



# NON SPARKING TOOLS 2017

**Non Sparking Tools from ELORA**

Working in places where sparks mean a potential danger of explosion and fire requires a special protection. Due to their magnetic features conventional steel tools are not suitable to be used in potentially explosive environments as explosive atmospheres or ignition sources can occur. For this reason Elora offers the “Non Sparking” product range which follows the ATEX guidelines 94/9/EG (“ATEX 95”) providing requirements for the use of equipment in potentially explosive environments. These guidelines form the basic regulations for the safety of employees during installation, operation and maintenance of potentially explosive facilities. Depending on their risk of explosion the ATEX guidelines distinguish six risk zones:

<p><b>For areas that are potentially explosive due to flammable gases, vapors or mist, the following zones shall apply:</b></p>	<p><b>For areas that are potentially explosive due to combustible dusts, the following areas shall apply:</b></p>
<p style="text-align: center;"><b>Zone 0</b></p> <p>Explosive atmospheres caused by mixtures of air and gases, vapours or mists are highly likely to occur and are present continuously, for long periods of time or frequently.</p>	<p style="text-align: center;"><b>Zone 20</b></p> <p>Explosive atmospheres caused by mixtures of air and flammable dusts are highly likely to occur and are present continuously, for long periods of time or frequently.</p>
<p style="text-align: center;"><b>Zone 1</b></p> <p>Explosive atmospheres caused by mixtures of air and gases, vapours or mists are likely to occur.</p>	<p style="text-align: center;"><b>Zone 21</b></p> <p>Explosive atmospheres caused by mixtures of air and flammable dusts are likely to occur.</p>
<p style="text-align: center;"><b>Zone 2</b></p> <p>Explosive atmospheres caused by mixtures of air and gases, vapours or mists are unlikely to occur and if they do occur, do so infrequently and for a short period of time only.</p>	<p style="text-align: center;"><b>Zone 22</b></p> <p>Explosive atmospheres caused by mixtures of air and flammable dusts are unlikely to occur and if they do occur, do so infrequently and for a short period of time only.</p>

### Main application fields:

Petrochemicals	Fireworks Industry	Mines
Refineries	Chemical Industry	Defence
Gas & Oil pipe lines	Flour silos and mills	Air Forces
Power stations	Breweries	Navy
Paint Manufacturing	Alcohol processing industries	Weapon & ammunition fabrication
Plastic Manufacturing	Distilleries	Aerospace Industry
Pharmaceutical Industry	Fire-Fighters	Automobile Industry

### Special non-iron alloys

Non sparking tools are made of non-iron alloys (e.g. Beryllium-Copper or Aluminium-Bronze). These alloys are antimagnetic, non sparking and very corrosion-resistant. The chemical composition of the material as well as the way of heating, the accuracy of the casting moulds and a controlled solidification process determine the quality of the non sparking tools.

Property	Application or Benefits
Non-sparking	Appropriate for explosive potential environments such as oil and gas works, petro-chemical plants.
Non-magnetic safety	Essential for equipments that require complete non-magnetic safety.
Corrosion resistant	Specially well suited for applications in corrosive environments like encountered in marine works or fire-fighting applications.
Forged after casting	Provides higher mechanical properties and better finishing.

### Differences between Aluminium-Bronze and Beryllium-Copper

	Aluminium-Bronze (Al-Br) Alloy
Hardness	25-30HRc (229 ~ 291 Brinell)
Tensile Strength	782 N/mm <sup>2</sup> ~ 989 N/mm <sup>2</sup>
Extensibility	$\epsilon \geq 5\%$
Elasticity limit	450 ~ 550 N/mm <sup>2</sup>
Magnetic	1.2

### Advantages of Aluminium-Bronze:

- non sparking
- highly wear-resistant
- higher heat resistance than Beryllium-Copper
- relatively light weight
- more economic than Beryllium-Copper

### Disadvantages of Aluminium-Bronze:

- lower tensile than Beryllium-Copper

<b>Beryllium-Copper (Be-Cu) Alloy</b>	
Hardness	35-40HRc (283~365 Brinell)
Tensile Strength	1117 N/mm <sup>2</sup> ~ 1326 N/mm <sup>2</sup>
Extensibility	$\epsilon \geq 1.0\%$
Elasticity limit	840 ~ 880 N/mm <sup>2</sup>
Magnetic	0

### **Advantages of Beryllium-Copper:**

- non sparking
- highly wear-resistant
- high hardness values
- relatively lightweight
- higher tensile strength than Aluminium-Bronze

### **Disadvantages of Beryllium-Copper:**

- higher weight than Aluminium-Bronze

### **How to apply non sparking tools correctly**

Non sparking tools are softer than conventional tools so that they should be used with special caution and care. Overstraining is to be avoided. In case non sparking tools have to be reworked technical instructions can be provided on request. Please consider that the use of non sparking tools as a sole means of protection in explosive environments is not sufficient. For best possible protection of employers and equipment legal and corporate regulations have to be observed.

Do you need further non sparking tools that are not listed in our core range? Please do not hesitate to contact us.

**100-...Al Br | 100-...Cu Be**  
**Double Open Ended Spanner**

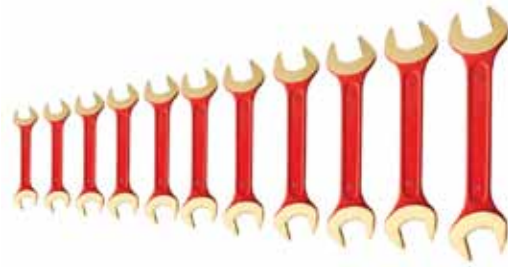
- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2210000607101	100-6x7 Al Br	92	22	2210000607102	100-6x7 Cu Be	92	25
2210000608101	100-6x8 Al Br	92	20	2210000608102	100-6x8 Cu Be	92	22
2210000709101	100-7x9 Al Br	96	25	2210000709102	100-7x9 Cu Be	96	28
2210000809101	100-8x9 Al Br	100	34	2210000809102	100-8x9 Cu Be	100	38
2210000810101	100-8x10 Al Br	100	31	2210000810102	100-8x10 Cu Be	100	34
2210000910101	100-9x10 Al Br	110	45	2210000910102	100-9x10 Cu Be	110	50
2210000911101	100-9x11 Al Br	110	45	2210000911102	100-9x11 Cu Be	110	50
2210001011101	100-10x11 Al Br	115	47	2210001011102	100-10x11 Cu Be	115	52
2210001012101	100-10x12 Al Br	120	55	2210001012102	100-10x12 Cu Be	120	60
2210001013101	100-10x13 Al Br	124	50	2210001013102	100-10x13 Cu Be	124	55
2210001014101	100-10x14 Al Br	124	62	2210001014102	100-10x14 Cu Be	124	68
2210001113101	100-11x13 Al Br	128	60	2210001113102	100-11x13 Cu Be	128	66
2210001213101	100-12x13 Al Br	128	67	2210001213102	100-12x13 Cu Be	128	73
2210001214101	100-12x14 Al Br	130	69	2210001214102	100-12x14 Cu Be	130	75
2210001415101	100-14x15 Al Br	143	105	2210001415102	100-14x15 Cu Be	143	115
2210001417101	100-14x17 Al Br	150	110	2210001417102	100-14x17 Cu Be	150	120
2210001617101	100-16x17 Al Br	157	120	2210001617102	100-16x17 Cu Be	157	130
2210001618101	100-16x18 Al Br	163	130	2210001618102	100-16x18 Cu Be	163	145
2210001719101	100-17x19 Al Br	170	135	2210001719102	100-17x19 Cu Be	170	150
2210001722101	100-17x22 Al Br	173	150	2210001722102	100-17x22 Cu Be	173	166
2210001819101	100-18x19 Al Br	179	180	2210001819102	100-18x19 Cu Be	179	200
2210001922101	100-19x22 Al Br	185	200	2210001922102	100-19x22 Cu Be	185	220
2210001921101	100-19x24 Al Br	190	210	2210001921102	100-19x24 Cu Be	190	235
2210002022101	100-20x22 Al Br	195	225	2210002022102	100-20x22 Cu Be	195	250
2210002123101	100-21x23 Al Br	200	235	2210002123102	100-21x23 Cu Be	200	270
2210002224101	100-22x24 Al Br	210	285	2210002224102	100-22x24 Cu Be	210	312
2210002227101	100-22x27 Al Br	215	292	2210002227102	100-22x27 Cu Be	215	320
2210002326101	100-23x26 Al Br	220	302	2210002326102	100-23x26 Cu Be	220	330
2210002426101	100-24x26 Al Br	230	320	2210002426102	100-24x26 Cu Be	230	354
2210002427101	100-24x27 Al Br	230	310	2210002427102	100-24x27 Cu Be	230	345
2210002430101	100-24x30 Al Br	233	330	2210002430102	100-24x30 Cu Be	233	365
2210002528101	100-25x28 Al Br	236	330	2210002528102	100-25x28 Cu Be	236	365
2210002629101	100-26x29 Al Br	250	420	2210002629102	100-26x29 Cu Be	250	462
2210002729101	100-27x29 Al Br	250	480	2210002729102	100-27x29 Cu Be	250	531
2210002730101	100-27x30 Al Br	250	430	2210002730102	100-27x30 Cu Be	250	485
2210002732101	100-27x32 Al Br	255	549	2210002732102	100-27x32 Cu Be	255	600
2210003032101	100-30x32 Al Br	265	540	2210003032102	100-30x32 Cu Be	265	610
2210003036101	100-30x36 Al Br	270	730	2210003036102	100-30x36 Cu Be	270	815
2210003234101	100-32x34 Al Br	270	730	2210003234102	100-32x34 Cu Be	270	815
2210003236101	100-32x36 Al Br	300	800	2210003236102	100-32x36 Cu Be	300	885
2210003436101	100-34x36 Al Br	300	800	2210003436102	100-34x36 Cu Be	300	885
2210003638101	100-36x38 Al Br	330	1210	2210003638102	100-36x38 Cu Be	330	1350
2210003641101	100-36x41 Al Br	330	1210	2210003641102	100-36x41 Cu Be	330	1350
2210004146101	100-41x46 Al Br	355	1530	2210004146102	100-41x46 Cu Be	355	1690
2210004650101	100-46x50 Al Br	370	1850	2210004650102	100-46x50 Cu Be	370	2050
2210005055101	100-50x55 Al Br	385	1950	2210005055102	100-50x55 Cu Be	385	2160
2210005060101	100-50x60 Al Br	400	2275	2210005060102	100-50x60 Cu Be	400	2488
2210005560101	100-55x60 Al Br	415	2450	2210005560102	100-55x60 Cu Be	415	2700
2210006065101	100-60x65 Al Br	435	3600	2210006065102	100-60x65 Cu Be	435	3950
2210006570101	100-65x70 Al Br	480	4650	2210006570102	100-65x70 Cu Be	480	5146
2210007080101	100-70x80 Al Br	520	5638	2210007080102	100-70x80 Cu Be	520	6202

