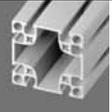
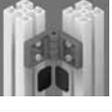
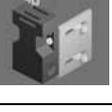
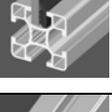
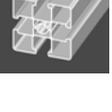
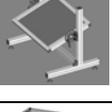


MINITEC CATALOGUE

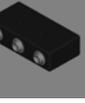
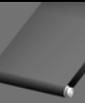
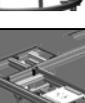
Part. N° 95.3010/0

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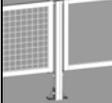
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TURN-KEY SOLUTIONS

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ABOUT US



The Company

MiniTec was founded on the sales of miniature linear guides and has successfully evolved into designing complete machines and devices for many industrial processes around the world.

The Production Program

Our linear technology combined with the Profile System is the ideal partnership for machine builders.

The components work together to provide optimum performance and the modular assembly system makes it possible to design and manufacture to unique specifications quickly and cost effectively.



The Quality

To meet the demands of linear technology precision and exceed quality expectations, we invest in the latest machines and newest technologies and manufacturing techniques. Our quality management has been certified according to ISO 9001 since 1994.

The Environment

Our company mission stresses an active role in environmental protection and the conservation of our natural resources. As an example our service partners are located in close proximity to our customers to avoid long transits. Our environment management system is certified according to ISO 14001.



The Occupational Health and Safety

Since 2006 our company is certified with the OHSAS 18001 – Occupational Health and Safety Assessment Series.



The Innovation

To us innovation is more than just new products. All our processes are constantly optimized. Continuous training of our staff and close cooperation with research and education facilities are the base for a steady innovation process.

EXAMPLES OF WORKPLACE SYSTEM

The applications of the MiniTec profile system are almost unlimited. This system offers economic solutions for general machinery designs but also for office furniture, partitions, sound proofing walls and boxes, individually constructed workstations and assembly lines, robots, portal systems, and linear guides



Optimized assembly-unit with material provision



Material supply trolley



Office Cube - the intelligent office solution

EXAMPLES OF VEHICLE REFINISHING

Rack system



Extractable shelve

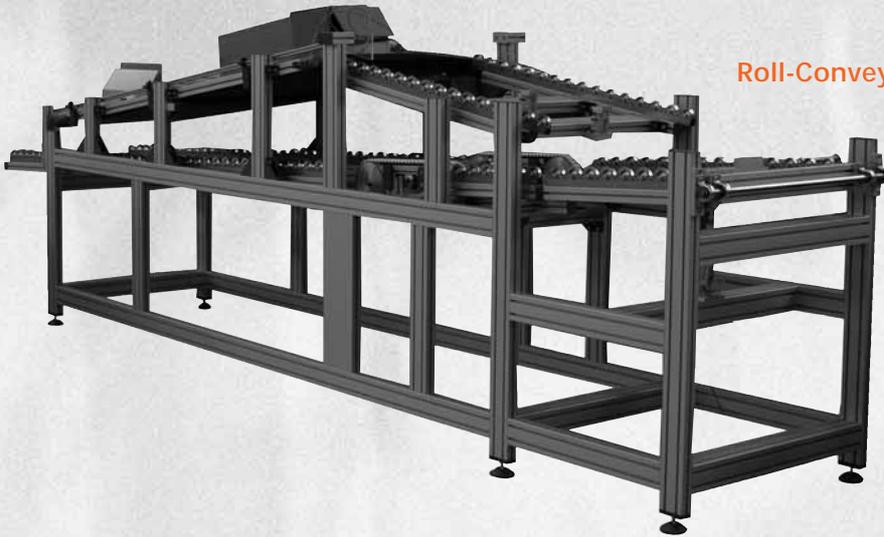


EXAMPLES OF CONVEYORS

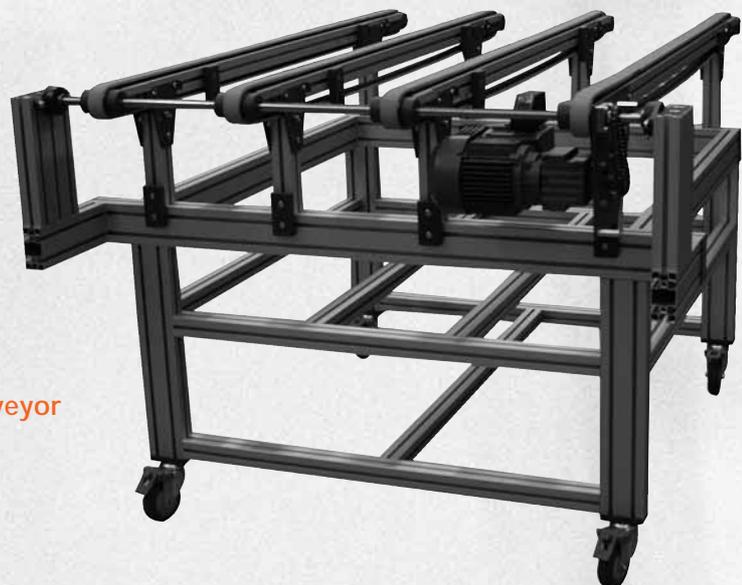
Conveyor stainless steel



Roll-Conveyor

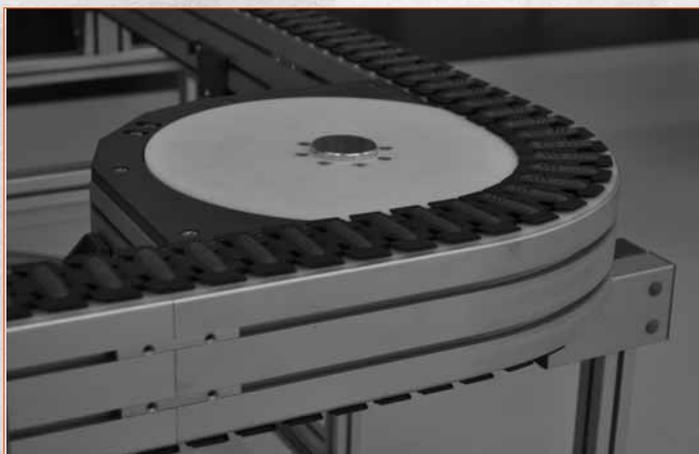


Timing belt conveyor



EXAMPLES OF CONVEYORS

Chain conveyor GKF

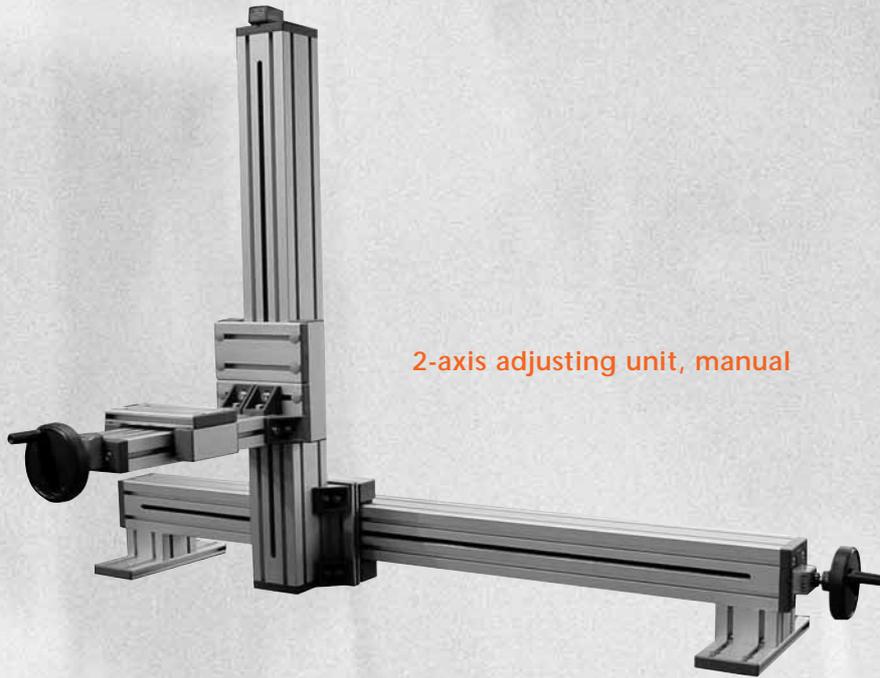


Flexible-assembly-system FMS

Flexible transfersystem RMS



EXAMPLES OF LINEAR SYSTEM



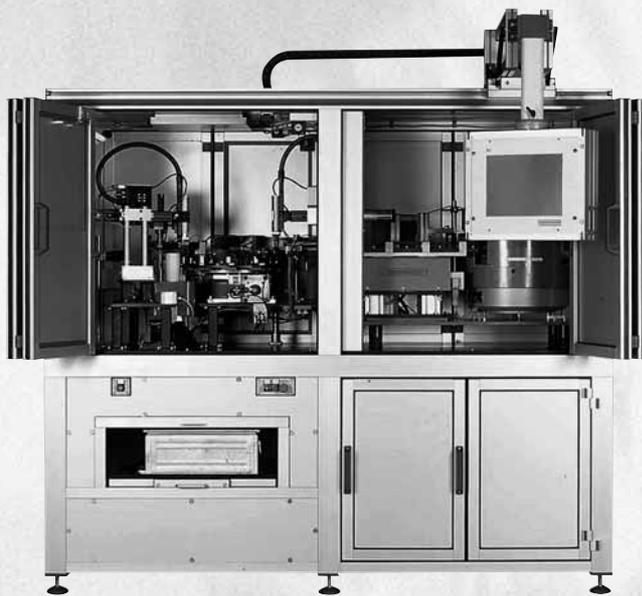
2-axis adjusting unit, manual



High precision longitudinal stop

EXAMPLES OF QUALITY CONTROL

Visual classification of small parts



Optical quality inspection with video and laser



Measuring and surfacecheck of high-precision set screws for commonrail pumps

EXAMPLES OF SAFETY SYSTEMS



Waterproof cabinet

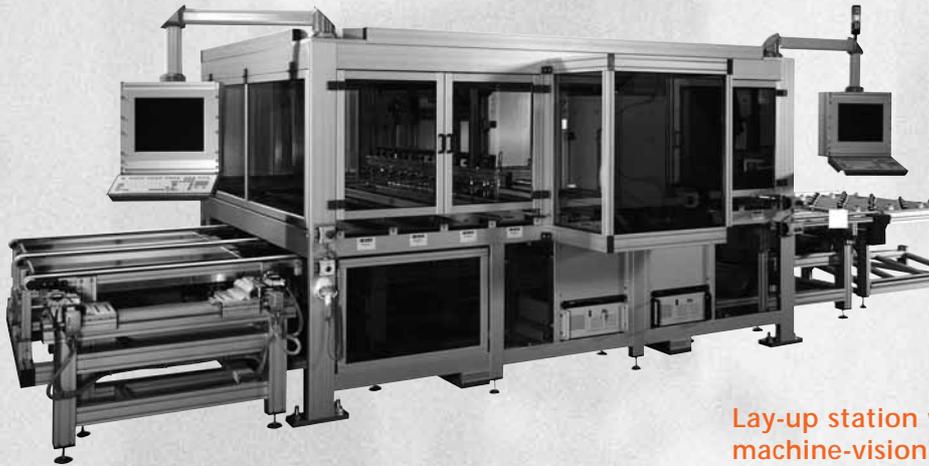


Acoustic machine guard
for a profile saw-station

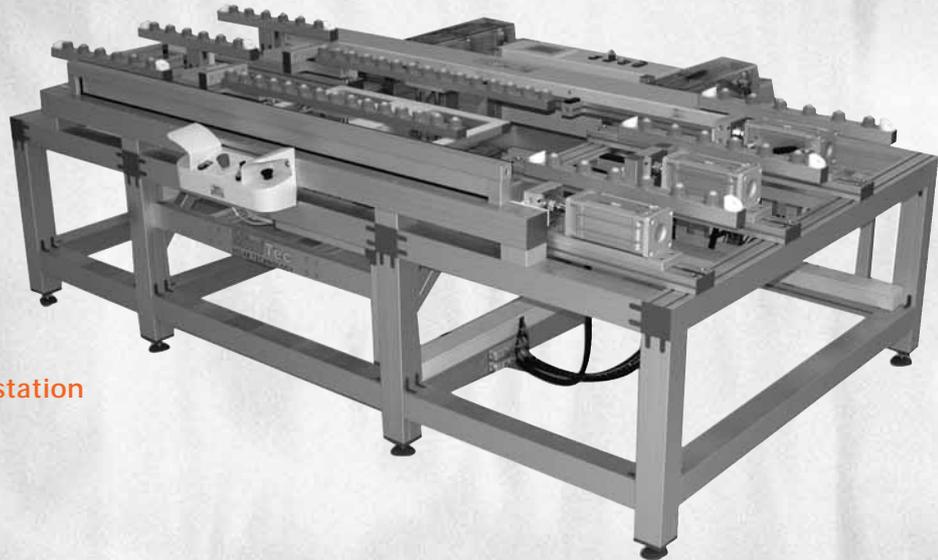


Safety fence with sliding door

EXAMPLES OF SOLAR TECHNOLOGY



Lay-up station with machine-vision



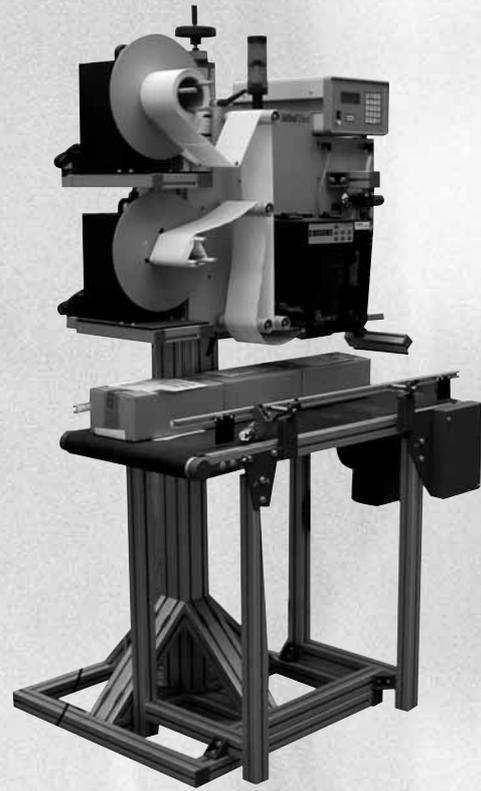
Framing station



SUNLASER® laser welding system

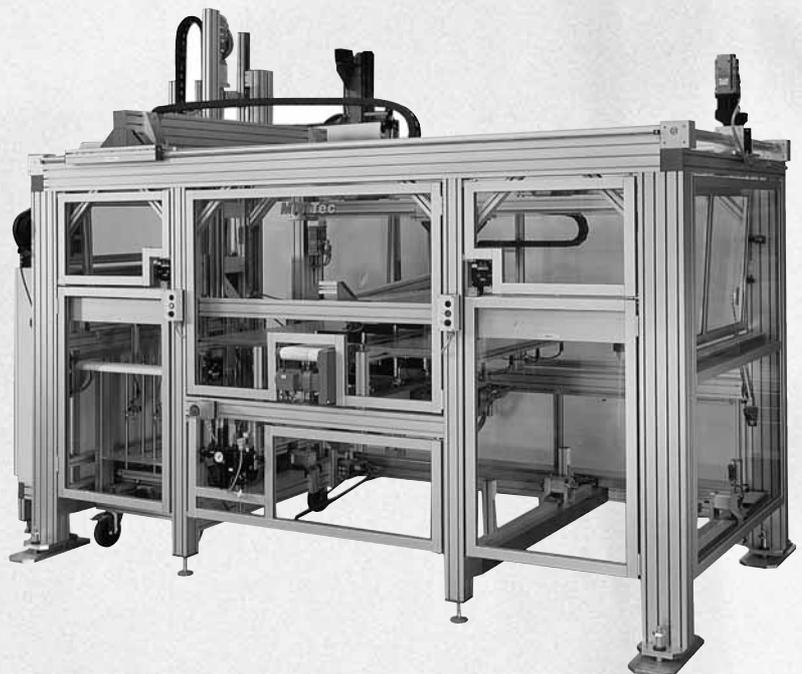
EXAMPLES OF TURN-KEY SOLUTIONS

Label printer and applicator

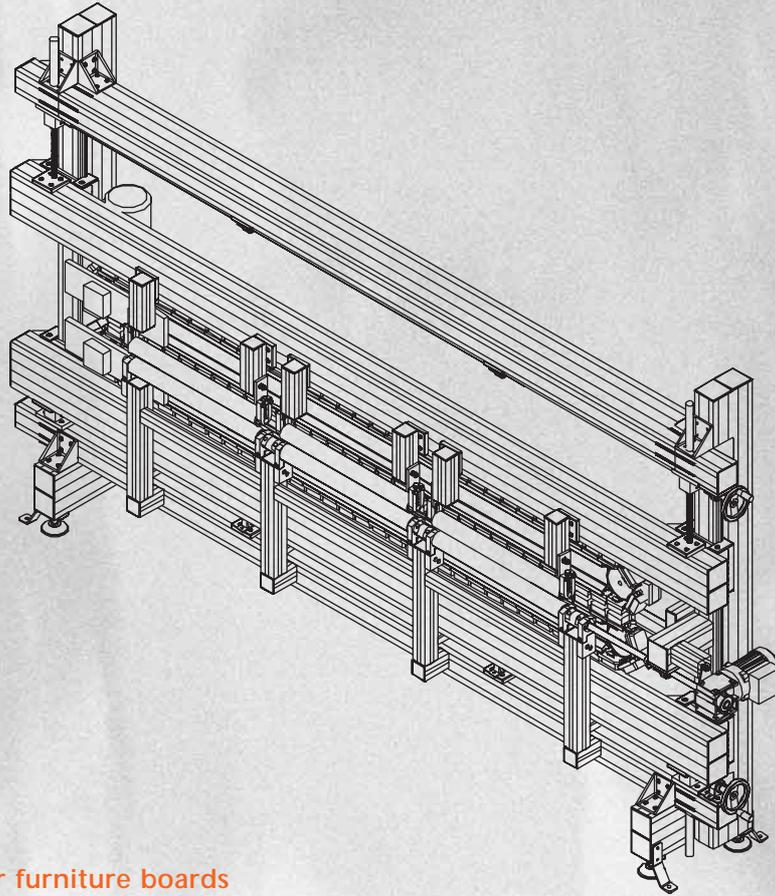


Headlamp adjustment

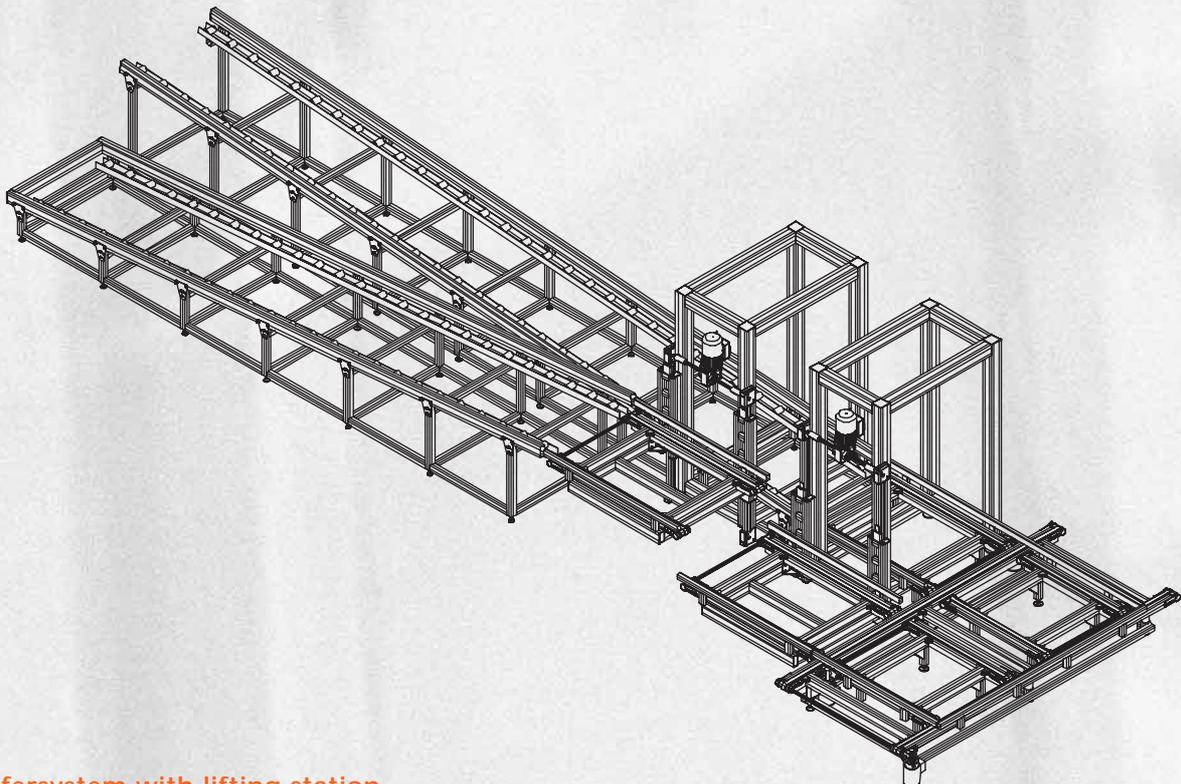
Automatic stacker



PROJECT EXAMPLES

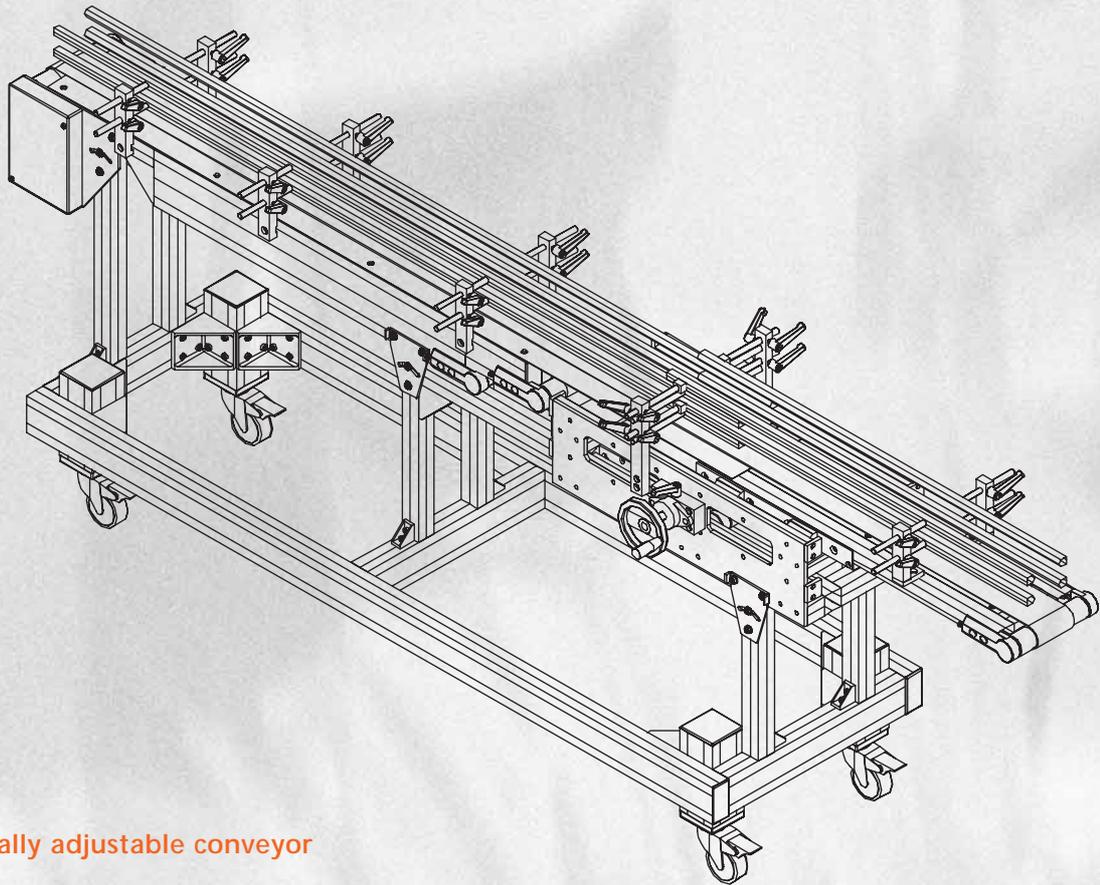


Brushing machine for furniture boards

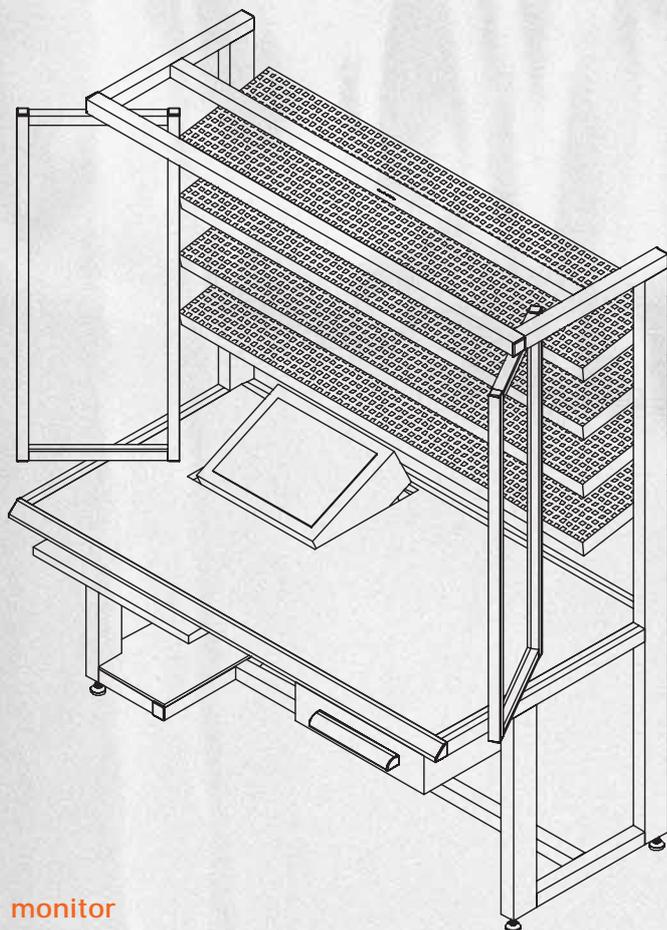


Transfersystem with lifting station

PROJECT EXAMPLES



Longitudinally adjustable conveyor



Workstation with hinged monitor

MiniTec CAD Support

Our CAD tools are the logical supplement to the hardware of our construction system. All planning and assembly requirements are comprehensively considered. The combination of components and software opens up the full potential for efficient, flexible, and modern machinery construction.

Time is a key factor in modern and economic machine construction. The time expended for a construction affects the costs to a great extent as well as the speed of implementation. It is not unusual that the expenditure for calculation, design, operation scheduling, and assembly amount to more than half of the total costs. The ergonomic design of all the components of our system and the ease of assembly with our power-lock fastener without drilling result in a significant saving of time.

Planning and operations scheduling often offer an even greater potential for saving time. A fundamental step forward with regard to planning and avoidance of errors are our MiniTec CADmenu for AutoCAD and MiniTec iCAD design tools with more than 50 formats for all other CAD systems. The design time is reduced by more than 60% with these tools compared to conventional designing.

All components are contained in 2D and 3D in the electronic catalog. Defined insertion points facilitate positioning in the drawing. Any processing and the connectors that may be required are displayed for each of the components and can be added if desired. A parts-list is automatically created in which the overmeasurements for panel elements are correctly calculated. Identical parts are summarized in a order list. The weight of the individual items and the total weight are displayed. The parts list can be generated in German, English or French. Interfaces to Word and Excel* enable the data-transfer to planning systems and the creation of documentations or the further processing of the data.

MiniTec CADmenu *for AutoCAD**

Part N° 95.0858/0



- Design tool using AutoCAD commands
- Automated design modules for
 - Linear axes
 - Safety equipment
 - Conveyor belts
 - Roller belts
 - Workplaces

° Installation routine for AutoCAD 2002 can be downloaded from our website www.minitec.de/cadsupport

MiniTec iCAD 3.7 *for all CAD System*

Part N° 95.0866/1



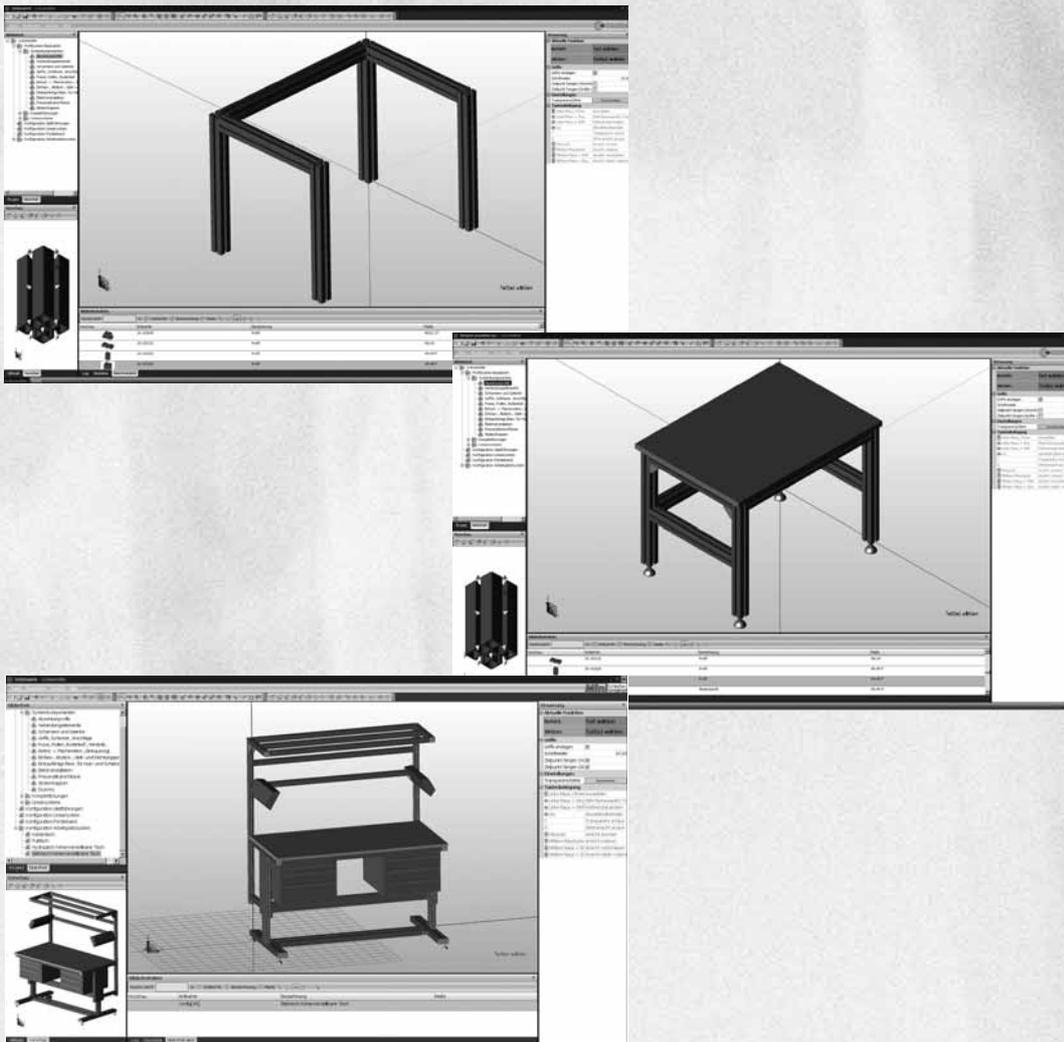
- Autonomous design tool that can also be used without a CAD system
- Direct interfaces to all common CAD systems such as Mechanical Desktop, ProEngineer, Solid Works, Solid-Edge, MegaCAD, etc.
- More than 50 data output formats in 2D and 3D
- Automated design module for linear axes, slide guides, conveyors, workplaces
- Latest version plus updates to download from www.minitec.de

*AutoCAD is a registered trademark of AUTODESK, Inc. - Word and Excel are registered trademarks of Microsoft



- 3D design tool for MiniTec components
- Saves user time up to 90 percent
- Planning and design of components and systems independent of CAD software
- CAD functionality without own CAD software
- Easy to use with special anchors, line capture points and by drag & drop
- Allows fast assembly of components
- Direct interfaces to all typical CAD systems such as Mechanical Desktop, ProEngineer, SolidWorks, Solid-Edge, MegaCAD and many more.
- More than 50 data output formats in 2D and 3D
- Automated design module for linear axes, slide bearings, conveying belts, work stations

EXAMPLES OF APPLICATIONS



PROFILES

Material	Type:	Al Mg 0,7 Si EN-AW-6063 T66
	Specific weight:	2.75 g / cm ³
	Material no.:	3 3206.72 artificially aged
	min. Rm:	245 N / mm ²
	min. Rp 0,2:	200 N / mm ²
	Ductile yield A 5:	> 10%
	Ductile yield A 10:	> 8%
	Module of elasticity:	E: 70000 N / mm ² G: 27000 N / mm ²
	Expansion hardness:	ca. 75 HB 2,5 / 187.5
	Heat extension:	23,8 · 10 ⁻⁶ K ⁻¹

Surface		natural anodized E6/EV1
	Layer thickness:	approx. 10 µm
	Layer hardness:	250 - 350 HV

Tolerances		DIN EN 12020 Part 1 + 2
	Outer dimensions:	depending on size 0.2 to 0.4 mm
	Straightness deviation:	max. 1,5 mm / 2 m
	Flatness deviation:	max. 1,5 mm / 2 m

Generally we confirm half the values according to the tolerances of DIN EN 12020 part 2.

Core boring uniform 7.5 - 0.3 mm

The thread M8 must be made by thread former, not by tap.

Core bore reborable up to M12.

Modular Dimension Standard 45 mm

All profiles are based on the same modular dimension.

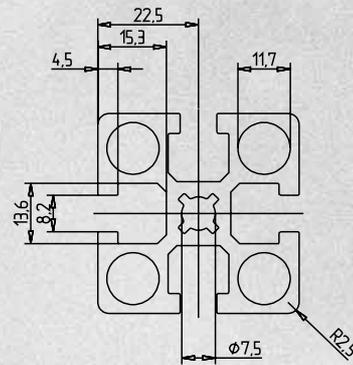
All grooves are uniform.

All bores are uniform.

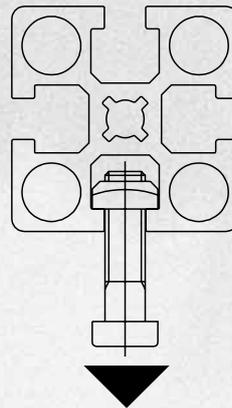
GROOVE SYSTEM

Grooves Uniform in all profiles from 19 up to 180 mm
 Width: 8,5 - 0,3 mm.
 The grooves are sized for standard M8 with head \varnothing 13 mm and standard nuts with an outer dimension of 13 mm. Square and hexagonal nuts and screws cannot twist in the groove.

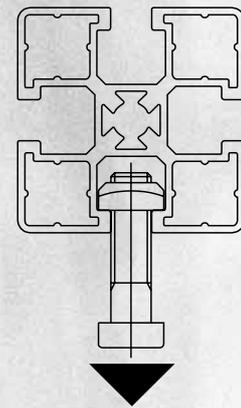
Basic dimensions



Load capacity

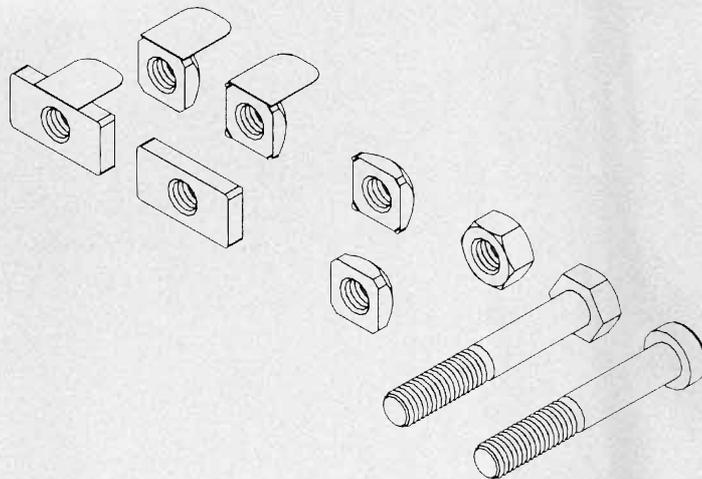


$F = 6000 \text{ N}$



$F = 4000 \text{ N}$

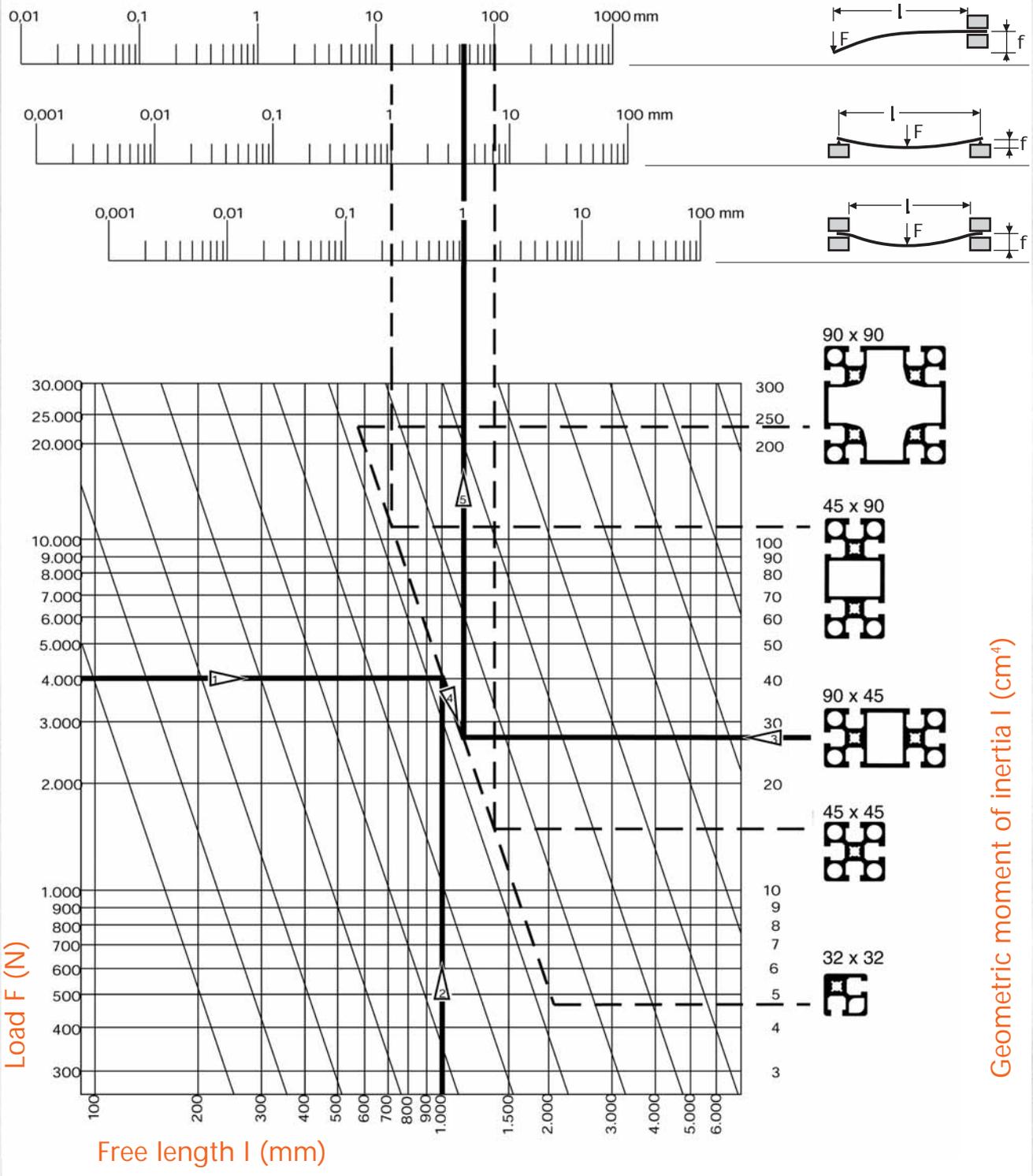
Useable screws and nuts



DEFLECTION OF MINITEC PROFILES

This mode of calculation is a function of our construction module for AutoCAD*

Deflection f (mm), calculated for static load in form of a point as shown below



* AutoCAD is a registered trade mark of AUTODESK, Inc.

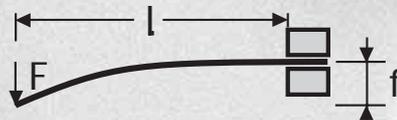
DEFLECTION OF MINITEC PROFILES

The following formulas and examples of calculation are for static load in the form of a point. For the determination of other load, please use the equations in the relevant literature. In particular we want to point out that reduced values should be used for dynamic loads.

Calculation of deflection of MiniTec profiles

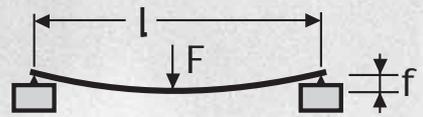
Example	f = Deflection	x mm
	F = Load	8 000 N
	L = Free length	700 mm
	I = Geom. moment of inertia	30.4 cm ⁴
	E = Modulus of elasticity	70 000 N / mm

Example 1



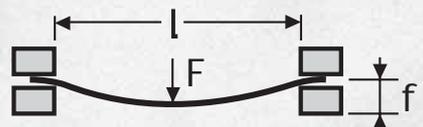
$$f = \frac{F \times L^3}{E \times I \times 3 \times 10^4} = 42,1 \text{ mm}$$

Example 2



$$f = \frac{F \times L^3}{E \times I \times 48 \times 10^4} = 2,7 \text{ mm}$$

Example 3

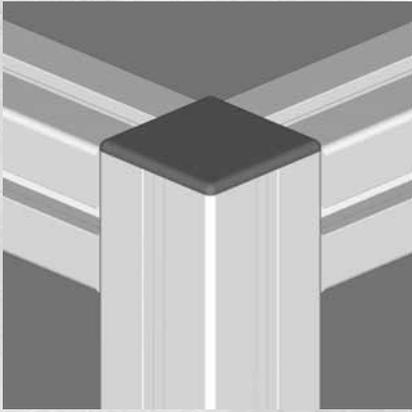


$$f = \frac{F \times L^3}{E \times I \times 192 \times 10^4} = 0,67 \text{ mm}$$

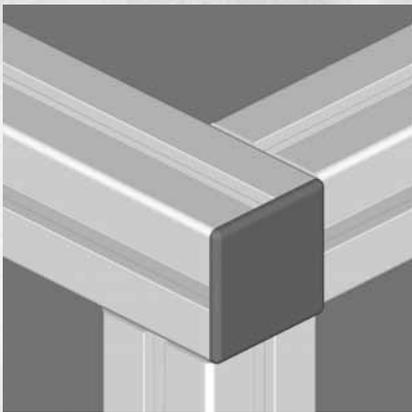
The above mentioned equations are easy to calculate using the diagram on the previous page. Follow the steps in the given row for the respective value.

Deflection (f)	1	2	3	4	5
Max. load (F)	3	5	2	4	1
Profile determination	1	2	5	4	3
Free length (L)	3	5	1	4	2

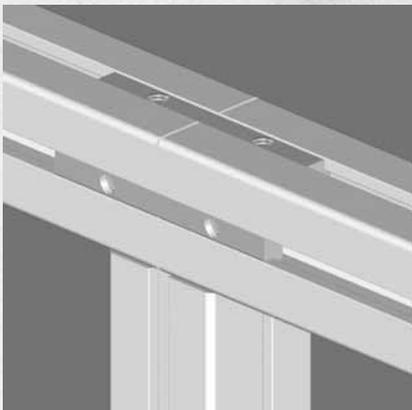
ASSEMBLY HINTS



Horizontal profiles should be assembled between vertical profiles running unbroken from bottom to top.

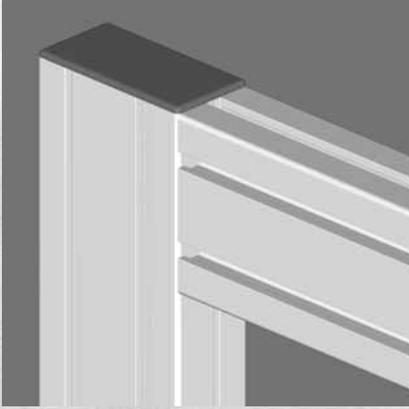


Make sure to assemble the vertical profiles on top of the horizontal profiles for higher loads.

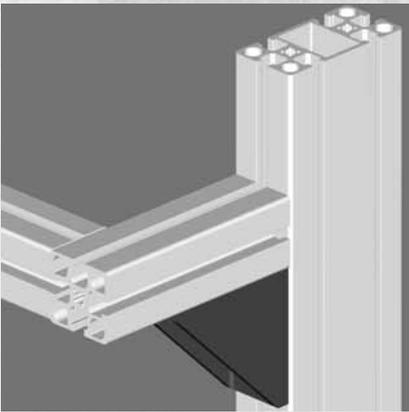


The joints of butt-fastened profiles should be supported.

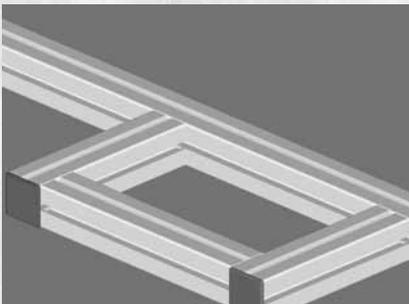
ASSEMBLY HINTS



Because of higher bending strength, profiles should be used edgewise.

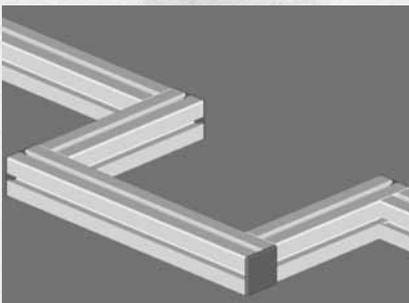


Torsional strain on connections should be avoided or supported by additional use of angles.

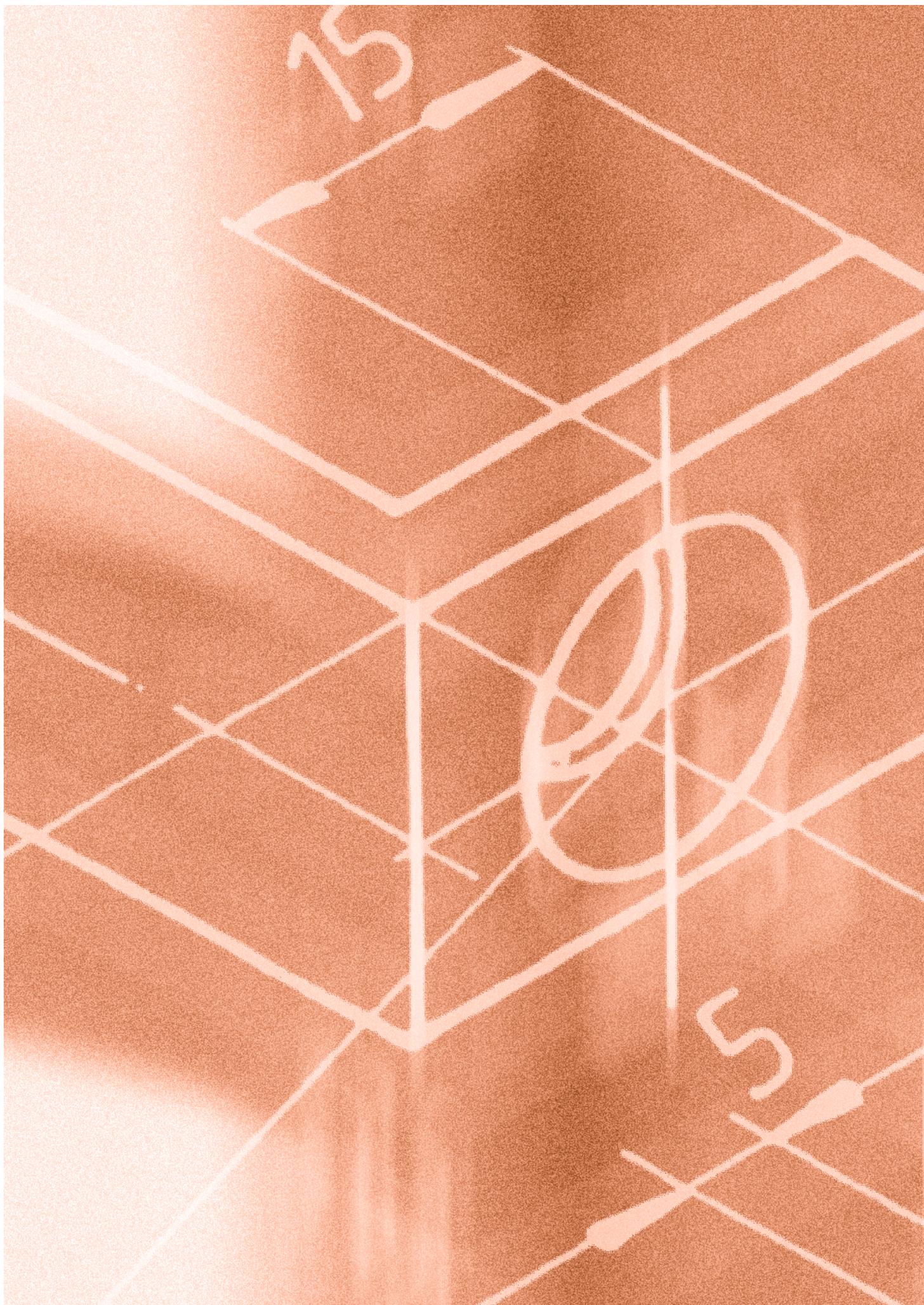


Right!

