



Stairway/Platform System

Comprehensive Catalogue



German
Design Award
SPECIAL
MENTION 2015



Stairways and platforms based on a system.





Safety as standard.

The components in the Stairway/Platform System satisfy all current standards and the regulations of the accident insurance and prevention institutions in Germany. As a result, the Stairway/Platform System makes it incredibly easy for users to build structures that satisfy all the safety requirements and rules that apply to stairway design.

Small number of components.

The Stairway/Platform System is based on a small number of special components that are flexible in the way they can be used. This makes it much easier to reuse components. Consistent lightweight construction principles and wide stanchion spacings help to reduce raw material consumption without compromising on safety.

Fully compatible.

The Stairway/Platform System utilises the Line 8 groove from the MB Building Kit System. All accessories such as enclosures, guards, doors, machine accessories and installation elements can be used to produce coordinated equipment.

Customisable.

Thanks to stairways in four different pitches and profiles in variable lengths, the Stairway/Platform System can adapt to your needs. You can build the optimum solution for the space available, the working height required and the weights involved.

Optimised surfaces.

The Stairway/Platform System enables users to create unbroken surfaces that keep dirt out. Stanchions, hand-rails and knee-rails reduce the risk of injuries. The highly resistant aluminium profiles are anodized, which gives them long-term protection against scratching and corrosion.

Easy assembly

All components are securely screwed to the aluminium profiles. Thanks to versatile fasteners, there is no need for mitre cuts on guard-rails or welded connections. As a result, the stairways can be reconfigured or extended as necessary.



For maximum safety.

The Stairway/Platform System makes it easier than ever to reach every part of a machine and work on various levels. Bridges, maintenance platforms for elevated sections of machinery and allround working platforms can all be built using the same system.

Stairways and platforms can quickly become a safety hazard. Put one foot wrong and you can easily fall. This risk can be mitigated, but not completely eliminated. The consequences of a fall can also be mitigated. Even in the 1970s, statutory accident insurance and prevention institutions in Germany recorded 60,000 accidents on stairways. Some 2000 of these accidents resulted in permanent injuries and around 40 people died. Today, the statistics are better, with up to 44,000 accidents on stairways, some 900 of which result in permanent injuries. Each year there are fewer than 10 accidents that result in deaths.

The reason for this improvement lies in better safety standards, and the Stairway/Platform System makes it incredibly easy to comply with – and even exceed – these regulations. For example, the recommended foot-rails are 20 mm higher than the requirements set out in DIN ISO 14122, meaning they offer better protection against falling objects. The ergonomic 38° stairway that can be built using the Stairway/Platform System provides an easy-climb alternative to the standard 45° stairway. Biometric studies have shown that the combination of somewhat flatter pitch and larger tread depth make the stairway much easier to climb. These dimensions are in harmony with our natural gait.



Stairways that satisfy all engineering laws.

All the components in the Stairway/Platform System are designed to make it much easier to build standard-compliant stairways and offer your staff the best protection possible. The table below contains an overview of the

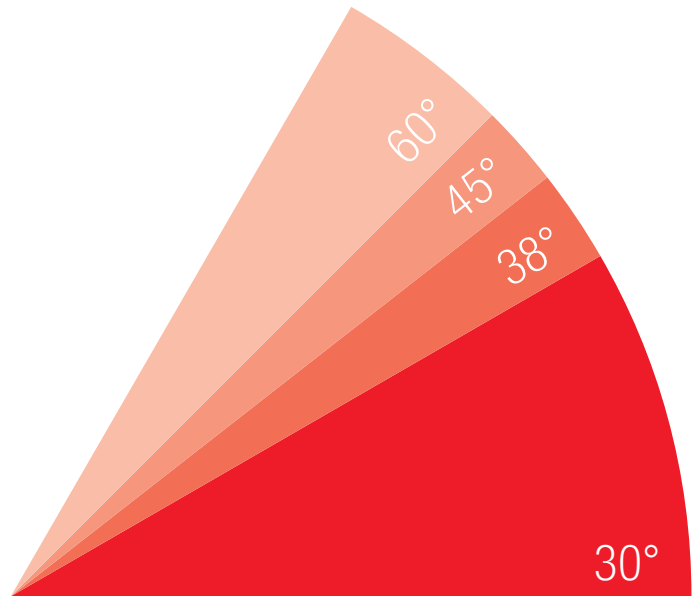
relevant guidelines, standards and recommendations. item will be happy to offer you advice for the design of your customised stairway!

Applicable standards and regulations

Standard	Designation	Contents
DIN EN ISO 14122 - 2	Permanent means of access to machinery - Part 2: Working platforms and walkways	Scope. Normative references. Terms and definitions. General requirements. Assembly instructions
DIN EN ISO 14122 - 3	Permanent means of access to machinery - Part 3: Stairs, stepladders and guard-rails	Scope. Normative references. Terms and definitions. General safety requirements concerning materials and dimensions. Safety requirements applicable to stairs, step ladders and guide-rails. Verification of safety requirements. Assembly instructions
DIN 51130	Testing of floor coverings Determination of the anti-slip property Workrooms and fields of activities with slip danger, walking method - Ramp test	Scope. Normative references. Terms and definitions. Brief description of procedure. Testing anti-slip properties. Measurement of drainage capacity. Test report.
ASR 17/ 1.2	Traffic routes	Terms and definitions. Composition and dimensions of traffic routes, not including stairways. Composition and dimensions of stairways. Level-equalising steps on traffic routes. Signage for hazard points on traffic routes. Protection for workplaces adjacent to traffic routes.
BGI 561	Stairways	Terms and definitions. Hazards and accidents. Protective measures – basic principles. Stairways – special designs. Implications for stairway usage and maintenance.
BGR 181	Floor surfaces in working rooms and areas where there is a slip hazard	Scope. Anti-slip floor surfaces and evaluation of slip danger. Anti-slip floor coverings. Further building requirements for floor surfaces. Further operational requirements for floor surfaces.

For all scenarios: Stairways in four different pitches.

Every task and every space is different. That is why the Stairway/Platform System allows users to choose between a comfortable climb and a space-saving design. The system can be used to build stairways in pitches of 30°, 38°, 45° and 60°. All solutions are individually configured and satisfy the most stringent safety requirements. Guard-rails and platforms can also be added to extend the stairway as appropriate.



30°

Load-carrying stairway

If a stairway is in frequent use or is to be used to transport consumables or other loads, users find a flat pitch angle easiest to climb. Users don't have to lift their legs as high, which relieves some strain, although they have to walk a longer distance than when using stairways with a steeper pitch. A load-carrying stairway can reach a maximum height of 3.2 metres in a single flight. This is due to a combination of the flat pitch and recommended maximum of 18 steps per flight, as stipulated in BGI 561.

Ergonomic stairway

38°

For more than 100 years, researchers have examined the way that people climb and descend a stairway. When step length, step height and physical exertion are all taken into account, 38° is the ideal pitch in terms of ergonomics. The angle chimes with our natural gait, which is determined by the lifting motion of the leg combined with the forward movement of the upper body. A single flight constructed on this ergonomic principle can reach a maximum height of 3.60 metres when employing the recommended maximum number of 18 steps laid down by BGI 561.

