



## XMS – the item machine cabins

Comprehensive Catalogue

2



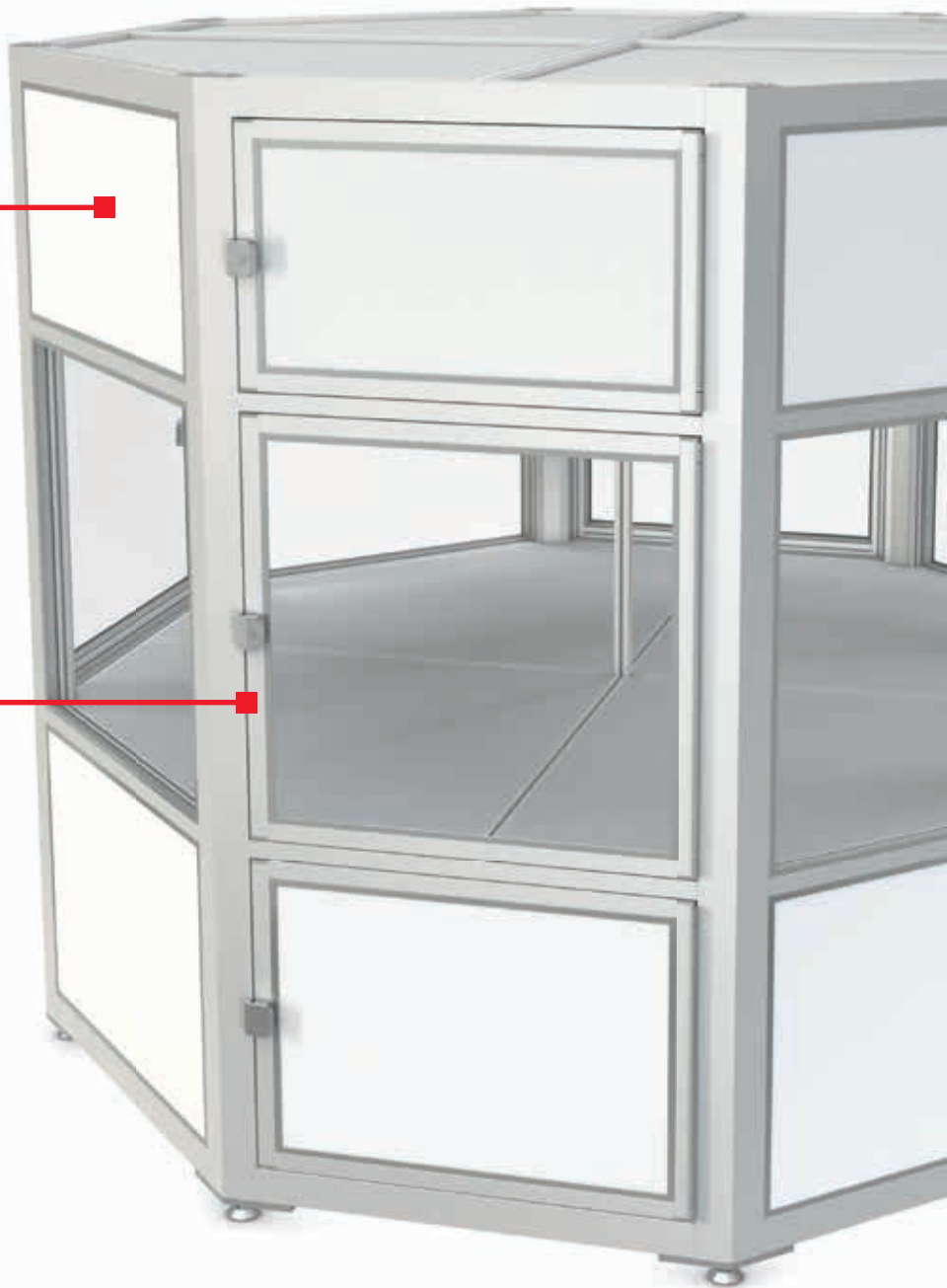
# The ideal machine cabin for every process

## Always the ideal machine frame

Line XMS makes it easier than ever to engineer optimised machine cabins. The frame shape and all configuration details can be customised precisely to the working process. The unique design features of Line XMS support the construction of maintenance-friendly, self-contained functional sections. For example, users can ensure that drive equipment can be accessed without having to open up the production section.

Service section

Access points





Process section

Supply section

### Service section

The top section provides space for control systems, air supply, lighting and incoming cables. Electronic units for switchboxes, fan/filter modules and extraction systems can all be installed here without impacting on the geometry of the machine. The placement of this section above the working process enables free convection and enhances operational reliability by ensuring heat given off by the control components rises up and away.

### Process section

This is where the machine functions and interlinked production steps take place. If desired, transparent panels and doors can be installed so users can see what's going on inside. All the openings in the frame are securely sealed. Cables and hoses run through conduits that are integrated into the vertical and horizontal aluminium profiles. If required, special cable conduits can be used to lay cables to any point inside the cabin.

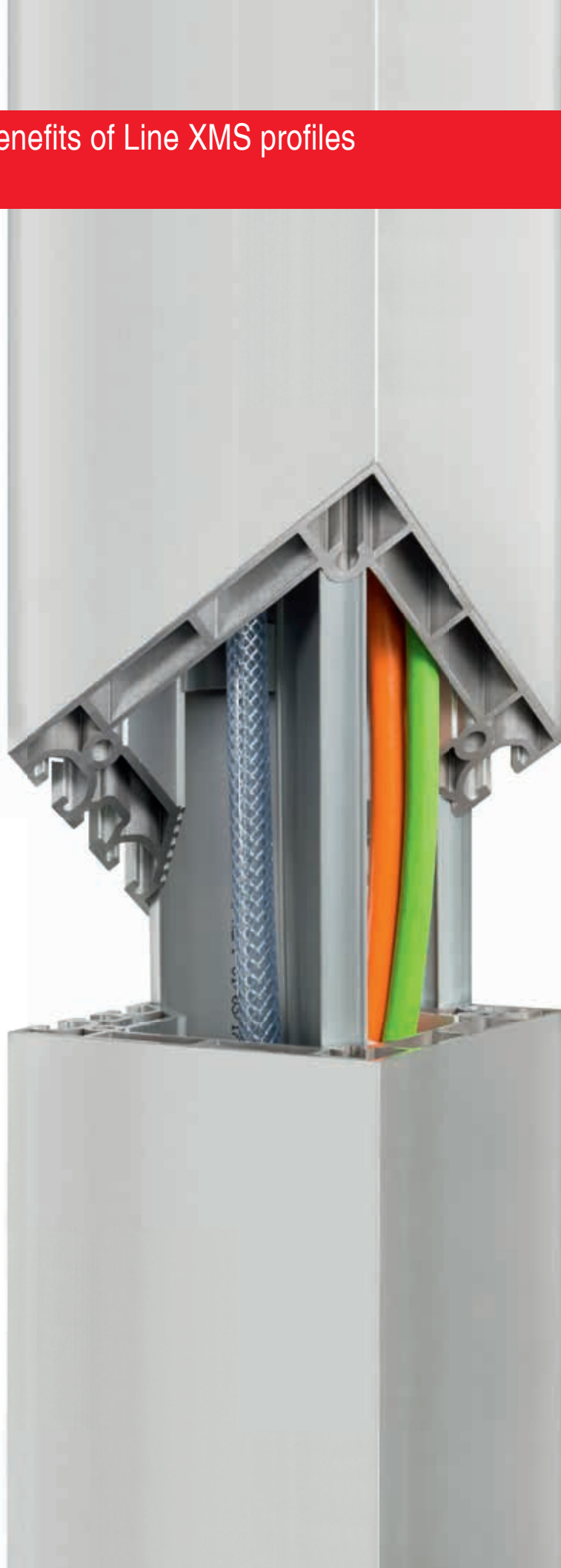
### Supply section

Supply line and cable connections are housed close to the ground along with power units, motors, pumps and electrical transformers that essentially provide the necessary power from behind the scenes. This arrangement ensures lubricants, fuels and other such substances won't drip down onto the working process itself. Seals effectively block the passage of dust, dirt and noise.

### Access points

The doors protect both process and personnel. Line XMS enables the installation of both full-height doors and smaller door sections that break up the construction. Clamping Sets can also be used to align doors with precision. Seals between the door and frame stop dust penetrating from outside, keep dirt inside and also reduce noise levels.

## The benefits of Line XMS profiles



### Profiles for various frame shapes

Whether rounded or angular, compact or large – the load-bearing Line XMS profiles can be built into any frame shape.

- 90° angles for rectangular cabins
- Octagonal frames for rotational processes
- Rounded outer contour for modern design

### Integrated noise and dust protection

The profiles in Line XMS feature seal grooves to isolate the cabin from its surroundings.

- Keep the production process safe
- Noticeably reduce noise levels
- Protect people and the environment from emissions

### Protected and efficiently routed cables

Cables and hoses can be safely routed through cable conduits integrated into Line XMS profiles.

- Secure, space-saving routing for cables
- Structured transition between functional sections
- Additional cable conduits easily incorporated

### Easy-to-clean constructions

Profiles with closed grooves and minimal edge radii help to keep the working environment clean.

- Smooth, unbroken outer surfaces
- Panel elements with clean edges
- Visually appealing overall design

### Secure doors with access monitoring

Innovative door solutions and numerous accessories keep machines safe and provide maximum protection.

- Doors that close with perfect precision every time
- Double doors that lock securely in place
- Locking systems and safety equipment available

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iF product design award 2011



## Quality and design

Nothing is more important than reliability. That's why designers put their trust in products from item. We place a great deal of value on quality management throughout every stage of production. All our components pass through a thorough programme of testing before they can move on from the design stage. Existing product lines are also subject to repeated testing.

For item, good design means utilising physical principles to find the optimum technical solution. The result is a range of products that are both elegant and functional. And that is why item regularly wins top design awards.



## Other item product lines

One principle, unlimited possibilities. The item product lines can be easily combined and used alongside each other. For instance, compatible components and adapters ensure that a frame built using profiles from the MB Building Kit System can be used with Profile Tubes from the Lean Production Building Kit System on a bench from the Work Bench System. Separate catalogues can be downloaded or ordered for the various product lines.

item reviews and extends its product range on a regular basis. You can always find all the latest information on new and existing products on our website: [item24.com](http://item24.com)

### MB Building Kit System

The item MB Building Kit System is the solution for all design and construction tasks involving factory equipment engineering. It can be used to build everything from simple frames to fully automated production lines. The modular components are the basis for profile frames, racks, enclosures, guards and electric and pneumatic solutions. Universal fastening and opening elements enable users to build doors, hatches and solid panels. Reliability and extendibility ensure that all constructions have a long useful life.

### Work Bench System

The item Work Bench System makes manual production in industrial environments more productive. Everything centres on robust, height-adjustable work benches that can be extended with Uprights, Pivot Arms and picking solutions. Meanwhile, conveyor lines and SystemMobile supply trolleys help move materials from A to B. The end results are versatile and adaptable solutions for production, assembly and laboratory applications. The item Work Bench System is the first complete system to carry the AGR seal of approval for its end-to-end ergonomics.

### Lean Production Building Kit System

Optimised for lean production. Aluminium Profile Tube System D30 is a speedy solution for building cost-effective factory equipment such as stable racks, transport trolleys and workstations. Entire logistics solutions with integrated roller conveyors can be constructed on site and continuously adapted and extended. Mechanical automation systems that don't need complex and costly drives or sensors provide an extra boost for productivity. Thanks to the long-lasting hold of the fasteners, running and maintenance costs are lean, too.



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[item24.de/en/epaper-wbs](http://item24.de/en/epaper-wbs)



[item24.de/en/epaper-lp](http://item24.de/en/epaper-lp)



### All the information you need at your fingertips

item product catalogues are available online as clearly laid out and convenient e-papers. Take your pick and get browsing!

## Automation System

The item Automation System comprises high-performance, ready-to-install Linear Units. An item linear motion unit® consists of a Linear Unit, Motor, Gearbox and Controller. When using selection and design software item MotionDesigner®, all components can be customised to suit your application precisely. The turnkey system is delivered in the length required and is ready for use straight away. This reduces overall costs significantly. A wide range of different drive elements etc. is available to suit all requirements.



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## Stairway / Platform System

The Stairway / Platform System is the specialist for building regulation-compliant bridges, safe maintenance platforms and all-round working platforms. As a result, staff can reach every corner of a machine or plant and work there safely. The solutions can be configured to suit the space available, with components used on a free-standing basis or seamlessly integrated into a machine frame. The end results are reliable and uniform stairways, guard-rails and platforms that satisfy all requirements in terms of ergonomics and safety.



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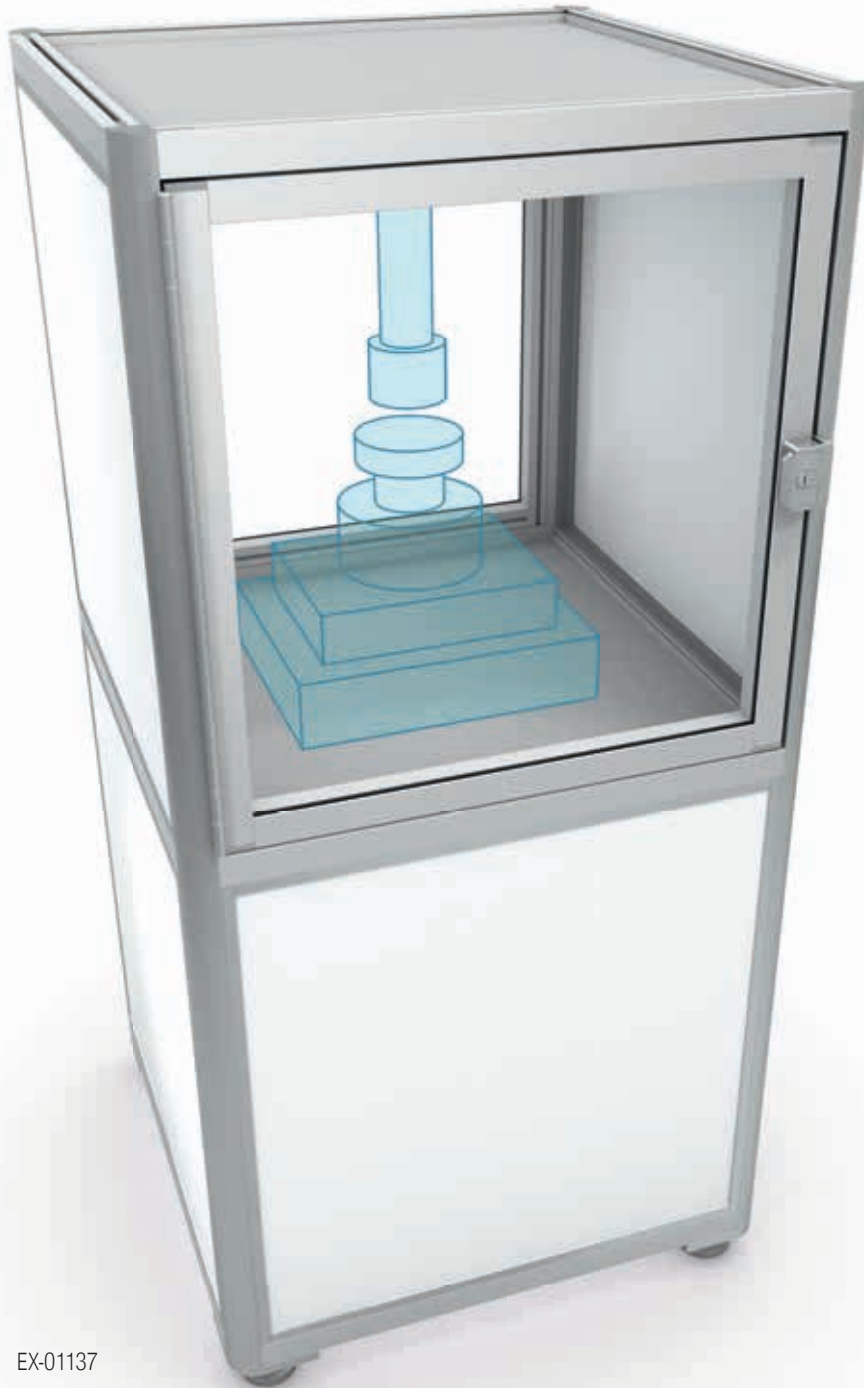
## Online tools

Better than thumbing through catalogues, putting together drawings and carrying out calculations, software and online tools from item help you engineer custom solutions in record time. Intelligent configurators know the components inside out and the online tools ensure that everything comes together perfectly – from design through optimisation to commissioning. Digital engineering speeds up planning and coordination thanks to personal project memories, parts lists, CAD data and 3D PDFs. The online tools include the Engineeringtool, item MotionDesigner® and the Work Bench Configurator.



[item24.de/en/service/online-product-configurators](http://item24.de/en/service/online-product-configurators)

## Compact applications with Line XMS



EX-01137



**Note:** CAD data for the models depicted here is available to download from the item website.

Maximum performance on a minimum footprint: Compact applications usually involve a single process such as stamping, drilling or welding. To ensure these machines can be installed on a compact footprint, Line XMS makes it easy to arrange functional sections one on top of the other. This approach also simplifies maintenance.

**The benefits of Line XMS:**

- 1) Line XMS profiles feature integrated cable conduits to route cables and hoses safely between the various process sections.
- 2) Doors and viewing windows can be incorporated on any side and at any height, making it easy to operate machinery and monitor processes.
- 3) To prevent dirt and noise from escaping into the area around the compact cabins, Line XMS profiles feature seal grooves as standard.
- 4) Adjustable knuckle feet and floor fasteners ensure cabins have a steady footing. Base Plate/Transport Plates support horizontal profiles and enhance the rigidity of the machine enclosure.



## Linear applications with Line XMS



EX-01141

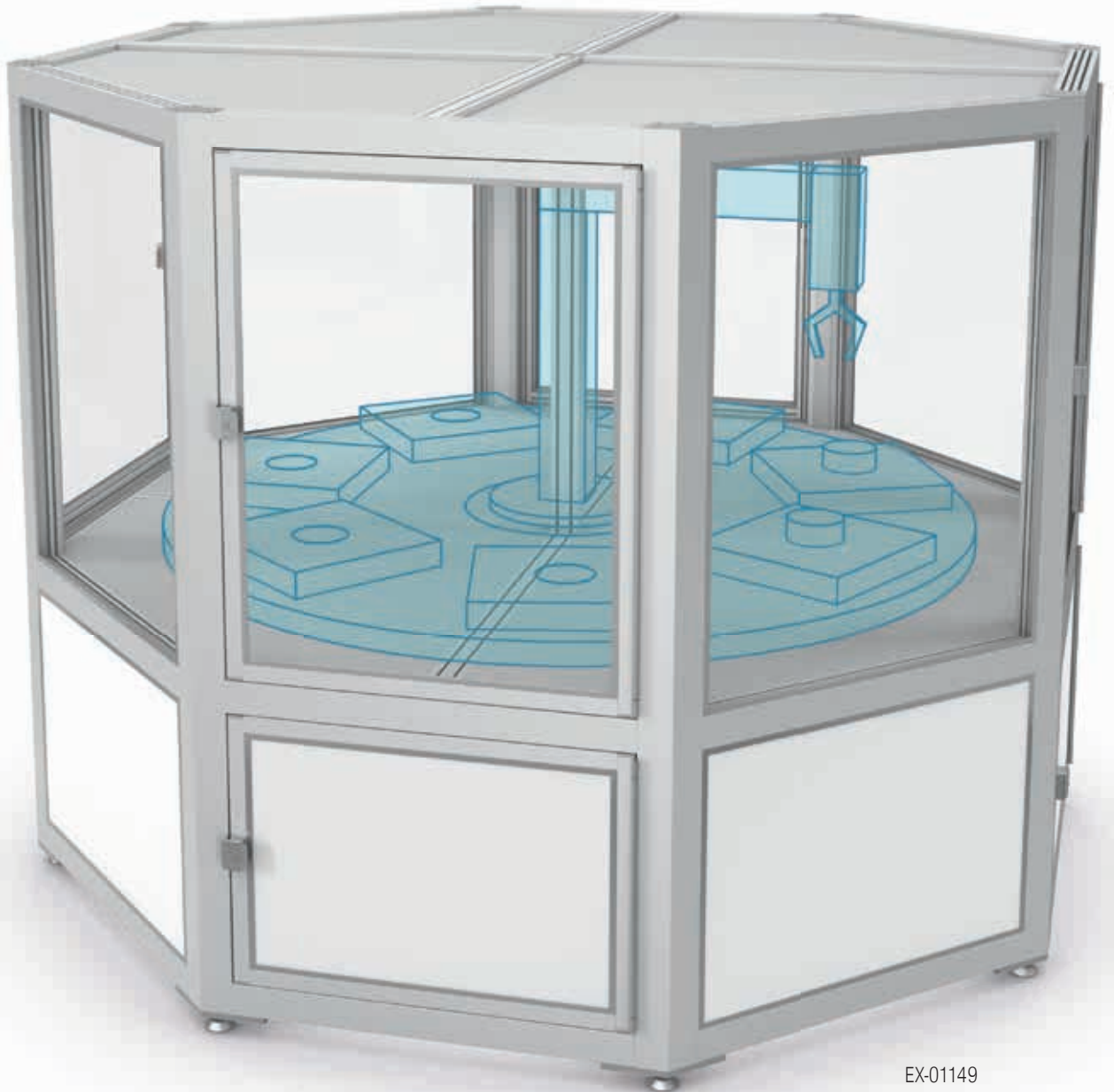
Perfect for multi-stage or long working processes: Linear applications link numerous steps together to form one continuous process. To ensure the requirements of any process can be met as effectively as possible, Line XMS allows users to build machine cabins in a virtually unlimited width.

**The benefits of Line XMS:**

- 1) To ensure working sections are efficiently separated, access points can be integrated at different sides. Double doors without inconvenient centre posts provide easy access.
- 2) Supply lines and data cables often need to be laid in a specific arrangement along the entire length of the cabin to help coordinate different work stages. The integrated cable conduits that run through both vertical and horizontal Line XMS profiles allow users to do just that.
- 3) The R 90° profiles in Line XMS satisfy exacting design requirements thanks to their rounded outer geometry, which offers an alternative to right-angled edges.
- 4) Special panel elements such as polycarbonate, which can be used as impact-proof glazing, increase safety standards. A wide selection of materials offer a great deal of freedom for designing panels.



## Rotatory processes with Line XMS



EX-01149



Processes with robots or rotary indexing tables that are arranged in a circle: Continuous production using rotatory applications places tough requirements on material supply, safety and use of space. Line XMS makes it easier to build secure, octagonal cabins. Line XMS profiles enable all-round access and ensure the diameter, height and number of sections in an enclosure can be adapted to suit the process perfectly.

**The benefits of Line XMS:**

- 1) Doors can be incorporated into all segments to provide efficient access to the working space and functional sections.
- 2) The excellent rigidity of the frame is retained even when the interior is large. There is no need for inconvenient supporting struts in the working space.
- 3) Even octagonal cabins can be subdivided into process and supply sections to ensure safe, reliable operations and straightforward maintenance.
- 4) Structured cabling is made easier thanks to the integrated cable conduits in Line XMS profiles with a 45° angle.



EX-01151



EX-01150



EX-01152

## Custom solutions with Line XMS



EX-01148

Total freedom for special applications: To ensure innovative operating concepts can be implemented or special process configurations accommodated, enclosures can be built in custom shapes. For instance, rectangular Line XMS profiles can be combined with variants with a 45° angle. Incorporating two angled profiles creates a hexagonal cabin that offers easier access to the interior, for example.

**The benefits of Line XMS:**

- 1) No matter what the shape of the frame, the interior can be divided into several functional sections to use every corner of the space available.
- 2) Custom interior solutions can also be designed in next to no time using all the benefits of Line XMS, such as integrated seal grooves and cable conduits.
- 3) Line XMS profiles can be used to incorporate full-height doors into angled sides or any side to ensure equipment can be easily operated.
- 4) No matter what size the cabin as a whole is, maintenance-friendly functional sections can be designed with custom access.





## Basic frames

The right enclosure for any process! Line XMS offers a wide selection of profiles you can use to adapt machine cabins to your application requirements. That means you can design the perfect frame shape combined with the ideal accessories such as Machine Light Fittings.

Line XMS profiles produce load-bearing constructions with compartmentalised functional areas and give you excellent flexibility when designing the process, supply and service sections to suit your needs. Line XMS profiles with integrated cable conduits make it easy to run cables and hoses safely and efficiently between different sections. Separate doors ensure these various sections can be accessed independently, while the integrated seal grooves of Line XMS profiles accommodate Door Lip Seals that block dust and noise. You can find special profiles for building doors in the section on door solutions.

Line XMS profiles come with rectangular edges, rounded outer contours or in a 45° angle for building hexagonal or octagonal cabins. All profiles have a contemporary, functional design and smooth, unbroken outer surfaces. Thanks to minimal edge radii, profiles meet almost seamlessly, which makes machine cabins especially easy to clean.

Automatic-Fastening Set 8 is the preferred fastener for connecting profiles and can be installed without the need for any profile machining.

**Note:** You can find the relevant Base Plate/Transport Plates in the section on floor elements.

## Products in this section



### Profiles X 8 - XMS

- Seal groove to guard against noise and dust
- With integrated cable conduit

22



### Profiles X 8 45° - XMS

- For hexagonal and octagonal enclosures or angled areas
- With integrated cable conduit

25



### Profiles X 8 R - XMS

- Radiused external angle
- Various radii
- Also with integrated cable conduit

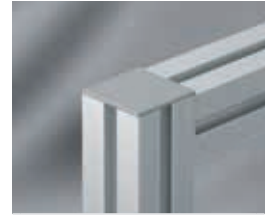
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### Profiles X 8

- Construction profiles for smooth transitions
- Open or closed grooves

27



### Caps X 8

- Plastic end cover
- Simply push onto end face

31



### Caps X 8 Al

- Robust metal end-face covering
- Securely fixed with screws

32



### Cover Profiles K

- Dust-tight plastic closure
- For the integrated cable conduits of Line XMS profiles

33



### Angle Bracket Set X 8

- Reinforced profile joints – suitable for retrofitting
- Friction-based connection with no profile machining

34



### Hinges X 8

- Profile connection at any angle
- Also with clamp lever for rapid adjustment

35



### Screw Clip - XMS

- Fixing clip, screwed into place
- Holder for cable ties, etc.

37



### Partition Profile K56 - XMS

- Divides the cable conduit in Line XMS profiles
- Separate guidance for power and signal cables

38



### Automatic-Fastening Sets

- Rapid installation with no profile machining
- For stable, repositionable connections

39



## Profiles X 8 - XMS

- Also with integrated cable conduit
- Seal groove to guard against noise and dust
- Closed outer surface



The specialists for machine cabins. Line XMS profiles reduce the range of parts and assembly outlay associated with building functional enclosures. Thanks to integrated functions, Line XMS speeds up the construction of custom frames and drives down engineering costs.

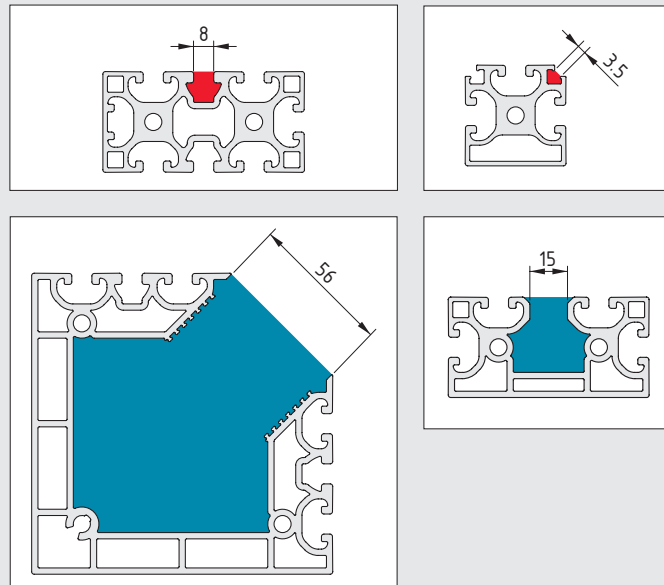
Three features make Line XMS profiles really stand out.

The first are the special seal grooves, which accommodate lip seals that block dust and noise to create sealed units without altering external dimensions. Depending on the profile in use, there are central seal grooves (8 mm wide for Door Lip Seal 8 - XMS) and side seal grooves (3.5 mm wide for Door Lip Seal T1 - XMS and Door Lip Seal T2 - XMS) that create cleanly closing doors.

The second innovation is the introduction of profiles with integrated cable conduits. These space-saving cavities route cables and hoses safely and efficiently to where they are needed. The large Profile X 8 120x120 K56 - XMS can accommodate cables and hoses with larger cross-sections and its cable conduit can be divided up using Partition Profile K56 K - XMS. The conduits can be covered over using easily adaptable Cover Profiles that are available in widths of 56 mm (K56) and 15 mm (K15).

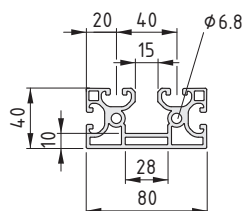
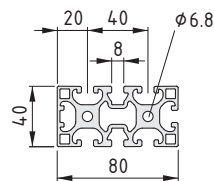
The third key feature concerns the closed outer surfaces and seamless transitions. Line XMS profiles are based on Line X from item, which is compatible with the MB Building Kit System. Its external geometry ensures cleanliness and a harmonious, timeless design.

**Note:** Line XMS profiles are also available in a 45° angle and with rounded outer edges. Doors are built using Door Profiles X 8 - XMS.