Supporting profiles must be built in as one piece to avoid interruptions!



Wrong!

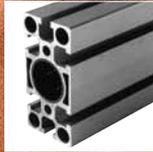


1

PROFILE SYSTEM

10

30



PROFILE SECTIONS

Profile 19 x 32



Part No. 20.1000/0

Profile 19 x 45



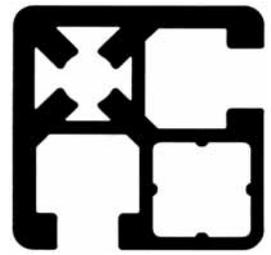
Part No. 20.1001/0

Profile 45 x 19



Part No. 20.1012/0

Profile 32 x 32 UL



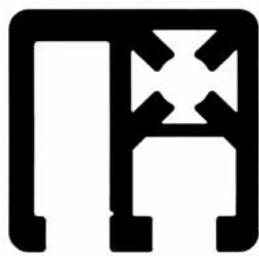
Part No. 20.1064/0

Profile 32 x 32 F



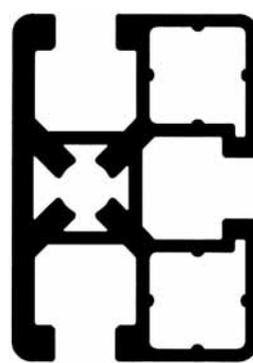
Part No. 20.1054/0

Clamp profile 32 x 32



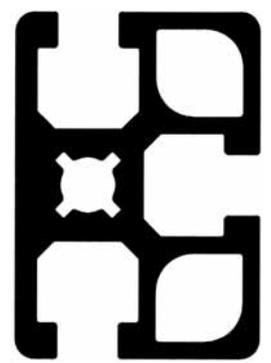
Part No. 20.1070/0

Profile 45 x 32 UL



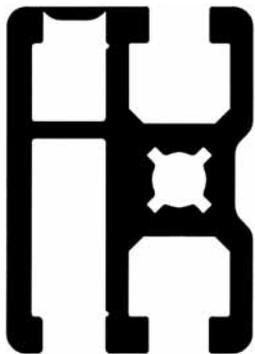
Part No. 20.1065/0

Profile 45 x 32 F



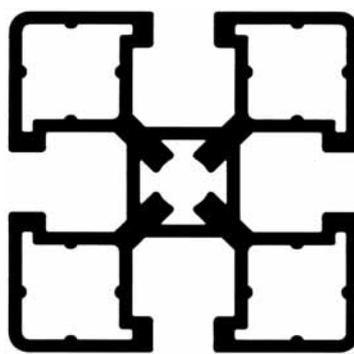
Part No. 20.1055/0

Clamp profile 45 x 32



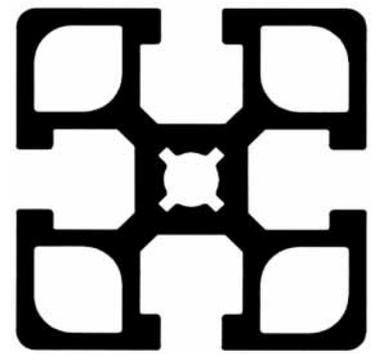
Part No. 20.1053/0

Profile 45 x 45 UL



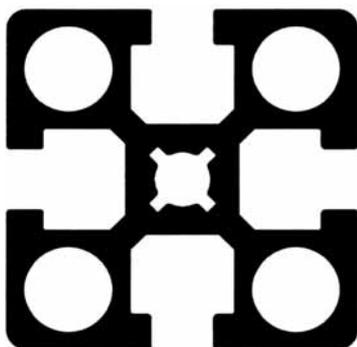
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Profile 45 x 45 F



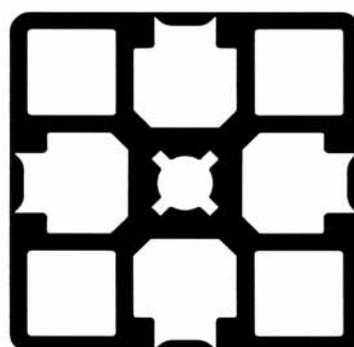
Part No. 20.1033/0

Profile 45 x 45



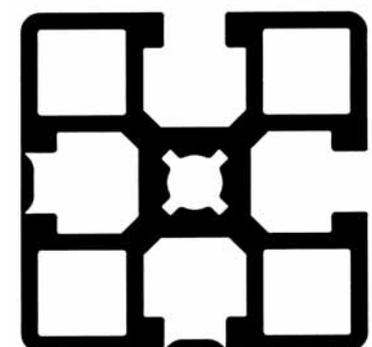
Part No. 20.1006/0

Profile 45 x 45 G



Part No. 20.1028/0

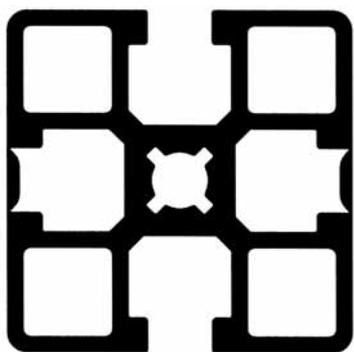
Profile 45 x 45 2G



Part No. 20.1072/0

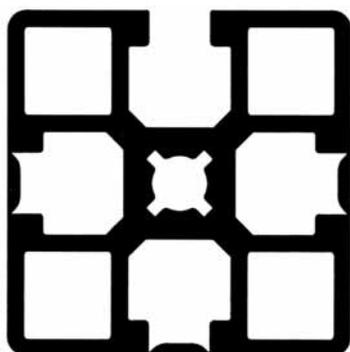
PROFILE SECTIONS

Profile 45 x 45 2GG



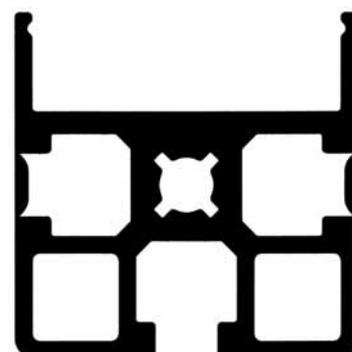
Part No. 20.1099/0

Profile 45 x 45 3G



Part No. 20.1048/0

Profile 45 x 45 R



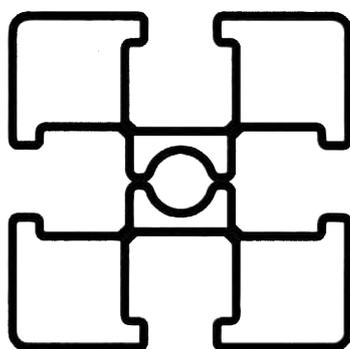
Part No. 20.1046/0

Cover profile 45 x 45 R



Part No. 20.1037/0

Profile 45 x 45 VA



Part No. 20.2000/0

Profile 45 R 90°



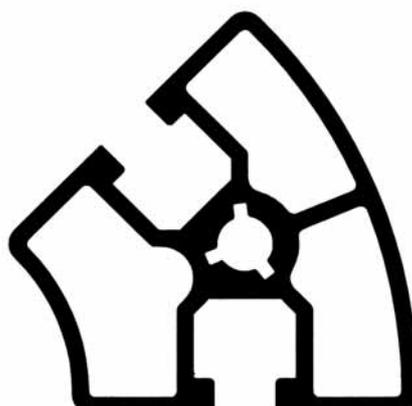
Part No. 20.1069/0

Profile 45 R 60°



Part No. 20.1096/0

Profile 45 R 45°



Part No. 20.1095/0

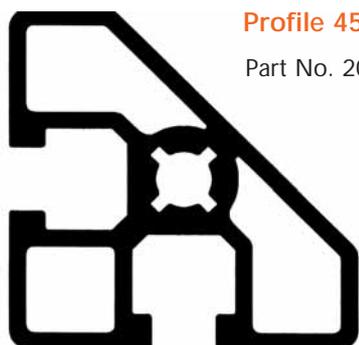
Profile 45 R 30°



Part No. 20.1094/0

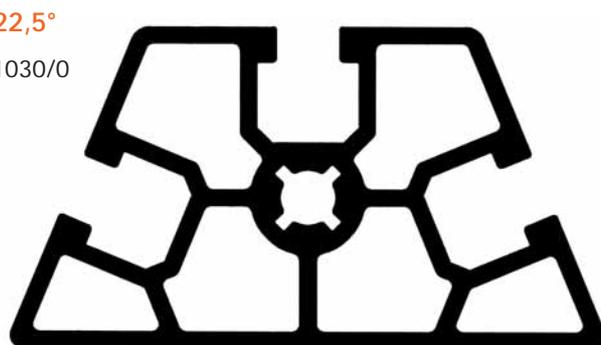
Profile 45/45°

Part No. 20.1029/0



Profile 45/22,5°

Part No. 20.1030/0



PROFILE SECTIONS

Profile 90 x 19



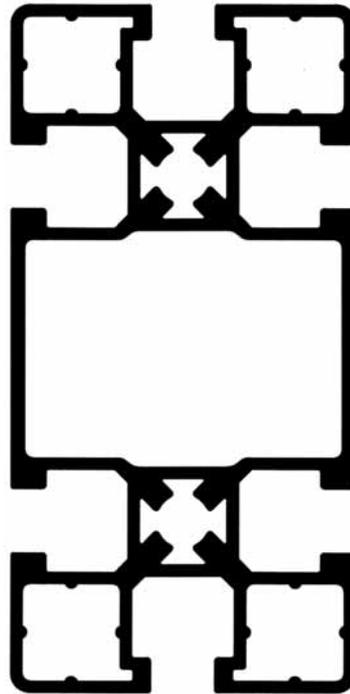
Part No. 20.1031/0

Profile 90 x 32 UL



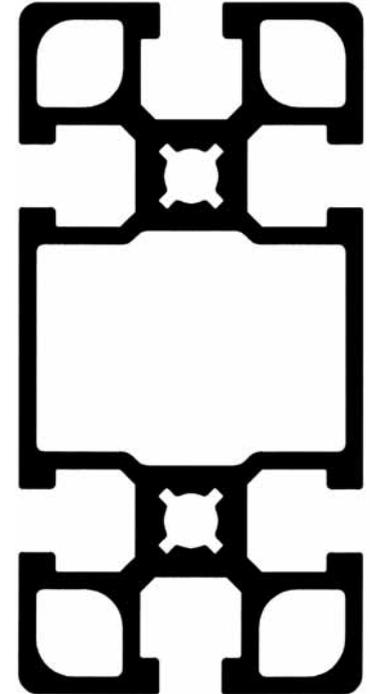
Part No. 20.1066/0

Profile 45 x 90 UL



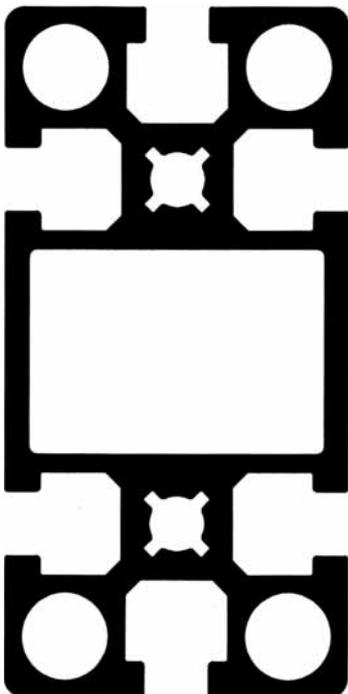
Part No. 20.1067/0

Profile 45 x 90 F



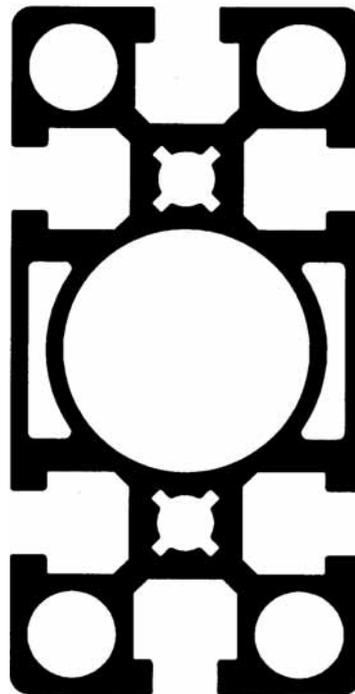
Part No. 20.1032/0

Profile 45 x 90



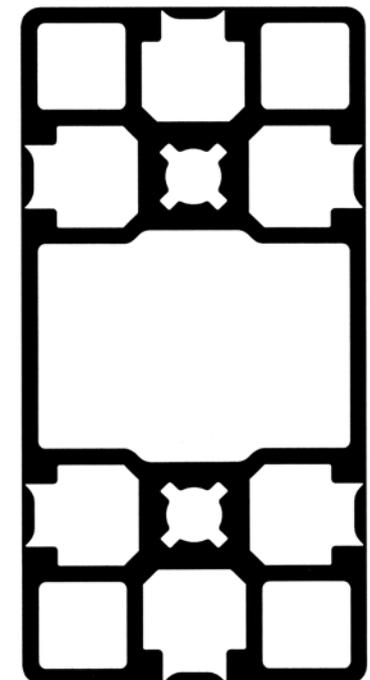
Part No. 20.1009/0

Profile 45 x 90 S



Part No. 20.1017/0

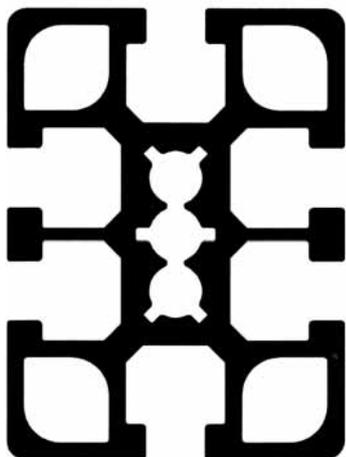
Profile 45 x 90 G



Part No. 20.1015/0

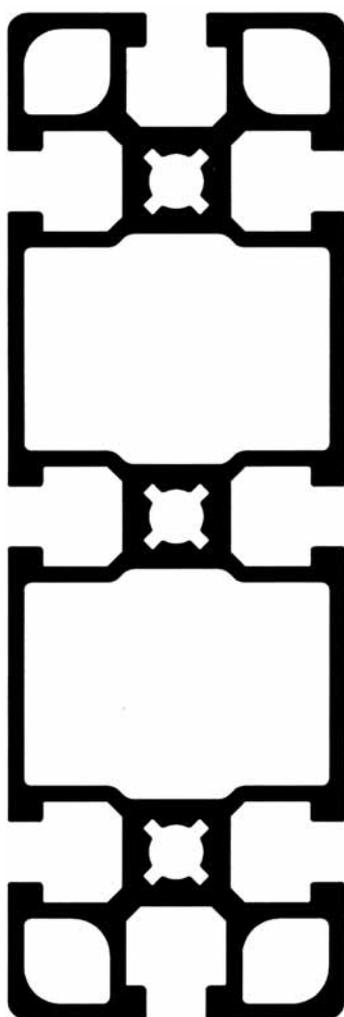
PROFILE SECTIONS

Profile 45 x 60 F



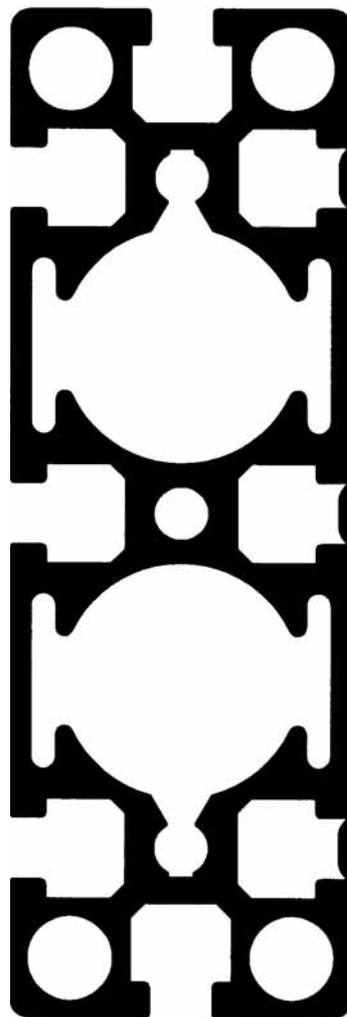
Part No. 20.1023/0

Profile 45 x 135 F



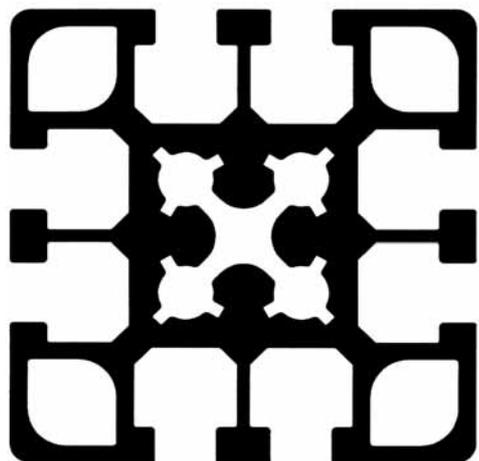
Part No. 20.1087/0

Profile 45 x 135 1G



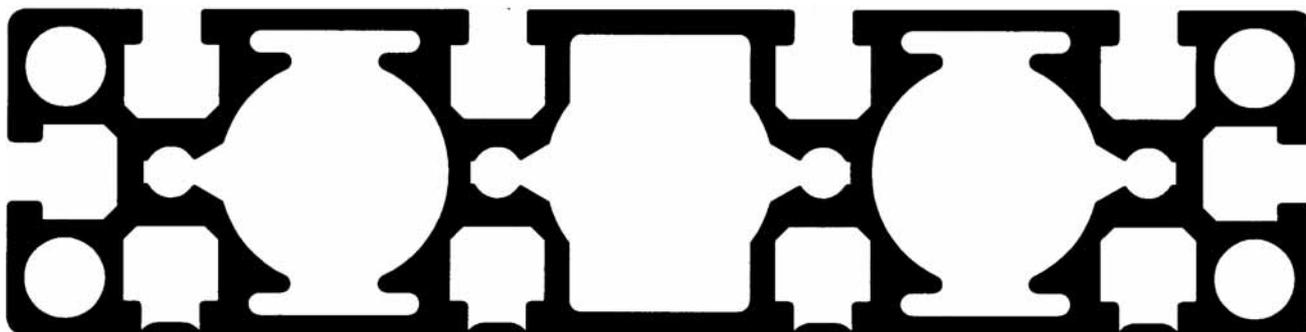
Part No. 20.1078/0

Profile 60 x 60 F



Part No. 20.1049/0

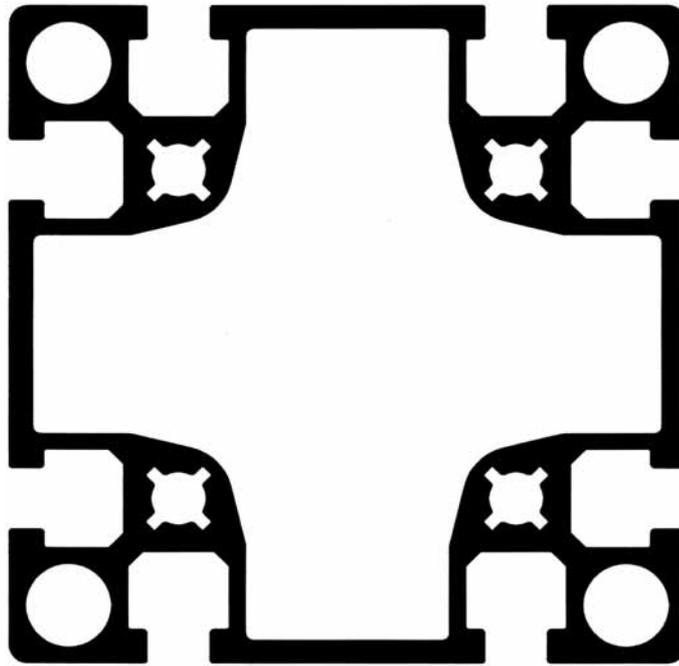
Profile 45 x 180 1 G



Part No. 20.1079/0

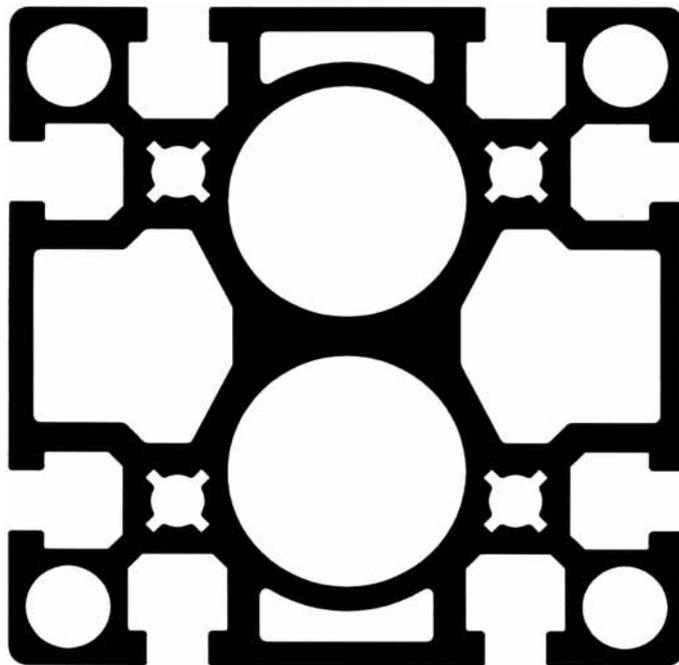
PROFILE SECTIONS

Profile 90 x 90 L



Part No. 20.1010/0

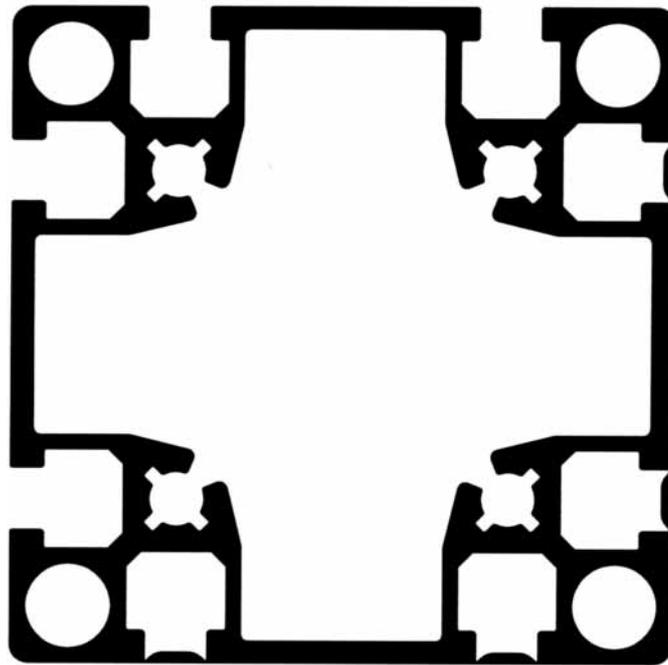
Profile 90 x 90 S



Part No. 20.1019/0

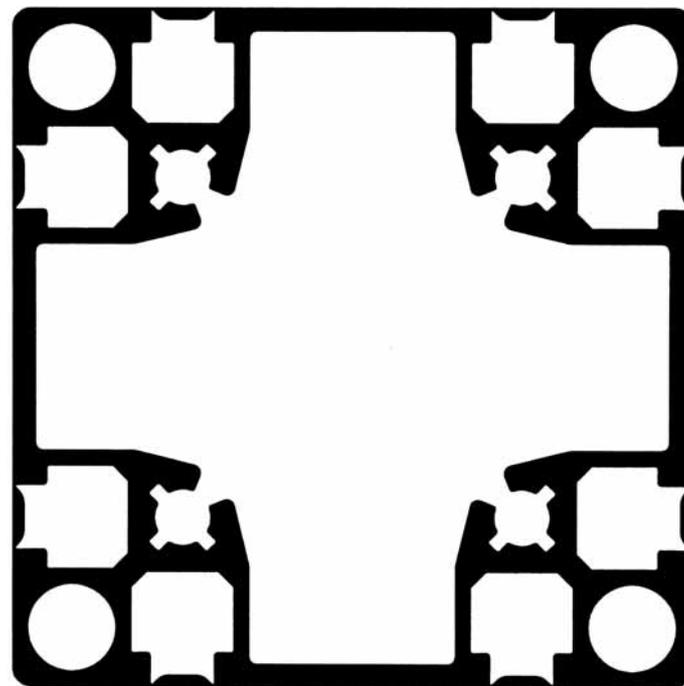
PROFILE SECTIONS

Profile 90 x 90 2G



Part No. 20.1044/0

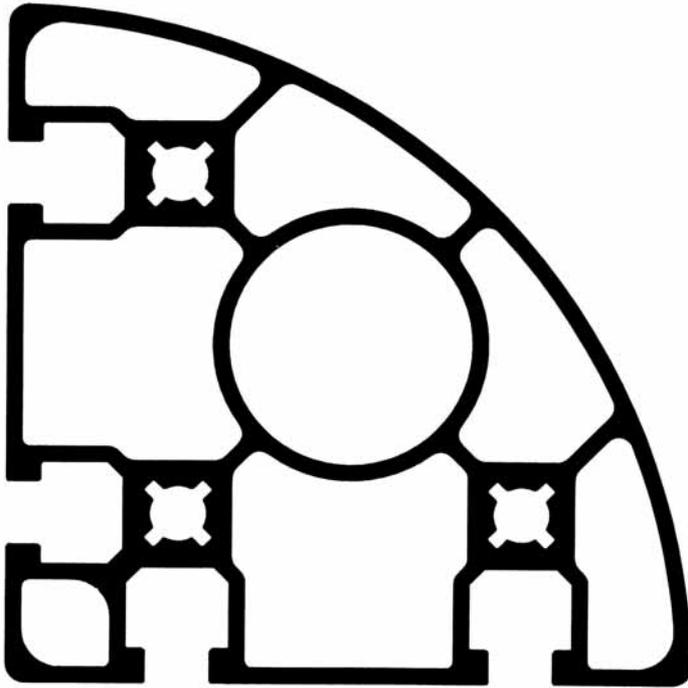
Profile 90 x 90 G



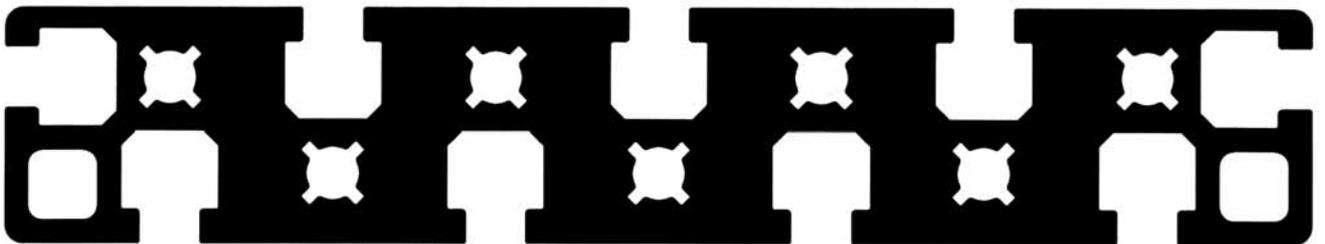
Part No. 20.1082/0

PROFILE SECTIONS

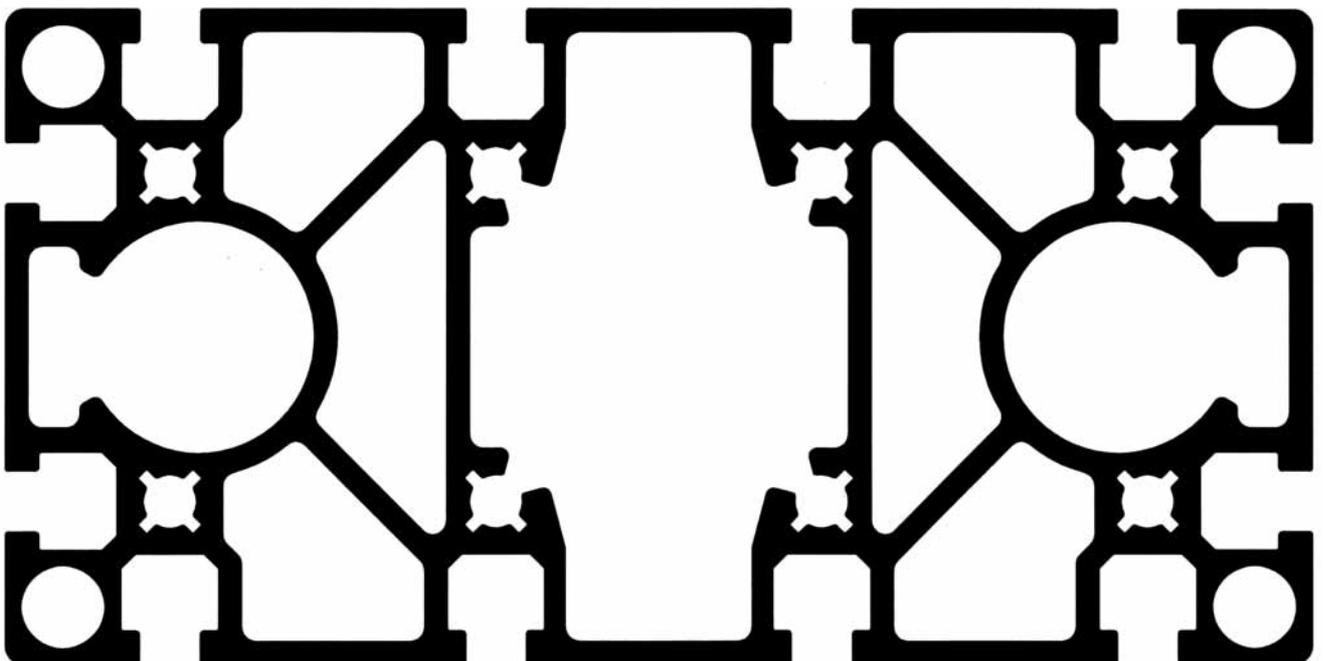
Profile 90 R 90° Part No. 20.1091/0



Profile 32 x 180 Part No. 20.1016/0

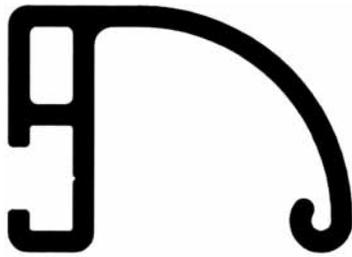


Profile 90 x 180 S Part No. 20.1013/0



PROFILE SECTIONS

Handle profile



Part No. 20.1045/0

Handle profile 32



Part No. 20.1088/0

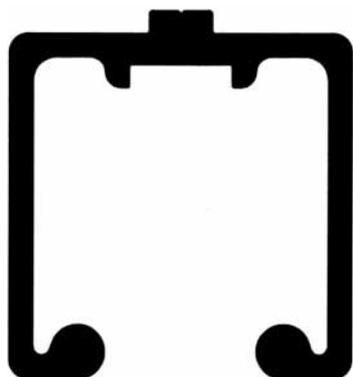
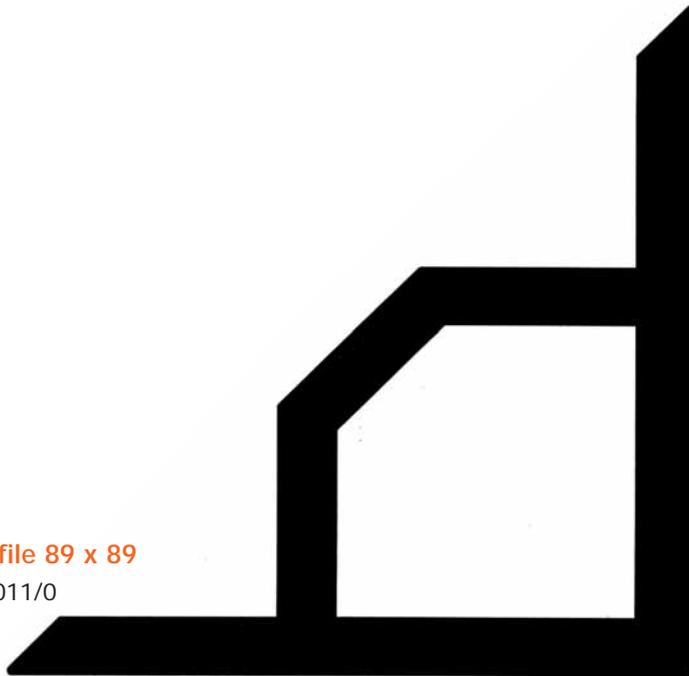
Profile 19 x 270

Part No. 20.1077/0



Angular profile 89 x 89

Part No. 20.1011/0

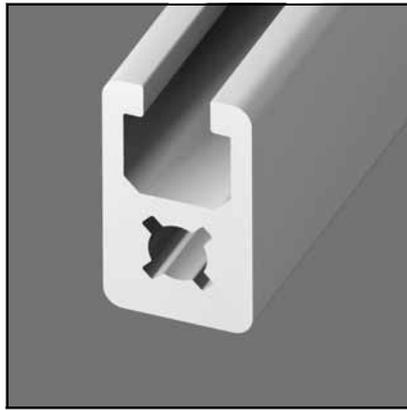
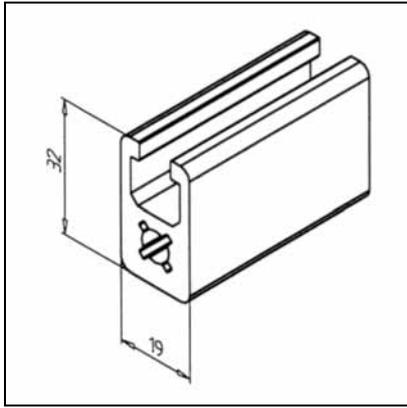


Sliding door profile

Part No. 20.1038/0

PROFILE 19 X 32

Part. N° 20.1000/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	3,102 cm ⁴
- Iy =	1,526 cm ⁴
- wx =	1,651 cm ³
- wy =	1,606 cm ³
- Weight	0,987 kg/m
- Length	6 m
- Packing unit	60 m

APPLICATIONS

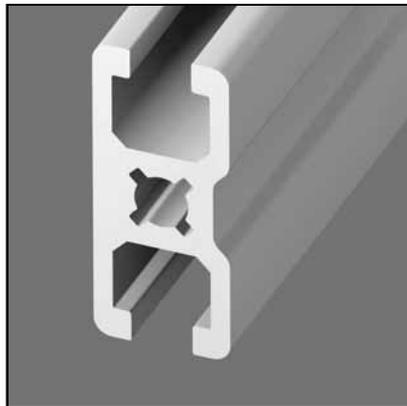
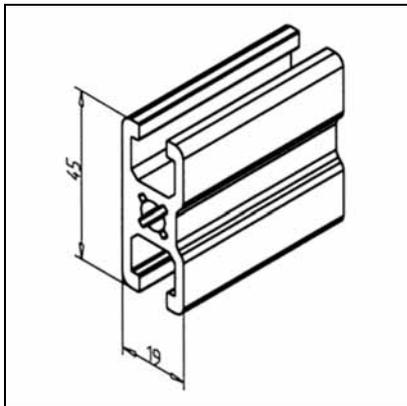
- Light constructions
- Panel frames
- Light supports
- Grip rails

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19
- Bolt-fastener 15
- Screw connection

PROFILE 19 X 45

Part. N° 20.1001/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	6,173 cm ⁴
- Iy =	1,843 cm ⁴
- wx =	2,743 cm ³
- wy =	1,836 cm ³
- Weight	1,101 kg/m
- Length	6 m
- Packing unit	60 m

APPLICATIONS

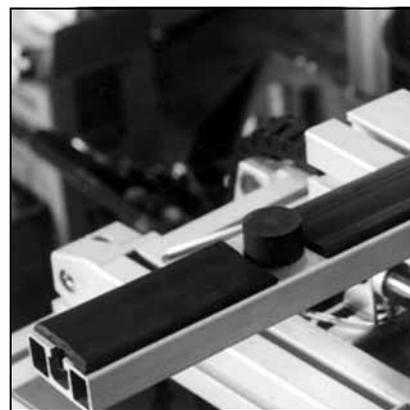
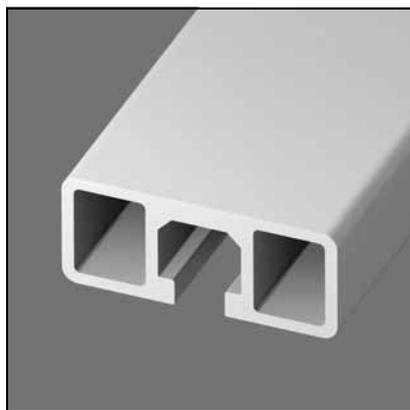
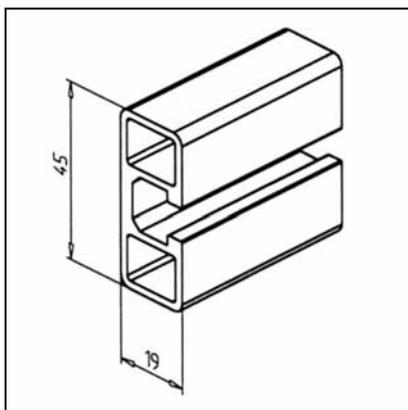
- Light supports, Bracings
- Light constructions
- Panel frames
- Shelves

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19
- Bolt-fastener 15
- Screw connection

PROFILE 45 X 19

Part. N° 20.1012/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	6,045 cm ⁴
- ly =	1,529 cm ⁴
- wx =	2,687 cm ³
- wy =	1,494 cm ³
- Weight	0,869 kg/m
- Length	6 m
- Packing unit	72 m

APPLICATIONS

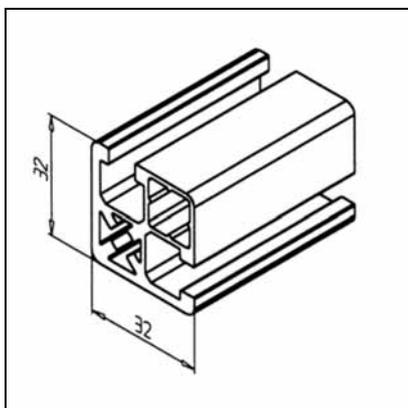
- Light constructions
- Light Sliding windows
- Bracings
- Support plates
- Base plate

ASSEMBLY

- Angle 25
- Bolt-fastener

PROFILE 32 X 32 UL

Part. N° 20.1064/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	4,100 cm ⁴
- ly =	4,100 cm ⁴
- wx =	2,267 cm ³
- wy =	2,267 cm ³
- Weight	1,052 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

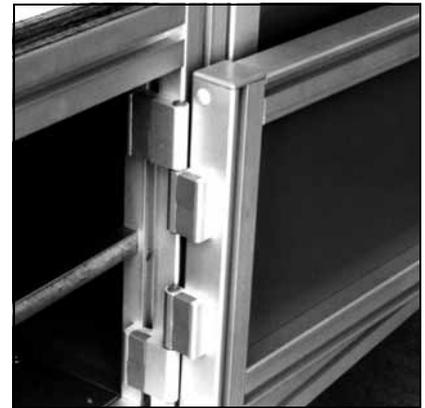
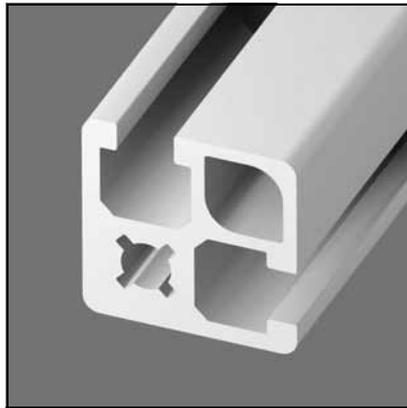
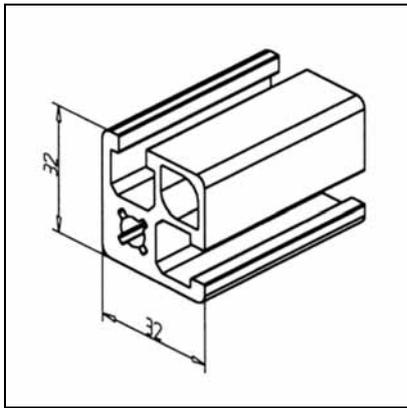
- Light constructions
- Tables
- Horizontal or vertical-sliding doors
- Bracings

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19
- Bolt-fastener 15
- Screw connection

PROFILE 32 X 32 F

Part. N° 20.1054/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	4,825 cm ⁴
- Iy =	4,825 cm ⁴
- wx =	2,703 cm ³
- wy =	2,703 cm ³
- Weight	1,288 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

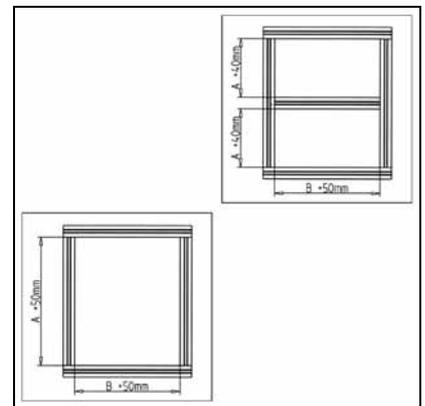
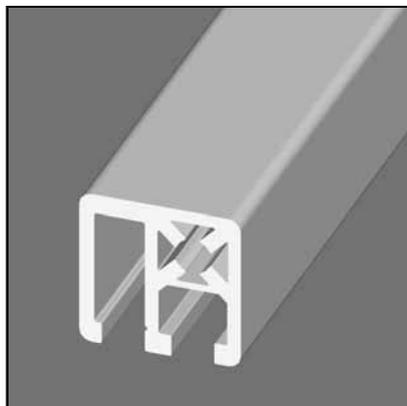
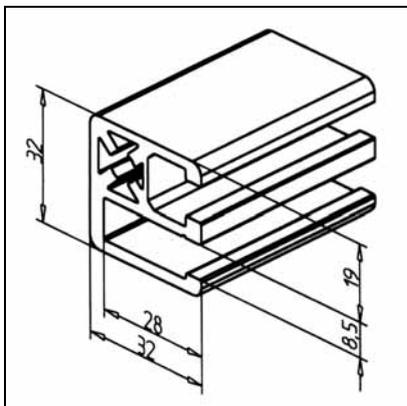
- Light constructions
- Tables
- Horizontal or vertical-sliding doors
- Bracings

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19
- Bolt-fastener 15
- Screw connection

CLAMP PROFILE 32 X 32

Part. N° 20.1070/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	5,024 cm ⁴
- Iy =	4,418 cm ⁴
- wx =	3,041 cm ³
- wy =	2,398 cm ³
- Weight	1,211 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

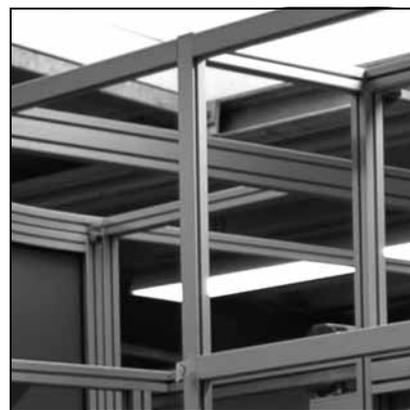
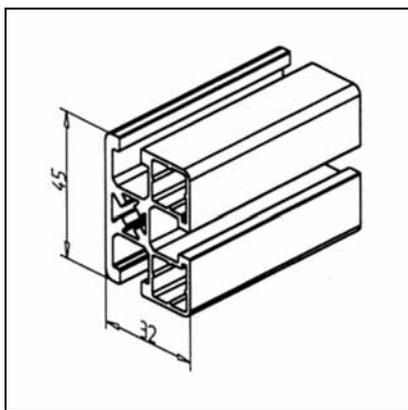
- All types of safety equipment
- For clamping surface elements such as wire mesh, panes, and plates up to a thickness of 8 mm
- Additional struts from clamp profile 45 x 32 must be used for larger safety fields to ensure sufficient protection against the surface elements pushing out; separate out covering strips for profile 45 x 32
- see page 156

ASSEMBLY

- MiniTec power-lock fastener; no bores required
- No cut-outs in surface elements required
- Premount 3 sides of the frame, the eve side of the profile outwards
- Insert surface element and last profile strut
- Push in distance profile on the inside or knock in with a flat tool
- For panel elements < 4 mm mount an additional insert seal
- Distance profile Part N° 22.1039/0 see page 164

PROFILE 45 X 32 UL

Part. N° 20.1065/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	8,292 cm ⁴
- Iy =	5,178 cm ⁴
- wx =	3,685 cm ³
- wy =	2,815 cm ³
- Weight	1,257 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

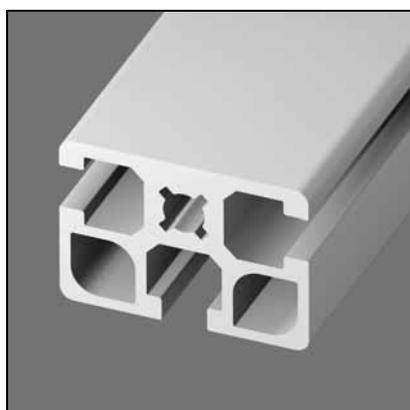
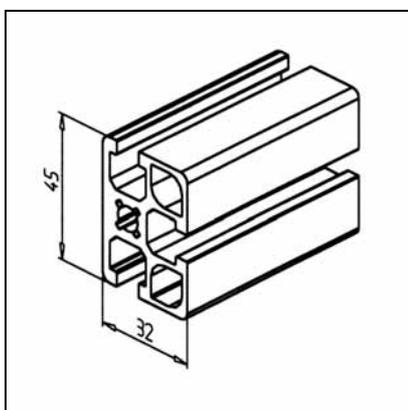
- General constructions
- Light constructions
- Tables
- Racks
- Sliding doors

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener 15 / 20
- Screw connection

PROFILE 45 X 32 F

Part. N° 20.1055/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	10,189 cm ⁴
- Iy =	6,499 cm ⁴
- wx =	4,528 cm ³
- wy =	3,762 cm ³
- Weight	1,588 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

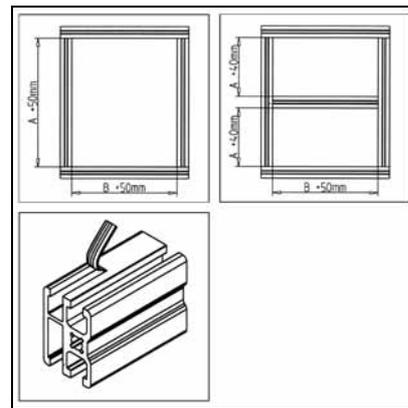
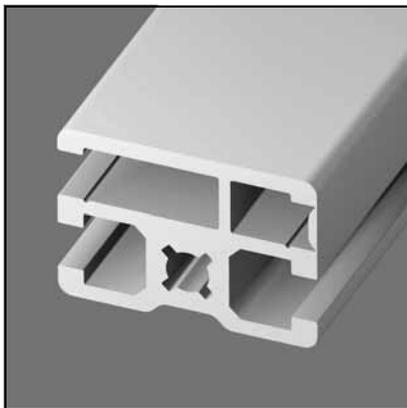
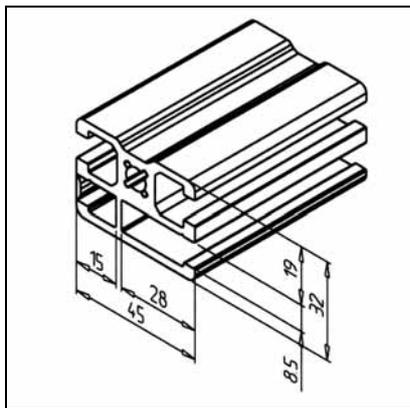
- General constructions
- Tables
- Racks
- Sliding doors
- Rails

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener 15 / 20
- Screw connection

CLAMP PROFILE 45 X 32

Part. N° 20.1053/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	6,465 cm ⁴
- Iy =	9,521 cm ⁴
- wx =	3,999 cm ³
- wy =	4,119 cm ³
- Weight	1,615 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

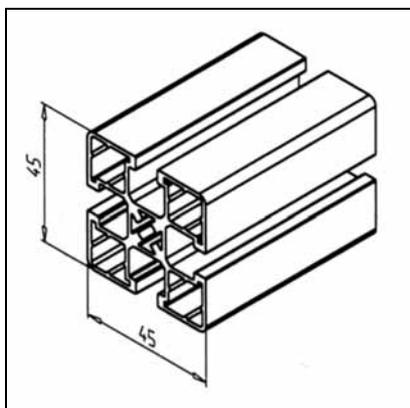
- All types of safety equipment
- For clamping surface elements such as wire mesh, panes, and plates up to a thickness of 8 mm
- Additional struts from clamp profile 45 x 32 must be used for larger safety fields to ensure sufficient protection against the surface elements pushing out
- Separate out covering strips for profile 45 x32
- See page 156

ASSEMBLY

- MiniTec power-lock fastener; no bores necessary
- No cut-outs in panel elements for fastening elements necessary
- Premount 3 sides of the frame, the eve side of the profile outwards
- Insert surface element and mount last profile brace
- Depress the distance profile on the inner side or hit it with a flat tool
- For panel elements < 4 mm mount an additional insert seal
- see page 164

PROFILE 45 X 45 UL

Part. N° 20.1063/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	9,953 cm ⁴
- Iy =	9,953 cm ⁴
- wx =	4,423 cm ³
- wy =	4,423 cm ³
- Weight	1,445 kg/m
- Length	6 m
- Packing unit	54 m

