

JIGS, FIXTURES AND TOOLS

Machining Profile Connections

Machining Dynamic Elements

General Tools



# Jigs, fixtures and tools Products in this section



#### Drilling Jigs and Step Drills

- For rapid and precise profile machining
- Simple handling on pillar drills

**577** 



#### **Drilling Unit**

 Drilling Stands for simplified profile machining without a pillar drill

**■**583



#### T-Slot Opener 8N

- For opening closed grooves quickly and carefully
- For Profiles 8 and X 8 with removable groove covering

**■**585



#### T-Slot Deburrer 8N

- For smoothing the edges of grooves that have been opened
- Adjustable shaft length for ergonomic working practices

**■**586



#### Lip Seal Assembly Tool

- The easy and reliable way to press Lip Seals into
- Suitable roller size for a range of profile sizes

**■**587



#### Shaft Mounting Aid

 The easy way to press Shafts into Shaft-Clamp Profiles



#### Pin Spanners

- For adjusting the eccentrics on roller guides and C-Rail Guides
- For the lock nuts in Bearing Units

#### Rack 8 Assembly Tool

 For connecting together the rack segments of a rack drive

**■**591

Track Oil for Linear Guides

**■**592

- For reducing friction
- For a longer service life

item

#### Keys

- Designed specifically for use with profiles and fastening elements from item
- Also models suitable for difficult-to-reach screws

**■**593

**■**589





 For all security fastenings using item's special bolts



#### Multi-Purpose Pliers

- For cutting plastic, rubber,
- The easy way to cut Cover Profile PP to length



#### Key Insert

• For checking the tightening torque of screw fastenings under heavy loads

**■**595



#### Security L-Key Set

**■**596



- wood and thin aluminium

**■**596



# Drilling Jigs and Step Drills Standard Connection and Universal Connection

- For rapid and precise profile machining
- Simple handling on pillar drills



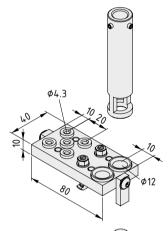








Drilling Jigs for precisely positioned machining of profiles with the required through holes for Standard Fasteners and Universal Fasteners.



#### Drilling Jig 5

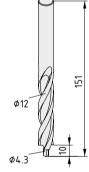


St, black

Drill bushes, St, hardened and polished Slewable longitudinal limit stop Clamp attachment on the profile Depth limit stop for the Step Drill m = 390.0 g

1 pce.

0.0.370.19



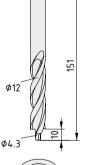
#### Step Drill, Universal Connection 5



High-performance, high-speed steel Shaft: Ø 12 mm

m = 80.0 q

0.0.370.35 1 pce.



#### Drilling Jig 6

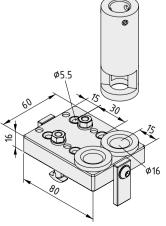


St, black

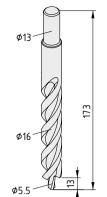
Drill bushes, St, hardened and polished Slewable longitudinal limit stop Clamp attachment on the profile Depth limit stop for the Step Drill

m = 832.0 g

1 pce. 0.0.434.25





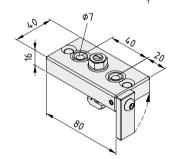


#### Step Drill, Universal Connection 6

High-performance, high-speed steel

Shaft: Ø 13 mm m = 150.0 g

0.0.431.19 1 pce.



#### Drilling Jig 8, small, Standard Connection 8

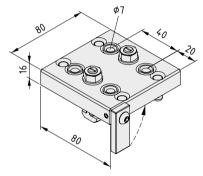
Drill bushes, St, hardened and polished Slewable longitudinal limit stop

Clamp attachment on the profile m = 420.0 g

0.0.026.09 1 pce.