### Materials used in all the following products:

Al, anodized

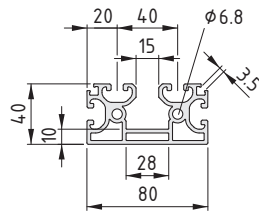


#### Profile X 8 80x40 1N - XMS

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
12.89	3.48	18.20	74.59	8.03	9.10	18.42	
natural, cut-off max. 6000 mm							0.0.649.38
natural, 1 pce., length 6000 mm							0.0.649.19

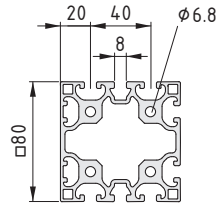
#### Profile X 8 80x40 2N K15 - XMS

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
10.87	2.94	17.63	70.56	5.01	8.21	17.64	
natural, cut-off max. 6000 mm							0.0.643.07
natural, 1 pce., length 6000 mm							0.0.643.06



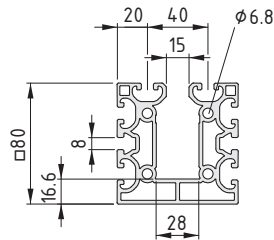
**Profile X 8 80x40 2N K15 2T - XMS**

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
10.81	2.76	17.81	69.01	4.79	8.21	17.25	
natural, cut-off max. 6000 mm						0.0.686.20	
natural, 1 pce., length 6000 mm						0.0.686.21	



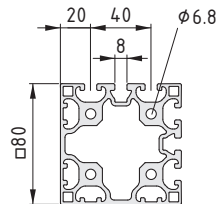
**Profile X 8 80x80 2N - XMS**

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
20.05	5.41	135.42	136.27	69.35	33.27	34.07	
natural, cut-off max. 6000 mm						0.0.649.39	
natural, 1 pce., length 6000 mm						0.0.649.21	



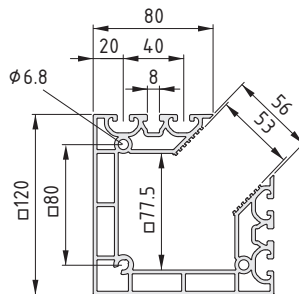
**Profile X 8 80x80 2N K15 - XMS**

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
18.31	4.94	115.62	129.59	13.09	28.26	32.40	
natural, cut-off max. 6000 mm						0.0.643.05	
natural, 1 pce., length 6000 mm						0.0.643.04	



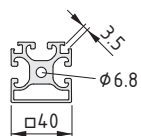
**Profile X 8 80x80 4N90 - XMS**

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
20.50	5.53	139.84	139.84	86.72	34.79	34.79	
natural, cut-off max. 6000 mm						0.0.649.40	
natural, 1 pce., length 6000 mm						0.0.649.22	



**Profile X 8 120x120 K56 - XMS**

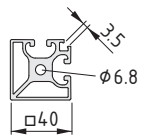
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
24.32	6.57	409.20	409.20	28.04	61.46	61.46	
natural, cut-off max. 6000 mm						0.0.643.03	
natural, 1 pce., length 6000 mm						0.0.643.02	



**Profile X 8 40x40 1N - XMS**



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.11	1.65	8.30	8.52	2.57	4.04	4.26	
natural, cut-off max. 6000 mm							0.0.651.10
natural, 1 pce., length 6000 mm							0.0.649.99



**Profile X 8 40x40 2N90 - XMS**



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.07	1.64	8.34	9.07	4.72	4.16	4.53	
natural, cut-off max. 6000 mm							0.0.649.49
natural, 1 pce., length 6000 mm							0.0.649.48





## Profile X 8 40-45° K15 - XMS Profile X 8 80-45° K56 - XMS

- For hexagonal and octagonal enclosures or angled areas
- With integrated cable conduit



Easy accessibility from all sides. Line XMS profiles in a 45° angle can be used to build hexagonal and octagonal enclosures that ensure users can easily access all the areas of a rotary indexing table, for example.

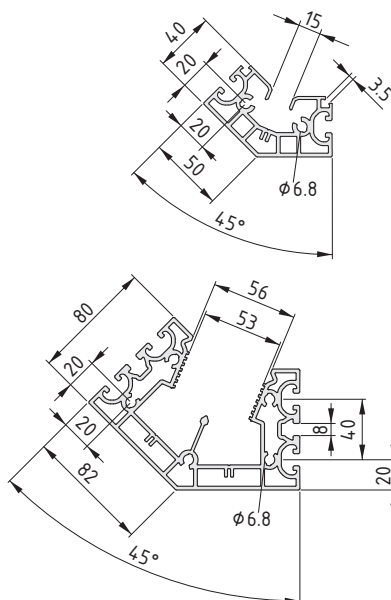
Profiles X 8 45° - XMS with closed surfaces boast all the key features of Line XMS – but with a 45° angle. Two versions are available:

Profile X 8 80-45° K56 - XMS is exceptionally sturdy, with plenty of space in the large, two-part cable conduit. Two Line 8 grooves in each of the flanks and a special seal groove for installing Door Lip Seal 8 - XMS (0.0.649.89) make it ideal for use as a supporting profile when installing heavy-duty doors.

Compact Profile X 8 40-45° K15 - XMS has a narrow integrated cable conduit and one Line 8 groove on each side. Door Lip Seal T1 - XMS (0.0.649.88) can be fitted into the specially designed seal grooves of the profile to act as a door rabbet and seal.

### Materials used in all the following products:

Al, anodized



#### Profile X 8 40-45° K15 - XMS



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	
10.88	2.94	27.54	62.10	7.68	13.77	7.23	
natural, cut-off max. 6000 mm							0.0.668.48
natural, 1 pce., length 6000 mm							0.0.668.47

#### Profile X 8 80-45° K56 - XMS



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	
24.12	6.63	224.16	414.58	33.11	53.98	24.61	
natural, cut-off max. 6000 mm							0.0.668.50
natural, 1 pce., length 6000 mm							0.0.668.49



## Profiles X 8 R - XMS

- Radiused external angle
- Various radii
- Also with integrated cable conduit

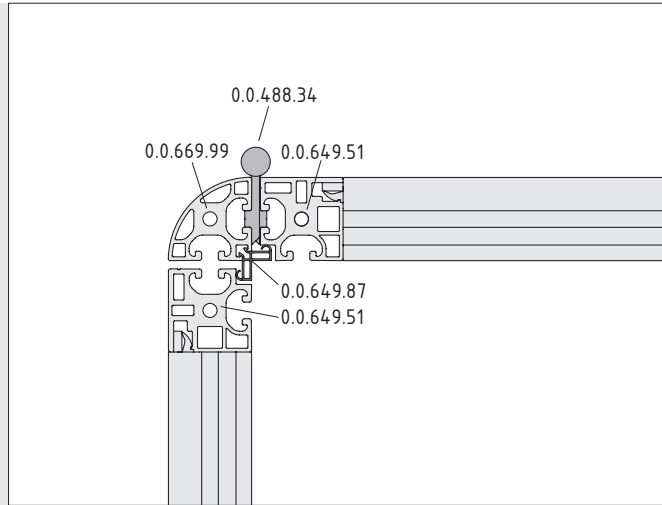


Strong on the inside, nicely rounded on the outside! Compact Profiles X 8 90° - XMS combine the benefits of Line XMS with a gentle, rounded external contour that makes them perfect for building functional, easy-to-clean machine frames without corners or edges.

Two versions are available:

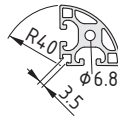
**Profile X 8 40 R80-90° K15 - XMS** features a simple cable conduit that is integrated into the profile. Door Lip Seal T1 - XMS (0.0.649.88) can be fitted into the specially designed corner grooves of the profile to act as a door rabbet and seal.

The especially compact **Profile X 8 R40-90° - XMS** without a cable conduit can be used in between two doors that close against the same Door Lip Seal T2 - XMS (0.0.649.87). In this scenario, the Door Lip Seal is fitted into the inside corner to seal both doors when they are shut.



Materials used in all the following products:

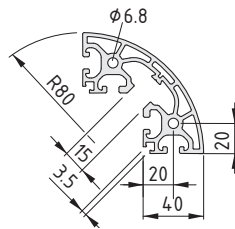
Al, anodized



### Profile X 8 R40-90° - XMS



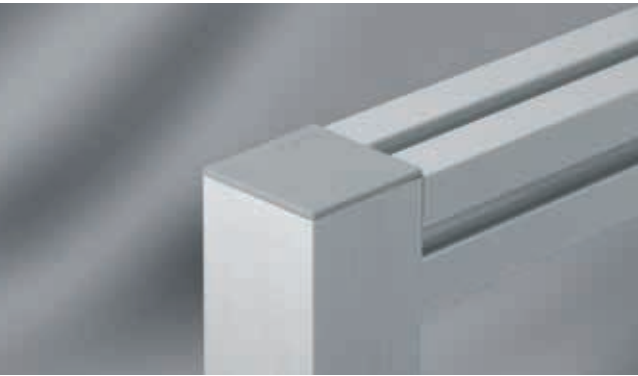
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	
5.77	1.56	6.74	6.74	3.06	3.06	2.60	
natural, cut-off max. 6000 mm							0.0.669.99
natural, 1 pce., length 6000 mm							0.0.669.64



### Profile X 8 40 R80-90° K15 - XMS



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	
13.34	3.67	71.10	71.10	17.44	17.44	6.18	
natural, cut-off max. 6000 mm							0.0.670.00
natural, 1 pce., length 6000 mm							0.0.669.98



## Profiles X 8

- Construction profiles for smooth transitions
- Open or closed grooves
- Modular 40 mm dimension



An optimised shape with a clean edge. Profiles X from item feature highly precise outer profile edges with a minimum radius. This results in smooth transitions between profiles and the unbroken outer surface produces structures that both look good and are easy to clean.

The Line 8 grooves of the lightweight aluminium profiles can either be entirely open and accessible or concealed behind a smooth exterior. Covered grooves are ideal for machines and plants that need to be kept spotlessly clean. Profiles X 8 use the Line 8 item system groove, which ensures compatibility with the MB Building Kit System.

Suitable Caps that seal off the end face of a profile – thus eliminating the need to deburr cut edges – are available for all Profiles X 8. item offers Base Plate/Transport Plates that are used to attach Castors, knuckle feet, etc.

### Materials used in all the following products:

Al, anodized



Profile X 8 40x40 light							
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.61	1.78	9.47	9.47	1.37	4.73	4.73	
natural, cut-off max. 6000 mm							0.0.492.91
natural, 1 pce., length 6000 mm							0.0.492.90



Profile X 8 40x40 1N light							
Profile features easy-to-open groove(s)							
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.68	1.80	9.74	9.47	2.71	4.82	4.73	
natural, cut-off max. 6000 mm							0.0.611.87
natural, 1 pce., length 6000 mm							0.0.611.86



Profile X 8 40x40 2N90 light							
Profile features easy-to-open groove(s)							
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.75	1.82	9.74	9.74	4.56	4.82	4.82	
natural, cut-off max. 6000 mm							0.0.611.90
natural, 1 pce., length 6000 mm							0.0.611.89


**Profile X 8 40x40 2N180 light**


Profile features easy-to-open groove(s)

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.75	1.82	10.03	9.47	4.08	5.01	4.73	
natural, cut-off max. 6000 mm							0.0.611.93
natural, 1 pce., length 6000 mm							0.0.611.92


**Profile X 8 40x40 3N light**

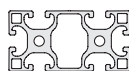

Profile features easy-to-open groove(s)

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.82	1.84	9.75	10.03	6.14	4.82	5.01	
natural, cut-off max. 6000 mm							0.0.611.96
natural, 1 pce., length 6000 mm							0.0.611.95

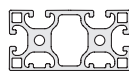

**Profile X 8 40x40 4N light**


Profile features easy-to-open groove(s)

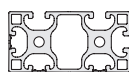
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.90	1.86	10.03	10.03	8.37	5.01	5.01	
natural, cut-off max. 6000 mm							0.0.492.88
natural, 1 pce., length 6000 mm							0.0.492.87


**Profile X 8 80x40 light**


A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
11.46	3.09	17.18	71.65	10.02	8.59	17.91	
natural, cut-off max. 6000 mm							0.0.492.94
natural, 1 pce., length 6000 mm							0.0.492.93

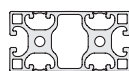

**Profile X 8 80x40 2N light**


A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
12.19	3.29	19.63	73.11	19.45	9.58	18.28	
natural, cut-off max. 6000 mm							0.0.649.36
natural, 1 pce., length 6000 mm							0.0.649.20


**Profile X 8 80x40 3N90 light**

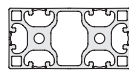

Profile features easy-to-open groove(s)

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
11.68	3.15	17.72	73.38	16.90	8.78	18.25	
natural, cut-off max. 6000 mm							0.0.666.75
natural, 1 pce., length 6000 mm							0.0.666.74


**Profile X 8 80x40 4N180 light**

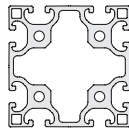

Profile features easy-to-open groove(s)

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
11.75	3.17	18.29	72.82	20.86	9.15	18.21	
natural, cut-off max. 6000 mm							0.0.666.77
natural, 1 pce., length 6000 mm							0.0.666.76

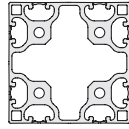

**Profile X 8 80x40 6N light**


Profile features easy-to-open groove(s)

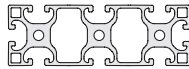
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
11.89	3.21	18.30	75.12	25.98	9.15	18.78	
natural, cut-off max. 6000 mm							0.0.493.01
natural, 1 pce., length 6000 mm							0.0.492.99



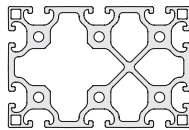
Profile X 8 80x80 light							Line	8
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
19.37	5.23	132.82	132.82	73.37	33.20	33.20		
natural, cut-off max. 6000 mm							0.0.492.97	
natural, 1 pce., length 6000 mm							0.0.492.96	



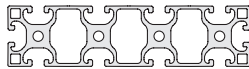
Profile X 8 80x80 8N light							Line	8
Profile features easy-to-open groove(s)								
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
19.96	5.39	138.57	138.57	104.16	34.64	34.64		
natural, cut-off max. 6000 mm							0.0.493.04	
natural, 1 pce., length 6000 mm							0.0.493.03	



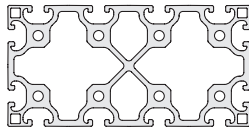
Profile X 8 120x40 light							Line	8
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
16.31	4.40	24.88	225.53	18.43	12.44	37.59		
natural, cut-off max. 6000 mm							0.0.656.63	
natural, 1 pce., length 6000 mm							0.0.656.62	



Profile X 8 120x80 light							Line	8
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
30.36	8.20	204.88	427.82	165.48	51.22	69.34		
natural, cut-off max. 6000 mm							0.0.656.69	
natural, 1 pce., length 6000 mm							0.0.656.68	



Profile X 8 160x40 light							Line	8
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
21.16	5.71	32.58	509.90	26.79	16.29	63.74		
natural, cut-off max. 6000 mm							0.0.656.65	
natural, 1 pce., length 6000 mm							0.0.656.64	



Profile X 8 160x80 light							Line	8
A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]		
37.99	10.26	270.35	919.31	251.00	67.59	114.91		
natural, cut-off max. 6000 mm							0.0.656.70	
natural, 1 pce., length 6000 mm							0.0.656.67	



## Profiles X 8 – flat cross-sections

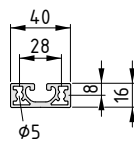
- Low installation height
- For fastening lightweight components



All the benefits of Line X in the tightest of spaces. The slim Profile X 8 40x16 light and Profile X 8 80x16 are used to fasten rabbets, holders for Proximity Switches and other attachments to XMS machine frames and constructions built from Profiles X 8. The perfect marriage of form and function that ensures no space or material is wasted.

### Materials used in all the following products:

Al, anodized

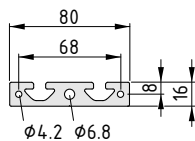


#### Profile X 8 40x16 light



Al, anodized

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
3.05	0.82	0.87	5.18	1.03	2.59	
natural, cut-off max. 3000 mm						0.0.652.12
natural, 1 pce., length 3000 mm						0.0.651.97



#### Profile X 8 80x16



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]
9.23	2.49	2.33	52.01	2.93	2.74	13.00

natural, cut-off max. 3000 mm							0.0.609.34
natural, 1 pce., length 3000 mm							0.0.609.21



## Caps X 8

- Made of glass-fibre-reinforced plastic
- Simply push onto end face
- Covers over cut edges



Safe and clean. Caps X 8 made from glass-fibre-reinforced plastic seal the end faces of Profiles X 8. They are pushed onto the end face of the profile to safely cover over cut edges. This eliminates the need for deburring and also stops dust getting into the central bore.

Caps X 8 are designed to match the profile contour of Profiles X 8 and their subtle grey colouring reflects the colour of the anodized aluminium profiles.

### Materials used in all the following products:

PA-GF

	Cap X 8 40x16	
	3.0 g grey similar to RAL 7042, 1 pce.	0.0.652.13
	Cap X 8 40x40	
	a = 40 mm    b = 40 mm    c = 2.0 mm    m = 5.0 g grey similar to RAL 7042, 1 pce.	0.0.489.60
	Cap X 8 80x80	
	a = 80 mm    b = 80 mm    c = 2.0 mm    m = 16.0 g grey similar to RAL 7042, 1 pce.	0.0.489.98
	Cap X 8 80x16	
	6.0 g grey similar to RAL 7042, 1 pce.	0.0.609.28
	Cap X 8 80x40	
	8.0 g grey similar to RAL 7042, 1 pce.	0.0.489.61
	Cap X 8 R40-90°	
	PA-GB 3.0 g grey similar to RAL 7042, 1 pce.	0.0.671.73



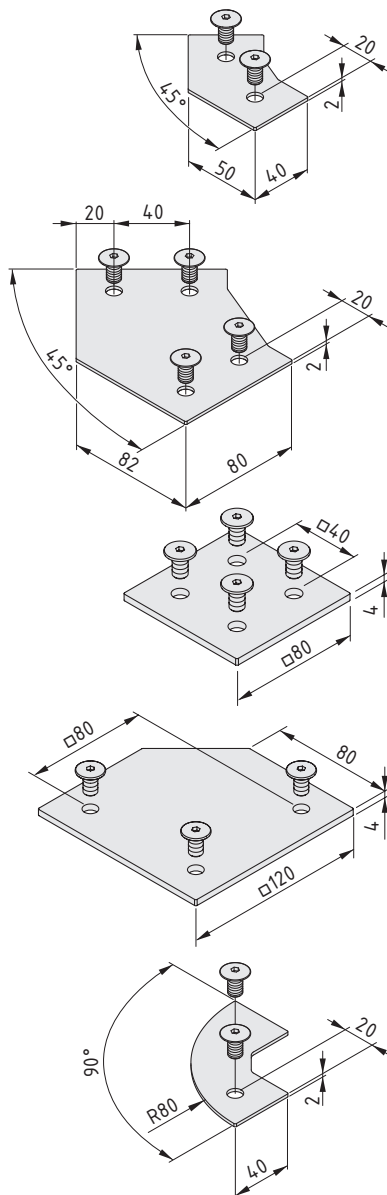
## Caps X 8 Al

- Hard-wearing metal covering
- Securely fixed with screws
- Covers over cut edges



More protection for load-bearing profiles. Robust metal Caps X 8 Al offer long-term resistance to impacts and vibrations. They are anchored in place with the enclosed screws and deflect even heavy impacts.

The end faces of the profiles in a machine frame – and therefore the opening of the integrated cable conduit on a Line XMS profile – are thus safely sealed for day-to-day use. Cut edges are safely covered over.



### Cap X 8 40-45° Al



Cap, Al, white aluminium similar to RAL 9006  
2 dome-head screws M8x14, St, bright zinc-plated  
m = 33.0 g

1 set

0.0.670.77

### Cap X 8 80-45° Al



Cap, Al, white aluminium similar to RAL 9006  
4 dome-head screws M8x14, St, bright zinc-plated  
m = 88.0 g

1 set

0.0.670.40

### Cap X 8 80x80 Al



Cap, Al white aluminium similar to RAL 9006  
4 dome-head screws M8x14, St, bright zinc-plated  
m = 97.0 g

1 set

0.0.651.39

### Cap X 8 120x120-45° Al



Cap, Al white aluminium similar to RAL 9006  
3 dome-head screws M8x14, St, bright zinc-plated  
m = 166.0 g

1 set

0.0.651.81

### Cap X 8 40 R80-90° Al



Cap, Al, white aluminium similar to RAL 9006  
2 dome-head screws M8x14, St, bright zinc-plated  
m = 34.0 g

1 set

0.0.670.44





## Cover Profiles K

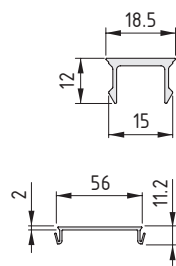
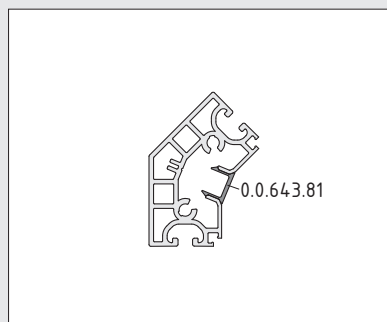
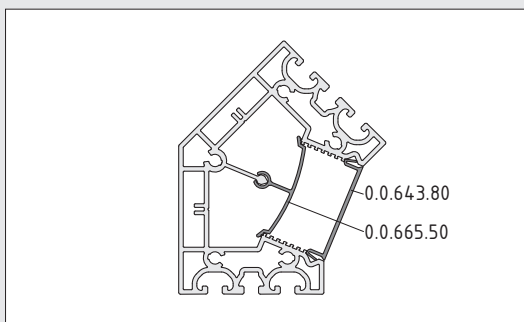
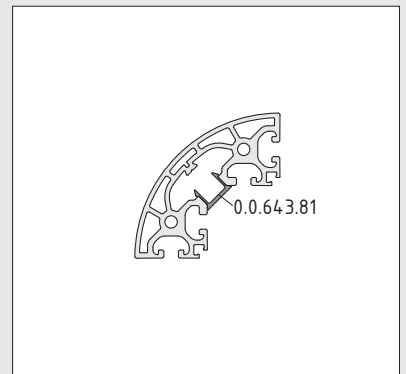
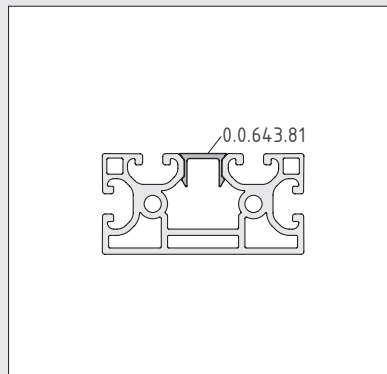
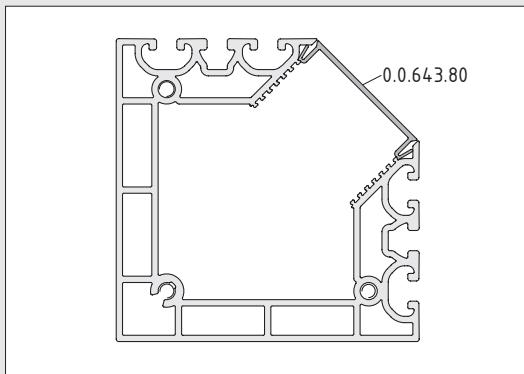
- Dust-tight plastic closure
- For the integrated cable conduits of Line XMS profiles
- Simply clip on



Keep all cables and hoses safe and protected. Cover Profiles K seal the integrated cable conduits of Line XMS profiles. They are simply pushed into place, which makes it easier to carry out maintenance and service work, as there are no screws to take out when removing the covers.

To accommodate the two opening widths of the integrated cable conduits (15 mm and 56 mm), there are two versions – Cover Profile 15 K (0.0.643.81) and Cover Profile 56 K (0.0.643.80).

Cover Profiles K are made of plastic and can therefore be easily sawed or cut to size using item Multi-Purpose Pliers.



### Cover Profile 15 K



PVC

m = 82.0 g

grey similar to RAL 7042, 1 pce., length 2000 mm

0.0.643.81

### Cover Profile 56 K

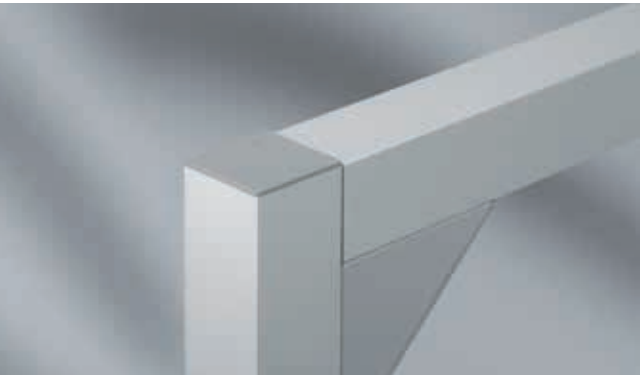


PVC

m = 214.0 g

grey similar to RAL 7042, 1 pce., length 2000 mm

0.0.643.80



## Angle Bracket Sets X 8

- Reinforcement for profile connections
- Friction-based connection with no profile machining
- Can be retrofitted rapidly



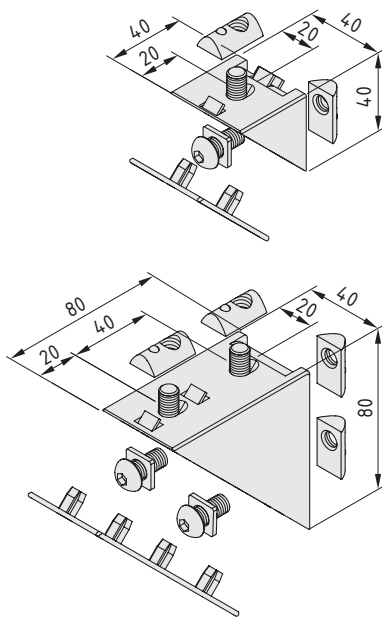
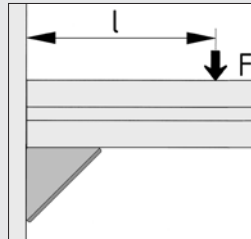
Angle Bracket Sets X 8 are used to create friction-based fixings between profiles with no need for machining, both as additional reinforcement for profile connections and as an element for fastening any components to profiles.

When being used to reinforce connection points on larger profiles, several brackets can be installed in parallel.

**Note:** Please note the maximum permissible tensile load-carrying capacity of the profile groove! Special washers are used with Angle Bracket Sets X 8 due to the screw length and to improve force transmission.

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 to ensure both conditions are met.



### 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 = 150.0 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 = 360.0 g

1 set

0.0.601.61



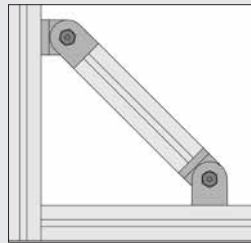
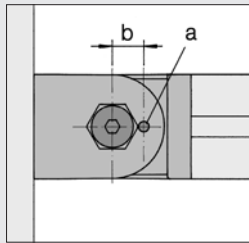
## Hinge X 8

- Profile connection at any angle
- Also with clamp lever for rapid adjustment



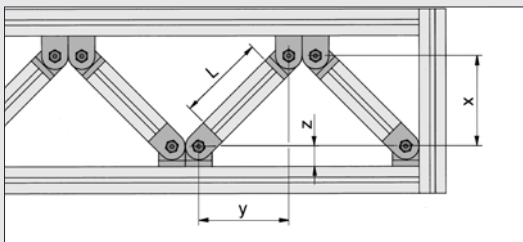
Hinges X 8, heavy-duty can be used to connect profiles at any angle up to 180° and as movable hinges (adjustment range ± 90°). When combined with spacer rings, the Hinges, heavy-duty are freely movable, but removing these rings – and pinning the Hinges, if necessary – creates rigid angled connections for reinforcing struts, for instance.

Hinge X 8 40x40, heavy-duty with Clamp Lever allows you to adjust the angle of connection in a matter of seconds.



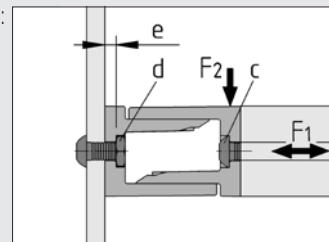
Hinges, heavy-duty with Clamp Lever can be secured and released again. They are ideal for adjustable holders, slewable arms for Parts Containers and similar items.

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

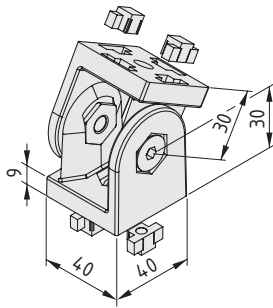


Calculation of the strut length L:

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



Dowel DIN 6325 a	b	Screw ISO 7380 c	Nut DIN EN ISO 4035 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



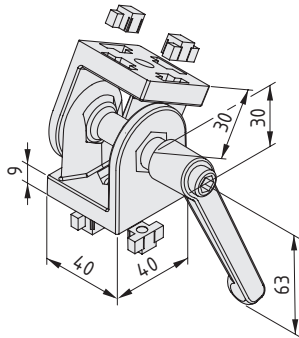
**Hinge X 8 40x40, heavy-duty**



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  
 310.0 g

1 pce.

0.0.601.12



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



Max. holding torque = 20 Nm  
 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  
 390.0 g

1 pce.

0.0.601.13



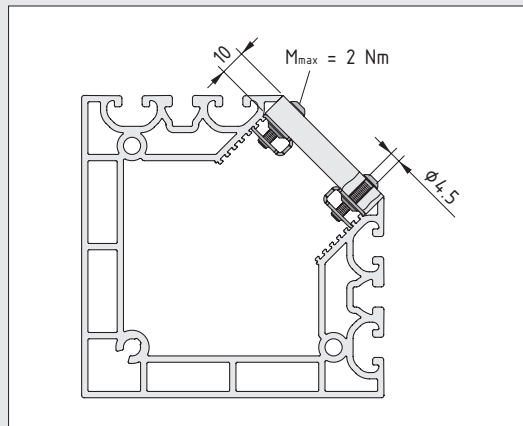
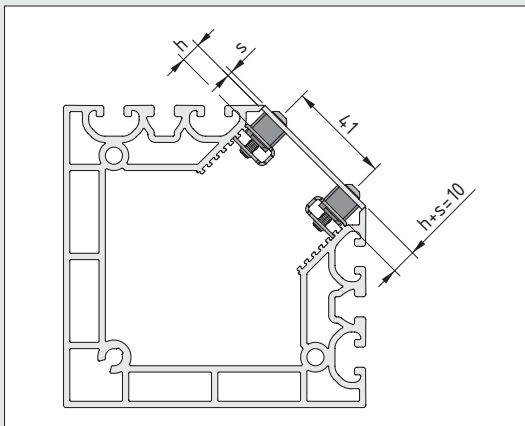
## Screw Clip - XMS

- Fixing clip, screwed into place
- Fit where required
- Holder for cable ties and similar

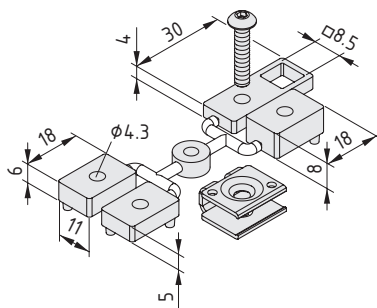


Steel screw clips provide additional fastening options within the cable conduit of Profile X 8 120x120 K56 - XMS. These universal fixings can be used with a broad range of accessories. Ridges running along the full length of the profile ensure that the screw clips can be installed wherever they are needed.

Panel s [mm]	Height adjuster h [mm]
2	8
4	6
5	5
6	4
10	-



When combined with a height adjuster, Screw Clip - XMS can be used to fix installation elements flush with the profile contour. Four height adjusters of different thicknesses are supplied.



### Screw Clip - XMS

Clip, St, bright zinc-plated  
 4 height adjusters, PA-GF, black  
 Button-Head Screw ISO 7580-M4x20, St, bright zinc-plated  
 m = 21.3 g

1 set



0.0.652.72



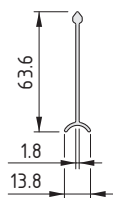
## Partition Profile K56 - XMS

- Divides the cable conduit in Line XMS profiles
- Separate guidance for power and signal cables



In mechanical and factory equipment engineering, it is often important to keep power cables separate from signal and control cables. When it isn't possible to route cables through separate conduits on a frame built from XMS profiles, Partition Profile K56 K - XMS is the solution. It can be used to quickly and easily create separate sections inside a single Profile X 8 120x120 K56 (0.0.643.03).

