3 Fastening Elements

T-Slot Nuts
Screws and Universal Elements
Rigid Fastening Elements
Movable Fastening Elements

The Fastening Elements product group contains:
> Screws and T-Slot Nuts for securing components to the profile groove
> System elements for securing panels rigidly to profile structures
> Clamping profiles for holding panel elements in profile frames

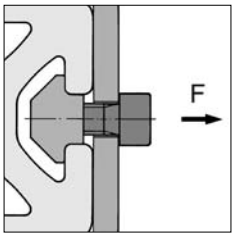
> Securing profile frames rigidly to machinery and guard units
> Movable panel fastenings for swivelling, sliding and lifting doors, flaps, profile frames and shutters

3.1.1 T-Slot Nuts

Special fastening elements are inserted into the profile grooves to connect one profile to another or to secure components to profile structures. Different types of T-Slot Nuts with threads and groove profiles for customised processing generate a counter-bearing for the screw in the groove.

The T-Slot Nuts have different load-bearing capacities depending on their design. These range from light-duty applications such as fastening signs to highly stable profile connections capable of withstanding even high dynamic loading.

Where vibration resistance is required, use of T-Slot Nuts St is recommended.
The profiles of the basic frame must only be connected using T-Slot Nuts St.



The decision which T-Slot Nut to use depends on the loads occurring during operation.

	T-Slot Nut	Order No.	Recommended tightening torque	Permissible operating load F
	5 St M5	0.0.370.01	4.5 Nm	500 N
	5 St M5, stainless	0.0.425.11	3.6 Nm	400 N
	5 St M4	0.0.370.06	3.0 Nm	500 N
	5 St M4, stainless	0.0.425.10	2.4 Nm	400 N
	5 St M3	0.0.437.19	1.5 Nm	500 N
	5 Zn M3	0.0.391.20	1.0 Nm	50 N
	6 St M6	0.0.419.40	14.0 Nm	1,750 N *
	6 St M6, stainless	0.0.439.75	11.0 Nm	1,400 N *
	6 St M5	0.0.419.43	8.0 Nm	1,750 N *
	6 St M5, stainless	0.0.439.72	6.5 Nm	1,400 N *
	6 St M4	0.0.419.46	4.0 Nm	1,750 N *
	6 St M3	0.0.459.44	1.5 Nm	500 N
	6 Zn M4	0.0.441.45	1.5 Nm	150 N

	T-Slot Nuts	Order No.	Recommended tightening torque	Permissible operating load
	8 St M8 heavy	0.0.420.83	34.0 Nm	5,000 N *
	8 St M6 heavy	0.0.427.75	14.0 Nm	3,500 N *
	V 8 St M8	0.0.480.48	20,0 Nm	4,000 N *
	V 8 St M6	0.0.480.50	14,0 Nm	3,500 N *
	V 8 St M5	0.0.480.54	8,0 Nm	2,500 N *
	V 8 St M4	0.0.480.57	4,0 Nm	2,500 N *
	8 St M8 8 St M8, stainless	0.0.026.18 0.0.388.49	25.0 Nm 20.0 Nm	5,000 N * 4,000 N *
	8 St M6 8 St M6, stainless	0.0.026.23 0.0.388.51	14.0 Nm 11.0 Nm	3,500 N * 2,800 N *
	8 St M5 8 St M5, stainless	0.0.420.05 0.0.428.55	8.0 Nm 6.5 Nm	2,500 N * 2,000 N *
	8 St M4 8 St M4, stainless	0.0.420.06 0.0.428.54	4.0 Nm 3.2 Nm	2,500 N * 2,000 N *
	8 St/PA M6	0.0.416.17	8.0 Nm	1,000 N
	8 St/PA M5	0.0.416.20	4.5 Nm	1,000 N
	8 St/PA M4	0.0.416.23	2.0 Nm	500 N
	8 St/PA M3	0.0.416.26	1.0 Nm	500 N
	8 Zn M5	0.0.373.44	1.5 Nm	250 N
	8 Zn M4	0.0.373.58	1.5 Nm	250 N
	8 Zn M3	0.0.373.59	1.0 Nm	250 N
	8 PA	0.0.436.52	1.5 Nm	150 N
	12 St M12, heavy	0.0.003.68	100 Nm	10,000 N *
	12 St M10, heavy	0.0.003.67	65 Nm	10,000 N *
	12 St M8, heavy	0.0.003.66	34 Nm	6,000 N *
	12 St M12	0.0.003.65	80 Nm	10,000 N *
	12 St M10	0.0.003.64	46 Nm	10,000 N *
	12 St M8	0.0.003.63	34 Nm	6,000 N *
	12 St M6	0.0.003.72	14 Nm	3,500 N

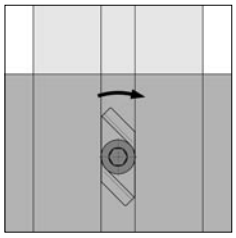
* Maximum load achievable in standard Profile only. Check profile properties if using e.g. Profile Light or Profile E.

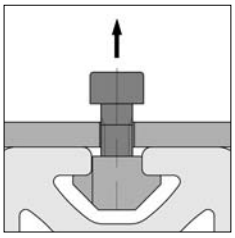
The total load of a screw connection comprises the sum of the pre-tensioning force and the operating load!

The permissible operating load is based on a safety factor of 1.5!

T-Slot Nuts Zn

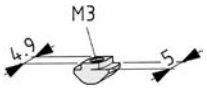
Fastening elements for securing components to the profile groove with particular ease. When locked in the groove, this produces a fixed thread.
The T-Slot Nuts Zn are not suitable for connecting profiles to other profiles.





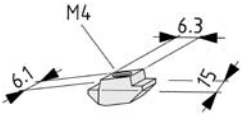
T-Slot Nuts Zn can, if required, be prefitted (with the screw) to the component to be secured and are inserted at any position in the profile groove.

Tightening the screw automatically locks the T-Slot Nut in the groove.
Pulling the screw fixes T-Slot Nuts 6 Zn and 8 Zn in the groove by means of the conical flanks.



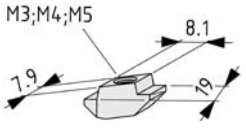
T-Slot Nut 5 Zn M3
Die-cast zinc
m = 1.0 g

bright zinc-plated, 1 pce.	0.0.391.20



T-Slot Nut 6 Zn M4
Die-cast zinc
m = 2.2 g

bright zinc-plated, 1 pce.	0.0.441.45



T-Slot Nut 8 Zn M3
Die-cast zinc
m = 5.0 g

bright zinc-plated, 1 pce.	0.0.373.59

T-Slot Nut 8 Zn M4
Die-cast zinc
m = 5.0 g

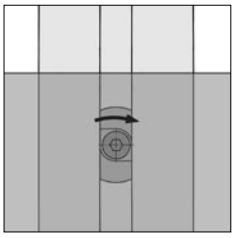
bright zinc-plated, 1 pce.	0.0.373.58

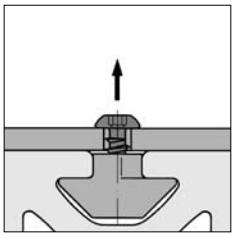
T-Slot Nut 8 Zn M5
Die-cast zinc
m = 5.0 g

bright zinc-plated, 1 pce.	0.0.373.44

T-Slot Nut PA

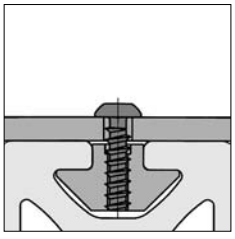
Lightweight T-Slot Nut for securing light parts (e.g. Roller Elements 8 80 or signs) or when low loads are involved.



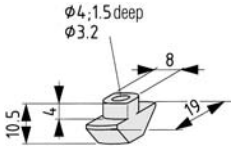


T-Slot Nut PA can, if required, be prefitted (using the screw) to the component to be secured and is inserted at any position in the profile groove.

Tightening the screw automatically locks the T-Slot Nut in the groove.



Fastening of components to T-Slot Nut 8 PA using self-tapping Button-Head Screws T4 (Section 3.2 Screws and Universal Elements).



T-Slot Nut 8 PA
PA-GF
m = 1.0 g

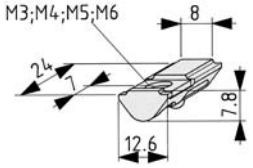
black, 1 pce.	0.0.436.52

T-Slot Nuts St/PA

T-Slot Nut for low strength requirements with steel insert nut. The PA body enables positioning in the groove.

T-Slot Nuts St/PA are not designed for connecting one profile to another.

item Innovation
German patent
and foreign patent
EP 0 641 943



T-Slot Nut 8 St/PA M3
Body PA-GF
Square nut insert St
m = 2.0 g

black, 1 pce.	0.0.416.26

T-Slot Nut 8 St/PA M4
Body PA-GF
Square nut insert St
m = 2.0 g

black, 1 pce.	0.0.416.23

T-Slot Nut 8 St/PA M5
Body PA-GF
Square nut insert St
m = 2.0 g

black, 1 pce.	0.0.416.20

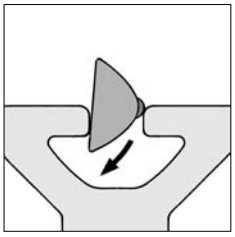
T-Slot Nut 8 St/PA M6
Body PA-GF
Square nut insert St
m = 2.0 g

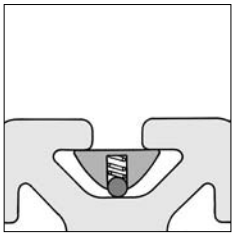
black, 1 pce.	0.0.416.17

T-Slot Nuts St

T-Slot Nuts St for securing heavy components or for use in fastening applications.

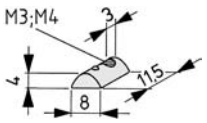
The T-Slot Nuts V 8 St have an additional anti-torsion device that centres the T-Slot Nut in the profile groove. This effectively prevents the T-Slot Nut slipping out of the groove unintentionally.
Note: The M8 version of this V-Nut has a load-bearing capacity approximately 20 % lower than T-Slot Nut 8 St M8 (max. tightening torque of T-Slot Nut V 8 St M8: 20Nm). So it should not be used for profile connections in combination with fastening elements.





T-Slot Nuts St are inserted into the profile groove where they are secured in position by means of thrust fingers.

5 6 8 12

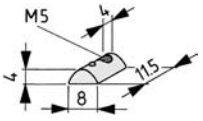


T-Slot Nut 5 St M3
St
m = 2.0 g

bright zinc-plated, 1 pce.	0.0.437.19

T-Slot Nut 5 St M4
St
m = 2.0 g

bright zinc-plated, 1 pce.	0.0.370.06
stainless, 1 pce.	0.0.425.10

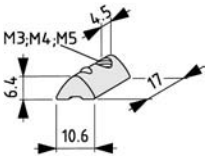


T-Slot Nut 5 St M5
St
m = 2.0 g

bright zinc-plated, 1 pce.	0.0.370.01
stainless, 1 pce.	0.0.425.11

5 6 8 12

New in catalogue



T-Slot Nut 6 St M3
St
m = 4.0 g

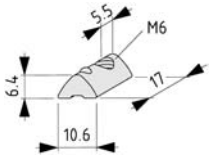
bright zinc-plated, 1 pce.	0.0.459.44

T-Slot Nut 6 St M4
St
m = 4.0 g

bright zinc-plated, 1 pce.	0.0.419.46

T-Slot Nut 6 St M5
St
m = 4.0 g

bright zinc-plated, 1 pce.	0.0.419.43
stainless, 1 pce.	0.0.439.72

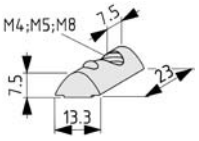


T-Slot Nut 6 St M6
St
m = 4.0 g

bright zinc-plated, 1 pce.	0.0.419.40
stainless, 1 pce.	0.0.439.75

5 6 **8** 12

New in catalogue



T-Slot Nut V 8 St M4
St
m = 11.1 g

bright zinc-plated, 1 pce.	0.0.480.57

New in catalogue

T-Slot Nut V 8 St M5
St
m = 10.6 g

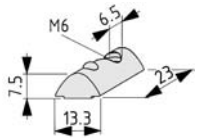
bright zinc-plated, 1 pce.	0.0.480.54

New in catalogue

T-Slot Nut V 8 St M8
St
m = 9.3 g

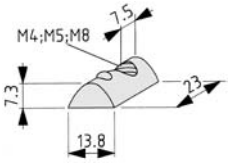
bright zinc-plated, 1 pce.	0.0.480.48

New in catalogue



T-Slot Nut V 8 St M6
St
m = 10.3 g

bright zinc-plated, 1 pce.	0.0.480.50



T-Slot Nut 8 St M4
St
m = 11.0 g

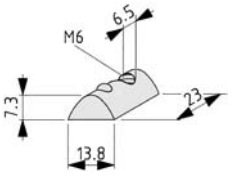
bright zinc-plated, 1 pce.	0.0.420.06
stainless, 1 pce.	0.0.428.54

T-Slot Nut 8 St M5
St
m = 11.0 g

bright zinc-plated, 1 pce.	0.0.420.05
stainless, 1 pce.	0.0.428.55

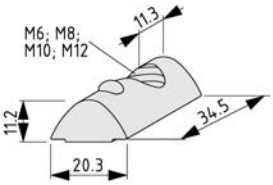
T-Slot Nut 8 St M8
St
m = 10.0 g

bright zinc-plated, 1 pce.	0.0.026.18
stainless, 1 pce.	0.0.388.49



T-Slot Nut 8 St M6
St
m = 10.0 g

bright zinc-plated, 1 pce.	0.0.026.23
stainless, 1 pce.	0.0.388.51



T-Slot Nut 12 St M6
St
m = 38.0 g

bright zinc-plated, 1 pce.	0.0.003.72

T-Slot Nut 12 St M8
St
m = 35.0 g

bright zinc-plated, 1 pce.	0.0.003.63

T-Slot Nut 12 St M10
St
m = 33.0 g

bright zinc-plated, 1 pce.	0.0.003.64

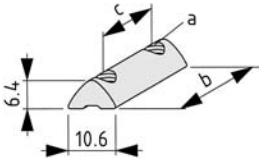
T-Slot Nut 12 St M12
St
m = 31.0 g

bright zinc-plated, 1 pce.	0.0.003.65

T-Slot Nuts St with 2 Threads

T-Slot Nuts St with 2 threads are best used in conjunction with Angle Elements T2 and Universal Fasteners or Automatic Fasteners (Section 1.3 Fasteners) for securing profiles at 45°, but can also be used for all other profile connections.

With a suitable grub screw in a threaded bore, these T-Slot Nuts create a non-slip thread in the profile groove.



T-Slot Nut 6 St 2xM5-28
St
a = M5 b = 28.0 mm
c = 19.0 mm
m = 8.0 g

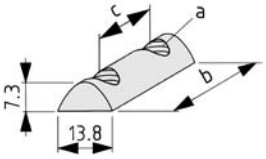
bright zinc-plated, 1 pce.	0.0.459.78

T-Slot Nut 6 St 2xM5-58
St
a = M5 b = 58.0 mm
c = 49.0 mm
m = 17.0 g

bright zinc-plated, 1 pce.	0.0.459.82

T-Slot Nut 6 St 2xM6-28
St
a = M6 b = 28.0 mm
c = 17.0 mm
m = 7.0 g
bright zinc-plated, 1 pce. 0.0.459.80

T-Slot Nut 6 St 2xM6-58
St
a = M6 b = 58.0 mm
c = 47.0 mm
m = 16.0 g
bright zinc-plated, 1 pce. 0.0.459.84



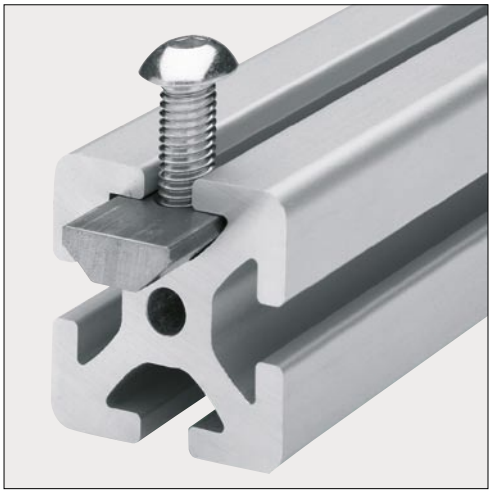
T-Slot Nut 8 St 2xM6-36
St
a = M6 b = 36.0 mm
c = 26.4 mm
m = 16.0 g
bright zinc-plated, 1 pce. 0.0.406.77

T-Slot Nut 8 St 2xM6-76
St
a = M6 b = 76.0 mm
c = 66.4 mm
m = 38.0 g
bright zinc-plated, 1 pce. 0.0.406.78

T-Slot Nut 8 St 2xM8-36
St
a = M8 b = 36.0 mm
c = 24.0 mm
m = 14.0 g
bright zinc-plated, 1 pce. 0.0.404.21

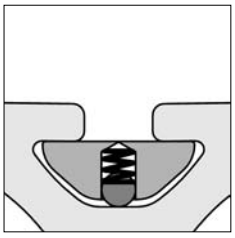
T-Slot Nut 8 St 2xM8-76
St
a = M8 b = 76.0 mm
c = 64.0 mm
m = 36.0 g
bright zinc-plated, 1 pce. 0.0.404.23

T-Slot Nuts St, heavy-duty



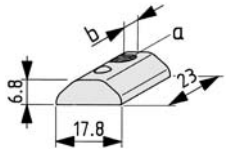
T-Slot Nuts St, heavy-duty, can be used for very heavy-duty fastening applications.

Since their cross-section is adapted to the groove shape, tensile forces are guided into the aluminium profile. They also have more supporting threads than the turn-to-insert T-Slot Nuts and thus allow greater screw tightening torques.



T-Slot Nuts St, heavy-duty are inserted into the profile groove in the end face where they are secured in position by means of a thrust finger.

5 6 **8** 12



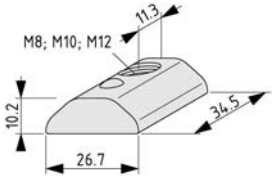
T-Slot Nut 8 St M6, heavy-duty
St
a = M6 b = 6.5 mm
m = 17.0 g

bright zinc-plated, 1 pce.	0.0.427.75

T-Slot Nut 8 St M8, heavy-duty
St
a = M8 b = 7.5 mm
m = 16.0 g

bright zinc-plated, 1 pce.	0.0.420.83

5 6 8 **12**



T-Slot Nut 12 St M8, heavy-duty
St
m = 50.0 g

bright zinc-plated, 1 pce.	0.0.003.66

T-Slot Nut 12 St M10, heavy-duty
St
m = 47.0 g

bright zinc-plated, 1 pce.	0.0.003.67

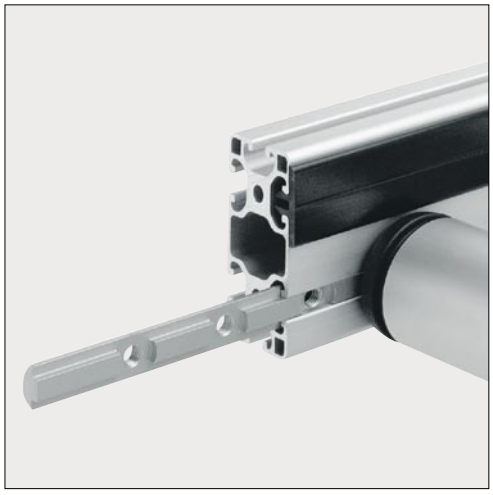
T-Slot Nut 12 St M12, heavy-duty
St
m = 45.0 g

bright zinc-plated, 1 pce.	0.0.003.68

3.1.2 T-Slot Nut Profiles

Fastening elements for easy unit assembly, e.g. valves and limit switches, or heavy-duty units with modular dimensions which can be customised with bores and corresponding threads as required.

Profile Bars and Groove Profiles

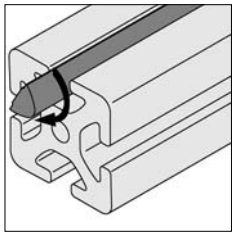


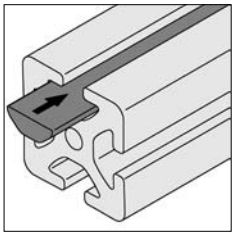
Groove Profiles and Profile Bars for special applications, e.g. assembling complete modules.

Special Groove Profiles with holes and threads for securing conveyor rollers are found in Section 6.4 (Conveyors and Material Flow).

Locating Profile 8 can be used to produce keys of any length for aligning grooves of Line 8 Profiles in parallel. These are used, for example, to facilitate attachment of dynamic elements or to provide a secure fit for power-lock profile connections.

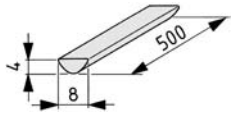
The ability to customise the Profile Bars and Groove Profiles mean that fastening elements can be produced which are geared to the needs of specific applications.





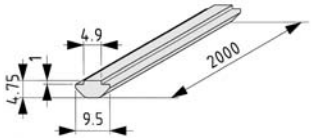
Profile Bars St are swivelled into the profile groove.

Profile Bars St, heavy-duty and Groove Profiles are slid into the profile groove .



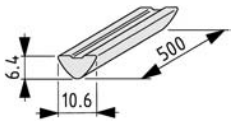
Profile Bar 5 St
St
Threaded bore max. M5
m = 89.0 g

bright zinc-plated, 1 pce., length 500 mm	0.0.370.56
stainless, 1 pce., length 500 mm	0.0.425.18



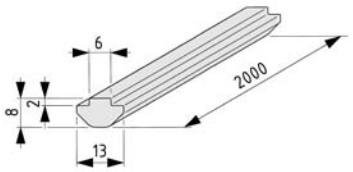
Groove Profile 5 Al
Al, anodized
Threaded bore max. M5
m = 89 g/m

natural, 1 pce., length 2000 mm	0.0.425.82



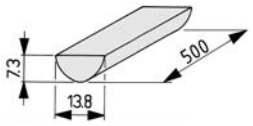
Profile Bar 6 St
St
Threaded bore max. M6
m = 170.0 g

bright zinc-plated, 1 pce., length 500 mm	0.0.431.04
stainless, 1 pce., length 500 mm	0.0.439.03



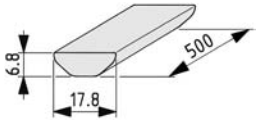
Groove Profile 6 Al
Al, anodized
Threaded bore max. M6
m = 200 g/m

natural, 1 pce., length 2000 mm	0.0.434.29



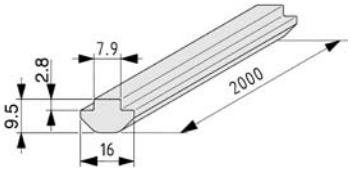
Profile Bar 8 St
St
Threaded bore max. M8
m = 270.0 g

bright zinc-plated, 1 pce., length 500 mm	0.0.026.70
stainless, 1 pce., length 500 mm	0.0.388.48



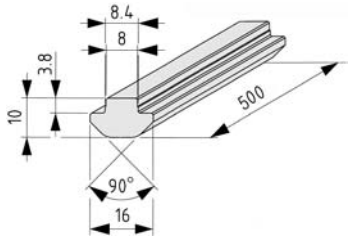
Profile Bar 8 St, heavy-duty
St
Threaded bore max. M8
m = 410.0 g

bright zinc-plated, 1 pce., length 500 mm	0.0.427.23



Groove Profile 8 Al
Al, anodized
Threaded bore max. M8
m = 290 g/m

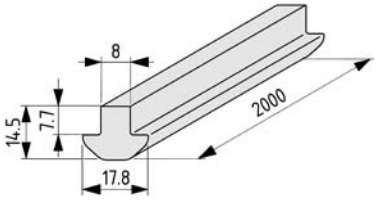
natural, 1 pce., length 2000 mm	0.0.427.39



Groove Profile 8 St
St
Threaded bore max. M8
m = 440.0 g

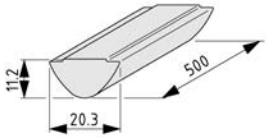
bright zinc-plated, 1 pce., length 500 mm	0.0.444.32

New in catalogue



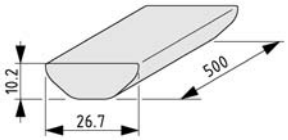
Locating Profile 8 Al
Al, anodized
m = 900.0 g

natural, 1 pce., length 2000 mm	0.0.009.20



Profile Bar 12 St
St
Threaded bore max. M12
m = 600.0 g

bright zinc-plated, 1 pce., length 500 mm	0.0.003.74

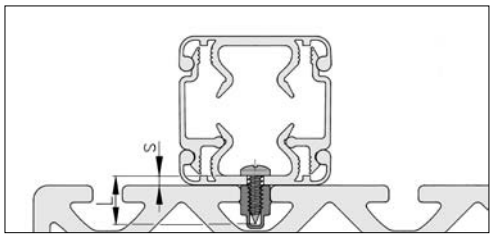


Profile Bar 12 St, heavy-duty
St
Threaded bore max. M12
m = 840.0 g

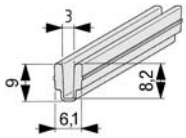
bright zinc-plated, 1 pce., length 500 mm	0.0.003.75

Screw Strips Al

Screw Strips Al are fastening elements which are particularly suitable for retrofitting into existing constructions. The Screw Strips are pressed into the profile groove from above and provide Self-Tapping Screws 4.2 mm with a screw channel along their entire length.

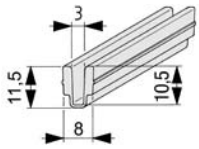


Example of how a cable conduit is secured with Screw Strip 8 Al and Self-Tapping Screws DIN 7981 St 4.2x13. The required screw length L must be selected to match the workpiece thickness s.



Screw Strip 6 Al
Al, anodized
m = 70 g/m

natural, cut-off max. 2000 mm	0.0.439.17



Screw Strip 8 Al
Al, anodized
m = 130 g/m

natural, cut-off max. 2000 mm	0.0.411.44

3.2 Screws and Universal Elements

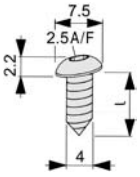
3.2.1 Screws

Button-Head Screws, Self-Tapping Screws, Hexagon Socket Head Cap Screws and Countersunk Screws are available in different diameters and lengths.

Note: The galvanic treatment of the surfaces can result in hydrogen induction in high-strength fastening elements. Despite meticulous thermal post-treatment it is not possible to totally rule out brittle fractures. This should be taken into account in the design phase.

Button-Head Screws T4

Button-Head Screws T4 are thread-cutting screws for screw connections in thremoplastics (for core bores of ∅ 3.2 mm), in particular for T-Slot Nut PA.