8 F 7

F 2



#### Drilling Jig 8, large, Standard Connection 8

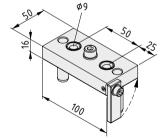
St, black

Drill bushes, St, hardened and polished Slewable longitudinal limit stop

Clamp attachment on the profile

m = 810.0 g

1 pce. 0.0.026.19



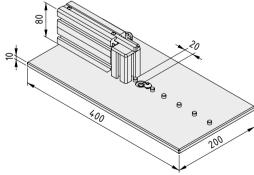
#### Drilling Jig 10, small, Standard Connection 10

St, black

Drill bushes, St, hardened and ground Fold-out longitudinal limit stop Clamp fastening for profile

m = 662.0 g

0.0.632.12 1 pce.



#### Drilling Jig 8

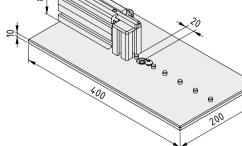
Base plate, plastic, green

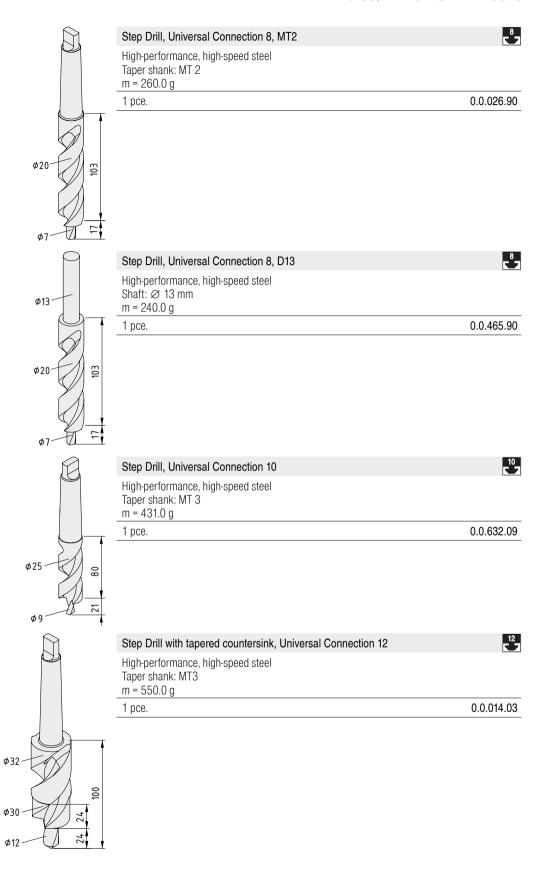
Profile, AI, anodized, natural Drill bush, St, hardened and polished

Slewable stop Profile-guide elements

m = 2.3 kg

1 pce. 0.0.026.91









# Drilling Jig and Step Drill Mitre Connection and Central Fastening

- Straightforward profile machining for Mitre-Fastening Set and Central-Fastening Set
- Suitable for any mitre angle
- For cutting the correct bore in the cut profile



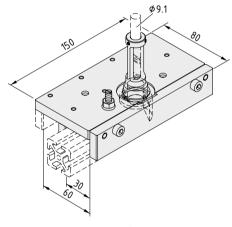












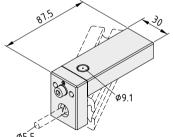
#### Drilling Jig, Mitre Connection 6 D9.1

6 5 7

St. black Depth limit stop Notes on Use and Installation

m = 1.3 kg

0.0.616.77 1 pce.

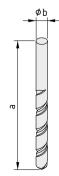


### Drilling Jig, Mitre Connection 6 D5.5



St, black Depth limit stop Notes on Use and Installation m = 390.0 g

0.0.616.89 1 pce.