45°

The standard stairway

A perfect diagonal is the most popular pitch for stairways in industrial facilities, but not just because it looks good. Stairways with a 45° pitch have many benefits in terms of space requirements, reachable height and ease of use. When working with a recommended maximum number of 18 steps, a single flight can span a height of 4 metres.

Space-saving stairway

60°

When there is little floor space available or the stairway is not going to be used often – e.g. for maintenance purposes – a space-saving stepladder is an ideal solution. An angle of 60° takes some effort to climb, but gets users to the necessary height quickly. A space-saving stairway to DIN ISO 14122 can reach a maximum height of 4.6 metres in a single flight.



Stairways

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Stairways from the ground to a platform.



Stairway Assembly Sets GP are used as fasteners to connect the ground level to a platform made of Line 8 profiles. When combined with the stringer profile and steps, they can create stairways in four different pitches and any height. The steps can be installed in the appropriate depth for the relevant pitch.



Stairway Assembly Sets GP

The Stairway/Platform System includes various Assembly Sets GP for different stairway pitches.

- Stairway Assembly Set GP 30° (0.0.652.18)
- Stairway Assembly Set GP 38° (0.0.652.32)
- Stairway Assembly Set GP 45° (0.0.652.12)
- Stairway Assembly Set GP 60° (0.0.652.13)

Stringer profile

The following profile is recommended as a stringer for use with all Stairway Assembly Sets:

- Profile 8 120x40 light (0.0.416.66)

Note: You can find a formula for calculating the length of the stringer profile alongside the Stairway Assembly Sets GP on page 12.

Steps

European Standard EN ISO 14122-3 requires an overlap of at least 10 mm on steps. This means that different step depths are required for different pitches.

Pitch	30°	38°	45°	60°
Step depth	320 mm	320 mm	240 mm	160 mm

The various step depths can be achieved by combining the following components:

Step depth 160 mm

- Step Profile 8 160 (0.0.650.14)
- Step Profile Bracket Set 160 (0.0.647.13)

Step depth 240 mm

- Step Profile 8 240 (0.0.650.15)
- Step Profile Bracket Set 240 (0.0.647.15)

Step depth 320 mm

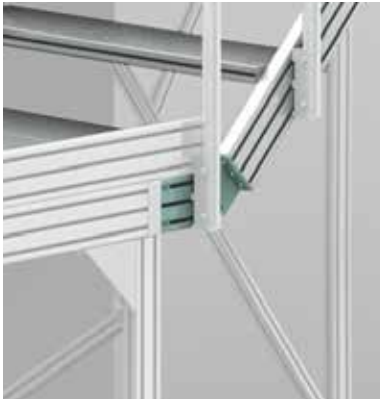
- 2 x Step Profile 8 160 (0.0.650.14)
- Step Profile Bracket Set 320 (0.0.647.14)
- Step Spacer Profile 24x8 (0.0.650.76)

When using the Stairway Assembly Set GP with a 60° pitch, it is important to ensure that the top step is 240 mm deep rather than 160 mm.

Stairways from a platform to a platform.



Stairway Assembly Sets PP are used as fasteners to connect two platforms made of Line 8 profiles. When combined with the stringer profile and steps, they can create stairways in four different pitches and any height. The steps can be installed in the appropriate depth for the relevant pitch.



Stairway Assembly Sets PP

The Stairway/Platform System includes various Assembly Sets PP for different stairway pitches.

- Stairway Assembly Set PP 30° (0.0.653.14)
- Stairway Assembly Set PP 38° (0.0.653.15)
- Stairway Assembly Set PP 45° (0.0.653.16)
- Stairway Assembly Set PP 60° (0.0.653.17)



Stringer profile

The following profile is recommended as a stringer for use with all Stairway Assembly Sets:

- Profile 8 120x40 light (0.0.416.66)

Note: You can find a formula for calculating the length of the stringer profile alongside the Stairway Assembly Sets PP on page 14.



Steps

European Standard EN ISO 14122-3 requires an overlap of at least 10 mm on steps. This means that different step depths are required for different pitches.

Pitch	30°	38°	45°	60°
Step depth	320 mm	320 mm	240 mm	160 mm

Step depth 160 mm

- Step Profile 8 160 (0.0.650.14)
- Step Profile Bracket Set 160 (0.0.647.13)

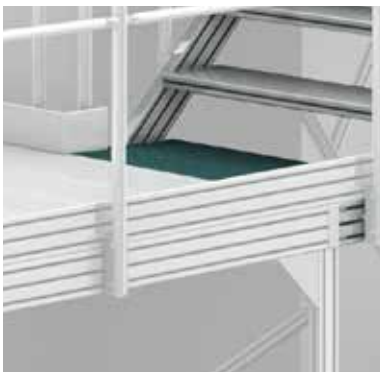
Step depth 240 mm

- Step Profile 8 240 (0.0.650.15)
- Step Profile Bracket Set 240 (0.0.647.15)

Step depth 320 mm

- 2 x Step Profile 8 160 (0.0.650.14)
- Step Profile Bracket Set 320 (0.0.647.14)
- Step Spacer Profile 24x8 (0.0.650.76)

When using the Stairway Assembly Set PP with a 60° pitch, it is important to ensure that the top step is 240 mm deep rather than 160 mm.



Lower end of stairway

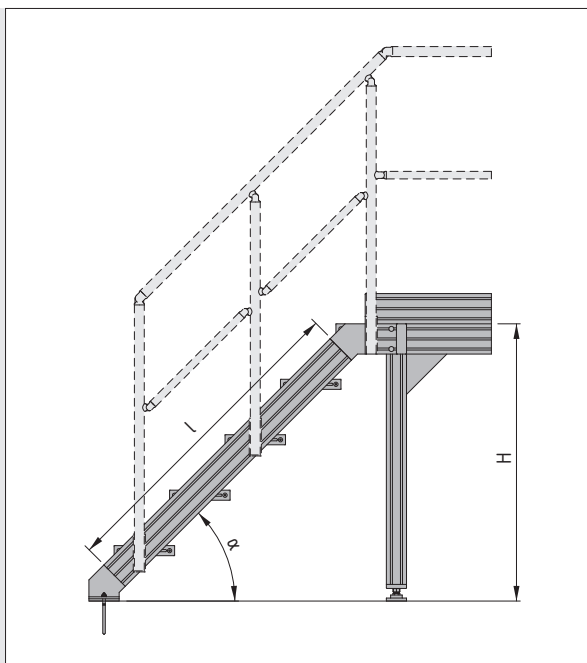
When using Stairway Assembly Sets PP, two steps of different depths are installed at the foot of the stairway.

