

**item**



**LINE  
X**

**Setting New Standards in  
Mechanical Engineering.**

## Line X

New concept.  
Ultimate functionality.  
Superior design.

### Form and function.

The new Line X from item – the profile system with a difference. In this new concept, profiles have a neat, closed design with completely regular sides. The smallest possible edge radius results in a smooth, seamless connection between profiles, providing the ultimate in functionality, precise contours and no protruding edges.

New but tried and tested – the universal profile groove 8 in all Profiles X 8 ensures complete compatibility with the MB Building Kit System.

All profile cross-sections are also available with covered profile grooves. The groove cover can be removed to provide an immediate universal fastening option at any location, but only where actually required – elsewhere, the silky gloss of the anodized aluminium surface remains intact.





**X sets the standard.**

New standards for contemporary mechanical engineering – contour X for profiles and elements in the item MB Building Kit System.

The X indicates a design line that complements existing models. The Line X concept focuses more than ever before on the uniform design of all components.



## Line X

Consistent practicality.

Clean lines.

Quality appearance.

That little bit X-tra from item.

Line X components offer consistent practicality and clean lines. The profile structure takes second place to the real priority – the process. The structural identity is more pronounced, underlining the high quality of the machine.

Accessories in a subtle grey fit seamlessly into this philosophy. The clean lines continue right down to the smallest detail, creating a harmonious whole.

The practical advantage of the clean lines is that profile structures from the X Building Kit System are particularly suited to industrial applications where keeping things clean is paramount, for example in cleanrooms. The benefit of the closed design is clear to see – it is impossible for dirt to get into gaps and the covered grooves stop particles building up.

- Mechanical and factory equipment engineering
- Guards and enclosures
- Products for use in cleanrooms
- Partitions



Consistently systematic.

The X Building Kit System impresses with the quality of its functions. The system's modular dimensions allow both supporting and enclosing structures to be put together quickly and flexibly.

The innovative X Building Kit System gives any structure a quality appearance – sophisticated technology combining with a superior design.





## **Basic Elements X**

**Profiles  
Accessories for Profiles  
Fasteners**

## Profile X 8 light



Line X 8 profiles are light profiles in cross-sections from 40x40 to 80x80 mm. The grooves of Profiles 8 are freely accessible or hidden beneath a flush, smooth exterior. If necessary, this cover can simply be opened and removed to fit fastening elements or mount attachments.

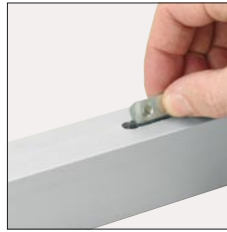
The profile's sharp outer edges provide a particularly smooth transition for the profile connection.



Opening the covered profile grooves:

It is advisable to mark the start and end of the opening with a 9.2 mm diameter drilled hole.

The groove cover can then simply be removed by levering it out with a screwdriver.



It is advisable to deburr the edges of the groove opening.

The opening allows T-Slot Nuts and other fastening elements (see Section 3 of MB Building Kit System Comprehensive Catalogue) to be inserted in the profile groove.



Screwing on a component then covers the groove opening again.



### Profile X 8 40x40 light

Al, anodized

$$A = 6.61 \text{ cm}^2 \quad I = 9.47 \text{ cm}^4$$

$$I_t = 1.12 \text{ cm}^4$$

$$m = 1.78 \text{ kg/m} \quad W = 4.73 \text{ cm}^3$$

natural, cut-off max. 6000 mm

0.0.492.91



### Profile X 8 40x40 4N light

Al, anodized

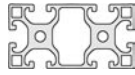
$$A = 6.90 \text{ cm}^2 \quad I = 10.03 \text{ cm}^4$$

$$I_t = 1.12 \text{ cm}^4$$

$$m = 1.86 \text{ kg/m} \quad W = 5.01 \text{ cm}^3$$

natural, cut-off max. 6000 mm

0.0.492.88



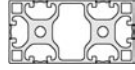
**Profile X 8 80x40 light**

Al, anodized

A = 11.46 cm<sup>2</sup>    I<sub>x</sub> = 17.18 cm<sup>4</sup>    I<sub>y</sub> = 71.65 cm<sup>4</sup>  
 m = 3.09 kg/m    I<sub>t</sub> = 10.05 cm<sup>4</sup>  
 W<sub>x</sub> = 8.59 cm<sup>3</sup>    W<sub>y</sub> = 17.91 cm<sup>3</sup>

natural, cut-off max. 6000 mm

0.0.492.94



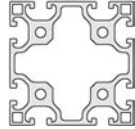
**Profile X 8 80x40 6N light**

Al, anodized

A = 11.89 cm<sup>2</sup>    I<sub>x</sub> = 18.30 cm<sup>4</sup>    I<sub>y</sub> = 75.12 cm<sup>4</sup>  
 m = 3.21 kg/m    I<sub>t</sub> = 10.05 cm<sup>4</sup>  
 W<sub>x</sub> = 9.15 cm<sup>3</sup>    W<sub>y</sub> = 18.78 cm<sup>3</sup>

natural, cut-off max. 6000 mm

0.0.493.01



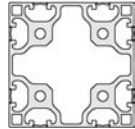
**Profile X 8 80x80 light**

Al, anodized

A = 19.37 cm<sup>2</sup>    I = 132.82 cm<sup>4</sup>  
 m = 5.23 kg/m    I<sub>t</sub> = 82.91 cm<sup>4</sup>  
 W = 33.20 cm<sup>3</sup>

natural, cut-off max. 6000 mm

0.0.492.97



**Profile X 8 80x80 8N light**

Al, anodized

A = 19.96 cm<sup>2</sup>    I = 138.57 cm<sup>4</sup>  
 m = 5.39 kg/m    I<sub>t</sub> = 82.91 cm<sup>4</sup>  
 W = 34.64 cm<sup>3</sup>

natural, cut-off max. 6000 mm

0.0.493.04

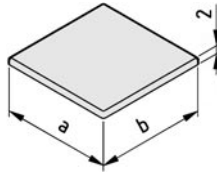
**Caps for Profiles X 8**



Caps close the end faces of Profiles X 8. They are held in place by a push fit in the Profile's central cavity. The cut edge does not need to be deburred.

The flat Caps in a subtle grey match the profile contour and complement the new form of Profiles X.



**Cap X 8 40x40**

PA-GF

m = 5 g

grey, similar to RAL 7042, 1 pce.

0.0.489.60

**Cap X 8 80x40**

PA-GF

m = 8 g

grey, similar to RAL 7042, 1 pce.

0.0.489.61

**Cap X 8 80x80**

PA-GF

m = 16 g

grey, similar to RAL 7042, 1 pce.

0.0.489.98

**Cover Profiles**

Profiles X 8 come in two versions – with profile grooves open or closed (cover can be removed). An open profile groove is essential for many functions, but it may be necessary to cover the grooves for functional or aesthetic reasons after completing assembly work.

The MB Building Kit System offers various Cover Profiles for this purpose. The following are particularly suited to use with Profiles X 8:

- Cover Profile 8 AI: For a dust-tight and easy-to-clean solution. Items such as electric cables can be routed in the groove cavity created.



- Cover Profile 8 PP: The universal cover made from flexible plastic. With the open side facing outwards, this serves as a panel-fixing profile for holding panel elements directly and securely in the profile groove.

Cover Profiles for grooves of Profiles 8 can be found in Section 1.2 of the MB Building Kit System Comprehensive Catalogue.

**Fasteners**

All established fastening elements in the MB Building Kit System (Section 1.3 of the MB Building Kit System Comprehensive Catalogue) can be used to connect Profiles X 8.

The following fastening elements are particularly recommended for keeping items clean and for use with closed contours:

- Standard-Fastening Set 8: Heavy-duty 90° profile connection requiring minimal machining

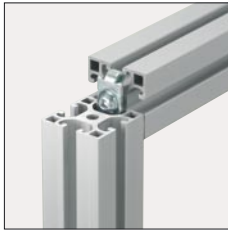
- Automatic-Fastening Set 8 N: Fastener for profiles with closed grooves that can be exposed

- Mitre-Fastening Set 8: Profile connection that leaves the inside grooves of a profile frame open for easy mounting of panel elements in the profile groove.

Matching grey Caps are also available for these fastening elements (or are already included in the set).

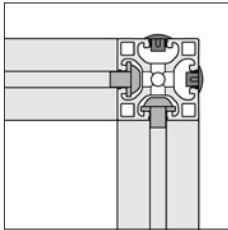
The special Angle Brackets X Zn and Hinges, heavy-duty X are adapted to profile contour X.

**Standard-Fastening Set 8**



The Standard Fastener is a right-angled power-lock profile connection requiring minimal machining. Standard-Fastening Sets 8 can primarily be used for connecting Profiles X 8 with open grooves. On Profiles X 8 with closed grooves, they are recommended for connections at the end of the profile.

**Cap 8 D7**



The through holes for the Standard-Fastening Sets for Profiles X 8 can be covered using Caps 8 D7.

**Automatic-Fastening Set 8 N**



Automatic-Fastening Sets 8 N are suitable for connecting Profiles X 8 with closed grooves at any location. Part of the profile groove cover is to be removed to insert the T-Slot Nuts.

Automatic-Fastening Set 8 can be used for Profiles X 8 with open grooves.

**Mitre-Fastening Set 8**



Mitre-Fastening Sets 8 are ideal for connecting profiles with grooves used to insert panel elements (e.g. with Cover Profile PP or Lip Seal).

On profiles with closed grooves, part of the groove cover is removed to insert the T-Slot Nut.

## Angle Bracket Sets X 8

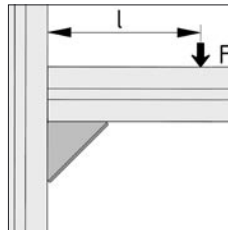


Angle Bracket Sets X 8 is suitable for the power-lock connection of profiles to each other with no machining, both as an additional reinforcement of profile connections and as an element for fastening any components to profiles.

When used as a reinforcing element at points where large profiles are joined, several Angle Brackets may be used in parallel.

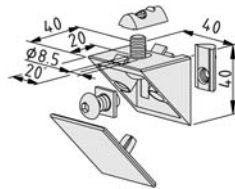
Note: The maximum permissible tensile load-carrying capacity of the profile groove should not be exceeded!