#### Drill D9.1

High-performance, high-speed steel

a = 125 mm b = 9.1 mm m = 63.0 g

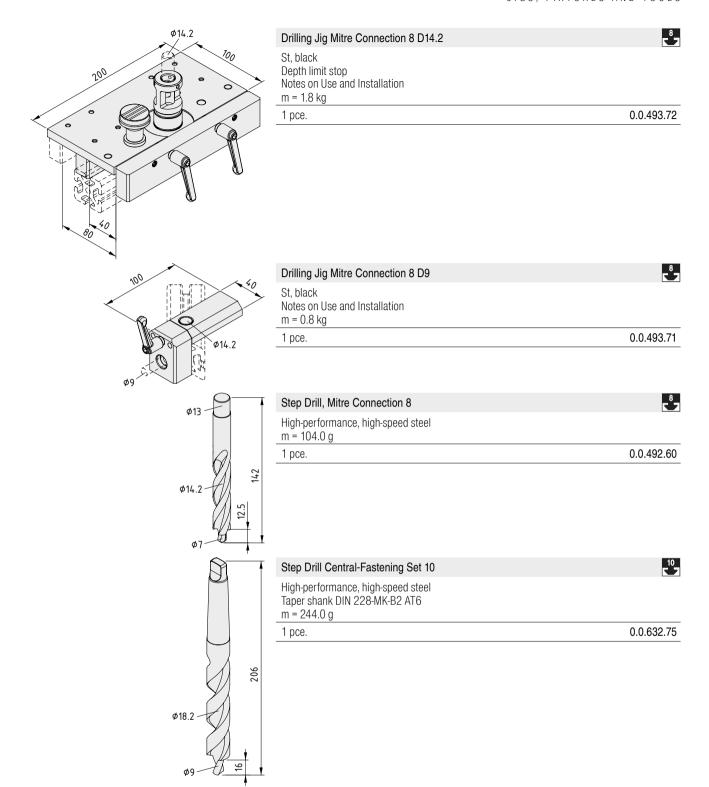
1 pce. 0.0.628.25

#### Drill D5.5

High-performance, high-speed steel

a = 93 mm b = 5.5 mm m = 18.0 g

1 pce. 0.0.628.55





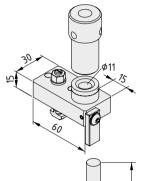


## Drilling Jigs and Step Drills Clamp Profiles

■ For machining profiles when creating a 90° connection between Clamp Profiles 6 30x30 and 8 40x40







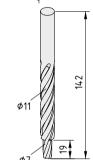
#### Drilling Jig 6, Clamp Profile 6 30x30

St, black

Drill bush, St, hardened and polished Slewable longitudinal limit stop Clamp attachment on the profile Depth limit stop for the Step Drill m = 388.0 g

1 pce.

0.0.434.23



#### Step Drill, Clamp Profile 6 30x30

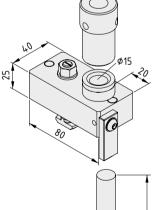


6 5 7

High-performance, high-speed steel Shaft: Ø 11 mm

m = 63.0 g

1 pce. 0.0.431.20



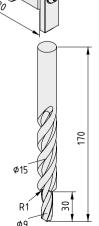
#### Drilling Jig 8, Clamp Profile 8 40x40



St. black

Drill bush, St, hardened and polished Slewable longitudinal limit stop Clamp attachment on the profile Depth limit stop for the Step Drill m = 880.0 g

0.0.265.22 1 pce.



#### Step Drill, Clamp Profile 8 40x40



High-performance, high-speed steel Shaft: Ø 15 mm m = 150.0 g

1 pce. 0.0.265.21



# **Drilling Unit**

### Straightforward profile machining on site

- Drilling Stands for simplified profile machining without a pillar drill
- Fasten direct to the profile
- Adapter for various profile lines











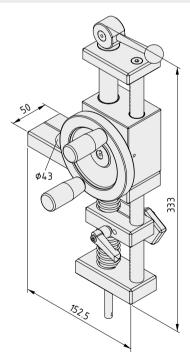
Stepped bore for the Universal-Fastening Set.



Through hole and thread for the Standard-Fastening Set.



The Drilling Unit can be operated with a commercially available drilling machine with European mount (Ø 43 mm). A machine with electronic speed control, R/L operation and 2-speed gearing is recommended.

