>2</sup> tensile, bronze, brass, brushed aluminum alloy, graphite, nickel silver, sintered iron, pressure-, malleable- and cast iron



332.0938	3 pcs	3 x 332.0908		70	

**Carbide spot weld drill**

- Right hand cutting
- Highest stability under load
- Double edged
- Welded carbide head
- Especially temperature resistance up to max. 1100°C
- High performance carbide
- Suitable for high strength car body panels



	D mm	L1 mm	L2 mm	Content	g
515.1305	8,0	44,0	11,0	1	22
515.1308	10,0	44,0	11,0	1	25

**MILLING DRILLS**

**HSS Milling drill**

- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- Suitable for thin walled material
- Surface without discolouration
- Special high performance steel

Ideally suitable for boring and milling machines thin walled materials, plastic, wood and sheet metal.



	D mm	L1 mm	L2 mm	Content	g
332.0330	6,0	90,0	35,0	1	25
332.0331	8,0	90,0	35,0	1	30

**HSS TiN Milling drill**

- Right hand cutting
- Relieved cone has a ground point
- 118° pointed angle
- Suitable for thin walled material
- TiN coated surface
- Special high performance steel

Ideally suitable for boring and milling machines thin walled materials, plastic, wood and sheet metal.



	D mm	L1 mm	L2 mm	Content	g
332.0332	6,0	90,0	35,0	1	25
332.0333	8,0	90,0	35,0	1	30

**HSS CONE CUTTERS**

**HSS Cone cutter bit**

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- With 1/4" external hexagon drive adaptor to DIN 3126 - C6,3
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0031	5,0 - 22,0	20,0	5,0	6,4	78,0	51,0	1	65

**HSS Cone cutter spiral grooved**

- Point thinning according to DIN 1412 C
- Right hand cutting
- 118° pointed angle
- 20° cone angle
- Spiral form flute
- Three sided clamping surface on the shaft
- Absolute smooth operation
- Surface without discolouration
- High performance steel

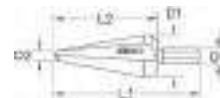
Is suitable for use in all current industrial metals. Such as alloyed and non alloyed sheet metals up to 4.0 mm, NE metal and plastic. The spiral chip groove formed means that drilling is absolutely quiet, whilst the forming ensures the best cut achievement.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0024	4,0 - 14,0	14,0	4,0	6,0	58,0	33,0	1	20
336.0025	5,0 - 20,0	20,0	5,0	8,0	71,0	47,0	1	56
336.0026	5,0 - 31,0	31,0	5,0	10,0	103,0	78,0	1	170

**HSS Cone cutter**

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	g
336.0001	3,0 - 14,0	14,0	3,0	6,0	58,0	38,0	1	20
336.0002	5,0 - 20,0	20,0	5,0	8,0	71,0	51,0	1	50
336.0003	16,0 - 30,5	30,5	16,0	9,0	76,0	54,0	1	120
336.0004	24,0 - 40,0	40,0	24,0	10,0	89,0	65,0	1	270
336.0005	36,0 - 50,0	50,0	36,0	12,0	97,0	71,0	1	490
336.0006	40,0 - 61,0	61,0	40,0	13,0	103,0	73,0	1	510
336.0007	5,0 - 25,4	25,4	5,0	10,0	87,0	67,0	1	100
336.0008	4,0 - 30,0	30,0	4,0	9,0	103,0	83,0	1	150
336.0009	5,0 - 22,5	22,5	5,0	8,0	79,0	59,0	1	90

**HSS Cone cutter set in metal case**

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel



336.0503	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm		590	



### HSS Cone cutter set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel



336.0533	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590
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### HSS CO CONE CUTTERS

#### HSS Co Cone cutter

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	
336.0011	3,0 - 20,0	14,0	3,0	6,0	58,0	38,0	1	20
336.0012	5,0 - 20,0	20,0	5,0	8,0	71,0	51,0	1	56
336.0013	16,0 - 30,5	30,5	16,0	9,0	76,0	54,0	1	120
336.0014	4,0 - 30,0	30,0	4,0	9,0	103,0	65,0	1	170

### HSS Co Cone cutter set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel



336.0513	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590
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### HSS Co Cone cutter set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

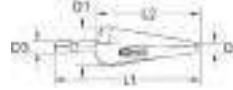


336.0543	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590
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### HSS TIN CONE CUTTERS

#### HSS TiN Cone cutter bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- TiN coated surface
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	
336.0033	5,0 - 20,0	20,0	5,0	6,4	78,0	51,0	1	65

#### HSS TiN Cone cutter

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Content	
336.0015	3,0 - 14,0	14,0	3,0	6,0	58,0	38,0	1	20
336.0016	5,0 - 20,0	20,0	5,0	8,0	71,0	51,0	1	56
336.0017	16,0 - 30,5	30,5	16,0	9,0	76,0	54,0	1	120
336.0018	24,0 - 40,0	40,0	24,0	10,0	89,0	65,0	1	259
336.0019	36,0 - 50,0	50,0	36,0	12,0	97,0	71,0	1	480
336.0020	40,0 - 61,0	61,0	40,0	13,0	103,0	73,0	1	605
336.0021	5,0 - 25,4	25,4	5,0	10,0	87,0	67,0	1	150
336.0022	4,0 - 30,0	30,0	4,0	9,0	103,0	83,0	1	170
336.0023	5,0 - 22,5	22,5	5,0	8,0	79,0	59,0	1	180

### HSS TiN Cone cutter set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel



336.0523	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590
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### HSS TiN Cone cutter set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- 118° pointed angle
- 20 - 30° cone angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel



336.0553	4 pcs	3 - 14 mm - 5 - 20 mm - 16 - 30,5 mm	590
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## HSS STEPPED DRILLS

### HSS Stepped drill bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifies the retracting through bored sheet metals. Breaking chips and swarf are taken away. The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented.



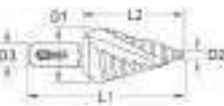
1/4"

	Ø mm	D1 mm	D2 mm	L1 mm	L2 mm	No. stages	Content	
330.2381	4,0-12,0	12,0	4,0	72,0	45,0	9	1	25
330.2382	4,0-20,0	20,0	4,0	81,0	54,0	9	1	85
330.2383	4,0-30,0	30,0	4,0	105,0	78,0	14	1	165

### HSS Stepped drill, extra short

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifies the retracting through bored sheet metals. Breaking chips and swarf are taken away. The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented. Ideally suited for construction strength grade sheet metal up to 2.0 mm.

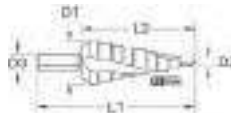


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	
330.2371	4 - 12	12,0	4,0	6,0	48,0	28,0	9	1	16
330.2372	4 - 20	20,0	4,0	8,0	58,0	38,0	9	1	42
330.2373	4 - 30	30,0	4,0	10,0	72,0	49,0	14	1	130

## HSS Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	
330.2301	4 - 12	12,0	4,0	6,0	65,0	45,0	9	1	22
330.2302	4 - 20	20,0	4,0	8,0	75,0	55,0	9	1	60
330.2303	4 - 30	30,0	4,0	10,0	100,0	78,0	14	1	185
330.2304	6 - 30	30,0	6,0	10,0	95,0	73,0	13	1	205
330.2305	6 - 37	37,0	6,0	10,0	100,0	76,0	12	1	245
330.2306	6 - 38	38,0	6,0	10,0	100,0	76,0	12	1	260
330.2307	4 - 39	39,0	4,0	10,0	107,0	83,0	13	1	312
330.2308	6 - 40	40,0	6,0	13,0	105,0	81,0	19	1	455
330.2309	6 - 20	20,0	6,0	9,0	71,0	51,0	8	1	100
330.2310	4 - 22	22,0	4,0	10,0	76,0	56,0	10	1	85
330.2311	6 - 27,8	26,8	6,0	10,0	75,0	53,0	8	1	110
330.2312	6 - 32	32,0	6,0	10,0	75,0	53,0	8	1	102
330.2313	6 - 32	32,0	6,0	10,0	76,0	53,0	9	1	108
330.2314	5 - 28	28,0	5,0	9,0	69,0	53,0	7	1	86
330.2315	6 - 25	25,0	6,0	10,0	65,0	47,0	7	1	135
330.2316	6 - 30,5	30,5	6,0	10,0	80,0	57,0	9	1	150
330.2317	6,5 - 40,5	40,5	6,5	10,0	96,0	72,0	11	1	265
330.2318	6 - 36	36,0	6,0	10,0	82,0	57,0	11	1	255
330.2319	7 - 40,5	40,5	7,0	12,0	95,0	70,0	13	1	275
330.2320	4,8 - 10,7	10,7	4,8	6,0	54,0	34,0	5	1	27
330.2321	7 - 32,5	32,5	7,0	12,0	96,0	71,0	11	1	220

### HSS Stepped drill set in metal case

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



330.2403	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610	
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## HSS Stepped drill set in plastic case

- Stackable for storage
- With integral clasp
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



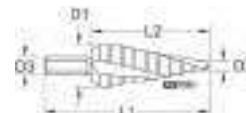
330.2404	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610	
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## HSS CO STEPPED DRILLS

### HSS Co 5 Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	
330.2322	4 - 12	12,0	4,0	6,0	65,0	45,0	9	1	22
330.2323	4 - 20	20,0	4,0	8,0	75,0	55,0	9	1	60
330.2324	4 - 30	30,0	4,0	10,0	100,0	78,0	14	1	185
330.2325	6 - 30	30,0	6,0	10,0	95,0	73,0	13	1	205
330.2326	6 - 37	37,0	6,0	10,0	100,0	76,0	12	1	245
330.2327	6 - 38	38,0	6,0	10,0	100,0	76,0	12	1	260
330.2328	4 - 39	39,0	4,0	10,0	107,0	83,0	13	1	312
330.2329	6 - 40	40,0	6,0	13,0	105,0	81,0	16	1	455
330.2330	6 - 20	20,0	6,0	9,0	71,0	51,0	8	1	100
330.2331	4 - 22	22,0	4,0	10,0	76,0	56,0	10	1	85
330.2332	6 - 26,8	26,8	6,0	10,0	75,0	53,0	8	1	110
330.2333	6 - 32	32,0	6,0	10,0	75,0	53,0	8	1	102
330.2334	6 - 32	32,0	6,0	10,0	76,0	53,0	9	1	108
330.2335	5 - 28	28,0	5,0	9,0	69,0	53,0	7	1	86
330.2336	6 - 25	25,0	6,0	10,0	65,0	47,0	7	1	135
330.2337	6 - 30,5	30,5	6,0	10,0	80,0	57,0	9	1	150
330.2338	6,5 - 40,5	40,5	6,5	10,0	96,0	72,0	11	1	265
330.2339	6 - 36	36,0	6,0	10,0	82,0	57,0	11	1	255
330.2340	7 - 40,5	40,5	7,0	12,0	95,0	70,0	13	1	275
330.2341	4,8 - 10,7	10,7	4,8	6,0	54,0	34,0	5	1	27
330.2342	7 - 32,5	32,5	7,0	12,0	96,0	71,0	11	1	220

### HSS Co 5 Stepped drill set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



					9
330.2413	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	600		

### HSS Co 5 Stepped drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- Surface without discolouration
- High performance cobalt steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



					9
330.2414	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	600		

### HSS TiN STEPPED DRILLS

#### HSS TiN Stepped drill bit

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifies the retracting through bored sheet metals. Breaking chips and swarf are taken away. The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented.



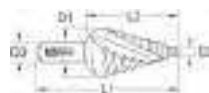
1/4"

	Ø mm	D1 mm	D2 mm	L1 mm	L2 mm	No. stages	Content	9
330.2384	4,0-12,0	12,0	4,0	72,0	45,0	9	1 25	
330.2385	4,0-20,0	20,0	4,0	81,0	54,0	9	1 85	
330.2386	4,0-30,0	30,0	4,0	105,0	78,0	14	1 165	

#### HSS TiN Stepped drill, extra short

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifies the retracting through bored sheet metals. Breaking chips and swarf are taken away. The construction of the cutting edges and cold welded joint in the edges blunting is thereby prevented. Ideally suited for construction strength grade sheet metal up to 2.0 mm.

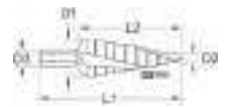


	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	9
330.2374	4 - 12	12,0	4,0	6,0	48,0	28,0	9	1 16	
330.2375	4 - 20	20,0	4,0	8,0	58,0	38,0	9	1 42	
330.2376	4 - 30	30,0	4,0	10,0	72,0	49,0	14	1 130	

### HSS TiN Stepped drill

- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



	Ø mm	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	No. stages	Content	9
330.2343	4 - 12	12,0	4,0	6,0	65,0	45,0	9	1 22	
330.2344	4 - 20	20,0	4,0	8,0	75,0	55,0	9	1 60	
330.2345	4 - 30	30,0	4,0	10,0	100,0	78,0	14	1 185	
330.2346	6 - 30	30,0	6,0	10,0	95,0	73,0	13	1 205	
330.2347	6 - 37	37,0	6,0	10,0	100,0	76,0	12	1 245	
330.2348	6 - 38	38,0	6,0	10,0	100,0	76,0	12	1 260	
330.2349	4 - 39	39,0	4,0	10,0	107,0	83,0	13	1 312	
330.2350	6 - 40	40,0	6,0	13,0	105,0	81,0	16	1 455	
330.2351	6 - 20	20,0	6,0	9,0	71,0	51,0	8	1 100	
330.2352	4 - 22	22,0	4,0	10,0	76,0	56,0	10	1 85	
330.2353	6 - 26,8	26,8	6,0	10,0	75,0	53,0	8	1 110	
330.2354	6 - 32	32,0	6,0	10,0	75,0	53,0	8	1 102	
330.2355	6 - 32	32,0	6,0	10,0	76,0	53,0	9	1 108	
330.2356	5 - 28	28,0	5,0	9,0	69,0	47,0	7	1 86	
330.2357	6 - 25	25,0	6,0	10,0	65,0	42,0	7	1 135	
330.2358	6 - 30,5	30,5	6,0	10,0	80,0	57,0	9	1 150	
330.2359	6,5 - 40,5	40,5	6,5	10,0	96,0	72,0	11	1 265	
330.2360	6 - 36	36,0	6,0	10,0	82,0	57,0	11	1 255	
330.2361	7 - 40,5	40,5	7,0	12,0	95,0	70,0	13	1 275	
330.2362	4,8 - 10,7	10,7	4,8	6,0	54,0	34,0	5	1 27	
330.2363	7 - 32,5	32,5	7,0	12,0	96,0	71,0	11	1 220	

### HSS TiN Stepped drill set in metal case

- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.



					9
330.2423	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610		



### HSS TiN Stepped drill set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- Point thinning according to DIN 1412 C
- Cutting edge has thinning point
- Right hand cutting
- Spiral grooved
- 118° pointed angle
- 90° stepped angle
- Absolute smooth operation
- High cutting achievement
- With TiN coated surface
- High performance steel

The cone simplifies the retracting through bored sheet metals. Higher feed especially in NE metals possible due to the slim cutting edge.

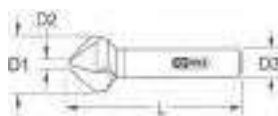


330.2424	3 pcs	4 - 12 mm - 4 - 20 mm - 6 - 30 mm	610

### HSS Co Cone and deburrer 60°

- DIN 334 form C
- Right hand cutting
- 60° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

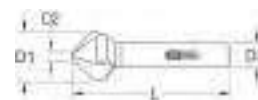


	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0102	6,3	1,6	5,0	45,0	1	10
336.0103	8,0	2,0	6,0	50,0	1	12
336.0104	10,0	2,5	6,0	53,0	1	14
336.0105	12,5	3,2	8,0	56,0	1	24
336.0106	16,0	4,0	10,0	63,0	1	44
336.0107	20,0	5,0	10,0	67,0	1	50
336.0108	25,0	6,3	10,0	71,0	1	64
336.0109	31,5	10,0	12,0	76,0	1	78

### HSS Co Cone and deburrer 75°

- Form C
- Right hand cutting
- 75° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0110	6,3	1,6	5,0	45,0	1	10
336.0111	8,0	2,0	6,0	50,0	1	12
336.0112	10,0	2,5	6,0	53,0	1	14
336.0113	12,5	3,2	8,0	56,0	1	24
336.0114	16,0	4,0	10,0	63,0	1	44
336.0115	20,0	5,0	10,0	67,0	1	50
336.0116	25,0	6,3	10,0	71,0	1	64
336.0117	31,5	10,0	12,0	76,0	1	78

### CONE - AND DEBURRING 60°

### HSS Cone and deburrer 60°

- DIN 334 form C
- Right hand cutting
- 60° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0034	6,3	1,6	5,0	45,0	1	10
336.0035	8,0	2,0	6,0	50,0	1	12
336.0036	10,0	2,5	6,0	53,0	1	12
336.0037	12,5	3,2	8,0	56,0	1	24
336.0038	16,0	4,0	10,0	63,0	1	42
336.0039	20,0	5,0	10,0	67,0	1	50
336.0040	25,0	6,3	10,0	71,0	1	66
336.0041	31,5	10,0	12,0	76,0	1	78

### CONE - AND DEBURRING 75°

### HSS Cone and deburrer 75°

- Form C
- Right hand cutting
- 75° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0042	6,3	1,6	5,0	45,0	1	10
336.0043	8,0	2,0	6,0	50,0	1	12
336.0044	10,0	2,5	6,0	53,0	1	14
336.0045	12,5	3,2	8,0	56,0	1	24
336.0046	16,0	4,0	10,0	63,0	1	44
336.0047	20,0	5,0	10,0	67,0	1	50
336.0048	25,0	6,3	10,0	71,0	1	64
336.0049	31,5	10,0	12,0	76,0	1	78

### CONE - AND DEBURRING 90°

### HSS Cone and deburrer bit 90°

- Right hand cutting
- 90° Countersink angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Three cutting edges
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

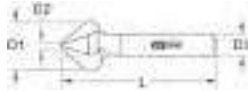


	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0274	6,3	1,0	6,4	45,0	1	10
336.0275	8,3	1,5	6,4	50,0	1	14
336.0276	10,4	2,0	6,4	50,0	1	15
336.0277	12,4	2,0	6,4	56,0	1	26
336.0278	16,5	2,5	6,4	60,0	1	36
336.0279	20,5	3,0	6,4	63,0	1	52

### HSS Cone and deburrer 90°

- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	🔩
336.0050	4,3	1,3	4,0	40,0			1	9
336.0051	5,0	1,5	4,0	40,0	M2,5		1	9
336.0052	5,3	1,5	4,0	40,0			1	9
336.0053	5,8	1,5	5,0	45,0			1	10
336.0054	6,0	1,5	5,0	45,0	M3		1	10
336.0055	6,3	1,5	5,0	45,0		M3	1	10
336.0056	7,0	1,8	6,0	50,0	M3,5		1	13
336.0057	7,3	1,8	6,0	50,0			1	13
336.0058	8,0	2,0	6,0	50,0	M4		1	15
336.0059	8,3	2,0	6,0	50,0		M4	1	15
336.0060	9,4	2,2	6,0	50,0			1	18
336.0061	10,0	2,5	6,0	50,0	M5		1	20
336.0062	10,4	2,5	6,0	50,0		M5	1	20
336.0063	11,5	2,8	8,0	56,0	M6		1	26
336.0064	12,4	2,8	8,0	56,0		M6	1	26
336.0065	13,4	2,9	8,0	56,0			1	26
336.0066	15,0	3,2	10,0	60,0	M8		1	36
336.0067	16,5	3,2	10,0	60,0		M8	1	36
336.0068	19,0	3,5	10,0	63,0	M10		1	52
336.0069	20,5	3,5	10,0	63,0		M10	1	52
336.0070	23,0	3,8	10,0	67,0	M12		1	62
336.0071	25,0	3,8	10,0	67,0		M12	1	62
336.0072	26,0	3,9	12,0	71,0	M14		1	65
336.0073	28,0	4,0	12,0	71,0		M14	1	70
336.0074	30,0	4,1	12,0	71,0	M16		1	70
336.0075	31,0	4,2	12,0	71,0		M16	1	70

### HSS Cone and deburrer set 90° in metal case

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	🔩
336.0406	6 pcs	6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm			530	

### HSS Cone and deburrer set 90° in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	🔩
336.0446	6 pcs	6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm			530	

### HSS Co Cone and deburrer bit 90°

- Right hand cutting
- 90° Countersink angle
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- Three cutting edges
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	🔩
336.0300	6,3	1,0	6,4	45,0	1	10
336.0301	8,3	1,5	6,4	50,0	1	14
336.0302	10,4	2,0	6,4	50,0	1	15
336.0303	12,4	2,0	6,4	56,0	1	26
336.0304	16,5	2,5	6,4	60,0	1	36
336.0305	20,5	3,0	6,4	63,0	1	52

### HSS Co 5 Cone and deburrer 90°

- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	🔩
336.0118	4,3	1,3	4,0	40,0			1	9
336.0119	5,0	1,5	4,0	40,0	M2,5		1	9
336.0120	5,3	1,5	4,0	40,0			1	9
336.0121	5,8	1,5	5,0	45,0			1	10
336.0122	6,0	1,5	5,0	45,0	M3		1	10
336.0123	6,3	1,5	5,0	45,0		M3	1	10
336.0124	7,0	1,8	6,0	50,0	M3,5		1	13
336.0125	7,3	1,8	6,0	50,0			1	13
336.0126	8,0	2,0	6,0	50,0	M4		1	15
336.0127	8,3	2,0	6,0	50,0		M4	1	15
336.0128	9,4	2,2	6,0	50,0			1	18
336.0129	10,0	2,5	6,0	50,0	M5		1	20
336.0130	10,4	2,5	6,0	50,0		M5	1	20
336.0131	11,5	2,8	8,0	56,0	M6		1	26
336.0132	12,4	2,8	8,0	56,0		M6	1	26
336.0133	13,4	2,9	8,0	56,0			1	26
336.0134	15,0	3,2	10,0	60,0	M8		1	36
336.0135	16,5	3,2	10,0	60,0		M8	1	36
336.0136	19,0	3,5	10,0	63,0	M10		1	52
336.0137	20,5	3,5	10,0	63,0		M10	1	52
336.0138	23,0	3,8	10,0	67,0	M12		1	62
336.0139	25,0	3,8	10,0	67,0		M12	1	62
336.0140	26,0	3,9	12,0	71,0	M14		1	65
336.0141	28,0	4,0	12,0	71,0		M14	1	70
336.0142	30,0	4,1	12,0	71,0	M16		1	70
336.0143	31,0	4,2	12,0	71,0		M16	1	70

### HSS Co 5 Cone and deburrer set 90° in metal case

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	🔩
336.0416	6 pcs	6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm			530	

**HSS Co 5 Cone and deburrer set 90° in plastic case**

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



336.0456	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530
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**HSS TiN Cone and deburrer 90°**

- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Countersink DIN 74 AF	Countersink DIN 74 BF	Content	9
336.0170	4,3	1,3	4,0	40,0			1	9
336.0171	5,0	1,5	4,0	40,0	M2,5		1	9
336.0172	5,3	1,5	4,0	40,0			1	9
336.0173	5,8	1,5	5,0	45,0			1	10
336.0174	6,0	1,5	5,0	45,0	M3		1	10
336.0175	6,3	1,5	5,0	45,0		M3	1	10
336.0176	7,0	1,8	6,0	50,0	M3,5		1	13
336.0177	7,3	1,8	6,0	50,0			1	13
336.0178	8,0	2,0	6,0	50,0	M4		1	15
336.0179	8,3	2,0	6,0	50,0		M4	1	15
336.0180	9,4	2,0	6,0	50,0			1	18
336.0181	1,0	2,5	6,0	50,0	M5		1	20
336.0182	10,4	2,5	6,0	50,0		M5	1	20
336.0183	11,5	2,8	8,0	56,0	M6		1	26
336.0184	12,4	2,8	8,0	56,0		M6	1	26
336.0185	13,4	2,9	8,0	56,0			1	26
336.0186	15,0	3,2	10,0	60,0	M8		1	36
336.0187	16,5	3,2	10,0	60,0		M8	1	36
336.0188	19,0	3,5	10,0	63,0	M10		1	52
336.0189	20,5	3,5	10,0	63,0		M10	1	52
336.0190	23,0	3,8	10,0	67,0	M12		1	62
336.0191	25,0	3,8	10,0	67,0		M12	1	62
336.0192	26,0	3,9	12,0	71,0	M14		1	65
336.0193	28,0	4,0	12,0	71,0		M14	1	70
336.0194	30,0	4,1	12,0	71,0	M16		1	70
336.0195	31,0	4,2	12,0	71,0		M16	1	70

**HSS TiN Cone and deburrer bit 90°**

- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- 1/4" external hexagon drive adaptor to DIN 3126 - C 6,3
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



	D1 mm	D2 mm	D3 mm	L mm	Content	9
336.0326	6,3	1,0	6,4	45,0	1	10
336.0327	8,3	1,5	6,4	50,0	1	14
336.0328	10,4	2,0	6,4	50,0	1	15
336.0329	12,4	2,0	6,4	56,0	1	26
336.0330	16,5	2,5	6,4	60,0	1	36
336.0331	20,5	3,0	6,4	63,0	1	52

**HSS TiN Cone and deburrer set 90° in metal case**

- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



336.0426	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530
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**HSS TiN Cone and deburrer set 90° in plastic case**

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 335 form C
- Right hand cutting
- 90° Countersink angle
- Three cutting edges
- Cylindrical shaft
- Deep ground flutes
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



336.0466	6 pcs	6.3 - 8.3 - 10.4 - 12.4 - 16.5 - 20.5 mm	530
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**CONE - AND DEBURRING 120°**

**HSS Cone and deburrer 120°**

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

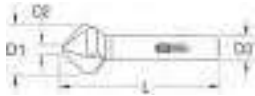


	D1 mm	D2 mm	D3 mm	L mm	Content	9
336.0076	6,3	1,5	5,0	45,0	1	14
336.0077	8,3	2,0	6,0	50,0	1	14
336.0078	10,4	2,5	6,0	50,0	1	20
336.0079	12,4	2,8	8,0	56,0	1	28
336.0080	16,5	3,2	10,0	60,0	1	46
336.0081	20,5	3,5	10,0	63,0	1	54
336.0082	25,0	3,8	10,0	67,0	1	62

### HSS Co Cone and deburrer 120°

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- Surface without discolouration
- High performance cobalt steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.

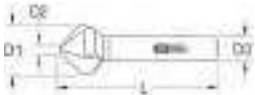


	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0144	6,3	1,5	5,0	45,0	1	10
336.0145	8,3	2,0	6,0	50,0	1	15
336.0146	10,4	2,5	6,0	50,0	1	20
336.0147	12,4	2,8	8,0	56,0	1	26
336.0148	16,5	3,2	10,0	60,0	1	36
336.0149	20,5	3,5	10,0	63,0	1	52
336.0150	25,0	3,8	10,0	67,0	1	62

### HSS TiN Cone and deburrer 120°

- Form C
- Right hand cutting
- 120° Countersink angle
- Cylindrical shaft
- Deep ground flutes
- TiN coated surface
- High performance steel

Ideally suitable for deburring and countersinking in steel, non ferrous metals and light metals as well as chatter free countersinking.



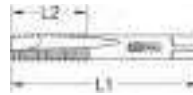
	D1 mm	D2 mm	D3 mm	L mm	Content	
336.0201	6,3	1,5	5,0	45,0	1	14
336.0202	8,3	2,0	6,0	50,0	1	14
336.0203	10,4	2,5	6,0	50,0	1	20
336.0204	12,4	2,8	8,0	56,0	1	28
336.0205	16,5	3,2	10,0	60,0	1	46
336.0206	20,5	3,5	10,0	63,0	1	54
336.0207	25,0	3,8	10,0	67,0	1	62

### HSS THREADED TAP

#### HSS hand drill tap set M

- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel

Ideally usable in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

			L1 mm	Individual taper tap	Individual second tap	Individual bottom tap	L2 mm	
331.0020	M2 x 0,4	1,60	36,0	331.0301	331.0321	331.0341	8,0	8
331.0025	M2,5 x 0,45	2,10	40,0	331.0302	331.0322	331.0342	8,0	10
331.0030	M3 x 0,5	2,50	40,0	331.0303	331.0323	331.0343	10,0	10
331.0035	M3,5 x 0,6	2,90	45,0	331.0304	331.0324	331.0344	12,0	10
331.0040	M4 x 0,7	3,30	45,0	331.0305	331.0325	331.0345	12,0	10
331.0050	M5 x 0,8	4,20	50,0	331.0306	331.0326	331.0346	13,0	30
331.0060	M6 x 1,0	5,00	56,0	331.0307	331.0327	331.0347	15,0	30
331.0070	M7 x 1,0	6,00	56,0	331.0308	331.0328	331.0348	16,0	30
331.0080	M8 x 1,25	6,80	63,0	331.0309	331.0329	331.0349	18,0	40
331.0100	M10 x 1,5	8,50	70,0	331.0310	331.0330	331.0350	24,0	70
331.0110	M11 x 1,5	8,50	70,0	331.0311	331.0331	331.0351	24,0	90
331.0120	M12 x 1,75	10,20	75,0	331.0312	331.0332	331.0352	29,0	110
331.0140	M14 x 2,0	12,00	80,0	331.0313	331.0333	331.0353	30,0	150
331.0160	M16 x 2,0	14,00	80,0	331.0314	331.0334	331.0354	32,0	200
331.0180	M18 x 2,5	15,50	95,0	331.0315	331.0335	331.0355	40,0	260
331.0200	M20 x 2,5	17,50	95,0	331.0316	331.0336	331.0356	40,0	330
331.0220	M22 x 2,5	19,50	100,0	331.0317	331.0337	331.0357	40,0	400
331.0240	M24 x 3,0	21,00	110,0	331.0318	331.0338	331.0358	45,0	470
331.0270	M27 x 3,0	24,00	110,0	331.0319	331.0339	331.0359	50,0	530
331.0300	M30 x 3,5	26,50	125,0	331.0320	331.0340	331.0360	56,0	600



### HSS hand drill tap set MF

- DIN 2181
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes for cutting and threading
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel

Ideally usable in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

			L1 mm	Individual taper tap	Individual bottom tap	L2 mm	
331.1101	MF3 x 0,35	2,60	40,0	331.1201	331.1301	10,0	10
331.1102	MF4 x 0,5	3,50	45,0	331.1202	331.1302	12,0	10
331.1103	MF5 x 0,5	4,50	50,0	331.1203	331.1303	13,0	20
331.1104	MF6 x 0,75	5,20	50,0	331.1204	331.1304	15,0	20
331.1105	MF7 x 0,76	6,20	50,0	331.1205	331.1305	14,0	20
331.1106	MF8 x 0,75	7,20	56,0	331.1206	331.1306	18,0	30
331.1107	MF8 x 1,0	7,00	56,0	331.1207	331.1307	18,0	30
331.1108	MF9 x 1,0	8,00	63,0	331.1208	331.1308	20,0	40
331.1109	MF10 x 1	9,00	63,0	331.1209	331.1309	18,0	50
331.1110	MF10 x 1,25	8,70	70,0	331.1210	331.1310	24,0	50
331.1111	MF11 x 1,0	9,20	63,0	331.1211	331.1311	22,0	60
331.1112	MF12 x 1,0	11,00	70,0	331.1212	331.1312	20,0	80
331.1113	MF12 x 1,25	10,70	70,0	331.1213	331.1313	20,0	80
331.1114	MF12 x 1,5	10,50	70,0	331.1214	331.1314	20,0	80
331.1115	MF14 x 1,0	13,00	70,0	331.1215	331.1315	20,0	100
331.1116	MF14 x 1,25	12,70	70,0	331.1216	331.1316	20,0	100
331.1117	MF14 x 1,5	12,50	70,0	331.1217	331.1317	20,0	100
331.1118	MF16 x 1,5	14,50	70,0	331.1218	331.1318	20,0	160
331.1119	MF18 x 1,0	17,00	80,0	331.1219	331.1319	22,0	190
331.1120	MF18 x 1,25	16,80	80,0	331.1220	331.1320	22,0	190
331.1121	MF18 x 1,5	16,50	80,0	331.1221	331.1321	22,0	190
331.1122	MF18 x 2,0	16,00	80,0	331.1222	331.1322	22,0	190
331.1123	MF20 x 1,0	19,00	80,0	331.1223	331.1323	22,0	250
331.1124	MF20 x 1,25	18,80	80,0	331.1224	331.1324	22,0	250
331.1125	MF20 x 1,5	18,50	80,0	331.1225	331.1325	22,0	250
331.1126	MF20 x 2,0	18,00	80,0	331.1226	331.1326	22,0	250

### HSS hand drill tap set M in steel case

- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel
- Each size includes 1x second and bottom tap

Ideally usable in high and low alloyed steel up to 800 N/mm² stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

		Content	
336.0621	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620

### HSS hand drill tap set M in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance high speed steel
- Each size includes 1x second and bottom tap

Ideally usable in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

331.0644	44 pcs	HSS tap and die set in metal case	3,93
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		2,5 - 3,3 - 4,2 - 5 - 6,8 - 8,5 - 10,2 mm	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
5 x		M3-M4 - M4,5-M6 - M7-M9 - M10-M11 - M12-M14	
2 x		M1-M10 - M3-M12	
1 x			
1 x			

### HSS tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes tamperproof drill, thread gauge and screwdriver
- High performance steel



331.0644	44 pcs	HSS tap and die set in metal case	3,93
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		2,5 - 3,3 - 4,2 - 5 - 6,8 - 8,5 - 10,2 mm	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
5 x		M3-M4 - M4,5-M6 - M7-M9 - M10-M11 - M12-M14	
2 x		M1-M10 - M3-M12	
1 x			
1 x			

### HSS tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance steel



331.0632	32 pcs	HSS tap and die set in metal case	1,32
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
1 x		M7 - M9	
1 x		M1 - M12	
1 x			
1 x			

### HSS tap and die set in metal case

- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance steel



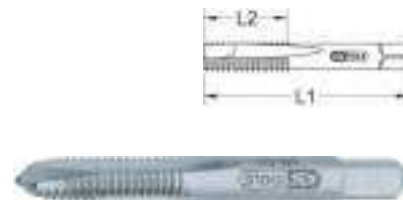
331.0654	54 pcs	HSS tap and die set in metal case	8,30
33 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M15 - M18 - M20	
11 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 - M14 - M15 - M18 - M20	
6 x		M3-M4 - M4,5-M6 - M7-M9 - M10-M11 - M12-M14 - M16-M20	
2 x		M1-M10 - M5-M20	
1 x			
1 x			

### HSS CO THREADED TAP

#### HSS Co slitting tap and die M

- DIN 352 form B
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Hard metal centre
- Metric thread
- Thread process by slicing the cutting edge
- Surface without discolouration
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 900 N/mm<sup>2</sup> stability, cast iron and NE metals.



331.0223	331.0224	331.0225	331.0226	331.0228	331.0230	331.0232	
M3 x 0,5	M4 x 0,7	M5 x 0,8	M6 x 1,0	M8 x 1,25	M10 x 1,5	M12 x 1,75	
2,50	3,30	4,20	5,00	6,80	8,50	10,50	
40,0	45,0	50,0	50,0	56,0	70,0	75,0	
L1 mm	L2 mm	Content	kg				
11,0	13,0	16,0	19,0	22,0	24,0	29,0	1
4	7	11	13	15	30	44	

#### HSS Co hand drill tap set M

- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel

Ideally usable in high and low alloyed steel up to 900 N/mm<sup>2</sup> stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

331.2020	331.2025	331.2030	331.2035	331.2040	331.2050	331.2060	331.2070	331.2080	331.2100	331.2110	331.2120	331.2140	331.2160	331.2180	331.2200	331.2220	331.2240	331.2270	331.2300	
M2 x 0,4	M2,5 x 0,45	M3 x 0,5	M3,5 x 0,6	M4 x 0,7	M5 x 0,8	M6 x 1,0	M7 x 1,0	M8 x 1,25	M10 x 1,5	M11 x 1,5	M12 x 1,75	M14 x 2,0	M16 x 2,0	M18 x 2,5	M20 x 2,5	M22 x 2,5	M24 x 3,0	M27 x 3,0	M30 x 3,5	
1,60	2,10	2,50	2,90	3,30	4,20	5,00	6,00	6,80	7,00	7,00	7,50	8,00	8,00	9,50	9,50	10,00	11,00	11,00	12,50	
36,0	40,0	40,0	45,0	45,0	50,0	50,0	50,0	56,0	70,0	70,0	75,0	80,0	80,0	95,0	95,0	100,0	110,0	110,0	125,0	
Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap	Individual taper tap	Individual second tap	Individual bottom tap
331.2301	331.2302	331.2303	331.2304	331.2305	331.2306	331.2307	331.2308	331.2309	331.2310	331.2311	331.2312	331.2313	331.2314	331.2315	331.2316	331.2317	331.2318	331.2319	331.2320	331.2321
331.3321	331.3322	331.3323	331.3324	331.3325	331.3326	331.3327	331.3328	331.3329	331.3330	331.3331	331.3332	331.3333	331.3334	331.3335	331.3336	331.3337	331.3338	331.3339	331.3340	331.3341
8,0	9,0	11,0	13,0	13,0	16,0	19,0	19,0	22,0	24,0	24,0	29,0	30,0	32,0	40,0	40,0	40,0	50,0	50,0	56,0	60,0
10	12	12	18	20	34	40	44	48	92	112	134	200	230	365	445	470	530	565	606	

### HSS Co hand drill tap set M in metal case

- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel
- Each size includes 1x second and bottom tap

Ideally usable in high and low alloyed steel up to 900 N/mm<sup>2</sup> stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

<b>336.0631</b>	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620
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### HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance cobalt steel



<b>331.0732</b>	32 pcs	HSS Co tap and die set in metal case	1,32
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
1 x		M7 - M9	
1 x		M1 - M12	
1 x			

### HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance cobalt steel



<b>331.0754</b>	54 pcs	HSS Co tap and die set in metal case	8,30
33 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 M14 - M15 - M18 - M20	
11 x		M3 - M4 - M5 - M6 - M8 - M10 - M12 M14 - M15 - M18 - M20	
6 x		M3-M4 - M4,5-M6 - M7-M9 - M10 M11 - M12-M14 - M16-M20	
2 x		M1-M10 - M5-M20	
1 x			
1 x			

### HSS Co hand drill tap set M in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- DIN 352
- Tolerance according to ISO 2 / 6H
- Right hand cutting
- Includes second and bottom tap
- For running and blind hole threads
- With hard metal centre
- Surface without discolouration
- High performance cobalt steel
- Each size includes 1x second and bottom tap

Ideally usable in high and low alloyed steel up to 900 N/mm<sup>2</sup> stability, cast iron and NE metals.



Taper tap: ca. 5 - 6 cutting gears  
 Second tap: ca. 4 - 5 cutting gears  
 Bottom tap: ca. 2 - 3 cutting gears

<b>336.0651</b>	21 pcs	M3 - M4 - M5 - M6 - M8 - M10 - M12	620
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### HSS Co tap and die set in metal case

- Universal set
- Straight forward hand thread cutting
- With adjustable tap wrench and die holder
- Includes thread gauge and screwdriver
- High performance cobalt steel



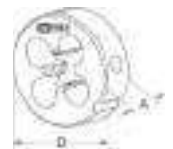
<b>331.0744</b>	44 pcs	HSS Co tap and die set in metal case	3,93
21 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
7 x		2,5 - 3,3 - 4,2 - 5 - 6,8 - 8,5 - 10,2 mm	
7 x		M3 - M4 - M5 - M6 - M8 - M10 - M12	
5 x		M3-M4 - M4,5-M6 - M7-M9 - M10 M11 - M12-M14	
2 x		M1-M10 - M3-M12	
1 x			
1 x			

### DIE STOCKS

#### HSS die M

- DIN EN 22568 form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specification, ground cutting edge
- Metric thread
- Surface without discolouration
- High performance steel

Ideally usable in high and low alloyed steel up to 800 N/mm<sup>2</sup> tensile

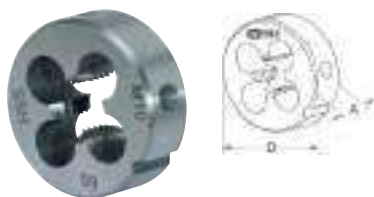


	mm	A mm	D mm	Content	g
<b>332.0030</b>	M3 x 0,50	5,0	20,0	1	8
<b>332.0040</b>	M4 x 0,70	5,0	20,0	1	10
<b>332.0050</b>	M5 x 0,80	7,0	20,0	1	12
<b>332.0060</b>	M6 x 1,00	7,0	20,0	1	14
<b>332.0070</b>	M7 x 1,00	9,0	25,0	1	18
<b>332.0080</b>	M8 x 1,25	9,0	25,0	1	20
<b>332.0090</b>	M9 x 1,25	9,0	25,0	1	35
<b>332.0100</b>	M10 x 1,50	11,0	30,0	1	50
<b>332.0120</b>	M12 x 1,75	14,0	38,0	1	60
<b>332.0140</b>	M14 x 2,00	14,0	38,0	1	73
<b>332.0160</b>	M16 x 2,00	18,0	40,0	1	199
<b>332.0180</b>	M18 x 2,50	18,0	40,0	1	220
<b>332.0200</b>	M20 x 2,50	18,0	40,0	1	240

### HSS die MF

- DIN EN 22568 form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specification, ground cutting edge
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability and NE metals.

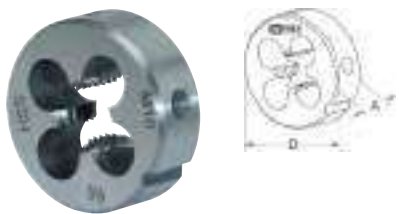


	$\frac{H}{mm}$	A mm	D mm	Content	
332.1000	M3 x 0,35	5,0	20,0	1	10
332.1001	M4 x 0,5	5,0	20,0	1	10
332.1002	M5 x 0,5	5,0	20,0	1	10
332.1003	M6 x 0,75	7,0	20,0	1	10
332.1004	M7 x 0,75	9,0	25,0	1	20
332.1005	M8 x 0,75	9,0	25,0	1	20
332.1006	M8 x 1,0	9,0	25,0	1	20
332.1007	M9 x 1,0	9,0	25,0	1	20
332.1008	M10 x 1,0	11,0	30,0	1	30
332.1009	M10 x 1,25	11,0	30,0	1	30
332.1010	M11 x 1,0	11,0	30,0	1	60
332.1011	M12 x 1,0	11,0	38,0	1	80
332.1012	M12 x 1,25	11,0	38,0	1	80
332.1013	M12 x 1,5	11,0	38,0	1	80
332.1014	M14 x 1,0	10,0	38,0	1	80
332.1015	M14 x 1,25	10,0	38,0	1	80
332.1016	M14 x 1,5	10,0	38,0	1	80
332.1017	M16 x 1,0	14,0	45,0	1	100
332.1018	M16 x 1,25	14,0	45,0	1	100
332.1019	M16 x 1,5	14,0	45,0	1	100
332.1020	M18 x 1,0	14,0	45,0	1	100
332.1021	M18 x 1,25	14,0	45,0	1	100
332.1022	M18 x 1,5	14,0	45,0	1	100
332.1023	M18 x 2,0	14,0	45,0	1	100
332.1024	M20 x 1,0	14,0	45,0	1	100
332.1025	M20 x 1,25	14,0	45,0	1	100
332.1026	M20 x 1,5	14,0	45,0	1	100
332.1027	M20 x 2,0	14,0	45,0	1	100
332.1063	M22 x 1,5	16,0	55,0	1	110

### HSS Co die M

- DIN EN 22568 form B
- Tolerance according to ISO - 6g
- Right hand cutting
- Specification, ground cutting edge
- Metric thread
- Surface without discolouration
- High performance cobalt high speed steel

Ideally usably in high and low alloyed steel up to 900 N/mm<sup>2</sup> stability and NE metals.

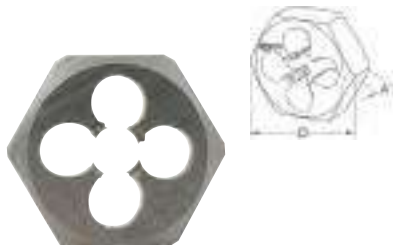


	$\frac{H}{mm}$	A mm	D mm	Content	
332.0001	M3 x 0,50	5,0	20,0	1	8
332.0002	M4 x 0,70	5,0	20,0	1	10
332.0003	M5 x 0,80	7,0	20,0	1	12
332.0004	M6 x 1,00	7,0	20,0	1	14
332.0005	M7 x 1,00	9,0	25,0	1	18
332.0006	M8 x 1,25	9,0	25,0	1	20
332.0007	M 9 x 1,25	9,0	25,0	1	35
332.0008	M10 x 1,50	11,0	30,0	1	50
332.0009	M12 x 1,75	14,0	38,0	1	60
332.0010	M14 x 2,00	14,0	38,0	1	73
332.0011	M16 x 2,00	18,0	45,0	1	199
332.0012	M18 x 2,50	18,0	45,0	1	220
332.0013	M20 x 2,50	18,0	45,0	1	220

### HSS hexagon die M

- DIN 382
- Tolerance according to ISO - 6g
- Right hand cutting
- Ground execution
- Metric thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability and NE metals.

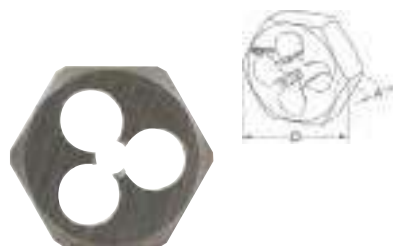


	$\frac{H}{mm}$	A mm	D mm	Content	
330.0030	M3 x 0,5	5,0	19,0	1	10
330.0040	M4 x 0,7	5,0	19,0	1	10
330.0050	M5 x 0,8	7,0	19,0	1	10
330.0060	M6 x 1,0	7,0	19,0	1	10
330.0070	M7 x 1,0	9,0	22,0	1	20
330.0080	M8 x 1,25	9,0	22,0	1	20
330.0090	M9 x 1,25	9,0	22,0	1	20
330.0100	M10 x 1,5	11,0	27,0	1	40
330.0110	M11 x 1,5	11,0	27,0	1	40
330.0120	M12 x 1,75	14,0	36,0	1	80
330.0140	M14 x 2,0	14,0	36,0	1	80
330.0160	M16 x 2,0	18,0	41,0	1	90
330.0180	M18 x 2,5	18,0	41,0	1	90
330.0200	M20 x 2,5	18,0	41,0	1	90

### HSS hexagon die MF

- DIN 382
- Tolerance according to ISO - 6g
- Right hand cutting
- Ground execution
- Metric fine thread
- Surface without discolouration
- High performance steel

Ideally usably in high and low alloyed steel up to 800 N/mm<sup>2</sup> stability and NE metals.



	$\frac{H}{mm}$	A mm	D mm	Content	
333.0017	M3 x 0,35	5,0	19,0	1	20
333.0018	M4 x 0,35	5,0	19,0	1	23
333.0019	M4 x 0,5	5,0	19,0	1	27
333.0020	M5 x 0,5	5,0	19,0	1	31
333.0021	M5 x 0,75	7,0	19,0	1	32
333.0022	M6 x 0,5	5,0	19,0	1	33
333.0023	M7 x 0,75	9,0	22,0	1	35
333.0024	M8 x 0,5	9,0	22,0	1	38
333.0025	M8 x 0,75	9,0	22,0	1	41
333.0026	M8 x 1,0	9,0	22,0	1	42
333.0027	M9 x 0,75	9,0	22,0	1	45
333.0028	M9 x 1,0	9,0	22,0	1	47
333.0029	M10 x 0,75	11,0	27,0	1	50
333.0031	M10 x 1,0	11,0	27,0	1	52
333.0032	M10 x 1,25	11,0	27,0	1	55
333.0033	M11 x 1,0	11,0	27,0	1	58
333.0034	M11 x 1,25	11,0	27,0	1	60

	$\frac{H}{mm}$	A mm	D mm	Content	
333.0035	M12 x 0,75	10,0	36,0	1	61
333.0036	M12 x 1,0	10,0	36,0	1	63
333.0037	M12 x 1,25	10,0	36,0	1	64
333.0038	M12 x 1,5	10,0	36,0	1	66
333.0039	M13 x 1,0	10,0	36,0	1	70
333.0041	M13 x 1,5	10,0	36,0	1	72
333.0042	M14 x 0,75	10,0	36,0	1	75
333.0043	M14 x 1,00	10,0	36,0	1	78
333.0044	M14 x 1,25	10,0	36,0	1	79
333.0045	M14 x 1,5	10,0	36,0	1	82
333.0046	M16 x 1,0	14,0	41,0	1	85
333.0047	M16 x 1,25	14,0	41,0	1	87
333.0048	M16 x 1,5	14,0	41,0	1	90
333.0049	M18 x 1,0	14,0	41,0	1	92
333.0051	M18 x 1,25	14,0	41,0	1	94
333.0052	M18 x 1,5	14,0	41,0	1	95
333.0053	M18 x 2,0	14,0	41,0	1	97
333.0054	M20 x 1,0	14,0	41,0	1	101
333.0055	M20 x 1,25	14,0	41,0	1	103
333.0056	M20 x 1,5	14,0	41,0	1	104
333.0057	M20 x 2,0	14,0	41,0	1	107
333.0058	M21 x 1,5	14,0	41,0	1	112

### TAP WRENCHES AND DIE HOLDERS

#### Adjustable tap wrench

- DIN 1814
- With two jaw collet chuck
- With steel rail
- Hardened clamping jaws
- Ideal to the thread cutting edge
- To that separating from thin sheet metals
- For difficult to access areas
- Die cast zinc housing



		L mm	Content	
331.0011	M1 - M8	130,0	1	90
331.0029	M1 - M10	180,0	1	96
331.0021	M1 - M12	180,0	1	110
331.0012	M3 - M10	180,0	1	120
331.0013	M3 - M12	200,0	1	220
331.0014	M4 - M12	280,0	1	280
331.0015	M5 - M20	380,0	1	400
331.0016	M11 - M27	500,0	1	850
331.0017	M13 - M32	700,0	1	1230
331.0018	M19 - M38	1000,0	1	640
331.0019	M25 - M52	1200,0	1	720

#### Ball tap holder

- For fast interchanging of the taps
- Square shaft according to DIN 10
- Die cast zinc housing



		L mm	Content	
331.0253	M1 - M4	200,0	1	82
331.0254	M3,5 - M8	200,0	1	80
331.0255	M4 - M10	240,0	1	175
331.0256	M5 - M12	300,0	1	210
331.0257	M9 - M16	340,0	1	350
331.0258	M12 - M20	450,0	1	730
331.0259	M18 - M27	650,0	1	950

### Die holder with exact gearing reversible ratchet head

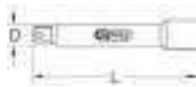
- Clockwise and anticlockwise action with positive adjustment
- With two jaw collet chuck
- With movable drive handle
- Ideal to the thread cutting edge
- For difficult to access areas
- Mirror polished
- Special tool steel



		L mm	Content	
331.0660	M3 - M10	85,0	1	190
331.0665	M5 - M12	110,0	1	320
331.0670	M3 - M10	250,0	1	250
331.0675	M5 - M12	300,0	1	440

### Thread drilling extension

- DIN 377
- Hardened and ground execution
- Square shaft according to DIN 10
- For the extension of the hand threading tap
- High performance steel



		D mm	L mm	Content	
331.0241	M1 - M2,6	2,1	2,5 60,0	1	10
331.0242	M3	2,7	3,7 80,0	1	15
331.0243	M4	3,4	4,5 95,0	1	40
331.0244	M5 - M8	4,9	6,5 110,0	1	44
331.0245	M9 - M10	5,5	7,0 115,0	1	55
331.0246	M12	7,0	9,0 125,0	1	120
331.0247	M13 - M16	9,0	12,0 135,0	1	135
331.0248	M18	11,0	14,0 150,0	1	150
331.0249	M20	12,0	16,0 155,0	1	175

### Die holder

- DIN 225
- Reinforcement of the cutting edge through iron screws
- With steel rail
- Die cast zinc housing



		L mm	Content	
331.0001	M1 - M2,6	160,0	1	60
331.0002	M3 - M4	200,0	1	60
331.0003	M5 - M6	200,0	1	70
331.0004	M7 - M9	224,0	1	100
331.0005	M10 - M11	280,0	1	220
331.0006	M12 - M14	315,0	1	280
331.0007	MF12 - MF14	315,0	1	260
331.0008	M16 - M20	450,0	1	480
331.0009	MF16 - MF21	450,0	1	460
331.0022	MF22 - MF24	560,0	1	860
331.0023	M22 - M24	560,0	1	840
331.0024	MF27 - MF36	560,0	1	1230
331.0026	M27 - M36	560,0	1	1190

### Threading die adaptor set

- Universal use for round cutting dies according to DIN E 22568 form B
- Slim design
- Ideal for difficult to access areas
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Includes extension and locking knob
- Special tool steel
- In durable plastic storage case



331.0620	8 pcs	Threading die adaptor set	1,94

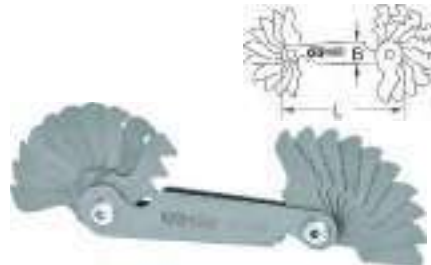
consists of:

331.0621	Die adaptor, M3-M6, 24mm		60
331.0622	Die adaptor, M7-M8, 24mm		50
331.0623	Die adaptor, M9-M10, 24mm		90
331.0624	Die adaptor, M11-M14, 41mm		230
331.0625	Die adaptor, M18-M20, 41mm		360
331.0626	Die adaptor, M22-M24, 41mm		430
331.0627	Toggle f.extension f.die adaptor		120
331.0628	1/2" extension f.die adaptor		250

### THREAD GAUGES

#### Thread gauge

- For controlling and increasing the interior thread and outside thread
- Imperial sizes
- Cylindrical tapered
- Leaves fan shaped arrangement
- Leaves individually marked with size
- Out of hardened spring steel



	Tooth pitch	for thread size	B mm	L mm	
301.0090	22	4-4,5-5-6-7-8-9-10-11-12-13-14-16-18-20-22-24-32-40-48-56-64 speed	12,2	66,5	40
301.0095	20	0,40-0,45-0,50-0,60-0,70-0,75-0,80-1,00-1,25-1,50-1,75-2,00-2,50-3,00-3,50-4,00-4,50-5,00-5,50-6,00mm	12,2	66,5	40

### ROTARY BURRS

#### Round cone rotary burr form L for aluminium alloys, long

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filleted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3291	12,0	6,0	65,0	25,0	1	35

#### Round milling rotary burr form C for aluminium alloys

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filleted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3292	12,0	6,0	65,0	25,0	1	45

#### Cylinder rotary burr form A with spur gearing for aluminium alloys

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filleted, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high SI portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3293	12,0	6,0	65,0	25,0	1	46



**Round milling rotary burr form D for aluminum alloys**

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filed, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high Si portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3204	12,0	6,0	66,0	18,0	1	27

**Round cone rotary burr form L for aluminum alloys, short**

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filed, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high Si portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3300	12,0	6,0	66,0	25,0	1	27

**Cylinder rotary burr form A without spur gearing**

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filed, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high Si portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3206	12,0	6,0	66,0	25,0	1	27

**Milling burr set for aluminum alloys in plastic case**

- Minimal material adhesion
- Long life time
- Big removal rates and high cutting performance
- For cutting speed up to max 1100 m/min (max. speed 16.000 - 30.000 rpm)
- Smooth running

To that filed, edges break, plasters, welded seams and area preparation

Suitable for Aluminum alloys, hard Aluminum alloys (high Si portion), brass, copper, zinc, bronze, titanium, fiber-reinforced plastics GFK/CFK, thermoplastics, hard rubber



	Icon	Spindle	Icon
515.3000	3 pcs	Milling burr set for aluminum alloys in plastic case	301
1 x		12 mm	
1 x		12 mm	
1 x		12 mm	

**Hard metal cylinder rotary burr form A without spur gearing**

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Without spur gearing
- Surface without discoloration
- High performance steel with hard metal

To that filed, edges break, plasters, welded seams and area preparation. Usable in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3001	3,0	3,0	38,0	13,0	1	3
515.3002	6,0	6,0	61,0	16,0	1	16
515.3003	8,0	8,0	69,0	20,0	1	21
515.3004	10,0	6,0	69,0	20,0	1	20
515.3005	12,0	6,0	70,0	25,0	1	27
515.3006	16,0	6,0	70,0	25,0	1	31

**Hard metal cylinder rotary burr form A with spur gearing**

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- With face gearing
- Suitable for a wide range of applications
- Surface without discoloration
- High performance steel with hard metal

To that filed, edges break, plasters, welded seams and area preparation. Usable in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3201	3,0	3,0	38,0	13,0	1	3
515.3202	6,0	6,0	61,0	16,0	1	16
515.3203	8,0	6,0	69,0	20,0	1	21
515.3204	10,0	6,0	69,0	20,0	1	20
515.3205	12,0	6,0	70,0	25,0	1	27
515.3206	16,0	6,0	70,0	25,0	1	31

**Hard metal round milling rotary burr form C**

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discoloration
- High performance steel with hard metal

To that filed, edges break, plasters, welded seams and area preparation. Usable in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

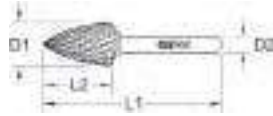


	D1 mm	D2 mm	L1 mm	L2 mm	Spindle	Icon
515.3301	3,0	3,0	38,0	13,0	1	3
515.3302	6,0	6,0	61,0	16,0	1	16
515.3303	8,0	6,0	69,0	20,0	1	21
515.3304	10,0	6,0	70,0	20,0	1	20
515.3305	12,0	6,0	70,0	25,0	1	27
515.3306	16,0	6,0	70,0	25,0	1	31

### Hard metal pointed arch rotary burr form G

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

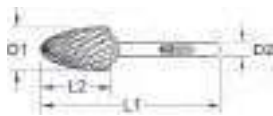


	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3251	3,0	3,0	38,5	13,0	1	3
515.3252	6,0	6,0	63,0	18,0	1	13
515.3253	8,0	6,0	65,0	20,0	1	19
515.3254	10,0	6,0	65,0	20,0	1	22
515.3255	12,0	6,0	70,0	25,0	1	33
515.3256	16,0	6,0	70,0	25,0	1	47

### Hard metal round arch rotary burr form F

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.

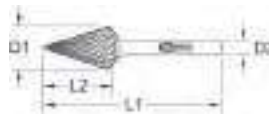


	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3261	3,0	3,0	38,5	13,0	1	3
515.3262	6,0	6,0	61,0	16,0	1	15
515.3263	8,0	6,0	65,0	20,0	1	20
515.3264	10,0	6,0	65,0	20,0	1	24
515.3265	12,0	6,0	70,0	25,0	1	32
515.3266	16,0	6,0	70,0	25,0	1	52

### Hard metal tip cone milling burr form M

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3271	3,0	3,0	38,5	11,0	1	3
515.3272	6,0	6,0	63,0	18,0	1	12
515.3273	8,0	6,0	65,0	20,0	1	15
515.3274	10,0	6,0	65,0	20,0	1	18
515.3275	12,0	6,0	70,0	25,0	1	26
515.3276	16,0	6,0	70,0	25,0	1	37

### Hard metal ball milling burr form D

- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Suitable for a wide range of applications
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



	D1 mm	D2 mm	L1 mm	L2 mm	Content	
515.3281	3,0	3,0	38,5	2,7	1	3
515.3282	6,0	6,0	51,0	5,0	1	11
515.3283	8,0	6,0	53,0	7,0	1	12
515.3284	10,0	6,0	54,0	9,0	1	16
515.3285	12,0	6,0	56,0	10,0	1	24
515.3286	16,0	6,0	60,0	14,0	1	59

### Hard metal milling burr set in steel case

- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



515.3203	3 pcs	Hard metal milling burr set in steel case	590
1 x		10 mm	
1 x		10 mm	
1 x		10 mm	

### Hard metal milling burr set in steel case

- High strength hinge
- 3 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.  
Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



515.3207	7 pcs	Hard metal milling burr set in steel case	590
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	
1 x		3 mm	

### Hard metal milling burr set in steel case

- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.

Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



		9	
515.3210	10 pcs	Hard metal milling burr set in steel case	590
2 x		8 - 10 mm	
2 x		8 - 10 mm	
2 x		8 - 10 mm	
1 x		10 mm	
1 x		10 mm	
1 x		10 mm	
1 x		8 mm	

### Hard metal milling burr set in plastic case

- Stackable for storage
- With integral clasp
- High strength hinge
- 6 mm shank diameter
- Highest cutting edge stability
- Improved cutting performance due to staggered tooth system
- Surface without discolouration
- High performances steel with hard metal

To that filleted, edges break, plasters, welded seams and area preparation.

Usably in high alloyed, steel rustproof, acid and heat resistant, cast and plastics.



		9	
515.3220	10 pcs	Hard metal milling burr set in plastic case	590
2 x		8 - 10 mm	
2 x		8 - 10 mm	
2 x		8 - 10 mm	
1 x		10 mm	
1 x		10 mm	
1 x		10 mm	
1 x		8 mm	

### SCREW HOLE PUNCHES

#### Screw hole punch

- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For difficult to access areas
- Burnished surface
- Special tool steel

Ideally usably in V2A sheet to 1,5 mm, aluminum, copper, steel as well as stainless steel and plastics. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.



D mm	Standard	Replacement ball bearing screw #	Tension screw	Tapping hole	Content	9
129.0012	12,5 ISO 12	129.0001	MF 8 x 1 x 55,0	9	1	72
129.0013	12,7 PG7	129.0001	MF 8 x 1 x 55,0	9	1	73
129.0015	15,2 PG9	129.0001	MF 8 x 1 x 55,0	9	1	94
129.0016	16,0 ISO 16	129.0001	MF 8 x 1 x 55,0	9	1	96
129.0018	18,6 PG11	129.0001	MF 8 x 1 x 55,0	9	1	112
129.0020	20,4 PG13	129.0002	MF 12 X 1,5 X 55	13	1	160
129.0021	20,5 ISO 20	129.0002	MF 12 X 1,5 X 55	13	1	161
129.0022	22,5 PG16	129.0002	MF 12 X 1,5 X 65	13	1	164
129.0025	25,4 ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	185
129.0026	25,5 ISO 25	129.0002	MF 12 X 1,5 X 65	13	1	186
129.0028	28,3 PG21	129.0002	MF 12 X 1,5 X 65	13	1	212
129.0030	30,5 ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	250
129.0032	32,5 ISO 32	129.0002	MF 12 X 1,5 X 65	13	1	252
129.0035	35,0 ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	378
129.0037	37,0 PG29	129.0002	MF 12 X 1,5 X 65	13	1	380
129.0038	38,0 ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	394
129.0040	40,5 ISO 40	129.0002	MF 12 X 1,5 X 65	13	1	398
129.0047	47,0 PG36	129.0003	MF 16 x 1,5 x 75,0	18	1	834
129.0050	50,5 ISO 50	129.0003	MF 16 x 1,5 x 75,0	18	1	768
129.0054	54,0 PG42	129.0003	MF 16 x 1,5 x 75,0	18	1	964

#### Screw hole punch with ball bearing

- Ball bearing
- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For difficult to access areas
- Burnished surface
- Special tool steel

Ideal for use in V2A steel plates up to 1,5 mm, aluminum, copper, steel and iron to 2,0 mm and stainless steel and plastic sinks. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.



