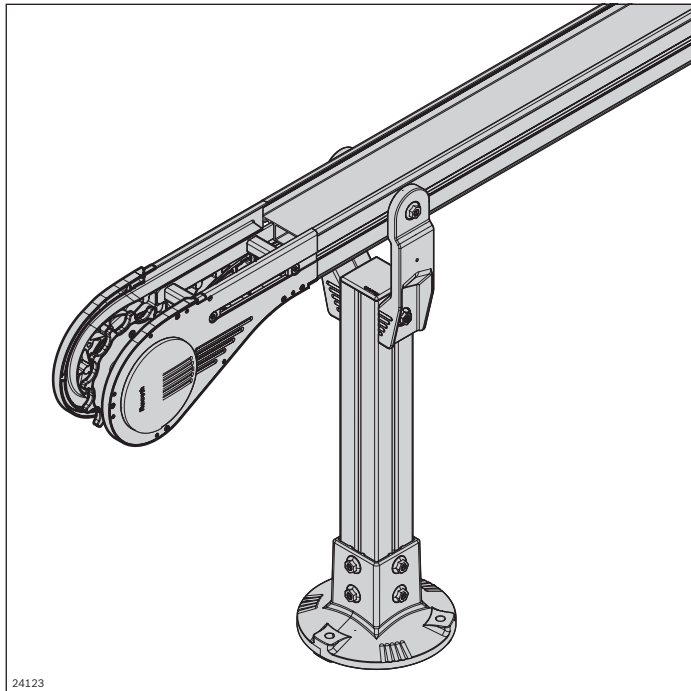


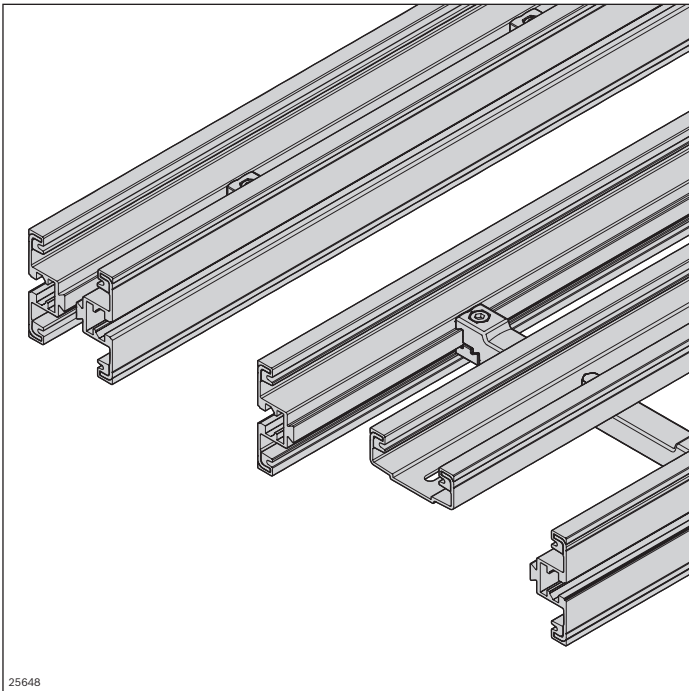
Aluminum system (AL) VarioFlow *plus*



- ▶ Economical conveyor layout for a wide range of applications in the automotive and electronics industries, machine linking, or in the areas of food & packaging and health & care
- ▶ Mounting of sliding rails without rivets or the need to machine the track bearing surfaces
- ▶ Minimal sliding rail interruptions
- ▶ FDA-compliant, low-friction materials for components subject to constant friction
- ▶ Standardized components that can be used universally
- ▶ Continuous product range in the sizes 65, 90, 120, 160, 240, 320







24123

Sections AL

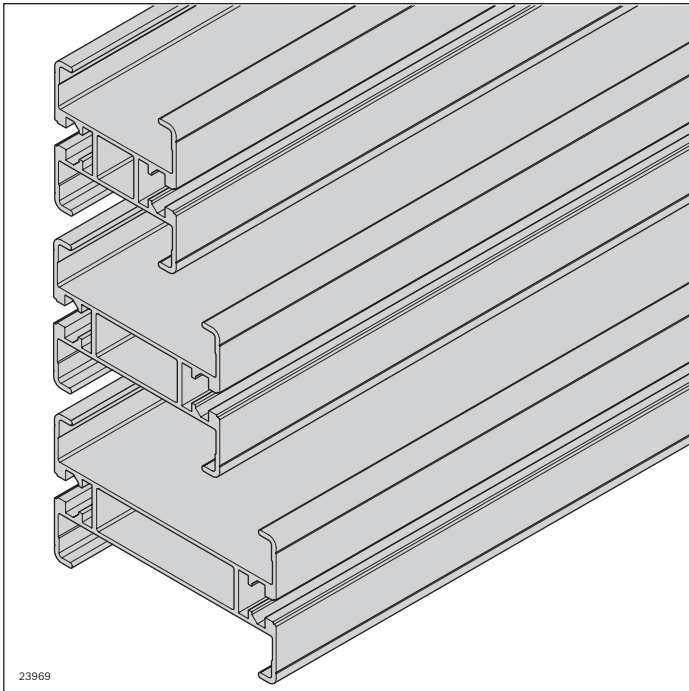


- ▶ Simple assembly of sections thanks to smart connection technology
- ▶ Mounting of sliding rails without rivets or the need to machine the track bearing surfaces
- ▶ Sliding rails with optimized anti-friction properties and FDA-compliant materials
- ▶ One sliding rail cross-section for all sizes
- ▶ Connection technology with plug-through screws
- ▶ Few screwed connections
- ▶ Easy to clean thanks to ample draining surfaces
- ▶ One profile cross-section for open construction in all sizes
- ▶ Closed profile in the sizes 65, 90, 120
- ▶ Use of a support profile from size 160

25648

	Section profile AL closed	52
	Section profile AL open	54
	Sliding rail	56
	Steel sliding rail	58
	Profile connector AL	60
	Assembly module AL	62

Section profile AL closed



The section profile is the supporting element for the construction of straight conveyor sections and allows for the attachment of all required components.