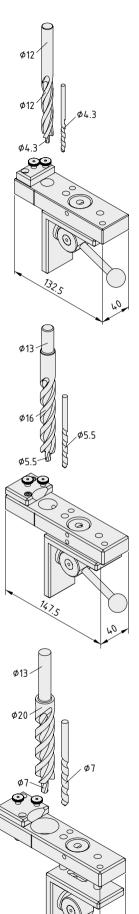


#### Drilling Unit, Drilling Stand

St

Notes on Use and Installation m = 3.0 kg

1 pce. 0.0.465.88



### Drilling Unit, Drilling Adapter Set 5



Adapter Plate, St, black

Angle Bracket, St, black Step Drill, Universal Connection 5, high-performance, high-speed steel Drill Ø 4.3 DIN 338, high-performance, high-speed steel

m = 1.2 kg

1 set

0.0.464.30

#### Drilling Unit, Drilling Adapter Set 6



Adapter Plate, St, black Angle Bracket, St, black

Step Drill, Universal Connection 6, high-performance, high-speed steel Drill Ø 5.5 DIN 338, high-performance, high-speed steel

m = 1.3 kg

1 set 0.0.459.33

#### Drilling Unit, Drilling Adapter Set 8



Adapter Plate, St, black Angle Bracket, St, black

Step Drill, Universal Connection 8, high-performance, high-speed steel

Drill Ø 7 DIN 338, high-performance, high-speed steel

m = 1.3 kg

1 set 0.0.465.89



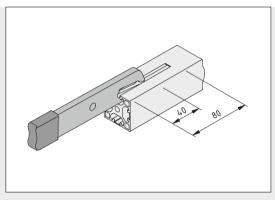
# T-Slot Opener 8N

- For opening closed grooves quickly and carefully
- For Profiles 8 and X 8 with removable groove covering

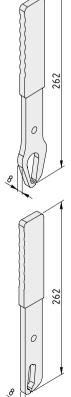




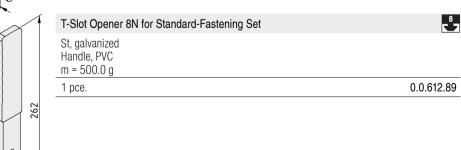
T-Slot Opener 8N is used to remove the groove cover over any length beginning from the end face of the profile or any other opening of sufficient size. If the opening does not extend to the end of the profile, the end of the opening must be defined with a hole of  $\varnothing$  9.2 mm.



T-Slot Opener 8N for Standard-Fastening Set: Each levering movement will open the profile groove over the length of a Standard-Fastening Set 8.



T-Slot Opener 8N	s <sup>8</sup> 2
St, galvanized Handle, PVC m = 580.0 g	
1 pce.	0.0.612.88



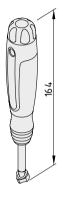




## T-Slot Deburrer 8N

- For smoothing the edges of grooves that have been opened
- Adjustable shaft length for ergonomic working practices



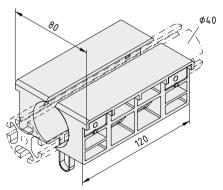


T-Slot Deburrer 8N	8
m = 88.0 g	
1 pce.	0.0.612.47



# Clamping Jaws D40

- For careful machining of profiles with the cylindrical D40 cross-section
- Simple and rapid clamping in a vice



#### Clamping Jaws D40

4 magnetic inserts m = 185.0 g

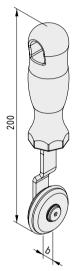
1 pce. 1.0.003.75



# Assembly Tool Lip Seal

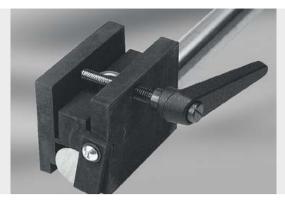
- The easy and reliable way to press Lip Seals into place
- Suitable roller size for a range of profile sizes





	Assembly Tool Lip Seal 5	5
	Roller, PA Bolt, St Button-Head Screw ISO 7380-M5x10 Handle, PA b = 11 mm	
	1 pce.	0.0.484.40
İ	Lip Seal Assembly Tool 6-12	
	Roller, PA Bolt, St Button-Head Screw ISO 7380-M5x10 Handle, PA b = 8 mm	
	1 pce.	0.0.493.28





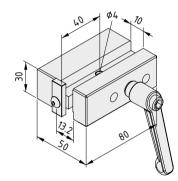
# **Combination Drilling Jigs**

- For easier machining of Shafts, Shaft-Clamp Profiles and Support Profiles
- For cutting precisely positioned fixing bores









### Combination Drilling Jig for Shaft D10

8.