Button-Head Screw T4x12
St
l = 12 mm m = 100 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.440.11

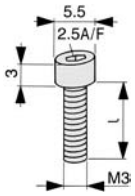
Button-Head Screw T4x14
St
l = 14 mm m = 110 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.440.12

Button-Head Screw T4x16
St
l = 16 mm m = 120 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.440.13

Button-Head Screw T4x18
St
l = 18 mm m = 130 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.440.14

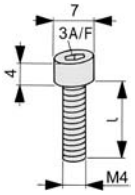
Button-Head Screw T4x25
St
l = 25 mm m = 160 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.440.15

Hexagon Socket Head Cap Screws



Hexagon Socket Head Cap Screw DIN 912 M3x50
St
property class 10.9
l = 50 mm m = 2.9 g
black, 1 pce. 8.0.004.61

Hexagon Socket Head Cap Screw DIN 912 M3x60
St
property class 10.9
l = 60 mm m = 3.3 g
black, 1 pce. 8.0.004.83

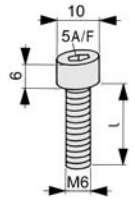


Hexagon Socket Head Cap Screw DIN 912 M4x14
St
property class 10.9
l = 14 mm m = 200 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.370.60

Hexagon Socket Head Cap Screw DIN 912 M4x16
St
property class 10.9
l = 16 mm m = 215 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.406.75

Hexagon Socket Head Cap Screw DIN 912 M4x18
St
property class 10.9
l = 18 mm m = 226 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.370.61

Hexagon Socket Head Cap Screw DIN 912 M4x20
St
property class 10.9
l = 20 mm m = 244 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.370.62



Hexagon Socket Head Cap Screw DIN 912 M6x12
St
property class 10.9
l = 12 mm m = 507 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.007.18

Hexagon Socket Head Cap Screw DIN 912 M6x14
St
property class 10.9
l = 14 mm m = 544 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.007.98

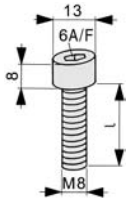
Hexagon Socket Head Cap Screw DIN 912 M6x20
St
property class 10.9
l = 20 mm m = 604 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.004.78

Hexagon Socket Head Cap Screw DIN 912 M6x28
St
property class 10.9
l = 28 mm m = 755 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.411.60

Hexagon Socket Head Cap Screw DIN 912 M6x100
St
property class 10.9
l = 100 mm m = 23.0 g
bright zinc-plated, 1 pce. 8.0.004.70

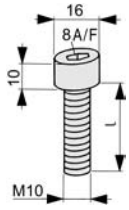
Hexagon Socket Head Cap Screw DIN 912 M6x140
St
property class 10.9
l = 140 mm m = 31.5 g
bright zinc-plated, 1 pce. 8.0.004.74

New
in catalogue



Hexagon Socket Head Cap Screw DIN 912 M8x60
St
property class 10.9
l = 60 mm m = 2900 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.006.37

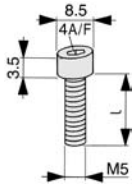
Hexagon Socket Head Cap Screw DIN 912 M8x180
St
property class 10.9
l = 180 mm m = 66.5 g
bright zinc-plated, 1 pce. 8.0.008.88



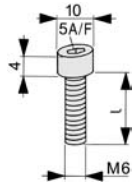
Hexagon Socket Head Cap Screw DIN 912 M10x60
St
property class 10.9
l = 60 mm m = 44.0 g
bright zinc-plated, 1 pce. 8.0.003.98

Hexagon Socket Head Cap Screw DIN 912 M10x100
St
property class 10.9
l = 100 mm m = 68.5 g
bright zinc-plated, 1 pce. 8.0.004.47

Hexagon Socket Head Cap Screw DIN 912 M10x140
St
property class 10.9
l = 140 mm m = 92.5 g
bright zinc-plated, 1 pce. 8.0.004.50

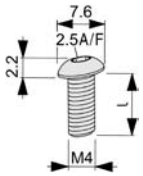


Hexagon Socket Head Cap Screw DIN 6912 M5x8
St
property class 10.9
l = 8 mm m = 260 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.004.89



Hexagon Socket Head Cap Screw DIN 6912 M6x40
St
property class 10.9
l = 40 mm m = 950 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.007.44

Button-Head Screws ISO 7380



Button-Head Screw M4x8
St
property class 10.9
l = 8 mm m = 113 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.001.99

Button-Head Screw M4x10
St
property class 10.9
l = 10 mm m = 131 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.02

Button-Head Screw M4x12
St
property class 10.9
l = 12 mm m = 150 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.05

Button-Head Screw M4x14
St
property class 10.9
l = 14 mm m = 168 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.08

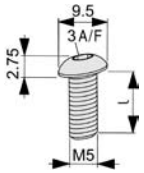
Button-Head Screw M4x16
St
property class 10.9
l = 16 mm m = 187 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.391.33

Button-Head Screw M4x18
St
property class 10.9
l = 18 mm m = 206 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.11

Button-Head Screw M4x20
St
property class 10.9
l = 20 mm m = 224 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.14

Button-Head Screw M4x22
St
property class 10.9
l = 22 mm m = 242 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.17

Button-Head Screw M4x25
St
property class 10.9
l = 25 mm m = 271 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.20



Button-Head Screw M4x30
St
property class 10.9
l = 30 mm m = 317 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.23**

Button-Head Screw M5x8
St
property class 10.9
l = 8 mm m = 185 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.370.63**

Button-Head Screw M5x10
St
property class 10.9
l = 10 mm m = 209 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.196.68**

Button-Head Screw M5x12
St
property class 10.9
l = 12 mm m = 233 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.364.25**

Button-Head Screw M5x14
St
property class 10.9
l = 14 mm m = 260 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.417.29**

Button-Head Screw M5x16
St
property class 10.9
l = 16 mm m = 280 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.196.69**

Button-Head Screw M5x18
St
property class 10.9
l = 18 mm m = 304 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.26**

Button-Head Screw M5x20
St
property class 10.9
l = 20 mm m = 328 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.404.12**

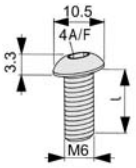
Button-Head Screw M5x25
St
property class 10.9
l = 25 mm m = 388 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.370.67**

Button-Head Screw M5x30
St
property class 10.9
l = 30 mm m = 448 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.32**

Button-Head Screw M5x35
St
property class 10.9
l = 35 mm m = 508 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.35**

Button-Head Screw M5x40
St
property class 10.9
l = 40 mm m = 560 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.391.27**

Button-Head Screw M5x45
St
property class 10.9
l = 45 mm m = 628 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.005.25**



Button-Head Screw M6x10
St
property class 10.9
l = 10 mm m = 286 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.38**

Button-Head Screw M6x12
St
property class 10.9
l = 12 mm m = 320 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.41**

Button-Head Screw M6x14
St
property class 10.9
l = 14 mm m = 360 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.417.28**

Button-Head Screw M6x16
St
property class 10.9
l = 16 mm m = 388 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.43**

Button-Head Screw M6x18
St
property class 10.9
l = 18 mm m = 422 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.46**

Button-Head Screw M6x20
St
property class 10.9
l = 20 mm m = 456 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.196.70**

Button-Head Screw M6x22
St
property class 10.9
l = 22 mm m = 490 g/100
bright zinc-plated, 1 PU = 100 pce. **8.0.002.49**

Button-Head Screw M6x22
St
property class 10.9
l = 22 mm m = 490 g/100
stainless, 1 PU = 100 pce. **8.0.005.57**

Button-Head Screw M6x25
St
property class 10.9
l = 25 mm m = 541 g/100
bright zinc-plated, 1 PU = 100 pce. **0.0.196.71**

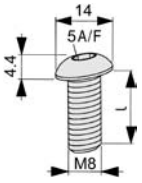
Button-Head Screw M6x30
St
property class 10.9
l = 30 mm m = 627 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.364.26

Button-Head Screw M6x35
St
property class 10.9
l = 35 mm m = 712 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.364.27

Button-Head Screw M6x40
St
property class 10.9
l = 40 mm m = 799 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.51

Button-Head Screw M6x45
St
property class 10.9
l = 45 mm m = 883 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.54

Button-Head Screw M6x50
St
property class 10.9
l = 50 mm m = 960 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.57



Button-Head Screw M8x10
St
property class 10.9
l = 10 mm m = 440 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.364.28

Button-Head Screw M8x12
St
property class 10.9
l = 12 mm m = 516 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.002.60

Button-Head Screw M8x14
St
property class 10.9
l = 14 mm m = 610 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.364.29

Button-Head Screw M8x16
St
property class 10.9
l = 16 mm m = 720 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.364.30

Button-Head Screw M8x18
St
property class 10.9
l = 18 mm m = 744 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.196.72

Button-Head Screw M8x20
St
property class 10.9
l = 20 mm m = 860 g/100
bright zinc-plated, 1 PU = 100 pce. 0.0.196.73

Button-Head Screw M8x20
St
property class 10.9
l = 20 mm m = 860 g/100

stainless, 1 PU = 100 pce.	0.0.388.95

Button-Head Screw M8x25
St
property class 10.9
l = 25 mm m = 1010 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.196.74

Button-Head Screw M8x30
St
property class 10.9
l = 30 mm m = 1200 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.196.75

Button-Head Screw M8x35
St
property class 10.9
l = 35 mm m = 1390 g/100

bright zinc-plated, 1 PU = 100 pce.	8.0.002.66

Button-Head Screw M8x40
St
property class 10.9
l = 40 mm m = 1580 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.196.76

Button-Head Screw M8x45
St
property class 10.9
l = 45 mm m = 1790 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.364.31

Button-Head Screw M8x50
St
property class 10.9
l = 50 mm m = 1960 g/100

bright zinc-plated, 1 PU = 100 pce.	8.0.002.69

Button-Head Screw M8x55
St
property class 10.9
l = 55 mm m = 2150 g/100

bright zinc-plated, 1 PU = 100 pce.	8.0.002.72

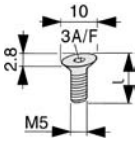
Button-Head Screw M8x60
St
property class 10.9
l = 60 mm m = 2350 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.196.77

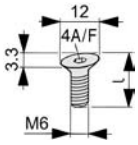
Button-Head Screw M8x80
St
property class 10.9
l = 80 mm m = 2775 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.196.78

Countersunk Screws DIN 7991

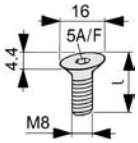


Countersunk Screw DIN 7991 M5x10
St
property class 10.9
l = 10 mm m = 180 g/100
black, 1 PU = 100 pce. 8.0.005.64



Countersunk Screw DIN 7991 M6x10
St
property class 10.9
l = 10 mm m = 270 g/100
black, 1 PU = 100 pce. 8.0.008.33

Countersunk Screw DIN 7991 M6x14
St
property class 10.9
l = 14 mm m = 329 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.005.22



Countersunk Screw DIN 7991 M8x14
St
property class 10.9
l = 14 mm m = 715 g/100
black, 1 PU = 100 pce. 0.0.480.14

Countersunk Screw DIN 7991 M8x16
St
property class 10.9
l = 16 mm m = 745 g/100
bright zinc-plated, 1 PU = 100 pce. 8.0.006.16

Countersunk Screw DIN 7991 M8x18
St
property class 10.9
l = 18 mm m = 775 g/100
black, 1 PU = 100 pce. 8.0.006.18

3.2.2 Special Fastening Elements

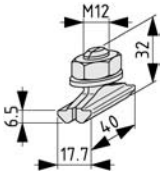
Components for fastening parts to the profile groove.

Fastener 8 M12

item Innovation
German patent
and foreign patents
EP 1 167 782

Two-part Fastener for heavy-duty securing of parts to the Profile 8 groove.
The two halves of the Fastener are fitted into the groove at any point where they are then slid together. The integrated spring ball holds the Fastener in place and facilitates screw attachment.

The tightening torque for the nut of Fastener 8 M12 is M = 80 Nm.

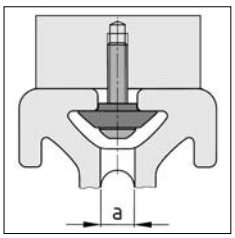


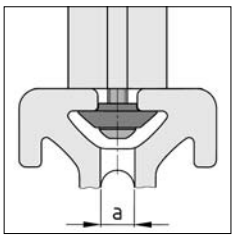
Fastener 8 M12
1 fastener half, cast steel, stainless
1 fastener half with spring ball, cast steel, stainless
1 nut DIN 934-M12, St, bright zinc-plated
1 washer DIN 125-12, St, bright zinc-plated
m = 70.0 g

1 set	0.0.473.02

Locating Washers

Locating Washers for optimising the application of screw forces when using screws in profile grooves which are wider than the screw's nominal diameter (suitable for Button-Head Screws DIN ISO 7380). The screw can be tightened through a mounting bore (similar to Standard Profile Connection).

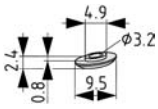




Locating Washers can be used to conceal the component securing mechanism (screw head in profile groove, thread in component).

In addition, the Locating Washers allow Standard Connections (without anti-torsion element) between profiles of different Lines or they may be used simply to center attachments.

5 6 8 12



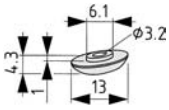
Locating Washer 5 D3
St
$a_{min.}$ = Ø 3 mm
m = 66 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.464.88

Locating Washer 5 D4
St
$a_{min.}$ = Ø 3.5 mm
m = 63 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.464.89

5 6 8 12



Locating Washer 6 D3
St
$a_{min.}$ = Ø 3 mm
m = 236 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.478.28

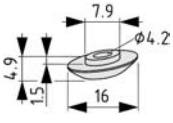
Locating Washer 6 D4
St
$a_{min.}$ = Ø 3.5 mm
m = 232 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.478.29

Locating Washer 6 D5
St
$a_{min.}$ = Ø 4 mm
m = 240 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.478.30

5 6 8 12



Locating Washer 8 D4
St
$a_{min.}$ = Ø 3.5 mm
m = 374 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.482.10

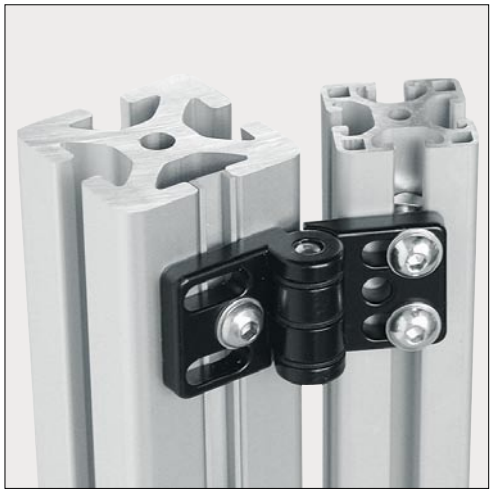
Locating Washer 8 D5
St
$a_{min.}$ = Ø 4 mm
m = 384 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.482.11

Locating Washer 8 D6
St
$a_{min.}$ = Ø 5 mm
m = 380 g/100

bright zinc-plated, 1 PU = 10 pce.	0.0.482.12

Adapter Profile 12/8

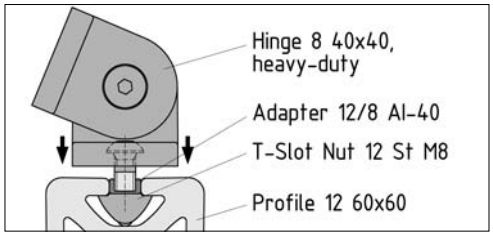


Adapter Profile with and without drilled holes for fastening various attachments from Line 8 onto Profile 12 grooves.

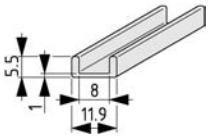
Hinges, heavy-duty hinges, multiblocks and many other elements are equipped with anti-torsion elements and centring aids that are oriented to the Profile 8 groove. These can also be attached to Line 12 profiles using Adapters 12/8 without losing the centring effect.

Adapters 12/8 already have through holes in the modular dimensions of Line 8. Further machining is not required.

Application example:
Connecting a Hinge 8 40x40, heavy duty with Profile 12 using Adapter 12/8 Al-40. The anti-torsion elements of the heavy duty Hinge in the groove remain effective.

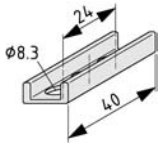


5 6 8 **12**



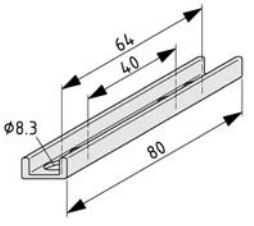
Adapter Profile 12/8 Al
Al, anodized
m = 75 g/m

natural, 1 pce., length 2000 mm	0.0.003.24



Adapter 12/8 Al-40
Al, anodized
m = 3.0 g

natural, 1 pce.	0.0.003.92



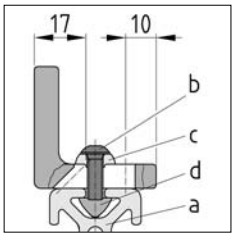
Adapter 12/8 Al-80
Al, anodized
m = 6.0 g

natural, 1 pce.	0.0.003.93

Angle Bracket Zn

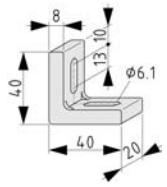
Brackets Zn are very versatile and can be used for securing various components in variable positions on MB Building Kit System profiles and panel elements.

The slots can be used to adjust the position and angle of the Bracket over a broad range and have been designed for screws up to size M6. Locating Washers 6 D5 or 6 D4 are recommended for smaller screws



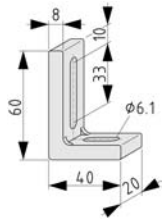
Profil a	5	6	8	12
Screw b ISO 7380	M5x16	M5x20	M6x20	M6x25
c	Locating Washer 6 D5		Washer DIN 9021-6.4	
T-Slot Nut d	5 St M5	6 St M5	8 St M6	12 St M6

5 6 8 12



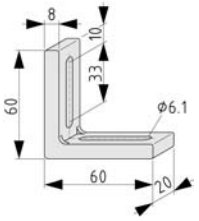
Bracket 40x40x20 Zn
Die-cast zinc
m = 63.0 g

black, 1 pce.	0.0.474.60



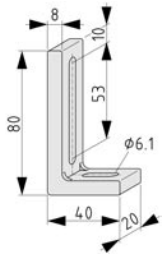
Bracket 60x40x20 Zn
Die-cast zinc
m = 77.0 g

black, 1 pce.	0.0.474.61



Bracket 60x60x20 Zn
Die-cast zinc
m = 92.0 g

black, 1 pce.	0.0.474.62



Bracket 80x40x20 Zn
Die-cast zinc
m = 92.0 g

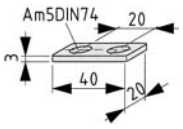
black, 1 pce.	0.0.474.63

Bracket flat and Angle Bracket right-angled

Fastening elements suitable for connecting and attaching cable conduits, Support and Wall Profiles, panel elements or any other components.
When connecting Bracket flat and Angle Bracket right-angled to components without profile grooves, these must be provided with appropriate through bores or threads.

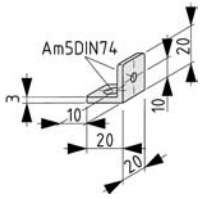
Angle Bracket 8 40 right-angled is used to support a table top on a profile structure.

5 6 8 12



Bracket 5 20 flat
St
m = 25.0 g

black, 1 pce.	0.0.464.23



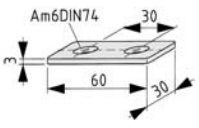
Angle Bracket 5 20 right-angled
St
m = 24.0 g

black, 1 pce.	0.0.464.22

Fastening Set 5 for Bracket / Angle Bracket 5 20 / profile side for Hinge 5 PA
1 Countersunk Screw DIN 7991-M5x8, St, black
1 T-Slot Nut 5 St M5, bright zinc-plated
m = 2.5 g

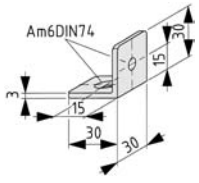
1 set	0.0.370.70

5 6 8 12



Bracket 6 30 flat
St
m = 38.0 g

black, 1 pce.	0.0.459.11

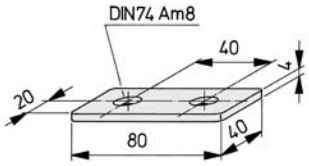


Angle Bracket 6 30 right-angled
St
m = 37.0 g

black, 1 pce.	0.0.459.12

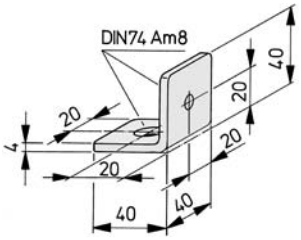
Fastening Set 6 for Bracket / Angle Bracket 6 30
1 Countersunk Screw DIN 7991-M6x10, St, black
1 T-Slot Nut 6 St M6, bright zinc-plated
m = 7.0 g

black, 1 set	0.0.459.26



Bracket 8 40 flat
St
m = 90.0 g

black, 1 pce.	0.0.196.86



Angle Bracket 8 40 right-angled
St
m = 85.0 g

black, 1 pce.	0.0.196.87

Fastening Set 8 for Bracket 8 40 / Angle Bracket 8 40
1 Countersunk Screw DIN 7991-M8x14, St, black
1 T-Slot Nut 8 St M8, bright zinc-plated
m = 16.0 g

1 set	0.0.350.17

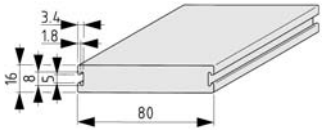
Adapter Plate System

Universal mounting plates are made by cutting Adapter Plate to length. The plates may then be machined to suit any component being attached. The plates can be secured by bolts and T-Slot Nuts or by laterally located clamping elements which allow subsequent adjustment.

Highly stressed units can also be pinned in position.

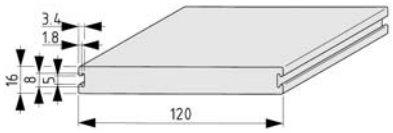
Adapter Plate Profiles

For producing adapter plates and mounting plates of any length.



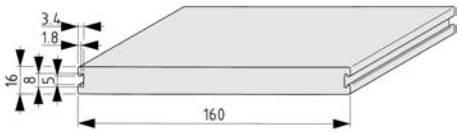
Adapter Plate Profile 80x16 N5
Al, anodized
A = 12.36 cm²
m = 3.34 kg/m

natural, 1 pce., length 2000 mm	0.0.444.06



Adapter Plate Profile 120x16 N5
Al, anodized
A = 18.76 cm²
m = 5.07 kg/m

natural, 1 pce., length 2000 mm	0.0.444.07



Adapter Plate Profile 160x16 N5
Al, anodized
A = 25.16 cm²
m = 6.79 kg/m

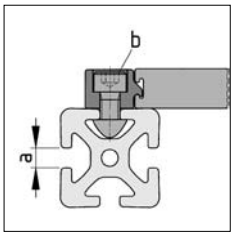
natural, 1 pce., length 2000 mm	0.0.444.08

Adapter Plate Clamps

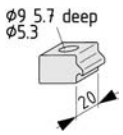
The Adapter Plate Clamps can be used for fastening sections of the Adapter Plate Profile without any need for machining.

By making the attachment in the lateral groove of the Adapter Plate and the groove of the profile construction, the plate can be moved and aligned freely relative to the profile construction. This ensures that the attached machine elements can be adapted and adjusted with ease.

The Adapter Plate Clamps should always be used in pairs opposing each other.

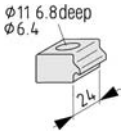


a	b Hexagon Socket Head Cap Screw	Torque M
5	DIN 912 M5x14	4.5 Nm
6	DIN 912 M6x16	10.0 Nm
8	DIN 912 M8x16	25.0 Nm



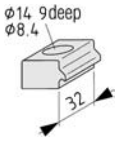
Adapter Plate Clamp 5 N5
Al, anodized
m = 15.0 g

natural, 1 pce.	0.0.444.03



Adapter Plate Clamp 6 N5
Al, anodized
m = 17.0 g

natural, 1 pce.	0.0.444.04

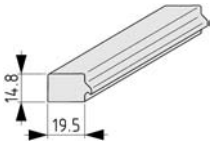


Adapter Plate Clamp 8 N5
Al, anodized
m = 22.0 g

natural, 1 pce.	0.0.444.05

Adapter Plate Clamping Profile N5

The Adapter Plate Clamping Profile is used to construct clamps of any length for Adapter Plates 8 or any sections of the Adapter Plate Profiles.



Adapter Plate Clamping Profile N5
Al, anodized
A = 3.03 cm²
m = 0.82 kg/m

natural, 1 pce., length 2000 mm	0.0.444.09

Fastening Elements for Constructing Enclosures and Guards

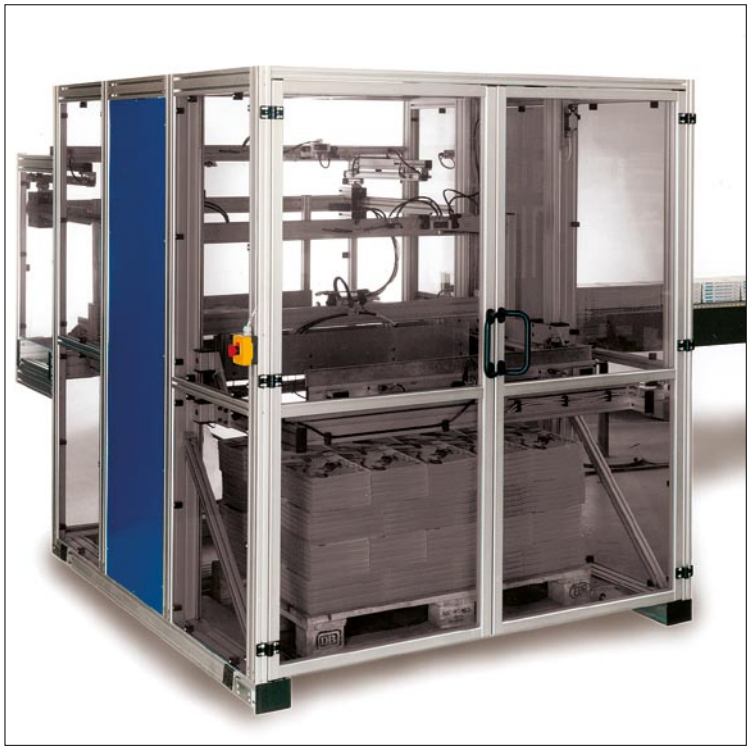
The fastening elements of the MB Building Kit System have to satisfy particularly high requirements for the construction of enclosures and guards. The large variety of special components guarantees a suitable fastening method whatever the application:
> It is possible to secure many different types of panel.
> Doors and gates secure the entry to protected areas.

Factory environments require enclosures and guards for machines and production areas, but office and sales areas also need room dividing and partition elements. In all cases, these can be produced using the fastening elements of the MB Building Kit System.

Panel Fasteners

There are numerous applications using the MB Building Kit System where the securing of panel elements to a profile construction is required:
> Construction of enclosures and guard units
> Panelling of casings
> Shelves, working surfaces, steps
> Swing, sliding and lifting doors

The diverse range of functions where rigid and movable panels are used is made possible by panel fastening elements.



3.3 Rigid Fastening Elements

In conjunction with standard profiles, panel elements can either be mounted in the profile groove or they can be attached offset from the groove with the aid of appropriate components, e.g. Double Panel Profiles or Multiblocks. For example the profiles can form a self-contained frame for the panel element as in the case of machine doors, or the panels can be fitted directly into the basic frame.

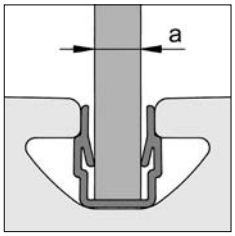
Rigid panels can be formed using profiles or special clamping profiles.

3.3.1 Fastenings for Panels in the Groove

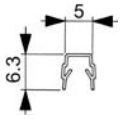
Panel elements are secured in the profile groove using Cover Profile or the Lip Seal.

Cover Profiles PP

Cover Profile can be used as a cover for the profile groove or as a panel-fixing profile for panel elements.



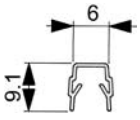
5 6 8 12



Cover Profile 5
PP/TPE
a = 1.5 - 2.0 mm
m = 13.5 g/m

natural, 1 PU = 10 pce., length 2000 mm	0.0.370.79
black, 1 PU = 10 pce., length 2000 mm	0.0.370.80

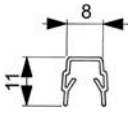
5 6 8 12



Cover Profile 6
PP/TPE
a = 2.0 - 3.5 mm
m = 20.4 g/m

natural, 1 PU = 10 pce., length 2000 mm	0.0.431.03
black, 1 PU = 10 pce., length 2000 mm	0.0.431.02

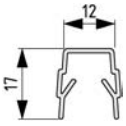
5 6 8 12



Cover Profile 8
PP/TPE
a = 4.0 - 5.5 mm
m = 26 g/m

natural, 1 PU = 10 pce., length 2000 mm	0.0.422.24
black, 1 PU = 10 pce., length 2000 mm	0.0.422.27
green, similar to RAL 6016, 1 PU = 10 pce., length 2000	0.0.489.69
red, similar to RAL 3003, 1 PU = 10 pce., length 2000 mm	0.0.489.75
yellow, similar to RAL 1018, 1 PU = 10 pce., length 2000	0.0.489.66
blue, similar to RAL 5010, 1 PU = 10 pce., length 2000 mm	0.0.489.63
grey, similar to RAL 7042, 1 PU = 10 pce., length 2000 mm	0.0.489.72

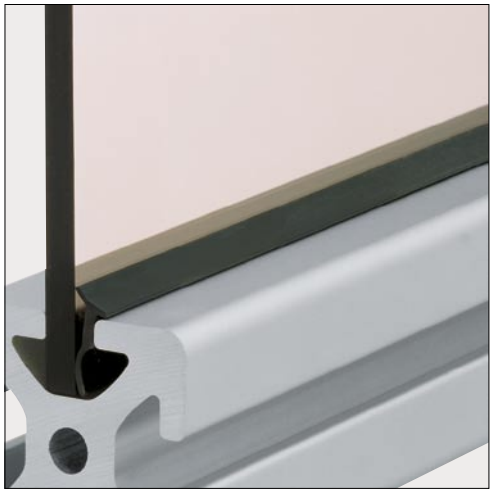
New in catalogue



Cover Profile 12
PP/TPE
a = 6.0 - 9.5 mm
m = 58 g/m

natural, 1 PU = 10 pce., length 2000 mm	0.0.005.16
black, 1 PU = 10 pce., length 2000 mm	0.0.005.30

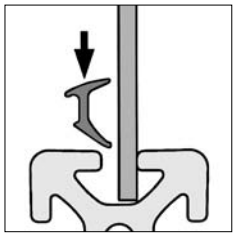
Lip Seals

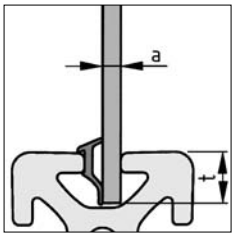


For fastening and sealing panel elements of differing thickness which are inserted into profile grooves 5, 6, 8 and 12.