- Size: 65, 90, 120

- ▶ Slot on the inside for attaching main components such as drive/return unit, curves, etc.
- ▶ Slot on the outside for fastening lateral guides, supports, or other accessories
- ▶ If necessary, the sliding rail can be mounted laterally using the centering groove as a drilling aid

Required accessories:

- Sliding rail, see p. 56
- Profile connector, see p. 60

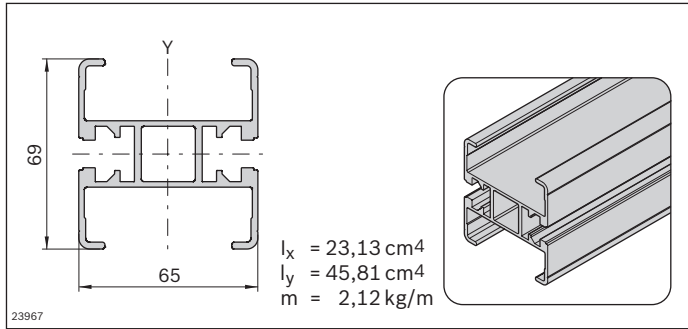
Material:

- Aluminum; natural, anodized

- ▶ Special constructions can be attached quickly and simply with components from the modular aluminum framing system through the 10 mm outside slot.

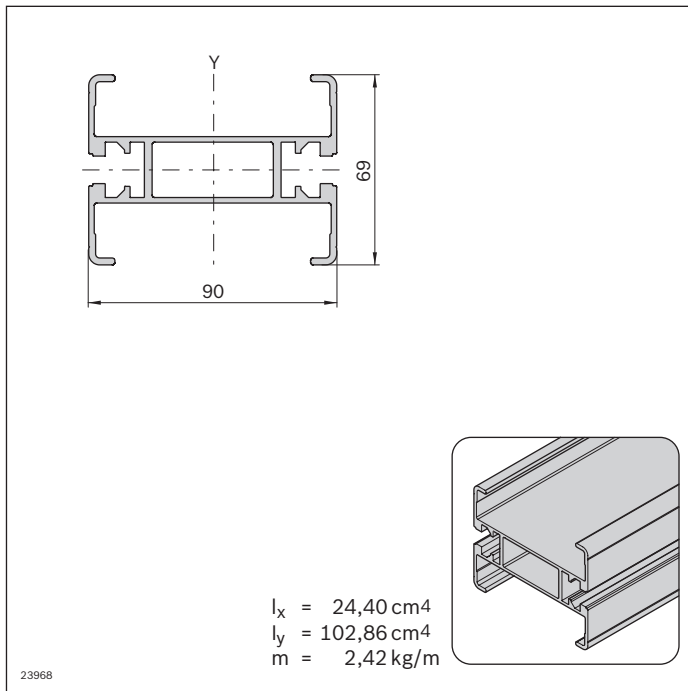
Optional accessories:

- Cover profile, see p. 63

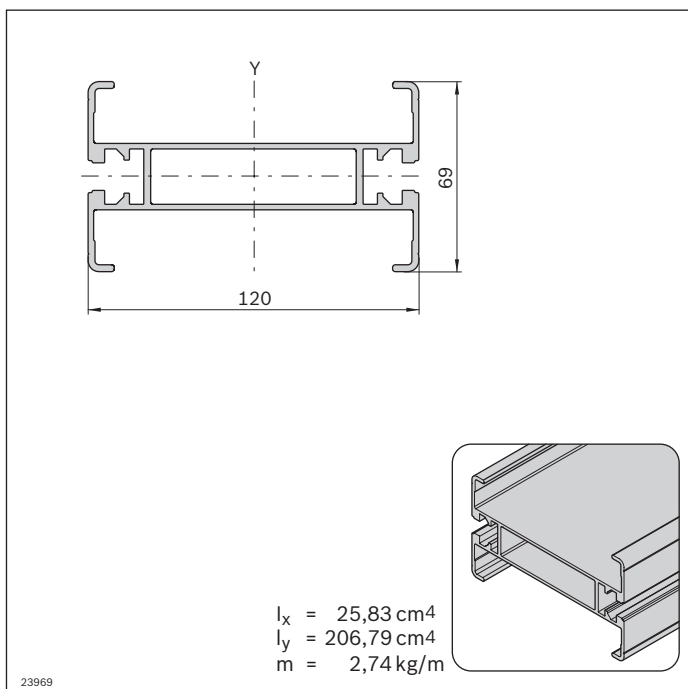


Section profile VFplus 65 AL	L (mm)	No.
12 pcs	6070	3 842 546 643
1 pc	50 ... 6000	3 842 996 022/L

3



Section profile VFplus 90 AL	L (mm)	No.
12 pcs	6070	3 842 546 644
1 pc	50 ... 6000	3 842 996 023/L

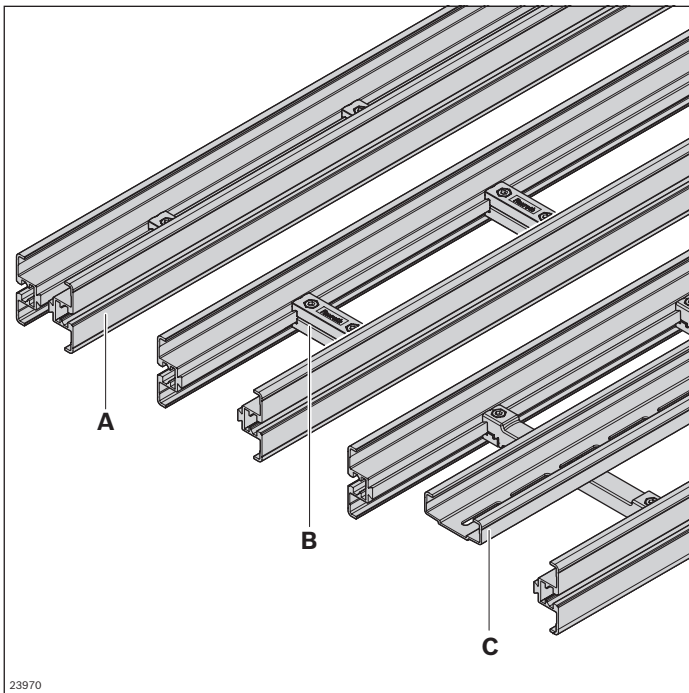


Section profile VFplus 120 AL	L (mm)	No.
6 pcs	6070	3 842 546 645
1 pc	50 ... 6000	3 842 996 024/L