St, black

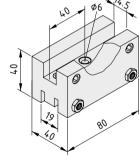
Drill bush, St, hardened and polished

Clamp lever

Slewable longitudinal limit stop

m = 715.0 g

1 pce. 0.0.444.68



#### Combination Drilling Jig for Shaft D14



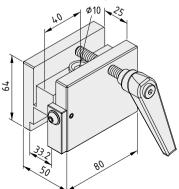
St, black

Drill bush, St, hardened and polished

Clamp attachment

m = 780.0 g

0.0.373.55 1 pce.



#### Combination Drilling Jig for Shaft D25



St, black

Drill bush, St, hardened and polished

Clamping lever

Slewable longitudinal limit stop

m = 1.4 kg

1 pce. 0.0.373.15



# Mounting Aid

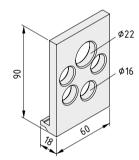
■ The easy way to press Shafts into Shaft-Clamp Profiles







Using a round steel bar to press guiding shafts into place



#### Mounting Aid for Shaft D6/D14/D25

m = 270.0 g

black, 1 pce. 0.0.265.38



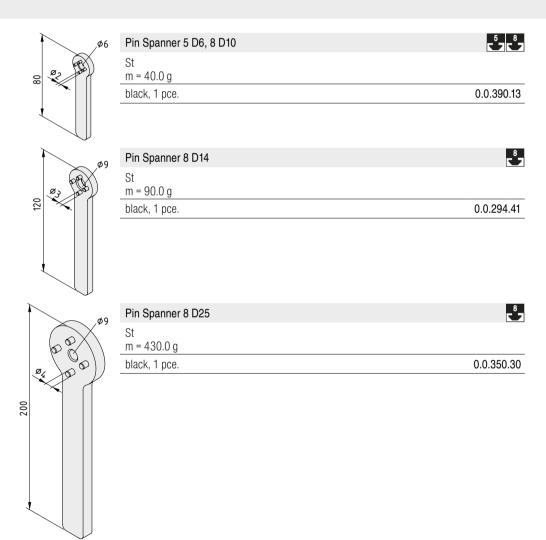


# Pin Spanners

■ For adjusting the eccentrics on roller guides and C-Rail Guides



For tightening lock nuts in the Bearing Units of Roller Guides 5 D6, 8 D10, 8 D14 and 8 D25.

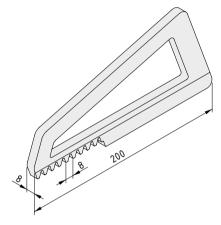




# Rack 8 Assembly Tool

■ For connecting together the rack segments of a rack drive





Rack 8 Assembly Tool	
St, stainless m = 451.0 g	
1 pce.	0.0.625.39





# Track Oil for Linear Guides Oil Can for Linear Guides Assembly Paste

- High-quality oils increase the service life of linear slides
- Ideal for product maintenance and care
- Assembly Paste reduces friction when assembling structures

The maintenance and care products from item are the perfect complement to our high-quality components. Linear slides need to be lubricated on a regular basis and fully synthetic Track Oil is the ideal product. It spreads out evenly and does not tend to gum up. The Oil Can enables you to access difficultto-reach lubricating points.

Components made from stainless steel are extremely strong but, due to high levels of friction, can often be difficult to position during assembly, item Assembly Paste ensures that screws and profiles slot easily into position.

Track Oil and Assembly Paste are approved for contact with foodstuffs.









The special Track Oil for Linear Guides is entirely synthetic and approved for contact with foodstuffs. It is used to maintain oil-lubricated guide tracks.

Assembly Paste helps ensure screws and profiles made from stainless steel glide more easily into position. This makes it far easier to adjust components so that they are flush-mounted.

#### Track Oil for Linear Guides

Synthetic lubrication oil ISO VG 460

Content: 250 ml (bottle)

m = 285.0 g

1 pce. 0.0.612.75

#### Oil Can for Linear Guides

Pump-action oil dispenser Al with pointed tip

Content: 200 ml

m = 600.0 g

1 pce. 0.0.612.74

#### Assembly Paste

Contents: 100 a (tube)

m = 115.0 g

1.0.003.61 1 pce.