Note: Special washers are used for Angle Brackets X 8 due to the screw length and to improve the application of clamping force.



Angle Bracket X 8 40x40	$F < 1,000 \text{ N} \wedge F \cdot l < 50 \text{ Nm}$
Angle Bracket X 8 80x80	$F < 2,000 \text{ N} \wedge F \cdot l < 150 \text{ Nm}$

The load-carrying capacity is to be checked based on both conditions.

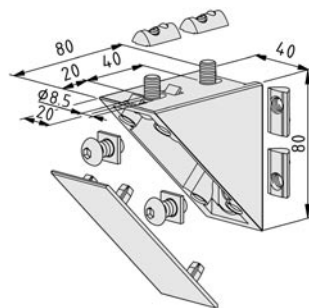


### Angle Bracket Set X 8 40x40

Angle Bracket X 8 40x40 Zn, die-cast zinc, white aluminium  
 Angle Bracket Cap X 8 40x40, PA-GF, grey  
 2 Button-Head Screws ISO 7380-M8x18, St, bright zinc-plated  
 2 washers 13.9x13.9x2 St, bright zinc-plated  
 2 T-Slot Nuts 8 St M8, bright zinc-plated  
 m = 150 g

1 set

0.0.601.62



### Angle Bracket Set X 8 80x80

Angle Bracket X 8 80x80 Zn, die-cast zinc, white aluminium  
 Angle Bracket Cap X 8 80x80, PA-GF, grey  
 4 Button-Head Screws ISO 7380-M8x18, St, bright zinc-plated  
 4 washers 13.9x13.9x2 St, bright zinc-plated  
 4 T-Slot Nuts 8 St M8, bright zinc-plated  
 m = 360 g

1 set

0.0.601.61

**Hinge X 8 40x40, heavy-duty**

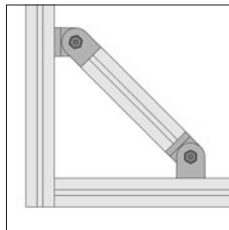


Hinges X 8, heavy-duty can be used to connect profiles at any angle within a range of 180° and as heavy-duty hinges (adjustment range ± 90°). In conjunction with spacer rings, Hinges, heavy-duty are freely movable. Removing the spacer rings enables them to be used as rigid angle elements, a strut for example, and they can also be pinned if required.

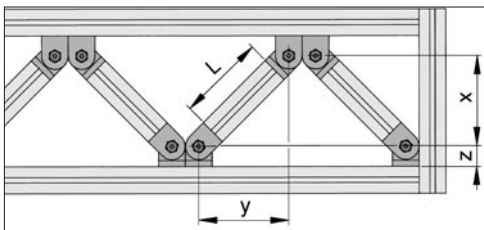
For Screws and T-Slot Nuts, see Section 3 of the MB Building Kit System Comprehensive Catalogue.



Hinges, heavy-duty with Clamp Lever can be secured and released again. They are ideal for adjustable holders, slewable arms for Parts Containers and similar items.

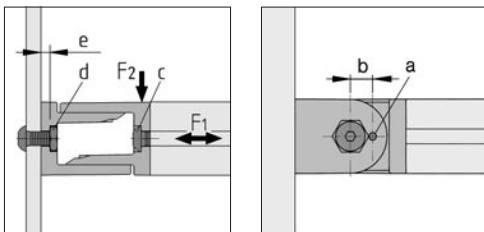


A Hinge X 8, heavy-duty can be fixed at any angle by pinning (a).

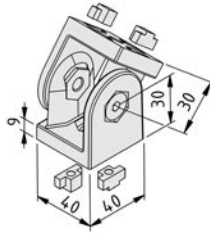


Calculation of the strut length L:

$$L = \sqrt{x^2 + y^2} - 2z$$



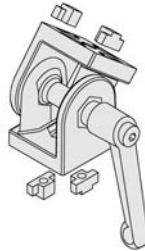
Dowel DIN 6325 a	b	Screw ISO 7380 c	Nut DIN 439 d	e	Connection			
					rigid		movable	
					F1	F2	F1	F2
4m6x40	12 mm	M8x16	M8	5.0 mm	5,000 N	1,000 N	750 N	750 N

**Hinge X 8 40x40, heavy-duty**

2 hinge halves X 8 40x40, die-cast zinc, white aluminium  
 4 fixing elements, die-cast zinc, bright zinc-plated  
 2 thread bushes M8, St, bright zinc-plated  
 2 spacer rings, St, stainless  
 2 Countersunk Screws DIN 7991-M8x10,  
 St, bright zinc-plated  
 m = 310 g

1 pce.

0.0.601.12

**Hinge X 8 40x40, heavy-duty with Clamp Lever**

2 hinge halves X 8 40x40, die-cast zinc, white aluminium  
 4 fixing elements, die-cast zinc, bright zinc-plated  
 Thread bush M8, St, bright zinc-plated  
 Bush liner, St, bright zinc-plated  
 Spacer collar, St, bright zinc-plated  
 Clamp lever M8x40, die-cast zinc, grey  
 m = 390 g

1 pce.

0.0.601.13



# 2

## **Floor Elements X**

**Adjustable Feet X**

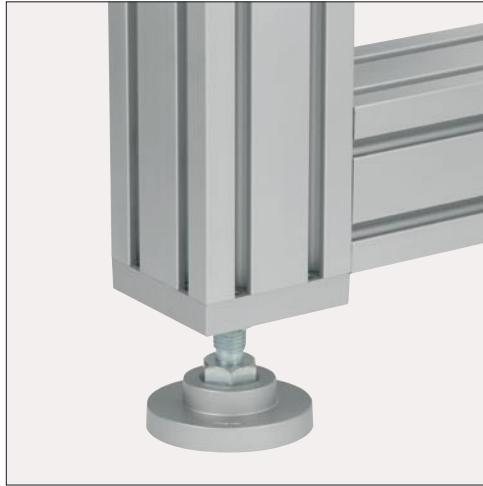
**Castors**

**Accessories for Floor Elements**

- The range of floor elements X includes:
- Adjustable feet for fixtures and enclosures
  - Castors for equipment, containers and other mobile applications
  - Base Plates/Transport Plates for connecting adjustable feet and castors to any applications

The forms of the various floor elements X are adapted to the profile contour X.

## Knuckle Feet X



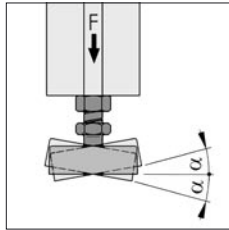
Knuckle Feet X are infinitely adjustable in height and are suitable for all kinds of equipment. Depending on the application, Knuckle Feet can be fitted in the core bores of the profiles or in conjunction with Base Plates/Transport Plates.

They can be extended with the appropriate Inserts and Foot Clamps. The minimum foot height is obtained by removing the locking nut.

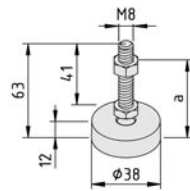
Unevenness is compensated by a ball and a ball socket.

Accessories extend the range of applications of the Knuckle Feet:

- Rubber Inserts can be used to immobilize items and protect the floor from damage. They can be retrofitted to the adjustable feet.
- The Foot Clamp X D80 is used in conjunction with sets of floor fasteners to attach Knuckle Foot X D80 to the floor or wall.



Knuckle Foot	Load F (vertical)	Slope $\alpha$
X D40, M8x60	1,500 N	15°
X D40, M8x80	1,500 N	15°
X D40, M10x80	1,500 N	15°
X D80, M16x100	10,000 N	7°



### Knuckle Foot X D40, M8x60

Spindle 13 A/F, St, bright zinc-plated

Foot plate, PA, grey

Hexagon Nut DIN 934-M8, 13 A/F, St, bright zinc-plated

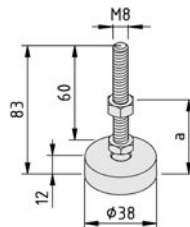
$a_{max.} = 50 \text{ mm}$

$a_{min.} = 25 \text{ mm (without nut)}$

$m = 38 \text{ g}$

1 pce.

0.0.602.44



### Knuckle Foot X D40, M8x80

Spindle 13 A/F, St, bright zinc-plated

Foot plate, PA, grey

Hexagon Nut DIN 934-M8, 13 A/F, St, bright zinc-plated

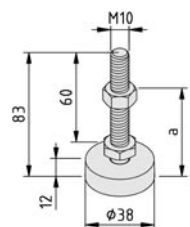
$a_{max.} = 70 \text{ mm}$

$a_{min.} = 25 \text{ mm (without nut)}$

$m = 45 \text{ g}$

1 pce.

0.0.602.46



### Knuckle Foot X D40, M10x80

Spindle 17 A/F, St, bright zinc-plated

Foot plate, PA, grey

Hexagon nut DIN 934-M10, 17 A/F, St, bright zinc-plated

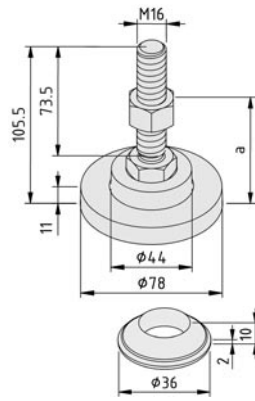
$a_{max.} = 65 \text{ mm}$

$a_{min.} = 25 \text{ mm (without nut)}$

$m = 64 \text{ g}$

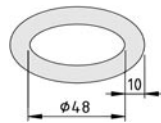
1 pce.