D mm	Standard	Replacement ball bearing screw #	Ball bearing screw	Tapping hole	Content	9
129.0312	12,5 ISO 12	129.0301	MF 8 x 1 x 55,0	9	1	74
129.0313	12,7 PG7	129.0301	MF 8 x 1 x 55,0	9	1	75

D mm	Standard	Replacement ball bearing screw #	Ball bearing screw	Tapping hole	Content	9
129.0315	15,2 PG9	129.0301	MF 8 x 1 x 55,0	9	1	96
129.0316	16,0 ISO 16	129.0301	MF 8 x 1 x 55,0	9	1	98
129.0318	18,6 PG11	129.0301	MF 8 x 1 x 55,0	9	1	114
129.0320	20,4 PG13	129.0302	MF 12 x 1,5 x 55,0	13	1	174
129.0321	20,5 ISO 20	129.0302	MF 12 x 1,5 x 55,0	13	1	175
129.0322	22,5 PG16	129.0302	MF 12 x 1,5 x 65,0	13	1	178
129.0325	25,4	129.0302	MF 12 x 1,5 x 65,0	13	1	200
129.0326	25,5 ISO 25	129.0302	MF 12 x 1,5 x 65,0	13	1	202
129.0328	28,3 PG21	129.0302	MF 12 x 1,5 x 65,0	13	1	226
129.0330	30,5	129.0302	MF 12 x 1,5 x 65,0	13	1	264
129.0332	32,5 ISO 32	129.0302	MF 12 x 1,5 x 65,0	13	1	266
129.0335	35,0	129.0302	MF 12 x 1,5 x 65,0	13	1	392
129.0337	37,0 PG29	129.0302	MF 12 x 1,5 x 65,0	13	1	408
129.0338	38,0	129.0302	MF 12 x 1,5 x 65,0	13	1	409
129.0340	40,5 ISO 40	129.0302	MF 12 x 1,5 x 65,0	13	1	412
129.0347	47,0 PG36	129.0303	MF 16 x 1,5 x 75,0	18	1	890
129.0350	50,5 ISO 50	129.0303	MF 16 x 1,5 x 75,0	18	1	780
129.0354	54,0 PG42	129.0303	MF 16 x 1,5 x 75,0	18	1	1020
129.0360	60,0 PG48	129.0304	MF 20 x 1,5 x 80,0	22	1	1084
129.0363	63,5 ISO 63	129.0304	MF 20 x 1,5 x 80,0	22	1	1162



### HOLESAWS

#### HSS arbor accessories

- For HSS and HSS Co Bi metal hole saws
- Includes pilot drill
- High performance steel



	Ø mm	Shank mm	Profile	9
129.5501	14,0 - 30,0	6,4		60
129.5502	14,0 - 30,0	9,5		80
129.5503	14,0 - 30,0	11,0		80
129.5505	32,0 - 152,0	11,0		260
129.5504	32,0 - 210,0	16,0		250

#### Replacement pilot drills for HSS and HSS Co Bi metal hole saws

- For HSS and HSS Co Bi metal hole saws
- High performance steel



	Ø mm	L mm	Content	9
129.5525	6,3	105,0	1	20
129.5526	6,3	75,0	1	10

#### Extension for HSS and HSS Co Bi metal hole saws

- For HSS and HSS Co Bi metal hole saws
- High performance steel



	L mm	Content	9
129.5520	300,0	1	350

### HSS Bi metal holesaws

- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal
- Cutting depth up to max. 38 mm

Suitable for low alloyed steel up to 700 N/mm<sup>2</sup> stability, plaster, light construction-, fibre and chipboard as well as wood processing, non ferrous metals and light alloys.



	D mm	Cutting depth mm	Passage Ø	Imperial tube Ø inch	Content	
129.5014	14,0	38,0		9/16"	1	30
129.5016	16,0	38,0	PG9	5/8"	1	30
129.5017	17,0	38,0		11/16"	1	30
129.5019	19,0	38,0	PG11	3/4"	1	40
129.5020	20,0	38,0		25/32"	1	40
129.5021	21,0	38,0	PG13,5	13/16"	1	50
129.5022	22,0	38,0		7/8"	1	50
129.5024	24,0	38,0	PG16	15/16"	1	60
129.5025	25,0	38,0		1"	1	60
129.5027	27,0	36,0		1.1/16"	1	70
129.5029	29,0	36,0	PG21	1.1/8"	1	70
129.5030	30,0	36,0		1.3/16"	1	80
129.5032	32,0	36,0		1.1/4"	1	80
129.5033	33,0	36,0		1.5/16"	1	80
129.5035	35,0	36,0		1.3/8"	1	90
129.5037	37,0	36,0	PG29	1.7/16"	1	120
129.5038	38,0	36,0		1.1/2"	1	120
129.5040	40,0	36,0		1.9/16"	1	120
129.5041	41,0	36,0		1.5/8"	1	120
129.5043	43,0	36,0		1.11/16"	1	120
129.5044	44,0	36,0		1.3/4"	1	120
129.5045	45,0	36,0		1.25/32"	1	135
129.5046	46,0	36,0		1.13/16"	1	140
129.5048	48,0	36,0	PG36	1.7/8"	1	150
129.5050	50,0	32,0		1.31/32"	1	150
129.5051	51,0	32,0		2"	1	150
129.5052	52,0	32,0		2.1/16"	1	150
129.5054	54,0	32,0	PG42	2.1/8"	1	150
129.5055	55,0	32,0	PG9	2.3/16"	1	150
129.5057	57,0	32,0		2.1/4"	1	160
129.5059	59,0	32,0		2.5/16"	1	160
129.5060	60,0	32,0	PG48	2.3/8"	1	170
129.5064	64,0	32,0		2.1/2"	1	190
129.5065	65,0	32,0		2.9/16"	1	200
129.5067	67,0	32,0		2.5/8"	1	200
129.5068	68,0	32,0		2.22/32"	1	200
129.5070	70,0	32,0		2.3/4"	1	210
129.5073	73,0	32,0		2.7/8"	1	250
129.5075	75,0	32,0		2.31/32"	1	250
129.5076	76,0	32,0		3"	1	250
129.5079	79,0	32,0		3.1/8"	1	250
129.5083	83,0	32,0		3.1/4"	1	260
129.5086	86,0	32,0		3.3/8"	1	260
129.5089	89,0	32,0		3.1/2"	1	290
129.5092	92,0	32,0		3.5/8"	1	320
129.5095	95,0	32,0		3.3/4"	1	370
129.5098	98,0	32,0		3.7/8"	1	390
129.5100	100,0	32,0		3.31/32"	1	410
129.5102	102,0	32,0		4"	1	420
129.5105	105,0	32,0		4.1/8"	1	450
129.5108	108,0	32,0		4.1/4"	1	450
129.5111	111,0	32,0		4.3/8"	1	460
129.5114	114,0	32,0		4.1/2"	1	480
129.5121	121,0	32,0		4.3/4"	1	500
129.5127	127,0	32,0		5"	1	650
129.5140	140,0	32,0		5.1/2"	1	650
129.5146	146,0	32,0		5.3/4"	1	650
129.5152	152,0	32,0		6"	1	700

### Electricians hole saw set in plastic box

- Includes hole saw arbor
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm<sup>2</sup> stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy. For use within electrical trades.



129.5570	8 pcs	Electricians hole saw set in plastic box	1,35	
6 x		22 - 29 - 35 - 44 - 51 - 68 mm		
1 x		14 - 30 mm		
1 x		32 - 152 mm		

### Plumbing hole saw set in plastic box

- Includes hole saw arbor
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm<sup>2</sup> stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy. For use within plumbing trades.



129.5575	9 pcs	Plumbing hole saw set in plastic box	1,38	
7 x		19 - 22 - 29 - 38 - 44 - 51 - 57 mm		
1 x		14 - 30 mm		
1 x		32 - 152 mm		

### Universal hole saw set in plastic box

- Inclusive hole saw arbor and extension
- With integral clasp
- High strength hinge
- Variable tooth pitch
- Right hand cutting
- High concentricity accuracy
- Good chip removal
- HSS Bi metal

Suitable for high and low alloyed steel up to 700 N/mm<sup>2</sup> stability, plaster, light construction, MDF and chipboard as well as wood processing, non ferrous metal and light alloy. For the use in the areas electric, sanitary, plumbing building and heating.



129.5580	15 pcs	Universal hole saw set in plastic box	3,49	
12 x		19 - 22 - 25 - 29 - 32 - 35 - 38 - 44 - 51 - 57 - 64 - 68 mm		
1 x		14 - 30 mm		
1 x		32 - 152 mm		
1 x		300 mm		

### HANDSAWS

#### Wire saw

- Ideally suited for cutting ABS, PVC, CPVC pipes and wood
- For hard-to-reach places and corners
- With metal rings at both ends for a firm grip
- Easy to stow
- Very flexible
- Braided wire



	Length mm		
123.0005	650,0	35	

#### Small handsaw

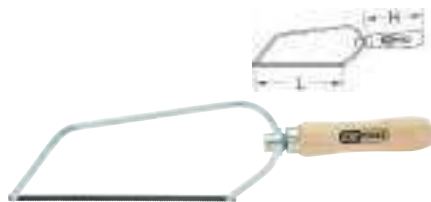
- With 32 teeth
- For metal
- With wooden handle
- Includes saw blade



	L mm	H mm		
997.1215	150,0	130,0	997.1214/16	100

### Small handsaw with adjustable wooden handle

- With 32 teeth
- For metal
- With adjustable wooden handle
- Includes saw blade



	L mm	H mm		
997.1217	150.0	90.0	997.1214/16	100

### Sawblade

- With 32 teeth

Suitable for: all metals



	L mm	Content	
997.1214	150.0	12	36

### Sawblade

- With 25 teeth

Suitable for: wood, aluminium, plastics and plaster



	L mm	Content	
997.1216	150.0	12	40

### Small handsaw frame

- With 24 teeth
- With red plastic handle cover
- Includes universal saw blade
- For wood, metal, aluminum, plastic and plaster
- Surface black powder coating



	L mm	H mm		
997.1210	150.0	90.0	907.2131	130

### Small hand saw frame

- With 24 teeth
- With black plastic handle cover
- Includes universal saw blade
- For plastic, metal and aluminium



	L mm	H mm		
907.2130	150.0	90.0	907.2131	140

### Universal sawblade for small handsaw frame

- With 24 teeth

For: plastic, metal and aluminium



	L mm	Content	
907.2131	150.0	1	10

### Metal handsaw frame

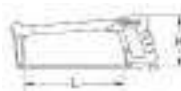
- Suitable for narrow spaces
- Mode of operation such as key hole sawing
- Two component handle
- Includes universal saw blade
- For plastic, metal and aluminium



	L mm	H mm		
907.1215	300.0	160.0	129.6620-24	110

### Hack saw frame

- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- Includes jigsaw function
- Saw blade can be set at 45° or 90°
- Includes HSS Bi metal sawblade



	H mm		
907.2100	45 or 90	130.0	129.6620-24

### Hack saw frame

- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- Includes jigsaw function
- Saw blade can be set at 45° or 90°
- Two component handle
- Includes HSS Bi metal sawblade



	L mm	H mm		
907.2102	300.0	130.0	129.6620-24	270

### Quick release hacksaw frame

- With fast blade clamping device
- Easy usage
- With hand protection and thumb support
- Includes magazine for saw blades
- Includes jigsaw function
- Saw blade can be set at 45° or 90°
- With ergonomic handle
- Includes HSS Bi metal sawblade



	L mm	H mm		
907.2110	300.0	135.0	129.6620-24	750

### Quick release hacksaw frame

- With fast blade clamping device
- Easy usage
- With hand protection and thumb support
- Saw blade can be set at 45° or 90°
- Two component handle
- Includes HSS Bi metal sawblade



	L mm	H mm		
907.2112	300.0	130.0	129.6620-24	270

### Hack saw frame

- With hand protection
- Includes jigsaw function
- With ergonomic handle
- Includes saw blade



	L mm	H mm		
907.2115	300.0	130.0	129.6620-24	270

### Hack saw frame set

- Including safety universal blade
- With hand protection
- Includes jigsaw function
- With ergonomic handle
- Includes saw blade



	Content	
907.2103	3 pcs Hack saw frame set	1,03

### PVC handsaw

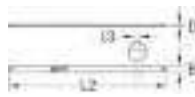
- With hand protection
- With ergonomic handle
- Includes saw blade



	L mm	H mm	
907.1105	300.0	130.0	200
907.1106	450.0	190.0	360

### HSS Bi Co 8 metal high performance saw blades

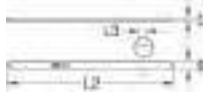
- Variable tooth pitch
- Very flexible
- For cutting metal and steel
- Cobalt alloyed HSS Bi metal



No. teeth	B mm	D mm	L2 mm	L3 mm	Content		
129.6620V	288	13,0	0,6	300,0	1,0-1,3	1	20

### HSS Bi Co 8 metal high performance saw blades

- Very flexible
- For cutting metal and steel
- Cobalt alloyed HSS Bi metal



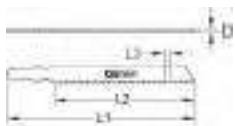
No. teeth	B mm	D mm	L2 mm	L3 mm	Content		
129.6620-18	216	13,0	0,6	300,0	1,4	1	20
129.6620-24	288	13,0	0,6	300,0	1,0	1	20
129.6620-32	384	13,0	0,6	300,0	0,8	1	20

### JIGSAW BLADES

#### Jigsaw blades

- Cleaner, fast and fine cut
- Chrome vanadium

In the style of: AEG® 274351, Bosch® T101D, Metabo® 23635, Lenox® CF456S, Milwaukee® 48-42-5500  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: planned, hard and plywood 5 to 30 mm  
 laminated wood composition board  
 plastic

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3101	30	100,0	75,0	2,5	1,5	5	40

#### Jigsaw blades

- Cleaner, fast and fine cut
- Chrome vanadium

In the style of: AEG® 274351, Bosch® T101D, Metabo® 23635, Lenox® CF456S, Milwaukee® 48-42-5500  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

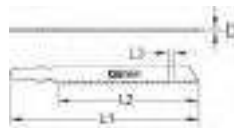
Suitable for: planned, hard and plywood 8 to 60 mm  
 plastic  
 wooden types

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3103	18	100,0	75,0	4,0	1,5	5	30

#### Jigsaw blades

- Very clean and fast cut
- Chrome vanadium

In the style of: Bosch® T301D, Metabo® 23654  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

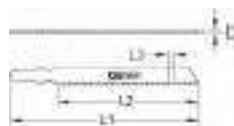
Suitable for: soft and hardwood 8 to 75 mm  
 wood fibre board 8 to 75 mm  
 plastic

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3103S	21	115,0	95,0	4,0	1,5	5	30

#### Jig saw blades

- Clean and fast cut
- Extra strong blade
- Ideal for angled and parallel cutting

In the style of: Bosch® T101DP, Metabo® 23655  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

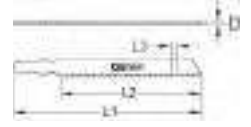
Suitable for: soft, hard and plywood  
 wooden composites  
 wood fibre board 6 to 60 mm

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3103S	18	100,0	75,0	4,0	1,7	5	30

#### Jigsaw blades

- Faster, straight and clean cut
- Chrome vanadium

In the style of: AEG® 213116, Bosch® T144D, Metabo® 23633, Milwaukee® 48-42-5421  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: planned, hard and plywood 8 to 60 mm  
 MDF

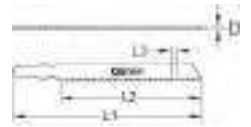
No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3104	18	100,0	75,0	4,0	1,3	5	40

#### Jigsaw blades curved cut

- Fast and clean cut
- Ideal for curved cutting
- Chrome vanadium

In the style of: Bosch® T244D, Metabo® 23649, Milwaukee® 48-42-5512

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

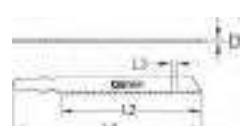
Suitable for: soft and hardwood 8 to 60 mm  
 MDF

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3105	18	100,0	75,0	4,0	1,3	5	30

#### Jigsaw blade

- Fast coarse cut
- Chrome vanadium

In the style of: AEG 254071, Bosch T111C, Metabo 23632, Milwaukee 48-42-5200  
 Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: soft and hardwood 5 to 60 mm  
 plastic

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content		
129.3106	24	100,0	75,0	3,0	1,3	5	30

### Bi metal jigsaw blades

- Variable tooth pitch
- Straight cut
- Extra long blade
- For different strength materials

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: soft and hardwood 3 to 95 mm  
wood with nails and kitchen worktops  
steel and stainless steel

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3150F	63	132,0	110,0	1,8 - 2,5	1,3	5	50

### Bi metal jigsaw blades

- For thin material
- Straight cut
- Flexible and shatter proof
- Long service life

In the style of: Bosch® T118AF, Metabo® 23971, Lenox® 324S, Milwaukee® 48-42-5161  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

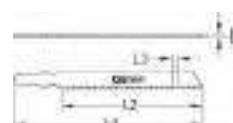
Suitable for: mild steel and aluminum  
non ferrous metal and steel 1,5 to 3 mm  
stainless steel

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3111F	42	75,0	50,0	1,2	1,0	5	40

### Jigsaw blades

- Clean cut
- Ideal for perspex
- High performance steel

In the style of: AEG® 274651, Bosch® T101A, Metabo® 23640  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: non ferrous metal and aluminium 2 to 20 mm  
stainless steel 2 to 10 mm

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3116	36	100,0	75,0	2,0	1,27	5	40

### Jigsaw blade

- Straight cut
- Ideal for very thin material
- High performance steel

In the style of: AEG® 274652, Bosch® T118G, Metabo® 23636  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: wood and aluminium 0.9 to 1.2 mm  
thin sheet metals  
non ferrous metal

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3110	56	75,0	50,0	0,9	1,0	5	40

### Bi metal jigsaw blades

- Straight cut
- For thick material

In the style of: AEG® 254064, Bosch® T118B, Metabo® 23638, Milwaukee® 48-42-5101

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

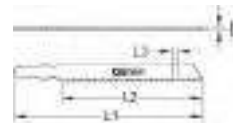
Suitable for: mild steel and aluminium from 3 to 6 mm  
fabric-base plastics  
non ferrous metal

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3113	24	75,0	50,0	2,0	1,0	5	30

### Jigsaw blades

- Faster and straight cut
- Ideal for aluminium

In the style of: AEG® 254315, Bosch® T127D, Metabo® 23639  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

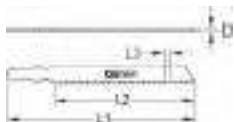
Suitable for: non ferrous metal and aluminium  
plastic and eternit 2 to 20 mm

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3118	24	100,0	75,0	3,0	1,15	5	40

### Jigsaw blade

- Straight cut
- For thin material
- High performance steel

In the style of: AEG® 254063, Bosch® T118A, Metabo® 23637  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: mild steel and aluminium  
non ferrous metal 1.5 to 3.0 mm  
stainless steel

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3111	56	75,0	50,0	0,9	1,0	5	40

### Bi metal jigsaw blades

- Straight cut
- Stainless steel

In the style of: Bosch® T111HF, Lenox® 410S

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

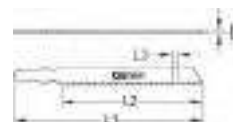
Suitable for: mild steel and aluminium  
steel and non ferrous metal  
stainless steel 3 to 12 mm

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.31135F	36	100,0	75,0	2,0	1,0	5	40

### Bi metal jigsaw blades

- Faster and straight cut
- Flexible and shatter proof
- Ideal for aluminium
- Stainless steel

In the style of: Bosch® T127DF, Metabo® 23974, Lenox® 406S, Milwaukee® 48-42-5300  
Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: non ferrous metal and aluminium  
plastic and eternit 3 to 15 mm  
wooden with nails

No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	g	
129.3118F	24	100,0	75,0	3,0	1,27	5	40

### Jigsaw blades

- Flexible and shatter proof
- ideal for non-ferrous metal, stainless steel, sheet steel, car body sheet, pressed materials and resopal

Suitable for: Ober, KS, Pneutec, CP, KS 515.3000 und 515.3200



	No. teeth	TPI	D mm	L mm	Content	
129.3740	80	32	1,0	100,0	5	30
129.3742	60	24	1,0	100,0	5	30
129.3744	45	18	1,0	100,0	5	30
129.3746	35	14	2,0	100,0	5	30

### Jigsaw blades

- Flexible and shatter proof
- ideal for non-ferrous metal, stainless steel, sheet steel, car body sheet, pressed materials and resopal

Suitable for: SIG und Flex



	No. teeth	TPI	D mm	L mm	Content	
129.3750	80	32	0,7	100,0	5	20
129.3752	60	24	1,0	100,0	5	20
129.3754	45	18	1,4	100,0	5	20
129.3756	35	14	1,8	100,0	5	20



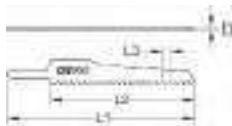
### SABRE SAW BLADES

#### Sabre saw blades curved cut

- Fast cut
- With hardened teeth
- Ideal for aluminium

In the style of: AEG® 318-127, Bosch® S811H, Metabo® 31123, Flex® 200778

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: non ferrous metal and aluminium wood and chip chipboard 6 to 100 mm plastic and eternit

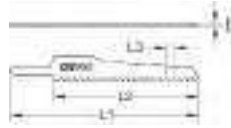
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4010	66	300,0	280,0	4,2	1,3	5	240

### Sabre saw blades curved cut

- Faster, cleaner, straighter and curve cut

In the style of: AEG® 318-126, Bosch® S644D, Black&Decker® 40109, Metabo® 31120, Dewalt® 40109, Milwaukee® 48-00-1031

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: hardwood and softwood 6 to 100 mm chipboard and plywood plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4011	30	150,0	130,0	4,2	1,3	5	100

### Sabre saw blades

- Fast cut
- Two sided cutting

In the style of: AEG® 318-131, Bosch® S828D, Black&Decker® 40127, Metabo® 31136, Flex® 206016, Milwaukee® 48-00-1052

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: wood and plastic 6 to 100 mm plasterboard and aerated concrete

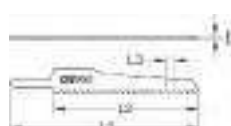
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4014	30	150,0	130,0	4,2	1,3	5	130

### Bi metal sabre saw blades

- Fast cut
- Long service life
- Flexible and shatter proof
- Ideal for thick walled cast iron pipe

In the style of: Bosch® S611DF, Lenox® 656R, Milwaukee® 48-01-5035

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: wood with nails and hardwood plasterboard and aerated concrete

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4016	30	150,0	130,0	4,2	1,3	5	90

### Sabre saw blades

- Especially suitable for fast cutting
- Fast, exact, coarse and curve cuts

In the style of: Bosch® S1617K

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: wood and greenwood hardwood and softwood 20 to 150 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4020	33	300,0	280,0	8,5	1,3	5	230

### Sabre saw blades

- Coarse and fast cut
- Ideal for old building renovation
- Chrome vanadium

In the style of: Bosch® S1111K, Black&Decker® 40108

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



#### Technical data:

Suitable for: wood and greenwood hardwood and softwood 20 to 150 mm

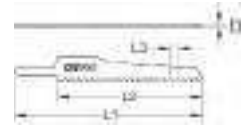
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4022	25	230,0	210,0	8,5	1,3	5	190

### Sabre saw blades

- Coarse cut
- Especially suitable for fast cutting
- Ideal for old building renovation

In the style of: Flex® 200751

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



#### Technical data:

Suitable for: wood and plastic 20 to 100 mm plasterboard

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4031	20	150,0	130,0	6,3	1,3	5	120



### Sabre saw blades

- Faster and straight cut
- For thin material
- Flexible and shatter proof
- Stainless steel

In the style of: AEG ° 318-129, Bosch ° S922EF, Black&Decker ° 40116, Metabo ° 31132, Flex ° 200735, Lenox ° 618R, Milwaukee ° 48-00-5184

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: steel and stainless steel  
non-ferrous metal and steel tubes  
1.5 to 12 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4401	90	150,0	130,0	1,4	0,9	5	100

### Sabre saw blades

- Faster and straight cut
- For thin materials
- Flexible and shatter proof
- Stainless steel

In the style of: AEG ° 318-128, Bosch ° S922AF, Black&Decker ° 40125, Metabo ° 31129, Flex ° 200743, Lenox ° 624R, Milwaukee ° 48-00-5186

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: sheet steel and profile  
non-ferrous metal up to 1 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4405	120	150,0	130,0	1,0	0,9	5	100

### Sabre saw blades

- Clean cut
- Ideal for non ferrous metal

In the style of: Metabo ° 31124

Suitable for: Bosch °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, Elu °, Hitachi °, Holz-Her °, Mafell °, Makita °, Flex °, Sparky °



#### Technical data:

Suitable for: steel and non ferrous metal  
steel tube 2 to 8 mm  
wooden with nails

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4422	154	300,0	280,0	1,8	0,9	5	200

### Sabre saw blades

- Faster and straight cut
- For thin material
- Flexible and shatter proof
- Stainless steel

In the style of: Bosch ° S1122EF, Lenox ° 818R, Milwaukee ° 48-00-5188

Suitable for: Bosch °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, Elu °, Hitachi °, Holz-Her °, Mafell °, Makita °, Flex °, Sparky °



#### Technical data:

Suitable for: non-ferrous metal 1.5 to 3 mm  
steel, profile and pipes

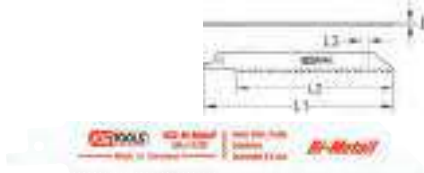
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4402	126	200,0	180,0	1,4	0,9	5	130

### Sabre saw blades

- Faster and straight cut
- Flexible and shatter proof
- For thick material
- Stainless steel

In the style of: AEG ° 318-130, Bosch ° S644D, Black&Decker ° 40113, Metabo ° 31134, Flex ° 200727, Lenox ° 614R, Milwaukee ° 48-00-5182

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: non-ferrous metal  
steel and stainless steel  
steel sheet and steel tubes 2 to 8 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4411	70	150,0	130,0	1,8	0,9	5	100

### Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Bosch ° S922HF, Metabo ° 31131, Flex ° 200778, Lenox ° 610R, Milwaukee ° 48-00-5092

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: non-ferrous metal  
steel, profile and steel tubes 3 to 12 mm  
wooden with nails

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4430	50	150,0	130,0	2,5	0,9	5	100

### Sabre saw blades

- Faster and straight cut
- For thin materials
- Flexible and shatter proof
- Ideal for body constructions
- Stainless steel

In the style of: Bosch ° S522GF, Black&Decker ° 40127, Metabo ° 31127, Flex ° 200719

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: sheet steel and profile to 1 mm  
car body panels

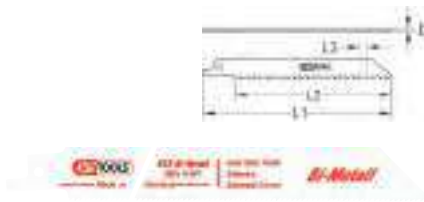
	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4404	91	100,0	80,0	0,8	0,9	5	60

### Sabre saw blades

- Faster and straight cut
- Flexible and shatter proof
- For thick material
- Stainless steel

In the style of: Metabo ° 31135

Suitable for: Bosch °, Black&Decker °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, DeWalt °, Hitachi °, Makita °, Rockwell °, Skil °, Flex °



#### Technical data:

Suitable for: non-ferrous metal  
steel and stainless steel  
steel sheet and steel tubes 2 to 8 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4415	98	200,0	180,0	1,8	0,9	5	130

### Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Flex ° 217190, Lenox ° S810R

Suitable for: Bosch °, AEG ° (Atlas Copco), Metabo °, Lenox °, Milwaukee °, Elu °, Hitachi °, Holz-Her °, Mafell °, Makita °, Flex °, Sparky °



#### Technical data:

Suitable for: steel and steel tubes 3 to 12 mm  
Aluminum and metal  
profile and pallet construction 3 to 150 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4431	70	200,0	180,0	2,5	0,9	5	130

### Sabre saw blades

- Flexible and shatter proof
- Ideal for wood with nails

In the style of: Bosch® S1211H, Metabo® 31125, Flex® 201928

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: steel and steel tubes 3 to 12 mm  
non ferrous metal and insulation material  
wood with nails 3 to 230 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4432	110	300,0	280,0	2,5	0,9	5	200



### Sabre saw blades

- Variable tooth pitch
- Straight cut
- Ideal for cutting pipes
- Stainless steel

Suitable for: Pipe cutting machines Rems®, Ridgid®, Rothenberger®, Virax®



#### Technical data:

Suitable for: thick walled cast and steel pipe up to 50 mm  
non-ferrous metal and aluminium steel

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4483	45	140,0	120,0	2,5	1,7	5	220

### Sabre saw blades

- Variable tooth pitch
- Flexible and shatter proof
- For different materials

In the style of: Lenox® 650R

Suitable for: Bosch®, Black&Decker®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, DeWalt®, Hitachi®, Makita®, Rockwell®, Skil®, Flex®



#### Technical data:

Suitable for: tube and profile  
non ferrous metal 3 to 12 mm  
wood with nails from 3 to 100 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4440V	70	150,0	130,0	1,8 - 2,5	1,3	5	130

### Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561003

Suitable for: Pipe cutting machines Rems®



#### Technical data:

Suitable for: steel and non ferrous metal  
tube and profile up to 100 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4454	98	200,0	180,0	1,8	0,9	5	180

### Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561002

Suitable for: Pipe cutting machines Rems®



#### Technical data:

Suitable for: steel and non ferrous metal  
thick walled cast and steel pipe up to 10 mm

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4486	56	200,0	180,0	3,2	1,6	5	300

### Sabre saw blades

- Variable tooth pitch
- Flexible and shatter proof
- For different materials
- Stainless steel

Suitable for: Bosch®, AEG® (Atlas Copco), Metabo®, Lenox®, Milwaukee®, Elu®, Hitachi®, Holz-Her®, Mafell®, Makita®, Flex®, Sparky®



#### Technical data:

Suitable for: metal from 3 to 12 mm  
wood with nails from 3 to 190 mm  
plastic

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4441V	98	200,0	180,0	1,8 - 2,5	1,3	5	40

### Sabre saw blades

- Straight cut
- Ideal for cutting pipes
- Stainless steel

In the style of: Rems® 561001

Suitable for: Pipe cutting machines Rems®



#### Technical data:

Suitable for: steel and non ferrous metal  
cast and steel pipe from 4 mm  
Aluminium

	No. teeth	L1 mm	L2 mm	L3 mm	D mm	Content	
129.4482	36	140,0	120,0	3,2	1,6	5	220



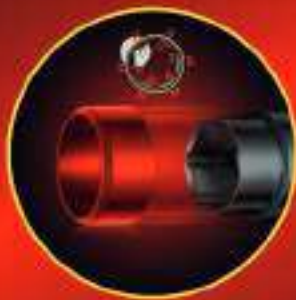
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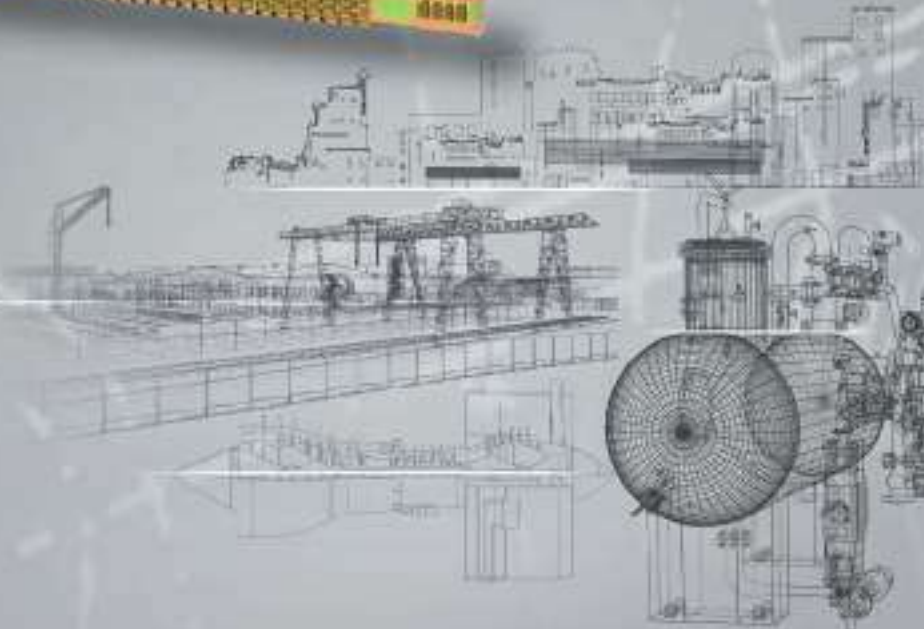
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## HAND WIRE BRUSHES

### Steel hand wire brush 3 rowed

- 3 rowed
- Universal usage
- wooden handle
- For surface preparation
- With steel bristles



	H mm	L1 mm	L2 mm	g
201.2305	32,0	290,0	138,0	120

### Steel hand wire brush 4 rowed

- 4 rowed
- Universal usage
- wooden handle
- For surface preparation
- With steel bristles



	H mm	L1 mm	L2 mm	g
201.2311	32,0	290,0	138,0	120

### Stainless steel hand wire hand brush 3 rowed

- 3 rowed
- Universal usage
- wooden handle
- For surface preparation
- With stainless steel bristles



	H mm	L1 mm	L2 mm	g
201.2310	32,0	290,0	138,0	120

### Stainless steel hand wire hand brush 4 rowed

- 4 rowed
- Universal usage
- wooden handle
- For surface preparation
- With stainless steel bristles



	H mm	L1 mm	L2 mm	g
201.2306	32,0	290,0	138,0	100

### Steel wire all purpose wire brush

- With plastic handle
- For surface preparation
- Crimped steel wire



	H mm	L1 mm	L2 mm	g
201.2300	28,0	250,0	145,0	90

### Stainless steel wire all purpose wire brush

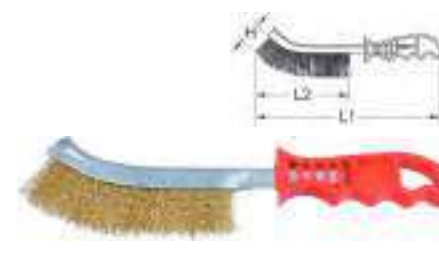
- With plastic handle
- For surface preparation
- Curled and rust free steel wire



	H mm	L1 mm	L2 mm	g
201.2301	28,0	250,0	145,0	90

### Brass steel all purpose wire brush

- With plastic handle
- For surface preparation
- Curved brass wire



	H mm	L1 mm	L2 mm	g
201.2302	28,0	250,0	145,0	90

### Brass wire hand brush 3 rowed

- 3 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Straight brass wire



	H mm	L1 mm	L2 mm	g
201.2326	25,0	285,0	130,0	105

### Steel wire hand brush 4 rowed

- 4 rowed
- Universal usage
- Plastic hand grip casing
- For surface preparation
- Smooth steel wire



	H mm	L1 mm	L2 mm	g
201.2325	25,0	285,0	130,0	120

### Steel wire brake saddle wire brush 2 rowed, straight

- 2 rowed
- With hanging hole
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Two component handle
- For removing of stubborn brake dust
- For surface preparation
- Smooth steel wire



	B mm	H mm	L1 mm	L2 mm	g
201.2320	12,0	22,0	225,0	90,0	90

### Steel wire brake saddle wire brush 2 rowed, straight and tapered point

- 2 rowed
- With hanging hole
- Tapered point
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- Two component handle
- For removing of stubborn brake dust
- For surface preparation
- Smooth steel wire



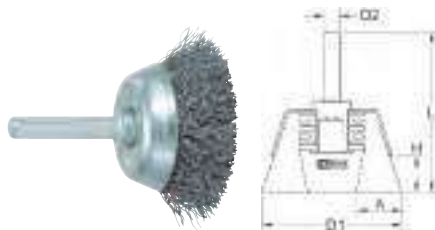
	B mm	H mm	L1 mm	L2 mm	g
201.2321	12,0	14,0 - 22,0	225,0	90,0	90



**MACHINE OPERATED WIRE BRUSHES**

**Steel wire jar brush 0,3 mm**

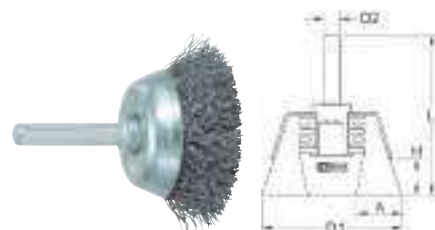
- With 6 mm mandril
- To enable with high rotary speed
- Long durability through compact border
- For use with drill machine
- For surface preparation
- Crimped steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	g
340.0001	4500	38,0	6,0	12,0	15,0	55,0	50
340.0002	4500	50,0	6,0	13,0	15,0	63,0	60
340.0003	4500	65,0	6,0	10,0	20,0	70,0	70
340.0004	4500	75,0	6,0	15,0	25,0	73,0	80

**Rust free steel jar brush 0,3 mm**

- With 6 mm mandril
- To enable with high rotary speed
- Long durability through compact border
- For use with drill machine
- For surface preparation
- Curled and rust free steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	g
340.0011	4500	38,0	6,0	12,0	14,0	55,0	50
340.0012	4500	50,0	6,0	13,0	15,0	63,0	60
340.0013	4500	65,0	6,0	10,0	20,0	70,0	70
340.0014	4500	75,0	6,0	15,0	25,0	73,0	80

**Paint brush steel wire brush 0,3 mm**

- With 6 mm mandril
- For use with drill machine
- For difficult to access areas
- For surface preparation
- Crimped steel wire



	RPM max	D1 mm	D2 mm	H mm	L mm	g
340.0016	20000	19,0	6,0	25,0	70,0	30
340.0017	18000	25,0	6,0	25,0	73,0	40
340.0018	18000	30,0	6,0	25,0	76,0	50

**Paint brush steel wire brush 0,5 mm**

- With 6 mm mandril
- For use with drill machine
- For difficult to access areas
- For surface preparation
- Crimped steel wire



	RPM max	D1 mm	D2 mm	H mm	L mm	g
340.0019	20000	19,0	6,0	25,0	70,0	30
340.0020	18000	25,0	6,0	25,0	73,0	40
340.0021	18000	30,0	6,0	25,0	76,0	40

**Steel wire jar brush 0,5 mm**

- Braided design
- With thread arbor
- For use in one hand angle grinder
- Ideal for heavy brush works
- For surface preparation
- Crimped steel wire



	RPM max	mm	D mm	H mm	L mm	No. plates	g
340.0022	12500	M14 x 2,0	65,0	20,0	50,0	16	160
340.0023	11500	M14 x 2,0	80,0	19,0	61,0	18	200
340.0024	10000	M14 x 2,0	90,0	22,0	60,0	18	240

**Rust free stainless steel wire jar brush 0,5 mm**

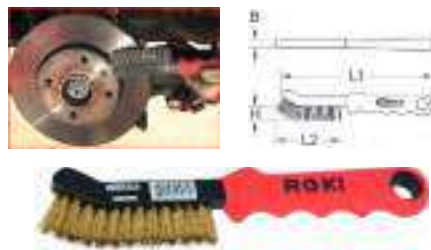
- Braided design
- With thread arbor
- For use in one hand angle grinder
- Ideal for heavy brush works
- For surface preparation
- Curled and rust free steel wire



	RPM max	mm	D mm	H mm	L mm	No. plates	g
340.0025	12500	M14 x 2,0	65,0	20,0	50,0	16	160
340.0026	11500	M14 x 2,0	75,0	20,0	50,0	18	200
340.0027	10000	M14 x 2,0	90,0	22,0	60,0	18	240

**Brass wire brake saddle wire brush 2 rowed, straight**

- 2 rowed
- Very narrow execution
- For narrow brake saddle shafts
- Robust stock
- With hanging hole
- Two component handle
- For removing of stubborn brake dust
- For surface preparation
- Curved brass wire



	B mm	H mm	L1 mm	L2 mm	g
201.2322	12,0	22,0	225,0	90,0	90

**Brass wire spark plug wire brush 2 rowed**

- 2 rowed
- for gentle cleaning of electrodes and contacts on spark plugs
- For surface preparation
- Brass wire



	H mm	L1 mm	L2 mm	g
201.2316	14,8	170,0	24,5	20

**Steel wire spark plug wire brush 2 rowed**

- 2 rowed
- for gentle cleaning of electrodes and contacts on spark plugs
- For surface preparation
- Steel wire



	H mm	L1 mm	L2 mm	g
201.2315	14,8	170,0	24,5	20

### Steel wire brush disc 0,3 mm

- With 6 mm mandril
- Especially longlife industry version
- For use with drill machine
- For surface preparation
- Crimped steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	
340.0028	20000	38,0	6,0	9,0	6,0	38,0	40
340.0029	15000	50,0	6,0	14,0	12,0	45,0	40
340.0030	15000	63,0	6,0	14,0	17,0	45,0	60
340.0032	15000	75,0	6,0	18,0	20,0	50,0	100

### Rust free steel wire brush disc 0,3 mm

- With 6 mm mandril
- Especially longlife industry version
- For use with drill machine
- For surface preparation
- Curled and rust free steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	
340.0033	20000	38,0	6,0	9,0	6,0	38,0	40
340.0034	15000	50,0	6,0	14,0	12,0	45,0	40
340.0035	15000	63,0	6,0	14,0	17,0	45,0	60
340.0037	15000	75,0	6,0	18,0	20,0	50,0	100

### Steel wire circular brush 0,3 mm

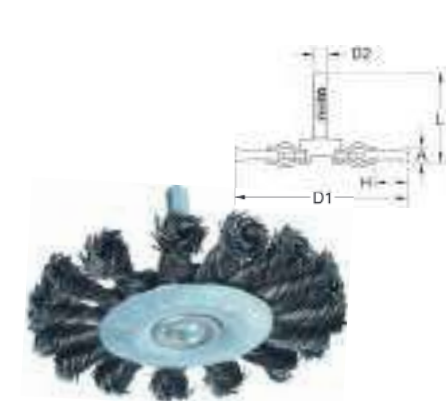
- Braided design
- With 6 mm mandril
- Especially longlife industry version
- For use in with drill machine
- For removing of underbody coating
- For surface preparation
- Smooth steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	
340.0038	15000	75,0	6,0	12,0	15,0	43,0	100

### Steel wire circular brush 0,5 mm

- Braided design
- With 6 mm mandril
- Especially longlife industry version
- For use in with drill machine
- For removing of underbody coating
- For surface preparation
- Smooth steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	L mm	
340.0039	15000	75,0	6,0	12,0	15,0	43,0	100

### Steel wire circular brush 0,5 mm

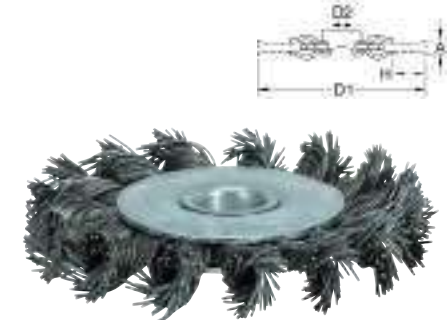
- Braided design
- Longlife industry version
- For use in one hand angle grinder
- For removing of rubber, grate and lacquer residue
- For surface preparation
- Smooth steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	No. plates	
340.0040	12500	75,0	12,7	11,0	16,0	15	90
340.0041	12500	100,0	22,2	11,0	20,5	18	120
340.0042	12500	115,0	22,2	14,0	22,0	20	140
340.0043	12500	125,0	22,2	14,0	27,0	20	150

### Stainless steel and brushed steel 0,5 mm

- Braided design
- Longlife industry version
- For use in one hand angle grinder
- For removing of rubber, grate and lacquer residue
- For surface preparation
- Flat and grate free steel wire



	RPM max	D1 mm	D2 mm	A mm	H mm	No. plates	
340.0044	12500	75,0	12,7	11,0	16,0	15	90
340.0045	12500	100,0	22,2	11,0	20,5	18	120
340.0046	12500	115,0	22,2	11,0	23,5	20	140
340.0047	12500	125,0	22,2	14,0	27,0	20	150

### Cone design steel wire circular brush 0,5 mm

- Braided design
- With thread arbor
- Especially longlife industry version
- For use in one hand angle grinder
- For hard to reach places
- For surface preparation
- Smooth steel wire



	RPM max	Thread	D mm	A mm	H mm	No. plates	
340.0048	12500	M 14 x 2,0	100,0	14,0	21,0	18	190
340.0049	12500	M 14 x 2,0	115,0	14,0	21,0	20	210

### Rust free cone design steel wire circular brush 0,5 mm

- Braided design
- With thread arbor
- Especially longlife industry version
- For use in one hand angle grinder
- For hard to reach places
- For surface preparation
- Flat and grate free steel wire



	RPM max	Thread	A mm	D mm	H mm	No. plates	
340.0050	12500	M 14 x 2,0	14,0	100,0	21,0	18	190
340.0051	12500	M 14 x 2,0	14,0	115,0	21,0	20	210





## CUT OFF AND FLAP WHEELS

### Clamping mandrel

- High performances thin disks
- Special tool steel



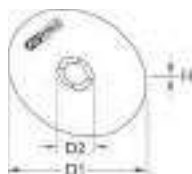
	Shank mm	Profile	
515.3017	6,0	round	72



### High performances thin cutting disk

- Exact and clean cut
- No deburring necessary
- Very short cutting times
- Machine load reduced
- Inox stainless steel

Ideal for use in very thin materials until 2.5 mm, tool steel, sheet metal, thin walled pipes and profiles all type suited for locksmiths, car body building, sanitary and heating fitting, plumbing, sheet metal processing, carpentry, joinery, roofing, metal processing and all motor vehicles businesses.



	RPM max	D1 mm	D2 mm	H mm	Content	
337.2005	13300	50,0	6,0	1,0	25	100
337.2010	15250	100,0	16,0	1,6	25	1200
337.2015	13300	115,0	22,2	1,0	25	730
337.2025	12200	125,0	22,2	1,0	25	800

## RASP

### Installation rasp

- Machined cut
- Two component handle
- Special tool steel



	L1 mm	L2 mm	B mm	File shape	
157.0123	370,0	250,0	22,0	161.0123	270

### Installation rasp insert

- Machined cut
- Special tool steel



	L mm	B mm		
161.0123	250,0	22,0	161.0011	170

## FILE BRUSHES

### File Brush

- Universal usage
- wooden handle
- for ribbed surfaces cleaning, such as filing
- Bristle area 110 x 38 mm
- with steel wire



	L mm	H mm	
161.0001	250,0	20,0	85



## FILES

### Flat needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	H mm	L mm	
140.3051	5,0	1,0	145,0	10

### Half round needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	D mm	L mm	
140.3058	5,0	145,0	10

### Round needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	D mm	L mm	
140.3052	3,0	145,0	10

### Square needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	L mm	
140.3056	2,0	145,0	10

### Three square needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	L mm	
140.3054	3,0	145,0	10

### Square needle file, extra slim

- High cutting rate
- Extra slim design
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	L mm	g
140.3055	2,0	90,0	10

### Oval needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	L mm	g
140.3059	5,0	145,0	10

### Insert needle files

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	B mm	L mm	g
140.3057	5,0	145,0	10

### Tapered needle file

- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



	D mm	L mm	g
140.3053	5,0	145,0	10



### Needle file set in soft plastic storage case

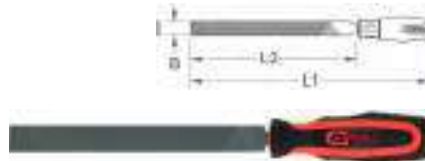
- High cutting rate
- With solid plastic handle
- For working in the area of the fine mechanics
- Special tool steel



			g
140.3050	12 pcs	Needle file set in soft plastic storage case	900

### Flat file

- DIN 7261 Form B
- Two component handle
- Special tool steel



		L1 mm	L2 mm	B mm	File blade	g
157.0025	1	315,0	200,0	20,0	161.0025	230
157.0026	1	380,0	250,0	25,0	161.0026	350
157.0027	1	420,0	300,0	30,0	161.0027	510
157.0028	1	470,0	350,0	35,0	161.0028	690
157.0004	2	230,0	150,0	15,0	161.0004	160
157.0005	2	315,0	200,0	20,0	161.0005	200
157.0006	2	380,0	250,0	25,0	161.0006	350
157.0007	2	420,0	300,0	30,0	161.0007	510
157.0008	2	470,0	350,0	35,0	161.0008	690
157.0014	3	230,0	150,0	15,0	161.0014	160
157.0015	3	315,0	200,0	20,0	161.0015	230
157.0016	3	380,0	250,0	25,0	161.0016	350

### Flat file insert

- DIN 7261 Form B
- Special tool steel



		L mm	B mm	g
161.0025	1	200,0	20,0	161.0013 130
161.0026	1	250,0	25,0	161.0010 250
161.0027	1	300,0	30,0	161.0010 410
161.0028	1	350,0	35,0	161.0010 590
161.0004	2	150,0	15,0	161.0012 60
161.0005	2	200,0	20,0	161.0013 100
161.0006	2	250,0	25,0	161.0010 250
161.0007	2	300,0	30,0	161.0010 410
161.0008	2	350,0	35,0	161.0010 590
161.0014	3	150,0	15,0	161.0012 60
161.0015	3	200,0	20,0	161.0013 130
161.0016	3	250,0	25,0	161.0010 250

### Half round file

- DIN 7261 form E
- Two component handle
- Special tool steel



		L1 mm	L2 mm	D mm	File blade	g
157.0125	1	315,0	200,0	20,0	161.0125	230
157.0126	1	380,0	250,0	25,0	161.0126	340
157.0127	1	420,0	300,0	30,0	161.0127	510
157.0128	1	470,0	350,0	35,0	161.0128	750
157.0104	2	230,0	150,0	15,0	161.0104	160
157.0105	2	315,0	200,0	20,0	161.0105	230
157.0106	2	380,0	250,0	25,0	161.0106	340
157.0107	2	420,0	300,0	30,0	161.0107	510
157.0114	3	230,0	150,0	15,0	161.0114	160
157.0115	3	315,0	200,0	20,0	161.0115	230
157.0116	3	380,0	250,0	25,0	161.0116	340

### Half round file insert

- DIN 7261 form E
- Special tool steel



		L mm	B mm	g
161.0125	1	200,0	20,0	161.0013 130
161.0126	1	250,0	25,0	161.0010 240
161.0127	1	300,0	30,0	161.0010 410
161.0128	1	350,0	35,0	161.0010 650
161.0104	2	150,0	15,0	161.0012 60
161.0105	2	200,0	20,0	161.0013 130
161.0106	2	250,0	25,0	161.0010 240
161.0107	2	300,0	30,0	161.0010 410
161.0114	3	150,0	15,0	161.0012 60
161.0115	3	200,0	20,0	161.0013 130
161.0116	3	250,0	25,0	161.0010 240

### Round file

- DIN 7261 form F
- Two component handle
- Special tool steel



		L1 mm	L2 mm	D mm	File blade	g
157.0224	1	230,0	150,0	6,0	161.0224	130
157.0225	1	315,0	200,0	7,5	161.0225	150
157.0226	1	370,0	250,0	9,5	161.0226	200
157.0204	2	230,0	150,0	6,0	161.0204	60
157.0205	2	315,0	200,0	7,5	161.0205	150
157.0206	2	370,0	250,0	9,5	161.0206	200
157.0214	3	230,0	150,0	6,0	161.0214	130
157.0215	3	315,0	200,0	7,5	161.0215	150

### Round file insert

- DIN 7261 form F
- Special tool steel



		L mm	D mm		
161.0224	1	150,0	6,0	161.0012	30
161.0225	1	200,0	7,5	161.0013	50
161.0226	1	250,0	9,5	161.0011	100
161.0204	2	150,0	6,0	161.0012	30
161.0205	2	200,0	7,5	161.0013	50
161.0206	2	250,0	9,5	161.0011	100
161.0214	3	150,0	6,0	161.0012	30
161.0215	3	200,0	7,5	161.0013	50

### Square file

- DIN 7261 Form D
- Two component handle
- Special tool steel



		L1 mm	L2 mm	B mm	File code	
157.0324	1	230,0	150,0	6,0	161.0324	130
157.0325	1	320,0	200,0	8,0	161.0325	170
157.0326	1	370,0	250,0	10,0	161.0326	250
157.0304	2	230,0	150,0	6,0	161.0304	130
157.0305	2	320,0	200,0	8,0	161.0305	170
157.0306	2	370,0	250,0	10,0	161.0306	250
157.0314	3	230,0	150,0	6,0	161.0314	130
157.0315	3	320,0	200,0	8,0	161.0315	170

### Square file insert

- DIN 7261 Form D
- Special tool steel

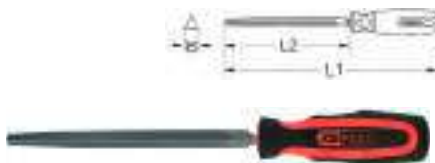


		L mm	B mm		
161.0324	1	150,0	6,0	161.0012	30
161.0325	1	200,0	8,0	161.0013	70
161.0326	1	250,0	10,0	161.0011	150
161.0304	2	150,0	6,0	161.0012	30
161.0305	2	200,0	8,0	161.0013	70
161.0306	2	250,0	10,0	161.0011	150
161.0314	3	150,0	6,0	161.0012	30
161.0315	3	200,0	8,0	161.0013	70



### Three square file

- DIN 7261 form C
- Two component handle
- Special tool steel



		L1 mm	L2 mm	B mm	File code	
157.0424	1	230,0	150,0	11,0	161.0424	170
157.0425	1	320,0	200,0	15,0	161.0425	240
157.0426	1	370,0	250,0	17,5	161.0426	380
157.0427	1	420,0	300,0	20,0	161.0427	520
157.0404	2	230,0	150,0	11,0	161.0404	170
157.0405	2	320,0	200,0	15,0	161.0405	240
157.0406	2	370,0	250,0	17,5	161.0406	380
157.0407	2	420,0	300,0	20,0	161.0407	520
157.0414	3	230,0	150,0	11,0	161.0414	170
157.0415	3	320,0	200,0	15,0	161.0415	240
157.0416	3	370,0	250,0	17,5	161.0416	200

### Three square file insert

- DIN 7261 form C
- Special tool steel



		L mm	B mm		
161.0424	1	150,0	11,0	161.0012	70
161.0425	1	200,0	15,0	161.0013	140
161.0426	1	250,0	17,5	161.0011	280
161.0427	1	300,0	20,0	161.0011	420
161.0404	2	150,0	11,0	161.0012	70
161.0405	2	200,0	15,0	161.0013	140
161.0406	2	250,0	17,5	161.0010	300
161.0407	2	300,0	20,0	161.0011	420
161.0414	3	150,0	11,0	161.0012	70
161.0415	3	200,0	15,0	161.0013	140
161.0416	3	250,0	17,5	161.0010	300

### File handle

- For rectangle and round reception
- Two component handle



		D mm	L mm	
161.0010		39,0	120,0	80
161.0011		39,0	120,0	80
161.0012		28,0	80,0	40
161.0013		35,0	106,0	65

### Workshop file set

- DIN 7261 form B, C, D, E, F
- Second cut
- 200 mm long
- Two component handle
- Special tool steel

Includes one flat, halfround, round, square and triangular file with a length of 200 mm and second cut



140.3000	5 pcs Workshop file set	900
1 x	200 mm	
1 x	200 mm	
1 x	200 mm	
1 x	200 mm	
1 x	200 mm	

### THREAD FILES

#### Thread file, metric

- For the restoration of defective internal and external threads
- Suitable for right and left-handed thread
- Serviceable from both sides
- Special tool steel

Suitable for thread pitch: 0.8 - 3.0 mm



	L mm	
150.1340	230,0	130

#### Thread file, imperial

- For the restoration of defective internal and external threads
- Suitable for right and left-handed thread
- Serviceable from both sides
- Special tool steel

Suitable for thread pitch: 24 - 10 pitch imperial

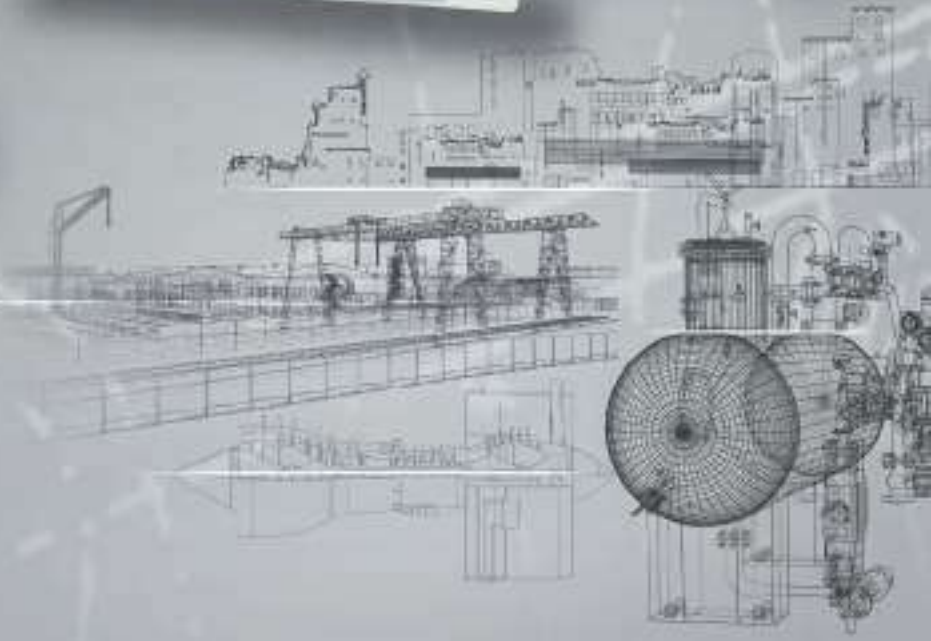


	L mm	
150.1345	230,0	130

CUTTING- AND SCRAPING TOOLS



Innovation is our mission!



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## SNAP OFF KNIVES

### Universal snap off blade knife

- For right handed use
- With pocket clip
- Blade 9 x 80 mm
- With 0,4 mm strong snap off blades
- Housing made from metal



	L mm		
907.2167	130,0	907.2168	30

### Universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 9 x 80 mm
- With 0,4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



	L mm		
907.2152	140,0	907.2168	50

### Standard universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic



	L mm		
907.2157	140,0	907.2166	70

### Standard universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Housing made out of plastic



	L mm		
907.2156	150,0	907.2166	40

### Universal snap off blade knife

- For right handed use
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



	L mm		
907.2165	165,0	907.2166	90

### Universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 9 x 80 mm
- With 0,4 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



	L mm		
907.2120	145,0	907.2168	50

### Universal snap off blade knife

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



	L mm		
907.2135	175,0	907.2166	81

### Universal snap off blade knife

- For right handed use
- Blade 25 x 125 mm
- With 0,7 mm strong snap off blades
- Blade guide out of metal
- Housing made out of plastic
- Two component handle



	L mm		
907.2180	220,0	907.2159	137

### Comfort snap off blade knife

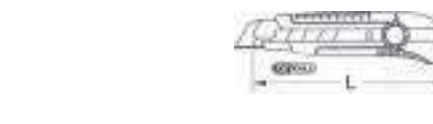
- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0.5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Housing made out of plastic
- Two component handle



	L mm		
907.2175	180,0	907.2176	150

### Comfort snap off blade knife

- For right handed use
- Blade 25 x 125 mm
- With 0,7 mm strong snap off blades
- Blade guide out of metal
- Knife adjustment using the rotary mechanism
- Housing made out of plastic
- Two component handle



	L mm		
907.2158	200,0	907.2159	90

**Comfort snap off blade knife**

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 0,5 mm strong snap off blades
- Blade guide out of metal
- Knife adjustment using the rotary mechanism
- Housing made from metal
- Two component handle



	L mm		g
907.2141	200,0	907.2166	220

**Comfort snap off blade knife**

- For right handed use
- With reinforcement eyelet
- Blade 18 x 100 mm
- With 6 snap off blades 0.5 mm thick
- Blade guide out of metal
- With integrated blade magazine
- Knife adjustment using the rotary mechanism on the cutter head
- Housing made out of plastic
- Two component handle



	L mm		g
907.2195	170,0	907.2196	250

**PEN KNIFE**

**Pen knife set**

- For right and left handed use
- Includes 15 trapezoid blades
- With 0,5 mm strong trapezoid blades
- With rapid fastening
- Metal execution



			g
907.2172	2 pcs	Pen knife set	120

consists of:

			g
907.2173	Folding knife with belt clip, 97mm		60
907.2174	Folding knife, 155mm		60

**Folding knife with locking mechanism**

- Teflon coated blade
- Blade fixator folded out
- Non slip handle with finger recesses
- Ideal for mechanics



	B mm	L1 mm	L2 mm	g
907.2105	25,0	193,0	78,0	100

**Folding knife with locking mechanism**

- Blade with coating
- Blade fixator folded out
- Easy and handy to use
- Anodised aluminium handle
- with belt clip
- ideal for mechanics, outdoor, camping etc.



	B mm	L1 mm	L2 mm	g
907.2225	34,0	200,0	90,0	152

**Folding knife with locking mechanism**

- Stainless steel blade partially serrated
- Blade fixator folded out
- With reinforcement eyelet
- Handle with fine wood inserts
- with belt clip
- Ideal for mechanics



	B mm	L1 mm	L2 mm	g
907.2190	28,0	220,0	85,0	183

**Clasp knife with lock and belt cutter**

- Blade with coating
- Blade fixator folded out
- integrated belt cutter on the handle
- Glass breaker at handle end
- Easy and handy to use
- Anodised aluminium handle
- with belt clip
- ideal for mechanics, outdoor, camping etc.