The continuous plastic strip is simply laid in the integrated cable conduit of the profile and locked in place using Partition Profile Clip K56 K - XMS. This ensures that the Partition Profile cannot move out of place and prevents vertically laid cables from falling out.



### Partition Profile K56 K - XMS

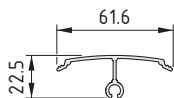


PVC

m = 0.6 kg

grey similar to RAL 7046, 1 pce., length 3000 mm

0.0.665.51



### Partition Profile Clip K56 K - XMS



PA-GF

m = 4.1 g

grey similar to RAL 7046, 1 pce.

0.0.665.50

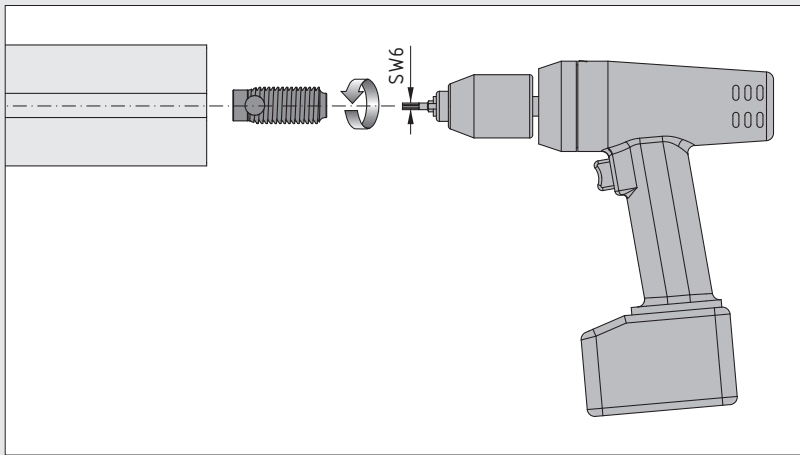


## Automatic-Fastening Sets

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

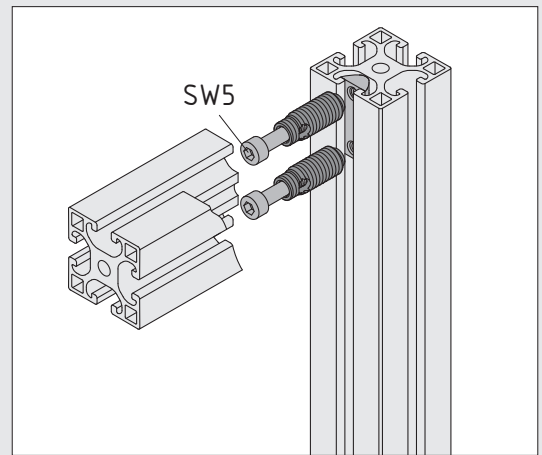


Suitable for universal use, these Fastening Sets create a friction-based connection between any two profiles from the same line. They allow for subsequent adjustment because the fasteners are only screwed into one profile. These Fastening Sets can be installed easily into existing constructions. The profiles do not need to be machined in order to use the Automatic-Fastening Sets.

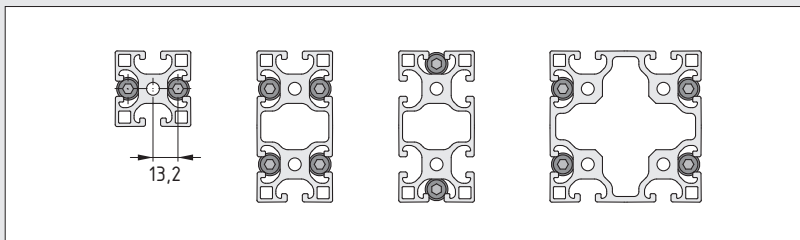


The Fastener is screwed into a profile groove in the end face, the thread being cut automatically. Use of a lubricant is recommended.

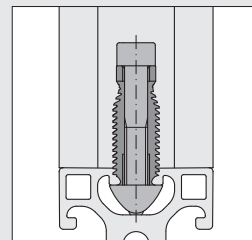
**Note:** All Fasteners with a through bore for the fastening screw have a counter-clockwise thread on the outside in order to prevent the Fastener twisting when the screw is tightened.



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



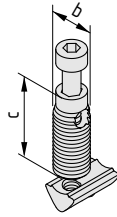
Automatic-Fastening Sets should always be used in pairs. Automatic Fasteners with a double T-Slot Nut are available as complete sets to enable rapid installation in pairs. They make it easier to position the T-Slot Nuts and speed up the installation process.



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

The following applies to all the sets below:

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

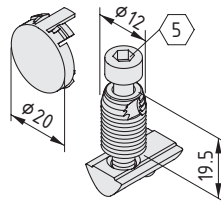


**Automatic-Fastening Set 8**

b = 12 mm	c = 31 mm	$M_{bz-p} = 14 \text{ Nm}$	m = 35.0 g
bright zinc-plated, 1 set			0.0.388.08

**Automatic-Fastening Set 8**

b = 12 mm	c = 31 mm	$M_{stainl.} = 11 \text{ Nm}$	m = 35.0 g
stainless, 1 set			0.0.440.58

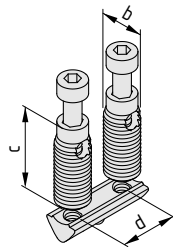


**Automatic-Fastening Set 8 N**

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	
bright zinc-plated, 1 set	0.0.489.96

The following applies to all the sets below:

2 Automatic Fasteners, St, bright zinc-plated  
2 Hexagon Socket Head Cap Screws, St, bright zinc-plated  
T-Slot Nut, St, bright zinc-plated

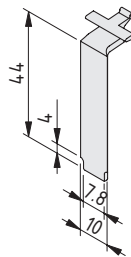


**Automatic-Fastening Set 8 40**

b = 12 mm	c = 31 mm	d = 26.4 mm	M = 14 Nm	m = 60.4 g
1 set				0.0.672.84

**Automatic-Fastening Set 8 80**

b = 12 mm	c = 31 mm	d = 66.4 mm	M = 14 Nm	m = 81.5 g
1 set				0.0.672.85



**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





## Door solutions

The smart safety solution. The special Door Profiles in Line XMS make it easy to create doors that close perfectly, with compatible Lip Seals eliminating any rattling and significantly blocking dust and noise. Glazing and other panel elements can also be installed without difficulty.

The special Line XMS Door Profiles create stable doors with a narrow aluminium frame that keeps the doors lightweight and enables users to get the best possible view of the working process, if required. Clamping Sets are installed inside the doors and these help guard against distortion and make it easier to align the frame precisely. Whether a single door, double door or two doors that meet at a corner profile, special Door Lip Seals can always cover the transition from door to frame, whatever the installation scenario.

Line XMS Door Profiles are designed to accommodate panel elements that are 4 to 5 mm thick and feature corresponding grooves close to the outer face. This helps to create a smooth uninterrupted appearance with no edges and recesses. Lip Seals hold panel elements in place and stop them rattling.

Accessories round off the range of door solutions on offer. Hinge Leaf Profile V 8 z light and Pin Set D6 can be used to build load-bearing hinge strips in custom lengths. Double doors without inconvenient centre posts can be created using Double Door Stop Set 8, which features a special mechanism that automatically locks the passive door in place when the active door is shut and releases it on opening.

Door Lock X 8 Zn is recommended for use as a means of controlling access. The metal lock is tamper-proof thanks to the use of concealed bolts.

## Products in this section



### Door Profiles X 8 - XMS

- Closed outer surfaces and minimal door gap
- Simple means of holding custom panel elements

43



### Door Lip Seals

- Compatible with the seal groove on Line XMS profiles
- Tight door gap with optimum noise and dust protection

46



### Clamping Set, Door Profile X 8 - XMS

- For fine-tuning doors
- Precise compensation for localised loads

48



### Handle X 160 Al

- Stable aluminium grip
- Fastened in the groove or on panels

50



### Handles Pi

- Grip-friendly surface made of highly resilient plastic
- Available in three sizes

51



### Grip Rail Profile X

- Aluminium rail in custom length
- Angled grip recess

53



### Magnetic Door Stop 8

- Door stop with magnetic catch
- Protects profile edges

54



### Door Lock X 8 Zn

- Lockable closure with metal housing
- Tamper-proof thanks to concealed bolts

55



### Double Door Stop Set 8

- Automatically locking catch for double doors
- Holds secure without a centre post

56



### Door Seal Adapter Profile X 8 - XMS

- Complements the seal groove on double doors
- For fixing a Door Lip Seal in place

58



### Hinge Leaf Profile V 8 z light

- Load-bearing hinge strips in custom length
- Designed as continuous cover for door rebate

59



## Door Profiles X 8 - XMS

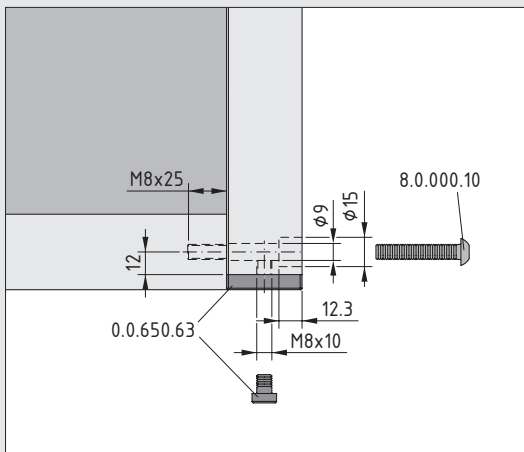
- For stable frames with seamless outer surfaces
- Simple means of holding custom panel elements
- Minimal door gap thanks to flush-mounted side panels



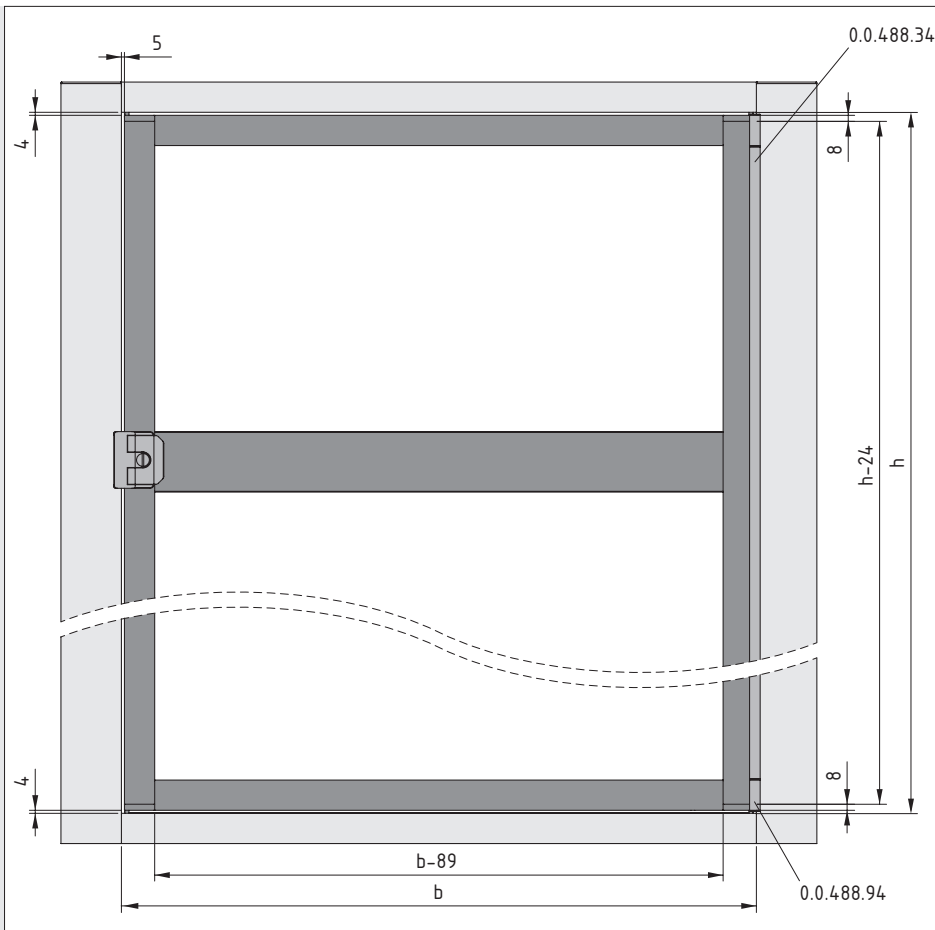
The XMS system includes profiles designed specifically for doors. These are intended to hold solid panel elements between 4 and 5 mm thick. Lip Seals stop doors from flapping and rattling and ensure a dust-tight closure. This results in doors that are sealed on all sides.

Doors built using Line XMS close with outstanding precision and can be designed in any height or size. Clamping Set XMS offers an effective means of compensating for any potential distortion caused by the dead weight of the door.

The robust Caps, Door Profile X 8 40x40 - XMS can be installed flush with the cross profiles, thereby ensuring surfaces are closed and any door gap is kept to an absolute minimum.



Profile machining requirements when assembling a door frame.



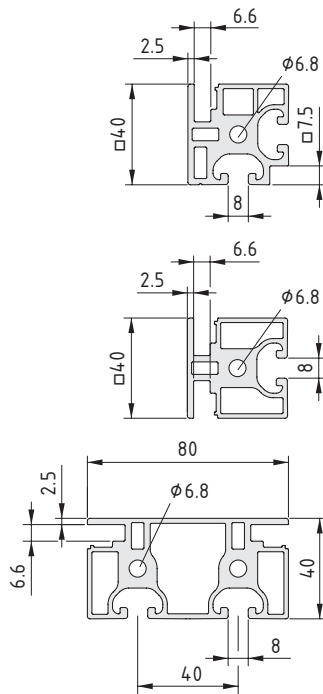
Recommended profile lengths when building doors for XMS frame structures.

A door panel must be at least 300 mm wide.

Hinge AI PP4, light duty (0.0.488.94) and customised hinge strips made from Hinge Leaf Profile V 8 z light (0.0.488.34) can be used as door hinges.

Materials used in all the following products:

Al, anodized



Door Profile X 8 40x40 - XMS



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
7.01	1.89	8.74	9.58	3.94	4.31	4.45	
natural, cut-off max. 6000 mm							0.0.649.51
natural, 1 pce., length 6000 mm							0.0.649.50

Door Profile X 8 40x40-180° - XMS

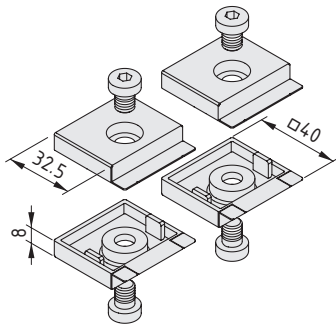


A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
6.31	1.70	7.63	9.20	4.34	3.65	4.60	
natural, cut-off max. 6000 mm							0.0.649.53
natural, 1 pce., length 6000 mm							0.0.649.52

Door Profile X 8 80x40-180° - XMS



A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	
10.06	2.72	15.81	62.71	16.49	7.84	15.68	
natural, cut-off max. 6000 mm							0.0.652.40
natural, 1 pce., length 6000 mm							0.0.652.39



Cap Set, Door Profile X 8 40x40 - XMS



4 Caps, PA-GF, grey  
 4 Hexagon Socket Head Cap Screws DIN 7984-M8x10, St, bright zinc-plated  
 m = 62.8 g

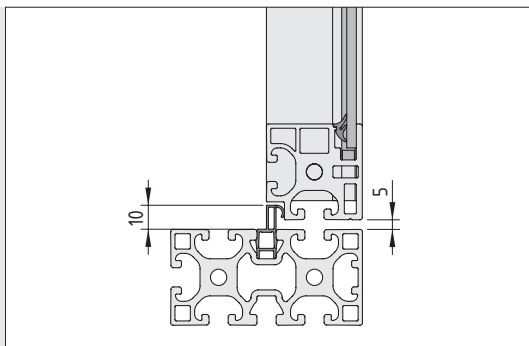
1 set

0.0.650.63

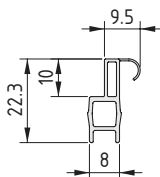


## Door Lip Seals

- Compatible with the seal grooves on Line XMS profiles
- Tight door gap with optimum noise and dust protection
- Ensures doors open and close quietly



Door Lip Seal 8 - XMS projects into the special rebate on Door Profile X 8 40x40 - XMS, creating an all-round seal. To accommodate the seal, doors must be designed with an opening clearance of 4 mm. The protruding Door Lip Seal 8 - XMS reduces the open aperture of the frame by 10 mm all the way around.



Door Lip Seal 8 - XMS

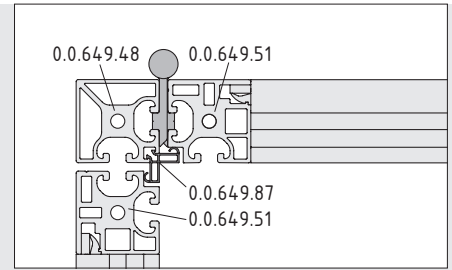
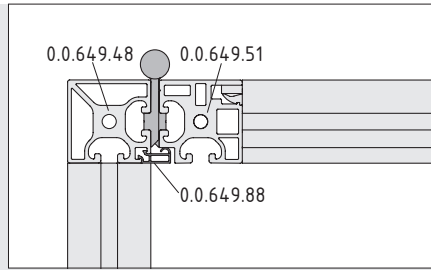
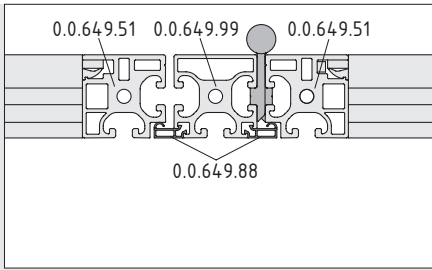


PVC

m = 57 g/m

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

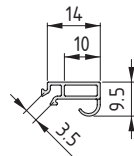
0.0.649.89



Door Lip Seals T fit into the 3.5 mm seal grooves located in the edges of the corresponding Line XMS profiles and act as door rabbets and seals.

Door Lip Seal T2 - XMS seals two doors at the same time when they meet in the corner at a Profile X 8 40x40 2N90 XMS (0.0.649.49). By contrast, Door Lip Seal T1 - XMS is intended for sealing a single door.

**Note:** Door Lip Seal 8 - XMS (0.0.649.89) is used with Line XMS profiles with an 8 mm seal groove.



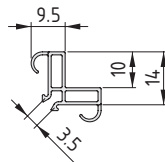
**Door Lip Seal T1 - XMS**



PP/TPE  
m = 34 g/m

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

0.0.649.88



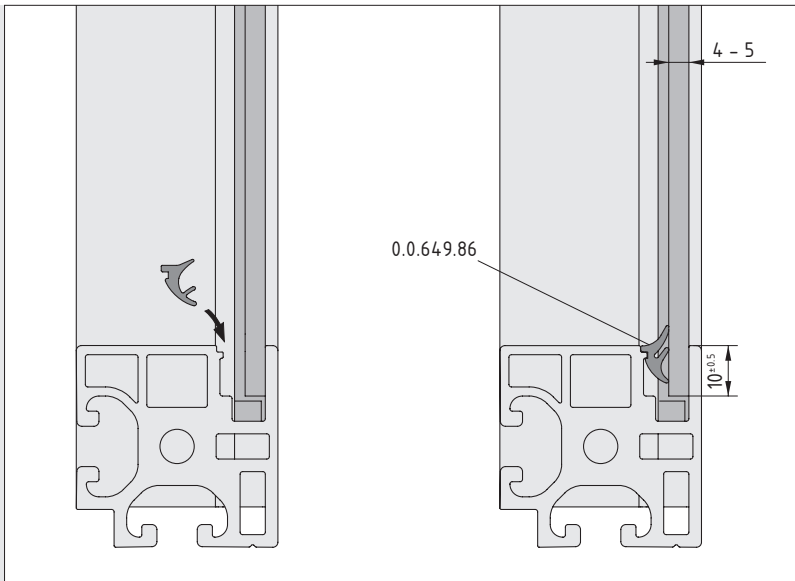
**Door Lip Seal T2 - XMS**



PP/TPE  
m = 55 g/m

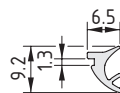
grey similar to RAL 7042, 1 pce., length 3000 mm

0.0.649.87



Once the door frame has been assembled and the panel element secured, the system is sealed in place with Lip Seal 4-5 mm - XMS.

The Lip Seals are best wetted with soapy water prior to assembly to ensure they can be inserted into the correct position with ease.



**Lip Seal 4-5 mm - XMS**



TPE  
m = 22.3 g/m

grey, 1 roll length 20 m

0.0.649.86

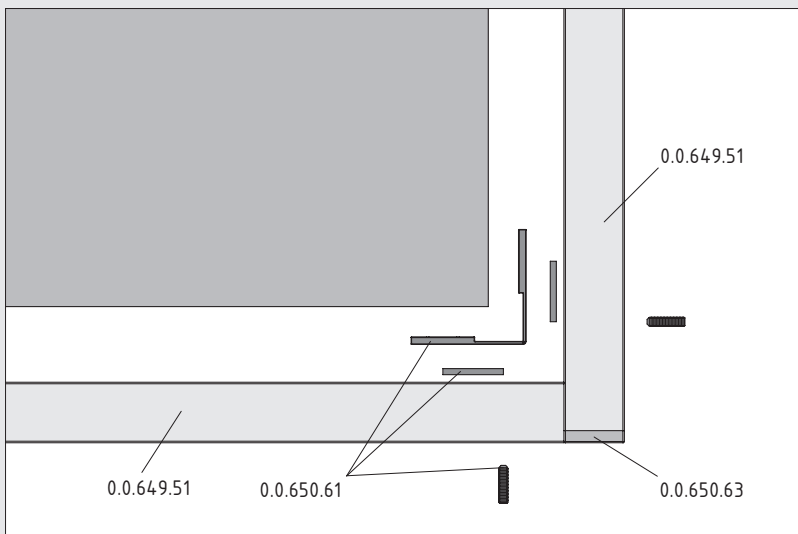


## Clamping Set, Door Profile X 8 - XMS

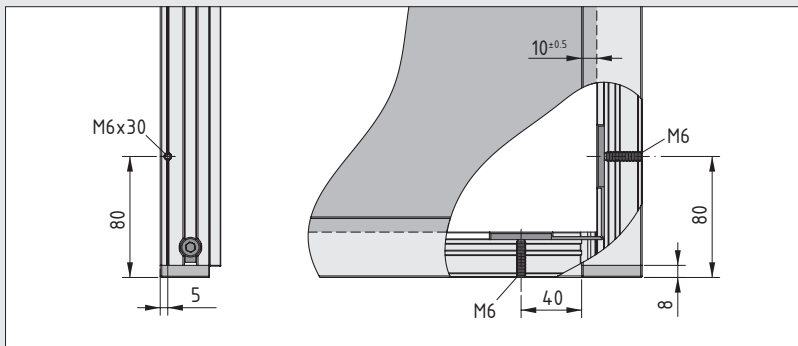
- For fine-tuning doors
- Precise compensation for localised loads



Clamping Set, Door Profile X 8 - XMS is used to precisely adjust door frames and correct distortion caused by the weight of the assembly.

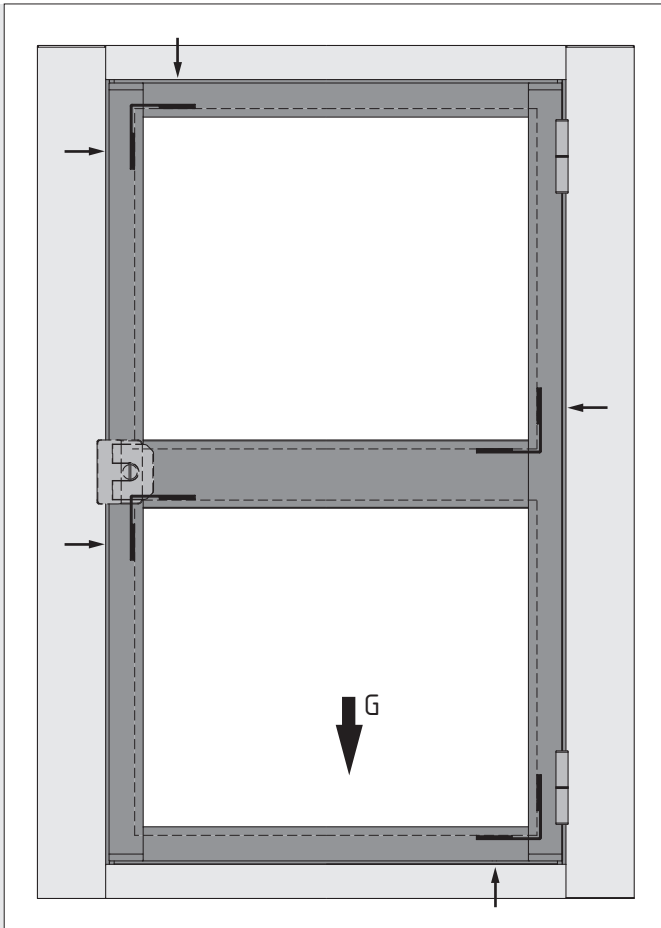


The components in the Clamping Set pair (one panel holder, two thrust pieces and two grub screws for one corner of a frame) are installed in Door Profile X 8 - XMS.

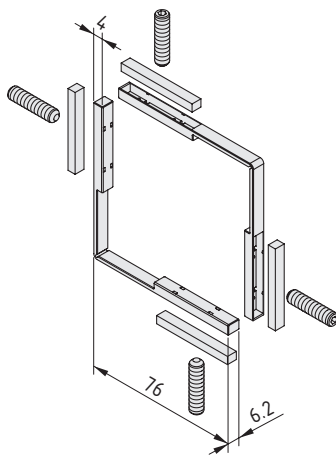


Door Profile machining requirements when installing Clamping Set, Door Profile X 8 - XMS. One Clamping Set must be used for each panel segment.





Recommended arrangement of Clamping Sets in a door with two panel segments (Clamping Sets installed at the bottom on the hinged side). Use the adjustment options at the points indicated in the diagram, starting from the top.



**Clamping Set, Door Profile X 8 - XMS**



2 panel holders, PA, grey  
 4 thrust pieces, St, bright zinc-plated  
 4 grub screws DIN 916-M6x25, St, bright zinc-plated  
 m = 26.4 g

1 set

0.0.650.61

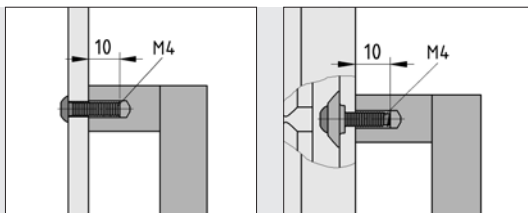


## Handle X 160 Al

- Exceptionally stylish
- For constructions built with Profiles X

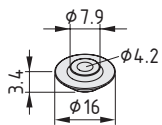
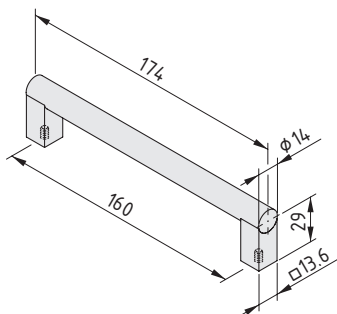


Handle X 160 Al is a light-duty handle with the same design as Line X Profiles. It can be fastened from behind (hidden).



When using screws to fasten the Handle on profile grooves, it is advisable to use the appropriate Locating Washers.

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



### Handle X 160 Al



Al  
m = 94.0 g  
natural, 1 pce.

0.0.600.70

### Locating Washer 8 D4



St  
m = 3.7 g  
bright zinc-plated, 1 pce.

0.0.444.43

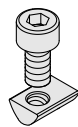
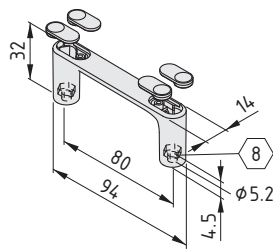
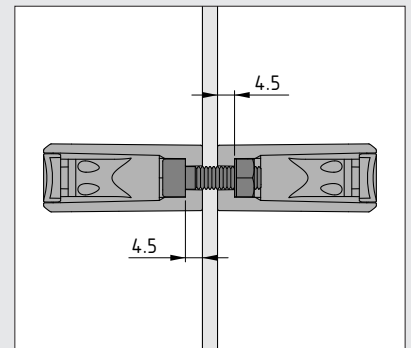
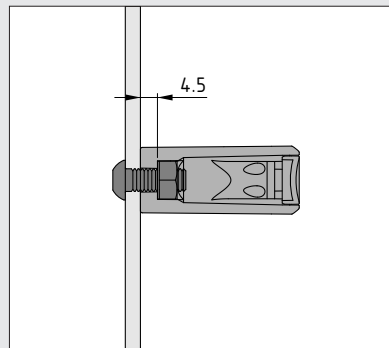
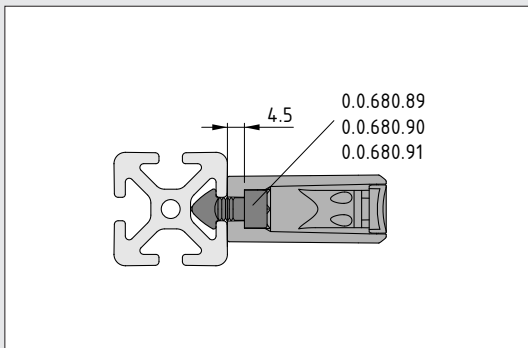


## Handles Pi

- Rounded surfaces with easy-grip haptics
- Made of highly resistant plastic
- Visual accents thanks to caps in contrasting colours

A handle grip with two fixing points is ideal for opening and closing doors. It can be held with the entire hand and can be utilised at various reaching heights.

As with all the grips in the item operating elements Pi range, the Handles are made of robust, glass-fibre-reinforced polyamide and support a firm, ergonomic gripping action. They are available in two colours and three sizes. Caps in two colours are also included in the scope of supply.