Section profile AL open

Cross connector AL

Support profile AL



Section profile AL open (A)

- ▶ Slot on the inside for attaching main components such as drive/return unit, curves, etc.
- ▶ A 10 mm outside slot for simple fastening of lateral guides, leg sets, or components from the modular aluminum framing system
- ▶ If necessary, the sliding rail can be mounted laterally using the centering groove as a drilling aid

Required accessories:

- **A:** Cross connector, see p. 54; sliding rail, see p. 56; profile connector, see p. 60; support profile from size 160, see p. 55

Optional accessories:

- **A:** Cover profile, see p. 63

The open construction of the section profile (**A**) allows dirt or foreign particles to be removed directly.

To build a conveyor section, 2 open section profiles are required, which are connected by cross connectors.

A support profile is necessary for sizes 160 and up.

- Same profile cross-section across all sizes (65-320)

The cross connector (**B**) is the connection of two profile halves to make an open section profile. The size is determined by using cross connectors of different lengths.

From size 160, a support profile (**C**) is required.

The support profile is attached to the existing cross connectors.

Cross connector AL (B)

- ▶ Cross connector with mounting option for support profile

Support profile AL (C)

- ▶ Elongated holes at regular intervals for fastening

Scope of delivery:

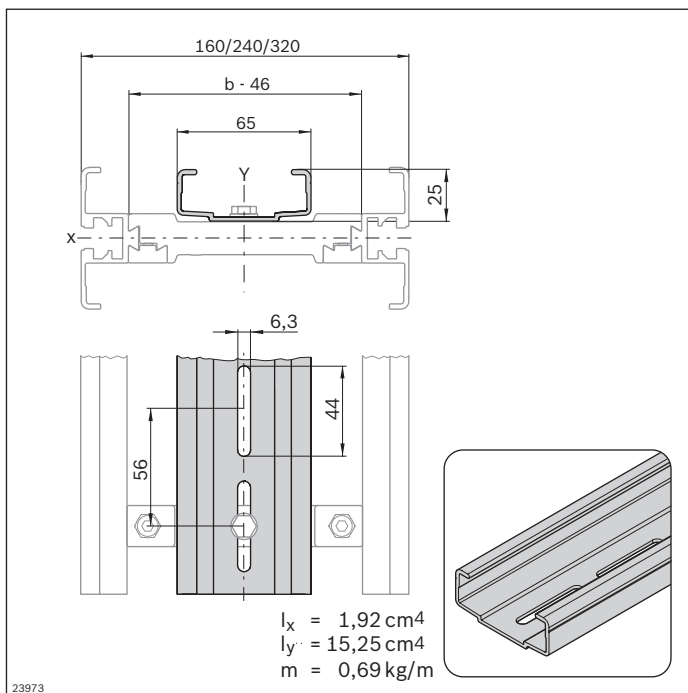
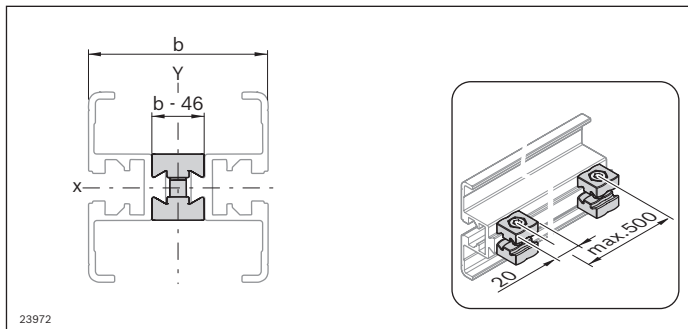
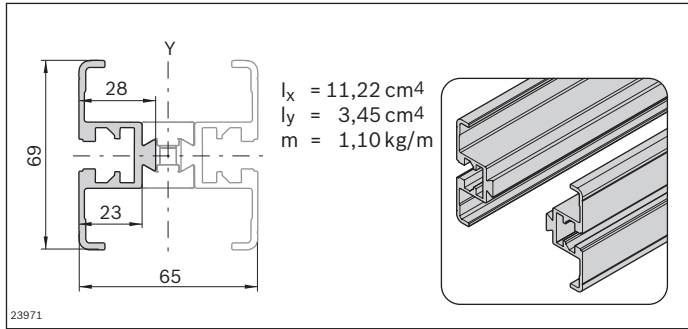
- **B:** Complete, incl. screw for attaching the support profile



Condition on delivery:


- **A, B:** Assembly required


Material:

- **A, C:** Aluminum; natural, anodized
- **B:** Diecast aluminum

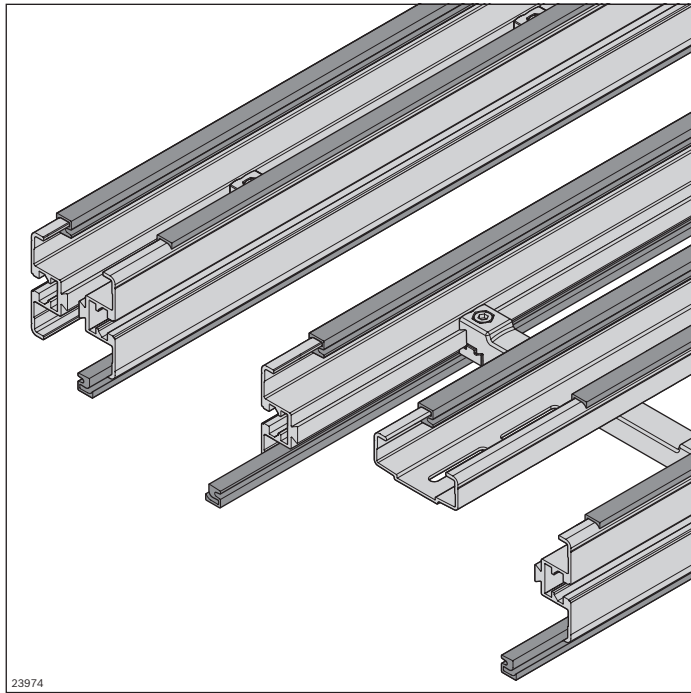


Section profile VFplus AL open	L (mm)	No.
 12 pcs	6070	3 842 546 647
 2 pcs	3000	3 842 546 670
1 pc	50 ... 6000	3 842 996 026/L