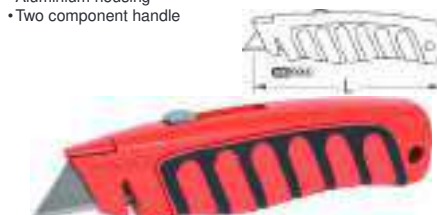


	B mm	L1 mm	L2 mm	g
907.2220	26,0	210,0	85,0	150

**HAND KNIFE WITH TRAPEZOIDAL BLADE**

**Professional universal knife**

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,6 mm strong trapezoid blades
- With integrated foil and paper cutter
- Aluminium housing
- Two component handle



	L mm		g
907.2145	145,0	907.2206	100

**Professional universal knife**

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,6 mm strong trapezoid blades
- With integrated blade magazine
- Blade changed in seconds by the side mounted locking knob
- Aluminium housing



	L mm		g
907.2170	160,0	907.2206	90

**Professional safety universal knife**

- For right and left handed use
- With reinforcement eyelet
- Trapezoid blade
- With 0,5 mm strong trapezoid blades
- Automatic knife retraction
- Housing made from metal



	L mm		g
907.2140	145,0	907.2206	100

**Two direction professional universal knife**

- For right and left handed use
- With reinforcement eyelet
- Double sided insertable
- With 0,6 mm strong trapezoid blades
- With 0,5 mm strong hook blade
- With integrated blade magazine
- Blade changed in seconds by the side mounted locking knob
- Housing made from metal



	L mm		g
907.2155	165,0	907.2163	220

**Long knife for trim seals**

- For the use with conventional trapezoid blades and hook blades
- Includes a replacement blade in the handle
- Non slip handle
- Aluminium



	L mm		g
140.2284	230,0	907.2206	300
140.2290	470,0	907.2206	320
140.2291	620,0	907.2206	380

## REPLACEMENT KNIFE BLADE

### Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser



	L mm	B mm	S mm	Content	
907.2168	80,0	9,0	0,4	10	35

### Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser



	L mm	B mm	S mm	Content	
907.2166	100,0	18,0	0,5	10	90

### Snap off blades

- For all standard cutter knives
- SK steel
- In the storage dispenser



	L mm	B mm	S mm	Content	
907.2159	100,0	25,0	0,7	10	20

### Snap off blade magazine

- For all standard cutter knives
- SK steel
- In an aluminium magazine



	L mm	B mm	S mm	Content	
907.2176	100,0	18,0	0,5	6	70
907.2196	100,0	18,0	0,5	6	65

## Trapezoid blades

- For all standard cutter knives
- SK steel
- In the storage dispenser



	L mm	Width mm	S mm	Content	
907.2164	29,0	9,4	0,45	5	20
907.2206	61,0	19,0	0,6	10	60

## Hook blades

- For all standard cutter knives
- SK steel
- In the storage dispenser



	L mm	B mm	S mm	Content	
907.2163	54,0	19,0	0,63	10	35

## SHEARS

### Universal workshop shear

- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade



	L mm	S mm	
118.0010	140,0	43,0	100

### Universal workshop shear

- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade
- Two component handle



	L mm	S mm	
118.0013	143,0	46,0	100

### Universal workshop shear

- Robust short shears
- For various application areas
- With cable cutter
- Practical and very sharp
- Includes belt bag with cut protection



	L mm	S mm	
118.0060	140,0	42,0	170

### Universal Kevlar workshop shear

- Robust short shears
- Adjustable screw joint
- Ergonomic plastic handle
- Universal applications
- One component handle

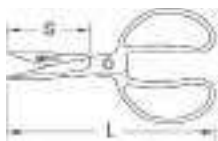


	L mm	S mm	
118.0065	140,0	45,0	130



**Universal workshop shear**

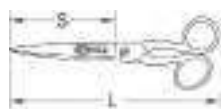
- Long cutting edge
- Adjustable screw joint
- With screw on blade
- With intergrated interlocking
- Stainless steel blade
- Two component handle



	L mm	S mm	g
118.0066	190,0	75,0	120

**Universal workshop shear**

- Long cutting edge
- Adjustable screw joint
- Round gripping handle
- Nickel plated
- Stainless steel blade



	L mm	S mm	g
118.0078	200,0	105,0	110
118.0079	250,0	140,0	150

**Universal workshop shear**

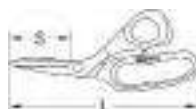
- Sturdy design
- Adjustable screw joint
- Handle black lacquer
- Polished cutting edges
- Stainless steel blade



	L mm	S mm	g
118.0076	200,0	100,0	200
118.0077	250,0	120,0	370

**Textile shear**

- Adjustable screw joint
- Stainless steel blade
- One component handle



	L mm	S mm	g
118.0011	205,0	65,0	80

**Carpet shear**

- Long cutting edge
- Adjustable screw joint
- Stainless steel blade
- One component handle



	L mm	S mm	g
118.0012	230,0	135,0	120

**Universal workshop shear**

- Long, robust cutting edge
- With screw on blade
- Stainless steel blade
- Two component handle



	L mm	S mm	g
118.0067	220,0	90,0	130

**Universal shear, serrated**

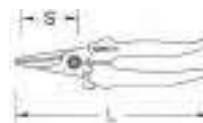
- Tothing for cutting adhesive weights
- Self opening
- Safety locking device
- Also for cutting gaskets
- Ergonomic moulded plastic handle



	Ø mm	L mm	S mm	g
118.0075	24,0	145,0	32,0	130

**Universal workshop shear**

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- Ideal for gaskets



	Ø mm	L mm	S mm	g
118.0071	35,0	190,0	42,0	148

**Universal Workshop Shears, angled**

- Self opening
- Safety locking device
- Practical and very sharp
- Angled design
- Ergonomic moulded plastic handle
- Ideal for seals and cables



	Ø mm	L mm	S mm	g
118.0072	35,0	185,0	42,0	190



## CABLE AND HOSE SHEARS

### Scissor set for hoses and plastic pipes

- ideal for angle-precise and clean cutting of rubber hoses, plastic pipes and various plastic profiles, such as cable ducts
- for rubber hoses with or without textile cover
- fittings for 16, 19 and 25 mm pipes included
- with prism for 90° profile
- with adjustable angle stop up to 45°
- In durable plastic storage case



123.0075	7 pcs	Scissor set for hoses and plastic pipes	490

consists of:

123.0076	scissor-shaped with blades	290	
123.0077	fitting for Ø 16 and 19 mm	30	
123.0078	fitting for Ø 25 mm	78	
123.0079	prism for 90° profile	63	
123.0084	straight fitting	37	
123.0086	angular stop	36	
151.2604	Hexagon key wrench phosphate finish, short, 4mm	10	

### Steel wire shear

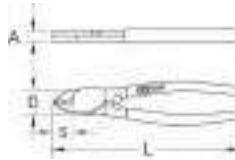
- For medium steel wire up to 4,7 mm
- With opening spring and safety catch
- Induction hardened cutting
- No splaying out of the wire
- With PVC dipped handle
- Special tool steel



Ø mm	A mm	D mm	L mm	S mm	
118.0092	4,7	11,0	27,0	190,0	9,0

### Cable cutter

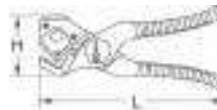
- Precision ground cutting edges
- Smooth cut
- For lead cable up to max. Ø 60 mm<sup>2</sup>
- With before and after cut
- For burr free cutting of single and multi strand wire copper and aluminium cable
- Not suited for steel wire and hard drawn Copper cables
- Lower power usage
- With PVC dipped handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0090	10,0	12,0	25,0	160,0	15,0	180
118.0091	15,0	13,0	29,0	210,0	20,0	320

### Hose cutter

- Aluminium die cast body



	Ø mm	H mm	L mm	
222.2060	6,0 - 25,0	50,0	185,0	222.2061 300
222.2062	6,0 - 35,0	52,0	250,0	222.2061 452

### Hose cutter

- Teflon coated blade
- Aluminium die cast body



Ø mm	H mm	L mm	
222.2051	0 - 37,0	95,0	222.2052 80



## METAL SHEARS

### Sheet steel nibbler

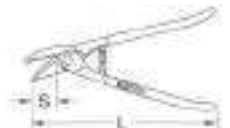
- Burr-free cut
- No deformation of the sheet metal
- Clean cutting edges
- With easy locking action
- With PVC dipped handle
- Cuts sheets up to 1.2mm
- Also ideal for aluminium, copper and plastic
- Special tool steel



Ø mm	B mm	L mm	S mm	Replacement blades	
140.2175	1,2	14,0	265,0	140.2175-1	460

### Ideal shears, right handed cut

- Right hand cutting
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



Ø mm	L mm	S mm	
118.0145	1,2 (0,7)	280,0	38,0

**Ideal shears, left handed cut**

- Left handed cut
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	
118.0146	1,2 (0,7)	280,0	38,0	540

**Pelican straight cut shears**

- Right hand cutting
- With spring
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	
118.0149	1,2 (0,7)	305,0	73,5	465

**Mini metal shears, right handed cut**

- Right hand cutting
- Optimal for fine working
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- Two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0151	1,2	17,0	33,0	180,0	20,0	300

**Punching shears, right handed cut**

- Right hand cutting
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	
118.0147	1,2 (0,7)	250,0	42	455

**Mini metal shears, straight cut**

- Straight cut
- Optimal for fine working
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- Two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0152	1,2	10,0	20,0	180,0	20,0	300

**Mini metal shears, left handed cut**

- Left handed cut
- Optimal for fine working
- Self opening handle
- With internal spring
- With easy locking action
- Induction-hardened precision cutting
- Two component handle
- Cuts sheet metal up to 1.2 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0153	1,2	20,0	25,0	180,0	20,0	300

**Punching shears, left handed cut**

- Left handed cut
- Induction-hardened precision cutting
- With PVC dipped handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	L mm	S mm	
118.0148	1,2 (0,7)	250,0	42	455

**Mini straight and shape cutting snip set**

- Self opening handle
- With internal spring
- With easy locking action
- Two component handle
- 25% power savings
- Left, right hand cutting & straight
- Smooth blades
- Induction-hardened precision cutting
- Cuts sheet metal up to 1.2 mm
- Chrome molybdenum



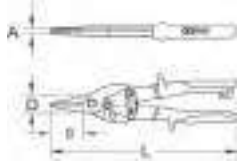
	Ø mm	
118.0150	3 pcs	Mini straight and shape cutting snip set 800



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**Tin snips sheet metal shear, self opening, straight cut**

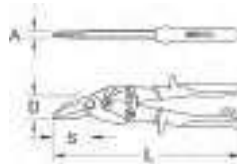
- Straight cut
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0051	1,2 (0,7)	20,0	19,0	250,0	45,0	400

**Tin snips sheet metal shear, self opening, right handed cut**

- Right hand cutting
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel

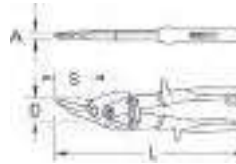


	Ø mm	A mm	D mm	L mm	S mm	
118.0052	1,2 (0,7)	18,0	21,0	240,0	42,0	400



**Tin snips sheet metal shear, self opening, left handed cut**

- Left handed cut
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	
118.0053	1,2 (0,7)	17,0	26,0	240,0	44,0	400

**Tin snips sheet metal shear set**

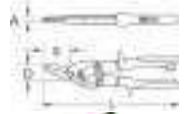
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1,2 mm, stainless steel up to 0,7 mm
- Special tool steel



118.0050	3 pcs Tin snips sheet metal shear set 1,20

**Template cutting shear with lever gearing, right handed cut**

- Right hand cutting
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.5 mm, stainless steel up to 1.0 mm
- Special tool steel



		Ø mm	A mm	D mm	L mm	S mm	
118.0045	right	1,5 (1,0)	30,0	50,0	260,0	40,0	380

**Template cutting shear with lever gearing, left handed cut**

- Left handed cut
- Self opening handle
- Serrated blades
- With internal spring
- With easy locking action
- Includes hanging loop
- Induction-hardened precision cutting
- Two component handle
- Cuts steel sheet up to 1.5 mm, stainless steel up to 1.0 mm
- Special tool steel

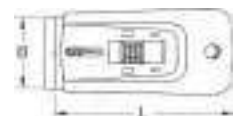


		Ø mm	A mm	D mm	L mm	S mm	
118.0046	left	1,5 (1,0)	30,0	50,0	260,0	40,0	380

**SCRAPERS**

**Scraper**

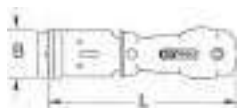
- Ideal for removing of stickers, seal and glue residues
- With easily interchangeable and retractable blades
- With reinforcement eyelet
- Scraper blade retractable via spline end for protection
- With metal housing



	B mm	L mm	
907.2240	39,0	110,0	911.8127 90

Scraper

- Ideal for removing of stickers, seal and glue residues
- With easily interchangeable blades
- With reinforcement eyelet
- Soft grip handle



	Width mm	Length mm		
911.8126	38,0	160,0	911.8127	90

Replacement scraper blades

- For all standard scrapers
- SK steel
- In a carton

**Application range:** for the removal of labels on bumpers, front windscreens etc.



Content	L mm	B mm	S mm		
911.8127	5	40,0	19,5	0,29	40

Gasket scraper set

- For removing seal residue, e.g. cylinder head seals
- With replacement blade
- Extra long execution for reaching inaccessible areas
- Angled blade head
- With ergonomic moulded two component handle
- Special tool steel



	Content	Length mm	Width mm	Height mm	
907.2280	2 pcs	Gasket scraper set		180	

consists of:

	Content	Length mm	Width mm	Height mm	
907.2281	Scraper, 270 mm	155			
907.2282	Scraper blade	5			

Scraper

- With easily interchangeable and retractable blades
- With reinforcement eyelet
- With metal housing
- Two component handle



	Width mm	Length mm		
907.2242	40,0	145,0	911.8127	103

Replacement plastic scraper blades

- For all standard scrapers
- Particularly gentle on materials, since no scratches can be made
- Dual-sided adjustment
- Plastic
- In a carton

**Application range:** for the removal of labels on bumpers, front windscreens etc.



Content	L mm	B mm	S mm		
911.8128	10	40,0	18,5	1,10	2

Carbide scraper

- ideal for removing stubborn impurities, sealant residues and surface treatment
- for burnt on pads on the exhaust, brakes etc.
- with a very hard-wearing carbide cutting element
- a solid blade with two scraping edges
- Extremely long service life
- works as a compression and a pulling blade
- With an ergonomic, moulded, one component handle
- With reinforcement eyelet



	Length mm	Width mm	
907.2237	210,0	32,0	129

Scraper blades

- 5 replacement blades for seal scraper 907.2280
- For removing seal residue, e.g. cylinder head seals
- For angled blade head
- Special tool steel



Content	Length mm	Width mm	Height mm		
907.2285	5	22,0	12,0	21,0	25

Pinch weld scraper set

- Ideal for removing of stickers, seal and glue residues
- Simple blade change by loosening the knurled thumb screw on the chuck
- With 10 straight scraper blades 16 mm
- Scraper with two component handle



	Content	Length mm	Width mm	Height mm	
907.2215	11 pcs	Pinch weld scraper set		100	
1 x		907.2201			
10 x		16 mm			



### Knife scraper set

- Ideal for removing of stickers, seal and glue residues
- Simple blade change by loosening the knurled thumb screw on the chuck
- Practical storage system for changeable blades
- Suitable for many different application due to the wide range of blades
- Scraper with two component handle
- Professional universal knife with aluminium housing
- In durable plastic storage case



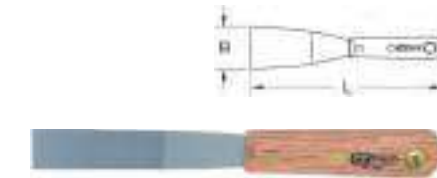
				kg
907.2200	27 pcs	Knife scraper set		0,60
1 x				
1 x				

### Replacement blades:

	Width mm	Form	Content	kg
907.2202	12,0	straight	10	20
907.2203	16,0	straight	10	20
907.2204	16,0	53° angled	10	20
907.2205	20,0	straight	10	40
907.2206	19,0	torpedo form	10	60

### Stainless steel scraper

- With wooden handle
- Ground
- Polished
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	B mm	kg
907.2261	225,0	25,0	70
907.2262	225,0	38,0	70
907.2263	225,0	50,0	70
907.2264	225,0	63,0	70
907.2265	225,0	75,0	80

### STAINLESS STEEL Chisel scraper

- Ideal for removing of stickers, seal and glue residues
- Also suitable for the removal and chiselling of plates or welding spots
- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	B mm	D mm	L mm	kg
907.2211	32,0	1,2	230,0	105
907.2213	20,0	1,2	176,0	90
907.2212	32,0	2,5	230,0	140
907.2214	20,0	2,5	176,0	100



### STAINLESS STEEL Chisel scraper set

- Ideal for removing of stickers, seal and glue residues
- Also suitable for the removal and chiselling of plates or welding spots
- Continuous stainless steel blade that can be re sharpened
- With reinforcement eyelet
- With hammer cap on the handle
- With ergonomic moulded two component handle
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



				kg
907.2210	4 pcs	32 x 1,2; 32 x 2,5; 25 x 1,2; 25 x 2,5 mm		0,58

### Pinch weld scraper

- Ideal for removing of stickers, seal and glue residues
- With interchangeable spring steel blade
- Working length max. 115 mm
- Aluminium handle



	B mm	L mm	kg
140.2282	13,0	240,0	200
140.2286	16,0	240,0	200
140.2288	19,0	240,0	200

### Gasket scraper

- Ideal for removing of stickers, seal and glue residues
- Blades can be re-sharpened
- Blade 10° angled
- Extra long execution for reaching inaccessible areas
- For removing extremely stubborn gaskets and seals
- With ergonomic moulded one component handle



	B mm	L1 mm	L2 mm	kg
907.2231	12,5	200,0	100,0	120
907.2232	25,0	200,0	100,0	140
907.2233	12,5	300,0	200,0	180
907.2234	25,0	300,0	200,0	200

### Gasket scraper set

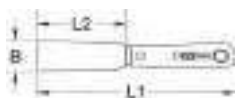
- Ideal for removing of stickers, seal and glue residues
- Blades can be re-sharpened
- Blade 10° angled
- Extra long execution for reaching inaccessible areas
- For removing extremely stubborn gaskets and seals
- With ergonomic moulded one component handle



907.2230	4 pcs	12,5 x 200; 25 x 200; 12,5 x 300; 25 x 300 mm		1,28	

### Chisel scraper

- Ideal for removing stickers, seal and glue residues
- Also for removing extremely stubborn impurities and seal residue
- Blade 10° angled
- Blades can be re-sharpened
- Rust-proof and acid resistant
- Wooden handle



	B mm	L1 mm	L2 mm	
907.2266	15,0	175,0	50,0	42
907.2267	20,0	185,0	60,0	50
907.2268	30,0	190,0	65,0	57

### Chisel scraper set

- Ideal for removing stickers, seal and glue residues
- Also for removing extremely stubborn impurities and seal residue
- Blade 10° angled
- Blades can be re-sharpened
- Rust-proof and acid resistant
- Wooden handle



907.2270	3 pcs	Chisel scraper set		150

consists of:

907.2266	Chisel scraper 15x175 mm		42
907.2267	Chisel scraper 20x185 mm		50
907.2268	Chisel scraper 30x190 mm		57

### WOOD SCRAPER

#### flat scraper

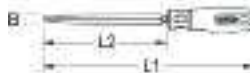
- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel



	L1 mm	L2 mm	B mm	
907.2235	230,0	125,0	16,0	100
907.2236	250,0	150,0	20,0	160
907.2238	300,0	175,0	20,0	190
150.3254	325,0	200,0	20,0	220
150.3255	375,0	250,0	25,0	340
150.3256	420,0	300,0	25,0	400

#### Triangular full scraper

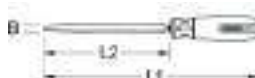
- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel



	L1 mm	L2 mm	B mm	
150.2244	200,0	100,0	10,0	70
150.3244	240,0	125,0	10,0	100
150.2246	270,0	150,0	10,0	120
150.3245	300,0	175,0	10,0	130
150.2247	320,0	200,0	12,0	140
150.3246	370,0	250,0	12,0	200
150.3247	420,0	300,0	12,0	240

#### Precision-mechanical triangular full scraper

- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel



	L1 mm	L2 mm	B mm	
150.3257	160,0	75,0	9,0	30

### Triangular hollow scraper

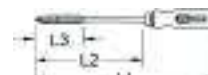
- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel



	L1 mm	L2 mm	B mm	
150.3258	200,0	100,0	14,0	90
150.3259	230,0	125,0	14,0	90
150.2241	270,0	150,0	14,0	120
150.3262	300,0	175,0	15,0	120
150.2242	320,0	205,0	15,0	160
150.3264	380,0	250,0	15,0	170
150.3265	410,0	300,0	16,0	190

### triangular bucket scraper

- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel



	L1 mm	L2 mm	L3 mm	
150.2243	165,0	100,0	55,0	60
150.3248	230,0	125,0	55,0	70
150.3249	265,0	150,0	70,0	120
150.3251	320,0	200,0	85,0	170
150.3252	380,0	250,0	120,0	210
150.3253	420,0	300,0	120,0	250

### Spoon scraper / Long scraper

- American form
- Work areas ground
- crimped ferrule
- With wooden handle
- Special tool steel

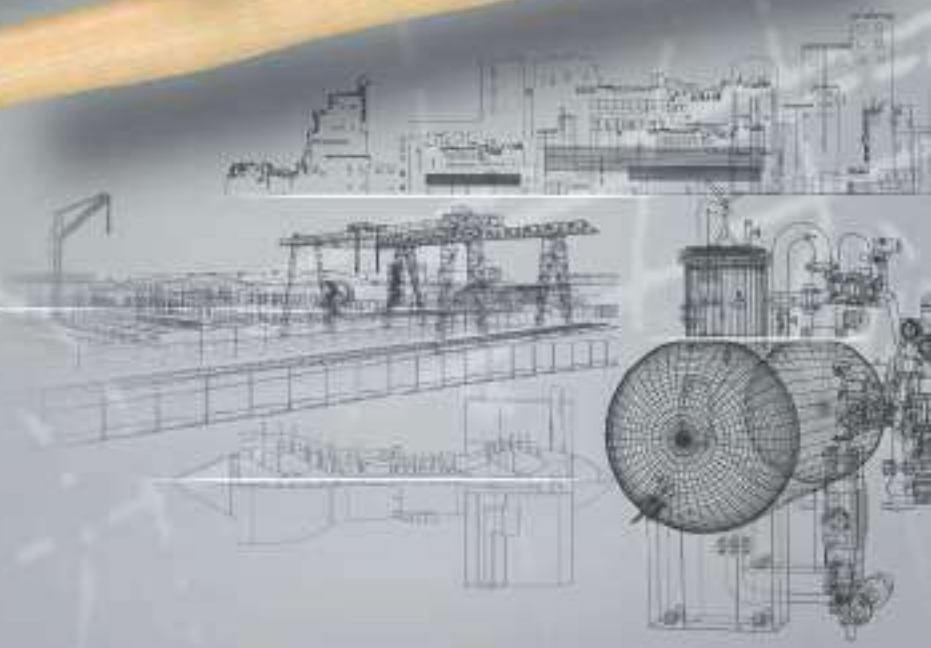


	L1 mm	L2 mm	L3 mm	
150.2248	270,0	150,0	70,0	120
150.3241	320,0	200,0	85,0	170
150.3242	365,0	250,0	120,0	200
150.3243	420,0	300,0	120,0	250





*Innovation is  
our mission!*





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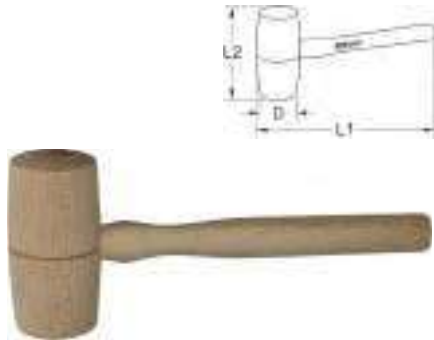
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## SOFT HEAD HAMMER

### Wooden hammer

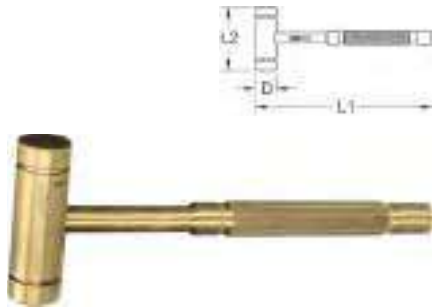
- DIN 7462
- With hickory handle



	g	D mm	L1 mm	L2 mm	g
140.5231	100	40,0	240,0	90,0	160
140.5232	300	60,0	300,0	125,0	360
140.5233	500	80,0	360,0	145,0	560

### Brass hammer

- Full brass execution
- Protective material



	g	D mm	L1 mm	L2 mm	g
140.2081	800	26,0	230,0	83,0	800
140.2082	1400	31,0	260,0	100,0	1400

### Plastic hammer

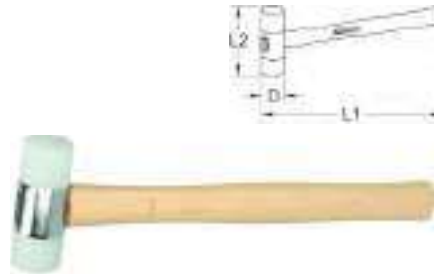
- With transparent head made from impact resistant cellulose acetate
- Impact heads are exchangeable (screw thread)
- With hickory handle
- Ideal for hammering out and gentle sheet metal working



	g	D mm	L1 mm	L2 mm	Hande number	g
140.5201	200	28,0	260,0	82,0	140.5301 140.5401	210
140.5202	340	35,0	300,0	95,0	140.5304 140.5404	350

### Nylon hammer

- With impact heads made out of impact resistant nylon
- shatterproof, break and wear-resistant
- With hickory handle
- Ideal for hammering out and gentle sheet metal working



	g	D mm	L1 mm	L2 mm	Hande number	g
140.5211	200	28,0	260,0	82,0	140.5301 140.5401	230
140.5212	340	35,0	300,0	95,0	140.5304 140.5404	450

### Rubber hammer

- DIN 5128
- With tapered hickory handle
- Hammer head made out of hard rubber



	g	D mm	L1 mm	L2 mm	Hande number	g
140.5221	300	45,0	300,0	80,0	140.5304 140.5404	340
140.5222	500	58,0	310,0	95,0	140.5305 140.5405	560
140.5223	700	63,0	345,0	112,0	140.5306 140.5405	780

### Rubber hammer

- DIN 5128
- With tapered hickory inserted handle
- Hammer head made out of hard rubber



	g	D mm	L1 mm	L2 mm	g
140.1230	425	60,0	340,0	110,0	525

### Rubber hammer

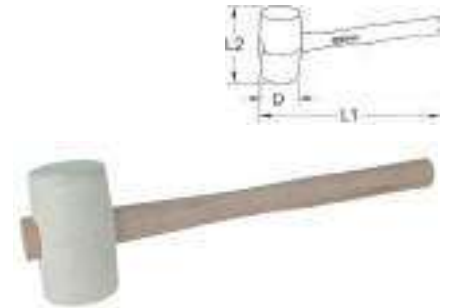
- DIN 5128
- With fibreglass handle
- Hammer head made out of hard rubber



	g	D mm	L1 mm	L2 mm	g
140.1237	500	56,0	325,0	100,0	520

### Rubber hammer

- DIN 5128
- With tapered hickory inserted handle
- Hammer head made out of hard rubber
- With white rubber head



	g	D mm	L1 mm	L2 mm	g
140.1234	270	55,0	300,0	115,0	300
140.1235	500	60,0	340,0	115,0	595
140.1236	735	65,0	380,0	130,0	855

### Recoil free soft faced hammer

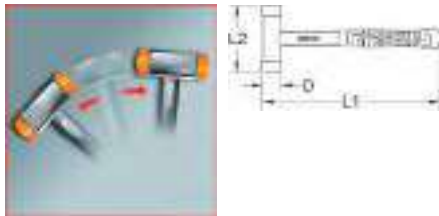
- With hickory handle
- Shock absorbing effect through steel shot in the head
- Up to 100% higher impact effect than normal Soft head hammers
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	g
140.1215	350	32,0	330,0	120,0	480

### Recoil free soft faced hammer

- With steel tube handle and plastic handle
- Shock absorbing effect through steel shot in the head
- Up to 100% higher impact effect than normal Soft head hammers
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	head spare	g
140.5270	360	25,0	290,0	105,0	140.5280	360
140.5271	480	30,0	290,0	110,0	140.5281	500
140.5272	590	35,0	295,0	110,0	140.5282	590
140.5273	850	40,0	300,0	120,0	140.5283	650
140.5274	990	45,0	305,0	125,0	140.5284	950
140.5275	1110	50,0	310,0	125,0	140.5285	1080
140.5277	1670	60,0	360,0	140,0	140.5287	1420

### Recoil free soft faced hammer

- Polyurethane fiberglass composite
- Serrated surface for secure grip
- Free of sparks due to rubber cover
- Special absorbing effect through steel shot in the hammer head
- Substantially higher blow effect than in conventional hammering
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	g
140.5252	226	42,0	270,0	83,0	600
140.5254	453	46,0	300,0	100,0	730
140.5255	680	50,0	325,0	100,0	840
140.5256	907	54,0	340,0	100,0	950
140.5257	1360	60,0	350,0	126,0	1300
140.5258	1814	70,0	370,0	135,0	1800

### Recoil free soft faced hammer, extra large

- Polyurethane fiberglass composite
- Rubber handle for better grip
- Special absorbing effect through steel shot in the hammer head
- Substantially higher blow effect than in conventional hammering
- For safer working with less recoil



	g	D mm	L1 mm	L2 mm	g
140.5259	5500	105,0	890,0	180,0	5.76

### INSULATED SOFT-HEAD HAMMERS

#### Soft-face hammer with protective insulation

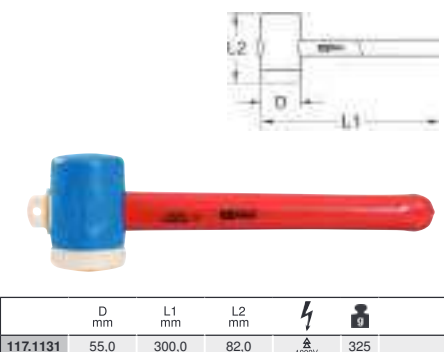
- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil



	D mm	L1 mm	L2 mm	head spare	g	g
117.1126	25,0	300,0	105,0	117.1128	560	560
117.1127	35,0	310,0	115,0	117.1129	790	790

#### Plastic hammer with protective insulation

- Insulated to IEC 60900
- Made from plastic
- Without metal parts

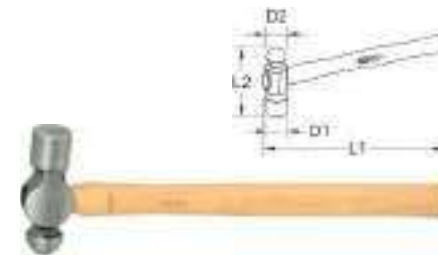


	D mm	L1 mm	L2 mm	g	g
117.1131	55,0	300,0	82,0	325	325

### FITTERS HAMMER

#### Pin hammer

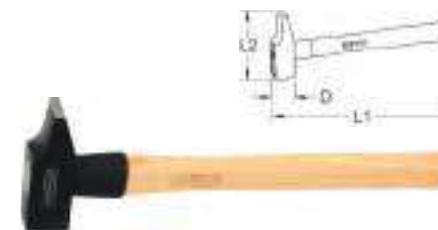
- With hickory handle
- Additional head security
- Extremely durable



	g	D1 mm	D2 mm	L1 mm	L2 mm	Handle number	g	g
142.1508	225	20,0	20,0	290,0	80,0	142.1510	140.5403	300
142.1512	340	28,0	25,0	310,0	91,0	142.1520	140.5403	420
142.1516	450	30,0	27,0	350,0	102,0	142.1530	140.5405	550
142.1524	680	38,0	32,0	365,0	116,0	142.1540	140.5405	800
142.1532	900	40,0	35,0	380,0	130,0	142.1550	140.5405	1100

#### Fitters hammer, French form

- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	g	g
142.1030	250	25,0	300,0	81,5	142.5301	140.5401	365
142.1032	300	28,0	282,0	87,0	142.5302	140.5402	390
142.1050	400	32,0	320,0	92,0	142.5302	140.5402	525
142.1033	500	32,0	305,0	100,0	142.5325	140.5403	560
142.1080	800	40,0	350,0	110,0	142.5303	140.5403	1055
142.1100	1000	42,0	360,0	120,0	142.5303	140.5403	1140
142.1150	1500	50,0	380,0	138,0	142.5304	140.5404	1957
142.1034	2000	57,0	385,0	140,0	142.5304	140.5404	2150
142.1250	2500	60,0	380,0	150,0	142.5304	140.5404	2730

#### Fitters hammer, French form

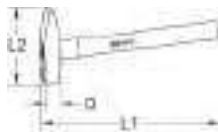
- With fiberglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	g
142.1031	250	25,0	290,0	81,5	415
142.1051	400	32,0	310,0	92,0	575
142.1081	800	40,0	338,0	110,0	1160
142.1101	1000	42,0	340,0	117,0	1270
142.1151	1500	50,0	405,0	138,0	2140

### Fitters hammer

- DIN 1041
- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



### Fitters hammer

- DIN 1041
- With steel tube handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	g
142.1221	350	20,0	300,0	100,0	580

### CLAW HAMMERS

#### Claw hammer, French form

- With lacquered hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	g
142.2020	200	20,0	270,0	92,0	142.5311 140.5401	300
142.2045	500	30,0	310,0	121,0	142.5313 140.5402	600

#### Claw hammer, French form

- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	g
142.2021	200	20,0	285,0	92,0	270
142.2033	250	22,0	290,0	107,0	320
142.2046	500	30,0	328,0	121,0	600

### ELECTRICIANS HAMMER

#### Electricians hammer, French form

- With lacquered hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	g
142.4020	200	18,0	260,0	128,0	142.5314 140.5401	260

#### Electricians hammer, French form

- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	g
142.4030	200	18,0	285,0	126,0	250

### SCABBLING PICK

#### Scabbling pick

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder



	g	D mm	L1 mm	L2 mm	g
140.2001	600	30,0	320,0	170,0	835

	g	D mm	L1 mm	L2 mm	Handle number	g
142.1310	100	15,0	260,0	82,0	142.5305 140.5405	180
142.1320	200	19,0	280,0	95,0	142.5306 140.5405	283
142.1330	300	23,0	300,0	105,0	142.5307 140.5405	350
142.1315	400	25,0	320,0	112,0	142.5307 140.5405	530
142.1350	500	27,0	320,0	118,0	142.5308 140.5406	590
142.1316	600	29,0	330,0	122,0	142.5308 140.5406	750
142.1380	800	33,0	350,0	130,0	142.5309 140.5406	920
142.1400	1000	36,0	360,0	135,0	142.5310 140.5406	1268
142.1318	1500	42,0	380,0	145,0	142.5318 140.5408	1750
142.1319	2000	47,0	400,0	155,0	142.5318 140.5408	2250

### Fitters hammer

- DIN 1041
- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	g
142.1311	100	15,0	260,0	82,0	180
142.1321	200	19,0	280,0	95,0	280
142.1331	300	23,0	300,0	105,0	500
142.1402	400	25,0	320,0	112,0	530
142.1351	500	27,0	320,0	118,0	590
142.1403	600	29,0	330,0	122,0	750
142.1381	800	33,0	350,0	130,0	920
142.1401	1000	36,0	360,0	135,0	1325
142.1404	1500	42,0	380,0	145,0	1880
142.1405	2000	47,0	400,0	155,0	2100

**Scabbling pick, magnetic**

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder

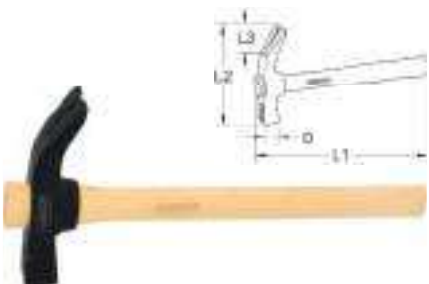


	g	D mm	L1 mm	L2 mm	kg
140.2002	600	30,0	320,0	170,0	900

**CLAW HAMMER**

**Claw hammer**

- With tapered hickory inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder



	g	D mm	L1 mm	L2 mm	L3 mm	Handle number	kg
142.2008	700	30,0	370,0	172,0	48,0	140.5315	860

**Claw hammer**

- With tapered fiberglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder



	g	D mm	L1 mm	L2 mm	L3 mm	Handle number	kg
142.2010	700	28,0	370,0	172,0	48,0	142.5315	920



**Claw hammer American form**

- Steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller



	g	D mm	L1 mm	L2 mm	kg
140.2006	600	30,0	320,0	133,0	850

**BRICK HAMMER**

**Brick hammer, Rhenish form**

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Extremely strong and robust



	g	D mm	L1 mm	L2 mm	kg
140.2030	500	25,0	270,0	178,0	800

**Brick hammer, Berlin form**

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head with nail puller
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
140.2003	600	27,0	270,0	203,0	940

**Brick hammer, American form**

- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Extremely strong and robust



	g	D mm	L1 mm	L2 mm	kg
142.1417	600	27,0	320,0	163,0	140.5406

**Concrete shell hammer, magnetic**

- With steel tube handle and plastic handle
- Forged execution
- for scraping off concrete residues
- Impact area surfaces inductively hardened
- Hammer head made out of high quality special steel
- Head coating made from structured powder baked lacquer
- Pane with nail puller
- With nail holder



	g	D mm	L1 mm	L2 mm	kg
142.1411	600	28,0	310,0	170,0	0,83

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### CLUB HAMMER

#### Club hammer

- DIN 6475
- With lacquered hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	kg
142.5100	1000	40,0	260,0	95,0	142.5316 140.5405	1,10
142.5125	1250	43,0	260,0	100,0	142.5317 140.5405	1,36
142.5150	1500	45,0	280,0	110,0	142.5318 140.5406	1,60
142.5111	2000	50,0	300,0	120,0	142.5318 140.5406	2,10

#### Club hammer

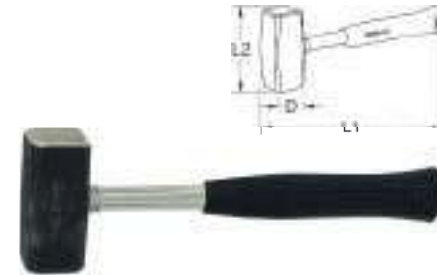
- DIN 6475
- With fiberglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.5101	1000	40,0	260,0	95,0	1,13
142.5126	1250	43,0	260,0	100,0	1,36
142.5151	1500	45,0	280,0	110,0	1,65

### Club hammer

- DIN 6475
- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.5165	1000	40,0	260,0	95,0	1,18
142.5166	1250	43,0	260,0	100,0	1,43

### Rubber cap for club hammer

- Rubber cap for club hammer to DIN 6475

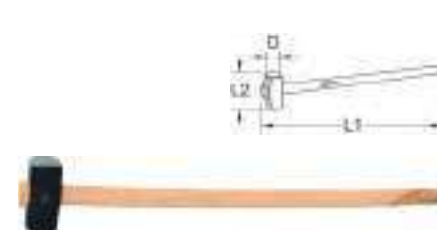


	H1 mm	H2 mm	L1 mm	L2 mm	kg
140.2075	55,0	27,0	72,0	40,0	400
140.2076	55,0	29,0	72,0	42,0	400
140.2077	55,0	33,0	72,0	44,0	400

### SLEDGE HAMMER

#### Sledge hammer

- Forged execution
- With tapered hickory inserted handle
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	kg
142.6300	3000	58,0	900,0	138,0	140.5330	3,50
142.6400	4000	64,0	900,0	148,0	140.5330	4,44
142.6500	5000	70,0	900,0	158,0	140.5340	5,44

### Sledge hammer

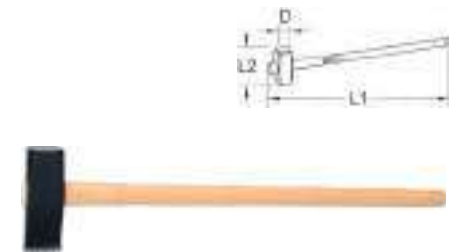
- With tapered fiberglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	kg
142.6301	3000	58,0	900,0	138,0	142.5323	3,80
142.6401	4000	64,0	900,0	148,0	142.5323	4,80
142.6501	5000	70,0	900,0	158,0	142.5332	5,80

### Chipping hammer

- With tapered hickory inserted handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	kg
140.6510	3000	55,0	900,0	148,0	140.5330	4,00

### Sledge hammer

- DIN 1042
- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.1223	3000	54,0	600,0	162,0	3,30
142.1226	5000	70,0	795,0	180,0	5,64
142.1227	8000	80,0	895,0	220,0	8,80
142.1228	10000	85,0	900,0	225,0	10,72

**Sledge hammer**

- With fibreglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Surfaces polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	kg
142.1210	5000	70,0	880,0	180,0	6,00

**BOLSTER CHISEL**

**Bolster chisel**

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft gold lacquer
- Carbon manganese silicon steel



	L mm	A mm	H mm	B mm	kg
162.0431	200,0	60,0	15,0	18,0	500
162.0432	200,0	80,0	15,0	20,0	600
162.0433	220,0	100,0	18,0	22,0	750
162.0434	220,0	120,0	18,0	22,0	900

**CHIPPING HAMMERS**

**Chipping hammer**

- DIN 5133
- With steel tube handle



	D mm	L1 mm	L2 mm	kg
140.1220	15,0	295,0	155,0	360

**WELDING CHIPPING HAMMER**

**Welding chipping hammer**

- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Pane polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



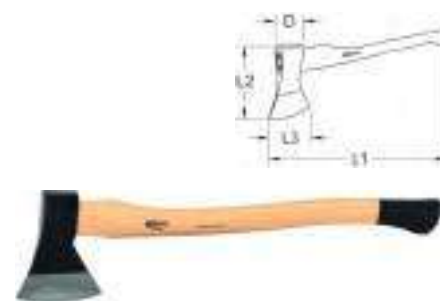
	g	D mm	L1 mm	L2 mm	Handle number	kg
140.2170	300	20,0	300,0	165,0	140.5303 140.5404	320



**AXES AND HATCHETS**

**Wood axe**

- DIN 5131
- With cambered hickory handle
- Handle with round double fixed wedges
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	Handle number	kg
140.2066	1250	60,0	700,0	185,0	130,0	140.2069 140.5405	1,80

**Axe**

- DIN 7287
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel
- With fibreglass handle



	g	D mm	L1 mm	L2 mm	L3 mm	kg
140.1213	1800	60,0	690,0	185,0	137,0	2,71

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### Hand axe

- DIN 5131
- With cambered hickory handle
- Handle with round double fixed wedges
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	Handle number	kg
140.2062	600	40,0	350,0	15,0	105,0	140.2067 140.5403	800
140.2063	800	45,0	380,0	17,0	115,0	140.2068 140.5405	1040

### Hand axe

- DIN 5131
- With fiberglass handle
- Forged execution
- Blade polished ground
- Head coating made from structured powder baked lacquer
- Axe head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	kg
140.1239	800	40,0	350,0	150,0	110,0	1232

### Plasterers axe

- With steel tube handle and plastic handle
- Forged execution
- Impact area surfaces inductively hardened
- Blade polished ground, serrated hammer head
- Hammer head with nail puller
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	kg
140.2004	600	27,0	330,0	180,0	70,0	900

### Plasterers axe with fiberglass handle

- With tapered fiberglass handle
- Forged execution
- Impact area surfaces inductively hardened
- Blade polished ground, serrated hammer head
- Hammer head with nail puller
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	L3 mm	kg
142.2013	600	28,0	310,0	180,0	22,0	860

### PANEL BEATING HAMMERS

#### Bodywork serrated hammer

- For hammering out the bodywork area
- High-quality design
- Work area coarse
- Special tool steel
- With ash handle



	Length mm	head length mm	square dia. mm	kg
140.2204	325,0	60,0	30 x 45 mm	330

#### Bodywork standard hammer, slightly curved

- For hammering out the bodywork area
- High-quality design
- Work area ground and lightly arched
- Special tool steel
- With ash handle



	Length mm	head length mm	square dia. mm	kg
140.2209	325,0	60,0	30 x 45 mm	330

#### Bodywork standard hammer, sharply curved

- For hammering out the bodywork area
- High-quality design
- Work area ground and strongly arched
- Special tool steel
- With ash handle



	Length mm	head length mm	square dia. mm	kg
140.2319	325,0	60,0	30 x 45 mm	360

### Bodywork dinging hammer set

- For hammering out the car body
- High-quality design
- Optimum composition of rough and curved faces
- Work areas ground
- Special tool steel
- In durable plastic storage case
- With ash handle



			kg
140.2200	3 pcs	Bodywork dinging hammer set	1,02

#### consists of:

		kg
140.2204	Bodywork serrated hammer, 30x45mm	330
140.2209	Bodywork standard hammer, slightly curved, 30x45mm	330
140.2319	Bodywork standard hammer, sharply curved, 30x45mm	360

### Panel beaters hammer

- With hickory handle
- Forged execution
- Impact area surfaces inductively hardened
- Head and edge areas polished ground
- Rounded edges
- Head coating made from structured powder baked lacquer
- Hammer head made out of high quality special steel



	g	D mm	L1 mm	L2 mm	Handle number	kg
140.4003	400	30,0	310,0	118,0	140.5304 140.5404	560

### Panel beater's serrated hammer, round/tip

- For reworking repaired areas, distortion-free
- Stresses are removed from the plate using a special profile in the impact area
- For tightening with a round, rough serrated head
- Fine face curved for accurate hammering out
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	Tip width mm	kg
140.2109	280,0	120,0	40,0	20,0	460



**Wing dinging hammer**

- Ideal for hammering out the wings
- Extra heavy execution
- Fine face curved for accurate hammering out
- Safe and easy use
- Work areas ground
- With hickory handle
- Special tool steel



	Length mm	head length mm	square dim. mm	Tip width mm	
140.2461	380,0	220	30 x 38 mm	35	1,31

**Aluminium bodywork pick hammer curved head, round/ tip**

- For hammering out aluminium car body panels
- Planishing hammer with a round, slightly domed face
- Fine conical face for accurate hammering out
- Polished surface
- Aluminium
- With ash handle



	Length mm	head length mm	Ø round side mm	
700.1489	300,0	140,0	40,0	110

**Aluminium bodywork flat pick hammer curved head, round/flat tip**

- For hammering out aluminium car body panels
- Planishing hammer with a round, slightly domed face
- Fine face for accurate hammering out
- Polished surface
- Aluminium
- With ash handle



	Length mm	head length mm	Ø round side mm	Tip width mm	
700.1490	300,0	140,0	40,0	20,0	140

**Panel beaters pick hammer straigh head, round/flat point**

- Planishing hammer with a round, slightly domed face
- Fine face for accurate hammering out
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	Tip width mm	
140.2136	325,0	140,0	40,0	19,0	460

**Panel beaters pick hammer straight head, round/pointed**

- Planishing hammer with a round, slightly domed face
- Fine conical face for accurate hammering out
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	
140.2137	325,0	140,0	40,0	460

**Panel beaters pick hammer straight head, flat/pointed**

- Planishing hammer with a round, slightly domed face
- Fine face curved for accurate hammering out
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	Tip width mm	
140.2131	325,0	140,0	40,0	19,0	460

**Aluminium bodywork standard hammer curved head, round/square**

- For hammering out aluminium car body panels
- Simple hammer with a flat, angular face and a round, slightly arched face
- Polished surface
- Aluminium
- With ash handle



	Length mm	head length mm	Ø round side mm	square dim. mm	
700.1491	300,0	100,0	40,0	38 x 38 mm	148

**Panel beaters hammer, round/square**

- Bumping hammer with strong arched faces
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square dim. mm	
140.2130	325,0	105,0	30,0	26 x 26 mm	390



**Panel beaters hammer, small round/square**

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square dim. mm	
140.2138	325,0	100,0	30,0	28 x 28 mm	390

**Panel beaters serrated hammer, round/square**

- For forming with a square, finely serrated face
- For stretching with a round, slightly domed face
- Round work surfaces ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square dim. mm	
140.2132	325,0	100,0	40,0	38 x 38 mm	490

**Panel beaters hammer rounded head, small round/square**

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square dim. mm	
140.2135	325,0	100,0	30,0	27 x 27 mm	390

### Panel beaters standard hammer, large round/square

- Planishing hammer with a square and round, flat face
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square d10,mm	
140.2133	325,0	100,0	40,0	39 x 39 mm	420

### Panel beaters standard hammer curved head, large round/square

- Simple hammer with a flat, angular face and a round, slightly arched face
- Work areas ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square d10,mm	
140.2134	325,0	100,0	40,0	38 x 38 mm	490

### Panel beaters serrated hammer fine, round/square

- For forming with an square, rough serrated face
- For stretching with a round, slightly domed face
- Round work surfaces ground
- Special tool steel
- With ash handle



	Length mm	head length mm	Ø round side mm	square d10,mm	
140.2139	325,0	100,0	40,0	38 x 38 mm	490

### Aluminium hammer

- With hickory handle
- Aluminium head
- Protective material



		Ø mm	Length mm	head length mm	Handle number		
140.2121	280	30,0	310,0	145,0	140.2122 140.2123	380	

### REPLACEMENT HANDLES

#### Replacement handles, hickory

- Without wedge



	L mm	Handle form	Handle style	
140.5301	260,0	round key	hickory	10
140.5304	300,0	round key	hickory	160
140.5305	310,0	round key	hickory	60
140.5306	330,0	round key	hickory	60
142.5301	300,0	round key	hickory	10
142.5302	320,0	round key	hickory	160
142.5303	350,0	round key	hickory	120
142.5304	380,0	round key	hickory	160
142.5311	270,0	round key	hickory	100
142.5312	290,0	round key	hickory	100
142.5313	310,0	round key	hickory	100
142.5314	260,0	round key	hickory	60
142.5316	260,0	round key	hickory	100
142.5317	260,0	round key	hickory	110
142.5318	280,0	round key	hickory	100
140.5315	370,0	beveled	hickory	160
140.5320	260,0	beveled	hickory	130
140.5321	260,0	beveled	hickory	60
140.5322	280,0	beveled	hickory	130
140.5323	300,0	beveled	hickory	130
140.5330	700,0	beveled	hickory	440
140.5340	900,0	beveled	hickory	850
140.2067	350,0	round key	hickory	200
140.2068	380,0	round key	hickory	240
140.2069	700,0	round key	hickory	550
142.1510	290,0	round key	hickory	80
142.1520	310,0	round key	hickory	110
142.1530	350,0	round key	hickory	120
142.1540	365,0	round key	hickory	190
142.1550	380,0	round key	hickory	240
142.5305	260,0	round key	hickory	80
142.5306	280,0	round key	hickory	83
142.5307	300,0	round key	hickory	50
142.5308	320,0	round key	hickory	90
142.5309	350,0	round key	hickory	120
142.5310	360,0	round key	hickory	268



#### Replacement handles fiberglass

- Without wedge
- Tapered style form



	L mm	Handle form	Handle style	
142.5315	370,0	beveled	fiberglass	220
142.5319	280,0	beveled	fiberglass	150
142.5332	900,0	beveled	fiberglass	800
142.5323	900,0	beveled	fiberglass	1010

### ROUND KEY, LOCKING DEVICE

#### Round key, locking device

- For hammer and axe handles
- With barbed angel
- Aluminium



	D1 mm	D2 mm	
140.5402	8,0	10,0	10
140.5403	9,0	10,0	10
140.5404	10,0	12,0	10
140.5405	12,0	14,0	10
140.5406	14,0	16,0	10
140.5408	17,0	23,0	10

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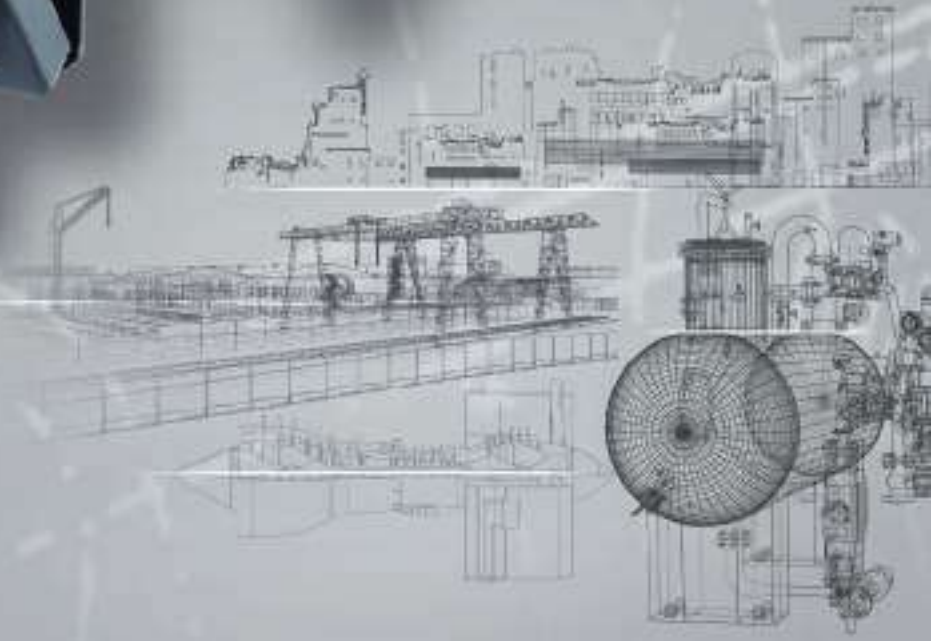
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Innovation is our mission!



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## FLAT CHISELS

### Flat chisel

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L mm	A mm	S mm	Hands number	g
156.0162	130,0	12,0	9,0	-	70

### Flat chisel with hand grip

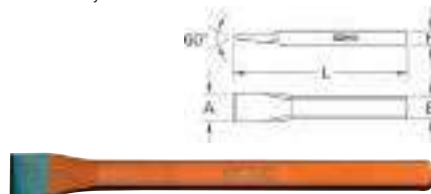
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Hands number	g
156.0241	210,0	20,0	14,0	273	

### Flat chisel

- DIN 6453
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Hands number	g
162.0101	100,0	18,0	14,0	9,0	-	80
162.0102	125,0	18,0	14,0	9,0	-	100
162.0103	150,0	21,0	17,0	11,0	-	180
162.0104	175,0	24,0	20,0	12,0	-	280
162.0105	200,0	28,0	23,0	13,0	162.0442	380
162.0106	250,0	28,0	23,0	13,0	162.0442	500
162.0107	300,0	31,0	23,0	13,0	162.0442	600

### Flat chisel with hand grip

- DIN 6453
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Hands number	g
162.0113	250,0	28,0	23,0	13,0	500	
162.0114	300,0	31,0	23,0	13,0	600	

### Flat chisel

- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Hands number	g
162.0211	125,0	13,0	10,0	-	80
162.0212	150,0	15,0	12,0	-	120

### Flat chisel

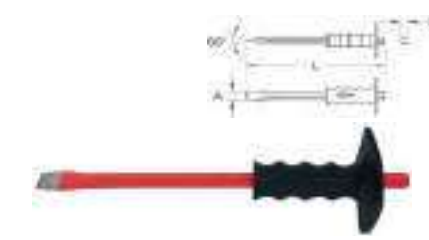
- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Chrome vanadium



	L mm	A mm	S mm	Hands number	g
156.0531	250,0	24,0	16,0	162.0445	380
156.0532	300,0	24,0	16,0	162.0445	440
156.0533	350,0	24,0	16,0	162.0445	520
156.0534	400,0	27,0	18,0	162.0446	820

### Flat chisel with hand grip

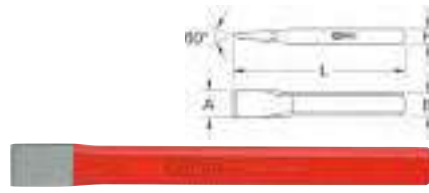
- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Chrome vanadium



	L mm	A mm	S mm	Hands number	g
156.0535	250,0	24,0	16,0	520	
156.0536	300,0	24,0	16,0	650	
156.0537	350,0	24,0	16,0	710	

### Flat chisel

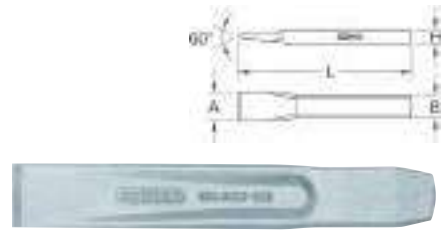
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with powder coated lacquer
- Chrome vanadium



	L mm	A mm	B mm	H mm	Hands number	g
156.0585	150,0	15,0	15,0	9,0	-	180
156.0586	200,0	25,0	23,0	13,0	162.0442	320
156.0587	250,0	25,0	23,0	13,0	162.0442	500
156.0588	300,0	25,0	23,0	13,0	162.0442	600

### Flat chisel

- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Hands number	g
156.0691	125,0	19,0	13,0	8,0	-	81
156.0692	150,0	21,0	14,0	9,0	-	136
156.0693	200,0	27,0	17,0	11,0	-	244
156.0694	250,0	31,0	19,0	12,0	-	411

### Flat chisel set

- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Highly polished
- Chrome molybdenum



				Hands number	g
156.0690	4 pcs	125x19 - 150x21 - 200x27 - 250x31 mm		970	

### Flat chisel

- 6 point
- Heavy execution
- Dimensionally stable 25 mm six point shaft
- Ideal for preparation working
- For the preparation of truck rivets and welds
- Chiseling of rusted bolts and nuts is possible
- Special tool steel



	L mm	A mm	S mm	Hands number	g
450.0026	400,0	30,0	25,0	1,20	
450.0027	600,0	30,0	25,0	2,64	

### Flat chisel set, heavy duty for commercial vehicle

- Heavy execution
- Dimensionally stable 25 mm six point shaft
- For the preparation of truck rivets and welds
- Ideal for preparation working
- Chiseling of rusted bolts and nuts is possible
- Ideally suited for commercial vehicles
- Special tool steel



			Hands number	g
450.0025	2 pcs	400 - 600 mm	3,97	

## TILER'S FLAT CHISELS

### Tilers flat chisel

- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

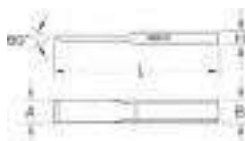


	L mm	A mm	S mm	Handle number	
162.0311	100,0	10,0	8,0	-	40

## SLITTING CHISEL

### Slitting chisel

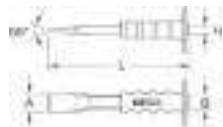
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	
162.0131	230,0	26,0	26,0	7,0	162.0441	285

### Slitting chisel with hand grip

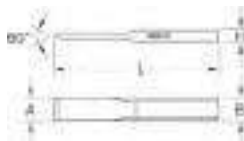
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0141	230,0	26,0	26,0	7,0	285

### Panel beaters slitting chisel, extra thin

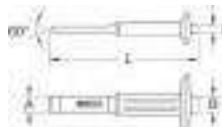
- Flat oval form
- Extra thin
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	
162.0421	240,0	26,0	26,0	7,0	162.0443	260

### Slitting chisel with hand grip

- Flat oval form
- Extra thin
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0471	240,0	26,0	26,0	7,0	370

## JOINTING CHISELS

### Jointing chisel

- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Handle number	
162.0151	250,0	25,0	18,0	162.0446	420
162.0152	250,0	100,0	20,0	162.0447	685

### Jointing chisel with hand grip

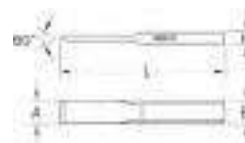
- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	
162.0161	250,0	25,0	18,0	420
162.0162	250,0	100,0	20,0	685

### Jointing chisel

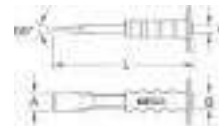
- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	
162.0171	250,0	50,0	23,0	13,0	162.0442	500
162.0172	250,0	60,0	26,0	13,0	162.0444	550
162.0173	250,0	70,0	26,0	13,0	162.0444	580

### Jointing chisel with hand grip

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0181	250,0	50,0	23,0	13,0	500
162.0182	250,0	60,0	26,0	13,0	550
162.0183	250,0	70,0	26,0	13,0	580

### Jointing chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft powder coated lacquer
- Chrome vanadium

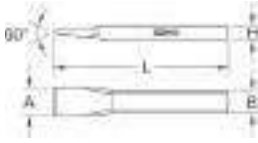


	L mm	A mm	B mm	H mm	Handle number	
156.0570	205,0	50,0	24,0	12,0	-	300
156.0571	215,0	70,0	24,0	12,0	-	400

## BRICKLAYERS CHISEL

### Bricklayers chisel

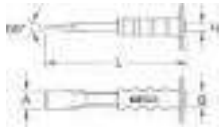
- DIN 7254 form A
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	
162.0191	200,0	27,0	20,0	12,0	162.0441	310
162.0192	250,0	27,0	20,0	12,0	162.0441	400
162.0193	300,0	31,0	23,0	13,0	162.0442	580
162.0194	350,0	31,0	23,0	13,0	162.0442	720
162.0195	400,0	31,0	23,0	13,0	162.0442	780
162.0196	500,0	33,0	26,0	13,0	162.0444	1160
162.0197	600,0	33,0	26,0	13,0	162.0444	1400
162.0198	800,0	33,0	26,0	13,0	162.0444	1860
162.0199	1000,0	33,0	26,0	13,0	162.0444	2360

### Bricklayers chisel with hand grip

- DIN 7254 form A
- Flat oval form
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	
162.0202	250,0	27,0	20,0	12,0	400
162.0203	300,0	31,0	23,0	13,0	580
162.0204	350,0	31,0	23,0	13,0	720
162.0205	400,0	31,0	23,0	13,0	800
162.0206	500,0	33,0	26,0	13,0	1160
162.0207	600,0	33,0	26,0	13,0	1400
162.0208	800,0	33,0	26,0	13,0	1860
162.0209	1000,0	33,0	26,0	13,0	2360

### Bricklayers chisel

- DIN 7254 form B
- 8-point
- Blade can be resharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Handle number	
162.0481	200,0	27,0	16,0	162.0445	300
162.0482	250,0	27,0	16,0	162.0445	380
162.0483	300,0	30,0	18,0	162.0446	600
162.0484	350,0	30,0	18,0	162.0446	700
162.0485	400,0	30,0	20,0	162.0447	980
162.0486	500,0	30,0	20,0	162.0447	1240

## Bricklayers chisel with hand grip

- DIN 7254 form B
- 8-point
- Blade can be resharpened
- With hand protection grip
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	
162.0222	250,0	27,0	16,0	380
162.0223	300,0	30,0	18,0	600
162.0224	350,0	30,0	18,0	700
162.0225	400,0	30,0	20,0	980
162.0226	500,0	30,0	20,0	1240

## POINTED CHISELS

### Pointed chisel

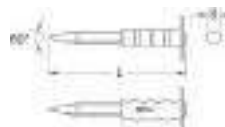
- DIN 7256
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	S mm	Handle number	
162.0231	200,0	16,0	162.0445	280
162.0232	250,0	16,0	162.0445	360
162.0233	300,0	18,0	162.0446	560
162.0234	350,0	18,0	162.0446	660
162.0235	400,0	20,0	162.0447	940
162.0236	500,0	20,0	162.0447	1200
162.0237	600,0	20,0	162.0447	1480
162.0238	800,0	20,0	162.0447	1960
162.0239	1000,0	20,0	162.0447	2440

### Pointed chisel with hand grip

- DIN 7256
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	S mm	
162.0242	250,0	16,0	360
162.0243	300,0	18,0	560
162.0244	350,0	18,0	660
162.0245	400,0	20,0	940
162.0246	500,0	20,0	1200
162.0247	600,0	20,0	1480
162.0248	800,0	20,0	1960
162.0249	1000,0	20,0	2440

## Pointed chisel

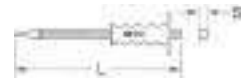
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with powder coated lacquer
- Chrome vanadium



	L mm	S mm	Handle number	
156.1521	200,0	16,0	162.0445	280
156.0511	250,0	16,0	162.0445	390
156.0512	300,0	16,0	162.0445	400
156.0513	350,0	16,0	162.0445	450
156.0514	400,0	18,0	162.0446	660
156.1522	500,0	20,0	162.0445	1200
156.1523	600,0	20,0	162.0445	1480
156.1524	800,0	20,0	162.0445	1960
156.1525	1000,0	20,0	162.0445	2440

### Pointed chisel with hand grip

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with powder coated lacquer
- Chrome vanadium



	L mm	S mm	
156.1511	200,0	16,0	280
156.0515	250,0	16,0	530
156.0516	300,0	16,0	620
156.0517	350,0	16,0	710
156.0518	400,0	16,0	790
156.1512	500,0	20,0	1200
156.1513	600,0	20,0	1480
156.1514	800,0	20,0	1960
156.1515	1000,0	20,0	2440

## ELECTRICIANS CHISEL

### Electricians chisel

- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Handle number	
162.0251	200,0	8,0	6,0	-	60
162.0252	200,0	10,0	8,0	-	100
162.0253	200,0	12,0	8,0	-	101
162.0254	200,0	12,0	10,0	-	140
162.0255	250,0	10,0	8,0	-	120
162.0256	250,0	12,0	8,0	-	120
162.0257	250,0	12,0	10,0	-	185
162.0258	300,0	12,0	8,0	-	140



### Electricians chisel

- 8-point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum

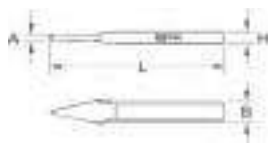


	L mm	A mm	S mm	Handle number	g
162.0261	200,0	12,0	10,0	-	120
162.0262	200,0	14,0	12,0	-	160
162.0263	250,0	12,0	10,0	-	150
162.0264	250,0	14,0	12,0	-	210
162.0265	300,0	12,0	10,0	-	200
162.0266	300,0	14,0	12,0	-	260