0.0.496.02



**Knuckle Foot X D80, M16x100**  
 Spindle 24 A/F, St, bright zinc-plated  
 Foot plate, die-cast zinc, white aluminium  
 Hexagon nut DIN 934-M16, 24 A/F, St, bright zinc-plated  
 $a_{max.} = 73 \text{ mm}$   
 $a_{min.} = 32 \text{ mm (without nut)}$   
 $m = 457 \text{ g}$

1 pce. 0.0.496.03



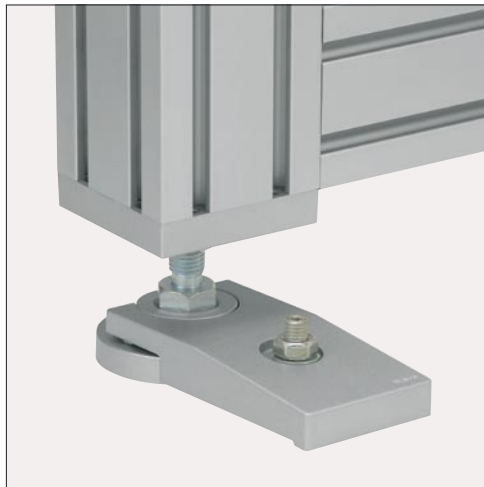
**Rubber Insert D40**  
 NBR  
 Hardness 80 Sh A, oil/water-resistant  
 $m = 6 \text{ g}$   
 black, 1 pce.

0.0.265.70

**Rubber Insert X D80**  
 NBR  
 Hardness 70 Sh A, oil/water-resistant  
 $m = 18 \text{ g}$   
 black, 1 pce.

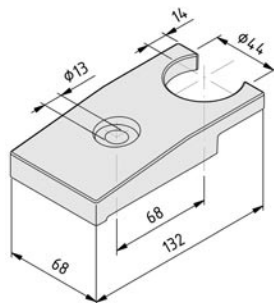
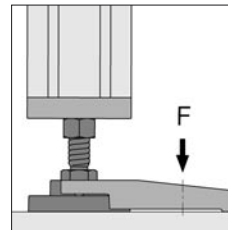
0.0.606.51

**Foot Clamp X D80**



Foot Clamps X D80 can be combined with Knuckle Feet X D80.  
 They are used to secure structures made from Profiles X 8 to the floor and wall.

The permissible load on the Foot Clamp at the fastening point is  $F_{per.} = 5,000 \text{ N}$ .



**Foot Clamp X D80**  
 Die-cast zinc  
 $m = 480 \text{ g}$   
 white aluminium similar to RAL 9006, 1 pce.

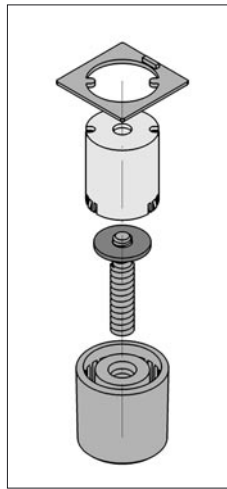
0.0.495.96



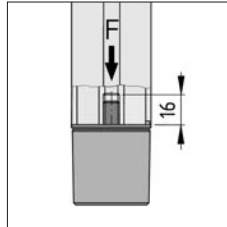
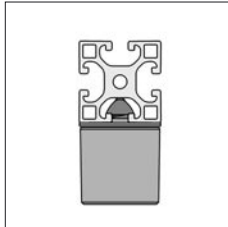
**Adjustable Foot  
X 8 PA**



Adjustable Foot X 8 PA can be adjusted in height and is suitable for tables and light pieces of equipment. The height is adjusted without the use of tools simply by turning the lower part of the foot manually.

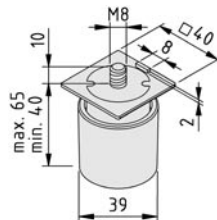


The spindle is screwed into an M8 thread in the profile's core bore or a T-Slot Nut 8 St M8.



Fastening options to Profiles X 8.

$F_{per.} = 1,500 \text{ N}$



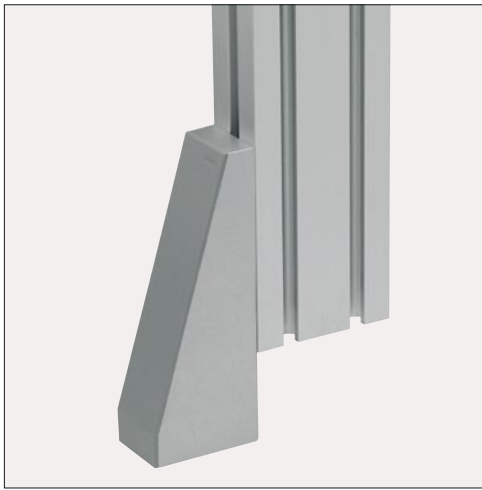
**Adjustable Foot X 8 PA 40x40**

Housing, inner part and end plate, PA-GF, grey  
Spindle and washer, St, bright zinc-plated  
 $m = 69 \text{ g}$

1 pce.

0.0.603.74

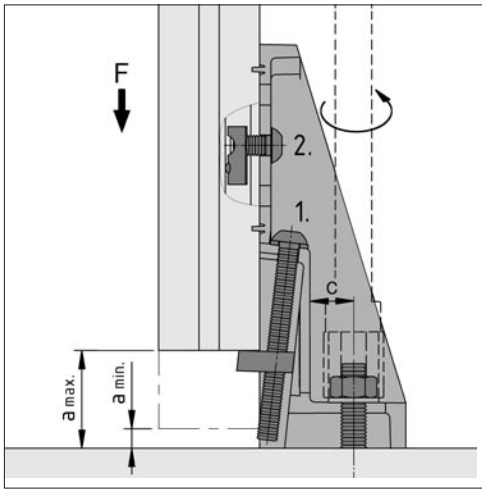
**L-Based Foot X 8 adjustable**



L-Based Feet are suitable for fastening light or heavy equipment to the wall or floor.

They are fastened to the profile using a fastening screw and T-Slot Nut.

Floor-Fastening Sets up to an M10 thread size can be used for connection to the wall or floor (see Section 2.3 of the MB Building Kit System Comprehensive Catalogue – Accessories for Floor Elements).

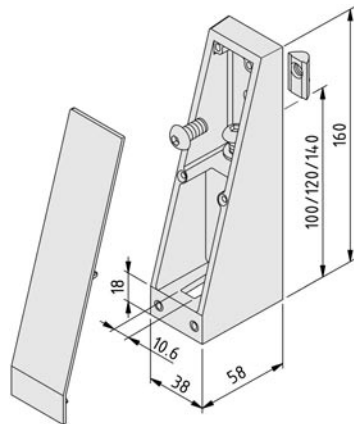


L-Based Foot X 8 adjustable provides a simple method of levelling equipment on uneven floors by means of height adjustment.

The adjustment is made by turning the adjusting screw (1). The selected height is then fixed by tightening the fastening screw at the side (2).

The Floor-Fastening Set can be screwed into L-Based Foot X 8 using a socket wrench.

L-Based Foot	a [mm]		c [mm]	F <sub>max.</sub>
	max.	min.		
	75.0	10.0	13-25	6,000 N



**L-Based Foot X 8 adjustable**

Housing, die-cast aluminium, white aluminium

Cap, PA-GF, grey

T-Slot Nut V 8 St M8, bright zinc-plated

Button-Head Screw ISO 7380-M8x80, St, bright zinc-plated

Button-Head Screw ISO 7380-M8x16, St, bright zinc-plated

Square nut, St, bright zinc-plated

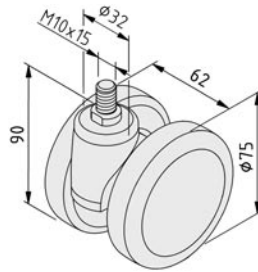
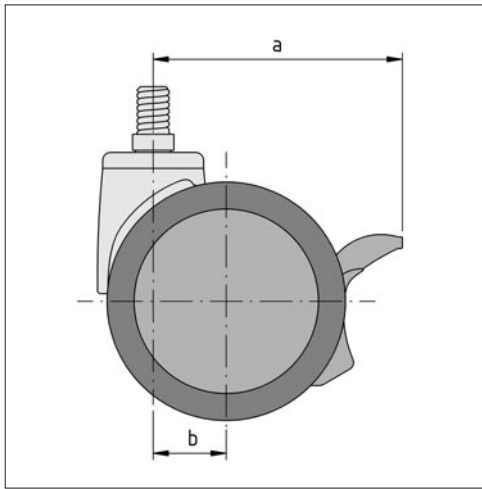
Washer DIN 433-8.4, St, bright zinc-plated

m = 342 g

1 set

0.0.600.13

## Castors D75 PA swivel



The load-carrying capacity, form and colour of Castors D75 PA swivel are adapted to structures made from Profiles X 8. Depending on the given application, they can be fitted in the core bores of the profiles or in conjunction with Base Plates/Transport Plates X 8.

The range of Castors D75 PA (castor diameter 75 mm) consists of a Swivel Castor and a Swivel Castor with double-brake (brake for wheel axis and swivelling axis).

The Castors have good rolling properties and a high load-carrying capacity and are able to withstand most environmental influences.



Antistatic Castors can also be supplied specifically for use in the electronics sector. They have appropriate tyres and a continuously conductive wheel/casing. The discharge resistance of the antistatic model is  $10^5 \Omega$ .

The carrying capacities indicated are maximum values under ideal conditions, at walking pace (max. 4 km/h) and moving over a smooth, level surface. If the floor is uneven or the weight is distributed unevenly, the load is calculated separately for each Castor using the following formula:

$$F = \frac{\text{dead weight} + \text{load}}{3}$$

	Radius of swivel (a)	Offset (b)
Castor D75 swivel	70 mm	23 mm
Castor D75 swivel with brake	80 mm	23 mm

### Castor D75 PA swivel

Casing PA, grey  
Swivelling axis with ball bearing  
Wheel axis with slide bearing  
Threaded pin protected against torsion  
Dust shield  
Carrying capacity 60 kg/castor  
Twin tyres PU, 80 Sh A, grey  
m = 220 g

1 pce.

0.0.605.45

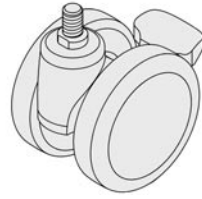
### Castor D75 PA swivel antistatic

Casing PA, grey  
Swivelling axis with ball bearing  
Wheel axis with slide bearing  
Threaded pin protected against torsion  
Dust shield  
Carrying capacity 60 kg/castor  
Twin tyres PU, 80 Sh A, grey  
m = 230 g

1 pce.