#### Grease for Linear Guide Carriage Units

Contents: 250 g (tube)

m = 300.0 g

0.0.644.87 1 pce.

#### Grease Gun for Linear Guide Carriage Unit D14

Conical adapter with needle mouthpiece

Contents: 50 ml

m = 150.0 g

1 pce. 0.0.644.88

18



# Keys

- Designed specifically for use with profiles and fastening elements from item
- Also models suitable for difficult-to-reach screws

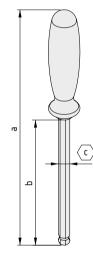
Ball-Headed Keys are particularly suitable for initial tightening and for screws which are difficult to reach (tightening angles up to  $25^{\circ}$ ).

Keys with T-Handle and L-Keys are suitable for the maximum tightening torques of the various screws.

L-Keys are particularly suitable for tightening the screws of Universal Connections.

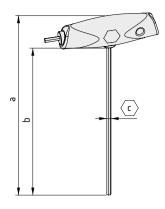
A special L-Key 5 A/F N is used for the Automatic-Fastening Sets 8 N.

The keys are made of high-grade chrome-vanadium steel, matt-chrome plated. The ergonomic plastic handles have an elastic coating of TPE.



a [mm]         b [mm]         c [mm]         m [g]           179         75         1.5         29.0           1 pce.         0.0.473.79           Ball-Headed Key 2 A/F           a [mm]         b [mm]         c [mm]         m [g]           204         100         2         30.0           1 pce.         0.0.473.78           Ball-Headed Key 3 A/F           a [mm]         b [mm]         c [mm]         m [g]           204         100         3         30.0           1 pce.         0.0.370.58           Ball-Headed Key 4 A/F           a [mm]         b [mm]         c [mm]         m [g]           211         100         4         54.0           1 pce.         0.0.406.60           Ball-Headed Key 5 A/F           a [mm]         b [mm]         c [mm]         m [g]           243         125         6         105.0           1 pce.         0.0.406.61           Ball-Headed Key 8 A/F           a [mm]         b [mm]         c [mm]         m [g]           268         150         8         150.0           1 pce.	Ball-Hea	ded Key 1.	5 A/F		
1 pce.	a [mm]	b [mm]	c [mm]	m [g]	
Ball-Headed Key 2 A/F a [mm] b [mm] c [mm] m [g] 204 100 2 30.0  1 pce. 0.0.473.78  Ball-Headed Key 3 A/F a [mm] b [mm] c [mm] m [g] 204 100 3 30.0  1 pce. 0.0.370.58  Ball-Headed Key 4 A/F a [mm] b [mm] c [mm] m [g] 211 100 4 54.0  1 pce. 0.0.406.60  Ball-Headed Key 5 A/F a [mm] b [mm] c [mm] m [g] 211 100 5 64.0  1 pce. 0.0.026.54  Ball-Headed Key 6 A/F a [mm] b [mm] c [mm] m [g] 243 125 6 105.0  1 pce. 0.0.406.61  Ball-Headed Key 8 A/F a [mm] b [mm] c [mm] m [g] 243 125 6 105.0  1 pce. 0.0.406.61  Ball-Headed Key 8 A/F a [mm] b [mm] c [mm] m [g] 268 150 8 150.0  1 pce. 0.0.480.34  Ball-Headed Key 10 A/F a [mm] b [mm] c [mm] m [g] 271 150 10 211.0	179	75	1.5	29.0	
a [mm]       b [mm]       c [mm]       m [g]         204       100       2       30.0         1 pce:       0.0.473.78         Ball-Headed Key 3 A/F         a [mm]       b [mm]       c [mm]       m [g]         204       100       3       30.0         1 pce:       0.0.370.58         Ball-Headed Key 4 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce:       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce:       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce:       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	1 pce.				0.0.473.79
204   100   2   30.0   1   pce.	Ball-Hea	ded Key 2	A/F		
Ball-Headed Key 3 A/F         a [mm]       b [mm]       c [mm]       m [g]         204       100       3       30.0         1 pce.       0.0.370.58         Ball-Headed Key 4 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce.       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0					