**100S-...Al Br | 100S-... Cu Be**  
**Double Open Ended Spanner Set**

- Aluminium Bronze Al Br
- Copper Beryllium Cu Be



Code	No.	Contents	Weight/g
2210050090101	100S 9M Al Br	8x10, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 30x32 mm	2570
2210050110101	100S 11M Al Br	8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30, 30x32 mm	3230
2210050130101	100S 13M Al Br	5,5x7, 6x7, 8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30, 30x32 mm	3295
2210050090102	100S 9M Cu Be	8x10, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 30x32 mm	2810
2210050110102	100S 11M Cu Be	8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30, 30x32 mm	3530
2210050130102	100S 13M Cu Be	5,5x7, 6x7, 8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30, 30x32 mm	3610

**100A-...Al Br | 100-...Cu Be**  
**Double Open Ended Spanner**

- Aluminium Bronze Al Br
- Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2210011317101	100A-1/4x5/16 Al Br	90	30	2210011317102	100A-1/4x5/16 Cu Be	90	34
2210011719101	100A-5/16x3/8 Al Br	100	40	2210011719102	100A-5/16x3/8 Cu Be	100	45
2210011921101	100A-3/8x7/16 Al Br	110	55	2210011921102	100A-3/8x7/16 Cu Be	110	60
2210011923101	100A-3/8x1/2 Al Br	115	60	2210011923102	100A-3/8x1/2 Cu Be	115	68
2210012123101	100A-7/16x1/2 Al Br	120	78	2210012123102	100A-7/16x1/2 Cu Be	120	85
2210012324101	100A-1/2x9/16 Al Br	130	80	2210012324102	100A-1/2x9/16 Cu Be	130	90
2210012426101	100A-9/16x5/8 Al Br	150	105	2210012426102	100A-9/16x5/8 Cu Be	150	120
2210012627101	100A-5/8x11/16 Al Br	160	130	2210012627102	100A-5/8x11/16 Cu Be	160	155
2210012628101	100A-5/8x3/4 Al Br	165	135	2210012628102	100A-5/8x3/4 Cu Be	165	160
2210012728101	100A-11/16x3/4 Al Br	170	145	2210012728102	100A-11/16x3/4 Cu Be	170	170
2210012830101	100A-3/4x13/16 Al Br	180	185	2210012830102	100A-3/4x13/16 Cu Be	180	225
2210012831101	100A-3/4x7/8 Al Br	185	200	2210012831102	100A-3/4x7/8 Cu Be	185	230
2210013031101	100A-13/16x7/8 Al Br	190	215	2210013031102	100A-13/16x7/8 Cu Be	190	240
2210013132101	100A-7/8x15/16 Al Br	210	270	2210013132102	100A-7/8x15/16 Cu Be	210	305
2210013234101	100A-15/16x1 Al Br	220	305	2210013234102	100A-15/16x1 Cu Be	220	365
2210013435101	100A-1x1.1/16 Al Br	230	355	2210013435102	100A-1x1.1/16 Cu Be	230	405
2210013536101	100A-1.1/16x1.1/8 Al Br	235	380	2210013536102	100A-1.1/16x1.1/8 Cu Be	235	450
2210013637101	100A-1.1/8x1.3/16 Al Br	245	480	2210013637102	100A-1.1/8x1.3/16 Cu Be	245	548
2210013738101	100A-1.3/16x1.1/4 Al Br	250	525	2210013738102	100A-1.3/16x1.1/4 Cu Be	250	600
2210013839101	100A-1.1/4x1.5/16 Al Br	270	660	2210013839102	100A-1.1/4x1.5/16 Cu Be	270	730
2210013940101	100A-1.5/16x1.3/8 Al Br	300	830	2210013940102	100A-1.5/16x1.3/8 Cu Be	300	913
2210014041101	100A-1.3/8x1.7/16 Al Br	300	790	2210014041102	100A-1.3/8x1.7/16 Cu Be	300	869
2210014144101	100A-1.7/16x1.5/8 Al Br	330	1170	2210014144102	100A-1.7/16x1.5/8 Cu Be	330	1295
2210014243101	100A-1.1/2x1.9/16 Al Br	330	1150	2210014243102	100A-1.1/2x1.9/16 Cu Be	330	1265
2210014446101	100A-1.5/8x1.13/16 Al Br	355	1350	2210014446102	100A-1.5/8x1.13/16 Cu Be	355	1494
2210014649101	100A-1.13/16x2 Al Br	370	1615	2210014649102	100A-1.13/16x2 Cu Be	370	1787
2210014952101	100A-2x2.3/16 Al Br	385	2015	2210014952102	100A-2x2.3/16 Cu Be	385	2230
2210014955101	100A-2x2.3/8 Al Br	400	2440	2210014955102	100A-2x2.3/8 Cu Be	400	2700
2210015255101	100A-2.3/16x2.3/8 Al Br	415	2480	2210015255102	100A-2.3/16x2.3/8 Cu Be	415	2745
2210015558101	100A-2.3/8x2.9/16 Al Br	435	3100	2210015558102	100A-2.3/8x2.9/16 Cu Be	435	3431

**205-...Al Br | 205-... Cu Be**  
**Combination Spanner**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2220500006101	205-6 Al Br	105	20	2220500006102	205-6 Cu Be	105	22
2220500007101	205-7 Al Br	120	34	2220500007102	205-7 Cu Be	120	37
2220500008101	205-8 Al Br	120	34	2220500008102	205-8 Cu Be	120	37
2220500009101	205-9 Al Br	135	50	2220500009102	205-9 Cu Be	135	55
2220500010101	205-10 Al Br	135	50	2220500010102	205-10 Cu Be	135	55
2220500011101	205-11 Al Br	150	75	2220500011102	205-11 Cu Be	150	75
2220500012101	205-12 Al Br	150	70	2220500012102	205-12 Cu Be	150	75
2220500013101	205-13 Al Br	175	110	2220500013102	205-13 Cu Be	175	122
2220500014101	205-14 Al Br	175	110	2220500014102	205-14 Cu Be	175	122
2220500015101	205-15 Al Br	195	145	2220500015102	205-15 Cu Be	195	160
2220500016101	205-16 Al Br	195	140	2220500016102	205-16 Cu Be	195	155
2220500017101	205-17 Al Br	195	140	2220500017102	205-17 Cu Be	195	155
2220500018101	205-18 Al Br	215	190	2220500018102	205-18 Cu Be	215	210
2220500019101	205-19 Al Br	215	190	2220500019102	205-19 Cu Be	215	210
2220500020101	205-20 Al Br	230	200	2220500020102	205-20 Cu Be	230	225
2220500021101	205-21 Al Br	230	200	2220500021102	205-21 Cu Be	230	225
2220500022101	205-22 Al Br	245	220	2220500022102	205-22 Cu Be	245	250
2220500023101	205-23 Al Br	265	233	2220500023102	205-23 Cu Be	265	265
2220500024101	205-24 Al Br	265	230	2220500024102	205-24 Cu Be	265	260
2220500025101	205-25 Al Br	265	230	2220500025102	205-25 Cu Be	265	260
2220500026101	205-26 Al Br	290	380	2220500026102	205-26 Cu Be	290	420
2220500027101	205-27 Al Br	290	380	2220500027102	205-27 Cu Be	290	420
2220500030101	205-30 Al Br	320	500	2220500030102	205-30 Cu Be	320	560
2220500032101	205-32 Al Br	340	600	2220500032102	205-32 Cu Be	340	670
2220500034101	205-34 Al Br	360	750	2220500034102	205-34 Cu Be	360	850
2220500035101	205-35 Al Br	360	800	2220500035102	205-35 Cu Be	360	890
2220500036101	205-36 Al Br	360	800	2220500036102	205-36 Cu Be	360	890
2220500038101	205-38 Al Br	430	1150	2220500038102	205-38 Cu Be	430	1200
2220500041101	205-41 Al Br	430	1300	2220500041102	205-41 Cu Be	430	1440
2220500046101	205-46 Al Br	480	1700	2220500046102	205-46 Cu Be	480	1890
2220500050101	205-50 Al Br	520	2000	2220500050102	205-50 Cu Be	520	2220
2220500055101	205-55 Al Br	560	2230	2220500055102	205-55 Cu Be	560	2460
2220500060101	205-60 Al Br	595	2950	2220500060102	205-60 Cu Be	595	3300
2220500065101	205-65 Al Br	595	2900	2220500065102	205-65 Cu Be	595	3250
2220500070101	205-70 Al Br	630	4100	2220500070102	205-70 Cu Be	630	4550

**205S---Al Br | 205S--- Cu Be**  
**Combination Spanner Set**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	Contents	Weight/g
2220550090101	205S 9M Al Br	8, 10, 12, 14, 17, 19, 22, 24, 27 mm	1655
2220550110101	205S 11M Al Br	8, 10, 12, 14, 17, 19, 22, 24, 27, 30, 32 mm	2955
2220550130101	205S 13M Al Br	8, 10, 12, 13, 14, 16, 17, 19, 22, 24, 27, 30, 32 mm	3175
2220550090102	205S 9M Cu Be	8, 10, 12, 14, 17, 19, 22, 24, 27 mm	1815
2220550110102	205S 11M Cu Be	8, 10, 12, 14, 17, 19, 22, 24, 27, 30, 32 mm	3235
2220550130102	205S 13M Cu Be	8, 10, 12, 13, 14, 16, 17, 19, 22, 24, 27, 30, 32 mm	3485

**205A---Al Br | 205A--- Cu Be**  
**Combination Spanner**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2220510013102	205A-1/4 Al Br	105	20	2220510013102	205A-1/4 Cu Be	105	22
2220510017102	205A-5/16 Al Br	120	34	2220510017102	205A-5/16 Cu Be	120	37
2220510019102	205A-3/8 Al Br	135	50	2220510019102	205A-3/8 Cu Be	135	55
2220510021102	205A-7/16 Al Br	150	70	2220510021102	205A-7/16 Cu Be	150	75
2220510023102	205A-1/2 Al Br	175	115	2220510023102	205A-1/2 Cu Be	175	125
2220510024102	205A-9/16 Al Br	175	110	2220510024102	205A-9/16 Cu Be	175	122
2220510025102	205A-19/32 Al Br	195	145	2220510025102	205A-19/32 Cu Be	195	160
2220510026102	205A-5/8 Al Br	195	140	2220510026102	205A-5/8 Cu Be	195	155
2220510027102	205A-11/16 Al Br	195	140	2220510027102	205A-11/16 Cu Be	195	155
2220510028102	205A-3/4 Al Br	215	190	2220510028102	205A-3/4 Cu Be	215	210
2220510030102	205A-13/16 Al Br	230	200	2220510030102	205A-13/16 Cu Be	230	225
2220510031102	205A-7/8 Al Br	245	225	2220510031102	205A-7/8 Cu Be	245	250
2220510032102	205A-15/16 Al Br	265	230	2220510032102	205A-15/16 Cu Be	265	260
2220510034102	205A-1 Al Br	290	380	2220510034102	205A-1 Cu Be	290	420
2220510035102	205A-1.1/16 Al Br	290	380	2220510035102	205A-1.1/16 Cu Be	290	420
2220510036102	205A-1.1/8 Al Br	320	500	2220510036102	205A-1.1/8 Cu Be	320	560
2220510037102	205A-1.3/16 Al Br	320	500	2220510037102	205A-1.3/16 Cu Be	320	560
2220510038102	205A-1.1/4 Al Br	340	600	2220510038102	205A-1.1/4 Cu Be	340	670
2220510039102	205A-1.5/16 Al Br	360	750	2220510039102	205A-1.5/16 Cu Be	360	850
2220510040102	205A-1.3/8 Al Br	360	800	2220510040102	205A-1.3/8 Cu Be	360	890