Pitch	30°	38°	45°	60°
First step depth	160 mm	160 mm	160 mm	160 mm
Second step depth	320 mm	240 mm	240 mm	240 mm



Stairway Assembly Set GP

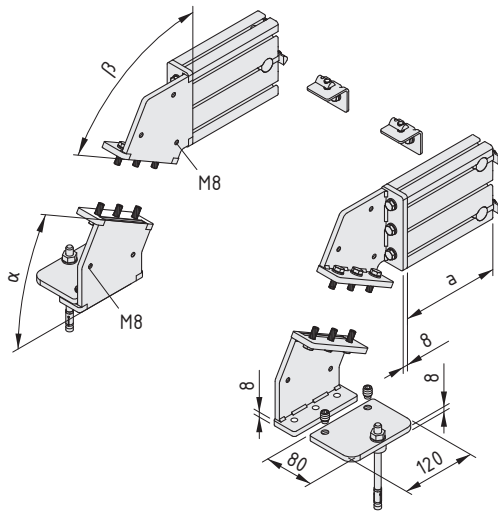
- For connecting the floor to a Line 8 profile
- 4 different pitches
- Custom height
- Includes fastening materials
- Profile 8 120x40 light is recommended for use as a stringer



Length l of the stringer profile:

$$l = \frac{H - x}{\sin \alpha}$$

α	30°	38°	45°	60°
x	168 mm	191.5 mm	202.8 mm	210.6 mm



Stairway Assembly Set GP 30°

2 step angle brackets 30°, St, powder-coated RAL 9006 white aluminium
 2 step angle brackets 60°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 160 mm, Al, anodized
 2 Angle Brackets 8 40x40x40, St, bright zinc-plated
 2 floor fastening plates, St, powder-coated RAL 9006 white aluminium
 2 Floor-Fastening Sets M10x125, St, bright zinc-plated
 6 Universal-Fastening Sets 8, St
 18 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 18 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm α = 30° β = 60° m = 8.4 kg

1 set 0.0.652.18

Stairway Assembly Set GP 38°

2 step angle brackets 38°, St, powder-coated RAL 9006 white aluminium
 2 step angle brackets 52°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 160 mm, Al, anodized
 2 Angle Brackets 8 40x40x40, St, bright zinc-plated
 2 floor fastening plates, St, powder-coated RAL 9006 white aluminium
 2 Floor-Fastening Sets M10x125, St, bright zinc-plated
 6 Universal-Fastening Sets 8, St
 18 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 18 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm α = 38° β = 52° m = 8.7 kg

1 set 0.0.652.32

Stairway Assembly Set GP 45°

4 step angle brackets 45°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 120 mm, Al, anodized
 2 Angle Brackets 8 40x40x40, St, bright zinc-plated
 2 floor fastening plates, St, powder-coated RAL 9006 white aluminium
 2 Floor-Fastening Sets M10x125, St, bright zinc-plated
 6 Universal-Fastening Sets 8, St
 18 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 18 washers ISO 7089-8-200, St, bright zinc-plated
 a = 120 mm α = 45° β = 45° m = 8.3 kg

1 set 0.0.653.12

Stairway Assembly Set GP 60°

2 step angle brackets 60°, St, powder-coated RAL 9006 white aluminium
 2 step angle brackets 30°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 160 mm, Al, anodized
 2 Angle Brackets 8 40x40x40, St, bright zinc-plated
 2 floor fastening plates, St, powder-coated RAL 9006 white aluminium
 2 Floor-Fastening Sets M10x125, St, bright zinc-plated
 6 Universal-Fastening Sets 8, St
 18 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 18 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm α = 60° β = 30° m = 8.4 kg

1 set 0.0.653.13



Profile 8 120x40 light

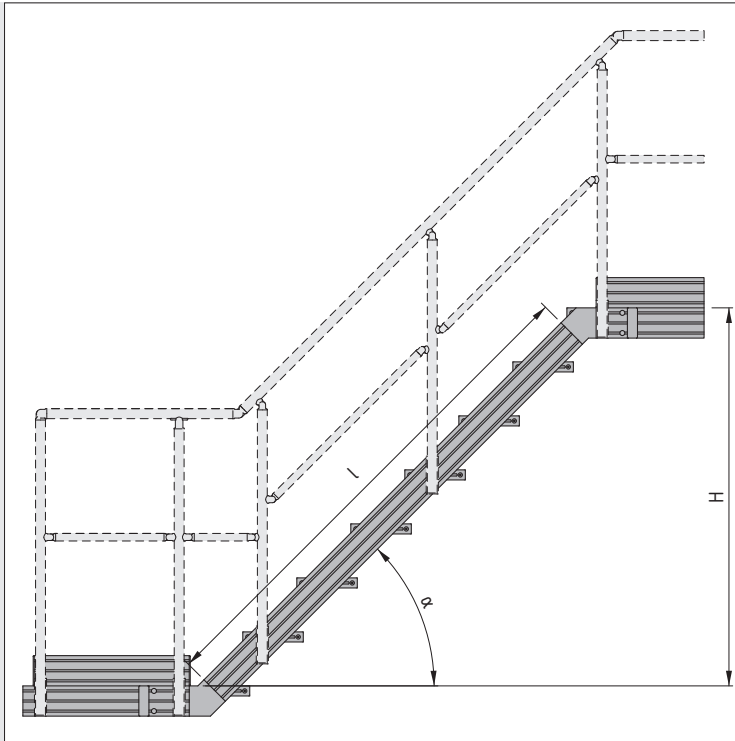


A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
16.12	4.35	24.22	220.54	18.44	12.11	36.76
natural, cut-off max. 6000 mm						0.0.416.66
natural, 1 pce., length 6000 mm						0.0.453.13



Stairway Assembly Set PP

- For connecting two different levels made of Line 8 profiles
- 4 different pitches
- Custom height
- Includes fastening materials
- Profile 8 120x40 light is recommended for use as a stringer



Length l of the stringer profile:

$$l = \frac{H - x}{\sin \alpha}$$

α	30°	38°	45°	60°
x	55.9 mm	73.1 mm	83.6 mm	92.4 mm

Stairway Assembly Set PP 30°

4 step angle brackets 30°, St, powder-coated RAL 9006 white aluminium
 4 Profiles 120x40 light 160 mm, Al, anodized
 4 Angle Brackets 8 40x40x40, St, bright zinc-plated
 12 Universal-Fastening Sets 8, St
 24 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 24 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm b = 160 mm $\alpha = 30^\circ$ $\beta = 30^\circ$ m = 9.1 kg

1 set 0.0.653.14

Stairway Assembly Set PP 38°

4 step angle brackets 38°, St, powder-coated RAL 9006 white aluminium
 4 Profiles 120x40 light 160 mm, Al, anodized
 4 Angle Brackets 8 40x40x40, St, bright zinc-plated
 12 Universal-Fastening Sets 8, St
 24 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 24 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm b = 160 mm $\alpha = 38^\circ$ $\beta = 38^\circ$ m = 9.3 kg