Cross connector AL	b (mm)	 No.
VFplus 65	65	10 3 842 546 672
VFplus 90	90	10 3 842 546 673
VFplus 120	120	10 3 842 546 674
VFplus 160	160	10 3 842 546 675
VFplus 240	240	10 3 842 546 676
VFplus 320	320	10 3 842 546 677

Support profile VFplus AL	L (mm)	No.
 12 pcs	6070	3 842 546 705
1 pc	3000	3 842 547 904
1 pc	75 ... 6000	3 842 996 028/L

Sliding rail



- ▶ Easy assembly – simply clip onto the section profile
- ▶ Secured against axial shifting with lateral screw fittings
- ▶ Gliding surface machining: Not required
- ▶ Material
 - with sliding rail Premium, Advanced: FDA CFR 21
 - with sliding rail Basic: EU 10/2011, FDA CFR 21
- ▶ One cross-section for all section profiles AL and STS

Required accessories:

- Sliding rail assembly tool, see p. 288
- Sheet metal screw 2.9x9.5 DIN 7982;
DIN EN ISO 7050 see p. 57
1 screw for each sliding rail section

Material:

- PE-UHMW

The sliding rail is clipped into the section profile and guides the conveyor chain.

Lateral securing means the sliding surface does not need to be machined. Wear and noise level are thus reduced to a minimum.

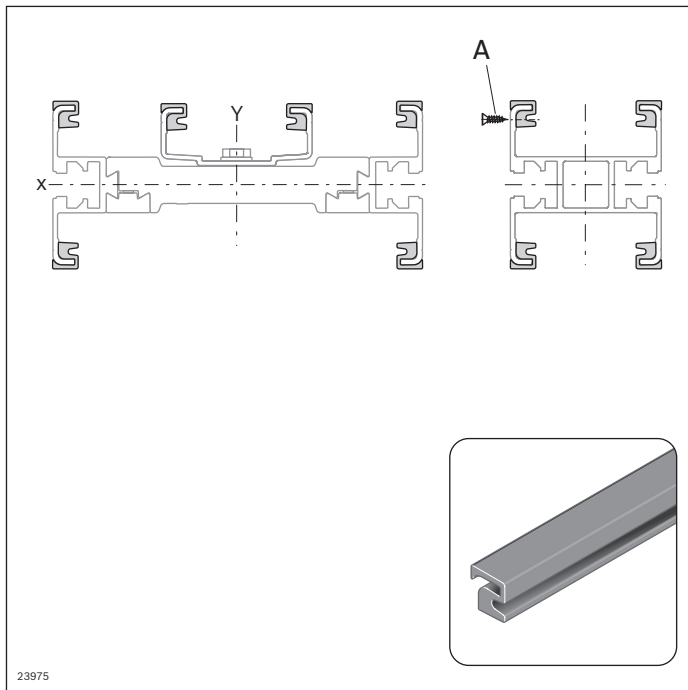
Three sliding rails with different main areas of application are available:


- Basic: Straight sections and curve wheels, v_{\max} 60 m/min
- Advanced: Sections with sliding curves, v_{\max} 60 m/min, clean room
- Premium: Sections with sliding curves, v_{\max} 100 m/min, clean room

For the selection of sliding rails, see the "Technical data" chapter on page 300. See also sliding rails ESD on page 192 and steel sliding rails on page 58.


Extend the sliding rail over the component interfaces to ensure minimum wear and noise emissions. Interruptions to the profile or component connection must be avoided. If an interruption is necessary after 10 m, the sliding rail must be attached laterally with a sheet metal screw (**A**).

Notice: After the sliding curves, an interruption is provided as an expansion joint in the inner curve area.

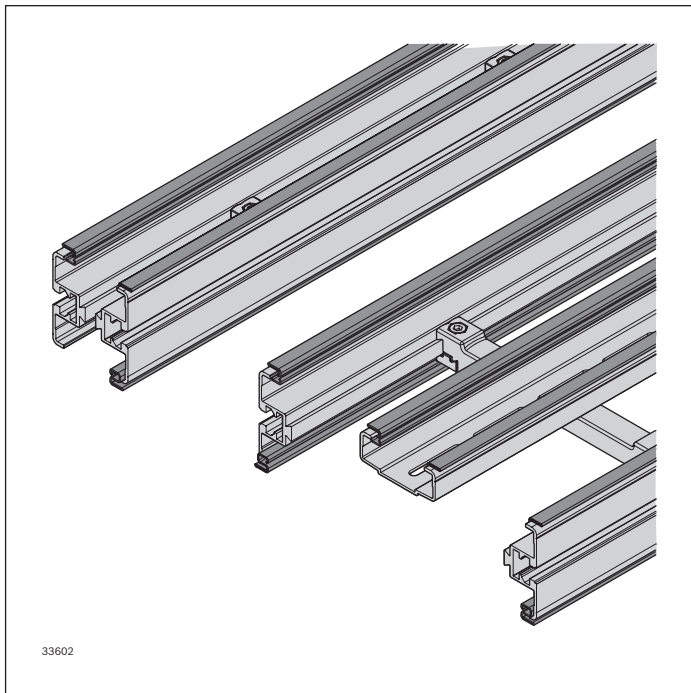


Sliding rail VFplus	Color	L (mm)	 No.
Premium	gray	30000	1 3 842 546 116
Advanced	white	30000	1 3 842 549 727
Basic	blue	30000	1 3 842 549 730

See also sliding rail ESD, see p. 192
and steel sliding rail, see p. 58.