0.0.605.47





**Castor D75 PA swivel with double-brake**

Casing PA, grey  
 Swivelling axis with ball bearing  
 Wheel axis with slide bearing  
 Threaded pin protected against torsion  
 Dust shield  
 Carrying capacity 60 kg/castor  
 Twin tyres PU, 80 Sh A, grey  
 m = 235 g

1 pce. 0.0.605.46

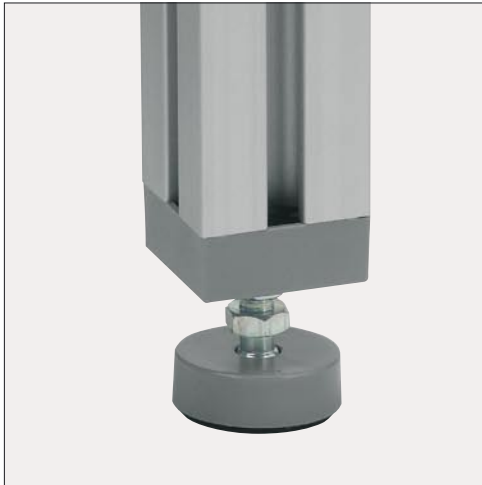
**Castor D75 PA swivel with double-brake antistatic**



Casing PA, grey  
 Swivelling axis with ball bearing  
 Wheel axis with slide bearing  
 Threaded pin protected against torsion  
 Dust shield  
 Carrying capacity 60 kg/castor  
 Twin tyres PU, 80 Sh A, grey  
 m = 245 g

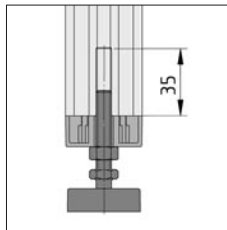
1 pce. 0.0.605.48

**Foot Cap X PA**

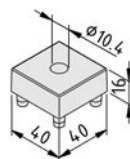


Foot Cap X 8 40x40 light is a plastic cap which is used to cover the end of a Profile X 8 40x40 light if Knuckle Foot X D40 is screwed into the profile's core bore.

Note: To protect Foot Cap X 8 40x40, the locking nut of Knuckle Foot X D40 can only be tightened with a reduced torque of M = 10 Nm.



Knuckle Foot X D40, M8x80 has an extended spindle which makes it ideal for combining with Foot Cap X 8 40x40 light.



**Foot Cap X 8 40x40 light**

PA-GF  
 m = 15 g  
 grey similar to RAL 7042, 1 pce.

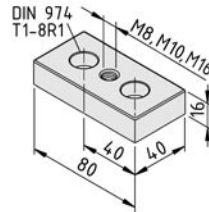
0.0.601.21

## Base Plates/ Transport Plates X



Base Plates/Transport Plates are sturdy fastening plates for mounting adjustable feet, castors, ring bolts and other elements.

They can be screwed into the core bores in the end faces of profiles or onto the sides of profiles.



### Base Plate/Transport Plate X 8 80x40, M8

Die-cast zinc

m = 253 g

white aluminium similar to RAL 9006, 1 pce.

0.0.600.55

### Base Plate/Transport Plate X 8 80x40, M10

Die-cast zinc

m = 256 g

white aluminium similar to RAL 9006, 1 pce.

0.0.604.52

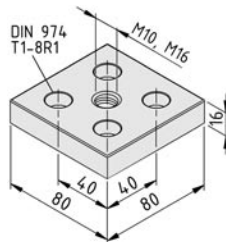
### Base Plate/Transport Plate X 8 80x40, M16

Die-cast zinc

m = 246 g

white aluminium similar to RAL 9006, 1 pce.

0.0.607.03



### Base Plate/Transport Plate X 8 80x80, M10

Die-cast zinc

m = 463 g

white aluminium similar to RAL 9006, 1 pce.

0.0.604.53

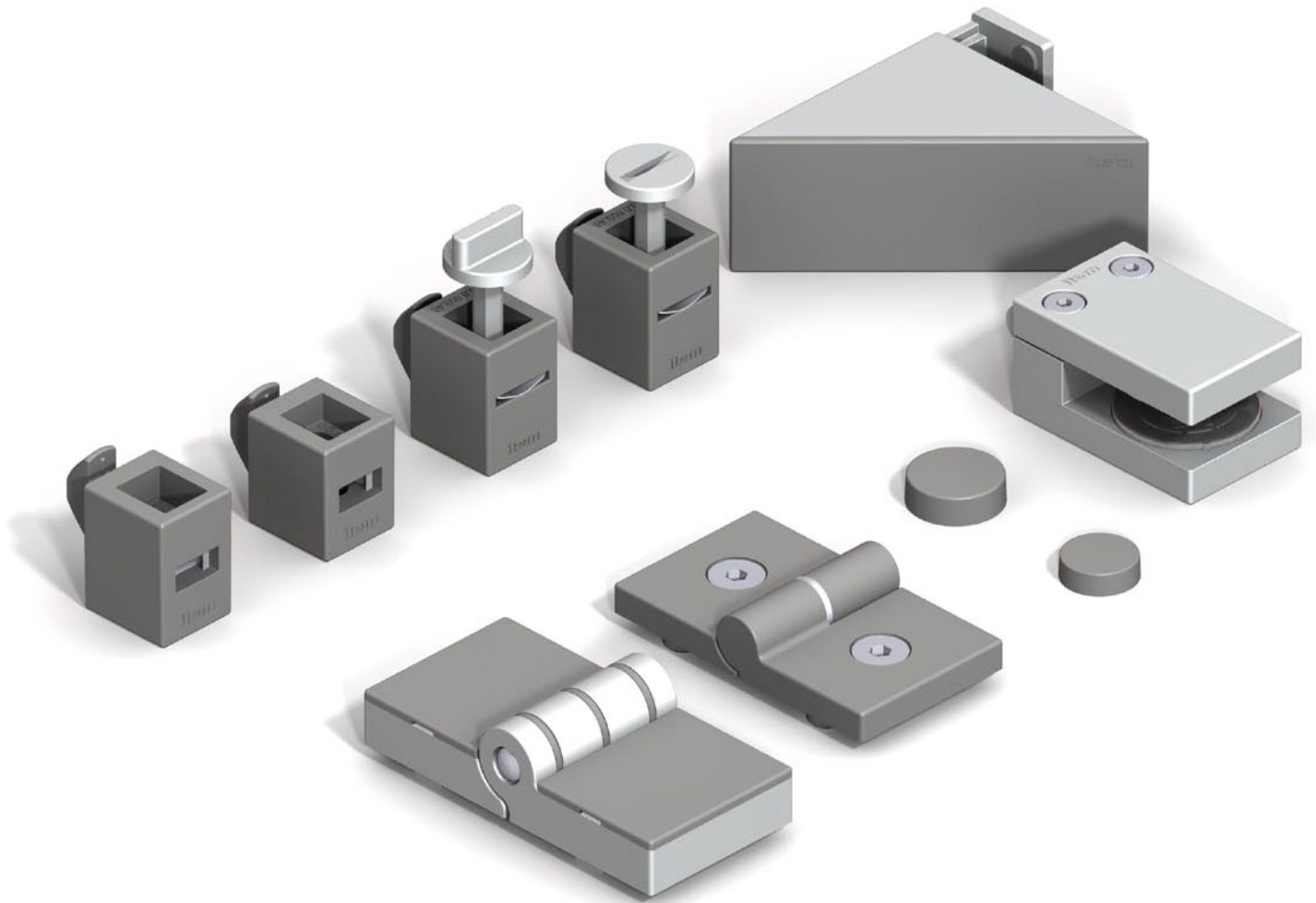
### Base Plate/Transport Plate X 8 80x80, M16

Die-cast zinc

m = 453 g

white aluminium similar to RAL 9006, 1 pce.

0.0.600.56



# 3

## **Fastening Elements X**

**Universal Elements  
Rigid Panel Fasteners  
Movable Panel Fasteners**

The grooves of Profiles X 8 offer a wide range of options for fastening all kinds of components, panel elements and functional modules to the profile structure.

Specially designed fastening elements are inserted in the profile grooves to interconnect profiles or to fasten components to profile structures. Various kinds of threaded T-Slot Nuts and groove profiles for individual machining create a counterpart for the screw in the groove (see

Section 3.1 of MB Building Kit System Comprehensive Catalogue).

All T-Slot Nuts 8 in the MB Building Kit System can be used in the grooves of Profiles X 8.

In addition to the universal fastening elements of Line 8 of the MB Building Kit System, Line X includes a number of special accessories of matching form and colour.

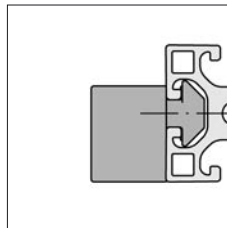
## Multiblocks X 8 PA



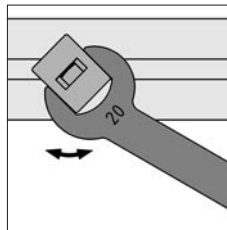
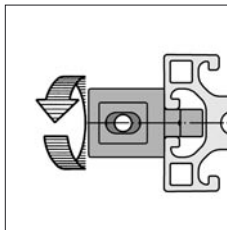
Multiblocks X 8 PA are swivelled into the profile groove at any position. Lightweight metal sheet and panel elements made from Acrylic Glass, Plastic or Compound Material must be provided with a bore at the appropriate location and screwed to the Multiblock.

Panels can be fastened using either the through bores or the square nuts slid into the basic unit. There is a large tolerance range for the position of the screw holes relative to the outer edges of the panel elements because the slide-in square nuts are freely positionable.

Multiblocks X 8 PA can be moved along the groove to align them with the bore in the panel element.



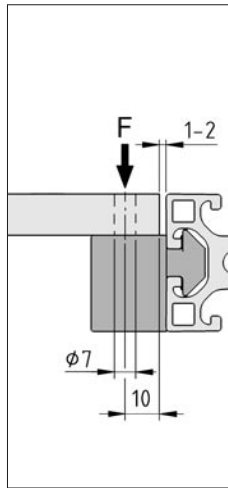
The offset position may be varied thanks to two different mounting locations for Multiblocks X 8 PA.