The version in grey blends in well with the natural anodized surface of the profile.

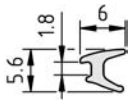
The elastic material is resistant to cleaning agents and mineral oil.





The Lip Seals are best wetted with soapy water prior to assembly to ensure they are fitted easily and correctly. Careful pressure must be applied to lock them into the profile groove.

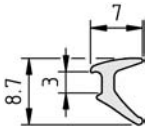
The Assembly Tool (Section 9.2 Jigs and Tools) facilitates the process of pressing the Lip Seal into the profile groove in the right orientation.



Lip Seal 5 2-3mm
TPE
a = 2 - 3 mm
t = 5.3 mm
m = 13 g/m

black, 1 roll length 20 m	0.0.437.12
grey, similar to RAL 7040, 1 roll length 20 m	0.0.484.39

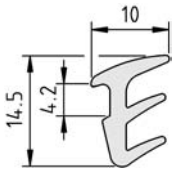
New in catalogue



Lip Seal 6 2-4mm
TPE
a = 2 - 4 mm
t = 8.7 mm
m = 20 g/m

black, 1 roll length 20 m	0.0.439.20
grey, similar to RAL 7040, 1 roll length 20 m	0.0.491.08

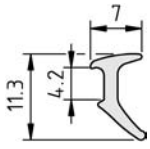
New in catalogue



Lip Seal 8 2-4mm
TPE
a = 2 - 4 mm
t = 11.2 mm
m = 52 g/m

black, 1 roll length 20 m	0.0.436.85
grey, similar to RAL 7040, 1 roll length 20 m	0.0.489.91

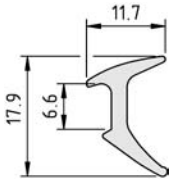
New in catalogue



Lip Seal 8 4-6mm
TPE
a = 4 - 6 mm
t = 11.2 mm
m = 26 g/m

black, 1 roll length 20 m	0.0.436.88
grey, similar to RAL 7040, 1 roll length 20 m	0.0.489.94

New in catalogue



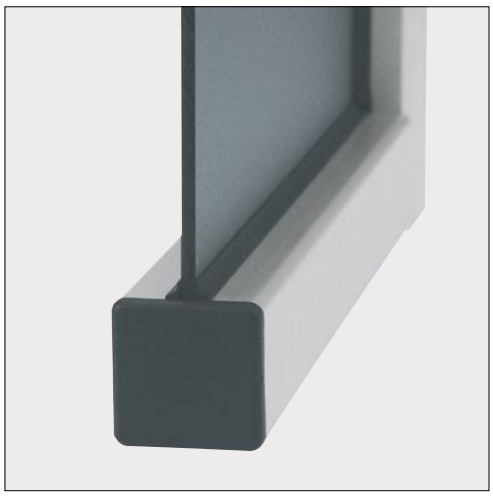
Lip Seal 12 6-8mm
TPE
a = 6 - 8 mm
t = 17.3 mm
m = 58 g/m

black, 1 roll length 20 m	0.0.005.33
grey, similar to RAL 7040, 1 roll length 20 m	0.0.005.37

New in catalogue

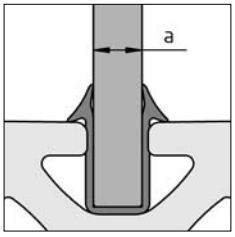
Double-Lip Seal 8 4-6mm

New in catalogue

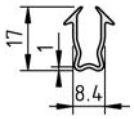


Double-Lip Seal 8 is used for fitting panel elements directly into grooves of Profiles 8. It provides a sealing function and prevents direct contact with the aluminium profile. Double-Lip Seal 8 completely encloses panel elements of thickness 4 to 6 mm in the profile groove.

Double-Lip Seal 8 4-6mm is ideal for all types of panel elements – including those made of plastic or safety glass.



Double-Lip Seal 8 is best installed using soapy water. It is then slipped onto the panel element and pushed into the profile groove. The profile frame is closed around the panel element.



Double-Lip Seal 8 4-6mm
TPE
a = 4.0 - 6.0 mm
m = 50 g/m

black, 1 roll length 20 m	0.0.495.08

3.3.2 Fastenings for Panels on the Groove

Subsequent fastening of panel elements onto the profile groove of an existing frame is made possible by means of Multiblocks, Clamp Multiblocks, Screw Strips and Panel Clamps etc.

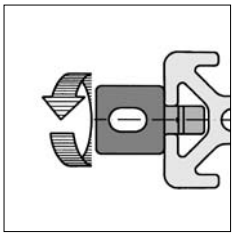
Multiblocks

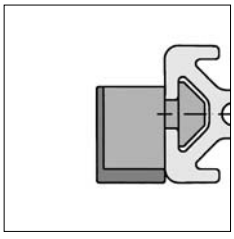
The Multiblocks can be used to provide a secure method of fastening any panel elements to the groove:
> Rapid and secure assembly or disassembly at a later stage
> Fastening at any position on the profile groove and the panel element
> Suitable for various loads
> Option of screwless or screw-type fastener
> Can be adapted for use with different panel element thicknesses

Multiblocks PA

Multiblock PA is inserted into the profile groove at any position. Light cladding panels and panel elements made from Acrylic Glass, Plastic or Compound Material must be provided with a bore at the appropriate location and screwed to the Multiblock.

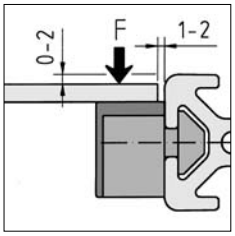
Multiblock PA has two mounting locations plus a height adjuster which combine to give four offset positions from the edge of the profile. This allows different distances to be set to the edge of the profile so that panel elements of varying thicknesses can be screwed on flush.
The panels are secured by screw connection with the square nut inserted in the Multiblock. This nut can be moved within a slot, a fact that allows a considerable degree of tolerance for the position of the bores in the panel element.





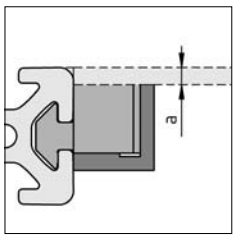
Twisting the Multiblock PA into the profile groove.
The Multiblocks can be moved within the groove in order to align them with the bore in the panel element.

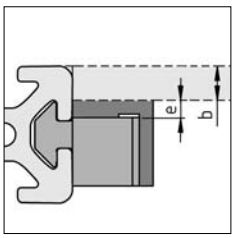
The contact face can be varied through two different mounting locations and movable height adjuster.

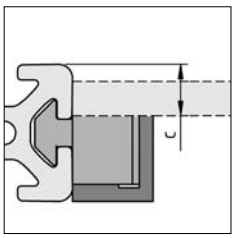


	F
5 PA	100 N
6 PA	150 N
8 PA	250 N

Recommendation for mounting the panel element and permissible loading forces for Multiblocks PA.

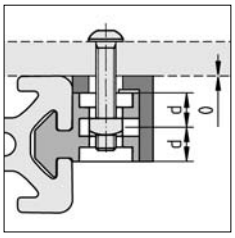






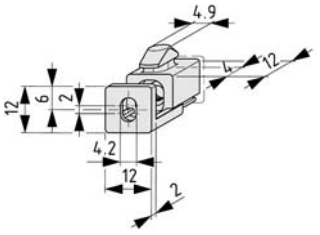
	5	6	8
a [mm]	2	3	5
b [mm]	4	6	10
c [mm]	6	9	15
d [mm]	8	9	10
e [mm]	2	3	5

Possible offset distances between the mounting locations and the edge of the profile.



The length of the fastening screw depends on the thickness of the panel element and use of the height adjuster.

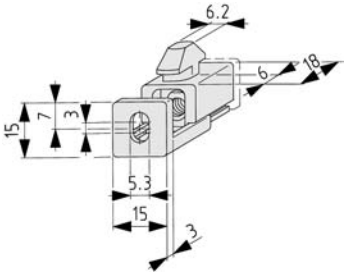
5 6 8 12



Multiblock 5 PA
Basic unit and height adjuster, PA-GF, black
Square nut DIN 562-M4, St, bright zinc-plated
m = 2.0 g

1 pce.	0.0.370.71

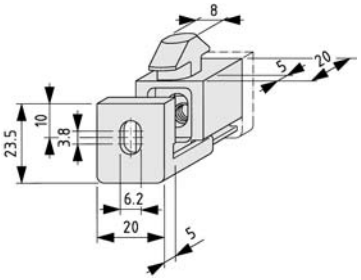
5 6 8 12



Multiblock 6 PA
Basic unit and height adjuster, PA-GF, black
Square nut DIN 557-M5, St, bright zinc-plated
m = 6.0 g

1 pce.	0.0.419.58

5 6 8 12

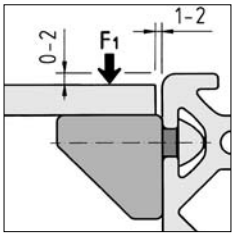


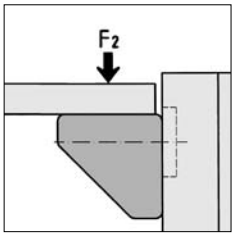
Multiblock 8 PA
Basic unit and height adjuster, PA-GF, black
Square nut DIN 557-M6, St, bright zinc-plated
Leaf spring, St, bright zinc-plated
m = 14.0 g

1 pce.	0.0.026.72

Multiblocks Zn

For fixing panel elements to profile grooves, particularly where heavy loads are involved.
Multiblock Zn is screwed to the profile groove with a screw and T-Slot Nut. The anti-torsion pin, which is adjustable in millimetre increments, ensures flush attachment for panels of different thicknesses. The panel elements must be drilled in the appropriate position to line up with either the through bore or the square nut (which is secured against falling out by a leaf spring) incorporated in the Multiblock.

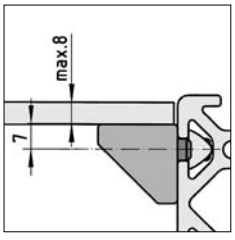


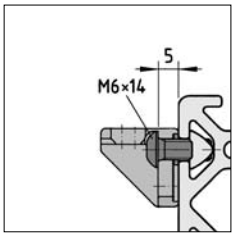


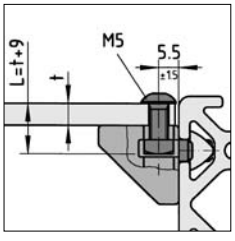
	F_1	F_2
6	1,000 N	500 N
8	2,000 N	1,000 N

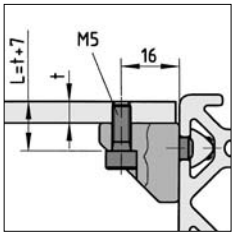
Recommended mounting arrangement and load data across and along the groove.

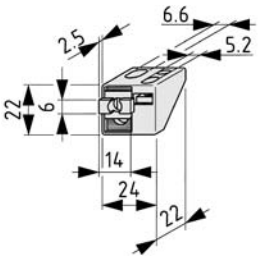
Multiblock 6 Zn







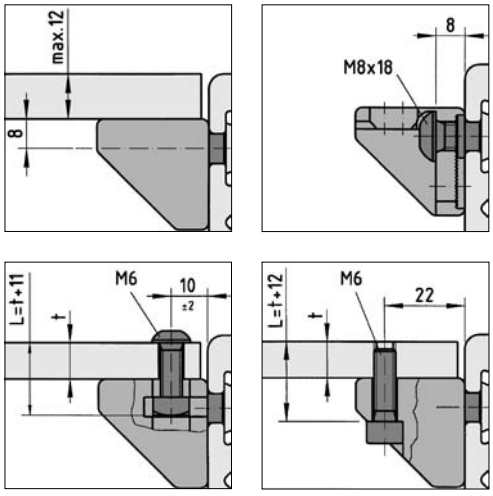


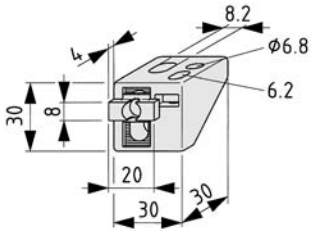


Multiblock 6 Zn
Basic unit and locating lug, die-cast zinc, black
Square nut DIN 557-M5, St, bright zinc-plated
Leaf spring, St, stainless
m = 44.0 g

1 pce. 0.0.439.85

Multiblock 8 Zn





Multiblock 8 Zn
Basic unit and locating lug, die-cast zinc, black
Square nut DIN 557-M6, St, bright zinc-plated
Leaf spring, St, stainless
m = 66.0 g

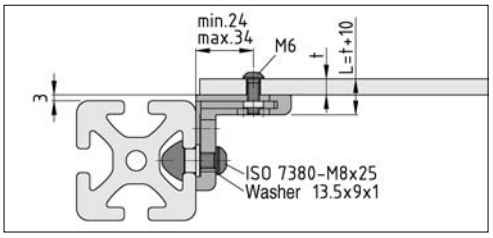
1 pce. 0.0.373.23

Multi Bracket 12 Zn

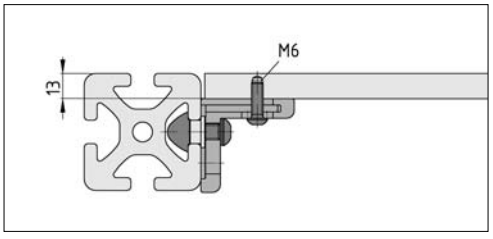
New in catalogue

Universal element for fastening panels to Line 12 profiles. Since the location lug can be adjusted in varius positions within the bracket across the profile groove, panels can be positioned virtually flush with the outer face of the profile irrespective of their thickness.

Multi Bracket 12 can be moved along the profile groove so that they can be easily aligned with the hole in the panel element.

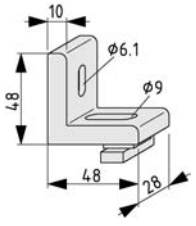


The panel element with through hole is secured by means of an M6 bolt fitted into the square nut of Multi Bracket 12 Zn.



If the panel element is of sufficient thickness, Multi Bracket 12 can also be secured internally so that the fastening is not visible and cannot be detached.

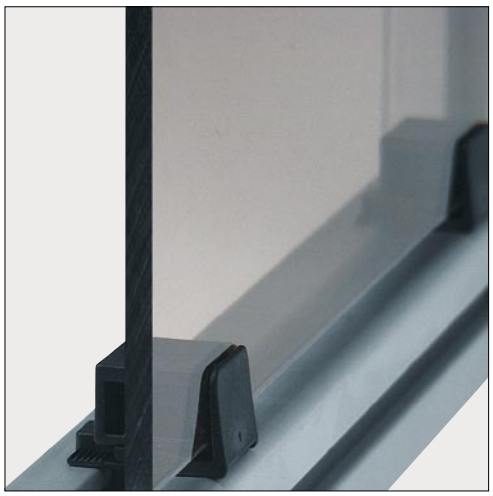
5 6 8 **12**



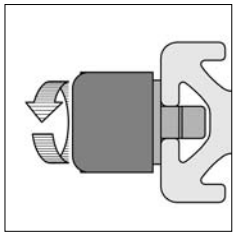
Multi Bracket 12 Zn
Bracket, die-cast zinc, RAL9006 white aluminium
Locating lug, die-cast zinc, RAL9006 white aluminium
Square nut DIN 562-M6, St, bright zinc-plated
Retaining plate, St
m = 120.0 g

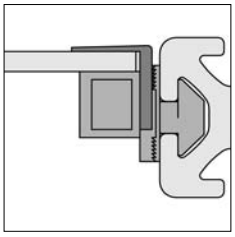
1 set	0.0.007.18

Clamp Multiblocks PA



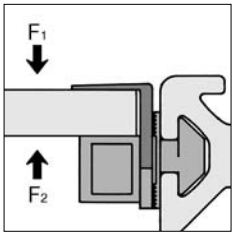
Clamp Multiblocks secure panel elements in profile frames without need for further machining.
Clamp Multiblock PA is inserted into the profile groove; a locating lug secures lightweight panel elements of different thicknesses, such as cladding panels, panel elements made from Acrylic Glass, etc.





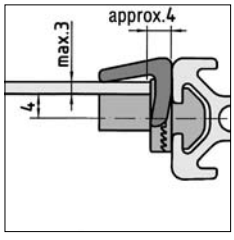
The basic unit is twisted into the groove, the panel element fitted and clamped in position by means of the locating lug.

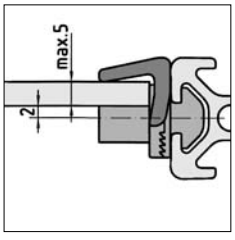
The locating lug can be detached again by means of a screwdriver.



Clamp Multiblock	F_1	F_2
5	100 N	20 N
6	150 N	30 N
8	250 N	50 N

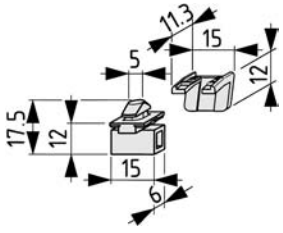
Clamp Multiblock 5 PA





Mounting dimensions can be varied through repositioning the contact faces.

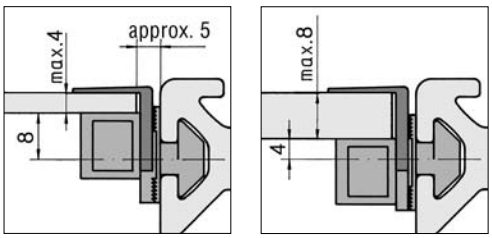
5 6 8 12



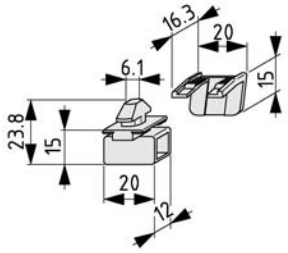
Clamp-Multiblock 5 PA
PA-GF
Basic unit and locating lug
m = 2.0 g

black, 1 pce.	0.0.437.24

Clamp Multi-block 6 PA



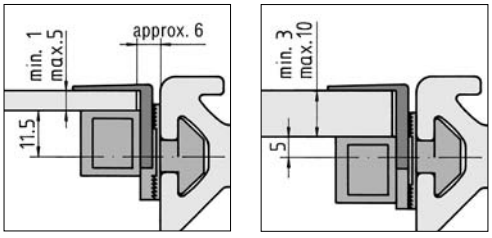
Mounting dimensions can be varied through repositioning the contact faces.



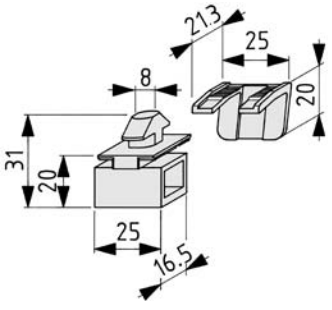
Clamp-Multiblock 6 PA
PA-GF
Basic unit and locating lug
m = 4.0 g

black, 1 pce.	0.0.439.66

Clamp Multi-block 8 PA



Mounting dimensions can be varied through repositioning the contact faces.



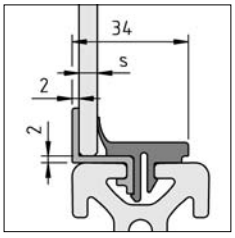
Clamp-Multiblock 8 PA
PA-GF
Basic unit and locating lug
m = 10.0 g

black, 1 pce.	0.0.196.63

Panel-Clamping Strips

New in catalogue

Panel-Clamping Strips 8 are ideal for retrofitting panel elements (preferably made of Acrylic Glass, PET-G or Polycarbonate) into a closed profile frame. Apart from straight saw cuts, no further machining of the panel element or Panel-Clamping Strips is required if the profile frame is connected with Central-Fastening Sets 8.

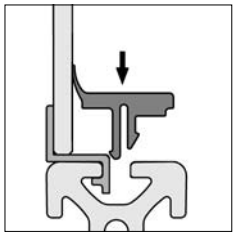


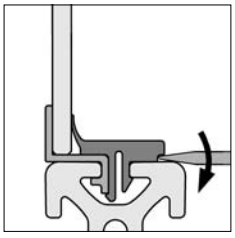
Panel-Clamping Strips 8 consist of two components. The first of these, a aluminium strip, fits into the profile groove and holds the panel element in place. A second strip, of flexible plastic, is then used to secure the panel element and the aluminium strip in the groove. If necessary, the plastic strip can be levered out in order to remove the panel element from the frame.

The Panel-Clamping Strips secure the panel element so that there is an offset of 2 mm to the outer edge of the profile. This produces a smooth outer wall for protective enclosures and helps reduce turbulence caused by air flows.

The choice of Panel-Clamping Strip depends on the thickness of the panel element (s):

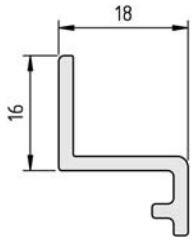
s = 2 - 4 / 4 - 6 / 6 - 8 mm





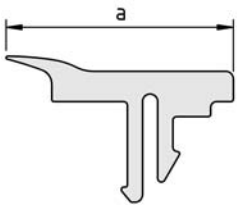
A screwdriver is used to lever out the Panel-Clamping Strip so as to enable removal of the panel element from the frame.

5 6 **8** 12



Panel-Clamping Strip 8 Al
Al
m = 238 g/m

natural, cut-off max. 3000 mm	0.0.495.05



Panel-Clamping Strip 8 2-4mm
PP/TPE
a = 30 mm
m = 151 g/m

grey, similar to RAL 7042, 1 pce., length 3000 mm	0.0.493.75

Panel-Clamping Strip 8 4-6mm
PP/TPE
a = 28.2 mm
m = 142 g/m

grey, similar to RAL 7042, 1 pce., length 3000 mm	0.0.494.64

Panel-Clamping Strip 8 6-8mm
PP/TPE
a = 27 mm
m = 127 g/m

grey, similar to RAL 7042, 1 pce., length 3000 mm	0.0.493.73

Double Panel Profiles

Double Panel Profiles for retrofitting panel elements into existing frame constructions using Self-Tapping Screws DIN 7981 St 4.2.
The facing screw channels allow the construction of double-walled frame elements, e.g. for noise dampening and insulation.

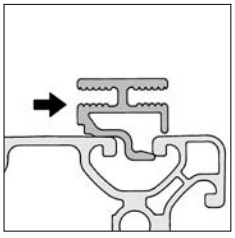
Used in conjunction with Sound-Insulating Material 20 (Section 5.4 Accessories Panel Elements) and Sealing Strip 6x3 sk, it is possible to construct elements which are air-tight and noise-reducing.

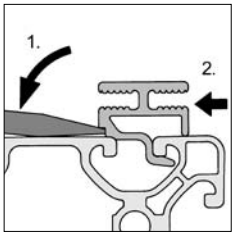
Double Panel Profile 8 Al E

Double Panel Profile 8 Al E can be locked into the groove of Profiles 8 without need for screw connections.

Panel elements can be secured to both sides of the Double Panel Profile using screws.

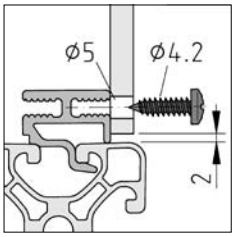
item Innovation
German patent
195 04 593

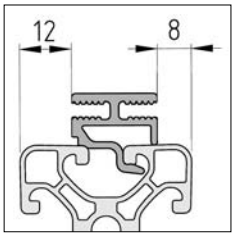


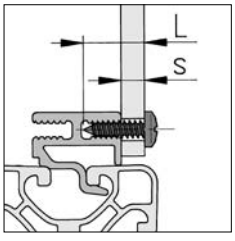


Assembling Double Panel Profile 8 Al E.

Disassembling Double Panel Profile 8 Al E.

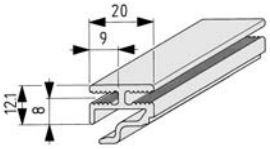






s	L
< 3	4.2 x 9.5
3 - 6	4.2 x 13
6 - 9	4.2 x 16
9 - 12	4.2 x 19
12 - 15	4.2 x 22
15 - 18	4.2 x 25

The length of the screws for fixing the panel elements depends on the element's thickness.



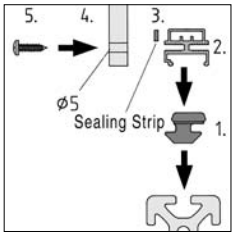
Double Panel Profile 8 Al E
Al, anodized
A = 1.35 cm²
m = 0.36 kg/m

natural, cut-off max. 3000 mm	7.0.001.65

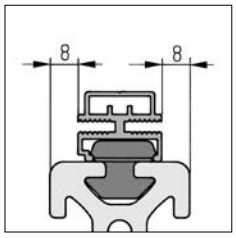
Double Panel Profile 8 AI

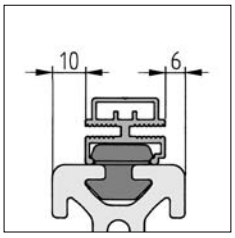
Double Panel Profile 8 AI is ideal for profile constructions in which the groove cannot be used along its entire length.

Fastening to the profile groove is via Clip 8 PA.

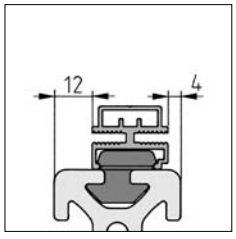


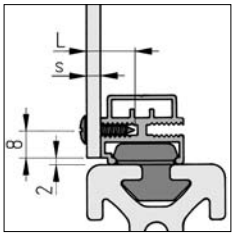
item Innovation
German patent
195 04 454



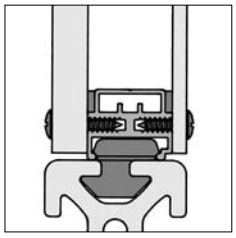


Matching to the wall thickness of the Panel Element by adjusting the positions of Double Panel Profil 8 AI and Clip 8 PA.

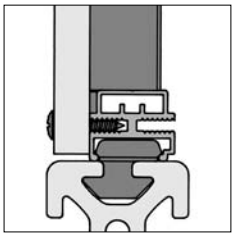




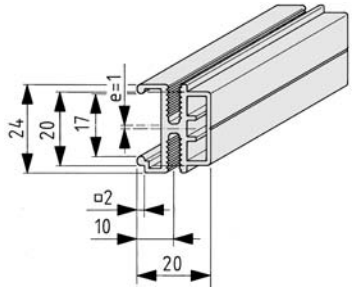
s	L
< 3	4.2 x 9.5
3 - 6	4.2 x 13
6 - 9	4.2 x 16
9 - 12	4.2 x 19
12 - 15	4.2 x 22
15 - 18	4.2 x 25



Double Panel Profile in conjunction with Lip Seal 6x3 sk when used for double-walled constructions.

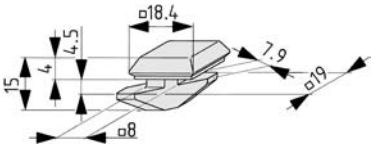


Double Panel Profile in conjunction with Lip Seal 6x3 sk and Sound-Insulating Material 20 mm.



Double Panel Profile 8 AI
Al, anodized
A = 1.62 cm²
m = 0.44 kg/m

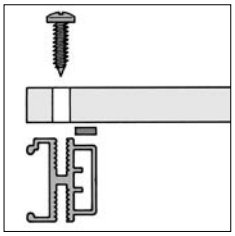
natural, cut-off max. 3000 mm	0.0.420.99

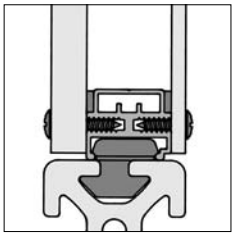


Clip 8 PA
PA-GF
Recommended number: 4 pce./m
m = 3.0 g

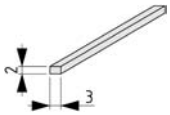
black, 1 pce.	0.0.422.38

Sealing Strip



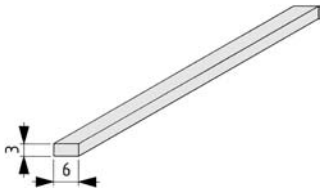


Sealing Strip, self-adhesive on one side, for sealing frame elements. Can also be used as a damping element on mating surfaces, particularly in combination with Double Panel Profile 8 Al.