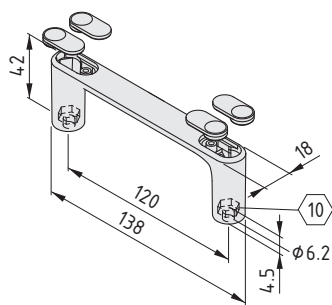


### Handle Pi 80 M5 PA

m = 19.0 g	
grey, 1 set	0.0.679.07
black, 1 set	0.0.679.08

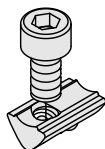
### Fastening Set 5 4-6mm with Hexagon Socket Head Cap Screw M5

m = 5.0 g	
1 set	0.0.680.89



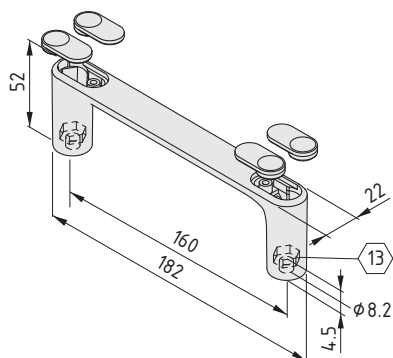
**Handle Pi 120 M6 PA**

m = 40.0 g	
grey, 1 set	0.0.679.09
black, 1 set	0.0.679.10



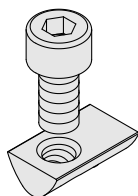
**Fastening Set 6 3-5mm with Hexagon Socket Head Cap Screw M6**

Hexagon Socket Head Cap Screw DIN 912-M6x12, St, bright zinc-plated	
T-Slot Nut 6 St M6, St, bright zinc-plated	
m = 10.0 g	
1 set	0.0.680.90



**Handle Pi 160 M8 PA**

m = 74.0 g	
grey, 1 set	0.0.679.11
black, 1 set	0.0.679.12



**Fastening Set 8 4-6mm with Hexagon Socket Head Cap Screw M8**

Hexagon Socket Head Cap Screw DIN 912-M8x16, St, bright zinc-plated	
T-Slot Nut 8 St M8, St, bright zinc-plated	
m = 23.0 g	
1 set	0.0.680.91



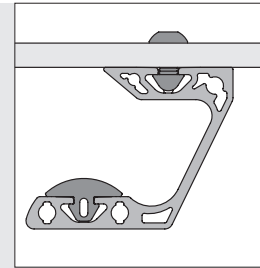
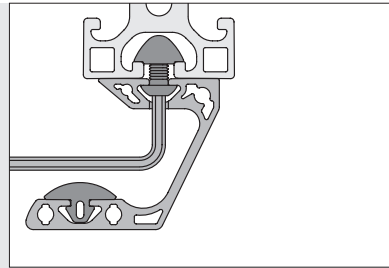
## Grip Rail Profile X

- Long grip strips for easy opening and closing
- Angled cavity produces a comfortable feel
- Added stability for panel elements



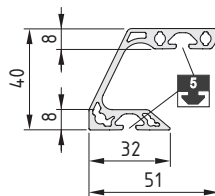
Grip Rail Profile X has a very ergonomic design. It prevents injuries to hands, allows a good grip at any position along its length and, at the same time, stabilizes the panel elements to which it is attached.

Grip Rail Cap Set X is also designed for use with Grip Cover Profile.



Using Grip Cover Profile 5 20x4 (0.0.437.03) on the inside gives Grip Rail Profile X extremely good non-slip and tactile properties. The integrated Line 5 grooves are used for simple fastening to any given structure and for mounting the Grip Cover Profile.

Grip Rail Cap Set X is also designed for use with Grip Cover Profile.



### Grip Rail Profile X



Al, anodized

A [cm<sup>2</sup>]    m [kg/m]

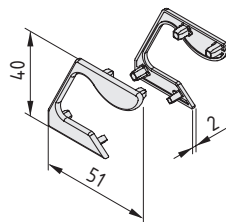
3.43    1.01

natural, cut-off max. 3000 mm

0.0.494.59

natural, 1 pce., length 3000 mm

0.0.494.58



### Grip Rail Cap Set X



Grip Rail Cap right, PA-GF

Grip Rail Cap left, PA-GF

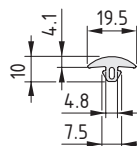
m = 3.2 g

black, 1 set

0.0.613.12

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 resistant

m = 78.2 g/m

black, cut-off max. 20 m

0.0.437.03

black, 1 roll length 20 m

0.0.437.05



## Magnetic Door Stop 8

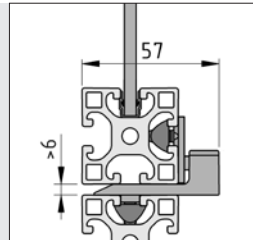
- Combination of Door Stop and Magnetic Catch
- Lead-in wedge, Limit Stop and buffer in one
- Protects profile edges



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.

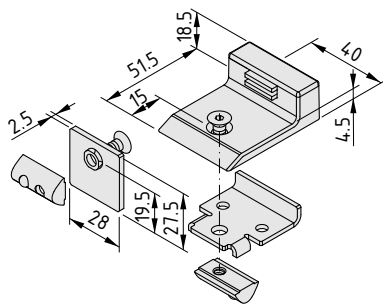
For profiles with closed grooves, the groove cover must be removed to insert the T-Slot Nut and anti-torsion lugs.

**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 a Line 8 groove in the outer frame and forms a lead-in wedge, a buffer and the limit stop (limiting the penetration depth for the modular dimension 40 mm).

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



### 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  
 $m = 76.0 \text{ g}$

black, 1 set	0.0.601.30
grey, 1 set	0.0.600.73



## Door Lock X 8 Zn

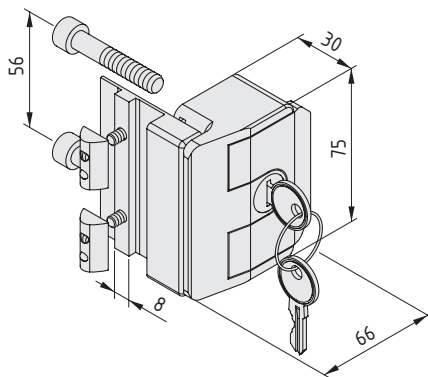
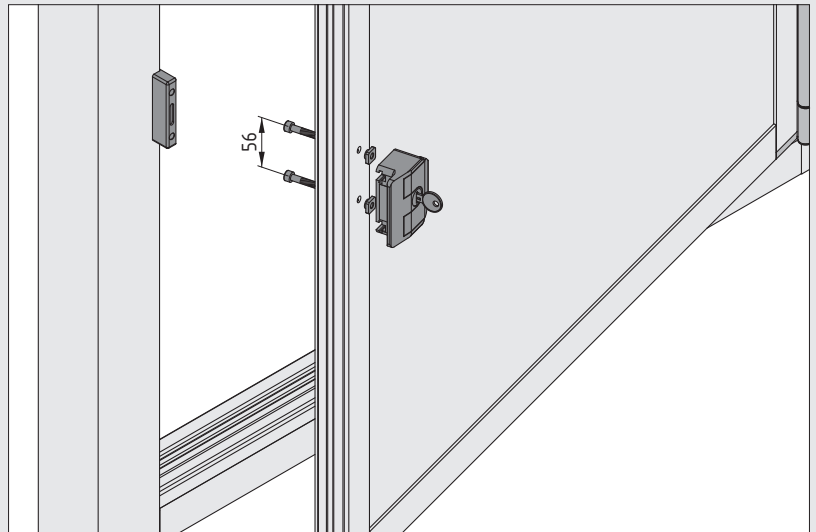
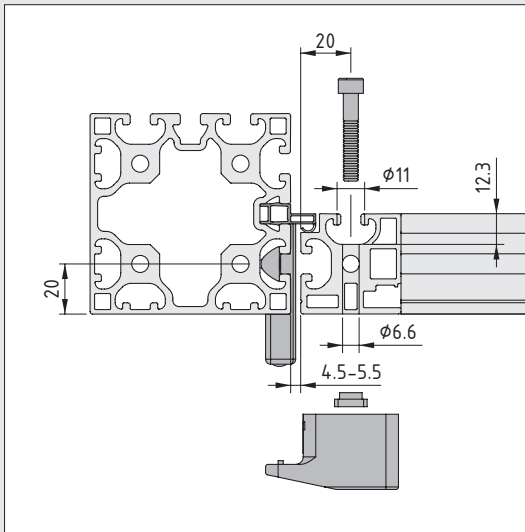
- Lockable closure with metal housing
- Tamper-proof thanks to concealed bolts
- Fitted on the outside, to the surround and door frames



Door Lock X 8 Zn uses the profile groove in the door gap as a concealed fastening option. It can be installed at the ideal ergonomic height. All fastening screws are safely concealed when the door is closed.

**Note:**

Remember to allow for the thickness of the fastening plate when sizing the door gap.



### Door Lock X 8 Zn



- Cylinder Lock, (all) keys identical
- Lock housing, die-cast zinc, white aluminium
- Lock case X 8, die-cast zinc, white aluminium
- 2 Hexagon Socket Head Cap Screws DIN 912-M6x35, St, bright zinc-plated
- 2 Countersunk Screws DIN 7991-M5x12, St, bright zinc-plated
- 2 T-Slot Nuts 8 St M5, St, bright zinc-plated
- 2 square nut inserts M6, St, bright zinc-plated
- m = 540.0 g

1 set

0.0.652.66



## Double Door Stop Set 8

- Secure closure for double doors
- Holds secure without a centre post
- Two doors automatically brought to a stop



This is how to secure two doors in one easy step! Thanks to Double Door Stop Set 8, generous double doors can now be built without having to incorporate inconvenient centre posts. The innovative mechanism ensures that the passive door is automatically held in place when the active door is closed. One lock is all that is needed to hold both doors securely in place.

Here are the benefits of this innovation from item:

**Fast to operate:** Both doors are secured together with just a single lock. Users don't have to open or close an additional latch or catch.

**Totally secure:** Double Door Stop Set 8 automatically locks the passive door when the double doors are closed so that they can't be accidentally pulled open.

**No misuse:** Not shutting the doors properly does not damage the mechanism.

**Spotlessly clean:** As is standard for Line XMS, double doors can also be sealed dust-tight using Door Seal Adapter Profile 8 - XMS.

Double Door Stop Set 8 is the simplest way to use safe double doors that provide access for feeding large workpieces unobstructed into a machine. Whether a maintenance hatch or a safety door in a machine frame, it satisfies the most stringent requirements in terms of safety, cleanliness and rapid access.

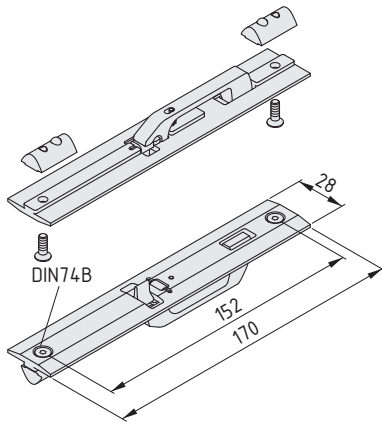
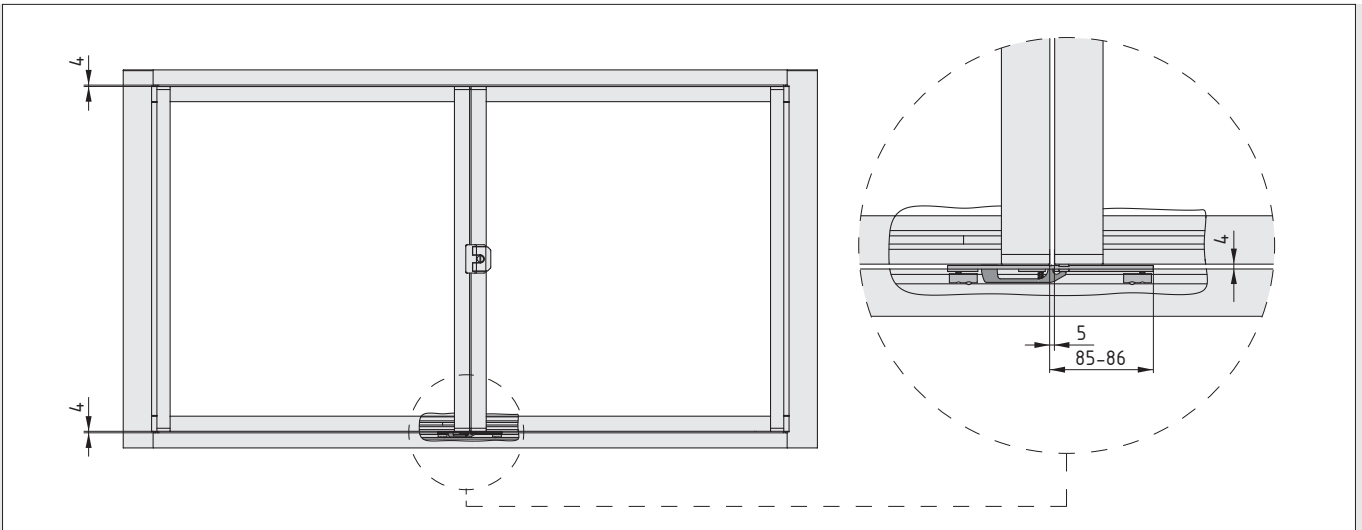
**N.B.:** Door Lock X 8 Zn (0.0.652.66) is ideal as a mechanical locking device. All fastening screws are safely concealed when the door is closed. Safety Switch 8, 24V DC (0.0.658.28) provides even better safety. It uses contactless switching and is therefore free from mechanical wear, thanks to tamper-proof RFID technology.

Double Door Stop Set 8 is compatible with Line 8, meaning that components from the MB Building Kit System can also be used to build a double door.

To prevent overtravel on the passive door, its closing action must be contained using Door Stop Seal 8 40 (0.0.617.31) if working with the MB system or Door Lip Seal 8 - XMS (0.0.649.89), Door Lip Seal T1 (0.0.649.88) or Door Lip Seal T2 (0.0.649.87) if working with the XMS system.







**Double Door Stop Set 8**



2 double door stops, die-cast zinc  
 4 Countersunk Screws DIN 7991-M4x12  
 4 T-Slot Nuts V8 St M4, St, bright zinc-plated  
 m = 135.0 g

1 set

0.0.671.94

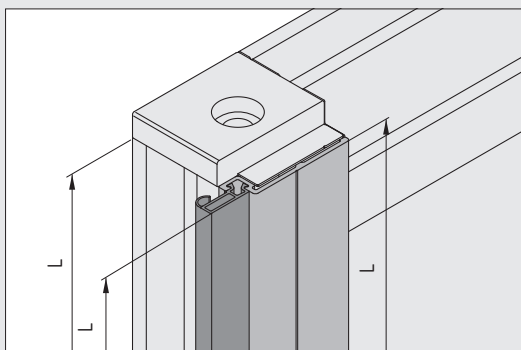
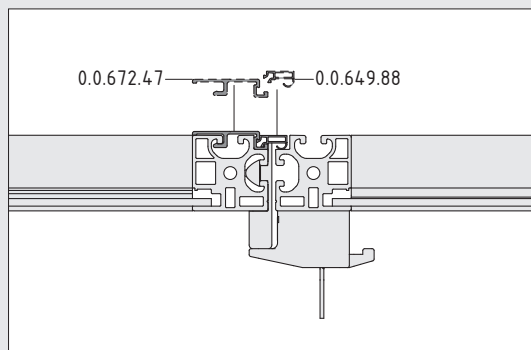


## Door Seal Adapter Profile X 8 - XMS

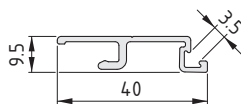
- Complements the seal groove on double doors
- For fixing a Door Lip Seal in place



Door Seal Adapter Profile X 8 - XMS ensures that double doors close to provide a long-lasting dust-tight seal. It is used to fit Door Lip Seal T1 - XMS (0.0.649.88) to the outside of Door Profile X 8 40x40 - XMS (0.0.649.51). The Adapter provides a secure hold for the seal between the doors.



The Door Profile, Door Lip Seal and Door Seal Adapter Profile are all cut to the same length.



### Door Seal Adapter Profile X 8 - XMS



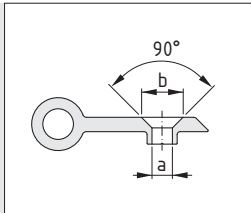
Al, anodized

A [cm <sup>2</sup> ]	m [kg/m]	I <sub>x</sub> [cm <sup>4</sup> ]	I <sub>y</sub> [cm <sup>4</sup> ]	W <sub>x</sub> [cm <sup>3</sup> ]	W <sub>y</sub> [cm <sup>3</sup> ]	I <sub>t</sub> [cm <sup>4</sup> ]
0.98	0.26	0.10	1.16	0.16	0.55	0.01
natural, cut-off max. 3000 mm						0.0.672.47
natural, 1 pce., length 3000 mm						0.0.672.46



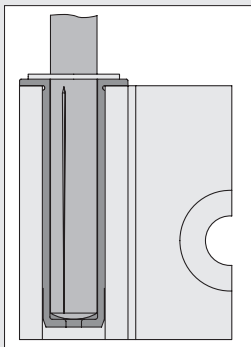
## Hinge Leaf Profile V 8 z light

- Strong hinges and pins for doors
- Hinge strips possible in custom lengths
- Designed as continuous cover for door rebate

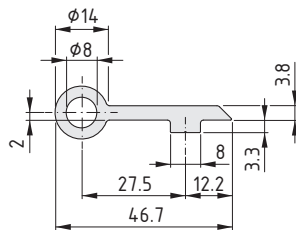


	a [mm]	b <sup>+0.2</sup> [mm]
	∅ 6.4	∅ 13

The Hinge Leaf Profiles must be provided with a countersink for screw fastening. The correct position of the hole is marked by a guide notch on the back of the hinge.



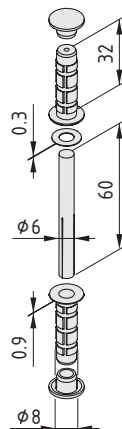
Pin Set D6 makes the fitting of all Hinges Al light child's play!



### Hinge Leaf Profile V 8 z light

Al, anodized  
m = 0.73 kg/m

natural, cut-off max. 3000 mm	0.0.488.34
natural, 1 pce., length 3000 mm	0.0.454.54



### Hinge Al light, Pin Set D6

Grooved pin, St, bright zinc-plated  
2 bearing sleeves, PA, black  
Washer, St, stainless  
2 caps, PA, grey  
Notes on Use and Installation  
m = 25.0 g

1 set	0.0.621.16
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## Panel Elements

Prepared for all eventualities! Item panel elements are integrated into profile frames as appropriate to the process and your design requirements. Various materials, colours and properties are available to choose from.

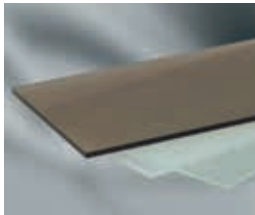
You can decide whether or not the inner workings of your enclosure should be visible from the outside. Whatever your needs, you can find the right panel element – whether Polycarbonate, Acrylic Glass (clear or tinted), Plastic, Compound Material, aluminium Chequer Sheet or sheet steel.

Line XMS offers the ideal means of securing panel elements free from play, with XMS Door Profiles designed to accommodate solid panels as standard, while the item Panel-Clamping Strip locates panels securely into other profiles.

Whichever of the two options you use, the panels are located almost flush with the outer side of the profile. The resulting smooth outer surface slots seamlessly into the overall design and is extremely easy to clean.

The all-round seal for panel elements helps to effectively separate the interior from the surrounding area, thereby keeping dirt and noise inside the cabin.

## Products in this section



### Acrylic Glass

- Available in transparent, tinted and frosted versions
- Excellent dimensional stability

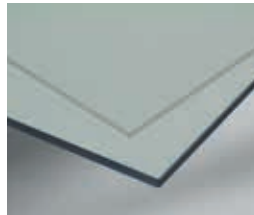
62



### Polycarbonate

- Maximum protection for man and machine
- Impact-proof and available in clear and tinted versions

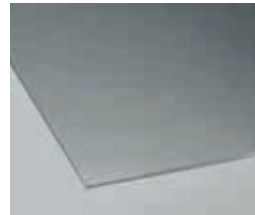
64



### PET-G

- Transparent and deformation-free
- Impact-proof and the best optical properties

65



### Sheet Material Al

- Stable and durable
- Available in two surface finishes

66



### Compound Material Al

- Lightweight and insulating
- Anodized sheets with a PE core

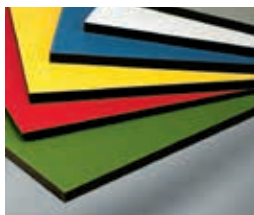
67



### Compound Material St

- With white plastic coating
- With magnet-attracting layer

68



### Plastics

- For surfaces and panelling that have to take a lot of punishment
- Wear resistant and resistant to impacts
- Also available in ESD-safe version

69



### Multi-wall and Honeycomb Sheets

- For lightweight panels
- Simple to machine and install

72



### Multiblocks PA

- Variable thanks to two contact faces and height adjuster
- Screw attachment ensures a firm hold

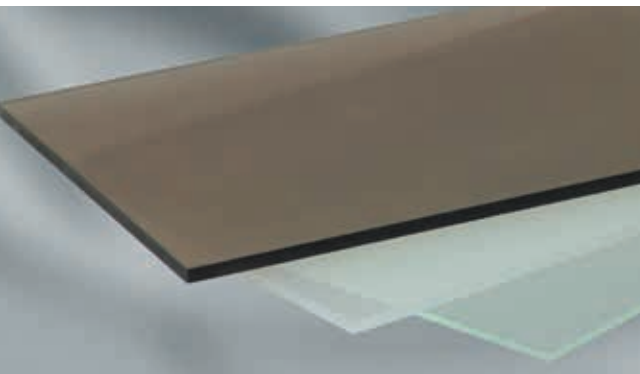
74



### Panel-Clamping Strips

- Retrofit panels in closed frames
- Holds all types of panels on the groove

77



## Acrylic Glass

- Available in transparent, tinted and frosted versions
- Excellent dimensional stability

Cast acrylic glass with scratch-resistant surface is suitable for doors and casings. The panels can be polished to a high gloss.

Acrylic Glass XT in extruded quality has slightly lower mechanical and thermal load bearing capabilities and optical characteristics than cast panels. However, in many applications, it can represent a cost-effective alternative.

Whether double-frosted, tinted, opal-white or glass-look, Acrylic Glass is ideal for use as translucent partitions designed to restrict visibility and for the stylish design of wall and ceiling elements. It exhibits excellent dimensional stability at higher temperatures coupled with good light diffusion and transmission characteristics, which also make it ideal for light boxes and backlit advertising areas.

Property	Value	Test Standard
Density	1.19 g/cm <sup>3</sup>	ISO 1183
Water absorption	30 mg	ISO 62
Tensile strength	82 N/mm <sup>2</sup>	ISO 527
Elongation at tear	5.6 %	ISO 527
Modulus of elasticity in tension	3300 N/mm <sup>2</sup>	ISO 527
Impact resistance (without notch)	2 kJ/m <sup>2</sup>	ISO 179
Vicat softening temperature	110 °C	ISO 306
Coefficient of thermal expansion	70 x10 <sup>-6</sup> K <sup>-1</sup>	DIN 52612
Construction material class	B 2	DIN 4102
Refractive index	1.49 n <sub>D</sub> 20	ISO 489
Luminous transmission index clear / tinted	93.7% / 41%	DIN 5036-T3
Surface resistance	10 <sup>14</sup> Ohm	DIN 53482

### Materials used in all the following products:

PMMA

#### Acrylic Glass 4mm XT

Thickness tolerance ± 5%  
m = 4.60 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.492.09
clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.492.05

#### Acrylic Glass 5mm XT

Thickness tolerance ± 5%  
m = 5.75 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.492.16
clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.492.15

#### Acrylic Glass 5mm

Thickness tolerance ± 10%  
m = 5.90 kg/m<sup>2</sup>

clear, cut-off max. 3020x2000 mm	0.0.428.21
clear, 1 pce. panel dimensions. approx. 3050x2030 mm	0.0.457.06
tinted, cut-off max. 3020x2000 mm	0.0.388.97
tinted, 1 pce. panel dimensions. approx. 3050x2030 mm	0.0.404.79

**Acrylic Glass 4mm double-frosted**

Thickness tolerance  $\pm 10\%$

$m = 4.60 \text{ kg/m}^2$

opal-white, cut-off max. 3020x2000 mm	0.0.492.36
opal-white, 1 pce. panel dimensions. approx. 3050x2030 mm	0.0.492.35
tinted, cut-off max. 3020x2000 mm	0.0.492.40
tinted, 1 pce. panel dimensions. approx. 3050x2030 mm	0.0.492.39
glass-look, cut-off max. 3020x2000 mm	0.0.492.38
glass-look, 1 pce. panel dimensions. approx. 3050x2030 mm	0.0.492.37



## Polycarbonate

- Impact-proof and exceptionally safe
- Available in clear and tinted versions

Polycarbonate is impact resistant and is therefore ideal for use as a panel element for cost-effective enclosures, even in relatively small thicknesses. Its high strength and transparency mean that the material is particularly suitable for applications where it is important both to be able to monitor processes and yet provide adequate protection for personnel.

Property	Value	Test Standard
Density	1.2 g/cm <sup>3</sup>	ISO 1183
Water absorption	8 mg	ISO 62
Tensile strength	60 N/mm <sup>2</sup>	ISO 527
Elongation at tear	80 %	ISO 527
Modulus of elasticity in tension	2200 N/mm <sup>2</sup>	ISO 527
Impact resistance (without notch)	doesn't break	ISO 179
Vicat softening temperature	145 °C	ISO 306
Coefficient of thermal expansion	65 x 10 <sup>-6</sup> K <sup>-1</sup>	DIN 52612
Construction material class	B 2	DIN 4102
Refractive index	1.585 n <sub>D</sub> 20	ISO 489
Luminous transmission index clear / tinted	86 % / 51 %	DIN 5036-T3
Surface resistance	10 <sup>14</sup> Ohm	DIN 53482

### Materials used in all the following products:

PC

#### Polycarbonate 4mm

Thickness tolerance ± 5 %

m = 4.80 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.483.50
clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.483.49

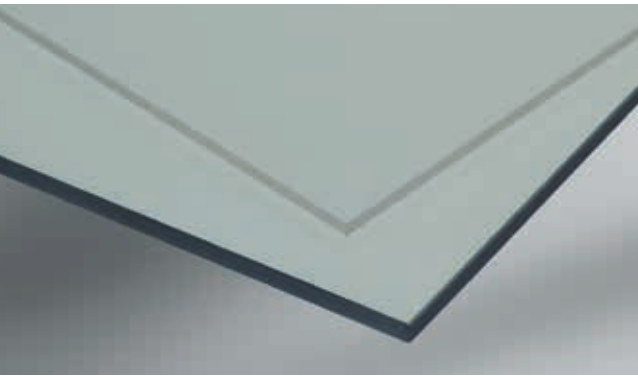
#### Polycarbonate 5mm

Thickness tolerance ± 5 %

m = 6.00 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.428.23
clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.457.14
tinted, cut-off max. 3020x2020 mm	0.0.428.24
tinted, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.457.15





## PET-G

- Best optical properties
- Impact-proof
- Resistant to chemicals

PET-G (glycol-modified polyethylene terephthalate) is an impact-resistant, clear plastic used for constructing machine casings, protective housings and partitions, and is suitable for both indoor and outdoor use.

This highly transparent material exhibits a far higher resistance to impact than acrylic glass and is also easier to work with. Compared to polycarbonate, it offers improved resistance to chemicals and better colour fidelity and UV resistance.

Property	Value	Test standard
Density	1.27 g/cm <sup>3</sup>	D 1505
Tensile strength	50 N/mm <sup>2</sup>	DIN 53455
Elongation at tear	54 %	DIN 53455
Modulus of elasticity in tension	2200 N/mm <sup>2</sup>	DIN 53455
Impact resistance (without notch)	doesn't break	DIN 53453
Vicat softening temperature	82 °C	DIN 53460
Coefficient of thermal expansion	6.8 x10 <sup>-5</sup> K <sup>-1</sup>	DIN 53752
Construction material class	B 1	DIN 4102
Refractive index	1.57 n <sub>D</sub> 20	DIN 53491
Luminous transmission index clear / tinted	88%	DIN 5036
Surface resistance	≥10 <sup>16</sup> Ohm	D 257

### Materials used in all the following products:

PET

#### PET-G 4mm

Thickness tolerance ± 4%

m = 5.13 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.492.07
----------------------------------	------------

clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.492.03
--	------------

#### PET-G 5mm

Thickness tolerance ± 4%

m = 6.40 kg/m<sup>2</sup>

clear, cut-off max. 3020x2020 mm	0.0.493.77
----------------------------------	------------

clear, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.493.76
--	------------



## Sheet Material Al

- Stable and durable
- Available in two surface finishes

Sheet Material Al is suitable for machine casings of all types.

Property	Value
Density	2.7 g/cm <sup>3</sup>
Modulus of elasticity	70,000 N/mm <sup>2</sup>
Tensile strength	120 N/mm <sup>2</sup>
Ductile yield A5	5 %
Anodized natural	E6/EV1
Min. layer thickness	10 µm
Layer hardness	250 - 350HV

### Sheet Material Al 2mm

AlMg1

m = 5.40 kg/m<sup>2</sup>

cold rolled (not degreased), cut-off max. 2970x1470 mm	0.0.428.27
cold rolled (not degreased), 1 pce. panel dimensions. approx. 3000x1500 mm	0.0.457.09
natural anodized, cut-off max. 2970x1470 mm	0.0.473.08
natural anodized, 1 pce. panel dimensions. approx. 3000x1500 mm	0.0.473.09



## Compound Material Al

- Lightweight and insulating

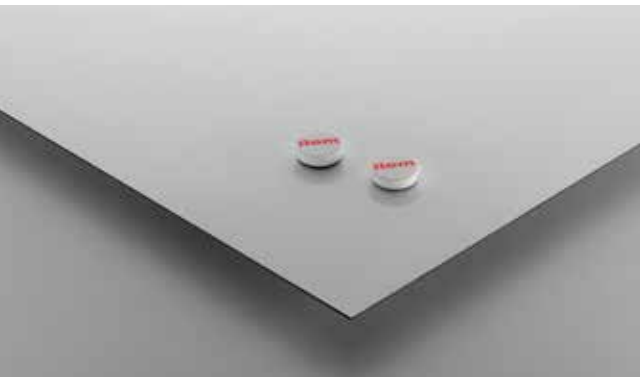
Compound Material Al consists of two anodized aluminium outer layers which are permanently bonded together by a PE core. It is ideal for lightweight doors and panelling.

Property	Value
Tensile strength $R_m$	> 130 N/mm <sup>2</sup>
0.2 limit $R_{p0.2}$	> 90 N/mm <sup>2</sup>
Ductile yield	> 8 %
Modulus of elasticity E	70,000 N/mm <sup>2</sup>
Flexural strength	53 N/mm <sup>2</sup>
Temperature resistance	- 50°C to + 80°C
Coefficient of thermal expansion	23x10 <sup>-6</sup> K <sup>-1</sup>
Construction material class in accordance with DIN 4102	B2

### Compound Material Al 4mm

Al-PE compound  
m = 5.80 kg/m<sup>2</sup>

natural anodized, cut-off max. 2960x1470 mm	0.0.026.73
natural anodized, 1 pce. panel dimensions. approx. 3000x1500 mm	0.0.457.21



## Compound Material St

- With white plastic coating
- With easy-clean surface that can be written on
- Suitable for use with magnets

Besides being suitable for use with magnets, the surface of the Compound Material can also be directly written on. Compound Material St 2 mm comprises 5 layers and is suitable for use with magnets and whiteboard markers. You can also use the Compound Material as a base for the magnetic Notice Holders or for "pinning up" notices with magnets. Available as a panel or a cut-off in the dimensions of your choice.