APPLICATIONS

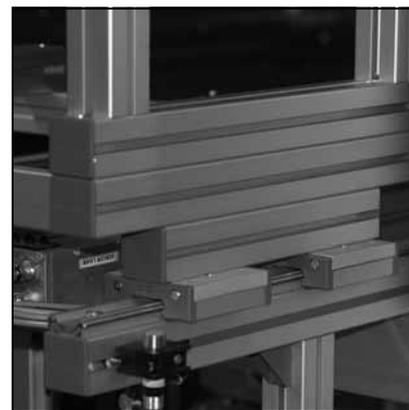
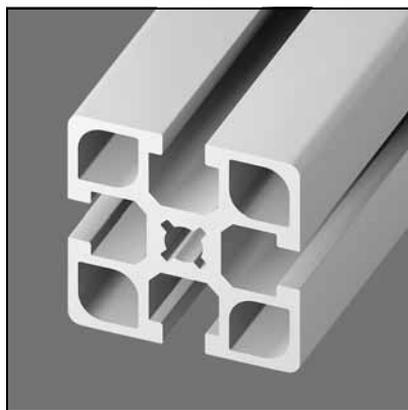
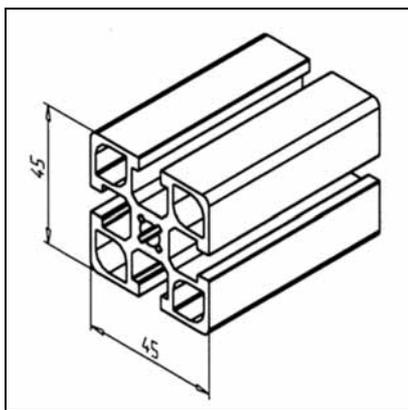
- General weight, optimized engineering structures
- General constructions

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener 20
- Screw connection

PROFILE 45 X 45 F

Part. N° 20.1033/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	14,172 cm ⁴
- ly =	14,172 cm ⁴
- wx =	6,298 cm ³
- wy =	6,298 cm ³
- Weight	2,005 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

- General constructions

ASSEMBLY

- MiniTec power-lock fastener

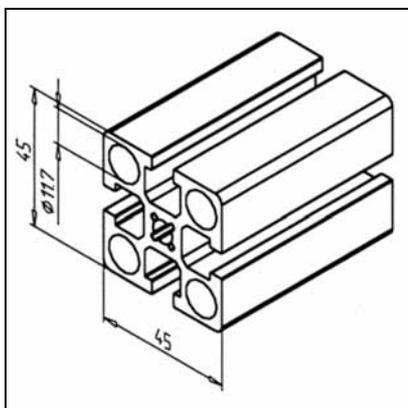
- Angle 19 / 25 / 45 / 45 x 90

- Bolt-fastener 20

- Screw connection

PROFILE 45 X 45

Part. N° 20.1006/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	15,934 cm ⁴
- ly =	15,934 cm ⁴
- wx =	7,081 cm ³
- wy =	7,081 cm ³
- Weight	2,192 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

- General constructions

- Compressed air piping

- Linear guides

ASSEMBLY

- MiniTec power-lock fastener

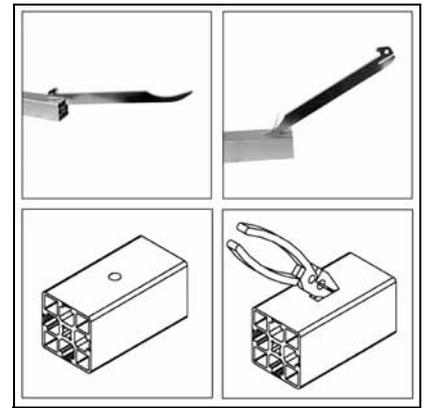
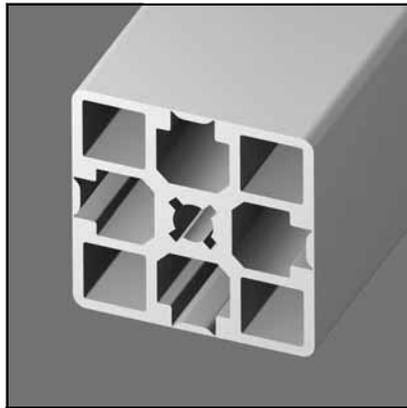
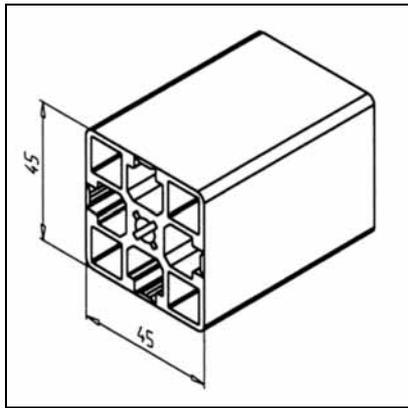
- Angle 25 / 45, bolt-fastener, screw connection

- Bores Ø 11,7 mm reborable for piping thread G 1/4" for connection of blanking screws or pneumatic elements

- Lateral connections G 1/8" direct into the profile. Wider connecting-bores by use of pneumatic adapting plate

PROFILE 45 X 45 G

Part. N° 20.1028/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	14,087 cm ⁴
- ly =	14,087 cm ⁴
- wx =	6,261 cm ³
- wy =	6,261 cm ³
- Weight	1,997 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

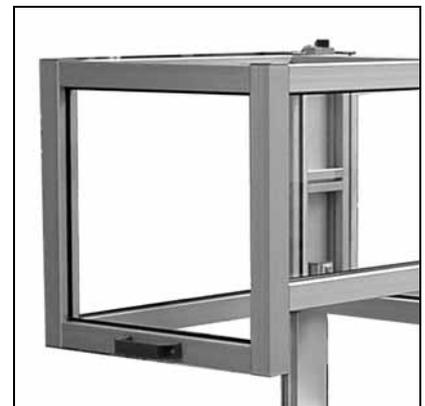
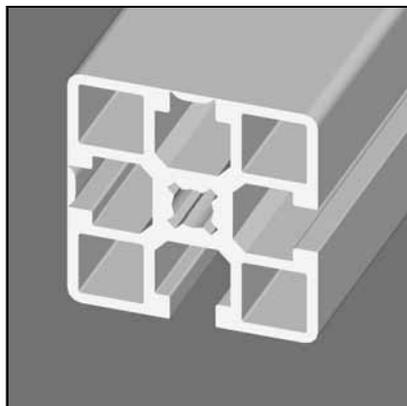
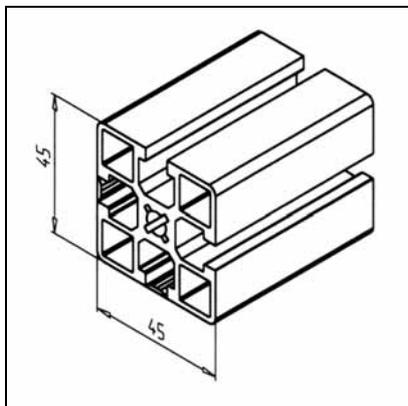
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Grooves can be closed with the aluminium cover profile L, Part N° 20.1021/0, when they turn out to be too big
- On request we offer silicon sealings for profile connections

ASSEMBLY

- For tightening the MiniTec power-lock fastener, the groove cover must be opened by tear-off lever Part N° 26.0815/0 at the profile end. This opening is covered by means of the cover plate G Part N° 22.1056/0
- Angle 25 / 45
- The grooves can be opened up to any length with the tear-off lever Part N° 26.0815/0

PROFILE 45 X 45 2G

Part. N° 20.1072/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	13,549 cm ⁴
- ly =	13,549 cm ⁴
- wx =	5,938 cm ³
- wy =	5,938 cm ³
- Weight	1,925 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

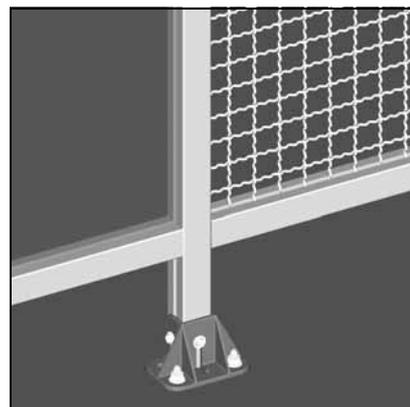
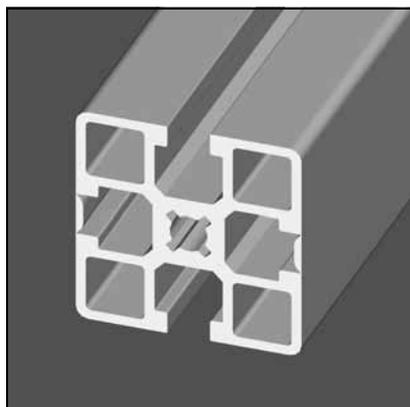
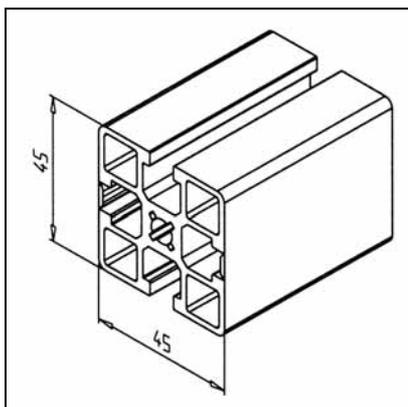
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Grooves can be closed with the aluminium cover profile L, Part N° 20.1021/0, when they turn out to be too big
- On request we offer silicon sealings for profile connections

ASSEMBLY

- For tightening the power-lock fastener, the groove cover must be opened by 30-33 mm at the profile end. This opening is covered by means of the cover plate G Part N° 22.1056/0
- Cover with end cap Part N° 22.1056/0
- Angle 25 / 45

PROFILE 45 X 45 2GG

Part. N° 20.1099/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	13,069 cm ⁴
- ly =	14,045 cm ⁴
- wx =	5,808 cm ³
- wy =	6,242 cm ³
- Weight	1,925 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

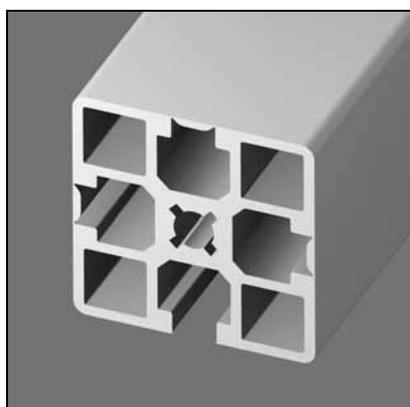
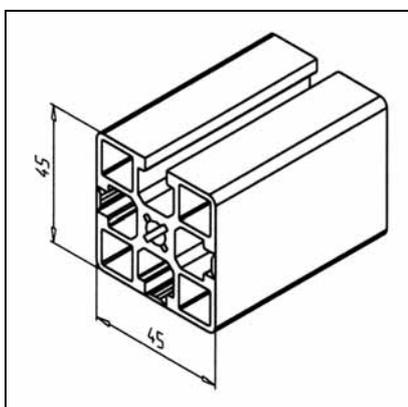
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Grooves can be closed with the aluminium cover profile L, Part N° 20.1021/0, when they turn out to be too big
- On request we offer silicon sealings for profile connections

ASSEMBLY

- For tightening the power-lock fastener, the groove cover must be opened by 30-33 mm at the profile end. This opening is covered by means of the cover plate G Part N° 22.1056/0
- Cover with end cap Part N° 22.1056/0
- Angle 25 / 45

PROFILE 45 X 45 3G

Part. N° 20.1048/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	13,554 cm ⁴
- ly =	14,049 cm ⁴
- wx =	5,941 cm ³
- wy =	6,244 cm ³
- Weight	1,953 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

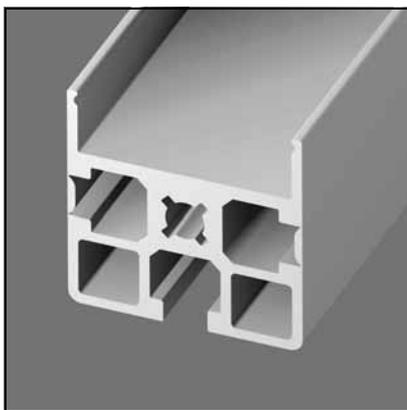
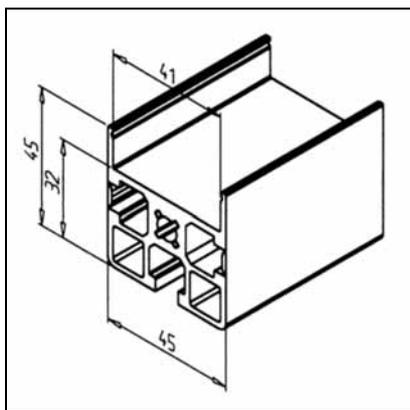
- General engineering structures, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Grooves can be closed with the aluminium cover profile L, Part N° 20.1021/0, when they turn out to be too big
- On request we offer silicon sealings for profile connections

ASSEMBLY

- For tightening the MiniTec power-lock fastener, the groove cover must be opened by 30-33 mm at the profile end. This opening is covered by means of the cover plate G Part N° 22.1056/0
- Angle 25 / 45
- The grooves can be opened up to any length with the tear-off lever Part N° 26.0815/0

PROFILE 45 X 45 R

Part. N° 20.1046/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	8,296 cm ⁴
- Iy =	12,997 cm ⁴
- wx =	3,247 cm ³
- wy =	5,776 cm ³
- Weight	1,711 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

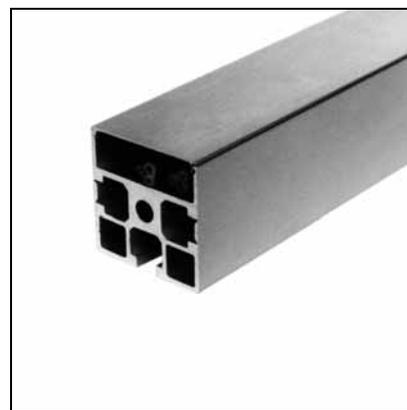
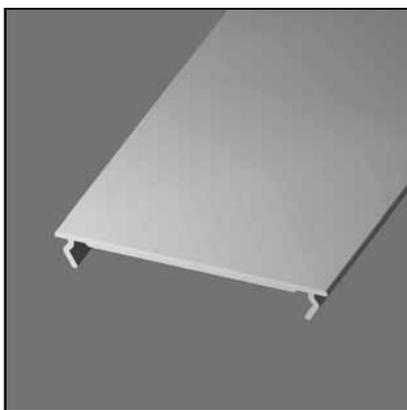
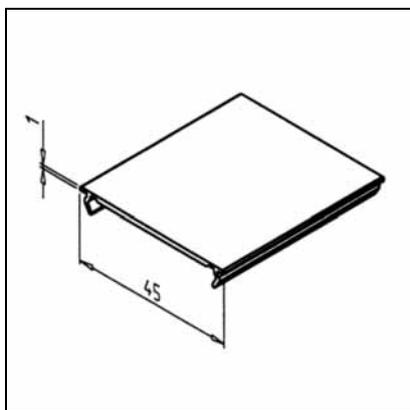
- Combination of constructional element and:
- Cable duct
- Guiding groove for belt conveyor
- Place of deposit
- Guide for cable chain
- Profile for roller strip

ASSEMBLY

- MiniTec power-lock fastener
- The lateral grooves can be opened up to any length with the tear-off lever Part N° 26.0815/0

COVER 45 X 45 R

Part. N° 20.1037/0



TECHN. DATA / ITEMS SUPPLIED

- PVC impact resistant, grey	
- Weight	0,110 kg/m
- Length	2 m

APPLICATIONS

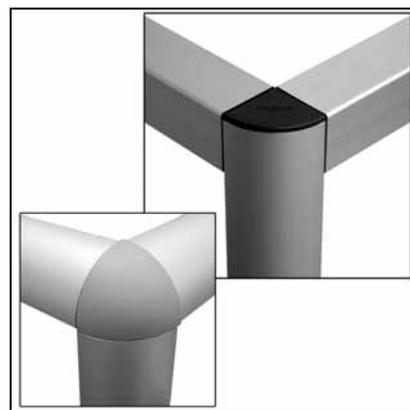
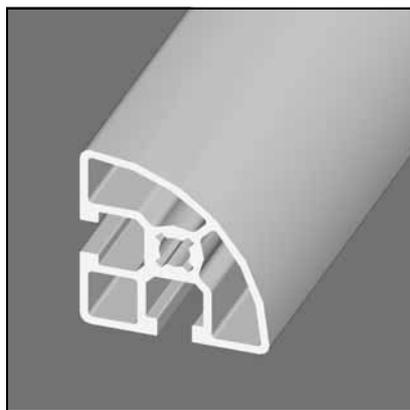
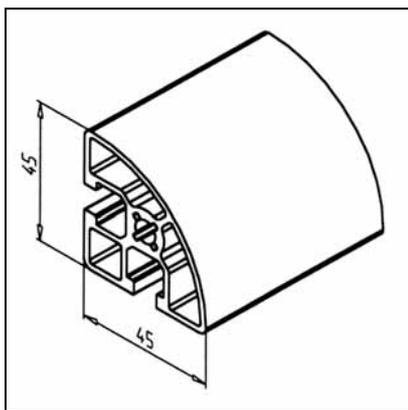
- Covering of profiles 45 x 45 R

ASSEMBLY

- Cover is fastened by clipping

PROFILE 45 R 90°

Part. N° 20.1069/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	9,138 cm ⁴
- Iy =	9,138 cm ⁴
- wx =	3,581 cm ³
- wy =	3,581 cm ³
- Weight	1,478 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

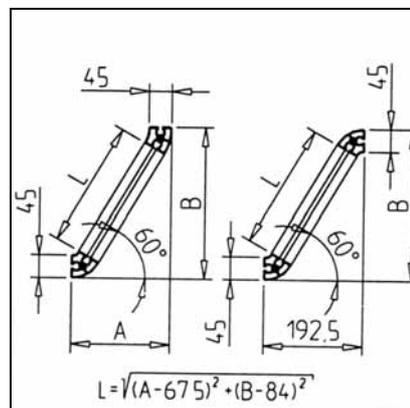
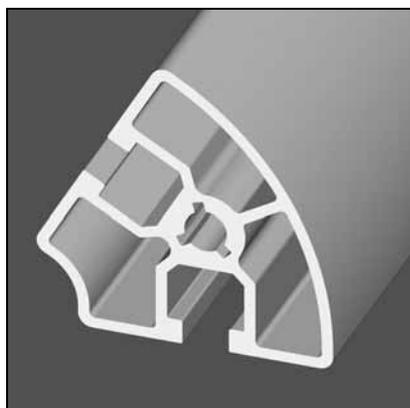
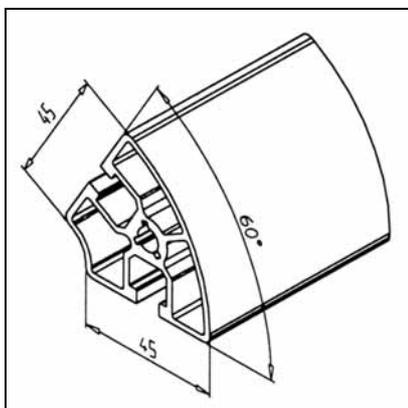
- Light construction
- Tables
- Racks
- Framework constructions

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45 R 90°
- Bolt-fastener
- Cross Bolt-fastener

PROFILE 45 R 60°

Part. N° 20.1096/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	11,446 cm ⁴
- Iy =	10,280 cm ⁴
- wx =	3,667 cm ³
- wy =	3,752 cm ³
- Weight	1,575 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

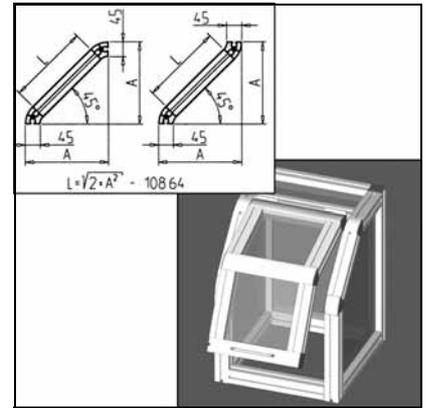
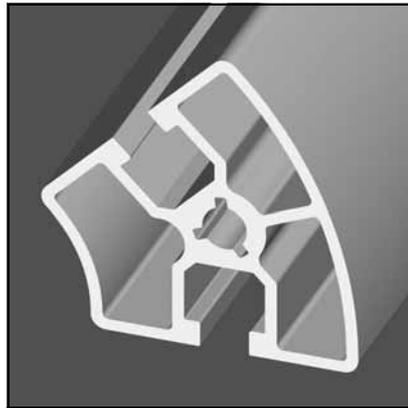
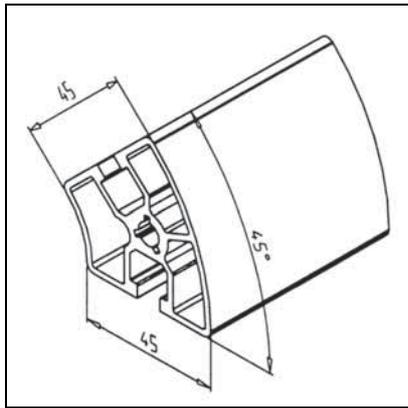
- Cover with angle
- Tables
- Racks
- Framework constructions

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Bolt-fastener

PROFILE 45 R 45°

Part. N° 20.1095/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	12,457 cm ⁴
- Iy =	11,296 cm ⁴
- wx =	3,976 cm ³
- wy =	3,837 cm ³
- Weight	1,607 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

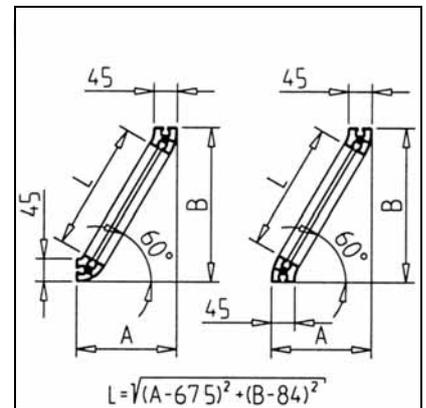
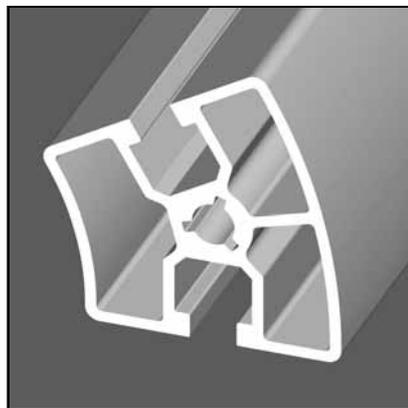
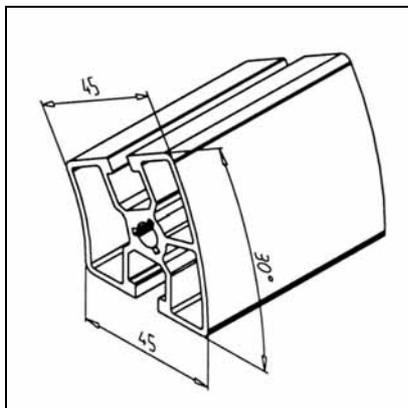
- Cover with angle
- Tables
- Racks
- Framework constructions

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Bolt-fastener

PROFILE 45 R 30°

Part. N° 20.1094/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	12,138 cm ⁴
- Iy =	11,006 cm ⁴
- wx =	4,018 cm ³
- wy =	3,883 cm ³
- Weight	1,626 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

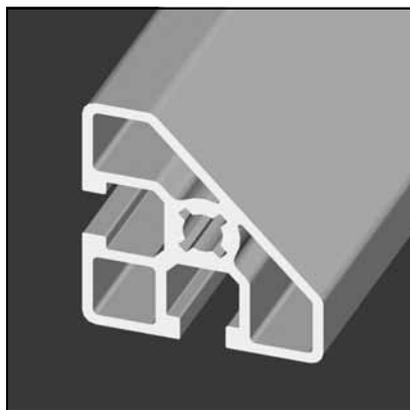
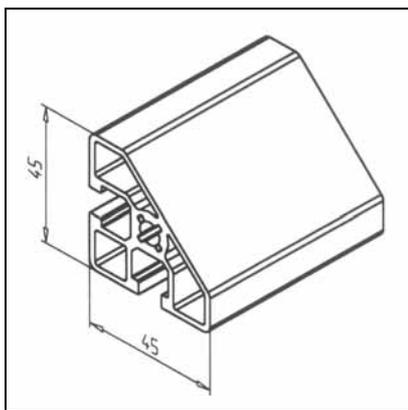
- Cover with angle
- Tables
- Racks
- Framework constructions

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Bolt-fastener

PROFILE 45/45°

Part. N° 20.1029/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	8,626 cm ⁴
- ly =	8,626 cm ⁴
- wx =	3,315 cm ³
- wy =	3,315 cm ³
- Weight	1,443 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

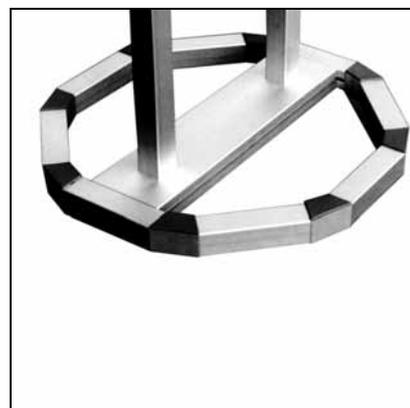
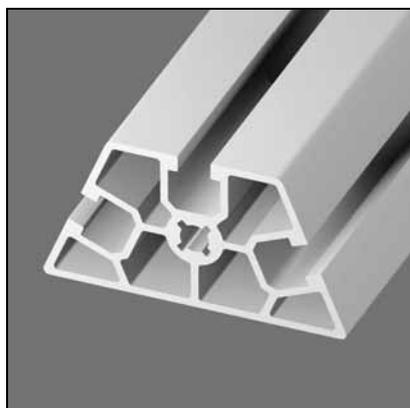
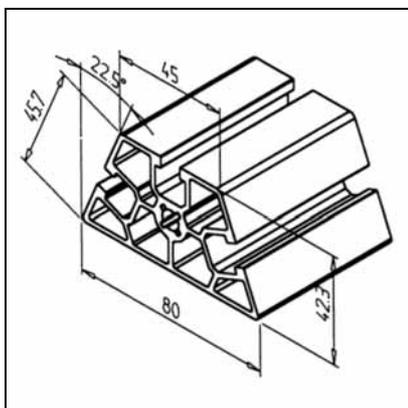
- Light constructions
- Tables
- Framework constructions

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45°
- Cross Bolt-fastener
- Angle 45 / 90
- Bolt-fastener

PROFILE 45/22,5°

Part. N° 20.1030/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	14,506 cm ⁴
- ly =	33,432 cm ⁴
- wx =	7,934 cm ³
- wy =	8,515 cm ³
- Weight	2,225 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

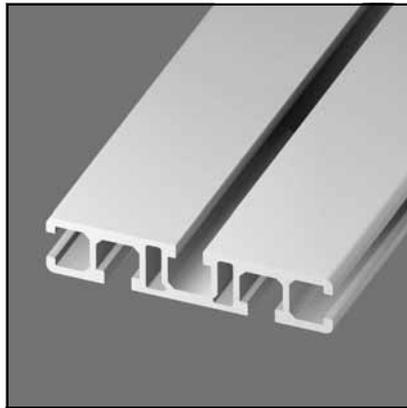
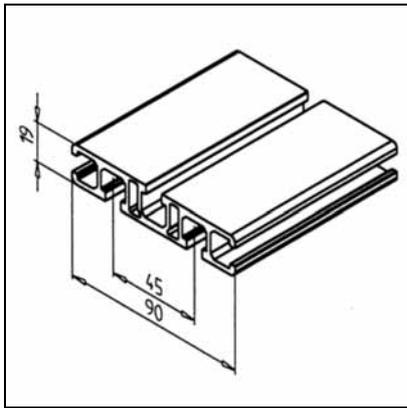
- Protective devices
- Tables
- Connection of construction elements at an angle of 45°

ASSEMBLY

- MiniTec power-lock fastener
- Mounting angle
- Bolt-fastener

PROFILE 90 X 19

Part. N° 20.1031/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	3,316 cm ⁴
- Iy =	44,948 cm ⁴
- wx =	3,345 cm ³
- wy =	9,988 cm ³
- Weight	1,820 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

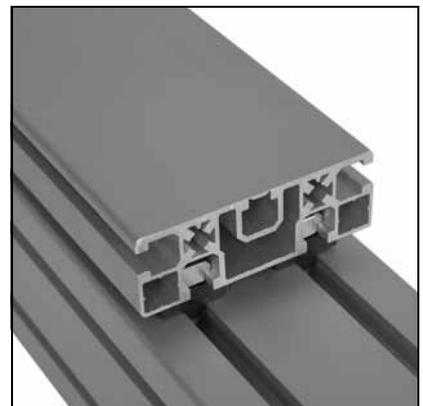
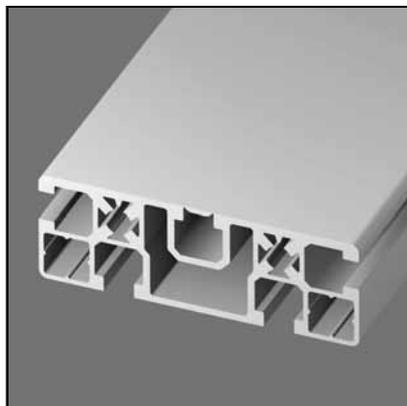
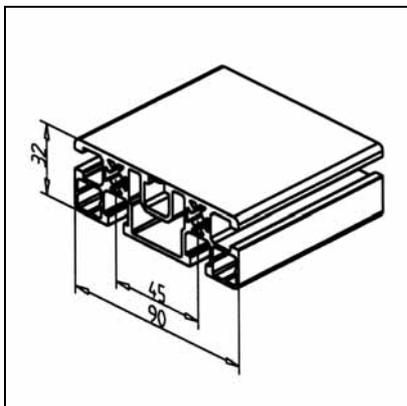
- Base plates
- Bearing surfaces
- Slide plate for linear guide
- Plates for floor fastening
- Showcases

ASSEMBLY

- Bolt-fastener
- Mounting angle

PROFILE 90 X 32 UL

Part. N° 20.1066/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	10,627 cm ⁴
- Iy =	64,889 cm ⁴
- wx =	5,832 cm ³
- wy =	14,340 cm ³
- Weight	2,464 kg/m
- Length	6 m
- Packing unit	36 m

APPLICATIONS

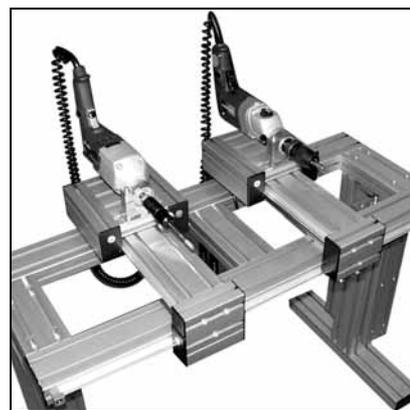
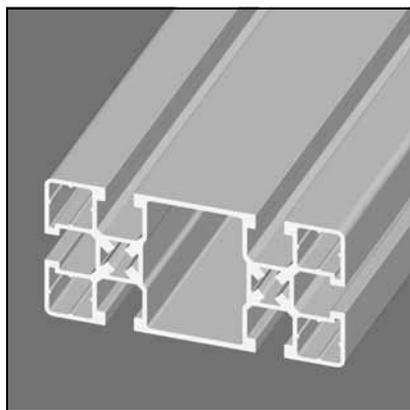
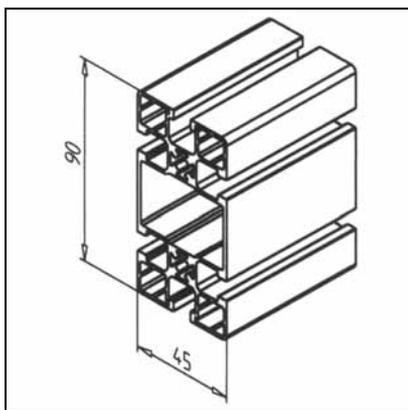
- General constructions
- General weight, optimized engineering structures
- Tables
- Racks
- Protective devices

ASSEMBLY

- MiniTec power-lock fastener
- Cross Bolt-fastener
- Mounting angle
- Screw connector
- The groove on top can be opened at any length by means th tear-off lever Part N° 26.0815/0

PROFILE 45 X 90 UL

Part. N° 20.1067/0



TECHN. DATA / ITEMS SUPPLIED

- $I_x =$	73,907 cm ⁴
- $I_y =$	19,194 cm ⁴
- $w_x =$	16,423 cm ³
- $w_y =$	8,530 cm ³
- Weight	2,421 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

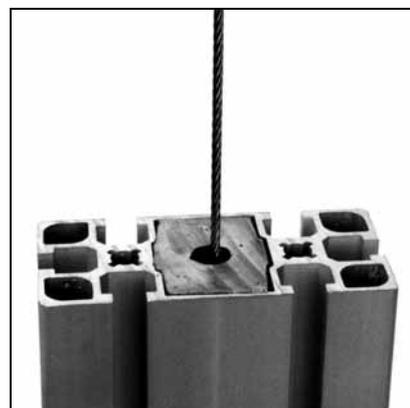
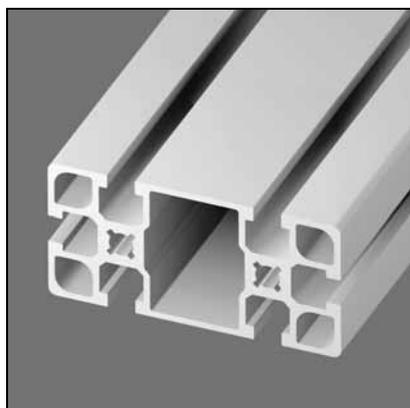
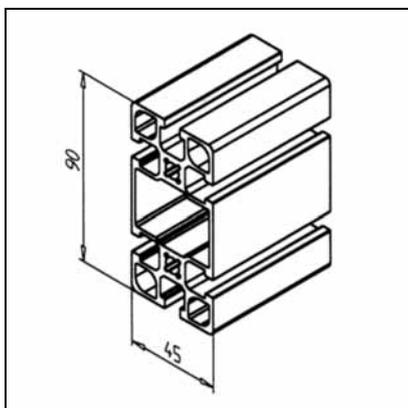
- General weight, optimized engineering structures
- Counterweighted sliding doors and devices

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener 20
- Screw connection

PROFILE 45 X 90 F

Part. N° 20.1032/0



TECHN. DATA / ITEMS SUPPLIED

- $I_x =$	100,988 cm ⁴
- $I_y =$	24,340 cm ⁴
- $w_x =$	22,441 cm ³
- $w_y =$	10,818 cm ³
- Weight	3,134 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

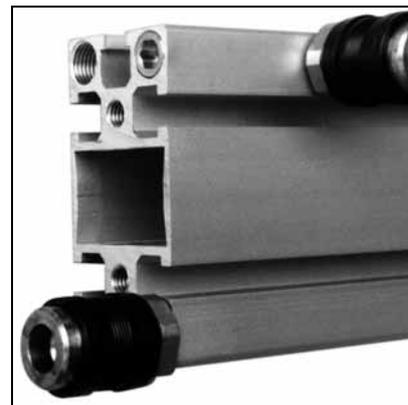
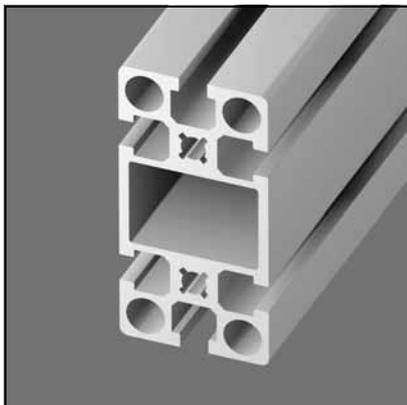
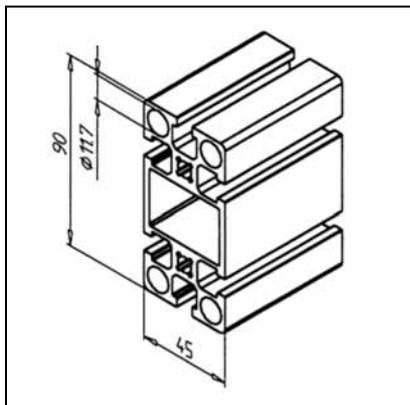
- General constructions
- Counterweighted sliding doors and devices

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener

PROFILE 45 X 90

Part. N° 20.1009/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	113,205 cm ⁴
- Iy =	28,584 cm ⁴
- wx =	25,156 cm ³
- wy =	12,704 cm ³
- Weight	3,667 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

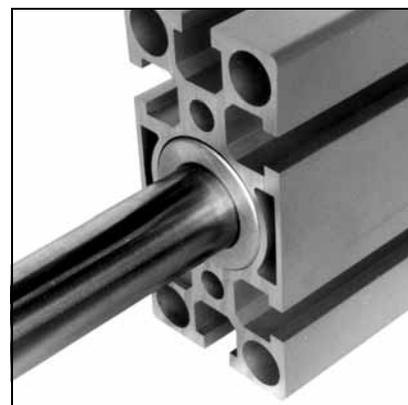
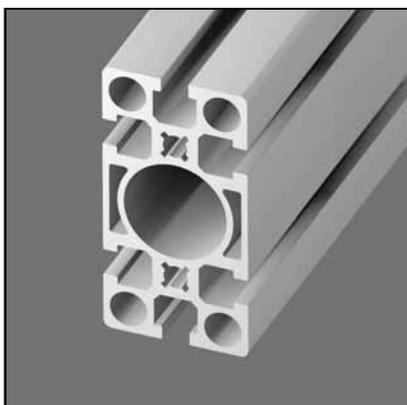
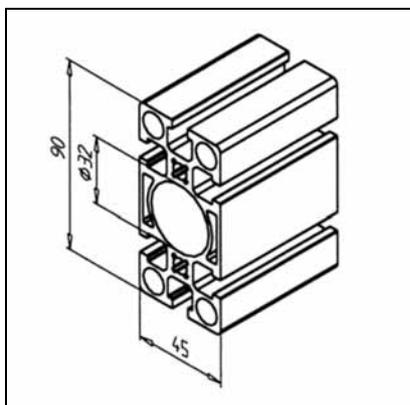
- General heavy duty construction
- 4 cavities for compressed air piping
- Cavity is not suitable for counterweights

ASSEMBLY

- MiniTec power-lock fastener
- Angle 25 / 45 / 90
- Bolt-fastener
- Bores Ø 11,7 mm reborable for piping thread G 1/4" for connection of blanking screws or pneumatic elements
- Lateral connections G 1/8" direct into the profile. Wider connecting-bores by use of pneumatic adapting plate

PROFILE 45 X 90 S

Part. N° 20.1017/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	113,487 cm ⁴
- Iy =	30,719 cm ⁴
- wx =	25,219 cm ³
- wy =	13,653 cm ³
- Weight	3,860 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

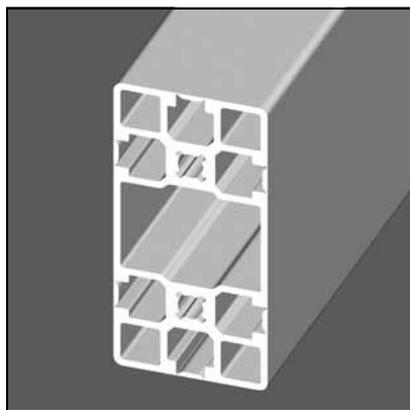
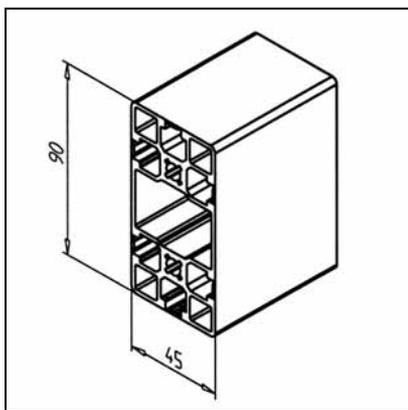
- Universal for general heavy duty constructions
- Linear guides LB
- Pillar guides
- 5 cavities for pressed air piping
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Angle 45 / 90
- Screw connection

PROFILE 45 X 90 G

Part. N° 20.1015/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	101,241 cm ⁴
- ly =	25,318 cm ⁴
- wx =	22,498 cm ³
- wy =	11,252 cm ³
- Weight	3,191 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

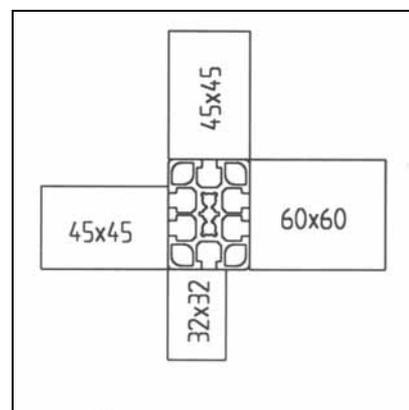
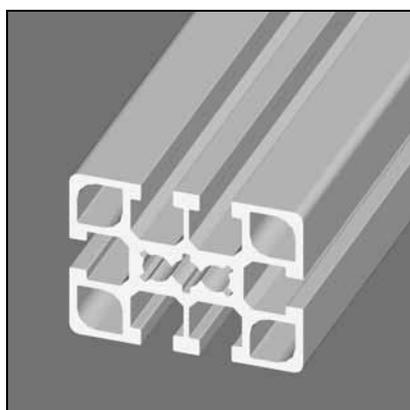
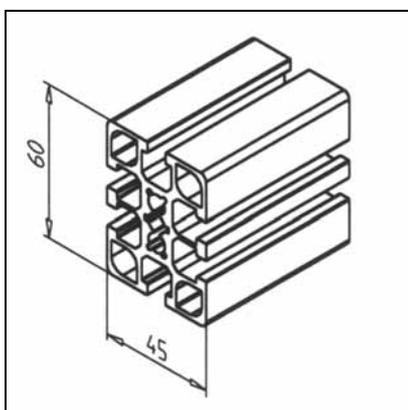
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Guidance of inner counterweights in central cavity

ASSEMBLY

- MiniTec power-lock fastener
- All 6 grooves can be opened up to the length desired
- For series production the groove cover be removed easily and without burr by means of a tear-off lever
Part N° 26.0815/0

PROFILE 45 X 60 F

Part. N° 20.1023/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	32,068 cm ⁴
- ly =	17,587 cm ⁴
- wx =	10,689 cm ³
- wy =	7,816 cm ³
- Weight	2,603 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

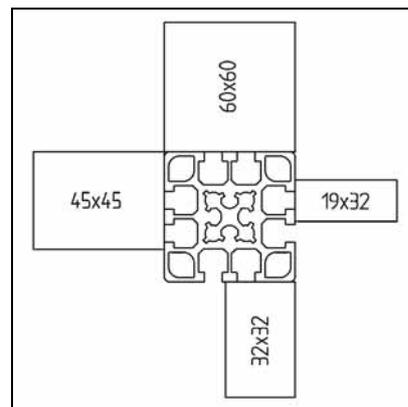
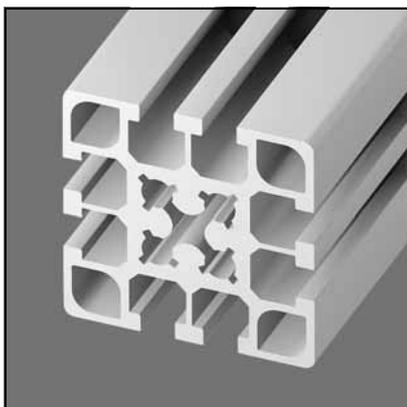
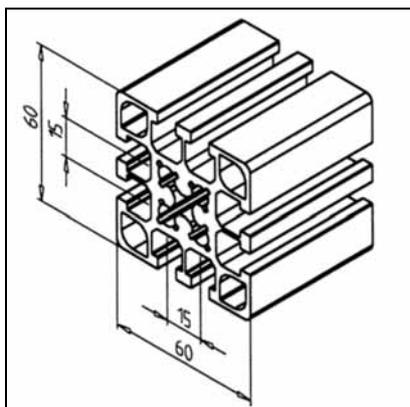
- General constructions
- Corner post in large guard units
- Compatible with all system profiles

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Central boring for thread M8

PROFILE 60 X 60 F

Part. N° 20.1049/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	40,715 cm ⁴
- Iy =	40,715 cm ⁴
- wx =	13,571 cm ³
- wy =	13,571 cm ³
- Weight	3,655 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

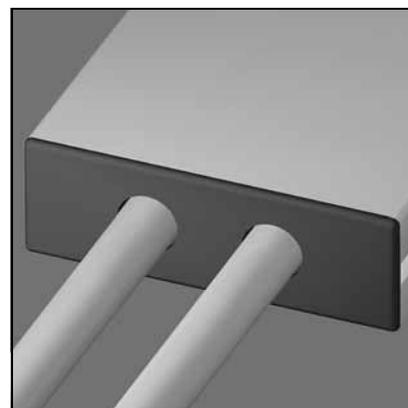
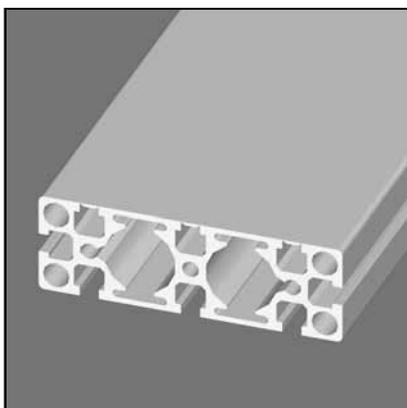
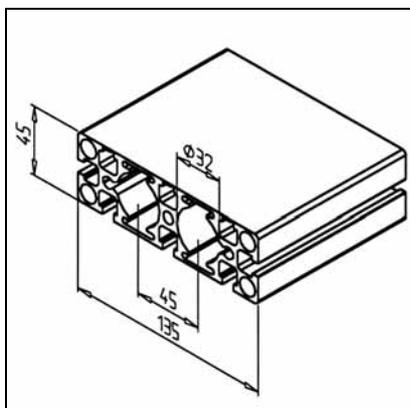
- General constructions
- Corner post in large guard units
- Compatible with all system profiles

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Central boring for thread M10

PROFILE 45 X 135 1G

Part. N° 20.1078/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	359,242 cm ⁴
- Iy =	47,064 cm ⁴
- wx =	20,618 cm ³
- wy =	53,221 cm ³
- Weight	5,570 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

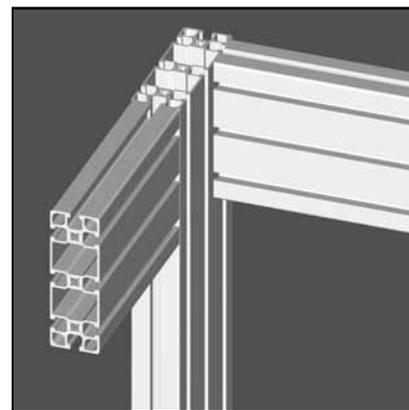
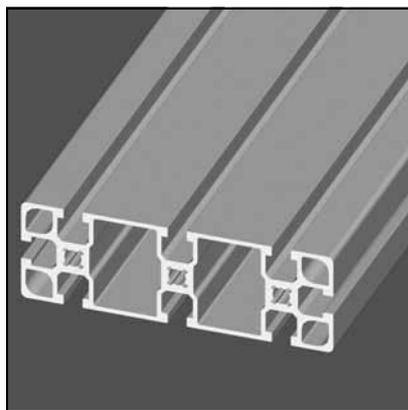
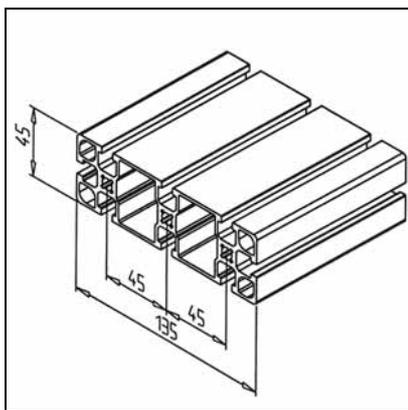
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Linear guides
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- 3 closed grooves can be opened up to the desired length, by means of the tear-off lever Part N° 26.0815/0

PROFILE 45 X 135 F

Part. N° 20.1087/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	307,866 cm ⁴
- ly =	34,958 cm ⁴
- wx =	15,537 cm ³
- wy =	45,609 cm ³
- Weight	4,319 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

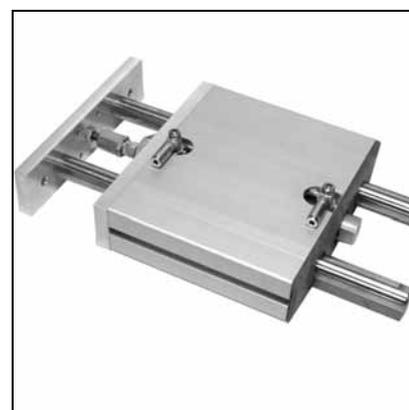
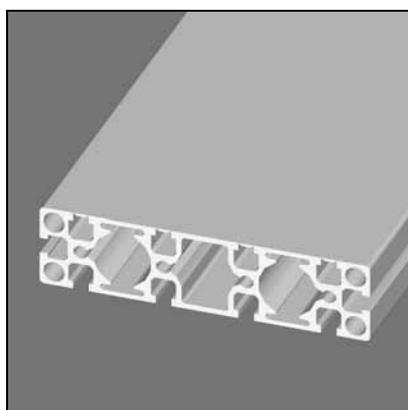
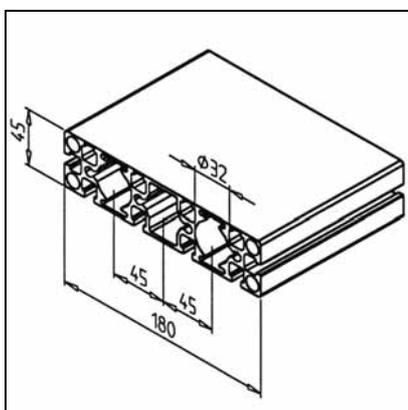
- General constructions
- Counterweighted sliding doors and devices

