

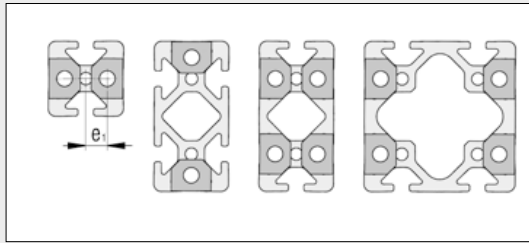
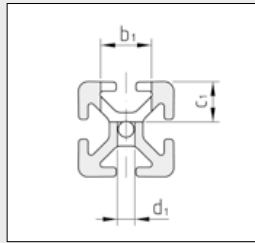
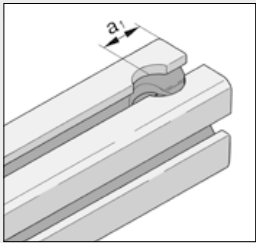


## Universal-Butt-Fastening Sets

- Connect identical profiles via their end faces



Extend the profiles only with the aid of the corresponding fastening elements and, where possible, support them at the joints.



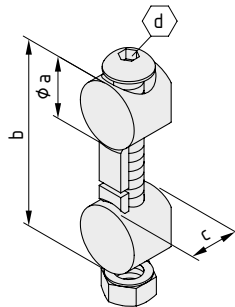
Universal-Fastening Sets should always be used in pairs.

### 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:

- 2 Universal Fasteners, die-cast zinc
- Screw, St
- Hexagon nut, St



### Universal-Butt-Fastening Set 5




a [mm]	b [mm]	c [mm]	d [mm]	$M_{bz-p}$ [Nm]	m [g]
12	32	8.5	3	3.0	10.0
bright zinc-plated, 1 set					0.0.370.32


### Universal-Butt-Fastening Set 5




a [mm]	b [mm]	c [mm]	d [mm]	$M_{stainl.}$ [Nm]	m [g]
12	32	8.5	3	2.5	10.0
stainless, 1 set					0.0.437.55

**Universal-Butt-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	d [mm]	M <sub>bz-p</sub> [Nm]	m [g]
16	46	12.6	4	8.0	27.0
bright zinc-plated, 1 set					0.0.419.53

**Universal-Butt-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	d [mm]	M <sub>stainl.</sub> [Nm]	m [g]
16	46	12.6	4	6.5	27.0
stainless, 1 set					0.0.441.77

**Universal-Butt-Fastening Set 8** 

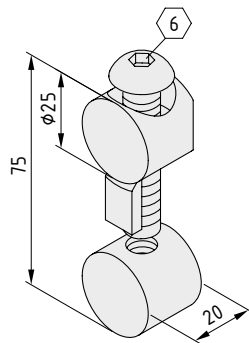

a [mm]	b [mm]	c [mm]	d [mm]	M <sub>bz-p</sub> [Nm]	m [g]
20	60	16	5	25	60.0
bright zinc-plated, 1 set					0.0.265.46

**Universal-Butt-Fastening Set 8** 

a [mm]	b [mm]	c [mm]	d [mm]	M <sub>stainl.</sub> [Nm]	m [g]
20	60	16	5	20	60.0
stainless, 1 set					0.0.440.94

**Universal-Butt-Fastening Set 12** 

a [mm]	b [mm]	c [mm]	d [mm]	M <sub>bz-p</sub> [Nm]	m [g]
30	90	24	6	60	200.0
bright zinc-plated, 1 set					0.0.003.61

**Universal-Butt-Fastening Set 10** 

Universal Fastener 10, St					
Button-Head Screw ISO 7380-M10x50, St					
Universal Butt-Fastener 10, St					
M <sub>bright zinc-plated</sub> = 46 Nm      m = 148.5 g					
bright zinc-plated, 1 set					0.0.632.08

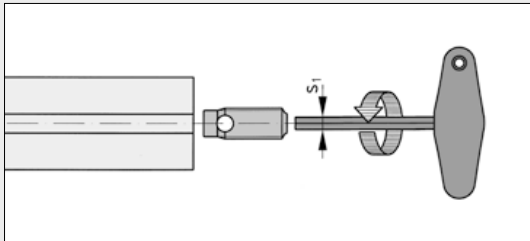


## Automatic Butt-Fastening Sets

- Connect identical profiles via their end faces
- No profile machining required



The Automatic Butt-Fastening Sets can be used to connect the end faces of two profiles from the same Line without mechanical processing. Automatic Butt-Fastening Sets should always be used in pairs. Depending on the profile size and load, several pairs may be necessary.

