



## Automatic-Fastening Sets

The fastest and most flexible profile connection

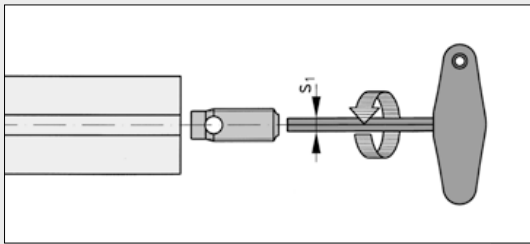
- No additional profile machining required
- For a profile connection that is stable and can also be repositioned
- Outstanding resistance to displacement, torsion and deflection



The Automatic-Fastening Set is an innovative solution for power-lock connections between profiles. Because no profile machining is required, it can be fitted quickly and easily. Due to the special design of the fasteners in the set, screw connections are all that is needed to fix them in place. They can be retrofitted to structures and repositioned in a matter of moments.

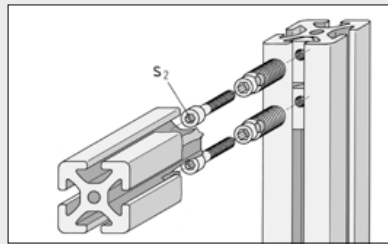
Automatic Fasteners can withstand the heaviest loads. A stainless steel version is also available for special requirements.

The Automatic-Fastening Set ensures that design engineers benefit from maximum design flexibility without having to compromise on stability.

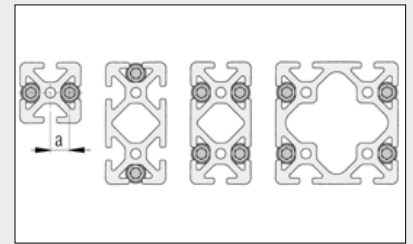


The Fastener is screwed into a profile groove in the end face, the thread being cut automatically. Use of a lubricant is recommended.

Note: All Fasteners with a through bore for the fastening screw have a counter-clockwise thread on the outside in order to prevent the Fastener twisting when the screw is tightened.



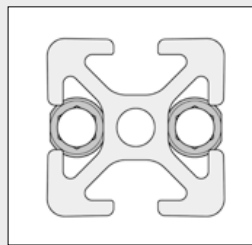
L-Keys from item are the ideal tool for tightening the screws of the Automatic-Fastening Set (tightening torque M).



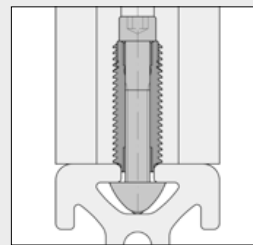
Automatic-Fastening Sets should always be used in pairs.

Automatic-Fastening Set

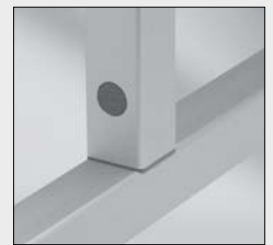
	5	6	8	10	12
a [mm]	6.8	9.5	13.2	16.2	19.5
s <sub>1</sub>	4 A/F	5 A/F	6 A/F	8 A/F	8 A/F
s <sub>2</sub>	3 A/F	4 A/F	5 A/F	5 A/F	6 A/F



Automatic-Fastening Set 5 should be inserted so that the flattening on the thread is flush with the outer edge of the profile.



Automatic-Fastening Sets 6, 8, 10 and 12 also have an anti-torsion feature. Once the profile has been pre-assembled, this feature can be deployed by unscrewing the fastener sufficiently so that the end of it projects into the profile groove.

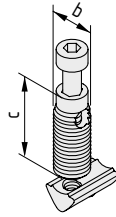


A special version of the Automatic-Fastening Set is available for Profile 8 with closed grooves (which can be opened up).

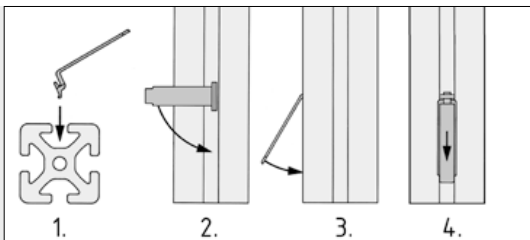
Automatic-Fastening Set 8 N 85

The following applies to all the sets below:

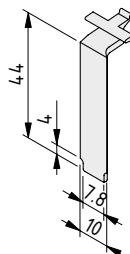
Automatic Fastener, St  
Hexagon Socket Head Cap Screw, St  
T-Slot Nut St




<b>Automatic-Fastening Set 5</b> 			
b = 7 mm	c = 24 mm	$M_{\text{bright zinc-plated}} = 2.5 \text{ Nm}$	m = 8.0 g
bright zinc-plated, 1 set			0.0.391.60
<b>Automatic-Fastening Set 5</b> 			
b = 7 mm	c = 24 mm	$M_{\text{stainless}} = 2.5 \text{ Nm}$	m = 8.0 g
stainless, 1 set			0.0.437.46
<b>Automatic-Fastening Set 6</b> 			
b = 10 mm	c = 27 mm	$M_{\text{bright zinc-plated}} = 8.0 \text{ Nm}$	m = 18.0 g
bright zinc-plated, 1 set			0.0.419.71
<b>Automatic-Fastening Set 6</b> 			
b = 10 mm	c = 27 mm	$M_{\text{stainless}} = 6.5 \text{ Nm}$	m = 18.0 g
stainless, 1 set			0.0.441.67
<b>Automatic-Fastening Set 8</b> 			
b = 12 mm	c = 31 mm	$M_{\text{bright zinc-plated}} = 14 \text{ Nm}$	m = 35.0 g
bright zinc-plated, 1 set			0.0.388.08
<b>Automatic-Fastening Set 8</b> 			
b = 12 mm	c = 31 mm	$M_{\text{stainless}} = 11 \text{ Nm}$	m = 35.0 g
stainless, 1 set			0.0.440.58
<b>Automatic-Fastening Set 10</b> 			
b = 15 mm	c = 39 mm	$M_{\text{bright zinc-plated}} = 25 \text{ Nm}$	m = 69.5 g
bright zinc-plated, 1 set			0.0.624.74
<b>Automatic-Fastening Set 12</b> 			
b = 18 mm	c = 47 mm	$M_{\text{bright zinc-plated}} = 34 \text{ Nm}$	m = 125.0 g
bright zinc-plated, 1 set			0.0.003.50



A cover is available for Automatic-Fastening Set 8. It is fitted after the fastening has been installed.