ASSEMBLY

- MiniTec power-lock fastener
- Angle 19 / 25 / 45 / 45 x 90
- Bolt-fastener

PROFILE 45 X 180 1G

Part. N° 20.1079/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	810,885 cm ⁴
- ly =	61,015 cm ⁴
- wx =	90,097 cm ³
- wy =	26,704 cm ³
- Weight	6,954 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

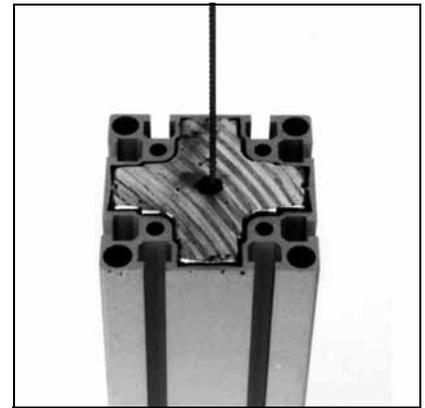
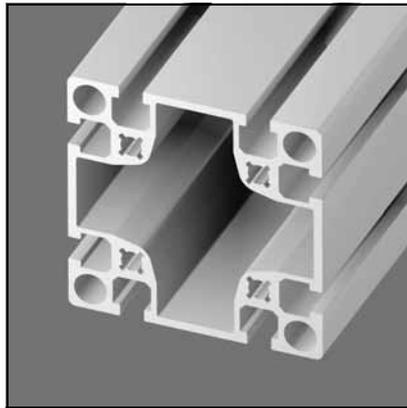
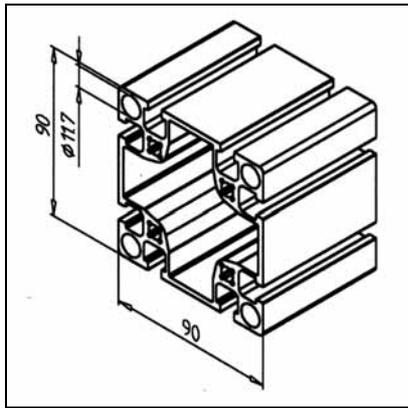
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Linear guiding
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- 4 closed grooves can be opened up to the desired length, by means of the tear-off lever Part N° 26.0815/0

PROFILE 90 X 90 L

Part. N° 20.1010/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	186,260 cm ⁴
- Iy =	186,260 cm ⁴
- wx =	41,391 cm ³
- wy =	41,391 cm ³
- Weight	5,222 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

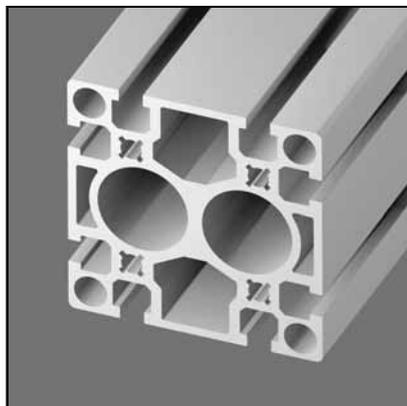
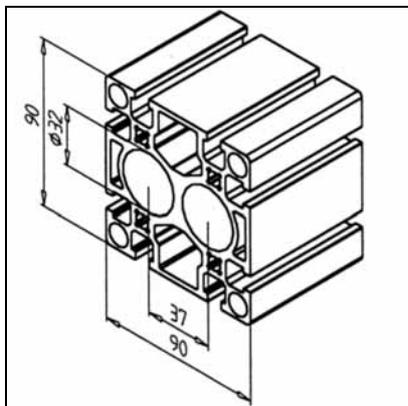
- General heavy duty applications
- The central cavity is constructed for guiding counterweights

ASSEMBLY

- MiniTec power-lock fastener
- Angel 45 or 90
- Screw connection
- Bolt-fastener

PROFILE 90 X 90 S

Part. N° 20.1019/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	223,949 cm ⁴
- Iy =	208,888 cm ⁴
- wx =	49,766 cm ³
- wy =	46,419 cm ³
- Weight	7,514 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

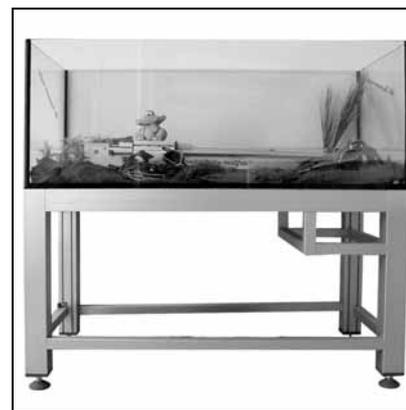
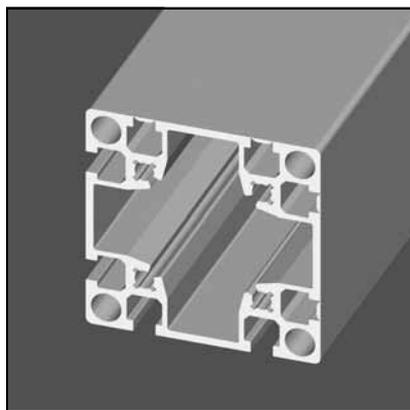
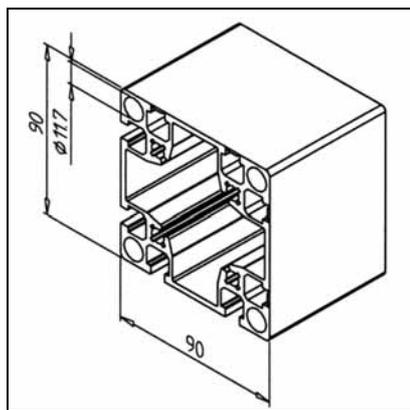
- General heavy duty constructions
- Linear guiding
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45 or 90
- Screw connection

PROFILE 90 X 90 2G

Part. N° 20.1044/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	190,169 cm ⁴
- ly =	190,178 cm ⁴
- wx =	41,825 cm ³
- wy =	42,707 cm ³
- Weight	5,217 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

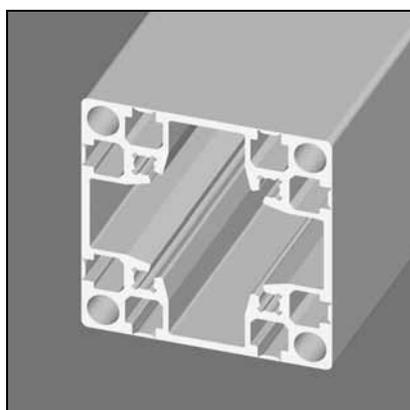
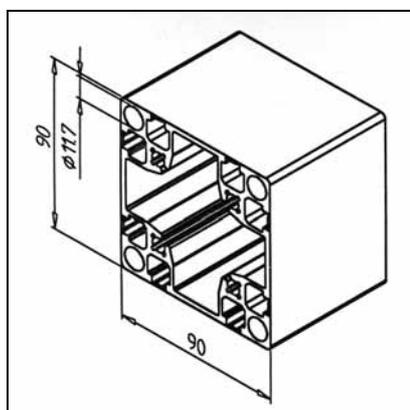
- Grooves can be teared off
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- The central cavity is constructed for guiding counterweights

ASSEMBLY

- MiniTec power-lock fastener
- 4 closed grooves can be opened up to the desired length, by means of the tear-off lever **Part N° 26.0815/0**

PROFILE 90 X 90 G

Part. N° 20.1082/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	195,271 cm ⁴
- ly =	195,271 cm ⁴
- wx =	43,393 cm ³
- wy =	43,393 cm ³
- Weight	5,329 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

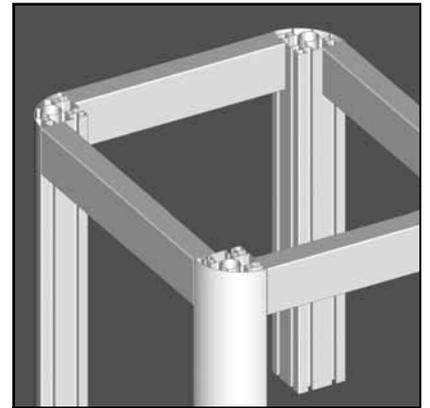
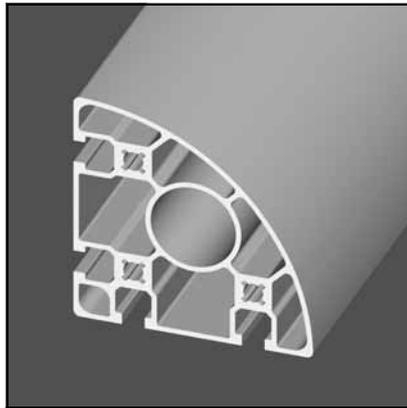
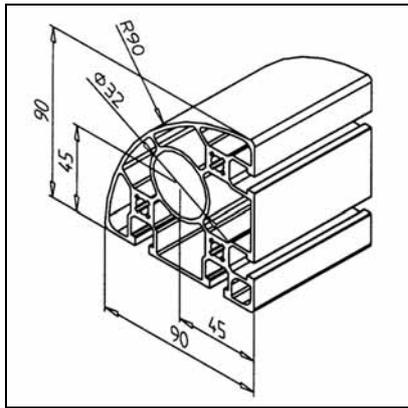
- Grooves can be teared off
- General constructions, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- The central cavity is constructed for guiding counterweights

ASSEMBLY

- MiniTec power-lock fastener
- 8 closed grooves can be opened up to the desired length, by means of the tear-off lever **Part N° 26.0815/0**

PROFILE 90 R 90°

Part. N° 20.1091/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	113,389 cm ⁴
- Iy =	113,389 cm ⁴
- wx =	21,874 cm ³
- wy =	21,874 cm ³
- Weight	4,265 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

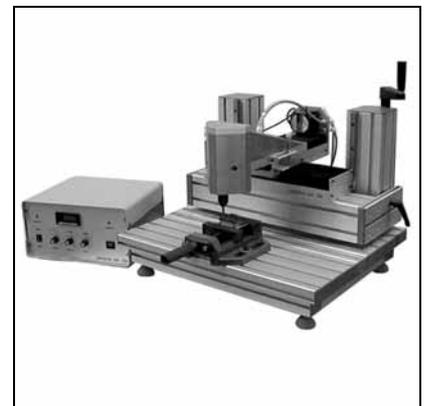
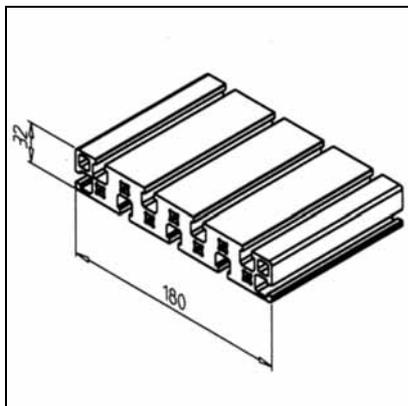
- Tables, frames
- General constructions

ASSEMBLY

- MiniTec power-lock fastener
- Angle
- Cross Bolt-fastener
- Bolt-fastener
- End cap, Part. N° 22.1021/1
- Base and transport plate M10 - M20

PROFILE 32 X 180

Part. N° 20.1016/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	33,804 cm ⁴
- Iy =	843,825 cm ⁴
- wx =	21,068 cm ³
- wy =	93,758 cm ³
- Weight	9,539 kg/m
- Length	6 m
- Packing unit	6 m

APPLICATIONS

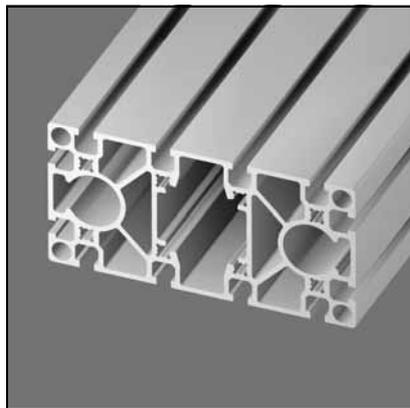
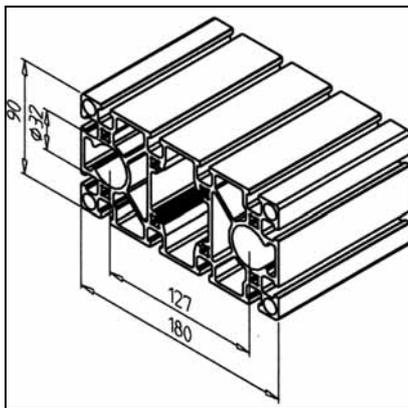
- Slides for MiniTec- linear system LR
- Clamping surfaces
- Base plates
- Heavy duty constructions

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Angle 45 or 90
- Screw connection

PROFILE 90 X 180 S

Part. N° 20.1013/0



TECHN. DATA / ITEMS SUPPLIED

- $I_x =$	1421,865 cm ⁴
- $I_y =$	376,784 cm ⁴
- $w_x =$	157,983 cm ³
- $w_y =$	83,729 cm ³
- Weight	11,482 kg/m
- Length	6 m
- Packing unit	6 m

APPLICATIONS

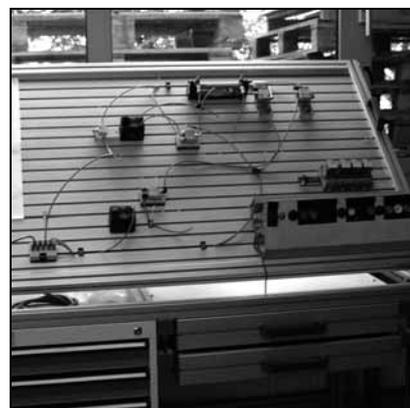
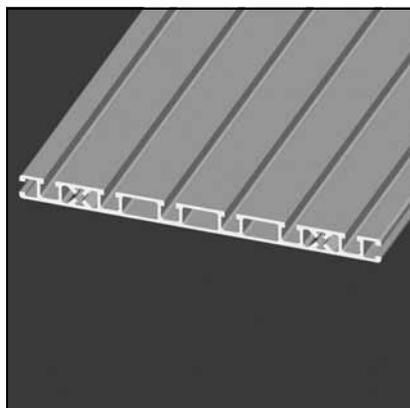
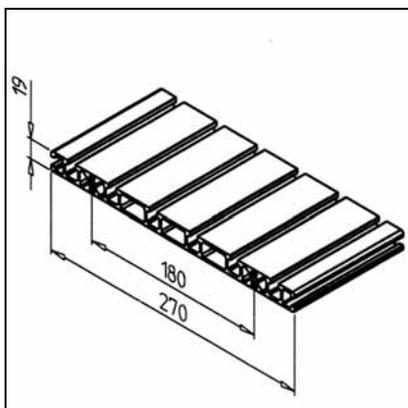
- General heavy duty constructions
- Linear guiding LB as slide
- Central bore \varnothing 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45 or 90
- Screw connection

PROFILE 270 X 19

Part. N° 20.1077/0



TECHN. DATA / ITEMS SUPPLIED

- $I_x =$	10,348 cm ⁴
- $I_y =$	1352,197 cm ⁴
- $w_x =$	10,167 cm ³
- $w_y =$	100,162 cm ³
- Weight	5,612 kg/m
- Length	6 m
- Packing unit	18 m

APPLICATIONS

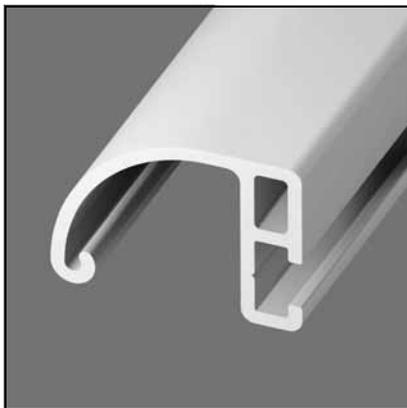
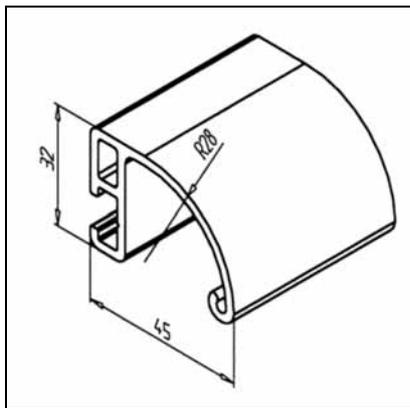
- Table tops
- Workstations
- Didactic installations i.e. pneumatic, electronics, automatic-control with universal clamping socket **Part N° P20.060/0**
- Demonstration units

ASSEMBLY

- MiniTec power-lock fastener
- Screw connection
- Bolt-fastener 15

HANDLE PROFILE

Part. N° 20.1045/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	3,531 cm ⁴
- Iy =	7,654 cm ⁴
- wx =	1,985 cm ³
- wy =	2,856 cm ³
- Weight	0,890 kg/m
- Length	6 m
- Packing unit	60 m

APPLICATIONS

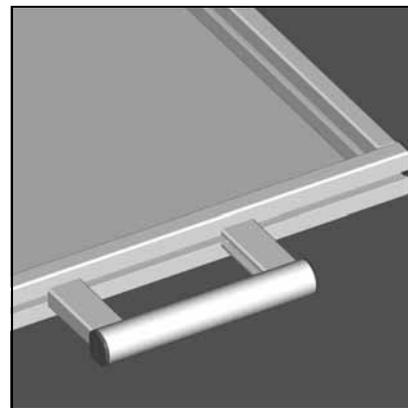
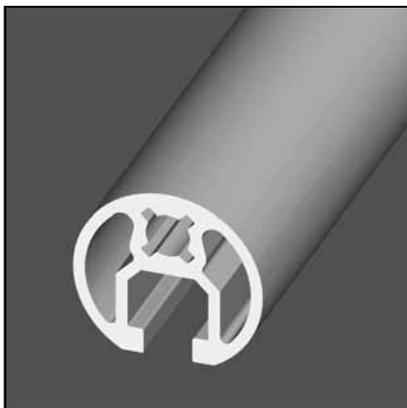
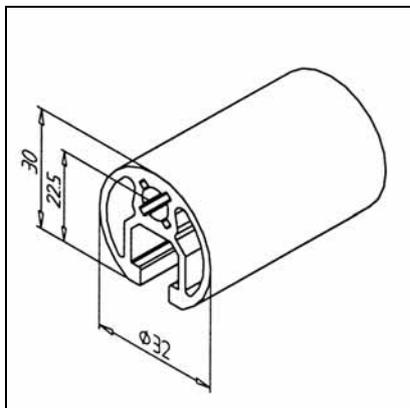
- Handles of different lengths
- Edges
- Table edges
- Cover ledge for cable, pneumatic conducts

ASSEMBLY

- Screw connection
- Mounting angle
- Lateral cover with end caps left Part N° 22.1055/0 and right Part N° 22.1054/0

HANDLE PROFILE 32

Part. N° 20.1088/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	2,601 cm ⁴
- Iy =	2,636 cm ⁴
- wx =	1,682 cm ⁴
- wy =	1,649 cm ⁴
- Weight	0,911 kg
- Length	6 m
- Packing unit	84 m

APPLICATIONS

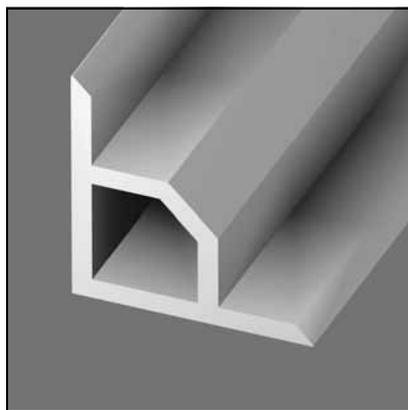
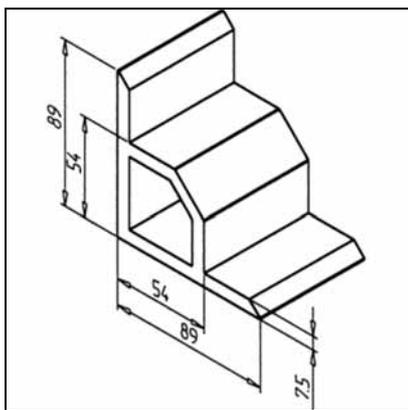
- Handles of different lengths for doors, drawers, handrails
- Edging of panel elements or posters up to 8 mm
- Horizontal profile for fixing of small roller conveyors

ASSEMBLY

- MiniTec power lock fastener
- Angle 19
- Bolt-fastener
- Screw connection
- Lateral cover with end cap for handle profile 32

ANGULAR PROFILE 89 X 89

Part. N° 20.1011/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	105,416 cm ⁴
- ly =	105,416 cm ⁴
- wx =	17,413 cm ³
- wy =	17,413 cm ³
- Weight	4,868 kg/m
- Length	3 m
- Packing unit	72 m

APPLICATIONS

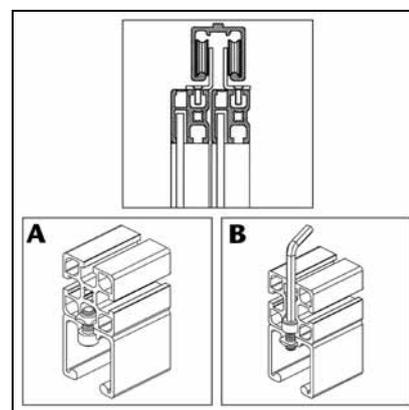
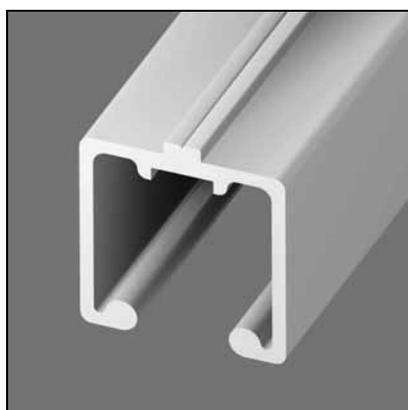
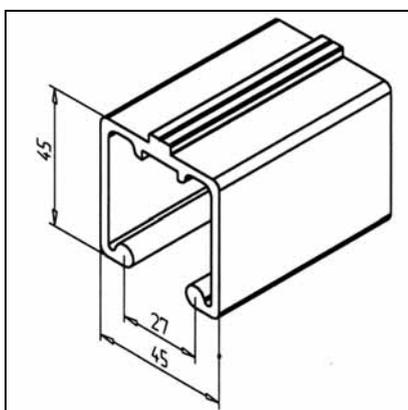
- Consoles
- Support surface
- Material for special mounting angles

ASSEMBLY

- Screws M8 x 20 and square nuts M8

SLIDING DOOR PROFILE

Part. N° 20.1038/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	15,347 cm ⁴
- ly =	15,597 cm ⁴
- wx =	5,912 cm ³
- wy =	6,932 cm ³
- Weight	1,474 kg/m
- Length	5 m
- Packing unit	40 m

APPLICATIONS

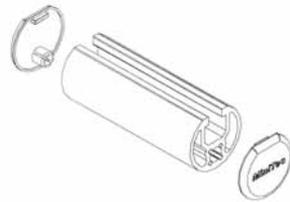
- Two wing sliding doors
- One wing sliding doors

ASSEMBLY

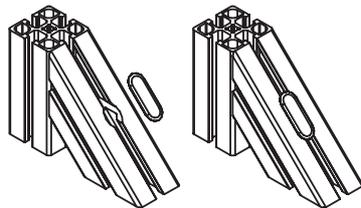
- Drill Ø 5 mm holes in centering groove; bore pitch: 250 - 400 mm depending on the load
- A) Position M8 F square nuts in the supporting profile and fasten the sliding rail profile with M8 x 25 head socket head socket cap screw
- B) Drill holes or step holes in the supporting profile and insert the square nuts in the sliding profile; the nuts are secured against torsion

END CAPS

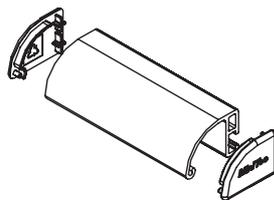
All end caps are of non-aging and oil-resistant ABS, grey, thickness 3 mm. The end caps are also available in black on demand. For cut-off face covering of profiles. No deburring necessary.



End cap handle profile 32



End cap GL



End cap handle profile

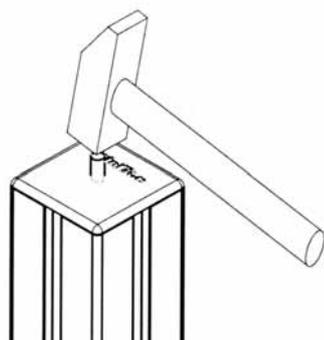


End cap 45 R Z

For profile:	Part no. Profile	Part no. End cap
19 x 32	20.1000/0	22.1060/1
19 x 45	20.1001/0	22.1064/1
45 x 19	20.1012/0	22.1063/1
32 x 32 UL, F	-	22.1062/1
Clamp profile 32 x 32	20.1070/0	22.1032/1
		22.1032/3, with drilling
Handle profile 32	20.1088/0	22.1023/1
45 x 32 UL, F	-	22.1065/1
Clamp profile 45 x 32	20.1053/0	22.1046/1
		22.1046/3, with drilling
45 x 45, UL, F, G, 2G, 3G	-	22.1067/1
45 x 45 R	20.1046/0	22.1065/1
45 R 90°	20.1069/0	22.1034/1
45/45°	20.1029/0	22.1051/1
45/22,5°	20.1030/0	22.1052/1
90 x 19	20.1031/0	22.1053/1
90 x 32 UL	20.1066/0	22.1061/1
45 x 90, UL, F, S, G	-	22.1068/1
45 x 60 F	20.1023/0	22.1058/1
60 x 60 F	20.1049/0	22.1057/1
45 x 135 G	20.1024/0	22.1049/1
45 x 180 G	20.1079/0	22.1048/1
90 x 90 L, S, 2G	-	22.1069/1
32 x 180	20.1016/0	22.1059/1
90 x 180 S	20.1013/0	2 x 22.1069/1
Handle profile right	20.1045/0	22.1054/0
Handle profile left	20.1045/0	22.1055/0
Conduit 90 AI	20.1056/0	22.1045/0
90 R 90°	20.1091/0	22.1021/1
For profile:	Part no. Profile	Part no. End cap
45 R 30°	20.1094/0	22.1019/1
45 R 45°	20.1095/0	22.1017/1
45 R 60°	20.1096/0	22.1018/1

(Hammer pin into the centric bore. Use a plastic hammer.
For demounting push pin through centric bore.)

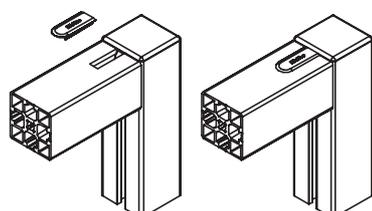
END CAPS



End cap Z

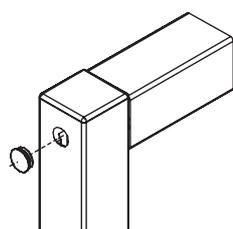
For profile:	Part no. Profile	Part no. End cap
19 x 45	20.1001/0	22.1001/1
32 x 32 UL, F	-	22.1002/1
45 x 32 UL, F	-	22.1003/1
45 x 45 UL, F, G, 2G, 3G	-	22.1004/1
45 x 60 F	20.1023/0	22.1005/1
60 x 60 F	20.1049/0	22.1006/1
45 x 90 UL, F, S, G	-	22.1007/1

(Hammer pin into the centric bore. Use a plastic hammer.
For demounting push pin through centric bore.)



End cap G

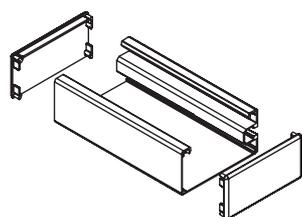
Designation		Part no. End cap
End cap G	(PA 6)	22.1056/1
End cap GL	(PA 6)	22.1208/1



Lamellar plug

Designation		Part no. End cap
Lamellar plug 7	(PE)	22.1200/1
Lamellar plug 9	(PE)	22.1201/1
Lamellar plug 15	(PE)	22.1202/1

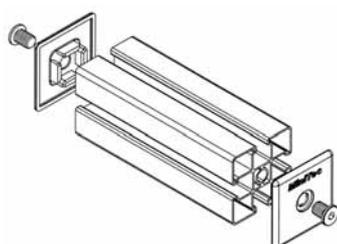
End cap Aluminium



90 Al cable channel

Designation	Part no. End cap
End cap 45 x 45 Al	22.1067/2
End cap 45 x 90 Al	22.1068/2
End cap 19 x 45 Al	22.1064/2

(End cap AL, anodized, thickness: 2,5 mm, without screw;
suitable screw: countersunk screw M8 x 20)

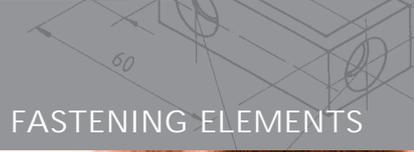


End cap 45x45 VA

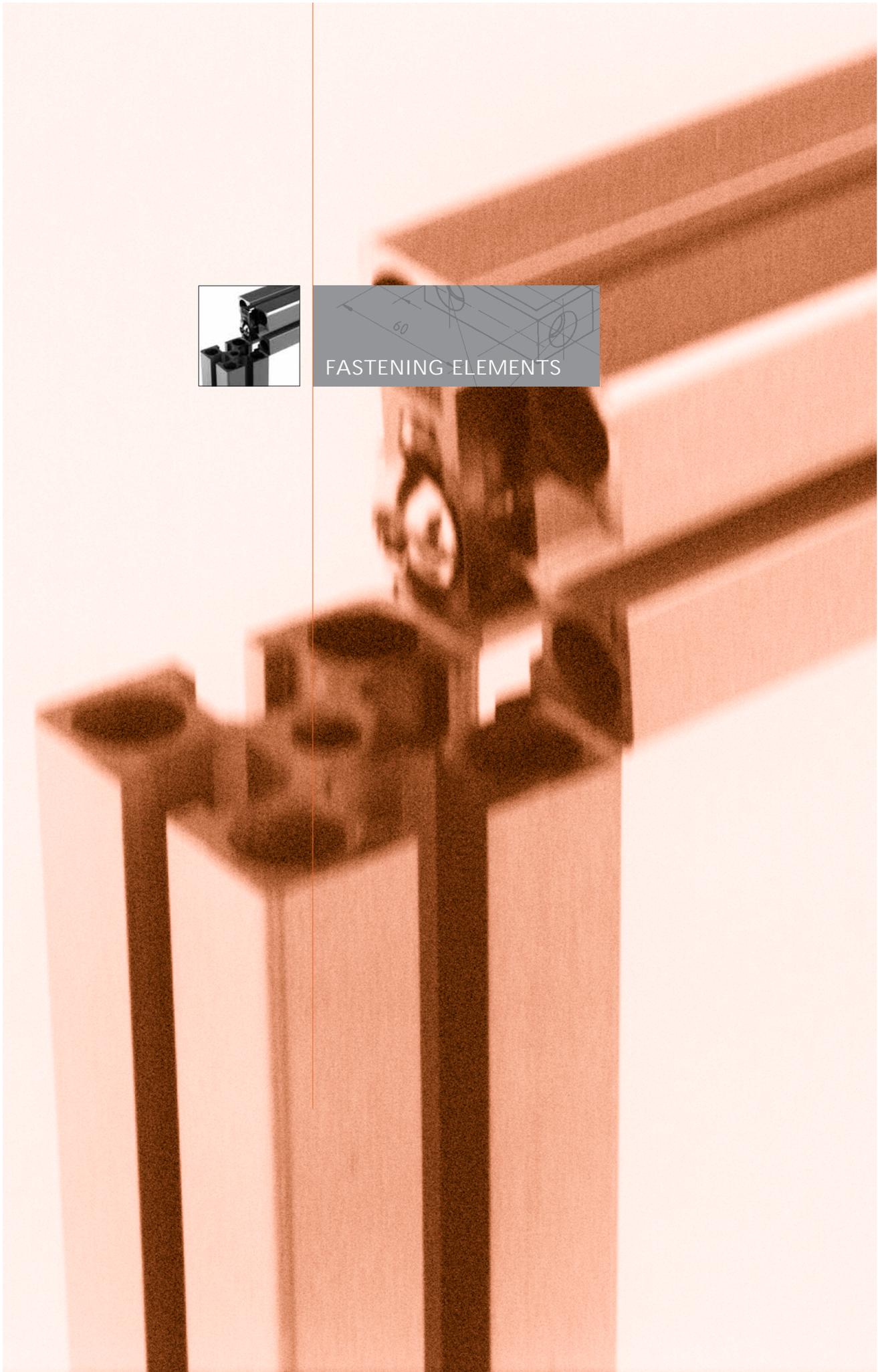
End cap stainless steel

Designation	Part no. End cap
End cap 45 x 45 VA	22.1067/5

(End cap VA, stainless steel, thickness: 5 mm, without screw; suitable screw: countersunk screw VA M8 x 16)



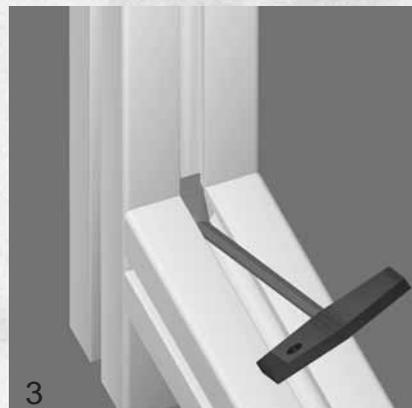
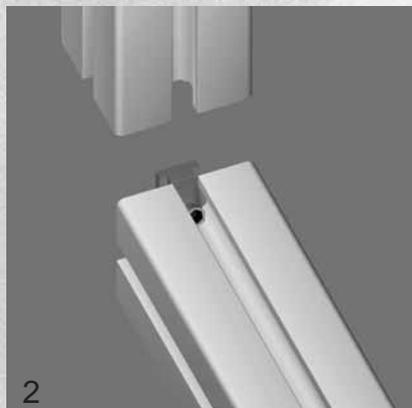
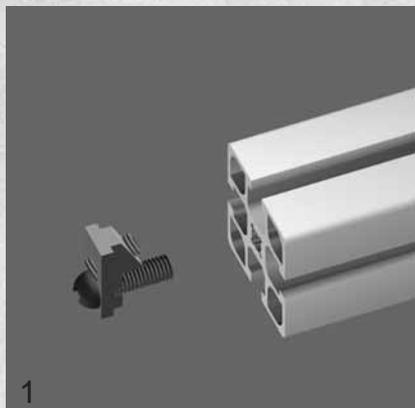
FASTENING ELEMENTS



MINITEC - POWER-LOCK FASTENER

Applications Extremely strong power-lock connection. Accurate location of the profiles, integrated mounting aid, moveable, low-cost due to minimal processing. Can be used for all types of constructions.

Assembly For direct self-tapping of screw M8 into core bore or processing by using a thread former



Assembly

- 1 Screw the fastener by hand into the end of the profile 1.
- 2 Bring 2nd profile to the required position.
- 3 Tighten the set-screw M8 with hexagon key 4 A/F with T-handle. Recommended locking torque: ~12 Nm

Advantages

- The groove of the profile connection remains free for panels, etc.
- The connection is invisible from outside.
- Subsequently easily adjustable
- Power-locked in correct position
- Static load: 6000 N (UL profile: 4000 N)
- Easy construction of cross-joints
- Electrically conductive connection

Variants

Power lock fastener(standard):
Part N° 21.1018/0

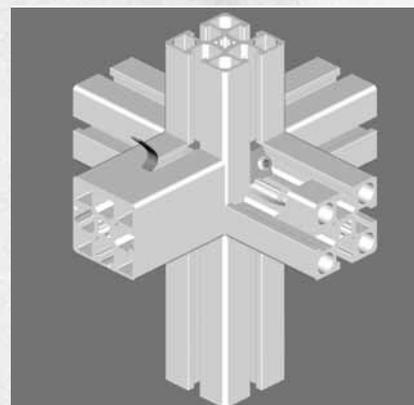
For profile connections that need to be electrically conducting. Profile needs to be tapped (thread M8).

Power lock fastener SF:
Part N° 21.0818/0

For profile connections that need to be electrically conducting. With self-cutting screw, so tapping is not necessary.

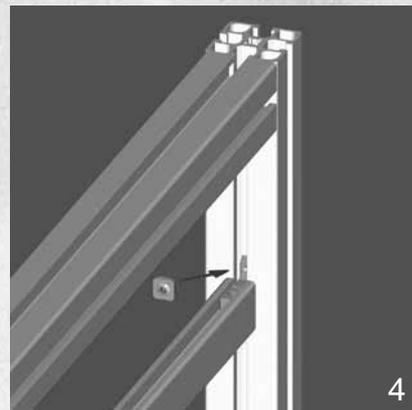
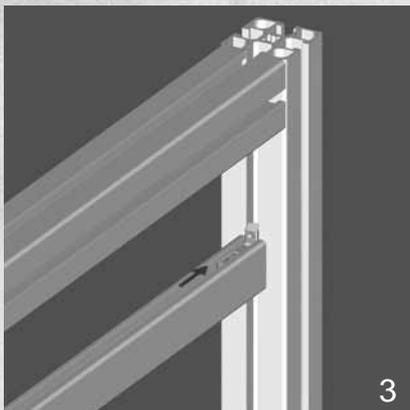
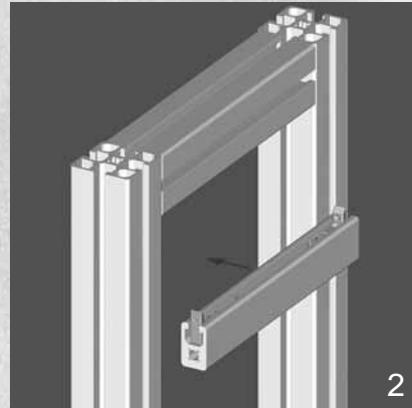
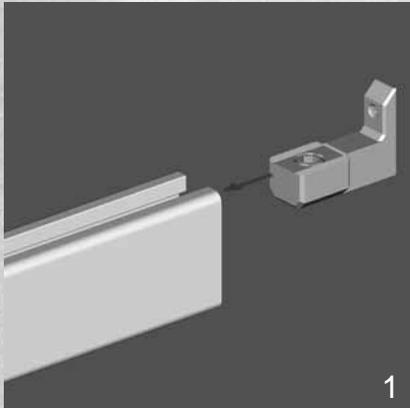
Power lock fastener H:
Part N° 21.1018/1

For corrosion resistant profile connections. Profile needs to be tapped (thread M8).



MINITEC - POWER-LOCK FASTENER N

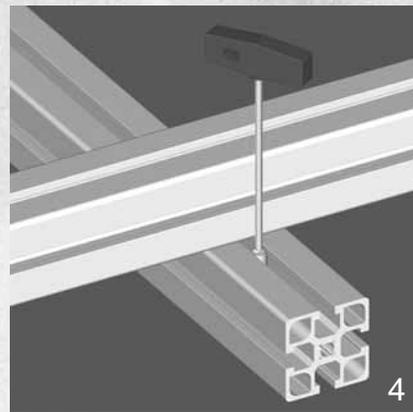
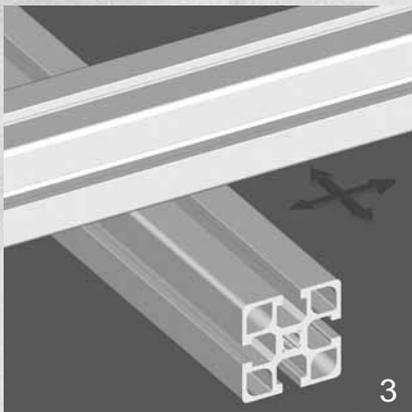
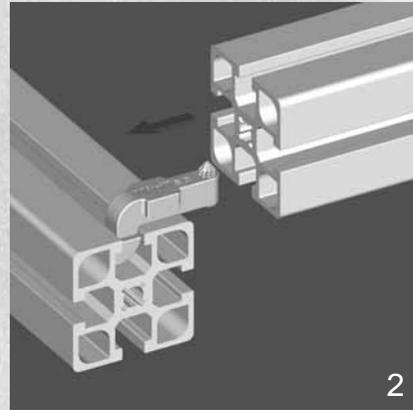
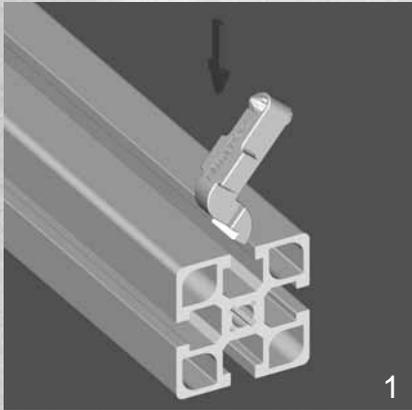
Applications For subsequent insert of profiles in existing frames



- Assembly**
1. Insert Power-lock fastener N into profile
 2. Set profile in the required position
 3. Insert fastener in the existing profile
 4. Slide nut over the L-shape end of the fastener and tighten with hex-key. Then tighten set screw (both 10 Nm).

MINITEC - CROSS-CONNECTOR

Applications For subsequent insertion of profiles in existing constructions



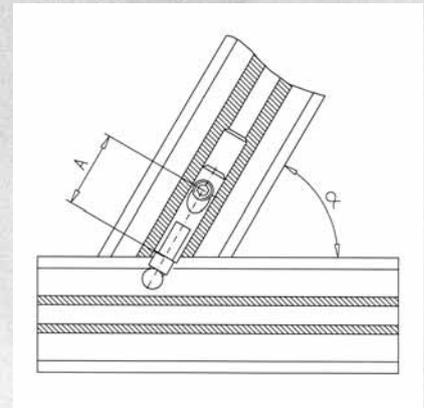
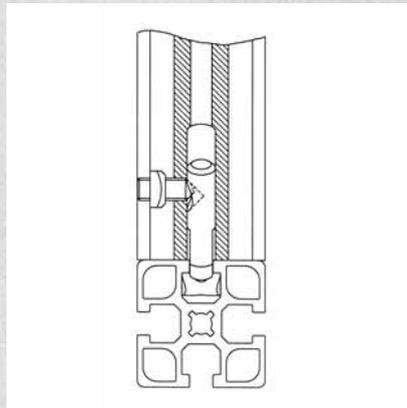
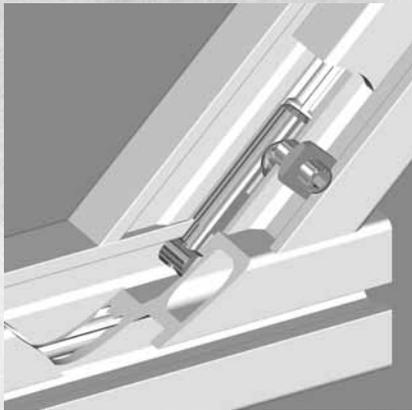
- Assembly**
1. Swivel the connector into any existing base frame
 2. Insert the profile to be connected over the connector
 3. Position the brace profile
 4. Tighten the set screw in the connector with a torque of 10 Nm

MITRE CONNECTIONS

Mitre connector N Drill \varnothing 10.2 mm bore in the profile core bore. Drill \varnothing 8.2 bore depending on the angle and at distance A from the profile end (see table). Insert the mitre connector in the open profile end, position the M8 square nut with the set screw and tighten it.

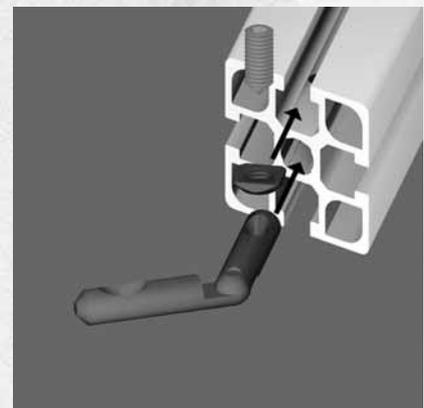
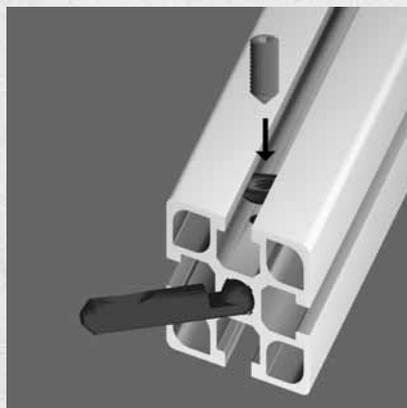
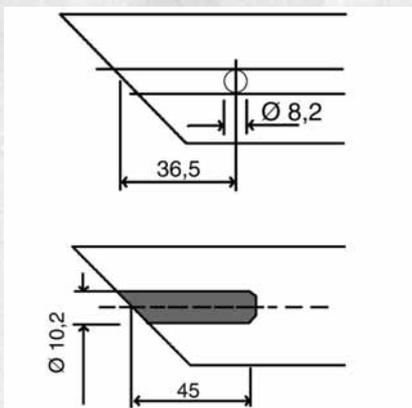
Use drilling jig for mitre connector N, Part N° 26.1060/0.

Angle α	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°
Distance A (mm)	21	24	26	28	29	30	30.5	31	31.5	32	32	32	32

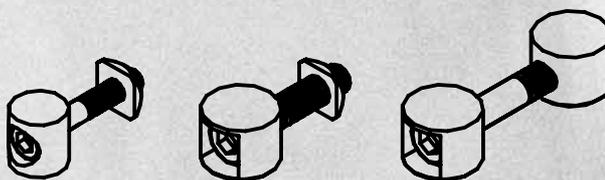


Mitre connector Drill \varnothing 10.2 mm bore in the profile core bore. Drill \varnothing 8.2 bore at the distance 36.5 mm from the profile end. Insert the mitre connector in both open profile ends, position the M8 square nut with the set screw, and tighten it.

Use drilling jig for mitre connector, Part N° 26.1050/0.



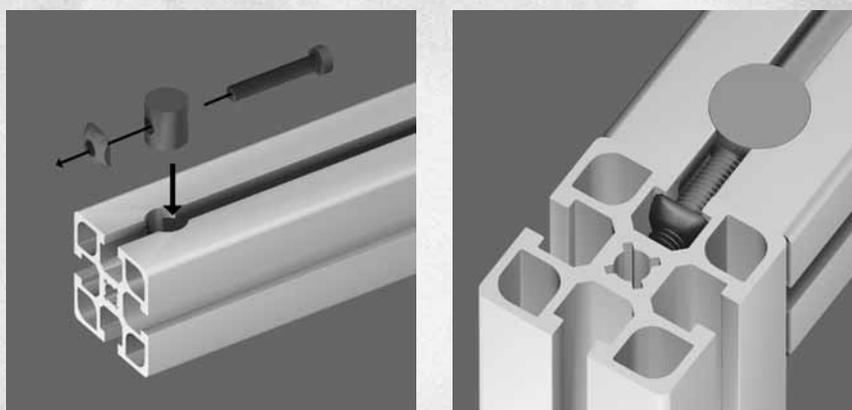
BOLT AND BUTT FASTENER



Application Subsequent assembly of profiles into existing frames, extension of profiles.

Processing Step drilling $\varnothing 7 / \varnothing 20$ mm, resp. $\varnothing 9 / \varnothing 15$ mm depth: 16 mm, position: middle of the groove, 20 mm from profile end.

- Subsequent mounting of profiles into existing frames.
- Adjustable
- Extension of profiles



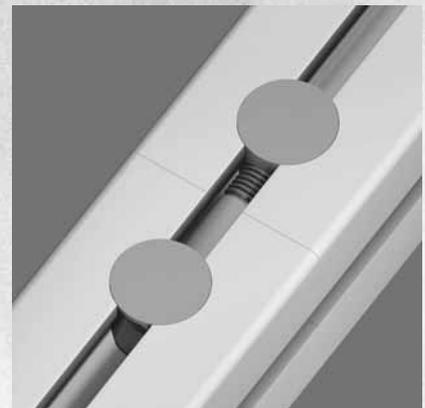
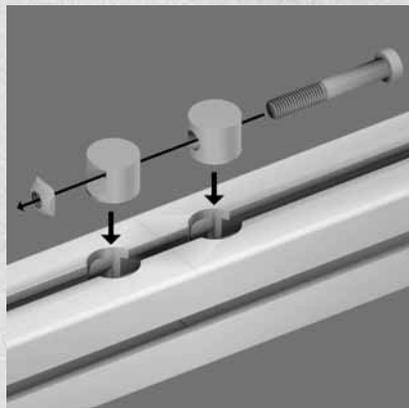
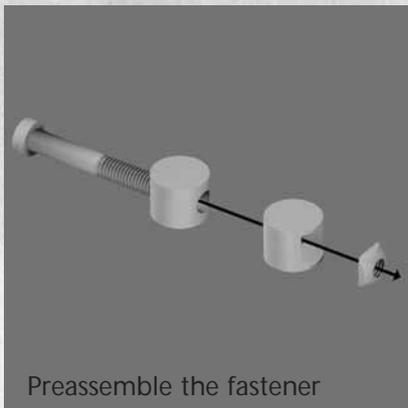
Assembly

- 1 Insert hex screw M8 x 35 in bolt and – if possible – preassemble square nut into second profile
- 2 Insert bolt in step drilling and connect with square nut.
- 3 Pretighten with ball-headed key 5 A/F.
Final tightening with L-key 5 A/F.