Sheet metal screw	 No.
A	100 3 842 547 908

Steel sliding rail



- ▶ Easy assembly - simply clip onto the section profile
- ▶ Secured against axial shifting via lateral fixing
- ▶ Gliding surface machining: Not required
- ▶ One cross-section for all AL and STS section profiles

Required accessories:

- Pop rivet D3x8 mm, see p. 59
- Number of rivets:
 - Straight sliding rail section: 1 rivet
 - 30°/45° curves: 2 rivets
 - 90° curve: 3 rivets
 - 180° curve: 6 rivets

Material:

- Non-rusting steel 1.4301

The steel sliding rail is suitable for use in abrasive ambient conditions (reduced service life of the conveyor chain). It is clipped in to the section profile and fixed in place at the side via a pop rivet.

The side fixing reduces the friction and the noise level to a minimum. The steel sliding rail butt joints are merely chamfered. The Advanced sliding rail is used in the lower run of the curve wheels.

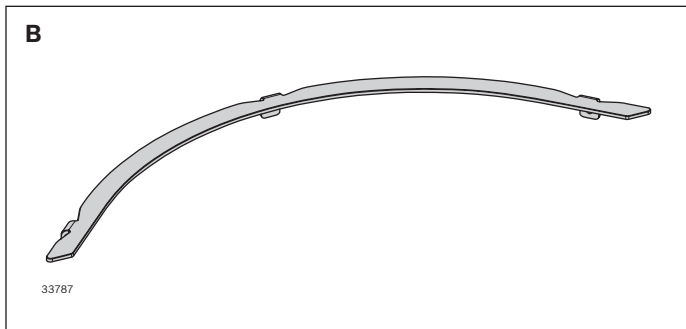
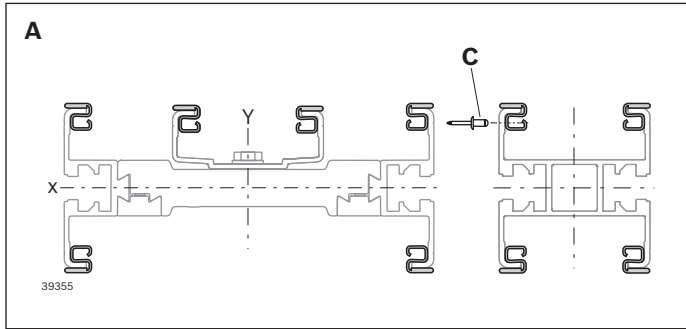
- Steel sliding rail straight section (**A**), not bendable
- Steel sliding rail curve wheels (**B**) 30°, 45°, 90°, 180°
- Dry, wet and abrasive environment
- Size:
 - Straight section: All track widths
 - Curve wheel 65, 90, 120
- Not suitable for use in horizontal sliding curves
- Only Advanced or Premium sliding rails can be used in vertical curves


For the selection of sliding rails, see the "Technical data" chapter on page 300.


Notice: Ensure gap-free assembly (without expansion joint), as foreign bodies could otherwise get trapped in the gap and damage the chain.

Notice: Non-destructive dismantling of the steel sliding rail is not possible. A target separation point of the system must therefore be defined before assembly. Overlap the steel sliding rail by 10 ... 15 mm on the section profile separation point. This ensures that it is still possible to pull apart the two parts.


Extend the steel sliding rail over the component interfaces to ensure minimum wear and reduced noise emissions. Interruptions directly on the profile or component connection must be avoided.





Sliding rail VFplus Steel	L (mm)	 No.
A Straight section	3000	1 3 842 552 970


Pop rivet D3x8mm	 No.
C	100 3 842 557 004

3

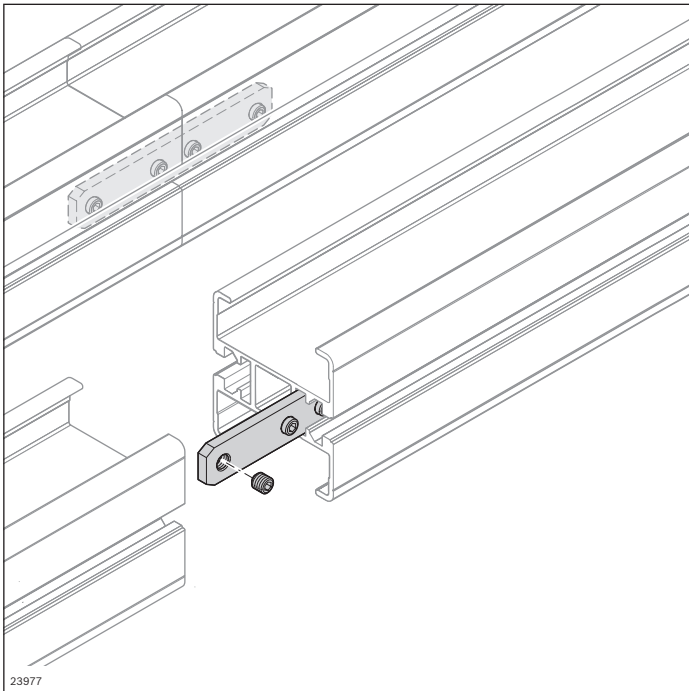
Steel sliding rail; curve wheel VFplus 65	 No.
B Steel 30°	1 3 842 557 030
B Steel 45°	1 3 842 557 031
B Steel 90°	1 3 842 552 972
B Steel 180°	1 3 842 552 973

Steel sliding rail; curve wheel VFplus 90	 No.
B Steel 30°	1 3 842 557 032
B Steel 45°	1 3 842 557 033
B Steel 90°	1 3 842 552 974
B Steel 180°	1 3 842 552 975