1 set 0.0.653.15

Stairway Assembly Set PP 45°

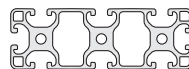
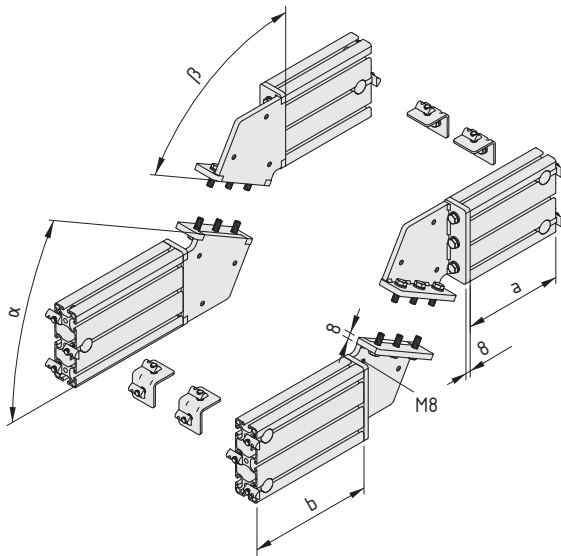
4 step angle brackets 45°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 120 mm, Al, anodized
 2 Profiles 120x40 light 160 mm, Al, anodized
 4 Angle Brackets 8 40x40x40, St, bright zinc-plated
 12 Universal-Fastening Sets 8, St
 24 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 24 washers ISO 7089-8-200, St, bright zinc-plated
 a = 120 mm b = 160 mm $\alpha = 45^\circ$ $\beta = 45^\circ$ m = 8.9 kg

1 set 0.0.653.16

Stairway Assembly Set PP 60°

4 step angle brackets 60°, St, powder-coated RAL 9006 white aluminium
 2 Profiles 120x40 light 160 mm, Al, anodized
 2 Profiles 120x40 light 200 mm, Al, anodized
 4 Angle Brackets 8 40x40x40, St, bright zinc-plated
 12 Universal-Fastening Sets 8, St
 24 hexagon screws ISO 4017-M8x25, St, bright zinc-plated
 24 washers ISO 7089-8-200, St, bright zinc-plated
 a = 160 mm b = 200 mm $\alpha = 60^\circ$ $\beta = 60^\circ$ m = 9.4 kg

1 set 0.0.653.17



Profile 8 120x40 light



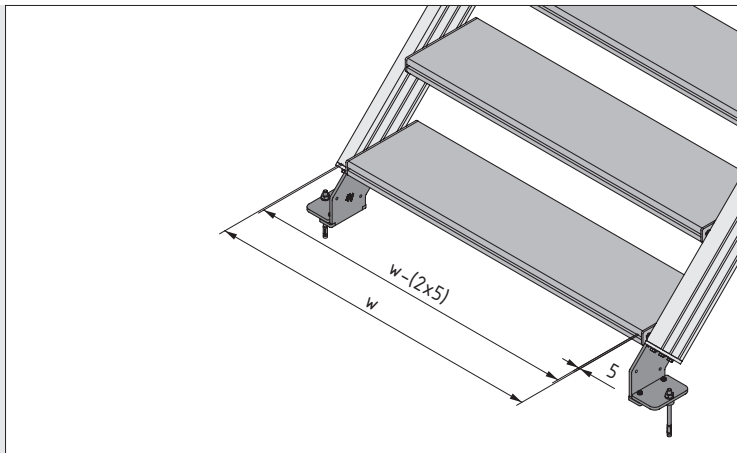
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
16.12	4.35	24.22	220.54	18.44	12.11	36.76
natural, cut-off max. 6000 mm						0.0.416.66
natural, 1 pce., length 6000 mm						0.0.453.13



Steps

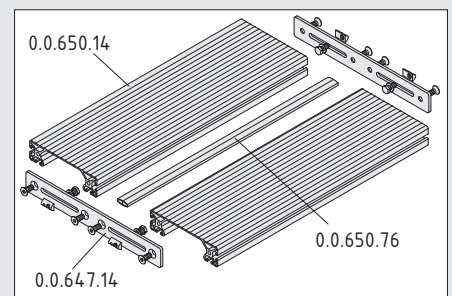
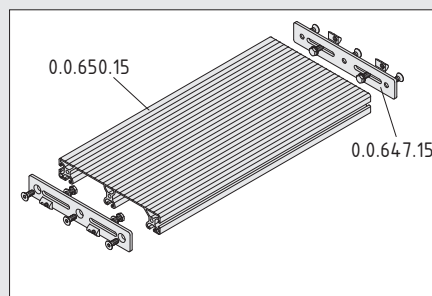
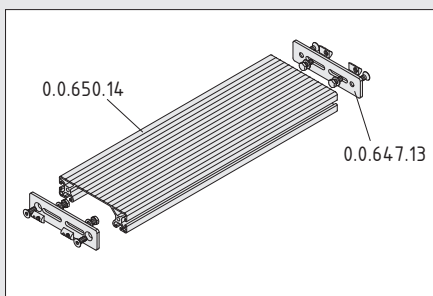
- Small number of components
- 3 step depths
- Step Bracket Sets include fixings

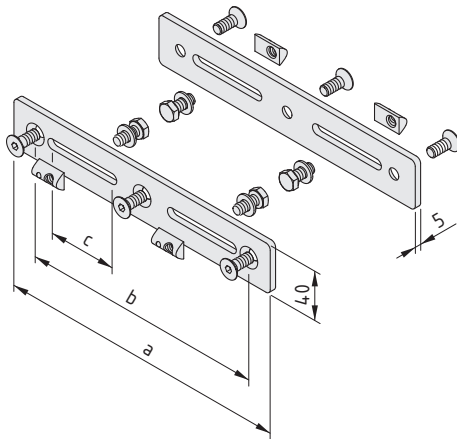
The depth of a step is determined by the Step Profile that is used. In the case of stairways with pitches of 30° or 38°, two Step Profiles 8 160 should be connected together using Step Profile Bracket Set 8 320. Step Profile 8 240 is ideal for 45° stairways. To ensure the minimum requirements are met for stairways that are being used by several people at the same time, it recommends a maximum width of 1200 mm. The two 5 mm-wide fastening brackets must be taken into account when calculating the overall width.