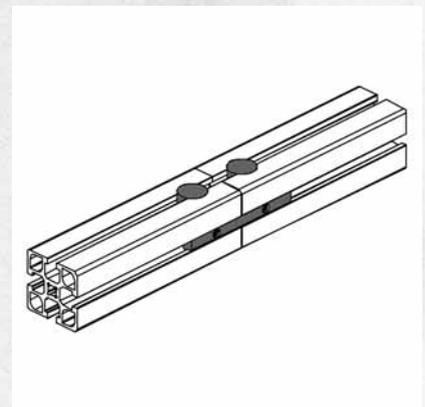
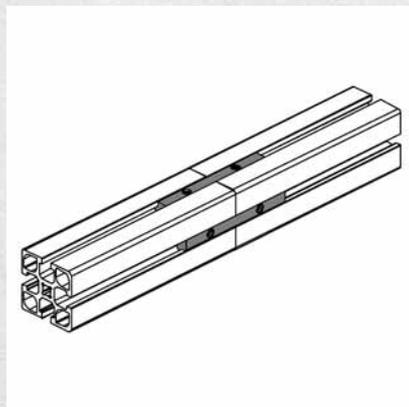
- Recommended locking torque: 15 Nm
- Static load: 3500 N

BUTT FASTENER

- Butt Fastener** Insert the fasteners into the bore holes $\varnothing 7 \times 20$ mm. Tighten the fasteners with L-key 5 A/F.
- Recommended locking torque: 15 Nm



- T-Slot Bars** Profile connection with steel t-slot bars. You can achieve optimum strength by combining the two extension methods.

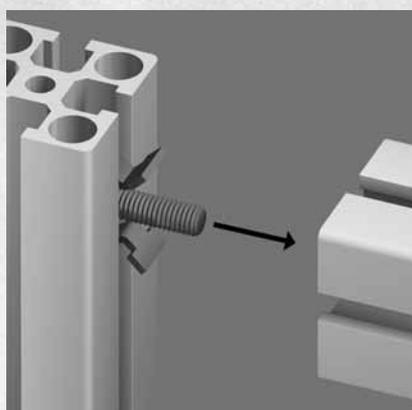
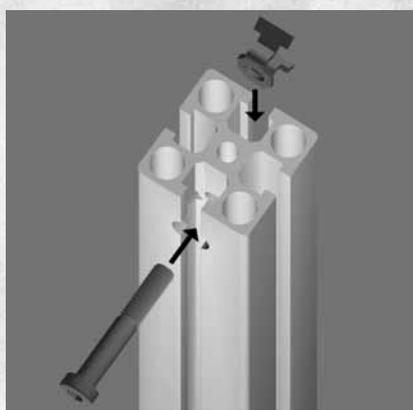


SCREW CONNECTION



Application Connections which must be secured against dislocation.

Processing Thread M8; step drilling $\varnothing 9 / \varnothing 15$ mm with drilling jig
Part no. 26.1092/0 for insert screw M8 x 50

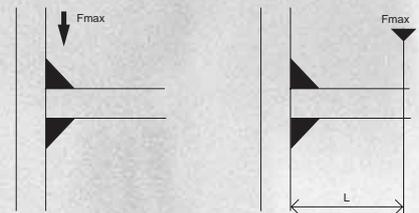


- Assembly**
- Form the tread M8 with thread former
 - Drill the through hole bore 9 x 15 at the position where the connection is required.
 - Insert the position fixing element and the screw.
 - Tighten the screw with hexagon key 5 A/F
- Definitely secured against dislocation
 - Static load: 18000 N
 - Recommended locking torque: 20 Nm

MOUNTING ANGLES



- No processing
- Suitable for subsequent mounting of profiles into existing frames
- Adjustable

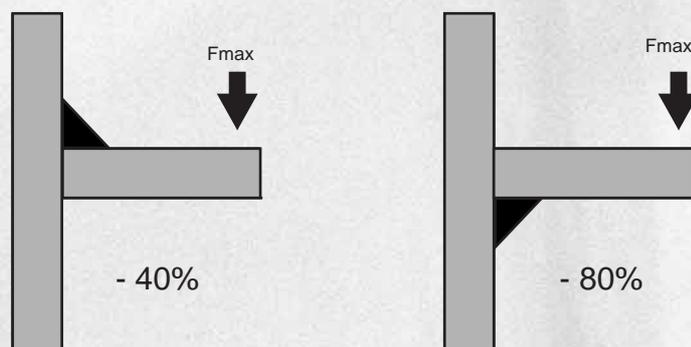


All values are including double safety.

Load Capacity:	Angle	Screws	Force (N)	Moment (Nm)
	Angle 19:	2 screws	3.600 N	280 Nm
	Angle 25:	2 screws	3.600 N	280 Nm
	Angle 45:	2 screws	3.600 N	280 Nm
	Angle 45 x 90:	4 screws	7.200 N	560 Nm
	Angle 90:	8 screws	14.400 N	1.120 Nm

These values are valid only for angles mounted in pairs (up and downside as shown in the pictures).

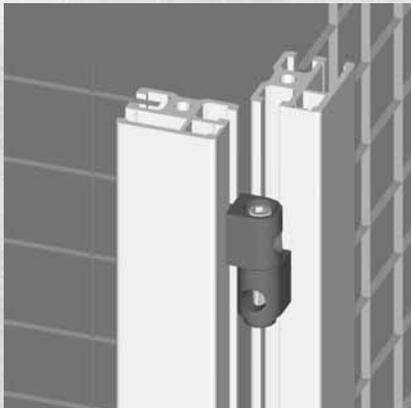
If used one-sided, the load reduces as follows:



Assembly

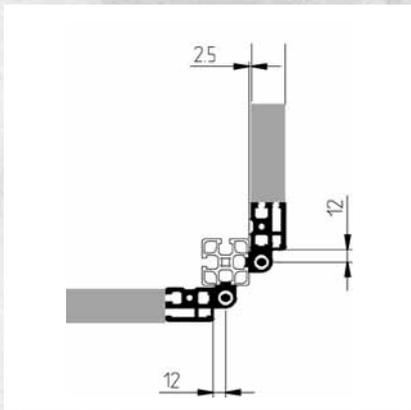
1. Preassemble the angle with necessary screws and nuts M8.
2. Fix the angle slightly at the vertical profile in the desired position.
3. Insert the horizontal profile and tighten all screws.
Recommended locking torque: 20 Nm

GUARD UNIT WITH ADJUSTABLE FIXING ANGLE

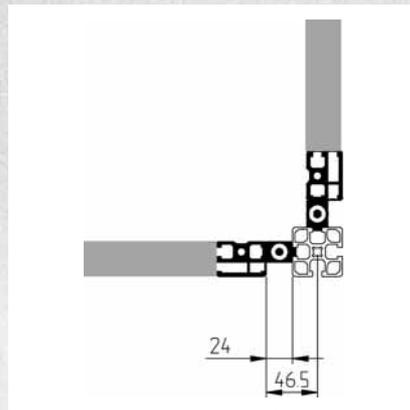


For fixing of MiniTec-aluminium profile guard units and erection of protective guard units at any angle.

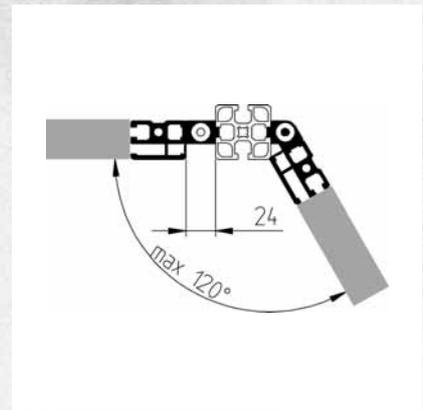
Assembly options:



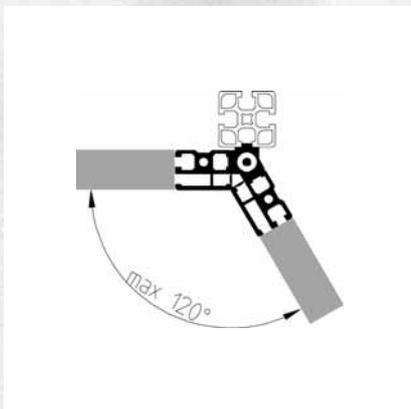
Without gap between guard unit and post



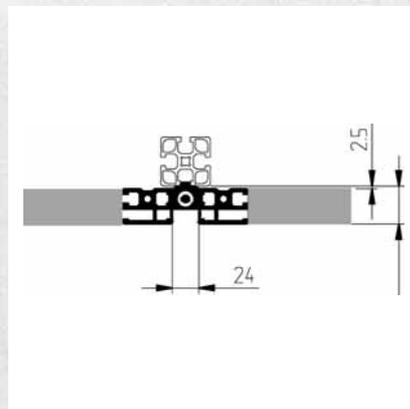
24 mm gap between guard unit and post



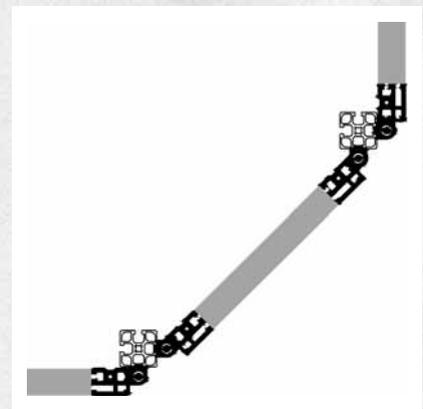
24 mm gap between guard unit and post



No gap between guard unit and post

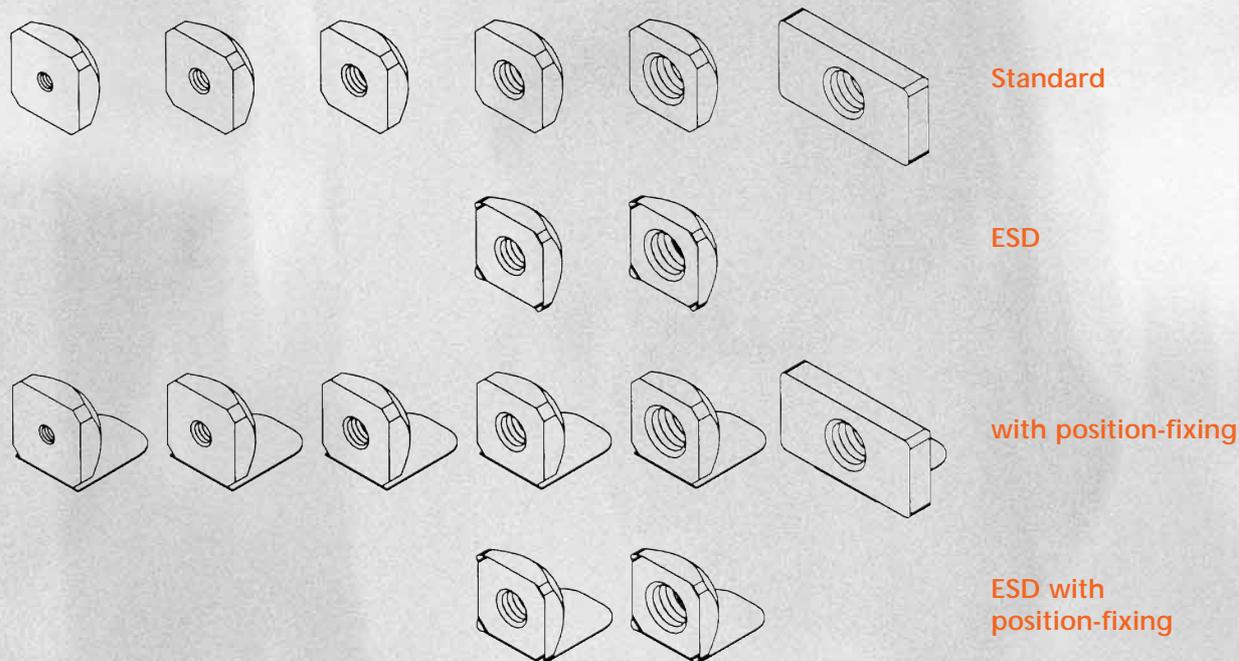


No gap between guard unit and post

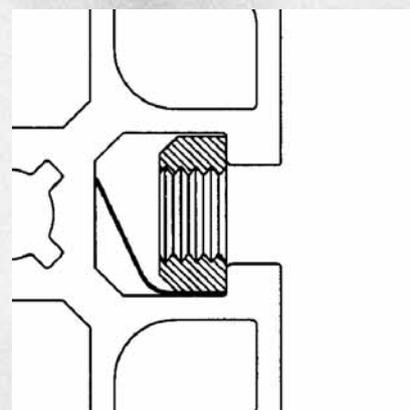
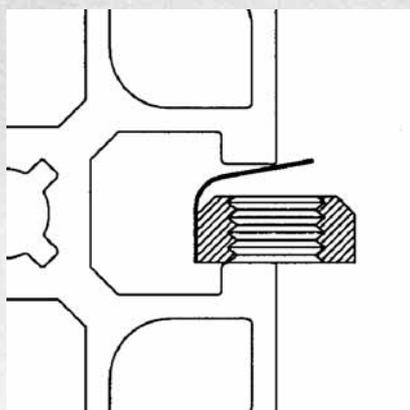
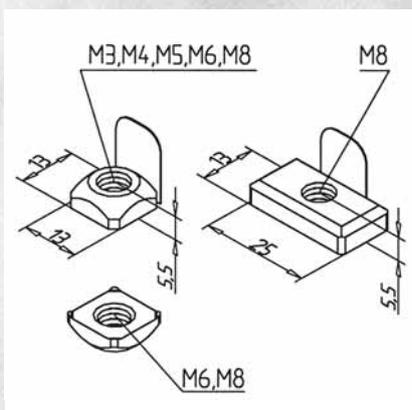


No gap between guard unit and post

SQUARE NUTS

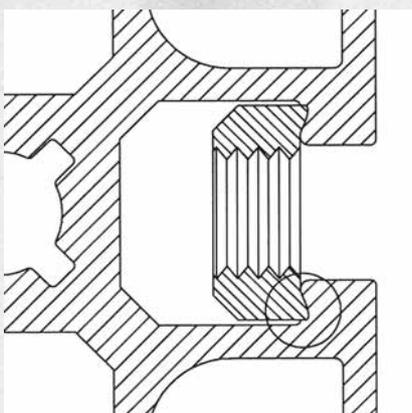


Application Economical and easy fixing of fasteners and elements available with threads M3, M4, M5, M6 and M8.



Assembly For applications in vertical profiles use special nuts with position-fixing. The spring metal keeps the nut in the desired position. Moveable by screw-driver.

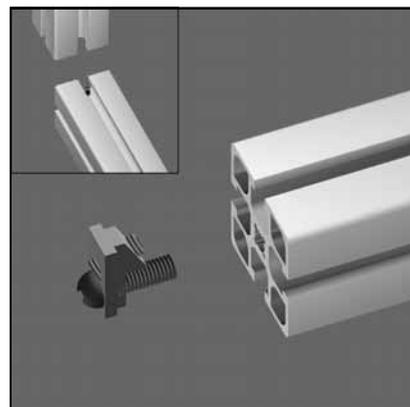
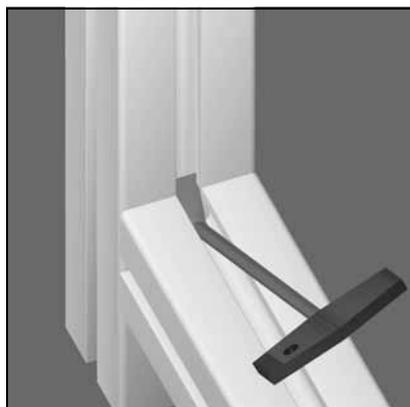
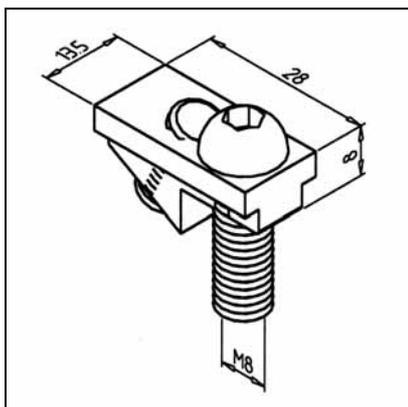
- Insertable into the profile groove at any desired point.



With nuts M6 Z and M8 z the integrated noses intrude the anodizing and secure electrical conductivity.

POWER-LOCK FASTENER

Part. N° 21.1018/0



TECHN. DATA / ITEMS SUPPLIED

- 1 connecting element, zinc plated
- 1 fillister head screw M8 x 25, galvanized
- Weight 0,029 kg
- Stainless version Part N° 21.1018/1
- Power-Lock fastener SF with self threading screw Part. N° 21.0818/0

APPLICATIONS

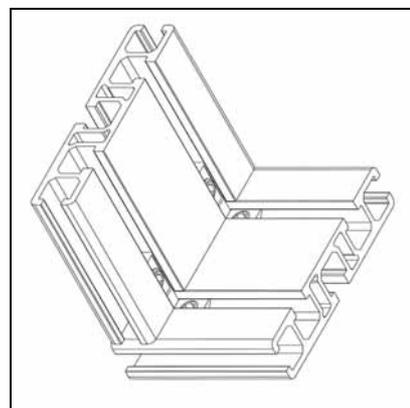
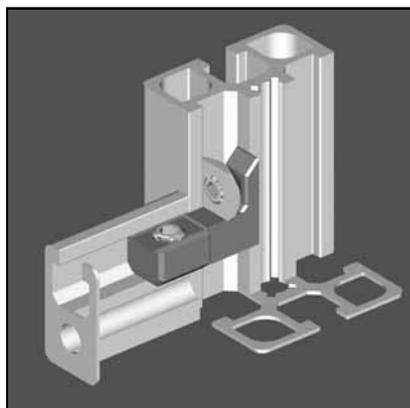
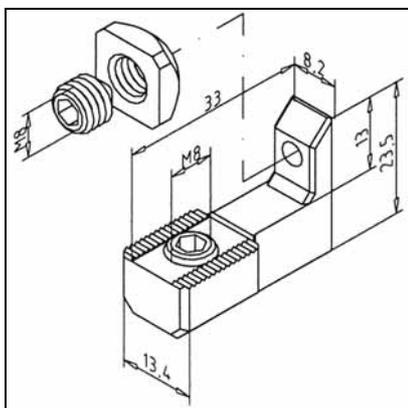
- Power-lock connection for all profiles, also suitable for crossjoints
- For larger profile sections several fasteners can be used
- For all profiles
- Part. N° 21.1018/0 and 21.0818/0 suitable for ESD applications

ASSEMBLY

- Mount fastener by hand onto profileface
- Tighten set screw M8 with key SW 4
- Recommended locking torque 12 Nm
- See page 62

POWER-LOCK FASTENER N

Part. N° 21.0918/0



TECHN. DATA / ITEMS SUPPLIED

- 1 Fastener N, zinc plated, with set screw M8x10
- 1 Nut M8 with set screw M8x8
- Weight 0,034 kg/m

APPLICATIONS

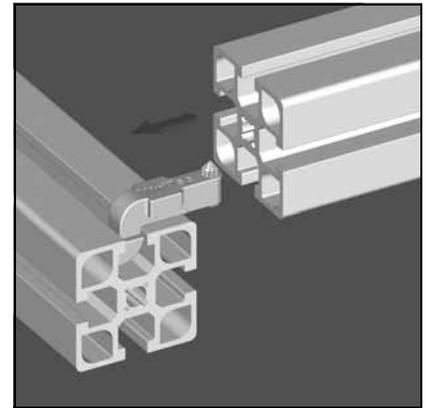
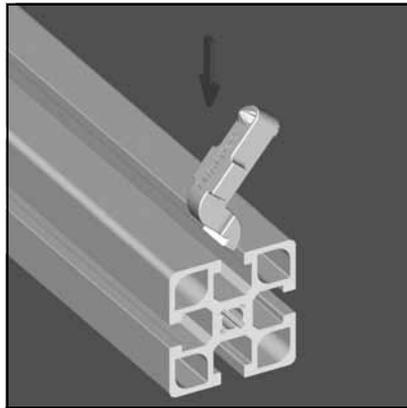
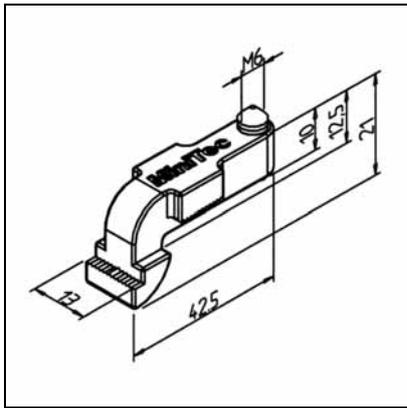
- For all profiles
- Particular for subsequent insertion of profiles into existing frames
- For profile sections bigger than 45x45 several fasteners can be used

ASSEMBLY

- Set profile with fasteners in required position
- Slide nut M8 over the L-shape end of the fastener and tighten with hex-key 4 A/F
- Tighten set screw M8x10 of fastener
- Recommended torque for both screws: 10 Nm

CROSS-CONNECTOR

Part. N° 21.0006/0



TECHN. DATA / ITEMS SUPPLIED

- 1 connecting element, steel, galvanized, chromated, with preassembled set screw M6 x 16

- Weight 0,04 kg

APPLICATIONS

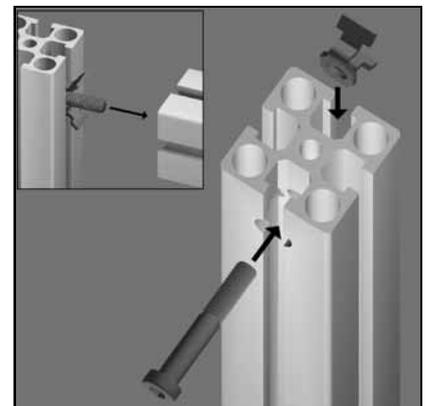
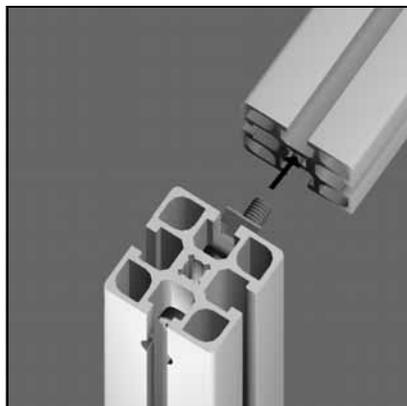
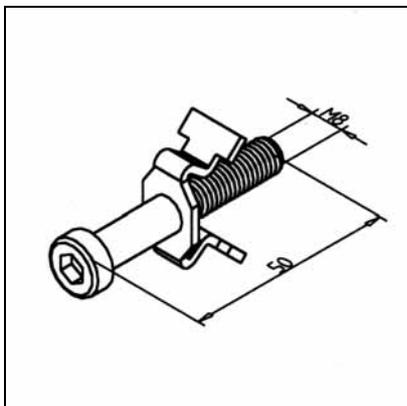
- For connecting all types of profile
- Particularly for subsequent insertion into existing constructions
- For profile sections bigger than 45 x 45 several fasteners can be used
- Suitable for ESD applications

ASSEMBLY

- Swivel the connector into the existing frame
- Push the new profile over the connector
- Tighten set screw in connector with wrench size 3 to 10 Nm torque

SCREW CONNECTION 45

Part. N° 21.1017/0



TECHN. DATA / ITEMS SUPPLIED

- Hex socket head socket head socket cap screwhead socket head socket cap screw M8 x 50, zinc plated

- Position fixing element, steel, zinc plated

- Weight 0,03 kg

APPLICATIONS

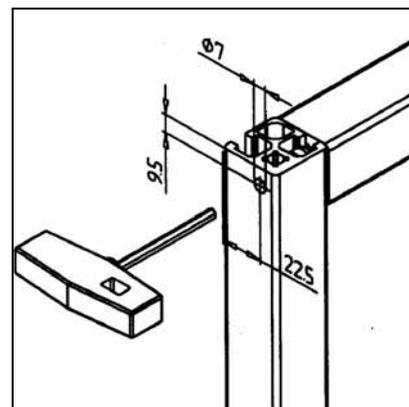
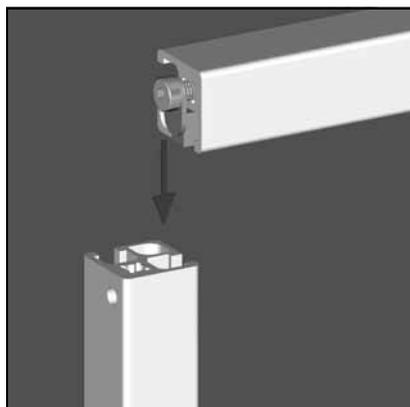
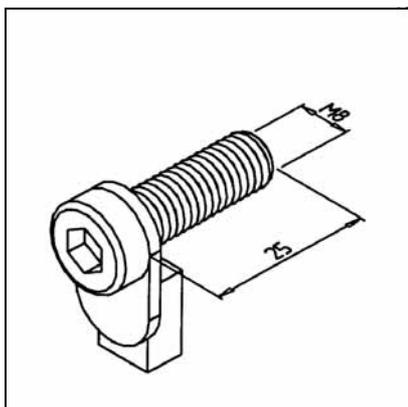
- Profile connections which must be secured against dislocation

ASSEMBLY

- From thread M8 x 25 into profile to be fixed
- Bore step-drilling $\varnothing 9 \times 15$ at the position of required connection
- Insert the position-fixing element into the groove and put the screw through the bore of the element
- Tighten the screw
- Recommended locking torque 20 Nm
- see page 68

SCREW CONNECTION 32

Part. N° 21.1386/0



TECHN. DATA / ITEMS SUPPLIED

- Hex socket head socket cap screw
M8 x 25
- Anti-rotation device AL GD
- Weight 0,02 kg

APPLICATIONS

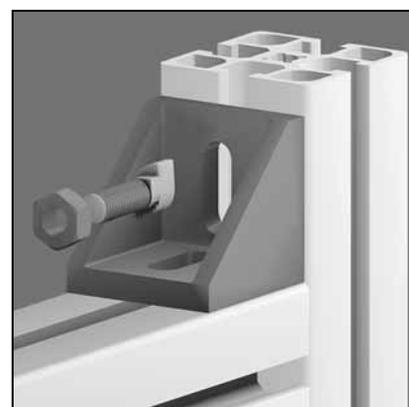
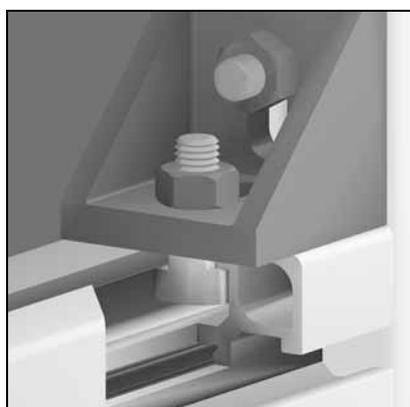
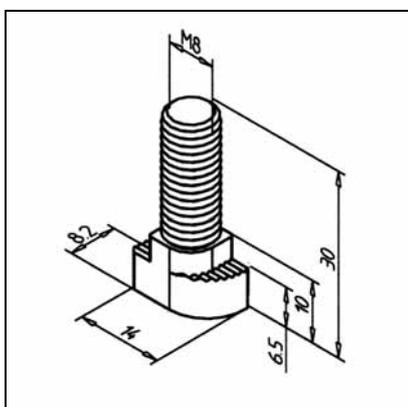
- Connection with effective anti-rotation function for profile series 32 and 19

ASSEMBLY

- Form a thread M8 with thread former
- Drill a through hole bore Ø 7 in profile 2
- Insert the anti-rotation device in profile 1 and connect with profile 2
- Tighten the screw with recommended locking torque: 20 Nm

HAMMER HEAD SCREW

Part. N° 21.1370/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Weight 0,012 kg

APPLICATIONS

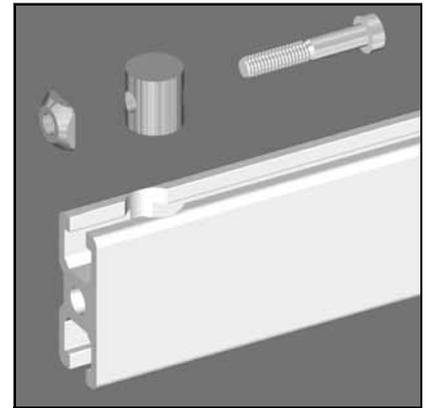
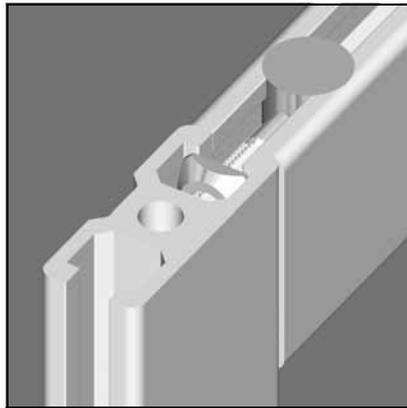
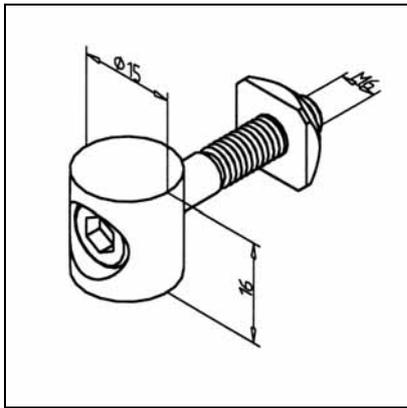
- Simple attachment of add-on parts or accessories on profiles
- Attachment of mounting angle 45 GD Part N° 21.1133/0 and 90 GD Part N° 21.1000/0

ASSEMBLY

- Insert hammer head screw into profile groove, tighten nut M8
- When tightening the nut, the hammer head will turn crosswise

BOLT-FASTENER 15

Part. N° 21.1024/0



TECHN. DATA / ITEMS SUPPLIED

- 1 bolt aluminium
- Fastening kit
- Weight 0,030 kg

APPLICATIONS

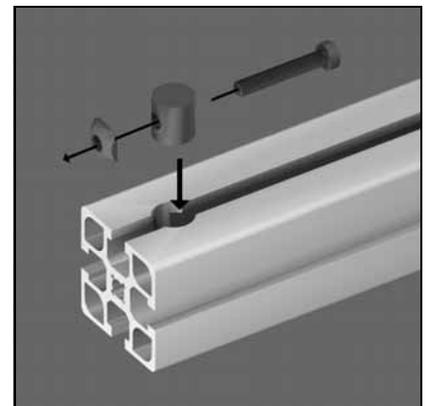
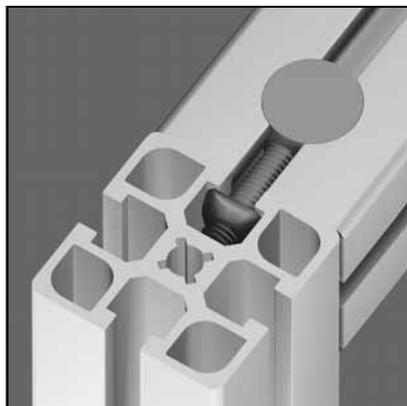
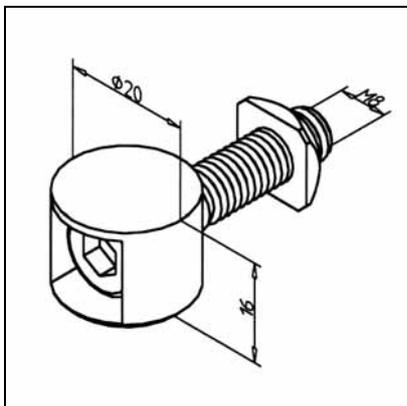
- For connection of profiles 19 and 32
- Particularly for subsequently insertion into existing constructions

ASSEMBLY

- Step drilling $\varnothing 9 \times 15$, depth 16 mm, positioned 22,5 mm from profile end to the middle of the groove
- Insert the bolt into the step drilling and pretighten by using ball-headed key 4 A/F
- Final tightening with L-key
- Recommended locking torque 15 Nm
- See page 66

BOLT-FASTENER 20

Part. N° 21.1021/0



TECHN. DATA / ITEMS SUPPLIED

- 1 Bolt GD Zn
- Fastening kit
- Weight 0,037 kg

APPLICATIONS

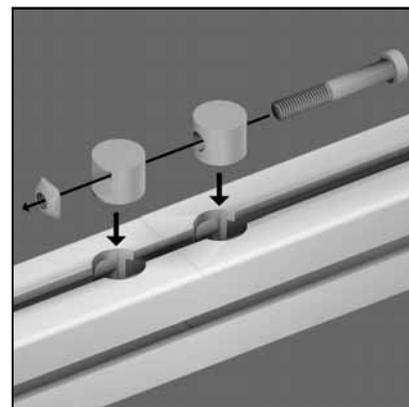
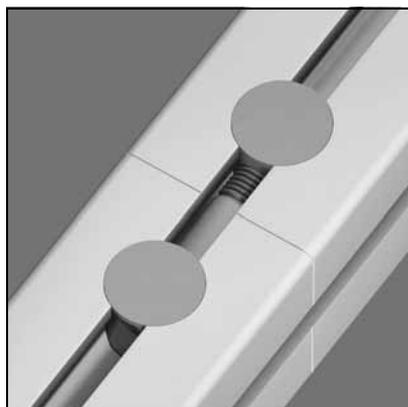
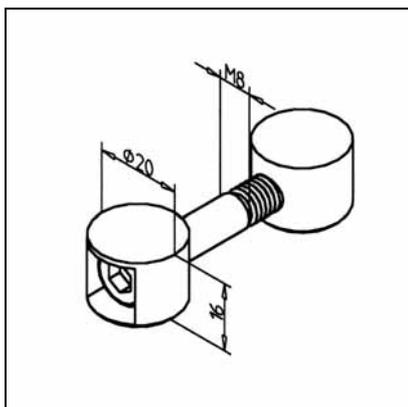
- For connection of all profiles
- Particularly for subsequently insertion into existing constructions
- For connection of profile 45 x 19

ASSEMBLY

- Step drilling $\varnothing 7 \times 20$ depth 16 mm, positioned 22,5 mm from profile end to the middle of the groove
- Insert the bolt into the step drilling and pretighten by using ball-headed key 5 A/F
- Final tightening with L-key
- Recommended locking torque 15 Nm
- See page 66

BUTT FASTENER

Part. N° 21.1020/0



TECHN. DATA / ITEMS SUPPLIED

- 2 Bolts GD Z
- Fastening kit
- Weight 0,045 kg

APPLICATIONS

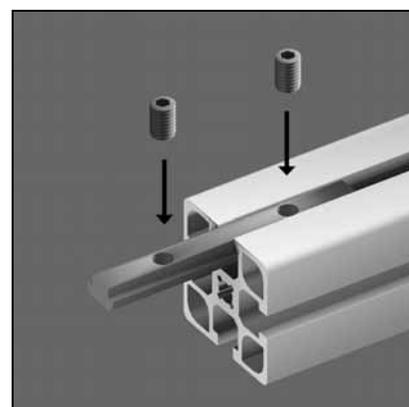
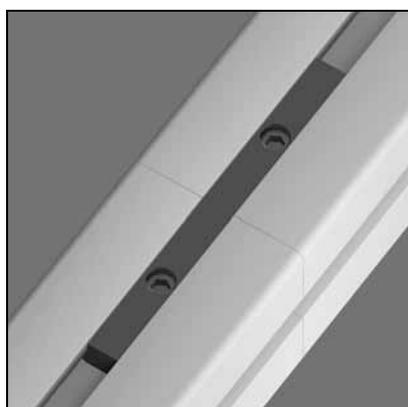
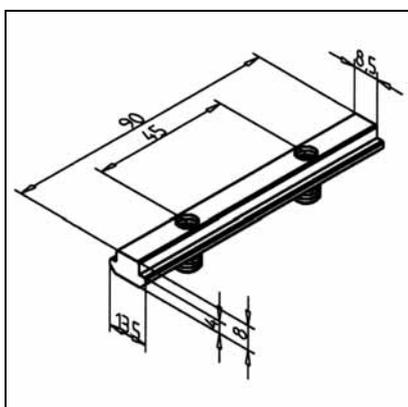
- Profile extension
- Butt joint

ASSEMBLY

- Step drilling $\text{Ø } 7 \times 20$ depth 16 mm, positioned 22,5 mm from profile end to the middle of the groove
- Insert the fastener and pretighten the screw with a ball-headed key 5 A/F
- Final tightening with L-key
- Recommended tightening torque 15 Nm
- See page 67

T-SLOT BAR 90

Part. N° 21.1029/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- 2 set screws M8 x 14, 4 A/F, zinc plated
- Weight 0,060 kg
- Stainless version Part N° 21.0992/0

APPLICATIONS

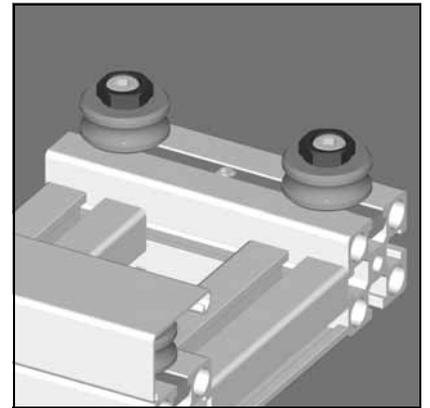
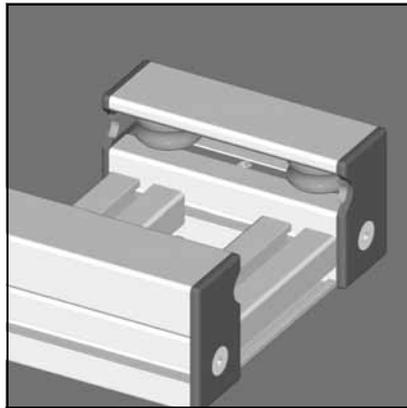
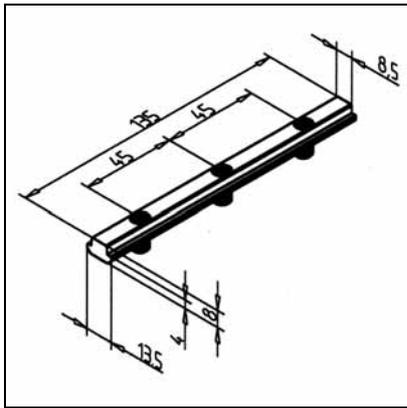
- Profile extension
- Fixing of bearings for linear guides

ASSEMBLY

- Insertion into the profile groove
- Clamp with set screw
- No processing required
- For larger profiles or heavy - duty applications use multiple t-slot bars
- See page 67

T-SLOT BAR 135

Part. N° 21.0988/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- 3 set screws M8 x 14, 4 A/F, zinc plated

- Weight 0,089 kg

- Stainless version Part N° 21.0987/0

APPLICATIONS

- Fixing of bearings in standard slide LW

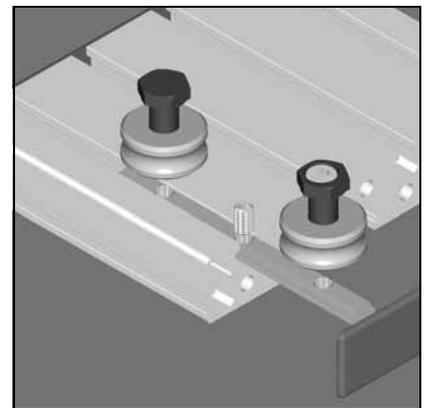
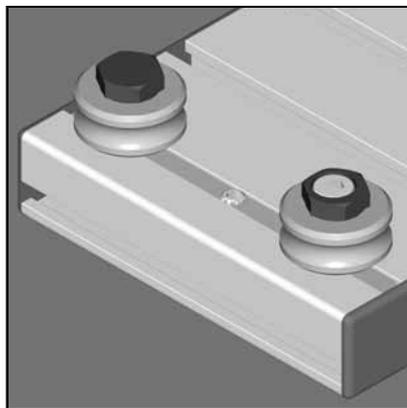
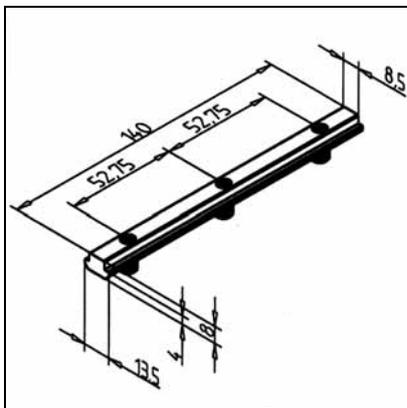
ASSEMBLY

- Insertion into the profile groove

- No processing required

T-SLOT BAR 140

Part. N° 28.0026/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- 3 set screws M8 x 14, 4 A/F, zinc plated

- Weight 0,094 kg

- Stainless version Part N° 28.0030/0

APPLICATIONS

- Fixing of bearings in linear slides LW 32 E

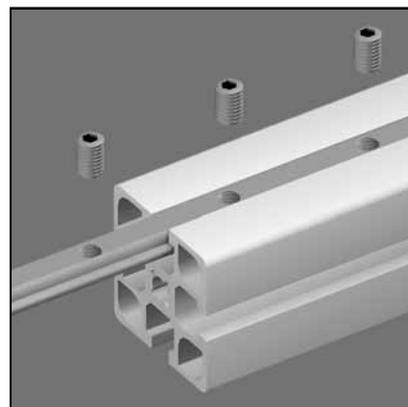
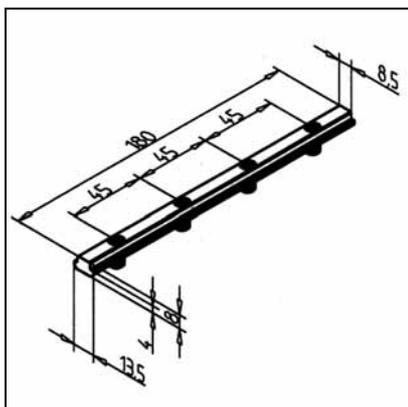
ASSEMBLY

- Insertion into the profile groove

- No processing required

T-SLOT BAR 180

Part. N° 21.1101/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- 4 set screws M8 x 14, 4 A/F, zinc plated
- Weight 0,120 kg
- Stainless version Part N° 21.0986/0

APPLICATIONS

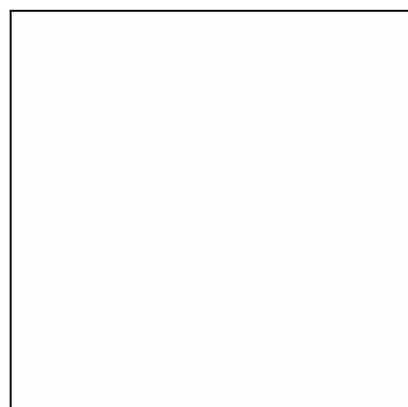
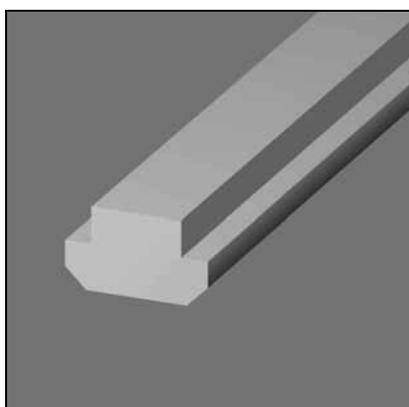
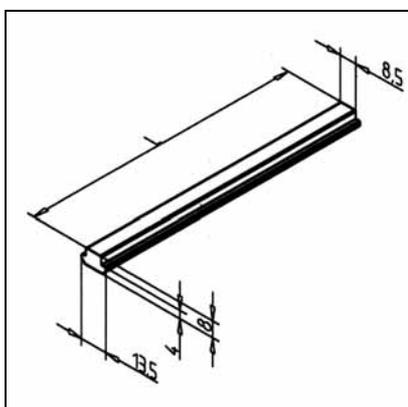
- Face fastening of profiles or ready-for-use elements
- Profile extension
- Fixing of bearings for linear guides

ASSEMBLY

- Insertion into the profile groove
- No processing required
- For larger profiles or heavy - duty applications use multiple t-slot bars
- See page 67

T-SLOT BAR PROFILE

Part. N° 21.1030/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, plain
- Weight 0,680 kg/m
- Length 3 m
- Stainless version Part N° 21.1030/1

APPLICATIONS

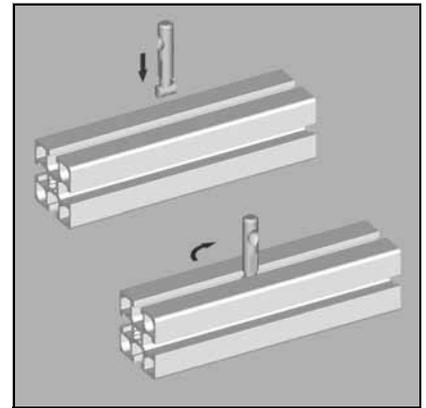
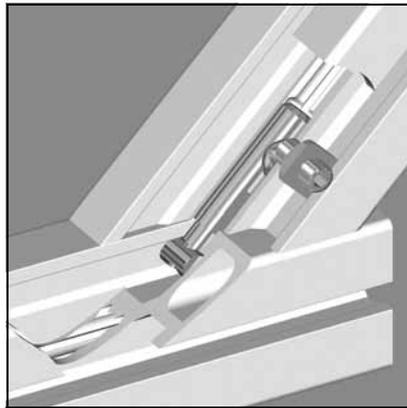
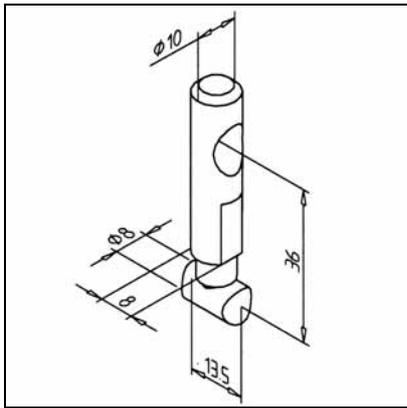
- Production of clamping ledges, connecting elements for special lengths
- Production of reinforcing elements
- Ledges with special perforation

ASSEMBLY

- Insertion into the profile groove

MITRE CONNECTOR N

Part. N° 21.1401/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Fastening kit

- Weight 0,051 kg

APPLICATIONS

- Mitre connection of profiles on profile groove

- For subsequent fitting in the groove

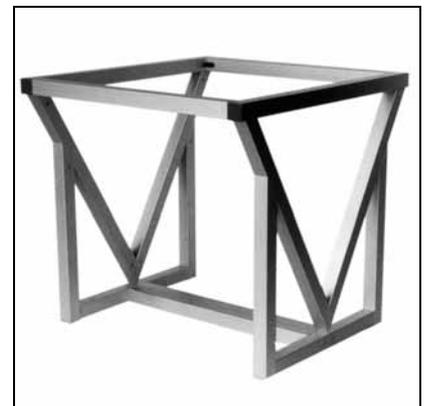
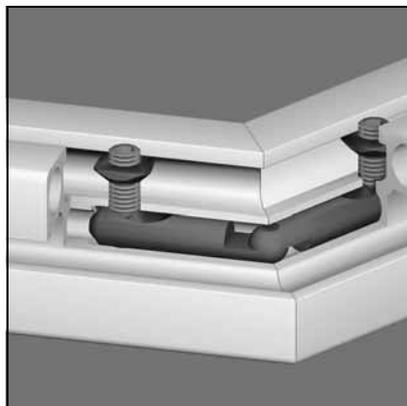
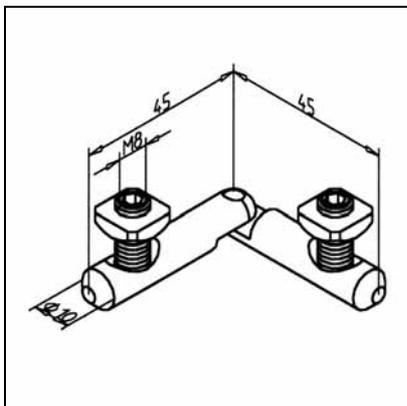
ASSEMBLY

- Drill Ø 10,2 mm bore in the profile core bore

- Drilling jig see page 588

MITRE CONNECTOR

Part. N° 21.1400/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Fastening kit

- Weight 0,065 kg

APPLICATIONS

- Show cases

- Exhibition racks

- Displays

- Frames

ASSEMBLY

- Rebore core bore to Ø 10,2 mm

- Process a drill Ø 8,2 mm in the distance of 36,5 mm from the profile ends

- Insert the mitre connector into both profile ends

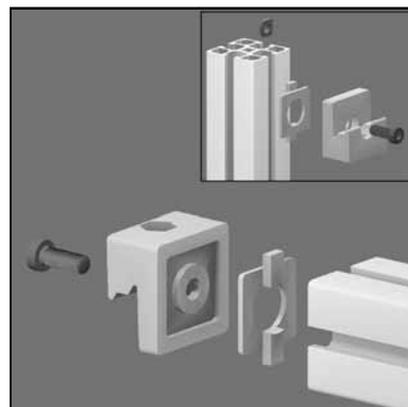
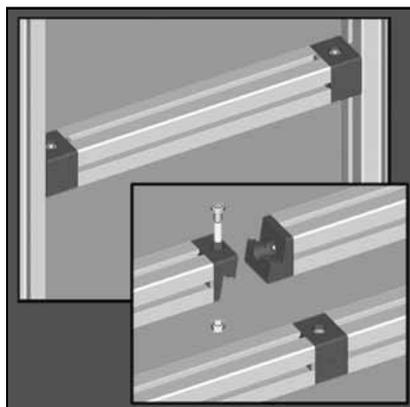
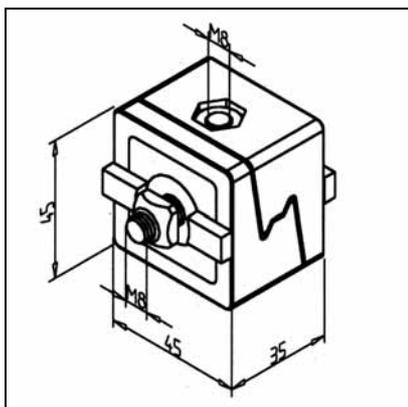
- Position square nuts on top of the thread M8 (strengthening of the thread)

- Tighten the connector with set screws M8, drilling jig see page: 588

- Measure see page 65

MOUNTING BRACKET 45

Part. N° 21.1411/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, powder coated, grey
- Fastening kit
- Weight 0,426 kg