### CROSS CHISEL

#### Cross chisel

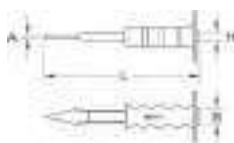
- DIN 6451
- Flat oval form
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	g
162.0281	100,0	5,0	14,0	9,0	-	60
162.0282	125,0	5,0	14,0	9,0	-	80
162.0283	150,0	6,0	17,0	11,0	-	160
162.0284	175,0	7,0	20,0	12,0	-	240
162.0285	200,0	8,0	23,0	13,0	162.0442	340
162.0286	250,0	8,0	23,0	13,0	162.0442	460
162.0287	300,0	9,0	23,0	13,0	162.0442	560

#### Cross chisel with hand grip

- DIN 6451
- Flat oval form
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	g
162.0293	250,0	8,0	23,0	13,0	460
162.0294	300,0	9,0	23,0	13,0	560

### Cross chisel

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	Handle number	g
162.0301	125,0	4,0	10,0	-	60

### Cross chisel

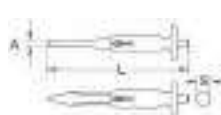
- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L mm	A mm	S mm	Handle number	g
156.0161	130,0	5,0	10,0	-	60

#### Cross chisel with hand grip

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



	L mm	A mm	S mm	g
156.0242	190,0	7,0	12,0	169



### TILERS POINTED CHISELS

#### Tilers pointed chisel

- 4 point
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	S mm	Handle number	g
162.0321	100,0	8,0	-	40
162.0322	200,0	6,0	-	60
162.0323	200,0	8,0	-	100
162.0324	250,0	8,0	-	120
162.0325	250,0	10,0	-	180

### PARTING CHISEL

#### Bodywork slitting chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	A mm	B mm	H mm	Handle number	g
162.0271	250,0	30,0	23,0	13,0	162.0442	460

#### Bodywork slitting chisel

- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra flat
- Burnished
- Chrome vanadium



	L mm	A mm	B mm	H mm	Handle number	g
140.2162	300,0	21,0	25,0	6,0	-	310

#### Bodywork slitting chisel with hand grip

- DIN 7255
- Flat oval form
- Blade can be resharpened
- Extra flat
- Burnished
- Chrome vanadium



	L mm	A mm	B mm	H mm	g
140.2165	300,0	21,0	25,0	6,0	550

### Bodywork spade chisel

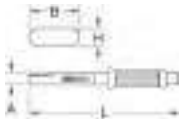
- Extra wide execution
- With protective handgrip
- Quenched and tempered
- For cutting metal sheet and spot welds
- Shaft with powder coated lacquer
- Special tool steel



	B mm	L mm	 g
156.0330	60,0	240,0	600

### Bodywork slitting chisel

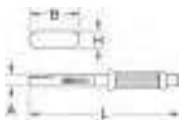
- Suitable for separating welds
- With re-grindable cutters
- Continuous blade
- Two component handle
- Special tool steel



	L mm	A mm	B mm	H mm	 g
162.0216	300,0	25,0	19,0	6,0	330

### Bodywork slitting chisel

- Suitable for separating welds
- With re-grindable cutters
- Continuous blade
- Two component handle
- Special tool steel



	L mm	A mm	B mm	H mm	 g
162.0217	300,0	25,0	19,0	6,0	330

### Bodywork slitting chisel

- Suitable for separating welds
- With re-grindable cutters
- Continuous blade
- Two component handle
- Special tool steel

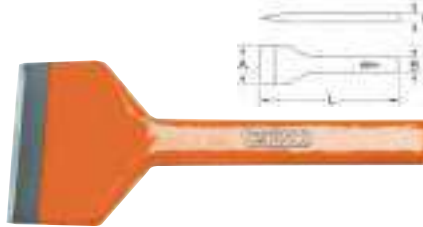


	L mm	A mm	B mm	H mm	 g
162.0218	240,0	25,0	19,0	6,0	330

### BOLSTER CHISEL

#### Bolster chisel

- Flat oval form
- Quenched and tempered
- Blade can be resharpened
- Shaft gold lacquer
- Carbon manganese silicon steel



	L mm	A mm	Handle number	H mm	 g
162.0431	200,0	60,0	-	15,0	500
162.0432	200,0	80,0	-	15,0	600
162.0433	220,0	100,0	-	18,0	750
162.0434	220,0	120,0	-	18,0	900

### GLASS FIBRE CHISELS

#### Glassfibre chisel

- For paint preserving removal of ornament and window strips and wheel weights on aluminium rims
- With impact cap for light impacts
- Special shape of the bit handle ensures safe work
- With flexible flat scraper and cutting edge
- Also suitable for the removal of labels, adhesive and type plates
- Surfaces are not damaged
- Sharpened with a file
- Solvent-resistant
- Special plastic



	Blade width mm	 g
911.8131	19,0	130
911.8132	22,0	140
911.8133	26,0	150
911.8134	38,0	180

#### Glassfibre chisel set

- For paint preserving removal of ornament and window strips and wheel weights on aluminium rims
- With impact cap for light impacts
- Special shape of the bit handle ensures safe work
- With flexible flat scraper and cutting edge
- Also suitable for the removal of labels, adhesive and type plates
- Surfaces are not damaged
- Sharpened with a file
- Solvent-resistant
- Special plastic



	 g
911.8130 4 pcs 19 - 22 - 26 - 38 mm	570

### HAND GRIPS

#### Hand grip for chisel

- Standard version
- PVC



	L mm	D mm	Handle size mm	 g
162.0441	120,0	80,0	20x12	110
162.0442	120,0	80,0	23x13	110
162.0443	120,0	80,0	26x7	110
162.0444	120,0	80,0	26x13	110
162.0445	120,0	80,0	16	110
162.0446	120,0	80,0	18	110
162.0447	120,0	80,0	20	110

#### Safety hand grip for chisel

- Double hand protection
- PVC



	L mm	D mm	Handle size mm	 g
162.2128	140,0	100,0	23x13	170
162.2129	140,0	100,0	20	170
162.2130	140,0	100,0	26x7	170
162.2132	140,0	100,0	26x13	170

### PIN PUNCHES

#### Pin punch

- DIN 6458 form B
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	Handle number	 g
162.0331	120,0	1,0	10,0	-	65
162.0332	120,0	2,0	10,0	-	65
162.0333	120,0	3,0	10,0	-	65
162.0334	120,0	4,0	10,0	-	65
162.0335	120,0	5,0	10,0	-	65
162.0336	120,0	6,0	10,0	-	65

### Pin punch

- DIN 6458 form D
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	Handle number	
162.0341	120,0	1,0	12,0	-	85
162.0342	120,0	2,0	12,0	-	85
162.0343	120,0	3,0	12,0	-	85
162.0344	120,0	4,0	12,0	-	90
162.0345	120,0	5,0	12,0	-	90
162.0346	120,0	6,0	12,0	-	90
162.0347	120,0	7,0	12,0	-	95
162.0348	120,0	8,0	12,0	-	95
162.0349	120,0	9,0	12,0	-	100
162.0350	120,0	10,0	12,0	-	105
162.0352	150,0	12,0	16,0	-	220

### Pin punch with hollow tip

- DIN 6458
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	Handle number	
162.0461	120,0	1,0	10,0	-	65
162.0462	120,0	2,0	10,0	-	65
162.0463	120,0	3,0	10,0	-	65
162.0464	120,0	4,0	10,0	-	65
162.0465	120,0	5,0	10,0	-	65
162.0466	120,0	6,0	10,0	-	65

### Punch set for trucks

- Conical tapered point
- Universal usage
- For extracting cotter pins, bolts, bearing rings etc.
- Ideally suited for daily workshop use
- High quality and substantial construction
- Premium tempered and hardened steel
- Special steel



450.0090 4 pcs 6,4 - 6,4 - 8,0 - 13,0 mm	2,91

### Truck punch

- Conical tapered point
- Universal usage
- For extracting cotter pins, bolts, bearing rings etc.
- Ideally suited for daily workshop use
- High quality and substantial construction
- Premium tempered and hardened steel
- Special steel



	Ø mm	L mm	
450.0091	6,4	300,0	390
450.0092	6,4	380,0	730
450.0093	8,0	300,0	410
450.0094	13,0	460,0	1310

### Pin punch

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L mm	D mm	S mm	Handle number	
156.0130	120,0	2,0	9,5	-	60
156.0131	120,0	3,0	9,5	-	60
156.0132	120,0	4,0	9,5	-	60
156.0133	120,0	5,0	9,5	-	60
156.0134	120,0	6,0	9,5	-	60

### Pin punches with hand grip

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	
156.0244	185,0	5,0	10,0	115

### Pin punch set

- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In a plastic bag



162.2126 6 pcs 120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	465

### Pin punch set

- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In plastic stands



162.2127 6 pcs 120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	465

### Pin punch set

- DIN 6458 Form B+D
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In metal storage cassette



162.2124 6 pcs 120x10x1 - 120x10x2 - 120x10x3 - 120x10x4 - 120x10x5 - 120x10 mm	710

### COTTER PIN DRIVES

#### Cotter pin drive, long

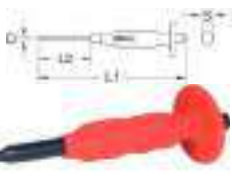
- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm	Handle number	
162.0391	175,0	80,0	3,0	10,0	-	60
162.0392	175,0	80,0	4,0	10,0	-	70
162.0393	175,0	80,0	5,0	10,0	-	80
162.0394	175,0	80,0	6,0	10,0	-	90
162.0395	175,0	80,0	8,0	12,0	-	140
162.0396	175,0	80,0	10,0	12,0	-	150

### Pin punches with hand grip

- Round
- Quenched and tempered
- Tip can be re-sharpened
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	
156.0026	270,0	110,0	6,0	10,0	130
156.0028	300,0	130,0	8,0	12,0	220
156.0030	300,0	140,0	10,0	12,0	250
156.0032	300,0	140,0	12,0	14,0	340
156.0034	300,0	140,0	14,0	16,0	450

### Pin punch set with hand protection grip

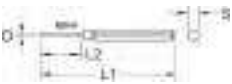
- Quenched and tempered
- Tip can be re-sharpened
- Burnished
- Chrome vanadium
- In metal stand with the possibility of wall hanging



156.0020	5 pcs 270x6 - 300x8 - 300x10 - 300x12 - 300x14 mm 2,70

### Pin punch, extra long

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm	Handle number	
162.0401	200,0	40,0	2,0	10,0	-	82
162.0402	200,0	50,0	3,0	10,0	-	90
162.0403	200,0	55,0	4,0	10,0	-	92
162.0404	200,0	55,0	5,0	10,0	-	96
162.0405	200,0	55,0	6,0	12,0	-	100
162.0406	200,0	55,0	8,0	12,0	-	150
162.0407	200,0	55,0	10,0	12,0	-	165

### Brake pad cotter pin drive with guide tip

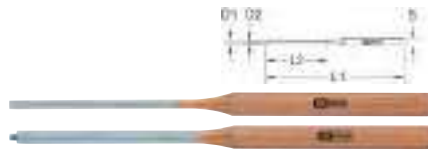
- 8-point
- Extra long execution
- Quenched and tempered
- With guide pin for locking pins
- Suitable for locking pins on vehicles with disk brakes
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D1 mm	D2 mm	S mm	Handle number	
162.0411	175,0	85,0	4,0	2,7	10,0	-	60
162.0412	175,0	85,0	6,0	3,8	10,0	-	70

### Brake pad cotter pin drive with guide tip

- 6 point
- Extra long execution
- Quenched and tempered
- 150.2151 with guide pin for locking pins
- Suitable for locking pins on vehicles with disk brakes
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D1 mm	D2 mm	S mm	Handle number	
150.2150	180,0	80,0	4,0	-	10,0	-	70
150.2151	175,0	80,0	5,8	3,1	10,0	-	70

### Pin punch with hand protection grip

- Round
- Quenched and tempered
- Tip can be re-sharpened
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	
156.0002	130,0	30,0	3,0	8,0	50
156.0003	145,0	40,0	3,0	8,0	60
156.0004	180,0	50,0	4,0	8,0	100
156.0005	180,0	60,0	5,0	10,0	100
156.0006	205,0	80,0	6,0	10,0	130
156.0008	225,0	85,0	8,0	12,0	150
156.0010	225,0	90,0	10,0	12,0	200

### Pin punch set with hand protection grip

- With wall mounting possibility
- Tip can be re-sharpened
- Quenched and tempered
- Burnished
- Chrome vanadium
- In metal stand

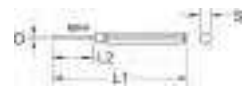


156.0000	5 pcs 145x3 - 180x4 - 180x5 - 205x6 - 225x8 mm 650



### Pin punch

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	Handle number	
156.0111	115,0	30,0	2,0	8,0	-	40
156.0112	125,0	40,0	3,0	8,0	-	40
156.0113	150,0	50,0	4,0	9,5	-	60
156.0114	165,0	50,0	5,0	9,5	-	70
156.0115	180,0	55,0	6,0	12,7	-	140
156.0116	180,0	55,0	8,0	12,7	-	150

### Pin punch set

- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium
- In plastic support bracket



156.0150	6 pcs 115x2 - 125x3 - 150x4 - 165x5 - 180x6 - 180x8 mm 520

### Pin punch, extra long

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	S mm	Handle number	
156.0121	200,0	80,0	3,0	9,5	-	70
156.0122	200,0	85,0	4,0	9,5	-	70
156.0123	200,0	90,0	5,0	9,5	-	80
156.0124	200,0	93,0	6,0	9,5	-	80
156.0125	200,0	93,0	8,0	12,7	-	150
156.0126	200,0	93,0	10,0	12,7	-	170

### Pin punch set

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium
- In metal stand with the possibility of wall hanging



156.0180	17 pcs Pin punch set	1,00

consists of:

156.0111	Pin punch octagonal shaft, mirror polished, Ø 2mm	40
156.0112	Pin punch octagonal shaft, mirror polished, Ø 3mm	40
156.0113	Pin punch octagonal shaft, mirror polished, Ø 4mm	60
156.0114	Pin punch octagonal shaft, mirror polished, Ø 5mm	70
156.0115	Pin punch octagonal shaft, mirror polished, Ø 6mm	140
156.0116	Pin punch octagonal shaft, mirror polished, Ø 8mm	150
156.0121	Pin punch octagonal shaft, mirror polished, extra long, Ø 3mm	70
156.0122	Pin punch octagonal shaft, mirror polished, extra long, Ø 4mm	70
156.0123	Pin punch octagonal shaft, mirror polished, extra long, Ø 5mm	80
156.0124	Pin punch octagonal shaft, mirror polished, extra long, Ø 6mm	80
156.0125	Pin punch octagonal shaft, mirror polished, extra long, Ø 8mm	150
156.0126	Pin punch octagonal shaft, mirror polished, extra long, Ø 10mm	170
156.0130	Pin punch, Ø 2mm	60
156.0131	Pin punch, Ø 3mm	60
156.0132	Pin punch, Ø 4mm	60
156.0133	Pin punch, Ø 5mm	60
156.0134	Pin punch, Ø 6mm	60

### Combi tool set

- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium
- In plastic support bracket



156.0160	5 pcs Combi tool set	360

consists of:

156.0113	Pin punch octagonal shaft, mirror polished, Ø 4mm	60
156.0131	Pin punch, Ø 3mm	60
156.0175	Centre punch, mirror polished, octagonal shaft, Ø 5mm	60
156.0162	Flat chisel, octagonal shaft, 130mm	70
156.0161	Cross chisel, 130mm	60

### Pin punches with hand grip

- Round
- Quenched and tempered
- Two component handle
- Tip can be re-sharpened
- Tip polished, shaft burnished
- Chrome vanadium



	D mm	L1 mm	L2 mm	S mm	
156.0211	2,0	150,0	30,0	10,0	100
156.0212	3,0	150,0	40,0	10,0	100
156.0213	4,0	150,0	55,0	10,0	100
156.0214	5,0	150,0	60,0	10,0	100
156.0215	6,0	150,0	60,0	10,0	100
156.0216	7,0	150,0	60,0	12,0	110
156.0217	8,0	150,0	60,0	12,0	110
156.0218	9,0	150,0	60,0	12,0	110
156.0219	10,0	150,0	60,0	12,0	130

### Pin punch set with hand protection grip

- Round
- Quenched and tempered
- Two component handle
- Tip can be re-sharpened
- Tip polished, shaft burnished
- Chrome vanadium



156.0220	5 pcs 3 - 4 - 5 - 6 - 8 mm	800

### Pin punch, cylindrical shaft

- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm	
156.0231	150,0	50,0	3,0	8,0	52
156.0232	180,0	61,0	4,0	10,0	93
156.0233	200,0	61,0	5,0	10,0	109
156.0234	210,0	71,0	6,0	12,0	160
156.0235	220,0	85,0	8,0	12,0	172



### Punch set, cylindrical shaft

- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



156.0230	5 pcs 3 - 4 - 5 - 6 - 8 mm	715

### Chisel and punch set

- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



156.0240	5 pcs Chisel and punch set	900

consists of:

156.0232	Pin punch, cylindrical shaft, 4mm	93
156.0241	Flat chisel, octagon, 20mm	273
156.0242	Cross chisel, octagon, 7mm	169
156.0243	Centre punch, octagon 10mm	118
156.0244	Punch, Ø 5 mm, conical	115

### Cotter pin drive with guide sleeve

- Guide sleeve, coded
- Ø 0.9 to 4.9 mm with loose guide sleeve
- Ø 5.9 mm with fixed sleeve
- Highly polished
- Chrome vanadium



	L mm	D mm	S mm	
162.2249	70,0	0,9	5,0	15
162.2250	80,0	1,4	6,0	21
162.2251	83,0	1,8	6,0	21
162.2252	92,0	2,4	7,0	30
162.2253	94,0	2,8	7,0	30
162.2254	100,0	3,4	8,0	35
162.2255	100,0	3,9	8,0	35
162.2256	110,0	4,9	10,0	45
162.2257	115,0	5,9	12,0	68

### Cotter pin drive set with guide sleeve

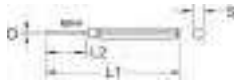
- Guide sleeve, coded
- Ø 0.9 to 4.9 mm with loose guide sleeve
- Ø 5.9 mm with fixed sleeve
- Highly polished
- Chrome vanadium
- In a plastic bag



162.2310	8 pcs	70x0.9 - 80x1.4 - 83x1.8 - 92x2.4 - 94x2.8 - 100x3.4 - 100x3.9 - 115x5.9 mm	240
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### Pin punch

- DIN 6450 form C
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L1 mm	L2 mm	D mm	S mm	Handle number	g
162.0371	150,0	35,0	2,0	10,0	-	60
162.0372	150,0	40,0	2,5	10,0	-	60
162.0373	150,0	40,0	3,0	10,0	-	60
162.0374	150,0	40,0	3,5	10,0	-	65
162.0375	150,0	50,0	4,0	10,0	-	65
162.0376	150,0	50,0	4,5	10,0	-	65
162.0377	150,0	50,0	5,0	10,0	-	65
162.0378	150,0	50,0	6,0	10,0	-	70
162.0379	150,0	55,0	7,0	10,0	-	95
162.0380	150,0	55,0	8,0	12,0	-	100
162.0381	150,0	55,0	9,0	12,0	-	110
162.0382	150,0	55,0	10,0	12,0	-	115
162.0383	150,0	55,0	12,0	16,0	-	170

### Pin punch set

- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In a plastic bag



162.2122	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10 mm	470
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### Pin punch set

- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome vanadium
- In plastic support bracket



162.2123	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10 mm	470
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### Pin punch set

- Quenched and tempered
- Tip can be re-sharpened
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum
- In metal storage box



162.0370	6 pcs	150x10x3 - 150x10x4 - 150x10x5 - 150x10x6 - 150x12x8 - 150x12x10mm	750
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### Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In metal storage cassette



162.2114	6 pcs	Combination set	740
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consists of:

		g
162.0212	Flat chisel, 8 point, 150mm	120
162.0301	Cross chisel, 8 point, 4x125mm	60
162.0361	Centre punch, 8 point, Ø 4mm	65
162.0375	Pin punch, 8 point, Ø 4mm	65
162.0333	Pin punch, 8 point, formB, Ø 3mm	65
162.0345	Pin punch, 8 point, formD, Ø 5mm	90

### Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In a plastic bag



162.2117	6 pcs	Combination set	510
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consists of:

		g
162.0212	Flat chisel, 8 point, 150mm	120
162.0301	Cross chisel, 8 point, 4x125mm	60
162.0361	Centre punch, 8 point, Ø 4mm	65
162.0375	Pin punch, 8 point, Ø 4mm	65
162.0333	Pin punch, 8 point, formB, Ø 3mm	65
162.0345	Pin punch, 8 point, formD, Ø 5mm	90

### Combination set

- Evenly hardened and carefully tempered through the whole length
- Impact heads inductively tempered
- Working ends polished ground and clear lacquered
- In plastic support bracket



162.2118	6 pcs	Combination set	510
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consists of:

		g
162.0212	Flat chisel, 8 point, 150mm	120
162.0301	Cross chisel, 8 point, 4x125mm	60
162.0361	Centre punch, 8 point, Ø 4mm	65
162.0375	Pin punch, 8 point, Ø 4mm	65
162.0333	Pin punch, 8 point, formB, Ø 3mm	65
162.0345	Pin punch, 8 point, formD, Ø 5mm	90

## BEARING AND BUSH DRIVER

### Brass and aluminium punch

- For extracting bearing, bolts and bushes etc.
- Rimed handle for better control
- Brass / Aluminium



	Material	Ø mm	Length mm	
156.0415	brass	20,0	300,0	1,13
156.0416	aluminium	30,0	300,0	1,89

### Bearing punch set Ø 10.0 - 14.0 mm

- In durable plastic storage case



156.0440	10 pcs Bearing punch set Ø 10.0 - 14.0 mm 240

#### consists of:

156.0436	Punch holder without impact, with hand protection 100
156.0441	Polyamide punch adaptor set, 2 pcs, Ø 10mm 10
156.0442	Polyamide punch adaptor set, 2 pcs, Ø 12mm 10
156.0443	Polyamide punch adaptor set, 2 pcs, Ø 14mm 10
156.0449	Aluminium punch adaptor set, 2 pcs, Ø 10mm 10
156.0450	Aluminium punch adaptor set, 2 pcs, Ø 12mm 10
156.0451	Aluminium punch adaptor set, 2 pcs, Ø 14mm 20
156.0457	Brass punch adaptor set, 2 pcs, Ø 10mm 20
156.0458	Brass punch adaptor set, 2 pcs, Ø 12mm 20
156.0459	Brass punch adaptor set, 2 pcs, Ø 14mm 50

### Bearing punch set Ø 25.0 mm

- In durable plastic storage case



156.0425	7 pcs Bearing punch set Ø 25.0 mm 640

#### consists of:

156.0426	Punch holder without impact 360
156.0447	Polyamide punch adaptor set, 2 pcs, Ø 25mm 20
156.0455	Aluminium punch adaptor set, 2 pcs, Ø 25mm 50
156.0463	Brass punch adaptor set, 2 pcs, Ø 25mm 150

### Universal bearing and bush driver set

- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 18.0 - 65.0 mm
- Pressure plates are for the two driving spindles
- Special tool steel
- In durable plastic storage case



700.1350	51 pcs Universal bearing and bush driver set 8,00

#### consists of:

700.1348	Reception adaptor, 45mm 500
700.1349	Impact drive knurled grip, 220mm 42
700.1351	Pressure plate, 18mm 12
700.1352	Pressure plate, 19mm 14
700.1353	Pressure plate, 20mm 16
700.1354	Pressure plate, 21mm 20
700.1355	Pressure plate, 22mm 22
700.1356	Pressure plate, 23mm 27
700.1357	Pressure plate, 24mm 30
700.1358	Pressure plate, 25mm 34
700.1359	Pressure plate, 26mm 38
700.1360	Pressure plate, 27mm 43
700.1361	Pressure plate, 28mm 47
700.1362	Pressure plate, 29mm 50
700.1363	Pressure plate, 30mm 53
700.1364	Pressure plate, 31mm 59
700.1365	Pressure plate, 32mm 65
700.1366	Pressure plate, 33mm 68
700.1367	Pressure plate, 34mm 72
700.1368	Pressure plate, 35mm 77
700.1369	Pressure plate, 36mm 82
700.1370	Pressure plate, 37mm 89
700.1371	Pressure plate, 38mm 94
700.1372	Pressure plate, 39mm 97
700.1373	Pressure plate, 40mm 105
700.1374	Pressure plate, 41mm 111
700.1375	Pressure plate, 42mm 119
700.1376	Pressure plate, 43mm 125
700.1377	Pressure plate, 44mm 132
700.1378	Pressure plate, 45mm 138
700.1379	Pressure plate, 46mm 144
700.1380	Pressure plate, 47mm 153
700.1381	Pressure plate, 48mm 159
700.1382	Pressure plate, 49mm 165
700.1383	Pressure plate, 50mm 172
700.1384	Pressure plate, 51mm 181
700.1385	Pressure plate, 52mm 188
700.1386	Pressure plate, 53mm 196
700.1387	Pressure plate, 54mm 205
700.1388	Pressure plate, 55mm 213
700.1389	Pressure plate, 56mm 221

#### consists of:

700.1390	Pressure plate, 57mm 231
700.1391	Pressure plate, 58mm 238
700.1392	Pressure plate, 59mm 247
700.1393	Pressure plate, 60mm 258
700.1394	Pressure plate, 61mm 266
700.1395	Pressure plate, 62mm 276
700.1396	Pressure plate, 63mm 284
700.1397	Pressure plate, 64mm 294
700.1398	Pressure plate, 65mm 305
700.1399	Support plate, 74mm 500

### Universal bearing and bush driver set

- for gentle driving of bearing and radial sealing rings
- Universal applicable range
- Can be used manually with a hammer or workshop press
- Applications from 70.0 - 150.0 mm
- Pressure plates are for the two driving spindles
- Special tool steel
- In durable plastic storage case



150.9710	21 pcs Universal bearing and bush driver set 19,13

#### consists of:

150.9712	Adaptor for Hydraulic thrust bolt, 45,5 mm 44
150.9713	Retaining adapter, 55 mm 217
150.9714	Repellent spike with knurling, 273,0 mm 1077
150.9715	Pressure plate, 70 mm 353
150.9716	Pressure plate, 75 mm 406
150.9717	Pressure plate, 80 mm 465
150.9718	Pressure plate, 85 mm 524
150.9719	Pressure plate, 90 mm 593
150.9720	Pressure plate, 95 mm 659
150.9721	Pressure plate, 100 mm 733
150.9722	Pressure plate, 105 mm 812
150.9723	Pressure plate, 110 mm 893
150.9724	Pressure plate, 115 mm 977
150.9725	Pressure plate, 120 mm 1065
150.9726	Pressure plate, 125 mm 1157
150.9727	Pressure plate, 130 mm 1255
150.9728	Pressure plate, 135 mm 1349
150.9729	Pressure plate, 140 mm 1457
150.9730	Pressure plate, 145 mm 1563
150.9731	Pressure plate, 150 mm 1676
151.2603	Hexagon key wrench phosphate finish, short, 3mm 10



## CENTRE PUNCH

### Centre punch

- Round
- Quenched and tempered
- Tip can be re-sharpened
- Black lacquer
- Chrome vanadium



	L mm	D mm	S mm	Handle number	g
156.0340	150,0	5,0	10,0	-	70
156.0342	150,0	6,0	12,0	-	120
156.0344	210,0	7,0	14,0	-	170
156.0346	215,0	8,0	16,0	-	230
156.0348	220,0	9,0	18,0	-	310
156.0350	220,0	10,0	20,0	-	410
156.0352	220,0	11,0	22,0	-	510
156.0354	250,0	12,0	24,0	-	640

## CENTRE PUNCHES

### Centre punch

- DIN 7250
- 8-point
- Tip can be re-sharpened
- Quenched and tempered
- Shaft with gold coated lacquer
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	Handle number	g
162.0361	120,0	4,0	10,0	-	65
162.0362	120,0	5,0	12,0	-	90
162.0363	150,0	5,0	12,0	-	120
162.0364	150,0	6,0	14,0	-	200
162.0365	150,0	8,0	18,0	-	260

### Centre punch

- Round
- Quenched and tempered
- Burnished
- Chrome vanadium



	L mm	D mm	S mm	Handle number	g
156.0404	100,0	4,0	10,0	-	30
156.0406	115,0	6,0	10,0	-	60
156.0408	120,0	8,0	12,0	-	120
156.0410	130,0	10,0	14,0	-	135



## Centre punch

- 8-point
- Quenched and tempered
- Mirror polished
- Highly polished
- Chrome vanadium



	L mm	D mm	S mm	Handle number	g
156.0175	120,0	5,0	10,0	-	60

## Centre punch with hand grip

- 8-point
- Quenched and tempered
- Tip can be re-sharpened
- Highly polished
- Chrome molybdenum



	L mm	D mm	S mm	g
156.0243	185,0	10,0	10,0	118

## Automatic centre punch

- Round
- Ergonomic handle
- Power of impact 17-20 kg
- Phosphate finish
- Chrome vanadium



	L mm	D mm	S mm	g
156.0466	160,0	4,0	25,0	250

## SCRIBER

### Scriber

- For marking of work pieces
- Straight and 70° bent tip
- Knurled handle
- Hardened point
- Burnished
- Special tool steel



	L mm	D mm	g
300.0300	190,0	4,0	10

## Hard metal scriber

- For marking of work pieces
- Straight and 70° bent tip
- With hard metal tip
- Hardened point
- Special tool steel



	L mm	D mm	g
300.2136	250,0	8,0	46

## Hard metal scriber

- For marking of work pieces
- Straight and one-sided tip
- With hard metal tip
- Hardened point
- Special tool steel



	L mm	D mm	g
300.2135	170,0	4,0	38

## Hard metal scriber

- For marking of work pieces
- Straight form
- With hard metal tip
- Pocket clip
- Hardened point
- Chrome plated
- Special tool steel



	L mm	D mm	g
300.0301	145,0	5,0	60
300.2137	150,0	6,0	36

## Hard metal scriber in ball-point pen form

- For marking of work pieces
- Straight form
- Hardened and interchangeable hard metal tips
- Pocket clip
- Protection through foldaway needle tip
- Adjustable and lead bow mine
- Metal housing

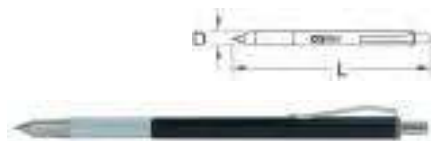


	L mm	D mm	Replacement tip	g
300.0302	150,0	8,0	300.0303	40



### Hard metal scriber in ball-point pen form

- For marking of work pieces
- Straight form
- Hardened and interchangeable hard metal tips
- Pocket clip
- Protection through foldaway needle tip
- Adjustable and lead bow mine
- Metal housing



	L mm	D mm	Replacement tip	
300.2138	160,0	8,0	300.2139	22

### PUNCHES

#### Punches

- Impact cap on the handle end
- Sealed beech wood handle
- Mirror polished
- Highly polished
- Chrome vanadium

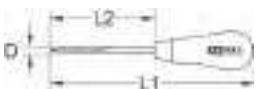


	L1 mm	L2 mm	D mm	
300.1081	190,0	100,0	6,0	70

### AWLE

#### Awle

- Impact cap on the handle end
- Sealed beech wood handle
- Mirror polished
- Highly polished
- Chrome vanadium



	L1 mm	L2 mm	D mm	
300.1082	190,0	100,0	6,0	70



### STAMP SETS

#### Number stamping set

- Lettering to DIN 1451
- Numbers „0 - 9“
- For stamping in materials up to 100 kp / mm<sup>2</sup> resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In plastic storage box



156.0467 9 pcs Number stamping set	500

#### Letter stamping set

- Lettering to DIN 1451
- Letters „A - Z“
- For stamping in materials up to 100 kp / mm<sup>2</sup> resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In plastic storage box



156.0468 27 pcs Letter stamping set	1,33

#### Universal letter and number punch set

- Lettering to DIN 1451
- For stamping in materials up to 100 kp / mm<sup>2</sup> resistance
- 4 point shaft
- Font size 5 - 6mm
- Shaft engraved
- In durable plastic storage case



156.0465 40 pcs Universal letter and number punch set	2,37
1 x	
1 x	0 - 9
1 x	A - Z
1 x	
1 x	

### GASKET RING DISMANTLING TOOL

#### Hook, 90° short, 180° short

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1041 Hook, 90° short, 180° short	11

#### Hook, 45° long, 90° long

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1042 Hook, 45° long, 90° long	11

#### Hook tool set

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1040 2 pcs Hook tool set	30

consists of:

550.1041 Hook, 90° short, 180° short bent	11
550.1042 Hook, 45° long, 90° long	11

#### Magnet and hook tool set

- Ideal for removing and use of O rings and seals
- With telescopic magnet attachment and replaceable hook
- Storage compartment in the handle for the various attachments
- Special tool steel



550.1080 6 pcs Magnet and hook tool set	70

consists of:

550.1081	Basic unit	35
550.1082	Telescopic magnet attachment, 90-390 mm	13
550.1083	Hook attachment, straight, 75 mm	5
550.1084	Hook attachment, 90°, 75 mm	5
550.1085	Hook attachment, 120°, 75 mm	5
550.1086	Hook attachment, lateral bend, 75 mm	5

### T hook, S form small

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1074	120,0	42

### T hook, S form large

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1075	165,0	96

### Hook, straight

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



	Length mm	
550.1046	140,0	27

### Hook, 45°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



	Length mm	
550.1047	140,0	27

### Hook, 90°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



	Length mm	
550.1048	140,0	27

### Hook, 135°

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



	Length mm	
550.1049	140,0	27

### Hook, straight

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1071	215,0	91

### Hook, 90°

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1072	240,0	105

### Hook, sickle

- Ideal for removing and use of O rings and seals
- Special tool steel



	Length mm	
550.1073	185,0	88

### Gasket ring dismantling tool

- sickle-shaped
- For the removal of washers
- Long durability through hardened leverage
- Universal usage
- Two component handle
- Burnished
- Chrome vanadium



	L1 mm	L2 mm	L3 mm	D mm	
550.1060	300,0	195,0	85,0	12,0	380

### Hook tool set

- Ideal for removing and use of O rings and seals
- Two component handle
- Special tool steel



550.1045	4 pcs Hook tool set	120

consists of:

550.1046	Hook, straight	27
550.1047	Hook, 45° offset	27
550.1048	Hook, 90° offset	27
550.1049	Hook, 135° bent	27



### Master hook tool set

- Ideal for removing and use of O rings and seals
- Special tool steel



550.1070	9 pcs	Master hook tool set	680	

consists of:

550.1046	Hook, straight	27	
550.1047	Hook, 45° offset	27	
550.1048	Hook, 90° offset	27	
550.1049	Hook, 135° bent	27	
550.1071	Hook, large, straight	91	
550.1072	Hook, large, 90° bent	105	
550.1073	Hook, large, sickle	88	
550.1074	T hook, S form small, 120mm	42	
550.1075	T hook, S form large, 165mm	96	

### HANDLE PUNCH

#### Handle punch

- According to DIN 7200 form A
- Strong forged form
- Pipe polished ground
- For punching holes and production of washers and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel



	L mm	D mm	D	
129.2002	100,0	2,0		0,04
129.2003	100,0	3,0		0,04
129.2004	105,0	4,0		0,04
129.2005	110,0	5,0		0,05
129.2006	110,0	6,0		0,05
129.2007	115,0	7,0		0,05
129.2008	120,0	8,0		0,07
129.2009	120,0	9,0		0,07
129.2010	130,0	10,0		0,07
129.2011	130,0	11,0		0,10
129.2012	130,0	12,0	15/32"	0,12
129.2013	140,0	13,0	1/2"	0,16
129.2014	140,0	14,0	9/16"	0,16
129.2015	140,0	15,0	19/32"	0,16
129.2016	145,0	16,0	5/8"	0,17
129.2017	145,0	17,0	21/32"	0,21

	L mm	D mm	D	
129.2018	145,0	18,0	11/16"	0,21
129.2019	145,0	19,0	3/4"	0,21
129.2020	160,0	20,0	25/32"	0,29
129.2021	160,0	21,0	13/16"	0,29
129.2022	160,0	22,0	7/8"	0,30
129.2023	170,0	23,0	29/32"	0,33
129.2024	170,0	24,0	15/16"	0,34
129.2025	170,0	25,0	1"	0,36
129.2026	170,0	26,0	1.1/32"	0,36
129.2027	175,0	27,0	1.1/16"	0,45
129.2028	175,0	28,0	1.3/32"	0,46
129.2029	175,0	29,0	1.1/8"	0,46
129.2030	190,0	30,0	1.3/16"	0,56
129.2031	190,0	31,0		0,56
129.2032	192,0	32,0	1.1/4"	0,56
129.2033	195,0	33,0		0,64
129.2034	195,0	34,0	1.5/16"	0,65
129.2035	195,0	35,0	1.3/8"	0,66
129.2036	195,0	36,0		0,66
129.2037	205,0	37,0	1.7/16"	0,75
129.2038	205,0	38,0	1.1/2"	0,78
129.2039	205,0	39,0		0,80
129.2040	205,0	40,0	1.9/16"	0,81
129.2041	205,0	41,0	1.5/8"	0,82
129.2042	220,0	42,0		0,98
129.2043	220,0	43,0	1.11/16"	0,98
129.2044	220,0	44,0		0,98
129.2045	220,0	45,0	1.3/4"	1,00
129.2046	220,0	46,0	1.13/16"	1,10
129.2047	230,0	47,0	1.7/8"	1,16
129.2048	230,0	48,0		1,18
129.2049	230,0	49,0	1.15/16"	1,19
129.2050	230,0	50,0		1,20
129.2051	230,0	51,0	2"	1,20
129.2052	240,0	52,0		1,85
129.2053	240,0	53,0		1,85
129.2054	240,0	54,0	2.1/8"	1,85
129.2055	240,0	55,0		1,85
129.2056	260,0	56,0	2.3/16"	1,85
129.2057	260,0	57,0		1,85
129.2058	260,0	58,0	2.1/4"	1,85
129.2059	260,0	59,0		1,85
129.2060	260,0	60,0		1,85
129.2061	260,0	61,0		1,85
129.2062	260,0	62,0		1,85
129.2063	260,0	63,0		1,85
129.2064	260,0	64,0	2.1/2"	1,85
129.2065	260,0	65,0		3,65
129.2066	260,0	66,0		3,65
129.2067	300,0	67,0		3,65
129.2068	300,0	68,0		3,65
129.2069	300,0	69,0		3,65
129.2070	300,0	70,0	2.3/4"	3,65
129.2071	300,0	71,0		3,65
129.2072	300,0	72,0		3,65
129.2073	300,0	73,0		3,65
129.2074	300,0	74,0		3,65
129.2075	300,0	75,0		4,30
129.2076	300,0	76,0	3"	4,30
129.2077	340,0	77,0		4,30
129.2078	340,0	78,0		4,30
129.2079	340,0	79,0		4,30
129.2080	340,0	80,0		4,30
129.2085	340,0	85,0		4,30
129.2090	345,0	90,0		5,15
129.2095	345,0	95,0	3.3/4"	8,50
129.2100	380,0	100,0		8,50
129.2105	380,0	105,0		8,50
129.2110	380,0	110,0		8,50
129.2115	380,0	115,0	4.1/2"	8,50
129.2120	380,0	120,0		8,50



### Arc punch set

- According to DIN 7200 form A
- Strong forged form
- Pipe polished ground
- For punching holes and production of washers and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel



129.2102	7 pcs	3 - 5 - 7 - 8 - 10 - 11 - 13 mm	0,72	
129.2103	8 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 mm	1,00	
129.2106	8 pcs	6 - 8 - 10 - 12 - 14 - 16 - 20 - 25 mm	1,51	
129.2104	10 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 - 25 mm	1,00	

### ROUND HOLE PUNCH

#### Round hole punch

- According to DIN 7200 Form B
- Strong forged form
- Pipe polished ground
- For punching holes and production of washers and gasket rings
- Interior conical for removing the blank head
- Red lacquer
- Cutting edge hardened
- Special tool steel



	L mm	D mm	
129.2302	105,0	2,0	22
129.2303	105,0	3,0	28
129.2304	110,0	4,0	35
129.2305	115,0	5,0	47
129.2306	115,0	6,0	56
129.2307	120,0	7,0	56
129.2308	120,0	8,0	71
129.2309	125,0	9,0	71
129.2310	125,0	10,0	82
129.2311	125,0	11,0	110
129.2312	130,0	12,0	130
129.2313	130,0	13,0	140
129.2314	135,0	14,0	170
129.2315	135,0	15,0	180
129.2316	140,0	16,0	200
129.2317	140,0	17,0	220
129.2318	150,0	18,0	280
129.2319	150,0	19,0	300
129.2320	156,0	20,0	350
129.2321	156,0	21,0	380
129.2322	156,0	22,0	430
129.2323	156,0	23,0	460
129.2324	160,0	24,0	550
129.2325	160,0	25,0	580

### Round hole punch set

- According to DIN 7200 Form B
- Strong forged form
- Pipe polished ground
- For punching holes and production of washers and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel



129.2113	7 pcs	5 - 6 - 7 - 10 - 11 - 12 mm		620	
129.2108	7 pcs	3 - 5 - 7 - 8 - 10 - 11 - 13 mm		730	
129.2109	8 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 mm		1260	
129.2107	9 pcs	2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 mm		640	
129.2111	9 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 mm		1760	
129.2112	10 pcs	3 - 5 - 7 - 8 - 10 - 13 - 16 - 19 - 22 - 25 mm		2360	

### HOLE PUNCHES

#### Hole punch set

- For punching out rings and for making discs and holes
- Punches can also be used in pairs
- Chrome vanadium
- In durable plastic storage case

Suitable for: foam rubber, cardboard, leather, rubberfibrous materials, plastics and lead



129.0100	16 pcs	Hole punch set		1,10

#### consists of:

129.0101	Three-size holder for seal punches			300
129.0103	Hole punch, thread holder, 3mm			10
129.0104	Hole punch, thread holder, 4mm			10
129.0106	Hole punch, thread holder, 6mm			10
129.0108	Hole punch, thread holder, 8mm			10
129.0110	Hole punch, thread holder, 10mm			10
129.0112	Hole punch, punching iron mandrel, 12mm			20
129.0114	Hole punch, punching iron mandrel, 14mm			20
129.0116	Hole punch, punching iron mandrel, 16mm			20
129.0118	Hole punch, punching iron mandrel, 18mm			20
129.0120	Hole punch, punching iron mandrel, 20mm			20
129.0122	Hole punch, punching iron mandrel, 22mm			40
129.0124	Hole punch, punching iron mandrel, 24mm			40
129.0126	Hole punch, punching iron mandrel, 26mm			40
129.0128	Hole punch, punching iron mandrel, 28mm			40
129.0130	Hole punch, punching iron mandrel, 30mm			40

### RIVET PROCESSING TOOL

#### Rivet setters

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660 / 661 / 662 / 674
- Chrome vanadium



	Ø rivet mm	L mm	S mm	
129.2400	2,0	100,0	10,0	60
129.2401	3,0	100,0	10,0	60
129.2402	4,0	100,0	12,0	90
129.2403	5,0	110,0	14,0	135
129.2404	6,0	110,0	14,0	135
129.2405	7,0	120,0	16,0	190
129.2406	8,0	120,0	16,0	190
129.2407	9,0	130,0	18,0	265
129.2408	10,0	130,0	20,0	325

#### Rivet setter set

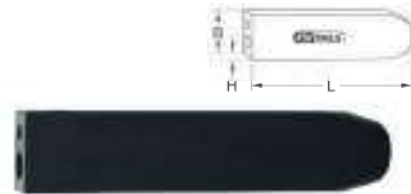
- According to DIN 7200 Form B
- Suitable for rivets according to DIN 660 / 661 / 662 / 674
- Strong forged form
- Pipe polished ground
- For punching holes and production of washers and gasket rings
- Interior conical for removing the blank head
- Shaft machined
- Red lacquer
- Cutting edge hardened
- Special tool steel
- In plastic support bracket



129.2420	5 pcs	2 - 3 - 4 - 5 - 6 mm		520

#### Rivet setter and rivet header, combined

- 8-point
- Premium tempered and hardened steel
- Lacquered
- Chrome vanadium



	Ø rivet mm	L mm	B mm	H mm	
129.2210	2,0	100,0	16,0	10,0	115
129.2211	3,0	100,0	16,0	10,0	115
129.2212	4,0	100,0	20,0	10,0	145
129.2213	5,0	110,0	25,0	12,0	215
129.2214	6,0	120,0	25,0	15,0	310
129.2215	7,0	120,0	30,0	15,0	330
129.2216	8,0	140,0	40,0	20,0	680
129.2217	9,0	160,0	40,0	25,0	950
129.2218	10,0	160,0	40,0	25,0	940

### RIVET SETS

#### Rivet head setter

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660
- Chrome vanadium



	Ø rivet mm	L mm	S mm	
129.2199	2,0	100,0	10,0	60
129.2200	3,0	100,0	10,0	60
129.2201	4,0	100,0	12,0	90
129.2202	5,0	110,0	14,0	135
129.2203	6,0	110,0	16,0	175
129.2204	7,0	120,0	18,0	240
129.2205	8,0	120,0	20,0	305
129.2206	9,0	130,0	22,0	400
129.2207	10,0	130,0	24,0	480

#### Rivet head setter set

- Working ends polished ground and clear lacquered
- Suitable for rivets according to DIN 660
- Chrome vanadium
- In plastic support bracket



129.2209	5 pcs	2 - 3 - 4 - 5 - 6 mm		520

### FLATTENERS

#### Tapware assembly and dismantling set

- 8-point
- Quenched and tempered
- Special tool steel



	L mm	S mm	
156.0770	170,0	16,0	510

## TAPER PUNCHES

### Punch drawbore pin

- Hardened through the whole length
- Cone polished
- Carbon manganese silicon steel



	L mm	S mm	kg
129.2161	110,0	11,0	0,07
129.2162	120,0	13,0	0,11
129.2163	150,0	15,0	0,19
129.2164	170,0	17,0	0,27
129.2165	170,0	19,0	0,34
129.2166	190,0	21,0	0,45
129.2167	200,0	23,0	0,47
129.2168	200,0	25,0	0,68
129.2169	210,0	27,0	0,84
129.2170	210,0	28,0	0,91
129.2171	230,0	29,0	1,06
129.2172	230,0	31,0	1,21
129.2173	250,0	33,0	1,52
129.2174	280,0	34,0	1,80
129.2175	280,0	36,0	2,02
129.2176	280,0	37,0	2,14

### Assembly drawbore pin

- Hardened through the whole length
- Cone polished
- Carbon manganese silicon steel



	L mm	D mm	S mm	kg
129.2177	120,0	5,0	11,0	75
129.2178	120,0	5,0	13,0	90
129.2179	150,0	6,0	15,0	165
129.2180	170,0	7,0	17,0	240
129.2181	170,0	7,0	19,0	300
129.2182	190,0	8,0	21,0	410
129.2183	190,0	9,0	23,0	485
129.2184	200,0	10,0	25,0	585
129.2185	210,0	12,0	28,0	805
129.2186	230,0	12,0	31,0	1050
129.2187	250,0	13,0	34,0	1345
129.2188	270,0	14,0	37,0	1720



## Assembly punch

- Hardened through the whole length
- Cone polished
- Chrome vanadium



	L mm	D mm	S mm	kg
129.2189	180,0	5,0	12,0	110
129.2190	200,0	6,0	13,0	150
129.2191	200,0	8,0	16,0	220
129.2192	200,0	9,0	20,0	340
129.2193	230,0	10,0	22,0	460
129.2194	250,0	11,0	24,0	620
129.2195	280,0	12,0	27,0	870
129.2196	315,0	14,0	30,0	1260
129.2197	340,0	15,0	32,0	1570
129.2198	380,0	16,0	36,0	2230

## BENDING IRONS AND PRY BARS

### Pry bar

- Round
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	kg
129.2220	5,5	500,0	170,0	20,0	970

### Bending iron/pry bar

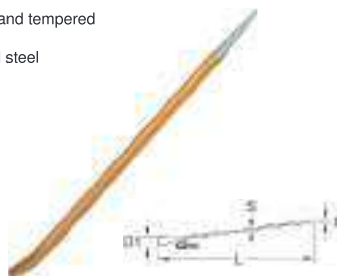
- 4 point
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2221	14,0	1,0	400,0	14,0	500

### Bending iron/pry bar

- Round
- Quenched and tempered
- Forged
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2219	22,0	5,0	605,0	19,0	1.30

## Bending iron/pry bar

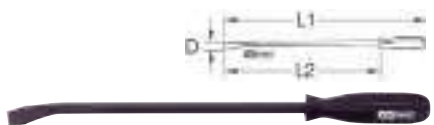
- 6 point
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2222	22,0	5,0	405,0	16,0	650

### Pry bar

- Best suited for and breakdown and installation work
- For pressure testing securely-fitted parts
- Ergonomic single component handle
- Hardened through the whole length
- Chrome molybdenum



	D mm	L1 mm	L2 mm	kg
911.8101	11,0	200,0	105,0	76
911.8102	16,0	300,0	195,0	200
911.8103	20,0	450,0	315,0	397
911.8104	20,0	600,0	465,0	507

### Pry bar sets

- Best suited for and breakdown and installation work
- For pressure testing securely-fitted parts
- Ergonomic single component handle
- Hardened through the whole length
- Chrome molybdenum



		kg
911.8100	4 pcs 11 x 200 mm - 16 x 300 mm - 20 x 450 mm - 20 x 600 mm	1,33





### Flexible roll head pry bar

- Extremely versatile and robust execution
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



	Length mm	Assembly levels	
911.8176	250,0	5	385
911.8177	300,0	5	455
911.8178	400,0	5	565

### Flexible roll head pry bar set

- Extremely versatile and robust execution
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



911.8175	3 pcs Flexible roll head pry bar set	1,50

consists of:

911.8176	Flexible roll head pry bar, 250 mm	385
911.8177	Flexible roll head pry bar, 300 mm	455
911.8178	Flexible roll head pry bar, 400 mm	565

### Pry bar

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



	Bend radius	Length mm	
911.8411	0°	900,0	1,70
911.8412	45°	900,0	1,75
911.8413	75°	600,0	1,17
911.8414	90°	600,0	1,20

### Pry bar

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



	Bend radius	Length mm	
911.8415	45°	1150,0	4,75



### Pry bar sets

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



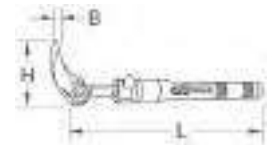
911.8410	4 pcs Pry bar sets	8,70

consists of:

911.8411	Pry bar, 0°, 900mm	1,70
911.8412	Pry bar, 45°, 900mm	1,75
911.8413	Pry bar, 75°, 600mm	1,17
911.8414	Pry bar, 90°, 600mm	1,20
911.8415	Pry bar, 45°, 1150mm	4,75

### Telescopic flexible roll head pry bar

- Lever extension with push-button in steps
- Roller head adjustable in steps
- Extra narrow, with recessed push button
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



	L mm	H mm	B mm	
911.8186	325-460	90,0	12,0	780
911.8187	600-915	120,0	20,0	1900
911.8188	865-1350	145,0	24,0	4260

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## PIPE CUTTERS

### Ratchet pipe cutter for copper pipes

- Ideal for confined spaces
- Automatic cutting after each rotation
- Metal housing



	D mm	H mm	Metal	V/A	Plastic	g
104.2015	15,0	56,0	104.2001	-	-	180
104.2022	22,0	68,0	104.2001	-	-	240
104.2028	28,0	70,0	104.2001	-	-	194

### Mini pipe cutter

- For copper, brass and thin walled steel tubes
- With 2 support rollers
- V<sup>2</sup>A cutter can be retrofitted
- With hard chrome plated knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	Metal	V/A	Plastic	g
101.1000	3,0 - 16,0	35,0	101.1001	101.1002	-	100
101.2000	3,0 - 22,0	40,0	101.1001	101.1002	-	120

### Mini pipe cutter

- Ergonomically designed
- For copper, brass and thin walled steel tubes
- With 2 support rollers
- With large knurled knob
- V<sup>2</sup>A cutter can be retrofitted
- Metal housing
- Special tool steel



	D mm	H mm	Metal	V/A	Plastic	g
101.5000	3,0 - 28,0	55,0	101.1001	101.1002	-	260
101.5016	3,0 - 16,0	41,0	101.1001	101.1002	-	120
101.5022	3,0 - 22,0	50,0	101.1001	101.1002	-	120

### Pipe cutter

- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- V<sup>2</sup>A cutter can be retrofitted
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
102.1000	3,0 - 30,0	55,0	150,0	101.1001	101.1002	-	300

### Telescopic pipe cutter

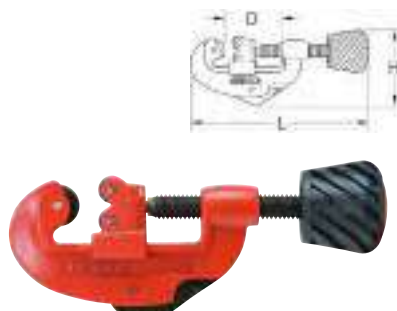
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- V<sup>2</sup>A cutter can be retrofitted
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.1000	3,0 - 32,0	57,0	141,0	101.1001	101.1002	-	270

### Pipe cutter

- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- V<sup>2</sup>A cutter can be retrofitted
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
104.1000	7,0 - 39,0	78,0	210,0	104.1001	101.1002	-	425

### Ratchet pipe cutter

- With 2 support rollers
- With folding internal deburrer
- V<sup>2</sup>A cutter can be retrofitted
- With knurled knob
- Plastic housing



	D mm	H mm	L mm	Metal	V/A	Plastic	g
104.5000	3,0 - 13,0	60,0	120,0	104.5001	104.5005	-	180
104.5002	8,0 - 28,5	75,0	175,0	104.5003	104.5052	-	380
104.5022	6,0 - 23,0	65,0	160,0	222.0665	103.2002	-	360

### Ratchet pipe cutter

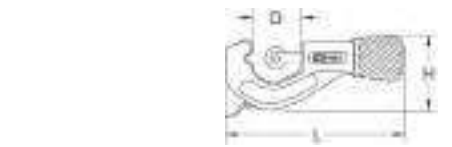
- With 2 support rollers
- Cutting depth max. 3 mm
- V<sup>2</sup>A cutter can be retrofitted
- Ideal for confined spaces
- Robust ratchet mechanism
- With large knurled knob
- Plastic housing
- Ratchet mechanism from special steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
104.5060	12,0 - 35,0	70,0	180,0	104.5052	104.5054	104.5051	520
104.5050	28,0 - 67,0	110,0	250,0	104.5052	104.5054	104.5051	1032

### Telescopic pipe cutter

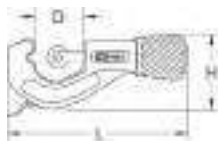
- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	g
103.5000	6,0 - 38,0	60,0	156,0	103.5001	-	-	500

### Telescopic pipe cutter

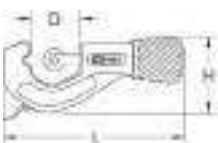
- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	L mm	H mm	Metal	V/A	kg
103.5010	3,0 - 38,0	165,0	68,0	103.5011	-	500

### Telescopic pipe cutter for stainless steel (Inox) pipes

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	L mm	H mm	Metal	V/A	kg
103.5010I	3,0 - 38,0	165,0	68,0	-	103.5011I	342

### Telescopic pipe cutter for stainless steel (Inox) pipes

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	kg
103.5000I	6,0 - 38,0	60,0	156,0	-	103.5002	500

### Telescopic pipe cutter

- With removeable internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Accurate telescopic guide
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
103.5050	3,0 - 42,0	50,0	180,0	103.5001	-	-	450

### Telescopic pipe cutter for stainless steel (Inox) pipes

- With removeable internal deburrer
- Accurate telescopic guide
- Includes spare wheel under the cover cap on the rotary handle
- With 4 support rollers in stainless steel
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
103.5050I	3,0 - 42,0	50,0	180,0	-	103.5002	-	500

### Automatic ratchet pipe cutter for copper pipe

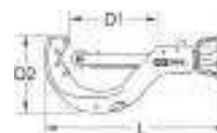
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- V<sup>2</sup>A cutter can be retrofitted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
222.0660-1	6,0 - 64,0	90,0	225,0	222.0665	103.2002	222.0666	500

### Automatic ratchet pipe cutter for copper pipe

- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Plastic cutter can be retrofitted
- With 4 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
222.0750-1	15,0 - 80,0	100,0	250,0	222.0752	-	222.0751	0,80
222.1250-1	50,0 - 140,0	150,0	350,0	222.0752	-	222.1251	1,54

### Steel pipe cutter

- T-handle for adjusting the working range
- Optimum power transfer
- Cutting depth max. 19 mm
- Metal housing
- Special tool steel



	Imperial tube Ø inch	H mm	L mm	Metal	V/A	Plastic	kg
110.1000	1/8"-2	108,0	378,0	110.1001	-	-	2,50

### Steel pipe cutter for stainless steel (Inox) pipes

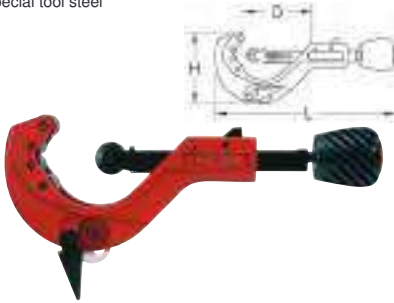
- T-handle for adjusting the working range
- Optimum power transfer
- Cutting depth max. 19 mm
- Metal housing
- Special tool steel



	Imperial tube Ø inch	H mm	L mm	Metal	V/A	Plastic	kg
110.1000I	1/8"-2	108,0	378,0	-	110.1002	-	2,50
110.1014I	1/8"-1.1/4	82,0	265,0	-	110.1016	-	1,50

### Automatic ratchet pipe cutter for plastic pipe

- For PE, PP and PVDF pipes
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Steel cutting wheel retrofittable
- 4 support rollers
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
222.0660	6,0 - 64,0	90,0	225,0	222.0665	-	222.0666	500

### Automatic ratchet pipe cutter for copper pipe

- For PE, PP and PVDF pipes
- With folding internal deburrer
- Quick through ratchet telescopic guide with automatic spring return
- Steel cutting wheel retrofittable
- 4 support rollers
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
222.0750	6,0 - 76,0	100,0	250,0	222.0752	-	222.0751	0,80

### Automatic ratchet pipe cutter for plastic pipe

- For PE, PP and PVDF pipes
- Quick through ratchet telescopic guide with automatic spring return
- Metal cutter can be retrofitted
- Cutting depth max. 19 mm
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm	Metal	V/A	Plastic	kg
222.1250	50,0 - 140,0	150,0	350,0	222.0752	-	222.1251	1,54
222.1680	100,0 - 168,0	190,0	385,0	-	-	222.1251	1,60

### Replacement cutting wheel for pipe cutters

- Special tool steel



	D mm	B mm	C mm	Metal	V/A	Plastic	kg
101.1001	18,2	3,0	4,8	x	-	-	40
101.1002	18,0	3,0	4,8	-	x	-	30
103.2002	18,0	6,3	4,8	-	x	-	5
103.5001	20,0	4,9	5,1	x	-	-	10
103.5002	20,0	4,9	5,1	-	x	-	10
103.5011	20,0	5,0	14,0	-	x	-	10
103.5011	20,0	5,0	5,0	x	-	-	5
104.1001	18,0	6,0	11,0	x	-	-	10
104.2001	15,0	3,0	9,0	x	-	-	10
104.5001	15,0	3,0	9,0	x	-	-	15
104.5003	18,0	6,3	10,9	-	-	-	40
104.5005	15,3	3,0	4,5	-	x	-	10
104.5051	25,0	6,2	4,8	-	-	x	45
104.5052	19,0	6,2	4,8	-	-	-	55
104.5054	18,0	6,0	11,0	-	x	-	15
110.1001	31,4	18,9	8,3	x	-	-	40
110.1002	31,4	18,9	8,3	-	x	-	30
110.1015	25,6	13,5	7,5	-	-	-	30
110.1016	25,6	13,5	7,5	-	x	-	30
222.0665	18,2	6,2	4,8	x	-	-	50
222.0666	23,5	6,2	4,8	-	-	x	5
222.0751	44,6	11,0	8,0	-	-	x	15
222.0752	23,0	10,9	8,6	x	-	-	20
222.1251	53,0	11,0	8,0	-	-	x	25

### Grip chain pipe cutter

- With the possibility to adjust the tension through wing nut
- Small working angle through forward and backward movements
- Easy to operate
- Special tool steel



	Ø mm	Chain length	Replacement chain	kg
150.1510	19,0-83,0	330 mm	150.1501	800

### Stainless Steel Grip Chain Tube Cutter

- For stainless steel (Inox) of pipes
- With the possibility to adjust the tension through wing nut
- Small working angle through forward and backward movements
- Easy to operate
- Special tool steel



	Ø mm	Chain length	Replacement chain	kg
150.1515	19,0-83,0	330 mm	150.1502	800

### Scissor set for hoses and plastic pipes

- ideal for angle-precise and clean cutting of rubber hoses, plastic pipes and various plastic profiles, such as cable ducts
- for rubber hoses with or without textile cover
- fittings for 16, 19 and 25 mm pipes included
- with prism for 90° profile
- with adjustable angle stop up to 45°
- In durable plastic storage case



			kg
123.0075	7 pcs	Scissor set for hoses and plastic pipes	490

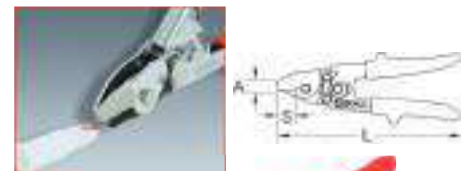
#### consists of:

		kg
123.0076	scissor-shaped with blades	290
123.0077	fitting for Ø 16 and 19 mm	30
123.0078	fitting for Ø 25 mm	78
123.0079	prism for 90° profile	63
123.0084	straight fitting	37
123.0086	angular stop	36
151.2604	Hexagon key wrench phosphate finish, short, 4mm	10

### CARTRIDGE GUNS

#### Cartridge tip pliers

- Ideally suited to cut the ejection nozzle of cartridges or bags as required
- With toothed cutting blade made from solid steel
- Safety locking device
- Allows for the required V cut for windscreen seals and therefore optimised adhesive trim
- Easy to use
- With PVC dipped handle
- Chrome vanadium



	A mm	L mm	S mm	kg
140.2220	33,0	210,0	20,0	420

### Hand gun for double cartridges

- For two component adhesives
- For gluing front windscreens as well as most rear and side windows
- Also suitable for double cartridge systems with epoxy hardeners
- Exact dosing
- Cornered cartridge seating
- Robust metal execution



	Length mm	Height mm	
980.1080	300,0	170,0	500



### Rodless cartridge gun 310 ml

- No protruding push rod and therefore very suitable for confined working environments
- For working with cartridges
- Quick and easy cartridge replacement
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Centralised grip for optimal load distribution
- With integrated steel spring band
- Includes level indicator display
- With belt connector
- Metal cartridge holder
- Soft grip handle



		L mm	H mm	
980.3050	310 ml	340,0	200,0	825

### Hand cartridge gun

- For working with cartridges and soft packs
- Quick and easy cartridge replacement
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- With a sturdy aluminium cylinder
- Plastic housing
- Robust end part