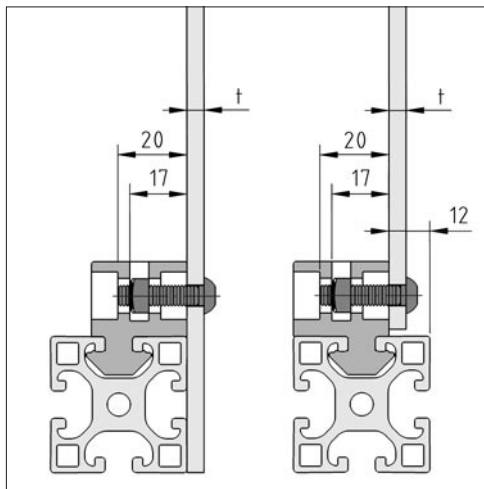
Multiblock X 8 PA is inserted in the profile groove and locked in place with a 90° turn to the right. A wrench 20 A/F is recommended for this operation.



To insert Multiblock X PA in profiles with closed grooves, it is recommended to remove the groove cover at the relevant location using a countersink. The Step Drill, Universal Connection 6 (Art. No. 0.0.431.19) is ideal for this purpose. The required countersink depth is just 2 mm!

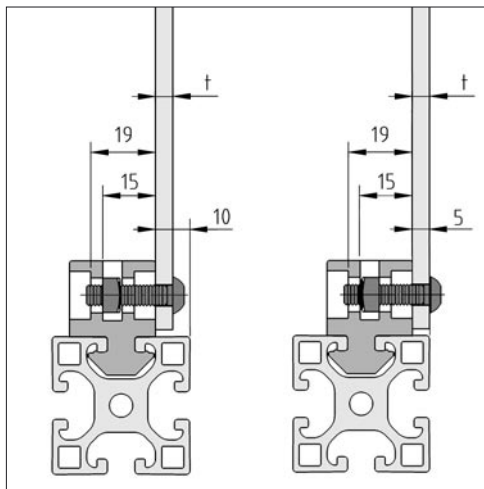


Recommendation for mounting the panel element.  
The permissible load for Multiblocks X 8 PA is  $F = 250 \text{ N}$ .



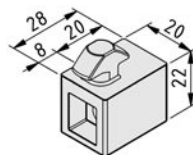
The length of the fastening screw depends on the thickness of the panel element.

If it is thick enough, it is also possible to screw into a thread in the panel element. The square nut can be removed from the Multiblock for this purpose.



Connection dimensions for Multiblock X 8 PA 0/12 mm.

Connection dimensions for Multiblock X 8 PA 5/10 mm.

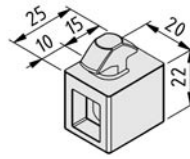


**Multiblock X 8 PA 0/12 mm**  
Basic unit, PA-GF, grey  
Spring, St, stainless  
Square nut DIN 557-M6, St, bright zinc-plated  
 $m = 18 \text{ g}$

1 pce.

0.0.603.14



**Multiblock X 8 PA 5/10 mm**

Basic unit, PA-GF, grey

Spring, St, stainless

Square nut DIN 557-M6, St, bright zinc-plated

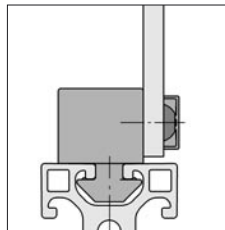
m = 15 g

1 pce.

0.0.603.15

**Cap Button-Head Screw**

The Caps cover the hexagon socket of the screw head and the gap around the screw connection. They are suitable for Button-Head Screws and button-head flange screws.



Application of the Cap Button-Head Screw M6 on Button-Head Screws used to fasten panel elements to Multiblocks.

**Cap Button-Head Screw M6**

PA-GF

m = 0.4 g

grey similar to RAL 7042, 1 pce.

0.0.606.61

**Cap Button-Head Screw M8**

PA-GF

m = 0.9 g

grey similar to RAL 7042, 1 pce.

0.0.606.67

**Quick  
Multiblock 8**

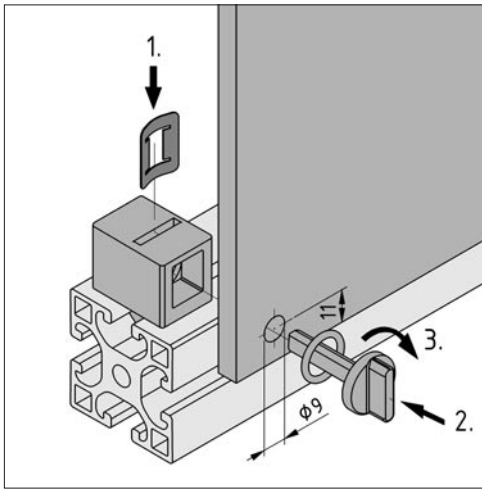


Quick Multiblocks 8 offer the option of fastening a panel element securely in a profile frame in such a way that it can easily be removed. The securing pin is operated either by hand without the need for a tool or using a coin (Quick Multiblock 8 with Slotted Pin).

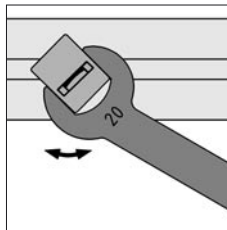
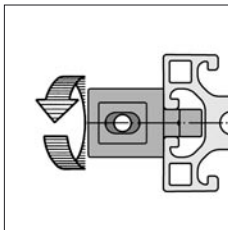
Lightweight metal sheet and panel elements made from Acrylic Glass, Plastic or Compound Material must be provided with a drill hole at the appropriate location. They are locked in place using the securing pin.

Plastic securing pins are suitable for very occasional operation and die-cast zinc pins for more frequent use or high loads.

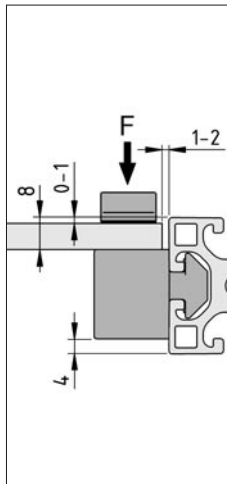
Quick Multiblocks 8 can be moved within the groove in order to align them with the bore in the panel element.



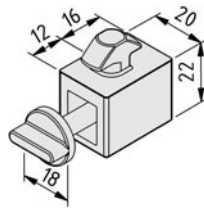
Quick Multiblocks can be used for panel elements of any thickness (up to 8 mm). They can be adapted to the thickness of the panel thanks to two different mounting positions (4 or 8 mm from the edge of the profile). The spring clip is to be inserted in the Quick Multiblock according to the direction in which the load is applied. The concave side of the spring must face the panel and pin. Locking the pin also tightens the spring.



Quick Multiblock 8 PA is inserted in the profile groove and locked in place with a 90° turn to the right. A wrench 20 A/F is recommended for this operation.



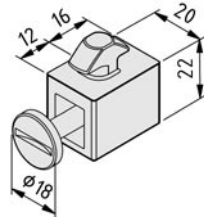
Recommendation for mounting the panel element. The permissible load for Quick Multiblocks 8 PA is  $F = 250 \text{ N}$ .

**Quick Multiblock 8 with Securing Pin PA**

Basic unit, PA-GF, grey  
 Spring clip, St, stainless  
 O-ring 12x2, NBR, black  
 Securing pin PA, grey  
 m = 14 g

1 pce.

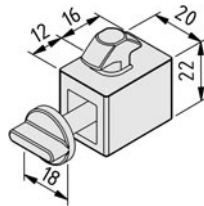
0.0.604.10

**Quick Multiblock 8 with Slotted Pin Zn**

Basic unit, PA-GF, grey  
 Spring clip, St, stainless  
 O-ring 12x2, NBR, black  
 Slotted pin die-cast zinc, white aluminium  
 m = 20 g

1 pce.

0.0.603.42

**Quick Multiblock 8 with Securing Pin Zn**

Basic unit, PA-GF, grey  
 Spring clip, St, stainless  
 O-ring 12x2, NBR, black  
 Securing pin die-cast zinc, white aluminium  
 m = 23 g

1 pce.

0.0.603.41

**Panel fastening**

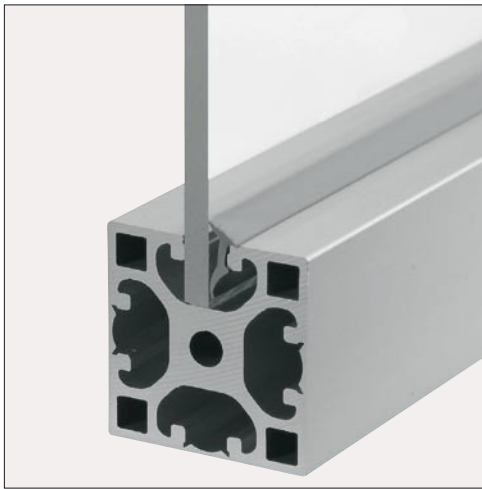


Panels can be fastened to profile structures made from Profiles X 8 using special fastening elements X, which are adapted in form to that of the Profiles. There are also a number of other fastening elements in the MB Building Kit System that are particularly suitable for Profiles X 8.

- Lip Seals 8: These grey seals are used for dust-tight securing of panel elements in the profile groove. The profile frame must be built around the panel and closed, and the panels require no machining.
- Panel-Clamping Strips 8: Panel elements can be inserted in a profile frame after it has been closed, and removed again. No machining of panels is required here either.

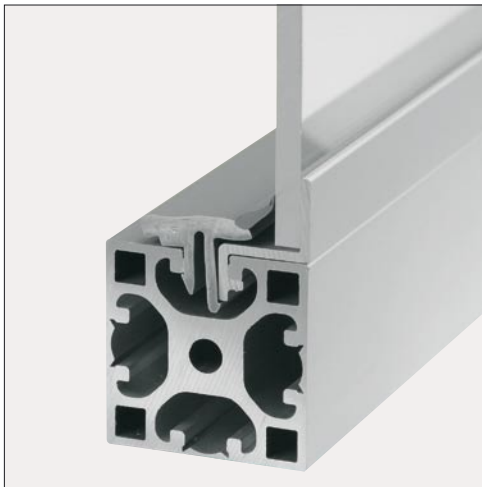
For these and other fastening elements, please see Section 3.3 of the MB Building Kit System Comprehensive Catalogue.