Ball-Headed Key 3 A/F         a [mm]       b [mm]       c [mm]       m [g]         204       100       3       30.0         1 pce.       0.0.370.58         Ball-Headed Key 4 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce.       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	204	100	2	30.0	
a [mm]       b [mm]       c [mm]       m [g]         204       100       3       30.0         1 pce.       0.0.370.58         Ball-Headed Key 4 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce.       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	1 pce.				0.0.473.78
204   100   3   30.0     1 pce.	Ball-Hea	ded Key 3	A/F		
1 pce.		b [mm]			
Ball-Headed Key 4 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce.       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	204	100	3	30.0	
a [mm]       b [mm]       c [mm]       m [g]         211       100       4       54.0         1 pce.       0.0.406.60         Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	1 pce.				0.0.370.58
211   100   4   54.0         1 pce.	Ball-Hea	ded Key 4	A/F		
1 pce.   0.0.406.60	a [mm]	b [mm]	c [mm]	m [g]	
Ball-Headed Key 5 A/F         a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	211	100	4	54.0	
a [mm]       b [mm]       c [mm]       m [g]         211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	1 pce.				0.0.406.60
211       100       5       64.0         1 pce.       0.0.026.54         Ball-Headed Key 6 A/F         a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.4406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	Ball-Hea	ded Key 5	A/F		
1 pce. 0.0.026.54    Ball-Headed Key 6 A/F				m [g]	
Ball-Headed Key 6 A/F  a [mm]	211	100	5	64.0	
a [mm]       b [mm]       c [mm]       m [g]         243       125       6       105.0         1 pce.       0.0.406.61         Ball-Headed Key 8 A/F         a [mm]       b [mm]       c [mm]       m [g]         268       150       8       150.0         1 pce.       0.0.480.34         Ball-Headed Key 10 A/F         a [mm]       b [mm]       c [mm]       m [g]         271       150       10       211.0	1 pce.				0.0.026.54
243     125     6     105.0       1 pce.     0.0.406.61       Ball-Headed Key 8 A/F a [mm] b [mm] c [mm] m [g] 268 150 8 150.0 1 pce.       1 pce.     0.0.480.34       Ball-Headed Key 10 A/F a [mm] b [mm] c [mm] m [g] 271 150 10 211.0	Ball-Hea	ded Key 6	A/F		
1 pce. 0.0.406.61  Ball-Headed Key 8 A/F a [mm] b [mm] c [mm] m [g] 268 150 8 150.0 1 pce. 0.0.480.34  Ball-Headed Key 10 A/F a [mm] b [mm] c [mm] m [g] 271 150 10 211.0		b [mm]	c [mm]	m [g]	
Ball-Headed Key 8 A/F  a [mm]	243	125	6	105.0	
a [mm]     b [mm]     c [mm]     m [g]       268     150     8     150.0       1 pce.     0.0.480.34       Ball-Headed Key 10 A/F       a [mm]     b [mm]     c [mm]     m [g]       271     150     10     211.0	1 pce.				0.0.406.61
268     150     8     150.0       1 pce.     0.0.480.34       Ball-Headed Key 10 A/F       a [mm]     b [mm]     c [mm]     m [g]       271     150     10     211.0	Ball-Hea	ded Key 8	A/F		
1 pce.     0.0.480.34       Ball-Headed Key 10 A/F       a [mm]     b [mm]     c [mm]     m [g]       271     150     10     211.0	a [mm]	b [mm]	c [mm]		
Ball-Headed Key 10 A/F a [mm] b [mm] c [mm] m [g] 271 150 10 211.0	268	150	8	150.0	
a [mm]         b [mm]         c [mm]         m [g]           271         150         10         211.0	1 pce.				0.0.480.34
271 150 10 211.0	Ball-Hea	ded Key 10	A/F		
	a [mm]		c [mm]		
1 pce. 0.0.480.35	271	150	10	211.0	
	1 pce.				0.0.480.35