Sealing Strip 3x2 sk
Cellular rubber
closed-cell, self-adhesive on one side
Temperature range: -30°C to +110°C
Resistant to many oils, fuels, acids and alkaline solutions
m = 1.6 g/m

black, 1 pce., length 1000 mm	0.0.479.98

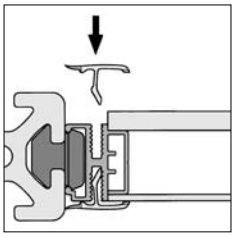


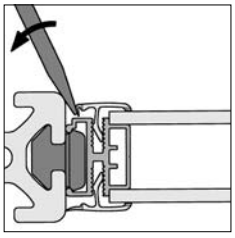
Sealing Strip 6x3 sk
Cellular rubber
closed-cell, self-adhesive on one side
Temperature range: -30°C to +110°C
Resistant to many oils, fuels, acids and alkaline solutions
m = 3 g/m

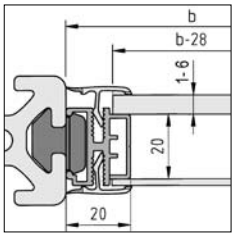
black, 1 roll length 10 m	0.0.422.66

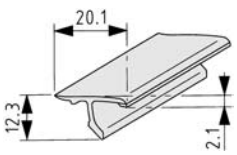
Panel-Fixing Strip

Used in conjunction with Double Panel Profile 8 Al and Clip 8 PA, the Panel-Fixing Strip is ideal for retrofitting essentially air-tight panel elements into existing frame constructions.
Apart from the cut-off, no additional machining is required for the panel element.







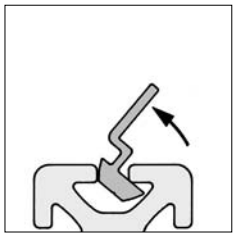


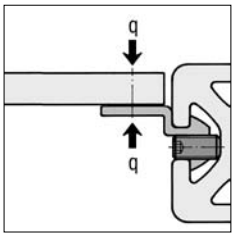
Panel-Fixing Strip 8
PVC
m = 55 g/m

black, 1 pce., length 2000 mm	0.0.429.64

Rebate Profiles

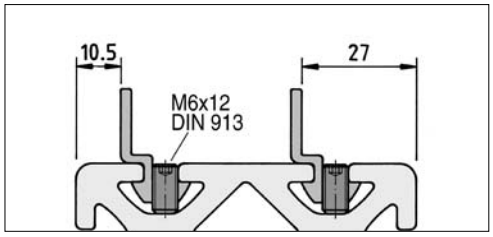
Rebate Profile for universal fastening of various elements to Profiles 8. Suitable as a continuous screw strip for practically dust and dirt-tight constructions, in combination with panel elements and Sealing Strips, or as a rebate strip for doors.





The Rebate Profile is inserted into the groove and fixed in position with grub screws M6.

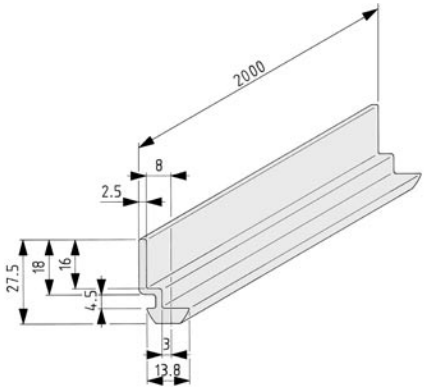
Permissible linear load for Rebate Profile 8 Al:
q_{max} = 1,000 N/m



Connection dimensions for the Rebate Profile 8 Al to Profiles 8.

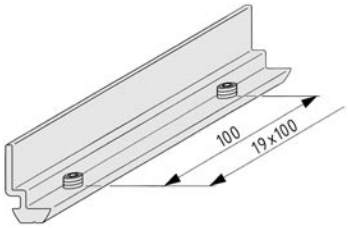
Rebate Profile 8 Al 19″ is used for fixing 19″ front plates or 19″ housings or other panel elements. These are secured by Captive Nuts which can be inserted in the square openings of the Rebate Profile.
1 height unit (HU) corresponds to a length of 44.45 mm

5 6 **8** 12



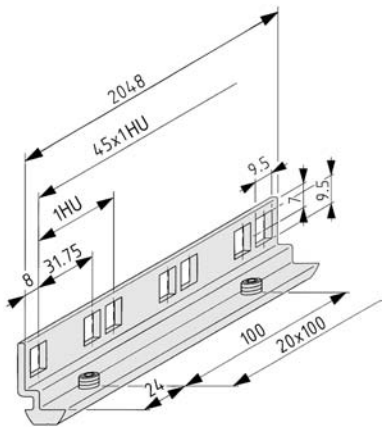
Rebate Profile 8 Al
Al, anodized
m = 310 g/m

natural, 1 pce., length 2000 mm	0.0.411.14



Rebate Profile 8 Al M6
Al, anodized, natural
Fully machined with 20 threads M6
incl. grub screws DIN 913-M6x12, St, bright zinc-plated
m = 540.0 g

1 pce., length 2000 mm	0.0.444.89

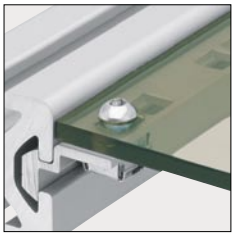


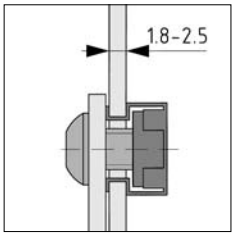
Rebate Profile 8 Al 19″
Al, anodized, natural
Fully machined with 91 openings and 21 M6 threads
incl. grub screws DIN 913-M6x12, St, bright zinc-plated
m = 630.0 g

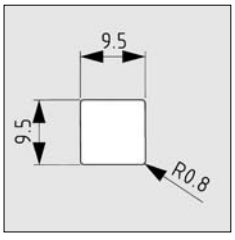
1 pce., length 2048 mm	0.0.398.19

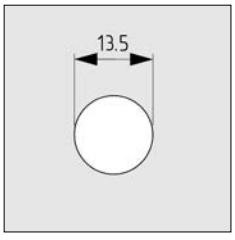
Captive Nuts

Universal usage for installation in Rebate Profile 8 Al 19″ or in panel elements. The Captive Nuts can be installed by snapping the latch springs into the corresponding recess.

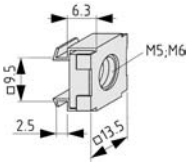








The recesses can be either:
> Square - with anti-torsion feature
> Round - no anti-torsion feature



Captive Nut M5
St
Cage and square nut
m = 500 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.411.65

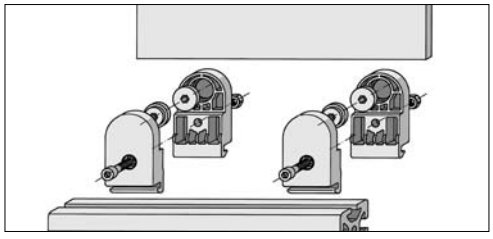
Captive Nut M6
St
Cage and square nut
m = 500 g/100

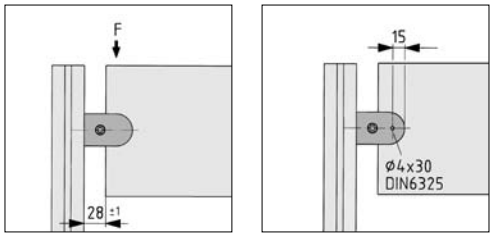
bright zinc-plated, 1 PU = 100 pce.	0.0.411.66

Panel Clamp

For securing panel elements to Profiles 8 without the need for additional machining. Tightening the clamping screw fixes the Panel Clamp to both the panel element and the profile.

Particularly suitable for attachment of unframed panels etc. Not suitable for mesh and corrugated mesh.
The panel elements of thickness 4 - 10 mm can be clamped in position by the asymmetrical spacer washers. Depending on the particular application, it may be necessary to invert the spacer washers in the housing.

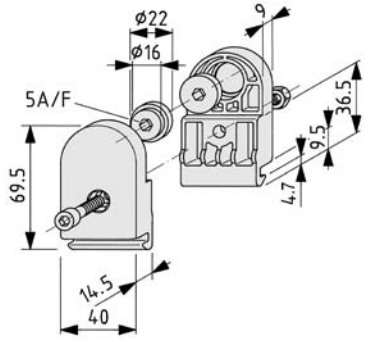




Max. loading for each Panel Clamp without pinning.
F_{max} = 100 N

Possible pinning position for securing the panel element against movement.

5 6 **8** 12



Panel Clamp 8
2 housing halves, PA-GF, black
1 Hexagon Socket Head Cap Screw DIN 912-M6x20, St, bright zinc-plated
1 Hexagon Nut DIN 934-M6, St, bright zinc-plated
2 spacer washers, NBR, black
m = 56.0 g

1 set	0.0.388.91

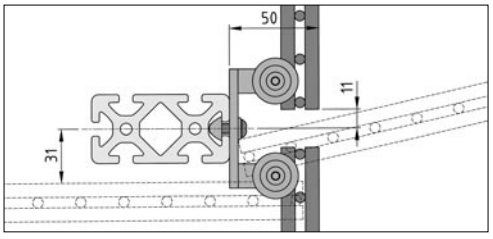
Dual-Rod Mesh System

Protective fence system for freestanding machine guarding. The Dual-Rod Mesh, made of welded high-strength steel wire, is screwed at any angle to the profile groove of Line 8 Stand Profiles using Dual-Rod Mesh Hangers. This creates a customisable and stable protective fence into which swing door elements can also be integrated, if required.
The inherently stable dual-rod mesh elements are used for constructing free-standing protective fence structures. Available in two different mesh widths (25 and 50 mm) (Section 5.2 Mesh Panels).

Dual-Rod Mesh Hanger

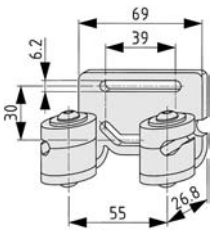
The Dual-Rod Mesh Hanger accommodates the Dual-Rod Mesh elements on the cross-rods (∅ 8 mm) at any angle between 0° - 270° to the Stand Profile.
Even after the fastening screws have been tightened, the fastening can still be rotated. This also forms a hinge for a swing door.

The Dual-Rod Mesh is first hung from a preassembled Dual-Rod Mesh Hanger, and then screwed into position with further Hangers. Recommended spacing of Hangers: 3 section heights, corresponding to 600 mm.
The slotted hole fastening on the Stand Profile enables adjustment of the position and angle. The ability to move the mesh horizontally (depending on the mesh width) in the Dual-Rod Mesh Hanger helps compensate for minor assembly errors.



Average dimensions for connecting the Dual-Rod Mesh to the Stand Profile.

Corner zones at any angle can easily be constructed thanks to the Dual-Rod Mesh Hanger's ability to tilt.



Dual-Rod Mesh Hanger
Body, St, black
Clamping elements, die-cast zinc, black
2 Button-Hd. Screws ISO 7380-M6x10, St, bright zinc-pl.
2 Button-Hd. Screws ISO 7380-M6x22, St, bright zinc-pl.
4 Washers DIN 9021-6.4, St, bright zinc-plated
m = 279.0 g

1 set	0.0.446.04

3.3.3 Fastenings for Panels in Special Profiles

When constructing guards for machines, especially for inherently stable enclosures and partitions, the use of panel elements in special frames of Clamp Profiles is recommended.

These panels, when hung in vertical supports, create a customised protective fence appropriate to the situation. Individual panels can be integrated as fixed, removable or movable doors within the security fence.

The appropriate Clamp Profiles can be selected according to the required panel elements (Section 5 Panel Elements).

Frame Profile	Panel Element: Acrylic Glas / Polycarbonate	Sheet Metal Al	Compound Material	Plastic	Corrug. Mesh Al	Corrug. Mesh St	Steel Mesh	Perforated Sheet
Clamp Profile	+	+	+	+	0	+	+	+
Clamp Profile E	+	+	+	+	+	0	+	+
Clamp Profile 8 32x18	+	+	+	+	-	-	-	0
Profiles (Line 8)	0	0	0	0	-	-	-	0

+ well suited o assembly possible - not recommended

In addition to the information in the table, note that the inherent strength of an enclosure is also dependent on the panel elements being securely clamped in the profile hangers.

Here the special Clamp Profiles with a deep groove offer distinct advantages over standard profiles, especially in connection with non-inherently stable panels (such as corrugated mesh, thin sheet metal or similar). There are significant advantages over traditional constructions, epecially in the case of free-standing large-area guards in production facilities, and room dividers in offices, store rooms and sales areas. Clamping the panel elements in profile frames results in an increased static stability, with less material weight.

In this way construction, dismantling and later modification are simplified.
The special hangers for frame elements level out any mounting tolerances and facilitate the removal or fastening of elements.

Alternatively, guards and enclosures can also be constructed from inherently stable panel elements (for example Dual-Rod Mesh System, (Section 5 Panel Elements) which can be hung directly on Stand Profiles without using a frame of special Clamp Profiles.

Special profiles

Special profiles are available for constructing dividing wall systems such as area guarding or cell guarding. Room dividers etc. can also be constructed from these elements.

Special Clamp Profiles secure the particular panel elements in different ways in the frame.

A special Textile Clamp Profile is available for fixing textile panels (textile mesh, fabric webs). It enables the construction of frame elements for areas without safety requirements.

Clamp Profile 8 32x18:

The panel element is held in a special groove of the profile with the help of Clamping Springs.
This increases the resistance against the enclosed panel being pressed out. This resistance depends on the number of Clamping Springs used.

Clamp Profiles E:

An inserted spring steel strip presses along the length of the clamped panel element.
With panels made from materials with little surface hardness (for example Polycarbonate, Corrugated Mesh Al) this results in a particularly high inherent strength.

Clamp Profile:

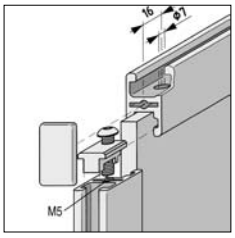
A pre-tensioned clamp strip presses directly on the panel element and holds it secure and rattle free in the clamp groove of this profile. The best support effect is achieved with enclosed panels and inherently stable steel mesh

Clamp Profile 8 32x8

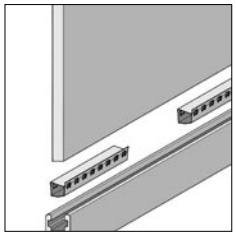
Particularly suitable for constructing light guards and enclosures, sliding doors and other panelling structures.

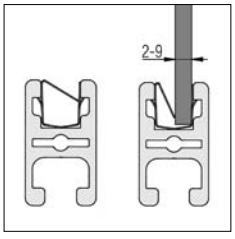
The panel element is secured in the groove by a Clamp Spring.

Instead of Clamping Spring 8, a Lip Seal 8 can also be used for securing inherently stable panel elements.



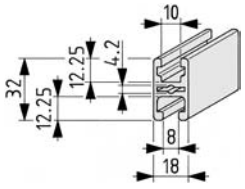
Clamp-Profile Fastening Set 8 32x18 ensures a correctly positioned corner connection for the profiles.





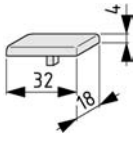
The number of Clamping Springs required depends on the load, the inherent stability and the size of the panel element.

10 mm thick panel elements can be fitted into the groove without using Clamping Springs.



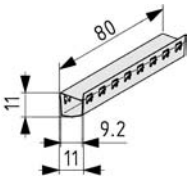
Clamp Profile 8 32x18
Al, anodized
A = 2.49 cm² I_x = 1.88 cm⁴ I_y = 1.10 cm⁴
m = 0.67 kg/m W_x = 1.16 cm³ W_y = 1.23 cm³

natural, cut-off max. 3000 mm	0.0.373.67



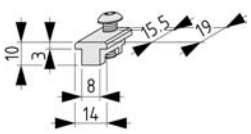
Cap 8 32x18
PA-GF
m = 2.2 g

black, 1 pce.	0.0.388.87



Clamping Spring 8
St
m = 5.0 g

stainless, 1 pce.	0.0.406.21



Clamp-Profile Fastening Set 8 32x18
Fastener, die-cast zinc, bright zinc-plated
Button-Head Screw ISO 7380-M5x20, St, bright zinc-plated
$M_{bzp.}$ = 4.5 Nm
m = 11.0 g

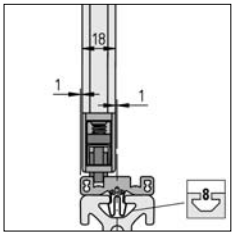
1 set	0.0.404.09

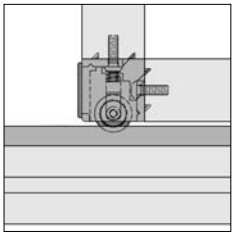
Corner-Fastening Set Clamp-Profile 8 32x18

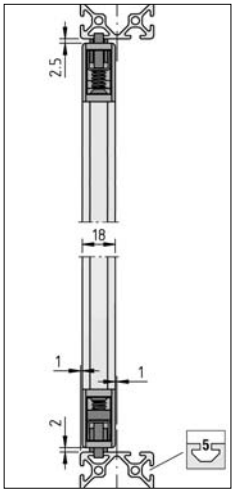
New in catalogue

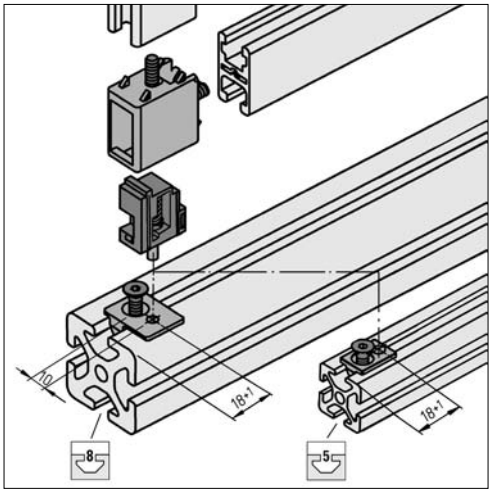
item Service

www.item.info









Corner-Fastening Set Clamp-Profile 8 32x18 is used for stable profile connections.
The rigid screw fastening to the end faces of the profiles being connected produces a frame that is ideal for use within lightweight enclosures and for door frames.

Corner-Fastening Set Clamp-Profile 8 32x18 contains all components required for a profile connection. An M5 thread must be tapped into the core bore of each of Clamp Profiles 8 32x18.
The Corner-Fastening Sets are multifunctional. They can be used in a variety of ways when used with special add-on elements:
- Roller Set 32x18 can be fitted directly into the corner fastener. This turns the frame into smooth-running sliding door elements that can be employed e.g. in the Sliding-Door Guide Profile 8 40x10.
- Hinge Sets 32x18 come with an insert for the corner fastener which forms a door hinge in conjunction with a hinge bearing in the frame of the surrounding construction. This provides an easy means of constructing a stylish, lightweight swing door with a particularly low door gap and without need for fitting additional hinges.

Sliding-Door Guide Profile 8 40x10 is fitted with Clip 8 St at the top and bottom of the surrounding profile frame. It forms the guide for two door leaves of Clamp Profile 8 32x18.

Spring-loaded Roller Set 32x18 is fitted into the corner fasteners of the previously constructed clamp profile frames. A Roller Set must be installed in each fastener so as to guide the sliding door leaf.

A limit stop can be installed to prevent the roller insert from springing. The corner fasteners at the bottom of a sliding door frame are always installed with rigid rollers. Spring-loaded rollers in the corner fasteners at the top enable the door leaves to be fitted into a profile frame which has already been built.

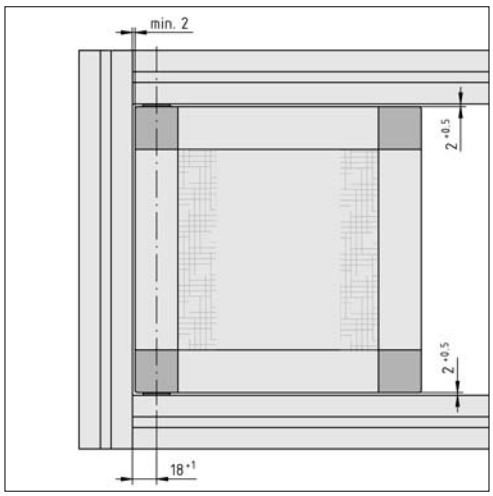
If required, all four roller inserts may be blocked by limit stop inserts and the outer profile frame finished after the sliding door leaves have been fitted. This effectively prevents the doors from being removed without dismantling the frame.

After the rollers have been fitted, an end cap of plastic closes the fastener at the side and serves as a door stop in the terminal positions.

The sliding doors can also be run directly in the grooves of a Line 5 profile. This produces a particularly compact frame construction.

The hinge inserts are also fitted into the corner fasteners after the clamp profile frame has been closed.

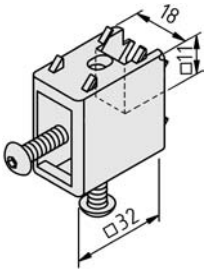
A hinge bearing is attached to both the upper and the lower frame profile and functions as a rotary bearing for a door. During installation, the spring-loaded Hinge Pin engages in the bearing plate, whose position in the groove can be adjusted when the swing door is open. This provides an effective means of preventing a closed door from being dismantled.



The Hinge Sets for installing swing doors in frame constructions of Line 5 or 8 contain all the parts required for one hinge.

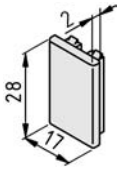
The maximum permissible weight of a door is 10 kg.

5 6 **8** 12



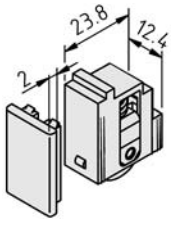
Corner-Fastening Set Clamp-Profile 8 32x18
Die-cast zinc, white aluminium similar RAL 9006
2 Button-Head Screws ISO 7380-M5x16, St, bright zinc-plated
m = 54.5 g

1 set **0.0.494.73**



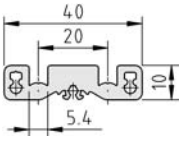
Cap for Corner-Fastener 8 32x18
PP
m = 1.3 g

grey, similar to RAL 7042, 1 pce. **0.0.494.71**



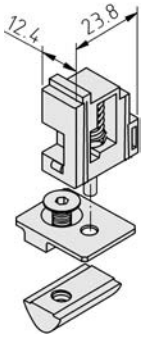
Roller for Corner-Fastener 8 32x18
1 roller insert
1 compression spring
1 limit stop
1 cap, PP grey
Notes on Use and Installation
m = 10.5 g

1 set **0.0.494.74**



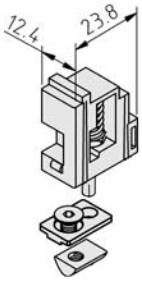
Sliding-Door Guide Profile 8 40x10
Al, anodized
A = 2.48 cm²
m = 0.67 kg/m

natural, cut-off max. 3000 mm **0.0.495.13**



Hinge 8 for Corner-Fastener 8 32x18
Hinge insert
Bearing plate 8
T-Slot Nut V 8 St M5, bright zinc-plated
Countersunk Screw DIN 7991-M5x12, St, bright zinc-plated
Notes on Use and Installation
m = 23.0 g

1 set **0.0.494.76**



Hinge 5 for Corner-Fastener 8 32x18
Hinge insert
Bearing plate 5
T-Slot Nut 5 St M4, bright zinc-plated
Countersunk Screw DIN 7991-M4x6, St, bright zinc-plated
Notes on Use and Installation
m = 11.5 g

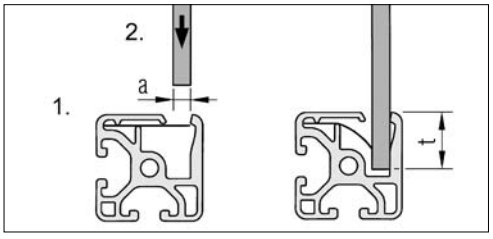
1 set	0.0.495.33

Clamp-Profiles E

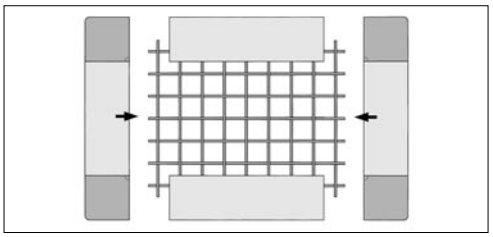
item Innovation
German patent
and foreign patent
EP 0 968 339

Clamp-Profile System E is ideal for easy and fast construction of frame elements for enclosure and guard systems. A stainless steel strip is inserted into the weight-optimised profiles to protect the various panel elements from becoming dislodged from the groove.
Securing and clamping the panels increases the overall strength of the frame elements.

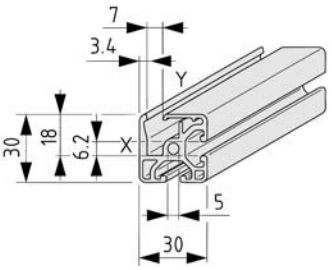
Profiles are connected using Clamp-Profile Fasteners. The frame elements of Clamp Profiles E are hung using Clamp-Profile Hangers E, which engage in the Clamp-Profile Fastener.
In conjunction with the Clamp-Profile Hinge E (Section 3.4 Movable Fastening Elements) the frame element can easily be used as a swing door.

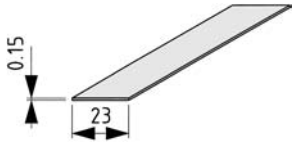


Installation sequence:
1. Insert the Clamp-Profile Strip into the spring cavity in the Clamp Profile.
2. Press in the panel element.



Producing frames:
1. Cut-off of panel element = inside frame dimension + 2 x insertion depth (t).
2. Fit the Clamp-Profile Fastener loosely onto the upright frame profiles.
3. Place the horizontal frame profiles centrally onto the panel element so as to ensure initial gentle clamping by the steel strip. The panel element must not yet be pressed all the way into the groove.
4. Assemble the frame and tighten the bolts. The panel element will be pressed into the groove by varying amounts (depending on the tolerance position) when the bolts are tightened.





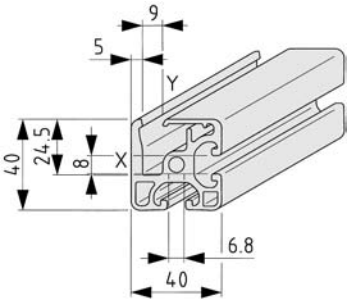
Clamp Profile 6 30x30 E
Al, anodized
a = 2 - 6 mm
t = 16 mm

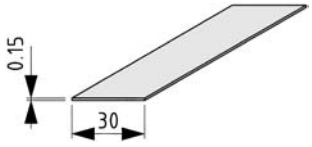
A =	3.58 cm²	I_x =	2.77 cm⁴	I_y =	3.24 cm⁴
m =	0.97 kg/m	W_x =	1.81 cm³	W_y =	2.14 cm³

natural, cut-off max. 6000 mm **0.0.439.42**

Clamp-Profile Strip 6 23x0.15 E
St
m = 27 g/m

stainless, 1 roll length 20 m **0.0.441.52**





Clamp Profile 8 40x40 E
Al, anodized
a = 2 - 8.5 mm
t = 21 mm

A =	6.50 cm²	I_x =	8.79 cm⁴	I_y =	10.67 cm⁴
m =	1.76 kg/m	W_x =	4.29 cm³	W_y =	5.25 cm³

natural, cut-off max. 6000 mm **0.0.436.92**

Clamp-Profile Strip 8 30x0.15 E
St
m = 35 g/m

stainless, 1 roll length 20 m **0.0.440.48**

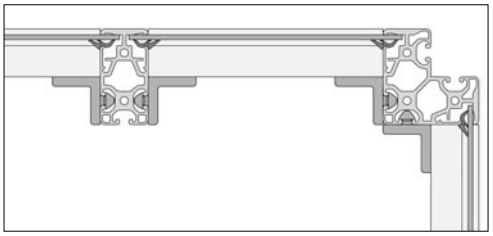
Clamp Profiles light

New in catalogue

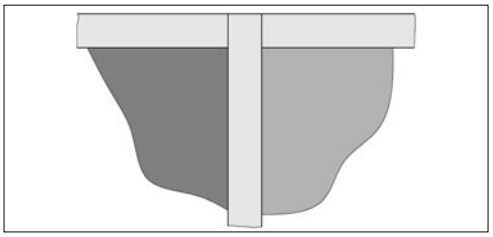
When combined, Clamp Profiles 8 80x40-180° light and W80x80x40 light function as both a Stand Profile and a Clamp Profile. This allows particularly cost-effective constructions. These profiles are also available in a special optimised cut-off length (4800 mm) for Stand Profiles.