**Lip Seals**



Lip Seals made from elastic material are used for rattle-free fixing of panel elements in the groove.

**Panel-Clamping Strips**



Panel-Clamping Strips consist of a load-bearing aluminium strip in which the panel element is fixed using an elastic plastic strip.

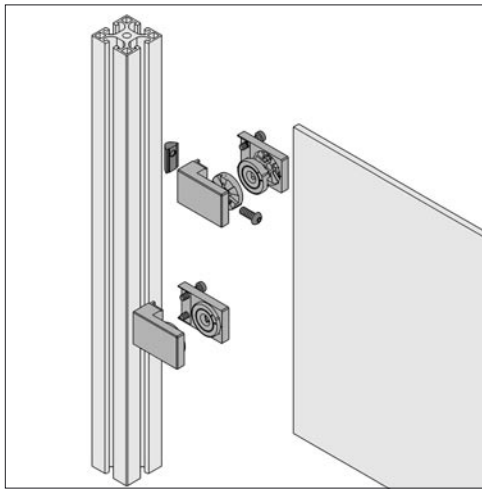
Note:  
The groove cover for profiles with closed grooves must be removed to insert panel elements in the groove. It is advisable to deburr the edges of the groove.

## Panel Clamp X 6-8

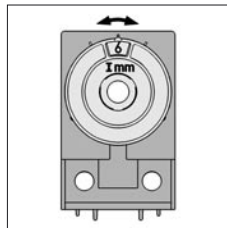
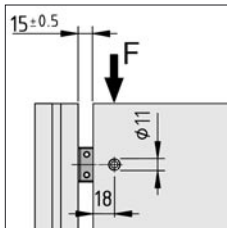


Panel Clamp X 6-8 is a fastener for unframed panels (4-8 mm thick) that does not require any further machining of the panel element. The panel element is held secure by elastic inserts.

Fitting the panel element securely using internal bolts is also an option.



The Panel Clamp is fastened in the groove in Profiles 8 using a screw connection with T-Slot Nut 8. When using the Panel Clamp with Line 6 profiles, a T-Slot Nut 6 St M6 with a Button-Head Screw M6x14 is required. The anti-torsion elements are also to be removed as appropriate for this purpose.

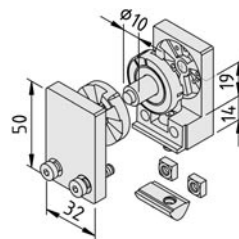


A clearance of 15 mm is to be ensured when cutting the panel element.

When using fastening bolts, through bores with a diameter of 11 mm also need to be cut.

Max. load for each Panel Clamp without a fastening bolt  $F_{max} = 100 \text{ N}$ .

The Panel Clamp can be adapted to panel elements between 4 and 8 mm thick by turning the elastomer inserts. A window in the insert shows the selected panel thickness.



### Panel Clamp X 6-8

2 housing components, die-cast zinc, white aluminium

2 inserts, PUR, transparent

Bolt D6x21.5, St, bright zinc-plated

Collar D6/D10, PUR, grey

T-Slot Nut V 8 St M6, bright zinc-plated

Button-Head Screw ISO 7380-M6x16, St, bright zinc-plated

2 Hexagon Socket Head Cap Screws DIN 7984-M5x20, St, bright zinc-plated

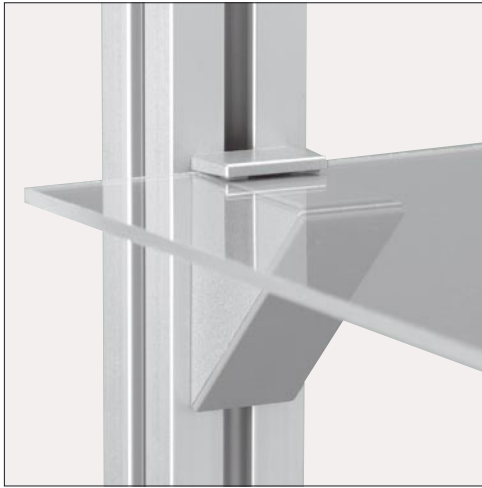
2 square nuts similar to DIN 557-M5, St, bright zinc-plated

m = 175 g

1 set

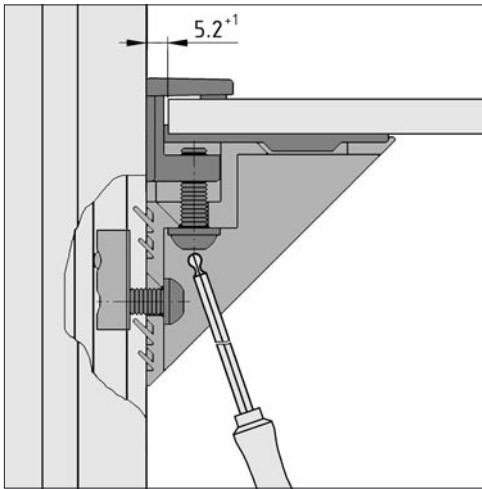
0.0.605.41

**Support Arm X 6-8**



Support Arm X 6-8 is a support for glass shelves or other inherently stable panel elements. Rear clamping of the panel element allows cantilever fastening to a Line 6 or Line 8 profile structure. The form of Support Arm X 6-8 corresponds to the clean contour of profile form X.

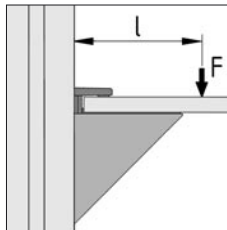
The load-carrying capacity of the shelf and the holding force indicated for the Support Arms must not be exceeded. The total load applies to the indicated distances between supports with an even distribution of weight!



Support Arms X 6-8 are suitable for clamping panel elements 4 to 10 mm thick.

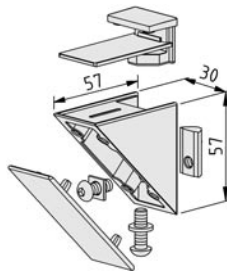
The tightening torque for the tensioning screw must not exceed 3 Nm.

Support Arm X 6-8 is fastened in the groove in Profiles 8 using a screw connection with T-Slot Nut 8. When using Support Arm X 6-8 with Line 6 profiles, a T-Slot Nut 6 St M6 with a Button-Head Screw M6x14 is required.



The permissible depth of the shelf is  $l_{max} = 200$  mm with a load  $F_{max} = 80$  N.

The distance between two Support Arms should not exceed 500 mm.



**Support Arm X 6-8**

- Angle Bracket, die-cast zinc, white aluminium
- Cap, PA-GF, grey
- T-Slot Nut V 8 St M6, bright zinc-plated
- Button-Head Screw ISO 7380-M6x20, St, bright zinc-plated
- Washer DIN 125-6.4, St, bright zinc-plated
- Button-Head Screw ISO 7380-M6x16, St, bright zinc-plated
- Washer 10.5x10.5x1.3, St, bright zinc-plated
- Clamping element, die-cast zinc, white aluminium
- Support, PUR, grey
- m = 198 g

1 set

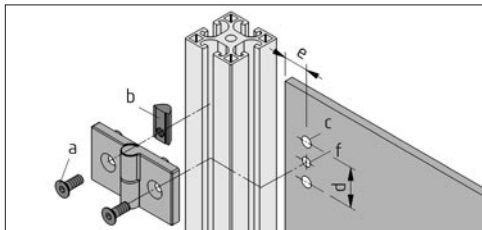
0.0.496.01

**Available from October 2007**

# Hinge X 8 PA

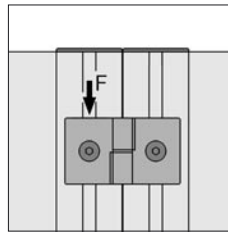


Hinges X 8 PA are simple components for lightweight doors and lids. They have anti-torsion elements which engage with the profile grooves.



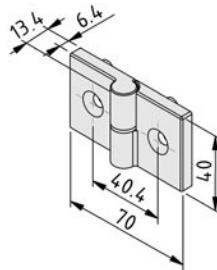
Panel elements fastened using Hinges PA must be machined with appropriate through bores.

a	b	c	d	e	f	F
DIN 7991	8 St M6	[mm]	[mm]	[mm]		
M6x16	8 St M6	Ø 8.2	30	18	M6	100 N



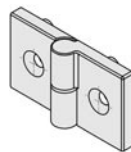
Line X 8 door elements can be attached in such a way that they can either be lifted off subsequently or are fixed permanently in place.

For the lift-off version, the doors must be equipped with right-hand or left-hand Hinges only. For the permanently fixed version, right-hand and left-hand Hinges must be combined.



**Hinge X 8 PA, right**  
 2 Hinge Leaves, PA, grey  
 Washer, St, bright zinc-plated  
 Grooved pin, St, bright zinc-plated  
 m = 28 g

1 pce. 0.0.601.52



**Hinge X 8 PA, left**  
 2 Hinge Leaves, PA, grey  
 Washer, St, bright zinc-plated  
 Grooved pin, St, bright zinc-plated  
 m = 28 g

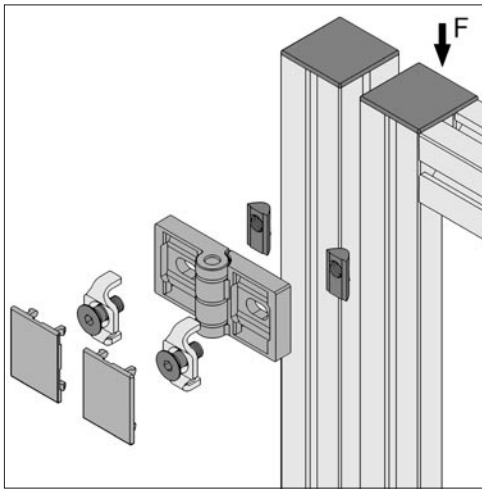
1 pce. 0.0.601.97

**Hinge X 8 Zn**



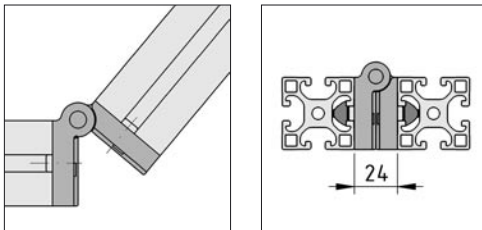
Hinges X 8 Zn are suitable for higher loads, e.g. large lids and doors of guards and enclosures, and as a compact connection for profiles positioned at any angle.