Length l of the Step Profile:

$$l = w - (2 \times 5 \text{ mm})$$





Step Profile Bracket Set 8 160



2 step profile flat brackets 160, St, powder-coated RAL 9006 white aluminium
 4 T-Slot Nuts 8 St M8, St, bright zinc-plated
 4 Countersunk Screws DIN 7991-M8x20, St, bright zinc-plated
 4 washers ISO 7089-8-200, St, bright zinc-plated
 4 hexagon screws ISO 4017-M8x18, St, bright zinc-plated
 a = 160 mm b = 120 mm c = 36 mm m = 552.0 g

1 set 0.0.647.13

Step Profile Bracket Set 8 240



2 step profile flat brackets 240, St, powder-coated RAL 9006 white aluminium
 4 T-Slot Nuts 8 St M8, St, bright zinc-plated
 6 Countersunk Screws DIN 7991-M8x20, St, bright zinc-plated
 4 washers ISO 7089-8-200, St, bright zinc-plated
 4 hexagon screws ISO 4017-M8x18, St, bright zinc-plated
 a = 240 mm b = 200 mm c = 56 mm m = 782.0 g

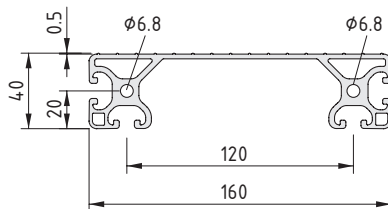
1 set 0.0.647.15

Step Profile Bracket Set 8 320



2 step profile flat brackets 320, St, powder-coated RAL 9006 white aluminium
 4 T-Slot Nuts 8 St M8, St, bright zinc-plated
 8 Countersunk Screws DIN 7991-M8x20, St, bright zinc-plated
 4 washers ISO 7089-8-200, St, bright zinc-plated
 4 hexagon screws ISO 4017-M8x18, St, bright zinc-plated
 a = 320 mm b = 280 mm c = 80 mm m = 1.0 kg

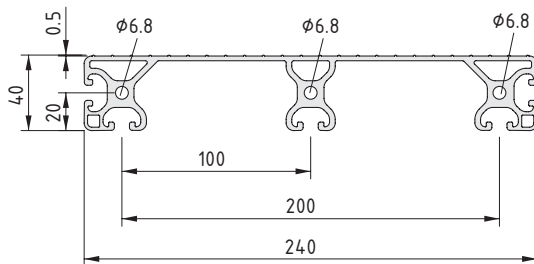
1 set 0.0.647.14



Step Profile 8 160



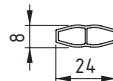
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
13.35	3.60	22.18	469.67	5.32	9.32	58.69
natural, cut-off max. 6000 mm						0.0.650.14
natural, 1 pce., length 6000 mm						0.0.649.97



Step Profile 8 240



A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
19.06	5.14	31.75	1,297.03	7.66	13.18	108.09
natural, cut-off max. 6000 mm						0.0.650.15
natural, 1 pce., length 6000 mm						0.0.650.07



Step Spacer Profile 24x8

PE-HD
 m = 56 g/m

cut-off max. 3000 mm 0.0.650.76

1 pce., length 3000 mm 0.0.650.75



At the highest level – the platform.

The Stairway/Platform System makes it incredibly easy to design platforms because all types of application can be implemented using the same basic components.

Specially shaped Frame Profile 8 120x40 is used to build stairway landings, gangways and working platforms. Panels comprising Step Profile 8 160 or 8 240 are laid in the cutout section. Measuring up to 6000 mm in length, the ridged Step Profiles are used as both steps and as long floor panels in platforms. As a result, Step Profiles can be installed in parallel to form a spacious working platform measuring up to 36 m² in area. The frame and step are installed flush to create a single continuous level, thereby eliminating any potential trip hazard.

The Glide Tape applied between the aluminium profiles prevents noise disturbance in quiet areas.

Thanks to its Line 8 groove, Frame Profile 8 120x40 is compatible with the MB Building Kit System. As a result, all the accessories in the MB Building Kit System can be attached to it in addition to the guard-rail system. Building full working platforms with enclosures, guards, doors and integrated work stations couldn't be easier. When using the Stairway/Platform System, stairways and platforms become integral components in one and the same machine base.



Basic frames

Frame Profile 8 120x40 light makes it easier than ever to build a platform frame. It features a 20 mm-wide ledge designed to support the floor surface.

- Frame Profile 8 120x40 light (0.0.650.89)

When using Profile 8 120x40 light, frames can be built in any width up to 6 m.

- Profile 8 120x40 light (0.0.416.66)



Floor surfaces

A floor surface can be created by combining a Step Profile 8 160 with a Step Profile 8 240. item recommends fitting self-adhesive Glide Tape between the ledge on the Frame Profile and the Step Profile to reduce friction between materials.

- Step Profile 8 160 (0.0.650.14)

- Step Profile 8 240 (0.0.650.15)

- Glide Tape 15x0.15 SA (0.0.655.28)

Angle Bracket 8 40x40x40 St can be used to create a screw attachment between the underside of the Step Profiles and the grooves. As the Angle Bracket can be used to install Step Profiles directly up against each other, platforms from a length of 240 mm can be built in a grid from 80 mm up to 6000 mm.

- Angle Bracket 8 40x40x40 St (0.0.653.09)

The Platform Cleat can be used to fasten the profiles from above, creating an additional 10 mm gap between the Step Profiles.

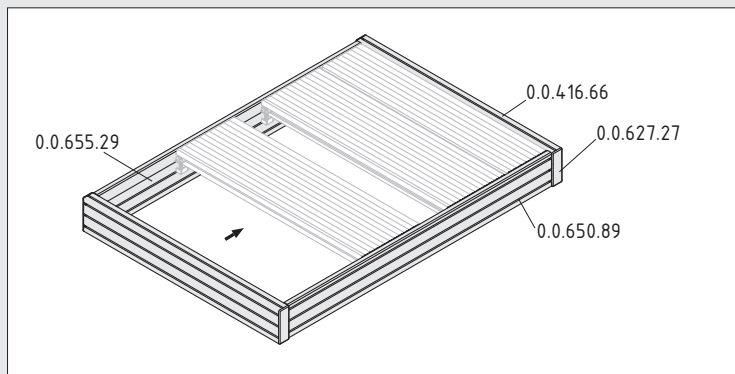
- Platform Cleat (0.0.651.74)



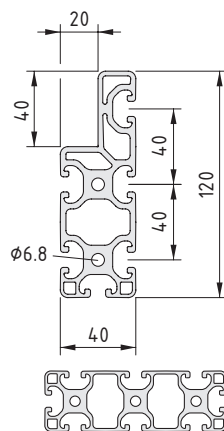
Basic frames and floor surfaces

- Unbroken surface
- Modular design up to 36 m²
- Compatible with the MB Building Kit System

Basic frames



The basic frame that accommodates the floor surface consists primarily of Frame Profile 8 120x40 light, which is joined via its end-face to Profile 8 120x40 light.