		L mm	H mm	Replacement nozzle	
980.1000	310 ml	340,0	210,0	980.1001	750

### Hand cartridge gun

- For working with cartridges and soft packs
- Quick and easy cartridge replacement
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- With a sturdy aluminium cylinder
- Plastic housing
- Robust end part



		L mm	H mm	Replacement nozzle	
980.3000	600 ml	480,0	210,0	980.1001	1,10

### Cordless cartridge gun 310 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	310 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries		
515.3569	410,0	138,0	245,0	515.3595	515.3592	0	0	3,60
515.3570	410,0	138,0	245,0	515.3595	515.3592	1	1	4,50
515.3571	410,0	138,0	245,0	515.3595	515.3592	2	1	4,70

### Cordless cartridge gun 400 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	400 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.3574	450,0	138,0	245,0	515.3596	515.3592	0	0	3,70
515.3575	450,0	138,0	245,0	515.3596	515.3592	1	1	4,60
515.3576	450,0	138,0	245,0	515.3596	515.3592	2	1	4,80



### Cordless cartridge gun 600 ml

- Handy and ergonomic dual component housing
- Ideal for glue, silicone or acrylic based cartridges
- For gluing front windscreens as well as most rear and side windows
- Can also be used for bodywork sealant, seam adhesive etc.
- Drip-free mechanism
- Step-free controllable feed
- Carbon brushes interchangeable
- High performance lithium-ion battery
- Processing capacity per battery charge at ~ 20 °C, up to 15 cartridges
- Longer running time through higher load capacity
- Fast charging function (1 hour)
- Automatic turn off charging station
- With a sturdy aluminium cylinder
- Blow mould plastic housing
- In durable plastic storage case



#### Technical data:

Electrical Voltage:	10,8 V
Capacity of the unit:	600 ml
Propulsion without load:	6,1 mm / sec
Output pressure:	392 kgf
Charging time:	1 hour
Rechargeable battery:	10,8 V - 2,0 Ah

	L mm	B mm	H mm	Spare carbon brushes set	Battery pack	Number of Charger batteries	kg	
515.3579	560,0	138,0	245,0	515.3595	515.3592	0	0	4,10
515.3580	560,0	138,0	245,0	515.3595	515.3592	1	1	5,10
515.3581	560,0	138,0	245,0	515.3595	515.3592	2	1	5,20

## DEBURRING

### Quick deburrer

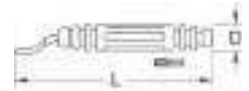
- For pipe cutter 103.5000 + 103.5050
- For tubes, sheets and profiles
- Blade not replaceable
- With rotating blade
- Soft grip handle
- Special tool steel



	L mm	D mm	kg
103.5005	88,0	12,0	20

### Quick deburrer for stainless steel

- For pipe cutter 103.5000i + 103.5050i
- For tubes, sheets and profiles
- Blade not replaceable
- With rotating blade
- Soft grip handle
- Special tool steel



	L mm	D mm	kg
103.5007	90,0	15,0	20

### Universal quick deburrer

- For tubes, sheets and profiles
- Blade not replaceable
- With rotating blade
- With anodised aluminium handle
- Special tool steel
- E 100 HSS blade included



	L mm	D mm	kg
205.2020	140,0	21,0	60

### Universal quick deburrer

- For tubes, sheets and profiles
- With blade magazine
- Interchangeable blades
- With rotating blade
- With soft grip handle
- Special tool steel



	L mm	D mm	kg
205.2500	150,0	21,0	50

### Replacement blade for deburring

- Special tool steel
- Can be used in deburring 205.2500



	Material	kg
205.2011	(A) HSS E 100	30
205.2012	(B) HSS E 200	30
205.2013	(C) HSS E 300	30

**Internal deburrer**

- Step dimensions in mm: 16x2 - 18x2 - 20x2 - 25x2.5
- 4 cutting sizes for clean deburring
- For copper, aluminum and soft steel piping
- With T-handle made from plastic
- Special tool steel



	L1 mm	L2 mm	B mm	Weight g
105.1001	125,0	72,0	82,0	170

**Universal INOX Internal and external deburrer**

- 3 cutting edges for clean deburring
- For copper, aluminum, steel, stainless steel and plastic pipes
- Polished aluminium body
- Special tool steel



	D1 mm	D2 mm	L mm	Weight g
105.3000	10,0 - 54,0	10,0 - 54,0	85,0	350
105.3001	10,0 - 35,0	10,0 - 35,0	61,0	190

**Internal and external deburrer**

- 3 cutting edges for clean deburring
- Cutting jaws from alloy HSS steel
- Insertable blades made from alloy HSS steel
- Retractable point for internal burring (protects from injury)
- Ensures chatter-free working
- For copper, aluminum and soft steel piping
- Aluminium housing



	Material	mm	mm	L mm	Weight g
105.3015	HSS	3,0 - 12,0	4,0 - 14,0	125,0	175

**Adaptor for pipe deburrer**

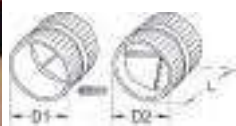
- For deburrer 105.3001
- 1/4" Hexagon drive
- Suitable for drills and cordless screwdrivers



	D mm	L mm	Weight g
105.3005	50,0	90,0	30

**Internal and external deburrer**

- 3 cutting edges for clean deburring
- For copper, aluminum and soft steel piping
- Plastic or metal body
- Special tool steel



	Material	D1 mm	D2 mm	L mm	Weight g
105.1000	metal	3,0 - 40,0	6,0 - 40,0	57,0	240
105.2000	plastic	3,0 - 42,0	6,0 - 42,0	50,0	240

**Self-adjusting external pipe deburrer**

- Special right-side adjustment mechanism provides optimum deburring results
- Infinitely variable
- One cutting edge for clean deburring
- For plastic pipes
- With three ball bearing rollers
- Suitable for drills and cordless screwdrivers
- Extremely robust, forged design
- Special tool steel



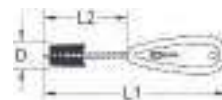
	Ø mm	Height mm	Replacement blades	Weight g
123.0060	72,0 - 118,0	71,0	123.0062	349
123.0061	108,0 - 160,0	68,0	123.0062	512



**COPPER PIPE BRUSH**

**Copper pipe internal brush**

- With hanging hole
- With plastic handle
- For surface preparation
- Steel wire



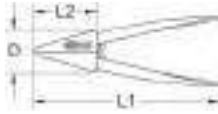
	D mm	L1 mm	L2 mm	Weight g
201.1208	8,0	160,0	75,0	40
201.1210	10,0	160,0	75,0	40
201.1212	12,0	160,0	75,0	40
201.1215	15,0	160,0	75,0	40
201.1216	16,0	160,0	75,0	50
201.1218	18,0	160,0	75,0	50
201.1222	22,0	160,0	75,0	50
201.1228	28,0	160,0	75,0	50
201.1235	35,0	160,0	75,0	50



## PIPE EXPANDING

### Lead pipe expanding pliers

- For the widening of lead pipes up to max. Ø 1.1/2"
- Powder coated
- Body made of sheet steel tongs



	Ø mm	Ø	L1 mm	L2 mm	👤
116.7000	38,1	1.1/2"	240,0	60,0	360

### Flanger set 12.0 - 22.0 mm

- For production of T-exits on pipes
- For fittings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2.5 mm wall thickness
- Special tool steel
- In durable plastic storage case



	👤
202.2100	7 pcs Flanger set 12.0 - 22.0 mm 2,95

#### consists of:

	👤
202.2001	Ratcheting 265 mm for flanger 340
202.2002	Automatic drills, 8-42 mm 450
202.2003	Cam pliers 120
202.2012	Flanger, 12mm 100
202.2015	Flanger, 15mm 150
202.2018	Flanger, 18mm 190
202.2022	Flanger, 22mm 260

### Flanger set 12.0 - 28.0 mm

- For production of T-exits on pipes
- For fittings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2.5 mm wall thickness
- Special tool steel
- In durable plastic storage case



	👤
202.2101	8 pcs Flanger set 12.0 - 28.0 mm 3,00

#### consists of:

	👤
202.2001	Ratcheting 265 mm for flanger 340
202.2002	Automatic drills, 8-42 mm 450
202.2003	Cam pliers 120
202.2012	Flanger, 12mm 100
202.2015	Flanger, 15mm 150
202.2018	Flanger, 18mm 190
202.2022	Flanger, 22mm 260
202.2028	Flanger, 28mm 300

### Flanger

- For production of T-exits on pipes
- For fittings without solder pipe installation
- Dimensionally accurate drilling
- Suitable for pipes up to max. 2.5 mm wall thickness
- Special tool steel

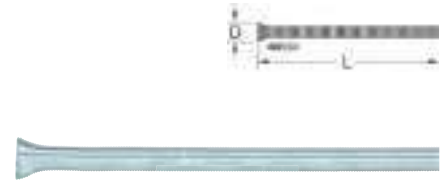


	D mm	L mm	👤
202.2010	10,0	70,0	70
202.2012	12,0	75,0	100
202.2014	14,0	75,0	140
202.2015	15,0	80,0	150
202.2016	16,0	80,0	150
202.2018	18,0	90,0	190
202.2022	22,0	95,0	260
202.2028	28,0	100,0	300
202.2035	35,0	110,0	500
202.2042	42,0	120,0	660

## BENDING

### Copper pipe external bending spring

- For manual bending of soft copper tubes
- Angled cone
- Optimal spring shape prevents compression in the bending radius



	D mm	D	L mm	👤
203.0008	8,0		290,0	80
203.0010	10,0		290,0	80
203.0012	12,0		290,0	110
203.0014	14,0		290,0	170
203.0015	15,0		290,0	200
203.0016	16,0		290,0	220
203.0018	18,0		290,0	280
203.0022	22,0		290,0	440
203.0001		1/4"	290,0	60
203.0002		5/16"	290,0	80
203.0003		3/8"	290,0	100
203.0004		1/2"	290,0	160
203.0005		5/8"	290,0	220
203.0006		3/4"	290,0	280

### Copper pipe internal bending spring for coated copper tubes

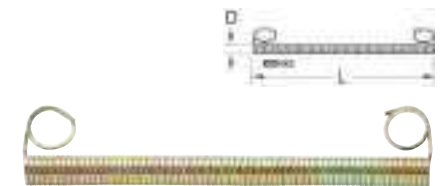
- For manual bending of soft copper tubes
- Optimal spring shape prevents compression in the bending radius



	D mm	L mm	👤
203.0310	10 x 12	910,0	260
203.0312	12 x 14	915,0	280
203.0320	20 x 22	910,0	700

### Copper pipe external bending spring

- For manual bending of soft copper tubes
- Optimal spring shape prevents compression in the bending radius



	D mm	L mm	👤
203.0110	10,0	245,0	140
203.0112	12,0	245,0	200
203.0114	14,0	260,0	300
203.0116	16,0	270,0	320
203.0118	18,0	285,0	450
203.0120	20,0	305,0	480
203.0122	22,0	320,0	550



### Internal bending spring for PE plastic pipes

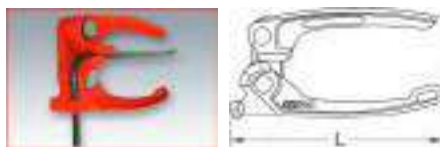
- For manual bending of PE plastic pipes
- Optimal spring shape prevents compression in the bending radius



	D mm	L mm	g
203.0210	10,0	86,0	220
203.0213	13,0	88,0	400
203.0216	16,0	90,0	490
203.0220	20,0	95,0	680

### Mini brake pipe bend tool

- Easy and handy to use
- For 3.00 + 4.75 + 6.00 mm brake pipes
- Bending doesn't change the diameter of the pipe
- For exact two handed bending up to 90°
- For copper, aluminum, brass and soft steel piping
- For 3 dimensions without exchange of bending segments
- Enables use directly on the vehicle
- Undersize and bend radius on the bending form
- Special tool steel



	Ø mm	Ø	L mm	g
120.1050	3,0 + 4,75 + 6,0	1/8" + 3/16" + 1/4"	140,0	150

### Mini pipe bender

- For exact two handed bending up to 180°
- For copper, aluminum, brass and soft steel piping
- For 3 dimensions without exchange of bending segments
- Undersize and bend radius on the bending form
- Special tool steel



	Ø mm	Ø	L mm	g
120.1000	6,0 + 8,0 + 10,0		270,0	420
120.1001		1/4" + 5/16" + 3/8"	240,0	420

### Standard two handed bender

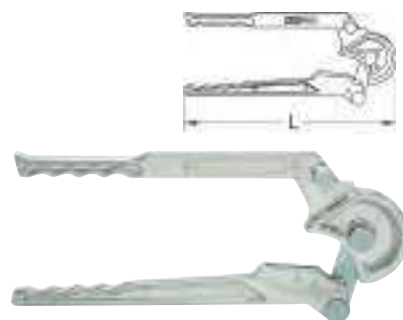
- For exact two handed bending up to 180°
- For soft copper, aluminium, brass and soft steel tubes
- Clamping device for a better hold of the pipe
- Fatigue-free working due to light construction



	Ø mm	Ø	L mm	g
122.1006	6,0		285,0	530
122.1008	8,0		330,0	650
122.1010	10,0		350,0	920
122.1012	12,0		310,0	920
122.1014	14,0		425,0	1330
122.1015	15,0		440,0	1330
122.1016	16,0		440,0	1330
122.1017		1/4"	285,0	500
122.1018		5/16"	330,0	650
122.1019		3/8"	350,0	950
122.1020		1/2"	310,0	1300
122.1021		5/8"	440,0	1300

### Copper pipe two handed bender

- For exact two handed bending up to 180°
- For soft, semi-hard and coated copper tubes
- Fatigue-free working due to light construction
- Aluminium



	Ø mm	L mm	g
122.0010	10,0	260,0	0,35
122.0012	12,0	310,0	0,65
122.0014	14,0	370,0	1,00
122.0015	15,0	420,0	1,45
122.0016	16,0	420,0	1,50



### Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floors and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special tool steel
- In durable plastic storage case



			g
203.1200	9 pcs	Ratchet single handed bending set 10.0 - 22.0 mm	2,76

#### consists of:

		g
203.1208	Basic unit for single handed ratcheting bender	2000
203.1210	Aluminium bending former variante2, Ø 10mm	70
203.1212	Aluminium bending former variante2, Ø 12mm	70
203.1214	Aluminium bending former variante2, Ø 14mm	70
203.1215	Aluminium bending former variante2, Ø 15mm	70
203.1216	Aluminium bending former variante2, Ø 16mm	70
203.1218	Aluminium bending former variante2, Ø 18mm	70
203.1220	Aluminium bending former variante2, Ø 20mm	70
203.1222	Aluminium bending former variante2, Ø 22mm	70

### Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floors and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special tool steel
- In durable plastic storage case



			g
203.1201	7 pcs	Ratchet single handed bending set 10.0 - 22.0 mm	2,62

consists of:

203.1208	Basic unit for single handed ratcheting bender	2000
203.1210	Aluminium bending former variante2, Ø 10mm	70
203.1212	Aluminium bending former variante2, Ø 12mm	70
203.1214	Aluminium bending former variante2, Ø 14mm	70
203.1216	Aluminium bending former variante2, Ø 16mm	70
203.1218	Aluminium bending former variante2, Ø 18mm	70
203.1222	Aluminium bending former variante2, Ø 22mm	70

### Ratchet single handed bending set 3/8" - 7/8"

- Bend radius 90°
- Production of bends against, floors and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special tool steel
- In durable plastic storage case



203.1202	6 pcs Ratchet single handed bending set 3/8" - 7/8"	2,69

consists of:

203.1208	Basic unit for single handed ratcheting bender	2000
203.1230	Aluminium bending former, Ø 3/8"	80
203.1231	Aluminium bending former, Ø 1/2"	80
203.1232	Aluminium bending former, Ø 5/8"	80
203.1233	Aluminium bending former, Ø 3/4"	100
203.1234	Aluminium bending former, Ø 7/8"	150



### Aluminium bending formers

- Bend radius 90°
- Production of bends against, floors and connection arcs
- Aluminium



	Ø mm	Ø	Bend radius mm	
203.1210	10,0		42,0	70
203.1212	12,0		43,0	70
203.1214	14,0		46,0	70
203.1215	15,0		50,0	70
203.1216	16,0		55,0	70
203.1218	18,0		66,0	70
203.1220	20,0		73,0	70
203.1222	22,0		78,0	70
203.1230		3/8"	35,0	80
203.1231		1/2"	48,0	80
203.1232		5/8"	58,0	80
203.1233		3/4"	69,0	100
203.1234		7/8"	88,0	150

### Ratchet single handed bending set 10.0 - 22.0 mm

- Bend radius 90°
- Production of bends against, floors and connection arcs
- Easy change of bending angles
- Aluminium bending formers
- Special tool steel
- In durable plastic storage case



203.1400	13 pcs Ratchet single handed bending set 10.0 - 22.0 mm	4,57

consists of:

203.1401	Bending form, 10mm, aluminium	50
203.1402	Bending form, 12mm, aluminium	50
203.1403	Bending form, 14mm, aluminium	50
203.1404	Bending form, 15mm, aluminium	60
203.1405	Bending form, 16mm, aluminium	80
203.1406	Bending form, 18mm, aluminium	100
203.1407	Bending form, 20mm, aluminium	110
203.1408	Bending form, 22mm, aluminium	120
203.1409	Basic unit for 203.1400	1133
203.1410	Fixed plate 3 holes	246
203.1411	Fixed plate 5 holes	448
203.1412	Quick release adapter base	190
203.1413	Fixed plate adapter base	346

### Hydraulic pipe bending set 12 t, 3/8" - 2"

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by finely adjustable drain valve
- Special steelln durable transport storage case



902.1100	8 pcs 3/8" - 1/2" - 3/4" - 1" - 1.1/4" - 1.1/2" - 2"	77,00

### Hydraulic pipe bending set 8 t, 3/8" - 1 1/4"

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by finely adjustable drain valve
- Special steelln durable transport storage case



902.1101	6 pcs 3/8" - 1/2" - 3/4" - 1" - 1.1/4"	47,00

### Electric Hydraulic Pipe Bending Set 8 t, 3/8" - 1 1/4"

- Bend radius 90°
- For continuous bending of tubes
- Hydraulic action by pressing hand pump
- Loosening by finely adjustable drain valve
- Special steelln durable transport storage case



902.1120	6 pcs 3/8" - 1/2" - 3/4" - 1" - 1.1/4"	67,00

**FLANGING**

**Air cooling flaring and sleeve set 1/8" - 3/4"**

- To produce straight forward bending 45 ° and capillary sockets on copper, brass, aluminum and thin walled steel tube
- For crimping and expansion of refrigeration and air conditioning lines
- In durable plastic storage case



			kg
122.1100	10 pcs	Air cooling flaring and sleeve set 1/8" - 3/4"	2,30

consists of:

			kg
122.1104	Adaptor for 122.1100, set 1/8"-3/16"-1/4"	20	
122.1105	Adaptor for 122.1100, set 5/16"	15	
122.1106	Adaptor for 122.1100, set 3/8"-7/16"	25	
122.1107	Adaptor for 122.1100, set 1/2"	35	
122.1108	Adaptor for 122.1100, set 5/8"	60	
122.1109	Adaptor for 122.1100, set 3/4"	65	
122.1110	Yoke for 122.1100	490	
122.1111	Bar for 122.1100, 1/8"-3/16"-1/4"-5/16"-3/8"-7/16"	540	
122.1112	Bar for 122.1100, 1/2"-5/8"-3/4"	500	
122.0812	Tube-cutter 4-28mm, chrome	240	

**Flange tool metric with quick clamping device**

- Flange strip for 6, 8, 10, 12, 15 + 16mm
- For the manufacture of conical flaring 45 °
- Very precise crimp due to flange cone with special geometry
- For mobile use



			kg
122.0500			900

**Flanging tool imperial with quick clamping device**

- Flange strip for 3/16", 1/4", 5/16", 3/8", 1/2" + 5/8"
- For the manufacture of conical flaring 45 °
- Very precise crimp due to flange cone with special geometry
- For mobile use



			kg
122.0501	H mm	L mm	940

**Universal flanger imperial + metric with quick clamping device**

- For pipe 4-16mm + 3/16"-5/8"
- For the manufacture of conical flaring 45 °
- Very precise crimp due to flange cone with special geometry
- Self centering clamping
- For mobile use
- Special tool steel



			kg
122.0525	H mm	L mm	900

**Flanger set 1/8" - 3/4" and 6.0 - 19.0 mm**

- To produce easy bending 45 ° on copper pipes
- Self centering punching tool
- 3/8" square drive in thumb screw for use with a ratchet
- In durable plastic storage case



			kg
122.0810	6 pcs	Flanger set 1/8" - 3/4" and 6.0 - 19.0 mm	3,21

consists of:

			kg
122.0811	Metric bar	630	
122.0812	Tube-cutter 4-28mm, chrome	240	
122.0813	Imperial bar	630	
122.0815	Flange tool	900	
122.0816	3/8" Adaptor for cordless drill	25	
105.2000	Internal+external deburrer, 3-42mm	240	

**Flanging tool, metric**

- Flange strip for 6, 8, 10, 12, 14, 16 + 18mm
- For the production of single flanges 45 °.
- Self-centering die
- Including 3/8" adaptor for cordless screwdriver
- For mobile use



			kg
122.0808	H mm	L mm	1,60

**Flanging tool, imperial**

- Flange strip for 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" + 3/4"
- For the production of single flanges 45 °.
- Self-centering die
- Including 3/8" adaptor for cordless screwdriver
- For mobile use



			kg
122.0821	H mm	L mm	1,60



### Flanger set Ø 10.0 - 22.0 mm

- To produce easy bending 45° on copper pipes
- In durable plastic storage case



			kg
122.2201	6 pcs	Flanger set Ø 10.0 - 22.0 mm	3,00

consists of:

			kg
122.2200	Flange guides, 10-22mm, 225mm		1100
122.1460	Flange cone, 6-14mm, 108mm		270

### Flange guides for 6.0 - 14.0 mm

- Flange strip for 6 - 8 - 10 - 12 + 14mm
- For the manufacture of conical flaring 45°
- For mobile use



	L mm	kg
122.1400	130,0	470

### Flange guides for 10.0 - 22.0 mm

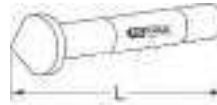
- Flange strip for 10 - 12 - 14 - 16 - 18 - 20 + 22mm
- For the manufacture of conical flaring 45°
- For mobile use



	L mm	kg
122.2200	225,0	1,10

### Flange cones

- For flange guides for 6.0 - 22.0 mm
- For the manufacture of conical flaring
- For mobile use
- Special tool steel



	Ø mm	α	L mm	kg
122.1460	6,0 - 14,0	60°	108,0	270
122.2260	6,0 - 22,0	60°	124,0	285
122.2290	6,0 - 22,0	90°	130,0	325

### THREADING TOOLS



### Manual pipe threading tool kit 3/8" - 1.1/4"

- With cutting edge for thread BSPT right hand according to DIN 2999
- Compact construction
- Light work in inaccessible places
- Handy to switch the direction of the ratchet
- Easy change of cutting heads
- Special tool steel
- In durable plastic storage case



			kg
903.3300	8 pcs	Manual pipe threading tool kit 3/8" - 1.1/4"	6,20

consists of:

			kg
903.3301	Die head, Ø 3/8"		585
903.3302	Die head, Ø 1/2"		620
903.3303	Die head, Ø 3/4"		665
903.3304	Die head, Ø 1"		700
903.3305	Die head, Ø 1.1/4"		720
903.3307	Handle		500
903.3308	Extension		480
903.3309	Reversing ratchet		290

### Die head

- With cutting edge for thread BSPT right hand according to DIN 2999
- Compact construction
- Light work in inaccessible places
- Special tool steel



	Ø	D mm	H mm	kg
903.3301	3/8"	56,0	66,5	585
903.3302	1/2"	61,0	67,0	620
903.3303	3/4"	67,0	68,0	665
903.3304	1"	80,0	73,0	700
903.3305	1.1/4"	89,0	75,0	720

### Plumbing tool set

- With cutting edge for thread BSPT right hand according to DIN 2999
- The complete steel processing
- Light work in inaccessible places
- Handy to switch the direction of the ratchet
- Easy change of cutting heads
- Special tool steel



			kg
987.0600	8 pcs	Plumbing tool set	14,72

consists of:

			kg
110.1000	Steel pipe cutter, 1/8"-2"		2500
113.1500	Swed.pattern pipe wrench 45° angled, 1.1/2"		1400
115.2000	Water pump pliers, 1.1/4"		310
903.3300	Threading tool kit, 8 pcs, 3/8"-1.1/4"		6200
850.0505	Universal plastic tool box		1700

**AIR CONDITIONING SPANNER**

**4in1 Air conditioning ratchet spanner, reversing**

- For 3/16", 1/4", 5/16" + 3/8"
- Clockwise and anticlockwise switch
- Special tool steel



	H1 mm	H2 mm	L mm	
130.0122	22,0	22,0	140,0	120

**5 in 1 Air conditioning ratchet, reversing**

- For square 1/4" + 5/16" on the ratchet head with reversing switch
- For square 8.5, 3/8" + 13.0 mm on the ratchet handle
- For use with stop valves
- Reversible
- Chrome vanadium



	H1 mm	H2 mm	L mm	
130.0222	30,0	25,0	157,0	120

**Air conditioning socket set**

- Metric sizes
- Suitable for all current lock valves
- Ideal set of compilation for air conditioning
- Size 1/4" + 5/16" at ratchet head
- Size 8.5 + 13.0 mm, 3/8" at ratchet handle
- Matt finish
- Chrome vanadium
- In durable plastic storage case



130.0300	19 pcs	Air conditioning socket set	865
1 x		1/4" - 5/16" - 8,5 - 3/8" - 13 mm	
10 x		1/4": 3,4 - 4 - 4,5 - 5 - 6 - 7 - 8 - 9 - 10 mm - 1/4"	
3 x		1/4": 7 - 8 - 10 mm	
1 x		1/4"	
1 x		1/4"	
1 x		125 mm	
1 x		150 mm	
1 x			

**ERGOTORQUE® precision Refrigeration/air conditioning torque wrench tool set 20 - 100 Nm**

- Set contents ideal for air conditioning and refrigeration engineers
- Actuation accuracy:  $\pm 3\%$  tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in clockwise and counter clockwise directions
- Changing the operating direction takes place by turning the torque wrench
- Double scale in Nm and lbf·ft divisions for precise adjustment
- Includes micrometer scale in Nm divisions for precise and fine adjustment
- Large vision panel, precise adjustment using a magnifying glass
- An audible and palpable signal when the desired torque value is achieved
- Torque setting is quick and easy using the locking knob in the handle end
- Secure locking function within the handle
- Two component handle with a soft zone, is ergonomic in design and comfortable in the hand
- With snap lock rectangular tool holder for 14x18 range of end tools
- Individually marked with serial number - unique product identification
- including certificate according to DIN EN ISO 6789:2017(E) - traceable to national standards

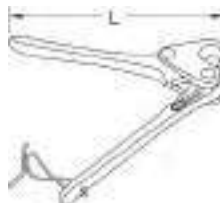


516.1225	8 pcs	ERGOTORQUE® precision Refrigeration/air conditioning torque wrench tool set 20 - 100 Nm	3,40
1 x		20 - 100 N·m	
6 x		17 - 22 - 24 - 26 - 27 - 29 mm	
1 x		1/2"	

**SEALS**

**Lead seal pliers 8 mm**

- For Lead seals 8 mm
- Special tool steel



	L mm	Replacement stamp AZ2-1-1-8	
122.9990	130,0	122.9993	230

**Lead seals 8 mm**

- Pack of 250 g
- Special tool steel



	$\varnothing$ mm	
122.9991	8,0	250

**Seal wire**

- $\varnothing$  0.5 mm
- Length 100 m



	$\varnothing$ mm	Length m	
122.9992	0,5	100,00	290

**STEP KEY**

**Ratchet**

- Internal square drive to DIN 3120 / ISO 1174
- For the use of step wrenches
- Ergonomic 2-component handle
- Special tool steel



	Length mm	
130.1000	270,0	500

**Push through square**

- Serviceable from both sides
- Special tool steel



	Total length mm	
130.1001	38	50

### Step key 4 stages

- 4 stages: 10, 12, 13 + 17 mm
- Special tool steel



	L mm	
130.6005	100,0	120

### Universal step key

- 5 stages: 1/4"-5/16"-3/8"-1/2"-5/8"
- Special tool steel



	L1 mm	L2 mm	B mm	
130.2031	153,2	85,2	22,0	228

### Universal step key

- 5 stages: 8-10-12-14-16 mm
- Special tool steel



	L1 mm	L2 mm	B mm	
130.2032	142,0	84,5	20,2	224

### Universal step key

- 6 stages: 3/16"-1/4"-5/16"-3/8"-1/2"-5/8"
- Special tool steel



	L mm	B mm	
130.2033	133,5	19,5	146

### Universal step key

- 3-stage: 3/8"-1/2"-3/4"
- For use with reversing ratchet 3/4"
- For radiator screw connections
- Special tool steel



	L1 mm	L2 mm	
130.2034	125,9	104,0	1166

### Universal step key

- 5-stage: 3/8"-1/2"-3/4"-1"-1 1/4"
- For use with reversing ratchet 3/4"
- For radiator screw connections
- Special tool steel



	L1 mm	L2 mm	
118.2038	195,0	170,0	340

### Universal step key

- 6-stage: 9.5-9.8-11.8-12.8-13.8-17 mm
- Inches: 3/8"-1/2"-3/4"
- For use with reversing ratchet 130.1000
- Special tool steel



	L1 mm	L2 mm	
130.2036	87,3	67,0	96

### Universal step key

- 4 stages: 3/8"-1/2"-3/4"-1"
- For use with reversing ratchet 130.1000
- Special tool steel



	L2 mm	L1 mm	
130.2000	70,0	90,0	130

### Step key, 8 steps, with screwdriver blade

- 8 stages 7/8", 27/32", 3/4", 35/65", 1/2", 15/32", 7/16" + 3/8"
- With screwdriver blade
- For use with reversing ratchet 130.1000
- Special tool steel



	L mm	
130.2001	110,0	110

### Gas step key, 3 steps

- 3 stages 1/2", 3/4" + 1"
- For use with reversing ratchet 130.1000
- Special tool steel



	L mm	
130.2010	90,0	150

### Universal step key set 3/8" - 1"

- Step key 4 stages 3/8", 1/2", 3/4" + 1"
- Special tool steel



130.3000	2 pcs Universal step key set 3/8" - 1"	610

consists of:

130.1000	1/2" Ratchet, 270mm	500
130.2000	Universal step key, 4 steps, 3/8"-1/2"-3/4"-1"	130

### Universal step key set 7/8" - 3/8"

- Step key 8 stages 7/8", 27/32", 3/4", 35/65", 1/2", 15/32", 7/16" + 3/8"
- Step key with a screwdriver tip 9,0 x 1,5 mm
- Special tool steel



130.3020	2 pcs Universal step key set 7/8" - 3/8"	630

consists of:

130.1000	1/2" Ratchet, 270mm	500
130.2001	1/2" Step key, screwdriver blade, 8steps	110

### Gas step key set 3/8" - 1"

- Step key 4 stages 3/8", 1/2", 3/4" + 1"
- Gas step key 3 stages 3/8", 1/2", 3/4" + 1"
- Special tool steel



1/2"

			g
130.3500	3 pcs	Gas step key set 3/8" - 1"	760

consists of:

			g
130.1000	1/2" Ratchet, 270mm		500
130.2000	Universal step key, 4 steps, 3/8"-1/2"-3/4"-1"		130
130.2010	1/2" Gas step key, 3 steps, 1/2"-1"		150

### CROSS WRENCH

#### Plumbing cross joint wrench

- 10 Function
- 4 x external hexagon 3/8", 1/2", 3/4" + 1" on and dismantling of radiator valves and lockshields
- 4 x internal thread for hanger bolts M6, M8, M10 + M12 for installation and removal of vanity fixtures
- 2 x inner square tube plugs for 3/8" + 1/2"
- Special tool steel



	L mm	H mm	g
116.6200	220,0	200,0	500



#### Plumbing cross joint wrench

- 7 Function
- 4 x external hexagon 3/8", 1/2", 3/4" + 1" on and dismantling of radiator valves and lockshields
- 3 x internal thread for hanger bolts, M8, M10 +, M12 for vanity fixtures
- Powder coating
- Special tool steel



	L mm	H mm	g
116.6000	200,0	200,0	500



### GENERAL PLUMBING INSTALLATION

#### Basin wrench

- Pivoting T-handle provides optimum power transfer
- Clockwise and anticlockwise action with swivel lever
- For use in plumbing installation
- Special tool steel



	Ø mm	L1 mm	L2 mm	g
125.1000	10,0 - 32,0	275,0	120,0	500

#### ERGOTORQUEplus® bit screwdriver

- Two component handle
- Optimal power transmission
- Magnetic
- For bits to DIN 3126 / C 6,3
- Blade made of chrome vanadium

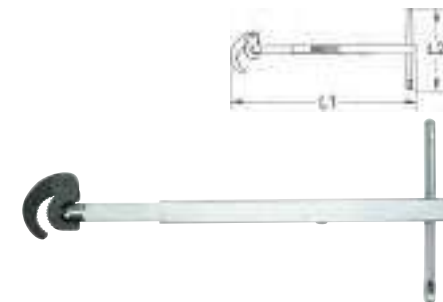


1/4"

	Ø	L1 mm	L2 mm	L3 mm	g
159.1199	1/4"	550,0	450,0	100,0	175

#### Telescopic standard tap wrench

- Pivoting T-handle provides optimum power transfer
- Clockwise and anticlockwise action with swivel lever
- For use in plumbing installation
- Pull out 3 stage telescopic adjustment
- Chrome plated
- Special tool steel



	Ø mm	L1 mm	L2 mm	g
126.1000	10,0 - 32,0	275,0 - 455,0	150,0	670
126.2000	32,0 - 63,0	275,0 - 455,0	155,0	830

#### Standard tap nut wrench set

- Perfect for the assembly and disassembly of basin cock nuts on sinks
- Suitable for all fittings from 13.0 mm to 32.0 mm
- For smooth operation even on large sinks
- Also suitable for hard-to-reach areas
- Pivoting T-handle provides optimum power transfer
- Clockwise and anticlockwise action with swivel lever
- For use in plumbing installation
- With five fixtures
- Special tool steel



			kg
123.0040	6 pcs	Standard tap nut wrench set	

consists of:

		g
123.0041	Basin cock wrench with replaceable adapter, 260 mm	250
123.0042	Jaw adapter for basin cock wrench	152
123.0043	Adapter for basin cock wrench, 9 mm	11
123.0044	Adapter for basin cock wrench, 10 mm	11
123.0045	Adapter for basin cock wrench, 11 mm	16
123.0046	Adapter for basin cock wrench, 12 mm	16

### Plumbing special spanner, 17 x 19 mm

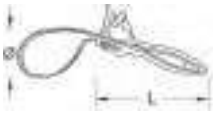
- Ideal for inaccessible areas
- For use in plumbing installation
- Quick mounting of fixtures and vanity angle valves
- Includes attachment for screwing bolts M10 on the floor in the middle section
- A longer lever arm by sliding the middle piece of the wrench
- Special tool steel



	mm		L mm	kg
116.5000	17x19	M10	220,0	250

### Strap pipe pliers

- Ideally suited for the installation and removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- Belt made of reinforced, non-slip rubber
- Glass fibre reinforced handle



	$\emptyset$ mm	L mm	kg
114.0150	110,0	190,0	180



### Strap pipe pliers

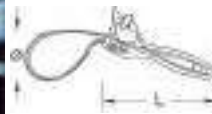
- Ideally suited for the installation and removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- Setting the filter diameter by using the tensioning element and also by turning the knob on the end of the handle
- Belt made of reinforced, non-slip rubber
- With metal handle



	$\emptyset$ mm	L mm	kg
114.0160	160,0	250,0	1,00

### Strap wrench

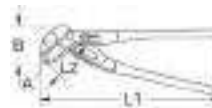
- Ideally suited for the removal of filters and filter cartridges
- Especially suited for plastic pipes
- One hand operation
- Infinitely variable
- For hard to reach places
- non-slip, rubber-coated cotton fabric tape
- With metal handle
- Chrome plated
- Chrome vanadium



	$\square$ mm	$\emptyset$ mm	$\emptyset$	L mm	Replacement band	kg
114.0170	20,0	140,0	9/64"	220,0	114.0170-1	323
114.0171	25,0	200,0	13/64"	280,0	114.0171-1	590

### Fitters pliers

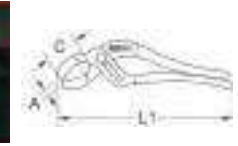
- With accurate industrial adjustment
- With safety clamping protection
- With setting scale
- Smooth, polished head area
- Optimum power transfer
- Ground heads
- With PVC dipped handle
- Chrome vanadium



	A mm	B mm	L1 mm	L2 mm	kg
115.8510	50,0	50,0	250,0	60,0	350

### Siphon pliers

- Ideally suited to a clean and damage-free removal of the interior mirror
- With 4 adjustable steps
- Isolated mouth for non-destructive working
- For screw fittings up to max.  $\emptyset$  65 mm
- With PVC dipped handle
- For loosening pipe fittings
- Interchangeable jaw protector
- For hard to reach places
- Mirror polished
- Chrome vanadium



	A mm	C mm	L mm	Replacement jaws	kg
116.1200	20,0 - 65,0	45,0	225,0	116.1201	320

### Fitters wrench

- Interchangeable jaw protector
- For screw fittings up to max.  $\emptyset$  60 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infinitely variable
- Matt chrome
- Chrome vanadium



	A mm	B mm	L mm	Replacement jaws	kg
116.1002	60,0	47,0	265,0	116.1003	550

### Fitters plier

- 90° Jaw position
- Interchangeable jaw protector
- for screw connections up to max.  $\emptyset$  35 mm
- Smooth, parallel adjustment jaws
- For mild assembly
- Infinitely variable
- Red powder coating
- Chrome vanadium



	$\emptyset$	A mm	B mm	L1 mm	L2 mm	Replacement jaws	kg
116.1000	1"	25,4	81,0	315,0	54,0	116.1001	790



**Pipe wrench with adjustable head**

- Type "Stillson"
- Aluminium cast body
- Stepless adjustment via milled nut
- 160° revolving handle
- Aluminium handle



	A mm	B mm	L mm	g
111.3550	38,1	97,0	250,0	650

**Stillson-type pipe wrench with adjustable head**

- Type "Stillson"
- steplessly adjustable via quick tensioning mechanics
- Serrated execution
- With loosening lever
- upper jaw chrome-molybdenum
- lower jaw chrome vanadium
- Aluminium handle



	Clamping range mm	Length mm	g
111.3540	8 - 31	260,0	610

**Aluminium one-handed pipe wrench**

- Type "Stillson"
- Aluminium cast body
- Ground heads
- Infinitely variable
- Aluminium drop forged



	A	L mm	g
111.5100	1.1/2"	360,0	0,93
111.5200	2"	450,0	1,53

**hexagonal pipe wrench**

- ideal for hexagon nuts and screw connections
- Jaw 45° offset
- Ground heads
- Infinitely variable



	A	L mm	g
111.3400	1.1/8" - 2.5/8"	240,0	880

**Standard spirit level / mounting connection gauge**

- Perfect for dimensional and perpendicular alignment of all common installation dimensions during bodysell work (3/8" + 1/2")
- Perfect for vertical and horizontal adjustment of fittings
- Fixed standard sizes in 90, 110, 120, 140, 150, 160, 180, 200, 220 mm
- Each with a clearly legible horizontal and vertical level vial
- Including loss compensation for fast and accurate depth gauge
- Aluminium body



	L mm	H mm	g
204.2000	300,0	50,0	430

**WC seat installation wrench set**

- Ideal for the assembly and disassembly of toilet seats
- Suitable for more than 25 WC seat fastenings
- Clean, hygienic and simple to use
- Very handy and optimum leverage thanks to special joint
- Also suitable for hard-to-reach areas
- Protects fingers and hands
- Tedious retightening no longer necessary
- 3 adapters with special profiles included
- One component handle
- Special plastic



	g
123.0035	4 pcs WC seat installation wrench set 120

**consists of:**

	g
123.0030	WC seat installation wrench, 200 mm 65
123.0031	Hexagonal Adapter for Toilet Seat Assembly Wrench 4
123.0032	Ten-sided Adapter for Toilet Seat Assembly Wrench 7
123.0033	Special Profile Adapter for Toilet Seat Assembly Wrench 6

**WC plumbing combination kit**

- Special configuration for the disassembly and assembly of toilet seats
- In durable plastic storage case



	g
116.2095	3 pcs WC plumbing combination kit 0,81

**consists of:**

	g
116.2096	Standard tap key, 155mm, 13mm 130
116.2097	Key for toilet set fitting, 13mm (hex) 1/4" 60
911.2470	1/4" Ratchet bit screwdriver, 190mm 380

**WC plumbing combination kit**

- Special configuration for the disassembly and assembly of toilet seats
- In durable plastic storage case



	g
116.2080	6 pcs WC plumbing combination kit 1,30

**consists of:**

	g
116.2081	1/2" Handle, flex, 180° swivel Universal joint 150
116.2086	Stud driver, special adaptor, M8, 1/2" 70
116.2087	Stud driver, special adaptor, M10, 1/2" 100
116.2096	Standard tap key, 155mm, 13mm 130
116.2097	Key for toilet set fitting, 13mm (hex) 1/4" 60
514.1135	1/2" Special adaptor, magnetic, 72mm 60

### One-Man Sink Unit Assembly Kit

- for professional fitting of sink units
- Can be used universally with various assembly and adjustment options
- easy operation for one-man assembly
- time- and cost-efficient
- plastic holder prevents damage to the sink unit
- extra long spindle for most sink units



				👤
123.0080	2 pcs	One-Man Sink Unit Assembly Kit	762	

#### consists of:

				👤
123.0081	Holding Devices, 570 mm		498	
123.0082	plastic handle with spindle M10, knurled nut and washer		264	

### Washbasin mouting set

- Optimum working for disassembly and assembly of washbasins and wall fixtures
- Ideal for confined spaces
- Handy, multifunctional power tool
- In durable plastic storage case



				👤
116.2050	6 pcs	Washbasin mouting set	1,40	

#### consists of:

				👤
116.2055	Assembly tool f.drain valves,9mm,L=185mm		100	
116.2056	Assembly tool f.drain valves,10mm,L=185mm		110	
116.2059	Assembly tool f.drain valves,13mm,L=185mm		130	
116.2060	Fitting tool for drain valves, 92mm		150	
116.2065	Socket screwdriver for eccentric connection (S-connection), 10 mm		120	

### Plumbing cutting combination kit

- Easy entry and unscrewing from 1/2" Hahn extensions in plumbing assembly
- Wall-mounted models are milled valve extensions
- Connection valves also in inaccessible areas and with a thread
- In durable plastic storage case



				👤
116.2030	4 pcs	Plumbing cutting combination kit	880	

#### consists of:

				👤
116.2031	Valve extension mills		156	
116.2032	Angle valve screw in device		143	
116.2081	1/2" Handle,flex,180° swivel Universal joint		150	
918.1662	1/2" CHROMEplus Bit socket hexagon, long, 12mm		140	

### Plumbing installation set

- Optimum working for disassembly and assembly of washbasins and wall fixtures
- Ideal for confined spaces
- Handy, multifunctional power tool
- In durable plastic storage case



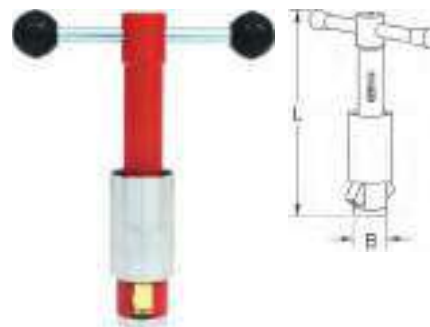
				👤
116.2015	10 pcs	Plumbing installation set	2,76	

#### consists of:

				👤
116.2036	1/2" Valve extension mills,SDS		170	
116.2051	Stock screw key drive tool,M8/M10		320	
116.2054	Assembly tool f.drain valves,11mm,L=185mm		120	
116.2055	Assembly tool f.drain valves,9mm,L=185mm		100	
116.2056	Assembly tool f.drain valves,10mm,L=185mm		110	
116.2057	Assembly tool f.drain valves,12mm,L=185mm		130	
116.2059	Assembly tool f.drain valves,13mm,L=185mm		130	
116.2060	Fitting tool for drain valves, 92mm		150	
116.2065	Socket screwdriver for eccentric connection (S-connection), 10 mm		120	
503.4565	4 in 1 GEARplus reversing double ratchet ring spanner, 10x13x17x19mm		196	

### Valve fix

- Holder and boring tools for the eccentric and standard flush valves
- Can be used from above and below
- Quick and easy work for the assembly of bathtubs, sinks and washbasins
- Special tool steel



	B mm	L mm	👤
116.2000	35,0	161,0	300

### Bath adapter for valve fix

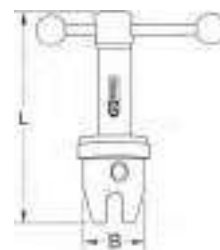
- For use on bath tub valves to valve fix 116.2000
- Special tool steel



	L mm	B mm	👤
116.2001	53,0	45,0	110

### Valve fix and bath adaptors

- Holder and boring tools for the eccentric and standard flush valves
- Quick and easy work for the assembly of bathtubs, sinks and washbasins
- Special tool steel



	B mm	L mm	👤
116.2002	50,0	120,0	410

**Mounting socket for eccentric fittings (S-fittings)**

- Ideally suited for damage-free screwing in and out of the eccentric connections for wall fittings
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- External drive hexagonal socket 10.0 mm
- With right and left hand clamping function
- Safe clamping due to 12 rollers
- Matt finish
- Chrome vanadium



	mm	Imperial tube Ø inch	Inner Ø mm	Outer Ø mm	Length mm	g
116.2065	10,0	3/4"	26,5	42,0	40,0	120

**Mounting socket for eccentric fittings (S-fittings)**

- Ideally suited for damage-free screwing in and out of the eccentric connections for wall fittings
- With external drive hexagonal socket 36.0 mm
- With right and left hand clamping function
- Safe clamping due to 8 rollers
- Matt finish
- Chrome vanadium



	mm	Imperial tube Ø inch	Inner Ø mm	Outer Ø mm	Length mm	g
116.2066	1/2"	36,0	3/4"	26,5	43,0	260

**Assembly tool for drain valves**

- Work on damage drain valves



	mm	B mm	L mm	g
116.2060	10,0	35,0	92,0	150

**Universal stock screw key drive tool**

- M8 / M10
- Swivelling head double ended key for turning screw studs
- Special tool steel



	B mm	L mm	g
116.2051	35,0	220,0	320

**Handle, flexible**

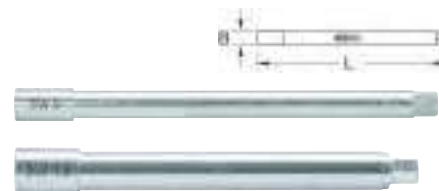
- With external square drive to DIN 3120 / ISO 1174
- 180° Swivel universal joint
- Special tool steel



	Length mm	g
116.2081	165,0	150

**Assembly tool for drain valves**

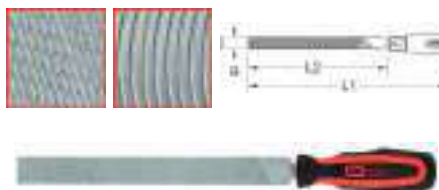
- Work on damage drain valves



	Ø mm	mm	B mm	L mm	g
116.2054	11,0	10,0	10,5	185,0	120
116.2055	9,0	10,0	10,5	185,0	100
116.2056	10,0	10,0	14,0	185,0	110
116.2057	12,0	10,0	15,0	185,0	130
116.2059	13,0	10,0	15,0	185,0	130
116.2089	9,0	10,0	10,5	165,0	60
116.2090	10,0	10,0	10,5	165,0	70
116.2092	12,0	10,0	15,0	165,0	120
116.2093	13,0	10,0	15,0	165,0	120
116.2096	10,0	1/4"	14,2	155,0	130

**Installation rasp**

- Machined cut
- Two component handle
- Special tool steel



	L1 mm	L2 mm	B mm	File blade	g
157.0123	370,0	250,0	22,0	161.0123	270

**Valve extension mills**

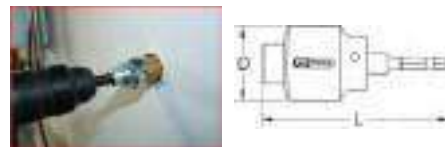
- With SDS adaptor
- With swarf catcher
- Wall mounted models for milling of valve extensions
- With special carbide tipped cutting edge
- Optimized centering of the cylindrical tower in front of the cutter
- Special tool steel



	D mm	L mm	g
116.2036	36,0	100,0	170

**Tap extension cutter**

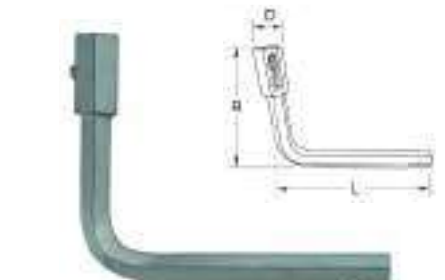
- With 1/4" 6 point adaptor
- With swarf catcher
- Wall mounted models for milling of valve extensions
- With special carbide tipped cutting edge
- Optimized centering of the cylindrical tower in front of the cutter
- Special tool steel



	D mm	L mm	g
116.2037	36,0	91,5	170

**Special tap extension bit**

- Special tool steel



	mm	L mm	B mm	D mm	g
116.2073	12,0	128,0	100,0	17,5	220

### Special tap extension bit

- Hexagon socket
- ideal for assembly and disassembly of 1/2" tap extensions
- also suitable for longer or screwed together tap extensions
- For difficult to access areas
- time- and cost-efficient
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Long execution
- with press-fitted nickel-plated bit
- For manual operation
- Matt finish
- Chrome vanadium



1/2"

	mm	L mm	kg
116.2039	12,0	150,0	150

### Radiator nipple wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Special tool steel



	Ø	mm	L mm	kg
131.0500	1"	18,0	500,0	0,75
131.0800	1"	18,0	800,0	1,10
131.1000	1"	18,0	1000,0	1,45
132.0500	1.1/4"	18,0	500,0	1,30
132.0800	1.1/4"	18,0	750,0	1,50

### Radiator tap wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Soft grip handle
- Special tool steel



	mm	L mm	kg
131.0001	18,0	500,0	1,67

### Tap wrench

- Tools for mounting of radiators for nipples 1" and 1.1/4", with 18 mm square drive
- Soft grip handle
- Special tool steel



	mm	L mm	kg
131.0002	18,0	500,0	1,67

### SUCTION PADS

#### Mini vacuum suction cup

- For lifting, carrying and holding
- For flat and non-porous surfaces
- Max. 15 kg carrying capacity - perpendicular to sucker
- Solid rubber



	Suction cup Ø mm	Load capacity kg	kg
140.1004	80,0	15	100

#### One handed mini suction cup

- Convenient one handed operation by lever
- For lifting, carrying and holding
- Special plastic
- Quick, easy and correct work on small objects
- Well-suited to adjusting and inserting mirror glass
- Load capacity up to 8 kg
- With release button



	Suction cup Ø mm	Load capacity kg	H mm	L mm	kg
140.1015	70,0	8,0	92,0	115,0	168

#### Suction pad with folding clamps

- With sturdy handle
- Creates a vacuum by folding the clamps
- For lifting, carrying and holding or flattening small dents
- For flat and non-porous surfaces
- Quick, easy and correct work on small objects
- Well-suited to transporting bulky items
- Load capacity up to 60 kg
- Special plastic



	Suction cup Ø mm	Height mm	kg
140.1005	118,0	40,0	370

### Double suction holder

- With sturdy handle
- The suckers fit to every flat surface and are easy to use with two quick release handles
- Ideal for cambered car windows
- For lifting, carrying and holding
- For flat and non-porous surfaces
- Quick, simple and correct work
- Well-suited to transporting bulky items
- Load capacity up to 100 kg
- Special plastic



	Suction cup Ø mm	Load capacity kg	kg
140.1006	120,0	100	730

### Double suction cup

- With sturdy handle
- The suckers fit to every flat surface and are easy to use with two quick release handles
- Ideal for cambered car windows
- For lifting, carrying and holding
- Suitable for all materials with gas-tight surfaces
- All metal parts made from rust-free steel, making use in swimming pools, outdoor construction sites or in coastal areas possible
- Quick, simple and correct work
- Well-suited to transporting bulky items
- Load capacity up to 80 kg
- Special plastic



	Suction cup Ø mm	Load capacity kg	kg
140.1008	150,0	80,0	1,01

### Three way suction holder

- With sturdy handle
- The three suckers fit to every flat surface and are easy to use with two quick release handles
- Ideal for cambered car windows
- For lifting, carrying and moving large parts
- For flat and non-porous surfaces
- Quick, simple and correct work
- Well-suited to transporting bulky items
- Load capacity up to 70 kg
- Special plastic



	Suction cup Ø mm	Load capacity kg	kg
140.1007	120,0	70,0	1,13

## CLUTCH PENCILS

### Clutch pencil set

- Perfect for sanitary, heating and electric applications
- Writes on practically all materials
- Suitable for marking deep holes
- Versatile and practical
- Does not require sharpening
- Lead does not dry out
- Fits in every pocket
- Includes two graphite 7B and two red lead refills
- Plastic



				g
123.0010	5 pcs	Clutch pencil set	38	

### accessories:

				g
123.0011	Clutch pencil	13		
123.0012	Lead refill - graphite 7B, 4 units	8		
123.0013	Lead refill - red, 4 units	8		
123.0014	Lead refill - white, 4 units	8		
123.0015	Lead refill - blue, 4 units	8		
123.0016	Lead refill - green, 4 units	8		
123.0017	Lead refill - yellow, 4 units	8		
123.0018	Lead refill - orange, 4 units	8		
123.0019	Lead refill - pink, 4 units	8		

## FABRIC ADHESIVE TAPE

### Fabric adhesive tape, silver

- Fabric adhesive tape
- Laminated polyester/cotton fabric
- Sturdy, heat resistant and water repellent
- Rubber based adhesive



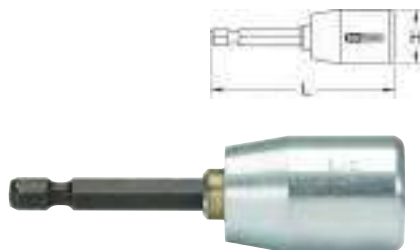
		B mm	Length m	g
141.5001		40,0	50,00	305
141.5000		50,0	50,00	410



## SOCKET SCREWDRIVER

### Stud screwdriver, magnetic

- Magnetic stud screwdriver with 1/4" bit holder for screwdriver
- For a damage free entry and boring of the stud
- Special tool steel



1/4"

		L mm	H mm	g
122.3006	M6	88,0	21,0	80
122.3008	M8	80,0	24,0	100
122.3010	M10	88,0	26,0	120
122.3012	M12	76,0	26,0	140

### Stud screw key with SDS adaptor

- Stud screw key for machinery with SDS adaptor
- For a damage free entry and boring of the stud
- Special tool steel



		L mm	H mm	g
122.3016	M6	76,0	21,0	90
122.3018	M8	81,0	23,0	120
122.3020	M10	99,0	26,0	150
122.3022	M12	101,0	29,0	180

### Stud screwdriver

- Stud screwdriver with 1/2" square drive for special adaptor
- For a damage free entry and boring of the stud
- Special tool steel



1/2"

		L mm	H mm	g
116.2086	1/2"	M8	35,0	70
116.2087	1/2"	M10	43,0	100
116.2088	1/2"	M12	48,0	130

### Special adaptor, magnetic

- Magnetic 1/2" special adaptor for stud screwdriver with 1/4" bit holder for screwdrivers
- Special tool steel



1/2"

		L mm	g
514.1135		72,0	60

### Drive socket, magnetic

- Magnetic
- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- For a damage free inserting boring and unscrewing bolts
- Ideally suited for fittings in trade and industry
- Sand-blasted
- Special tool steel



1/4"

	mm	L mm	H mm	g
122.2101	7,0	60,0	11,0	30
122.2102	8,0	60,0	12,0	30
122.2103	10,0	60,0	15,0	40
122.2104	13,0	60,0	18,0	50

### Stud screwdriver

- External hexagon drive to DIN 3126 / ISO 1173 - E 6,3
- Can be used by hand or with an electric screwdriver
- For a damage free inserting and unscrewing bolts from floor
- Ideally suited for fittings in trade and industry
- Sand-blasted
- Special tool steel

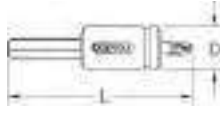


1/4"

		L mm	H mm	g
122.2105	M6	50,0	12,0	20
122.2106	M8	50,0	12,0	20
122.2107	M10	50,0	12,0	20
122.2108	M12	50,0	14,0	20

### Pipe clamp fitting tool

- Holder for stud screws M8 and 1/4" bits
- Ideal for gas, water and electrical installation
- No screw bit changing
- 6 point 1/4" adaptor can be mounted in the chuck
- Special tool steel



	D mm	L mm	kg
116.2012	20,0	70,0	100

### Bit and drive socket set

- Ideal set of compilation for plumbing, heating and air conditioning
- External hexagon drive to DIN 3126 / ISO 1173 - C 6,3
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- Includes magnetic drive sockets and stud screwdrivers for a damage free inserting borin and unscrewing bolts and stud bolts
- Orderly arrangement of the popular 1/4" bits and drive sockets
- Sand blasted
- Special tool steel
- In durable plastic storage case



	1/4"	kg
122.2100	31 pcs Bit and drive socket set	670
4 x	7 - 8 - 10 - 13 mm	
4 x	M6 - M8 - M10 - M12	
1 x	50 mm	
5 x	PH1 - 3 x PH2 - PH3	
5 x	PZ1 - 3 x PZ2 - PZ3	
2 x	5,5 - 6,5 mm	
3 x	4 - 5 - 6 mm	
7 x	T10 - T15 - T20 - T25 - T27 - T30 - T40	

### TUBULAR BOX SPANNER

#### Pipe head spanner

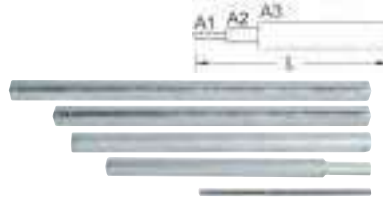
- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	L mm	kg	#
518.0870	6x7	10,0	11,0	100,0	1,2,3	27
518.0871	8x9	11,0	12,0	110,0	1,2,3	43
518.0872	10x11	12,5	13,0	120,0	1,2,3	63
518.0881	10x13	13,0	14,5	140,0	2,3	80
518.0873	12x13	14,0	14,5	130,0	2,3	96
518.0874	14x15	15,0	16,0	140,0	2,3	132
518.0875	16x17	16,0	17,0	150,0	2,3	155
518.0882	17x19	17,0	20,0	160,0	2,3	160
518.0876	18x19	18,0	20,0	160,0	2,3	187
518.0877	20x22	20,0	21,0	170,0	2,3	275
518.0878	21x23	20,0	20,0	180,0	2,3	310
518.0883	24x26	24,0	26,0	190,0	4	365
518.0879	24x27	24,0	26,0	190,0	4	365
518.0880	30x32	27,0	31,0	220,0	4	610
518.0884	36x41	32,0	35,0	220,0	5	650
518.0885	41x46	35,0	38,0	240,0	5	950
518.0886	46x50	38,0	40,0	240,0	5	1050

#### Tommy bar for box spanner

- Hardened
- Matt finish
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	L mm	#	kg
518.0865	6x7-10x11	6,0	6,0	6,0	115,0	1	40
518.0866	6x7-21x23	5,8	8,0	9,5	160,0	2	80
518.0868	24x26-30x32	14,0	14,0	14,0	204,0	4	260
518.0869	36x41-46x50	15,6	15,6	15,6	253,0	5	370

#### Box wrench sets

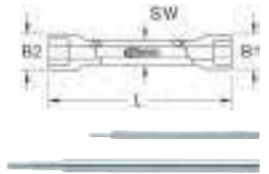
- 6 point
- DIN 896 / ISO 2236 / ISO 1085
- With hollow shaft
- Matt finish
- Chrome vanadium



	kg
518.0900	10 pcs Box wrench sets 920
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm
2 x	6-11 + 10-22 mm

### ULTIMATEplus Double box spanner

- FlankTraction profile
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Hexagonal shank
- Can use a ring spanner to drive
- High quality finish
- Chrome vanadium



	mm	B1 mm	B2 mm	mm	L mm	kg	#
518.0406	6x7	9,0	10,0	8,0	100,0	1	27
518.0408	8x9	11,5	12,5	9,0	110,0	1	43
518.0410	10x11	14,0	15,0	11,0	120,0	1	63
518.0412	12x13	16,5	17,5	13,0	130,0	2	96
518.0414	14x15	19,5	20,0	14,0	140,0	2	132
518.0416	16x17	21,0	22,0	16,0	150,0	2	155
518.0418	18x19	23,0	24,0	18,0	160,0	2	187
518.0420	20x22	26,0	28,0	20,0	170,0	2	275
518.0421	21x23	27,0	29,0	21,0	180,0	2	310
518.0424	24x26	30,0	32,0	24,0	190,0	3	365
518.0425	25x28	31,0	34,0	25,0	200,0	3	410
518.0427	27x29	34,0	36,0	27,0	210,0	3	540
518.0430	30x32	37,0	39,0	30,0	220,0	3	610

#### Tommy bar for double box spanner

- Hardened
- High quality finish
- Chrome vanadium



	mm	A1 mm	A2 mm	A3 mm	L mm	#	kg
518.0450	6x7-10x11	2,6	5,0	5,0	100,0	1	10
518.0455	12x13-21x23	5,9	7,0	9,3	170,0	2	80
518.0460	24x26-30x32	11,6	12,5	12,5	290,0	3	280

### ULTIMATEplus Double box head spanner set

- FlankTraction profile
- DIN 896 form A / ISO 2236
- Extremely versatile
- With centre hole
- Can use a ring spanner to drive
- High quality finish
- Chrome vanadium



	kg
518.0405	10 pcs ULTIMATEplus Double box head spanner set 1,16
8 x	6x7 - 8x9 - 10x11 - 12x13 - 14x15 - 16x17 - 18x19 - 20x22 mm
2 x	#1 100 mm + #2 170 mm

## UNIVERSAL ENCLOSURE KEYS

### Mini universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2
⊖	7 mm



	Width mm	Length mm	
130.1010	42,0	42,0	100

### Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	6 mm
■	7 - 8 mm
▲	9 mm
●	3 - 5 mm
⊕	PH 2
⊖	7 mm



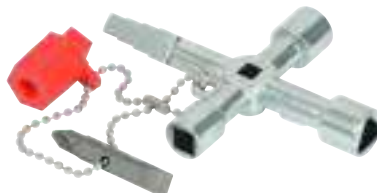
	Width mm	Length mm	
130.1015	71,0	71,0	200



## Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

■	5 mm
■	7 mm
■	8 mm
■ ■ ■	4 - 10 mm
▲	9 - 10 mm
⊕	PH 2
⊖	7 mm



	Width mm	Length mm	
130.1020	61,0	90,0	200

## Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Fourfold pivot mechanism
- Die cast zinc

■	6 mm
■	7 mm
■	8 mm
▲	7 mm
▲	8 - 9 mm
●	3 - 5 mm
⊖	
●	6 mm



	Width mm	Length mm	
130.1046	100,0	114,0	358

## Universal switchgear cabinet key, magnetic

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- with double rotating mechanism
- Die cast zinc