**110-...Al Br | 110-...Cu Be**  
**Double-Ended Ring Spanner**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g
2211005507101	110-5,5x7 Al Br	115	20
2211000607101	110-6x7 Al Br	115	23
2211000608101	110-6x8 Al Br	130	36
2211000709101	110-7x9 Al Br	130	46
2211000809101	110-8x9 Al Br	130	33
2211000810101	110-8x10 Al Br	130	50
2211000910101	110-9x10 Al Br	140	57
2211000911101	110-9x11 Al Br	140	65
2211001011101	110-10x11 Al Br	140	75
2211001012101	110-10x12 Al B	140	78
2211001013101	110-10x13 Al Br	160	80
2211001014101	110-10x14 Al Br	160	78
2211001113101	110-11x13 Al Br	160	78
2211001213101	110-12x13 Al Br	160	110
2211001214101	110-12x14 Al Br	160	140
2211001415101	110-14x15 Al Br	200	135
2211001417101	110-14x17 Al Br	220	180
2211001617101	110-16x17 Al Br	220	165
2211001618101	110-16x18 Al Br	220	202
2211001719101	110-17x19 Al Br	250	205
2211001721101	110-17x21 Al Br	250	266
2211001722101	110-17x22 Al Br	250	265
2211001819101	110-18x19 Al Br	250	270
2211001921101	110-19x21 Al Br	280	285
2211001922101	110-19x22 Al Br	280	280
2211001924101	110-19x24 Al Br	310	320
2211002022101	110-20x22 Al Br	285	288
2211002123101	110-21x23 Al Br	285	360
2211002126101	110-21x26 Al Br	320	410
2211002224101	110-22x24 Al Br	310	415
2211002227101	110-22x27 Al Br	340	494
2211002326101	110-23x26 Al Br	340	485
2211002426101	110-24x26 Al Br	340	481
2211002427101	110-24x27 Al Br	340	475
2211002430101	110-24x30 Al Br	350	501
2211002528101	110-25x28 Al Br	350	530
2211002629101	110-26x29 Al Br	360	615
2211002729101	110-27x29 Al Br	360	613
2211002730101	110-27x30 Al Br	360	645
2211002732101	110-27x32 Al Br	370	630
2211002932101	110-29x32 Al Br	380	735
2211003032101	110-30x32 Al Br	380	736
2211003036101	110-30x36 Al Br	395	960
2211003234101	110-32x34 Al Br	400	980
2211003235101	110-32x35 Al Br	405	1030
2211003236101	110-32x36 Al Br	405	1030
2211003436101	110-34x36 Al Br	420	1065
2211003541101	110-35x41 Al Br	445	1465
2211003638101	110-36x38 Al Br	445	1475
2211003641101	110-36x41 Al Br	445	1465
2211003840101	110-38x40 Al Br	445	1455
2211004146101	110-41x46 Al Br	470	1905
2211004650101	110-46x50 Al Br	490	2315
2211005055101	110-50x55 Al Br	510	2360
2211005060101	110-50x60 Al Br	520	2745
2211005560101	110-55x60 Al Br	530	2905
2211006070101	110-60x70 Al Br	560	3605

Code	No.	l/mm	Weight/g
2211005507102	110-5,5x7 Cu Be	115	22
2211000607102	110-6x7 Cu Be	115	25
2211000608102	110-6x8 Cu Be	130	42
2211000709102	110-7x9 Cu Be	130	50
2211000809102	110-8x9 Cu Be	130	40
2211000810102	110-8x10 Cu Be	130	55
2211000910102	110-9x10 Cu Be	140	62
2211000911102	110-9x11 Cu Be	140	70
2211001011102	110-10x11 Cu Be	140	80
2211001012102	110-10x12 Cu Be	140	85
2211001013102	110-10x13 Cu Be	160	90
2211001014102	110-10x14 Cu Be	160	85
2211001113102	110-11x13 Cu Be	160	85
2211001213102	110-12x13 Cu Be	160	120
2211001214102	110-12x14 Cu Be	160	151
2211001415102	110-14x15 Cu Be	200	155
2211001417102	110-14x17 Cu Be	220	205
2211001617102	110-16x17 Cu Be	220	180
2211001618102	110-16x18 Cu Be	220	220
2211001719102	110-17x19 Cu Be	250	225
2211001721102	110-17x21 Cu Be	250	293
2211001722102	110-17x22 Cu Be	250	290
2211001819102	110-18x19 Cu Be	250	295
2211001921102	110-19x21 Cu Be	280	313
2211001922102	110-19x22 Cu Be	280	310
2211001924102	110-19x24 Cu Be	310	355
2211002022102	110-20x22 Cu Be	285	315
2211002123102	110-21x23 Cu Be	285	405
2211002126102	110-21x26 Cu Be	320	450
2211002224102	110-22x24 Cu Be	310	455
2211002227102	110-22x27 Cu Be	340	543
2211002326102	110-23x26 Cu Be	340	534
2211002426102	110-24x26 Cu Be	340	525
2211002427102	110-24x27 Cu Be	340	520
2211002430102	110-24x30 Cu Be	350	550
2211002528102	110-25x28 Cu Be	350	580
2211002629102	110-26x29 Cu Be	360	677
2211002729102	110-27x29 Cu Be	360	670
2211002730102	110-27x30 Cu Be	360	705
2211002732102	110-27x32 Cu Be	370	693
2211002932102	110-29x32 Cu Be	380	825
2211003032102	110-30x32 Cu Be	380	805
2211003036102	110-30x36 Cu Be	395	1050
2211003234102	110-32x34 Cu Be	400	1080
2211003235102	110-32x35 Cu Be	405	1133
2211003236102	110-32x36 Cu Be	405	1145
2211003436102	110-34x36 Cu Be	420	1165
2211003541102	110-35x41 Cu Be	445	1612
2211003638102	110-36x38 Cu Be	445	1623
2211003641102	110-36x41 Cu Be	445	1600
2211003840102	110-38x40 Cu Be	445	1600
2211004146102	110-41x46 Cu Be	470	2077
2211004650102	110-46x50 Cu Be	490	2530
2211005055102	110-50x55 Cu Be	510	2580
2211005060102	110-50x60 Cu Be	520	3002
2211005560102	110-55x60 Cu Be	530	3203
2211006070102	110-60x70 Cu Be	560	4105

**110S-...Al Br | 100S-... Cu Be**  
**Double-Ended Ring Spanner Set**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	Contents	Weight/g
2211050090101	110S 9M Al Br	8x10, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 30x32 mm	2575
2211050110101	110S 11M Al Br	8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30 30x32 mm	3275
2211050130101	110S 13M Al Br	5,5x7, 6x7, 8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30 30x32 mm	3320
2211050090102	110S 9M Cu Be	8x10, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 30x32 mm	2815
2211050110102	110S 11M Cu Be	8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30 30x32 mm	3585
2211050130102	110S 13M Cu Be	5,5x7, 6x7, 8x10, 9x11, 10x12, 12x14, 14x17, 17x19, 19x22, 22x24, 24x27, 27x30 30x32 mm	3630

**87-...Al Br | 87-... Cu Be**  
**Open End Slogging Spanner**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2208700017101	87-17 Al Br	125	135	2208700017102	87-17 Cu Be	125	150
2208700019101	87-19 Al Br	125	135	2208700019102	87-19 Cu Be	125	150
2208700022101	87-22 Al Br	135	175	2208700022102	87-22 Cu Be	135	195
2208700024101	87-24 Al Br	150	220	2208700024102	87-24 Cu Be	150	245
2208700027101	87-27 Al Br	175	300	2208700027102	87-27 Cu Be	175	335
2208700030101	87-30 Al Br	190	390	2208700030102	87-30 Cu Be	190	435
2208700032101	87-32 Al Br	190	460	2208700032102	87-32 Cu Be	190	515
2208700036101	87-36 Al Br	210	730	2208700036102	87-36 Cu Be	210	800
2208700038101	87-38 Al Br	220	780	2208700038102	87-38 Cu Be	220	863
2208700041101	87-41 Al Br	230	860	2208700041102	87-41 Cu Be	230	955
2208700046101	87-46 Al Br	250	1100	2208700046102	87-46 Cu Be	250	1225
2208700050101	87-50 Al Br	275	1420	2208700050102	87-50 Cu Be	275	1560
2208700052101	87-52 Al Br	275	1380	2208700052102	87-52 Cu Be	275	1527
2208700055101	87-55 Al Br	305	1680	2208700055102	87-55 Cu Be	305	1850
2208700060101	87-60 Al Br	315	1970	2208700060102	87-60 Cu Be	315	2190
2208700065101	87-65 Al Br	335	2780	2208700065102	87-65 Cu Be	335	3060
2208700070101	87-70 Al Br	370	3660	2208700070102	87-70 Cu Be	370	4030
2208700075101	87-75 Al Br	375	3800	2208700075102	87-75 Cu Be	375	4200
2208700080101	87-80 Al Br	400	5130	2208700080102	87-80 Cu Be	400	5650
2208700085101	87-85 Al Br	400	5400	2208700085102	87-85 Cu Be	400	6000
2208700090101	87-90 Al Br	445	7050	2208700090102	87-90 Cu Be	445	7800
2208700095101	87-95 Al Br	445	7000	2208700095102	87-95 Cu Be	445	7730
2208700100101	87-100 Al Br	485	10500	2208700100102	87-100 Cu Be	485	11600
2208700110101	87-110 Al Br	513	12000	2208700110102	87-110 Cu Be	513	13500
2208700120101	87-120 Al Br	530	14320	2208700120102	87-120 Cu Be	530	15847
2208700130101	87-130 Al Br	560	16500	2208700130102	87-130 Cu Be	560	18150
2208700140101	87-140 Al Br	630	23229	2208700140102	87-140 Cu Be	630	25552
2208700150101	87-150 Al Br	630	23000	2208700150102	87-150 Cu Be	630	25300