**Note:**

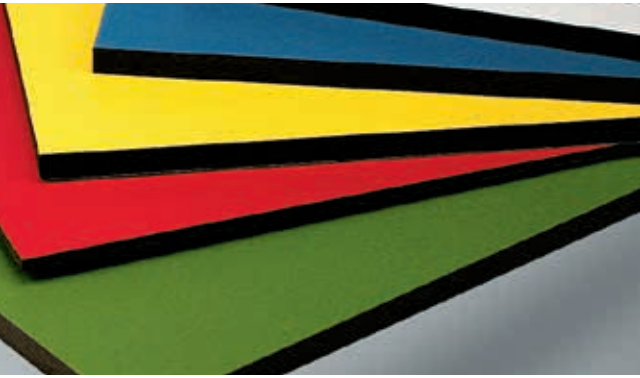
item also supplies compatible Whiteboard Markers for writing on Compound Material. These can be found in our special "Work Bench System" catalogue and online at: [item24.de/en](http://item24.de/en)

Property	Value
Tensile strength $R_m$	> 800 N/mm <sup>2</sup>
Ductile yield	> 30 %
Modulus of elasticity E	40,000 N/mm <sup>2</sup>
Temperature resistance	100°C

### Compound Material St 2 mm

St-PE compound  
 $m = 6.87 \text{ kg/m}^2$

white similar to RAL 9016, cut-off max. 3020x1190 mm	0.0.636.04
white similar to RAL 9016, 1 pce. panel dimensions: approx. 3050x1220 mm	0.0.633.97



## Plastics

- For surfaces and panelling that have to take a lot of punishment
- Wear resistant and resistant to impacts
- Antistatic surface
- Available in several colours

Plastic is a thermosetting material which is permanently laminated at high pressure and temperature. This gives it exceptional abrasion and impact resistance, making it suitable for panelling, table surfaces and partitions subject to high stresses.

It has antistatic surfaces.

Thanks to their hygienic melamine resin surface, Plastic panels have exceptional mechanical properties and high temperature resistance and are also particularly resistant to a large number of chemicals. Consequently, they can be used where substances such as

- laboratory and industrial chemicals
- solvents
- disinfectants
- colouring agents
- bleaching agents
- industrial oils and emulsions

act on the surface.

Some chemicals may, however, corrode the surface. This depends on the

- concentration
- exposure time
- temperature

of the agents used.

Changes to the dimensions of Plastic panels due to the absorption of moisture and thermal expansion should be taken into account when installing them in frame structures. These panels may warp if exposed to moisture on one side only.

### Note:

RAL numbers of colours apply to varnishes.

Due to the different manufacturing processes, the brilliance and colouring of laminated Plastic panels can vary greatly. Consequently, if there is any doubt, a comparison should always be made with original samples provided by your item sales partner.

Property	Value	Test standard
Density	1.4 g/cm <sup>3</sup>	
Wearing resistance	450 min <sup>-1</sup>	EN 438 T2
Scratch resistance	3.0 N	EN 438
Flexural strength	110 N/mm <sup>2</sup>	EN 438 T2
Modulus of elasticity	12,000 N/mm <sup>2</sup>	EN 438 T2
Tensile strength	80 N/mm <sup>2</sup>	EN 438 T2
Coefficient of thermal expansion	20 x 10 <sup>-6</sup> K <sup>-1</sup>	DIN 52612
Construction material class	B 2	DIN 4102
Surface resistance	<10 <sup>11</sup> Ohm	DIN 53482

The following applies to all the products below:

Resin-bonded cellulose laminate

similar to RAL colour code

Thickness tolerance  $\pm 8\%$

**Plastic 4mm**

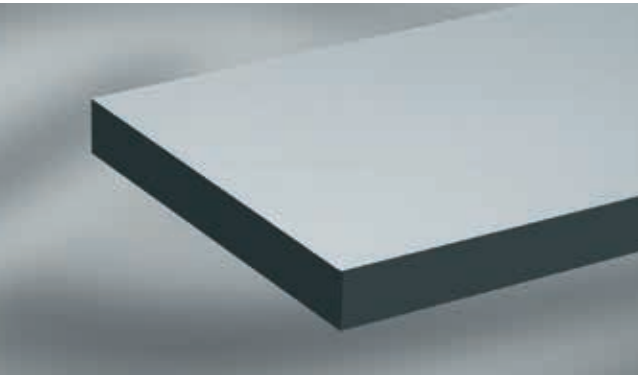
m = 5.72 kg/m<sup>2</sup>

white similar to RAL 9016, cut-off max. 2770x1820 mm	0.0.473.04
white similar to RAL 9016, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.473.05
green, similar to RAL 6011, cut-off max. 2770x1820 mm	0.0.689.59
green, similar to RAL 6011, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.689.58
red, similar to RAL 3000, cut-off max. 2770x1820 mm	0.0.428.43
red, similar to RAL 3000, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.33
yellow, similar to RAL 1003, cut-off max. 2770x1820 mm	0.0.688.27
yellow, similar to RAL 1003, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.688.26
blue, similar to RAL 5014, cut-off max. 2770x1820 mm	0.0.688.29
blue, similar to RAL 5014, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.688.28
grey, similar to RAL 7030, cut-off max. 2770x1820 mm	0.0.428.47
grey, similar to RAL 7030, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.30
grey, similar to RAL 7035, cut-off max. 2770x1820 mm	0.0.428.46
grey, similar to RAL 7035, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.29
black, similar to RAL 9017, cut-off max. 2770x1820 mm	0.0.474.37
black, similar to RAL 9017, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.473.12

**Plastic 10mm**

m = 14.60 kg/m<sup>2</sup>

white similar to RAL 9016, cut-off max. 2770x1820 mm	0.0.473.06
white similar to RAL 9016, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.473.07
green, similar to RAL 6011, cut-off max. 2770x1820 mm	0.0.689.61
green, similar to RAL 6011, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.689.60
red, similar to RAL 3000, cut-off max. 2770x1820 mm	0.0.428.89
red, similar to RAL 3000, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.26
yellow, similar to RAL 1003, cut-off max. 2770x1820 mm	0.0.688.31
yellow, similar to RAL 1003, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.688.30
blue, similar to RAL 5014, cut-off max. 2770x1820 mm	0.0.688.33
blue, similar to RAL 5014, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.688.32
grey, similar to RAL 7030, cut-off max. 2770x1820 mm	0.0.428.93
grey, similar to RAL 7030, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.24
grey, similar to RAL 7035, cut-off max. 2770x1820 mm	0.0.428.92
grey, similar to RAL 7035, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.457.25
black, similar to RAL 9017, cut-off max. 2770x1820 mm	0.0.474.36
black, similar to RAL 9017, 1 pce. panel dimensions. approx. 2800x1850 mm	0.0.473.16



## Plastic ESD

- For maximum conductivity requirements
- Meets EPA requirements



The Plastic ESD panel is specifically designed for use in EPA workplaces where the handling of electronic components makes special safety precautions necessary (EPA = Electrostatic Protected Area).

The low discharge resistance ( $7.5 \times 10^5 \Omega < R < 10^9 \Omega$ ) on the surface of the panel and in the core of the material allows it to be used as a table top without need for an additional conductive edge strip, or to be used in workpiece carriers with milling or drilled holes whose cut edges have the same discharge properties as the surface.

It has the same resistance to mechanical, thermal and chemical loading as the standard antistatic design. The presence of additives to facilitate electrostatic discharge can result in slight deviations in colour in the surface layer and core material.

Property	Value	Test Standard
Density	1.4 g/cm <sup>3</sup>	
Wearing resistance	450 min <sup>-1</sup>	EN 438 T2
Scratch resistance	3.0 N	EN 438
Flexural strength	110 N/mm <sup>2</sup>	EN 438 T2
Modulus of elasticity	12,000 N/mm <sup>2</sup>	EN 438 T2
Tensile strength	80 N/mm <sup>2</sup>	EN 438 T2
Coefficient of thermal expansion	20 x 10 <sup>-6</sup> K <sup>-1</sup>	DIN 52612
Construction material class	B 2	DIN 4102
Surface resistance	$7.5 \times 10^5 \Omega < R < 10^9 \Omega$	DIN 53482

The following applies to all the products below:

Resin-bonded cellulose laminate

Thickness tolerance  $\pm 8\%$

### Plastic 4mm, ESD



m = 5.70 kg/m<sup>2</sup>

grey, similar to RAL 7035, cut-off max. 2410x1190 mm 0.0.614.85

grey, similar to RAL 7035, 1 pce. panel dimensions. approx. 2440x1220 mm 0.0.614.86

### Plastic 10mm, ESD



m = 14.60 kg/m<sup>2</sup>

grey, similar to RAL 7035, cut-off max. 2410x1190 mm 0.0.614.87

grey, similar to RAL 7035, 1 pce. panel dimensions. approx. 2440x1220 mm 0.0.614.88

### Plastic 16mm, ESD



m = 24.25 kg/m<sup>2</sup>

grey, similar to RAL 7035, cut-off max. 2410x1190 mm 0.0.487.65

grey, similar to RAL 7035, 1 pce. panel dimensions. approx. 2440x1220 mm 0.0.487.64

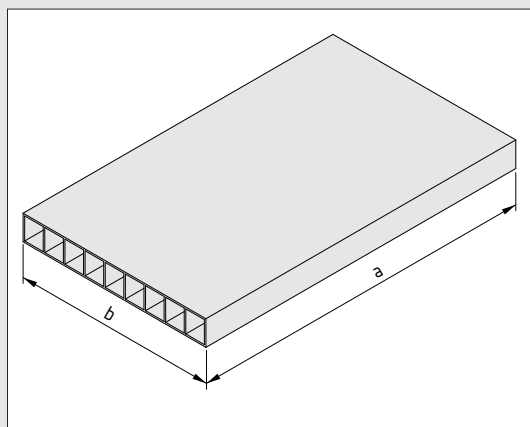


## Multi-wall Sheet panels Honeycomb Sheet panels

- Easy to machine
- Quick to install
- Panel elements for all scenarios

When work has to move fast or a partition doesn't need to satisfy stringent safety requirements, Multi-wall Sheet panels are the answer. These lightweight panel elements made of easy-to-clean polypropylene can be cut to size with a knife and secured in place in a few easy steps. As a result, users can install a floor under a roller conveyor or splash protection between profiles in a matter of moments, for example.

The panels can be easily folded and bent along the direction of the internal walls. item offers a wide selection of additional panel elements for applications with more stringent requirements for load-carrying capacity



Please note that the first dimension (a = length) relates to the side that runs parallel to the ribs.

### Materials used in all the following products:

PP

#### Multi-wall Sheet 4.5 mm PP

Thickness tolerance  $\pm 5\%$

Please note that the first dimension (length) relates to the side that runs parallel to the ribs.

$m = 0.90 \text{ kg/m}^2$

white, cut-off max. 3020x2020 mm	0.0.658.36
white, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.35
grey, cut-off max. 3020x2020 mm	0.0.658.39
grey, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.38



#### Multi-wall Sheet 8 mm PP

Thickness tolerance  $\pm 5\%$

Please note that the first dimension (length) relates to the side that runs parallel to the ribs.

$m = 1.50 \text{ kg/m}^2$

white, cut-off max. 3020x2020 mm	0.0.658.41
white, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.40
grey, cut-off max. 3020x2020 mm	0.0.658.43
grey, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.42



Honeycomb Sheet panels are ideal for simple protective enclosures around machines. They prevent direct access, fend off minor impacts and are easy to clean.

Honeycomb Sheet is made from two smooth and even layers joined together by a honeycomb-shaped structure. Unlike Multi-wall Sheet panels, it is therefore rigid in all directions. Nevertheless, it can still be cut to size and fixed in place just as quickly. item offers a wide selection of additional panel elements for applications with more stringent requirements for load-carrying capacity.

#### Honeycomb Sheet 4 mm PP

PP

Thickness tolerance  $\pm 5\%$

$m = 1.30 \text{ kg/m}^2$

white, cut-off max. 3020x2020 mm	0.0.658.45
white, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.44
grey, cut-off max. 3020x2020 mm	0.0.658.47
grey, 1 pce. panel dimensions. approx. 3050x2050 mm	0.0.658.46



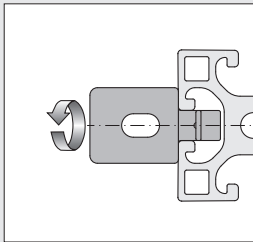
## Multiblock 8 PA

- Variable thanks to two contact faces and height adjuster
- Screw attachment ensures a firm hold for panel elements
- One fastening – four positions

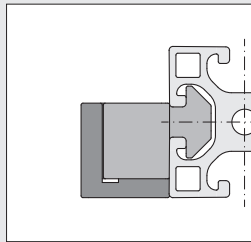


The universal panel element fastener – Multiblock PA is simply twisted into the profile groove. Light cladding panels and panel elements made from Acrylic Glass, Plastic or Compound Material must be provided with a hole at the appropriate location and screwed to the Multiblock.

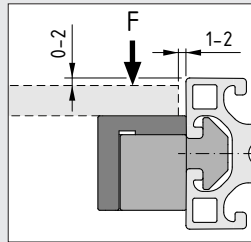
Multiblock PA has two mounting locations for panel elements and is also equipped with a height adjuster. This allows different distances to be set to the edge of the profile so that panel elements of varying thicknesses can be screwed on flush.



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

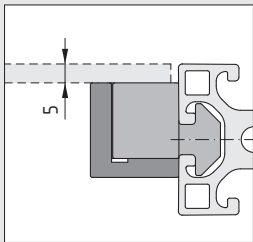


The contact face can be varied thanks to two different mounting orientations and the movable height adjuster.

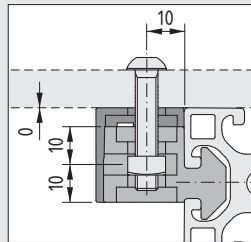
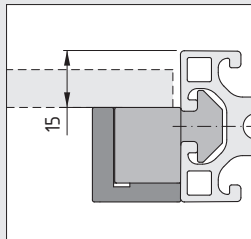
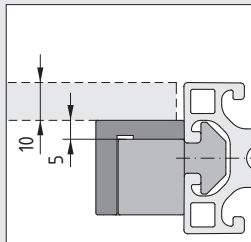


Recommendation for mounting the panel element and permissible loading forces for Multiblocks PA.

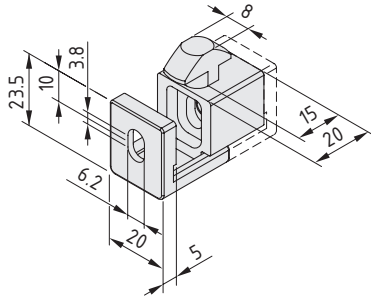
Multiblock	F [N]
5 PA	100
6 PA	150
8 PA	250
10 PA	400



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



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



**Multiblock 8 PA**



Basic unit and height adjuster, PA-GF  
 Square nut DIN 557-M6, St, bright zinc-plated  
 Spring clip, St, stainless  
 m = 14.0 g

black, 1 pce.	0.0.026.72
grey, 1 pce.	0.0.630.28



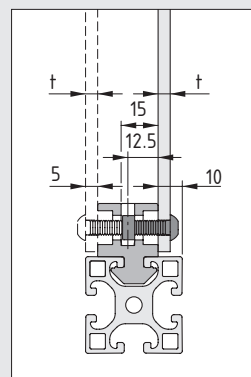
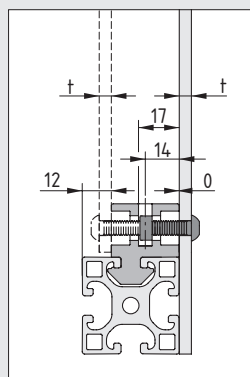
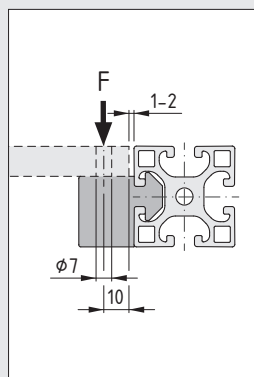
## Multiblocks X 8 PA

- Compatible with Profiles X
- Easy-to-use fastening for pre-drilled panel elements
- Variable thanks to two contact faces
- Screw attachment ensures a firm hold for panel elements



The shape and colour of Multiblocks X 8 PA matches Profiles X 8.

Multiblocks X 8 PA each have two contact faces for panel elements of different thicknesses.

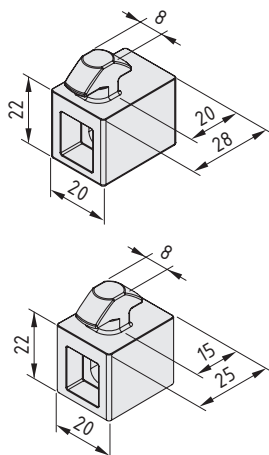


To insert Multiblock X PA in profiles with closed grooves, it is recommended to remove the groove cover at the relevant location using a counterbore. The Step Drill, Universal Connection 6 (0.0.431.19) is ideal for this purpose. The required counterbore depth is just 2 mm!

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.

When using a thick panel element, the Multiblock can be secured from the inside by drilling and tapping a blind hole in the panel. In such a case, the square nut can be removed from the Multiblock.



### Multiblock X 8 PA 0/12 mm



Basic unit, PA-GF  
 Spring, St, stainless  
 Square nut DIN 557-M6, St, bright zinc-plated  
 $m = 18.0 \text{ g}$   
 grey, 1 pce.

0.0.603.14

### Multiblock X 8 PA 5/10 mm



Basic unit, PA-GF  
 Spring, St, stainless  
 Square nut DIN 557-M6, St, bright zinc-plated  
 $m = 15.0 \text{ g}$   
 grey, 1 pce.

0.0.603.15

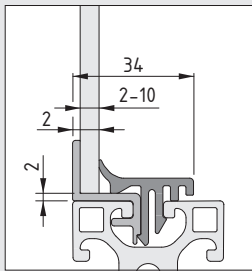


## Panel-Clamping Strips

- Retrofit panels in closed frames
- Existing constructions do not need to be opened up
- Virtually flush with the outer surface of the profile



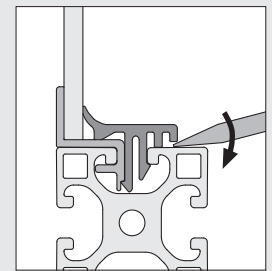
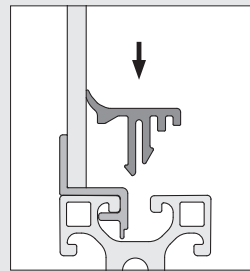
Panel-Clamping Strips are ideal for retrofitting panel elements (primarily made of Acrylic Glass, PET-G or Polycarbonate) into an assembled profile frame. Apart from straight saw cuts, no further machining of the panel element or Panel-Clamping Strips is required.



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

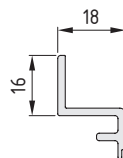
The thickness of the panel element (s) determines which Panel-Clamping Strip is required.

s = 2 - 4 / 4 - 6 / 6 - 8 / 8 - 10 mm



Panel-Clamping Strips consist of two articles. The first of these, an aluminium strip (0.0.495.05), locates into the profile groove and holds the panel element in place. A second strip, made of flexible plastic, is then used to secure both the panel element and the aluminium strip in the groove. If necessary, the plastic strip can be levered out in order to remove the panel element from the frame.

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



### Panel-Clamping Strip 8 Al



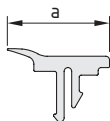
Al, anodized  
m = 238 g/m


natural, cut-off max. 3000 mm

0.0.495.05


natural, 1 pce., length 3000 mm

0.0.493.53




**Panel-Clamping Strip 8 2-4mm** 

PP/TPE	
a = 30 mm	m = 151 g/m
grey similar to RAL 7042, cut-off max. 3000 mm	0.0.495.04
grey similar to RAL 7042, 1 pce., length 3000 mm	0.0.493.75

**Panel-Clamping Strip 8 4-6mm** 

PP/TPE	
a = 28.2 mm	m = 142 g/m
grey similar to RAL 7042, cut-off max. 3000 mm	0.0.495.03
grey similar to RAL 7042, 1 pce., length 3000 mm	0.0.494.64

**Panel-Clamping Strip 8 6-8mm** 

PP/TPE	
a = 27 mm	m = 127 g/m
grey similar to RAL 7042, cut-off max. 3000 mm	0.0.495.02
grey similar to RAL 7042, 1 pce., length 3000 mm	0.0.493.73



## Floor Elements

A stable footing whatever the conditions! item Knuckle Feet make it easy to compensate for differing levels and inclines. They are fitted to either the core bore of the profile or a Base Plate/Transport Plate. Thanks to vibration-damping inserts and Foot Clamps for anchoring structures to the ground, they can be perfectly adjusted for the requirements of the working process and local conditions.

The special Base Plate/Transport Plates in Line XMS provide a sounder footing for machine cabins and improve the overall stability of the construction at the same time. Base Plates/Transport Plates also transfer forces safely into adjacent horizontal profiles, without putting added strain on profile fastenings. As a result, they make the machine frame more rigid and take strain off the vertical profiles.

Designed as a flat angle bracket, Base Plates/Transport Plates take up little space. Whether a 45° angle, rounded outer edge or right-angled frame, there is a Base Plate/Transport Plate to suit cabins of all shapes and sizes.

**Note:** Frames can also be fitted with Castors. The item MB Building Kit System offers a wide range of Castors such as Castor D125 fixed, heavy-duty, which can carry up to 4500 N.

## Products in this section



**Base Plates/Transport Plates X 8**

- Stable closure for the end face of Profiles X
- Thread for Castors and Knuckle Feet

81



**Base Plates/Transport Plates X 8 90°**

- For 90° Line XMS profiles with a cable conduit
- Secure fixing for Castors and Knuckle Feet

82



**Base Plates/Transport Plates X 8 45°**

- For 45° Line XMS profiles
- Boosts the rigidity of the frame

84



**Base Plates/Transport Plates X 8 R**

- Rounded outside edge for "R"-type Line XMS profiles
- Secure fixing for Castors and Knuckle Feet

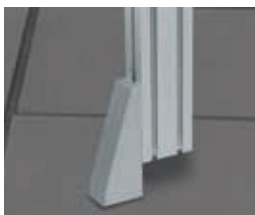
85



**Knuckle Feet X**

- Threaded spindles for stepless height adjustment
- Slope compensation via ball-and-socket joint

86



**L-Based Foot X 8 adjustable**

- Fast and accurate level adjustment
- Can be fitted directly to Floor-Fastening Set

89



**Foot Clamp X D80**

- Stops Knuckle Feet X from slipping
- For fastening to floors and walls

90





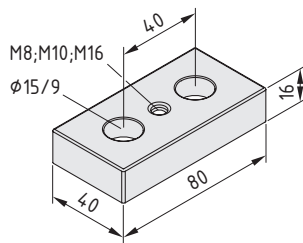
## Base Plates/Transport Plates X 8

- Stable closure for the end face of Profiles
- Secure fixing for Castors and Knuckle Feet







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.

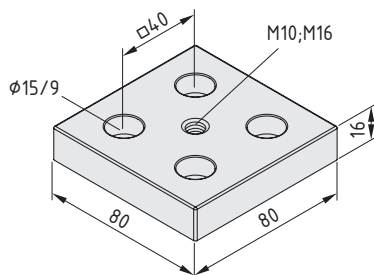




Materials used in all the following products:  
Die-cast zinc



<b>Base Plate/Transport Plate X 8 80x40, M8</b>	 
m = 253.0 g	
white aluminium, similar to RAL 9006, 1 pce.	0.0.600.55

<b>Base Plate/Transport Plate X 8 80x40, M10</b>	 
m = 256.0 g	
white aluminium, similar to RAL 9006, 1 pce.	0.0.604.52

<b>Base Plate/Transport Plate X 8 80x40, M16</b>	 
m = 246.0 g	
white aluminium, similar to RAL 9006, 1 pce.	0.0.607.03



<b>Base Plate/Transport Plate X 8 80x80, M10</b>	 
m = 463.0 g	
white aluminium, similar to RAL 9006, 1 pce.	0.0.604.53

<b>Base Plate/Transport Plate X 8 80x80, M16</b>	 
m = 453.0 g	
white aluminium, similar to RAL 9006, 1 pce.	0.0.600.56

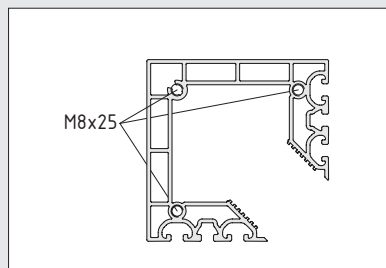
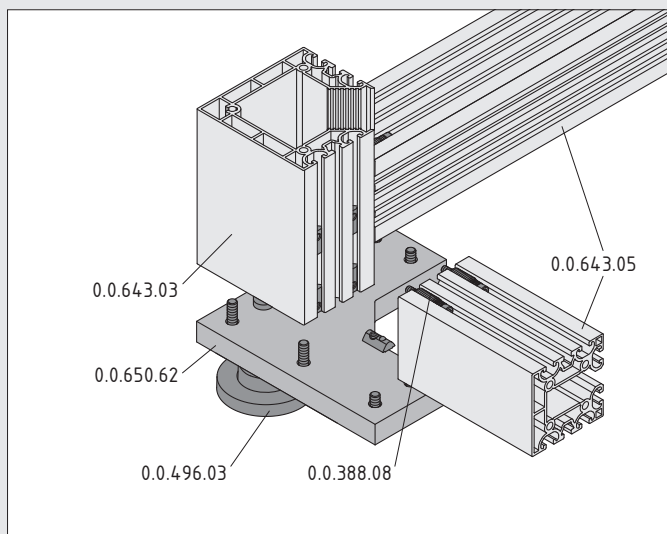


## Base Plates/Transport Plates X 8 90°

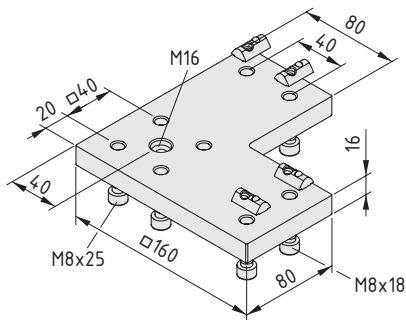
- For 90° Line XMS profiles with a cable conduit
- Secure fixing for Castors and Knuckle Feet
- Boosts the rigidity of the frame



These special Base Plates/Transport Plates provide added stability for constructions built using Line XMS. Designed as a flat angle bracket, they require relatively little space. However, the Base Plates/Transport Plates also transfer forces safely into adjacent horizontal profiles, without putting added strain on profile fastenings. This provides effective support for the fastening elements and boosts the rigidity of the machine frame when it is moved.



Threads need to be tapped into the core bores of the vertical profiles in order to fasten the Base Plates/Transport Plates.

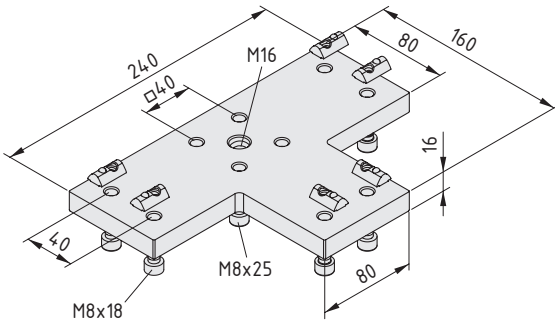


**Base Plate/Transport Plate X 8 160x160-90° M16**



Al, white aluminium similar to RAL 9006  
 4 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
 4 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
 8 washers DIN 433-8.4, St, bright zinc-plated  
 4 T-Slot Nuts V 8 St M8, St, bright zinc-plated  
 m = 925.0 g

1 set 0.0.652.61

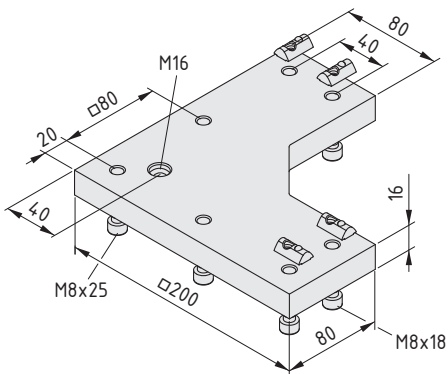


**Base Plate/Transport Plate X 8 240x160-2x90° M16**



Al, white aluminium similar to RAL 9006  
 4 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
 6 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
 10 washers DIN 433-8.4, St, bright zinc-plated  
 6 T-Slot Nuts V 8 St M8, St, bright zinc-plated  
 m = 1.2 kg

1 set 0.0.652.63



**Base Plate/Transport Plate X 8 200x200-90° M16**



Al, white aluminium similar to RAL 9006  
 4 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
 3 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
 7 washers DIN 433-8.4, St, bright zinc-plated  
 4 T-Slot Nuts V 8 St M8, St, bright zinc-plated  
 m = 1.2 kg

1 set 0.0.650.62

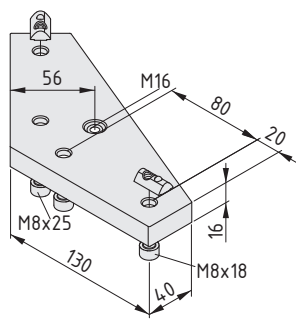
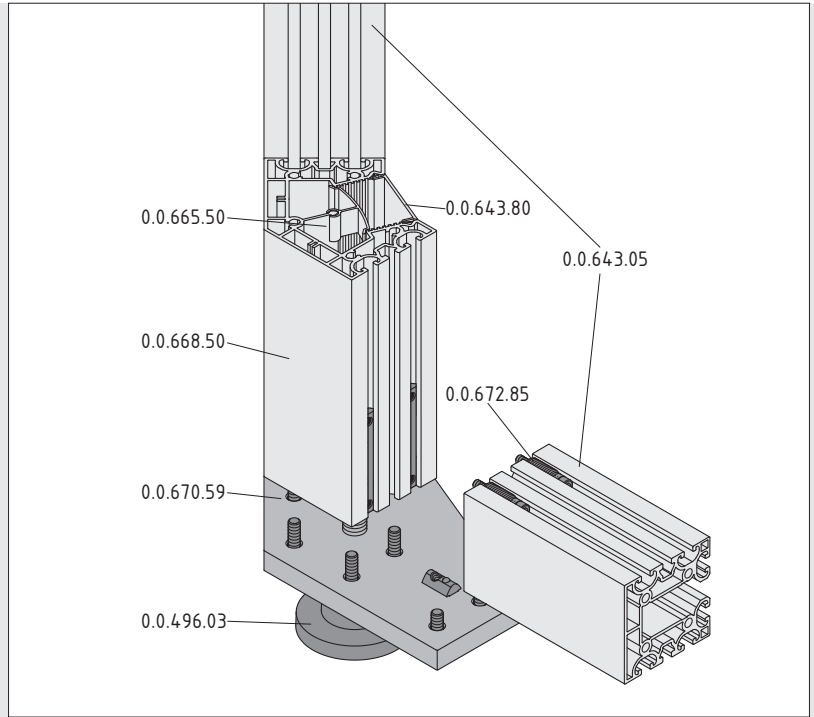


## Base Plates/Transport Plates X 8 45°

- For 45° Line XMS profiles
- Secure fixing for Castors and Knuckle Feet
- Boosts the rigidity of the frame



Coordinated Base Plates/Transport Plates make it easier to fit Adjustable Feet and Castors to structures. Firstly, **Base Plate/Transport Plate X 8 40-45° M16** and **Base Plate/Transport Plate X 8 80-45° M16** are screwed to the underside of the 45° corner profiles. Secondly, because they overlap the sides of the corner profile, with holes for additional screw connections, they also support horizontal profiles. They thus help to boost the rigidity of the machine enclosure.