■	5 mm
■	6 - 7 mm
■	8 - 9 mm
▲	5 - 6 mm
▲	6 - 7 mm
▲	8 - 9 mm
●	3 - 5 mm
□	24 1/4"
■	1 1/4"



	Width mm	Length mm	
130.1041	38,0	95,0	86

## PIPE PULL-IN PLIERS

### Pipe pull-in pliers, straight

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Embossing punch for all round and square pipes
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



	Length mm	
123.0050	265,0	480

### Pipe pull-in pliers, angled

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Optimised utilisation through angled head
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



	Length mm	
123.0051	225,0	440



## TOOL ASSORTMENTS

### Tool set for plumbing and heating mechanics

- Ideal set of compilation for plumbing, heating and air conditioning
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0695	95 pcs	Tool set for plumbing and heating mechanics	13,86

consists of:

101.5000	Mini pipe cutter, 3-28mm	260	
103.5050	Telescopic pipe cutter, 3-42mm	450	
113.1000	Swed. pattern pipe wrench 45° angled, 1"	820	
115.2001	Water pump pliers, 240mm, 10"	350	
116.5000	Special sanitary spanner, 17 x 19mm, 220mm	250	
116.6000	Plumbers cross wrench, 7 functions	500	
125.1000	Tap nut wrench Ø 10-32 mm, 275mm	500	
130.1000	1/2" Ratchet, 270mm	500	
130.1001	1/2" Push through square, 2 sides usable	50	
130.2000	Universal step key, 4 steps, 3/8"-1/2"-3/4"-1"	130	
142.1350	Fitters hammer, hickory handle, 500g	590	
151.3220	Ball ended hexagon key wrench set, extra long, 9 pcs	500	
156.0511	Pointed chisel, octagonal shaft, 250mm	390	
156.0587	Flat chisel, oval, 250x25mm	500	
157.0105	Halfround file, form E, cut2, 20mm	230	
159.1002	ERGOTORQUEplus screwdriver for slotted screws, 3mm, 155mm	40	
159.1004	ERGOTORQUEplus screwdriver for slotted screws, 4mm, 180mm	50	
159.1005	ERGOTORQUEplus screwdriver for slotted screws, 5,5mm, 205mm	50	
159.1008	ERGOTORQUEplus screwdriver for slotted screws, 6,5mm, 230mm	60	
159.1020	ERGOTORQUEplus screwdriver for screws PH, PH1, 180mm	40	
159.1021	ERGOTORQUEplus screwdriver for screws PH, PH2, 205mm	70	
159.1198	ERGOTORQUEplus 1/4" bit screwdriver 205mm	90	
201.2301	Brake calliper brush, stainless steel, 250mm	90	
300.0060	Wooden folding rule, yellow, 2m	100	
300.0070	Carpenters pencil, red, HB	10	
517.0702	Double open ended spanners, 8x9mm	40	
517.0704	Double open ended spanners, 10x11mm	50	
517.0707	Double open ended spanners, 12x13mm	70	
517.0709	Double open ended spanners, 14x15mm	100	
517.0710	Double open ended spanners, 16x17mm	130	
517.0712	Double open ended spanners, 18x19mm	180	
517.0714	Double open ended spanners, 20x22mm	230	
517.0715	Double open ended spanners, 21x23mm	220	
517.0716	Double open ended spanners, 24x27mm	330	
517.0718	Double open ended spanners, 30x32mm	510	
907.2130	Small hand saw frame, 150mm	140	
907.2262	STAINLESS STEEL scraper, 38mm, wooden handle	70	
911.1202	Extensions, 1/2", 125mm	180	
911.1250	1/2" Universal joint	160	
911.2060	1/4" Bit set, 32 pcs	300	
911.2188	Tension tester with protective insulation 150-250 V, 140mm	14	
917.1210	1/2" Hexagonal socket, 10mm	48	

consists of:

917.1211	1/2" Hexagonal socket, 11mm	51	
917.1212	1/2" Hexagonal socket, 12mm	50	
917.1213	1/2" Hexagonal socket, 13mm	54	
917.1214	1/2" Hexagonal socket, 14mm	54	
917.1215	1/2" Hexagonal socket, 15mm	51	
917.1216	1/2" Hexagonal socket, 16mm	48	
917.1217	1/2" Hexagonal socket, 17mm	63	
917.1218	1/2" Hexagonal socket, 18mm	63	
917.1219	1/2" Hexagonal socket, 19mm	63	
917.1221	1/2" Hexagonal socket, 21mm	77	
917.1222	1/2" Hexagonal socket, 22mm	90	
917.1224	1/2" Hexagonal socket, 24mm	104	

### Air conditioning combination tool set

- For optimal use in refrigeration and air conditioning installation
- Supplied in durable ABS storage case



116.0175	129 pcs	Air conditioning combination tool set	14,41

consists of:

101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
105.2000	Internal+external deburrer, 3-42mm	240	
117.0550	ERGOTORQUE VDE screwdriver set, 8 pcs, PH+slot	430	
117.1100	ERGOTORQUE VDE pliers set, 4 pcs, variante 1	1440	
117.1114	ERGOTORQUE VDE wire stripper, 160mm	210	
118.0065	Universal Kevlar workshop shear, 140mm	130	
122.0500	Flange tool metric with quick clamping device	900	
130.0122	4in1 Air conditioning ratchet spanner, reversing	120	
141.6010	PVC insulation tape set, 8 pcs	150	
142.1320	Fitters hammer, hickory handle, 200g	283	
151.2180	Ball ended hexagon key wrench set, 8 pcs extra long	440	
156.0150	Punch set, mirror polished, 6 pcs	520	
159.1001	ERGOTORQUEplus screwdriver for slotted screws, 6mm, stubby	40	
159.1026	ERGOTORQUEplus screwdriver for screws PH, PH2, stubby	40	
159.1046	ERGOTORQUEplus screwdriver for screws PZ, PZ2, stubby	40	
203.0010	Pipe bending spring, external, 10mm	80	
203.0012	Pipe bending spring, external, 12mm	110	
203.0016	Pipe bending spring, external, 16mm	220	
300.0131	Tape measure with locking device and belt clip, black grey, 3m	100	
518.0607	CHROMEplus Combination spanner, offset, 7mm	25	
518.0608	CHROMEplus Combination spanner, offset, 8mm	32	
518.0609	CHROMEplus Combination spanner, offset, 9mm	46	
518.0610	CHROMEplus Combination spanner, offset, 10mm	48	
518.0613	CHROMEplus Combination spanner, offset, 13mm	71	
518.0617	CHROMEplus Combination spanner, offset, 17mm	159	
518.0619	CHROMEplus Combination spanner, offset, 19mm	176	
518.0701	CHROMEplus Double open ended spanner, 6x7mm	27	
518.0702	CHROMEplus Double open ended spanner, 8x9mm	32	
518.0704	CHROMEplus Double open ended spanner, 10x11mm	58	
518.0707	CHROMEplus Double open ended spanner, 12x13mm	93	

consists of:

518.0709	CHROMEplus Double open ended spanner, 14x15mm	122	
518.0710	CHROMEplus Double open ended spanner, 16x17mm	170	
518.0712	CHROMEplus Double open ended spanner, 18x19mm	212	
518.0715	CHROMEplus Double open ended spanner, 21x23mm	277	
518.0716	CHROMEplus Double open ended spanner, 24x27mm	410	
518.0718	CHROMEplus Double open ended spanner, 30x32mm	693	
577.0200	Adjustable spanner, 23mm	250	
577.0250	Adjustable spanner, 28mm	450	
577.0300	Adjustable spanner, 34mm	690	
907.2184	Cable knife, Ø 8-28mm	100	
911.0646	1/4" Socket set, 46 pcs	1100	
997.1216	Saw blade 310, pack of 12	40	
997.1217	Small handsaw with adjustable wooden handle, 150mm	100	
850.0560	ABS gard protective tool case with aluminium frame, 460x310x180mm	4500	

### Premium plumbing tool set

- For optimal use in plumbing installation
- Supplied in multi pocket tool case



116.0190	126 pcs	Premium plumbing tool set	15,88

consists of:

101.5022	Mini pipe cutter, 3-22mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45° angled, 1"	820	
115.1004	ERGOTORQUE pliers set, 4 pcs	1440	
116.1000	Fitting pliers, 1"	790	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17 x 19mm, 220mm	250	
118.0052	Tin snips sheet metal shear, self opening, right handed cut	400	
122.2100	Bit and drive socket set, 31 pcs, 1/4"	670	
125.1000	Tap nut wrench Ø 10-32 mm, 275mm	500	
130.3000	Step key set, 2 pcs, 3/8"-1"	610	
141.5000	Fabric adhesive tape, silver, 50mm x 50m	410	
142.1330	Fitters hammer, hickory handle, 300g	350	
142.5151	Club hammer, fiberglass handle, 1500g	1650	
151.2180	Ball ended hexagon key wrench set, 8 pcs extra long	440	
156.0175	Centre punch, mirror polished, octagonal shaft, Ø 5mm	60	
156.0531	Flat chisel, octagonal shaft, 250x24mm	380	
204.5500	Aluminium profile spirit level, 500mm	390	
300.0060	Wooden folding rule, yellow, 2m	100	
300.0133	Tape measure with locking device and belt clip, black grey, 5m, 25mm	150	
500.7165	Precision screwdriver set, 7 pcs, PH and slotted	100	
517.0123	Double open ended spanner set, 11 pcs, 6x7-30x32mm	1600	
577.0200	Adjustable spanner, 23mm	250	
850.0300	SMARTBAG universal tool case	2250	
907.2100	Hacksaw frame, 300mm	270	
907.2165	Universal snap off blade knife, 165mm, blade 18x100mm	90	
907.2264	STAINLESS STEEL scraper, 63mm, wooden handle	70	
911.1198	1/4" ERGOTORQUE Bit screwdriver, 200mm	90	
911.2060	1/4" Bit set, 32 pcs	300	
911.2120	ERGOTORQUE screwdriver set, 6 pcs, slot+PZ	630	
911.2188	Tension tester with protective insulation 150-250 V, 140mm	14	
997.1215	Small handsaw, 150mm	100	
999.2034	Gypsum cup, 0,65 litre	60	



**Basic plumbing tool set**

- For optimal use in the plumbing sector
- In durable leather tool case



116.0185	34 pcs	Basic plumbing tool set	11,21

consists of:

101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45° angled, 1"	820	
113.1500	Swed. pattern pipe wrench 45° angled, 1.1/2"	1400	
115.1012	ERGOTORQUE diagonal side cutter, 160mm	260	
115.2000	Water pump pliers, 1.1/4"	310	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.5000	Special sanitary spanner, 17 x 19mm, 220mm	250	
125.1000	Tap nut wrench Ø 10-32 mm, 275mm	500	
130.3000	Step key set, 2 pcs, 3/8"-1"	610	
142.1330	Fitters hammer, hickory handle, 300g	350	
151.2100	3 in 1 Ball ended hexagon key wrench set, 8 pcs long	330	
156.0532	Flat chisel, octagonal shaft, 300mm	440	
158.3520	Ball ended hexagon key wrench set, 8 pcs	440	
159.1002	ERGOTORQUEplus screwdriver for slotted screws, 3mm, 155mm	40	
159.1004	ERGOTORQUEplus screwdriver for slotted screws, 4mm, 180mm	50	
159.1006	ERGOTORQUEplus screwdriver for slotted screws, 5.5mm, 230mm	50	
159.1009	ERGOTORQUEplus screwdriver for slotted screws, 6.5mm, 255mm	90	
159.1020	ERGOTORQUEplus screwdriver for screws PH, PH1, 180mm	40	
159.1021	ERGOTORQUEplus screwdriver for screws PH, PH2, 205mm	70	
201.2305	Steel hand wire brush 3 rowed, 290mm	120	
300.0060	Wooden folding rule, yellow, 2m	100	
517.0148	Double open ended spanner set, 8 pcs, 6x7-20x22mm	810	
907.2187	Electricians pen knife, 1 straight blade	60	
907.2188	Pen knife, straight+narrow pointed blade	60	
997.1215	Small handsaw, 150mm	100	
850.0310	Tool case, leather, 420x150x250mm	2600	



**Basic plumbing tool set**

- For optimal use in the plumbing sector
- In durable metal tool box



116.0186	34 pcs	Basic plumbing tool set	12,16

consists of:

101.5016	Mini pipe cutter, 3-16mm	120	
103.5000	Telescopic pipe cutter, 6-38mm	500	
113.1000	Swed. pattern pipe wrench 45° angled, 1"	820	
113.1500	Swed. pattern pipe wrench 45° angled, 1.1/2"	1400	
115.1012	ERGOTORQUE diagonal side cutter, 160mm	260	
115.2001	Water pump pliers, 240mm, 10"	350	
116.1200	Siphon pliers, 4 position, 100mm	320	
116.1002	Fitting wrench, 60mm	550	
116.5000	Special sanitary spanner, 17 x 19mm, 220mm	250	
125.1000	Tap nut wrench Ø 10-32 mm, 275mm	500	
130.3000	Step key set, 2 pcs, 3/8"-1"	610	
142.1330	Fitters hammer, hickory handle, 300g	350	
151.2100	3 in 1 Ball ended hexagon key wrench set, 8 pcs long	330	
156.0532	Flat chisel, octagonal shaft, 300mm	440	
158.3520	Ball ended hexagon key wrench set, 8 pcs	440	
159.1002	ERGOTORQUEplus screwdriver for slotted screws, 3mm, 155mm	40	
159.1004	ERGOTORQUEplus screwdriver for slotted screws, 4mm, 180mm	50	
159.1006	ERGOTORQUEplus screwdriver for slotted screws, 5.5mm, 230mm	50	
159.1009	ERGOTORQUEplus screwdriver for slotted screws, 6.5mm, 255mm	90	
159.1020	ERGOTORQUEplus screwdriver for screws PH, PH1, 180mm	40	
159.1021	ERGOTORQUEplus screwdriver for screws PH, PH2, 205mm	70	
201.2305	Steel hand wire brush 3 rowed, 290mm	120	
300.0060	Wooden folding rule, yellow, 2m	100	
517.0123	Double open ended spanner set, 11 pcs, 6x7-30x32mm	1600	
907.2188	Pen knife, straight+narrow pointed blade	60	
997.1215	Small handsaw, 150mm	100	
999.0120	Sheet steel toolbox, 5 compartments, 420mm	3450	





## PIPELINE VIDEOSCOPE

### ULTIMATEvision MASTER videoscope set with sensor drum

- Probe with dimensionally stable pushrod
- Flexible probe head for optimum bend flexibility
- 8 dimmable white mini LED lamps
- Mobile and network independent system
- Abrasion resistant, spring sheathed probe head shaft
- Excellent picture quality and viewing through special camera in the probe head
- Very good picture and video quality
- 1,5 times digital zoom function
- Horizontal picture reflection function
- Picture reception in JPEG format
- Video records in MPEG4-format
- View on large monitor with AV cable
- Data transfer directly through USB cable possible
- SD port for SD card
- Multi lingual menu (14 languages)
- Wide range of applications in pipes and shafts
- 2 Component housing protects against light impacts
- Including meter counter
- In durable plastic storage case

Contents:  
 Sensor drum with pushrod + camera head  
 Basic unit ULTIMATE vision MASTER  
 Meter counter  
 2 GB SD card



#### Technical data hand held unit:

Weight: 3000 g  
 Screen: 3,5" (TFT LCD QVGA)  
 Output format: NTSC and PAL  
 Picture storage format: JPEG (640 x 480)  
 Compression format: MPEG4  
 Storage medium: SD card up to a max. 2 GB  
 Rechargeable battery: Li-Polymer 3,7 V (AC 100-240V / 50-60Hz)  
 Power requirement: DC 5,5 - 1,8 A  
 Operating time : ca. 4 h rechargeable battery  
 Protection class: IP 68  
 Operating temperature: -10°C to +60°C  
 Language manual: DE, EN, FR, ES, IT, DA, ZH, RU, NL, AR, JA, PL, BG  
 Length: 24,3 mm  
 Ø: 28,0 mm

#### Technical data probe head:

Aperture angle: diagonal 150,8°  
 Camera resolution: 320 (H) x 240 (V) = 76,800 Pixel  
 Focused depth of field: 10 ~ ∞ mm  
 AV Magnification: is up to 15" over cinch  
 Light source: 8 dimmable white mini LED lamps  
 Brightness: 33 Lux  
 Operating temperature: -10°C to +60°C  
 Camera protection: designed out of sapphire glasse camera sheath made out of stainless steel  
 Bend radius: max. 30 mm  
 Application: 40-100mm - 90° bend flexibility above Ø50mm

#### Technical data drum with pushrod:

Length: 30,00 m  
 Ø: 6 mm  
 Bend radius: min. 150 mm  
 Operating temperature: -10°C up tp +70°C  
 Protection class: IP 65  
 Drum Ø: 300 mm

		9	
550.7221	3 pcs	ULTIMATEvision MASTER videoscope set with sensor drum	10,60

### Brush for videoscope

- for use with 500.7221
- For centric use of the camera



	DN	Length mm	9
550.7228	100	150,0	64
550.7227	150	150,0	151

### Aluminium adaptor for videoscope

- for use with 500.7221



	Ø mm	Length mm	9
550.7229	50,0	36,0	61

### Alcohol cleaning set

- Suitable for all ULTIMATEvision Videoscopes



		9	
550.7998		Alcohol cleaning set	50

## GROUTING TOOLS

### Fugi-Maxi silicone scraper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Plastic
- In durable plastic case



116.1010	3 pcs	Fugi-Maxi silicone scraper set	100
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### Fugi-Maxi silicone scraper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Tip slides allow easy traverse ready produced seams
- Plastic
- In durable plastic case



116.1020	7 pcs	Fugi-Maxi silicone scraper set	150
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### FUGENFIX silicone scraper and wiper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- With 5 different radius adapters
- For dressing silicone
- Through working without a release agent optimum durability and adhesion of the joints
- Plastic



116.1050	7 pcs	FUGENFIX silicone scraper and wiper set	115
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## MILLERS AND PUNCHES

### Tap seating milling set 3/8" - 1"

- For accurate re-milling of the valve seats on leaky water taps
- Adjustable via spring milling head and regulation screw
- Fits all standard threaded fittings by graded cylindrical which is included
- Mill replaceable
- In durable metal case



136.1100	5 pcs	Tap seating milling set 3/8" - 1"	870
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consists of:

136.1000	Water tap seating milling tool	190
136.1003	Mill, 3/8" x 14 mm OD	20
136.1004	Mill, 1/2" x 17 mm OD	20
136.1005	Mill, 3/4" x 24 mm OD	20
136.1006	Mill, 1" x 28 mm OD	20

### Tap seating milling set 1/4" - 1"

- For accurate re-milling of the valve seats on leaky water taps
- Adjustable via spring milling head and regulation screw
- Fits all standard threaded fittings by graded cylindrical which is included
- Mill replaceable
- In durable plastic storage case



136.1105	6 pcs	Tap seating milling set 1/4" - 1"	870
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consists of:

136.1000	Water tap seating milling tool	190
136.1002	Mill, 1/4" x 12 mm	20
136.1003	Mill, 3/8" x 14 mm OD	20
136.1004	Mill, 1/2" x 17 mm OD	20
136.1005	Mill, 3/4" x 24 mm OD	20
136.1006	Mill, 1" x 28 mm OD	20

## Screw hole punch

- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For difficult to access areas
- Burnished surface
- Special tool steel

Ideally usable in V2A sheet to 1.5 mm, aluminum, copper, steel as well as stainless steel and plastics. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free, clean, effortless and fast punching.



	D mm	Standard	Replacement tension screw	Tension screw	Tapping hole	Center	
129.0012	12,5	ISO 12	129.0001	MF 8 x 1 x 55,0	9	1	72
129.0013	12,7	PG7	129.0001	MF 8 x 1 x 55,0	9	1	73
129.0015	15,2	PG9	129.0001	MF 8 x 1 x 55,0	9	1	94
129.0016	16,0	ISO 16	129.0001	MF 8 x 1 x 55,0	9	1	96
129.0018	18,6	PG11	129.0001	MF 8 x 1 x 55,0	9	1	112
129.0020	20,4	PG13	129.0002	MF 12 X 1,5 X 55	13	1	160
129.0021	20,5	ISO 20	129.0002	MF 12 X 1,5 X 55	13	1	161
129.0022	22,5	PG16	129.0002	MF 12 X 1,5 X 65	13	1	164
129.0025	25,4	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	185
129.0026	25,5	ISO 25	129.0002	MF 12 X 1,5 X 65	13	1	186
129.0028	28,3	PG21	129.0002	MF 12 X 1,5 X 65	13	1	212
129.0030	30,5	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	250
129.0032	32,5	ISO 32	129.0002	MF 12 X 1,5 X 65	13	1	252
129.0035	35,0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	378
129.0037	37,0	PG29	129.0002	MF 12 X 1,5 X 65	13	1	380
129.0038	38,0	ISO 12	129.0002	MF 12 X 1,5 X 65	13	1	394
129.0040	40,5	ISO 40	129.0002	MF 12 X 1,5 X 65	13	1	398
129.0047	47,0	PG36	129.0003	MF 16 x 1,5 x 75,0	18	1	834
129.0050	50,5	ISO 50	129.0003	MF 16 x 1,5 x 75,0	18	1	768
129.0054	54,0	PG42	129.0003	MF 16 x 1,5 x 75,0	18	1	964

## Screw hole punch with chip break

- 3 point gate
- High strength bolt
- Positive cutting edge geometry
- To that separating from thin sheet metals
- For difficult to access areas
- Burnished surface
- Special tool steel

Ideally usable in V2A sheet up to 1.5 mm aluminium, copper sheet metal and iron sheet metal to 2.0 mm as well as stainless steel and plastics. The sheet metal thicknesses can be exceeded at the expense of screw. Especially suited for burr free clean, effortless and fast punching.

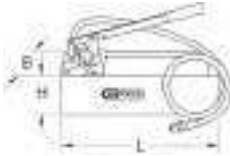


	D mm	Standard	Replacement tension screw	Tapping hole	
129.0204	16,5	ISO 16	129.0001	9	125
129.0205	18,6	PG11	129.0001	9	145
129.0206	20,4	PG13	129.0002	13	170
129.0207	20,5	ISO 20	129.0002	13	170
129.0208	22,5	PG16	129.0002	13	190
129.0209	25,4	ISO 12	129.0002	13	200
129.0210	25,5	ISO 25	129.0002	13	200
129.0211	28,3	PG21	129.0002	13	310
129.0212	30,5	ISO 12	129.0002	13	340
129.0213	32,5	ISO 32	129.0002	13	345
129.0214	35,0	ISO 35	129.0002	13	480

## TEST PUMPS

### Pressure test pump

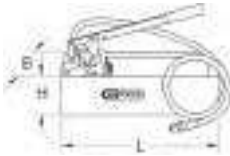
- Operating pressure max. 50 bar
- Tank capacity 12 litre's
- 2 lock valves
- Low lying pressure gauge with protective cover
- Pump lever with a locking chain
- Inclusive 1.35 m high pressure hose with steel mesh reinforcement and 1/2" connector
- Red powder coating
- Monobloc version
- Piston made of plastic



	B mm	H mm	L mm	kg
902.1004	210,0	300,0	520,0	6,85

### Stainless steel pressure test pump

- Operating pressure max. 20 bar
- Tank capacity 12 litre's
- 2 lock valves
- Low lying pressure gauge with protective cover
- Pump lever with a locking chain
- Inclusive 1.5 m high pressure hose with steel mesh reinforcement and 1/2" connector
- Monobloc version
- Piston made of plastic

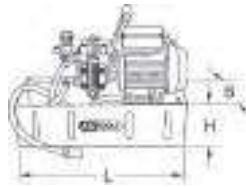


	B mm	H mm	L mm	kg
902.2004	195,0	222,0	505,0	6,70



### Electric pressure test pump

- Operating pressure max. 20 bar
- Tank capacity 12 litre's
- Flow rate: 13.5 l/min
- Power 600W
- Rotational speed 1,400 rpm
- 220V power supply
- For using to test closed fluid systems
- Inclusive 1,5 m high pressure hose with 1/2" connector
- Red powder coating
- Brass piston pumps
- Tank made of galvanized steel



	B mm	H mm	L mm	kg
902.3004	190,0	410,0	500,0	17,40

### Auxiliary gauge

- Max. 12 bar
- By using the auxiliary gauge can be used to pressure test pump for further tests
- 1/2" Internal and external threaded connector
- Special tool steel



	B mm	L mm	kg
902.1005	63,0	226,0	600

## RADIATOR TRANSPORT TROLLEY

### Radiator transport trolley

- Practical transport trolley to transport radiators
- With automatic brake
- Max. payload: 150 kg
- Max. height 370 mm
- Special tool steel

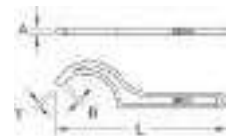


	B mm	H mm	SL mm	SB mm	kg
160.0230	610,0	980,0	420,0	195,0	30,00

## HOOK WRENCH

### Fixed hook wrench with nose

- In accordance to DIN 1810 Form A
- With hanging hole
- For slotted nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1370	12 - 14	2,5	2,0	109,5	1,5	22
517.1371	16 - 20	2,5	2,0	109,5	1,5	22
517.1372	25 - 28	4,0	2,5	135,9	2,0	36
517.1373	30 - 32	4,0	2,5	135,9	2,0	36
517.1374	34 - 36	5,0	3,0	170,2	2,0	82
517.1375	40 - 42	5,0	3,0	170,3	2,0	76
517.1376	45 - 50	6,0	3,5	195,0	2,0	132
517.1377	52 - 55	7,0	3,5	220,0	2,5	176
517.1378	58 - 62	7,0	4,0	240,0	2,5	224
517.1379	68 - 75	7,6	4,0	260,0	3,0	280
517.1380	80 - 90	8,0	5,0	280,0	3,5	368
517.1381	92 - 100	8,0	5,0	280,0	3,5	394
517.1382	110 - 115	9,5	5,0	334,9	4,0	590
517.1383	120 - 130	9,5	5,0	334,9	4,0	540

### Fixed hook wrench with pin

- In accordance to DIN 1810 Form B
- With hanging hole
- For pin type round nuts
- Burnished
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1471	12 - 14	3,0	2,0	110,0	2,0	0,03
517.1472	16 - 18	3,0	2,5	110,0	2,5	0,03
517.1473	20 - 22	3,0	2,5	110,0	2,5	0,03
517.1474	25 - 28	4,0	3,0	136,0	3,0	0,06
517.1488	30 - 32	5,0	4,0	136,0	3,0	0,06
517.1476	34 - 36	5,0	4,0	170,0	3,5	0,10
517.1477	40 - 42	5,0	4,0	170,0	3,5	0,10
517.1478	45 - 50	6,0	5,0	206,0	4,0	0,17
517.1479	52 - 55	6,0	5,0	206,0	4,0	0,17
517.1480	58 - 62	7,0	5,0	240,0	5,0	0,27
517.1481	68 - 75	7,0	6,0	240,0	5,0	0,27
517.1482	80 - 90	8,0	6,0	280,0	6,0	0,41
517.1483	95 - 100	8,0	8,0	280,0	6,0	0,41
517.1484	110 - 115	8,0	8,0	335,0	8,0	0,61
517.1485	120 - 130	8,0	8,0	335,0	8,0	0,61
517.1486	135 - 145	8,0	8,0	380,0	8,0	0,79
517.1487	155 - 165	8,0	8,0	380,0	8,0	0,79

### Hook wrench with nose

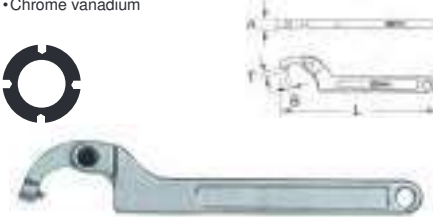
- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1316	15 - 35	5,2	3,2	175,0	3,2	96
517.1317	35 - 50	5,9	4,0	202,0	4,2	186
517.1318	50 - 80	7,5	4,9	280,0	5,2	392
517.1319	80 - 120	8,2	5,3	345,0	5,8	656
517.1320	120 - 180	10,8	8,9	465,0	7,8	1286

### Flexible hook wrench with pin

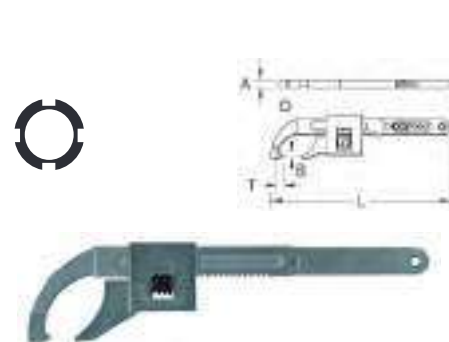
- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1323	15 - 35	9,8	2,8	177,0	2,8	96
517.1324	35 - 50	10,7	3,8	202,0	3,6	186
517.1325	50 - 80	14,0	4,8	280,0	5,0	380
517.1326	80 - 120	17,2	5,8	345,0	7,0	652
517.1327	120 - 180	19,2	7,8	465,0	9,0	1318

### Hook wrench with nose

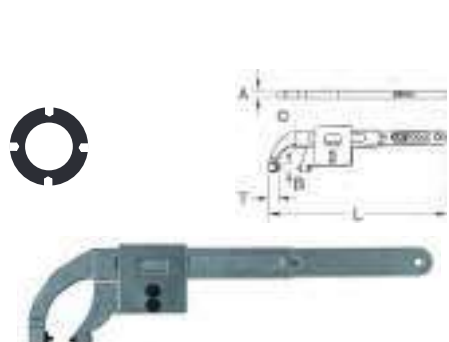
- In accordance to DIN 1810 Form A
- With flexible head
- With hanging hole
- For slotted nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1397	10 - 50	7,6	4,2	210,0	4,5	380
517.1398	20 - 100	8,2	6,8	360,0	5,5	840
517.1399	30 - 200	10,6	9,4	570,0	7,0	2250

### Flexible hook wrench with pin

- In accordance to DIN 1810 Form B
- With flexible head
- With hanging hole
- For pin type round nuts
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	L mm	T mm	kg
517.1328	10-50	8,3	2,6	210,0	2,5	380
517.1329	20-100	12,3	4,0	360,0	4,5	840
517.1330	30-200	17,3	5,8	570,0	4,8	2250

### VICES

#### Pipe vice

- Hinged
- V-shaped support
- Special tool steel
- Ideal for working with hydraulics and pneumatic lines



	Clamping range mm	Clamping range	kg
914.0010	10,0 - 60,0	1/8" - 2"	6,88
914.0011	10,0 - 89,0	1/8" - 3"	6,88

### Bench vice

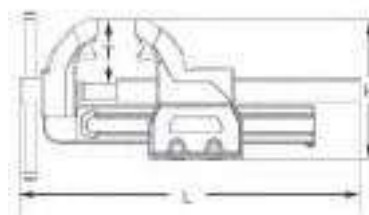
- With swivel base
- Interchangeable jaws
- Includes pipe vice attachment
- Absolutely parallel with adjustable centric drive
- Extra high possible clamping jaws shaped by large embossed casting
- Large anvil for straightening and compression work
- Induction hardened jaws and anvil
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special steel



	Jaw length mm	Jaw length mm	Clamping range mm	kg
914.0004	4"	100,0	120,0	8,70
914.0005	5"	130,0	140,0	11,00
914.0006	6"	150,0	160,0	14,50
914.0008	8"	200,0	200,0	20,50

### Bench vice

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special tool steel



	Jaw length mm	Clamping range mm	T mm	H mm	L mm	Cudgete mm	kg
914.0026	100,0	100,0	70,0	143,0	290,0	12,0	5,00
914.0031	125,0	120,0	83,5	163,0	360,0	14,0	11,00
914.0036	150,0	180,0	100,0	212,0	450,0	16,0	20,00
914.0041	175,0	210,0	112,0	243,0	535,0	18,0	29,00

### Turntable for bench vice

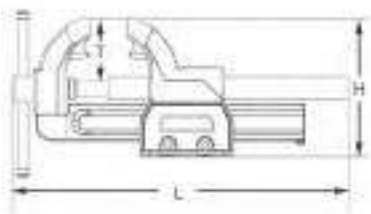
- Ideal supplement for KS-vices 914.0027 - 914.0041
- Enables accurate positioning of the workpiece
- 360° freely rotatable
- Safe and quick locking via handle
- Flat and stable construction
- Inclusive fastening screws for vice



		Ø mm	kg
914.0027	914.0026	90,0	1,40
914.0032	914.0031	120,0	2,80
914.0037	914.0036	147,0	3,75
914.0042	914.0041	167,0	4,85

### Parallel vice with round plate

- With adjusting screw and pipe clamps
- Forged front and rear jaws
- Extra high possible clamping jaws shaped by large embossed casting
- Durable prismatic guide
- With mounting screws for turntable
- Induction hardened jaws and anvil
- Double start trapezoidal thread for quick opening and closing
- Vise forward opening
- Ground jaws, anvil plate and slide corners
- Special tool steel



		Jaw-length mm	kg
914.0025	2 pcs	90,0	6,40
914.0030	2 pcs	120,0	13,80
914.0035	2 pcs	147,0	23,75
914.0040	2 pcs	167,0	33,85

### Aluminium bench vice protective jaws with textured surface

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For coarse to medium fine work pieces
- Fine textured
- Aluminium



	Protective jaws mm	kg
914.0080	100,0	170
914.0081	120,0	210
914.0082	140,0	240
914.0083	160,0	260
914.0084	175,0	290

### Aluminium bench vice protective jaws with trapezoid notches

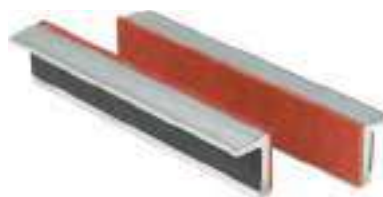
- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For different shaped materials
- For trapezoid use
- Aluminium



	Protective jaws mm	kg
914.0085	100,0	145
914.0086	120,0	187
914.0087	140,0	210
914.0088	160,0	226
914.0089	175,0	248

### Aluminium bench vice protective jaws with rubber insert

- Suitable for all bench vices
- The profile is right angled and level parallel
- Integrated special magnet hold the protective jaws safely on the vice
- For material protection and non slip grip on sensitive materials
- For thin walled wood and plastic parts
- Smooth
- Aluminium / rubber



	Protective jaws mm	kg
914.0090	100,0	163
914.0091	120,0	207
914.0092	140,0	224
914.0093	160,0	204
914.0094	175,0	276

Spirit levels can be found in the Measuring and testing tools section.

## PLASTIC PIPE PROCESSING

### Plastic pipe cutter

- For PE, PP and PVDF pipes
- Stainless steel blade
- Die cast body



	Ø mm	H mm	L mm		kg
222.0001	0 - 32,0	70,0	200,0	222.0011	290
222.0002	0 - 42,0	95,0	220,0	222.0012	430
222.0003	0 - 63,0	135,0	430,0	222.0013	1200
222.0004	0 - 75,0	175,0	480,0	222.0014	1600

### Automatic plastic pipe cutter 0 - 42 mm

- For PE, PP and PVDF pipes
- Stainless steel blade
- Die cast body



	Ø mm	H mm	L mm		kg
222.0005	0 - 42,0	105,0	230,0	222.0015	600

### Hose cutter

- Teflon coated blade
- Aluminium die cast body



	Ø mm	H mm	L mm		kg
222.2051	0 - 37,0	95,0	210,0	222.2052	80

### Scissor set for hoses and plastic pipes

- ideal for angle-precise and clean cutting of rubber hoses, plastic pipes and various plastic profiles, such as cable ducts
- for rubber hoses with or without textile cover
- fittings for 16, 19 and 25 mm pipes included
- with prism for 90° profile
- with adjustable angle stop up to 45°
- In durable plastic storage case



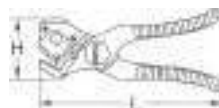
123.0075	7 pcs	Scissor set for hoses and plastic pipes	490

consists of:

123.0076	scissor-shaped with blades		290
123.0077	fitting for Ø 16 and 19 mm		30
123.0078	fitting for Ø 25 mm		78
123.0079	prism for 90° profile		63
123.0084	straight fitting		37
123.0086	angular stop		36
151.2604	Hexagon key wrench phosphate finish, short, 4mm		10

### Hose cutter

- Aluminium die cast body



	Ø mm	H mm	L mm		
222.2060	6,0 - 25,0	50,0	185,0	222.2061	300
222.2062	6,0 - 35,0	52,0	250,0	222.2061	452

### Plastic pipe cutter Ø 0 - 32 mm

- Teflon coated cutting blades
- Aluminium die cast body



	Ø mm	H mm	L mm		
222.1001M	0 - 32,0	71,0	205,0	222.1011M	320

### Plastic pipe cutting pistol Ø 6 - 35 mm

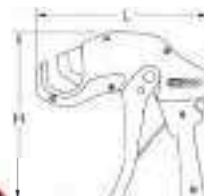
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		
222.1100	6,0 - 35,0	160,0	190,0	222.1101	630

### Plastic pipe cutting pistol Ø 6 - 42 mm

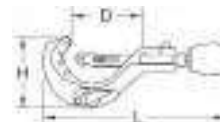
- Two stage cutting range 6 to 26 mm + 6 - 42 mm
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		
222.3100	6,0 - 42,0	220,0	210,0	222.3101	750

### Automatic ratchet pipe cutter for plastic pipe

- For PE, PP and PVDF pipes
- With folding internal deburrer
- Includes spare wheel under the cover cap on the rotary handle
- Quick through ratchet telescopic guide with automatic spring return
- Steel cutting wheel retrofittable
- 4 support rollers
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	L mm	D mm	H mm				
222.0660	225,0	6,0 - 64,0	90,0	222.0665	-	222.0666	500

### Automatic ratchet pipe cutter for copper pipe

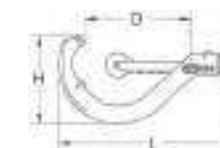
- For PE, PP and PVDF pipes
- With folding internal deburrer
- Quick through ratchet telescopic guide with automatic spring return
- Steel cutting wheel retrofittable
- 4 support rollers
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm				
222.0750	6,0 - 76,0	100,0	250,0	222.0752	-	222.0751	800

### Automatic ratchet pipe cutter for plastic pipe

- For PE, PP and PVDF pipes
- Quick through ratchet telescopic guide with automatic spring return
- Metal cutter can be retrofitted
- Cutting depth max. 19 mm
- With 2 support rollers
- With large knurled knob
- Metal housing
- Special tool steel



	D mm	H mm	L mm		
222.1250	50,0 - 140,0	150,0	350,0	222.0752	1,54
222.1680	100,0 - 168,0	190,0	385,0	-	1,60

### Plastic pipe chamfering device Ø 25 - 168 mm

- 15° Chamfering angle
- Flexible application
- Pipe wall thickness continuously adjustable during cutting application
- Special tool steel



	Ø mm	B mm	L mm	Replacement blades	kg
222.5050	25,0 - 120,0	140,0	176,0	222.5051	850

### Self-adjusting external pipe deburrer

- Special right-side adjustment mechanism provides optimum deburring results
- Infinitely variable
- One cutting edge for clean deburring
- For plastic pipes
- With three ball bearing rollers
- Suitable for drills and cordless screwdrivers
- Extremely robust, forged design
- Special tool steel



	Ø mm	Height mm	Replacement blades	kg
123.0060	72,0 - 118,0	71,0	123.0062	349
123.0061	108,0 - 160,0	68,0	123.0062	512



### Cutting and chamfering basic unit

- For cutting thin and thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- Includes cutter plate 900.5029



	kg	
222.5000	Cutting and chamfering basic unit	3,25

### Cutting and chamfering kit

- For cutting thin and thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case



	kg	
222.5100	7 pcs Cutting and chamfering kit	4,60

consists of:

	kg	
205.2020	Deburring tool, 140x21mm	60
222.5000	Cutting and chamfering basic units 110mm	3250
222.5003	Reducing jaw set, 2 pcs, Ø 50mm	240
222.5007	Reducing jaw set, 2 pcs, Ø 75mm	240
850.0505	Universal plastic tool box	1700

### Cutting and chamfering kit

- For cutting downpipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case



	kg	
222.5110	6 pcs Cutting and chamfering kit	4,91

consists of:

	kg	
222.5000	Cutting and chamfering basic units 110mm	3250
222.5009	Reducing jaw set, 2 pcs, Ø 80mm	240
222.5011	Reducing jaw set, 2 pcs, Ø 100mm	240
222.5106	Cutting tool shaft, variante2	100
850.0505	Universal plastic tool box	1700

### Cutting and chamfering kit

- For cutting thick walled plastic pipes
- Uniform chamfering of the entire pipe circumference
- Continuously adjustable tube clamping force
- In durable plastic storage case



	kg	
222.5200	7 pcs Cutting and chamfering kit	5,80

consists of:

	kg	
205.2020	Deburring tool, 140x21 mm	60
222.5220	Separation and chamfer tools, 160 mm	3600
222.5210	Reducing jaw set, 2 pcs, Ø 110mm	200
222.5211	Reducing jaw set, 2 pcs, Ø 125mm	200
850.0505	Universal plastic tool box	1700

### Bench clamp for chamfering kit 222.5000

- Special steel



	H mm	kg
222.5102	200,0	380

### Bench clamp for chamfering kit 222.5220

- With 2 clamping arms



	B mm	H mm	kg
222.5202	210,0	170,0	1,10



Reducing jaw set for chamfering kit 222.5000

- Plastic jaws



	Ø mm	B mm	L mm	g
222.5001	32,0	56,0	108,0	240
222.5002	40,0	56,0	108,0	240
222.5003	50,0	56,0	108,0	240
222.5004	56,0	57,0	110,0	240
222.5005	58,0	57,0	110,0	240
222.5006	63,0	57,0	110,0	240
222.5007	75,0	73,0	110,0	240
222.5008	78,0	56,0	110,0	240
222.5009	80,0	56,0	110,0	240
222.5010	90,0	56,0	110,0	240
222.5011	100,0	56,0	110,0	240
222.5012	52,0	56,0	110,0	240
222.5014	87,0	56,0	110,0	240

Reducing jaw set for chamfering kit 222.5220

- Plastic jaws



	Ø mm	B mm	L mm	g
222.5210	110,0	56,0	160,0	200
222.5211	125,0	56,0	160,0	200
222.5212	135,0	56,0	160,0	200
222.5213	140,0	56,0	160,0	200

Cutting tool shaft includes cutting tool for 222.5000

- For thin walled plastic pipe
- Special tool steel



	B mm	L mm	g
222.5105	19,0	89,0	120

Replacement carbide cutting blade for 222.5000 + 222.5220

- For thin and thick walled plastic pipe
- Cutting depth max. 10mm + 15.5mm
- Special tool steel



	Cutting depth mm	H mm	L mm	g
900.5019	15,5	20,3	25,5	20
900.5029	10,0	14,7	20,2	10

Cutting tool shaft includes replacement cutter for 222.5000 + 222.5220

- For thin walled plastic pipes
- Special tool steel



	B mm	L mm	Metal	V/A	Plastic	g
222.5106	16,0	80,0	-	-	101.1010	100

Cutting tool shaft includes replacement cutter for 222.5000 + 222.5220

- For thick walled plastic pipes
- Special tool steel



	B mm	L mm	Metal	V/A	Plastic	g
222.5104	16,0	90,0	-	-	222.0751	120



WELDING

Sleeve welding tool set 850 W

- Thermostatic control from 180 °C - 280 °C
- Increased thermal efficiency
- Optimized welding with new heat sword device
- Teflon coated welding extensions
- In durable steel storage case



			g
207.6500	6 pcs	Sleeve welding tool set 850 W	8,60

consists of:

		g
207.6501	Sleeve welding tool, 180° - 280 °C	2000
206.6511	Bench clamp for sleeve welding tool	495
207.1020	Welding attachment for sleeve welding tool, Ø 20mm	110
207.1025	Welding attachment for sleeve welding tool, Ø 25mm	140
207.1032	Welding attachment for sleeve welding tool, Ø 32mm	190

Sleeve welding tool

- Thermostatic control from 180 °C - 280 °C
- Increased thermal efficiency
- Optimized welding with new heat sword device
- Includes floor stand



	B mm	L mm	g
207.6501	85,0	370,0	2,00

### Welding attachment for sleeve welding tool

- Teflon coated



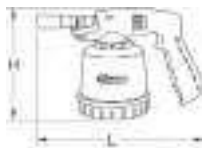
	Ø mm	B mm	L mm	g
207.1016	16,0	38,0	61,0	80
207.1020	20,0	43,0	52,0	110
207.1025	25,0	46,0	52,0	140
207.1032	32,0	48,0	59,0	190
207.1040	40,0	57,0	61,0	290
207.1050	50,0	61,0	61,0	410
207.1063	63,0	130,0	78,0	720



### BURNING & SOLDERING

### Universal cartridge soldering torch

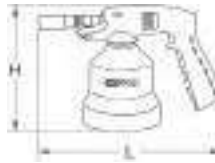
- Flame temperature 1700 °C
- Operating temperature around 650 °C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Plastic body



	H mm	L mm	g
903.5901	168,0	255,0	890

### Universal cartridge soldering torch

- Flame temperature 1700 °C
- Operating temperature around 650 °C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Metal body



	H mm	L mm	g
903.5904	158,0	250,0	780

### Universal cartridge soldering torch with piezo ignition

- Flame temperature 1700 °C
- Operating temperature around 650 °C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Use only with standard high performance burner
- Plastic body



	H mm	L mm	g
903.5902	165,0	270,0	890



### Universal cartridge soldering torch with piezo ignition

- Flame temperature 1700 °C
- Operating temperature around 650 °C
- Pipe diameter max. Ø 22 mm
- Supplied without gas cartridge
- Use only with standard high performance burner
- Metal body



	H mm	L mm	g
903.5905	165,0	270,0	725

### Burner accessories kit

- Burner accessories suitable for 903.5901 + 903.5904
- Special tool steel



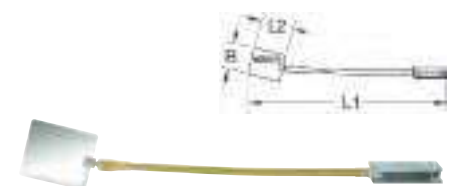
		g
903.5910	3 pcs Burner accessories kit	300

consists of:

		g
903.5911	Soldering iron tip attachment	100
903.5912	Pipe soldering attachment up to 22 mm	100
903.5913	Flat nozzle 40 mm	100

### Magnetic welding mirrors

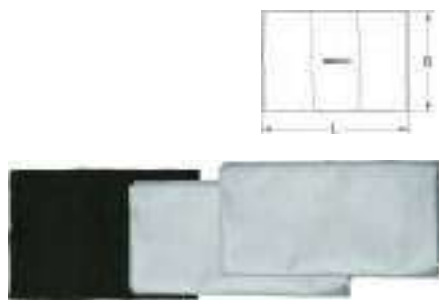
- Mirror chrome
- Flexible arm
- Special tool steel



	B mm	L1 mm	L2 mm	g
903.6000	70,0	500,0	80,0	470

### Flame proof mats

- Asbestos free
- Reduced fire risk
- Very flexible
- Good formability

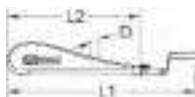


	B mm	L mm	max. °C	
610.3350	330,0	500,0	700	330
610.3351	460,0	800,0	700	650
610.3399	1500,0	2000,0	600	2110

### PIPE CLEANING

#### Toilet unblocker

- Flexible use, even in hard to reach places
- No damage to ceramic surfaces due to the plastic coating on the elbow
- With bulbous head
- Crank drive



	D mm	L1 mm	L2 mm	
900.1996	30,0	1090,0	900,0	200

#### Pipe and drain cleaner

- Pipe cleaning device with funnel spiral and bulbous end for use in very narrow pieces of pipe elbows up to  $\varnothing$  50 mm without removing the sink sleeves or siphons
- With a hexagonal chuck for clamping
- manual drive
- Impact resistant, closed plastic container



	$\varnothing$ mm	Spiral length m	B mm	L mm	Replacement spiral	
900.1990	6,0	4,5	140,0	290,0	900.2522	1,60

### Pipe and drain cleaner

- Pipe cleaning device with funnel spiral and bulbous end for use in very narrow pieces of pipe elbows up to  $\varnothing$  75 mm without removing the sink sleeves or siphons
- With a hexagonal chuck for clamping
- Can be drive either by hand or drilling machine
- Impact resistant, closed plastic container



	$\varnothing$ mm	Spiral length m	B mm	L mm	Replacement spiral	
900.1995	7,6	7,5	208,0	319,0	900.2416	3,40
900.2000	9,6	9,5	208,0	319,0	900.2422	5,10

#### Channel and pipe cleaning tool kit $\varnothing$ 16 mm

- Pipe cleaning tool kit with spiral with a diameter of 16 mm
- Includes spiral basket for safe keeping of the spiral



900.1916	13 pcs Channel and pipe cleaning tool kit $\varnothing$ 16 mm	9,10

consists of:

900.2100	Springs separation key, f.16mm	20
900.2110	Spiral basket, $\varnothing$ 450mm, spirale 16mm	1250
900.2121	Guiding glove, left	210
900.2161	Straight head, $\varnothing$ 16mm, spirale 16mm	60
900.2162	Spring recovery head, $\varnothing$ 35mm, spirale 16mm	40
900.2163	Bulbous head, $\varnothing$ 28mm, spirale 16mm	70
900.2169	Arrow shaped head, $\varnothing$ 25mm, spirale 16mm	40
900.2175	Crossed leaf shaped head, $\varnothing$ 25mm, spirale 16mm	40
900.2431	Drain cleaning spiral, $\varnothing$ 16mm	1050

#### Channel and pipe cleaning tool kit $\varnothing$ 16 mm

- Pipe cleaning tool kit with spiral with an internal diameter of 16 mm
- Includes spiral basket for safe keeping of the spiral



900.1917	13 pcs Channel and pipe cleaning tool kit $\varnothing$ 16 mm	9,10

consists of:

900.2100	Springs separation key, f.16mm	20
900.2110	Spiral basket, $\varnothing$ 450mm, spirale 16mm	1250
900.2121	Guiding glove, left	210
900.2161	Straight head, $\varnothing$ 16mm, spirale 16mm	60
900.2162	Spring recovery head, $\varnothing$ 35mm, spirale 16mm	40
900.2163	Bulbous head, $\varnothing$ 28mm, spirale 16mm	70
900.2169	Arrow shaped head, $\varnothing$ 25mm, spirale 16mm	40
900.2175	Crossed leaf shaped head, $\varnothing$ 25mm, spirale 16mm	40
900.2433	Pipe cleaning spiral with plastic inner tube $\varnothing$ 16mm	1240

### Channel and pipe cleaning tool kit $\varnothing$ 22 mm

- Pipe cleaning tool kit with spiral with a diameter of 22 mm
- Includes spiral basket for safe keeping of the spiral



900.1922	14 pcs Channel and pipe cleaning tool kit $\varnothing$ 22 mm	22,83

consists of:

900.2101	Springs separation key, f.22 and 32mm	20
900.2112	Spiral basket, $\varnothing$ 470mm, spirale 22mm	1600
900.2121	Guiding glove, left	210
900.2221	Straight head, $\varnothing$ 22mm, spirale 22mm	170
900.2222	Funnel shaped head, $\varnothing$ 55mm, spirale 22mm	280
900.2234	Arrow shaped head, $\varnothing$ 45mm, spirale 22mm	110
900.2255	Cross leaf drill, $\varnothing$ 55mm, spirale 22mm	140
900.2203	Spring recovery head, $\varnothing$ 45mm, spirale 22mm	110
900.2263	Leg drills, $\varnothing$ 40mm, spirale 22mm	220
900.2441	Drain cleaning spiral, $\varnothing$ 22mm	4000

#### Channel and pipe cleaning tool kit $\varnothing$ 22 mm

- Pipe cleaning tool kit with spiral with an internal diameter of 22 mm
- Includes spiral basket for safe keeping of the spiral



900.1923	14 pcs Channel and pipe cleaning tool kit $\varnothing$ 22 mm	25,13

consists of:

900.2101	Springs separation key, f.22 and 32mm	20
900.2112	Spiral basket, $\varnothing$ 470mm, spirale 22mm	1600
900.2121	Guiding glove, left	210
900.2221	Straight head, $\varnothing$ 22mm, spirale 22mm	170
900.2222	Funnel shaped head, $\varnothing$ 55mm, spirale 22mm	280
900.2234	Arrow shaped head, $\varnothing$ 45mm, spirale 22mm	110
900.2255	Cross leaf drill, $\varnothing$ 55mm, spirale 22mm	140
900.2203	Spring recovery head, $\varnothing$ 45mm, spirale 22mm	110
900.2263	Leg drills, $\varnothing$ 40mm, spirale 22mm	220
900.2442	Pipe cleaning spiral with plastic inner tube $\varnothing$ 22mm	4650

#### Drain cleaning spiral

- Very flexible spiral
- For universal pipe cleaning applications
- Perfectly suited for tight bends
- With attachment for special tools
- Special tool steel



	$\varnothing$ mm	Length m	
900.2431	16,0	2,30	1,05
900.2441	22,0	4,50	4,00
900.2451	32,0	4,50	6,50

### Pipe cleaning spiral with plastic inner tube

- For working with large spiral lengths
- For removing stubborn pipe deposits
- High stability due to plastic inner tube
- Perfectly suited for tight bends
- Plastic inner core is temperature and weather resistant
- With attachment for special tools
- Special tool steel



	Ø mm	Length m	
900.2433	16,0	2,30	1,24
900.2442	22,0	4,50	4,65
900.2452	32,0	4,50	7,65



### Arrow drill

- For cleaning greasy or very muddy pipes
- With riveting to the adaptor
- Hardened and high strength spring steel



	Ø mm	For spiral mm	Operation range mm	
900.2169	25,0	16,0	38,0 - 50,0	40
900.2170	35,0	16,0	50,0 - 75,0	50
900.2171	45,0	16,0	60,0 - 100,0	70
900.2172	55,0	16,0	75,0 - 125,0	80
900.2233	35,0	22,0	50,0 - 100,0	100
900.2234	45,0	22,0	60,0 - 125,0	110
900.2254	65,0	22,0	75,0 - 125,0	300
900.2256	80,0	22,0	100,0 - 150,0	340
900.2257	90,0	22,0	100,0 - 150,0	350
900.2260	55,0	22,0	60,0 - 125,0	130
900.2335	35,0	32,0	50,0 - 100,0	140
900.2336	45,0	32,0	75,0 - 100,0	170
900.2337	55,0	32,0	75,0 - 100,0	180
900.2338	65,0	32,0	100,0 - 150,0	300
900.2361	90,0	32,0	125,0 - 200,0	360
900.2390	80,0	32,0	100,0 - 150,0	340

### Cross leaf drill

- Can be used in textiles blockages, clogging, sludge deposits, pipe incrustations etc.
- With riveting to the adaptor
- High stability and long life
- Hardened and high strength spring steel



	Ø mm	For spiral mm	Operation range mm	
900.2175	25,0	16,0	38,0 - 50,0	40
900.2176	35,0	16,0	50,0 - 75,0	60
900.2177	45,0	16,0	60,0 - 100,0	80
900.2178	55,0	16,0	75,0 - 125,0	90
900.2235	35,0	22,0	50,0 - 100,0	110
900.2255	55,0	22,0	60,0 - 125,0	140
900.2275	45,0	22,0	75,0 - 100,0	120
900.2276	65,0	22,0	100,0 - 150,0	330
900.2277	80,0	22,0	100,0 - 200,0	370
900.2279	90,0	22,0	100,0 - 200,0	500
900.2280	115,0	22,0	100,0 - 250,0	560
900.2345	35,0	32,0	50,0 - 100,0	140
900.2346	55,0	32,0	60,0 - 125,0	210
900.2349	80,0	32,0	100,0 - 150,0	410
900.2371	65,0	32,0	100,0 - 125,0	350
900.2372	45,0	32,0	60,0 - 125,0	170
900.2379	90,0	32,0	125,0 - 200,0	510
900.2380	115,0	32,0	150,0 - 250,0	580

### Forked cutting head

- Can be used in light to heavy contamination of the drainage pipe
- High stability and long life
- Hardened and high strength spring steel



	Ø mm	For spiral mm	Operation range mm	
900.2164	40,0	16,0	40,0 - 75,0	20
900.2154	30,0	16,0	50,0 - 75,0	30



### Notched forked cutting head

- Can be used with silting and deeply rooted pipes
- Cutting head front and rear dovetailed
- High stability and long life
- Hardened and high strength spring steel



	Ø mm	For spiral mm	Operation range mm	
900.2250	65,0	22,0	75,0 - 100,0	220
900.2251	90,0	22,0	100,0 - 150,0	260
900.2252	125,0	22,0	125,0 - 200,0	290
900.2253	150,0	22,0	200,0 - 300,0	300
900.2350	65,0	32,0	75,0 - 100,0	260
900.2351	90,0	32,0	100,0 - 150,0	290
900.2352	125,0	32,0	125,0 - 200,0	330
900.2353	150,0	32,0	200,0 - 300,0	340

### Root cutter

- Can be used with pipes that are rooted
- High stability and long life
- Hardened and high strength spring steel



	Ø mm	For spiral mm	Operation range mm	
900.2265	65,0	22,0	75,0 - 100,0	350
900.2266	90,0	22,0	125,0 - 200,0	490
900.2267	125,0	22,0	200,0 - 300,0	770
900.2365	65,0	32,0	75,0 - 100,0	390
900.2366	90,0	32,0	125,0 - 200,0	590
900.2367	125,0	32,0	200,0 - 300,0	810

### Chain spinning head with a smooth chain

- Can be used in blocked and encrusted pipes
- Flexible design suitable for tight bends
- Optimum setting to pipe diameter due to centrifugal force
- Pipe protecting removal of impurities
- For cleaning of stoneware and plastic pipes
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	L mm	Weight kg
900.2183	30,0	3 chains	16,0 50,0 - 125,0	160,0	210
900.2185	30,0	2 chains	16,0 50,0 - 125,0	160,0	170
900.2187	30,0	4 chains	16,0 50,0 - 125,0	160,0	240
900.2283	45,0	2 chains	22,0 60,0 - 125,0	160,0	440
900.2284	45,0	3 chains	22,0 60,0 - 125,0	160,0	530
900.2289	45,0	4 chains	22,0 60,0 - 125,0	160,0	630
900.2382	50,0	2 chains	32,0 70,0 - 130,0	210,0	970
900.2383	50,0	4 chains	32,0 70,0 - 130,0	210,0	1200

### Chain spinning head with a spiked chain

- Can be used in blocked and encrusted pipes
- For intensive cleaning of concrete pipe and cast iron pipes
- Flexible design suitable for tight bends
- Optimum setting to pipe diameter due to centrifugal force
- Pipe protecting removal of impurities
- Thorough cleaning reduces the possibility of new blockages
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	L mm	Weight kg
900.2184	30,0	3 chains	16,0 50,0 - 125,0	160,0	230
900.2186	30,0	2 chains	16,0 50,0 - 125,0	160,0	210
900.2188	30,0	4 chains	16,0 50,0 - 125,0	160,0	270
900.2278	45,0	2 chains	22,0 60,0 - 125,0	160,0	490
900.2288	45,0	3 chains	22,0 60,0 - 125,0	160,0	630
900.2299	45,0	4 chains	22,0 60,0 - 125,0	160,0	670
900.2347	50,0	2 chains	32,0 70,0 - 130,0	210,0	1070
900.2348	50,0	4 chains	32,0 70,0 - 130,0	210,0	1440

### Straight head

- Standard tool for exploring the type of blockage
- For use in textiles or cellulose blockages
- To take samples to determine appropriate follow up tool
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2161	16,0	16,0	25,0 - 75,0	110	60
900.2221	22,0	22,0	50,0 - 100,0	180	170
900.2321	32,0	32,0	75,0 - 250,0	190	350

### Funnel shaped head

- For specific use in textiles or cellulose blockages
- Wide coverage by funnel shaped
- Can also be used to retrieve from spirals remaining in the pipe
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2165	32,0	16,0	65,0 - 100,0	110	80
900.2222	55,0	22,0	75,0 - 150,0	180	280
900.2322	60,0	32,0	125,0 - 250,0	190	500

### Leg drills

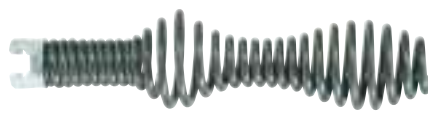
- For specific use on light textile or cellulose blockages
- Ideal for close and several consecutive elbows
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2163	28,0	16,0	38,0 - 75,0	110	70
900.2263	40,0	22,0	75,0 - 100,0	180	220
900.2363	50,0	32,0	75,0 - 250,0	190	490

### Double leg drills

- Suitable for difficult to access trunking systems
- Double leg facilitate the penetration into narrow pipe bend
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2158	35,0	16,0	38,0 - 75,0	130	90

### Jointed bolbous head

- Ideal for narrow pipe with a small pipe diameters
- Flexible due to joint
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2159	24,0	16,0	38,0 - 75,0	83	60

### Spring recovery head

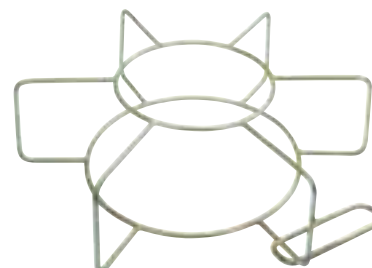
- Not suitable for drilling
- To retrieve from spirals remaining in the pipe
- With flared tentacle to grasp spiral
- Special tool steel



	Ø mm	For spiral mm	Operation range mm	Length mm	Weight kg
900.2162	35,0	16,0	25,0 - 75,0	50	40
900.2203	45,0	22,0	50,0 - 100,0	90	110
900.2325	65,0	32,0	75,0 - 250,0	100	240

### Spiral basket

- For the safe storage and easy transport
- Ideal for cleaning and maintenance of the spirals
- Special tool steel



	Ø mm	For spiral mm	H mm	No. spirals	Max spiral length in	Weight kg
900.2110	450,0	16,0	140,0	15	34,5	1,25
900.2112	470,0	22,0	170,0	5	22,5	1,60
900.2113	520,0	22,0/32,0	190,0	5/4	22,5/18,0	2,30

### Guiding glove

- Very robust execution
- Optimum protection during use of the spiral
- With inner glove and a long cuff
- Riveting stocking on the palm side and partly on the back
- Made from high quality leather



	Form	Weight kg
900.2121	left	210
900.2120	right	210

### Spiral safety separation key

- For safety whilst uncoupling the spiral
- Injuries are avoided with this safety key rather than using pins



	For spiral mm	Ø mm	L mm	
900.2100	16,0	4,0	100,0	20
900.2101	22,0 / 32,0	5,0	105,0	20

### Replacement spirals for pipe cleaning device

- For pipe cleaning device 6, 8 + 10
- Especially suitable for light blockage by textiles and cellulose materials
- With integrated bolbous head
- Special tool steel



	Ø mm	Length m	
900.2415	8,0	4,50	1,05
900.2416	8,0	7,50	1,80
900.2417	8,0	9,50	1,60
900.2422	10,0	9,50	3,50
900.2522	6,0	4,50	0,90
900.2523	6,0	6,00	1,20

### Replacement spiral with steel inner core for pipe cleaners

- For pipe cleaning device 8 + 10
- Very stable for the most severe pollution
- With integrated steel inner tube
- Particularly suitable for devices with automatic feed
- Special tool steel



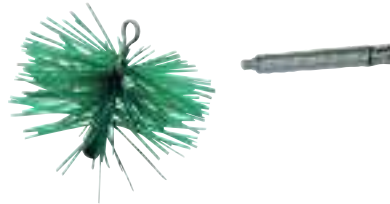
	Ø mm	Length m	
900.9975	8,0	7,50	2,25
900.9978	8,0	10,00	2,90