Frame Profile 8 120x40 light

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
15.92	4.30	180.55	23.01	17.21	27.60	10.45
natural, cut-off max. 6000 mm						0.0.650.89
natural, 1 pce., length 6000 mm						0.0.650.88

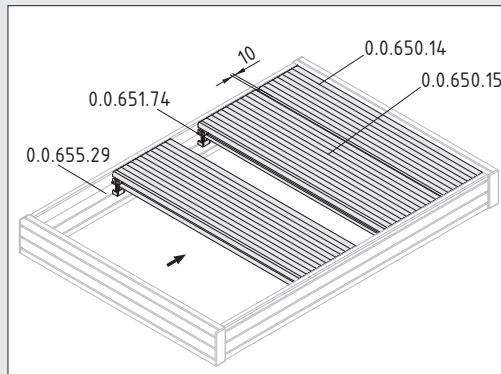
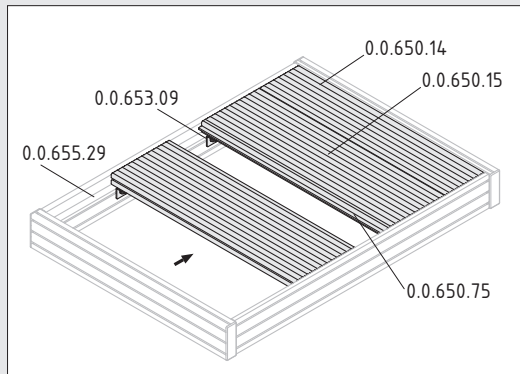
Profile 8 120x40 light

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
16.12	4.35	24.22	220.54	18.44	12.11	36.76
natural, cut-off max. 6000 mm						0.0.416.66
natural, 1 pce., length 6000 mm						0.0.453.13

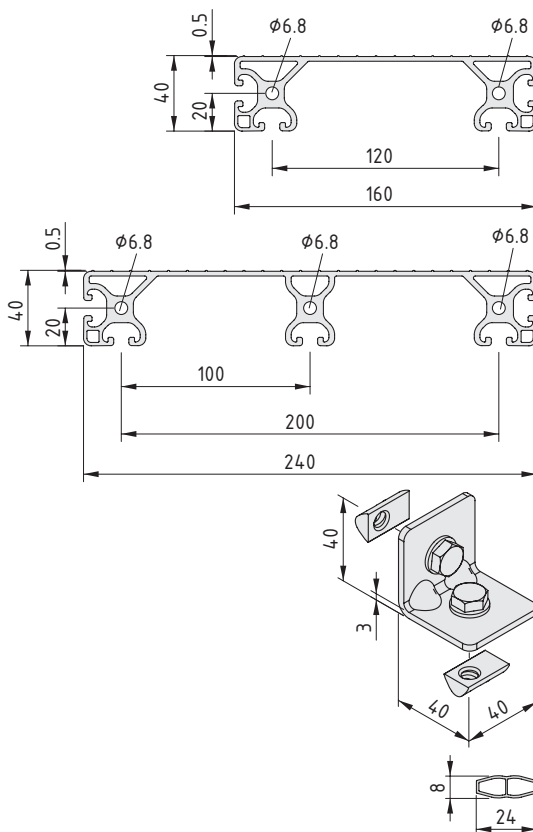
Cap 8 120x40

a = 120 mm	b = 40 mm	c = 4.0 mm	m = 15.2 g	
black, 1 pce.				0.0.418.54
grey similar to RAL 7042, 1 pce.				0.0.627.27

Floor surfaces



The panels can either be arranged to form one solid surface or be installed with 10-mm gaps between them. Platform Cleats produce a consistent gap that allows liquids to drain away, for example. Unbroken surfaces with no hazardous edges to present a trip hazard can be built using Angle Brackets 8 40x40x40 St and Step Spacer Profiles 24x8.



Step Profile 8 160

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
13.35	3.60	22.18	469.67	5.32	9.32	58.69
natural, cut-off max. 6000 mm						0.0.650.14
natural, 1 pce., length 6000 mm						0.0.649.97

Step Profile 8 240

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
19.06	5.14	31.75	1,297.03	7.66	13.18	108.09
natural, cut-off max. 6000 mm						0.0.650.15
natural, 1 pce., length 6000 mm						0.0.650.07

Angle Bracket 8 40x40x40 St

Angle Bracket 40x40x40, St, bright zinc-plated
2 hexagon screws ISO 4017-M8x16, St, bright zinc-plated
2 washers ISO 7089-8, St, bright zinc-plated
2 T-Slot Nuts 8 St M8, St, bright zinc-plated
m = 116.0 g

1 set	0.0.653.09
-------	------------

Step Spacer Profile 24x8

PE-HD
m = 56 g/m

cut-off max. 3000 mm	0.0.650.76
1 pce., length 3000 mm	0.0.650.75

Platform Cleat

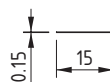
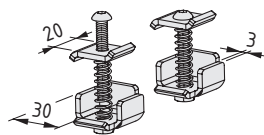
2 platform cleat top sections, St, bright zinc-plated
2 platform cleat bottom sections, St, bright zinc-plated
2 compression springs, St, bright zinc-plated
2 Button-Head Screws ISO 7380-M6x45, St, bright zinc-plated
m = 118.0 g

1 set	0.0.651.74
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Glide Tape 15x0.15 SA

PE-UHMW
m = 3.5 g/m

cut-off max. 33 m	0.0.655.29
1 roll length 33 m	0.0.655.28



Safety really can be convenient – the guard-rails.



Guard-rail systems often comprise a huge range of varied fasteners. That is not the case in the Stairway/Platform System. Five fasteners are all it takes to cover all requirements. They link stanchions with stairways or platforms, connect to hand-rails and provide a secure hold for knee-rails. That makes things much easier for design engineers, who don't have to use separate components for each individual job. If the construction has to be modified at a later point in time, the existing components can be reused very easily. What's more, far fewer individual parts need to be held in stock.

Guard-rails in the Stairway/Platform System are cylindrical, clean and safe. Stanchions and hand-rails are made from Profiles 8 D40 with one or two grooves that can be sealed to form clean, closed cylindrical surfaces, thereby giving dirt no place to hide and minimising injury hazards. Slimline Profile 6 D30 4N is used to form knee-rails.

The Stairway/Platform System is geared up for the construction of mandatory safety features such as knee and foot-rails. As a result, users have no trouble complying with – and even exceeding – stipulations laid down by the ISO and statutory accident insurance and prevention institutions in Germany. For example, foot-rails made from Profile 8 120x16 E are 20 mm higher than the specifications set out in DIN EN ISO 14122.



Stanchions and foot-rails

item recommends that Profile 8 D40 2N180 is used to create stanchions of any height by being combined with the Stanchion Base Socket and fitted in place with the enclosed fixings. Thanks to the slots, the Stanchion Base Socket can be fitted both to the sides of platforms and any stairway. The top hole in the Stanchion Base Socket is used to attach foot-rails made from Profile 8 120x16 E to a platform. Gap-free foot-rails stop objects from falling off platforms.

- Profile 8 D40 2N180 (0.0.493.42)
- Stanchion Base Socket (0.0.651.44)
- Profile 8 120x16 E (0.0.650.86)

Hand-rails

When connected to a stanchion, Profile 8 D40 3N creates a perfect hand-rail for a platform. The Stanchion Fastener is simply screw-attached to the groove. What's more, the Stanchion Angle Fastener makes it easy to fit a hand-rail to the stanchions of a stairway at any angle.

The Hand-Rail Joint is fitted between the end-faces of profiles to join together hand-rails at any angle. It is ideal for the transition point between the hand-rail of a stairway and the hand-rail of a platform. What's more, the Hand-Rail Joint is also used as a fastener at corners.