<b>Automatic-Fastening Set 8 Cap</b> 	
PA-GF	
m = 0.7 g	
black, similar to RAL 9005, 1 pce.	0.0.388.66
grey similar to RAL 7042, 1 pce.	0.0.616.31



## Universal-Fastening Sets

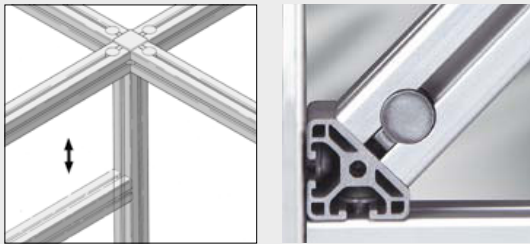
The high-strength and flexible profile connection

- For a profile connection that is stable and can also be repositioned
- Outstanding resistance to displacement, torsion and deflection
- Minimal assembly requirements – just one hole to cut

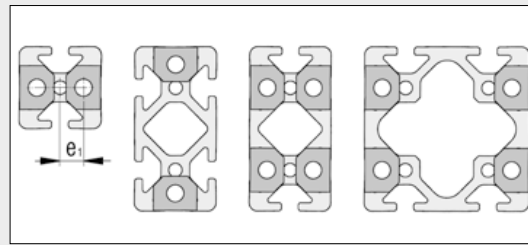
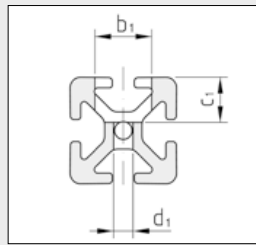
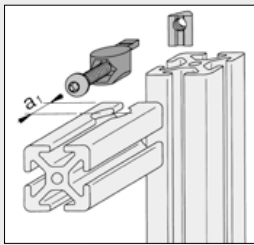


When it comes to creating flexible and strong profile connections, the Universal-Fastening Sets from item are an excellent choice. They are anchored via a single hole cut into one profile, while the fastening in the second profile can be repositioned at any time. As a result, they can also be installed in existing constructions.

Universal Fasteners made from cast stainless steel are exceptionally resistant to strong forces, changes in temperature and vibrations. They are also ideal for use in outdoor areas and cleanrooms.



Where required, the anti-torsion pin of the Universal Fastener can be broken off at a specified breakpoint. This Universal-Fastening Set can thus also be used to secure profiles to e.g. panels.



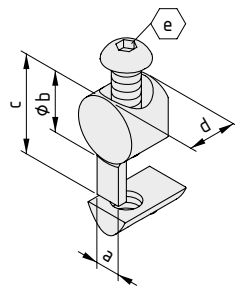
Universal-Fastening Sets should always be used in pairs.

Universal-Fastening Set

	5	6	8	10	12
$a_1$	10.0 mm	15.0 mm	20.0 mm	25.0 mm	30.0 mm
$b_1$	∅ 12.0 mm	∅ 16.0 mm	∅ 20.0 mm	∅ 25.0 mm	∅ 30.0 mm
$c_1$	8.5 mm	12.7 mm	16.0 mm	20.0 mm	24.0 mm
$d_1$	∅ 4.3 mm	∅ 5.5 mm	∅ 7.0 mm	∅ 9.0 mm	∅ 12.0 mm
$e_1$	5.8 mm	8.7 mm	12.0 mm	15.1 mm	17.8 mm

The following applies to all the sets below:

Universal Fastener, die-cast zinc  
Screw, St  
T-Slot Nut, St




Universal-Fastening Set 5


a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	$M_{bz-p}$ [Nm]	m [g]
5	12	17.2	8.5	3	3	7.0
bright zinc-plated, 1 set						0.0.370.27

Universal-Fastening Set 5


a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	$M_{stainl.}$ [Nm]	m [g]
5	12	17.2	8.5	3	2.4	7.0
stainless, 1 set						0.0.437.52

**Universal-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>bz-p</sub> [Nm]	m [g]
6.2	16	25.2	12.6	4	8	18.0
bright zinc-plated, 1 set						0.0.419.52

**Universal-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>stainl.</sub> [Nm]	m [g]
6.2	16	25.2	12.6	4	6.5	18.0
stainless, 1 set						0.0.441.74

**Universal-Fastening Set 8** 

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>bz-p</sub> [Nm]	m [g]
8	20	33.5	16	5	25	41.0
bright zinc-plated, 1 set						0.0.026.92


**Universal-Fastening Set 8** 

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>stainl.</sub> [Nm]	m [g]
8	20	33.5	16	5	20	41.0
stainless, 1 set						0.0.444.18

**Universal-Fastening Set 8 St** 


Universal Fastener St, stainless

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>bz-p</sub> [Nm]	m [g]
8	20	32.5	16	5	25	45.0
bright zinc-plated, 1 set						0.0.488.60


**Universal-Fastening Set 8 St** 

Universal Fastener St, stainless

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>stainl.</sub> [Nm]	m [g]
8	20	32.5	16	5	20	45.0
stainless, 1 set						0.0.488.51

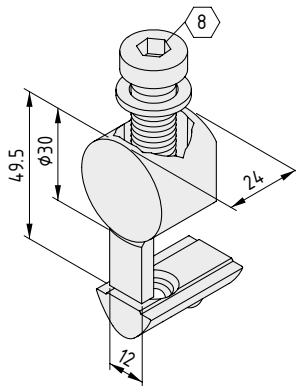
**Universal-Fastening Set 10** 

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	M <sub>bz-p</sub> [Nm]	m [g]
10	25	41	20	6	46	97.4
bright zinc-plated, 1 set						0.0.632.07

**Universal-Fastening Set 12** 

Universal Fastener 12, die-cast zinc  
Hexagon Socket Head Cap Screw DIN 7984-M12x45, St  
Washer DIN 433-13, St  
T-Slot Nut 12 St M12  
M<sub>bright zinc-plated</sub> = 60 Nm      m = 155.0 g

bright zinc-plated, 1 set						0.0.003.57
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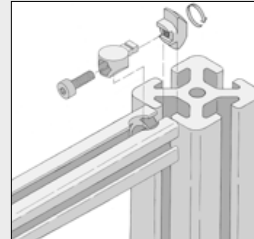
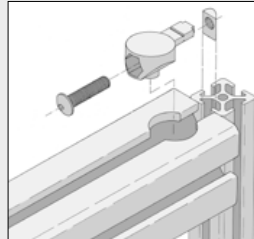


## Universal-Fastening Sets 5/8 and 8/5

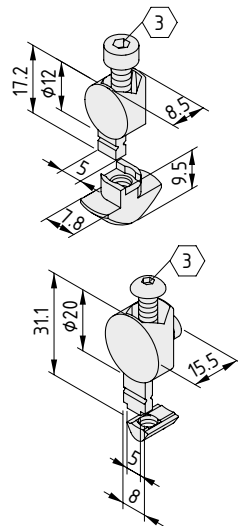
- For connecting together profiles from Lines 5 and 8
- Suitable for retrofitting and repositionable



For universal power-lock interconnection of Profiles 5 and Profiles 8. Suitable for profiles which need to be moved subsequently, since only one profile is processed. These Fastening Sets can be installed easily into existing constructions. Connection processing of the profiles is the same as for the Universal-Fastening Sets.



Universal-Fastening Sets should always be used in pairs. Where required, the anti-torsion pin of the Universal Fastener can be broken off at a specified breakpoint.