Hinges X 8 Zn can be used on the right or left and can be attached to the outer surfaces or end faces of Profiles. The integrated positioning guides for additional fixing in the groove can be left out when screwing Hinge X 8 Zn to level surfaces.

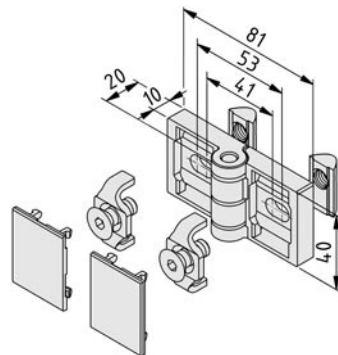


Fastening Hinge X 8 Zn to Line X 8 Profiles. For Profiles with closed grooves, the groove cover is to be removed to insert the T-Slot Nuts and positioning guides.

$F_{max} = 500 \text{ N}$



Hinge X 8 Zn can be screwed onto the end face or profile groove.



**Hinge X 8 Zn**

Hinge, die-cast zinc, white aluminium  
 2 Caps, PA-GF, grey  
 2 positioning guides, St, bright zinc-plated  
 2 T-Slot Nuts V 8 St M8, bright zinc-plated  
 2 Countersunk Screws DIN 7991-M8x22,  
 St, bright zinc-plated  
 m = 212 g

1 set

0.0.603.59



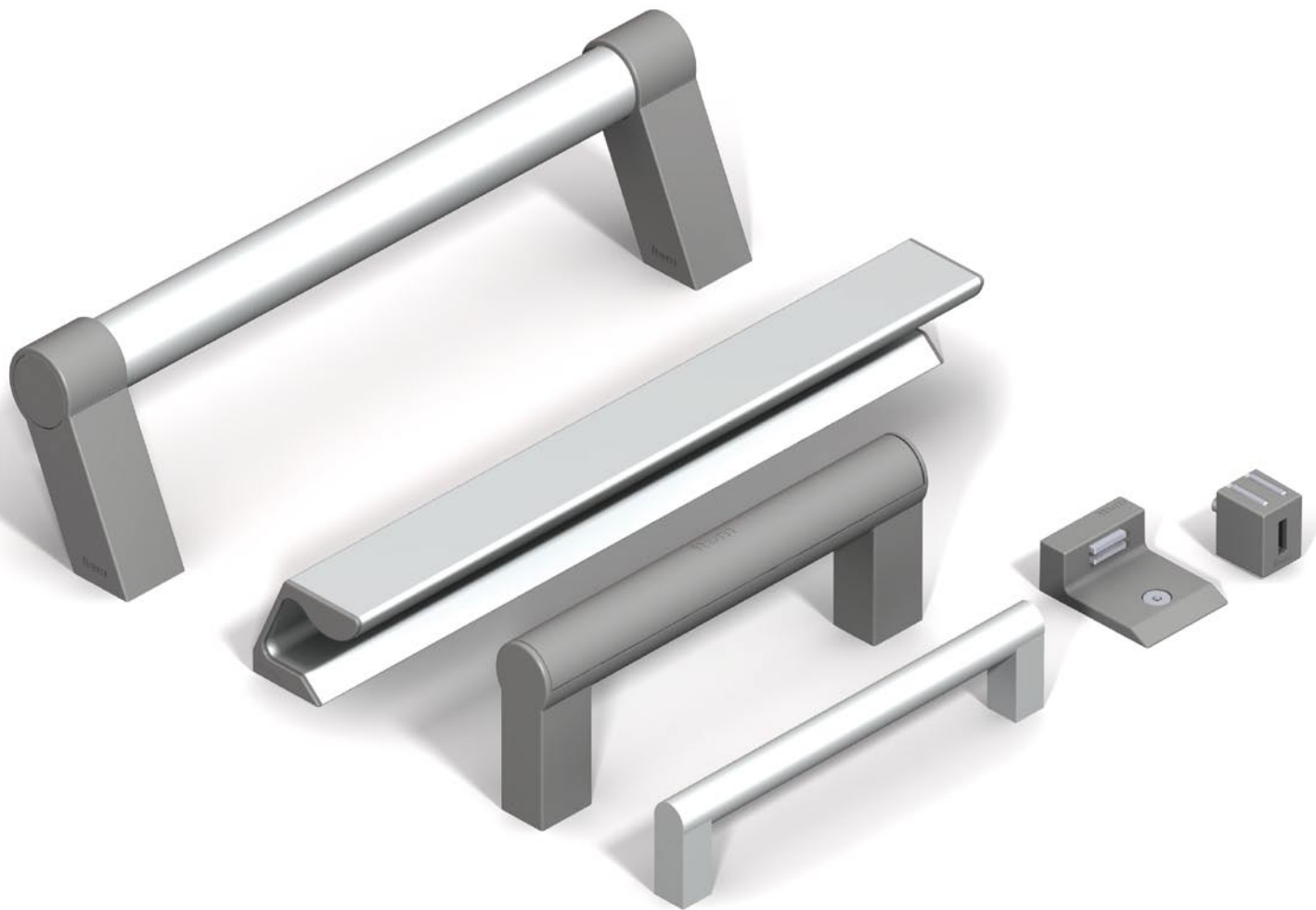
## Panel Elements



For structures with Line X 8 system elements, a large number of different materials and designs are available with the Panel Elements of the MB Building Kit System.

They are suitable for manufacturing machine casings, guards, enclosures and housings and for building work benches.

Please see Section 5 of the Comprehensive Catalogue for item Panel Elements.



# 4

## **Handles and Locks X**

**Handles**  
**Grip Systems**  
**Locks and Catches**

Operation of doors and movable machine elements is based on ease of use:

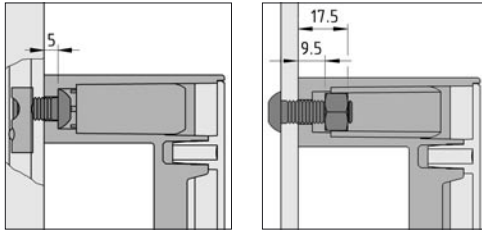
- Ergonomically designed Handles and Grip Systems can be screwed to panel elements and profiles.
- Magnetic Catches keep doors and lids in their limit positions.

## Handle X 160 PA



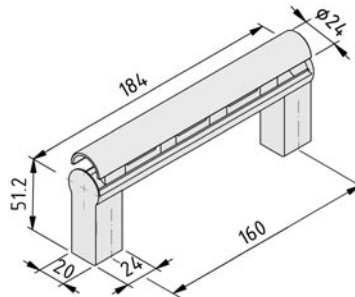
Handle X 160 PA can be fastened from the front or back (hidden) and is suitable for sliding and swing doors.

The top part of the grip of Handle X 160 PA is snapped on after the grip has been fitted.



Handle X 160 PA can be attached to profiles using a screw (max. M8) and T-Slot Nut.

An M8 nut can be inserted in the lower part of the grip for fastening from the back of the door.



### Handle X 160 PA

PA-GF

m = 83 g

grey, similar to RAL 7042, 1 pce.

0.0.494.86

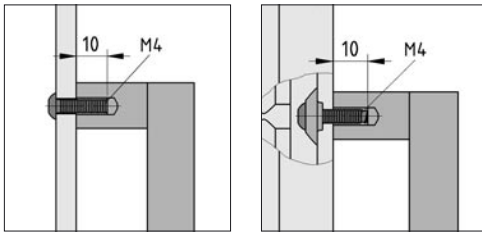
black, 1 pce.

0.0.495.37

**Handle X 160 Al**

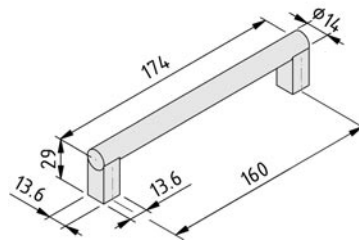


Handle X 160 Al is a light-duty handle with the same design as Line X Profiles. It can be fastened from behind (hidden).



The M4 thread in Handle X 160 Al is used to fasten it in place.

When screwing onto profile grooves, use of Locating Washers (Section 3.2 of MB Building Kit System Comprehensive Catalogue) is recommended.



**Handle X 160 Al**

Al

m = 94 g

natural, 1 pce.

0.0.600.70

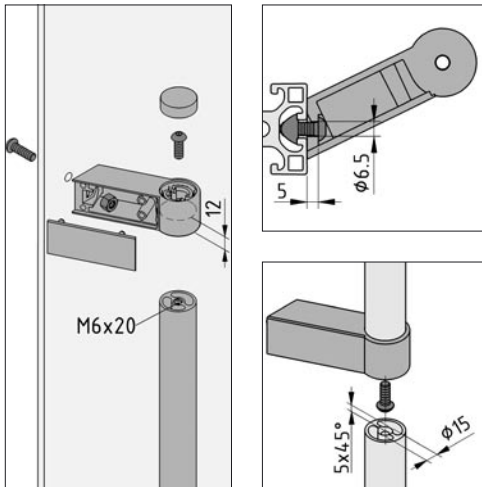
## Grip Systems

Special Grip Systems or grip rails for structures made from Profiles X 8. They can be attached to the frame profile or directly to a panel element. This type of fastening is particularly good for stabilizing frameless panel elements and allows doors etc. to be used with the handle in various positions.

### Grip System X D25



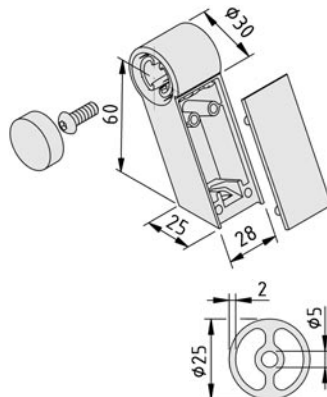
Grip System X D25 consists of Hand Grip Elements X D25 and cylindrical Profile D25. These components can be used to create handles of any length, but the distance between two Hand Grip Elements must not exceed 1000 mm.