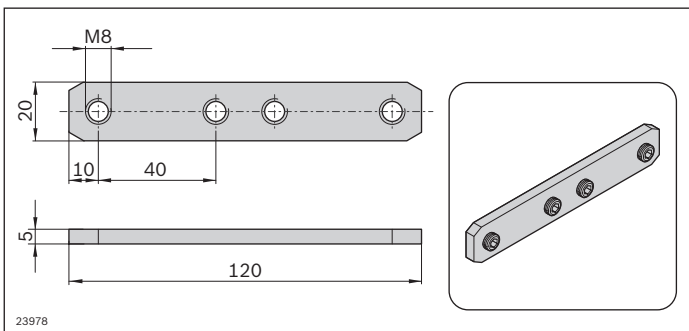
Steel sliding rail; curve wheel VFplus 120	 No.
B Steel 30°	1 3 842 557 034
B Steel 45°	1 3 842 557 035
B Steel 90°	1 3 842 557 036
B Steel 180°	1 3 842 557 037

Pop rivet D3x8mm	 No.
C	100 3 842 557 004

Profile connector AL



Two profile connectors are used to connect the end faces of the section profiles. The profile connector is fixed in the interior slot, so that the slot on the outside is available for all kinds of superstructures.



Scope of delivery:

- Complete

Material:

- Steel; zinc-plated

Condition on delivery:

- Screws pre-assembled and secured

Profile connector VFplus AL



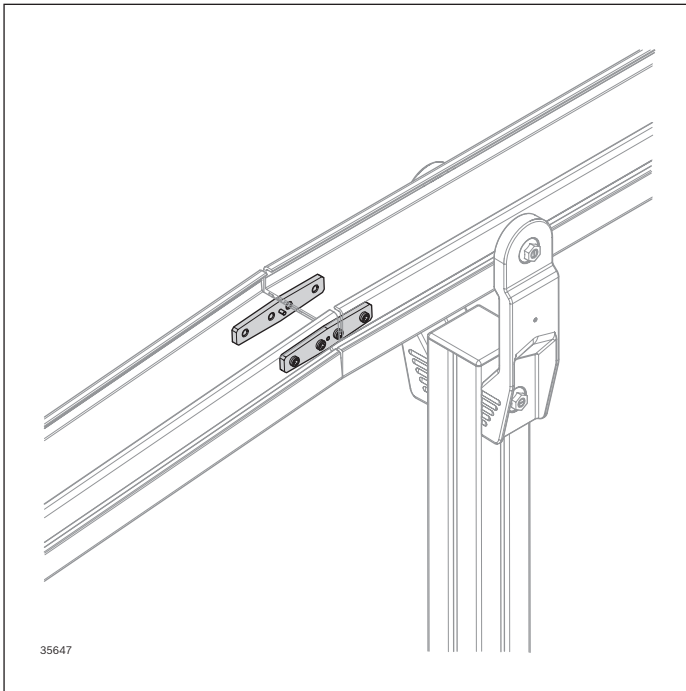
No.

10 **3 842 530 277**

Profile connector AL adjustable 0-5°



3



The adjustable profile connector is suitable for cost-effectively adjusting the vertical inclination of section profiles to an angle of 0-5°.

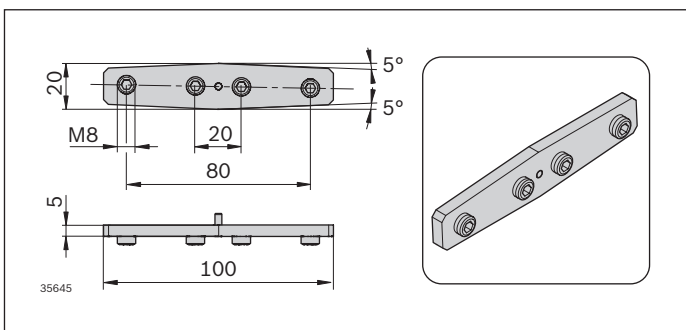
The section profiles do not require a miter cut.

For a smooth transition of the chain, only the sliding rail is pulled over the interfaces of the section profiles.

Thanks to the integrated stop, the profile connector can be fastened precisely in the central position.

The profile connector is fixed in the interior slot, so that the slot on the outside is available for all kinds of superstructures.

- Size: 65, 90, 120
- Leg distance max. 300 mm from the cut edge
- Requires the use of the sliding rails "Advanced" or "Premium"
- Only a rigid connection is permitted (not as a pivot point for height adjustment)
- Can only be connected to section profiles and horizontal sliding curves



Profile connector ADJ 0-5° SET

No.

Set **3 842 559 130**

Scope of delivery:

- Complete (set contains two profile connectors)

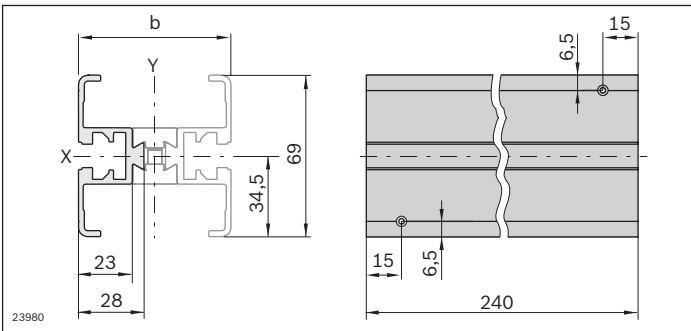
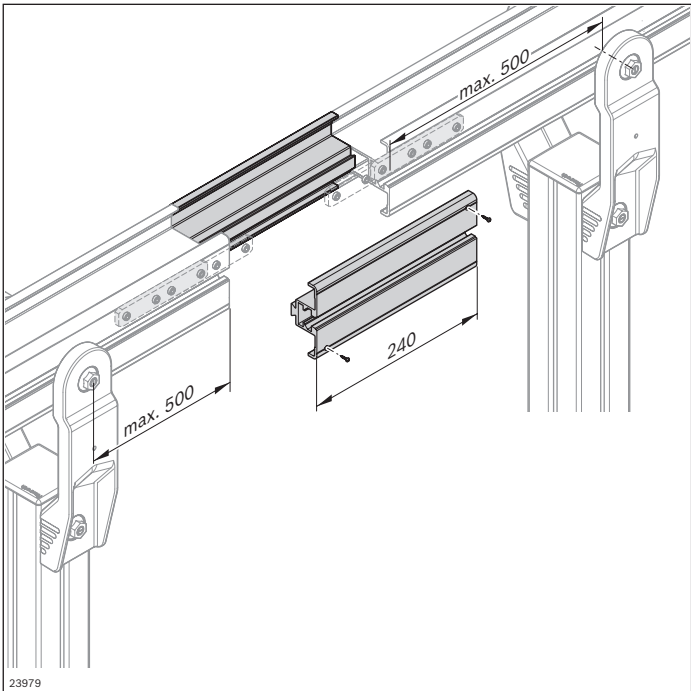
Condition on delivery:

- Screws pre-assembled and secured

Material:

- Steel; zinc-plated

Assembly module AL



Required accessories:

- Sliding rail, see p. 56, 58, 192

Scope of delivery:

- Including 4 profile connectors and sheet-metal screws for fastening the sliding rail


Material:

- Aluminum; natural, anodized
- Profile connector: Steel; zinc-plated

The assembly module is used for inserting and closing or opening the chain. It can be installed at any point on the conveyor section that is easy to access in operation. The assembly module is intended for sections with drives without a chain bag (e.g. wedge conveyor, curve wheel drive).

For attachment options, see matrix on page 313

- Max. distance from the nearest leg sets on both sides is 500 mm
- The support profile with sliding rail is not interrupted in the assembly module to increase the smooth running
- Sliding rail interruption is only required on the side to be opened

	L (mm)	 No.
Assembly module VFplus AL		1 3 842 547 899
Sliding rail VFplus Premium	30000	1 3 842 546 116
Sliding rail VFplus Advanced	30000	1 3 842 549 727
Sliding rail VFplus Basic	30000	1 3 842 549 730
Sliding rail VFplus Steel	3000	1 3 842 552 970
Sliding rail VFplus ESD	30000	1 3 842 557 000

Optional accessories:

- Cover profile, see p. 63

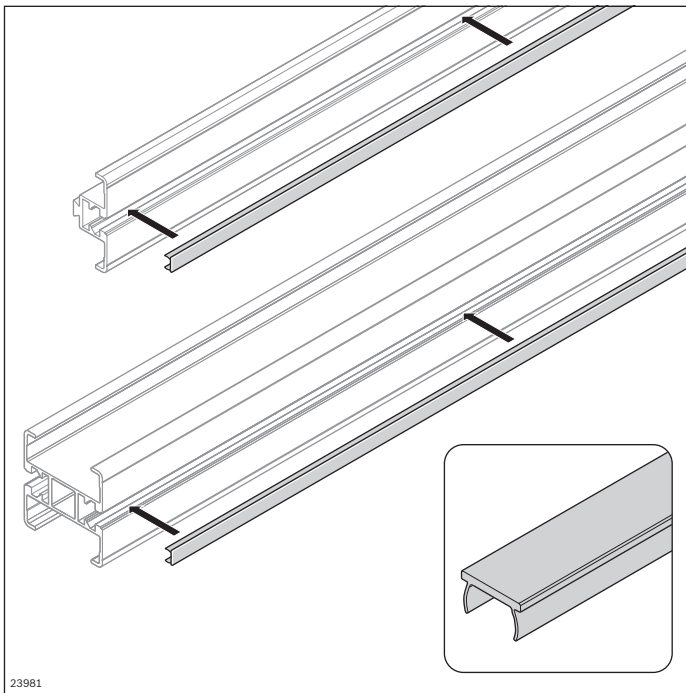
Condition on delivery:

- In single parts

Cover profile






3



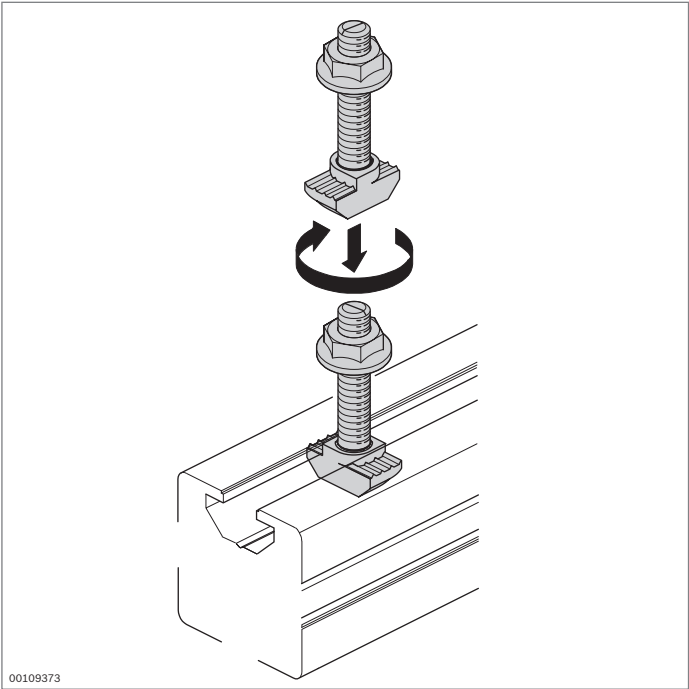
Cover profile to improve system design, to fix cables routed in the profile slot, and to protect the profile slot against contamination

Material:

- AL: Aluminum; natural, anodized
- PVC: Hard PVC; colored

Cover profile	L (mm)		No.
 00109368	AL	2000 10	3 842 523 258
 19502	PVC		
	Signal gray (RAL 7004)	2000 10	3 842 548 876
	Black (RAL 9005)	2000 10	3 842 548 877
	Light gray (RAL 7035)	2000 10	3 842 518 367
	Red (RAL 3020)	2000 10	3 842 518 368
	Yellow (RAL 1023)	2000 10	3 842 518 369
	Green (RAL 6032)	2000 10	3 842 549 888
	Blue (RAL 5010)	2000 10	3 842 538 955
	Orange (RAL 2004)	2000 10	3 842 538 957
	Colorless, transparent	2000 10	3 842 191 182