### Universal-Fastening Set 5/8



Universal Fastener 5, die-cast zinc  
Hexagon Socket Head Cap Screw DIN 912-M4x18, St  
Special T-Slot Nut 8 Zn M4

$M_{\text{bright zinc-plated}} = 3 \text{ Nm}$        $m = 9.0 \text{ g}$

bright zinc-plated, 1 set

0.0.370.34

### Universal-Fastening Set 8/5



Universal Fastener 8/5, die-cast zinc  
Button-Head Screw ISO 7380-M5x25, St  
T-Slot Nut 5 St M5

$M_{\text{bright zinc-plated}} = 3 \text{ Nm}$        $m = 18.0 \text{ g}$

bright zinc-plated, 1 set

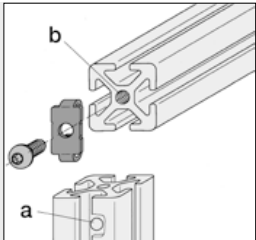
0.0.370.25



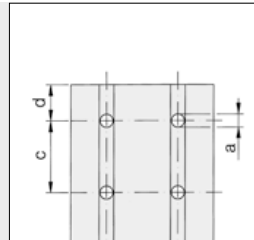
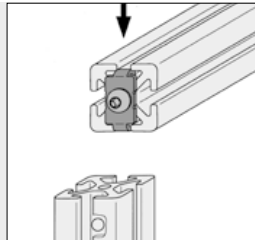
## Standard-Fastening Sets

**Stable, fixed screw connection for profiles**

- For a fixed profile connection
- Outstanding resistance to displacement and torsion



The necessary thread is tapped directly into the core bore of the profiles.



Position of the through holes for the key.

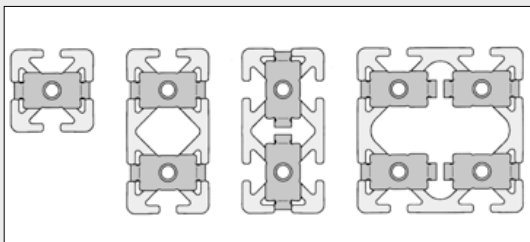


Standard-Fastening Set ESD is used in the same way as a conventional Standard-Fastening Set. The special design of the fastening screw partially destroys the insulating anodized layer on the profile groove and creates an electrical contact between the connected profiles.

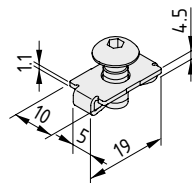
For better identification, fastening elements ESD are given a yellow passivation layer in compliance with Directive 2002/95/EC ("RoHS").

### Standard-Fastening Set

	5	6	8	8 E	10	12
a	∅ 4.3 mm	∅ 5.5 mm	∅ 7 mm	∅ 7 mm	∅ 9 mm	∅ 11.5 mm
b	M5 12 mm deep	M6 15 mm deep	M8 16 mm deep	-	M10 22 mm deep	M12 30 mm deep
c	20 mm	30 mm	40 mm	40 mm	50 mm	60 mm
d	10 mm	15 mm	20 mm	20 mm	25 mm	30 mm



The standard connecting plates can be arranged in the required direction to match the way in which the profiles are fitted. Large profiles with high load-bearing capabilities can be connected using a larger number of Standard Fasteners.



### Standard-Fastening Set 5



Standard connecting plate 5, St  
Special Button-Head Screw similar to ISO 7380-M5x12, St  
 $M_{\text{bright zinc-plated}} = 4.5 \text{ Nm}$   $m = 4.0 \text{ g}$

bright zinc-plated, 1 set 0.0.370.08

### Standard-Fastening Set 5



$M_{\text{stainless}} = 3.6 \text{ Nm}$   $m = 4.0 \text{ g}$

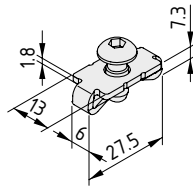
stainless, 1 set 0.0.437.49

### Standard-Fastening Set 5 ESD



$M_{\text{bright zinc-plated}} = 4.5 \text{ Nm}$   $m = 4.0 \text{ g}$

bright zinc-plated, 1 set 0.0.612.14

**Standard-Fastening Set 6**

Standard connecting plate 6, St  
 Special Button-Head Screw similar to ISO 7380-M6x14, St  
 $M_{\text{bright zinc-plated}} = 10 \text{ Nm}$      $m = 9.0 \text{ g}$

bright zinc-plated, 1 set

0.0.419.14

**Standard-Fastening Set 6**

$M_{\text{stainless}} = 8 \text{ Nm}$      $m = 9.0 \text{ g}$

stainless, 1 set

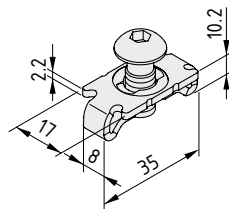
0.0.439.10

**Standard-Fastening Set 6 ESD**

$M_{\text{bright zinc-plated}} = 10 \text{ Nm}$      $m = 9.0 \text{ g}$

bright zinc-plated, 1 set

0.0.612.04

**Standard-Fastening Set 8**

Standard connecting plate 8, St  
 Special Button-Head Screw similar to ISO 7380-M8x20, St  
 $M_{\text{bright zinc-plated}} = 25 \text{ Nm}$      $m = 21.0 \text{ g}$

bright zinc-plated, 1 set

0.0.026.07

**Standard-Fastening Set 8**

$M_{\text{stainless}} = 20 \text{ Nm}$      $m = 21.0 \text{ g}$

stainless, 1 set

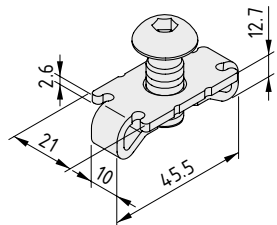
0.0.388.79

**Standard-Fastening Set 8 ESD**

$M_{\text{bright zinc-plated}} = 25 \text{ Nm}$      $m = 21.0 \text{ g}$

bright zinc-plated, 1 set

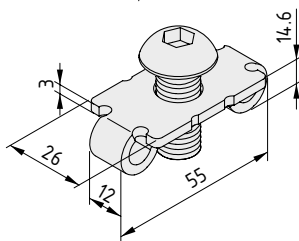
0.0.610.11

**Standard-Fastening Set 10**

Standard connecting plate 10, St  
 Special Button-Head Screw similar to ISO 7380-M10x25, St  
 $M_{\text{bright zinc-plated}} = 46 \text{ Nm}$      $m = 43.2 \text{ g}$

bright zinc-plated, 1 set

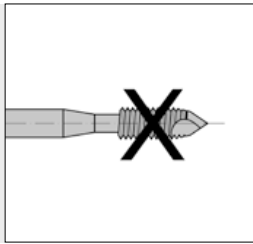
0.0.625.08

**Standard-Fastening Set 12**

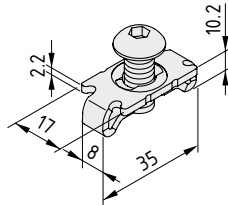
Standard connecting plate 12, St  
 Special Button-Head Screw similar to ISO 7380-M12x30, St  
 $M_{\text{bright zinc-plated}} = 80 \text{ Nm}$      $m = 70.0 \text{ g}$

bright zinc-plated, 1 set

0.0.003.35



For connections with slightly reduced loading, Line 8 features Standard-Fastening Set 8 E with a self-threading special screw which further reduces the machining requirement.