## CHIMNEY SWEEP TOOLS

### Boiler cleaning tool kit

- Ideal for regular cleaning of small to medium fireplaces
- Optional extensions
- Includes 5 durable extension rods
- Polypropylene rods
- Hard plastic brush



900.6000 8 pcs Boiler cleaning tool kit	2,95

consists of:

900.6016 Screw extensions for boiler cleaning tool, Ø20mm, L=1.5m	458
900.6231 Synthetic cleaning brush, round, Ø 200mm	210
900.6030 Pulling spring for boiler cleaning tool kit	112

### Hand crank for screw extensions

- With a patented screw cap
- Special tool steel



	Ø mm	L mm	Colour code	
900.6025	12,0	175,0	●	275

### Screw extensions for boiler cleaning tool

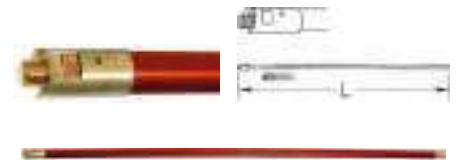
- Adaptor M12 threaded
- Polypropylene



	Ø mm	Length m	Colour code	
900.6010	18,0	1,00	●	247
900.6011	18,0	1,50	●	337
900.6012	18,0	2,00	●	386
900.6015	20,0	1,00	●	334
900.6016	20,0	1,50	●	458
900.6017	20,0	2,00	●	578

### Screw extensions for chimney sweep tools

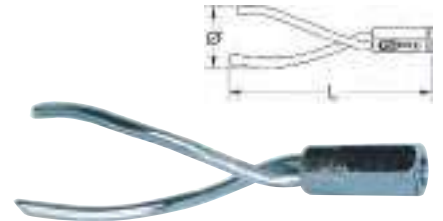
- Adaptor M12 threaded
- With a patented screw cap
- Polypropylene



	Ø mm	Length m	Colour code	
900.6020	18,0	1,00	●	225
900.6021	18,0	1,50	●	345
900.6022	18,0	2,00	●	395

### Fork screw

- With internal thread M12
- Special tool steel



	Ø mm	L mm	
900.6035	40,0	130,0	97



### Worm screw

- With internal thread M12
- Special tool steel



	Ø mm	L mm	
900.6036	100,0	240,0	430

### Crescent scraper

- With internal thread M12
- Special tool steel



	Ø mm	L mm	⚖
900.6040	100,0	100,0	130

### Cast iron ball

- With cast steel hooks
- 3 kg
- Special tool steel



	Ø mm	L mm	⚖
900.6050	80,0	140,0	3,00



### Bottle cleaning brush

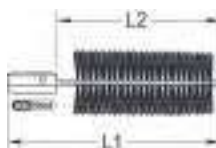
- With internal thread M12
- Special tool steel



	Ø mm	L mm	⚖
900.6055	50,0	50,0	154

### Boiler brush

- With internal thread M12
- Special tool steel



	Ø mm	L1 mm	L2 mm	⚖
900.6060	50,0	200,0	120,0	141
900.6061	60,0	200,0	120,0	152
900.6062	70,0	200,0	120,0	165
900.6063	80,0	200,0	120,0	173

### Steel cleaning brush

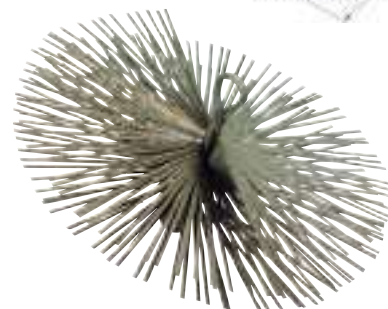
- Rectangular
- With internal thread M12
- Special tool steel



	Ø mm	L mm	⚖
900.6222	200,0 x 400,0	130,0	498

### Steel cleaning brush

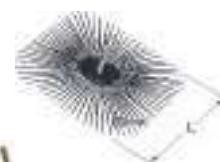
- Round
- With internal thread M12
- Special tool steel



	Ø mm	L mm	⚖
900.6205	200,0	130,0	257
900.6206	250,0	130,0	290

### Steel cleaning brush

- Square
- With internal thread M12
- Special tool steel



	Ø mm	L mm	⚖
900.6210	200,0 x 200,0	130,0	279
900.6211	250,0 x 250,0	130,0	412
900.6212	300,0 x 300,0	130,0	475

### Synthetic cleaning brush

- Round
- With internal thread M12
- Hard plastic



	Ø mm	L mm	⚖
900.6230	150,0	130,0	192
900.6231	200,0	130,0	210
900.6232	250,0	130,0	240
900.6233	300,0	130,0	252

PREMIUM-WERKZEUGE



PREMIUM TOOLS








**THE ACCUMULATED PULLER  
EXPERTISE**

**MADE IN  
GERMANY**



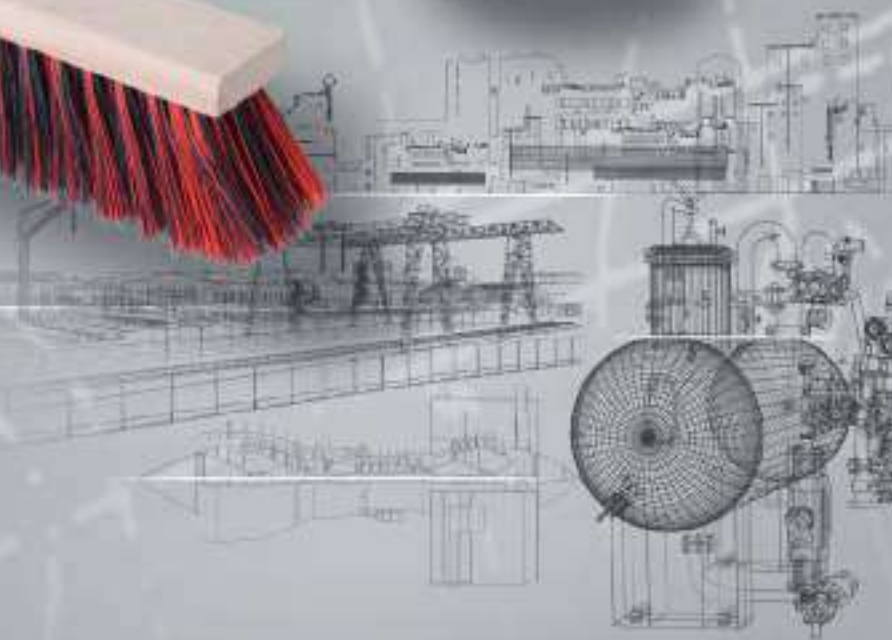
**FROM  
SMALL  
TO  
LARGE**

**OVER 1,000 PULLER VARIANTS UP TO 50 T  
FOR PARTS WITH A DIAMETER OF 5-1000 mm**





*Innovation is  
our mission!*



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## PIPE PULL-IN PLIERS

### Pipe pull-in pliers, straight

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Embossing punch for all round and square pipes
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



	Length mm	
123.0050	265,0	480

### Pipe pull-in pliers, angled

- Perfect for connecting metal pipes with the same diameter, such as waste, ventilation, extraction, smoke and discharge pipes
- The ends of the pipes are narrowed during the process
- Guarantees fast, exact, simple and precise connection
- Embossing punch for all round and square pipes
- Optimised utilisation through angled head
- Tapered to 41.3 mm with a single press
- With five cutters = three bottom and two top cutters
- Extremely robust and reliable
- Self-opening with a clamping facility
- Optimum transmission ratio
- With hanging hole
- Two component handle
- Plier body made of steel



	Length mm	
123.0051	225,0	440

## SCRAPERS

### Stainless steel spatula with short handle

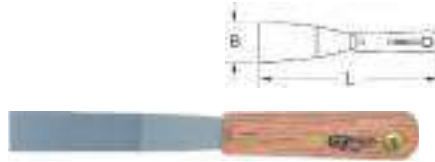
- Two component handle
- Ground
- Polished
- With hanging hole
- Extremely long service life
- Rust-proof
- Stainless steel



	Length mm	Width mm	
144.0631	50,0	100,0	20
144.0632	75,0	113,0	30
144.0633	100,0	116,0	50
144.0634	150,0	120,0	85

## Stainless steel scraper

- With wooden handle
- Ground
- Polished
- With hanging hole
- Suitable for use at extremely low temperatures
- Extreme resistance to intergranular corrosion and oxidation
- Extremely long service life
- Autoclavable (heating of the tools to over 100°C to kill germs)
- Rust-proof and acid resistant
- Stainless steel



	L mm	B mm	
907.2261	225,0	25,0	70
907.2262	225,0	38,0	70
907.2263	225,0	50,0	70
907.2264	225,0	63,0	70
907.2265	225,0	75,0	80

## Stainless steel scraper

- Two component handle
- Ground
- Polished
- With hanging hole
- Stainless steel



	L mm	B mm	
144.0622	225,0	30,0	72
144.0624	225,0	40,0	73
144.0625	225,0	50,0	75
144.0626	225,0	60,0	84
144.0628	225,0	80,0	85



## FLOATS

### Wooden float

- Rectangular
- Cellular area
- With plastic handle
- Wood



	L mm	B mm	H mm	
144.0580	270,0	180,0	70,0	310
144.0581	330,0	260,0	75,0	660
144.0582	400,0	280,0	70,0	760

### Wooden float

- Edge
- Cellular area
- With plastic handle
- Wood



	L mm	B mm	H mm	
144.0583	270,0	180,0	70,0	245

### Wooden float

- Rectangular
- Cellular area
- With foam rubber sponge
- With plastic handle
- Wood



	L mm	B mm	H mm	
144.0592	250,0	140,0	100,0	265
144.0593	330,0	180,0	100,0	370

**Wooden float**

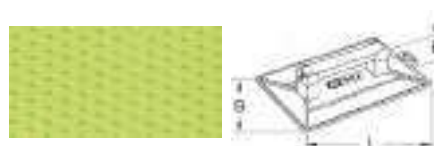
- Edge
- Cellular area
- With foam rubber sponge
- With plastic handle
- Wood



	L mm	B mm	H mm	g
144.0591	240,0	140,0	100,0	220
144.0590	270,0	180,0	100,0	290

**ABS float**

- Rectangular
- Cellular area
- Very good durability
- With wooden handle
- Green ABS mounting plate



	L mm	B mm	H mm	g
144.0546	200,0	120,0	60,0	190
144.0545	350,0	270,0	65,0	560
144.0540	420,0	260,0	70,0	590

**ABS float**

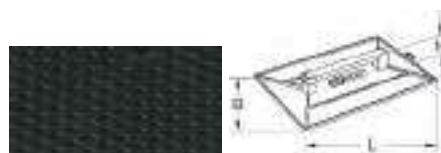
- Edge
- Cellular area
- With wooden handle
- Very good durability
- Green ABS mounting plate



	L mm	B mm	H mm	g
144.0552	200,0	130,0	50,0	150
144.0550	270,0	180,0	60,0	280

**Float**

- Rectangular
- Cellular area
- With wooden handle
- Plate made from impact proof PS plastic



	L mm	B mm	H mm	g
144.0526	200,0	120,0	65,0	290
144.0521	270,0	180,0	65,0	175
144.0525	350,0	270,0	70,0	510
144.0520	420,0	260,0	70,0	530

**Float**

- Edge
- Cellular area
- With wooden handle
- Plate made from impact proof PS plastic



	L mm	B mm	H mm	g
144.0531	140,0	80,0	40,0	70
144.0532	200,0	130,0	55,0	140
144.0530	270,0	180,0	60,0	360

**Sponge rubber float**

- Sponge rubber surface
- With wooden handle
- Plate made from impact proof PS plastic



	L mm	B mm	H mm	D mm	g
144.0510	210,0	130,0	90,0	30,0	160
144.0511	270,0	180,0	90,0	30,0	275

**Float**

- Angularly
- Hard plastic

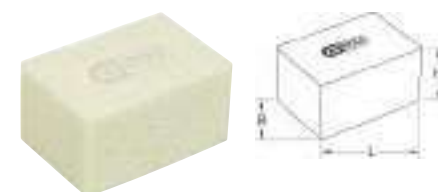


	L mm	B mm	g
144.0512	270,0	150,0	40

**JOINTING**

**Jointing sponge**

- Sponge rubber



	B mm	H mm	L mm	g
144.0514	100,0	80,0	150,0	60

**Jointing rubber**

- Out of one piece
- Plastic



	H mm	L mm	g
144.0570	90,0	135,0	65

**Fugi-Maxi silicone scraper set**

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Plastic
- In durable plastic case



			g
116.1010	3 pcs	Fugi-Maxi silicone scraper set	100

### Fugi-Maxi silicone scraper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- Through working without a release agent optimum durability and adhesion of the joints
- Tip slides allow easy traverse ready produced seams
- Plastic
- In durable plastic case



116.1020	7 pcs	Fugi-Maxi silicone scraper set	150	

### FUGENFIX silicone scraper and wiper set

- For building sealants and expansion joints with silicone, acrylic, polyurethane etc.
- Optimum working result without tedious masking
- With 5 different radius adapters
- For dressing silicone
- Through working without a release agent optimum durability and adhesion of the joints
- Plastic



116.1050	7 pcs	FUGENFIX silicone scraper and wiper set	115	

### SAND SIEVE

#### Sand sieve

- Round
- Ground out of iron wire



	Material	Mash dimensions mm	D mm	H mm	
144.0564	wood	1,90	420,0	100,0	890
144.0563	wood	2,30	420,0	100,0	900
144.0565	wood	2,80	420,0	100,0	940
144.0566	wood	3,93	420,0	100,0	910

### CONTAINERS

#### Plaster bowl

- Conical arched form
- Extremely flexible
- Solid rubber



		D1 mm	D2 mm	H mm	
999.2034	0,65	70,0	125,0	88,0	60

#### Plastic bucket

- Black
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 5.3mm
- Plastic



		D1 mm	D2 mm	H mm	
140.0036	11	220,0	300,0	240,0	520

#### Plastic bucket

- Black
- With scale marking
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 6.3 mm
- With reinforced handle eyelets
- Plastic



		D1 mm	D2 mm	H mm	
140.0035	11	220,0	300,0	240,0	520

#### Plastic bucket

- Black
- With scale marking
- Flexible
- Resistant to cold
- Environmentally friendly
- With steel handle Ø 6.3 mm
- Soft plastic



		D1 mm	D2 mm	H mm	
140.0037	11	220,0	300,0	240,0	640

#### Solid rubber bucket

- Black
- Extremely flexible
- Resistant to cold
- With steel handle Ø 6.3 mm
- Solid rubber



		D1 mm	D2 mm	H mm	
140.0038	12	205,0	300,0	265,0	1,76

#### Mixing tray

- Black
- Resistant to cold
- Environmentally friendly



	Material		B mm	H mm	L mm	
140.0040	plastic	3	210,0	70,0	310,0	135
140.0041	plastic	13	320,0	150,0	460,0	600
140.0042	plastic	25	400,0	160,0	600,0	970
140.0043	rubber	13	320,0	150,0	460,0	640
140.0044	rubber	25	400,0	160,0	600,0	1370
140.0045	solid rubber	40	500,0	195,0	685,0	7170

## PLUMB LINE

### Marking cord

- Ideal for marking - to use also as a plumb line
- 25 m chalk line
- With cranked handle
- Includes 150 g marking chalk
- Sturdy plastic housing



300.0080	300.0082	280

### Bricklayers chalk line

- Red powder coating
- Special tool steel



	D mm	L mm	g
300.0092	50,0	60,0	600
300.0094	55,0	65,0	800
300.0095	60,0	70,0	1000

## SCREW CLAMPS

### Cast iron screw clamp

- Ideally for steel and general construction
- With pivoting clamping head
- Highly stable
- Extremely robust spindle
- With wooden handle
- Steel profile rail
- Cast iron fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0101	80,0	160,0	3300	0,73
145.0109	100,0	250,0	4000	1,40
145.0112	140,0	300,0	4000	1,60
145.0117	120,0	400,0	4500	1,76
145.0119	120,0	600,0	3600	2,12
145.0126	120,0	1000,0	4500	3,70
145.0132	120,0	1500,0	4500	4,89

### Cast iron screw clamp

- Ideally for steel and general construction
- Double-T-profile rail with rear dovetailing
- With pivoting clamping head
- Highly stable
- Extremely robust spindle
- With wooden handle
- Steel profile rail
- Forged fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0201	50,0	100,0	2200	0,18
145.0209	80,0	160,0	3000	0,50
145.0212	140,0	300,0	6700	1,70
145.0219	120,0	250,0	5500	1,23
145.0228	120,0	400,0	7500	1,91
145.0230	120,0	600,0	7500	2,33
145.0232	120,0	1000,0	10000	3,75

### Steel screw clamp with T-handle

- Ideally for steel and general construction
- Double-T-profile rail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- Highly stable
- Extremely robust spindle
- Steel profile rail
- Forged fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0301	80,0	160,0	3000	0,50
145.0311	120,0	250,0	5500	1,23
145.0312	120,0	300,0	6700	1,70
145.0320	120,0	400,0	7500	1,91
145.0322	120,0	600,0	7500	2,33
145.0324	120,0	1000,0	10000	3,75

### Steel lever clamp with quick release

- Ideally for steel and general construction
- For safe and strong clamping via one-hand operation
- Double-T-profile rail with rear dovetailing
- Highly stable
- Extremely robust spindle
- Steel profile rail
- Forged fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0402	80,0	160,0	3000	0,53
145.0412	120,0	250,0	4000	1,50
145.0415	140,0	300,0	5000	1,90
145.0418	120,0	400,0	5500	2,40
145.0420	120,0	600,0	5500	2,83
145.0421	120,0	800,0	6000	3,64
145.0422	120,0	1000,0	3000	4,20

### U screw clamp

- Ideally for steel and general construction
- Double-T-profile rail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- Highly stable
- Extremely robust spindle
- Steel profile rail
- Forged fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0430	140,0	300,0	3000	2,46
145.0431	140,0	300,0	3000	3,74
145.0432	175,0	300,0	3000	8,30

### Power screw clamp

- Ideally for steel and general construction
- Double-T-profile rail with rear dovetailing
- With pivoting clamping head
- With sliding bar through locking handle
- Highly stable
- Extremely robust spindle
- Steel profile rail
- Forged fixed and moveable heads
- Zinc coated



	Max span depth mm	Max span width mm	Clamping Capacity N	kg
145.0435	175,0	300,0	2200	5,44
145.0436	175,0	500,0	2200	6,56

## PENCILS

### Carpenters pencil

- Flat oval form



	Colour code	Lead	L mm	g
300.0070	●	HB	250,0	10

### Mason pencil

- Flat oval form



	Colour code	Lead	L mm	g
300.0071	●	H	250,0	10

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### Pencil

- For the marking of damp surfaces
- Flat oval form



	Colour code	Lead	L mm	
300.0072		HB	250,0	10

### SANDING BLOCK

#### Sanding block with sponge rubber backing

- Accepts emery and sandpaper etc
- Moulded handle ensures a comfortable grip
- Ideally suited to working on level surfaces
- Clamping clips made from stainless steel
- Special plastic

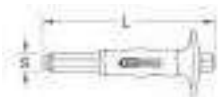


	L mm	B mm	
515.3095	210,0	105,0	330

### FLATTENERS

#### Tapware assembly and dismantling set

- 8-point
- Quenched and tempered
- Special tool steel



	L mm	S mm	
156.0770	170,0	16,0	510

### CONCRETE HOOKS

#### Plasterers hook

- Round
- For clamping of floorboards
- Quenched and tempered
- Black lacquer
- Special tool steel



	L1 mm	L2 mm	S mm	Handle number	
156.0560	250,0	125,0	10,0	-	250
156.0561	300,0	130,0	10,0	-	270

### Plasterers hook

- 8-point
- For clamping of floorboards
- Quenched and tempered
- Black lacquer
- Special tool steel



	L1 mm	L2 mm	S mm	Handle number	
156.0562	250,0	125,0	10,0	-	270
156.0563	300,0	125,0	10,0	-	300

### Plasterers hook

- 4 point
- For clamping of floorboards
- Quenched and tempered
- Red lacquer
- Special tool steel



	L1 mm	L2 mm	S mm	Handle number	
156.0568	250,0	125,0	10,0	-	250
156.0569	300,0	125,0	10,0	-	270

### CROW BAR & PRY BAR

#### Paving crowbar, Hamburg model

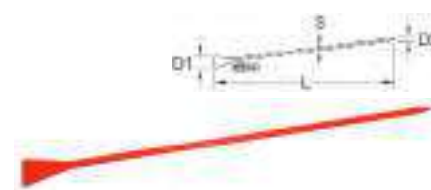
- Round
- with cutting edge
- Quenched and tempered
- Forged
- Special tool steel



	A mm	L mm	
156.0577	30,0	1250,0	7,00
156.0578	30,0	1500,0	8,50

#### Crow bar

- 8-point
- Quenched and tempered
- Red lacquer
- Special tool steel



	D1 mm	D2 mm	Length m	S mm	Handle number	
156.0575	105,0	25,0	1,60	25,0	-	6,21
156.0576	105,0	25,0	1,80	25,0	-	7,94

### Pry bar

- Best suited for and breakdown and installation work
- For pressure testing securely-fitted parts
- Ergonomic single component handle
- Hardened through the whole length
- Chrome molybdenum



	D mm	L1 mm	L2 mm	
911.8101	11,0	200,0	105,0	76
911.8102	16,0	300,0	195,0	200
911.8103	20,0	450,0	315,0	397
911.8104	20,0	600,0	465,0	507

### Pry bar sets

- Best suited for and breakdown and installation work
- For pressure testing securely-fitted parts
- Ergonomic single component handle
- Hardened through the whole length
- Chrome molybdenum



			kg
911.8100	4 pcs	11 x 200 mm - 16 x 300 mm - 20 x 450 mm - 20 x 600 mm	1,33

### Lever bar

- 4 point
- Quenched and tempered
- Black lacquer
- Special tool steel



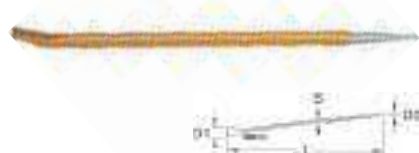
	D1 mm	D2 mm	Length m	S mm	Handle number	
156.0598	22,0	35,0	1,80	37,0	-	8,00





**Bending iron/pry bar**

- Round
- Quenched and tempered
- Forged
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2219	22,0	5,0	605,0	19,0	1,30

**Pry bar**

- Round
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	kg
129.2220	5,5	500,0	170,0	20,0	970

**Bending iron/pry bar**

- 4 point
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2221	14,0	1,0	400,0	14,0	500

**Bending iron/pry bar**

- 6 point
- Quenched and tempered
- Forged
- Cone polished
- Special tool steel



	D1 mm	D2 mm	L mm	S mm	kg
129.2222	22,0	5,0	405,0	16,0	650

**Crow bar**

- 6 point
- Quenched and tempered
- Red lacquer
- Forged
- Special tool steel



	D1 mm	D2 mm	Length in	S mm	Handle number	kg
156.0590	30,0	37,0	0,45	19,0	-	1,16
156.0591	32,0	40,0	0,60	19,0	-	1,30
156.0592	37,0	40,0	0,70	19,0	-	1,56
156.0593	38,0	45,0	0,80	19,0	-	1,95
156.0594	38,0	45,0	1,00	19,0	-	3,27

**Special crow bar**

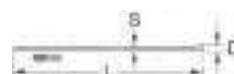
- sides
- Quenched and tempered
- Red lacquer
- Forged
- Special tool steel



	D1 mm	D2 mm	L mm	kg
129.2223	35,0	37,0	500,0	1,35
129.2224	35,0	37,0	600,0	1,80
129.2225	35,0	37,0	800,0	2,30

**Crow bar**

- 8-point
- Quenched and tempered
- Red lacquer
- Special tool steel



	D mm	Length in	S mm	Handle number	kg
156.0595	50,0	1,50	25,0	-	4,84
156.0596	50,0	1,80	25,0	-	5,89
156.0597	50,0	1,25	25,0	-	7,07

**Pry bar**

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



	Bend radius	Length mm	kg
911.8411	0°	900,0	1,70
911.8412	45°	900,0	1,75
911.8413	75°	600,0	1,17
911.8414	90°	600,0	1,20

**Pry bar**

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



	Bend radius	Length mm	kg
911.8415	45°	1150,0	4,75

**Pry bar sets**

- Angular lever end guarantees non slip surface
- Ideally suited for and breakdown and installation work
- Go through blade and hammer cap
- Suitable for the testing of defective bearings
- Two component handle
- Special tool steel
- In durable plastic storage case



			kg
911.8410	4 pcs	0°x900 - 45°x900 - 75°x600 - 90°x600 mm	8,70



### Flexible roll head pry bar

- Extremely versatile and robust execution
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



	Length mm	Assembly levels	
911.8176	250,0	5	385
911.8177	300,0	5	455
911.8178	400,0	5	565

### Flexible roll head pry bar set

- Extremely versatile and robust execution
- Variable adjustable roll head
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



911.8175	3 pcs	250 - 300 - 400 mm	1,50

### Telescopic flexible roll head pry bar

- Lever extension with push-button in steps
- Roller head adjustable in steps
- Extra narrow, with recessed push button
- Maximum power transmission in the narrowest area
- Optimal leverage in minimal work area
- Special tool steel



	L mm	H mm	B mm	
911.8186	325-460	90,0	12,0	780
911.8187	600-915	120,0	20,0	1900
911.8188	865-1350	145,0	24,0	4260



### SHOVEL & BROOM

#### Shovel

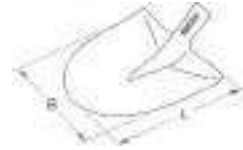
- Round
- With gooseneck
- Supplied without handle
- Black lacquer
- Special tool steel



	L mm	B mm	Handle mm	
144.0801	270,0	270,0	144.0860	1,06
144.0802	290,0	290,0	144.0860	1,17
144.0803	310,0	310,0	144.0860	1,30

#### Shovel

- Alsatian style
- With high edges
- Supplied without handle
- Black lacquer
- Special tool steel



	L mm	B mm	Handle mm	
144.0811	280,0	280,0	144.0861	1,13

#### Shovel

- Square
- With gooseneck
- Supplied without handle
- Black lacquer
- Special tool steel



	L mm	B mm	Handle mm	
144.0806	250,0	250,0	144.0860	1,26

#### Pick axe

- Round
- Supplied without handle
- Black lacquer
- Special tool steel



	B mm	L mm	Handle mm	
144.0901	65,0	560,0	144.0960	2,50

### Pick axe

- Beveled
- Supplied without handle
- Black lacquer
- Special tool steel



	B mm	L mm	Handle	
144.0905	57,0	570,0	144.0961	2,50

### Rake

- Red lacquer
- Supplied without handle
- Special tool steel



	Tooth	H mm	L mm	Handle	
144.0711	14	100,0	400,0	144.0781	715
144.0712	16	100,0	460,0	144.0781	800

### Rake with scraper iron for concrete and bitumen

- Red lacquer
- Supplied without handle
- Special tool steel



	Tooth	H mm	L mm	Handle	
144.0715	16	120,0	460,0	144.0781	1,07

### Shop floor broom

- With red plastic bristles
- Best suited for yard and street
- Also in for use in the wet and snow
- Supplied without wooden handle



	D mm	L mm	Handle	
146.1030	22,0	300,0	146.0012	420
146.1040	22,0	400,0	146.0012	440
146.1050	22,0	500,0	146.0012	470
146.1060	22,0	600,0	146.0012	520

### Shop floor broom

- With coco bristles
- Best suited for dry areas
- For inside and outside
- Supplied without wooden handle



	D mm	L mm	Handle	
146.2080	24,0	290,0	146.0014	300
146.2030	24,0	300,0	146.0014	580
146.2040	24,0	400,0	146.0014	630
146.2050	24,0	500,0	146.0014	670
146.2070	24,0	1000,0	144.0781	1250

### Handbrush

- With wooden handle
- Best suited for dry areas
- For inside and outside
- Coco bristles



	L1 mm	L2 mm	Handle	
146.3005	285,0	150,0	-	145

### Dustpan

- White powder coating
- Material strength 1 mm
- Special tool steel



	L mm	B mm	Handle	
146.3000	228	224,0	-	270

### Floor squeegee

- With black foam rubber
- Zinc coated
- Supplied without wooden handle



	D mm	L mm	Handle	
146.3033	25,0	330,0	146.0012	230
146.3043	24,0	450,0	146.0014	190
146.3055	24,0	550,0	146.0014	220
146.3075	24,0	750,0	146.0014	350

### Wooden handle

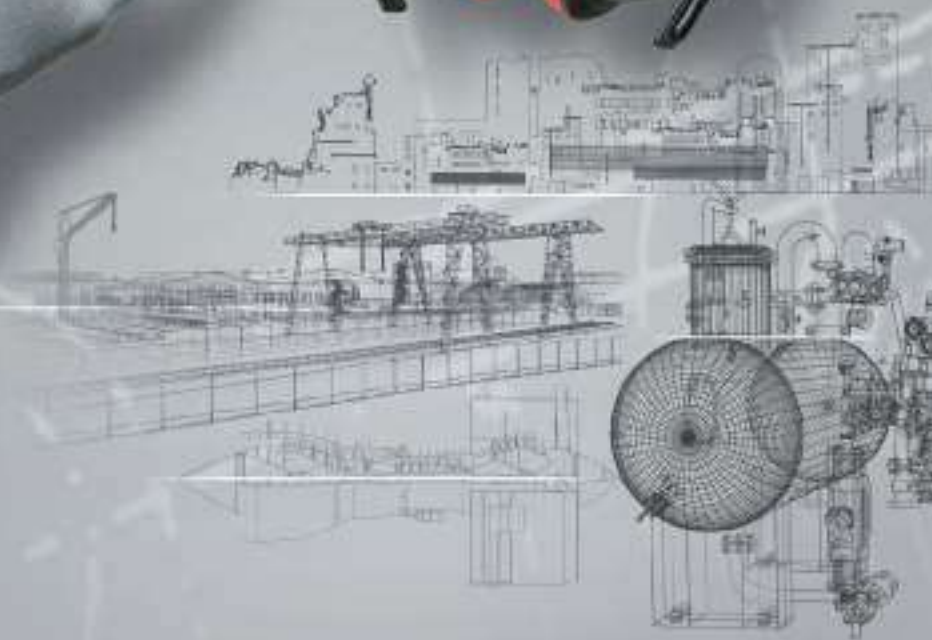
- For shovels and brooms
- Wood



	D mm	L mm	Form	
146.0012	22	1500,0	round	420
146.0014	24	1500,0	round	650
144.0781	28	1500,0	round	520
144.0860	40	1100,0	round	800
144.0861	40	1350,0	round	2200
144.0961	60/40	900,0	oval	750
144.0960	50	900,0	round	750



Innovation is  
our mission!

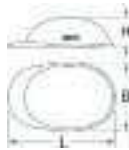


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## HEAD PROTECTION

### Work protective hardhat

- DIN EN 397
- Special plastic



	Colour code	L mm	B mm	H mm	
117.1608	○	290,0	225,0	175,0	370
117.1609	●	290,0	225,0	175,0	370
117.1610	●	290,0	225,0	175,0	370

### Carrying bag for work helmet

- Made out of red leather
- With carrying strap



	B mm	H mm	
117.1612	500,0	480,0	500

## EYE PROTECTION

### Visor

- DIN EN 166
- Frame made from aluminium
- Visor material: PC
- Suitable for standard safety helmets
- Frame made from aluminium
- Size adjustment takes place using spring strip



	Total depth mm	
985.0024	200,0	280

### Electrician's face shield

- DIN EN 166
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 318 kJ (corresponds to prospective test short-circuit current 7 kA/0.5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm<sup>2</sup>
- Colour rendering index > 90%
- Colour rendering index > 90%
- Suitable for standard electrician's hardhat
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied



	Arc fault		
117.1796	class 2	100kV	525

### Welders protective helmet

- Turns fully automatically from bright after dark as soon as the light arch is ignited
- Due to high quality solar cells battery replacement is no longer require
- Equipped with a sensitivity and delaying switch for switching between dark and light to prevent welders blindness when welding at high amp capacity
- Quick switching is possible when changing from seam to spot welding
- Selection switch for reaction time
- Robust multi positional head band
- Complete neck protection
- Face protection to EN 175 / eye protection to EN379 1/1/1/2



#### Technical data:

Switching timed:	1/25,000 s
	0.2 - 0.8 s delay (<span title="">adjustable</span>)
Window:	100 x 50 mm
Cassette size:	100 x 90 x 10 mm
Power requirement:	lithium battery + solar cells
UV / IR protection:	according to EN169 / to DIN 16
Colour selection:	variable adjustment from DIN 9-13 standard light adjustment DIN 4
Working temperature:	-5° to +55°C
Storage temperature:	-20° up to +70°C

	L mm	B mm	H mm	
310.0195	295,0	200,0	220,0	480

### Welders protective helmet

- Turns fully automatically from bright after dark as soon as the light arch is ignited
- Due to high quality solar cells battery replacement is no longer require
- Equipped with a sensitivity and delaying switch for switching between dark and light to prevent welders blindness when welding at high amp capacity
- Quick switching is possible when changing from seam to spot welding
- Selection switch for reaction time
- Robust multi positional head band
- Complete neck protection
- Face protection to EN 175 / eye protection to EN379 1/2/1



#### Technical data:

Switching timed:	1/25,000 s
	0.6 s delay
Window:	98 x 40 mm (3.7/8" x 1.5/8")
Cassette size:	110 x 90 x 9 mm (4.3/8" x 3.1/2" x 0.35")
Power requirement:	lithium battery + solar cells
UV / IR protection:	according to EN169 / to DIN 16
Colour selection:	variable adjustment from DIN 9-13 standard light adjustment DIN 3 (4)
Working temperature:	-5° to +55°C
Storage temperature:	-20° up to +70°C

	L mm	B mm	H mm	
310.0180	330,0	200,0	200,0	830



### Welders protective helmet with integrated headlamp

- Ideal for dark work areas where poor light conditions are given
- Turns fully automatically from bright after dark as soon as the light arch is ignited
- Due to high quality solar cells battery replacement is no longer require
- Equipped with a sensitivity and delaying switch for switching between dark and light to prevent welders blindness when welding at high amp capacity
- Quick switching is possible when changing from seam to spot welding
- Selection switch for reaction time
- Robust multi positional head band
- Complete neck protection
- Face protection to EN 175 / eye protection to EN379 1/2/1
- 3 Watt CREE Chip Power LED
- Luminous flux 100 Lumen
- Up to 100 m light range
- Zoom from spot to flood light
- With multifunctional-button: 1W / 3W / Blink
- Lamp can be additionally tilted in 5 click stops
- Weatherproof protection IPX3
- 3 hours lamp duration
- Includes 3 x AAA 1,5V batteries



#### Technical data:

Switching timed:	1/25,000 s 0.6 s delay
Window:	98 x 40 mm (3.7/8" x 1.5/8")
Cassette size:	110 x 90 x 9 mm (4.3/8" x 3.1/2" x 0.35")
Power requirement:	lithium battery + solar cells
UV / IR protection:	according to EN169 / to DIN 16
Colour selection:	variable adjustment from DIN 9-13 standard light adjustment DIN 3 (4)
Working temperature:	-5° to +55°C
Storage temperature:	-20° up to +70°C
Headlight range:	max. 100,0 m
Luminosity:	3 W

	L mm	B mm	H mm	
310.0185	330,0	200,0	200,0	575

#### consists of:

550.1238	perfectLight headlamp with focus 140 lumen	170
310.0180	Welders protective helmet, racing design	830



### Glasses - orange with ear plugs

- orange-tinted glasses
- compensates for rapid light and shade change
- Suitable for long duration usage
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in machining operations
- Optimal design
- Polycarbonate lens
- Ear plugs with cord included
- CE / EN 352-2
- Ear plugs made from 100% PU
- Sound level reduction: 33 dB



310.0161	Glasses - orange with ear plugs	30

### Glasses - yellow with ear plugs

- Yellow shading to increase contrast
- Suitable for long duration usage
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in machining operations
- Optimal design
- Polycarbonate lens
- Ear plugs with cord included
- CE / EN 352-2
- Ear plugs made from 100% PU
- Sound level reduction: 33 dB



310.0166	Glasses - yellow with ear plugs	30

### Glasses - black with ear plugs

- Glasses grey tinted
- Suitable for long duration usage
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in machining operations
- Optimal design
- Polycarbonate lens
- Ear plugs with cord included
- CE / EN 352-2
- Ear plugs made from 100% PU
- Sound level reduction: 33 dB



310.0171	Glasses - black with ear plugs	30

### Glasses - transparent with ear plugs

- Glasses clear
- Suitable for long duration usage
- With UV protection
- Sporting design
- Extremely substantial frame
- Offer protection in machining operations
- Optimal design
- Polycarbonate lens
- Ear plugs with cord included
- CE / EN 352-2
- Ear plugs made from 100% PU
- Sound level reduction: 33 dB



310.0176	Glasses - transparent with ear plugs	30

### Glasses - transparent

- EN 166
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- With firm frame
- With ear clip
- Polycarbonate lens



310.0110	Glasses - transparent	45

### Goggles with elastic headband - transparent

- EN 166
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- Adjustable elastic band
- With soft PVC frame
- Polycarbonate lens



310.0120	Goggles with elastic headband - transparent	75

### Goggles with elastic headband - transparent with ventilation

- CE EN 166
- With 4 vent holes
- Practical for spectacle wearers
- With ventilation holes for clear visibility
- Adjustable elastic band
- With soft PVC frame
- Polycarbonate lens



310.0112	Goggles with elastic headband - transparent with ventilation	75

## EAR PROTECTION

### Ear plugs PU, without cord

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- Without cord
- Sound level reduction: 33 dB



Content		
985.7050	20 pairs	550

### Ear plugs PU, with cord

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- With cord
- Sound level reduction: 33 dB



Content		
985.7051	20 pairs	50

### Ear plugs PU, with cord and mushroom head

- 20 pairs
- CE / EN 352-2
- Made from 100% PU
- With cord
- With mushroom head
- Sound level reduction: 33 dB



Content		
985.7055	20 pairs	80



### Padded ear defenders with headband - blue

- CE / EN 352-1
- With adjustable and padded ear shells for comfortable wear
- Ear shells with stepless fast adjustment
- Sound level reduction: 25 dB



Content		
310.0131	Padded ear defenders with headband - blue	181

### Electronic padded ear protection with headband - black

- With integrated microphone
- protects against continuous noise and impulse noise up to 85 dB
- Perception of warning signals through microphone possible
- Volumes regulation through adjusting button



Content		
310.0135	Electronic padded ear protection with headband - black	250

## WELDING PROTECTION

### Welding coat

- Double leather closure, front
- With hook and loop fastener
- Adjustable cuffs
- Lined collar and with hook and loop fastener for additional protection
- Inner pocket



Content		
985.7000	L	1,80
985.7001	XL	1,80
985.7002	XXL	1,82
985.7003	XXXL	1,82

### Welding apron

- Made from leather
- Adjustable in length
- Size of the waist adjustable
- Breast pocket



Content		L mm	
985.7019	L	910,0	775
985.7020	XL	1080,0	775





### Leather sleeves

- Dark brown
- Made from leather
- Ends with elastic band



	L mm	Content	
985.7021	400,0	2	320

### Leather sleeves

- Light brown
- Made from leather
- Ends with elastic band



	L mm	Content	
985.7022	400,0	2	335

### Welding leather gloves

- Made from leather
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves



	Size mm	
985.7034	8	365
985.7035	9	365
985.7036	10	365
985.7037	11	365

### Welding leather gloves, long

- Made from leather
- Extra long
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves



	Size mm	
985.7038	8	495
985.7039	9	495
985.7040	10	495
985.7041	11	495

### Flame proof mats

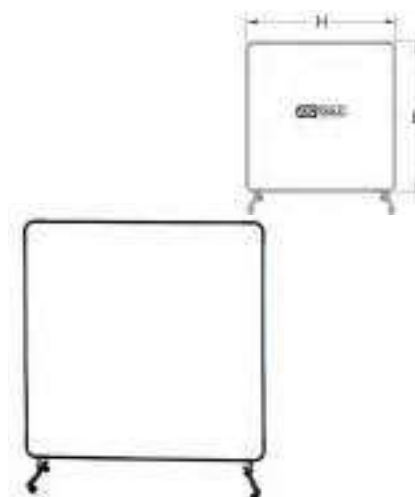
- Asbestos free
- Reduced fire risk
- Very flexible
- Good formability



	B mm	L mm	max. °C	
610.3350	330,0	500,0	700	330
610.3351	460,0	800,0	700	650
610.3399	1500,0	2000,0	600	2110

### Frame for welding protection screen

- Very stable frame made from steel tubing
- With direct rolls
- With 360° swivel joint



	L mm	H mm	
985.7026	1780,0	1780,0	4,50

### Welding protection awning

- Resistant against UV rays, flames and wear
- Edges with eyelets at 30cm intervals
- In accordance with DIN EN ISO 25980
- Material thickness 0.4 mm
- Without frame



	Colour code	L mm	H mm	
985.7027	●	1740,0	1740,0	1,72
985.7028	●	1740,0	1740,0	1,72
985.7029	●	1740,0	1740,0	1,72



# Specifications and rules for hand protection

In order to find the correct protective glove safely and quickly which is suitable for your work area, our products are divided into categories. This means you can find the glove that meets your requirements reliably:

**I - low risk of injury**

basic, mechanical protection against welding, fingerprints, etc.

**II - specific risk of injury**

excellent protection against mechanical exposure

**III - irreversible damage and risk to life**

highest protection against chemical, bacterial, thermal and static exposure



**Fully adequate chemical protection (EN 374)**



**Basic chemical protection (EN 374)**

for waterproof gloves with low protection against chemical substances



**Protection against the cold (EN 511)**



**Protection against mechanical dangers (EN 388)**

applies for the following physical and mechanical exposure:



**Protection from heat and fire (EN 407)**



**Protection from ionising radiation (EN 421)**



**Protection from radioactive contamination (EN 421)**



**Bear the information brochure in mind (EN 420)**



**Suitable for processing foodstuffs**

**• Wear resistance**

number of cycles required for the glove to wear through

**• Cut resistance**

number of cycles required to cut through the glove

**• Tear resistance**

force required to rip through the glove

**• Penetration resistance**

force required to puncture the glove


**Micro fine woven gloves - white**

- CE / EN 388 [4131X]
- Very comfortable design and fit
- Especially breathable fabric
- With PU reinforced gripping palm
- Ideal for working with small parts
- Printed logo



	Size mm	Content	
310.0495	7	12 pair	500
310.0496	8	12 pair	500
310.0450	9	12 pair	385
310.0455	10	12 pair	435
310.0460	11	12 pair	482

**Micro fine woven gloves - black**

- CE / EN 388 [4131X]
- Very comfortable design and fit
- Especially breathable fabric
- With PU reinforced gripping palm
- Ideal for working with small parts
- Printed logo



	Size mm	Content	
310.0490	7	12 pair	400
310.0491	8	12 pair	500
310.0470	9	12 pair	398
310.0475	10	12 pair	430
310.0480	11	12 pair	445

Gloves

- CE / EN 388 [3142]
- Glove exterior surface made from polyester
- Glove interior made from nitrile
- Very comfortable design and fit
- Especially breathable fabric
- Good to wear




	Size mm	
310.0416	8	60
310.0417	9	65
310.0418	10	70

Gloves

- CE / EN 388 [2142]
- Made from nitrile
- With silicone gel padding in the palm area
- Good to wear
- With elasticated wrists




	Size mm	
310.0431	8	60
310.0432	9	65
310.0433	10	70



Gloves, cut resistant

- CE / EN 388 [4343]
- With PU coating
- Especially cut resistant
- Ideal for working with small parts
- Very comfortable design and fit
- With elasticated wrists
- With hook and loop fastener




	Size mm	
310.0441	8	60
310.0442	9	65
310.0443	10	70

Chemical protection gloves

- CE / EN 388 [4232] / EN 374 GKL
- Made from nitrile
- Lined with jersey
- Can be used for heavy and dangerous work
- Suitable for work with chemicals, oils and greases
- With open sleeves



	Size mm	
310.0421	8	140
310.0422	9	155
310.0423	10	165



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### Welding leather gloves

- Made from leather
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves



	Size mm	
985.7034	8	365
985.7035	9	365
985.7036	10	365
985.7037	11	365

### Welding leather gloves, long

- Made from leather
- Extra long
- Good, comfortable wear
- Can be used for applications with heat
- With open sleeves



	Size mm	
985.7038	8	495
985.7039	9	495
985.7040	10	495
985.7041	11	495



### Leather mechanic glove

- CE / EN 388 [2111]
- Universal use for work and leisure
- Ideal for working with small parts secure grip
- Inner palm - synthetic material leather
- With anti-vibration protection
- With elasticated wrists
- With hook and loop fastener



	Size mm	
310.0250	9	95
310.0255	10	95
310.0260	11	100

### Electrician protective glove with natural latex insulation

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

**Attention:** Over-gloves are necessary for mechanical protection!



	Thickness mm	Size mm	Electrosolt Class	L mm		
117.2315	1,0	8	0	400,0		215
117.1662	1,0	10	0	400,0		215
117.1661	1,0	9	0	400,0		215
117.1762	2,0	10	0	410,0		470
117.1756	1,0	9	00	410,0		168
117.1757	1,0	10	00	410,0		189
117.2316	1,0	11	0	400,0		215

### Electrician protective glove with natural latex insulation

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

**Attention:** Over-gloves are necessary for mechanical protection!



	Thickness mm	Size mm	Electrosolt Class	L mm		
117.1663	1,0	9	0	360,0		215
117.1664	1,0	10	0	360,0		215
117.1132	2,0	10	1	360,0		250
117.1133	2,0	10	3	410,0		690
117.1134	2,5	10	4	410,0		890

## TROUSERS

### Work shorts

- With various universal pockets
- Embroidered logo
- Washable up to 60°

**Material:**  
65% cotton  
35% polyester



	Size mm	
985.0660	48	380
985.0661	50	405
985.0662	52	435
985.0663	56	470
985.0664	60	500

### Work trousers

- With elasticated waistband inserts
- With hammer loop
- With various universal pockets
- Embroidered logo

**Material:**  
65% cotton  
35% polyester



	Size mm	
985.0670	48	660
985.0671	50	685
985.0672	52	705
985.0673	56	800
985.0674	60	750



### Work dungarees

- With various universal pockets
- Adjustable strap with clip closures
- Adjustable drawstring on the leg
- Embroidered logo

**Material:**  
65% cotton  
35% polyester



	Size mm	
985.0650	48	930
985.0651	50	900
985.0652	52	915
985.0653	56	935
985.0654	60	980

## OVERALL

### Overall - red-black

- With zip fastener
- With various universal pockets
- With padding
- Embroidered logo
- Washable up to 30°

**Material:**  
35% Cotton  
65% Polyester



	Size mm	
100391	M	1,10
100392	L	1,20
100393	XL	1,30
100394	XXL	1,40

### racng overalls

- With zip fastener
- With various universal pockets
- With padding
- Embroidered logo
- Washable up to 30°

**Material:**  
100 % Cotton

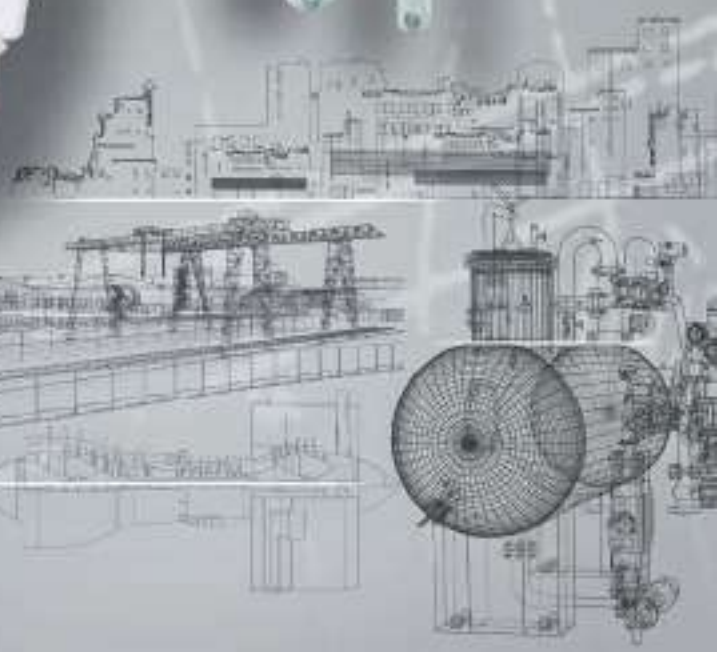


	Size mm	
985.0940	M	1,35
985.0941	L	1,39
985.0942	XL	1,45
985.0943	XXL	1,49

DIN AND STANDARD PARTS RANGES



Innovation is our mission!



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## FUSES

### Automotive mini fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case



970.0740	100 pcs	Automotive mini fuses assortment	120	
10 x		2 A / ISO 8820-3		
10 x		3 A / ISO 8820-3		
10 x		4 A / ISO 8820-3		
10 x		5 A / ISO 8820-3		
10 x		7.5 A / ISO 8820-3		
10 x		10 A / ISO 8820-3		
10 x		15 A / ISO 8820-3		
10 x		20 A / ISO 8820-3		
10 x		25 A / ISO 8820-3		
10 x		30 A / ISO 8820-3		

### Automotive mini fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case



970.0280	120 pcs	Automotive mini fuses assortment	190	
20 x		5 A / ISO 8820-3		
20 x		10 A / ISO 8820-3		
20 x		15 A / ISO 8820-3		
20 x		20 A / ISO 8820-3		
20 x		25 A / ISO 8820-3		
20 x		30 A / ISO 8820-3		

### Automotive fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case



970.0730	36 pcs	Automotive fuses assortment	250	
6 x		20 A / ISO 8820-3		
6 x		30 A / ISO 8820-3		
6 x		40 A / ISO 8820-3		
6 x		50 A / ISO 8820-3		
3 x		60 A / ISO 8820-3		
3 x		70 A / ISO 8820-3		
3 x		80 A / ISO 8820-3		
3 x		100 A / ISO 8820-3		

### Automotive fuses assortment

- According to ISO 8820-3
- Fuses colour-coded according to ampere sizes
- In plastic storage case



970.0250	120 pcs	Automotive fuses assortment	210	
20 x		5 A / ISO 8820-3		
20 x		10 A / ISO 8820-3		
20 x		15 A / ISO 8820-3		
20 x		20 A / ISO 8820-3		
20 x		25 A / ISO 8820-3		
20 x		30 A / ISO 8820-3		



### Glass fuses assortment

- Trigger characteristics: Idle
- In plastic storage case



970.0270	120 pcs	Glass fuses assortment	220	
20 x		5 A		
20 x		10 A		
20 x		15 A		
20 x		20 A		
20 x		25 A		
20 x		30 A		

## CABLE SPLICES

### Crimp connectors assortment

- Suitable for wire cross sections: Red 0.5-1.5 mm<sup>2</sup>, blue 1.5-2.5 mm<sup>2</sup>, yellow 2.5-6.0 mm<sup>2</sup>
- In plastic storage case



970.0290	160 pcs	Crimp connectors assortment	260	
12 x		0,5-1,5 mm <sup>2</sup>		
18 x		1,5-2,5 mm <sup>2</sup>		
20 x		1,5-2,5 mm <sup>2</sup>		
12 x		2,5-6,0 mm <sup>2</sup>		
8 x		0,5-1,5 mm <sup>2</sup> M4		
10 x		1,5-2,5 mm <sup>2</sup> M4		
10 x		1,5-2,5 mm <sup>2</sup> M5		
10 x		1,5-2,5 mm <sup>2</sup> M6		
4 x		2,5-6,0 mm <sup>2</sup> M5		



4 x		2,5-6,0 mm² M8
4 x		2,5-6,0 mm² M10
10 x		1,5-2,5 mm²
5 x		2,5-6,0 mm²
10 x		1,5-2,5 mm²
5 x		2,5-6,0 mm²
10 x		1,5-2,5 mm² M4
4 x		0,5-1,5 mm²
4 x		1,5-2,5 mm²

**Crimp connectors assortment**

- Suitable for wire cross sections: Red 0,5-1,5 mm², blue 1,5-2,5 mm², yellow 2,5-6,0 mm²
- In plastic storage case



**Assortment shrink butt connectors**

- Suitable for cable cross-sections: red 0,5 - 1,5 mm², blue 1,5 - 2,5 mm², yellow 4,0 - 6,0 mm²
- In plastic storage case



976.0790 200 pcs. Assortment shrink butt connectors 370		
90 x		Ø 0,5 - 1,5 mm²
90 x		Ø 1,5 - 2,5 mm²
20 x		Ø 4,0 - 6,0 mm²

**Assortment wire end ferrules with crimping pliers**

- Suitable for cable cross-sections: 0,25 - 6,0 mm²
- In plastic storage case



976.0840 1001 pcs. Assortment wire end ferrules with crimping pliers 600		
125 x		0,25 mm²
125 x		0,50 mm²
125 x		0,75 mm²
125 x		1,00 mm²
125 x		1,50 mm²
125 x		2,50 mm²
125 x		4,00 mm²
125 x		6,00 mm²
1 x		0,25 - 6,0 mm

**Branch connectors assortment**

- Suitable for wire cross sections: Red 0,5-1,5 mm², blue 1,5-2,5 mm²
- In plastic storage case



976.0770 50 pcs. Branch connectors assortment 145		
25 x		0,5-1,5 mm²
25 x		1,5-2,5 mm²



**SHRINK TUBING**

**Shrink-on tubes assortment**

- Shrinkage ratio 2:1
- In plastic storage case



976.0200 127 pcs. Shrink-on tubes assortment 100		
30 x		2,0x40 mm
25 x		2,5x40 mm
20 x		3,5x40 mm
20 x		5,0x40 mm
16 x		7,0x80 mm
8 x		10,0x80 mm
8 x		13,0x85 mm

976.0300 360 pcs. Crimp connectors assortment 450		
10 x		0,5-1,5 mm²
30 x		0,5-1,5 mm²
30 x		1,5-2,5 mm²
10 x		1,5-2,5 mm²
15 x		2,5-6,0 mm²
30 x		1,5-2,5 mm² M5
20 x		1,5-2,5 mm² M6
20 x		1,5-2,5 mm² M10
20 x		2,5-6,0 mm² M6
15 x		2,5-6,0 mm² M8
15 x		2,5-6,0 mm² M10
25 x		1,5-2,5 mm²
25 x		1,5-2,5 mm²
30 x		1,5-2,5 mm² M5
20 x		2,5-6,0 mm² M6
25 x		1,5-2,5 mm²
10 x		1,5-2,5 mm²
10 x		1,5-2,5 mm²

### Shrink tubing assortment

- Shrinkage ratio 2:1
- In plastic storage case



970.0540	100 pcs	Shrink tubing assortment	130
30 x		1,5x100 mm	
30 x		2,5x100 mm	
20 x		4,0x100 mm	
10 x		6,0x100 mm	
6 x		10,0x100 mm	
4 x		13,0x100 mm	

### SNAP RINGS

#### Snap rings assortment, internal

- in accordance with DIN 472
- In plastic storage case



970.0090	180 pcs	Snap rings assortment, internal	180
15 x		Ø 3 mm / DIN 472	
10 x		Ø 4 mm / DIN 472	
10 x		Ø 5 mm / DIN 472	
15 x		Ø 6 mm / DIN 472	
10 x		Ø 8 mm / DIN 472	
15 x		Ø 10 mm / DIN 472	
10 x		Ø 11 mm / DIN 472	
10 x		Ø 12 mm / DIN 472	
10 x		Ø 13 mm / DIN 472	
10 x		Ø 14 mm / DIN 472	
10 x		Ø 16 mm / DIN 472	

10 x		Ø 19 mm / DIN 472
10 x		Ø 20 mm / DIN 472
8 x		Ø 22 mm / DIN 472
8 x		Ø 25 mm / DIN 472
8 x		Ø 26 mm / DIN 472
6 x		Ø 28 mm / DIN 472
5 x		Ø 32 mm / DIN 472

#### Snap rings assortment, external

- in accordance with DIN 471
- In plastic storage case



970.0100	300 pcs	Snap rings assortment, external	290
20 x		Ø 3 mm / DIN 471	
10 x		Ø 4 mm / DIN 471	
15 x		Ø 5 mm / DIN 471	
25 x		Ø 6 mm / DIN 471	
15 x		Ø 8 mm / DIN 471	
20 x		Ø 9 mm / DIN 471	
15 x		Ø 11 mm / DIN 471	
15 x		Ø 12 mm / DIN 471	
25 x		Ø 13 mm / DIN 471	
15 x		Ø 14 mm / DIN 471	
20 x		Ø 16 mm / DIN 471	
25 x		Ø 19 mm / DIN 471	
15 x		Ø 20 mm / DIN 471	
20 x		Ø 22 mm / DIN 471	
15 x		Ø 25 mm / DIN 471	
15 x		Ø 26 mm / DIN 471	
10 x		Ø 28 mm / DIN 471	
5 x		Ø 32 mm / DIN 471	



#### Snap rings assortment, external & internal

- In accordance with DIN 471/472
- In plastic storage case



970.0310	225 pcs	Snap rings assortment, external & internal	250
15 x		Ø 6 mm / DIN 471	
15 x		Ø 8 mm / DIN 471	
15 x		Ø 9 mm / DIN 471	
15 x		Ø 11 mm / DIN 471	
15 x		Ø 13 mm / DIN 471	
15 x		Ø 14 mm / DIN 471	
15 x		Ø 16 mm / DIN 471	
15 x		Ø 19 mm / DIN 471	
10 x		Ø 20 mm / DIN 471	
10 x		Ø 22 mm / DIN 471	
10 x		Ø 25 mm / DIN 471	
5 x		Ø 32 mm / DIN 471	
15 x		Ø 11 mm / DIN 472	
10 x		Ø 13 mm / DIN 472	
10 x		Ø 14 mm / DIN 472	
15 x		Ø 16 mm / DIN 472	
10 x		Ø 19 mm / DIN 472	
10 x		Ø 20 mm / DIN 472	

**E-RING CIRCLIPS**

**E-Ring circlips assortment**

- In accordance with DIN 6799
- In plastic storage case



E-Ring circlips assortment			300
30 x		Ø 1,5 mm / DIN 6799	
30 x		Ø 3,0 mm / DIN 6799	
40 x		Ø 5,0 mm / DIN 6799	
50 x		Ø 8,0 mm / DIN 6799	
50 x		Ø 10,0 mm / DIN 6799	
40 x		Ø 12,0 mm / DIN 6799	
20 x		Ø 15,0 mm / DIN 6799	
20 x		Ø 18,0 mm / DIN 6799	
20 x		Ø 22,0 mm / DIN 6799	

**BAE E-Ring circlips assortment**

- In accordance with DIN 6799
- In plastic storage case



BAE E-Ring circlips assortment			320
30 x		1/16" / DIN 6799	
30 x		1/8" / DIN 6799	
40 x		3/16" / DIN 6799	
50 x		1/4" / DIN 6799	
50 x		3/8" / DIN 6799	
40 x		1/2" / DIN 6799	
20 x		5/8" / DIN 6799	
20 x		3/4" / DIN 6799	
20 x		7/8" / DIN 6799	

**HOSE CLAMPS**

**Hose clamp assortment**

- Suitable for tube diameters 16-40mm
- In plastic storage case



Hose clamp assortment			300
8 x		Ø 16 mm	
8 x		Ø 22 mm	
4 x		Ø 25 mm	
2 x		Ø 28 mm	
2 x		Ø 35 mm	
4 x		Ø 40 mm	

**Assortment single ear hose clamps**

- Suitable for tube diameters 5,0-21mm
- Stainless steel
- In plastic storage case



Assortment single ear hose clamps			400
20 x		Ø 5,0 - 7,0 mm	
25 x		Ø 7,3 - 9,0 mm	
25 x		Ø 8,8 - 10,5 mm	
20 x		Ø 10,8 - 13,3 mm	
20 x		Ø 12,0 - 14,5 mm	
20 x		Ø 12,3 - 14,8 mm	
20 x		Ø 14,5 - 17,0 mm	
15 x		Ø 18,0 - 19,2 mm	
15 x		Ø 17,8 - 21,0 mm	



**Assortment mini hose clamps**

- Suitable for tube diameters 7-19mm
- In plastic storage case



Assortment mini hose clamps			500
10 x		Ø 7 - 8 mm	
10 x		Ø 8 - 10 mm	
10 x		Ø 9 - 11 mm	
10 x		Ø 10 - 12 mm	
6 x		Ø 11 - 13 mm	
6 x		Ø 12 - 14 mm	
6 x		Ø 13 - 15 mm	
6 x		Ø 14 - 16 mm	
7 x		Ø 15 - 17 mm	
7 x		Ø 16 - 18 mm	

## GREASE NIPPLES

### Grease nipple assortment

- in accordance with DIN 71412
- In plastic storage case



970.0030	110 pcs	Grease nipple assortment	500
60 x		M6 x1 mm/0° / DIN 71412	
10 x		M8 x1 mm/0° / DIN 71412	
10 x		M10x1 mm/0° / DIN 71412	
5 x		M6 x1 mm/45° / DIN 71412	
5 x		M8 x1 mm/45° / DIN 71412	
5 x		M10x1 mm/45° / DIN 71412	
5 x		M6 x1 mm/90° / DIN 71412	
5 x		M8 x1 mm/90° / DIN 71412	
5 x		M10x1 mm/90° / DIN 71412	

### Greasing nipples assortment, metric & imperial

- In plastic storage case



970.0360	70 pcs	Greasing nipples assortment, metric & imperial	410
10 x		1/8"x27,0 mm / DIN 71412	
20 x		1/4"x28,0 mm / DIN 71412	
10 x		6x 1,0 mm / DIN 71412	
5 x		8x 1,0 mm / DIN 71412	
5 x		10x 1,0 mm / DIN 71412	
5 x		1/8"x27,0 mm/45° / DIN 71412	
5 x		1/4"x28,0 mm/45° / DIN 71412	
5 x		1/8"x27,0 mm/90° / DIN 71412	
5 x		1/4"x28,0 mm/90° / DIN 71412	

## SAFETY ELEMENTS

### Split pins assortment

- in accordance with DIN 94
- Straight design
- In plastic storage case



970.0080	555 pcs	Split pins assortment	700
150 x		1,6x25 mm / DIN 94	
150 x		2,4x25 mm / DIN 94	
100 x		2,4x38 mm / DIN 94	
75 x		3,2x32 mm / DIN 94	
50 x		3,2x50 mm / DIN 94	
30 x		4,0x64 mm / DIN 94	

### Split pins assortment

- in accordance with DIN 94
- Straight design
- In plastic storage case



970.0330	1000 pcs	Split pins assortment	1,00
380 x		1,5x25 mm / DIN 94	
240 x		2,5x25 mm / DIN 94	
140 x		2,5x38 mm / DIN 94	
115 x		3,0x30 mm / DIN 94	
75 x		3,0x50 mm / DIN 94	
50 x		4,0x60 mm / DIN 94	

## Roll pins assortment

- in accordance with DIN 1481
- Ideally suited for the automotive sector
- In plastic storage case



