

COMPONENTS MADE OF SPECIAL MATERIALS

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Components made of special materials
Products in this section



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- Steel profile that is fully compatible with Line 8
- Corrosion resistant and resistant to acids and alkalis

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Standard-Fastening Set (Profile St) 8

- Power-lock, right-angled connection between profiles

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Universal-Fastening Set (Profile St) 8

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- Maximum stability and easy installation

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- Strong steel T-Slot Nut
- Designed for the special groove of Profiles St 8

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Profile Bar (Profile St) 8

- Customised fastening option in the profile groove
- Made from high-strength, corrosion-resistant steel

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Footplate (Profile St) 8 40x40 M8

- Mounting plate for fitting a Knuckle Foot to a Profile St 8
- For stainless steel Knuckle Feet

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Drill D12.2

- Drill bit specifically intended for machining high-strength steel profiles

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Profile KH 8 40x40

- Innovative 70 percent wood composite material
- Electrically insulating and does not interfere with radiowaves

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Standard-Fastening Set KH 8

- Fully concealed in the profile groove when installed
- Quick-action installation thanks to self-tapping screw

573



Angle Bracket 8 PA

- Additional hold for Profiles KH
- Easy-to-fit plastic Angle Bracket for temporary structures

574



Profile St 8



Resistant to corrosion and high temperatures.

Special tasks require special materials. Corrosion-resistant stainless steel in the tried-and-tested design of Profiles 8 from the item MB Building Kit System opens up a whole range of additional applications for the construction of production facilities. Line St 8 Profiles combine the universality of the building kit with an alternative material.

The stainless steel (V2A) used in Profiles St 8 is resistant to acids and chemicals. It is also physiologically safe and can therefore be used for items that come into contact with foodstuffs. The steel's high-grade, smooth surfaces are also easy to clean.

And even temperatures of 200°C and above do not impair the strength of the Profiles and fastening elements.

Conductive profile connections with tried-and-tested fastening technology.

This is where the building kit principle is used to great advantage. In just a short time, it is possible to create even complex structures without any special knowledge or tools. The fastening techniques are easy to learn and quick to apply, with reliable results. Conductive materials and surfaces make it far easier to construct earthed and ESD-safe structures.

Fully compatible with the elements of the item MB Building Kit System.

Profiles St 8 are a further addition to the comprehensive MB Building Kit System. When designing these Profiles, particular attention was paid to ensuring their compatibility with the kit's modular elements. For example, all major proven components in Line 8, such as Multiblocks, can be used without any restrictions whatsoever.

Special accessories for Profiles St 8 increase the number of applications still further. In terms of material selection and load-carrying capacity, they fit in perfectly with the features of stainless steel profiles. The focus is primarily on corrosion resistance and mechanical properties.

Also suitable for welding in special applications.

A further advantage of Profiles St 8 is the fact that they are easy to weld. When necessary, they can be welded firmly and permanently together or to other frame elements. This creates load-bearing structures that combine all the advantages of steel and profile-based building techniques. The profile groove forms a universal slot, significantly increasing the flexibility of the entire structure – during both assembly and in subsequent use.

Existing screw connections can also be subsequently welded, thereby increasing their load-carrying capacity and ensuring that any definitive position arrived at following adjustments can be made permanent.



Profile St 8 40x40 Cap (Profile St) 8

Strong steel for special applications

- Steel profile that is fully compatible with Line 8
- Corrosion resistant and resistant to acids and alkalis
- For extremely strong constructions
- Compatible accessories available



The basic Line 8 profile made from corrosion-resistant steel (1.4301) is suitable for all kinds of structures requiring a particularly high load-carrying capacity and fatigue resistance.



Cap to cover the end faces of Profile St 8 40x40. Easy to assemble thanks to a press fit in the Profile's central cavity.



Tip:

Profile St 8 has a specially shaped profile groove and core bore. As a result, specially designed T-Slot Nuts, Caps, etc. need to be used with these Profiles.

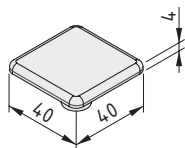


Profile St 8 40x40



St

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]	
4.64	3.65	7.44	7.44	3.72	3.72	
stainless, cut-off max. 6000 mm						0.0.603.16
stainless, 1 pce., length 6000 mm						0.0.492.61



Cap (Profile St) 8 40x40



PA-GF

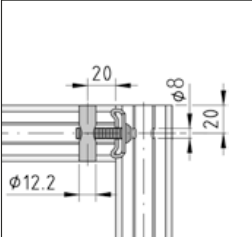
m = 6.0 g

black, 1 pce. 0.0.494.33



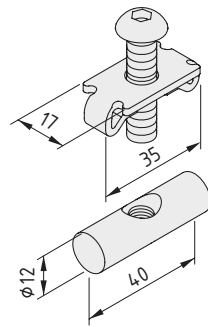
Standard-Fastening Set (Profile St) 8

- Power-lock, right-angled connection between profiles
- Both Profiles need to be machined



The fastener's counterpart takes the form of a pin with threaded bore which is inserted in one of the cross-holes (\varnothing 12.2 mm) in the Profile.