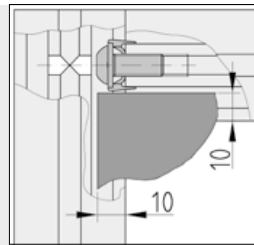
**Standard-Fastening Set 8 E**



Standard connecting plate 8, St  
Self-threading, Button-Head Screw, head shape similar to ISO 7380-M7.3x20, St  
 $M_{\text{bright zinc-plated}} = 20 \text{ Nm}$       $m = 20.0 \text{ g}$

bright zinc-plated, 1 set

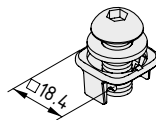
0.0.421.75



Standard-Fastening Set 8 K is a special version of the proven Standard-Fastening Set. It is employed for right-angled connection of Line 8 Profiles in which the profile grooves are used for holding panel elements.

Panel elements can be slid into the profile groove without needing cutouts in the corners.

We recommend that panel elements be inserted to a depth of 10 mm into a Profile 8 groove.



**Standard-Fastening Set 8 K**



Spacer, POM, black  
Washer ISO 7089-8, St, bright zinc-plated  
Button-Head Screw ISO 7380-M8x20, St, bright zinc-plated  
 $M = 25 \text{ Nm}$       $m = 11.0 \text{ g}$

1 set

0.0.488.07

**Standard-Fastening Set 8 K ESD**

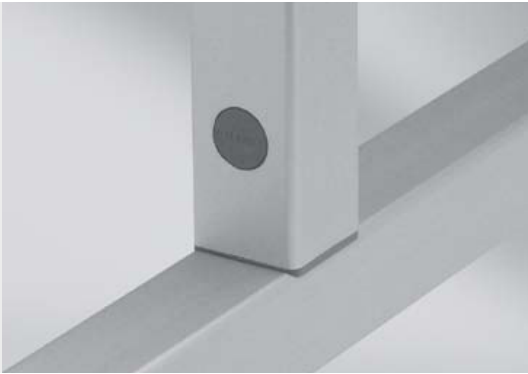


Spacer, POM, black  
Washer D9/D16-1.6, St, bright zinc-plated  
Button-Head Screw M8x20 ESD, St, bright zinc-plated  
 $M = 25 \text{ Nm}$       $m = 11.0 \text{ g}$

1 set

0.0.625.33



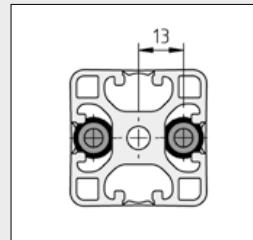
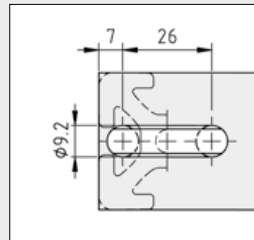
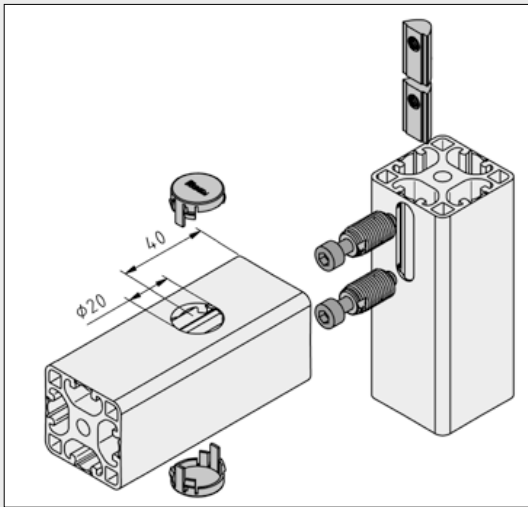


## Automatic-Fastening Set 8 N

- For rectangular profiles with closed grooves
- Surfaces stay easy to clean



Special form of the Automatic-Fastening Set for installation in profiles with closed grooves. The groove is opened as shown below.



Opening the closed groove of a Line 8 Profile in order to insert the T-Slot Nuts of two Automatic-Fastening Sets 8 N.

Automatic-Fastening Sets should always be used in pairs.

The fastener is located inside the profile cavity. To access the fastening screw just drill a hole into the profile. The grey Cap is used to close the hole.

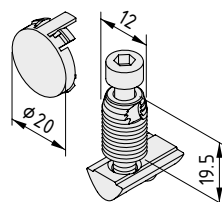
A T-Slot Nut is inserted into the groove in the second profile and forms the counterpart for the Automatic Fastener screw. If this groove in the second profile is also closed, the T-Slot Nut must be inserted from either the profile's end face or through a larger opening in the groove cover created beforehand.



### Note:

A special 5 A/F N L-Key is available for tightening the screw connection of Automatic-Fastening Sets 8 N.

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### Automatic-Fastening Set 8 N

Automatic Fastener 8 N, St, black  
 Cap, PA grey  
 Hexagon Socket Head Cap Screw M6x30, St, bright zinc-plated  
 T-Slot Nut V 8 St M6, bright zinc-plated  
 M = 14 Nm      m = 27.0 g

1 set

0.0.489.96



## Automatic-Fastening Set 8 N D40

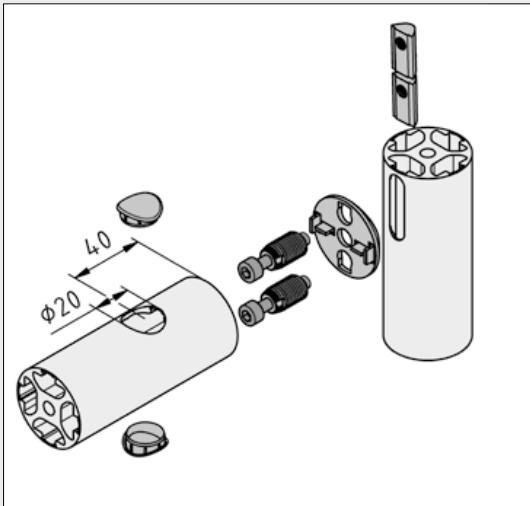
- Connect cylindrical Profiles 8 D40
- Suitable for open and closed grooves



Automatic-Fastening Set 8 N D40 can be used for connecting Profiles 8 D40 to other Profiles 8 D40 or – if an Adapter 8 D40 is used – to Profiles 8 with rectangular cross-sections.

When used with Profiles 8 that have closed grooves, a hole with a diameter of 20 mm must be cut into the profile, 40 mm from the profile end face, for the fastening screw.

However, when used with profiles that have open grooves, there is no need to machine the profiles. The self-tapping Automatic Fastener is simply driven into the profile groove from the end face.