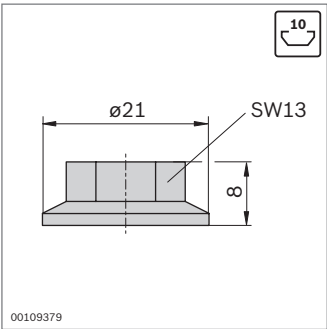
Flange nut
 T-bolt



Fastening elements for mounting accessories on the profile slot

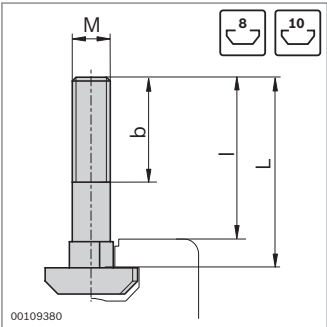
- Secure and conductive connection
- Notch at bolt end as marker for correct position recognition
- Profile finishing: Not required

There is a selection of different mounting options in the MGE catalog.



Flange nut	Slot	M	ESD	No.
	10	M8		100 3 842 345 081

Material: Steel; zinc-plated



Slot	
10	6000 ... 18000 N ¹⁾

¹⁾ Dependent on the profile (see also "Technical data" in the MGE catalog)

T-bolt	Slot	MxL	b (mm)	l (mm)	ESD	No.
	10	M8x20	14	14		100 3 842 528 715
		M8x25	19	19		100 3 842 528 718
		M8x30	24	24		100 3 842 528 721
		M8x40	22	34		100 3 842 528 724
		M8x50	22	44		100 3 842 528 727

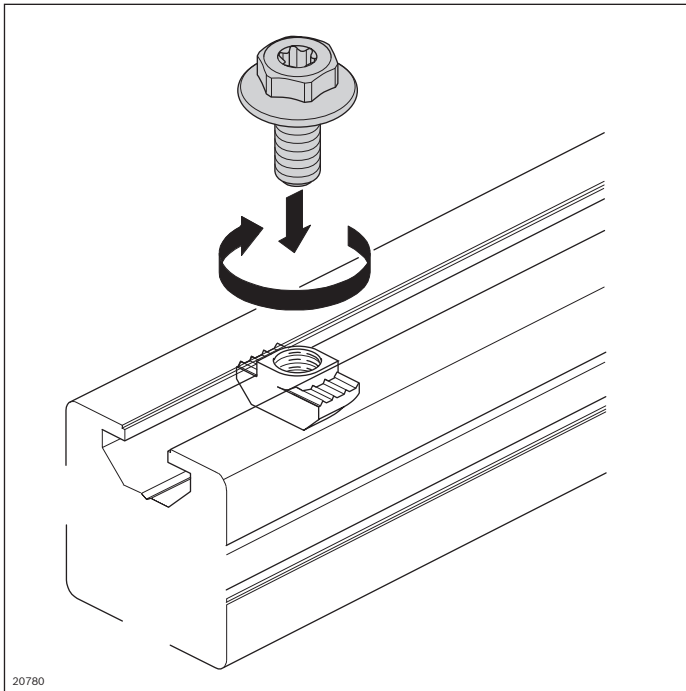
Material: Steel; zinc-plated

Collar screw

T-nut



3



20780

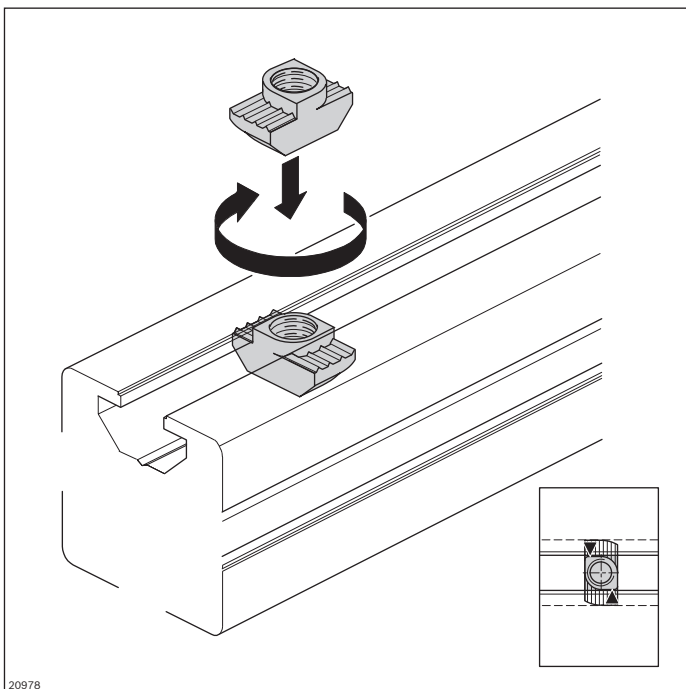
- Collar screw with multi-function head for tightening with ring/open-end wrench (WS 13) or Torx screwdriver (T40)
 - Machine tightening possible
 - Preferably to be used for fastening brackets
 - Quick and simple assembly
 - Excellent force transmission via the wide flange
 - With Polyfleck to secure the T-nut
- Tools: Offset screwdriver

Collar screw	M	L (mm)	ESD	No.
M8x18-SW13-T40¹⁾	M8	18	100	3 842 541 246
M8x20-SW13-T40²⁾	M8	20	100	3 842 541 409

¹⁾ For 40/40 and 60/60 brackets

²⁾ For all other brackets for 10 mm slot

Material: Steel; zinc-plated



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Fastening elements for mounting accessories on the profile slot

- Standard element for a secure and conductive connection
- End stop for correct positioning in the profile slot
- Profile finishing: Not required

T-nut, 10 mm slot	Slot	M	ESD	No.
Steel; zinc-plated	10	M4	100	3 842 530 281
		M5	100	3 842 530 283
		M6	100	3 842 530 285
		M8	100	3 842 530 287