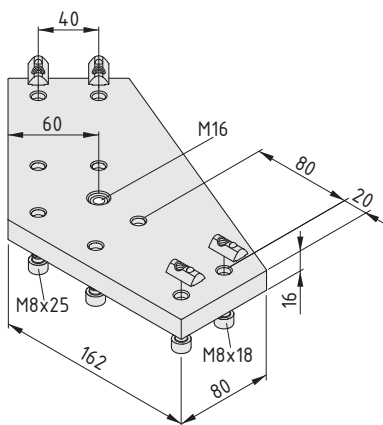
### Base Plate/Transport Plate X 8 40-45° M16



Plate, Al  
2 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
2 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
4 washers DIN 433-8.4, St, bright zinc-plated  
2 T-Slot Nuts V8 St M8, St, bright zinc-plated  
m = 660.0 g

1 set

0.0.670.79



### Base Plate/Transport Plate X 8 80-45° M16



Plate, Al  
5 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
4 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
9 washers DIN 433-8.4, St, bright zinc-plated  
4 T-Slot Nuts V8 St M8, St, bright zinc-plated  
m = 1.4 kg

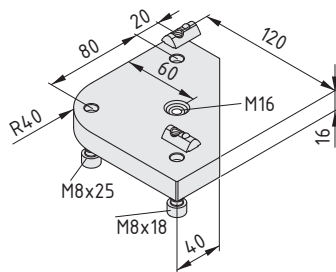
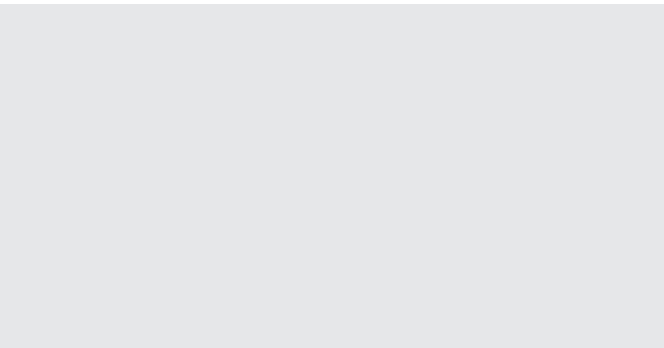
1 set

0.0.670.59



## Base Plates/Transport Plates X 8 R

- Rounded outside edge for "R"-type Line XMS profiles
- Secure fixing for Castors and Knuckle Feet
- Boosts the rigidity of the frame



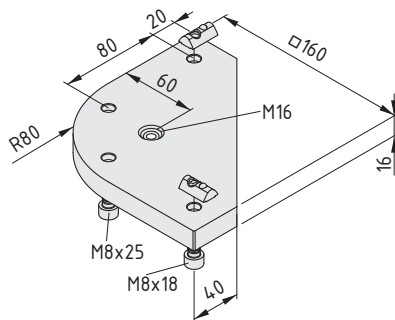
Base Plate/Transport Plate X 8 40 R40-90° M16



Plate, Al  
 2 Hexagon Socket Head Cap Screw DIN 912-M8x25, St, bright zinc-plated  
 2 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
 3 washers DIN 433-8.4, St, bright zinc-plated  
 2 T-Slot Nuts V8 St M8, St, bright zinc-plated  
 m = 520.0 g

1 set

0.0.670.47



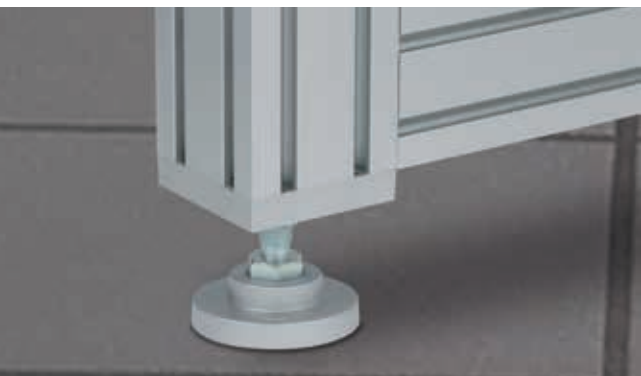
Base Plate/Transport Plate X 8 40 R80-90° M16



Plate, Al  
 2 Hexagon Socket Head Cap Screws DIN 912-M8x25, St, bright zinc-plated  
 2 Hexagon Socket Head Cap Screws DIN 912-M8x18, St, bright zinc-plated  
 4 washers DIN 433-8.4, St, bright zinc-plated  
 2 T-Slot Nuts V8 St M8, St, bright zinc-plated  
 m = 780.0 g

1 set

0.0.670.45



## Knuckle Feet X

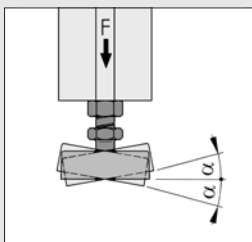
- Threaded spindles for stepless height adjustment
- Slope compensation via ball-and-socket joint
- Metal or plastic foot plate



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-socket joint.

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.



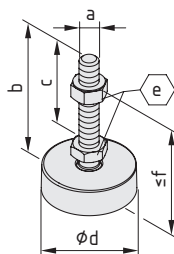
Knuckle Foot	Load F (vertical)	Slope $\alpha$
X D40, M8x60	1,500 N	15°
X D40, M8x80	1,500 N	15°
X D40, M10x80	1,500 N	15°
X D80, M16x100	10,000 N	7°

The following applies to all the products below:

Spindle, St, bright zinc-plated

Foot plate, PA

Hexagon nut DIN 934, St, bright zinc-plated



Knuckle Foot X D40, M8x60							Line
a	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]	
M8	63	41	38	13	50	38.0	
grey similar to RAL 7042, 1 pce.							0.0.602.44

Knuckle Foot X D40, M8x80							Line
a	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]	
M8	83	60	38	13	70	45.0	
grey similar to RAL 7042, 1 pce.							0.0.602.46

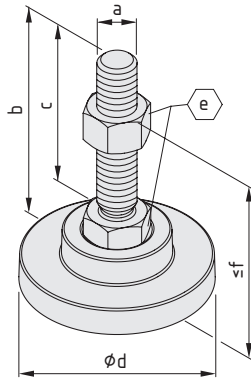
Knuckle Foot X D40, M10x80							Line
a	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]	
M10	83	60	38	17	65	64.0	
grey similar to RAL 7042, 1 pce.							0.0.496.02

The following applies to all the products below:

Spindle, St, bright zinc-plated

foot plate, die-cast zinc

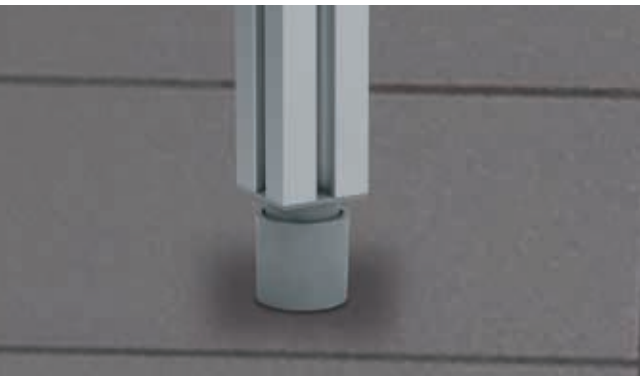
Hexagon nut DIN 934, St, bright zinc-plated



**Knuckle Foot X D80, M16x100**



a	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	m [g]
M16	105.5	73.5	78	24	73	457.0
white aluminium, similar to RAL 9006, 1 pce.						0.0.496.03

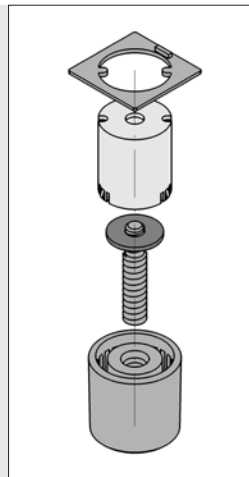
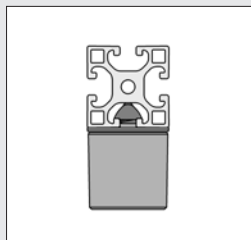
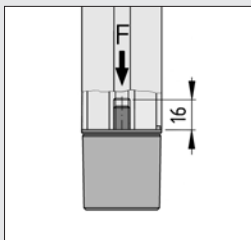


## Adjustable Foot X 8 PA 40x40

- Adjustable Foot made of plastic
- For tables and lightweight equipment

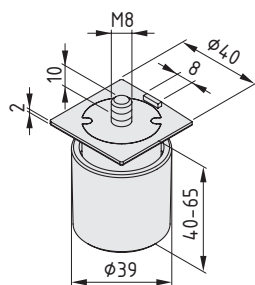


Adjustable Foot X 8 PA can be adjusted in height and is suitable for tables and light pieces of equipment. The height is adjusted without the use of tools simply by turning the lower part of the foot manually.



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

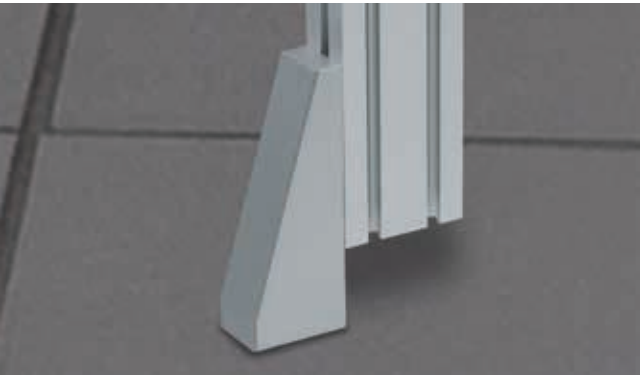


Housing, inner part and end plate, PA-GF, grey  
 Spindle and washer, St, bright zinc-plated  
 $m = 69.0 \text{ g}$

1 pce.

0.0.603.74





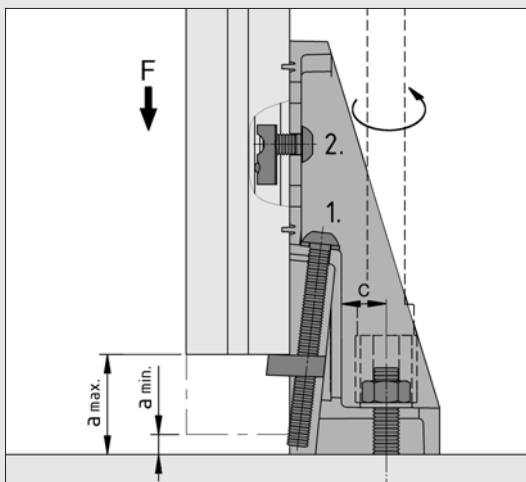
## L-Based Foot X 8 adjustable

- Fast and accurate level adjustment
- Can be fitted directly to Floor-Fastening Set
- Easy-to-clean design



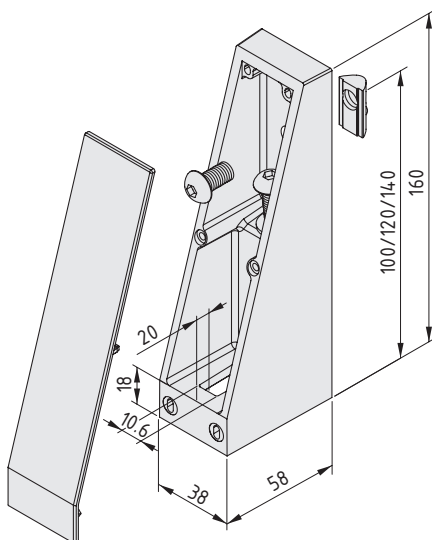
L-Based Feet are suitable for fastening light or heavy equipment to the wall or floor.

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



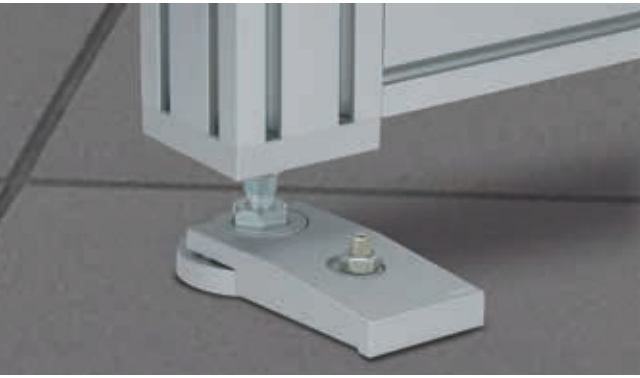
### L-Based Foot X 8 adjustable



- 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 = 342.0 g

1 set

0.0.600.13

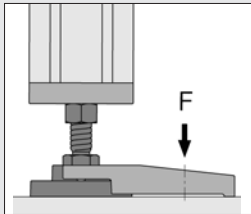


## Foot Clamp X D80

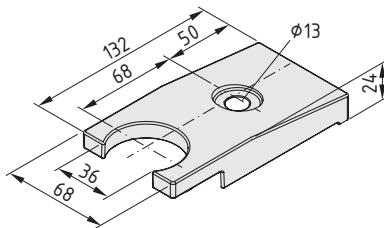
- Stops Knuckle Feet X from slipping
- For fastening to floors and walls



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 = 480.0 g

white aluminium, similar to RAL 9006, 1 pce.

0.0.495.96



## Installation Elements

Compressed air hoses and power and data cables can be safely laid through the integrated cable conduits in Line XMS profiles. They are ideal for combining process and supply sections, for instance. What's more, they can even be used without any problems after installation, which creates flexibility for later enhancements.

If the space available is insufficient or hoses and cables need to be routed to a point inside the cabin, Conduit Profiles K can be used to create custom arrangements. They are made of high-strength plastic and are held in a Line 8 groove by a special Clip, with no screw fixings required.

At the same time, they can also be easily secured to panel elements, including the ceiling of a machine section. The Conduit Profile K Catch ensures that cables and hoses routed overhead won't fall out of the conduit – even when the lid is removed.

Conduit Profiles K come in two widths and heights and are rounded off by Lid Profiles and Caps.

Conduit Corner Cap 8 40 - XMS is used when cables and hoses need to branch off. When a cable or hose is routed from a Line XMS profile into a Cable Conduit that joins the profile at the side, there are no gaps.

## Products in this section



### Conduit Profiles K

- Made of high-strength plastic
- Fix to a Line 8 groove, no screws required

93



### Lid Profiles K

- Available in two widths
- Simply clip into a Conduit Profile K

94



### Clip 8, Conduit Profile K

- Secures a Conduit Profile K to a groove
- Simply clip into place, no screws required

95



### Catch, Conduit Profile K

- Additional hold for cables
- Ideal for overhead installation

95



### Conduit Caps

- End cover for Conduit Profiles K
- No screws required

96



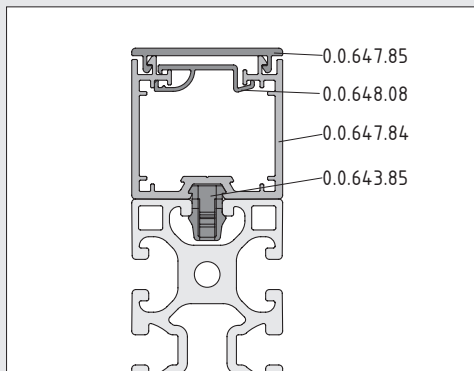
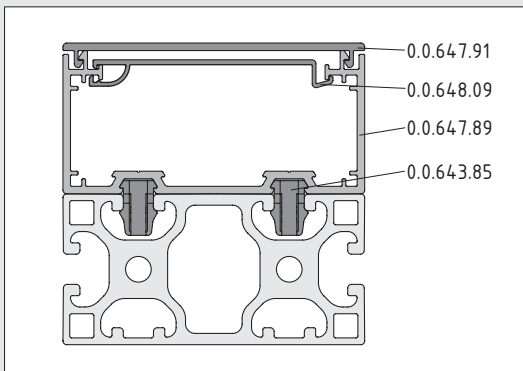
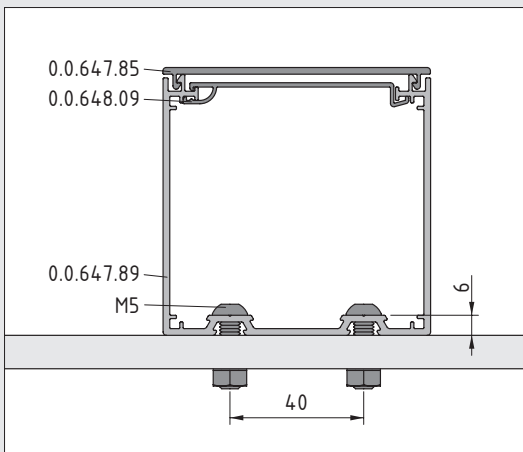
## Conduit Profile K

- Screw-free installation in Line 8 groove
- Made from insulating, high-strength plastic



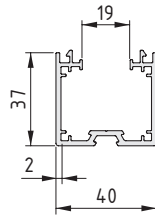
Simply clip Conduit Profile K, which is made of high-strength plastic, into any Line 8 groove and the cable conduit is ready for use – no machining, no screws. When fastening to any other surfaces, the conduit can be screwed directly into place. The shape of Conduit Profiles K matches the modular dimensions of Profiles X 8, making them the ideal complement to all Line 8 profiles and Profiles XMS with integrated cable conduits.

Another advantage is that they are incredibly easy to machine: Conduit Profiles K and Lid Profiles K can be sawed to size or, if necessary, simply cut to size using Multi-Purpose Pliers.



Materials used in all the following products:

PVC



**Conduit Profile U 40x40 K**



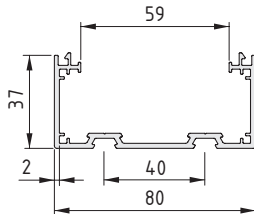
m = 411 g/m

grey similar to RAL 7042, cut-off max. 3000 mm

0.0.647.84

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

0.0.643.86



**Conduit Profile U 80x40 D80 K**



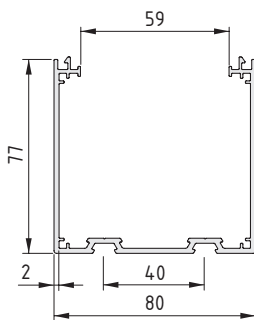
m = 548 g/m

grey similar to RAL 7042, cut-off max. 3000 mm

0.0.647.89

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

0.0.647.90



**Conduit Profile U 80x80 K**



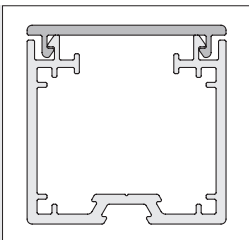
m = 770 g/m

grey similar to RAL 7042, cut-off max. 3000 mm

0.0.648.06

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

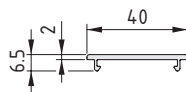
0.0.648.05



The compatible lids for Conduit Profiles K come in two widths. Lid Profiles K are gently pushed into place and do not require any screws. If hoses and cables need to be routed along a ceiling, Catches, Conduit Profile K help to carry the weight of the cables, relieving the strain on the conduit lid. Lid Profiles K are made of high-strength plastic and can be easily cut to size using a saw.

Materials used in all the following products:

PVC



**Lid Profile D40 K**



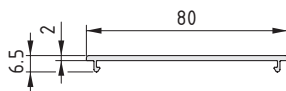
m = 129 g/m

grey similar to RAL 7042, cut-off max. 3000 mm

0.0.647.85

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

0.0.643.87



**Lid Profile D80 K**



m = 241 g/m

grey similar to RAL 7042, cut-off max. 3000 mm

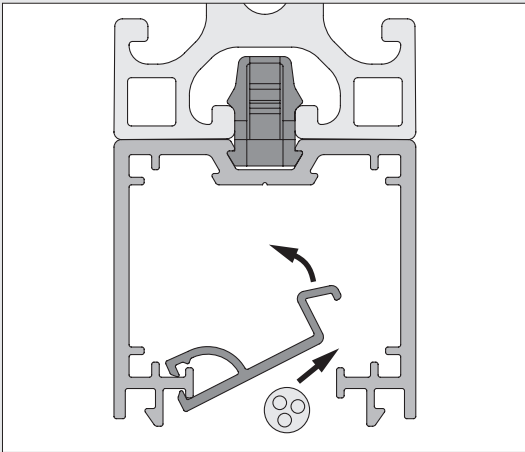
0.0.647.91

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

0.0.647.92

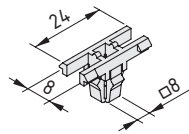


The swivel-in catches are also extremely useful, stopping cables and hoses falling out of Conduit Profiles K – even in upright and overhead installations. Additional cables and hoses can simply be pushed into the conduits.



Materials used in all the following products:

PA-GF



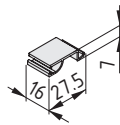
**Clip 8, Conduit Profile K**



m = 1.0 g

grey similar to RAL 7042, 1 pce.

0.0.643.85



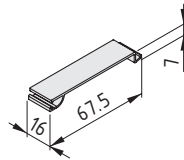
**Catch 40, Conduit Profile K**



m = 1.0 g

grey similar to RAL 7042, 1 pce.

0.0.648.08



**Catch 80, Conduit Profile K**



m = 2.0 g

grey similar to RAL 7042, 1 pce.

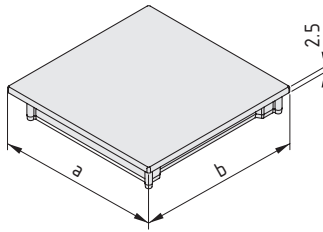
0.0.648.09



If a Conduit Profile K does not terminate directly at a profile or connect to another Conduit Profile K, the compatible Conduit Cap K can be used to create a secure, dust-tight closure. The Caps do not need to be screwed into place.

Materials used in all the following products:

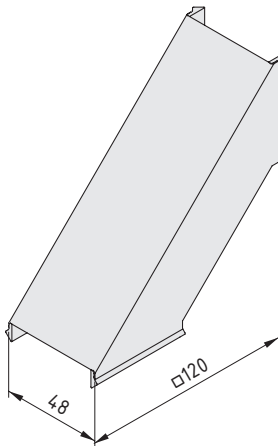
PA-GF





<b>Conduit Cap 40x40 K</b>	 
a = 40 mm    b = 40 mm    m = 6.0 g	
grey similar to RAL 7042, 1 pce.	0.0.633.50

<b>Conduit Cap 80x40 K</b>	 
a = 80 mm    b = 40 mm    m = 10.0 g	
grey similar to RAL 7042, 1 pce.	0.0.633.51

<b>Conduit Cap 80x80 K</b>	 
a = 80 mm    b = 80 mm    m = 18.0 g	
grey similar to RAL 7042, 1 pce.	0.0.633.52



<b>Conduit Corner Cap 8 40 - XMS</b>	 
m = 68.0 g	
grey similar to RAL 7042, 1 pce.	0.0.643.83





## Safety equipment

Stay safe in all situations! Line XMS offers numerous functions and components that enhance the safety of machine cabins. Wear-resistant Safety Switch 8, 24V DC helps you check whether doors and hatches have been closed properly. The actuator features a coded RFID chip and is concealed in the profile groove of the door. It will only trigger its switching signal when it is correctly positioned with regard to the sensor. Thanks to the use of RFID technology, the sensor and chip do not wear down as a result of frequent use.

The right light boosts working safety. LED Machine Light Fitting makes sure all the key areas inside your cabin can be seen clearly and comes in six sizes. The aluminium housing can be pivoted and arranged to provide even lighting. The high IP67 protection class ensures the lights can be used even in extreme conditions close to the working process.

Transformers, cables and Splitters can be used to link together

several Machine Light Fittings to create one system. The thus interlinked energy-saving LED lights can be switched on and off together or separately.

Power and control cables can be routed safely through the special cable conduits of Line XMS profiles inside the frame. See the section on basic frames for Screw Clips, which are used to fasten cable ties in place, and Partition Profile K56 K - XMS, which helps run power and data cables separately through Profile X 8 120x120 K56 - XMS.

**Note:** You can find tamper-proof Door Lock X 8 Zn with a metal casing and Double Door Stop Set 8 - XMS for double doors that automatically lock in place in the section on door solutions.

## Products in this section



### Safety Switch 8, 24V DC

- Wear-free access sensor with RFID technology
- Actuator concealed in the profile groove

99



### LED Light Fittings

- Even, glare-free lighting
- Maximum energy efficiency, position as required

101



### LED Machine Light Fittings

- Energy-efficient and pivotable
- Maximum safety thanks to IP67 protection

103



### LED Machine Light Fittings accessories

- Transformers, cables and Splitters
- Link together several Machine Light Fittings to form one system

106



### Spotlights 6W LED

- Bright and energy efficient
- Safe thanks to IP65 protection
- Custom dimming

109



## Safety Switch 8, 24V DC

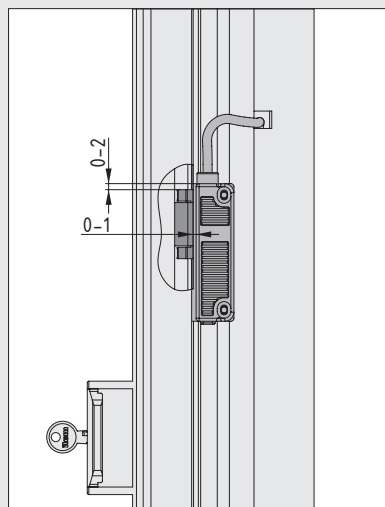
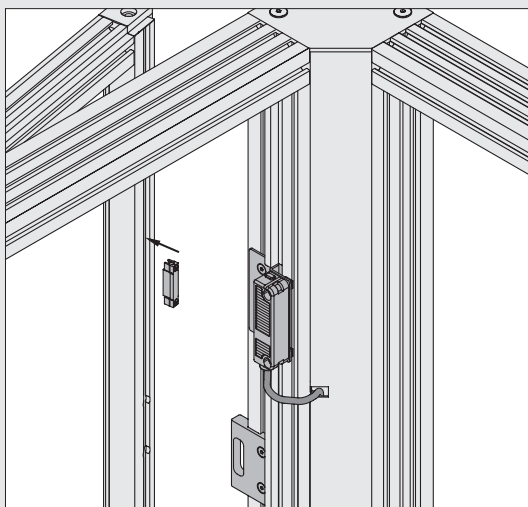
- Wear-free access sensor with RFID technology
- Actuator concealed in the profile groove
- Detects attempted tampering and technical problems



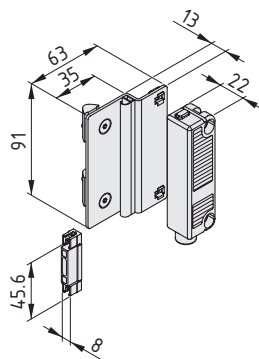
A new dimension in safety. Safety Switch 8, 24V DC uses contactless switching and therefore offers a long and reliable service life free from mechanical wear. This is made possible by an encoded electronic system that uses RFID technology. Each actuator features a coded chip and is completely concealed in the Line 8 groove. The switch registers whether the chip is within the sensor range with outstanding precision. In contrast to mechanical systems, the encoded chip is extremely tamper-proof.

The system ensures repeat accuracy for switching points and an exceptional safety standard. Two short-circuit-proof safety outputs forward signals to the switchbox. The safety lines feature integrated monitoring for cross circuits, wire breakages and interference-voltage. Up to 31 switches can be connected in series to combine various measurement points. A three-colour LED on each switch enables users to check its operating status at a glance. Thanks to IP67 protection, Safety Switch 8 can be used in most environments.

When used in the XMS profile system, a self-adhesive section of Door Lip Seal ensures a continuous all-round seal.



The actuator must be positioned at the pre-set distance from the switch in order to trigger the switch signal.

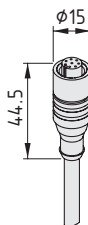


### Safety Switch 8, 24V DC



Safety Switch 24V DC, preassembled  
 24V DC actuator  
 Protection type: IP67 to EN 60529  
 Standards: PL-E to EN ISO 13849-1, SIL 3 to IEC 61508, IEC 60947-5-3  
 Service life: 20 years  
 Fastening plate, St, stainless  
 Door Lip Seal, self-adhesive, grey similar to RAL 7042  
 2 security countersunk screws M5x12, St, stainless  
 2 T-Slot Nuts V 8 St M5, bright zinc-plated  
 m = 186.0 g

1 set	0.0.658.28
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### Connecting Cable, Safety Switch 8, 24V DC

5 m  
 m = 247.0 g

1 pce.	0.0.659.29
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## LED Light Fittings

- State-of-the-art, energy-efficient LED technology
- Even, glare-free lighting
- Direct light where needed



Cutting-edge LED Light Fittings support fatigue-free and efficient working practices. The parabolic reflector grid and diffuser panel combine to make sure light is distributed evenly and without glare.

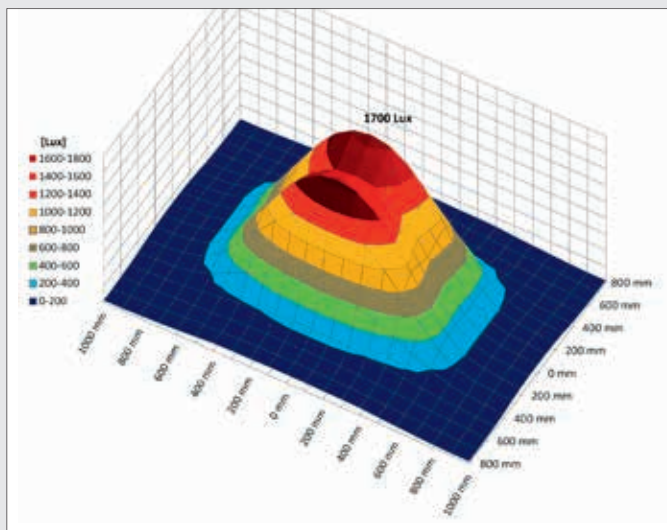
What's more, the latest, cutting-edge LED technology achieves maximum light output with minimum power consumption. The integrated ON/OFF switch incorporates two lighting levels and can be further enhanced using an optional wireless dimmer system.

Although LED Light Set 30 W is ready to plug in and use, it can also be combined with accessories such as transformers, remote controls, splitters and cables to create custom lighting scenarios.