- Profile 8 D40 3N (0.0.493.45)
- Stanchion Fastener (0.0.620.22)
- Stanchion Angle Fastener (0.0.620.24)
- Hand-Rail Joint (0.0.620.23)

Knee-rails

A knee-rail can save a life by stopping people from falling through the gap under the hand-rail. Profile 6 D30 4N is used as a knee-rail, and is simply screwed to the grooves on two stanchions using two Knee-Rail Angle Fasteners.

- Profile 6 D30 4N (0.0.616.49)
- Knee-Rail Angle Fastener (0.0.620.28)



Stanchions and foot-rails

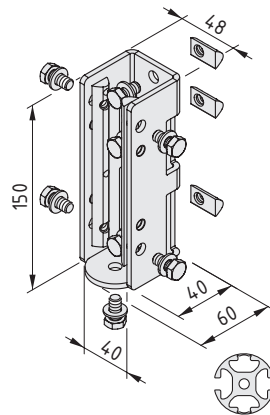
- Extremely strong
- High foot-rails
- Small number of components
- Stanchion Base Socket comes with fixings
- Satisfies the stability required by EN ISO 14122 with stanchion spacings up to 1200 mm

Stanchions sometimes have to withstand high loading moments. That's why the Stairway/Platform System uses the sturdy cylindrical Profile 8 D40 2N180, which has a diameter of 40 mm. The profile features two grooves located along the direction of travel and closed surfaces on the inside and outside of the stairway.

The Stanchion Base Socket has several jobs. Firstly, it connects stanchions in various angles to the stringer on a stairway or the profile on a platform. Regardless of whether a stairway has a pitch of 30°, 38°, 45° or 60°, or a stanchion is to be fitted at a right angle to a platform, the same Stanchion Base Socket is always used. Secondly, the Socket is used to fasten a foot-rail in place.

The Stanchion Base Socket ensures that the moment resulting from the stanchion lengths stipulated in the guidelines is optimally transferred to the platform. Consequently, profile deflection is virtually nil. Thanks to the sturdy design solution, stanchions can be installed at intervals of up to 1200 mm.

Platforms also need a foot-rail to stop objects falling off and to reduce the gap between the knee-rail and the platform. The Stairway/Platform System uses Profile 8 120x16 E – screwed to the Stanchion Base Socket – for this purpose. It is higher than the 100 mm stipulated in DIN EN ISO 14122.



Stanchion Base Socket

Stanchion socket, St, white aluminium similar to RAL 9006
 3 T-Slot Nuts 8 St M8, St, bright zinc-plated
 2 special T-Slot Nuts 8 St 2xM8-130 M8, St, bright zinc-plated
 8 washers DIN 125-8, St, bright zinc-plated
 8 hexagon screws ISO 4017-M8x16, St, bright zinc-plated
 m = 813.0 g

1 set	0.0.651.44
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Profile 8 D40 2N180



Profile features easy-to-open groove(s)

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
5.58	1.50	6.13	5.63	3.16	3.07	2.92
natural, cut-off max. 6000 mm						0.0.493.42
natural, 1 pce., length 6000 mm						0.0.493.43

Profile 8 120x16 E

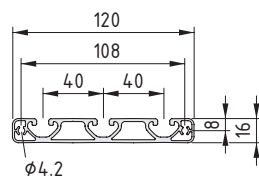


A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
6.97	1.89	2.31	87.54	2.69	2.77	14.59
natural, cut-off max. 6000 mm						0.0.650.86
natural, 1 pce., length 6000 mm						0.0.650.85

Cap 8 120x16



PA-GF			
a = 120 mm	b = 16 mm	c = 4 mm	m = 6.0 g
grey similar to RAL 7042, 1 pce.			0.0.650.87





Hand-rails

- Continuous – no gaps
- Small number of components
- Fasteners come with fixings

A hand-rail helps prevent a fall and is a useful aid when climbing stairways. As a result, it has to be both stable and ergonomic. The Stairway/Platform System uses the cylindrical Profile 8 D40 3N. All open grooves and ends can be closed using Cover Profile 8 and the Hand Rail Cap.

The hand-rail is mounted on the Stanchion Angle Fastener. This fastener creates a durable and stable connection while its integrated joint also means that hand-rails can be installed at any angle.

The Hand-Rail Joint is similarly versatile. It connects Profiles 8 D40 at any angle via their end faces, thus ensuring that direct transitions can be made between stairway and platform guard-rails and at the corners of guard-rails. This eliminates any gaps, which makes the guard-rails more stable and safer.

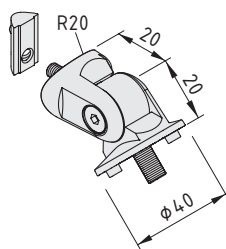


Profile 8 D40 3N



Profile features easy-to-open groove(s)

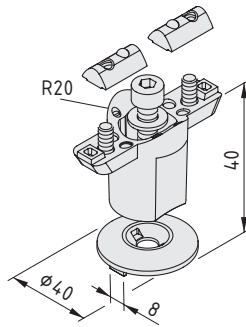
A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	I _t [cm ⁴]	W _x [cm ³]	W _y [cm ³]
5.64	1.53	5.88	6.13	4.82	2.97	3.07
natural, cut-off max. 6000 mm						0.0.493.45
natural, 1 pce., length 6000 mm						0.0.493.46



Stanchion Angle Fastener

Joint element D40, die-cast Al, white aluminium similar to RAL 9006
 Joint element D30-R20, die-cast Al, white aluminium similar to RAL 9006
 Joint element spacer, St, white aluminium similar to RAL 9006
 T-Slot Nut V 8 St M6, St, bright zinc-plated
 2 Countersunk Screws DIN 7991 M6x10, St, bright zinc-plated
 Countersunk Screw DIN 7991-M6x18, St, bright zinc-plated
 Special Countersunk Screw DIN 7991-M8x20, St, bright zinc-plated
 m = 110.0 g

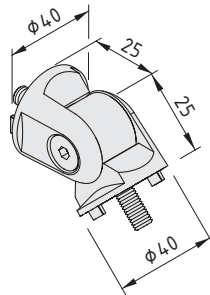
1 set	0.0.620.24
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Stanchion Fastener

Stanchion Fastener, die-cast Al, white aluminium similar to RAL 9006
 Hand Rail Cap, die-cast Al, white aluminium similar to RAL 9006
 Hexagon Socket Head Cap Screw DIN 912-M8x25, St, bright zinc-plated
 Washer ISO 7089-8, St, bright zinc-plated
 2 T-Slot Nuts V 8 St M6, St, bright zinc-plated
 2 Countersunk Screws DIN 7991-M6x16, St, bright zinc-plated
 m = 108.0 g

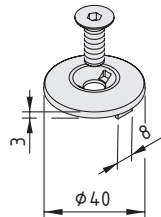
1 set	0.0.620.22
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Hand-Rail Joint

2 joint elements D40, die-cast Al, white aluminium similar to RAL 9006
 Joint element spacer, St, white aluminium similar to RAL 9006
 2 Countersunk Screws DIN 7991-M8x14, St, bright zinc-plated
 2 Countersunk Screws DIN 7991-M8x25, St, bright zinc-plated
 m = 197.0 g