970.0020	315 pcs	Roll pins assortment	810
10 x		1,5x 5,0 mm / DIN 1481	
10 x		1,5x 8,0 mm / DIN 1481	
10 x		1,5x20,0 mm / DIN 1481	
10 x		2,0x 6,0 mm / DIN 1481	
10 x		2,0x12,0 mm / DIN 1481	
10 x		2,0x25,0 mm / DIN 1481	
10 x		2,5x16,0 mm / DIN 1481	
10 x		2,5x25,0 mm / DIN 1481	
10 x		2,5x30,0 mm / DIN 1481	
15 x		3,0x16,0 mm / DIN 1481	
15 x		3,0x25,0 mm / DIN 1481	
15 x		3,0x30,0 mm / DIN 1481	
10 x		4,0x16,0 mm / DIN 1481	
10 x		4,0x25,0 mm / DIN 1481	
10 x		4,0x40,0 mm / DIN 1481	
15 x		5,0x16,0 mm / DIN 1481	
15 x		5,0x25,0 mm / DIN 1481	
15 x		5,0x30,0 mm / DIN 1481	
10 x		5,5x16,0 mm / DIN 1481	
10 x		5,5x30,0 mm / DIN 1481	
10 x		5,5x45,0 mm / DIN 1481	
10 x		6,0x16,0 mm / DIN 1481	
10 x		6,0x30,0 mm / DIN 1481	
10 x		6,0x45,0 mm / DIN 1481	
10 x		8,0x20,0 mm / DIN 1481	
10 x		8,0x40,0 mm / DIN 1481	
10 x		8,0x50,0 mm / DIN 1481	
5 x		10,0x20,0 mm / DIN 1481	
5 x		10,0x40,0 mm / DIN 1481	
5 x		10,0x50,0 mm / DIN 1481	

### Security bolts assortment

- Split pin mounting 2.5 - 3 - 4mm
- In plastic storage case



970.0210	60 pcs	Security bolts assortment	1050
4 x		2,5 mm	5,0x25 mm
4 x		2,5 mm	6,0x25 mm
3 x		2,5 mm	6,0x30 mm
4 x		2,5 mm	6,0x40 mm
3 x		2,5 mm	6,0x45 mm
3 x		2,5 mm	6,0x50 mm
3 x		2,5 mm	6,0x60 mm
3 x		2,5 mm	6,0x65 mm
3 x		3,0 mm	8,0x25 mm
3 x		3,0 mm	8,0x30 mm
4 x		3,0 mm	8,0x40 mm
3 x		3,0 mm	8,0x45 mm
2 x		3,0 mm	8,0x50 mm
2 x		3,0 mm	8,0x60 mm
1 x		3,0 mm	8,0x65 mm
2 x		3,0 mm	8,0x70 mm
4 x		4,0 mm	10x25 mm
3 x		4,0 mm	10x40 mm
2 x		4,0 mm	10x50 mm
2 x		4,0 mm	12x40 mm
2 x		4,0 mm	12x50 mm

### Lynch pins assortment

- For securing to agricultural and construction machines
- In plastic storage case



970.0550	50 pcs	Lynch pins assortment	1,46
16 x		Ø 4,5x36 mm	
18 x		Ø 6,0x45 mm	
6 x		Ø 8,0x45 mm	
10 x		Ø 11,0x45 mm	

### Spring split pins assortment

- In accordance with DIN 11024
- Fuse element in machine and vehicle construction
- In plastic storage case



970.0060	150 pcs	Spring split pins assortment	520
30 x		2,0x33 mm / DIN 11024	
25 x		2,0x40 mm / DIN 11024	
42 x		2,4x31 mm / DIN 11024	
25 x		2,8x42 mm / DIN 11024	
20 x		3,5x45 mm / DIN 11024	
8 x		4,0x75 mm / DIN 11024	



### Roll pins/Seeger rings/ feather keys/E-Ring circlips assortment

- in accordance with DIN 471
- According to ISO 3912/13337
- In plastic storage case



970.0520	295 pcs	Roll pins/Seeger rings/ feather keys/E-Ring circlips assortment	220
12 x		3/8" / DIN 471	
12 x		1/2" / DIN 471	
12 x		5/8" / DIN 471	
12 x		3/4" / DIN 471	
20 x		1/4" / DIN 6799	
20 x		3/8" / DIN 6799	
12 x		1/8"x5/8" / ISO 13337	
12 x		1/8"x 1" / ISO 13337	
12 x		5/32"x5/8" / ISO 13337	
12 x		5/32"x 1" / ISO 13337	
12 x		3/16"x5/8" / ISO 13337	
12 x		3/16"x 1" / ISO 13337	
25 x		3/32"x3/8" / ISO ISO3912	
25 x		3/32"x1/2" / ISO ISO3912	
25 x		1/8"x1/2" / ISO ISO3912	
25 x		1/8"x5/8" / ISO ISO3912	
25 x		5/32"x5/8" / ISO ISO3912	
10 x		3/16"x3/4" / ISO ISO3912	



**Feather keys assortment**

- For securing of shafts
- In plastic storage case



		KS	
976.8900	86 pcs	Feather key assortment	335
10 x		3x5,0x13 mm	
10 x		3x6,5x16 mm	
10 x		4x5,0x13 mm	
10 x		4x6,5x16 mm	
10 x		4x7,5x19 mm	
10 x		5x7,5x19 mm	
10 x		6x9,0x22 mm	
10 x		6x9,0x22 mm	

**Springs assortment**

- Range of compression and tension springs
- In plastic storage case



		KS	
976.8916	330 pcs	Springs assortment	376
12 x		4,0x79,5 mm	
8 x		4,5x44,5 mm	
10 x		5,0x20,5 mm	
10 x		5,5x25,5 mm	
10 x		6,5x22,0 mm	
10 x		7,0x28,0 mm	

12 x		7,0x11,0 mm
8 x		8,0x28,5 mm
10 x		8,0x31,5 mm
12 x		8,0x44,5 mm
10 x		8,5x26,5 mm
12 x		8,5x47,0 mm
10 x		5,5x17,0 mm
10 x		5,5x28,0 mm
10 x		6,5x10,0 mm
10 x		7,0x12,5 mm
10 x		7,0x19,0 mm
8 x		9,0x35,0 mm
6 x		9,5x16,0 mm
12 x		9,5x19,0 mm


**NAILS**
**Nails assortment**

- Ideal for hobbies and workshops
- In plastic storage case



		KS	
976.8970	160 pcs	Nails assortment	400
100 x		1,3x22 mm	
80 x		1,4x25 mm	
90 x		1,6x30 mm	
50 x		2,0x38 mm	
20 x		2,5x50 mm	
80 x		1,0x25 mm	
80 x		1,6x31 mm	
30 x		2,0x38 mm	
30 x		2,5x30 mm	

**SCREWS/NUTS/RING WASHERS**
**Metal & wooden screws assortment, self-tapping**

- According to ISO 7049/7050
- In plastic storage case



		KS	
976.8910	740 pcs	Metal & wooden screws assortment, self-tapping	348
20 x		44x1/2" / ISO 7049	
20 x		56x1/2" / ISO 7049	
20 x		66x5/8" / ISO 7049	
20 x		56x3/4" / ISO 7049	
20 x		46x5/8" / ISO 7049	
20 x		46x 1" / ISO 7049	
20 x		46x1/2" / ISO 7050	
20 x		46x3/4" / ISO 7050	
20 x		46x5/8" / ISO 7050	
20 x		46x3/4" / ISO 7050	
20 x		46x5/8" / ISO 7050	
20 x		46x3/4" / ISO 7050	
20 x		#10x 1" / ISO 7050	

**Ball head Parker screws assortment**

- In accordance with ISO 7049
- In plastic storage case



		KS	
976.8920	150 pcs	Ball head Parker screws assortment	400
65 x		1/2" / ISO 7049	
55 x		5/8" / ISO 7049	
60 x		3/8" / ISO 7049	

85 x		1/2" / ISO 7049
60 x		5/8" / ISO 7049
45 x		3/4" / ISO 7049
50 x		1/2" / ISO 7049
40 x		5/8" / ISO 7049
30 x		1" / ISO 7049
20 x		1.1/4" / ISO 7049
25 x		3/4" / ISO 7049
20 x		1" / ISO 7049
15 x		1.1/4" / ISO 7049

**Wooden screws assortment**








- In accordance with ISO 7061
- In plastic storage case



**Assortment raised head sheet metal screws**

- In accordance with DIN 7981
- In plastic storage case



		875.0880 750 pcs Assortment raised head sheet metal screws 630	
100 x		M2,5 x 10,0 mm / DIN 7981	
100 x		M3 x 12,0 mm / DIN 7981	
100 x		M3 x 15,0 mm / DIN 7981	
100 x		M3 x 20,0 mm / DIN 7981	
100 x		M3 x 30,0 mm / DIN 7981	
100 x		M4 x 16,0 mm / DIN 7981	
100 x		M4 x 20,0 mm / DIN 7981	
50 x		M4 x 25,0 mm / DIN 7981	

**Self-tapping wooden machine screws assortment**

- In accordance with DIN 7955/125/555/7961/7962
- In plastic storage case



		875.0881 317 pcs Self-tapping wooden machine screws assortment 441	
32 x		M5,5x12,0 mm / DIN 7961	
25 x		M3,5x20,0 mm / DIN 7961	
13 x		M5 x25,0 mm / DIN 7961	
24 x		M5 x20,0 mm / DIN 7965	
12 x		M5 x25,0 mm / DIN 7965	
10 x		M6 x20,0 mm / DIN 7965	
43 x		M3 x12,0 mm / DIN 7962	
32 x		M3,5x20,0 mm / DIN 7962	
10 x		M4 x25,0 mm / DIN 7962	
50 x		M5 / DIN 125	
10 x		M6 / DIN 125	
40 x		M5 / DIN 555	
11 x		M6 / DIN 555	

**Nuts assortment, metric**

- In accordance with DIN 934
- In plastic storage case



		875.0440 390 pcs Nuts assortment, metric 400	
80 x		M3 / DIN 934	
70 x		M4 / DIN 934	
70 x		M5 / DIN 934	
50 x		M6 / DIN 934	
20 x		M8 / DIN 934	
10 x		M10 / DIN 934	

**Stainless steel nuts assortment, metric**

- In accordance with DIN 934
- In plastic storage case



		875.0450 390 pcs Stainless steel nuts assortment, metric 400	
60 x		M3 / DIN 934	
70 x		M4 / DIN 934	
70 x		M5 / DIN 934	
50 x		M6 / DIN 934	
20 x		M8 / DIN 934	
10 x		M10 / DIN 934	

		875.0400 150 pcs Wooden screws assortment 660	
55 x		#4x 1/2" / ISO 7060	
55 x		#4x 5/8" / ISO 7060	
60 x		#6x 3/8" / ISO 7060	
60 x		#6x 1/2" / ISO 7060	
60 x		#6x 5/8" / ISO 7060	
45 x		#6x 3/4" / ISO 7060	
50 x		#8x 1/2" / ISO 7060	
40 x		#8x 5/8" / ISO 7060	
30 x		#8x 1" / ISO 7060	
20 x		#8x 1.1/4" / ISO 7060	
20 x		#10x 3/4" / ISO 7060	
20 x		#10x 1" / ISO 7060	
15 x		#10x 1.1/4" / ISO 7060	



### Self locking nuts assortment

- In accordance with DIN 985
- In plastic storage case



970.0120	146 pcs	Self locking nuts assortment	560	
35 x		M4 / DIN 985		
35 x		M5 / DIN 985		
25 x		M6 / DIN 985		
25 x		M8 / DIN 985		
16 x		M10 / DIN 985		
10 x		M12 / DIN 985		

### UNC self-tightening nuts assortment

- In accordance with ISO 7040
- In plastic storage case



970.0480	100 pcs	UNC self-tightening nuts assortment	600	
25 x		24 mm / ISO 7040		
25 x		20 mm / ISO 7040		
20 x		18 mm / ISO 7040		
20 x		16 mm / ISO 7040		
5 x		14 mm / ISO 7040		
5 x		13 mm / ISO 7040		

### UNF self-tightening nuts assortment

- In accordance with ISO 7040
- In plastic storage case



970.0490	100 pcs	UNF self-tightening nuts assortment	600	
25 x		32 mm / ISO 7040		
25 x		1/4"x28 mm / ISO 7040		
20 x		5/16"x24 mm / ISO 7040		
20 x		3/8"x24 mm / ISO 7040		
5 x		7/16"x20 mm / ISO 7040		
5 x		1/2"x20 mm / ISO 7040		

### Toothed and standard washers assortment

- In accordance with DIN 127
- In plastic storage case



970.0240	720 pcs	Toothed and standard washers assortment	270	
50 x		M3 / DIN 127		
50 x		M4 / DIN 127		
50 x		M5 / DIN 127		
40 x		M6 / DIN 127		
30 x		M8 / DIN 127		
20 x		M10 / DIN 127		

50 x		M3 / DIN 127
50 x		M4 / DIN 127
50 x		M5 / DIN 127
40 x		M6 / DIN 127
30 x		M8 / DIN 127
20 x		M10 / DIN 127
50 x		M3 / DIN 127
50 x		M4 / DIN 127
50 x		M5 / DIN 127
40 x		M6 / DIN 127
30 x		M8 / DIN 127
20 x		M10 / DIN 127

### Spring washers assortment

- In accordance with DIN 127
- In plastic storage case



970.0220	1200 pcs	Spring washers assortment	480	
300 x		M3 / DIN 127		
300 x		M4 / DIN 127		
300 x		M5 / DIN 127		
150 x		M6 / DIN 127		
100 x		M8 / DIN 127		
50 x		M10 / DIN 127		





**Clip bolts & eyebolts assortment**

- Open and closed
- In plastic storage case



973.0300 151 pcs. Clip bolts & eyebolts assortment 500		
10 x		15/10"
12 x		1.12/10"
12 x		1.15/10"
50 x		1.5/8"
12 x		2.1/2"
5 x		3.3/8"

**SPECIAL NUTS & SCREWS**

**Stainless steel nuts assortment, metric**

- In accordance with DIN 1587
- In plastic storage case



973.0900 150 pcs. Stainless steel nuts assortment, metric 700		
30 x		M3 / DIN 1587
30 x		M4 / DIN 1587
30 x		M5 / DIN 1587
30 x		M6 / DIN 1587
30 x		M8 / DIN 1587
10 x		M10 / DIN 1587

**Wing nuts assortment**

- In accordance with DIN 315
- In plastic storage case



973.0470 150 pcs. Wing nuts assortment 750		
40 x		M4 / DIN 315
40 x		M5 / DIN 315
25 x		M6 / DIN 315
25 x		M8 / DIN 315
20 x		M10 / DIN 315

**Headless screws assortment**

- In accordance with DIN 913
- In plastic storage case



973.0480 100 pcs. Headless screws assortment 300		
15 x		3x 5 mm / DIN 913
15 x		4x 5 mm / DIN 913
10 x		5x 5 mm / DIN 913
20 x		6x 5 mm / DIN 913
10 x		6x10 mm / DIN 913
20 x		6x10 mm / DIN 913
10 x		6x12 mm / DIN 913
10 x		10x10 mm / DIN 913
10 x		10x12 mm / DIN 913
15 x		6x 6 mmF / DIN 913
15 x		6x10 mmF / DIN 913
10 x		10x10 mmF / DIN 913

**Hexagon screws assortment, metric**

- In accordance with DIN 912
- In plastic storage case



973.0260 100 pcs. Hexagon screws assortment, metric 600		
25 x		M4 x12 mm / DIN 912
25 x		M6 x12 mm / DIN 912
20 x		M8 x20 mm / DIN 912
10 x		M6 x12 mm / DIN 912
10 x		M8 x25 mm / DIN 912
5 x		M8 x25 mm / DIN 912
5 x		M8 x40 mm / DIN 912
3 x		M10x25 mm / DIN 912
3 x		M10x40 mm / DIN 912

**Ball head machine screws assortment, metric**

- In accordance with DIN 7985/126/127/1500
- In plastic storage case



973.0510 475 pcs. Ball head machine screws assortment, metric 500		
20 x		M4x16.0 mm / DIN 7985
20 x		M4x25.0 mm / DIN 7985
20 x		M6x20.0 mm / DIN 7985
20 x		M6x25.0 mm / DIN 7985
20 x		M6x20.0 mm / DIN 7985

50 x		M4	/ DIN 127
50 x		M5	/ DIN 127
25 x		M6	/ DIN 127
50 x		M4	/ DIN 126
50 x		M5	/ DIN 126
25 x		M6	/ DIN 126
10 x		M4	/ DIN 555
50 x		M5	/ DIN 555
25 x		M6	/ DIN 555

**MANDREL**
**Assortment expansion and anchor dowels**

- Ideal for fastening in ceilings and lightweight walls
- Zinc coated
- In plastic storage case



<b>979.9820</b>	40 pcs	Assortment expansion and anchor dowels		440
10 x		M4 x 20,0 mm		
10 x		M4 x 48,0 mm		
6 x		M5 x 36,0 mm		
6 x		M5 x 52,0 mm		
4 x		M6 x 47,0 mm		
4 x		M6 x 52,0 mm		

**BLIND RIVETS**
**Blind rivets assortment**

- Breakable pin made from steel
- In plastic storage case



<b>979.0190</b>	400 pcs	Blind rivets assortment		250
100 x		2,4 mm		
100 x		3,2 mm		
100 x		4,0 mm		
100 x		4,8 mm		

**GROMMETS**
**Rubber grommets assortment**

- For secure guiding of cables into bore holes
- In plastic storage case



<b>979.0690</b>	116 pcs	Rubber grommets assortment		380
25 x		Ø 8,3 mm		
20 x		Ø 10,3 mm		
20 x		Ø 13,5 mm		
20 x		Ø 15,0 mm		
10 x		Ø 19,4 mm		
5 x		Ø 20,2 mm		
5 x		Ø 27,0 mm		
5 x		Ø 32,5 mm		

**BODYWORK ELEMENTS**
**Bodywork nuts & screws assortment**

- Wing clamps / bodywork nuts in various sizes and forms
- In plastic storage case



<b>979.0830</b>	170 pcs	Bodywork nuts & screws assortment		300
20 x		M3		
20 x		M4		
15 x		M5		
20 x		M6		
10 x		M8		
40 x		M5x8		
20 x		M4x16		
15 x		M5x12		
10 x		M6x20		


**O-RINGS / WASHERS**
**O-rings assortment, Internal**

- In accordance with DIN 3771
- In plastic storage case



<b>979.0180</b>	225 pcs	O-rings assortment, Internal		125
20 x		3,0x 5,0x1,0 mm / DIN 3771		
20 x		4,0x 6,0x1,0 mm / DIN 3771		
20 x		4,5x 6,5x2,0 mm / DIN 3771		
20 x		5,0x 8,0x2,0 mm / DIN 3771		
20 x		6,0x10,0x2,0 mm / DIN 3771		
20 x		6,0x11,0x2,5 mm / DIN 3771		
20 x		6,0x12,0x3,0 mm / DIN 3771		
20 x		7,0x11,0x2,0 mm / DIN 3771		
20 x		8,0x12,0x2,0 mm / DIN 3771		
5 x		9,0x12,5x2,0 mm / DIN 3771		
5 x		10,0x14,0x2,0 mm / DIN 3771		
6 x		12,0x18,0x3,0 mm / DIN 3771		
5 x		13,0x19,0x3,0 mm / DIN 3771		
5 x		14,0x19,0x2,5 mm / DIN 3771		
5 x		17,0x22,0x2,5 mm / DIN 3771		
5 x		18,0x26,0x4,0 mm / DIN 3771		
5 x		20,0x24,0x2,0 mm / DIN 3771		
5 x		22,0x28,0x2,0 mm / DIN 3771		

### O-rings assortment

- In accordance with DIN 3771
- In plastic storage case



970.0130	419 pcs	O-rings assortment	630
20 x		R01 Ø 3,0 mm / DIN 3771	
20 x		R02 Ø 4,4 mm / DIN 3771	
18 x		R03 Ø 5,0 mm / DIN 3771	
23 x		R04 Ø 7,0 mm / DIN 3771	
23 x		R05 Ø 10,0 mm / DIN 3771	
23 x		R06 Ø 13,0 mm / DIN 3771	
14 x		R07 Ø 10,0 mm / DIN 3771	
13 x		R08 Ø 11,0 mm / DIN 3771	
14 x		R09 Ø 13,0 mm / DIN 3771	
13 x		R10 Ø 14,0 mm / DIN 3771	
14 x		R11 Ø 16,0 mm / DIN 3771	
14 x		R12 Ø 18,0 mm / DIN 3771	
13 x		R13 Ø 19,0 mm / DIN 3771	
14 x		R14 Ø 21,0 mm / DIN 3771	
13 x		R15 Ø 22,0 mm / DIN 3771	
10 x		R16 Ø 18,0 mm / DIN 3771	
10 x		R17 Ø 20,0 mm / DIN 3771	
10 x		R18 Ø 22,0 mm / DIN 3771	
10 x		R19 Ø 23,5 mm / DIN 3771	
10 x		R20 Ø 25,0 mm / DIN 3771	
10 x		R21 Ø 26,5 mm / DIN 3771	
10 x		R22 Ø 28,0 mm / DIN 3771	
10 x		R23 Ø 30,0 mm / DIN 3771	
10 x		R24 Ø 31,0 mm / DIN 3771	
10 x		R25 Ø 33,0 mm / DIN 3771	
10 x		R26 Ø 34,5 mm / DIN 3771	
10 x		R27 Ø 36,0 mm / DIN 3771	
10 x		R28 Ø 38,0 mm / DIN 3771	
10 x		R29 Ø 41,0 mm / DIN 3771	
10 x		R30 Ø 44,0 mm / DIN 3771	
10 x		R31 Ø 47,0 mm / DIN 3771	
10 x		R32 Ø 50,0 mm / DIN 3771	

### SAE O-rings assortment

- ideal for hobbies and workshops
- In plastic storage case



970.0350	407 pcs	SAE O-rings assortment	600
20 x		R01 Ø 1/8"	
20 x		R02 Ø 3/16"	
20 x		R03 Ø 1/4"	
20 x		R04 Ø 5/16"	
20 x		R05 Ø 3/8"	
20 x		R06 Ø 1/2"	
13 x		R07 Ø 3/8"	
13 x		R08 Ø 7/16"	
13 x		R09 Ø 1/2"	
13 x		R10 Ø 9/16"	
13 x		R11 Ø 5/8"	
13 x		R12 Ø 1 1/16"	
13 x		R13 Ø 3/4"	
13 x		R14 Ø 13/16"	
13 x		R15 Ø 7/8"	
10 x		R16 Ø 3/4"	
10 x		R17 Ø 13/16"	
10 x		R18 Ø 7/8"	
10 x		R19 Ø 15/16"	
10 x		R20 Ø 1"	
10 x		R21 Ø 1.1/16"	
10 x		R22 Ø 1.1/8"	
10 x		R23 Ø 1.3/16"	
10 x		R24 Ø 1.1/4"	
10 x		R25 Ø 1.5/16"	
10 x		R26 Ø 1.3/8"	
10 x		R27 Ø 1.7/16"	
10 x		R28 Ø 1.1/2"	
10 x		R29 Ø 1.5/8"	
10 x		R30 Ø 1.3/4"	
10 x		R31 Ø 1.7/8"	
10 x		R32 Ø 2"	

### O-rings assortment for HNBR air-conditioning

- In accordance with DIN 3771
- Made from HNBR: Specially for use on air conditioning lines
- In plastic storage case



970.0260	225 pcs	O-rings assortment for HNBR air-conditioning	120
20 x		3,0x1,0 mm / DIN 3771	
20 x		4,0x1,0 mm / DIN 3771	
20 x		4,5x2,0 mm / DIN 3771	
20 x		5,0x2,0 mm / DIN 3771	
20 x		6,0x2,0 mm / DIN 3771	
20 x		6,0x2,5 mm / DIN 3771	
20 x		6,0x3,0 mm / DIN 3771	
20 x		7,0x2,0 mm / DIN 3771	
20 x		8,0x2,0 mm / DIN 3771	
5 x		9,0x2,0 mm / DIN 3771	
5 x		10,0x2,0 mm / DIN 3771	
5 x		12,0x3,0 mm / DIN 3771	
5 x		13,0x3,0 mm / DIN 3771	
5 x		14,0x2,5 mm / DIN 3771	
5 x		17,0x2,5 mm / DIN 3771	
5 x		18,0x4,0 mm / DIN 3771	
5 x		20,0x2,0 mm / DIN 3771	
5 x		22,0x2,0 mm / DIN 3771	



### O-rings assortment for HNBR air conditioning

- Made from HNBR: Specially for use in air conditioning lines
- In plastic storage case



970.0340		270 pcs	O-rings assortment for HNBR air conditioning	150
20 x		5,29x1,78 mm		
20 x		6,07x1,78 mm		
20 x		6,80x1,90 mm		
20 x		7,65x1,78 mm		
40 x		7,80x1,90 mm		
20 x		8,80x1,90 mm		
20 x		10,00x2,00 mm		
15 x		10,70x2,62 mm		
15 x		11,00x2,00 mm		
15 x		11,00x1,78 mm		
15 x		12,90x2,00 mm		
10 x		13,90x1,78 mm		
10 x		14,00x2,00 mm		
10 x		17,00x1,78 mm		
10 x		17,00x2,00 mm		
10 x		17,00x3,53 mm		

### Copper washers assortment

- In accordance with DIN 93
- In plastic storage case



970.0140		300 pcs	Copper washers assortment	790
10 x		5x 9,0x1,0 mm / DIN 93		
10 x		6x10,0x1,0 mm / DIN 93		

10 x		6x12,0x1,0 mm / DIN 93
10 x		8x12,0x1,0 mm / DIN 93
10 x		8x14,0x1,0 mm / DIN 93
10 x		8x14,0x1,5 mm / DIN 93
10 x		9x14,0x1,0 mm / DIN 93
10 x		10x14,0x1,0 mm / DIN 93
10 x		10x14,0x1,5 mm / DIN 93
10 x		10x16,0x1,0 mm / DIN 93
10 x		12x16,0x1,0 mm / DIN 93
10 x		12x16,0x1,5 mm / DIN 93
10 x		12x18,0x1,5 mm / DIN 93
10 x		13x18,0x1,0 mm / DIN 93
10 x		14x18,0x1,5 mm / DIN 93
10 x		14x20,0x1,5 mm / DIN 93
10 x		14x20,0x2,0 mm / DIN 93
10 x		16x20,0x1,5 mm / DIN 93
10 x		16x22,0x1,5 mm / DIN 93
10 x		18x22,0x1,5 mm / DIN 93
10 x		18x24,0x1,5 mm / DIN 93
10 x		19x26,0x2,0 mm / DIN 93
10 x		20x24,5x1,5 mm / DIN 93
10 x		20x24,5x0,8 mm / DIN 93
10 x		22x27,0x1,0 mm / DIN 93
10 x		22x29,0x1,5 mm / DIN 93
10 x		24x29,0x1,5 mm / DIN 93
10 x		24x32,0x2,0 mm / DIN 93
10 x		26x34,0x2,0 mm / DIN 93
10 x		28x36,0x2,0 mm / DIN 93

### Copper washers assortment

- In accordance with DIN 93
- In plastic storage case



970.0040		150 pcs	Copper washers assortment	320
10 x		5,0x10x1,0 mm / DIN 93		
10 x		6,0x10x1,0 mm / DIN 93		

10 x		7,0x10x1,0 mm / DIN 93
10 x		8,0x12x1,0 mm / DIN 93
10 x		10,0x16x1,0 mm / DIN 93
10 x		10,5x17x1,5 mm / DIN 93
10 x		11,0x17x1,5 mm / DIN 93
10 x		12,0x20x1,5 mm / DIN 93
10 x		12,5x20x1,5 mm / DIN 93
10 x		14,0x18x1,0 mm / DIN 93
10 x		14,0x20x1,5 mm / DIN 93
10 x		15,0x20x2,0 mm / DIN 93
10 x		16,0x22x2,0 mm / DIN 93
10 x		16,5x24x2,0 mm / DIN 93
10 x		17,5x24x2,0 mm / DIN 93

### Aluminium washers assortment

- In accordance with DIN 93
- In plastic storage case



970.0160		300 pcs	Aluminium washers assortment	430
10 x		5x 9,0x1,0 mm / DIN 93		
10 x		6x10,0x1,0 mm / DIN 93		
10 x		6x12,0x1,0 mm / DIN 93		
10 x		8x12,0x1,0 mm / DIN 93		
10 x		8x14,0x1,0 mm / DIN 93		
10 x		8x14,0x1,5 mm / DIN 93		
10 x		9x14,0x1,0 mm / DIN 93		
10 x		10x14,0x1,0 mm / DIN 93		
10 x		10x14,0x1,5 mm / DIN 93		
10 x		10x16,0x1,0 mm / DIN 93		
10 x		12x16,0x1,0 mm / DIN 93		
10 x		12x16,0x1,5 mm / DIN 93		
10 x		12x18,0x1,5 mm / DIN 93		
10 x		13x18,0x1,0 mm / DIN 93		
10 x		14x18,0x1,5 mm / DIN 93		
10 x		14x20,0x1,5 mm / DIN 93		
10 x		14x20,0x2,0 mm / DIN 93		

10 x		16x20,0x1,5 mm / DIN 93
10 x		16x22,0x1,5 mm / DIN 93
10 x		18x22,0x1,5 mm / DIN 93
10 x		18x24,0x1,5 mm / DIN 93
10 x		19x26,0x2,0 mm / DIN 93
10 x		20x24,5x0,8 mm / DIN 93
10 x		20x24,5x1,5 mm / DIN 93
10 x		22x27,0x1,0 mm / DIN 93
10 x		22x29,0x1,5 mm / DIN 93
10 x		24x29,0x1,5 mm / DIN 93
10 x		24x32,0x2,0 mm / DIN 93
10 x		26x34,0x2,0 mm / DIN 93
10 x		28x36,0x2,0 mm / DIN 93



#### Assortment composite sealing rings

- Seal material NBR
- In plastic storage case



970.0760 150 pcs Assortment composite sealing rings 340		
10 x		6,0 x 10,0 x 1,4 mm
10 x		8,0 x 13,0 x 1,3 mm
10 x		10,0 x 16,0 x 2,0 mm
20 x		12,0 x 18,0 x 2,0 mm
20 x		14,0 x 22,0 x 2,0 mm
20 x		16,0 x 24,0 x 2,0 mm
20 x		18,0 x 26,0 x 2,0 mm
20 x		20,0 x 28,0 x 2,0 mm
10 x		22,0 x 30,0 x 2,3 mm
10 x		24,0 x 32,0 x 2,3 mm

#### Washer assortment, plumbing

- In accordance with DIN 7337
- In plastic storage case



970.0190 141 pcs Washer assortment, plumbing 150			
5 x		3/8" / 8,0x18,0x4,0 mm / DIN 7337	
5 x		3/8" / 10,5x14,0x4,0 mm / DIN 7337	
10 x		1/2" / 4,0x16,0x4,0mm / DIN 7337	
10 x		1/2" / 4,0x17,0x4,0 mm / DIN 7337	
5 x		1/2" / 8,0x14,0x4,0 mm / DIN 7337	
10 x		1/2" / 8,0x18,0x4,0 mm / DIN 7337	
10 x		3/4" / 12,0x24,0x2,0mm / DIN 7337	
5 x		3/4" / 15,0x24,0x3,0mm / DIN 7337	
10 x		3/8" / 10,0x13,5x2,0 mm / DIN 7337	
10 x		3/8" / 12,0x17,5x1,5 mm / DIN 7337	
10 x		1/2" / 17,0x21,0x1,5 mm / DIN 7337	
10 x		1/2" / 17,0x24,0x1,5 mm / DIN 7337	
10 x		3/4" / 20,5x25,0x1,5 mm / DIN 7337	
5 x		1" / 27,0x33,0x1,5 mm / DIN 7337	
10 x		1/2" / 12,0x17,5x1,0 mm / DIN 7337	
10 x		3/4" / 17,0x24,0x2,0 mm / DIN 7337	
3 x		1.1/4" / 30,0x39,0x1,0 mm / DIN 7337	
3 x		1.1/2" / 27,0x38,0x2,0 mm / DIN 7337	



#### OIL SUMP DRAIN PLUG AND WASHER

#### Oil sump drain plug and washer assortment

- Screws M10 - M20
- Washers 6 - 20 mm
- In plastic storage case



970.0200 534 pcs Oil sump drain plug and washer assortment 2000		
50 x		6 mm
50 x		8 mm
50 x		10 mm
50 x		12 mm
50 x		13 mm
50 x		14 mm
50 x		15 mm
50 x		16 mm
50 x		18 mm
50 x		20 mm
5 x		M10
5 x		M12
5 x		M13
5 x		M14
5 x		M15
3 x		M16
3 x		M18
3 x		M20



**KS TOOLS**

*Innovation is  
our mission!*

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129.2325	675	129.5029	620	130.1010	368, 703	140.2069	658	140.5254	651
129.2400	676	129.5030	620	130.1015	368, 703	140.2075	654	140.5255	651
129.2401	676	129.5032	620	130.1020	369, 703	140.2076	654	140.5256	651
129.2402	676	129.5033	620	130.1041	369, 703	140.2077	654	140.5257	651
129.2403	676	129.5035	620	130.1046	369, 703	140.2081	650	140.5258	651
129.2404	676	129.5037	620	130.2000	694-695, 704	140.2082	650	140.5259	651
129.2405	676	129.5038	620	130.2001	694	140.2109	656	140.5270	651
129.2406	676	129.5040	620	130.2010	694-695	140.2121	658	140.5271	651
129.2407	676	129.5041	620	130.2031	694	140.2130	657	140.5272	651
129.2408	676	129.5043	620	130.2032	694	140.2131	657	140.5273	651
129.2420	676	129.5044	620	130.2033	694	140.2132	657	140.5274	651
129.3101	622	129.5045	620	130.2034	694	140.2133	658	140.5275	651
129.3103	622	129.5046	620	130.2036	694	140.2134	658	140.5277	651
129.3103S	622	129.5048	620	130.3000	694, 704-705	140.2135	657	140.5301	658
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129.3105	622	129.5051	620	130.3500	695	140.2137	657	140.5305	658
129.3106	622	129.5052	620	130.6005	694	140.2138	657	140.5306	658
129.3110	623	129.5054	620	131.0001	700	140.2139	658	140.5315	658
129.3111	623	129.5055	620	131.0002	700	140.2147	399	140.5320	658
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129.3113	623	129.5059	620	131.0800	700	140.2165	665	140.5322	658
129.31135F	623	129.5060	620	131.1000	700	140.2170	655	140.5323	658
129.3116	623	129.5064	620	132.0500	700	140.2175	642	140.5330	658
129.3118	623	129.5065	620	132.0800	700	140.2200	656	140.5340	658
129.3118F	623	129.5067	620	136.1000	707	140.2204	656	140.5402	658
129.3150F	623	129.5068	620	136.1002	707	140.2209	656	140.5403	658
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129.3746	462, 624	129.5076	620	136.1006	707	140.2227	510	140.5408	658
129.3750	624	129.5079	620	136.1100	707	140.2252	463	140.6510	654
129.3752	624	129.5083	620	136.1105	707	140.2255	463	141.5000	701, 704
129.3754	624	129.5086	620	140.0035	726	140.2256	463	141.5001	701
129.3756	624	129.5089	620	140.0036	726	140.2261	463	141.6000	370
129.4010	624	129.5092	620	140.0037	726	140.2263	463	141.6001	370
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142.1051	651	142.5304	658	144.0803	730	150.0511	435	150.2151	668
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150.9359	518	151.1105	226	151.2061	205	151.21625	207	151.2353	209
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160.0324	516	161.0226	635	162.0224	664	162.0361	670, 672	162.2129	666
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160.0329	516	161.0305	635	162.0226	664	162.0363	672	162.2132	666
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160.0351	514	161.0324	635	162.0234	664	162.0371	670	162.2252	669
160.0352	514	161.0325	635	162.0235	664	162.0372	670	162.2253	669
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330.6105	600	330.7091	599	331.0244	616	331.2080	613	332.1007	615
330.6110	600	330.7092	599	331.0245	616	331.2100	613	332.1008	615
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330.6130	600	330.7096	599	331.0249	616	331.2160	613	332.1012	615
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330.7032	598	330.7100	599	331.0256	615	331.2240	613	332.1016	615
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330.7086	599	331.0232	613	331.2035	613	332.1002	615	336.0003	605
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330.7088	599	331.0241	616	331.2050	613	332.1004	615	336.0005	605

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336.0008	605	336.0082	611	336.0188	611	340.0023	631	450.0442	147
336.0009	605	336.0102	609	336.0189	611	340.0024	631	450.0443	147
336.0011	606	336.0103	609	336.0190	611	340.0025	631	450.0444	147
336.0012	606	336.0104	609	336.0191	611	340.0026	631	450.0445	147
336.0013	606	336.0105	609	336.0192	611	340.0027	631	450.0451	146
336.0014	606	336.0106	609	336.0193	611	340.0028	632	450.0452	146
336.0015	606	336.0107	609	336.0194	611	340.0029	632	450.0453	146
336.0016	606	336.0108	609	336.0195	611	340.0030	632	450.0454	146
336.0017	606	336.0109	609	336.0201	612	340.0032	632	450.0461	147
336.0018	606	336.0110	609	336.0202	612	340.0033	632	450.0462	147
336.0019	606	336.0111	609	336.0203	612	340.0034	632	450.0463	147
336.0020	606	336.0112	609	336.0204	612	340.0035	632	450.0464	147
336.0021	606	336.0113	609	336.0205	612	340.0037	632	450.0471	150
336.0022	606	336.0114	609	336.0206	612	340.0038	632	450.0472	150
336.0023	606	336.0115	609	336.0207	612	340.0039	632	450.0473	150
336.0024	605	336.0116	609	336.0274	609	340.0040	632	450.0474	150
336.0025	605	336.0117	609	336.0275	609	340.0041	632	450.0475	150
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336.0031	605	336.0119	610	336.0277	609	340.0043	632	450.0477	149
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336.0036	609	336.0123	610	336.0301	610	340.0047	632	450.0482	149
336.0037	609	336.0124	610	336.0302	610	340.0048	632	450.0483	149
336.0038	609	336.0125	610	336.0303	610	340.0049	632	450.0484	149
336.0039	609	336.0126	610	336.0304	610	340.0050	632	450.0485	149
336.0040	609	336.0127	610	336.0305	610	340.0051	632	450.0486	149
336.0041	609	336.0128	610	336.0326	611	390.0190	596	450.0487	149
336.0042	609	336.0129	610	336.0327	611	4		450.0488	149
336.0043	609	336.0130	610	336.0328	611	450.0025	662	450.0491	149
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336.0045	609	336.0132	610	336.0330	611	450.0027	662	450.0493	149
336.0046	609	336.0133	610	336.0331	611	450.0050	427	450.0494	149
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336.0055	610	336.0142	610	336.0523	606	450.0076	426	450.0973	429
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336.0059	610	336.0146	612	336.0621	612	450.0092	667	450.0977	429
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336.0061	610	336.0148	612	336.0641	613	450.0094	667	455.0131	397
336.0062	610	336.0149	612	336.0651	614	450.0350	242	460.0475	426
336.0063	610	336.0150	612	337.2005	455, 633	450.0351	242	460.1020	425
336.0064	610	336.0170	611	337.2010	464, 633	450.0352	242	460.1030	427
336.0065	610	336.0171	611	337.2015	633	450.0420	147, 150	460.2511	21
336.0066	610	336.0172	611	337.2025	633	450.0422	147, 150	460.5255	517
336.0067	610	336.0173	611	340.0001	631	450.0423	147, 150	5	
336.0068	610	336.0174	611	340.0002	631	450.0425	147, 150	500.1010	434
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336.0074	610	336.0180	611	340.0014	631	450.0431	147, 150	500.1029	236
336.0075	610	336.0181	611	340.0016	631	450.0433	147, 150	500.1030	236
336.0076	611	336.0182	611	340.0017	631	450.0434	147, 150	500.1031	235
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336.0078	611	336.0184	611	340.0019	631	450.0436	147, 150	500.1033	235
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500.1300	237	500.7097	265	500.7721	258	500.8030	513	503.4253	9
500.1320	237	500.7098	265	500.7722	258	500.8040	512	503.4255	9
500.1340	236	500.7099	265	500.7723	258	500.8045	512	503.4259	10
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500.6139	343	500.7111	257	500.7729	258	500.8100	510	503.4287	26
500.6140	343	500.7112	258	500.7730	258	500.8421	486	503.4290	25
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500.6142	343	500.7114	258	500.7733	258	500.8423	486	503.4293	25
500.6143	343	500.7115	258	500.7734	258	500.8424	486	503.4294	25
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500.7006	260	500.7119	258	500.7756	257	500.8427	486	503.4298	25
500.7007	260	500.7120	258	500.7759	257	500.8431	486	503.4351	27
500.7015	237	500.7121	258	500.7762	257	500.8432	486	503.4353	27
500.7016	237	500.7122	258	500.7763	257	500.8433	486	503.4355	27
500.7017	236-237	500.7123	258	500.7764	257	500.8434	486	503.4357	27
500.7018	236-237	500.7124	258	500.7765	257	500.8435	486	503.4364	27
500.7019	265	500.7125	257	500.7766	257	500.8436	486	503.4402	22
500.7020	261	500.7126	257	500.7767	258	500.8437	486	503.4403	22
500.7021	260	500.7128	257	500.7768	258	500.8440	486	503.4404	22
500.7022	260	500.7129	257	500.7769	258	500.8445	486	503.4405	22
500.7023	236-237	500.7130	258	500.7771	258	500.8450	486	503.4502	22
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500.7027	236-237	500.7133	258	500.7774	258	500.8482	486	503.4505	22
500.7028	260	500.7134	258	500.7775	266	500.8483	486	503.4506	22
500.7029	236-237	500.7135	258	500.7779	258	500.8484	486	503.4507	22
500.7030	260	500.7136	258	500.7780	265	500.8486	486	503.4511	22, 180
500.7032	260	500.7137	258	500.7785	258	500.8487	486	503.4512	22
500.7035	236	500.7138	258	500.7786	258	503.4102	9	503.4540	23
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503.4624	10	503.4914	12	503.8153	181	515.0048	138	515.0925	138
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503.4633	6	503.4978	12	503.8175	181	515.0056	137	515.0934	138
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503.4644	10	503.4989	12	503.8207	181	515.0068	137	515.0945	139
503.4645	25	503.4998	26	503.8208	181	515.0069	137	515.0946	139
503.4646	11	503.5205	12	503.8221	181	515.0071	137	515.0947	139
503.4647	11	503.5208	12	503.8231	47, 180	515.0072	137	515.0948	139
503.4648	10	503.5209	12	503.8232	178	515.0073	137	515.0949	139
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503.4653	6	503.5212	12	514.1103	178	515.0112	138	515.0952	139
503.4655	23	503.5213	12	514.1104	178	515.0210	146	515.0953	139
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515.0990	142	515.1076	141	515.1247	458	515.1395	146	515.1524	135
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515.1616	135	515.1855	149	515.2124	148	515.2192	151	515.3235	617
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515.1622	135	515.1881	149	515.2130	148	515.2198	151	515.3245	617
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515.3505	480	515.3887	460	515.5150	467	516.1482	158	516.2213	169, 171
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515.3509	480	515.3889	460	515.5415	454	516.1492	158	516.2215	169, 171
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515.3511	480	515.3925	469	515.5430	458	516.1495	158	516.2217	169, 171
515.3514	480	515.3961	461	515.5431	458	516.1498	158	516.2218	169, 171
515.3515	480	515.3962	461	515.5432	458	516.1499	158	516.2219	169, 171
515.3516	480	515.3963	461	515.5433	458	516.1501	156	516.2221	169, 171
515.3524	481	515.3964	461	515.5434	458	516.1502	156	516.2222	169, 171
515.3525	481	515.3965	461	515.5435	453	516.1503	156	516.2224	169, 171
515.3526	481	515.3966	461	515.5436	458	516.1504	156	516.2226	169, 171
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515.3534	481	515.4109	482	515.5445	458	516.1515	159	516.2232	169, 171
515.3535	481	515.4110	482	515.5450	463	516.1522	158	516.2234	169, 171
515.3536	481	515.4111	482	515.5451	463	516.1525	160	516.2236	169, 171
515.3539	480	515.4880	461	515.5455	459	516.1532	158	516.2238	169, 171
515.3540	480	515.4881	462	515.5465	453	516.1535	161	516.2241	169, 171
515.3541	480	515.4882	462	515.5475	464	516.1542	158	516.2307	170
515.3544	481	515.4883	462	515.5505	452	516.1545	161	516.2308	170
515.3545	481	515.4884	462	515.5510	452	516.1572	158	516.2310	170
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917.1237	93	917.1311	97	917.1381	94	917.1471	37	917.16055	37
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917.3877	68	917.4834	71	918.0796	56, 115	918.1269	94	918.1341	94
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917.3881	68	917.4851	71	918.0847	50	918.1273	94	918.1345	94
917.3882	68	917.4852	71	918.1200	109	918.1274	108	918.1346	94
917.3897	360	917.4853	71	918.1201	108	918.1276	96	918.1347	94
917.3898	359	917.4854	71	918.1202	108	918.1277	96	918.1348	94
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962.0130	281	962.0464	291	962.0960	291	962.1465	282	963.0033	272
962.0132	281	962.0465	291	962.0961	291	962.1470	282	963.0034	272
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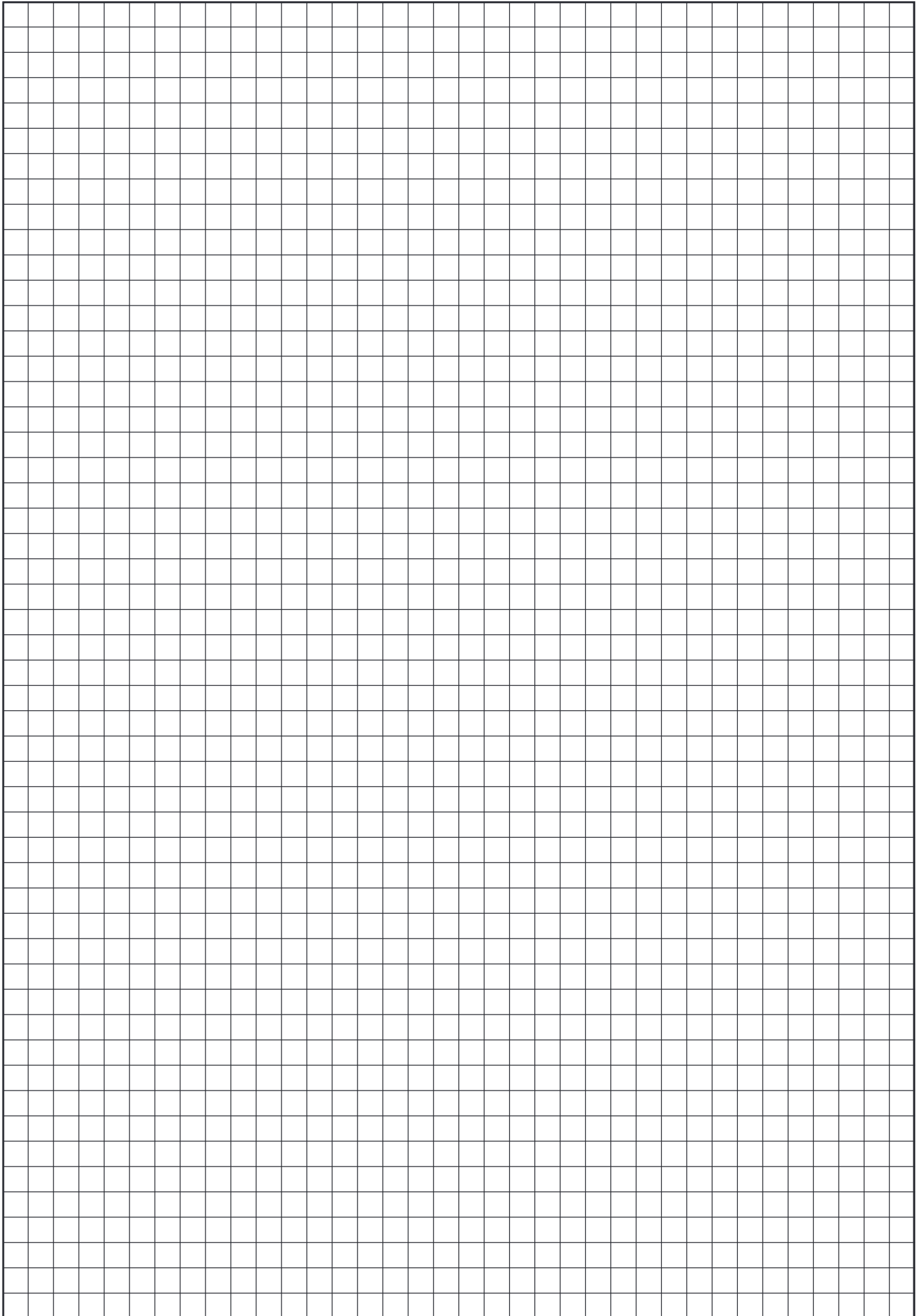
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964.1017	314	964.1246	316	964.2214	314	965.0107	324	965.0615	326
964.1019	314	964.1247	316	964.2215	314	965.0109	324	965.0620	327
964.1022	314	964.1248	316	964.2240	314	965.0110	324	965.0625	326
964.1024	314	964.1301	314	964.2245	314	965.0111	324	965.0900	326
964.1027	314	964.1302	314	964.2250	314	965.0113	324	965.0901	326
964.1030	314	964.1303	314	964.2303	317	965.0114	324	965.0902	326
964.1032	314	964.1304	314	964.2403	317	965.0115	324	965.0903	326
964.1034	314	964.1305	314	964.2507	317	965.0116	324	965.0904	326
964.1036	314	964.1306	314	964.2703	317	965.0117	324	965.0910	326
964.1038	314	964.1307	314	964.2901	321	965.0120	324	965.0911	326
964.1041	314	964.1404	315	964.2902	321	965.0121	324	965.0912	326
964.1045	314	964.14045	315	964.3001	323	965.0134	324	965.0913	326
964.1046	314	964.1405	315	964.3002	323	965.0148	324	965.0914	326
964.1048	314	964.14055	315	964.3101	322	965.0206	324	965.0915	326
964.1050	314	964.1406	315	964.3102	322	965.0207	324	965.0916	326
964.1055	314	964.1407	315	964.3103	322	965.0208	324	965.1008	324
964.1056	314	964.1408	315	964.3104	322	965.0209	324	965.1010	324
964.1060	314	964.1409	315	964.3105	322	965.0210	324	965.1011	324
964.1065	314	964.1410	315	964.3106	322	965.0211	324	965.1012	324
964.1070	314	964.1411	315	964.3107	322	965.0212	324	965.1013	324
964.1075	314	964.1412	315	964.3108	322	965.0213	324	965.1014	324
964.1101	315	964.1413	315	964.3201	322	965.0214	324	965.1017	324
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964.1103	315	964.1501	321	964.3203	322	965.0216	324	965.1102	327
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964.1105	315	964.1701	321	964.3205	322	965.0219	324	965.1302	327
964.1106	315	964.1801	321	964.3206	322	965.0248	324	965.2001	325
964.1107	315	964.1802	321	964.3207	322	965.0301	324	965.2002	325
964.1108	315	964.2001	322	964.3208	322	965.0302	324	965.2004	326
964.1109	315	964.2002	322	964.3209	322	965.0303	324	965.2005	326
964.1110	315	964.2003	322	964.3210	322	965.0304	324	965.2006	324
964.1111	315	964.2004	322	964.3211	322	965.0305	324	965.2010	325
964.1112	315	964.2005	322	964.3212	322	965.0306	324	965.2011	327
964.1113	315	964.2006	322	964.3213	322	965.0307	324	965.2300	327
964.1114	315	964.2007	322	964.3214	322	965.0308	324	965.3800	325
964.1115	315	964.2008	322	964.3215	322	965.0401	326	965.3801	325
964.1140	315	964.2009	322	964.3216	322	965.0402	326	965.3802	325
964.1145	315	964.2010	322	964.3217	322	965.04025	326	965.3803	325
964.1150	315	964.2011	322	964.3218	322	965.0403	326	965.3804	325
964.1208	315	964.2012	322	964.3301	323	965.0404	326	965.3808	325
964.1209	315	964.2021	322	964.3302	323	965.0405	326	965.3809	325
964.1210	315	964.2031	322	964.3303	323	965.0406	326	965.3810	325
964.1211	315	964.2032	322	964.3304	323	965.0407	326	965.3811	325
964.1212	315	964.2041	321	964.3305	323	965.0408	326	965.3812	325
964.1213	315	964.2042	321	964.3417	316	965.0409	326	965.3813	325
964.1214	315	964.2043	321	964.3419	316	965.0410	326	965.3814	325
964.1215	315	964.2044	321	964.3422	316	965.0411	326	965.3815	325
964.1216	315	964.2045	321	964.3424	316	965.0412	326	965.3816	325
964.1217	315	964.2046	321	964.3427	316	965.0414	326	965.3817	325
964.1218	315	964.2101	322	964.3430	316	965.0423	326	965.3818	325
964.1219	315	964.2102	322	964.3432	316	965.0424	326	965.3819	325
964.1220	315	964.2103	322	964.3434	316	965.0425	326	965.3857	325
964.1221	315	964.2104	322	964.3436	316	965.0501	326	965.3901	325
964.1222	315	964.2105	322	964.3441	316	965.0502	326	965.3902	325
964.1223	315	964.2106	322	964.3446	316	965.0503	326	965.3903	325
964.1224	315	964.2201	314	964.3450	316	965.0504	326	965.3904	325
964.1225	315	964.2202	314	964.3455	316	965.0505	326	965.3905	325
964.1226	315	964.2203	314	964.3460	316	965.0506	326	965.3906	325
964.1227	315	964.2204	314	964.3465	316	965.0507	326	965.3907	325
964.1228	316	964.2205	314	964.3470	316	965.0508	326	965.3908	325
964.1229	316	964.2206	314	964.3471	316	965.0509	326	965.3909	325
964.1230	316	964.2207	314	964.3472	316	965.0510	326	965.9000	327

Item	Page	Item	Page	Item	Page	Item	Page
970.0010	750	975.1007	200	985.0663	741	1	
970.0020	748	975.1008	200	985.0664	741	100391	741
970.0030	748	975.1010	200	985.0670	741	100392	741
970.0040	756	975.1012	200	985.0671	741	100393	741
970.0050	754	975.2010	200	985.0672	741	100394	741
970.0060	749	975.2015	200	985.0673	741		
970.0070	747	975.2020	200	985.0674	741		
970.0080	748	975.2025	200	985.0940	741		
970.0090	746	975.2027	200	985.0941	741		
970.0100	746	975.2030	200	985.0942	741		
970.0110	747	975.2040	200	985.0943	741		
970.0120	752	975.2045	200	985.7000	736		
970.0130	755	975.2050	200	985.7001	736		
970.0140	756	975.2055	200	985.7002	736		
970.0150	754	975.2060	200	985.7003	736		
970.0160	756	975.2075	200	985.7019	736		
970.0180	754	975.2110	200	985.7020	736		
970.0190	757	975.2115	200	985.7021	737		
970.0200	757	975.2120	200	985.7022	737		
970.0210	749	975.2125	200	985.7026	737		
970.0220	752	975.2127	200	985.7027	737		
970.0230	745	975.2130	200	985.7028	737		
970.0240	752	975.2140	200	985.7029	737		
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970.0260	755	975.2150	200	985.7035	737, 740		
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970.0280	744	975.2160	200	985.7037	737, 740		
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970.0340	756	975.4040	200	985.7051	736		
970.0350	755	975.4045	200	985.7055	736		
970.0360	748	975.4050	200	987.0600	692		
970.0370	750	975.4055	200	997.1210	621		
970.0380	753	980.1000	685	997.1214	621		
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970.0410	750	980.1013	470	997.1217	621, 704		
970.0420	750	980.1014	470	999.0120	523, 705		
970.0430	751	980.1080	685	999.0125	523		
970.0440	751	980.1085	422	999.0150	524		
970.0450	751	980.1090	412, 416, 422	999.0155	524		
970.0460	753	980.1095	469	999.0160	524		
970.0470	753	980.1096	469	999.0165	524		
970.0480	752	980.1097	469	999.0170	524		
970.0490	752	980.1098	469	999.0175	524		
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970.0510	753	980.1101	470-471, 482	999.0185	524		
970.0520	749	980.1102	470-471, 482	999.0190	524		
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970.0550	749	980.1105	470-471, 482	999.0560	524		
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970.0570	745	980.1107	470-471, 482	999.2034	704, 726		
970.0730	744	980.1108	470	999.9086	476		
970.0740	744	980.3000	685	999.9087	476		
970.0760	757	980.3050	685	999.9088	476		
970.0770	747	985.0024	734	999.9089	476		
970.0790	745	985.0650	741	999.9092	477		
970.0800	751	985.0651	741	999.9093	476		
970.0820	754	985.0652	741	999.9094	476		
970.0830	747	985.0653	741	999.9095	476		
970.0840	745	985.0654	741	999.9096	477		
975.1004	200	985.0660	741	999.9097	477		
975.1005	200	985.0661	741	999.9098	477		
975.1006	200	985.0662	741				

# Conversion table from inches to millimetres

Conversion example from mm to inches: 69,850 mm = 2.3/4"  
 Conversion example from inches to mm: 4.1/2" = 114,300 mm

inch	mm	1	2	3	4	5	6	7	8	9
		millimetres								
0	0	25,400	50,800	76,200	101,600	127,000	152,400	177,800	203,200	228,600
1/64	0,397	25,797	51,197	76,597	101,997	127,397	152,797	178,197	203,597	228,997
1/32	0,794	26,194	51,594	76,994	102,394	127,794	153,194	178,594	203,994	229,394
3/64	1,191	26,591	51,991	77,391	102,791	128,191	153,591	178,991	204,391	229,791
1/16	1,588	26,988	52,388	77,788	103,188	128,588	153,988	179,388	204,788	230,188
5/64	1,984	27,384	52,784	78,184	103,584	128,984	154,384	179,784	205,184	230,584
3/32	2,381	27,781	53,181	78,581	103,981	129,381	154,781	180,181	205,581	230,981
7/64	2,778	28,178	53,578	78,978	104,378	129,778	155,178	180,578	205,978	231,378
1/8	3,175	28,575	53,975	79,375	104,775	130,175	155,575	180,975	206,375	231,775
9/64	3,572	28,972	54,372	79,772	105,172	130,572	155,972	181,372	206,772	232,172
5/32	3,969	29,369	54,769	80,169	105,569	130,969	156,369	181,769	207,169	232,569
11/64	4,366	29,766	55,166	80,566	105,966	131,366	156,766	182,166	207,566	232,966
3/16	4,762	30,162	55,562	80,962	106,362	131,762	157,162	182,562	207,962	233,362
13/64	5,159	30,559	55,959	81,359	106,759	132,159	157,559	182,959	208,359	233,759
7/32	5,556	30,956	56,356	81,756	107,156	132,556	157,956	183,356	208,756	234,156
15/64	5,953	31,353	56,753	82,153	107,553	132,953	158,353	183,753	209,153	234,553
1/4	6,35	31,750	57,150	82,550	107,950	133,350	158,750	184,150	209,550	234,950
17/64	6,747	32,147	57,547	82,947	108,347	133,747	159,147	184,547	209,947	235,347
9/32	7,144	32,544	57,944	83,344	108,744	134,144	159,544	184,944	210,344	235,744
19/64	7,541	32,941	58,341	83,741	109,141	134,541	159,941	185,341	210,741	236,141
5/16	7,938	33,338	58,738	84,138	109,538	134,938	160,338	185,738	211,138	236,538
21/64	8,334	33,734	59,134	84,534	109,934	135,334	160,734	186,134	211,534	236,934
11/32	8,731	34,131	59,531	84,931	110,331	135,731	161,131	186,531	211,931	237,331
23/64	9,128	34,528	59,928	85,328	110,728	136,128	161,528	186,928	212,328	237,728
3/8	9,525	34,925	60,325	85,725	111,125	136,525	161,925	187,325	212,725	238,125
25/64	9,922	35,322	60,722	86,122	111,522	136,922	162,322	187,722	213,122	238,522
13/32	10,319	35,719	61,119	86,519	111,919	137,319	162,719	188,119	213,519	238,919
27/64	10,716	36,116	61,516	86,916	112,316	137,716	163,116	188,516	213,916	239,316
7/16	11,112	36,512	61,912	87,312	112,712	138,112	163,512	188,912	214,312	239,712
29/64	11,509	36,909	62,309	87,709	113,109	138,509	163,909	189,309	214,709	240,109
15/32	11,906	37,306	62,706	88,106	113,506	138,906	164,306	189,706	215,106	240,506
31/64	12,303	37,703	63,103	88,503	113,903	139,303	164,703	190,103	215,503	240,903
1/2	12,7	38,100	63,500	88,900	114,300	139,700	165,100	190,500	215,900	241,300
33/64	13,097	38,497	63,897	89,297	114,697	140,097	165,497	190,897	216,297	241,697
17/32	13,494	38,894	64,294	89,694	115,094	140,494	165,894	191,294	216,694	242,094
35/64	13,891	39,291	64,691	90,091	115,491	140,891	166,291	191,691	217,091	242,491
9/16	14,288	39,688	65,088	90,488	115,888	141,288	166,688	192,088	217,488	242,888
37/64	14,684	40,084	65,484	90,884	116,284	141,684	167,084	192,484	217,884	243,284
19/32	15,081	40,481	65,881	91,281	116,681	142,081	167,481	192,881	218,281	243,681
39/64	15,478	40,878	66,278	91,678	117,078	142,478	167,878	193,278	218,678	244,078
5/8	15,875	41,275	66,675	92,075	117,475	142,875	168,275	193,675	219,075	244,475
41/64	16,272	41,672	67,072	92,472	117,872	143,272	168,672	194,072	219,472	244,872
21/32	16,669	42,069	67,469	92,869	118,269	143,669	169,069	194,469	219,869	245,269
43/64	17,066	42,466	67,866	93,266	118,666	144,066	169,466	194,866	220,266	245,666
11/16	17,462	42,862	68,262	93,662	119,062	144,462	169,862	195,262	220,662	246,062
45/64	17,859	43,259	68,659	94,059	119,459	144,859	170,259	195,659	221,059	246,459
23/32	18,256	43,656	69,056	94,456	119,856	145,256	170,656	196,056	221,456	246,856
47/64	18,653	44,053	69,453	94,853	120,253	145,653	171,053	196,453	221,853	247,253
3/4	19,05	44,450	69,850	95,250	120,650	146,050	171,450	196,850	222,250	247,650
49/64	19,447	44,847	70,247	95,647	121,047	146,447	171,847	197,247	222,647	248,047
25/32	19,844	45,244	70,644	96,044	121,444	146,844	172,244	197,644	223,044	248,444
51/64	20,241	45,641	71,041	96,441	121,841	147,241	172,641	198,041	223,441	248,841
13/16	20,638	46,038	71,438	96,838	122,238	147,638	173,038	198,438	223,838	249,238
53/64	21,034	46,434	71,834	97,234	122,634	148,034	173,434	198,834	224,234	249,634
27/32	21,431	46,831	72,231	97,631	123,031	148,431	173,831	199,231	224,631	250,031
55/64	21,828	47,228	72,628	98,028	123,428	148,828	174,228	199,628	225,028	250,428
7/8	22,225	47,625	73,025	98,425	123,825	149,225	174,625	200,025	225,425	250,825
57/64	22,622	48,022	73,422	98,822	124,222	149,622	175,022	200,422	225,822	251,222
29/32	23,019	48,419	73,819	99,219	124,619	150,019	175,419	200,819	226,219	251,619
59/64	23,416	48,816	74,216	99,616	125,016	150,416	175,816	201,216	226,616	252,016
15/16	23,812	49,212	74,612	100,012	125,412	150,812	176,212	201,612	227,012	252,412
61/64	24,209	49,609	75,009	100,409	125,809	151,209	176,609	202,009	227,409	252,809
31/32	24,606	50,006	75,406	100,806	126,206	151,606	177,006	202,406	227,806	253,206
63/64	25,003	50,403	75,803	101,203	126,603	152,003	177,403	202,803	228,203	253,603



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