APPLICATIONS

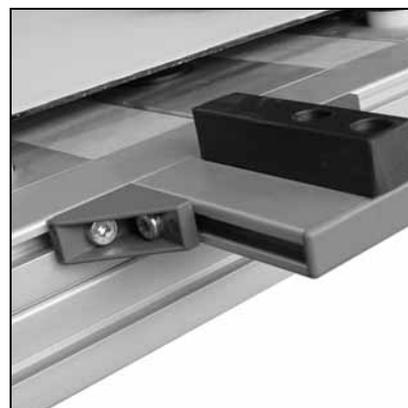
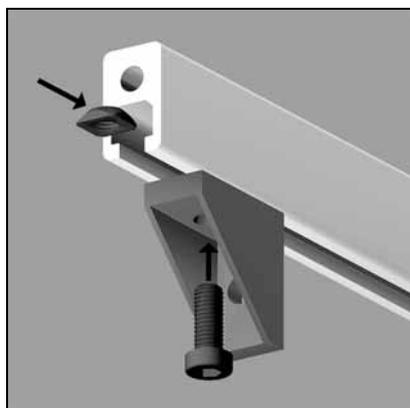
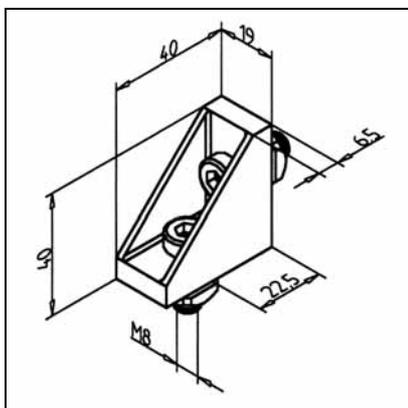
- Connection of profiles
- For subsequent insertion of profiles into existing constructions, relocatable in direction of the groove
- Fixing of support surfaces
- removable attachments

ASSEMBLY

- Use fastening kit
- In case of mounting into vertical profiles, the use of square-nut M8 with position-fixing Part N° 21.1351/2 is recommended
- Recommended locking torque 20 Nm

ANGLE 19 GD

Part. N° 21.1107/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,033 kg

APPLICATIONS

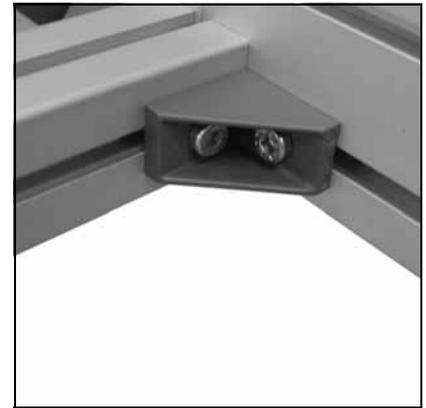
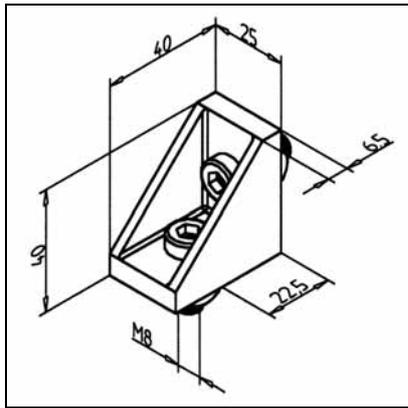
- Connection of profiles 19 and 32
- Subsequent insertion of profiles into existing constructions, relocatable in direction of the groove
- Fixing of support surfaces

ASSEMBLY

- Use fastening kit
- In case of mounting into vertical profiles, the use of square-nut M8 with position-fixing Part N° 21.1351/2 is recommended
- Recommended locking torque 20 Nm
- See page 69

ANGLE 25 GD

Part. N° 21.1102/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,044 kg

APPLICATIONS

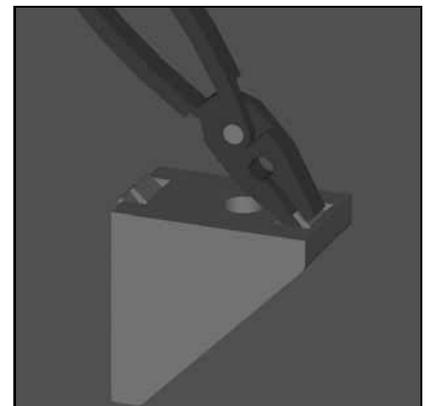
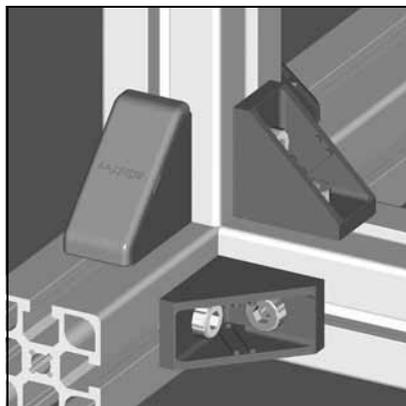
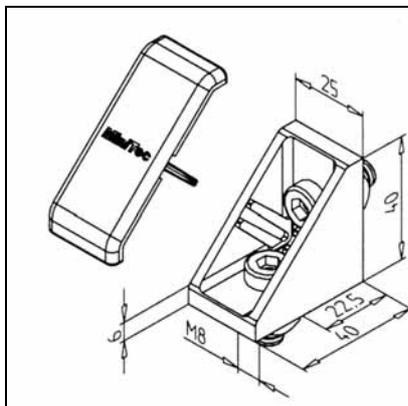
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of all profile constructions

ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing Part N° 21.1351/2
- Recommended locking torque 20 Nm
- See page 69

ANGLE 25 GD-Z

Part. N° 21.0969/0



TECHN. DATA/ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Removable centering tabs
- Weight 0,066 kg

APPLICATIONS

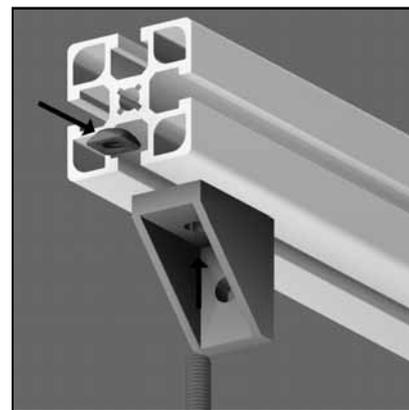
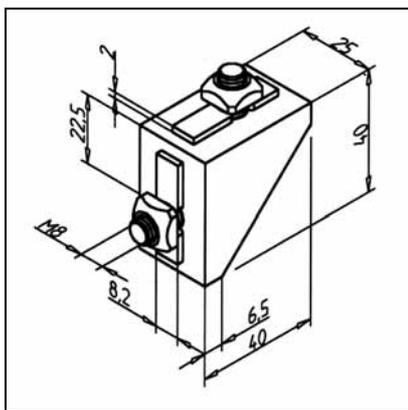
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fastening kit
- Break centering tabs with pliers if non-aligning grooves
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing Part N° 21.1351/2
- End cap MW 25 GD-Z Part. N° 22.0997/1

ANGLE 25 S

Part. N° 21.1134/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Locking device against torsion
- Fastening kit
- Weight 0,066 kg

APPLICATIONS

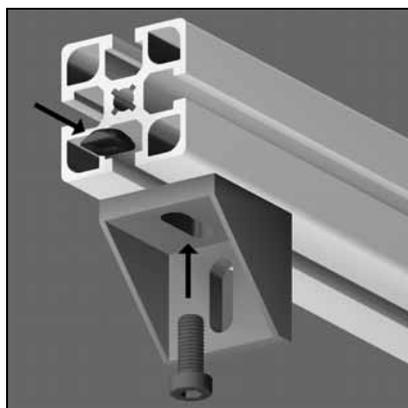
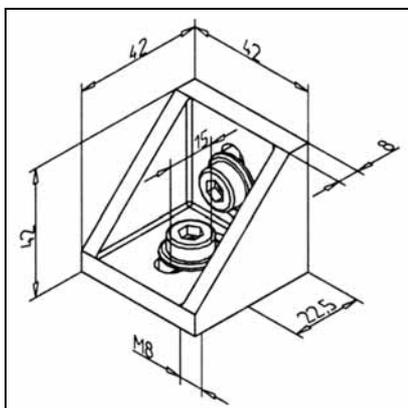
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Strengthening of profile connections

ASSEMBLY

- Use fastening kit
- For mounting into vertical profile use square nut M8 with position-fixing Part N° 21.1351/2
- Recommended locking torque 20 Nm
- See page 69

ANGLE 45 GD

Part. N° 21.1133/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,072 kg

APPLICATIONS

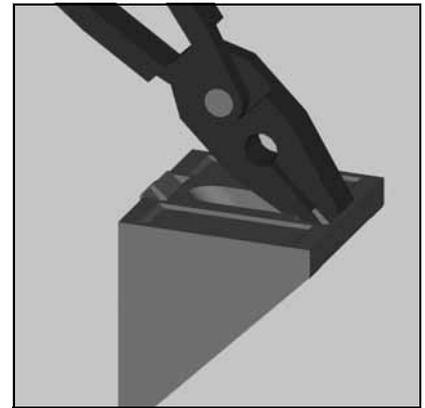
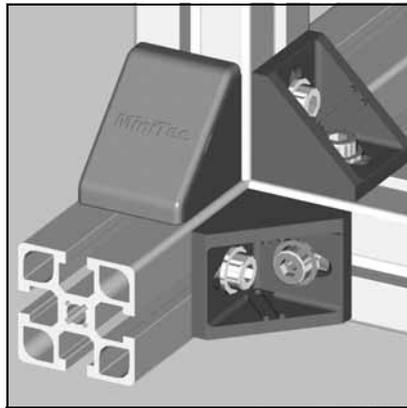
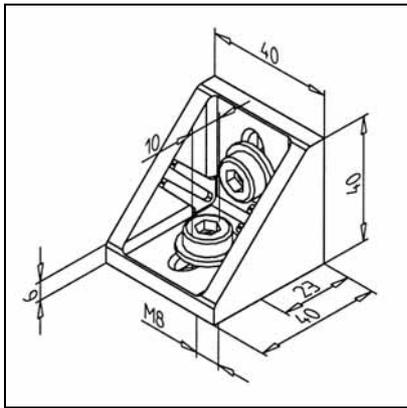
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing Part N° 21.1351/2
- Hammer head screw Part N° 21.1370/0 can be used
- Recommended locking torque 20 Nm
- See page 69

ANGLE 45 GD-Z

Part. N° 21.1349/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Removable centering tabs
- Weight 0,083 kg

APPLICATIONS

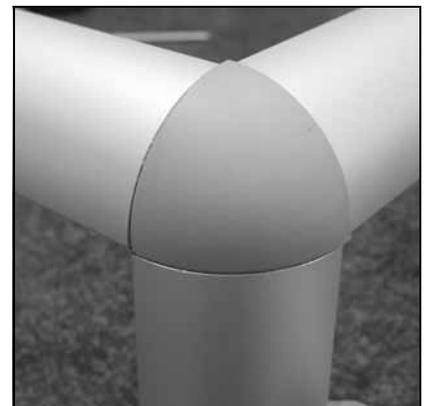
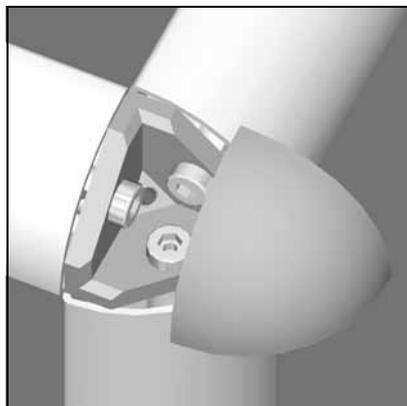
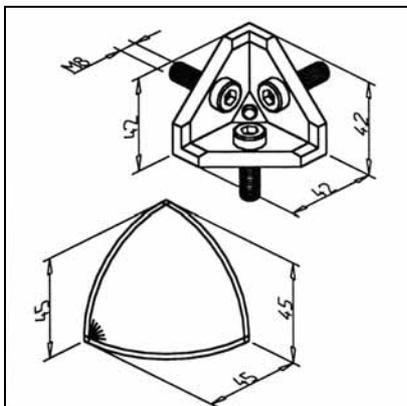
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fastening kit
- Break centering tabs with pliers if non-aligning grooves
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing Part N° 21.1351/2
- Hammer head screw Part N° 21.1370/0 can be used
- Recommended locking torque 20 Nm
- End cap MW 45 GD-Z Part. N° 22.1024/1

ANGLE 45 R 90°

Part. N° 21.1710/1



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, nature
- End cap MW 45 R 90°, grey, Part. N° 22.1033/1
- Fastening kit
- Weight 0,063 kg

APPLICATIONS

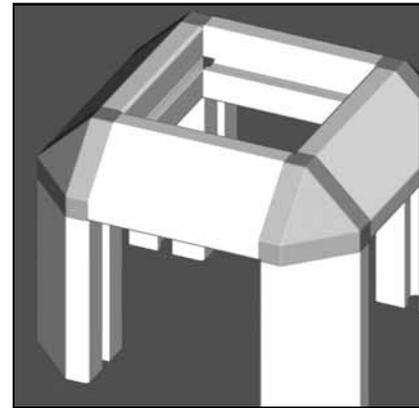
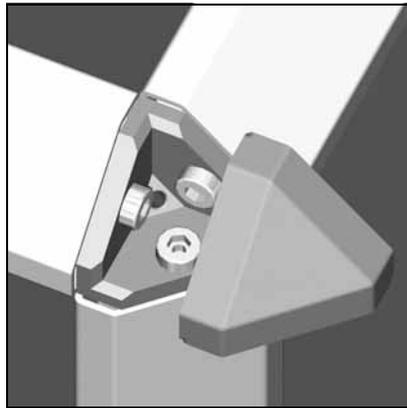
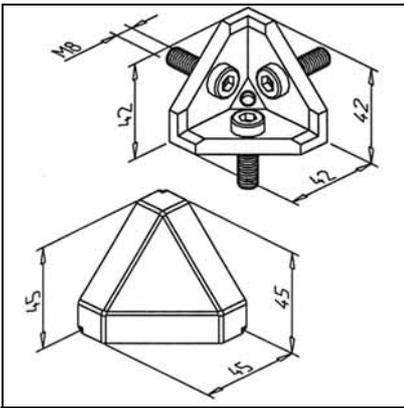
- Corner fastening of profiles 45 R 90°
- Constructions for show cases, tables etc.

ASSEMBLY

- With screws M8 x 25 from the fastening kit in central bore of the profile
- Clip into the end cap

ANGLE 45°

Part. N° 21.1708/1



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, nature
- End cap 45°/3, grey
- Fastening kit
- Weight 0,062 kg

APPLICATIONS

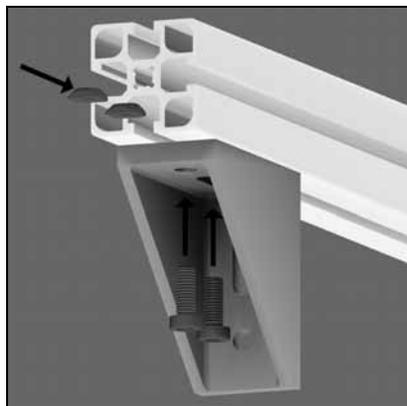
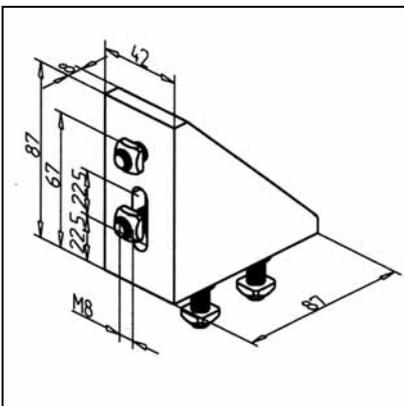
- Corner fastening of profiles 45 / 45°
- Constructions for show cases, tables etc.

ASSEMBLY

- With screws M8 x 25 from the fastening kit in central bore of the profile
- Clip into the end cap

ANGLE 45 X 90 GD

Part. N° 21.1135/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, powder coated, grey
- Fastening kit
- Weight 0,216 kg

APPLICATIONS

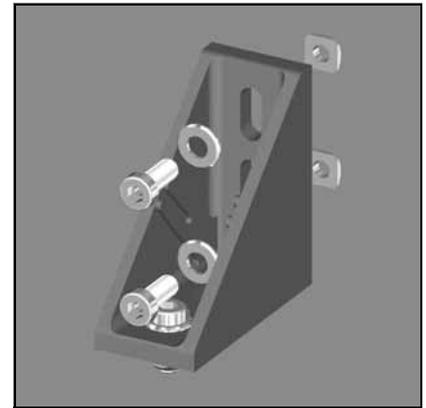
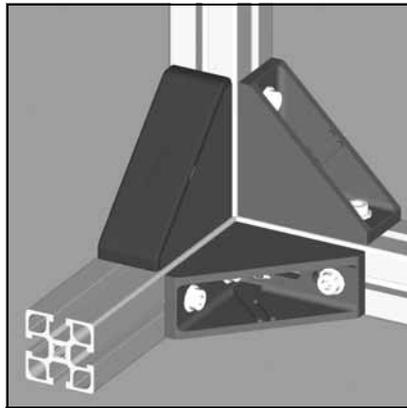
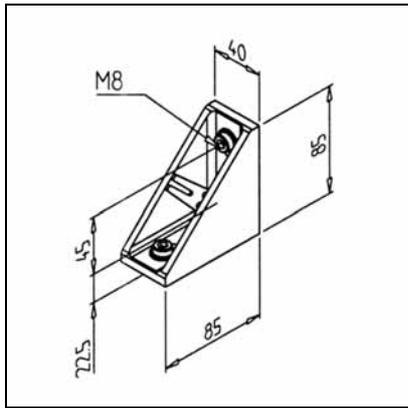
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of all profile connections

ASSEMBLY

- Use fastening kit
- For mounting into vertical profile use square nut M8 with position-fixing Part N° 21.1351/2
- Recommended locking torque 20 Nm
- See page 69

ANGLE 45X90 GD-Z

Part. N° 21.1397/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,281 kg

APPLICATIONS

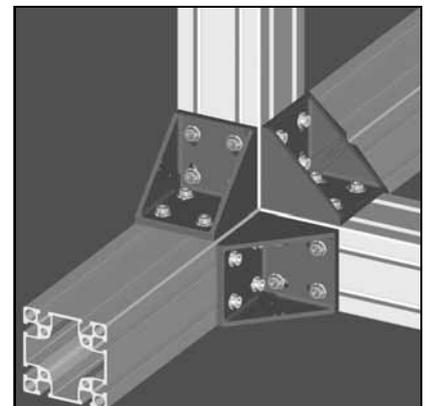
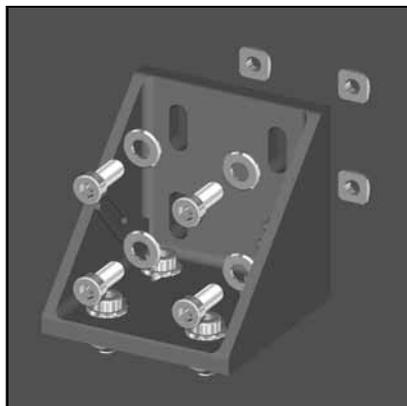
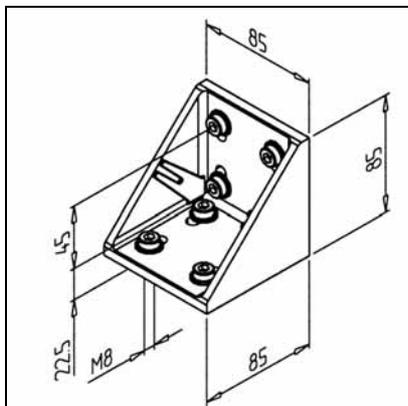
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fastening kit
- For mounting into vertical profile use square nut M8 with position-fixing **Part N° 21.1351/2**
- Recommended locking torque 20 Nm
- Use hammer head screw **Part N° 21.1370/0**
- Suitable end cap MW 45x90 GD-Z **Part N° 22.0998/1**

ANGLE 90

Part. N° 21.0978/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,460 kg

APPLICATIONS

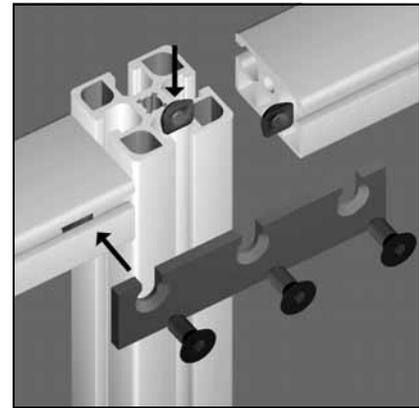
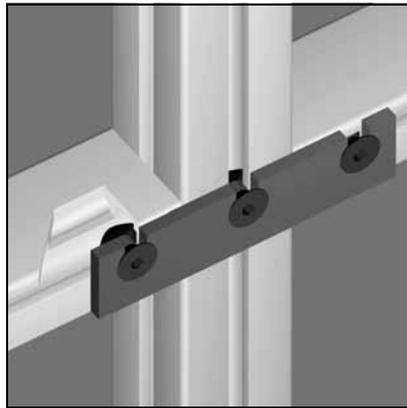
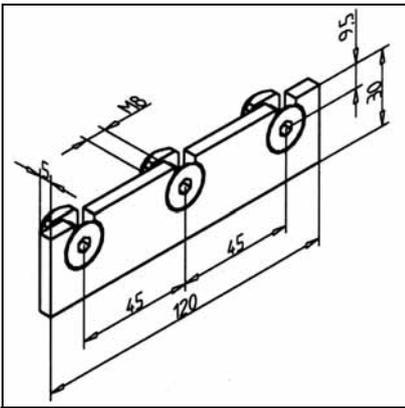
- For profiles 90 and 180
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of all profile connections

ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing **Part N° 21.1351/2**
- Hammer head screw can be used
- Recommended locking torque 20 Nm
- Suitable end cap MW 90 GD-Z **Part N° 22.0999/1**

CONNECTING BAR

Part. N° 21.1113/0



TECHN. DATA / ITEMS SUPPLIED

- Bar steel, zinc plated

- Fastening kit

- Weight 0,103 kg

APPLICATIONS

- Connection of different profiles

- Subsequent insertion of profiles into existing constructions

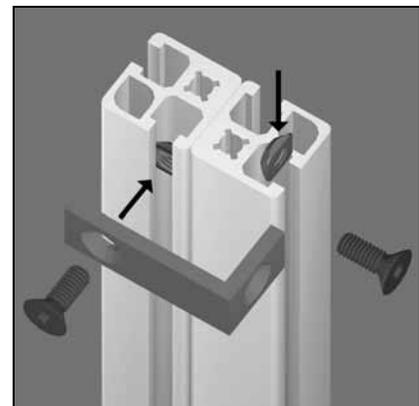
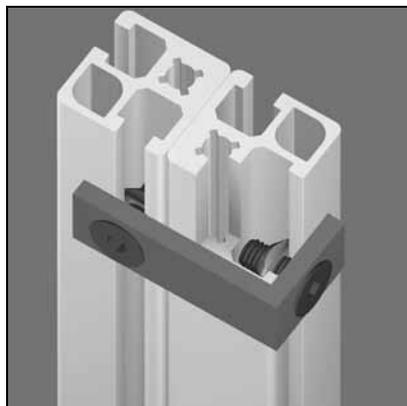
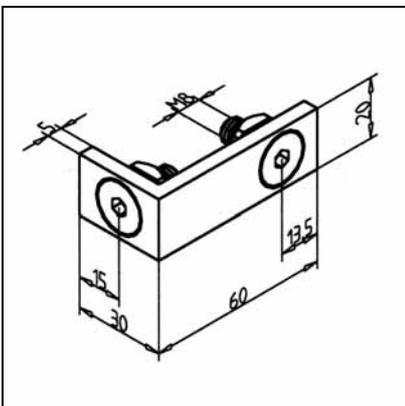
ASSEMBLY

- Use fastening kit

- No processing required

CONNECTING ANGLE 32

Part. N° 21.1406/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Fastening kit

- Weight 0,093 kg

APPLICATIONS

- Parallel fastening of profiles 32 x 32

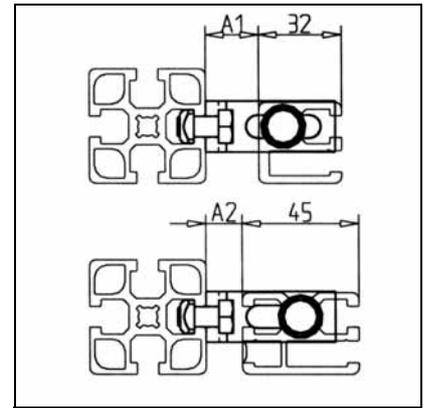
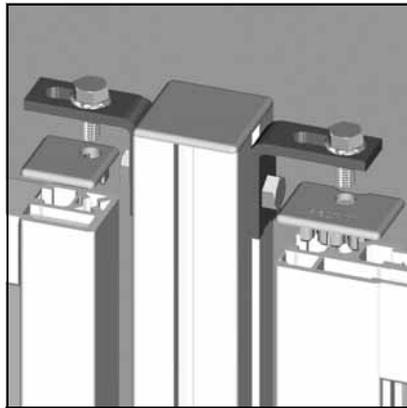
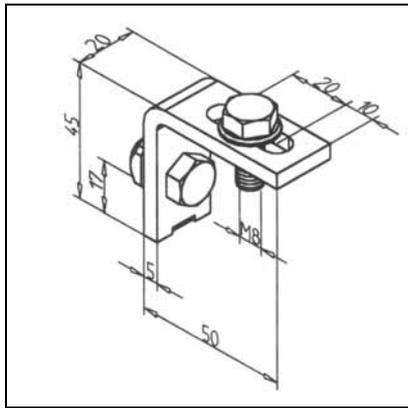
ASSEMBLY

- Use fastening kit

- No processing required

GUARD UNIT FIXING ANGLE 19

Part. N° 21.1399/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,091 kg

APPLICATIONS

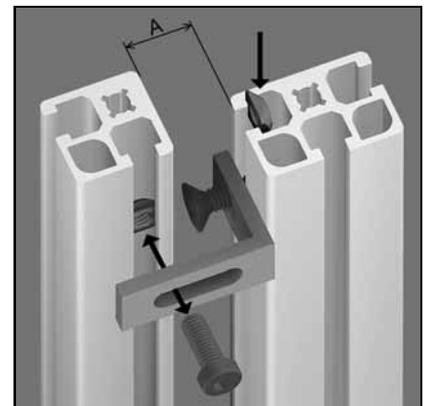
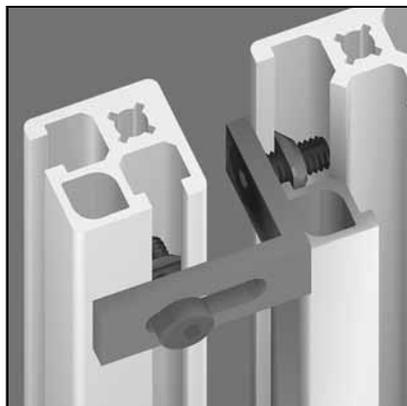
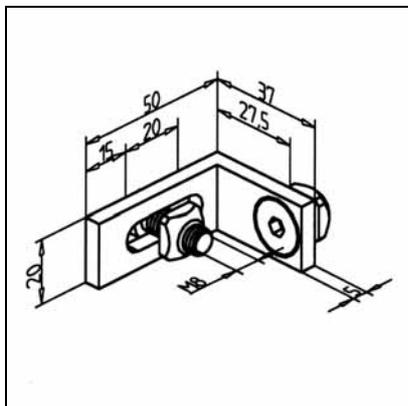
- Fixing of guards made from clamp-profiles 32 x 32 or 45 x 32 or from all other standard profiles
- Fixing of guards at any angle
- For clamp profile 32 x 32 use end cap Part N° 22.1032/3
- For clamp profile 45 x 32 use end cap Part N° 22.1046/3

ASSEMBLY

- Drill thread M8 x 20 in both ends of vertical profiles of the guard
- Insert guard in angles, adjust position of the angles and fix it (wrench 13)
- Fix the guard with screws from fastening kit
- Alternatively: use snap bolts 25 Part N° 21.1758/0 in lower threads of the guard for very quick assembly, fixing with upper screws only
- A1 = 10,5 mm - 30,5 mm
- A2 = 10,5 mm - 17,5 mm

GUARD UNIT FIXING ANGLE 32 ST

Part. N° 21.1405/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,081 kg

APPLICATIONS

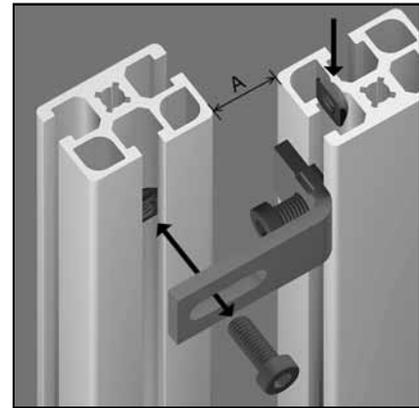
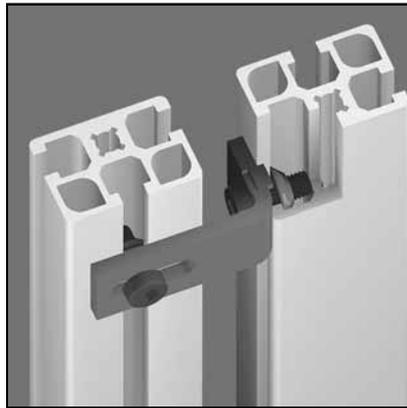
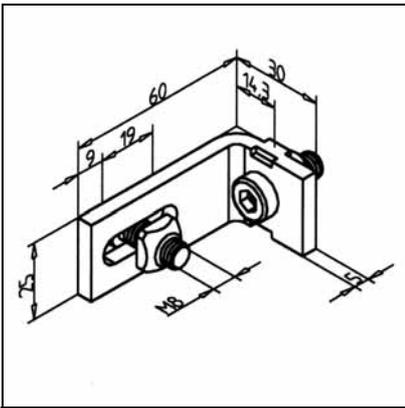
- Fixing of guards made from profiles 32 x 32 and 45 x 32. For frames made of profiles in 32 range
- This element differs from connecting angle 32 by a long hole, enabling adjustment up to 15 mm

ASSEMBLY

- Use fastening kit
- No processing required
- First fix the angle to vertical profile, then screw guard unit from rear with angle
- A = 6 mm - 25 mm

GUARD UNIT FIXING ANGLE 45 ST

Part. N° 21.1404/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,068 kg

APPLICATIONS

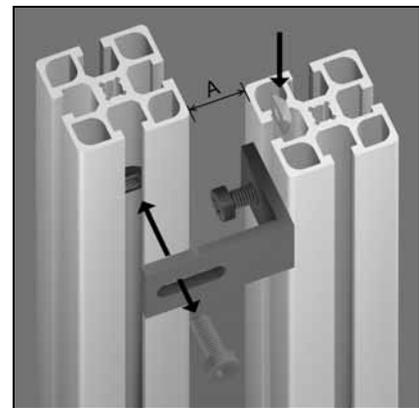
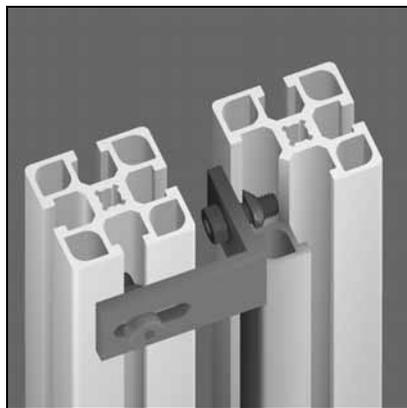
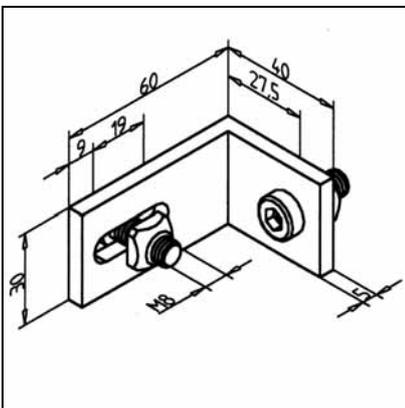
- Fixing of guards made from profile 45 x 32
- Usable in frames made from any profile, flush mounting of element

ASSEMBLY

- Use fastening kit
- No processing required
- First fix the angle to vertical profile, then screw guard unit from rear with angle
- A = 10 mm - 28 mm

GUARD UNIT FIXING ANGLE 45 AL

Part. N° 21.1407/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Weight 0,045 kg

APPLICATIONS

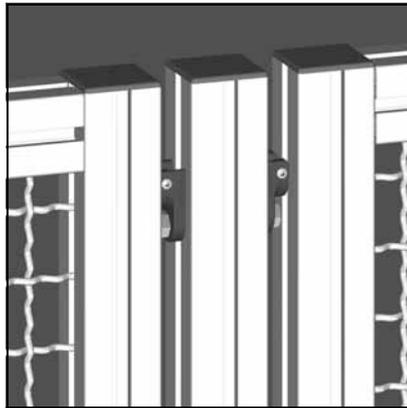
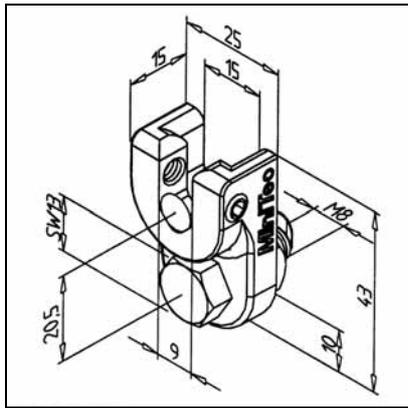
- Fixing of guards made from profile 45 x 45
- Usable in frames made from any profile
- Flush mounting of element

ASSEMBLY

- Use fastening kit
- No processing required
- First fix the angle to vertical profile, then screw guard unit from rear with angle
- A = 10 mm - 28 mm

GUARD UNIT FIXING ANGLE GD-K

Part. N° 21.0008/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,043 kg

APPLICATIONS

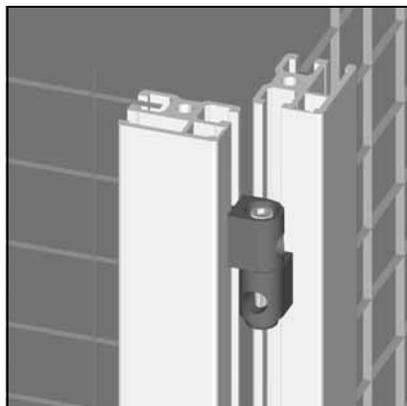
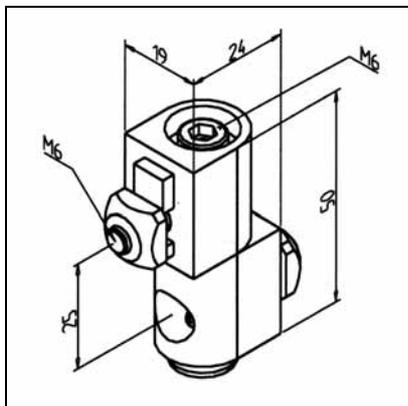
- Guards from all profiles
- Movable flaps
- It is also possible to mount the guards at the front when fitting the suspensions to the front of the post

ASSEMBLY

- Screw the guard suspension to the pillars
- Attach M8 x 25 cheese-head screws to the protective panel
- Hang the guard in place, and tighten the set screw using an Allen key from the rear
- A = 16 mm ± 0.75
- Guard cannot be removed from outside

GUARD UNIT WITH ADJUSTABLE FIXING ANGLE

Part. N° 21.1403/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,118 kg

APPLICATIONS

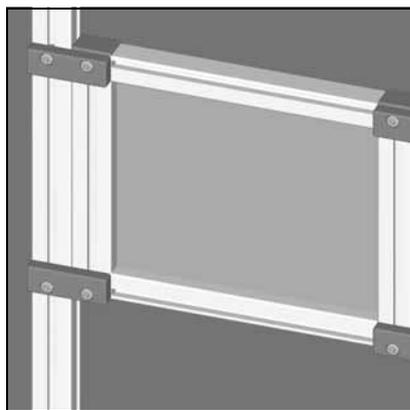
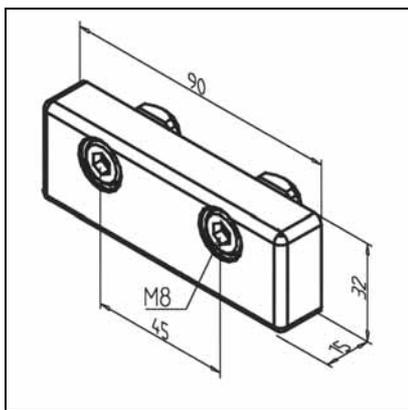
- Connection of profiles at any angle
- Erection of guard units at any angle

ASSEMBLY

- Mount the lower fixing half on the post and align it
- Mount the upper half on the guard unit and insert the guard unit
- Insert the cylinder head screw and tighten it with key 4 A/F. The inserted hexagon nut in the lower fixing half is secured against torsion
- See page 70

CONNECTING PLATE 90 X 32

Part. N° 21.1346/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,170 kg

APPLICATIONS

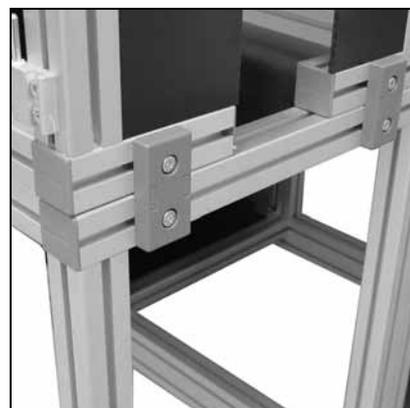
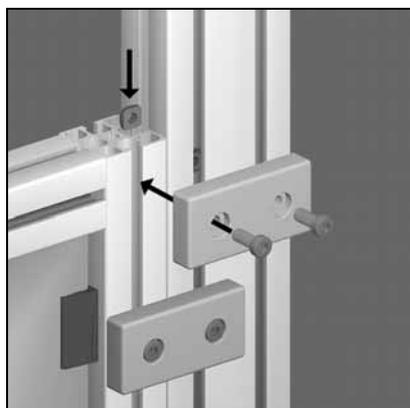
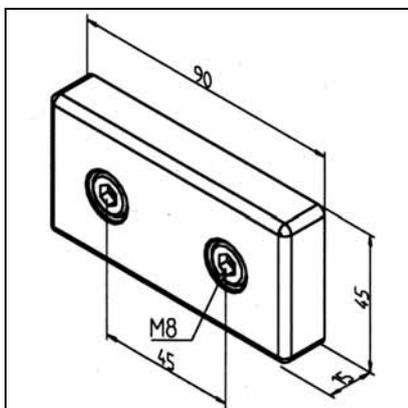
- Connection of two guards without gaps
- Strengthening of guard units
- Connection of premounted units or modules

ASSEMBLY

- Use fastening kit

CONNECTING PLATE 45 X 90

Part. N° 21.1472/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,17 kg

APPLICATIONS

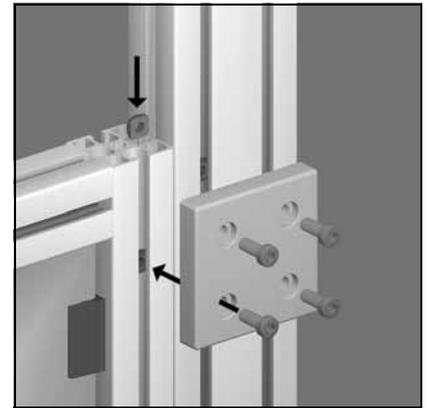
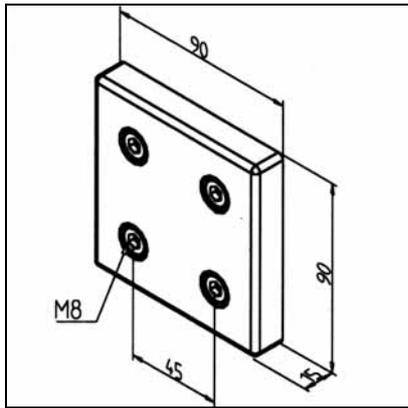
- Connection of guards without gaps
- Strengthening of guard units
- Connection of premounted units or modules

ASSEMBLY

- Use fastening kit

CONNECTING PLATE 90 X 90

Part. N° 21.1473/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,33 kg

APPLICATIONS

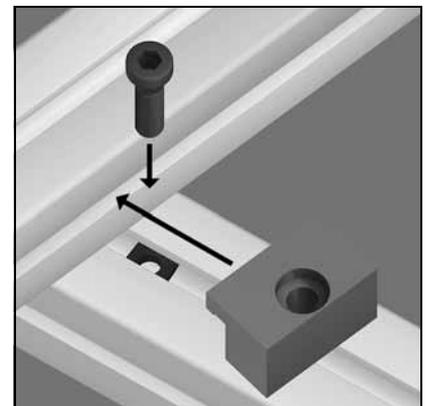
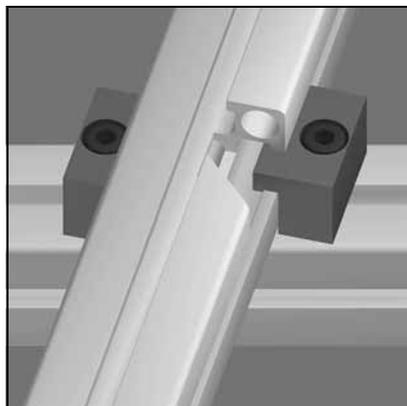
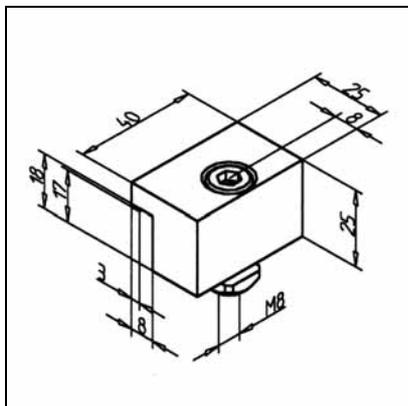
- Connection of guards without gaps
- Strengthening of guard units
- Connection of premounted units or modules

ASSEMBLY

- Use fastening kit

CLAMPING CLAW

Part. N° 21.1027/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- Fastening kit
- Weight 0,069 kg

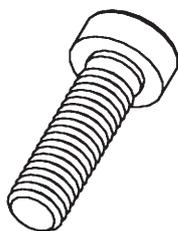
APPLICATIONS

- Parallel connection of profiles at various angles

ASSEMBLY

- Use fastening kit
- No processing required

HEX SOCKET CAP SCREWS

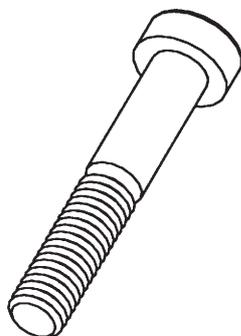


M8, 5 A/F Screw

Screw	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8 x 16	21.1200/0	21.1200/1
M8 x 20	21.1202/0	21.1202/2
M8 x 25	21.1204/0	21.1204/1
M8 x 30	21.1206/0	21.1206/1
M8 x 35	21.1208/0	21.1208/1
M8 x 40	21.1210/0	21.1210/1
M8 x 45	21.1211/0	-----
M8 x 50	21.1212/0	21.1212/1
M8 x 60	21.1214/0	-----
M8 x 70	21.1282/0	-----
M8 x 80	21.1225/0	-----
M8 x 90	21.1226/0	-----

M6, 4 A/F Screw

Screw	Part N° (steel, zinc plated)	Part N° (stainless steel)
M6 x 12	21.1143/0	21.1143/1
M6 x 16	21.1238/0	21.1238/1
M6 x 20	21.1240/0	21.1340/1
M6 x 25	21.1242/0	21.1242/1
M6 x 30	21.1243/0	21.1243/1
M6 x 35	21.1245/0	21.1245/1
M6 x 40	21.1247/0	21.1247/1
M6 x 45	21.1172/0	-----
M6 x 50	21.1171/0	21.1171/1
M6 x 60	21.1154/0	-----
M6 x 80	21.1199/0	21.1199/1



M5, 4 A/F Screw

Screw	Part N° (steel, zinc plated)	Part N° (stainless steel)
M5 x 12	21.1220/0	21.1220/1
M5 x 16	21.1235/0	-----
M5 x 20	21.1222/0	-----
M5 x 25	21.1224/0	21.1224/1
M5 x 30	21.1237/0	-----
M5 x 40	21.1284/0	-----
M5 x 45	21.1219/0	-----

COUNTERSUNK SCREWS

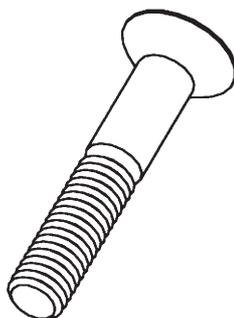


M8, hex socket

Screw	Part N° (steel, zinc plated)
M8 x 16	21.1513/0
M8 x 20	21.1514/0
M8 x 25	21.1520/0
M8 x 30	21.1516/0
M8 x 40	21.1547/0
M8 x 50	21.1517/0
M8 x 60	21.1523/0

M5, hex socket

Screw	Part N° (steel, zinc plated)
M5 x 16	21.1503/0
M5 x 20	21.1504/0
M5 x 25	21.1505/0



M6, hex socket

Screw	Part N° (steel, zinc plated)
M6 x 16	21.1506/0
M6 x 20	21.1507/0
M6 x 30	21.1508/0
M6 x 40	21.1510/0
M6 x 60	21.1512/0

M4, hex socket

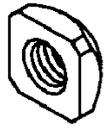
Screw	Part N° (steel, zinc plated)
M4 x 16	21.1501/0
M4 x 20	21.1502/0
M4 x 30	21.1203/0

Other dimensions on request.

SQUARE NUTS

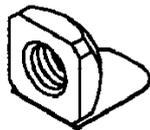
The square nuts are insertable into the profile groove at any desired point. This enables subsequent mounting of elements into existing constructions without partial dismantling.

The spring metal keeps the nut in the right position. Moveable by screw-driver. Especially for use in vertical profiles.



Square nuts square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1351/0	21.1351/1
M6	21.1330/0	21.1330/1
M5	21.1320/0	21.1320/1
M4	21.1310/0	21.1310/1
M3	21.1309/0	21.1309/1



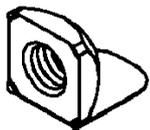
Square nuts with spring metal square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1351/2	21.1351/4
M6	21.1330/2	21.1330/4
M5	21.1320/2	21.1320/4
M4	21.1310/2	21.1310/4
M3	21.1309/2	21.1309/4



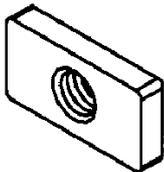
Square nuts Z, ESD compatible square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1390/0	-
M6	21.1391/0	-
M5	21.1627/0	-



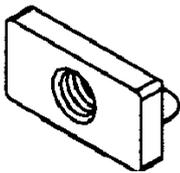
Square nuts Z with spring metal, ESD compatible square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1390/2	-
M6	21.1391/2	-
M5	21.1627/2	-



Square nuts M8 L square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1368/0	-

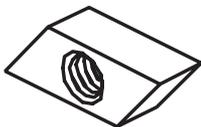


Square nuts M8 L with spring metal square nut

	Part N° (steel, zinc plated)	Part N° (stainless steel)
M8	21.1368/2	-

RHOMBUS NUT

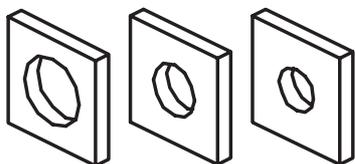
Threat M6 with pitch error for self-locking of screw connection.



Rhombus nut

	Part N° (steel, zinc plated)
M6	21.1352/0
F	21.1354/0

SQUARE WASHER



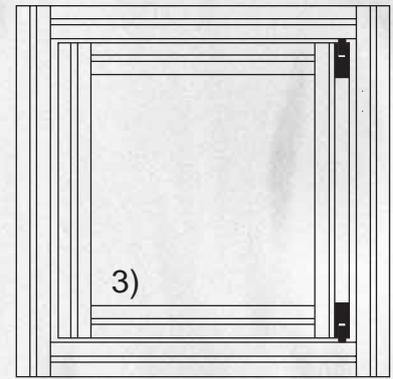
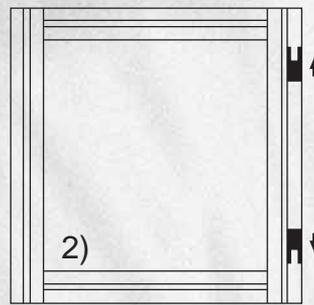
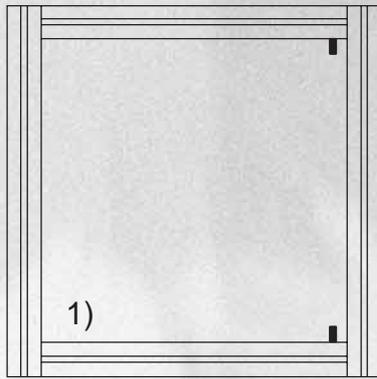
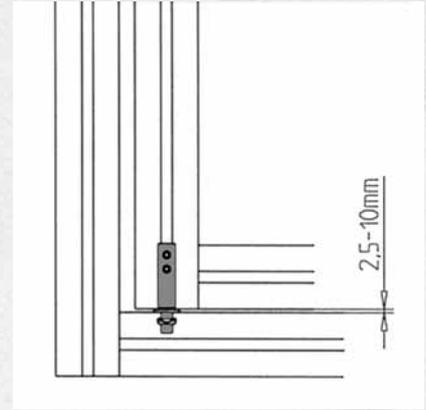
Square washer

	Part N° (steel, zinc plated)	Part N° (stainless steel)
Square washer 8	21.1360/0	21.1360/1
Square washer 6	21.1363/0	-----
Square washer 5	21.1362/0	-----



LINKS AND HINGES

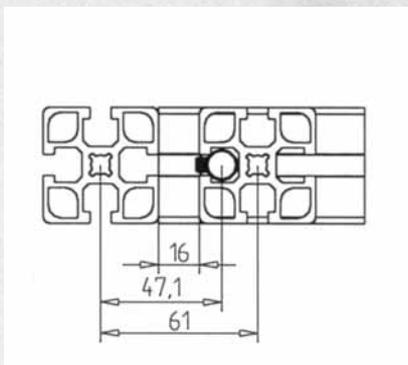
INTERNAL HINGE AL



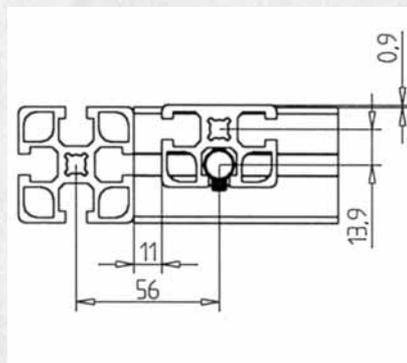
Assembly

- 1) Screw snap bolts onto the frame and insert washer.
- 2) Insert hinge into door element.
- 3) Hold the door element above the grooves, push hinges onto snap bolts and tighten them.