## 87A-...Al Br | 87A-... Cu Be

## Open End Slogging Spanner

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm ┌──┐	Weight/g ⚖	Code	No.	l/mm ┌──┐	Weight/g ⚖
2208710028101	87A-3/4 Al Br	125	135	2208710028102	87A-3/4F Cu Be	125	150
2208710031101	87A-7/8 Al Br	135	175	2208710031102	87A-7/8 Cu Be	135	195
2208710032101	87A-15/16 Al Br	150	220	2208710032102	87A-15/16 Cu Be	150	245
2208710034101	87A-1 Al Br	175	300	2208710034102	87A-1 Cu Be	175	335
2208710036101	87A-1.1/8 Al Br	190	390	2208710036102	87A-1.1/8 Cu Be	190	435
2208710038101	87A-1.1/4 Al Br	190	460	2208710038102	87A-1.1/4 Cu Be	190	515
2208710041101	87A-1.7/16 Al Br	210	730	2208710041102	87A-1.7/16 Cu Be	210	800
2208710042101	87A-1.1/2 Al Br	220	780	2208710042102	87A-1.1/2 Cu Be	220	860
2208710044101	87A-1.5/8 Al Br	230	860	2208710044102	87A-1.5/8 Cu Be	230	955
2208710046101	87A-1.3/4 Al Br	250	1100	2208710046102	87A-1.3/4 Cu Be	250	1225
2208710048101	87A-1.7/8 Al Br	250	1100	2208710048102	87A-1.7/8 Cu Be	250	1225
2208710049101	87A-2 Al Br	275	1400	2208710049102	87A-2 Cu Be	275	1550
2208710051101	87A-2.1/8 Al Br	305	1680	2208710051102	87A-2.1/8 Cu Be	305	1850
2208710053101	87A-2.1/4 Al Br	315	1970	2208710053102	87A-2.1/4 Cu Be	315	2190
2208710055101	87A-2.3/8 Al Br	315	1970	2208710055102	87A-2.3/8 Cu Be	315	2190
2208710057101	87A-2.1/2 Al Br	335	2780	2208710057102	87A-2.1/2 Cu Be	335	3060
2208710060101	87A-2.3/4 Al Br	370	3660	2208710060102	87A-2.3/4 Cu Be	370	4030
2208710063101	87A-3 Al Br	375	3800	2208710063102	87A-3 Cu Be	375	4200
2208710064101	87A-3.1/8 Al Br	400	5130	2208710064102	87A-3.1/8 Cu Be	400	5650
2208710067101	87A-3.1/2 Al Br	445	7050	2208710067102	87A-3.1/2 Cu Be	445	7800
2208710069101	87A-3.3/4 Al Br	445	7730	2208710069102	87A-3.3/4 Cu Be	445	7730
2208710071101	87A-4 Al Br	485	10500	2208710071102	87A-4 Cu Be	485	11600

86-...Al Br | 86-... Cu Be

Ring Slogging Spanner

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2208600017101	86-17 Al Br	145	190	2208600017102	86-17 Cu Be	145	210
2208600019101	86-19 Al Br	145	190	2208600019102	86-19 Cu Be	145	210
2208600022101	86-22 Al Br	155	220	2208600022102	86-22 Cu Be	155	245
2208600024101	86-24 Al Br	165	220	2208600024102	86-24 Cu Be	165	245
2208600027101	86-27 Al Br	175	315	2208600027102	86-27 Cu Be	175	350
2208600030101	86-30 Al Br	185	430	2208600030102	86-30 Cu Be	185	475
2208600032101	86-32 Al Br	185	430	2208600032102	86-32 Cu Be	185	475
2208600034101	86-34 Al Br	200	490	2208600034102	86-34 Cu Be	200	540
2208600036101	86-36 Al Br	205	520	2208600036102	86-36 Cu Be	205	580
2208600038101	86-38 Al Br	215	620	2208600038102	86-38 Cu Be	215	680
2208600041101	86-41 Al Br	225	680	2208600041102	86-41 Cu Be	225	755
2208600046101	86-46 Al Br	235	890	2208600046102	86-46 Cu Be	235	990
2208600050101	86-50 Al Br	250	1030	2208600050102	86-50 Cu Be	250	1145
2208600055101	86-55 Al Br	265	1300	2208600055102	86-55 Cu Be	265	1440
2208600060101	86-60 Al Br	274	1450	2208600060102	86-60 Cu Be	274	1620
2208600065101	86-65 Al Br	298	1800	2208600065102	86-65 Cu Be	298	1995
2208600070101	86-70 Al Br	320	2200	2208600070102	86-70 Cu Be	320	2435
2208600075101	86-75 Al Br	326	2720	2208600075102	86-75 Cu Be	326	3010
2208600080101	86-80 Al Br	350	3250	2208600080102	86-80 Cu Be	350	3600
2208600085101	86-85 Al Br	355	3915	2208600085102	86-85 Cu Be	355	4330
2208600090101	86-90 Al Br	380	4700	2208600090102	86-90 Cu Be	380	5200
2208600095101	86-95 Al Br	390	4920	2208600095102	86-95 Cu Be	390	5450
2208600100101	86-100 Al Br	410	6100	2208600100102	86-100 Cu Be	410	6750
2208600105101	86-105 Al Br	420	6320	2208600105102	86-105 Cu Be	420	7000
2208600110101	86-110 Al Br	445	8250	2208600110102	86-110 Cu Be	445	9130
2208600120101	86-120 Al Br	480	9930	2208600120102	86-120 Cu Be	480	11000
2208600130101	86-130 Al Br	510	11400	2208600130102	86-130 Cu Be	510	12610
2208600140101	86-140 Al Br	520	11750	2208600140102	86-140 Cu Be	520	13000
2208600150101	86-150 Al Br	565	14500	2208600150102	86-150 Cu Be	565	14500

**86A-...Al Br | 86A-... Cu Be**  
**Ring Slogging Spanner**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2208610027101	86A-11/16 Al Br	145	190	2208610027102	86A-11/16 Cu Be	145	210
2208610028101	86A-3/4 Al Br	145	180	2208610028102	86A-3/4 Cu Be	145	200
2208610031101	86A-7/8 Al Br	155	220	2208610031102	86A-7/8 Cu Be	155	245
2208610034101	86A-1 Al Br	175	315	2208610034102	86A-1 Cu Be	175	350
2208610035101	86A-1.1/16 Al Br	175	315	2208610035102	86A-1.1/16 Cu Be	175	350
2208610036101	86A-1.1/8 Al Br	185	410	2208610036102	86A-1.1/8 Cu Be	185	455
2208610037101	86A-1.3/16 Al Br	185	430	2208610037102	86A-1.3/16 Cu Be	185	475
2208610038101	86A-1.1/4 Al Br	185	425	2208610038102	86A-1.1/4 Cu Be	185	470
2208610040101	86A-1.3/8 Al Br	200	500	2208610040102	86A-1.3/8 Cu Be	200	560
2208610042101	86A-1.1/2 Al Br	215	710	2208610042102	86A-1.1/2 Cu Be	215	790
2208610044101	86A-1.5/8 Al Br	225	680	2208610044102	86A-1.5/8 Cu Be	225	755
2208610046101	86A-1.3/4 Al Br	235	920	2208610046102	86A-1.3/4 Cu Be	235	1020
2208610047101	86A-1.13/16 Al Br	235	890	2208610047102	86A-1.13/16 Cu Be	235	990
2208610049101	86A-2 Al Br	250	1030	2208610049102	86A-2 Cu Be	250	1145
2208610050101	86A-2.1/16 Al Br	265	1230	2208610050102	86A-2.1/16 Cu Be	265	1353
2208610052101	86A-2.3/16 Al Br	265	1205	2208610052102	86A-2.3/16 Cu Be	265	1326
2208610053101	86A-2.13/64 Al Br	265	1200	2208610053102	86A-2.13/64 Cu Be	265	1320
2208610054101	86A-2.5/16 Al Br	274	1430	2208610054102	86A-2.5/16 Cu Be	274	1573
2208610055101	86A-2.3/8 Al Br	274	1415	2208610055102	86A-2.3/8 Cu Be	274	1557
2208610057101	86A-2.1/2 Al Br	298	1790	2208610057102	86A-2.1/2 Cu Be	298	1969
2208610058101	86A-2.9/16 Al Br	298	1770	2208610058102	86A-2.9/16 Cu Be	298	1947
2208610059101	86A-2.5/8 Al Br	298	1750	2208610059102	86A-2.5/8 Cu Be	298	1925
2208610060101	86A-2.3/4 Al Br	320	2250	2208610060102	86A-2.3/4 Cu Be	320	2475
2208610062101	86A-2.15/16 Al Br	326	2530	2208610062102	86A-2.15/16 Cu Be	326	2783
2208610063101	86A-3 Al Br	326	2520	2208610063102	86A-3 Cu Be	326	2772
2208610061101	86A-3.1/16 Al Br	350	2960	2208610061102	86A-3.1/16 Cu Be	350	3256
2208610064101	86A-3.1/8 Al Br	350	2940	2208610064102	86A-3.1/8 Cu Be	350	3234
2208610065101	86A-3.3/8 Al Br	355	3405	2208610065102	86A-3.3/8 Cu Be	355	3746
2208610066101	86A-3.9/16 Al Br	380	4280	2208610066102	86A-3.9/16 Cu Be	380	4708
2208610069101	86A-3.3/4 Al Br	390	4555	2208610069102	86A-3.3/4 Cu Be	390	5011
2208610070101	86A-3.15/16 Al Br	410	5330	2208610070102	86A-3.15/16 Cu Be	410	5863
2208610072101	86A-4.1/8 Al Br	420	5650	2208610072102	86A-4.1/8 Cu Be	420	6215

**60-...Al Br | 60-... Cu Be**  
**Adjustable Wrench**

- ▶ Aluminium Bronze Al Br
- ▶ Copper Beryllium Cu Be




Code	No.	SW max. mm	l/mm	Weight/g	Code	No.	SW max. mm	l/mm	Weight/g
2206000018101	60-18 Al Br	18	150	120	2206000018102	60-18 Cu Be	18	150	135
2206000024101	60-24 Al Br	24	200	255	2206000024102	60-24 Cu Be	24	200	281
2206000030101	60-30 Al Br	30	250	401	2206000030102	60-30 Cu Be	30	250	440
2206000036101	60-36 Al Br	36	300	655	2206000036102	60-36 Cu Be	36	300	720
2206000046101	60-46 Al Br	46	375	1290	2206000046102	60-46 Cu Be	46	375	1410
2206000055101	60-55 Al Br	55	450	2065	2206000055102	60-55 Cu Be	55	450	2261
2206000065101	60-65 Al Br	65	600	4301	2206000065102	60-65 Cu Be	65	600	4705