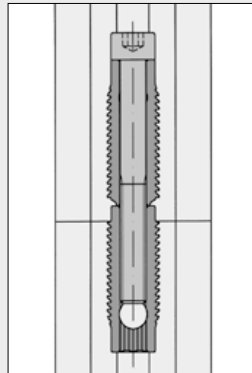


Automatic Butt-Fastening Set

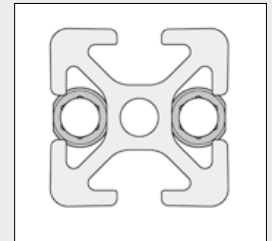
	5	6	8	12
$s_1$	4 A/F	5 A/F	6 A/F	8 A/F

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. The Fasteners with internal threads have a clockwise thread on the outside.



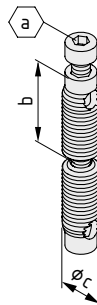
When driving the Fastener with internal thread into a profile, additional anti-torsion protection can be provided by leaving the end protruding out so that it projects into the groove opposite. The Fastener with through bore will then need to be driven far enough into the adjoining profile to accommodate it.



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

The following applies to all the sets below:

- Automatic Fastener with through bore, St
- Automatic Fastener with threaded bore, St
- Hex. Socket Head Cap Screw, St




### Automatic Butt-Fastening Set 5


a [mm]	b [mm]	c [mm]	$M_{bz-p}$ [Nm]	m [g]
3	24	7	2.5	11.0
bright zinc-plated, 1 set				0.0.464.19

### Automatic Butt-Fastening Set 5


a [mm]	b [mm]	c [mm]	$M_{stainl.}$ [Nm]	m [g]
3	24	7	2.5	11.0
stainless, 1 set				0.0.464.18

**Automatic Butt-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	$M_{b2p}$ [Nm]	m [g]
4	27	10	8.0	23.0
bright zinc-plated, 1 set				0.0.419.74

**Automatic Butt-Fastening Set 6** 


a [mm]	b [mm]	c [mm]	$M_{stainl.}$ [Nm]	m [g]
4	27	10	6.5	23.0
stainless, 1 set				0.0.441.71

**Automatic Butt-Fastening Set 8** 

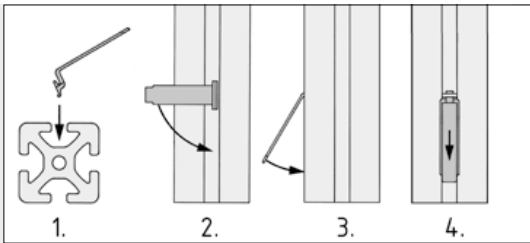
a [mm]	b [mm]	c [mm]	$M_{b2p}$ [Nm]	m [g]
5	31	12	14	43.0
bright zinc-plated, 1 set				0.0.406.80

**Automatic Butt-Fastening Set 8** 

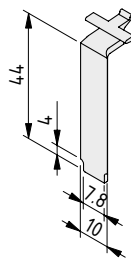

a [mm]	b [mm]	c [mm]	$M_{stainl.}$ [Nm]	m [g]
5	31	12	11	43.0
stainless, 1 set				0.0.444.15

**Automatic Butt-Fastening Set 12** 

a [mm]	b [mm]	c [mm]	$M_{b2p}$ [Nm]	m [g]
6	47	18	34	140.0
bright zinc-plated, 1 set				0.0.003.51



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

**Automatic-Fastening Set 8 Cap** 

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



## Mitre-Butt-Fastening Sets

- Connect two profiles with the same mitre angle
- Overall angle of 60° to 180° possible



Mitre-Butt-Fastening Sets are suitable for connecting two profiles at an angle. They are used primarily when constructing frame elements and panel edging. The profile grooves facing each other inside the frame remain unobstructed so they can be used for holding panel elements.