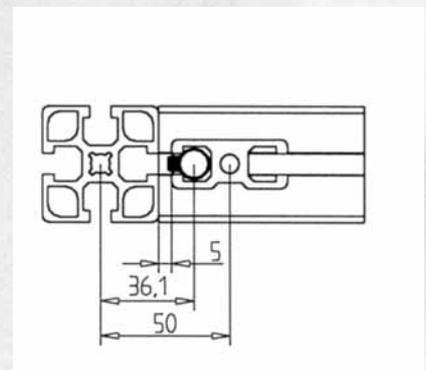
Distance of the snap bolts from the frame:



Assembly in inner groove:
47,1 mm



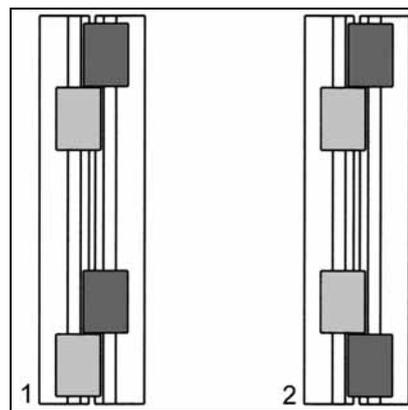
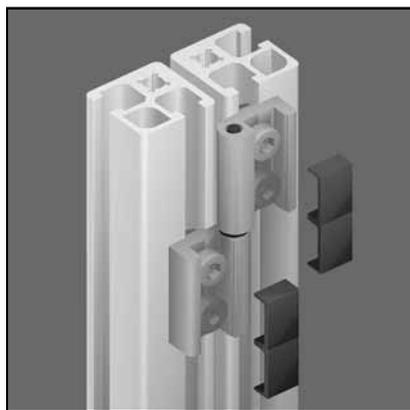
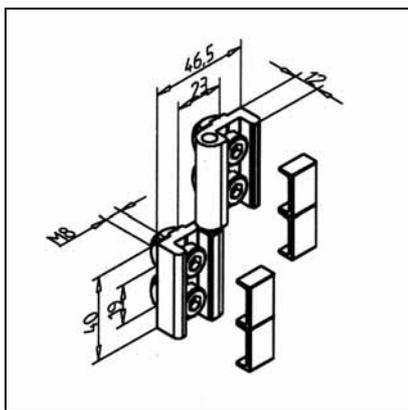
Assembly in central groove:
56 mm



Assembly in inner groove:
36,1 mm

HINGE 19

Part. N° 21.1100/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with steel-cylinder-bolt
- Fastening kit
- End caps
- Weight 0,111 kg
- Load max. 400 N

APPLICATIONS

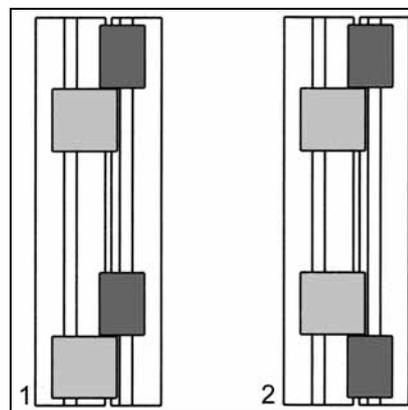
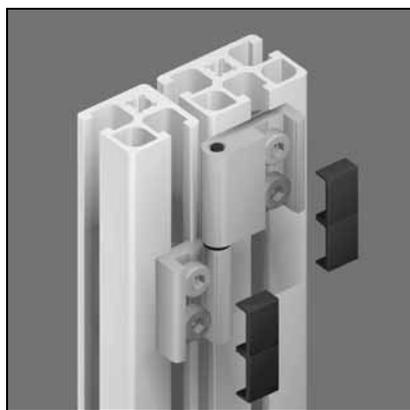
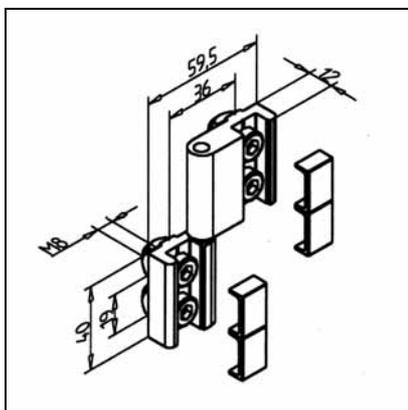
- Swing doors and lids
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19 at various angles

ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 19 without fixing element Part N° 21.1100/2
- 1: lift removable
- 2: non lift removable

HINGE 32

Part. N° 21.1095/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with steel-cylinder-bolt
- Fastening kit
- End caps
- Weight 0,128 kg
- Load max. 400 N

APPLICATIONS

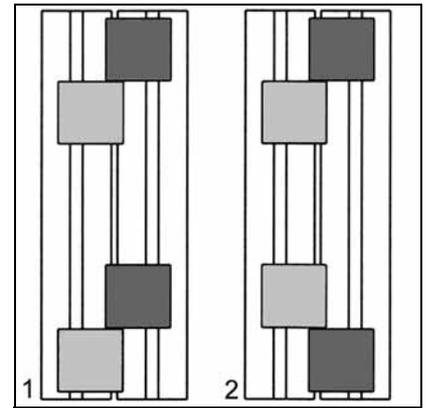
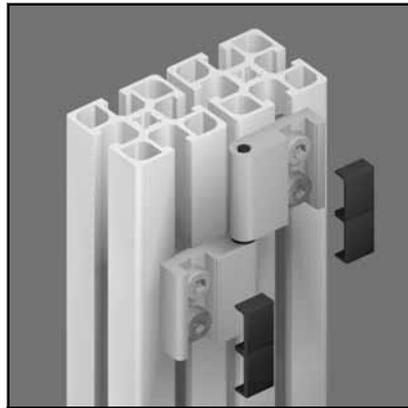
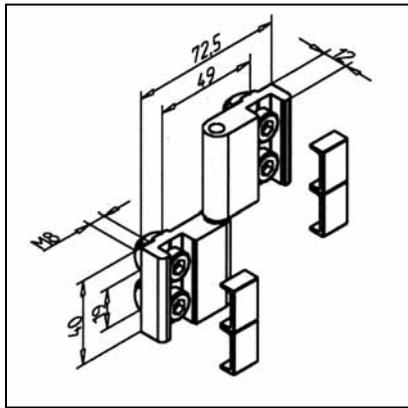
- Swing doors and lids
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19, 32 and 45 at various angles

ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 32 without fixing element Part N° 21.1095/2
- 1: lift removable
- 2: non lift removable

HINGE 45

Part. N° 21.1096/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with steel-cylinder-bolt
- Fastening kit
- End caps
- Weight 0,145 kg
- Load max. 400 N

APPLICATIONS

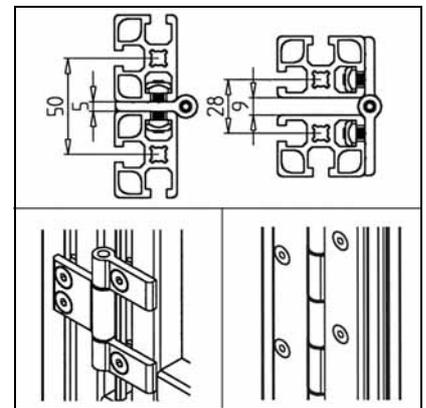
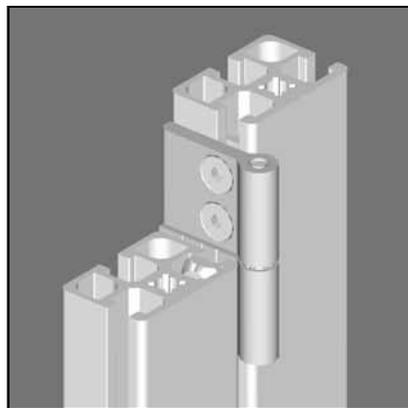
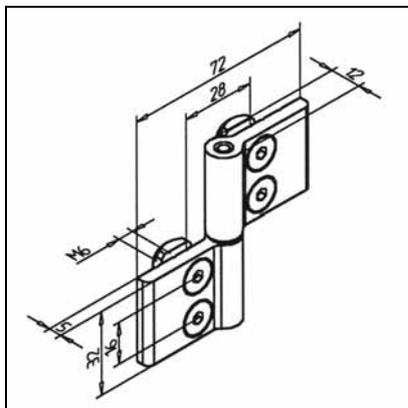
- Swing doors and lids
- Connection of profiles 45 at various angles
- Attachment of guards
- Mount in reversed orientation for non lift removable or horizontal applications

ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 45 without fixing element **Part N° 21.1096/2**
- 1: lift removable
- 2: non lift removable

HINGE L 19/19

Part. N° 21.1373/0



TECH. DATA / ITEM SUPPLIED

- Aluminium, natural anodized with steel cylinder
- Fastening kit
- Weight 0,089 kg
- Load max. 400 N

APPLICATIONS

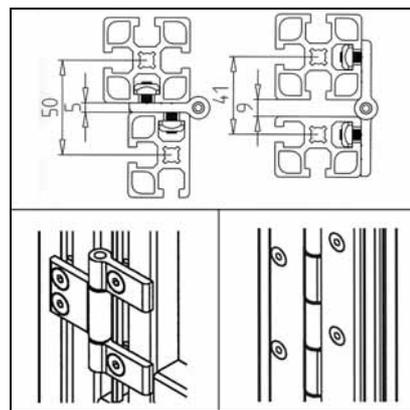
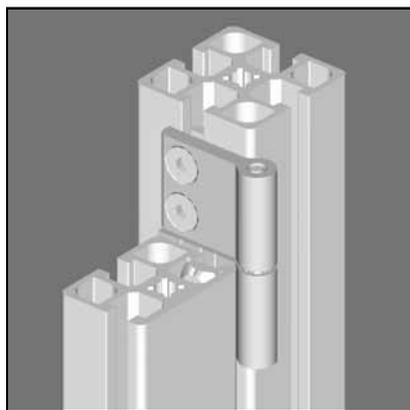
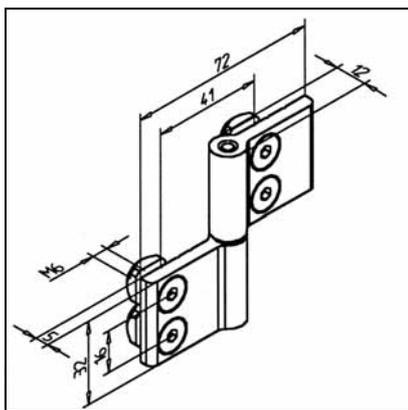
- Doors, lids, movable attachments at profiles 19 and 32
- Attachment of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19 at various angles

ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5, **Part N° 20.1076/0** available

HINGE L 19/45

Part. N° 21.1375/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with steel cylinder
- Fastening kit
- Weight 0,089 kg
- Load max. 400 N

APPLICATIONS

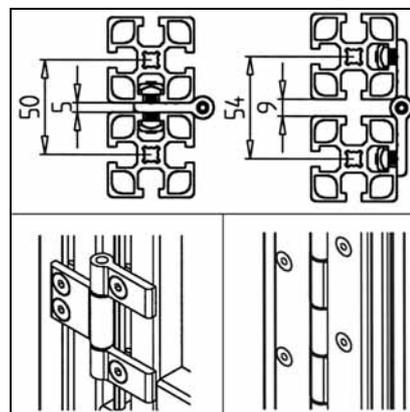
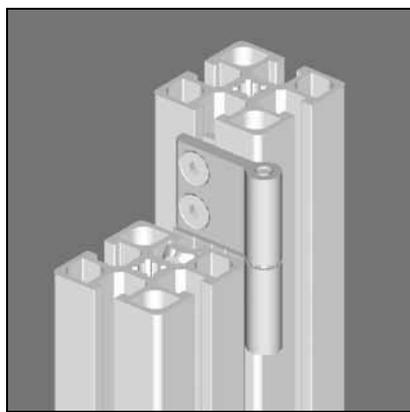
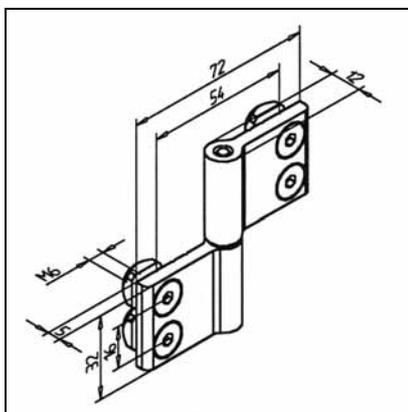
- Doors, lids, movable attachments at profiles 19, 32 and 45
- Mounting of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19,32 and 45 at various angles

ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5, Part N° 20.1076/0 available

HINGE L 45/45

Part. N° 21.1378/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with steel cylinder
- Fastening kit
- Weight 0,089 kg
- Load max. 400 N

APPLICATIONS

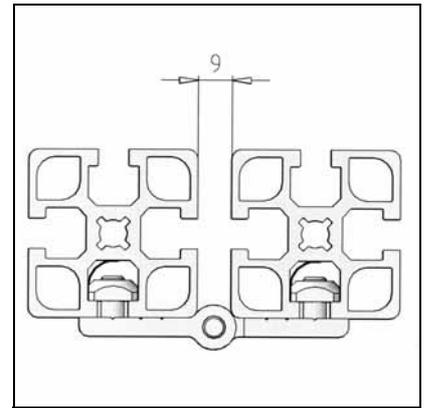
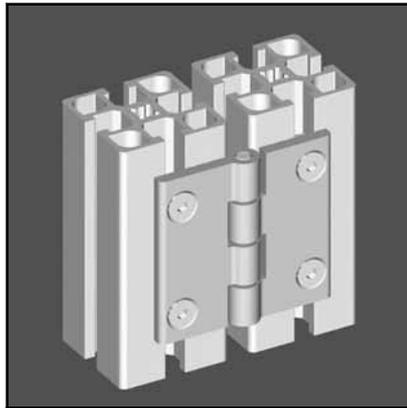
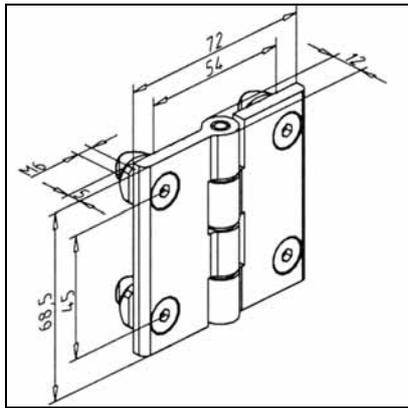
- Doors, lids, movable attachments at profiles 45
- Mounting of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 45 at various angles

ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5, Part N° 20.1076/0 available

DOOR HINGE SMALL

Part. N° 21.0973/0



TECHN. DATA/ITEMS SUPPLIED

- Aluminium
- Fastening kit
- Weight 0,120 kg

APPLICATIONS

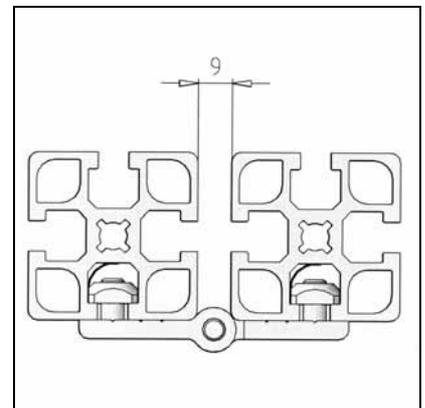
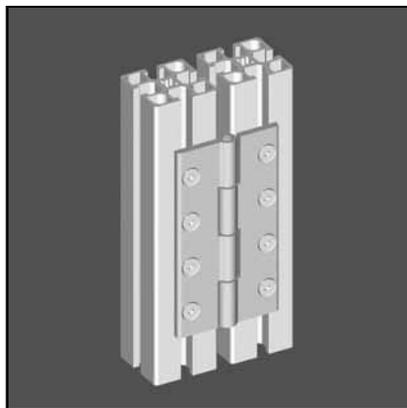
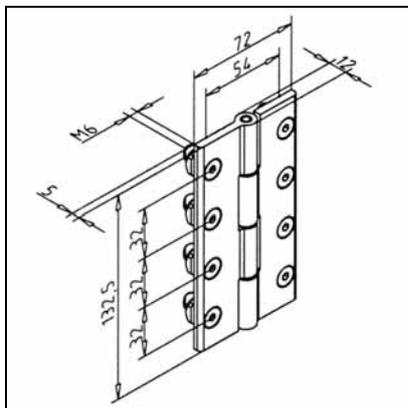
- Suitable for large doors and lids
- Guard units
- Connection of profiles at any angle

ASSEMBLY

- Use fastening kit

DOOR HINGE LARGE

Part. N° 21.0970/0



TECHN. DATA/ITEMS SUPPLIED

- Aluminium
- Fastening kit
- Weight 0,235 kg

APPLICATIONS

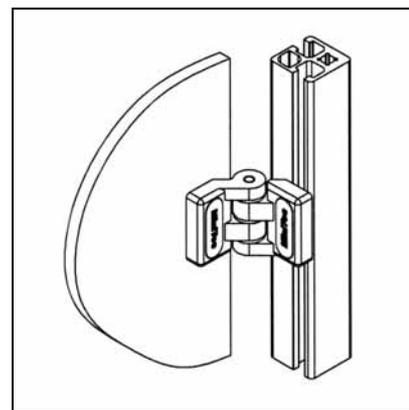
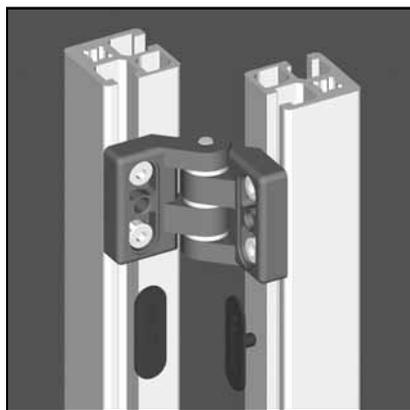
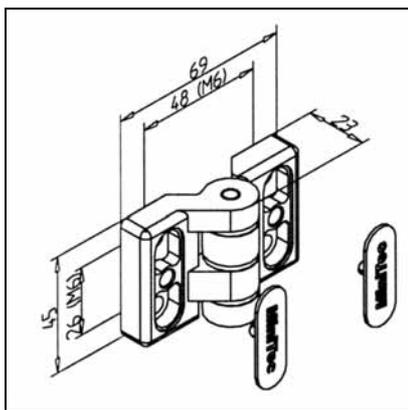
- Suitable for large doors and lids
- Guard units
- Connection of profiles at any angle

ASSEMBLY

- Use fastening kit

HINGE 19 S

Part. N° 21.1044/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Without fastening kit
- with end caps
- Weight 0,100 kg
- Load max. 600 N

APPLICATIONS

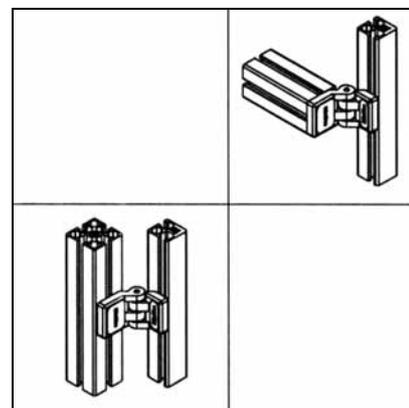
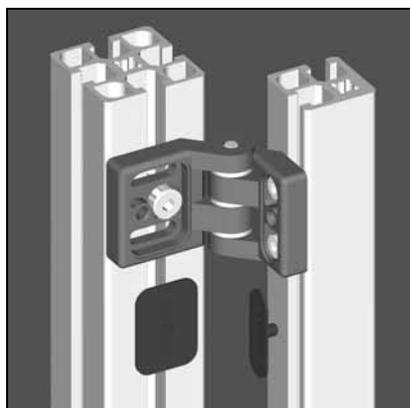
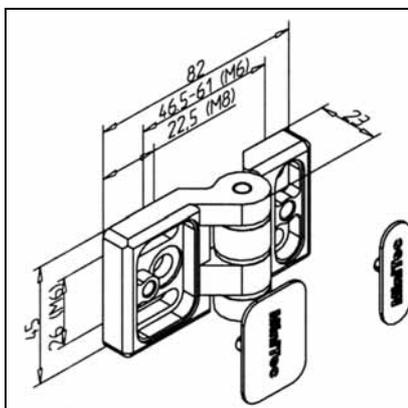
- Suitable for large doors and flaps of profile type 19 or 32
- Guard units
- Connection of profiles 19 and 32 at any angle

ASSEMBLY

- Fasten hinge with 4 M6 x 18 bolts and 4 square nuts on the profile groove, or with screws corresponding to the material thickness directly on the panel elements
- For heavy-duty applications use multiple hinges
- Bending range 270°

HINGE 32 S

Part. N° 21.1055/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder-coated, grey
- Without fastening kit
- with end caps
- Weight 0,105 kg
- Load max. 600 N

APPLICATIONS

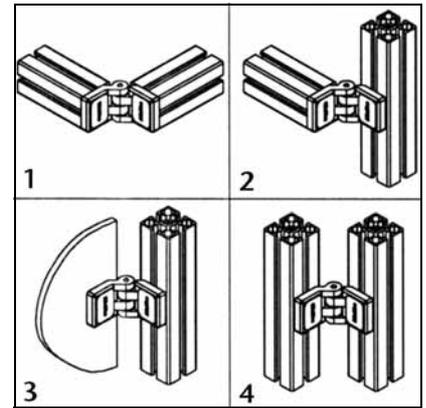
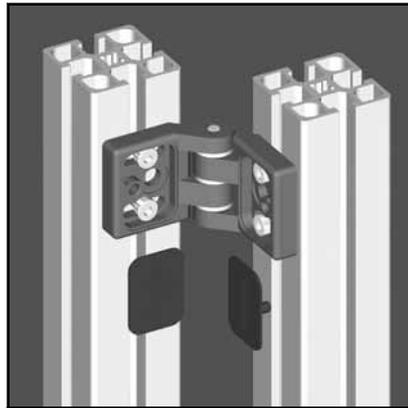
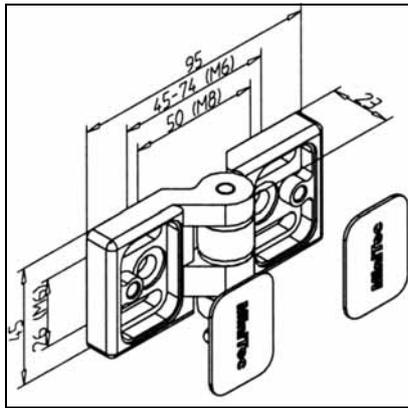
- Suitable for large doors and flaps
- Guard units
- Connection of profiles 19, 32 and 45 at any angles

ASSEMBLY

- Fasten hinge with 4 M6 x 18 bolts and 4 square nuts on the profile groove or with screws corresponding to the material thickness directly on the panel elements
- Fasten other part of hinge with M8 x 30 bolt on the 45 x 45 profile face side; fasten the other hinge half with M6 x 20 bolts and square nuts on the profile groove or with M6 x 18 bolts corresponding to the material thickness
- For heavy-duty applications use multiple hinges
- Bending range 270°

HINGE 45 S

Part. N° 21.1098/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder-coated, grey
- Without fastening kit
- With End caps
- Weight 0,100 kg
- Load max. 600 N

APPLICATIONS

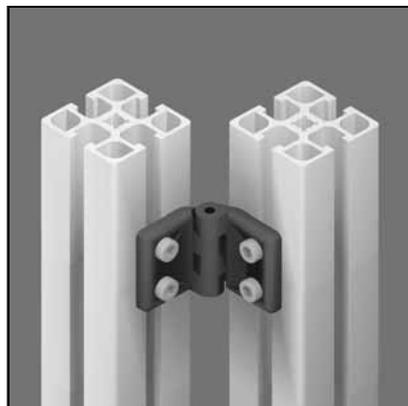
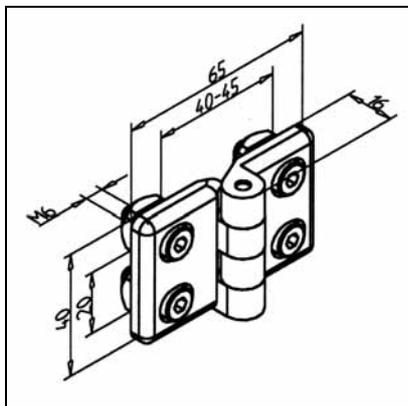
- Suitable for large doors and flaps
- Guard units
- Connection of profiles at various angles
- For heavy-duty application use multiple hinges

ASSEMBLY

- 1: 2 screws M8 x 30
- 2: 2 screws M6 x 18, 2 square nuts M6, 1 screw M8 x 30
- 3: 2 screws M6 x 18, 2 square nuts M6, 2 screws M6 for panel element according to material
- 4: 4 screws M6 x 18, 4 square nuts M6
- Bending range 270°

HINGE 45 M6

Part. N° 21.1175/0



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Fastening kit
- Weight 0,061 kg
- Load max. 160 N

APPLICATIONS

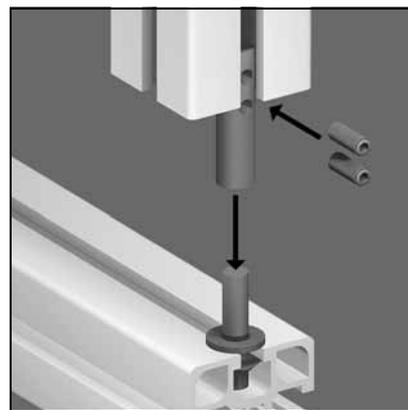
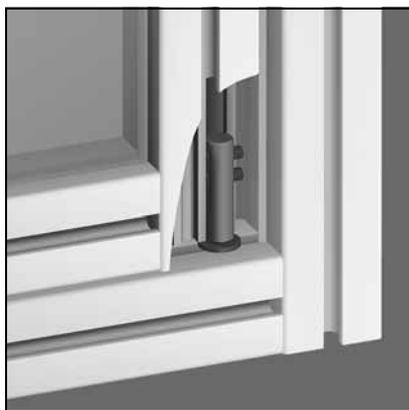
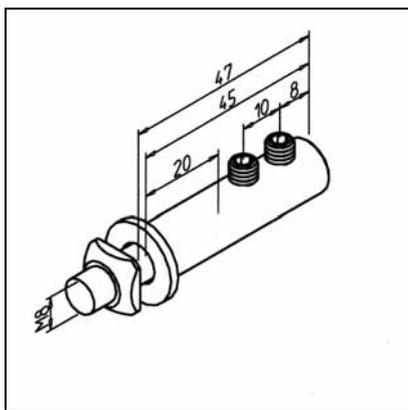
- Suitable for light doors and lids
- Guard units
- Connection of profiles at various angles

ASSEMBLY

- Use fastening kit

INTERAL HINGE AL

Part. N° 21.1142/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural
- Fastening kit
- Weight 0,020 kg
- Load max. 250 N

APPLICATIONS

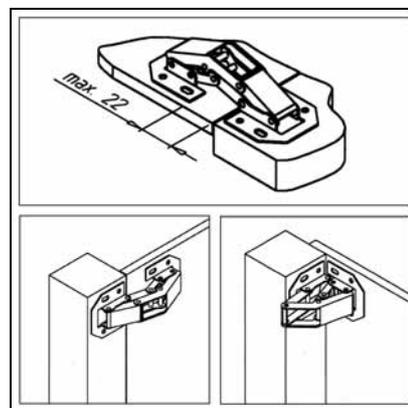
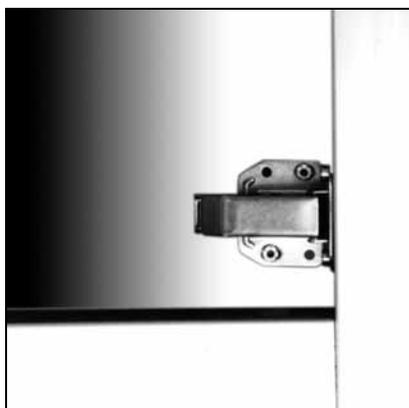
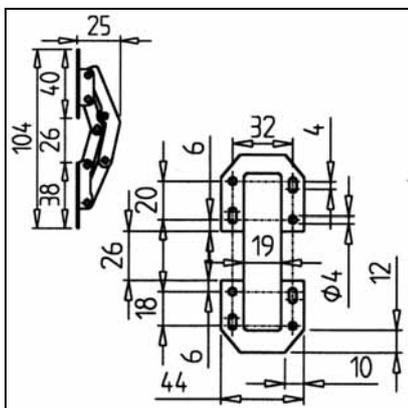
- Doors
- Lids
- Movable elements
- Subsequent insertion of doors

ASSEMBLY

- Screw snap bolts onto the frame and insert washer
- Insert hinge into door element
- Hold the door element above the grooves, push hinges onto snap bolts and tighten them
- See page 95

SWING-OUT HINGE

Part. N° 21.1187/0



TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Without fastening kit
- Weight 0,082 kg
- Load max. 50 N

APPLICATIONS

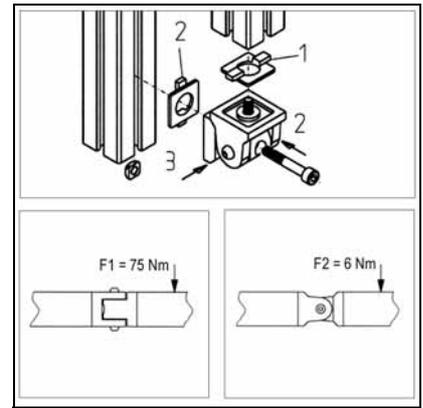
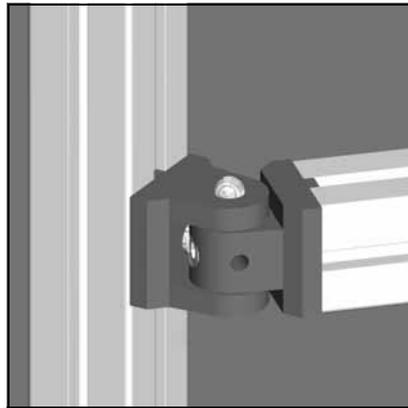
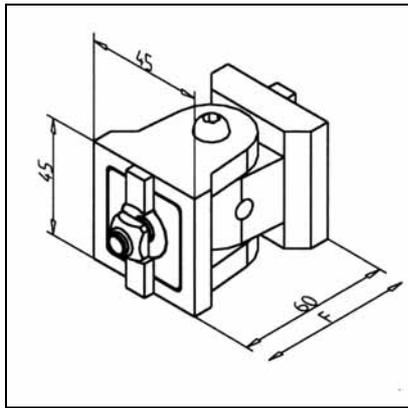
- Light doors
- Show cases, Fair equipment, guards
- Doors close without gap, bearing on the outside or flush on the inside

ASSEMBLY

- On profile grooves with screws M4 x 16 and square nut M4
- Direct fastening on panel elements; screw length according to material thickness
- Direct fastening on profile surface

LINK

Part. N° 21.2030/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- AL GD locking device against torsion
- Load max. 5000 N
- Weight 0,250 kg

APPLICATIONS

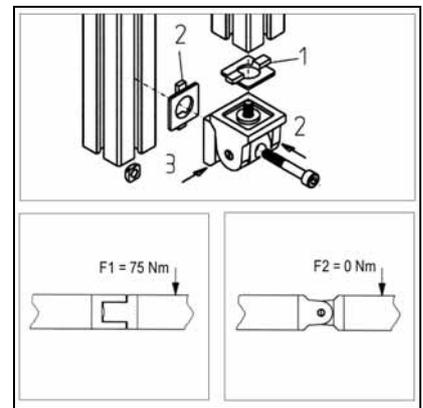
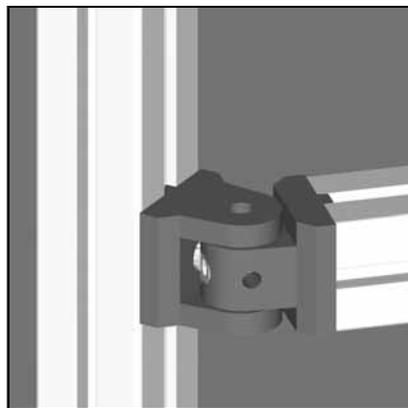
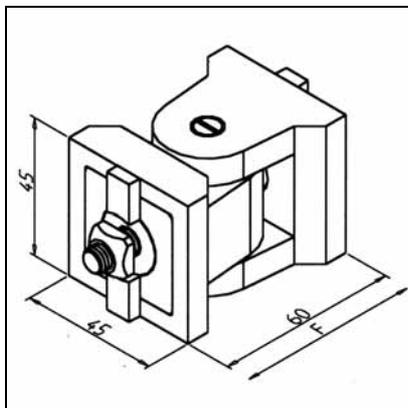
- Connection of profiles at any angle
- Braces
- Reinforcement of frame constructions
- Not to be used as a hinge

ASSEMBLY

- 1: Mount the hinge half 1 on the desired position (with key SA/F through bore in hinge half 2)
- 2: Insert screw M8 x 50 and fix hinge half 2
- 3: Tighten lateral connecting screws

ANGLE BRACKET

Part. N° 21.2020/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- AL GD locking device against torsion
- Load max. 1500 N
- Weight 0,240 kg

APPLICATIONS

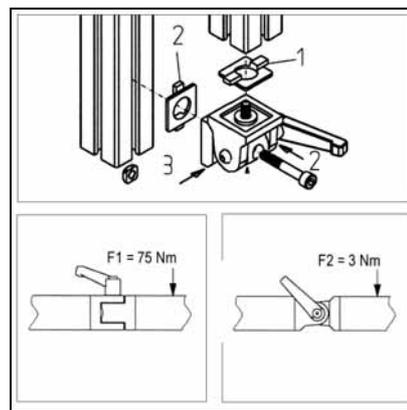
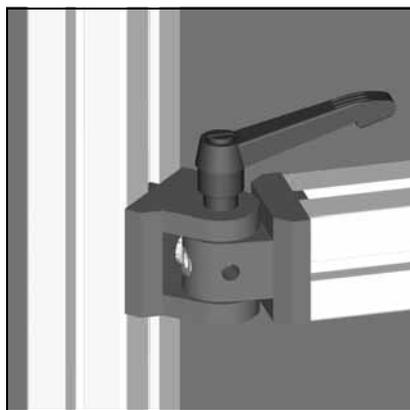
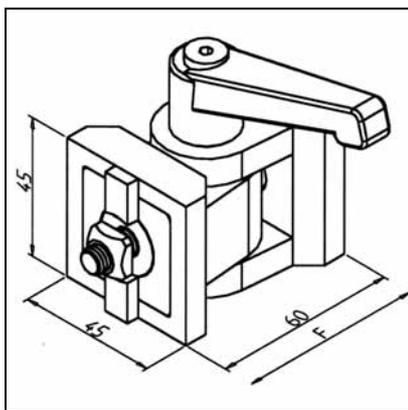
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Not lockable
- For heavy-duty loads use multiple hinges

ASSEMBLY

- 1: Mount the hinge half 1 on the desired position (with key SA/F through bore in hinge half 2)
- 2: Insert screw M8 x 50 and fix hinge half 2

ANGLE BRACKET FIXABLE

Part. N° 21.2010/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- AL GD locking device against torsion
- Load max. 1500 N
- Weight 0,280 kg

APPLICATIONS

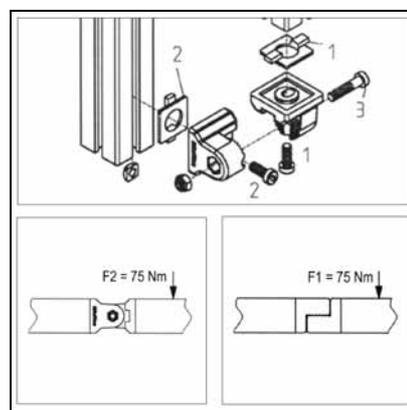
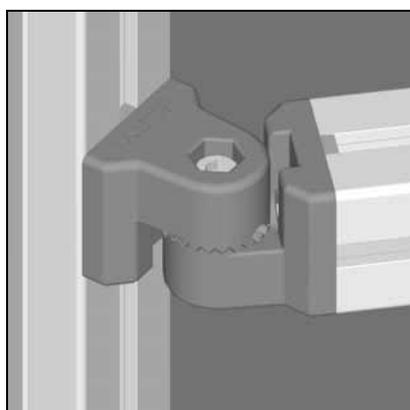
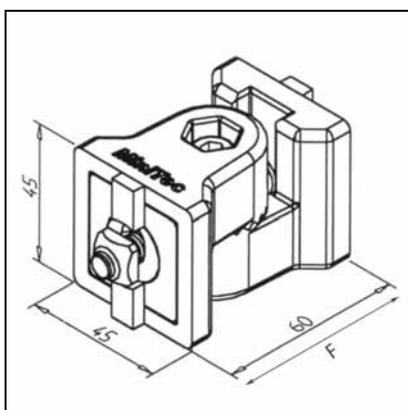
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Clamping lever for positioning of add-on parts
- Fixing of pieces such as measuring devices that need to be adjusted quickly
- For heavy-duty loads use multiple hinges

ASSEMBLY

- 1: Mount the hinge half 1 on the desired position (with key SA/F through bore in hinge half 2)
- 2: Insert screw M8 x 50 and fix hinge half 2
- 3: Tighten clamping lever

ANGLE BRACKET R

Part. N° 21.2041/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Locking device against rotation AL GD
- Load max. 5000 N
- Weight 0,263 kg

APPLICATIONS

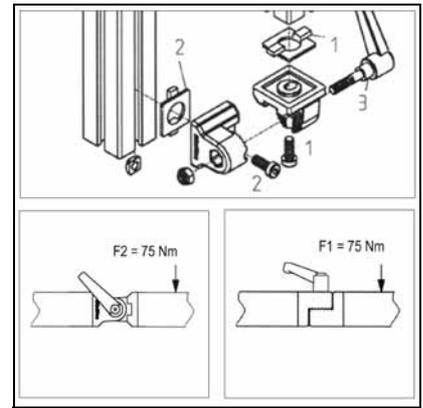
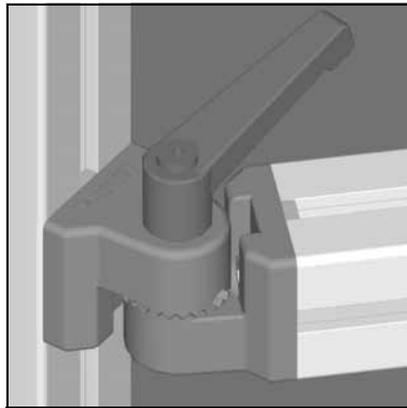
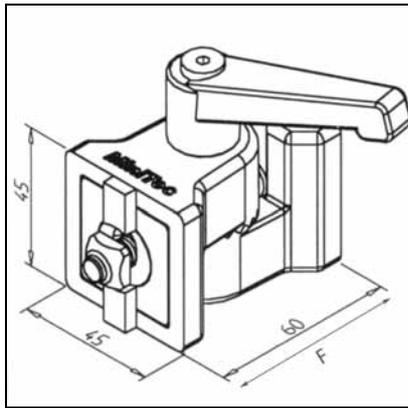
- Setting angle 180° in steps of 15°
- Adjustable fixing of add-on parts such as grip-boxes, beams or monitors
- Safe adjustment through tooth system

ASSEMBLY

- 1: Place locking device and screw first half of the bracket
- 2: Fix second half
- 3: Connect the 2 halves in desired angle and tighten

ANGLE BRACKET R FIXABLE

Part. N° 21.2040/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Locking device against torsion AL GD
- Load max. 5000 N
- Weight 0,332 kg

APPLICATIONS

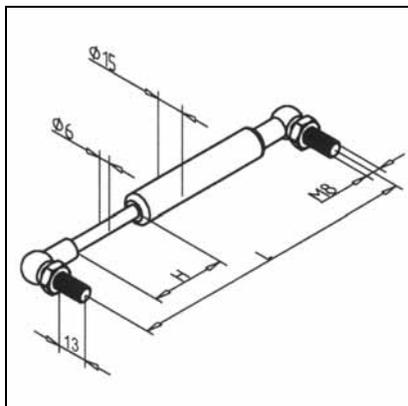
- Setting angle 180° in steps of 15°
- Adjustable fixing of add-on parts such as grip-boxes, beams or monitors
- Safe adjustment through tooth system

ASSEMBLY

- 1: Place locking device and screw first half of the bracket
- 2: Fix second half
- 3: Connect the 2 halves in desired angle and tighten

GAS SPRING 6/15

Part. N° 24.1126/0



H (mm)	L (mm)
20	115,5
40	155,5
60	194,5
80	235
100	273
120	316
150	375,5

TECHN. DATA / ITEMS SUPPLIED

- Fastening kit
- Stroke (H) alternatively 20 / 40 / 60 / 80 / 100 / 120 / 150 mm
- Power (F) between 50 and 400 N (increments 50 N)
- Please indicate desired length of stroke and force

APPLICATIONS

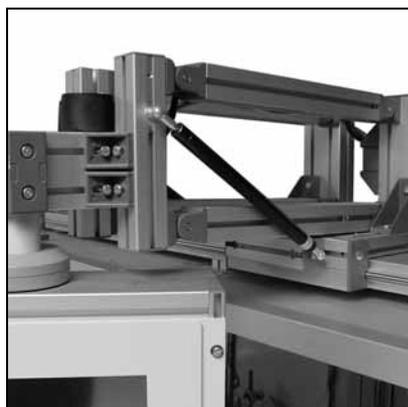
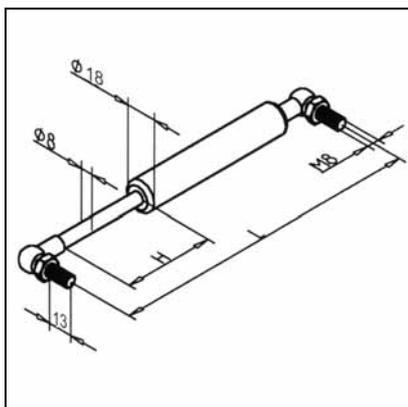
- Weight equalization for hinged elements
- Suitable for lift and swivel movements

ASSEMBLY

- Use fastening kit

GAS SPRING 8/20

Part. N° 24.1127/0



H (mm)	L (mm)
57	206
80	244
100	286
120	326
140	366
160	405
180	446
200	485,5
220	527
250	585,5

TECHN. DATA / ITEMS SUPPLIED

- Fastening kit

- Stroke (H) alternatively
57 / 80 / 100 / 120 / 140 / 160 / 180 /
200 / 220 / 250 mm

- Power (F) between 80 and 750 N
(increments 50 N)

- Please indicate desired length of stroke
and force

APPLICATIONS

- Weight equalization for hinged elements

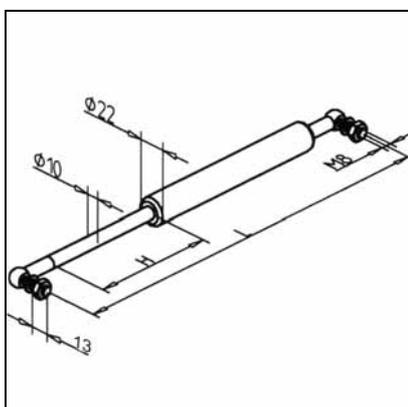
- Suitable for lift and swivel movements

ASSEMBLY

- Use fastening kit

GAS SPRING 10/22

Part. N° 24.1128/0



H (mm)	L (mm)
100	286
150	386
200	486
250	586
300	686
350	786
400	886

TECHN. DATA / ITEMS SUPPLIED

- Fastening kit

- Stroke (H) alternatively 100 / 150 / 200 /
250 / 300 / 350 / 400 mm

- Power (F) between 100 and 1200 N
(increments 50 N)

- Please indicate desired length of stroke
and force

APPLICATIONS

- Weight equalization for hinged elements

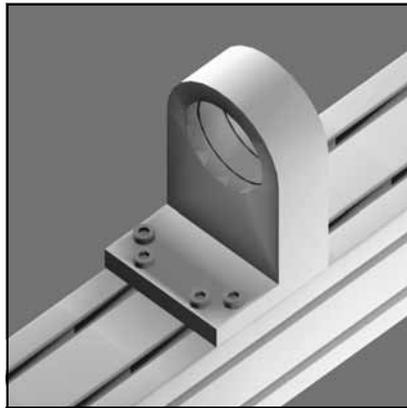
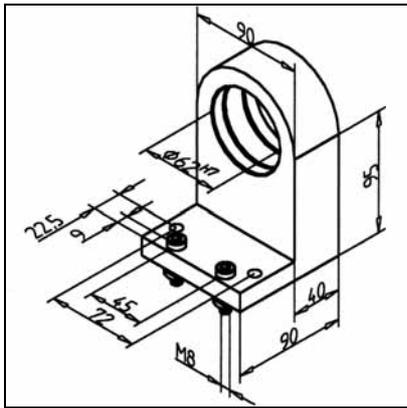
- Suitable for lift and swivel movements

ASSEMBLY

- Use fastening kit

UPRIGHT BEARING

Part. N° 28.0158/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Without ball bearing and locking rings
- Weight 1,310 kg

APPLICATIONS

- Large swivel frames
- Guiding of shafts, axles, drums, tires lengthwise and crosswise to the profile

ASSEMBLY

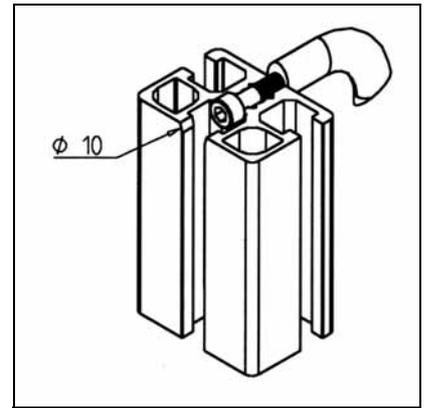
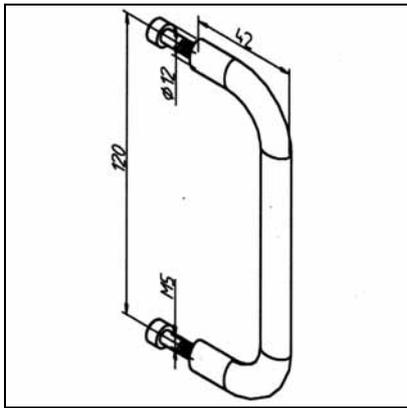
- Location hole fitting for radial ball bearing 6206 2RS Part N° 50.0977/1
- Use fastening kit



HANDLE, LOCKS, STOPS

HANDLE AL

Part. N° 21.1138/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Weight 0,050 kg

APPLICATIONS

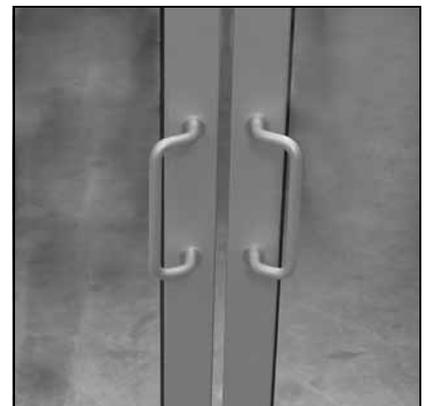
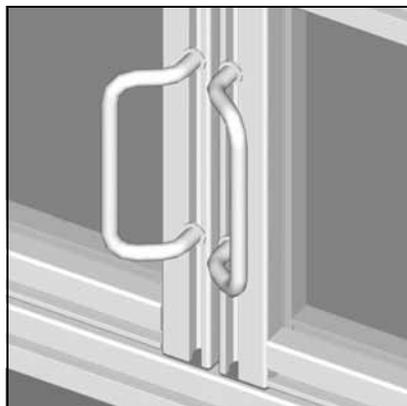
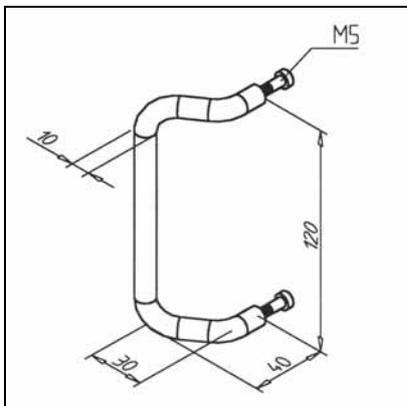
- Show cases
- Cabinets
- Light doors

ASSEMBLY

- Use fastening kit
- With step drilling $\varnothing 10$ mm x 5,5 mm respectively through hole $\varnothing 5,5$

HANDLE AL ANGLED

Part. N° 21.1348/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium natural, anodized
- Fastening kit
- Weight 0,050 kg