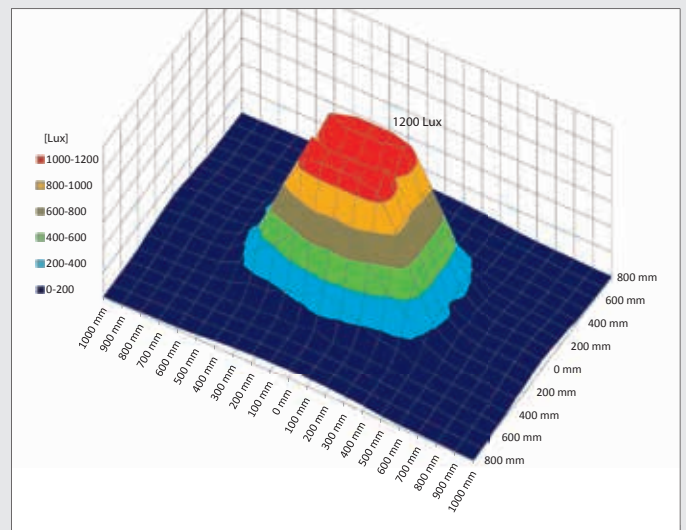


Light distribution

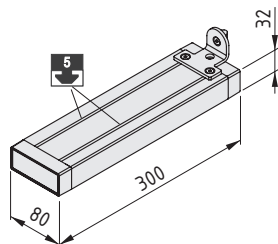
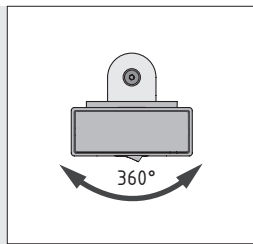
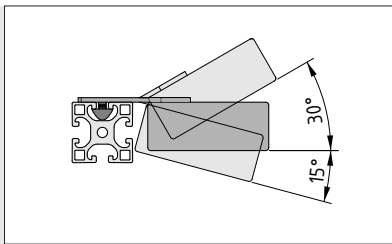
Test distance 900 mm



LED Light Fitting 30W 80x32x550



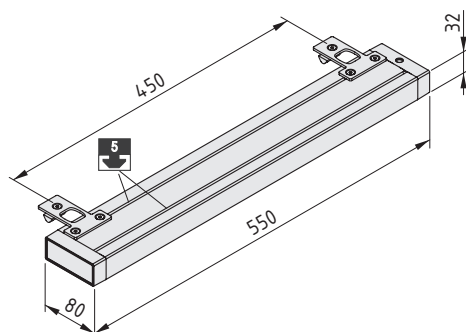
LED Light Fitting 15W 80x32x300

**LED Light Fitting 15W 80x32x300**

Aluminium housing  
 ON/OFF switch, 2 levels, 50/100%  
 Fastening elements  
 Rated voltage: 24V DC via system socket connector  
 Protection class: III  
 Output: 15 W LED Light Fitting  
 Colour rendering index  $R_a \approx 85$   
 Colour temperature:  $T \approx 4000^\circ\text{K}$  (neutral white)  
 $m = 0.8 \text{ kg}$

1 set

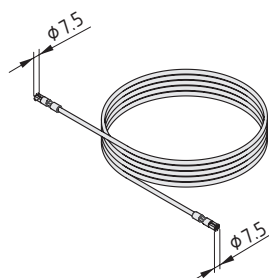
0.0.659.97

**LED Light Fitting 30W 80x32x550**

Aluminium housing  
 ON/OFF switch, 2 levels, 50/100%  
 Fastening elements  
 Rated voltage: 24V DC via system socket connector  
 Protection class: III  
 Output: 30 W LED Light Fitting  
 Colour rendering index  $R_a \approx 85$   
 Colour temperature:  $T \approx 4000^\circ\text{K}$  (neutral white)  
 $m = 1.7 \text{ kg}$

1 set

0.0.659.96

**Connecting Cable, LED Light Fitting**

Cable length 3 m (0.75 mm<sup>2</sup>)  
 Flat cable 3.5x5.4 mm  
 System plug connector, system plug connector  
 $m = 112.0 \text{ g}$

1 pce.

0.0.660.07



## LED Machine Light Fittings

- Maximum energy efficiency
- Direct light to where it is needed
- Various sizes available



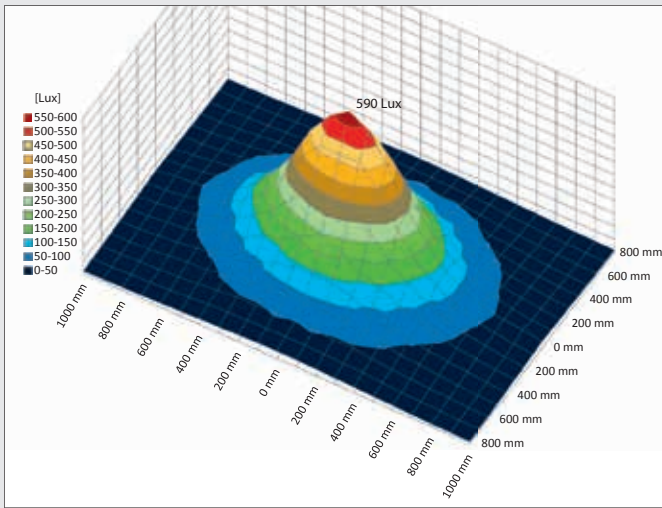
The Machine Light Fitting comes in six sizes. Everything from the most awkward corner to a large cabin can be lit up. Thanks to IP67 protection, the Light Fittings can also be used in harsh environments. They are fixed in place using a Line 8 groove, while an integrated hinge allows users to direct light where it is needed. When designing work benches, the Machine Light Fittings offer a space-saving solution for boosting lighting levels on the work surface.

Using the latest generation of LEDs, the fittings deliver clear energy savings and can also be combined with accessories including cables and electronic transformers. An ingenious system of power supply and control elements, cables and Splitters makes it easy to configure customised lighting scenarios, even including dimmer functions.

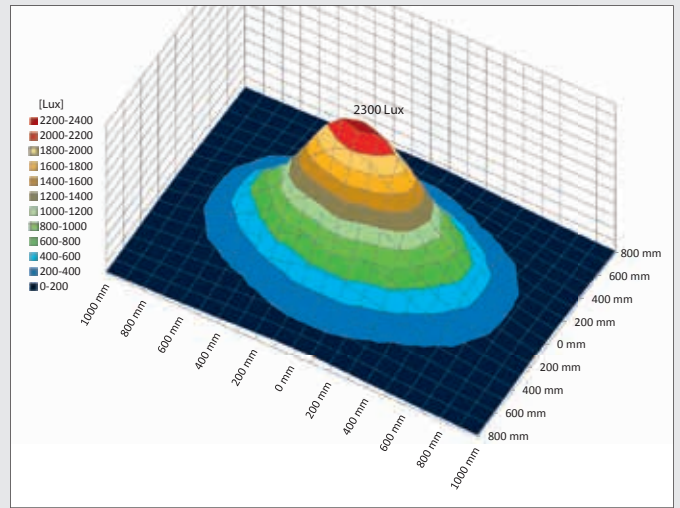


Light distribution

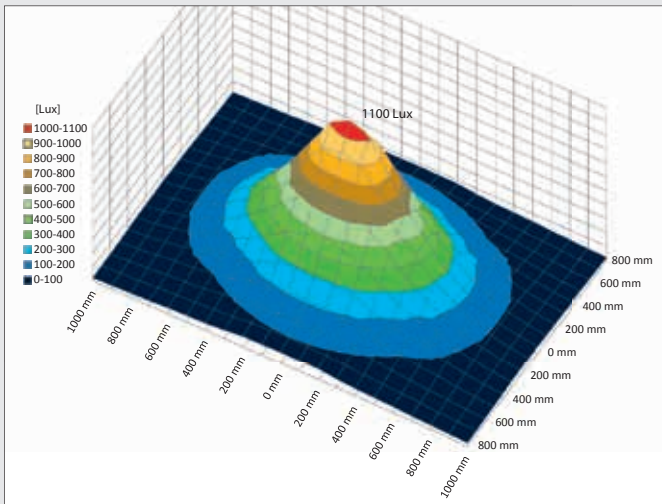
Test distance 500 mm



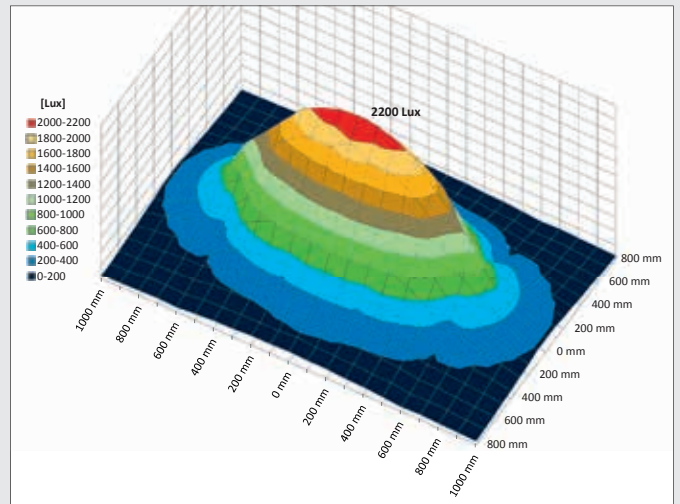
LED Machine Light Fitting 6W 40x40x240



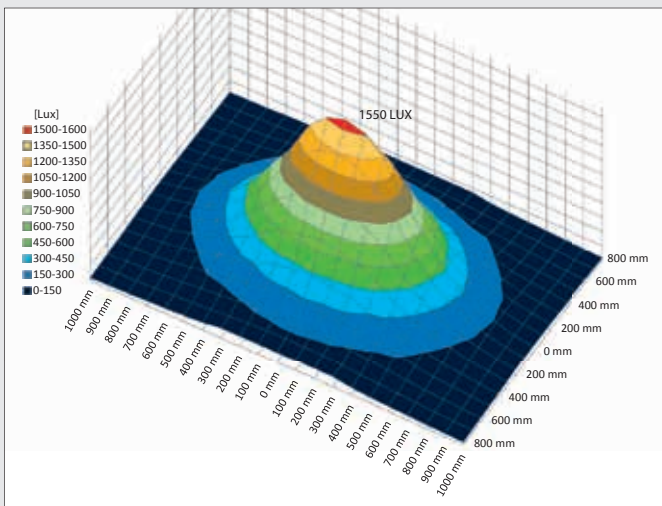
LED Machine Light Fitting 24W 40x40x765



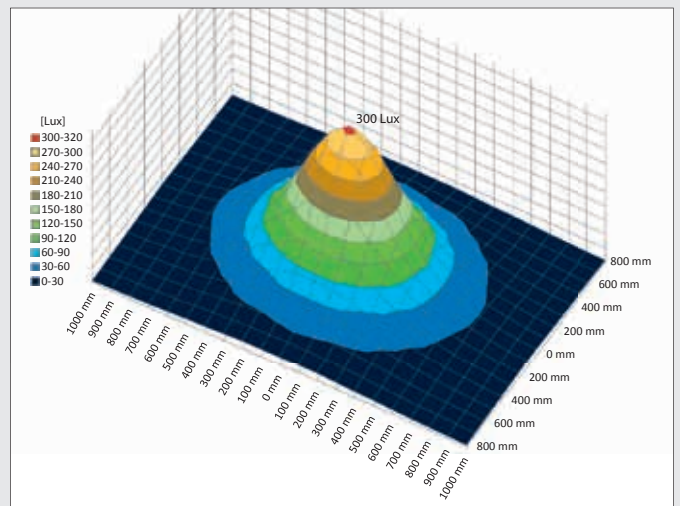
LED Machine Light Fitting 12W 40x40x415



LED Machine Light Fitting 30W 40x40x940

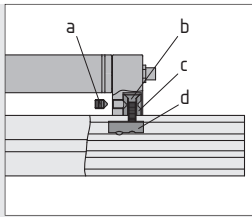


LED Machine Light Fitting 18W 40x40x590

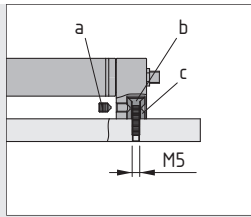


LED Machine Light Fitting 5W 25x20x120

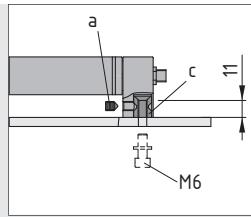




Fastening to a Line 8 profile



Fastening to a panel with threaded hole



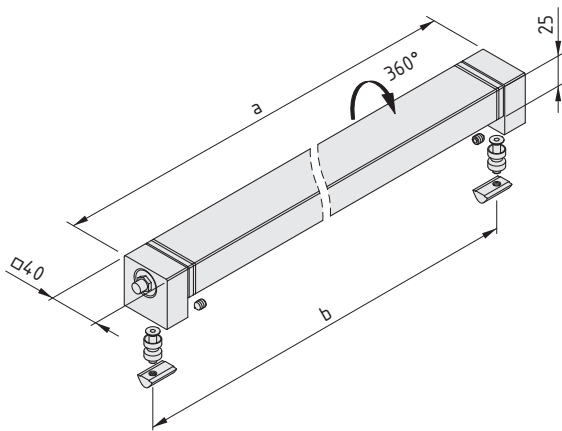
Fastening to a panel with drill hole


Installing the LED Machine Light Fittings:

- a = Grub screw M6
- b = Countersunk Screw DIN 7991-M5x25
- c = Fastening cylinder
- d = T-Slot Nut V 8 St M5 (0.0.480.54)

The following applies to all the products below:


- Aluminium casing IP67, rotatable
- Fastening elements
- Rated voltage: 24V DC
- Protection class: III
- M8 plug-in connector
- Colour rendering index  $R_a \approx 85$
- Colour temperature:  $T \approx 4000^\circ\text{K}$  (neutral white)



**LED Machine Light Fitting 6W 40x40x240** 


a = 240 mm    b = 225 mm    m = 0.4 kg

1 set 0.0.656.15

**LED Machine Light Fitting 12W 40x40x415** 


a = 415 mm    b = 400 mm    m = 0.6 kg

1 set 0.0.656.16

**LED Machine Light Fitting 18W 40x40x590** 


a = 590 mm    b = 575 mm    m = 0.8 kg

1 set 0.0.656.17

**LED Machine Light Fitting 24W 40x40x765** 


a = 765 mm    b = 750 mm    m = 1.0 kg

1 set 0.0.656.18

**LED Machine Light Fitting 30W 40x40x940** 

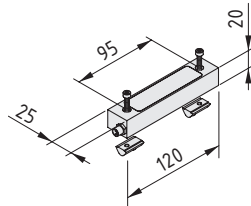
a = 940 mm    b = 925 mm    m = 1.2 kg

1 set 0.0.656.19

**LED Machine Light Fitting 5W 25x20x120** 

- Aluminium casing IP67
- Fastening elements
- Rated voltage: 24V DC
- Protection class: III
- Output: 5 W LED Light Fitting
- M8 plug-in connector
- Colour rendering index  $R_a \approx 85$
- Colour temperature:  $T \approx 4000^\circ\text{K}$  (neutral white)
- m = 189.0 g

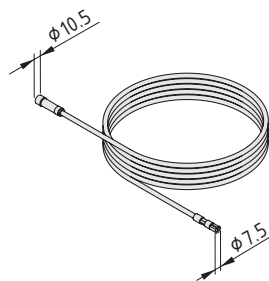
1 set 0.0.660.30



**Connecting Cable, LED Machine Light Fitting**

- Cable length 5 m (0.34 mm<sup>2</sup>)
- Cable diameter  $\varnothing$  5 mm
- Safety plug connector M8, system plug
- m = 195.0 g

1 pce. 0.0.656.52

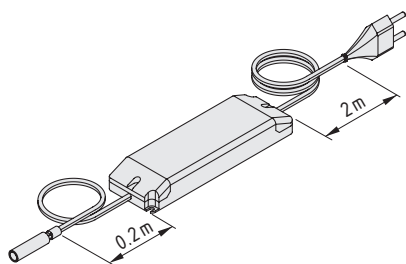




## LED Machine Light Fitting and LED Light Fitting accessories

- For custom lighting scenarios
- Shared use of transformers

Cables and Splitters can be used to control several LED light fittings from one place. Electronic Transformers should be selected as appropriate to the output of the relevant light fitting. A range of compatible control and power supply components can be used to configure a bespoke lighting scenario.



### Electronic Transformer LED 30W 24V

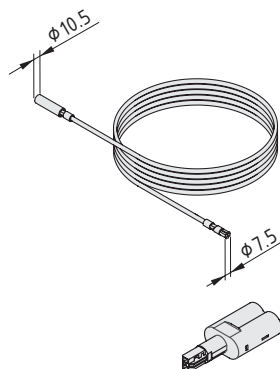
System socket connector  
Euro plug connector 100-240 V AC, 50/60 Hz  
m = 240.0 g

1 pce. 0.0.658.29

### Electronic Transformer LED 75W 24V

System socket connector  
Euro plug connector 100-240 V AC, 50/60 Hz  
m = 410.0 g

1 pce. 0.0.660.52



### Extension Cable, LED Light Fitting

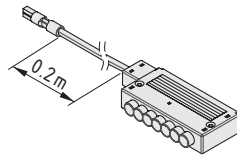
Cable length 2 m (0.75 mm<sup>2</sup>)  
Flat cable 3.5x5.4 mm  
System plug connector, system socket connector  
m = 75.0 g

1 pce. 0.0.656.49

### Two-way LED Splitter

1x system plug connector, 2x system socket connectors  
m = 15.0 g

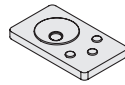
1 pce. 0.0.660.56



#### Six-way LED Splitter

1x system plug connector, 6x system socket connectors  
m = 35.0 g

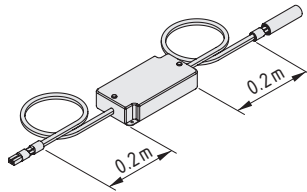
1 pce. 0.0.660.55



#### Wireless LED Dimmer Remote

Lithium battery CR2032  
Storage box  
Fastening elements  
m = 45.0 g

1 set 0.0.661.39



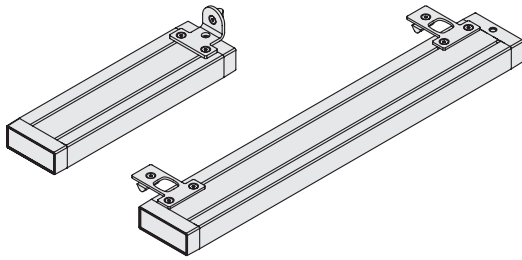
#### Wireless LED Dimmer Receiver

Connecting cable 72 W  
System plug connector, system socket connector  
m = 40.0 g

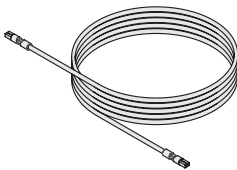
1 pce. 0.0.660.54

# 1 Select light fitting

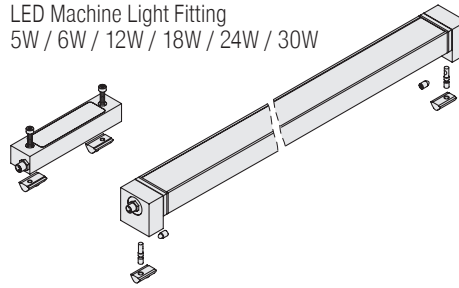
LED Light Fitting 15W / 30W



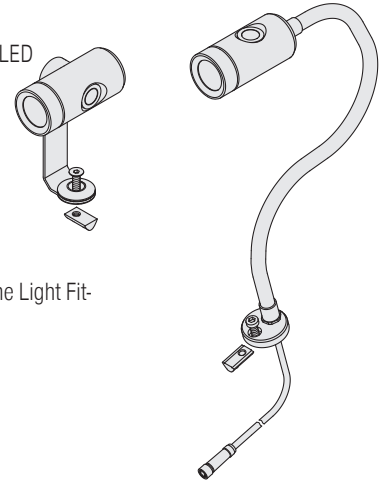
Connecting Cable, LED Light Fitting



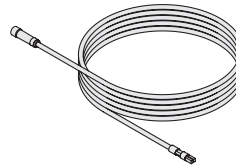
LED Machine Light Fitting  
5W / 6W / 12W / 18W / 24W / 30W



Spotlight 6W LED / Spotlight 6W LED  
with Flexible Tube 10° and 35°

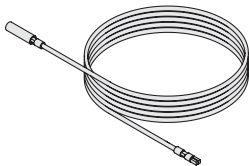


Connecting Cable, LED Machine Light Fitting  
and Spotlight 6W LED

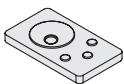


# 2 Select optional accessories

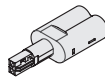
Extension Cable, LED Light Fitting



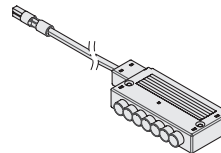
Wireless LED Dimmer Remote



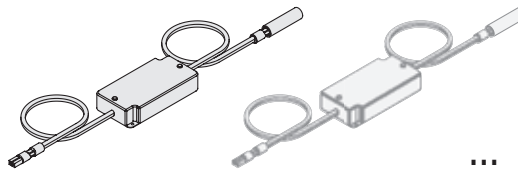
Two-way LED Splitter



Six-way LED Splitter



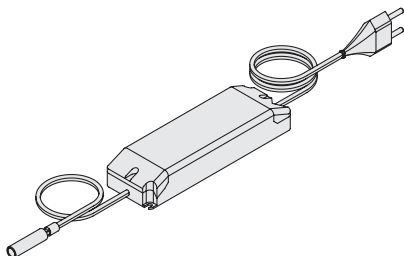
Wireless LED Dimmer Receiver



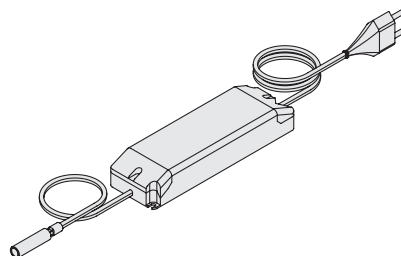
...

# 3 Select transformer

Electronic Transformer LED 30W 24V



Electronic Transformer LED 75W 24V



Select the transformer as appropriate to the connected light fittings.



## Spotlights 6W LED

- Bright and energy efficient
- Safe thanks to IP65 protection
- Custom dimming

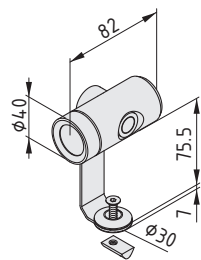


On the spot! item Spotlights 6W LED combine cutting-edge LED technology with fine looks and excellent safety. The IP65 housing is dust-tight and protected against jets of water from all directions. Depending on the model, the beam angle can be 10° for focussed lighting or 35° for wider area lighting.

The energy-efficient lights are very bright, with a lighting strength of 20,000 Lux at a distance of 500 mm. This makes the pivoting Spotlights ideal for lighting up working processes in machine cabins. Specific sections of a work bench can also be lit up. The colour temperature of the lights is 4000 Kelvin (neutral white).

The Spotlights are compatible with other item system lighting components such as power packs, wireless dimmers, cables and splitters and other LED work and machine lights. This makes it easy to create the perfect lighting system for your specific needs. The bright Spotlight can also be dimmed as required via a button on the casing. The chosen setting is retained when switching on and off.

The long-life LED is designed to deliver a service life of 50,000 operating hours.



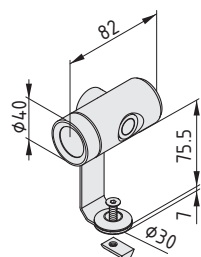
### Spotlight 6W LED 10°



High-performance 6W LED  
10° light beam  
Dimmer switch  
Aluminium housing  
2 joints, fastening elements  
M8 plug-in connector  
Toughened glass protective pane  
Protection: IP65, EN 60529  
Protection class III  
Rated voltage: 24 V DC  
m = 0.3 kg

1 set

0.0.676.42



### Spotlight 6W LED 35°



High-performance 6W LED  
35° light beam  
Dimmer switch  
Aluminium housing  
2 joints, fastening elements  
M8 plug-in connector  
Toughened glass protective pane  
Protection: IP65, EN 60529  
Protection class III  
Rated voltage: 24 V DC  
m = 0.3 kg

1 set

0.0.681.60



## Spotlight 6W LED with Flexible Tube

- Easy to adjust
- Available in two lighting variants
- Very bright, with custom dimming



When every detail counts. Thanks to their posable arm, which moves in all directions, Spotlights 6W LED with Flexible Tube can be lined up in seconds. This makes them especially versatile, enabling users to light up exactly the area they need to.

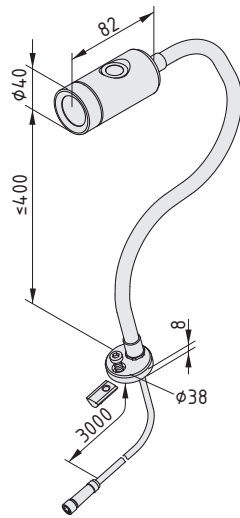
With a lighting strength of 20,000 Lux at a distance of 500 mm, the energy-efficient Spotlights are very bright. They can be dimmed via a button on the casing, with the setting retained when switching off and on. They are also compatible with a wireless remote dimming system.

Two models are available: A lighting angle of 10° provides focussed lighting, while 35° lights up a wider area. The colour temperature of the lights is 4000 Kelvin (neutral white) and the colour rendering index is >0.85.

Spotlights 6W LED can be used with item power packs, cables and dimmers. The casing is protected to IP 65 and thus well equipped for use in wet or dusty environments.

With a service life of 50,000 operating hours and outstanding efficiency, the Spotlights help to improve sustainability and deliver energy savings.





**Spotlight 6W LED 10° with Flexible Tube**



High-performance 6W LED  
 10° light beam  
 Dimmer switch  
 Aluminium housing  
 Flexible tube, fastening elements  
 M8 plug-in connector  
 Toughened glass protective pane  
 Protection: IP65, EN 60529  
 Protection class III  
 Rated voltage: 24 V DC  
 m = 0.5 kg

1 set 0.0.676.57

**Spotlight 6W LED 35° with Flexible Tube**



High-performance 6W LED  
 35° light beam  
 Dimmer switch  
 Aluminium housing  
 Flexible tube, fastening elements  
 M8 plug-in connector  
 Toughened glass protective pane  
 Protection: IP65, EN 60529  
 Protection class III  
 Rated voltage: 24 V DC  
 m = 0.5 kg

1 set 0.0.681.61



## Accessories

Highly practical! The right tools and compatible accessories make work much easier.

Distribution Strip fits perfectly into the cable conduits of Profile X 8 120x120 K56 - XMS and Profile X 8 80-45° K56 - XMS. In addition to four power sockets (German domestic standard), Distribution Strip also has three empty slots that can be used as required for network, telephone or USB connections, for example. If only power sockets are required, Multi-Socket Power Strip, 5 outlet comes with five of them (German domestic standard).

Thanks to their plug-in connection system, Distribution Strips and Multi-Socket Power Strips can be connected in series.

In line with German standard VDE 0100, Connecting Cable, Socket / Earthed Plug with earthing lead comes with a separate cable with a ring cable lug to create an additional contact to the protective earth.

In the case of overload or short-circuit, Distribution Strip RCD Unit isolates the system from the power grid.

item tools help users build machine cabins faster. For example, Ball-Headed Key 5 A/F and Key Insert 5 A/F-1/4" make it easier to fasten Automatic Fasteners in the groove. The head engages at angles up to 25° and is ideal for difficult-to-access screws.



## Products in this section



### Distribution Strip

- Four sockets
- Three empty slots for USB, telephone and network connections

114



### Multi-Socket Power Strip, 5 outlet

- Five power sockets (German domestic standard) with ON/OFF switch
- Strips can be linked together via the plug-in connector system

115



### Tools

- Sheathed, comfortable grips
- Designed specifically for item fasteners and accessories

117



## Distribution Strip

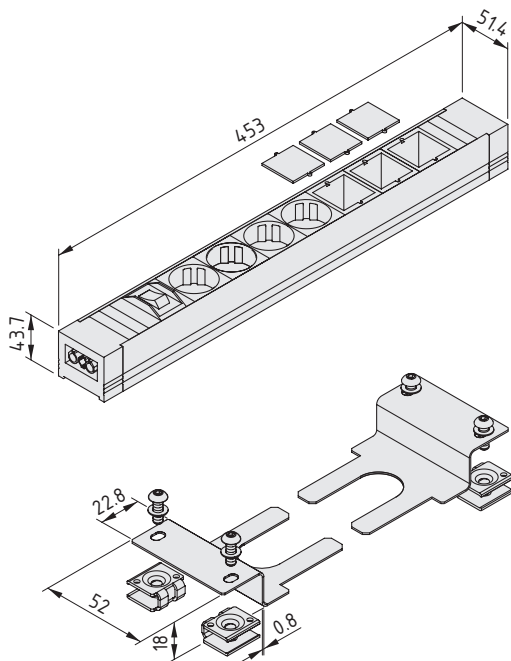
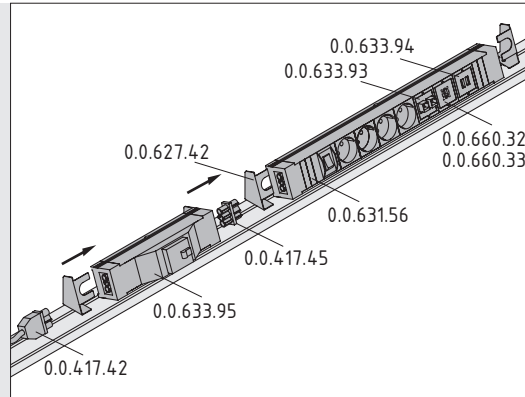
- Four power sockets (German domestic standard) and three empty slots
- Can be extended thanks to system plug
- Suitable for installation in profiles with an integrated K56 cable conduit



One for all. Distribution Strip includes four power sockets (German domestic standard) and three empty slots that allow you to incorporate additional telephone, network (RJ45) and USB connections into the same strip.

The plug-in connector system creates the connection to the power supply and the modular design means that several Distribution Strips can be connected in series. Distribution Strip RCD Unit creates an all-pole break between the system and the power supply in the case of overload or short-circuit. If necessary, the Connecting Cable, Socket / Earthed Plug with earthing lead can be used to integrate additional earthing via a separate cable with a ring cable lug, in line with the VDE 0100 standard.

Distribution Strips can be seamlessly integrated into Line XMS profiles and table Uprights with an integrated cable conduit (K56). When fitting them to Line X profiles, Mounting Set XMS, Multi-Socket Power/Distribution Strips (0.0.655.27) has to be used. Fastening Sets in various angles (70°: 0.0.627.42, 90°: 0.0.627.40) are available for fitting to a Line 8 profile groove or panel.



### Distribution Strip

- 4 power sockets (German domestic standard) with two-pole ON/OFF switch
- 3 empty slots for inserts
- 4 Self-Tapping Screws DIN 7981 C 2.9x25
- System plug connection
- Notes on Use and Installation
- m = 530.0 g

1 pce.