Access to the head of the fastener is provided by a correctly positioned through hole (\varnothing 8 mm).



Standard-Fastening Set (Profile St) 8



St
 Standard connecting plate 8
 Button-Head Screw ISO 7380-M8x35, tin-plated
 Threaded bolt D12x40 M8
 $M_{\text{stainless}} = 20 \text{ Nm}$ $m = 59.0 \text{ g}$
 stainless, 1 set

0.0.494.35

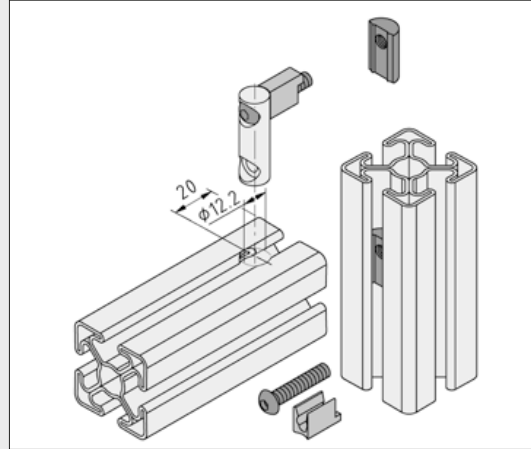


Universal-Fastening Set (Profile St) 8

- Sound profile connection made from steel
- Maximum stability and easy installation
- Only basic profile machining required



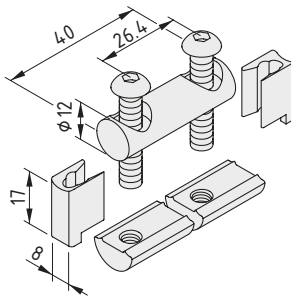
The Universal-Fastening Set (Profile St) 8 40 creates a right-angled profile connection for Profiles St 8 with the option of subsequent movement along the profile groove or subsequent insertion of struts in profile frames that are already closed. This means that it is not necessary to specify the position of the fastening point in advance.



The pre-tensioning force of the Universal-Fastening Set (Profile St) 8 is applied by two screws which are tightened from the profile groove. They are screwed into T-Slot Nuts (Profile St) 8 M6, which are inserted in the opposite profile groove.

The fastener's counterpart takes the form of a pin with two through holes, which is inserted in one of the cross-holes (Ø 12.2 mm) in the Profile.

The caps are also used to fix the positions of the screws during assembly.



Universal-Fastening Set (Profile St) 8 40



- St
- Connecting pin D12x40 2D6
- 2 Button-Head Screws ISO 7380-M6x32, tin-plated
- 2 T-Slot Nuts (Profile St) 8 M6
- 2 Caps, PA black

$M_{\text{stainless}} = 8 \text{ Nm}$ $m = 65.0 \text{ g}$

stainless, 1 set

0.0.601.03



T-Slot Nuts (Profile St) 8

- Strong T-Slot Nut made from corrosion-resistant steel
- Designed for the special groove of Profiles St 8



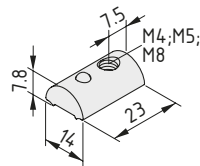
T-Slot Nuts (Profile St) 8 are adapted to suit the special shape of the profile groove of Profiles St 8. They can be inserted into the grooves at any location and are fixed in place using a ball thrust piece.

An anti-torsion feature simplifies the process of moving the T-Slot Nut and stops it slipping out of the profile groove when doing so.



Tip:

This special T-Slot Nut must be used whenever fastening accessories to Profiles St 8.



T-Slot Nut (Profile St) 8 M4



St

m = 14.0 g

stainless, 1 pce.

0.0.494.38

T-Slot Nut (Profile St) 8 M5



St

m = 13.0 g

stainless, 1 pce.

0.0.494.37

T-Slot Nut (Profile St) 8 M8

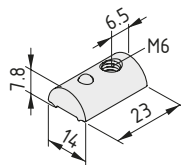


St

m = 12.0 g

stainless, 1 pce.

0.0.494.28



T-Slot Nut (Profile St) 8 M6



St

m = 13.0 g

stainless, 1 pce.