Automatic-Fastening Set 8 N D40 can be used to connect Profiles 8 with both open and closed grooves (where designed for opening). To cover the mounting bore in the side face of profiles with closed grooves, Automatic-Fastening Set 8 N D40 contains Caps for Profiles 8 with rectangular and round cross-sections. Depending on the profile attached, the Cap with a rounded or flat outer contour will be used. In the case of Profiles 8 with open grooves, no bore is needed. Consequently, the Caps are not required in this instance.

The length of the screw in Automatic-Fastening Set 8 N D40 is matched to the thickness of Adapter 8 D40. The full length of the thread is therefore available in order to ensure that the maximum fastening force is applied.

Adapter 8 D40

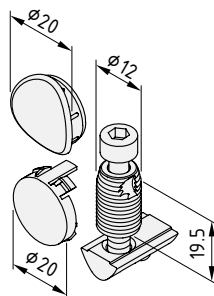
104



### Note:

A special 5 A/F N L-Key is available for tightening the screw connection of Automatic-Fastening Sets 8 N.

594



### Automatic-Fastening Set 8 N D40



Automatic Fastener 8 N, St, black  
 2 caps, PA grey  
 Hexagon Socket Head Cap Screw M6x32, St, bright zinc-plated  
 T-Slot Nut V 8 St M6, bright zinc-plated  
 M = 14 Nm      m = 28.5 g

1 set

0.0.493.91



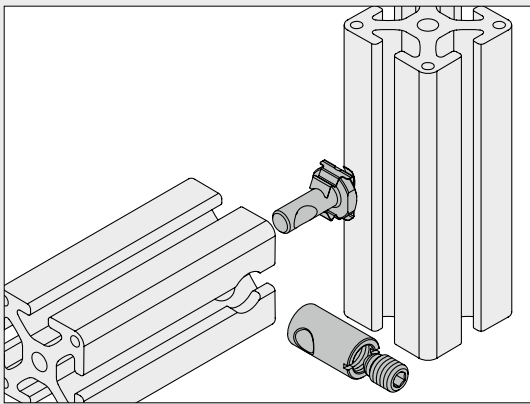
## Central-Fastening Set

- For building frames for panel elements
- Flexible connection with a stand profile
- Medium resistance to displacement

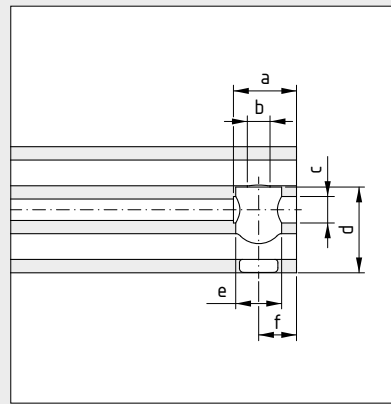


The Central-Fastening Set connects profiles at right angles to each other and leaves the grooves that are facing each other completely free. This is useful when the profile grooves are

to accommodate a panel element. It eliminates the need to specially machine the corner areas of the panel element, which instead can be inserted directly into the grooves.



Due to the reduced clamping force and the lack of any anti-torsion feature between the profiles, this fastening set should only be used in combination with panel elements in the profile groove and only for profile connections subject to low loads. Where more stringent requirements need to be satisfied and parts are important for safety considerations, it is advisable to use the proven fastening techniques for basic constructions (Standard-Fastening, Universal-Fastening or Automatic-Fastening Sets).



The profile to be connected via its end face needs to be machined before the Central-Fastening Set can be used.

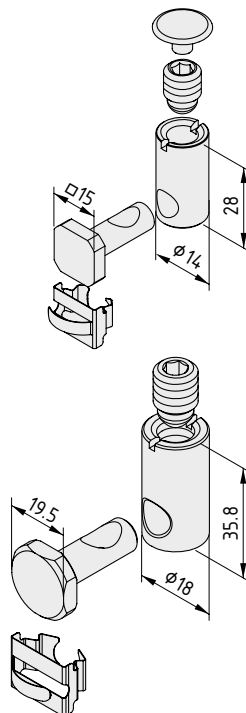
The hole to accommodate Central-Fastening Set 8 should be produced with Step Drill D14.2 (0.0.492.60).

The hole to accommodate Central-Fastening Set 10 should be produced with Step Drill D18.2 (0.0.632.75).

### Central-Fastening Set

	a	b	c	d	e	f
8	20 mm	∅ 7 mm	∅ 8.2 mm	26.7 mm	∅ 14.2 mm	12/11 mm*
10	25 mm	∅ 9 mm	∅ 10.5 mm	34 mm	∅ 18.2 mm	15 mm

\* When using Radius Seals in combination with Central-Fastening Set 8, the distance between the hole and the end face of the profile should be reduced from 12 mm to 11 mm.



### Central-Fastening Set 8



Clamping pin, St, bright zinc-plated  
 Clamping spring, St, stainless  
 Sleeve with bore, St, bright zinc-plated  
 Grub screw M10, St, bright zinc-plated  
 Cap, PA grey  
 M = 15 Nm      m = 35.0 g

1 set

0.0.494.15

### Central-Fastening Set 10



Clamping pin, St, bright zinc-plated  
 Spring element, St, stainless  
 Sleeve with bore, St, bright zinc-plated  
 Grub screw M12, St, bright zinc-plated  
 M = 22 Nm      m = 87.0 g

bright zinc-plated, 1 set

0.0.632.74

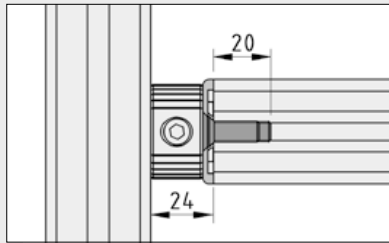
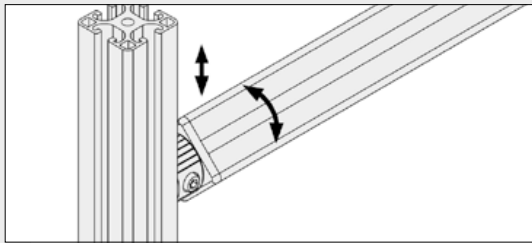


## Click-Fastening Set 8 90°

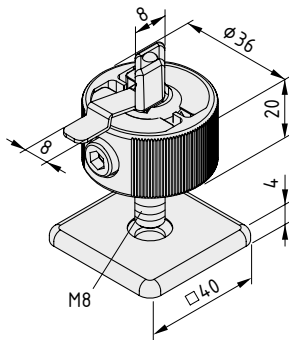
- For simple and flexible constructions
- Connect profiles at any angle of rotation
- Repositionable
- Ideal for prototypes and temporary structures



One click and it's ready – it really can be that easy to fit a strut. The practical Click Fastening Set connects together profiles at any point and at virtually any angle of rotation. Profile sections can be easily added to existing constructions and used as reusable, variable struts. That makes the Click-Fastening Set particularly useful when building temporary structures. Modifications can also be made quickly and easily.