Two mitred profiles (each with an identical angle  $\gamma$  between 30° and 90°) are connected together. This gives a possible angle between the profiles of ( $2\gamma$ ) between 60° and 180°.

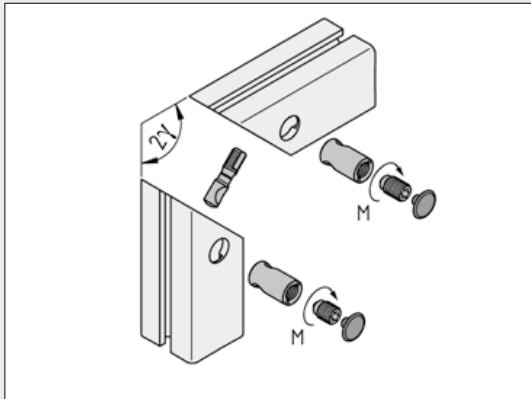
The position of the clamping pins at right angles to the cut profile edge generates particularly high clamping forces on the

fastening elements. The clamping screws are accessed from the side of the profile frame.

Note:

Despite the optimized design, the flow of forces across the inclined contact faces of the profiles is such that only part of the pretension of the screw connection is utilized. Mitre connections therefore have a lower load bear-

ing capacity than other, right-angled profile connections (Standard-Fastening, Universal-Fastening or Automatic-Fastening Set). Mitre-Fastening Sets should therefore not be used for constructing basic frames and safety-related parts that are subject to high loads.

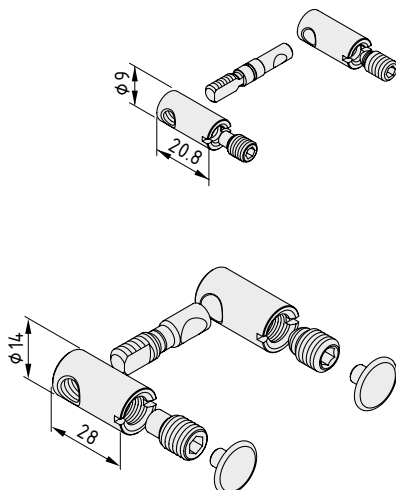


Connection processing of the profiles is the same as for the Mitre-Fastening Set. Your item dealer can provide the required mitre cuts and profile processing as a service.

Using the Mitre-Butt-Fastening Set:

1. Mitre-cut profile at angle  $\gamma$ .
2. Drill counterbores for the fastener sleeves into the side of each profile (use of drilling jig recommended).
3. Drill a hole into the mitred face of both profiles (use of drilling jig recommended).
4. Insert the fastener sleeve with lateral thread into the counterbore of one of the profiles and screw in the clamping pin until the perimeter mark is level with the cut profile edge.
5. Use grub screw DIN 915 to tighten the clamping pin in the fastener sleeve with thread.
6. Insert the fastener sleeve with bore into the second profile, and fit the assembly over the clamping pin.
7. Drive the special grub screw into the fastener sleeve and clamp the profile connection.
8. Fit the caps onto the fastener sleeves (Line 8).

Drilling Jig and Step Drill, Mitre Connection 580



### Mitre-Butt-Fastening Set 6

Clamping pin M5x29, St, bright zinc-plated  
 Sleeve with bore, St, bright zinc-plated  
 Threaded sleeve, St, bright zinc-plated  
 Grub screw M6, St, bright zinc-plated  
 Grub screw DIN 915-M6x10, St, bright zinc-plated  
 m = 20.0 g

1 set

0.0.606.47

### Mitre-Butt-Fastening Set 8

Clamping pin M8x33, St, bright zinc-plated  
 Sleeve with bore, St, bright zinc-plated  
 Threaded sleeve, St, bright zinc-plated  
 Grub screw M10, St, bright zinc-plated  
 Grub screw DIN 915-M10x16, St, bright zinc-plated  
 2 Caps, PA grey  
 m = 58.0 g

1 set

0.0.492.25