Enclosed panels of thickness 4 to 6 mm (e.g. Polycarbonate 4 mm) are recommended for the panel elements. The panels are secured with Lip Seals 8 to ensure they do not rattle in the groove.

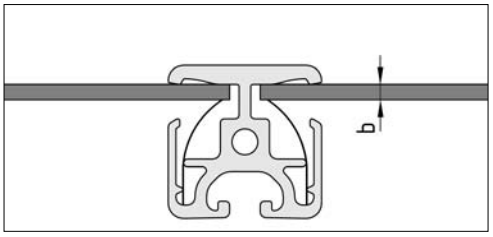
The clamping groove of Profiles light corresponds with the groove of Clamp Profiles 8 40x40 E.
These Clamp Profiles can therefore be combined at will with Clamp Profiles 8 40x40 E.



The Clamp Profiles light are connected using Angle Bracket V 8 40 Zn.

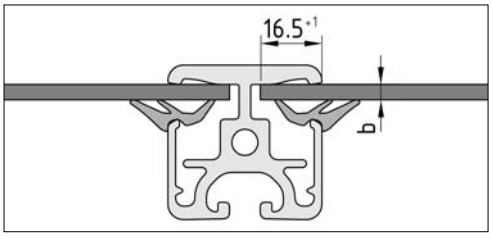


Using a Clamp Profile as a stand allows you to construct protective enclosures without gaps.



Clamp-Profile Strip 8 30x0.15 E ensures particularly effective clamping.
Clamp Profiles must first be pushed onto the panel element. The frame is then connected using Angle Brackets V 8 40 Zn.

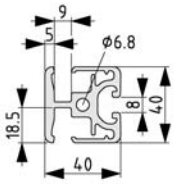
b = max. 6 mm



Lip Seals 8 ensure inherently stable panel elements are secured firmly without rattling.

b = max. 6 mm

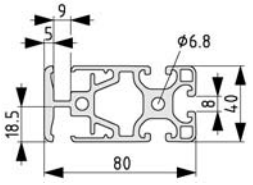
5 6 **8** 12



Clamp Profile 8 40x40-180° light
Al, anodized

A =	6.51 cm²	I_x =	8.57 cm⁴	I_y =	11.20 cm⁴
m =	1.77 kg/m	W_x =	4.29 cm³	W_y =	5.51 cm³

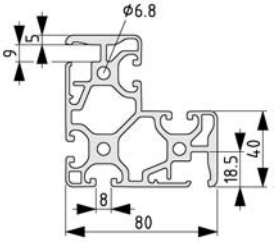
natural, cut-off max. 6000 mm — 0.0.483.36



Clamp Profile 8 80x40-180° light
Al, anodized

A =	11.77 cm²	I_x =	17.37 cm⁴	I_y =	70.29 cm⁴
m =	3.18 kg/m	W_x =	8.69 cm³	W_y =	17.41 cm³

natural, cut-off max. 4800 mm — 0.0.480.44

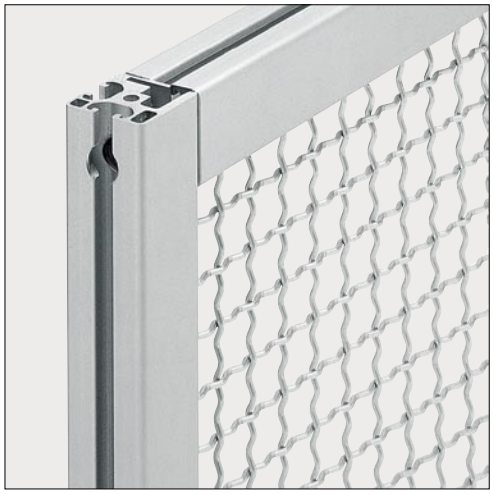


Clamp Profile 8 W80x80x40 light
Al, anodized

A =	17.51 cm²	I =	97.40 cm⁴		
m =	4.73 kg/m	W =	21.18 cm³		

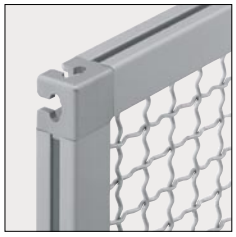
natural, cut-off max. 4800 mm — 0.0.483.57

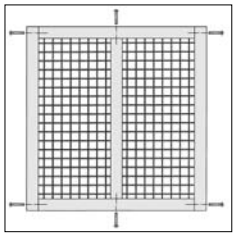
Clamp Profiles

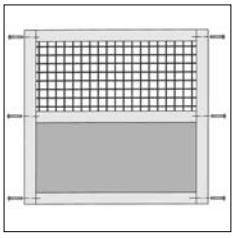


The Clamp Profiles are particularly suitable for constructing and subdividing large-area guards and enclosures as well as swing and sliding doors.
Corrugated mesh, sheet material, panels and plastic panel elements can be clamped into position.
The secure clamping of the panel elements reinforces the high rigidity of the frame element.

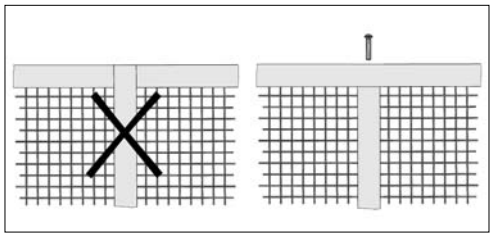
Clamp Profiles can be connected together in different ways:
> direct screw attachment of the profiles
> using the Clamp-Profile Fasteners



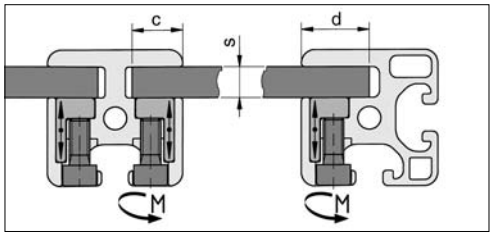


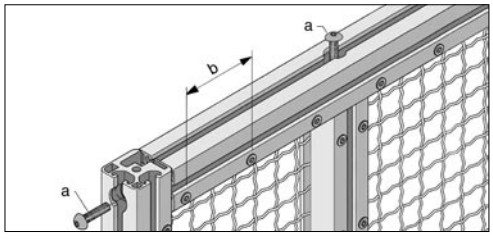


When designing panel frames it is important to ensure that the vertical profiles are the through profiles, i.e. that the horizontal struts run between them. (Section 9.3.2 Connection Processing).

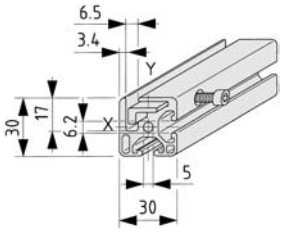


Where the panels are to be divided by a central strut (Clamp Profile 180°), this should always be tapped at the ends and bolted between the outer frame profiles.
The Profile Edging (i.e. clamping strip) will need to be interrupted accordingly.





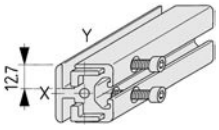
	Clamp Profile 6		Clamp Profile 8	
	30x30	30x30-180°	40x40	40x40-180°
c	-	12^{-1} mm	-	15^{+1} mm
d	15^{+1} mm	-	20^{+2} mm	-
$M_{max.}$	2 Nm		8 Nm	
a	Button-Head Screw ISO 7380 M6x30		Button-Head Screw ISO 7380 M8x40	
b	150 mm		200 mm	
s	2-6 mm		2-8.5 mm	



Clamp Profile 6 30x30
Al, anodized
Cap Screws DIN 912-M4x12, St, bright zinc-plated

A =	4.14 cm²	I_x =	3.20 cm⁴	I_y =	3.54 cm⁴
m =	1.12 kg/m	W_x =	2.04 cm³	W_y =	2.34 cm³

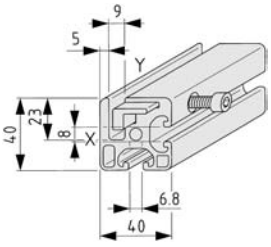
natural, cut-off max. 6000 mm 0.0.431.11



Clamp Profile 6 30x30-180°
Al, anodized
Cap Screws DIN 912-M4x12, St, bright zinc-plated

A =	4.64 cm²	I_x =	3.88 cm⁴	I_y =	3.53 cm⁴
m =	1.25 kg/m	W_x =	2.54 cm³	W_y =	2.35 cm³

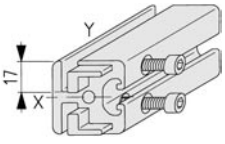
natural, cut-off max. 6000 mm 0.0.431.14



Clamp Profile 8 40x40
Al, anodized
Cap Screws DIN 912-M6x16, St, bright zinc-plated

A =	7.49 cm²	I_x =	9.58 cm⁴	I_y =	11.96 cm⁴
m =	2.02 kg/m	W_x =	4.55 cm³	W_y =	5.93 cm³

natural, cut-off max. 6000 mm 0.0.196.50



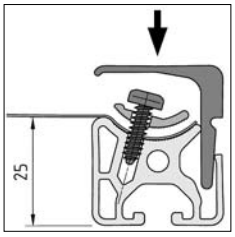
Clamp Profile 8 40x40-180°
Al, anodized
Cap Screws DIN 912-M6x16, St, bright zinc-plated

A =	8.38 cm²	I_x =	11.40 cm⁴	I_y =	13.00 cm⁴
m =	2.26 kg/m	W_x =	5.70 cm³	W_y =	6.20 cm³

natural, cut-off max. 6000 mm 0.0.429.95

Textile Clamp Profile

Special profiles for clamping thin (max. 1.5 mm) panel elements that are not inherently stable such as textile grids, fabric webs, paper webs and films.
The textile clamp profiles are combined into a profile frame using Clamp-Profile Fastener 6 30x30 E; the whole assembly can then be suspended on stand profiles.
Textile Clamp Profiles comprise the Clamp Profile, the Clamp Strip and a Lid Profile. Using the Button-Head Screw St 4x12 TX 20, the textile panel element is clamped between the Clamp Profile and the Clamp Strip, and cut to size after clamping.
Finally, the Lid Profile provides an easy-clean closure for the clamped area.



The Button-Head Screw St 4x12 TX 20 is self-threading in the Clamp Profile's screw channel.
The Clamp Strips already feature through holes. The textile panel element must be pierced with the screw if necessary.
The maximum thickness of the panel element is 1.5 mm.

Assembly sequence for a Panel Segment:
> Join the Clamp Profiles using Clamp-Profile Fastener 6 30x30 E (Art. No. 0.0.441.80)
> Position the textile panel element (which is not yet cut to size)
> Screw-fit the Clamp Strips while the panel element is clamped
> Cut off the overhanging textile edge
> Fit the Lid Profiles

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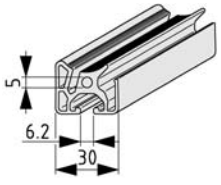
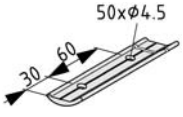


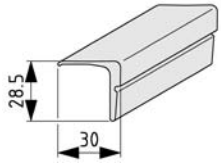
Textile Clamp Profile 6 30x30
Al, anodized
A = 2.76 cm² I_x = 1.28 cm⁴ I_y = 2.18 cm⁴
m = 0.74 kg/m W_x = 0.93 cm³ W_y = 1.33 cm³

natural, cut-off max. 6000 mm	0.0.459.62



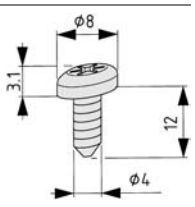
Textile Clamp Profile, Clamp Strip
Al, anodized
A = 0.37 cm²
m = 0.10 kg/m

natural, cut-off max. 3000 mm	0.0.459.64



Textile Clamp Profile, Lid Profile
Al, anodized
A = 1.51 cm²
m = 0.40 kg/m

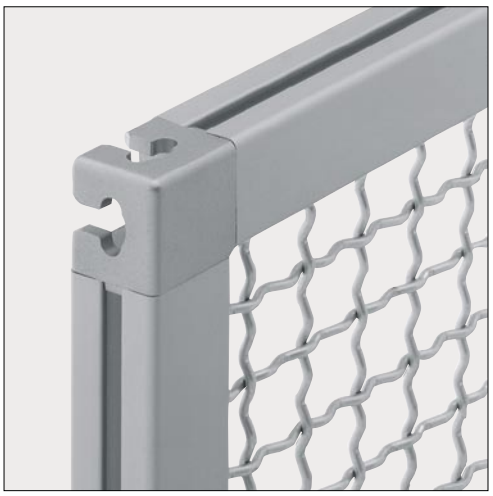
natural, cut-off max. 6000 mm	0.0.459.63



Button-Head Screw, self-threading St 4x12, TX 20
St
m = 145 g/100

bright zinc-plated, 1 PU = 100 pce.	0.0.473.69

Clamp-Profile Fastener E

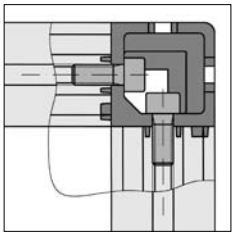


Clamp-Profile Fasteners are special fastening elements which, at the same time, allow easy hanging of protective-fence panels.

item Innovation
German
utility model
297 06 040

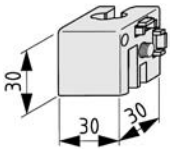
Suspended frame elements can also be locked if required by subsequently moving the lower Clamp-Profile Hanger.

By drilling the Clamp-Profile Fastener at a prepared point and pressing in a grooved pin, the Fastener and Clamp-Profile Hinge E can also be used for attaching swing doors.



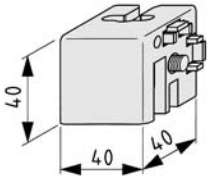
The Clamp-Profile Fastener can be combined with any desired Profiles 6 30x30 or 8 40x40 and also with the existing Clamp Profiles 6 30x30 or 8 40x40. The fact that the Clamp-Profile Fastener has a special cavity means that the panels to be fitted in the profile grooves do not need to be notched.

Connection of Clamp-Profiles E with Clamp-Profile Fasteners E.



Clamp-Profile Fastener 6 30x30 E
Die-cast zinc, white aluminium similar RAL 9006
2 Cap Screws DIN 912-M6x16, St, bright zinc-plated
m = 78.0 g

1 set	0.0.441.80

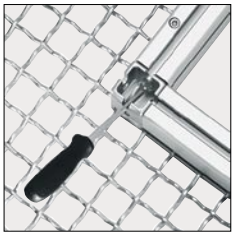


Clamp-Profile Fastener 8 40x40 E
Die-cast zinc, white aluminium similar RAL 9006
2 Cap Screws DIN 912-M8x20, St, bright zinc-plated
m = 187.0 g

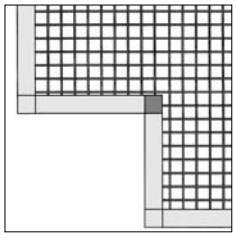
1 set	0.0.444.76

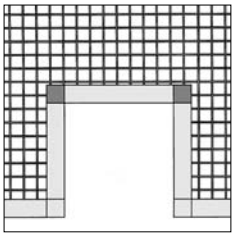
Clamp-Profile Cross Connector

The Clamp-Profile Cross Connector is designed for connecting Clamp Profiles / Clamp Profiles E of Lines 6 and 8.
It can be used for the construction of framed panel elements for enclosures and guards which feature inside corners, cut-outs or internal apertures.
In addition, up to 4 Clamp Profiles can be secured at a single intersection point.



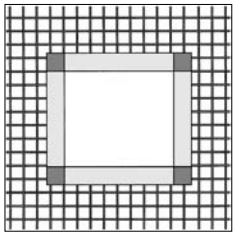
Installation note:
The following screws are required for securing the Clamp-Profile Cross Connectors to the Clamp Profiles:
> Clamp Profile 6 30x30: Screw ISO 7380 M6x14
> Clamp Profile 8 40x40: Screw ISO 7380 M8x20

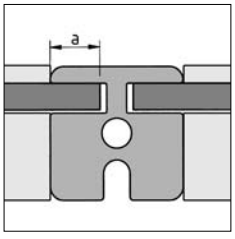




Inside corner with a Clamp-Profile Cross Connector and two Clamp Profile Connectors.

Cut-out with two Clamp Profile Cross Connectors and two Clamp Profile Connectors.





Central aperture with four Clamp Profile Cross Connectors.

When planning panel element cut-outs, the penetration depth (a) specified here must be taken into account irrespective of the penetration depth specified for the Clamp Profiles.

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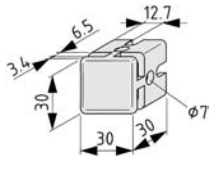

Clamp-Profile Cross Connector 6 30x30
St
a = 12 $^{-1}$ mm
m = 74.0 g

white aluminium, similar to RAL 9006, 1 pce.	0.0.459.09

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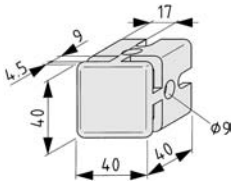


Clamp-Profile Cross Connector 8 40x40
St
a = 15 $^{+1}$ mm
m = 168.0 g

white aluminium, similar to RAL 9006, 1 pce.	0.0.457.92

Fastening Frame Elements

Several versions of hangers are available to provide an easy, safe and detachable solution for fastening frames in enclosures and guards. They differ from one another as regards clearance, carrying capacity and tolerence compensation.

Furthermore, Hangers 6-8 and 8 can also be used in such a way that a loose or missing screw attachment on the frame elements cannot go unnoticed.

Clamp-Profile Hanger E:

to be used with Clamp-Profile Fasteners E.

> clearance between frame profile and Stand Profile 12 mm

> medium load-carrying capacity

> lateral tolerance adjustment 6 mm

Hanger 6-8:

rigid hanging of profiles from either Line 6 or 8.

> clearance between frame profile and Stand Profile 12 mm

> medium load-carrying capacity

> concealed protection against removal

> lateral tolerance adjustment 1 mm

> may be mounted in such a way that a loose or missing screw results in the frame element slipping.

Hanger 8:

rigid hanging of profiles from Line 8, particularly robust version.

> clearance between frame profile and Stand Profile 25 mm

> high load-carrying capacity

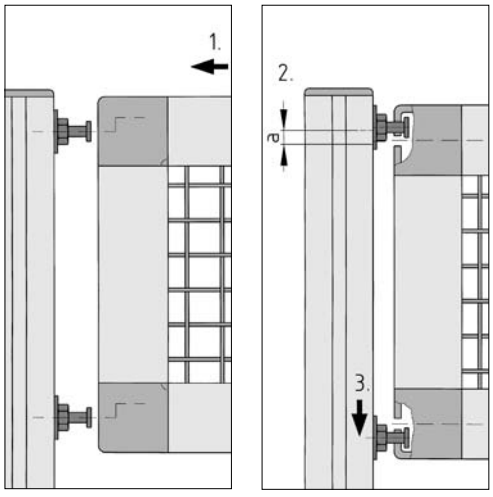
> concealed protection against removal

> lateral tolerance adjustment 10 mm

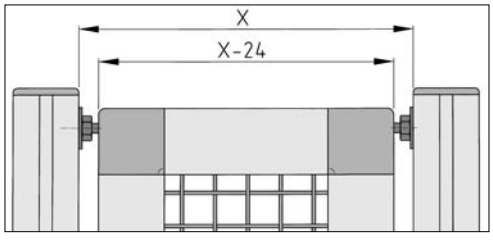
> may be mounted in such a way that a loose or missing screw results in the frame element slipping

Clamp-Profile Hangers E

Clamp-Profile Hangers E can be used to hang frame elements into any desired construction with Clamp-Profile Fasteners E. By integrating the suspension facility into the corner areas of the frame element, it is possible to achieve a very narrow gap (12 mm) between the frame element and the stand.



Installation sequence:
1. Hook the frame element into the existing construction.
2. Fix the height of the frame element using the upper hangers (a).
3. Move the lower Clamp-Profile Hangers to lock the frame element in position (if required).



The clearance dimension between frame and Stand Profile is 12 mm. Dimensional tolerances of ± 3 mm can be accommodated by the Clamp-Profile Hanger E.

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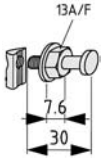
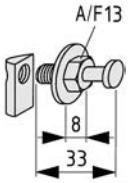


Clamp-Profile Hanger 6 E
a = 4.75 mm
4 bolts, St, black
4 washers DIN 9021-6.4, St, black
4 T-Slot Nuts 6 St M6, bright zinc-plated
m = 76.0 g

1 set	0.0.441.11



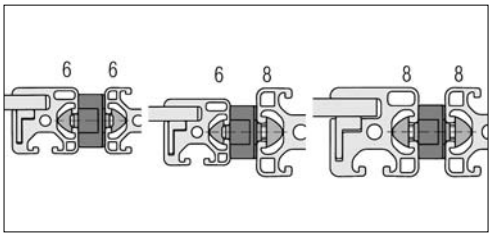
Clamp-Profile Hanger 8 E
a = 8.25 mm
4 bolts, St, black
4 washers DIN 9021-8.4, St, black
4 T-Slot Nuts 8 St M8, bright zinc-plated
m = 112.0 g

1 set	0.0.440.05

Hanger 6-8

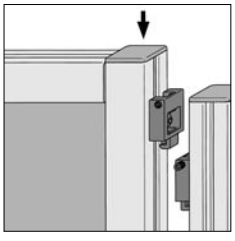
Compact hanger for especially rigid fastening of frame elements to Stand Profiles. Profiles from Lines 6 and 8 can be connected together as required.

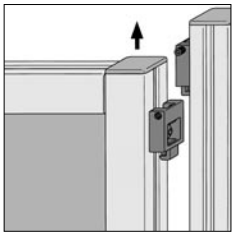
If required, the Hangers can be screwed together front and rear using the supplied grub screw in order to prevent lifting.



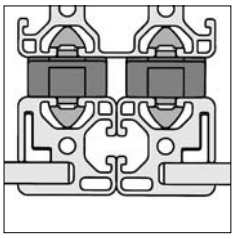
Profiles 6 and 8 can be combined by turning around the anti-torsion block.

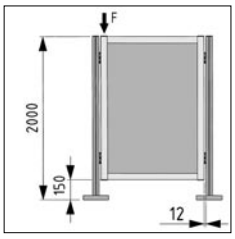
Fastening to Profile 6 using Button-Head Screw ISO 7380-M6x14 and T-Slot Nut 6 St M6.
Fastening to Profile 8 using Button-Head Screw ISO 7380-M6x16 and T-Slot Nut 8 St M6.





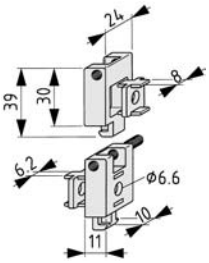
Hanger 6-8 allows two variations of frame assembly:
1. Very easy 1-man assembly: the frame element is lowered from above onto the hangers on the Stand Profiles, lugs on the hangers engaging to ensure stability. They are then secured by the grub screws provided.
2. The frame element is slid into the hanger on the Stand Profile from below and secured with the grub screw. Removal of the grub screws results in the frame element dropping down.





Attaching the Hanger from the front ensures that the frame and panel elements can be fitted without space.

Hanger 6-8 can be used to maintain very small gaps (12 mm) between the frame and the Stand Profile.
F = approx. 400 N

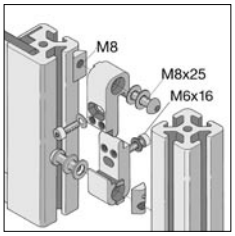


Hanger 6-8
2 hangers, die-cast zinc, black
2 anti-torsion blocks, die-cast zinc, black
1 grub screw DIN 913-M5x10, black
m = 70.0 g

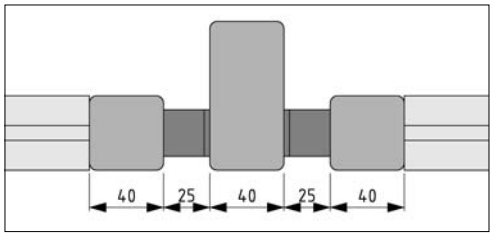
1 set	0.0.441.33

Hanger 8

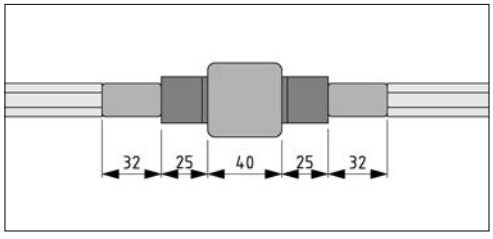
The particularly robust design of Hanger 8 enables frame elements to be frequently attached and secured to Stand Profiles 8.
If required, the Hangers 8 can be screwed together from the front or rear (for safety reasons).
Two Hangers 8 and appropriate Fastening Sets are required for each attachment point.



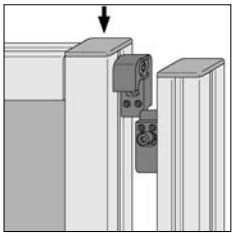
If the upper Hanger 8 is fitted to the Stand Profile and the lower Hanger 8 to the frame element, removal of Hexagon Socket Head Cap Screw M6 will result in the frame element being released.

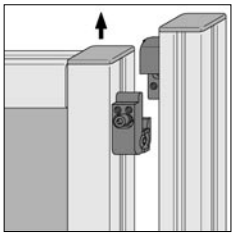


Hanger 8 in conjunction with Clamp Profile 8 40x40.

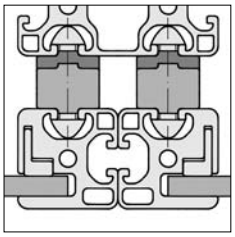


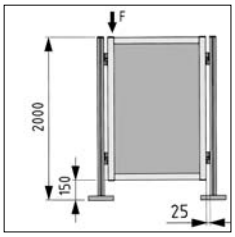
Hanger 8 in conjunction with Clamp Profile 8 32x18.





Hanger 8 allows two variations of frame assembly:
1. Very easy 1-man assembly: the frame element is lowered from above onto the hangers on the Stand Profiles, lugs on the hangers engaging to ensure stability. They are then secured by the Cap Screws provided.
2. The frame element is slid into the hanger on the Stand Profile from below and secured with the Cap Screw. Removal of the screw results in the frame element dropping down.



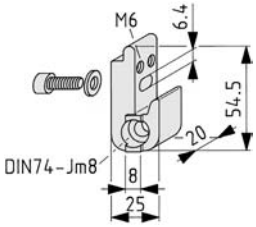


Attaching the Hanger from the front ensures that the frame and panel elements can be fitted without space.

F = approx. 750 N

The clearance dimension between frame and Stand Profile is 25 mm. Dimensional tolerances of ± 5 mm can be adjusted through Hanger 8.

5 6 **8** 12



Hanger 8
1 Hanger, die-cast zinc, black
1 Hexagon Socket Head Cap Screw DIN 912-M6x16, St, bright zinc-plated
1 washer DIN 125-6.4 St, bright zinc-plated
m = 87.0 g

1 set	0.0.196.44

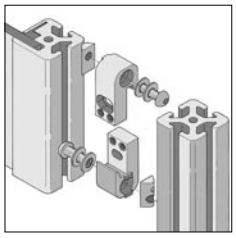
Fastening Set 8 for Hanger 8
1 Button-Head Screw ISO 7380-M8x25, St, bright zinc-pl.
2 spring washers, St, bright zinc-plated
1 T-Slot Nut 8 St M8, bright zinc-plated
m = 21.0 g

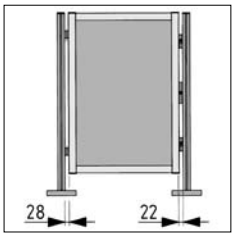
1 set	0.0.265.05

Door Rabbet 8

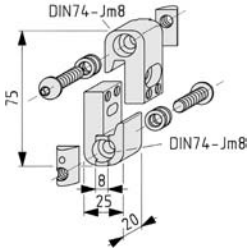
Screw-connected rabbet for swing doors.
Door Rabbets can also be used as fasteners for frame elements if, for safety reasons, a hanger is not allowed.

The frame element cannot be hung without a securing screw and therefore removal of the screw will be detected immediately.





Example application for door construction:
Clearance on left 28 mm with Hinges 8 40 Zn (Section 3.4 Movable Fastening Elements) and on right 22 mm with Door Rabbets 8, in combination with Door Lock 8 (Section 4.3 Locks and Catches).