To use Click-Fastening Set 8 90°, the core bore of the Profile 8 connected via the end face must have an M8x20 tapped hole. In this case, the distance between the end face of the profile and the side of the second profile is 24 mm.



### Click-Fastening Set 8 90°



- Clamping profile Al, natural
- Clamping elements, St, stainless
- Locking strip, St, stainless
- Hex. Socket Head Cap Screw M6x25, St, bright zinc-plated
- Tensioning screw M8, St, bright zinc-plated
- Cap 8 40x40, die-cast zinc, white aluminium
- m = 125.0 g

1 set

0.0.606.94

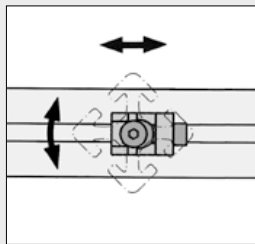


## Direct-Fastening Set 8 90°

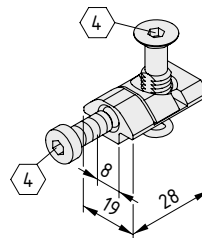
- Right-angled profile connections
- Connections possible at any angle of rotation



Direct-Fastening Set 8 90° is used for right-angled connection of Profiles 8. The profile can be secured at the end face and at any angle. The core bore must have an M8x16 thread.



Direct-Fastening Set 8 90° is particularly suitable when a repositionable connection is required with a profile that has one or more closed grooves and Universal or Automatic Fasteners cannot be used.

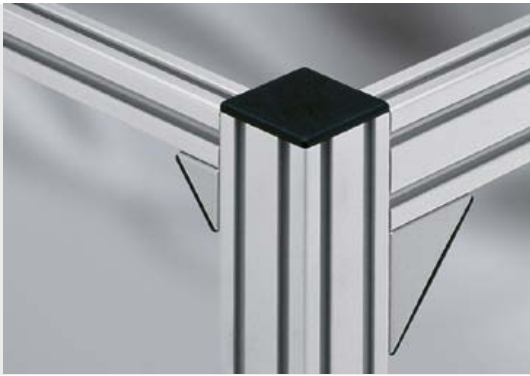


### Direct-Fastening Set 8 90°



Fastener, die-cast steel  
 Countersunk Screw M8x27, St  
 O-ring, NBR, black  
 Hexagon Socket Head Cap Screw DIN 7984-M6x14, St  
 $M_{\text{stainless}} = 5.5 \text{ Nm}$   $m = 30.0 \text{ g}$   
 stainless, 1 set

0.0.388.67



## Angle Bracket Zn

Simple, stable connection

- Reinforcement for profile connections
- Power-lock connection with no profile machining
- Can be retrofitted rapidly
- Products from Line X also available



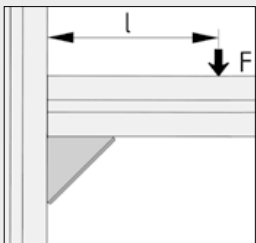
To ensure Angle Bracket installation is particularly straightforward, it is advisable to use the Angle Bracket Sets containing the corresponding screws and special washers.



Angle Brackets are ideal for connecting cable conduits. The rounded internal edge prevents damage to the cables.



Specially designed Angle Brackets X 8 are available for profile constructions built with Line X.



When used to reinforce the joints of large profiles or conduits, several Angle Brackets can be used in parallel.

Note: Ensure the maximum permissible tensile load on the Profile Groove is not exceeded!

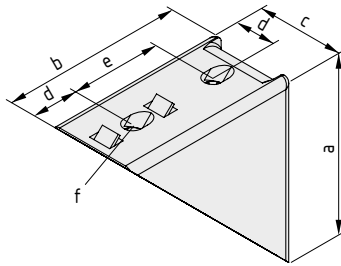
Note: For Angle Brackets of Lines 6, 8 and 12, special square washers are used to improve the application of the clamping force.

Angle Bracket 5	20x20 Zn	$F < 250 \text{ N} \wedge F \times l < 5 \text{ Nm}$
Angle Bracket 5	40x40 Zn	$F < 500 \text{ N} \wedge F \times l < 25 \text{ Nm}$
Angle Bracket 6	30x30 Zn	$F < 500 \text{ N} \wedge F \times l < 12 \text{ Nm}$
Angle Bracket 6	60x60 Zn	$F < 1,000 \text{ N} \wedge F \times l < 36 \text{ Nm}$
Angle Bracket (X) 8	40x40 Zn	$F < 1,000 \text{ N} \wedge F \times l < 50 \text{ Nm}$
Angle Bracket (X) 8	80x80 Zn	$F < 2,000 \text{ N} \wedge F \times l < 150 \text{ Nm}$
Angle Bracket 8	160x80 Zn	$F < 2,000 \text{ N} \wedge F \times l < 150 \text{ Nm}$
Angle Bracket 10	50x50 Zn	$F < 1,500 \text{ N} \wedge F \times l < 75 \text{ Nm}$
Angle Bracket 10	100x100 Zn	$F < 3,000 \text{ N} \wedge F \times l < 200 \text{ Nm}$
Angle Bracket 12	60x60 Zn	$F < 2,000 \text{ N} \wedge F \times l < 100 \text{ Nm}$
Angle Bracket 12	120x120 Zn	$F < 4,000 \text{ N} \wedge F \times l < 250 \text{ Nm}$

The load-carrying capacity is to be checked to ensure both conditions are met.

Materials used in all the following products:

Die-cast zinc

**Angle Bracket 5 20x20 Zn**

5

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
20	20	20	10	-	Ø5.3	14.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.425.03

**Angle Bracket 5 40x40 Zn**

5

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
40	40	20	10	20	Ø5.3	39.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.425.06

**Angle Bracket 6 30x30 Zn**

6

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
30	30	30	15	-	Ø6.6	47.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.419.63

**Angle Bracket 6 60x60 Zn**

6

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
60	60	30	15	30	Ø6.6	130.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.419.65

**Angle Bracket 8 40x40 Zn**

8

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
40	40	40	20	-	Ø8.2	119.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.411.24

**Angle Bracket 8 80x80 Zn**

8

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
80	80	40	20	40	Ø8.2	270.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.411.23

**Angle Bracket 8 160x80 Zn**

8

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
80	160	40	20	40	Ø8.2	530.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.436.23

**Angle Bracket 12 60x60 Zn**

12

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
60	60	60	30	-	Ø12.5	350.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.003.20

**Angle Bracket 12 120x120 Zn**

12

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
120	120	60	30	60	Ø12.5	900.0

white aluminium, similar to RAL 9006, 1 pce.

0.0.003.21

Angle Bracket	Item No.
6 30x30	0.0.491.43
6 60x60	0.0.491.43
8 40x40	0.0.494.45
8 80x80	0.0.494.45
8 160x80	0.0.416.11

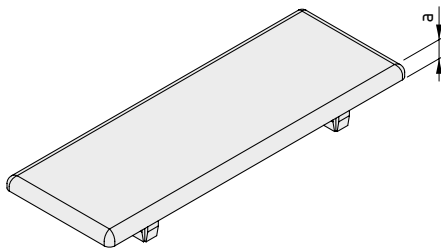
Angle Brackets should always be used with the appropriate washers.