**870-1D Al Br | 870-1D Cu Be**  
**Reversible Ratchet**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

10  
3/8"




Code	No.	l/mm	Weight/g
2287000101101	870-1D Al Br	200	260
2287000101102	870-1D Cu Be	200	290

**870-... Al Br | 870-... Cu Be**  
**Extension Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

10  
3/8"




Code	No.	l/mm	Weight/g
2287001030101	870-3 Al Br	75	80
2287001040101	870-4 Al Br	150	225
2287001030102	870-3 Cu Be	75	93
2287001040102	870-4 Cu Be	150	260

**770-L1D Al Br | 770-L1D Cu Be**  
**Reversible Ratchet**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

12,5  
1/2"




Code	No.	l/mm	Weight/g
2277000090101	770-L1D Al Br	245	615
2277000090102	770-L1D Cu Be	245	690

**770-... Al Br | 770-... Cu Be**  
**Extension Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

12,5  
1/2"




Code	No.	l/mm	Weight/g
2277001045101	770-45 Al Br	100	225
2277001035101	770-35 Al Br	125	230
2277001050101	770-5 Al Br	200	330
2277001055101	770-55 Al Br	250	425
2277001045102	770-45 Cu Be	100	245
2277001035102	770-35 Cu Be	125	260
2277001050102	770-5 Cu Be	200	365
2277001055102	770-55 Cu Be	250	470

**770-S1U Al Br | 770-S1U Cu Be**  
**Reversible Ratchet**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

20  
3/4"



Code	No.	l/mm	Weight/g
2277002010101	770-S1U Al Br	320	1430
2277002010102	770-S1U Cu Be	320	1570

**770-S4/-S5 Al Br | 770-S4/-S5 Cu Be**  
**Extension Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

20  
3/4"




Code	No.	l/mm	Weight/g
2277002040101	770-S4 Al Br	200	770
2277002050101	770-S5 Al Br	430	1687
2277002040102	770-S4 Cu Be	200	855
2277002050102	770-S5 Cu Be	430	1856

**780-1 Al Br | 780-1 Cu Be**  
**Reversible Ratchet**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

25  
1"




Code	No.	l/mm	Weight/g
2278000001101	780-1 Al Br	550	3150
2278000001102	780-1 Cu Be	550	3470

**780-3 Al Br | 780-3 Cu Be**  
**Extension Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

25  
1"



Code	No.	l/mm	Weight/g
2278000003101	780-3 Al Br	200	1380
2278000003102	780-3 Cu Be	200	1525

1455-M... Al Br   1455-M... Cu Be			
Sockets			
<ul style="list-style-type: none"> <li>▶ Aluminium Bronze</li> <li>▶ Copper Beryllium</li> </ul>			<div style="border: 1px solid black; padding: 2px;">6,3</div> <div style="border: 1px solid black; padding: 2px;">1/4"</div>
	mm		AF"
Code	No.	l/mm	Weight/g
2214550040101	1455-M 4 Al Br	25	15
2214550045101	1455-M 4,5 Al Br	25	15
2214550050101	1455-M 5 Al Br	25	15
2214550055101	1455-M 5,5 Al Br	25	15
2214550060101	1455-M 6 Al Br	25	15
2214550070101	1455-M 7 Al Br	25	15
2214550080101	1455-M 8 Al Br	25	15
2214550090101	1455-M 9 Al Br	25	20
2214550100101	1455-M 10 Al Br	25	20
2214550110101	1455-M 11 Al Br	25	25
2214550120101	1455-M 12 Al Br	26	27
2214550130101	1455-M 13 Al Br	26	27
2214550140101	1455-M 14 Al Br	26	32
2214550150101	1455-M 15 Al Br	27	36
2214550160101	1455-M 16 Al Br	27	36
2214550170101	1455-M 17 Al Br	27	45
2214550180101	1455-M 18 Al Br	27	45
2214550190101	1455-M 19 Al Br	27	46
2214550040102	1455-M 4 Cu Be	25	17
2214550045102	1455-M 4,5 Cu Be	25	17
2214550050102	1455-M 5 Cu Be	25	17
2214550055102	1455-M 5,5 Cu Be	25	17
2214550060102	1455-M 6 Cu Be	25	17
2214550070102	1455-M 7 Cu Be	25	17
2214550080102	1455-M 8 Cu Be	25	17
2214550090102	1455-M 9 Cu Be	25	21
2214550100102	1455-M 10 Cu Be	25	22
2214550110102	1455-M 11 Cu Be	25	27
2214550120102	1455-M 12 Cu Be	26	30
2214550130102	1455-M 13 Cu Be	26	30
2214550140102	1455-M 14 Cu Be	26	35
2214550150102	1455-M 15 Cu Be	27	40
2214550160102	1455-M 16 Cu Be	27	40
2214550170102	1455-M 17 Cu Be	27	50
2214550180102	1455-M 18 Cu Be	27	50
2214550190102	1455-M 19 Cu Be	27	51

770-S 13M Al Br   770-S 13M Cu Be	
Socket Set	
<ul style="list-style-type: none"> <li>▶ Aluminium Bronze</li> <li>▶ Copper Beryllium</li> </ul>	
	mm
	<div style="border: 1px solid black; padding: 2px;">12,5</div> <div style="border: 1px solid black; padding: 2px;">1/2"</div>
Code	No.
2207750013101	770-S 13M Al Br   8-27 mm Reversible Ratchet 245 mm Flexible Handle 250 mm
2207750013102	770-S 13M Cu Be   8-27 mm Reversible Ratchet 245 mm Flexible Handle 250 mm

1455-A... Al Br   1455-A... Cu Be			
Sockets			
<ul style="list-style-type: none"> <li>▶ Aluminium Bronze</li> <li>▶ Copper Beryllium</li> </ul>			<div style="border: 1px solid black; padding: 2px;">6,3</div> <div style="border: 1px solid black; padding: 2px;">1/4"</div>
	mm		AF"
Code	No.	l/mm	Weight/g
2214551080101	1455-A 5/32 Al Br	25	13
2214551090101	1455-A 3/16 Al Br	25	13
2214551110101	1455-A 7/32 Al Br	25	15
2214551130101	1455-A 1/4 Al Br	25	15
2214551150101	1455-A 9/32 Al Br	25	15
2214551170101	1455-A 5/16 Al Br	25	18
2214551180101	1455-A 11/32 Al Br	26	22
2214551190101	1455-A 3/8 Al Br	26	26
2214551210101	1455-A 7/16 Al Br	26	26
2214551230101	1455-A 1/2 Al Br	26	26
2214551080102	1455-A 5/32 Cu Be	25	14
2214551090102	1455-A 3/16 Cu Be	25	14
2214551110102	1455-A 7/32 Cu Be	25	17
2214551130102	1455-A 1/4 Cu Be	25	17
2214551150102	1455-A 9/32 Cu Be	25	17
2214551170102	1455-A 5/16 Cu Be	25	20
2214551180102	1455-A 11/32 Cu Be	26	24
2214551190102	1455-A 3/8 Cu Be	26	29
2214551210102	1455-A 7/16 Cu Be	26	29
2214551230102	1455-A 1/2 Cu Be	26	29

770-S 28M Al Br   770-S 28M Cu Be	
Socket Set	
<ul style="list-style-type: none"> <li>▶ Aluminium Bronze</li> <li>▶ Copper Beryllium</li> </ul>	
	mm
	<div style="border: 1px solid black; padding: 2px;">12,5</div> <div style="border: 1px solid black; padding: 2px;">1/2"</div>
Code	No.
2207750028101	770-S28M Al Br   10-32 mm Reversible Ratchet 245 mm Sliding T-Bar 250 mm Speed Handle 400 mm Extension Bar 125 mm   250 mm Universal Joint 80 mm Screwdriver Socket 52 mm
2207750028102	770-S28M Cu Be   10-32 mm Reversible Ratchet 245 mm Sliding T-Bar 250 mm Speed Handle 400 mm Extension Bar 125 mm   250 mm Universal Joint 80 mm Screwdriver Socket 52 mm

**770-L3 Al Br | 770-L3 Cu Be**  
**Sliding T-Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

12,5  
1/2"

Code	No.	l/mm	Weight/g
2207700300101	770-L3 Al Br	250	310
2207700300102	770-L3 Cu Be	250	340

**870-7 Al Br | 870-7 Cu Be**  
**Flexible Handle**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

10  
3/8"

Code	No.	l/mm	Weight/g
2208701070101	870-7 Al Br	190	220
2208701070102	870-7 Cu Be	190	245

**770-S3/S35 Al Br | 770-S3/S35 Cu Be**  
**Sliding T-Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

20  
3/4"

Code	No.	l/mm	Weight/g
2207702030101	770-S3 Al Br	350	960
2207702035101	770-S35 Al Br	400	1221
2207702030102	770-S3 Cu Be	350	1070
2207702035102	770-S35 Cu Be	400	1335

**770-L9/L95/L100 Al Br | 770-L9/L95/L100 Cu Be**  
**Flexible Handle**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

12,5  
1/2"

Code	No.	l/mm	Weight/g
2207700900101	770-L9 Al Br	250	400
2207700950101	770-L95 Al Br	320	510
2207701000101	770-L100 Al Br	400	580
2207700900102	770-L9 Cu	230	440
2207700950102	770-L95 Cu Be	320	565
2207701000102	770-L100 Cu Be	400	645

**780-2 Al Br | 780-2 Cu Be**  
**Sliding T-Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

25  
1"

Code	No.	l/mm	Weight/g
2207800002101	780-2 Al Br	400	1481
2207800002102	780-2 Cu Be	400	1620

**770-S2 Al Br | 770-S2 Cu Be**  
**Flexible Handle**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

20  
3/4"

Code	No.	l/mm	Weight/g
2207702020101	770-S2 Al Br	286	570
2207702020102	770-S2 Cu Be	286	635

**780-8 Al Br | 780-8 Cu Be**  
**Flexible Handle**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

25  
1"

Code	No.	l/mm	Weight/g
2207800080101	780-8 Al Br	304	830
2207800080102	780-8 Cu Be	304	910



**770-LM... Al Br | 770-LM... Cu Be**  
**Sockets**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



12,5

1/2"