Door Rabbet 8
2 Door Rabbets, die-cast zinc, black
2 Button-Head Screws ISO 7380-M8x25, St, bright zinc-plated
4 spring washers, St, bright zinc-plated
2 T-Slot Nuts 8 St M8, bright zinc-plated
m = 190.0 g

1 set	0.0.265.15

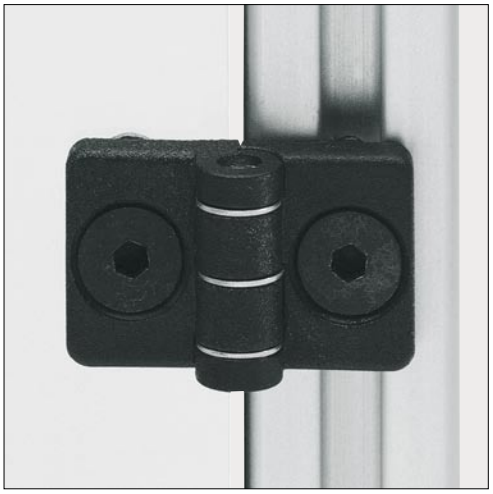
3.4 Movable Fastening Elements

Swing, sliding or lifting doors can be produced with the aid of movable panel fasteners. In this arrangement, the doors can be in the form of either inherently stable panels without frames or frame elements with integral panels.

3.4.1 Hinges

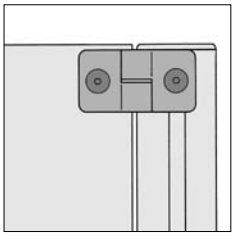
The Hinges can be used for direct attachment of frameless panel elements, for a movable fastening between two profiles and for attachment of framed panels to the basic frame. They can also be mounted in front of the profile or panel and even in the space between the panel frame and the main frame or door post.

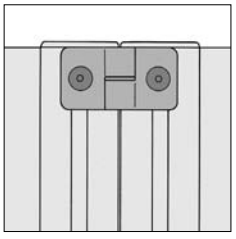
Hinges PA



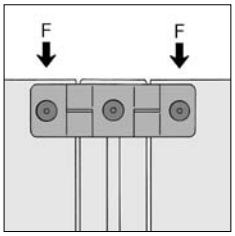
Hinges PA are simple components for lightweight doors and lids. They are provided with an anti-torsion element which engages on the profile grooves.

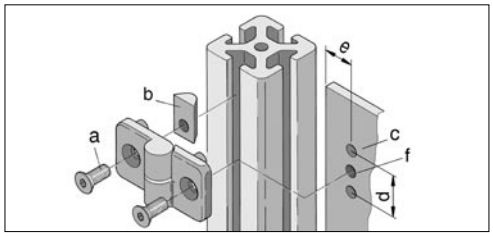
Panel elements secured with Hinges PA must be machined with the appropriate holes.





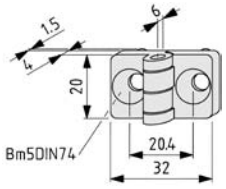
Double Hinges PA can only be used on 20 mm wide profiles in Line 5, on 30 mm wide profiles in Line 6 and on 40 mm wide profiles in Line 8.





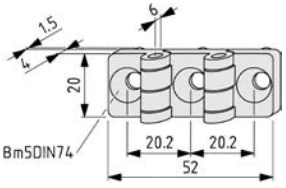
		Hinge / Double Hinge		
		5	6	8
Screw DIN 7991	a	M5x8	M5x14	M6x16
T-Slot Nut	b	5 St M5	6 St M5	8 St M6
	c	∅ 5 mm	∅ 6.3 mm	∅ 8.2 mm
	d	15 mm	22 mm	24 mm
	e	9 mm	14 mm	18 mm
	f	M5	M5	M6
	F	50 N	75 N	100 N

5 6 8 12



Hinge 5 PA
PA-GF
cannot be lifted out
m = 6.0 g

black, 1 pce. **0.0.370.18**

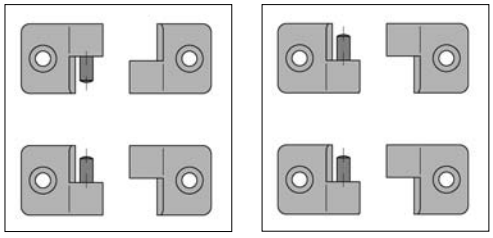


Double Hinge 5 PA
PA-GF
cannot be lifted out
m = 10.0 g

black, 1 pce. **0.0.437.33**

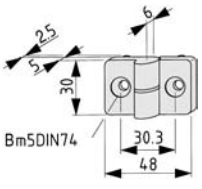
Fastening Set 5 for Bracket / Angle Bracket 5 20 / profile side for Hinge 5 PA
1 Countersunk Screw DIN 7991-M5x8, St, black
1 T-Slot Nut 5 St M5, bright zinc-plated
m = 2.5 g

1 set **0.0.370.70**



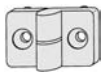
Door elements of Lines 6 and 8 can be fitted so that they can either be lifted off subsequently or remain fitted permanently.
With the lift-off version, the door must be fitted with the appropriate right-hand or left-hand hinges.
For the non-lift version, right-hand and left-hand hinges must be combined in each case.

5 6 8 12



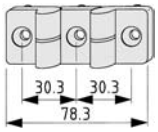
Hinge 6 PA, right
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 14.0 g

1 pce. **0.0.431.23**



Hinge 6 PA, left
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 14.0 g

1 pce.	0.0.431.25



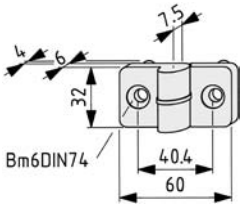
Double Hinge 6 PA
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 25.0 g

1 pce.	0.0.431.27

Fastening Set 6 profile side for Hinge 6 PA
T-Slot Nut 6 St M5, bright zinc-plated
Countersunk Screw DIN 7991-M5x14, St, black
m = 7.0 g

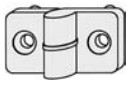
1 set	0.0.434.65

5 6 **8** 12



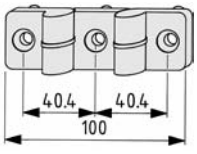
Hinge 8 PA, right
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 21.0 g

1 pce.	0.0.026.12



Hinge 8 PA, left
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 21.0 g

1 pce.	0.0.026.10



Double Hinge 8 PA
Hinge halves, PA-GF, black
Dowel, St, bright zinc-plated
Washer, PA, black
m = 40.0 g

1 pce.	0.0.373.42

Fastening Set 8 profile side for Hinge 8 PA
T-Slot Nut 8 St M6, bright zinc-plated
Countersunk Screw DIN 7991-M6x16, St, black
m = 14.0 g

1 set	0.0.026.28

Hinges Al

New in catalogue

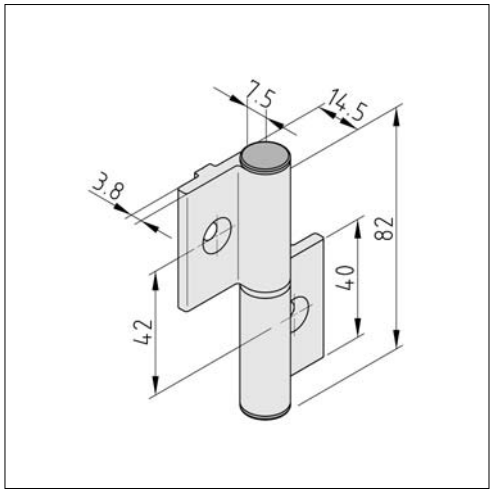
www.item.info

Hinges Al, are suitable for use with swivel doors and lids designed using either profiles or solid panels.

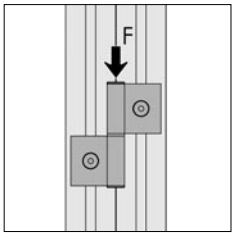
Hinges Al, can be surface-mounted. This enables doors to be fitted to the fixed outer frame with virtually no door gap (designation “0”).
When fitting Hinges Al, in the 4 mm door gap between the door and the fixed door frame (designation “4”), the fastening screws are concealed so as to be inaccessible when the door is closed.

The many possible combinations enable doors to be fitted in Line 6 and 8 frames and allow different profile sizes to be combined with each other.

Hinges Al, are available as complete sets for all popular combinations of profiles and for combinations of profiles and panel elements.

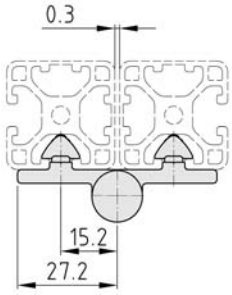


Irrespective of line or version, all Hinges Al, have the connection dimensions shown opposite.



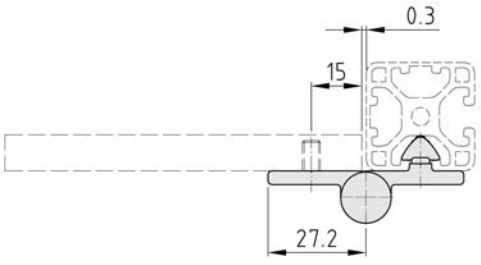
F = 500 N

5 **6** 8 12



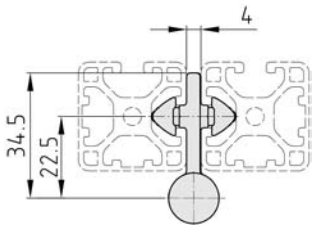
Hinge 6 Al PP0, light duty
Hinge Leaf, Al, anodized, natural
2 T-Slot Nuts 6 St M5, bright zinc-plated
2 Countersunk Screws DIN 7991-M5x12, bright zinc-plated
Notes on Use and Installation
m = 84.0 g

1 set 0.0.488.98



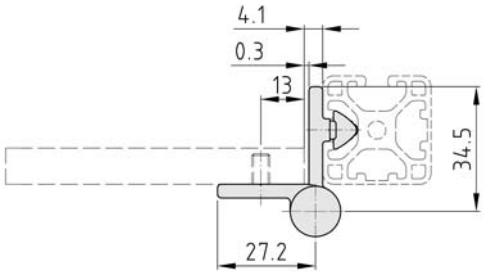
Hinge 6 Al FP0, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut 6 St M5, bright zinc-plated
1 Countersunk Screw DIN 7991-M5x12, bright zinc-plated
Notes on Use and Installation
m = 78.0 g

1 set 0.0.489.01



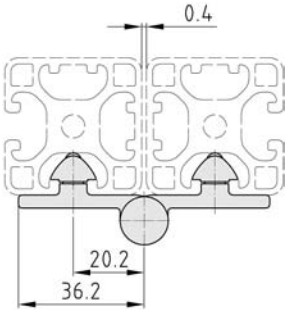
Hinge 6 Al PP4, light duty
Hinge Leaf, Al, anodized, natural
2 T-Slot Nuts 6 St M5, bright zinc-plated
2 Countersunk Screws DIN 7991-M5x12, bright zinc-plated
Notes on Use and Installation
m = 86.0 g

1 set	0.0.489.03



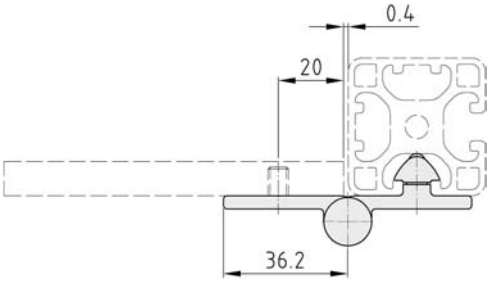
Hinge 6 Al FP4, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut 6 St M5, bright zinc-plated
1 Countersunk Screw DIN 7991-M5x12, bright zinc-plated
Notes on Use and Installation
m = 79.0 g

1 set	0.0.489.05



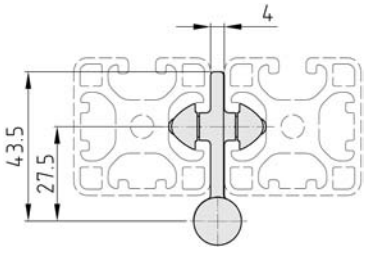
Hinge 8 Al PP0, light duty
Hinge Leaf, Al, anodized, natural
2 T-Slot Nuts V 8 St M6, bright zinc-plated
2 Countersunk Screws DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 110.0 g

1 set	0.0.488.90



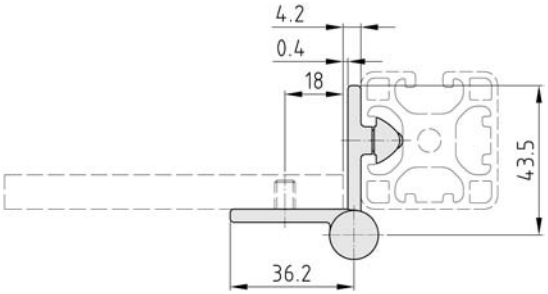
Hinge 8 Al FP0, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut V 8 St M6, bright zinc-plated
1 Countersunk Screw DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 94.0 g

1 set	0.0.488.92



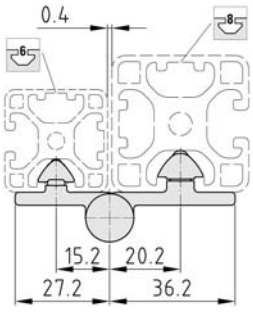
Hinge 8 Al PP4, light duty
Hinge Leaf, Al, anodized, natural
2 T-Slot Nuts V 8 St M6, bright zinc-plated
2 Countersunk Screws DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 113.0 g

1 set	0.0.488.94



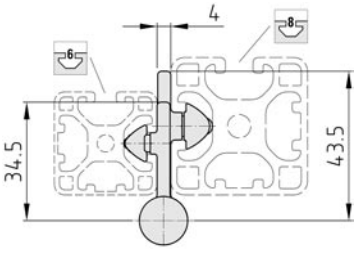
Hinge 8 Al FP4, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut V 8 St M6, bright zinc-plated
1 Countersunk Screw DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 96.0 g

1 set	0.0.488.96



Hinge 6/8 Al PP0, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut 6 St M5, bright zinc-plated
1 Countersunk Screw DIN 7991-M5x12, bright zinc-plated
1 T-Slot Nut V 8 St M6, bright zinc-plated
1 Countersunk Screw DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 98.0 g

1 set	0.0.489.07

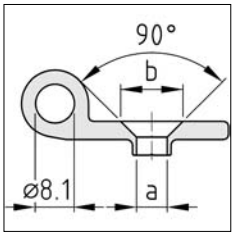


Hinge 6/8 Al PP4, light duty
Hinge Leaf, Al, anodized, natural
1 T-Slot Nut 6 St M5, bright zinc-plated
1 Countersunk Screw DIN 7991-M5x12, bright zinc-plated
1 T-Slot Nut V 8 St M6, bright zinc-plated
1 Countersunk Screw DIN 7991-M6x14, bright zinc-plated
Notes on Use and Installation
m = 101.0 g

1 set	0.0.489.09

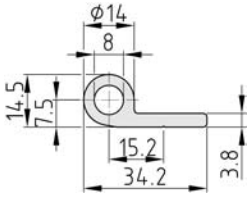
The Hinge Leaf Profiles and Hinge Pins which are available separately can be combined to produce made-to-measure hinges that are perfectly tailored to the given requirements.

Three different Hinge Leaf Profiles are available in the modular dimensions of Line 6 (or 8) Profiles:
- Hinge Leaf Profile 6 (or 8) e light, with offset point of rotation
- Hinge Leaf Profile V 6 (or 8) z light, with anti-torsion feature and centric point of rotation
- Hinge Leaf Profile V 6 (or 8) e light, with anti-torsion feature and offset point of rotation



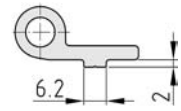
	a	b +0.2
6	∅ 5.4	∅ 11
8	∅ 6.4	∅ 13

The Hinge Leaf Profiles can be given a drilled hole or countersink for screw fastening. The correct position of the hole is identified by a marking notch on the rear of the hinge.
It is advisable to widen the ∅ 8 mm profile bore to ∅ 8.1 mm before fitting the Hinge Pin. The Hinge Pin must be greased prior to use.



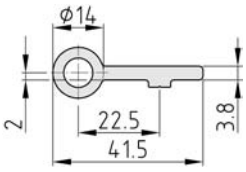
Hinge Leaf Profile 6 e light
Al, anodized
m = 0.54 kg/m

natural, 1 pce., length 3000 mm	0.0.451.80



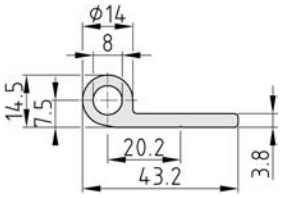
Hinge Leaf Profile V 6 e light
Al, anodized
m = 0.57 kg/m

natural, 1 pce., length 3000 mm	0.0.451.78



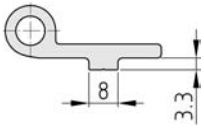
Hinge Leaf Profile V 6 z light
Al, anodized
m = 0.60 kg/m

natural, 1 pce., length 3000 mm	0.0.451.76



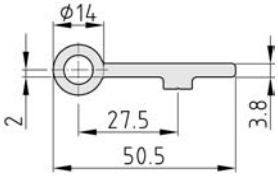
Hinge Leaf Profile 8 e light
Al, anodized
m = 0.64 kg/m

natural, 1 pce., length 3000 mm	0.0.454.58



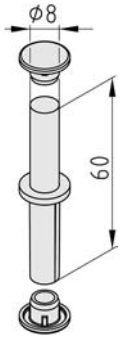
Hinge Leaf Profile V 8 e light
Al, anodized
m = 0.71 kg/m

natural, 1 pce., length 3000 mm	0.0.454.56



Hinge Leaf Profile V 8 z light
Al, anodized
m = 0.73 kg/m

natural, 1 pce., length 3000 mm	0.0.454.54

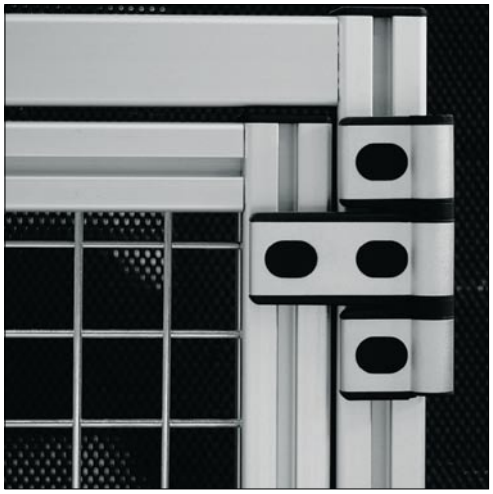


Hinge Pin D8x60 light
Grooved pin, St, bright zinc-plated
Washer, PA, grey
2 Caps, PA, grey
m = 30.0 g

1 set	0.0.488.44

Modular Hinge System 8

New in catalogue

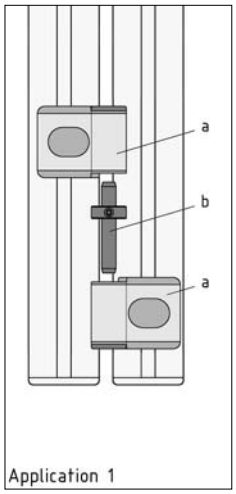


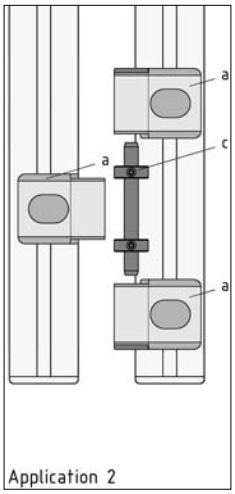
Modular Hinge System for high-strength aluminium hinges. Suitable for heavy doors, lids and swivel-type devices.
Hinge Leaves of various heights and widths support heavy-duty hinges of virtually any length which the user can adapt to the specific situation. Hinges with an opening angle of up to 270° can be achieved using a suitable combination of sets.

A hinge consists of at least two Hinge Leaves and a suitable Hinge Pin. The Hinge Leaves and Pin are available in different lengths. When selecting these components, the minimum depth which the pin is inserted into the eye of the Hinge Leaf must always be taken into account.

Defined sets always contain all components necessary for a complete Hinge Leaf or Hinge Pin.

The use of slots and stepped locating lugs for screwing the Hinge Leaves facilitates the process of aligning the doors in the surrounding door frame. The locating lugs also serve as an anti-torsion device in the groove, thus preventing the hinges from becoming displaced under load.
Fastening is also possible to the end face of the profile. The slots are sealed with the enclosed Caps after installation has been completed, as are the drill holes of the hinge eyes.





The required hinge can be assembled easily from the following sets:

a = Hinge Leaf 8 40x40

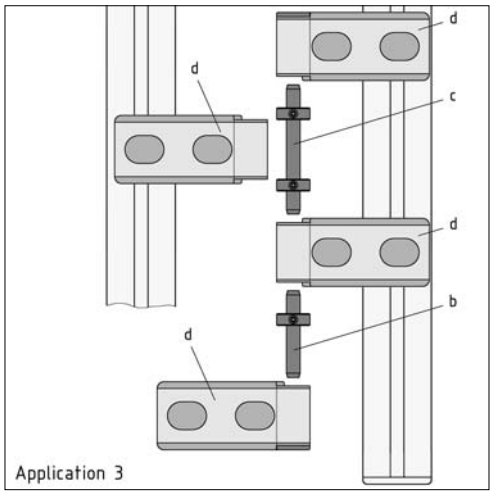
b = Hinge Pin D8x51

c = Hinge Pin D8x76

d = Hinge Leaf 8 80x40

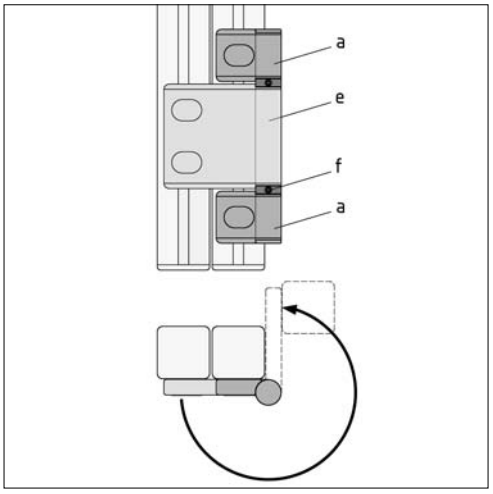
e = Hinge Leaf 80x80

f = Hinge Pin D8x116



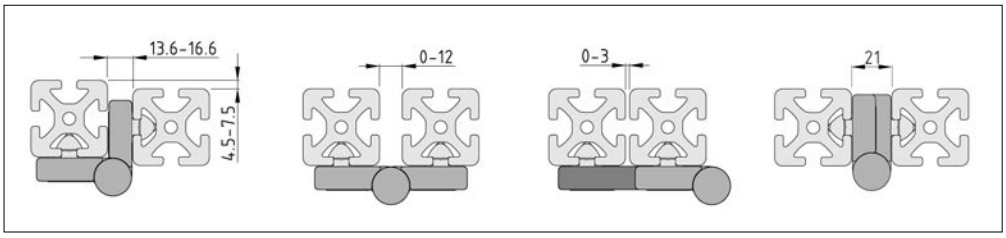
Various Hinge Leaves and Hinge Pins can be combined to construct hinge strips.

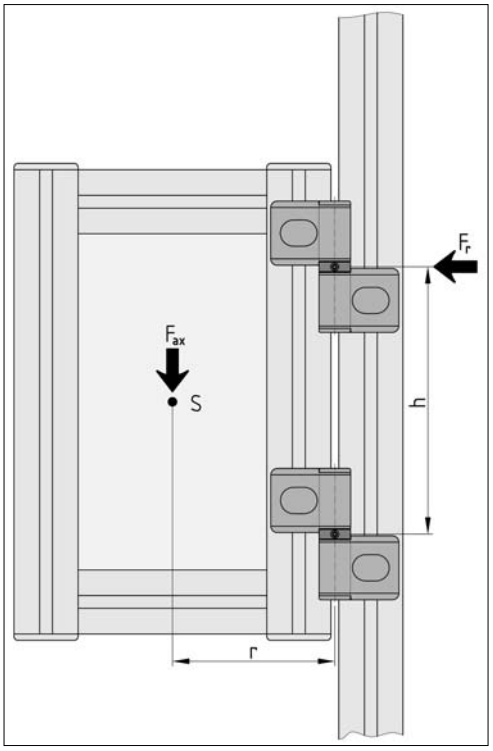
For example: Constructing a hinge strip with Hinge Leaves 8 80x40.



Example of a hinge opening around 270°.

The combination of Hinge Leaf 8 80x80 and two Hinge Leaves 8 40x40 (using a Hinge Pin D8x116) can be used to construct a hinge with a 270° angle of swing. This may be required, first and foremost, when constructing wide-opening doors in machine paneling.

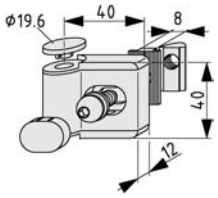




Application	$F_{r\,perm.}$	$F_{ax\,perm.}$
1	150 N	750 N
2	350 N	750 N
3	350 N	450 N

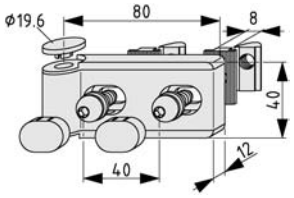
$F_{ax} \times r = F_r \times h$

The data apply for at least two hinges per door - one hinge assumed to be supporting.



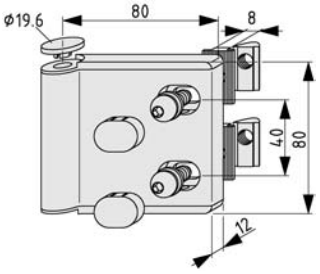
Hinge Leaf 8 40x40
1 Hinge Leaf, Al, anodized, natural
1 Locating lug, Al, anodized, natural
1 Button-Head Screw ISO 7380-M8x18, St, bright zinc-pl.
1 Washer DIN 433-8,4, St, bright zinc-plated
1 T-Slot Nut V 8 St M8, St, bright zinc-plated
Caps, PA-GF, black
m = 68.0 g

1 set 0.0.483.60



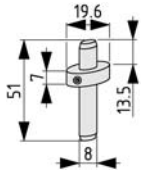
Hinge Leaf 8 80x40
1 Hinge Leaf, Al, anodized, natural
2 Locating lugs, Al, anodized, natural
2 Button-Head Screws ISO 7380-M8x18, St, bright zinc-pl.
2 Washers DIN 433-8,4, St, bright zinc-plated
2 T-Slot Nuts V 8 St M8, St, bright zinc-plated
Caps, PA-GF, black
m = 125.0 g

1 set 0.0.483.59



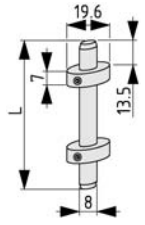
Hinge Leaf 8 80x80
1 Hinge Leaf, Al, anodized, natural
2 Locating lugs, Al, anodized, natural
2 Button-Head Screws ISO 7380-M8x18, St, bright zinc-pl.
2 Washers DIN 433-8,4, St, bright zinc-plated
2 T-Slot Nuts V 8 St M8, St, bright zinc-plated
Caps, PA-GF, black
m = 225.0 g

1 set 0.0.485.22



Hinge Pin D8x51
1 pin, St, stainless
1 locking ring, St, black
1 grub screw DIN 916-M4x4, St, black
m = 32.0 g

1 set 0.0.483.62



Hinge Pin D8x76
1 pin, St, stainless
2 locking rings, St, black
2 grub screws DIN 916-M4x4, St, black
L = 76 mm
m = 55.0 g

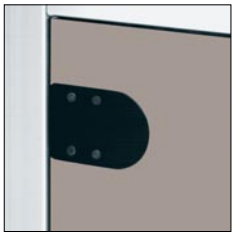
1 set 0.0.483.61

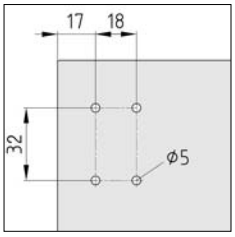
Hinge Pin D8x116
1 pin, St, stainless
2 locking rings, St, black
2 grub screws DIN 916-M4x4, St, black
L = 116 mm
m = 70.0 g

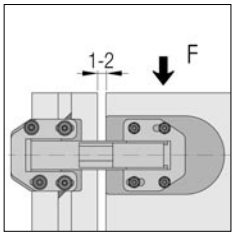
1 set 0.0.486.16

Hinge St, light duty

Spring-loaded internal hinge for 90° opening of frameless doors. The way the hinge works enables the doors to be swung out of the door opening without the panel element striking against the door post.