Profile sections D25 are inserted in Hand Grip Element X D25 from one or both sides. Any hole not required is covered using the Cap provided.

M6x20 threads are provided in the core bore of the Profile D25 which is then press-fitted in the correct position in the Hand Grip Elements. All M6 screw connections of Hand Grip Element X D25 should be tightened with a torque of  $M = 4 \text{ Nm}$ .

For longer Grip Systems X D25, an additional Hand Grip Element should be used to provide central support. Before being inserted in this Hand Grip Element, the second Profile D25 must be countersunk around the core bore.



#### Hand Grip Element X D25

Hand grip, PA-GF, grey  
 Cap for hand grip, PA-GF, grey  
 Cap D25, PA-GF, grey  
 Button-Head Screw ISO 7380-M6x16, St, bright zinc-plated  
 $m = 44 \text{ g}$

1 set

0.0.601.65

#### Profile D25

Al, anodized  
 $A = 2.32 \text{ cm}^2$   
 $m = 0.57 \text{ kg/m}$

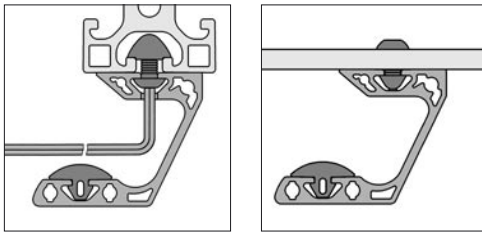
natural, cut-off max. 3,000 mm

0.0.601.63

**Grip Rail Profile X**

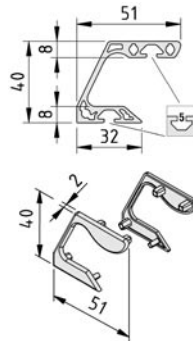


Grip Rail Profile X has a very ergonomic design. It prevents injuries to hands, allows a good grip at any position along its length and, at the same time, stabilizes the panel elements to which it is attached.



Using Grip Cover Profile 5 20x4 on the inside gives Grip Rail Profile X extremely good non-slip and tactile properties. The integrated grooves of Profiles 5 are used for simple fastening to any given structure and for mounting the Grip Cover Profile.

Grip Rail Cap Set X is also adapted to the use of the Grip Cover Profile.



**Grip Rail Profile X**

Al, anodized  
A = 3.43 cm<sup>2</sup>  
m = 1.01 kg/m

natural, cut-off max. 3,000 mm

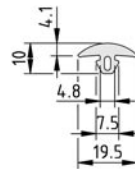
0.0.494.59

**Grip Rail Cap Set X**

Grip Rail Cap right, PA-GF  
Grip Rail Cap left, PA-GF  
m = 3.2 g

grey similar to RAL 7042, 1 set

0.0.495.09



**Grip Cover Profile 5 20x4**

TPE  
Hardness 73 Sh A  
Oil, UV and water resistance  
m = 78.2 g/m

black, cut-off max. 20 m

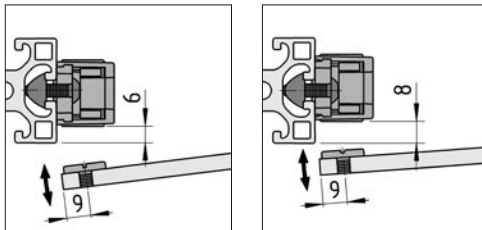
0.0.437.03

# Magnetic Catch X



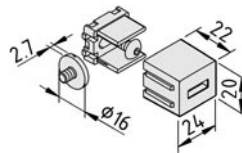
Magnetic Catch X is used primarily to keep swing and sliding doors shut.

Integrated positioning aids provide two different rebate depths. By breaking off the positioning aids, it is also possible to adjust Magnetic Catch X to any rebate depth over the range 0 - 10 mm. There is a slot in the housing base for this purpose.



In order to screw Magnetic Catch X onto the groove of a Profile 8, the integrated screw can be turned through the bore in the housing (3 A/F). If the Magnetic Catch is to be fastened using another screw, the plastic housing cap must be removed to replace the screw.

Holding force  $F = 20 \text{ N}$



## Magnetic Catch X

Housing base, die-cast zinc

Housing cap, PA-GF, grey

Flat head screw DIN 921-M5x6, St, bright zinc-plated as a holding plate

Button-Head Screw ISO 7380-M5x16, St, stainless

$m = 38 \text{ g}$

1 set

0.0.601.70

**Magnetic Door Stop 8**

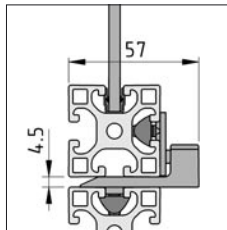


The Magnetic Door Stop is a system element for limiting the movement of closed doors and keeping them in place. Once the door has been swung against the Door Stop, it is held in place by the built-in Magnetic Catch.

For profiles with closed grooves, the groove cover must be removed to insert the T-Slot Nut and anti-torsion lugs.

**Note:**

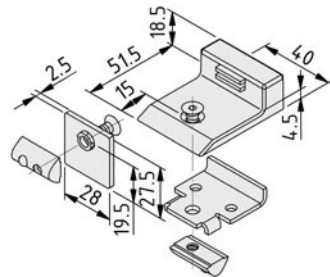
When tightening the fastening screw, the stop plate's anti-torsion lugs are press-fitted in the profile groove, immobilizing the Magnetic Door Stop.



The Door Stop is fastened to the groove of the Profile 8 in the outer frame and forms an end ramp and the limit stop (limiting the penetration depth for the modular dimension 40 mm).

Holding force  $F = 40 \text{ N}$

When designing the door dimensions, the thickness (4.5 mm) of Magnetic Door Stop 8 must be taken into account.

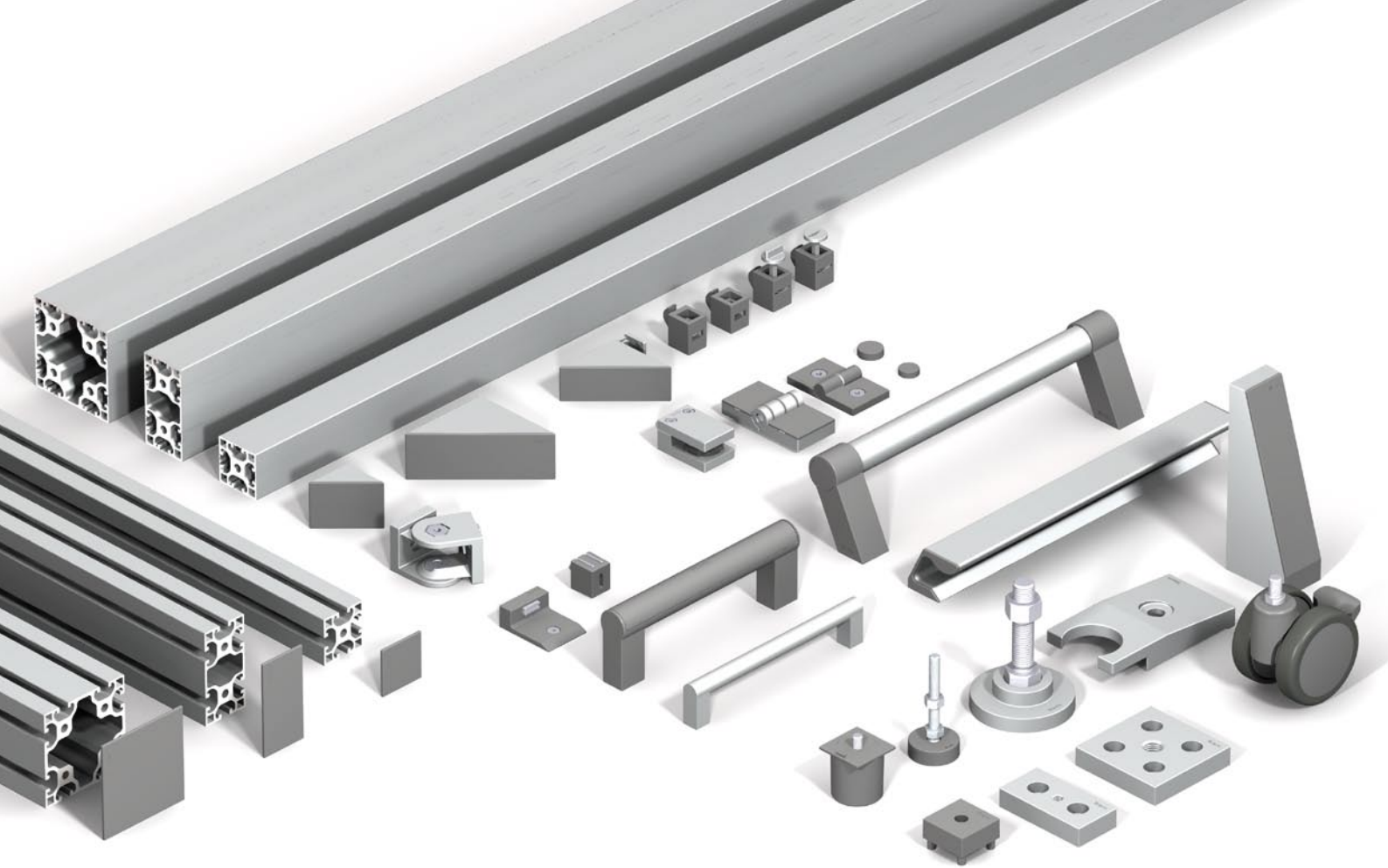


**Magnetic Door Stop 8**

- Housing, PA-GF
- Insert plate, St, bright zinc-plated
- Stop plate, St, bright zinc-plated
- 2 T-Slot Nuts V 8 St M5, bright zinc-plated
- Countersunk Screw DIN 7991-M5x12, St, bright-zinc-plated
- Countersunk Screw DIN 7991-M5x14, St, bright zinc-plated
- m = 76 g

grey, 1 set	0.0.600.73
black, 1 set	0.0.601.30





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**Are you already familiar with the entire item portfolio?**



## **MB Building Kit System**



### **Profiles St 8**



### **RS Building Kit System**

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