Washer 10.5x10.5x1.3	
St	
m = 0.6 g	
bright zinc-plated, 1 pce.	0.0.491.43

Washer 13.5x9x1	
St	
m = 0.6 g	
bright zinc-plated, 1 pce.	0.0.416.11

Washer 13.9x13.9x2	
St	
m = 1.7 g      m = 175 g/100	
bright zinc-plated, 1 pce.	0.0.494.45

Materials used in all the following products:  
PA-GF



Angle Bracket Cap 5 20x20		5
a = 2.5 mm      m = 1.0 g		
black, 1 pce.	0.0.425.04	

Angle Bracket Cap 5 40x40		5
a = 2.5 mm      m = 3.0 g		
black, 1 pce.	0.0.425.07	




Angle Bracket Cap 6 30x30		6
a = 3.0 mm      m = 4.0 g		
black, 1 pce.	0.0.419.64	

Angle Bracket Cap 6 60x60		6
a = 3.0 mm      m = 7.0 g		
black, 1 pce.	0.0.419.66	

Angle Bracket Cap 8 40x40		8
a = 4.0 mm      m = 6.0 g		
black, 1 pce.	0.0.411.26	
grey similar to RAL 7042, 1 pce.	0.0.627.57	

Angle Bracket Cap 8 80x80		8
a = 4.0 mm      m = 13.0 g		
black, 1 pce.	0.0.411.25	
grey similar to RAL 7042, 1 pce.	0.0.627.58	



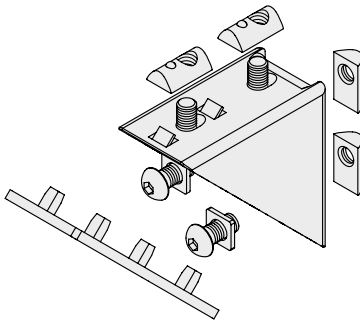
<b>Angle Bracket Cap 8 160x80</b>	
a = 4.0 mm      m = 23.0 g	
black, 1 pce.	0.0.436.25
grey similar to RAL 7042, 1 pce.	0.0.627.59
<b>Angle Bracket Cap 12 60x60</b>	
a = 5.4 mm      m = 20.0 g	
black, 1 pce.	0.0.005.06
<b>Angle Bracket Cap 12 120x120</b>	
a = 5.4 mm      m = 40.0 g	
black, 1 pce.	0.0.005.07










The following applies to all the sets below:

Angle Bracket Zn, die-cast zinc, RAL9006

Angle Bracket Cap, PA, black

Fastening elements and washers, St, bright zinc-plated



<b>Angle Bracket Set 5 20x20</b>	
m = 23.0 g	
1 set	0.0.425.02
<b>Angle Bracket Set 5 40x40</b>	
m = 58.0 g	
1 set	0.0.425.05
<b>Angle Bracket Set 6 30x30</b>	
m = 66.0 g	
1 set	0.0.419.67
<b>Angle Bracket Set 6 60x60</b>	
m = 166.0 g	
1 set	0.0.419.68
<b>Angle Bracket Set 8 40x40</b>	
m = 163.0 g	
1 set	0.0.411.15
<b>Angle Bracket Set 8 80x80</b>	
m = 360.0 g	
1 set	0.0.411.32
<b>Angle Bracket Set 8 160x80</b>	
m = 662.0 g	
1 set	0.0.436.24
<b>Angle Bracket Set 12 60x60</b>	
m = 520.0 g	
1 set	0.0.003.53
<b>Angle Bracket Set 12 120x120</b>	
m = 1.2 kg	
1 set	0.0.003.54

The following applies to all the sets below:

Angle Bracket Zn, die-cast zinc, RAL9006


Angle Bracket Cap, PA, grey

Fastening elements and washers, St, bright zinc-plated

**Angle Bracket Set 10 50x50** 

m = 335.0 g

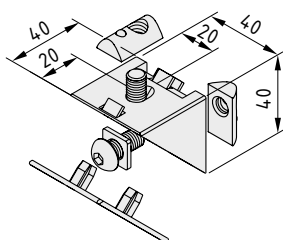
1 set 0.0.625.23

**Angle Bracket Set 10 100x100** 

m = 826.0 g

1 set 0.0.625.26

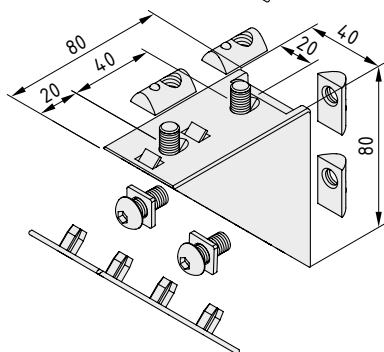
**Line 8** 




**Angle Bracket Set X 8 40x40** 

m = 150.0 g

1 set 0.0.601.62



**Angle Bracket Set X 8 80x80** 

m = 360.0 g

1 set 0.0.601.61



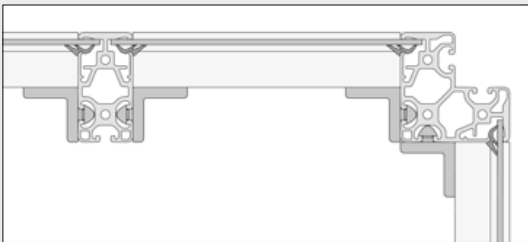
## Angle Bracket V Zn

- Simple, torsion-resistant profile connections
- For medium loads
- No machining required



Angle Brackets V Zn are very easy-to-use fastening elements for right-angled profile connections. The profiles do not need to be processed. Angle Brackets V Zn have an anti-torsion feature which locates them in the correct position in the profile groove.

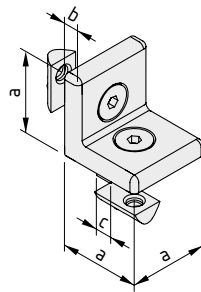
The integral anti-torsion lugs are present on one face only, so that the Brackets can also be used for fastening any other parts to profiles.



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

The following applies to all the sets below:

Angle Bracket, die-cast zinc, RAL 9006 white aluminium  
2 T-Slot Nuts, St, bright zinc-plated  
2 Countersunk Screws DIN 7991, St, bright zinc-plated



### Angle Bracket V 5 20 Zn

a [mm]	b [mm]	c [mm]	m [g]
20	3	5	18.0

1 set 0.0.612.79

### Angle Bracket V 6 30 Zn

a [mm]	b [mm]	c [mm]	m [g]
30	6	6	68.5

1 set 0.0.612.78

### Angle Bracket V 8 40 Zn

a [mm]	b [mm]	c [mm]	m [g]
40	8	8	167.0

1 set 0.0.486.28



## Angle Bracket Al and St

Maximum load-carrying capacity for large profile cross-sections

- Heavy-duty fastening elements for profiles
- For fastening heavy-duty components
- Power-lock connection with no profile machining

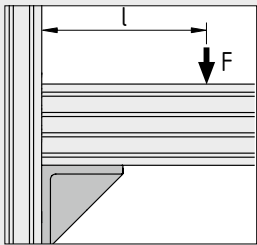


These Angle Brackets are heavy-duty fastening elements that produce power-lock, non-machined connections between large profiles. They can also be used as screw connections between profiles and floors or walls and for fastening heavy parts that are not part of the MB Building Kit System.