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207700006101	770-LM 6 Al Br	40	69	2207700006102	770-LM 6 Cu Be	40	75
2207700007101	770-LM 7 Al B	40	70	2207700007102	770-LM 7 Cu Be	40	77
2207700008101	770-LM 8 Al Br	40	70	2207700008102	770-LM 8 Cu Be	40	77
2207700009101	770-LM 9 Al Br	40	71	2207700009102	770-LM 9 Cu Be	40	78
2207700010101	770-LM 10 Al Br	40	71	2207700010102	770-LM 10 Cu Be	40	78
2207700011101	770-LM 11 Al Br	40	72	2207700011102	770-LM 11 Cu Be	40	79
2207700012101	770-LM 12 Al Br	40	72	2207700012102	770-LM 12 Cu Be	40	79
2207700013101	770-LM 13 Al Br	40	73	2207700013102	770-LM 13 Cu Be	40	80
2207700014101	770-LM 14 Al Br	40	73	2207700014102	770-LM 14 Cu Be	40	80
2207700015101	770-LM 15 Al Br	40	85	2207700015102	770-LM 15 Cu Be	40	94
2207700016101	770-LM 16 Al Br	40	85	2207700016102	770-LM 16 Cu Be	40	94
2207700017101	770-LM 17 Al Br	40	85	2207700017102	770-LM 17 Cu Be	40	94
2207700018101	770-LM 18 Al Br	42	85	2207700018102	770-LM 18 Cu Be	42	94
2207700019101	770-LM 19 Al Br	42	100	2207700019102	770-LM 19 Cu Be	42	110
2207700020101	770-LM 20 Al Br	42	105	2207700020102	770-LM 20 Cu Be	42	120
2207700021101	770-LM 21 Al Br	43	110	2207700021102	770-LM 21 Cu Be	43	125
2207700022101	770-LM 22 Al Br	43	115	2207700022102	770-LM 22 Cu Be	43	130
2207700023101	770-LM 23 Al Br	43	135	2207700023102	770-LM 23 Cu Be	43	150
2207700024101	770-LM 24 Al Br	43	145	2207700024102	770-LM 24 Cu Be	43	165
2207700025101	770-LM 25 Al Br	43	160	2207700025102	770-LM 25 Cu Be	43	180
2207700026101	770-LM 26 Al Br	43	180	2207700026102	770-LM 26 Cu Be	43	200
2207700027101	770-LM 27 Al Br	46	190	2207700027102	770-LM 27 Cu Be	46	215
2207700028101	770-LM 28 Al Br	46	200	2207700028102	770-LM 28 Cu Be	46	225
2207700029101	770-LM 29 Al Br	46	210	2207700029102	770-LM 29 Cu Be	46	235
2207700030101	770-LM 30 Al Br	46	220	2207700030102	770-LM 30 Cu Be	46	250
2207700032101	770-LM 32 Al Br	46	260	2207700032102	770-LM 32 Cu Be	46	295



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207701017101	770-LA 5/16 Al Br	40	70	2207701017102	770-LA 5/16 Cu Be	40	70
2207701019101	770-LA 3/8 Al Br	40	71	2207701019102	770-LA 3/8 Cu Be	40	78
2207701021101	770-LA 7/16 Al Br	40	72	2207701021102	770-LA 7/16 Cu Be	40	79
2207701023101	770-LA 1/2 Al Br	40	73	2207701023102	770-LA 1/2 Cu Be	40	80
2207701024101	770-LA 9/16 Al Br	40	73	2207701024102	770-LA 9/16 Cu Be	40	80
2207701026101	770-LA 5/8 Al Br	40	80	2207701026102	770-LA 5/8 Cu Be	40	88
2207701027101	770-LA 11/16 Al Br	40	85	2207701027102	770-LA 11/16	40	93
2207701028101	770-LA 3/4 Al Br	42	100	2207701028102	770-LA 3/4 Cu Be	42	110
2207701030101	770-LA 13/16 Al Br	43	110	2207701030102	770-LA 13/16 Cu Be	43	125
2207701031101	770-LA 7/8 Al Br	43	115	2207701031102	770-LA 7/8 Cu Be	43	130
2207701032101	770-LA 15/16 Al Br	43	145	2207701032102	770-LA 15/16 Cu Be	43	165
2207701034101	770-LA 1 Al Br	43	170	2207701034102	770-LA 1 Cu Be	43	190
2207701035101	770-LA 1.1/16 Al Br	46	190	2207701035102	770-LA 1.1/16 Cu Be	46	215
2207701038101	770-LA 1.1/4 Al Br	46	260	2207701038102	770-LA 1.1/4 Cu Be	46	295
2207701041101	770-LA 1.7/16	50	300	2207701041102	770-LA 1.7/16 Cu Be	50	330

**770-SM... Al Br | 770-SM... Cu Be**  
**Sockets**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



20  
 3/4"

mm

Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207700119101	770-S 19 Al Br	50	225	2207700119102	770-S 19 Cu Be	50	246
2207700122101	770-S 22 Al Br	55	245	2207700122102	770-S 22 Cu Be	55	268
2207700124101	770-S 24 Al Br	55	280	2207700124102	770-S 24 Cu Be	55	307
2207700127101	770-S 27 Al Br	55	285	2207700127102	770-S 27 Cu Be	55	312
2207700130101	770-S 30 Al Br	60	370	2207700130102	770-S 30 Cu Be	60	410
2207700132101	770-S 32 Al Br	60	410	2207700132102	770-S 32 Cu Be	60	465
2207700134101	770-S 34 Al Br	60	440	2207700134102	770-S 34 Cu Be	60	480
2207700136101	770-S 36 Al Br	60	465	2207700136102	770-S 36 Cu Be	60	510
2207700138101	770-S 38 Al Br	60	510	2207700138102	770-S 38 Cu Be	60	555
2207700141101	770-S 41 Al Br	65	640	2207700141102	770-S 41 Cu Be	65	660
2207700146101	770-S 46 Al Br	65	690	2207700146102	770-S 46 Cu Be	65	765
2207700150101	770-S 50 Al Br	70	825	2207700150102	770-S 50 Cu Be	70	910

AF<sup>m</sup>

AF<sup>m</sup>

Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207701128101	770-SA 3/4 Al Br	50	220	2207701128102	770-SA 3/4 Cu Be	50	240
2207701130101	770-SA 13/16 Al Br	55	240	2207701130102	770-SA 13/16 Cu Be	55	262
2207701131101	770-SA 7/8 Al Br	55	245	2207701131102	770-SA 7/8 Cu Be	55	267
2207701132101	770-SA 15/16 Al Br	55	280	2207701132102	770-SA 15/16 Cu Be	55	305
2207701134101	770-SA 1 Al Br	55	280	2207701134102	770-SA 1 Cu Be	55	310
2207701135101	770-SA 1.1/16 Al Br	55	285	2207701135102	770-SA 1.1/16 Cu Be	55	315
2207701136101	770-SA 1.1/8 Al Br	55	315	2207701136102	770-SA 1.1/8 Cu Be	55	345
2207701137101	770-SA 1.3/16 Al Br	60	365	2207701137102	770-SA 1.3/16 Cu Be	60	400
2207701138101	770-SA 1.1/4 Al Br	60	400	2207701138102	770-SA 1.1/4 Cu Be	60	437
2207701139101	770-SA 1.5/16 Al Br	60	430	2207701139102	770-SA 1.5/16 Cu Be	60	472
2207701140101	770-SA 1.3/8 Al Br	60	470	2207701140102	770-SA 1.3/8 Cu Be	60	515
2207701141101	770-SA 1.7/16 Al Br	60	480	2207701141102	770-SA 1.7/16 Cu Be	60	525
2207701142101	770-SA 1.1/2 Al Br	60	530	2207701142102	770-SA 1.1/2 Cu Be	60	580
2207701144101	770-SA 1.5/8 Al Br	65	640	2207701144102	770-SA 1.5/8 Cu Be	65	702
2207701146101	770-SA 1.3/4 Al Br	65	695	2207701146102	770-SA 1.3/4 Cu Be	65	761
2207701147101	770-SA 1.13/16 Al Br	65	705	2207701147102	770-SA 1.13/16 Cu Be	65	830
2207701148101	770-SA 1.7/8 Al Br	65	750	2207701148102	770-SA 1.7/8 Cu Be	65	850
2207701149101	770-SA 2 Al Br	70	870	2207701149102	770-SA 2 Cu Be	70	965

**770-S 14M Al Br | 770-S 14M Cu Be**  
**Socket Set**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



20  
 3/4"

mm

Code	No.	Code	No.
2207705014101	770-S14M Al Br   21-50 mm Reversible Ratchet 320 mm Sliding T-Bar 400 mm Extension Bar 200 mm	2207705014102	770-S14M Cu Be   21-50 mm Reversible Ratchet 320 mm Sliding T-Bar 400 mm Extension Bar 200 mm

**791-... Al Br | 791-... Cu Be**  
**Impact Socket**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



20

3/4"



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207910027101	791-27 Al Br	53	365	2207910027102	791-27 Cu Be	53	405
2207910030101	791-30 Al Br	53	390	2207910030102	791-30 Cu Be	53	440
2207910032101	791-32 Al Br	56	425	2207910032102	791-32 Cu Be	56	475
2207910036101	791-36 Al Br	56	585	2207910036102	791-36 Cu Be	56	650
2207910041101	791-41 Al Br	60	625	2207910041102	791-41 Cu Be	60	695
2207910046101	791-46 Al Br	60	700	2207910046102	791-46 Cu Be	60	770
2207910050101	791-50 Al Br	70	1000	2207910050102	791-50 Cu Be	70	1100

**792-... Al Br | 792-... Cu Be**  
**Impact Socket**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



25

1"



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2207920019101	792-19 Al Br	55	570	2207920019102	792-19 Cu Be	55	630
2207920021101	792-21 Al Br	55	580	2207920021102	792-21 Cu Be	55	640
2207920022101	792-22 Al Br	55	590	2207920022102	792-22 Cu Be	55	650
2207920024101	792-24 Al Br	55	600	2207920024102	792-24 Cu Be	55	660
2207920026101	792-26 Al Br	55	660	2207920026102	792-26 Cu Be	55	735
2207920027101	792-27 Al Br	55	670	2207920027102	792-27 Cu Be	55	670
2207920029101	792-29 Al Br	60	690	2207920029102	792-29 Cu Be	60	690
2207920030101	792-30 Al Br	60	690	2207920030102	792-30 Cu Be	60	690
2207920032101	792-32 Al Br	60	700	2207920032102	792-32 Cu Be	60	700
2207920034101	792-34 Al Br	60	700	2207920034102	792-34 Cu Be	60	700
2207920035101	792-35 Al Br	60	700	2207920035102	792-35 Cu Be	60	700
2207920036101	792-36 Al Br	60	700	2207920036102	792-36 Cu Be	60	700
2207920038101	792-38 Al Br	65	780	2207920038102	792-38 Cu Be	65	780
2207920041101	792-41 Al Br	65	830	2207920041102	792-41 Cu Be	65	830
2207920046101	792-46 Al Br	70	1265	2207920046102	792-46 Cu Be	70	1265
2207920050101	792-50 Al Br	75	1320	2207920050102	792-50 Cu Be	75	1320
2207920052101	792-52 Al Br	75	1550	2207920052102	792-52 Cu Be	75	1550
2207920055101	792-55 Al Br	75	1650	2207920055102	792-55 Cu Be	75	1650
2207920058101	792-58 Al Br	85	1900	2207920058102	792-58 Cu Be	85	1900
2207920060101	792-60 Al Br	85	2000	2207920060102	792-60 Cu Be	85	2000
2207920065101	792-65 Al Br	85	2250	2207920065102	792-65 Cu Be	85	2250
2207920070101	792-70 Al Br	90	2600	2207920070102	792-70 Cu Be	90	2600
2207920075101	792-75 Al Br	90	2900	2207920075102	792-75 Cu Be	90	2900
2207920080101	792-80 Al Br	90	3200	2207920080102	792-80 Cu Be	90	3200