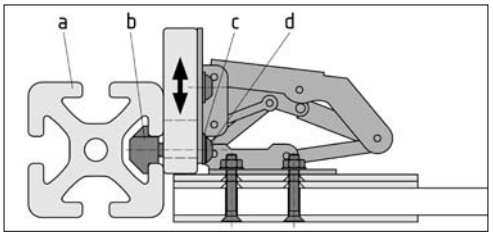




Machining specifications for the panel element

The door height/width ratio should be greater than 1.5 to ensure easy operation of Hinge, St.

Permissible load: F = 50 N



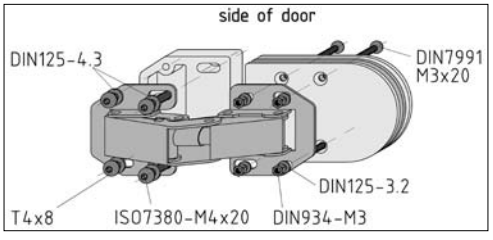
Option for fastening the Hinge to the frame.

The door / panel elements can be aligned flush to the frame using the spacer plates and the slot in the adapter plate:

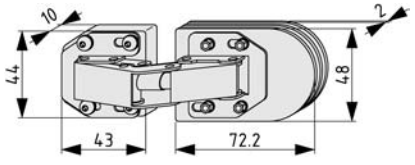
> Line 5 Profile: Max. 4 mm thickness
> Line 6 Profile: Max. 8 mm thickness
> Line 8 Profile: Max. 10 mm thickness

a Profile	b T-Slot Nut	c Washer DIN 125	d Screw ISO 7380
5	5 St M4*	4.3	M4x16*
6	6 Zn M4*	4.3	M4x20
8	8 Zn M4*	4.3	M4x20

The adapter plate can be used to attach Hinge, St, light duty to all profile lines.
Choose the fastening elements that match the profile lines used for the surrounding frame.
The components marked with an * are not included in the scope of supply for Hinge, St, light duty.



Tightening torque for the fastening screws:
M = 1.5 Nm



Hinge St, light duty
Hinge, St, black
Adapter plate, PA-GF, black
3 spacer plates, PA-GF, black
Fastening elements
m = 125.0 g

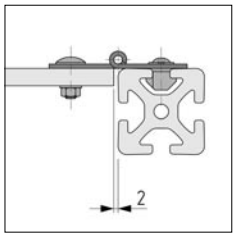
1 set	0.0.474.38

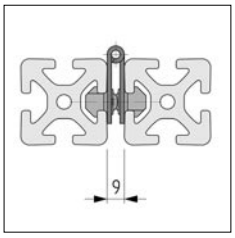
Hinge St

Universal lightweight hinge for doors and lids.
Can be mounted on the inside or outside of the door (when mounted on the inside it cannot be unscrewed).

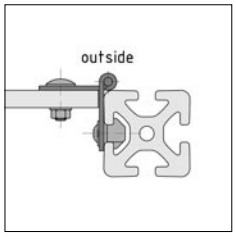
The panel element (door) can be swung around 180°.

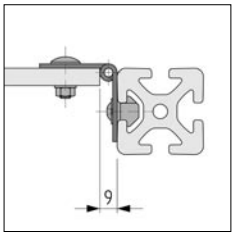
The slots allow the hinge to be adjusted and used for Lines 5 to 8.



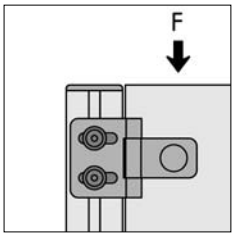


Note: T-Slot Nuts 8 Zn M5 is recommended for screwing Hinge St to the Line 8 Profile.

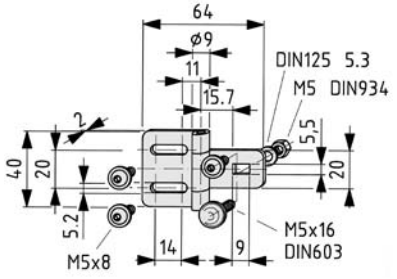




These attachment versions of Hinge St cannot be unscrewed from the outside.



F = 250 N



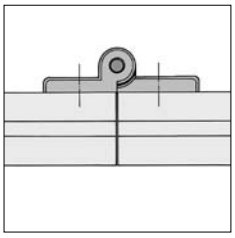
Hinge St
Hinge halves, St, black
3 dome-head screws M5x8, St, black
Hexagon Nut DIN 934-M5, St, black
Washer DIN 125-5,3, St, black
Cup square bolt DIN 603-M5x16, St, black
m = 51.0 g

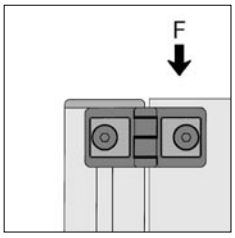
1 set	0.0.373.82

Hinges 6 Zn

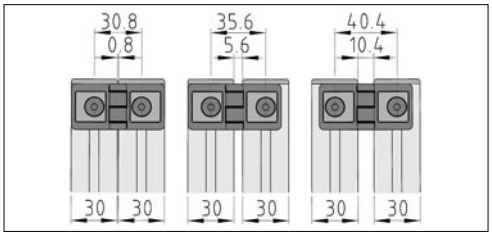
Hinge 6 Zn can be used to construct swing doors with Profiles 6, Profiles 8 or any desired panel elements.

The basic unit of the Hinge used in conjunction with asymmetric anti-torsion blocks allows a whole range of combinations and mounting dimensions in Lines 6 and 8. The anti-torsion blocks can be removed for making screw-connections to panel elements.

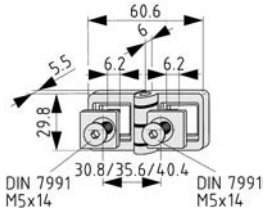




F = 300 N

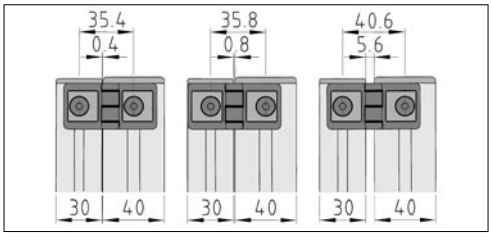


Hinge 6 30 Zn 6/6
Possibilities for mounting the anti-torsion block with a gap width of 6.2 mm.

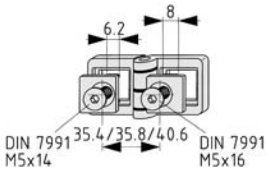


Hinge 6 30 Zn 6/6
Hinge, die-cast zinc, black
2 anti-torsion blocks 6, die-cast zinc, black
2 Countersunk Screws DIN 7991-M5x14, St, black
m = 62.0 g

1 set	0.0.441.58

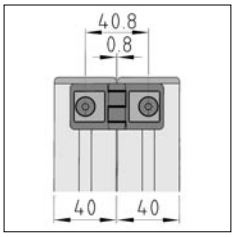


Hinge 6 30 Zn 6/8
Possibilities for mounting the anti-torsion block with a gap width of 6.2 mm and 8 mm.

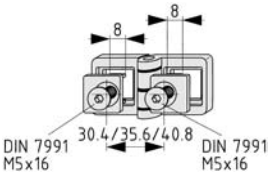


Hinge 6 30 Zn 6/8
Hinge, die-cast zinc, black
1 anti-torsion block 6, die-cast zinc, black
1 anti-torsion block 8, die-cast zinc, black
1 Countersunk Screw DIN 7991-M5x14, St, black
1 Countersunk Screw DIN 7991-M5x16, St, black
m = 63.0 g

1 set 0.0.441.61



Hinge 6 30 Zn 8/8
Possibilities for mounting the anti-torsion block with a gap width of 8 mm.



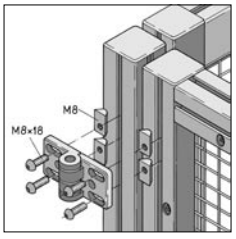
Hinge 6 30 Zn 8/8
Hinge, die-cast zinc, black
2 anti-torsion blocks 8, die-cast zinc, black
2 Countersunk Screws DIN 7991-M5x16, St, black
m = 63.0 g

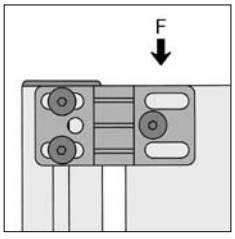
1 set 0.0.441.81

Hinge 8 Zn

Suitable for higher loads, e.g. large machine doors and doors for guard units, and as compact connecting element for profiles positioned at various angles. Hinges 8 Zn are suitable for right-hand and left-hand application. Fastening is possible on the outer surfaces or end faces of profiles (using either slots or ∅ 8 mm centre hole). Integrated anti-torsion pins to provide additional stability in the groove.

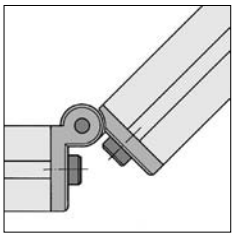
If required, e.g. when fitting to a panel element, the anti-torsion pin should be removed with a screwdriver.

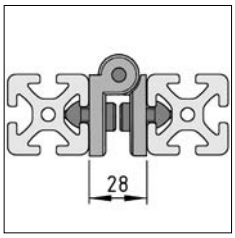




Attaching Hinge 8 40 Zn to the profile grooves of Line 8.

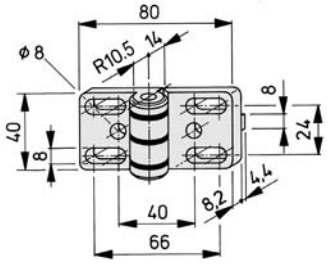
F = 750 N





Hinge 8 40 Zn can be screw-connected to the end face or to the profile groove.

5 6 **8** 12

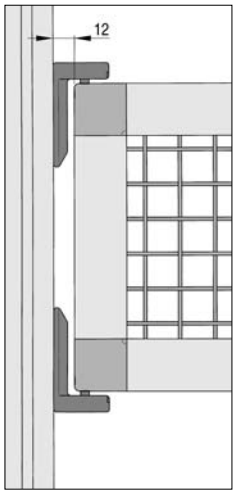


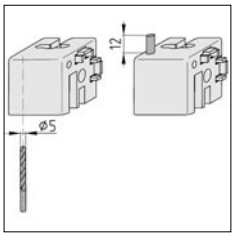
Hinge 8 40 Zn
Hinge halves, die-cast zinc, black
m = 180.0 g

1 pce.	0.0.196.36

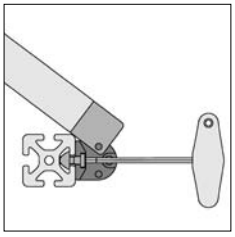
Clamp-Profile Hinges E

Clamp-Profile Hinge E enables frame elements with Clamp-Profile Fasteners to be used as swing doors. Clamp-Profile Hinge E can be used in combination with Clamp-Profile Fasteners 6 30x30 E and 8 40x40 E (Section 3.3 Rigid Fastening Elements).



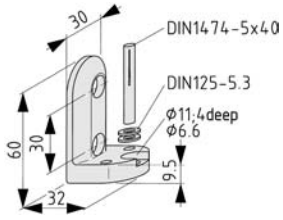


The Clamp-Profile Fasteners are prepared by drilling the pre-cast hole to ∅ 5 mm and then pressing in grooved pin DIN 1474.



The fastening screws for the two halves of the hinge can be reached easily when the door is open and allow the door to be fitted by sliding together the two halves of the hinge.

The doors can be fitted left or right by using the appropriate hole.



Clamp-Profile Hinge E
2 hinge halves, die-cast zinc, black
4 washers DIN 125-5.3, St, black
2 grooved pins DIN 1474-5x40, St
m = 202.0 g

1 set	0.0.444.12

Clamp-Profile Hinge Fastening Set 6
4 Hex. Socket Head Cap Screws DIN 6912-M6x12, St, black
4 T-Slot Nuts 6 St M6, bright zinc-plated
m = 36.0 g

1 set	0.0.441.66

Clamp-Profile Hinge Fastening Set 8
4 Hex. Socket Head Cap Screws DIN 6912-M6x14, St, black
4 T-Slot Nuts 8 St M6, bright zinc-plated
m = 58.0 g

1 set	0.0.444.11

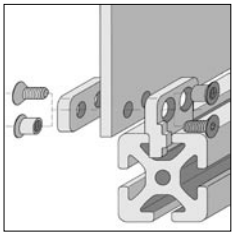
3.4.2 Movable Fastenings

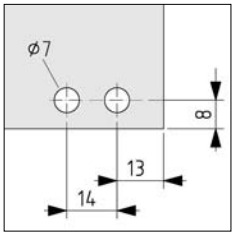
The Movable Fasteners product group comprises components which are used for constructing sliding, lifting and folding doors.
In addition to slide and rolling elements, a complete Roller Shutter System is also provided for a movable secured panel.

Heavy sliding doors can be made to move particularly easily using C-Rail profiles.
These products can be found in Section 8.1 Linear Slides.

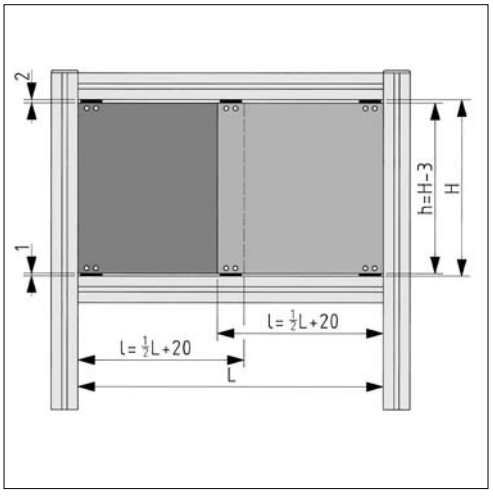
Sliding-Door Guide Set 8

Sliding Door Guide Set 8 is used in the construction of sliding doors from frameless panel elements, with the Profile 8 groove serving as a guide. There can be up to 2 sliding doors in a single groove.
One Sliding Door Guide Set 8 is required for each sliding door. Each slide piece is secured in position by means of two Countersunk Screws DIN 7991-M5x12. Panel elements thicker than 5 mm must be secured with Countersunk Screws DIN 7991-M5x16.
The slide pieces can be fitted from either side to suit the application.

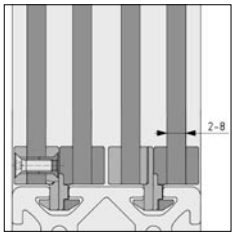


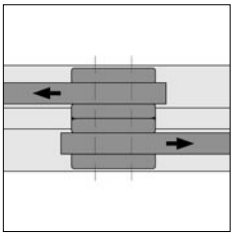


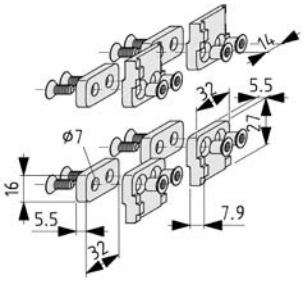
The maximum permissible weight of one door is 10 kg.



There can be either 1 or 2 sliding doors in a single Profile 8 groove.
The slide pieces function as stops or catches for the second door at the terminal position.





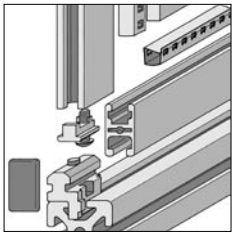


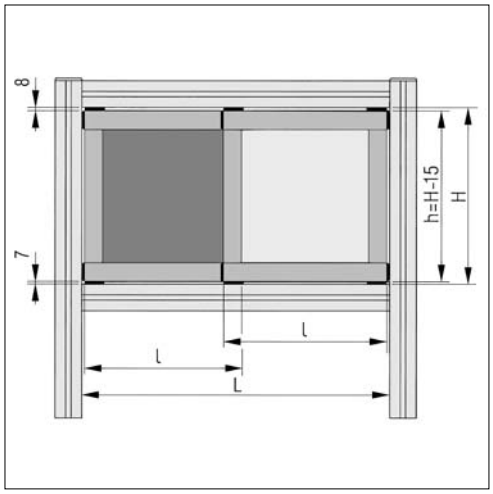
Sliding-Door Guide Set 8
4 slide pieces (2xright, 2xleft), POM, black
4 spacer pieces, POM, black
8 Countersunk Screws DIN 7991-M5x12, St, bright zinc-plated
8 threaded bushings, St, bright zinc-plated
m = 58.0 g

1 set	0.0.406.66

Sliding-Door Guide Set 8/8

For the construction of sliding doors in conjunction with Clamp Profile 8 32x18.
One Sliding-Door Guide Set 8/8 is required for each sliding door. Fastening is by means of a spring bolt locking into the ∅ 7 mm mounting bore of Clamp-Profile Fastening Set 8 32x18.
Should fastening elements in the guide groove cause obstruction, the slide piece can be fixed at an alternative position by drilling an additional ∅ 7 mm hole in the door profile.



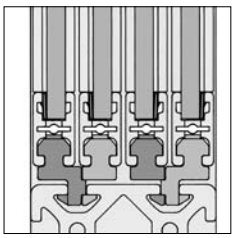


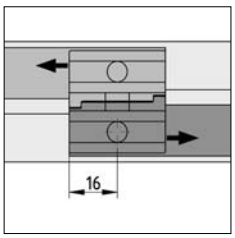
For sliding door constructions with n door elements of the same size, the following equation can be used to calculate the profile length l:

$$l = \frac{L + 32\,(n-1) - 8}{n}$$

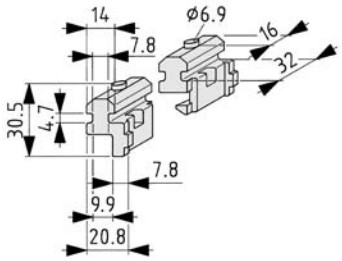
A side overlap of Caps 8 32x18 of 4 mm is taken into account.

The maximum permissible weight of one door is 10 kg.





There can be either 1 or 2 sliding doors in a single Profile 8 groove.
The slide pieces function as stops or catches for the second door at the terminal position.

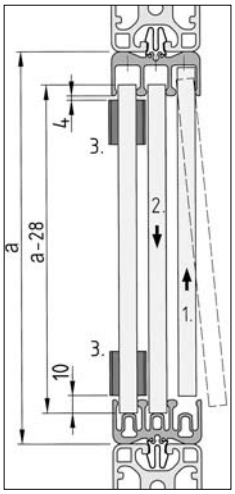


Sliding-Door Guide Set 8/8
4 slide pieces (2xright, 2xleft), POM, black
Spring bolt, St, bright zinc-plated
Spring, St, stainless
m = 49.0 g

1 set	0.0.404.87

Sliding-Door Guide Profile

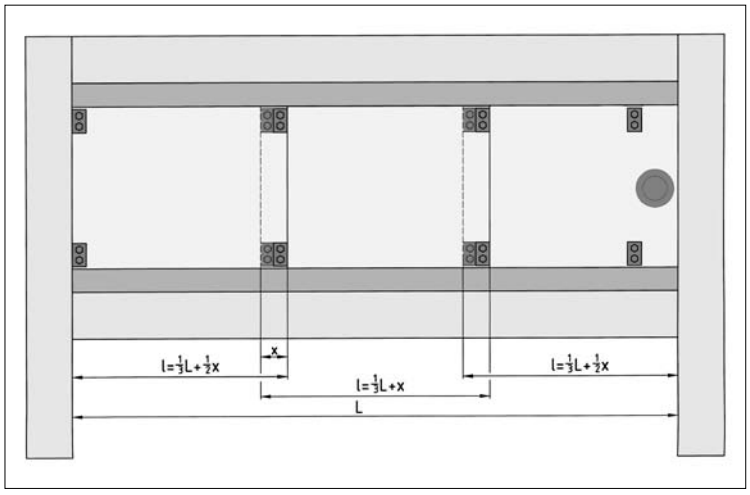
The Sliding-Door Guide Profile is retrofitted into a profile frame.
Frameless, inherently stable panel elements made of plastic (thickness 8 mm) can be used as sliding doors.
The weight of the panel element, its inherent stability and the friction on the aluminium profile must all be taken into account in such cases.



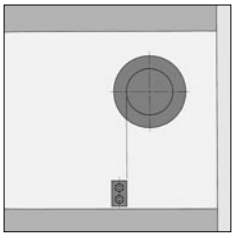
Clip 8 St (Section 1.2 Accessories for Profiles) snaps the top and bottom of the Sliding-Door Guide Profile into the surrounding frame profiles.
1. The panel element is first lifted into the required track at the top of the Sliding-Door Guide Profile.
2. It is then placed in the corresponding guide track at the bottom of the Sliding-Door Guide Profile.
3. Positioning the catch correctly and securely at the top will avoid the doors from being pulled out accidentally.

The sliding-door catches are attached directly to the panel element if two or three sliding-door panels are to be moved together. Their position can be selected individually, in order to determine the required opening path of the accompanying door panels and the overlap of the doors x ($x_{min.}$ = 25 mm).

Rubber rings are mounted on the catches as shock absorbers.

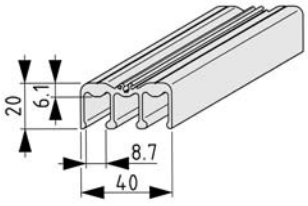


Typical arrangement of a 3-part sliding door with equal-sized door segments.



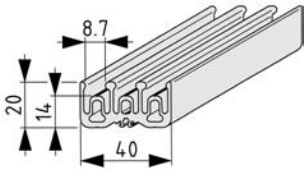
The sliding-door catches must be fitted correctly, so as to ensure that hands cannot become trapped in handles or recessed grips (Section 4.1 Handles).

5 6 8 12



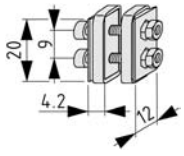
Sliding-Door Guide Profile 8 40x20, Top
Al, anodized
A = 2.76 cm²
m = 0.75 kg/m

natural, cut-off max. 3000 mm	0.0.473.75



Sliding-Door Guide Profile 8 40x20, Bottom
Al, anodized
A = 3.43 cm²
m = 0.93 kg/m

natural, cut-off max. 3000 mm	0.0.473.74

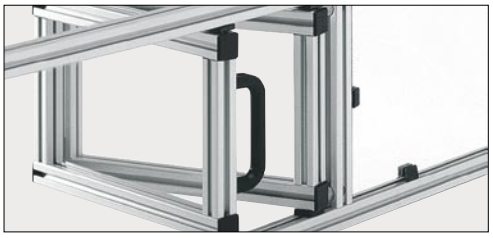


Sliding-Door Catch Set
PA-GF
2 Cap Screws DIN 912-M3x12, St, bright zinc-plated
2 nuts DIN 934-M3, St, bright zinc-plated
2 Damping rings, NBR, black
m = 4.0 g

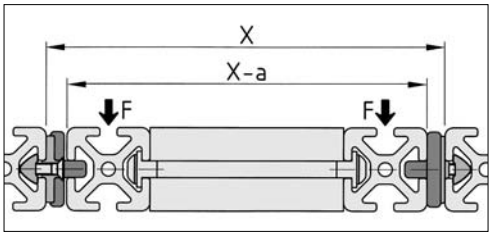
1 set	0.0.473.81

T-Slot Slider

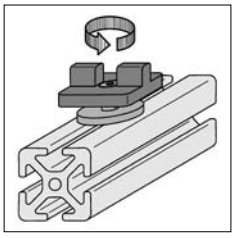
The T-Slot Slider enables elements to slide in the profile grooves while simultaneously rotating around the fastening point.
It can be used to construct simple guides for various components, e.g. keyboard pull-outs, panels for operating instructions, or simple lifting, folding and sliding doors in Line 5 or Line 6 profile grooves.



Construction of a folding door with T-Slot Sliders 6.

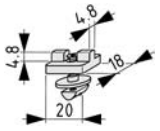


	a	F
5	11 mm	30 N
6	13 mm	40 N



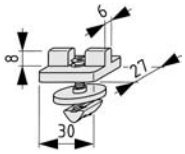
Unrestricted rotation of the T-Slot Slider around the hub also compensates for possible alignment errors.

5 6 8 12



T-Slot Slider 5
T-Slot Slider, POM, black
T-Slot Slider hub, St, bright zinc-plated
T-Slot Nut 5 St M3
Countersunk Screw DIN 7991-M3x10, St, bright zinc-plated
m = 6.0 g

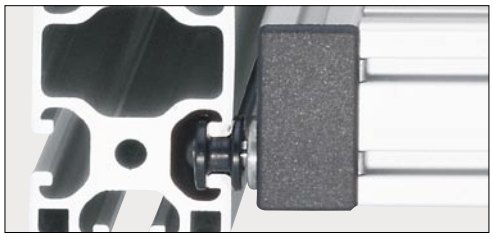
1 set	0.0.437.98



T-Slot Slider 6
T-Slot Slider, POM, black
T-Slot Slider hub, St, bright zinc-plated
T-Slot Nut 6 St M4
Countersunk Screw DIN 7991-M4x14, St, bright zinc-plated
m = 21.0 g

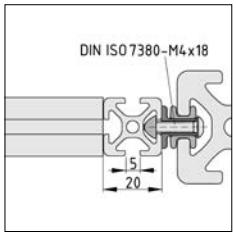
1 set	0.0.459.07

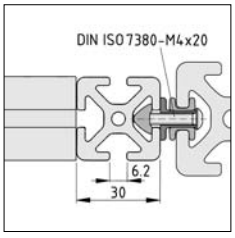
T-Slot Roller

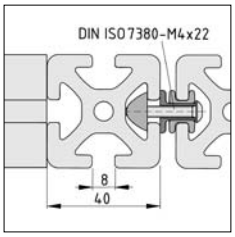


T-Slot Roller 8 can be used to construct a simple guide for various components, e.g. keyboard pull-out, panels for operating manuals or simple lifting doors in Profile 8 grooves.

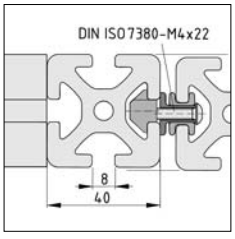
T-Slot Roller 8 F corresponds to a fixed bearing end and can absorb radial forces and small axial forces. To prevent strains resulting from saw tolerances, etc., T-Slot Roller 8 L offers a solution which transfers only radial forces in the direction of the groove flanks. As a rule, the two types of roller must be used in combination (e.g. T-Slot Roller 8 F for a keyboard pull-out at the fixed bearing end, T-Slot Roller 8 L as a radial support in the groove at the opposite end).



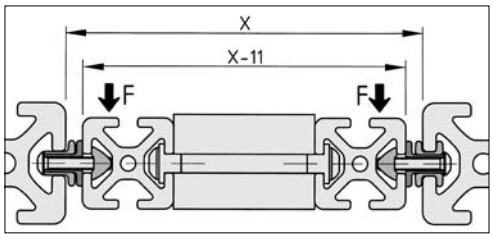




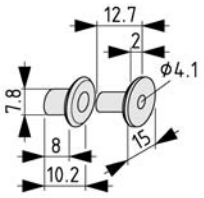
The T-Slot Rollers connect Profile 8 with the moving component without any central offset.



Special T-Slot Nut 8 Zn M4e with a central offset of 1 mm is available for moving elements made of Line 8 components. This ensures no collisions can occur during movement.

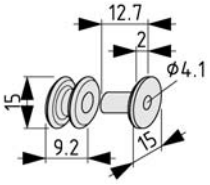


	F
T-Slot Roller 8L	50 N
T-Slot Roller 8F	50 N



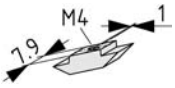
T-Slot Roller 8 L
1 floating bearing roller, POM, black
1 bearing hub, St, bright zinc-plated
m = 4.0 g

1 set	0.0.457.60



T-Slot Roller 8 F
1 fixed bearing roller, POM, black
1 bearing hub, St, bright zinc-plated
m = 5.0 g

1 set	0.0.457.51

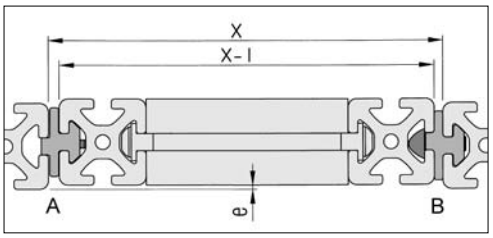


T-Slot Nut 8 Zn M4e
Die-cast zinc
m = 5.0 g

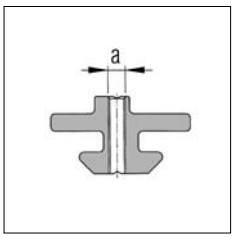
black, 1 pce.	0.0.457.47

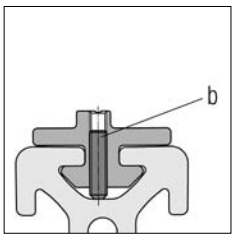
Slide Guide Strips

The Slide Guide Strip can be mounted directly in the profile groove to create simple slide mechanisms. It can be screw-connected to the profiles of the surrounding frames or to moving modules.
Slide Guides L and F are only suitable for installation on moving profiles.
The offset “e” prevents the moving components from colliding with the fixed frame elements.