0.0.631.56

### Mounting Set XMS, Multi-Socket Power/Distribution Strips



- 2 adapter plates, St, bright zinc-plated
- 4 screw clips, St, bright zinc-plated
- 4 washers DIN 433-4.3, St, bright zinc-plated
- 4 Button-Head Screws ISO 7380-M4x12, St, bright zinc-plated
- m = 76.0 g

1 set

0.0.655.27



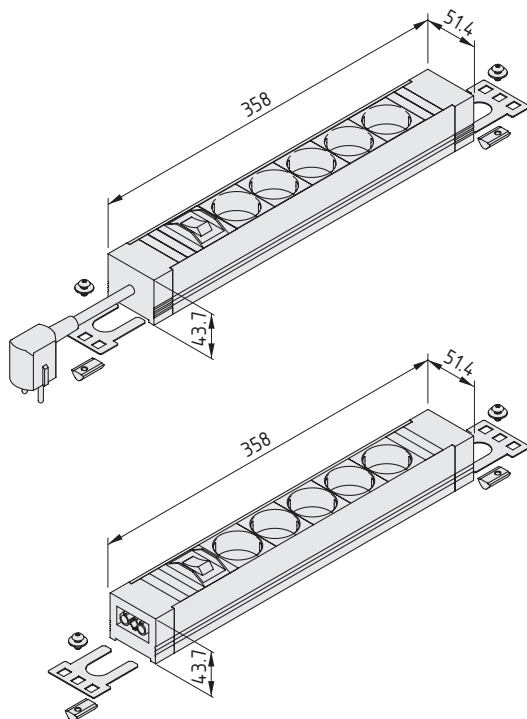
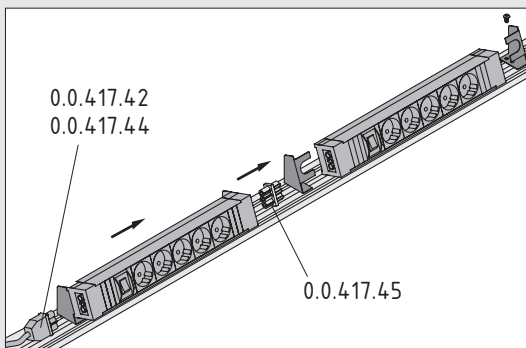
## Multi-Socket Power Strips, 5 outlet

- Angled installation ensures easy access
- Can be fixed to a profile groove or panel
- Suitable for installation in profiles with an integrated K56 cable conduit

The robust industrial quality Multi-Socket Power Strip. An impact-proof aluminium housing accommodates five power sockets (German domestic standard) and an all-pole ON/OFF switch with indicator light.

Depending on the variant, the Strip is connected to the grid via a cable and plug or a plug-in system connection. Adapter, Socket / Plug (0.0.417.45; max. 16 A) can be used to connect together two Strips.

The enclosed fastening brackets can be used to secure Multi-Socket Power Strip, 5 outlet flat against a profile groove or any panel. The Fastening Sets also enable you to fit the Strip at an angle of 90° or a particularly ergonomic 70°.



### Multi-Socket Power Strip, 5 outlet, with conventional power cord

Housing, Al, anodized, natural  
 5 power sockets (German domestic standard)  
 ON/OFF switch, illuminated, 2-pole  
 Power cable 1.5 mm<sup>2</sup>, l = 2 m  
 2 fastening brackets  
 2 T-Slot Nuts V 8 St M5, bright zinc-plated  
 4 Self-Tapping Screws DIN 7981 C 2.9x25  
 Fastening elements  
 m = 670.0 g

1 set

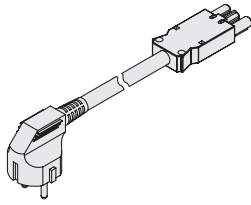
0.0.627.43

### Multi-Socket Power Strip, 5 outlet, with system plug

Housing, Al, anodized, natural  
 5 power sockets (German domestic standard)  
 ON/OFF switch, illuminated, 2-pole  
 System plug  
 System socket  
 2 fastening brackets  
 2 T-Slot Nuts V 8 St M5, bright zinc-plated  
 4 Self-Tapping Screws DIN 7981 C 2.9x25  
 Fastening elements  
 m = 450.0 g

1 set

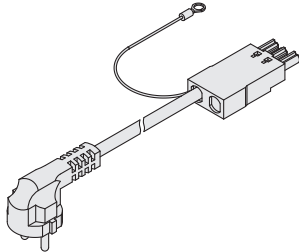
0.0.627.44



**Connecting Cable, Socket / Earthed Plug**

Cable length 3 m (1.5 mm<sup>2</sup>)  
m = 370.0 g

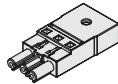
black, 1 pce. 0.0.417.42



**Connecting Cable, Socket / Earthed Plug with earthing lead**

Cable length 3 m (1.5 mm<sup>2</sup>)  
Inside diameter of ring cable lug 6.5 mm  
m = 385.0 g

black, 1 pce. 0.0.677.54



**Socket, Spring-Force Connected**

PA  
m = 25.0 g

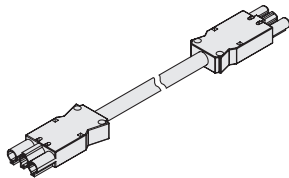
black, 1 pce. 0.0.417.44



**Adapter, Socket / Plug**

incl. dowel  
m = 13.0 g

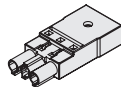
black, 1 set 0.0.417.45



**Extension Cable, Socket / Plug**

Cable length 2 m (1.5 mm<sup>2</sup>)  
m = 234.0 g

black, 1 pce. 0.0.417.52



**Plug, Spring-Force Connected**

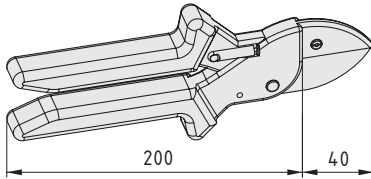
PA  
m = 25.0 g

black, 1 pce. 0.0.417.59



## Tools

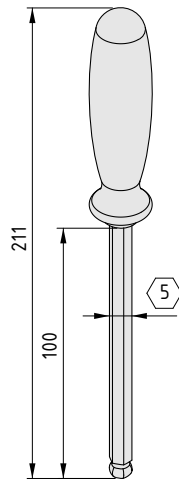
- Designed specifically for item fasteners and accessories
- Sheathed, comfortable grips
- High-quality design for long service life



### Multi-Purpose Pliers

Scissor body, sheet steel, bright nickel-plated  
 Blade, special steel  
 Anvil, light steel  
 Handle plastic-coated, non-slip design  
 m = 300.0 g

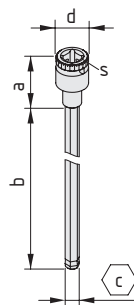
1 pce. 0.0.265.63



### Ball-Headed Key 5 A/F

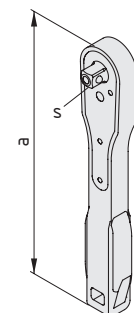
Wrench, chrome vanadium steel, matt chrome-plated  
 Plastic grip, TPE  
 66.0 g

1 pce. 0.0.026.54



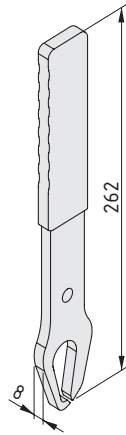
### Key Insert 5 A/F-1/4"

s	a [mm]	b [mm]	c [mm]	d [mm]	m [g]
1/4"	23	160	5	∅13	39.0
1 pce.					0.0.644.68



### Ratchet Wrench 1/4"

materials	s	a [mm]	m [g]
St	1/4"	127.5	103.0
1 pce.			0.0.654.69



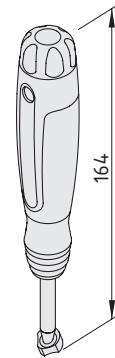
**T-Slot Opener 8N**



St, galvanized  
Handle, PVC  
m = 580.0 g

1 pce.

0.0.612.88



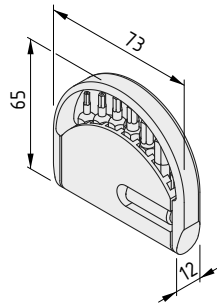
**T-Slot Deburrer 8N**



m = 88.0 g

1 pce.

0.0.612.47



**Security Bit Set 2A/F – 6A/F**

Security bit TR2; 2.5; 3; 4; 5; 6, chromium-vanadium steel  
Universal Holder, St  
in plastic case, black  
m = 68.0 g

1 set

0.0.661.47



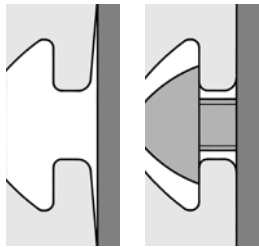
Technical information

## Note

All the loading values stated in this catalogue incorporate safety factors to protect against slipping and material failure. A safety factor of >2 is always applied. This means that users can make full use of the permissible values.

Note: All loading values apply to static loads. Where dynamic loads are involved, the maximum values should be viewed as comparative values.

## Technical data for profiles and accessories



### Extruded Profile

Symbol Al Mg Si 0.5 F 25  
Material number 3.3206.72  
Status: artificially aged

### Mechanical values (apply only in pressing direction)

Tensile strength  $R_m$  min. 245 N/mm<sup>2</sup>  
Yield point  $R_{p0.2}$  min. 195 N/mm<sup>2</sup>  
Density 2.7 kg/dm<sup>3</sup>  
Ductile yield  $A_5$  min. 10 %  
Ductile yield  $A_{10}$  min. 8 %  
Linear coefficient of expansion 23.6x10<sup>-6</sup> 1/K  
Modulus of elasticity E approx. 70,000 N/mm<sup>2</sup>  
Modulus of rigidity G approx. 25,000 N/mm<sup>2</sup>  
Hardness approx. 75 HB - 2.5/187.5

### Tolerances

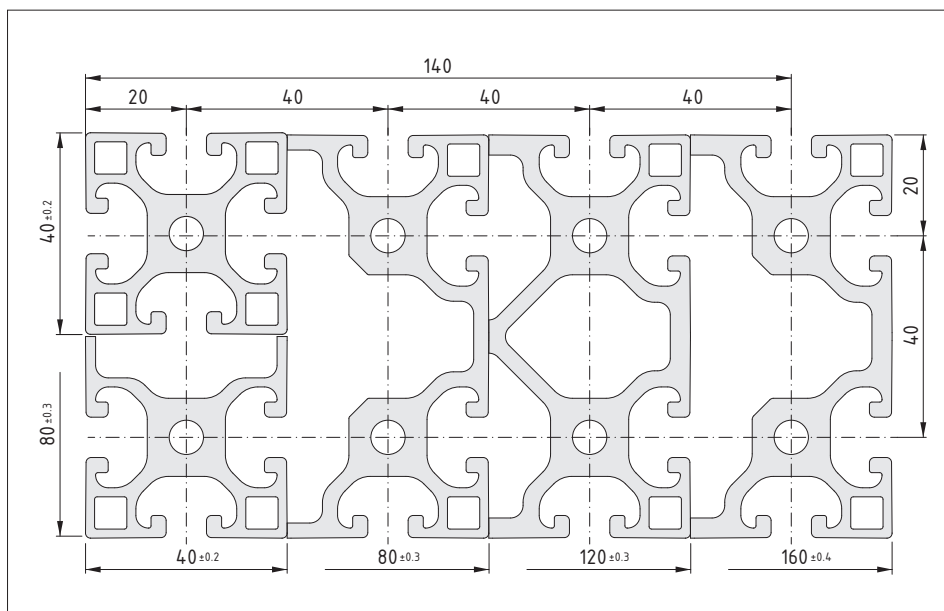
Deformations such as straightness and flatness tolerance to DIN EN 12020 Part 2.  
Profiles not cut to size may be up to 100 mm longer than specified, due to manufacturing methods.

### Surface

The aluminium profiles are natural (C0) or black (C35) anodized and are therefore permanently resistant to scratching and corrosion. Surface with matt finish (E 6), compressed with anodic oxidation. Minimum layer thickness 10 µm, layer hardness 250 - 350 HV. The all-round hard anodized surface covering makes saw cuts virtually burr-free, thereby eliminating the need for remachining.

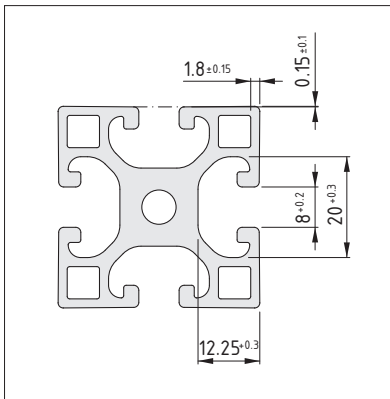
All standard Profiles and Profiles "light" and Profiles "E" feature defined points of support on the Profile exterior and inclined groove flanks. These ensure a firm and stable connection with other components. Thanks to controlled elastic deformation in the groove flanks, the fastening screw creates a vibration-free connection.

## Groove position, external dimensions and modular dimensions

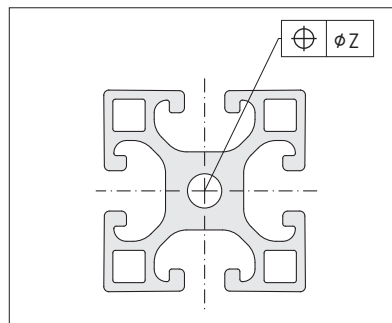
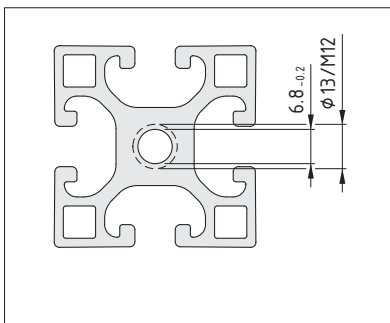




## Groove Dimensions

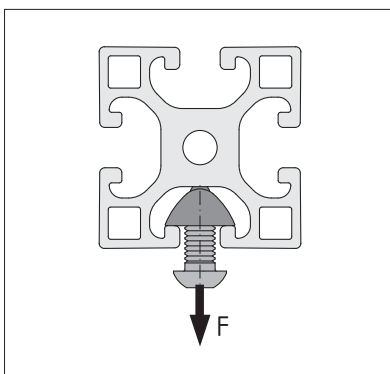


## Core Bores



Profiles with Open Grooves		Closed Grooves	
Number of Holes	z [mm]	Number of Holes	z [mm]
1	0.4	1	0.6
2 to 4	0.6	> 1	0.8
> 4	0.8		

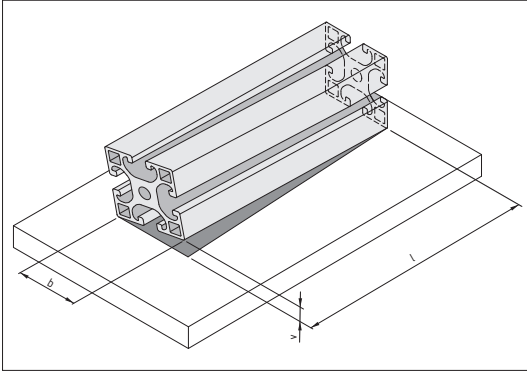
## Tensile Loading



Groove shape	8
Normal	5,000 N
Light	2,500 N
E	1,750 N

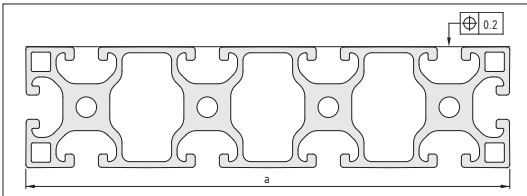
The permissible tensile forces F on the groove flanks. These nominal loads include safety factors ( $S > 2$ ) against plastic deformation.

## Torsion



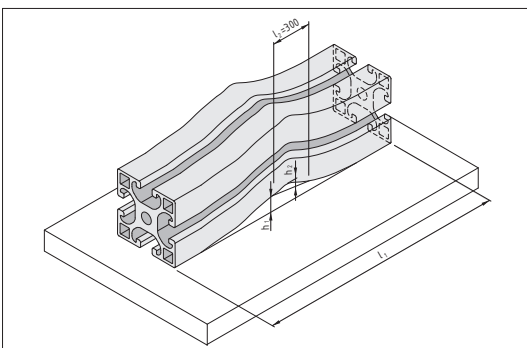
b [mm]		Torsion tolerance v for Length l [mm]					
from	up to	up to 1,000	up to 2,000	up to 3,000	up to 4,000	up to 5,000	up to 6,000
-	25	1.0	1.5	1.5	2.0	2.0	2.0
25	50	1.0	1.2	1.5	1.8	2.0	2.0
50	75	1.0	1.2	1.5	1.5	2.0	2.0
75	100	1.0	1.5	1.8	2.2	2.5	3.0
100	125	1.2	1.5	1.8	2.2	2.5	3.0
125	150	1.2	1.5	1.8	2.2	2.5	3.0
150	200	1.5	1.8	2.2	2.6	3.0	3.5

## Straightness Tolerance transverse



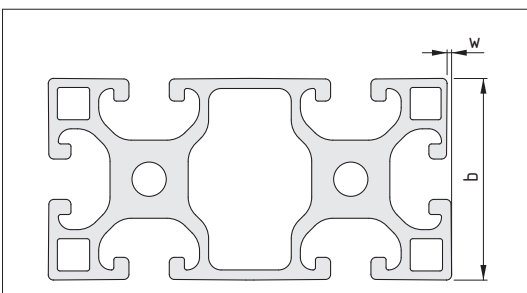
Width a [mm]		Straightness Tolerance
from	up to	t [mm]
0	80	0.3
80	120	0.4
120	160	0.5

## Straightness Tolerance longitudinal



Length	Tolerances	
l <sub>1</sub> [mm]	h <sub>1</sub> [mm]	h <sub>2</sub>
up to 1,000	0.7	For every length section of l <sub>2</sub> = 300 mm, a maximum deviation of 0.3 mm is allowed
up to 2,000	1.3	
up to 3,000	1.8	
up to 4,000	2.2	
up to 5,000	2.6	
up to 6,000	3.0	

## Angular Tolerance



Width b [mm]		Angular Tolerance
from	up to	w ± [mm]
0	20	0.2
20	40	0.4
40	80	0.6
80	120	0.8
120	200	1.2

## Construction profiles: Determination of the Profile Deflection

The following equations apply for calculating deflection f:

Example load 1

$$f = \frac{F \times l^3}{3 \times E \times I \times 10^4}$$

Example load 2

$$f = \frac{F \times l^3}{48 \times E \times I \times 10^4}$$

Example load 3

$$f = \frac{F \times l^3}{192 \times E \times I \times 10^4}$$

The following equations are to be used for calculating the deflection caused by the dead weight:

As example load 1

$$f = \frac{F \times l^3}{8 \times E \times I \times 10^4}$$

As example load 2

$$f = \frac{5 \times F \times l^3}{384 \times E \times I \times 10^4}$$

As example load 3

$$f = \frac{F \times l^3}{384 \times E \times I \times 10^4}$$

F = Load in N  
 l = Free profile length in mm  
 I = Moment of inertia in cm<sup>4</sup>  
 E = Modulus of elasticity in N/mm<sup>2</sup>  
 E<sub>Al</sub> = 70,000 N/mm<sup>2</sup>

An approximate calculation of the deflection is possible with the help of the nomogram shown on the right.

The example shown is worked through in the direction of the arrow to determine the deflection.

**Example:**

**Given:**

F = 1,000 N

l = 500 mm

I<sub>y</sub> = 5,14 cm<sup>4</sup> (Profile 5 40x20, upright)

**Find:**

f = Deflection in mm

**Results:**

Example load 1

f = 11.6 mm

Example load 2

f = 0.72 mm

Example load 3

f = 0.18 mm

The bending values that are either calculated or determined using graphs must be added to the deflection caused by the dead weight of the profiles.

For an approximate calculation of the deflection caused by the dead weight, the dead weight is entered as F in the nomogram and the resulting values should be halved.

**Check of the bending stress**

$$\sigma = \frac{M_b}{W \times 10^3}$$

σ = Bending stress in N/mm<sup>2</sup>

M<sub>b</sub> = Max. bending moment in Nmm

W = Resistance moment in cm<sup>3</sup>

Rp<sub>0,2 Al</sub> = 195 N/mm<sup>2</sup>

The calculated bending stress σ must be compared with the permissible bending stress σ<sub>perm</sub>.

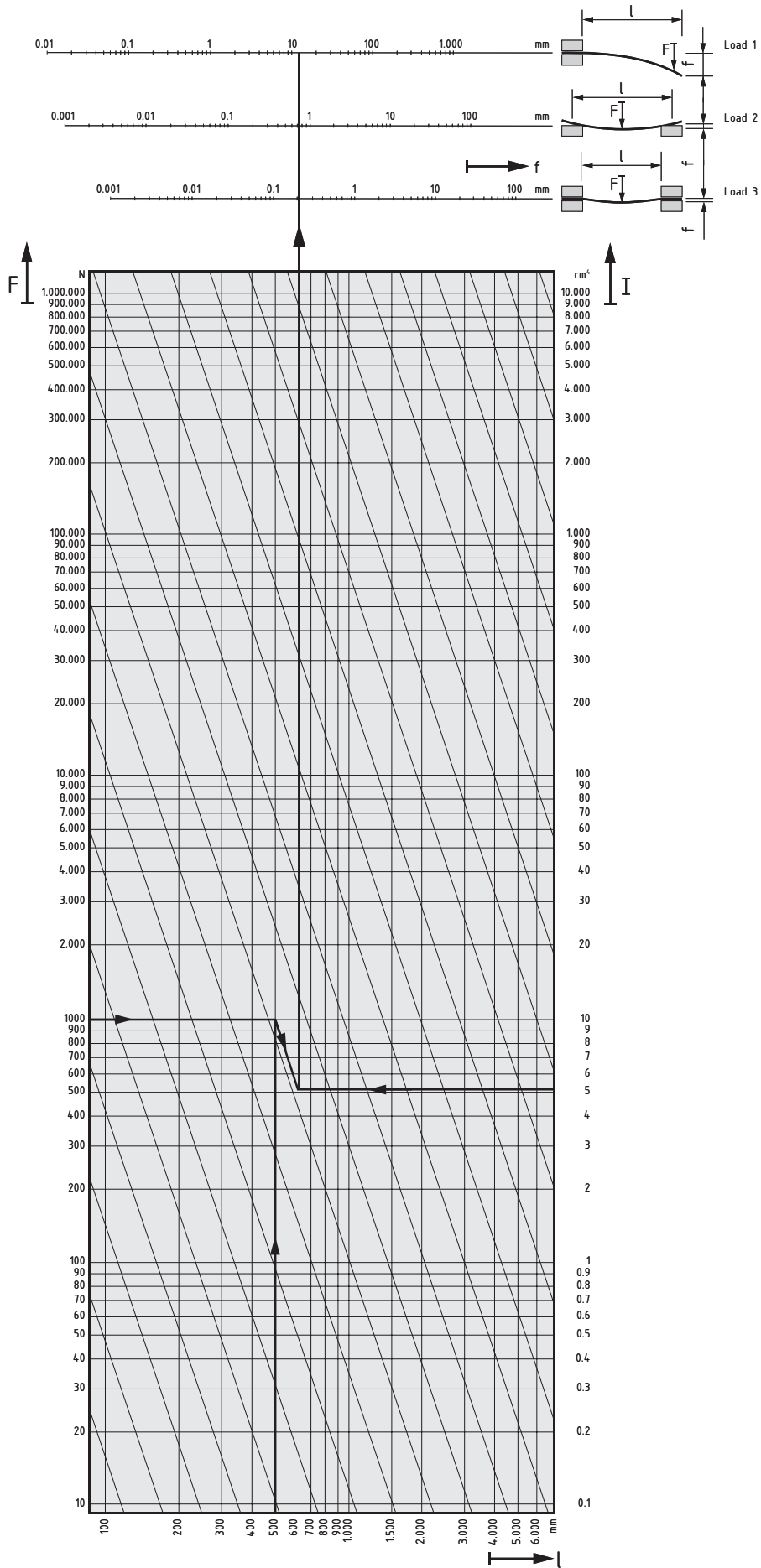
$$\sigma_{perm} = \frac{Rp_{0,2}}{S}$$

The safety factor S must be selected depending on the required application conditions.



### Note:

Calculate the deflection in a profile easily online: A profile deflection calculator that takes into account all three load scenarios is available online at [item24.com](http://item24.com).






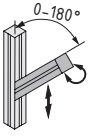
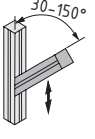
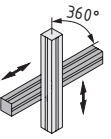
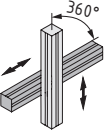
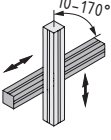
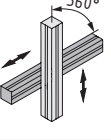
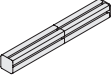


# Technical data for fasteners

Application options	Line	Displacement force	Torsional moment *	Bending moment *	Profile machining	Can be retrofitted to existing constructions
<b>Automatic-Fastening Sets</b>						
	8	++	++	++	No	Yes
<b>Standard-Fastening Sets</b>						
	8	++	+	+	Yes 1 bore 1 threaded bore	No
<b>Central-Fastening Set</b>						
	8	o	o	o	Yes 2 stepped bores	Yes
<b>Direct-Fastening Set 90°</b>						
	8	o	o	o	1 threaded bore	No
<b>Click-Fastening Set 90°</b>						
	8	o	-	-	1 threaded bore	Yes
<b>Angle Bracket Zn</b>						
	8	++	++	++	No	Yes
<b>Hinges, heavy-duty</b>						
	8	+	-	-	Dependent on assembly scenario	Yes

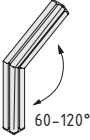
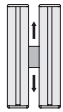
• Fixed    ↕ Movable (linear)    ↻ Twistable (axial)    ▷ Freely selectable angle    ++ Excellent    + Good    o Recommended for some cases    - Not recommended

\* Dependent on line and profile design

Application options	Line	Displacement force	Torsional moment *	Bending moment *	Profile machining	Can be retrofitted to existing constructions
Ball joints						
	8	+	-	-	No	Yes
Mitre-Fastening Sets						
	8	o	-	o	Yes	Yes
Direct-Fastening Set						
	8	-	-	o	No	Yes
Click-Fastening Set						
	8	o	-	o	No	Yes
Angle Hinge Brackets, Angle Clamp Brackets						
	8	+	+	+	No	Yes
Angle Locking Bracket 8 80x40						
	8	+	+	+	No	Yes
Automatic Butt-Fastening Sets						
	8	+	+	o	No	Yes

● Fixed    ↕ Movable (linear)    ↶ Twistable (axial)    ▷ Freely selectable angle    ++ Excellent    + Good    o Recommended for some cases    - Not recommended


\* Dependent on line and profile design

Application options	Line	Displacement force	Torsional moment *	Bending moment *	Profile machining	Can be retrofitted to existing constructions
<b>Mitre-Butt-Fastening Sets</b>						
	8	○	○	○	Yes	No
<b>Parallel Fastener 8</b>						
	8	○	-	-	No	Yes

• Fixed    ⚡ Movable (linear)    ↻ Twistable (axial)    ▷ Freely selectable angle    ++ Excellent    + Good    ○ Recommended for some cases    - Not recommended

\* Dependent on line and profile design

## Technical data for T-Slot Nuts

T-Slot Nuts	Order No.	Recommended tightening torque	Permissible operating load
 8 St M8, heavy	0.0.420.83	34.0 Nm	5,000 N *
8 St M6, heavy	0.0.427.75	14.0 Nm	3,500 N *
V 8 St M8	0.0.480.48	20.0 Nm	4,000 N *
V 8 St M6	0.0.480.50	14.0 Nm	3,500 N *
V 8 St M5	0.0.480.54	8.0 Nm	2,500 N *
V 8 St M4	0.0.480.57	4.0 Nm	2,500 N *
8 St M8	0.0.026.18	25.0 Nm	5,000 N *
8 St M8, stainless	0.0.388.49	20.0 Nm	4,000 N *
8 St M6	0.0.026.23	14.0 Nm	3,500 N *
8 St M6, stainless	0.0.388.51	11.0 Nm	2,800 N *
8 St M5	0.0.420.05	8.0 Nm	2,500 N *
8 St M5, stainless	0.0.428.55	6.5 Nm	2,000 N *
8 St M4	0.0.420.06	4.0 Nm	2,500 N *
8 St M4, stainless	0.0.428.54	3.2 Nm	2,000 N *
8 St/PA M6	0.0.416.17	8.0 Nm	1,000 N
8 St/PA M5	0.0.416.20	4.5 Nm	1,000 N
8 St/PA M4	0.0.416.23	2.0 Nm	500 N
8 St/PA M3	0.0.416.26	1.0 Nm	500 N
8 Zn M5	0.0.373.44	1.5 Nm	250 N
8 Zn M4	0.0.373.58	1.5 Nm	250 N
8 Zn M3	0.0.373.59	1.0 Nm	250 N
8 PA	0.0.436.52	1.5 Nm	150 N

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

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

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



## Nomenclature



Depending on the type of product concerned, an article name can incorporate up to six different properties. If the product can be clearly identified based on fewer proper-

ties, individual parts are omitted to simplify and shorten the article name.

**1** Main part or group designation

**2** Type

Products that can be allocated directly to a specific Line or products that feature properties associated with a specific Line are given an appropriate identifier here. In the case of profiles, an “X” here indicates that the edge radius of the profile is just 1 mm, unlike Line 8 profiles from the MB Building Kit System, which have an edge radius of 4 mm.

**3** Groove size

The groove size is indicated on products that either feature a groove themselves or can only be used in combination with specific grooves.

## 4

## Dimensions

Description of the product geometry. External dimensions are indicated without any letter prefixes. If a letter prefix is present, this indicates a special type of geometry:

- U: The product has a U shape
- M: Metric thread
- D: Lid (“Deckel” in German)

In order to differentiate between similar products in the same product line, the geometry is described further after the generic external dimensions.

### 2N/4N 90°/2N 180° in relation to profiles

Similar profiles are differentiated by a suffix that indicates the number of closed grooves:

- 2N: 2 grooves are closed on one side of the profile
- 4N 90°: 4 grooves are closed on two sides of the profile that meet at 90°
- 2N 180°: 2 grooves are closed on opposite sides of the profile

### 45°/90°/180° in relation to other products

When angles are stated for other products, they refer to special features of the product geometry. These could be chamfers or other angle types of certain geometries.

Additional information such as “D80” after the geometry identifiers provide clarity. For example, a U-shaped 80x40 profile could be open on the 40 side or 80 side. The suffix “D80” indicates that this geometry requires a lid (“Deckel” in German) because the 80 mm-wide side is open.

## 5

## Material

The material is stated separately when a product is available in different materials or is usually manufactured in a different material. For example, Caps are usually made of plastic, so when a different material is used, this is stated in the article name.

- Al: Aluminium
- K: Plastic (“Kunststoff” in German)
- Zn: Zinc

## 6

## Other properties

Products that cannot be clearly described based on the above-mentioned properties are defined here

XMS: These products exhibit features from the XMS system. They have an internal cable conduit and/or a special groove for the XMS seal system.

- 180°: The two special grooves for Lip Seals are on opposite sides
- K15: 15 mm-wide internal cable conduit (“Kabelkanal” in German)
- T1: Door rabbet (“Türanschlag” in German) for one door
- T2: Door rabbet for two doors
- 4-5 mm: Suitable for accommodating panels that are 4-5 mm thick
- M16: Can be used only with feet that have an M16 thread

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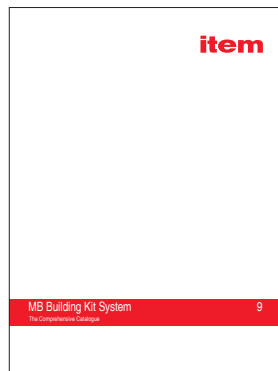
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