**159-... Al Br | 159-... Cu Be**  
**Hexagon Key**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2201590002101	159-2 Al Br	50	2	2201590002102	159-2 Cu Be	50	3
2201590003101	159-3 Al Br	63	4	2201590003102	159-3 Cu Be	63	5
2201590004101	159-4 Al Br	70	11	2201590004102	159-4 Cu Be	70	12
2201590005101	159-5 Al Br	80	20	2201590005102	159-5 Cu Be	80	22
2201590006101	159-6 Al Br	90	27	2201590006102	159-6 Cu Be	90	30
2201590007101	159-7 Al Br	95	45	2201590007102	159-7 Cu Be	95	50
2201590008101	159-8 Al Br	100	50	2201590008102	159-8 Cu Be	100	56
2201590009101	159-9 Al Br	106	77	2201590009102	159-9 Cu Be	106	85
2201590010101	159-10 Al Br	112	90	2201590010102	159-10 Cu Be	112	100
2201590011101	159-11 Al Br	118	126	2201590011102	159-11 Cu Be	118	140
2201590012101	159-12 Al Br	125	145	2201590012102	159-12 Cu Be	125	162

**159-S11M Al Br | 159-S11M Cu Be**  
**Hexagon Key Set**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



Code	No.	Code	No.
2201595011101	159-S11M Al Br	2201595011102	159-S11M Cu Be

**159KU-... Al Br | 159KU-... Cu Be**  
**Ball End Hexagon Key**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



Code	No.	l/mm	Weight/g	Code	No.	l/mm	Weight/g
2201593002101	159KU-2 Al Br	50	2	2201593002102	159KU-2 Cu Be	50	3
2201593003101	159KU-3 Al Br	63	4	2201593003102	159KU-3 Cu Be	63	5
2201593004101	159KU-4 Al Br	70	11	2201593004102	159KU-4 Cu Be	70	12
2201593005101	159KU-5 Al Br	80	20	2201593005102	159KU-5 Cu Be	80	22
2201593006101	159KU-6 Al Br	90	27	2201593006102	159KU-6 Cu Be	90	30
2201593007101	159KU-7 Al Br	95	45	2201593007102	159KU-7 Cu Be	95	50
2201593008101	159KU-8 Al Br	100	51	2201593008102	159KU-8 Cu Be	100	56
2201593009101	159KU-9 Al Br	106	76	2201593009102	159KU-9 Cu Be	106	85
2201593010101	159KU-10 Al Br	112	90	2201593010102	159KU-10 Cu Be	112	100
2201593011101	159KU-11 Al Br	118	125	2201593011102	159KU-11 Cu Be	118	140
2201593012101	159KU-12 Al Br	125	160	2201593012102	159KU-12 Cu Be	125	175

**545-IS... Al Br | 545-IS... Cu Be**  
**Screwdriver**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	mm	Weight/g	Code	No.	mm	Weight/g
2205450503101	545-IS 50x3 Al Br	134	33	2205450503102	545-IS 50x3 Cu Be	134	35
2205451004101	545-IS 100x4 Al Br	184	42	2205451004102	545-IS 100x4 Cu Be	184	45
2205451005101	545-IS 100x5 Al Br	205	70	2205451005102	545-IS 100x5 Cu Be	205	75
2205451006101	545-IS 100x6 Al Br	215	80	2205451006102	545-IS 100x6 Cu Be	215	85
2205451508101	545-IS 150x8 Al Br	277	135	2205451508102	545-IS 150x8 Cu Be	277	140
2205453001101	545-IS 300x10 Al Br	427	230	2205453001102	545-IS 300x10 Cu Be	427	245

**547-PH... Al Br | 547-PH... Cu Be**  
**Screwdriver**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	mm	Weight/g	Code	No.	mm	Weight/g
2205470200101	547-PH 0 Al Br	134	32	2205470200102	547-PH 0 Cu Be	134	35
2205470201101	547-PH 1 Al Br	159	63	2205470201102	547-PH 1 Cu Be	159	70
2205470202101	547-PH 2 Al Br	240	95	2205470202102	547-PH 2 Cu Be	240	100
2205470203101	547-PH 3 Al Br	327	155	2205470203102	547-PH 3 Cu Be	327	165
2205470204101	547-PH 4 Al Br	427	230	2205470204102	547-PH 4 Cu Be	427	245

**495-... Al Br | 495-... Cu Be**  
**Combination Plier**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2204950150101	495-150 Al Br	150	165
2204950175101	495-175 Al Br	175	330
2204950200101	495-200 Al Br	200	435
2204950150102	495-150 Cu Be	150	180
2204950175102	495-175 Cu Be	175	355
2204950200102	495-200 Cu Be	200	465

**384-... Al Br | 384-... Cu Be**  
**Circlip Plier for External Retaining Ring**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2203840200101	384-200 Al Br	200	265
2203840250101	384-250 Al Br	250	380
2203840200102	384-200 Cu Be	200	290
2203840250102	384-250 Cu Be	250	415

**476-150 Al Br | 476-150 Cu Be**  
**Flat Nose Plier**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2204760150101	476-150 Al Br	150	151
2204760150102	476-150 Cu Be	150	165

**492-... Al Br | 492-... Cu Be**  
**Side Cutter**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2204920150101	492-150 Al Br	150	225
2204920200101	492-200 Al Br	200	365
2204920150102	492-150 Cu Be	150	245
2204920200102	492-200 Cu Be	200	410

**132-250 Al Br | 132-250 Cu Be**  
**Waterpump Plier**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2201320250101	132-250 Al Br	250	335
2201320250102	132-250 Cu Be	250	365

**498-225 Al Br | 498-225 Cu Be**  
**Universal Scissors**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2204980225101	498-225 Al Br	225   98	210
2204980225102	498-225 Cu Be	225   98	245

**75-... Al Br | 75-... Cu Be**  
**Pipe Wrench "Stillson"**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2200750105201	75-10 Al Br	250	670
2200750125201	75-12 Al Br	300	955
2200750145201	75-14 Al Br	350	1195
2200750185201	75-18 Al Br	450	2050
2200750105202	75-10 Cu Be	250	735
2200750125202	75-12 Cu Be	300	1050
2200750145202	75-14 Cu Be	350	1315
2200750185202	75-18 Cu Be	450	2255

**67E-... Al Br | 67E-... Cu Be**  
**Pipe Wrench**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2200670042101	67E-1.1/2" Al Br	430	1400
2200670049101	67E-2" Al Br	530	2000
2200670042102	67E-1.1/2" Cu Be	430	1550
2200670049102	67E-2" Cu Be	530	2230

**470-... Al Br | 470-... Cu Be**  
**Snipe Nose Plier with Side Cutter, straight Pattern**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2204700150101	470-150 Al Br	150	170
2204700200101	470-200 Al Br	200	300
2204700150102	470-150 Cu Be	150	190
2204700200102	470-200 Cu Be	200	335

**1676-... Al Br | 1676-... Cu Be**  
**Wrecking Bar**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2216760500101	1676-500x18 Al Br	500	1090
2216760501101	1676-500x20 Al Br	500	1320
2216761001101	1676-1000x25 Al Br	1000	4080
2216760500102	1676-500x18 Cu Be	500	1200
2216760501102	1676-500x20 Cu Be	500	1450
2216761001102	1676-1000x25 Cu Be	1000	4500

**1670-... Al Br | 1670-... Cu Be**  
**Engineer's Hammer**

- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	Weight/g
2216700230101	1670-230 Al Br	280	403
2216700340101	1670-340 Al Br	280	502
2216700450101	1670-450 Al Br	310	680
2216700680101	1670-680 Al Br	340	950
2216700910101	1670-910 Al Br	350	1205
2216701130101	1670-1130 Al Br	400	1470
2216700230102	1670-230 Cu Be	280	403
2216700340102	1670-340 Cu Be	280	502
2216700450102	1670-450 Cu Be	310	680
2216700680102	1670-680 Cu Be	340	950
2216700910102	1670-910 Cu Be	350	1205
2216701130102	1670-1130 Cu Be	400	1470

**1662-... Al Br | 1662-... Cu Be**  
**Club Hammer**

- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	Weight/g
2216621000101	1662-1000 Al Br	400	1300
2216621500101	1662-1500 Al Br	400	1800
2216622000101	1662-2000 Al Br	400	2300
2216623000101	1662-3000 Al Br	700	3710
2216625000101	1662-5000 Al Br	900	5910
2216629900101	1662-9900 Al Br	900	10810
2216621000102	1662-1000 Cu Be	400	1300
2216621500102	1662-1500 Cu Be	400	1800
2216622000102	1662-2000 Cu Be	400	2300
2216623000102	1662-3000 Cu Be	700	3710
2216625000102	1662-5000 Cu Be	900	5910
2216629900102	1662-9900 Cu Be	900	10810

**1672-... Al Br | 1672-... Cu Be**  
**Club Hammer**

- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	Weight/g
2216721000101	1672-1000 Al Br	400	1300
2216721500101	1672-1500 Al Br	400	1800
2216722000101	1672-2000 Al Br	400	2300
2216723000101	1672-3000 Al Br	700	3700
2216721000102	1672-1000 Cu Be	400	1300
2216721500102	1672-1500 Cu Be	400	1800
2216722000102	1672-2000 Cu Be	400	2300
2216723000102	1672-3000 Cu Be	700	3700

**1665-... Al Br | 1665-... Cu Be**  
**Engineer's Hammer**

- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	Weight/g
2216650500101	1665-500 Al Br	310	655
2216651000101	1665-1000 Al Br	340	1175
2216651500101	1665-1500 Al Br	400	1850
2216652000101	1665-2000 Al Br	400	2455
2216650500102	1665-500 Cu Be	310	655
2216651000102	1665-1000 Cu Be	340	1175
2216651500102	1665-1500 Cu Be	400	1850
2216652000102	1665-2000 Cu Be	400	2455