0.0.494.36



Profile Bar (Profile St) 8

- Customised fastening option in the profile groove
- Made from high-strength, corrosion-resistant steel



Profile Bar (Profile St) 8

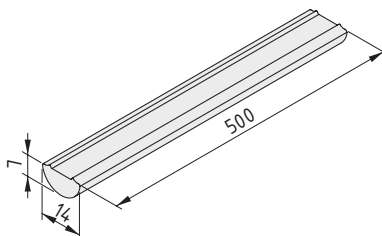


St

m = 313.0 g

stainless, 1 pce., length 500 mm

0.0.495.11





Footplate (Profile St) 8 40x40 M8

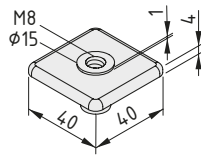
- Mounting plate for fitting a Knuckle Foot to a Profile St 8



Footplate (Profile St) 8 40x40 is intended for attaching Knuckle Feet with a central M8 thread. The Footplate is pressed into the end face of Profiles St 8. The threaded bore engages with the spindle of a height-adjustable Knuckle Foot. Use of Knuckle Foot D40, M8x60 stainless (0.0.475.41) is particularly recommended.

Note: Footplate (Profile St) 8 40x40 is only designed to absorb compressive forces!

$F_{max.} = 350 \text{ N}$



Footplate (Profile St) 8 40x40 M8



Die-cast zinc
m = 36.0 g

black, 1 pce.

0.0.602.30



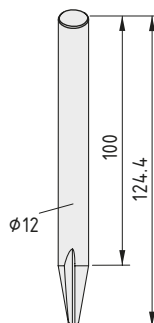
Drill D12.2

- Drill bit specifically intended for machining high-strength steel profiles



Drill D12.2 is a special drill for machining Profiles St 8. It is used to drill the $\varnothing 12.2 \text{ mm}$ through-hole for the bolts in Standard-Fastening Set (Profile St) 8 and Universal-Fastening Set (Profile St) 8.

An appropriate Drill Paste must be used to lubricate the Drill when drilling the Profiles.



Drill D12.2



High-performance, high-speed steel
m = 81.0 g

1 pce.

0.0.602.12



Profile KH 8 40x40

- Innovative composite material made of wood and plastic
- Lightweight and strong
- Electrically insulating



The metal-free alternative in the item MB Building Kit System. An innovative, high-strength material that is particularly easy to process.

Profile KH 8 40x40 is made from environmentally friendly material (more than 70 percent wood fibre) and has exactly the same design as the equivalent item aluminium profile. As a result, it is fully compatible with all attachments and can also be combined with other building kit system elements. The Line 8 groove can accommodate all fastening elements and enables users to insert panels directly into profile frames.

This top-quality innovative material is a combination of thermoplastic and renewable raw materials that offers the best of both worlds. Coloured all the way through in elegant anthracite grey with a smooth plastic outer surface, it is moisture resistant, dimensionally stable and strong – the ideal basis for

lightweight applications. Thanks to ease of processing (the material is cut and drilled like conventional wood) and special, adapted fastening elements, no special machines or tools are needed when working with the profiles.

When a construction has to be lightweight, when electrical insulation is a requirement or when a particularly low-cost solution from the building kit system is needed, Profile KH is the answer.

The profile is also ideal for use with laboratory equipment for EMC measurements and when building shelving, table frames, guards and enclosures.

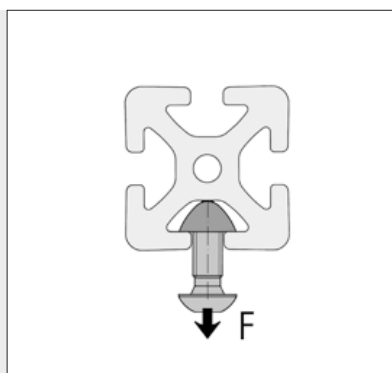


Profiles KH 8 are connected using a special Standard-Fastening Set or Angle Bracket Sets 8 PA. Cap 8 40x40 seals off the profile end face.

The wood used in Profile KH 8 is sourced from sustainably managed forests. It carries the PEFC label. Further information is available at: www.pefc.co.uk.

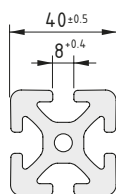
Physical properties of material KH

Modulus of elasticity in tension	9900 N/mm ²
Tensile strength	43 N/mm ²
Tensile elongation at failure point	1.2 %
Modulus of elasticity in bending	7000 N/mm ²
Flexural strength	77 N/mm ²
Heat distortion temperature	+100/-15 °C
Water absorption 1d	Volume swelling: 1.16 % Mass swelling: 3.08 %
Acid resistance (dil.)	+
Alkali resistance (dil.)	+



Permissible tensile load F on the groove flanks. This nominal load incorporates safety factors ($S > 2$) that act against deformation and fracturing.