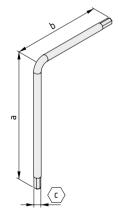




	Handle 3 A	4/F			
-	b [mm]	c [mm]	m [g]		
	145	3	33.0		
1 pce.				0.0.370.59	
Key with T-I	Handle 4 A	<b>∜</b> F			
a [mm]	b [mm]	c [mm]	m [g]		
170	145	4	45.0		
1 pce.				0.0.406.39	
Key with T-I	Handle 5 A	4/F			
a [mm]	b [mm]	c [mm]	m [g]		
230	195	5	90.0		
1 pce.				0.0.026.29	
Key with T-I	Handle 6	4/F			
a [mm]	b [mm]	c [mm]	m [g]		
230	195	6	110.0		
1 pce.				0.0.406.38	
Key with T-I	Key with T-Handle 8 A/F				
a [mm]	b [mm]	c [mm]	m [g]		
330	295	8	200.0		
1 pce.				0.0.480.36	
Key with T-I	Handle 10	A/F			
a [mm]	b [mm]	c [mm]	m [g]		
330	295	10	320.0		
330					

#### Materials used in all the following products:

Chrome vanadium steel matt chrome-plated



Chrome va	anadium ste	el, matt chro	ime-plated	
L-Key 3 A	/F			
a [mm]	b [mm]	c [mm]	m [g]	
93	66	3	9.0	
1 pce.				0.0.440.73
L-Key 4 A	/F			
a [mm]	b [mm]	c [mm]	m [g]	
109	74	4	19.0	
1 pce.				0.0.440.74
L-Key 5 A	/F			
a [mm]	b [mm]	c [mm]	m [g]	
125	85	5	34.0	
1 pce.				0.0.026.89
L-Key 5 A	/F N			
a [mm]	b [mm]	c [mm]	m [g]	
163	20	5	30.0	
1 pce.				0.0.492.59
L-Key 6 A	/F			
a [mm]	b [mm]	c [mm]	m [g]	
200	160	6	150.0	
1 pce.				0.0.007.01
L-Key 8 A	/F			
a [mm]	b [mm]	c [mm]	m [g]	
300	200	8	300.0	



# Key Inserts

■ For checking the tightening torque of screw fastenings under heavy loads

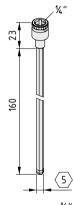




The key insert 5 is suitable for item profile fastenings with 5 A/F hexagon sockets (e.g. Universal-Fastening Sets 8 and Automatic-Fastening Sets 8). The special shape of the tip enables users to turn the key from outside the groove, thereby ensuring that tightening our best fasteners is effortless.

With a 1/4" square drive for use with torque wrenches.

Key insert 8 A/F- $\frac{1}{2}$ " enables the use of a torque wrench with  $\frac{1}{2}$ " square drive to check the tightening torques of Universal Connections 12.

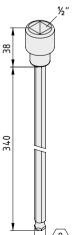


#### Key Insert 5 A/F-1/4"



Chrome vanadium steel, matt chrome-plated m = 39.0 g

chrome-plated, 1 pce. 0.0.644.68



#### Key Insert 8 A/F-1/2"



Chrome vanadium steel, matt chrome-plated m = 320,0 g

1 pce. 0.0.007.47

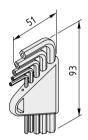




# Security L-Key Set 2.5-6 A/F

■ For all security fastenings using item's special bolts

For all item security bolts: L-Keys that give authorized personnel the access they need.



#### Security L-Key Set 2.5-6 A/F

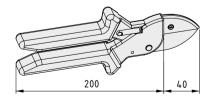
Chrome vanadium steel, black In plastic holder, black m = 75.0 g

1 set 0.0.627.48



# Multi-Purpose Pliers

Pliers for cutting Cover Profiles or similar elements made from rubber, leather, plastic, wood or aluminium.



#### Multi-Purpose Pliers

Scissor body, sheet steel, bright nickel-plated Blade, special steel Anvil, light steel Handle plastic-coated, non-slip design m = 300.0 g

1 pce. 0.0.265.63