1 pce.	0.0.620.23
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Hand-Rail Cap

Hand-Rail Cap, die-cast Al, white aluminium similar to RAL 9006
 Countersunk Screw DIN 7991-M8x22, St, bright zinc-plated
 m = 20.0 g

1 set	0.0.620.19
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Cover Profile 8



PP/TPE
 m = 19 g/m

natural, 1 pce., length 2000 mm	0.0.422.23
grey similar to RAL 7042, 1 pce., length 2000 mm	0.0.489.45



Knee-rails

- Satisfy standard DIN EN ISO 14122 and OSHA 1910 in lengths up to 1200 mm on stairways and platforms
- Added protection against falls

Safe guard-rails need a knee-rail to stop users falling through the gap under the hand-rail. The Stairway/Platform System uses Profile 6 D30 as a weight-optimised barrier for this application. The Knee-Rail Angle Fastener, which is screw-attached to the end face of a knee-rail and the groove on a stanchion, holds knee-rails securely in place on the stanchions. The integrated joint in the fastener also means knee-rails can be built to match any stairway pitch or installed horizontally on platforms.

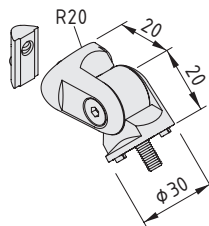


Profile 6 D30 4N



Al, anodized

A [cm ²]	m [kg/m]	I _x [cm ⁴]	I _y [cm ⁴]	W _x [cm ³]	W _y [cm ³]	
2.98	0.80	1.89	1.89	1.26	1.26	
natural, cut-off max. 6000 mm						0.0.616.49
natural, 1 pce., length 6000 mm						0.0.616.48



Knee-Rail Angle Fastener

Joint element D30, die-cast Al, white aluminium similar to RAL 9006
 Joint element D30-R20, die-cast Al, white aluminium similar to RAL 9006
 Joint element spacer, St, white aluminium similar to RAL 9006
 T-Slot Nut V 8 St M6, St, bright zinc-plated
 2 Countersunk Screws DIN 7991-M6x18, St, bright zinc-plated
 2 Countersunk Screws DIN 7991-M6x10, St, bright zinc-plated
 m = 102.0 g

1 set	0.0.620.28
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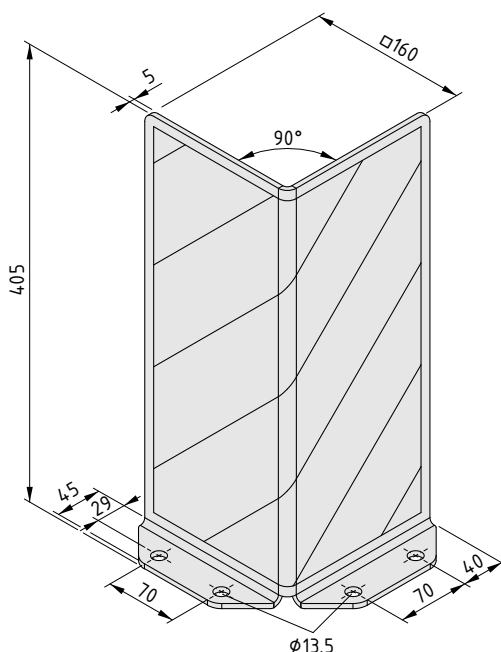
Accessories and tools

- Protects against collisions
- Increases the slip rating of Step Profiles to R12
- Can be fitted quickly and easily

The German health and safety guideline DGUV Regulation 108-007 (previously BGR 234) stipulates that the corner areas of stairways that are situated on a route used by forklifts or other freely steerable machinery must be fitted with a mechanical covering. The robust item Collision Guard L is anchored to the ground and acts as a fixed guard to stop vehicles colliding with the stairway. The L-shaped Collision Guard is 405 mm tall and is not connected to the stairway. item supplies floor anchors for various surface qualities, such as Floor-Fastening Set M10x135 (0.0.485.82).

The Step Profiles of the Stairway/Platform System are ridged for added grip safety. The self-adhesive Anti-Slip Tape SA, black has a slip rating of R13 and further boosts the safety of steps and platforms.

We recommend that Anti-Slip Hazard Warning Tape SA (yellow & black stripes) is applied in areas where there is a fall or trip hazard. Both Anti-Slip Tapes can be applied easily using Lip Seal Assembly Tool 6-12.



Collision Guard L With Hazard Markings

Collision Guard L, St, signal yellow similar to RAL 1003

Hazard Markings 375x295 SA

m = 5.5 kg

1 pce.

0.0.665.48



Anti-Slip Tape SA, black

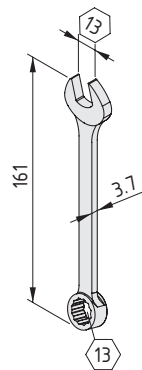
Substrate: PE
Total thickness 1 mm
Slip rating R13 DIN 51130 (complies with specifications in BGR 181)
m = 57 g/m

1 roll, length 6 m	0.0.651.00
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Anti-Slip Hazard Warning Tape SA

Substrate: PE
Total thickness 1 mm
Slip rating R13 DIN 51130 (complies with specifications in BGR 181)
m = 43 g/m

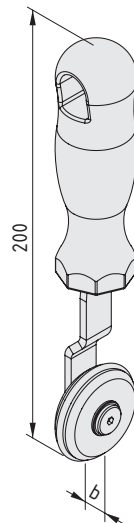
1 roll, length 6 m	0.0.651.01
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Combination Spanner 13 A/F

Chrome vanadium steel, matt chrome-plated
m = 55.0 g

1 pce.	0.0.654.72
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Lip Seal Assembly Tool 6-12

Roller, PA
Bolt, St
Button-Head Screw ISO 7380-M5x10
Handle, PA
b = 8 mm m = 81.0 g

1 pce.	0.0.493.28
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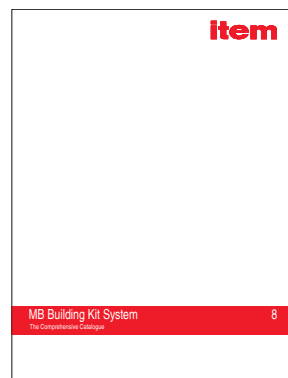
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Other item product catalogues.

MB Building Kit System



item24.de/en/epaper-mb

Lean Production Building Kit System



item24.de/en/epaper-lp

Work Bench System



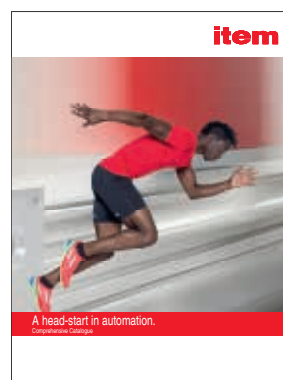
item24.de/en/epaper-wbs

Line XMS



item24.de/en/epaper-xm

Automation System



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