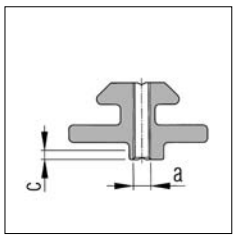
Slide Guide L (A = floating bearing) and Slide Guide F (B = fixed bearing) as guide elements, secured to a moving component.

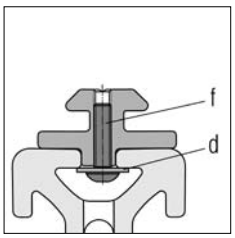




Required machining and fastening elements for fixing a Slide Guide Strip of any required length at the floating bearing end.

The distance between the fastening elements should be chosen to reflect the load.



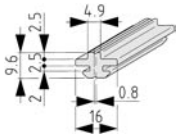


Required machining and fastening elements for fixing the Slide Guide Strip at the fixed bearing end.

Slide Guide Strip 5/5e must be counterbored by c = 2 mm in the area of the screw head.

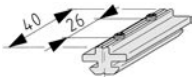
	Slide Guide Strip		
	5	6	8
a	M2.5	M3	M4
b	M2.5x8 DIN 916	M3x12 DIN 916	M4x16 DIN 916
c	2.0 mm	-	-
d	DIN 9021-2.7	DIN 9021-3.2	DIN 9021-4.3
e	0.8 mm	1.0 mm	2.0 mm
f	M2.5x8 DIN 912	M3x12 ISO 7380	M4x16 ISO 7380
l	$5.5^{+0.5}$ mm	$7.0^{+0.5}$ mm	$9.5^{+0.5}$ mm

5 6 8 12



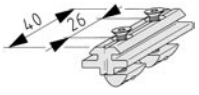
Slide Guide Strip 5/5e
PE-UHMW
m = 80 g/m

black, 1 pce., length 2000 mm	0.0.464.24



Slide Guide 5/5e L
PE-UHMW
with threaded bores
2 grub screws DIN 916-M2.5x8, St, bright zinc-plated
m = 5.0 g

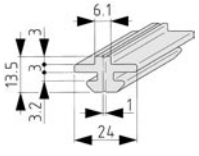
1 set	0.0.464.29



Slide Guide 5/5e F
PE-UHMW
with through bores
2 T-Slot Nuts 5 St M3, stainless
2 Countersunk Screws DIN 7991-M3x14, St, bright zinc-pl.
2 O-rings 3x1
m = 8.0 g

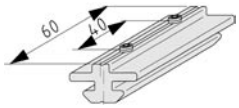
1 set	0.0.464.27

5 6 8 12



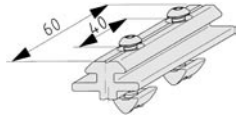
Slide Guide Strip 6/6e
PE-UHMW
m = 150 g/m

black, 1 pce., length 2000 mm	0.0.459.27



Slide Guide 6/6e L
PE-UHMW
with threaded bores
2 grub screws DIN 916-M3x12, St, bright zinc-plated
m = 11.0 g

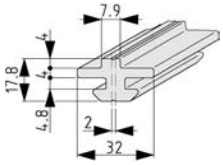
1 set	0.0.459.32



Slide Guide 6/6e F
PE-UHMW
with through bores
2 T-Slot Nuts 6 St M3, bright zinc-plated
2 Button-Head Screws M3x18, St, bright zinc-plated
2 O-rings 3x1
m = 19.0 g

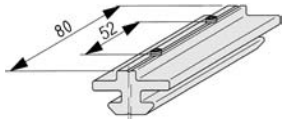
1 set	0.0.459.30

5 6 **8** 12



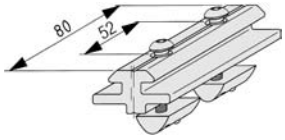
Slide Guide Strip 8/8e
PE-UHMW
m = 260 g/m

black, 1 pce., length 2000 mm	0.0.458.58



Slide Guide 8/8e L
PE-UHMW
with threaded bores
2 grub screws DIN 916-M4x16, St, bright zinc-plated
m = 22.0 g

1 set	0.0.465.26



Slide Guide 8/8e F
PE-UHMW
with through bores
2 T-Slot Nuts 8 St M4, bright zinc-plated
2 Button-Head Screws M4x25, St, bright zinc-plated
2 O-rings 4x1.5
m = 44.0 g

1 set	0.0.465.24

Lifting-Door-System

New in catalogue

www.item.info

Modular system for constructing lifting doors in enclosures and guards, consisting of vertical guides, door hanging system, counterweight, drive and arrester.

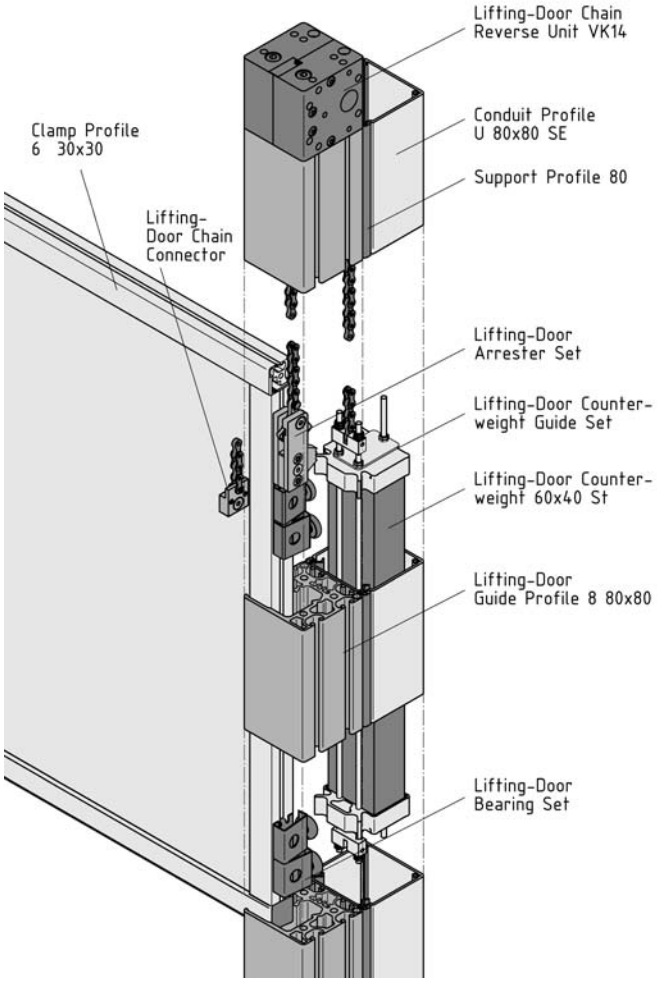
The Chain Reverse Units are designed to permit the lifting door to be driven automatically.

This can be done using the mechanical drive elements (Section 8.2). Couplings and Synchroniser Shafts can be connected to Lifting-Door Chain Reverse Unit VK14.

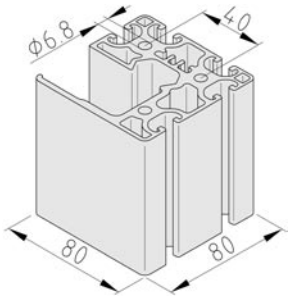
The counterweight is completely covered along its travel path, thereby ensuring there is no risk of injury from moving parts.

An arrester mechanism prevents the lifting door falling down the guide if the door hanging system fails.

The lifting door is constructed to the user's needs from a frame made from Line 6 profiles (Clamp Profiles preferred) which encloses any chosen panel element. Lifting doors should be a maximum of 2 m wide and not weigh more than 35 kg in total.

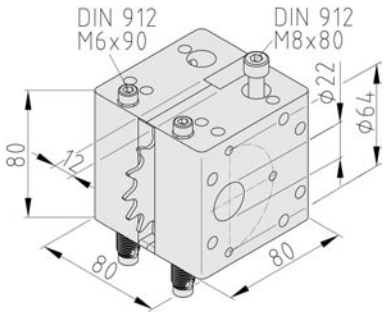


item sales partners provide a project planning service for lifting doors and/or can make you a detailed offer.
In addition to the individual components, they will also be able to supply you with complete lifting doors or building kits.



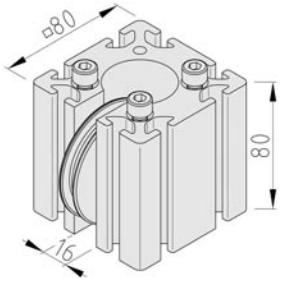
Lifting-Door Guide Profile 8 80x80
Al, anodized
m = 5.51 kg/m

natural, cut-off max. 6000 mm	0.0.485.10



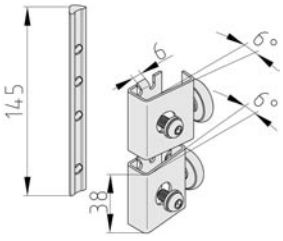
Lifting-Door Chain Reverse Unit VK14
Chain Reverse Unit, Al, coated, white aluminium (RAL9005)
Ball-bearing sprocket wheel, z = 16 (z = number of teeth)
One revolution corresponds to 203.2 mm
Hub with multi-spline DIN ISO 14-6x11x14,
hub length 30 mm, Max. load M_D = 20 Nm
Chain length in Reverse Unit 182.3 mm
1 Cap Screw DIN 912-M8x80, St, bright zinc-plated
2 Cap Screws DIN 912-M6x90, St, bright zinc-plated
2 Automatic Fasteners 8, threaded bore, St, bright zinc-pl.
Notes on Use and Installation
m = 1.3 kg

1 set	0.0.485.18



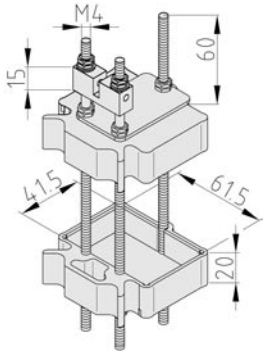
Lifting-Door Chain Reverse Unit E
Chain Reverse Unit, Al, anodized
Reversing wheel, slide bearing, PA
Chain length in Reverse Unit 182.3 mm
3 Hexagon Socket Head Cap Screws DIN 912-M8x80, St, bright zinc-plated
Notes on Use and Installation
m = 1.0 kg

1 set	0.0.487.14



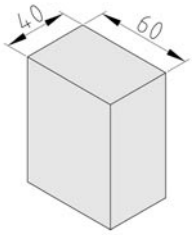
Lifting-Door Bearing Set
2 Castor units, with ball bearing
Special T-slot nut 6 St
2 Washers DIN 125-6.4, St, bright zinc-plated
2 Button-Head Screws ISO 7380-M6x12, St, bright zinc-plated
m = 129.0 g

1 set	0.0.487.07



Lifting-Door Counterweight Guide Set
2 Slide Guides, POM, black
3 Threaded rods DIN 975-M4x1000, St
1 Chain fastener, St, bright zinc-plated
2 Retaining plates, St, bright zinc-plated
Nuts and washers, St, bright zinc-plated
m = 442.0 g

1 set	0.0.485.19

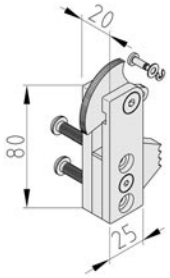


Lifting-Door Counterweight 60x40 St
Bar steel DIN 1017-60x40, cold-rolled
m = 18.84 kg/m

bright, cut-off max. 3000 mm	0.0.487.59

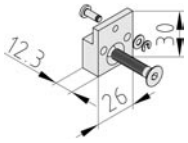
Saw Cut for Steel, Medium Cross-Sections

1 pce.	0.0.487.60



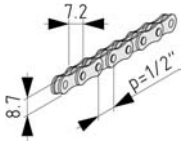
Lifting-Door Arrester Set
Housing and brake lever, St, bright zinc-plated
Chain pin with lock washer, St, bright zinc-plated
Washers, St, bright zinc-plated
1 Button-Head Screw ISO 7380-M6x25, St, bright zinc-plated
1 Button-Head Screw ISO 7380-M6x35, St, bright zinc-plated
m = 307.0 g

1 set	0.0.487.08



Lifting-Door Chain Connector
Chain fastening, St, bright zinc-plated
Washers, St, bright zinc-plated
Chain pin with lock washer, St, bright zinc-plated
1 Countersunk Screw DIN 7991-M6x30, bright zinc-plated
m = 65.0 g

1 set	0.0.487.18

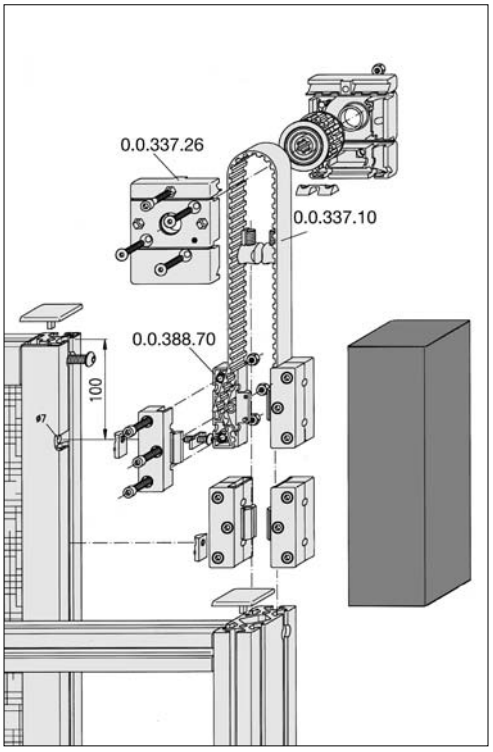


Chain ½″
St, nickel-plated
Pitch p = 12.7 mm corresponding to ½″
Operating load = max. 1.400 N
Elongation at 1,400 N = 2.5 - 3 ‰
m = 215 g/m

cut-off max. 25 m in 1″ intervals	0.0.465.17

Lifting-Door Guide Set

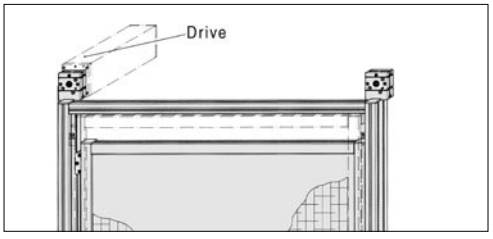
Lifting-Door Guide Set 8 facilitates the construction of lifting doors consisting of frame elements with various panel elements which are located between two vertical profiles. Between the lifting door and the profile, there must be a space of 25 mm on each side.



One or two counter-weights which are connected to the lifting door using Timing-Belt Reverse Units and Timing Belts (Section 8.2 Mechanical Drive Elements) compensate for the weight of the door. The lifting door and counter-weights are guided in the grooves of the Stand Profiles by means of Guide Sets.

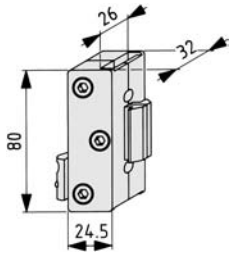
In addition, the Guide Sets connect the Timing Belt to the lifting door and counter-weight. As a rule, four Lifting Door Guide Sets are required for the lifting door and two for each counter- weight. The size of the counter-weight is determined by the weight of the lifting door. Whether one or two counter-weights are installed depends on the door weight and the ratio between the door width and door height, i.e. the aspect ratio.

Any suitable mass can be used as a counter-weight, (for example square steel bar or filled conduit elements). The counter-weights are screw attached to the Lifting-Door Guide Set which guides them along the profile groove.



The use of Timing-Belt Reverse Units is a basic requirement for using drive units. The process of opening and closing lifting doors can thus be automated and integrated into manufacturing systems or transport sequences.

5 6 **8** 12

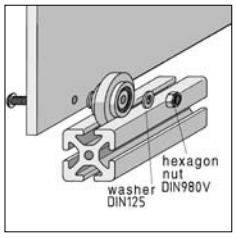


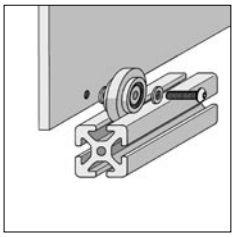
Lifting-Door Guide Set 8
Housing halves, POM, black
Steel insert, St, bright zinc-plated
Button-Head Screw ISO 7380-M6x25, St, bright zinc-plated
T-Slot Nut 8 St M6, bright zinc-plated
3 Cap Screws DIN 912-M6x25, St, bright zinc-plated
3 Hexagon Nuts DIN 934-M6, St, bright zinc-plated
m = 94.0 g

1 set	0.0.388.70

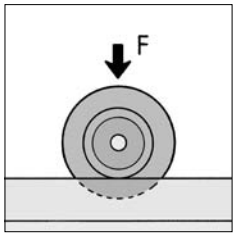
Castors

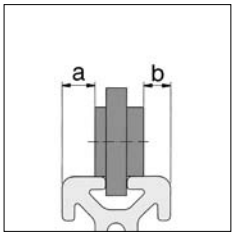
Versatile Castors which can be mounted in the profile grooves.
Using screws M5 (Line 5) and M6 (Lines 6 and 8), the Castors can be secured to any chosen components in order to move these along the profile groove.





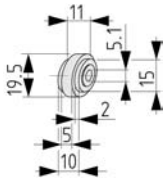
Light, intrinsically stable panel elements can be used as sliding doors in conjunction with the Castors.





Castor	5	6	8
F	50 N	100 N	150 N
a	5.0 mm	8.5 mm	12.0 mm
b	4.0 mm	5.5 mm	10.0 mm

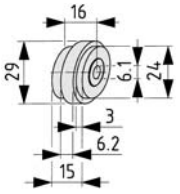
5 6 8 12



Castor 5
Castor, POM, black
Bearing hub, St, black
Washer DIN 125-5.3, St, bright zinc-plated
m = 4.0 g

1 pce. **0.0.370.97**

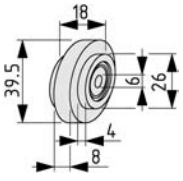
5 6 8 12



Castor 6
Castor, POM, black
Bearing hub, St, black
Washer DIN 125-6.4, St, bright zinc-plated
m = 16.0 g

1 pce. **0.0.419.79**

5 6 8 12

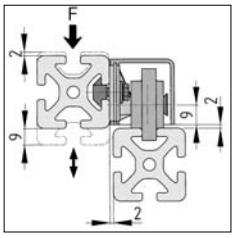


Castor 8
Castor, PA-GF, black
2 deep-groove ball bearings, sealed
m = 32.0 g

1 pce. **0.0.026.83**

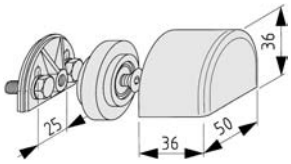
Castor Unit 8 PA

Fully covered Castor running in profile groove 8.
The Castor Unit can be secured to Profiles 5, 6 and 8 as well as directly to any chosen surfaces.



The mounting slots in the flange can be used to adjust the height of the Castor Unit.
Castor 8 is asymmetrical. This means that the offset between the profiles can be altered (0 or 2 mm) depending on how it is installed.

F = max. 75 N



Castor Unit 8 PA
Flange, PA-GF, black
Cap, PA-GF, black
Castor 8, PA-GF, black
1 Counters. Screw DIN 7991-M6x30, St, bright zinc-plated
2 hexagon screws DIN 933-M5x16, St, bright zinc-plated
2 washers, St, bright zinc-plated
m = 66.0 g

1 set	0.0.458.85

Roller Shutter System

Roller Shutters can be used primarily as moving panel elements for locking cabinet systems, control panels and operating consoles etc. The major advantage of the system is its flexibility, allowing it to be housed within the cabinet, and requiring far less space than swing or sliding doors.

The Roller Shutter System is suitable for constructing manually-operated vertical and horizontal roller shutters on frames built from Profiles 8. The system consists of the Roller Shutter Guide and the Roller Shutter itself, both of which are of modular design. The Roller Shutter is available in aluminium or plastic.

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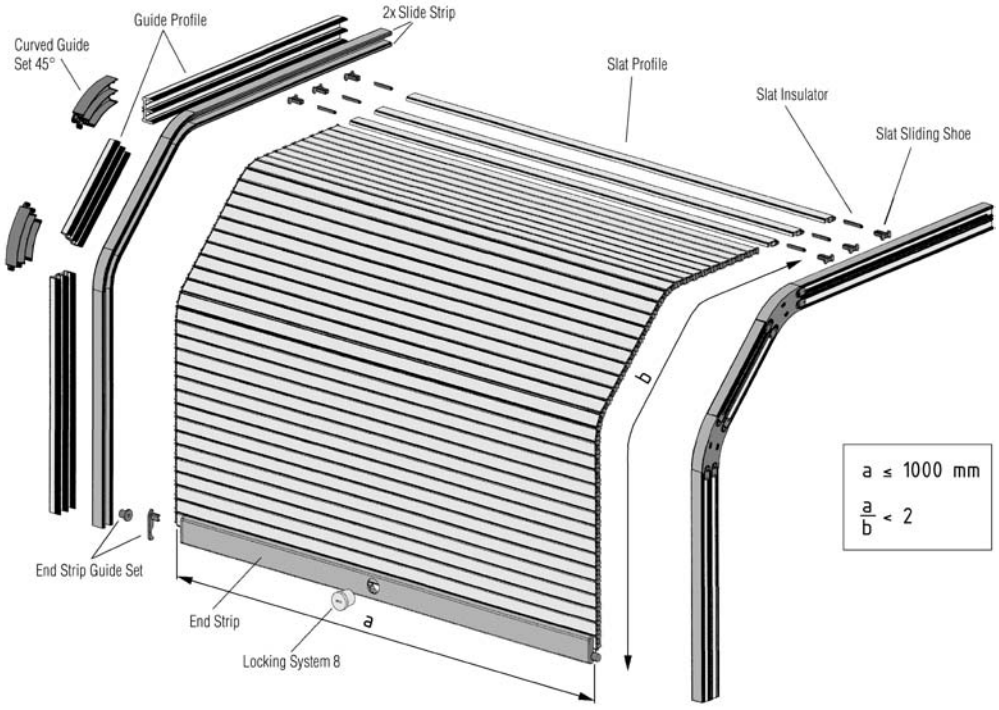
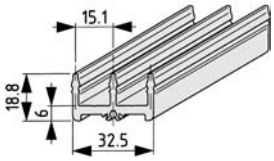


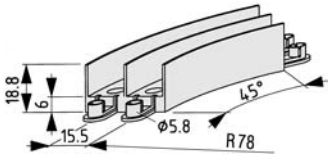
Roller Shutter Guide

5 6 **8** 12



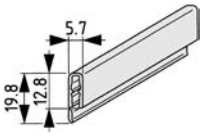
RS Guide Profile 8
Al, anodized
A = 2.28 cm²
m = 0.61 kg/m

natural, cut-off max. 3000 mm	0.0.465.63



RS Curved Guide Set 45°
2 Curved Guide 45°, PA, black
4 Countersunk Screws DIN 965-M2.5x5, St, bright zinc-pl.
Notes on Use and Installation
m = 135.0 g

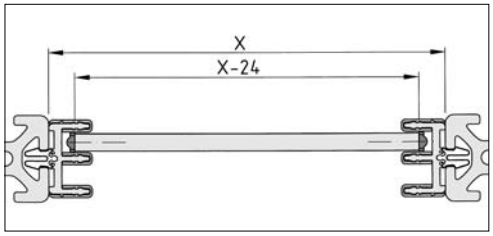
1 set	0.0.465.70



RS Slide Strip
PE-HD
A = 0.45 cm²
m = 44.0 g/m

black, 1 roll length 20 m	0.0.458.64

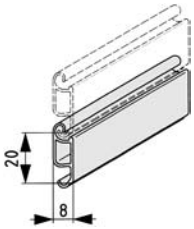
Aluminium Roller Shutters



Aluminium Roller Shutters are constructed as Slat Profiles Al with Slat Insulators between them. Each slat must be provided with Slat Sliding Shoes at each end. Weight of aluminium Roller Shutter: 8 kg/m²

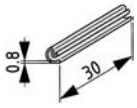
Length of aluminium Roller Shutter Slats:

l = X - 24 mm



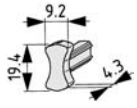
RS Slat Profile Al
Al, anodized
A = 0.58 cm²
m = 0.16 kg/m

natural, cut-off max. 3000 mm	0.0.465.69



RS Slat Insulator
PA
Recommended usage: 4 per 1m
m = 40 g/100

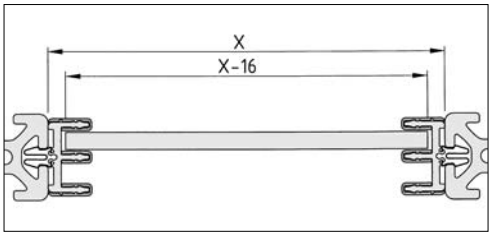
transparent, 1 PU = 100 pce.	0.0.465.68



RS Slat Sliding Shoe
PA
m = 60 g/100

black, 1 PU = 100 pce.	0.0.465.62

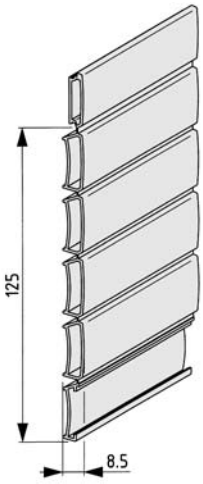
Plastic Roller Shutters



Roller Shutter Slat Profile K is connected to a Roller Shutter by means of the integrated locking segments.
No Slat Insulators or Slat Sliding Shoes are required.
Weight of plastic Roller Shutter: 3.7 kg/m²

Length of plastic Roller Shutter Slats:

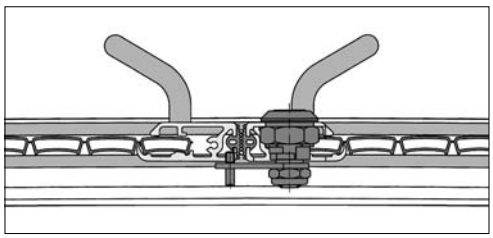
l = X - 16 mm



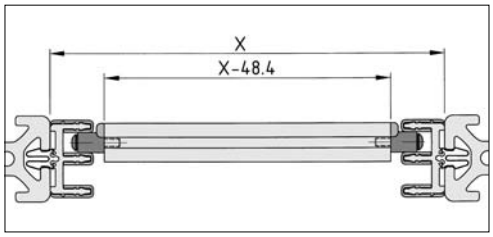
RS Slat Profile K
PVC
grey, aluminium-coloured coating
m = 465 g/m

1 pce., length 2000 mm	0.0.458.91

Roller Shutter End Strip



The Roller Shutter End Strip is used to terminate the Roller Shutter.
Handles or a Grip System can be secured to it. Roller Shutter Locking System 8 is inserted into a drill hole in the Roller Shutter End Strip.
The Roller Shutter Curved Guide Set 45° is accompanied by detailed installation instructions.



Length l of the Roller Shutter End Strip:

l = X - 48.4 mm

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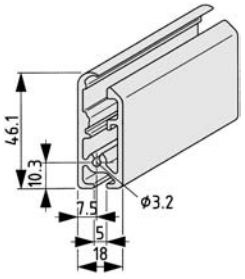
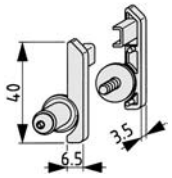


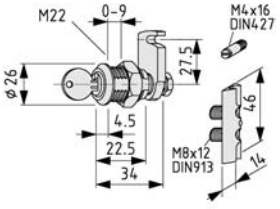
RS End Strip
Al, anodized
A = 2.95 cm²
m = 0.79 kg/m

natural, cut-off max. 3000 mm	0.0.465.66



RS End Strip Guide Set
1 End Strip cap, left, PA, black
1 End Strip cap, right, PA, black
2 End Strip rollers, POM/St, black
m = 8.0 g

1 set	0.0.465.58



RS Locking System 8
Cylinder Lock, all keys identical
Key, locking bar, nab
Headless screw
m = 105.0 g

1 set	0.0.465.57