**260-... Al Br | 260-... Cu Be**  
**Flat Chisel**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium



Code	No.	Edge mm	l/mm	Weight/g
2202600150101	260-150x12 Al Br	12	150	92
2202600200101	260-200x16 Al Br	16	200	231
2202600160101	260-160x18 Al Br	18	160	242
2202600250101	260-250x16 Al Br	16	250	302
2202600300101	260-300x19 Al Br	19	300	701
2202600350101	260-350x19 Al Br	19	350	821
2202600600101	260-600x24 Al Br	24	600	1702
2202600301101	260-300x28 Al Br	28	300	1090
2202600500101	260-500x35 Al Br	35	500	2620
2202600161101	260-160x14 Al Br	38	160	152
2202600162101	260-160x16 Al Br	41	160	188
2202600150102	260-150x12 Cu Be	12	150	98
2202600200102	260-200x16 Cu Be	16	200	251
2202600160102	260-160x18 Cu Be	18	160	262
2202600250102	260-250x16 Cu Be	16	250	320
2202600300102	260-300x19 Cu Be	19	300	772
2202600350102	260-350x19 Cu Be	19	350	903
2202600600102	260-600x24 Cu Be	24	600	1861
2202600301102	260-300x28 Cu Be	28	300	1204
2202600500102	260-500x35 Cu Be	35	500	2860
2202600161102	260-160x14 Cu Be	38	160	167
2202600162102	260-160x16 Cu Be	41	160	205

**261... Al Br | 261-... Cu Be**  
**Cape Chisel**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

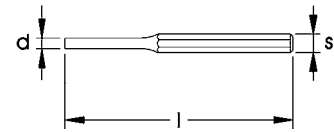


Code	No.	Edge mm	l/mm	Weight/g
2202610140101	261-140 Al Br	4	140	255
2202610200101	261-200 Al Br	4	200	435
2202610300101	261-300 Al Br	5	300	760
2202610140102	261-140 Cu Be	4	140	280
2202610200102	261-200 Cu Be	4	200	480
2202610300102	261-300 Cu Be	5	300	840



**271-... Al Br | 271-... Cu Be**  
**Parallel Pin Punch**

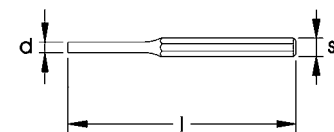
- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	d Ø mm	s Ø mm	Weight/g
2202710080101	271-8 Al Br	150	8	11	118
2202710100101	271-10 Al Br	150	10	13	140
2202710120101	271-12 Al Br	150	12	15	190
2202710140101	271-14 Al Br	200	14	18	380
2202710150101	271-15 Al Br	200	15	19	390
2202710160101	271-16 Al Br	200	16	20	435
2202710170101	271-17 Al Br	200	17	21	540
2202710180101	271-18 Al Br	250	18	22	560
2202710190101	271-19 Al Br	250	19	23	780
2202710200101	271-20 Al Br	250	20	24	790
2202710210101	271-21 Al Br	250	21	25	885
2202710220101	271-22 Al Br	250	22	26	920
2202710080102	271-8 Cu Be	150	8	11	125
2202710100102	271-10 Cu Be	150	10	13	155
2202710120102	271-12 Cu Be	150	12	15	215
2202710140102	271-14 Cu Be	200	14	18	420
2202710150102	271-15 Cu Be	200	15	19	435
2202710160102	271-16 Cu Be	200	16	20	480
2202710170102	271-17 Cu Be	200	17	21	570
2202710180102	271-18 Cu Be	250	18	22	600
2202710190102	271-19 Cu Be	250	19	23	860
2202710200102	271-20 Cu Be	250	20	24	875
2202710210102	271-21 Cu Be	250	21	25	950
2202710220102	271-22 Cu Be	250	22	26	965

**271-Z... Al Br | 271-Z... Cu Be**  
**Parallel Pin Punch cylindrical**

- Aluminium Bronze
- Copper Beryllium



Code	No.	l/mm	d Ø mm	s Ø mm	Weight/g
2202710030101	271-Z3 Al Br	110	3	9	15
2202710040101	271-Z4 Al Br	110	4	10	50
2202710060101	271-Z6 Al Br	115	6	12	95
2202710081101	271-Z8 Al Br	120	8	14	115
2202710030102	271-Z3 Cu Be	110	3	9	20
2202710040102	271-Z4 Cu Be	110	4	10	57
2202710060102	271-Z6 Cu Be	115	6	12	105
2202710081102	271-Z8 Cu Be	120	8	14	130

**264-... Al Br | 264-... Cu Be**  
**Drift Punch**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	s Ø mm	Weight/g
2202640100101	264-100 x 16 Al Br	100	16	125
2202640150101	264-150 x 16 Al Br	150	16	205
2202640100102	264-100 x 16 Cu Be	100	16	145
2202640150102	264-150 x 16 Cu Be	150	16	230

**207-300 Al Br | 207-300 Cu Be**  
**Three Square Hollow Scraper**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	Blade l/mm	l/mm	Weight/g
2202070300101	207-300 Al Br	300	400	590
2202070300102	207-300 Cu Be	300	400	645

**276-... Al Br | 276-... Cu Be**  
**Hollow Scraper**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2202760200101	276-200x30 Al Br	325	300
2202760300101	276-300x30 Al Br	430	440
2202760350101	276-350x35 Al Br	490	580
2202760351101	276-350x50 Al Br	500	910
2202760400101	276-400x60 Al Br	560	1330
2202760200102	276-200x30 Cu Be	325	330
2202760300102	276-300x30 Cu Be	430	480
2202760350102	276-350x35 Cu Be	490	640
2202760351102	276-350x50 Cu Be	500	1020
2202760400102	276-400x60 Cu Be	560	1520

**281-B Al Br | 281-B Cu Be**  
**Knife**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	Blade l/mm	l/mm	Weight/g
2202810000101	281-B Al Br	75	180	120
2202810000102	281-B Cu Be	75	180	90

**189M Al Br | 189M Cu Be**  
**Hacksaw Frame**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2201890000101	189M Al Br	500	590
2201890000102	189M Cu Be	500	645

**250-4 Al Br | 250-4 Cu Be**  
**Wire Brush**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	Rows	l/mm	Weight/g
2202500000101	250-4 Al Br	4x16	290	115
2202500000102	250-4 Cu Be	4x16	290	115

**189ME Cu Be**  
**Hacksaw Blade**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	t.p.i.	l/mm	Weight/g
2201890001102	189ME Cu Be	18	300	32

**99 Al Br | 99 Cu Be**  
**Shovel**

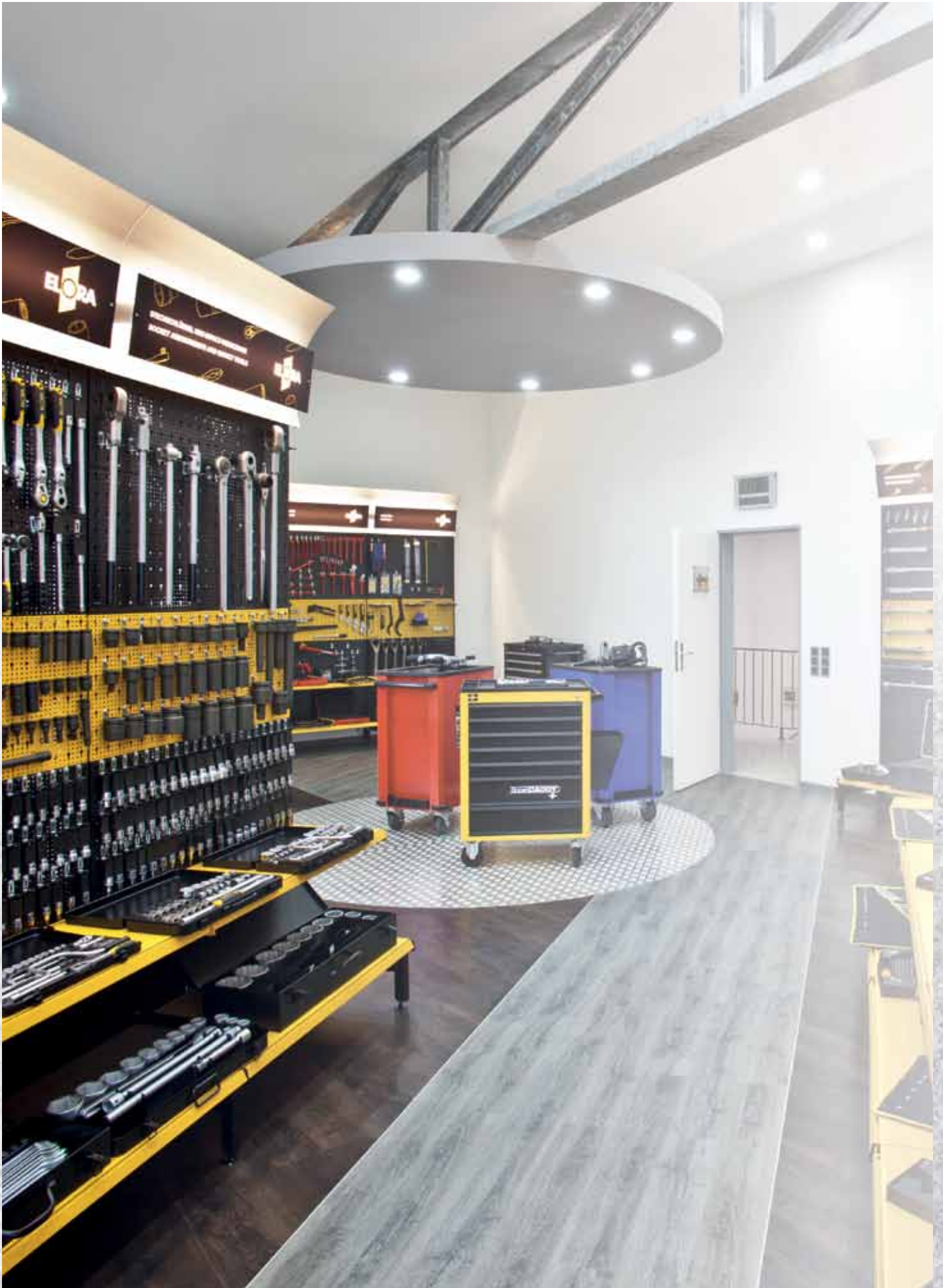
- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2209900000101	99 Al Br	1450	1420
2209900000102	99 Cu Be	1450	1553

**99-2 Al Br | 99-2 Cu Be**  
**Pick**

- ▶ Aluminium Bronze
- ▶ Copper Beryllium

Code	No.	l/mm	Weight/g
2209900001101	99-1 Al Br	910	2000
2209900002101	99-2 Al Br	910	2800
2209900003101	99-3 Al Br	910	3200
2209900004101	99-4 Al Br	910	3500
2209900001102	99-1 Cu Be	910	2100
2209900002102	99-2 Cu Be	910	2950
2209900003102	99-3 Cu Be	910	3385
2209900004102	99-4 Cu Be	910	3715







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