$F = 750 \text{ N}$



Profile KH 8 40x40



Wood-PP composite

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]
9.21	1.06	14.70	14.70	7.04	7.04
anthracite, cut-off max. 6000 mm					0.0.641.61
anthracite, 1 pce., length 6000 mm					0.0.626.86



Standard-Fastening Set KH 8

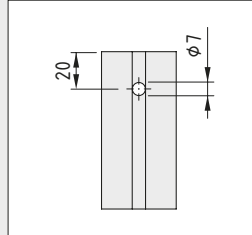
- The quick-action profile fastening
- Concealed in the profile groove
- Position of the fastening must be fixed



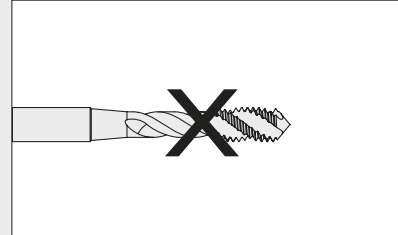
The special fastening techniques for Profile KH 8 40x40 require little processing work and use self-tapping screws that are driven into the core bore of the profile. Only a through-hole for the tool (TX 30; \varnothing 7 mm) specifies the location of the connecting point.

Standard-Fastening Set KH 8 is entirely concealed in the profile groove – maximum integration ensures no space is wasted and creates clean, clear lines for an elegant construction.

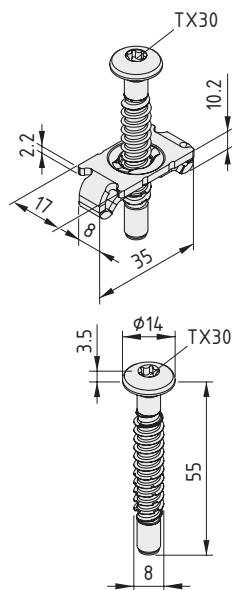
The Button-Head Screw is also available separately for fastening attachments to the core bore of Profile KH.



Position of the through holes for the key.



Quick-action profile connection thanks to self-tapping screw.



Standard-Fastening Set KH 8



Standard connecting plate 8, St
 Button-Head Screw KH 8x55, TX 30, St
 $M_{\text{bright zinc-plated}} = 10 \text{ Nm}$ $m = 27.0 \text{ g}$

bright zinc-plated, 1 set

0.0.642.18

Button-Head Screw KH 8x55, TX 30

St
 $m = 16.0 \text{ g}$

bright zinc-plated, 1 pce.

0.0.642.17



Angle Bracket 8 PA

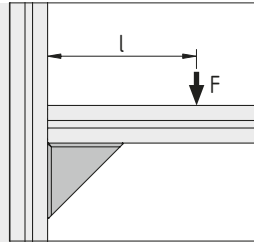
- Holds profiles with no additional machining
- Also ideal as a temporary fastening



The flexible machining-free profile fastening. Using the Angle Bracket ensures constructions can be easily reconfigured, as it does not need to be permanently fixed in one place.

Because Angle Brackets reinforce fastening points, they are particularly useful in applications that are likely to involve bending loads.

Angle Bracket Sets 8 PA include all the necessary fastening materials for joining two Profiles KH.

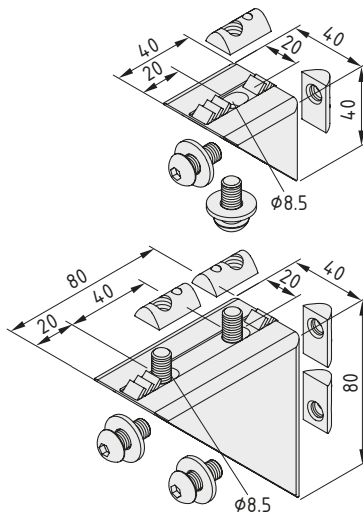


Angle Bracket 8	40x40 PA	$F < 200 \text{ N}$	$\wedge F \times l < 10 \text{ Nm}$
Angle Bracket 8	80x80 PA	$F < 400 \text{ N}$	$\wedge F \times l < 30 \text{ Nm}$

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



Angle Brackets PA come with removable anti-torsion features, meaning that attachments without a profile groove can also be screw-connected with ease.



Angle Bracket Set 8 40x40 PA



Angle Bracket 8 40x40 PA, black
 2 Button-Head Screws ISO 7380-M8x18, St, bright zinc-plated
 2 washers 9x20x2, St, bright zinc-plated
 2 T-Slot Nuts 8 St M8, bright zinc-plated
 m = 53.0 g

1 set

0.0.647.03

Angle Bracket Set 8 80x80 PA



Angle Bracket 8 80x80 PA, black
 4 Button-Head Screws ISO 7380-M8x18, St, bright zinc-plated
 4 washers 9x20x2, St, bright zinc-plated
 4 T-Slot Nuts 8 St M8, bright zinc-plated
 m = 177.0 g

1 set

0.0.647.05