The Angle Brackets can be screwed to the profile with up to four Fastening Sets, according to requirements. They support the load-bearing component above them without the need for further machining.

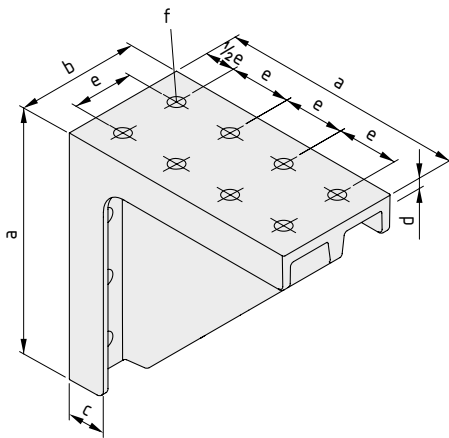


The substantial web gives the Angle Bracket its high load-carrying capacity but the screws are still readily accessible, thereby ensuring easy installation.



Angle Bracket 8 160x160-40 Al	$F < 4,000 \text{ N} \wedge F \times l < 400 \text{ Nm}$
Angle Bracket 8 160x160 Al	$F < 8,000 \text{ N} \wedge F \times l < 800 \text{ Nm}$
Angle Bracket 8 160x160 St	$F < 8,000 \text{ N} \wedge F \times l < 1,200 \text{ Nm}$
Angle Bracket 10 200x200-50 Al	$F < 5,000 \text{ N} \wedge F \times l < 500 \text{ Nm}$
Angle Bracket 12 240x240 Al	$F < 16,000 \text{ N} \wedge F \times l < 4,200 \text{ Nm}$

The load-carrying capacity is to be checked to ensure both conditions are met.



### Angle Bracket 8 160x160 Al M8



Die-cast aluminium

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [kg]
160	80	24	7.5	40	Ø9	1.1

white aluminium, similar to RAL 9006, 1 pce.

0.0.602.36

### Angle Bracket 8 160x160 St M8



High-strength cast iron

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [kg]
160	80	24	7	40	Ø9	2.4

white aluminium, similar to RAL 9006, 1 pce.

0.0.475.21

### Angle Bracket 12 240x240 Al M12

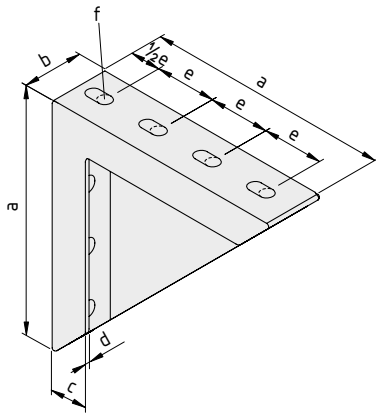


Die-cast aluminium

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [kg]
240	120	26	9.5	60	Ø13.5	2.7

white aluminium, similar to RAL 9006, 1 pce.

0.0.007.79

**Angle Bracket 8 160x160-40 Al M8**

8

Die-cast aluminium

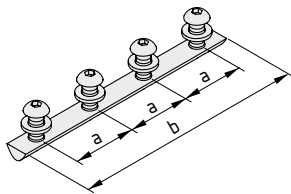
a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
160	40	24	7.5	40	∅9	480.0
white aluminium, similar to RAL 9006, 1 pce.						0.0.619.56

**Angle Bracket 10 200x200-50 Al M10**

10

Die-cast aluminium

a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
200	50	30	10	50	∅11	899.0
white aluminium, similar to RAL 9006, 1 pce.						0.0.624.78

**Fastening Set for Angle Bracket 8 160x160 M8**

8

Profile Bar 8 St M8, bright zinc-plated

4 Button-Head Screws ISO 7380-M8x20, St, bright zinc-plated

4 washers DIN 1441-9.0, St, bright zinc-plated

a [mm]	b [mm]	M [Nm]	m [g]
40	150	25	132.0
1 set			0.0.479.96

**Fastening Set for Angle Bracket 10 200x200 M10**

10

Profile Bar 10 St M10, bright zinc-plated

4 Button-Head Screws ISO 7380-M10x25, St, bright zinc-plated

4 washers DIN 125-10.5, St, bright zinc-plated

a [mm]	b [mm]	M [Nm]	m [g]
50	190	46	112.0
1 set			0.0.632.41

**Fastening Set for Angle Bracket 12 240x240 M12**

12

Profile Bar 12 St M12-60, bright zinc-plated

4 Button-Head Screws ISO 7380-M12x30, St, bright zinc-plated

4 washers DIN 1441-13.0, St, bright zinc-plated

a [mm]	b [mm]	M [Nm]	m [g]
60	230	80	400.0
1 set			0.0.609.16

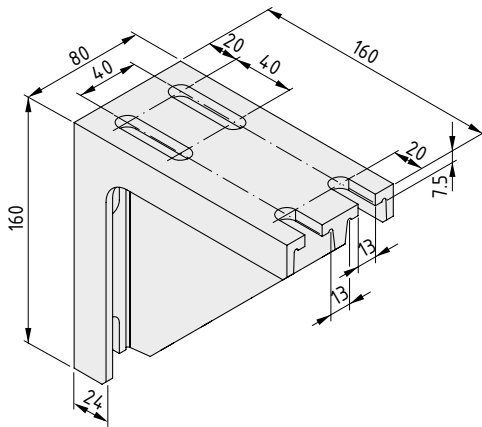


Angle Bracket 8 160x160 St M12 is used for screw attachment with Fasteners 8 M12. A particularly heavy-duty connection is possible for the profiles by using an M12 bolt with Profile 8 grooves. Alternatively, Angle Bracket 8 St M12 can also be screw attached using bolts and T-Slot Nuts 8 St M8.



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  $M = 80 \text{ Nm}$ .

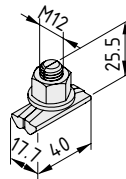


**Angle Bracket 8 160x160 St M12**

High-strength cast iron  
m = 2.2 kg

white aluminium, similar to RAL 9006, 1 pce.

0.0.475.20



**Fastener 8 M12**

Fastener half, cast steel, stainless  
Fastener half with spring ball, cast steel, stainless  
Nut DIN 934-M12, St, bright zinc-plated  
Washer DIN 125-12, St, bright zinc-plated  
 $M = 80 \text{ Nm}$      m = 70.0 g

1 set

0.0.473.02