APPLICATIONS

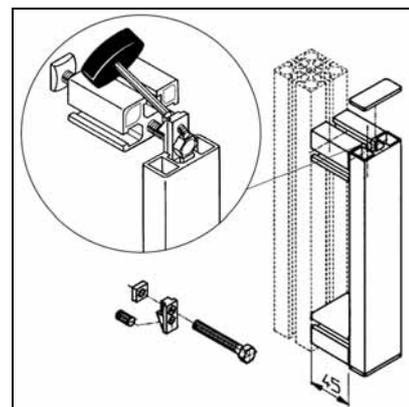
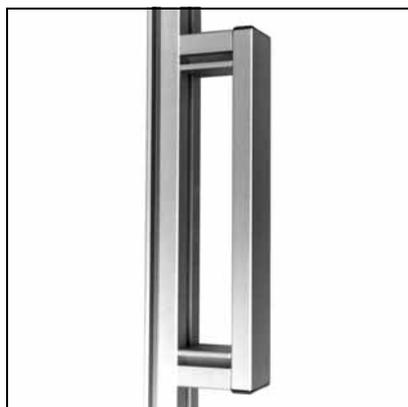
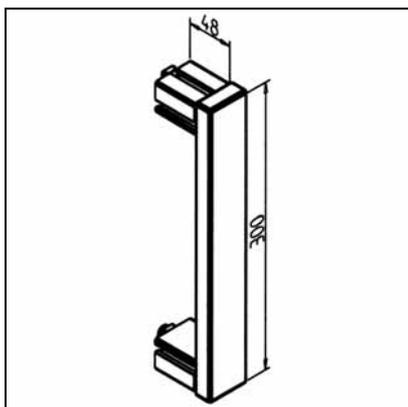
- Show cases
- Cabinets
- Light doors

ASSEMBLY

- Use fastening kit
- 2 step drills $\varnothing 10$ mm x 5,5 mm or through-bores $\varnothing 5,5$ mm in 120 mm distance

PROFILE HANDLE

Part. N° 21.1051/0



TECHN. DATA / ITEMS SUPPLIED

- Assembly kit made from MiniTec aluminium profiles

- Fastening kit

- Weight 0,480 kg

- Length 300 mm

- Other lengths on request

APPLICATIONS

- Handle for very large doors, lids, trolleys, removable panel elements

ASSEMBLY

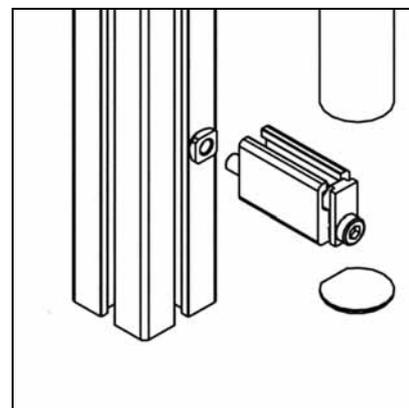
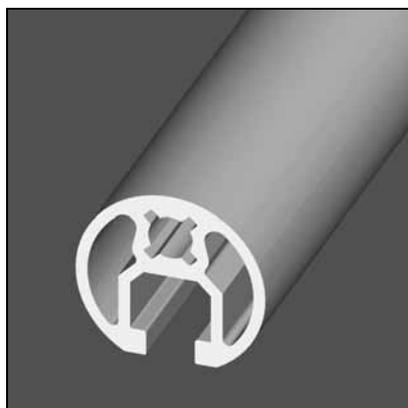
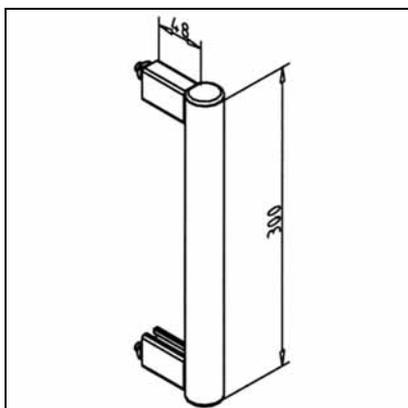
- Put the screw with fastener through the bore of the distance piece

- Tighten power-lock fastener

- Clip on end caps

PROFILE HANDLE 32

Part. N° 21.0962/0



TECHN. DATA / ITEMS SUPPLIED

- Assembly kit made from MiniTec aluminium profiles

- Fastening kit

- Weight 0,510 kg

- Length 300 mm

- Other lengths on request

APPLICATIONS

- Handle for very large doors, lids, trolleys, removable panel elements

ASSEMBLY

- Enter square nut in existing construction

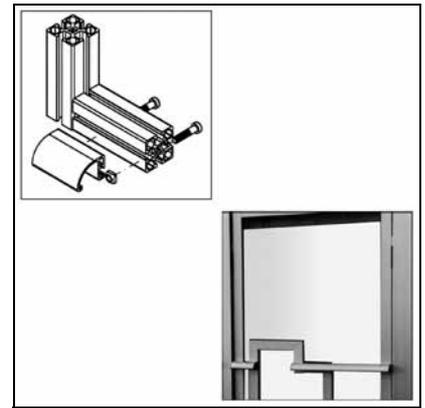
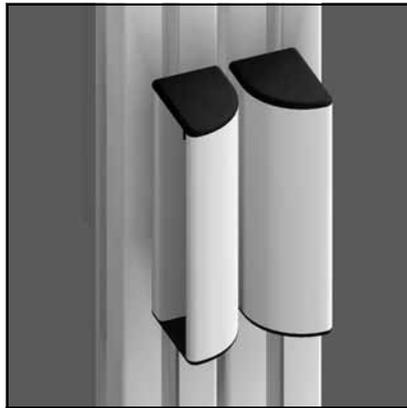
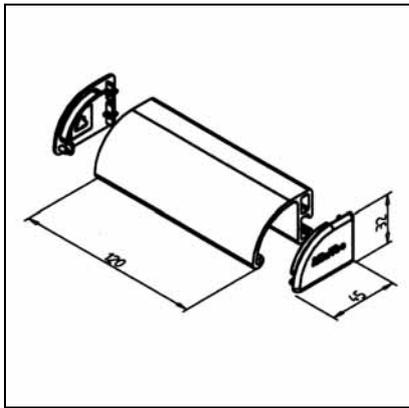
- Pre-assemble the spacers and profile connector with longer screws

- Insert the handle profile and tighten the profile connector to the spacers

- Clip on end caps

CLOSED PROTECTIVE HANDLE

Part. N° 21.1048/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- End caps
- Without fastening kit
- Weight 0,113 kg
- Length 120 mm
- Other lengths on request

APPLICATIONS

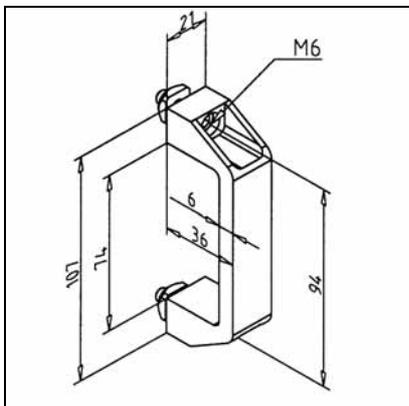
- Doors
- Lids
- Guards
- Furniture

ASSEMBLY

- On profile groove with 2 hex socket head socket cap screws M6 x 16 and square nut M6
- Directly on panel element with head socket head socket cap screw M6, length according to material thickness
- Assembly can also be carried out from the rear side; for this purpose insert square nut M6

HANDLE 90

Part. N° 21.1099/1



TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black
Part N° 21.1099/0
- Fastening kit
- Weight 0,025 kg

APPLICATIONS

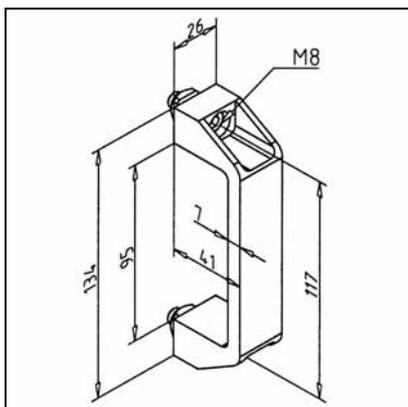
- Doors
- Lids
- Guards

ASSEMBLY

- Use fastening kit
- Directly on panel element with head socket cap screw M6, length according to material thickness
- Assembly can also be carried out from the rear side

HANDLE 120

Part. N° 21.1092/1



TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black
Part N° 21.1092/0
- Fastening kit
- Weight 0,074 kg

APPLICATIONS

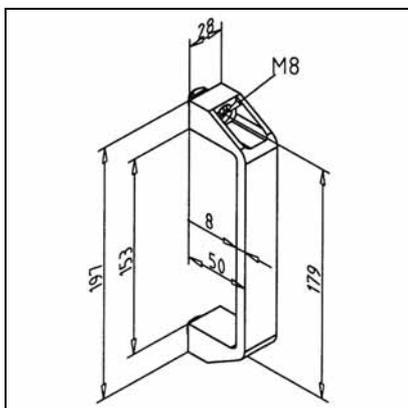
- Doors
- Lids
- Guards

ASSEMBLY

- Use fastening kit
- Directly on panel element with head socket cap screw M8, length according to material thickness
- Assembly can also be carried out from the rear side

HANDLE 180

Part. N° 21.1094/1



TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black
Part N° 21.1094/0
- Fastening kit
- Weight 0,099 kg

APPLICATIONS

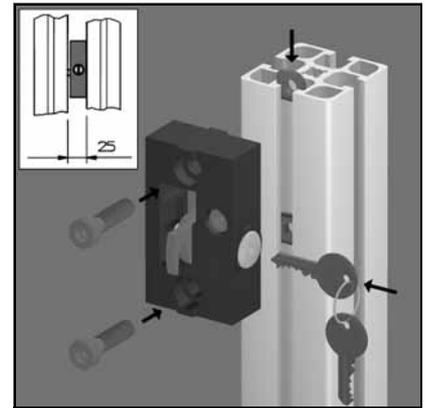
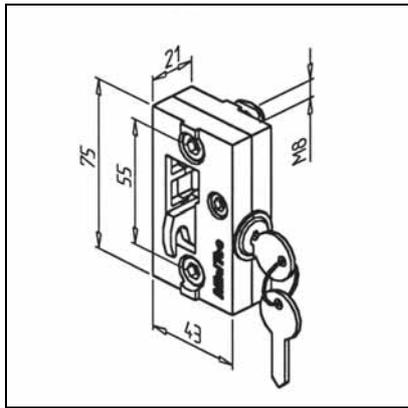
- For doors
- Lids
- Guards

ASSEMBLY

- Use fastening kit
- Directly on panel element with head socket cap screw M8, length according to material thickness
- Assembly can also be carried out from the rear side

DOOR LOCK

Part. N° 21.1750/5



TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black
Part N° 21.1750/0
- Cylinder lock with 2 keys
- Lock, steel, zinc plated
- Fastening kit
- Weight 0,195 kg

APPLICATIONS

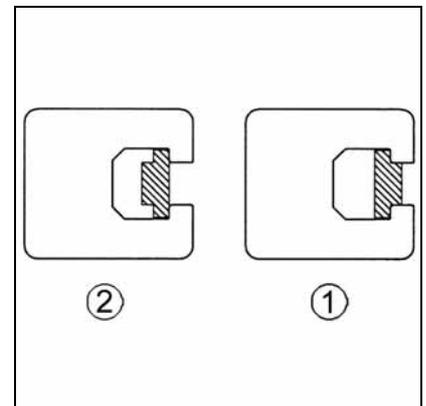
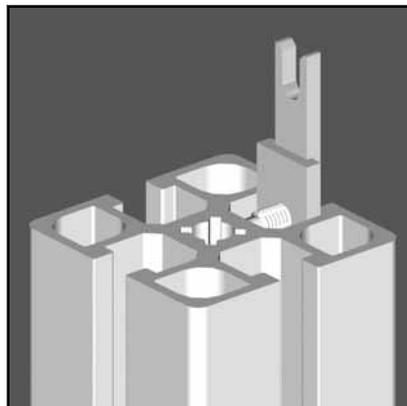
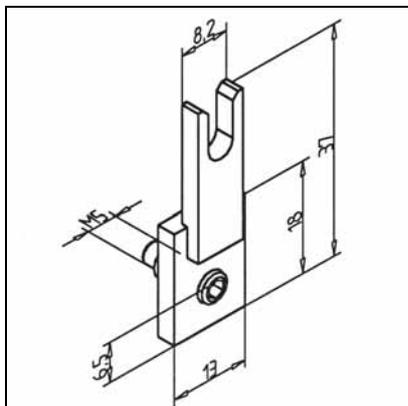
- Doors
- Lids
- Guards

ASSEMBLY

- Use fastening kit
- Door lock meshes into groove of opposite profile
- Suitable for left and right hand mounting
- Suitably with catch 8 Part N° 21.1715/0

CATCH 8

Part. N° 21.1715/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium natural, anodized
- With set screw
- Weight 0,015 kg

APPLICATIONS

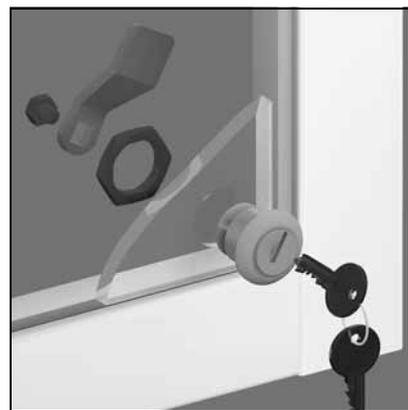
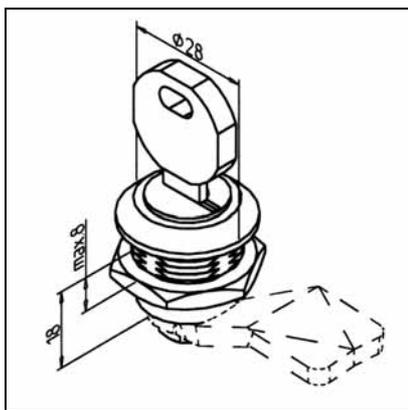
- Sliding doors and swing doors in combination with door lock Part N° 21.1750/5

ASSEMBLY

- Slip the catch into profile groove
- 1) Catch open: for swing doors
- 2) Catch closed: for sliding doors
- Fix in desired position with set screw

CYLINDER LOCK

Part. N° 21.1752/0



TECHN. DATA / ITEMS SUPPLIED

- Brass, chrome plated
- Without lock
- 2 keys
- Weight 0,100 kg

APPLICATIONS

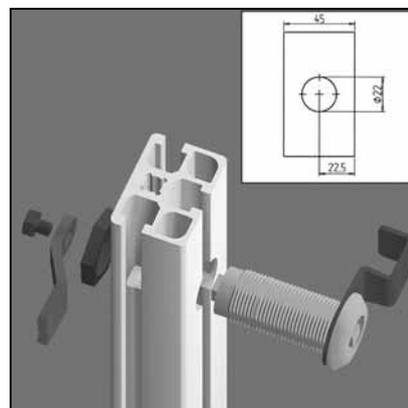
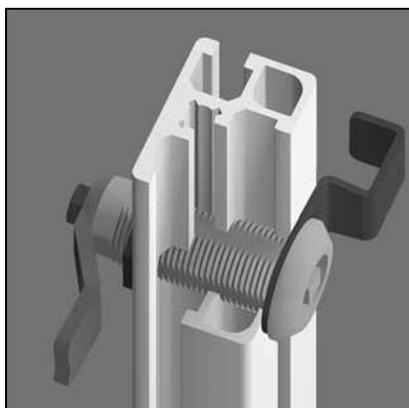
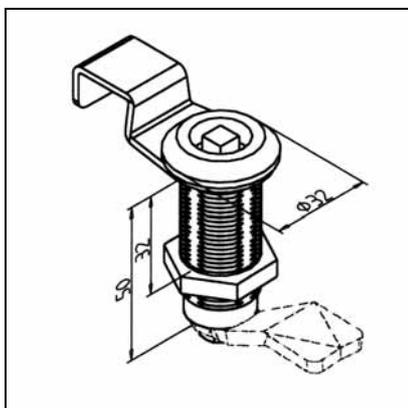
- Light doors from panel elements up to 8 mm thickness

ASSEMBLY

- Bore Ø 22 mm in panel element
- Position: 22 mm from edge in both directions
- Selection of locks see page 120

BOLT LOCK 32 FOR FOUR-FACED KEY

Part. N° 21.1087/6



TECHN. DATA / ITEMS SUPPLIED

- Housing GD Zn, black
- With four-faced key
- Opener, black
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,179 kg

APPLICATIONS

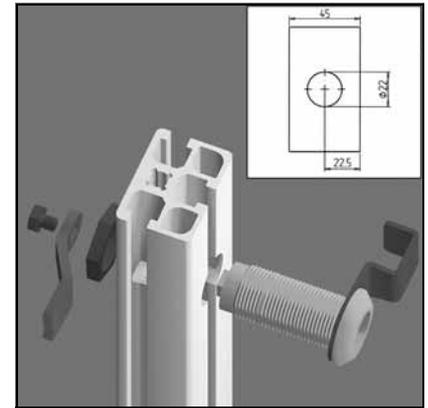
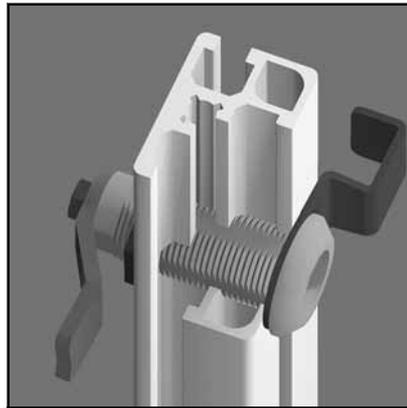
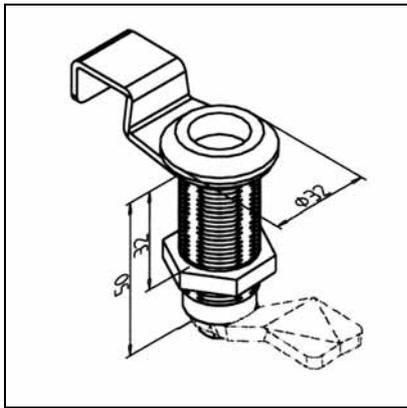
- For profiles 32
- Locking of doors and lids in guard units

ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 120

BOLT LOCK 32 SOCKET HEX HEAD WRENCH 10 A/F

Part. N° 21.1087/8



TECHN. DATA / ITEMS SUPPLIED

- Housing GD Zn, black
- For socket hex head wrench 10 A/F
- Opener, black
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,102 kg

APPLICATIONS

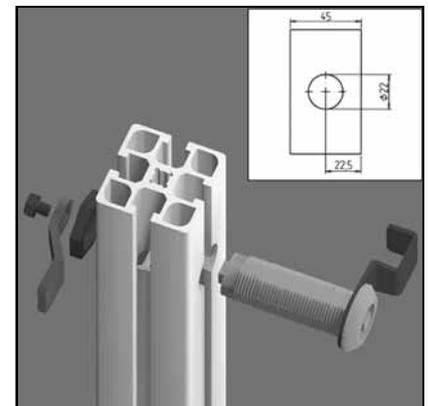
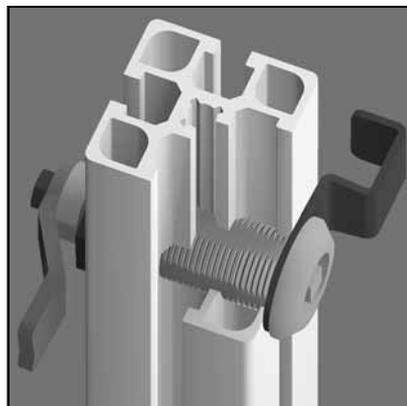
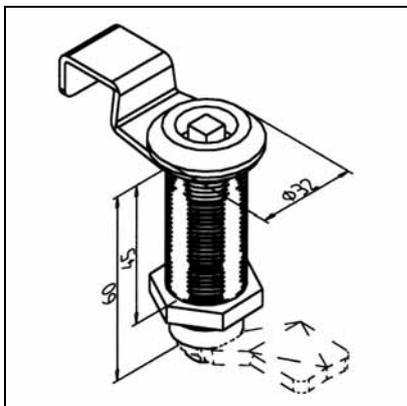
- For profiles 32
- Locking of doors and lids in guard units

ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 120

BOLT LOCK 45 FOR-FACED KEY

Part. N° 21.1087/7



TECHN. DATA / ITEMS SUPPLIED

- Housing GD Zn, black
- With four-faced key
- Opener, black
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,197 kg

APPLICATIONS

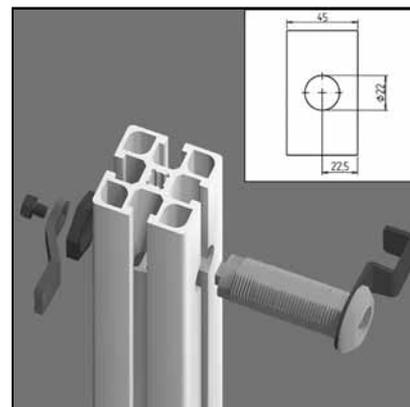
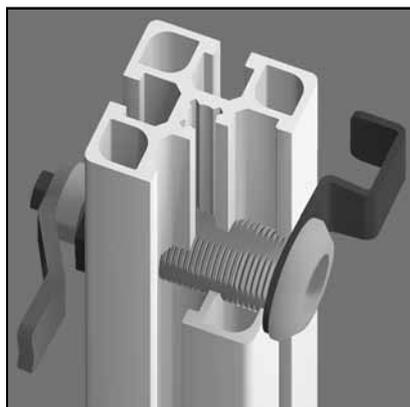
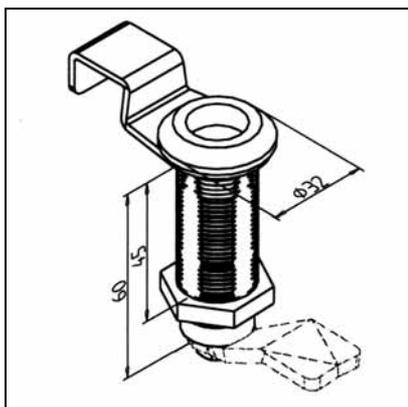
- For profiles 45
- Locking of doors and lids in guard units

ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 120

BOLT LOCK 45 HEX HEAD WRENCH 10 A/F

Part. N° 21.1087/9



TECHN. DATA / ITEMS SUPPLIED

- Housing GD Zn, black
- For socket hex head wrench 10 A/F
- Opener, black
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,111 kg

APPLICATIONS

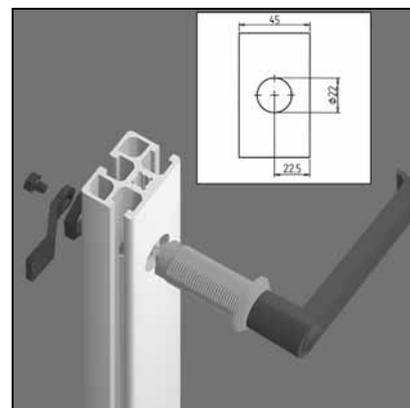
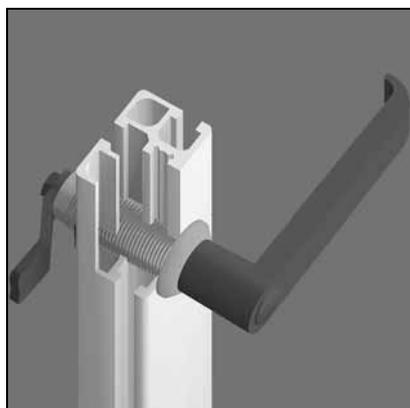
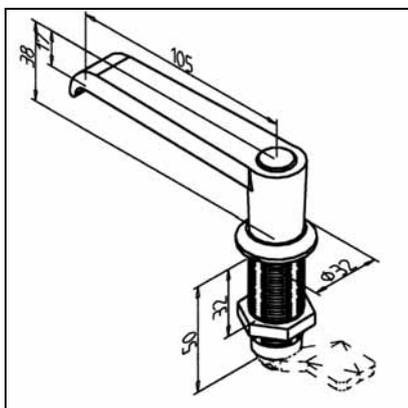
- For profiles 45
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 120

HANDLE 32 WITHOUT PROFILE CYLINDER LOCK

Part. N° 21.1087/4



TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black
Part N° 21.1087/2
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,172 kg

APPLICATIONS

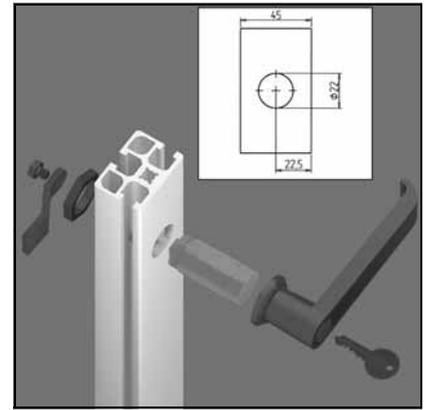
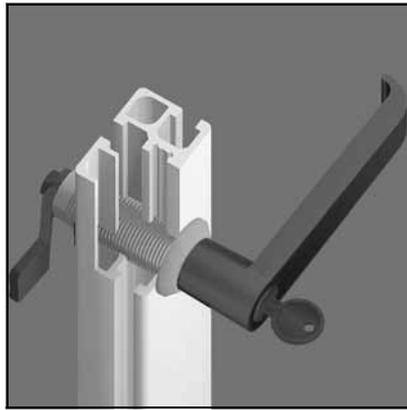
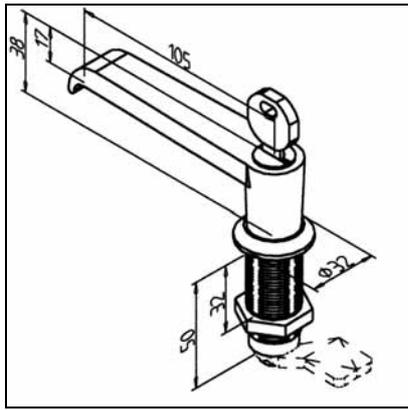
- For profiles 32
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 120

HANDLE 32 WITH PROFILE CYLINDER LOCK

Part. N° 21.1091/4



TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black
Part N° 21.1091/2
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,211 kg

APPLICATIONS

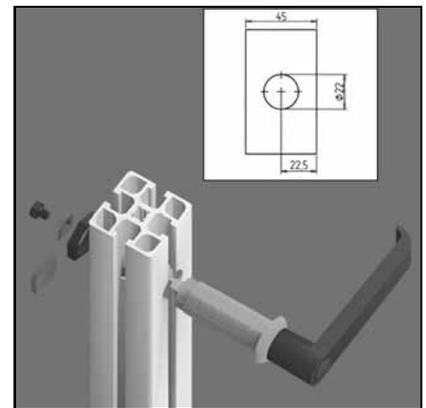
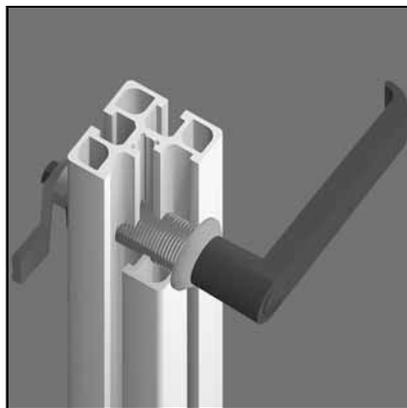
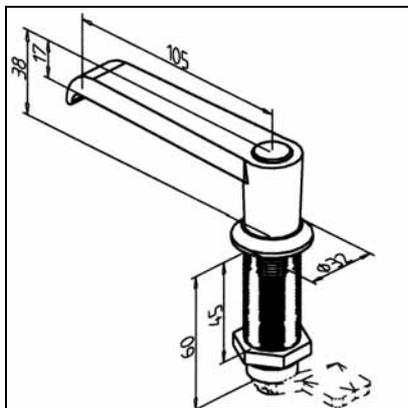
- For profiles 32
- Locking of doors and lids in guard units

ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten handle lock from the rear with fixing nut
- Selection of locks see page 120

HANDLE 45 WITHOUT PROFILE CYLINDER LOCK

Part. N° 21.1087/3



TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black
Part N° 21.1087/1
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,195 kg

APPLICATIONS

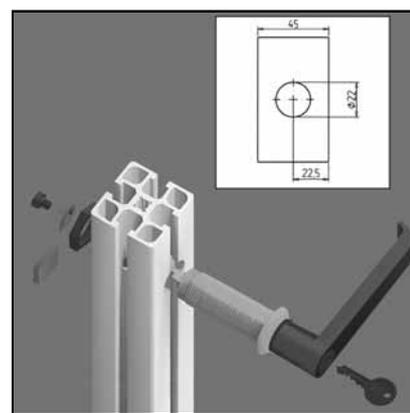
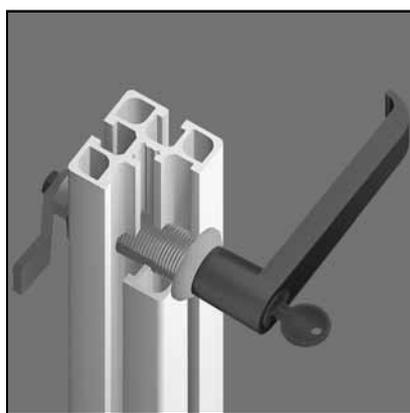
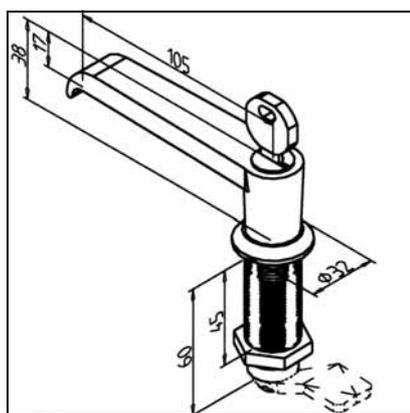
- For profiles 45
- Locking of doors and lids in guard units

ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten handle lock from the rear with fixing nut
- Selection of locks see page 120

HANDLE 45 WITH PROFILE CYLINDER LOCK

Part. N° 21.1091/3



TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black
Part N° 21.1091/1
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,230 kg

APPLICATIONS

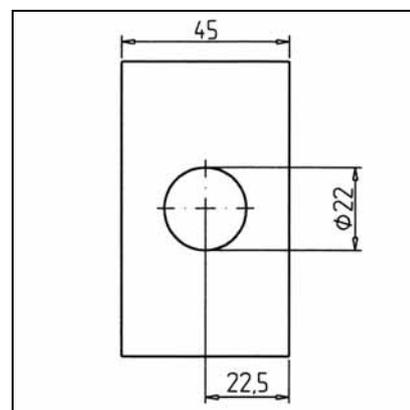
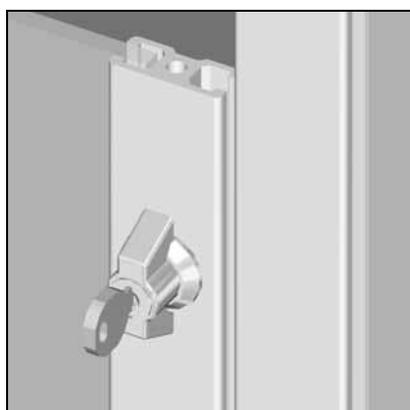
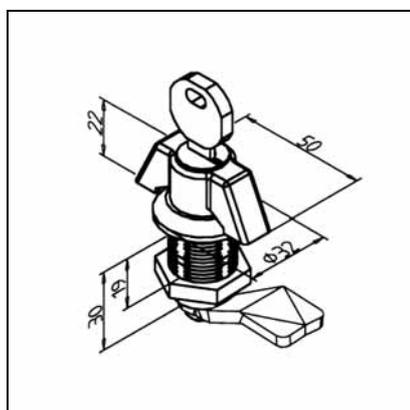
- For profiles 45
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten handle lock from the rear with fixing nut
- Selection of locks see page 120

T-HANDLE 19

Part. N° 21.1015/2



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, chrome plated
- With profile cylinder lock
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,168 kg

APPLICATIONS

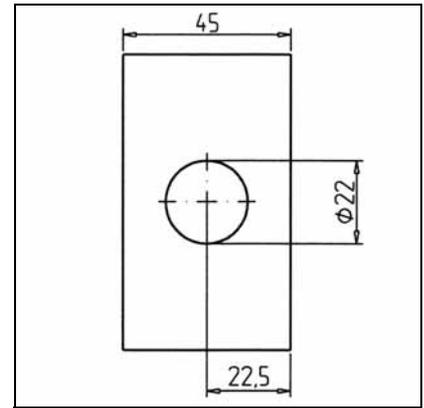
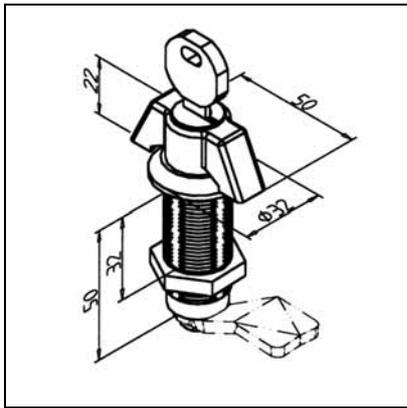
- For profiles 19
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten T-handle lock from the rear with fixing nut
- Selection of locks see page 120

T-HANDLE 32

Part. N° 21.1015/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, chrome plated
- With profile cylinder lock
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,188 kg

APPLICATIONS

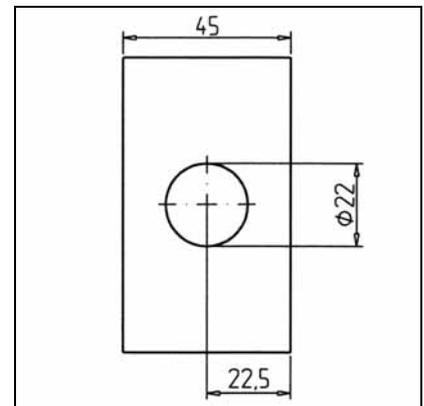
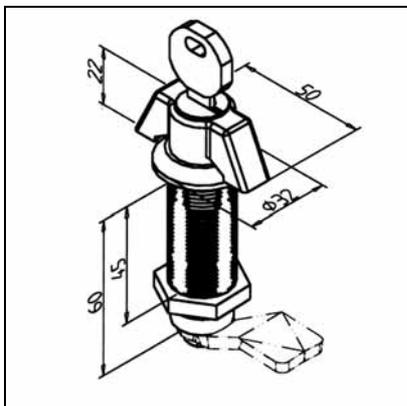
- For profiles 32
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten T-handle lock from the rear with fixing nut
- Selection of locks see page 120

T-HANDLE 45

Part. N° 21.1015/1



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, chrome plated
- With profile cylinder lock
- Fixing nut, steel, zinc 123 plated
- Without lock
- Weight 0,198 kg

APPLICATIONS

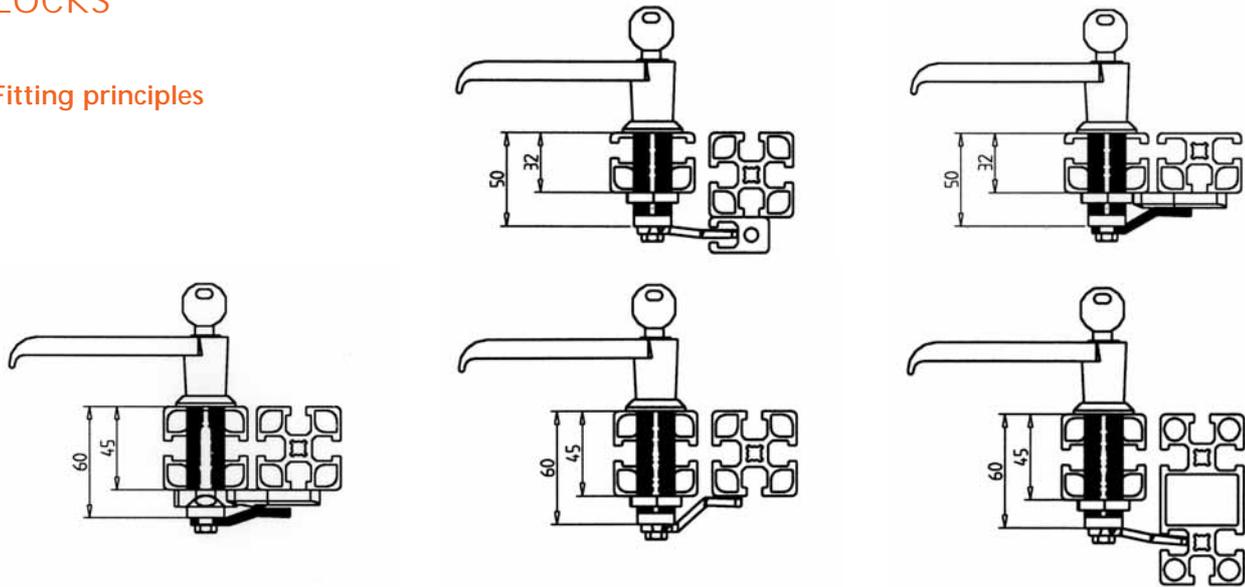
- For profiles 45
- Locking of doors and lids in guard units

ASSEMBLY

- Bore \varnothing 22 mm in the middle of the profile
- Tighten T-handle lock from the rear with fixing nut
- Selection of locks see page 120

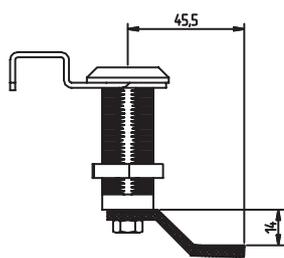
LOCKS

Fitting principles

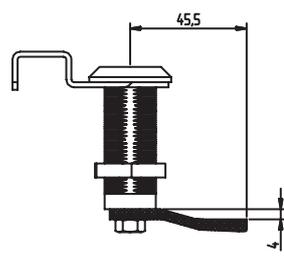


Selection of locks

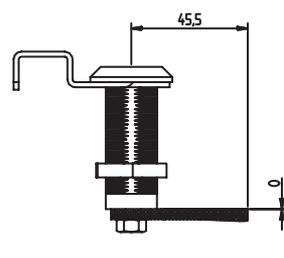
Door profile	45 x 45 mm	32 x 45 mm	19 x 45 mm	Panel elements 4-8 mm
Lock	handle 45 or bolt lock 45	handle 32 or bolt lock 32	handle 19 or bolt lock 19	cylinder lock
Frame profile	Part number of locks			
90 x 45	21.1093/1	21.1093/0	21.1093/4	21.1093/2
45 x 45	21.1093/5	21.1093/3	21.1093/4 or /0	21.1093/2
with catch 19	21.1093/4	21.1093/2	----	----
with door stop S	21.1093/3	21.1093/1	----	----
32 x 45	----	----	21.1093/4 or /1	21.1093/5 or /0
with catch 19	----	21.1093/5	----	----
with door stop S	----	----	21.1093/0	----



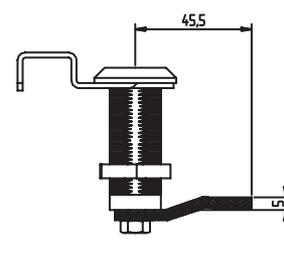
Part no. 21.1093/0



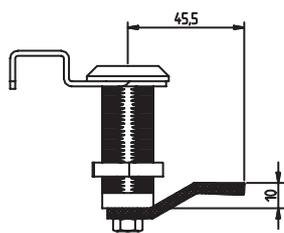
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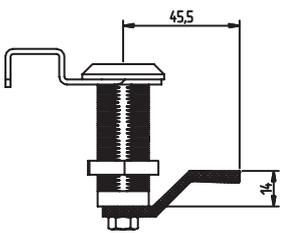
Part no. 21.1093/2



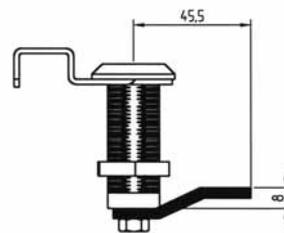
Part no. 21.1093/3



Part no. 21.1093/4



Part no. 21.1093/5



Part no. 21.1093/6

ROD LOCK

Items supplied

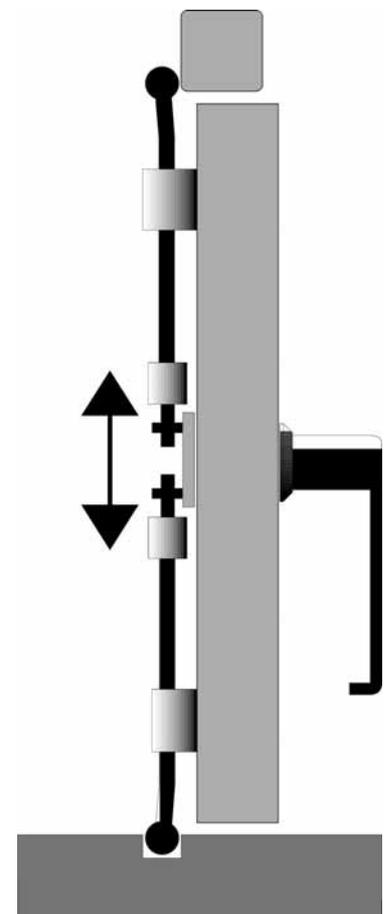
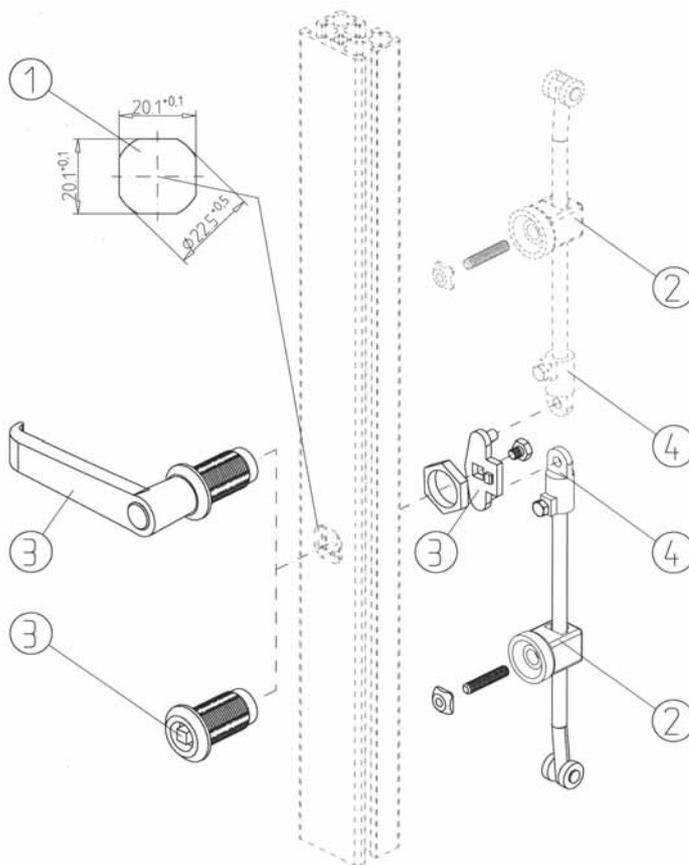
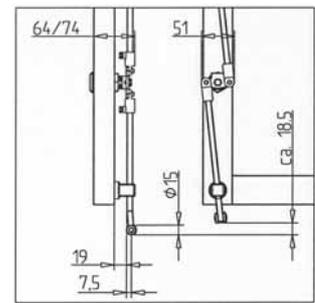
- Bolt lock, steel with square key
- Optional: handle or handle with cylinder lock
- Latch with rod connections, steel, zinc plated
- Latch with rollers (l = 1100 mm), steel, zinc plated
- Rod guiding element, PA with nut M6

Applications

- For locking doors at upper or lower beam
- Use 2 rods for 2-sided locking
- Order bolt lock, handle without lock or handle with cylinder lock
- Especially suited for control boxes or double-sided doors

Assembly

- 1) Mill bore $\varnothing 22,5$ mm as shown in figure below
- 2) Fix rod guide with set screw M6 x 30 at desired position. No drilling necessary. Screw square nut loose onto set screw. Insert the square nut into the profile groove and twist the plastic part until the guide is fixed.
- 3) Attach bolt lock or handle.
- 4) Insert rod into guiding element and connect with latch.



Profile	Bolt lock		Handle without lock		Handle with cylinder lock	
	1 rod	2 rods	1 rod	2 rods	1 rod	2 rods
32 x 45	21.1798/0	21.1798/2	21.1798/3	21.1798/4	21.1798/5	21.1798/6
45 x 45	21.1788/0	21.1788/2	21.1788/3	21.1788/4	21.1788/5	21.1788/6

ROD LOCK WITH SPRING RETENTION

Part N° 21.1490/0

Items supplied

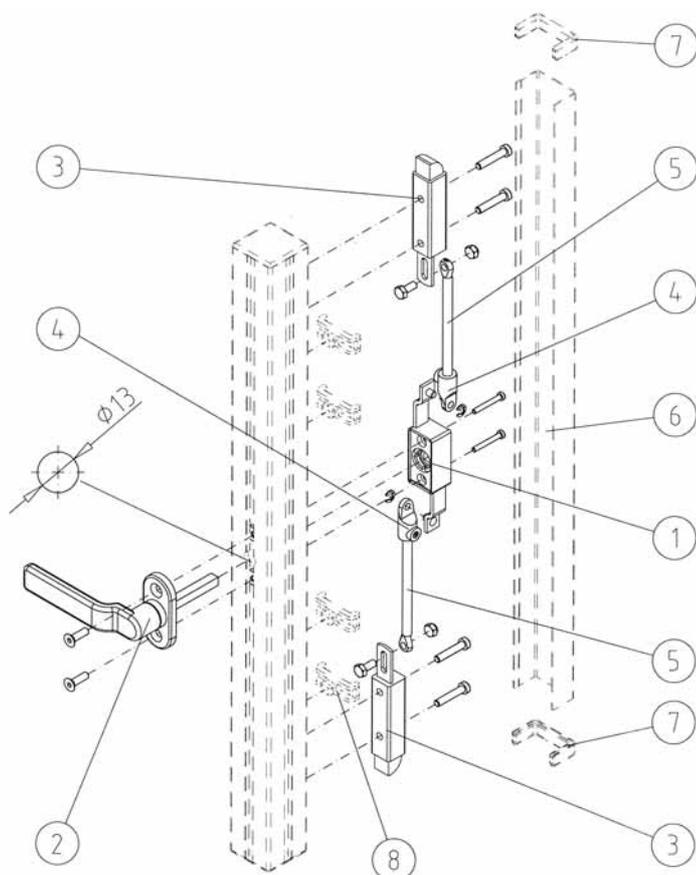
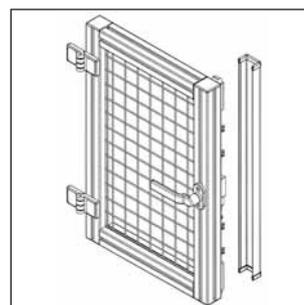
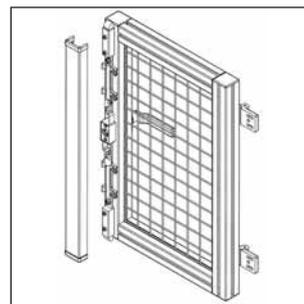
- 1: 1 Lock
- 2: 1 Handle
- 3: 2 x spring retentions
- 4: Adaptors for rods
- 5: 2 x Rod with lug (Lmax = 1200)

Optional:

- 6: Cable channel 45 Al, Part N° 20.1071/0
- 7: Protecting cap for cable channel, Part N° 22.1117/1
- 8: Cable clip 45, Part N° 22.1210/0

Applications

- For locking doors at upper and lower beam
- Especially suited for doors in frames
- Max. door height 2750 mm



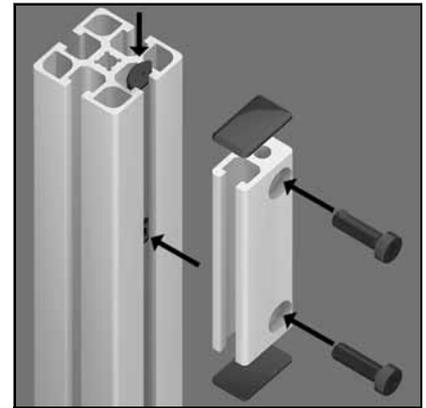
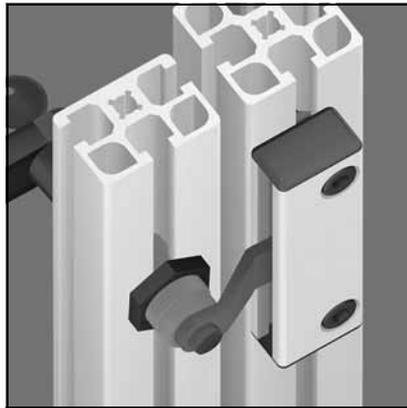
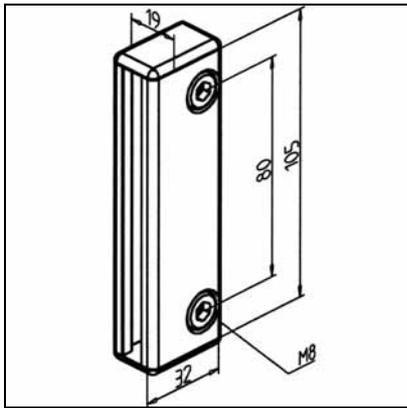
Assembly

- a) Bore \varnothing 13 mm in vertical door profile
- b) Screw lock and spring retentions at door profile, clip cable clips for conduit 45 a appropriate positions
- c) Cut rods according to your door-size. Mount adaptors at rod-ends. Link rods with lock and spring retentions
- d) Insert handle and fix
- e) Adjust slam-lock
- f) Assemble optional cable channel

Choose door hinges for slam-bolts according to mounting situation.

CATCH 19

Part. N° 21.1755/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 19 x 32
- End caps
- Fastening kit
- Weight 0,040 kg

APPLICATIONS

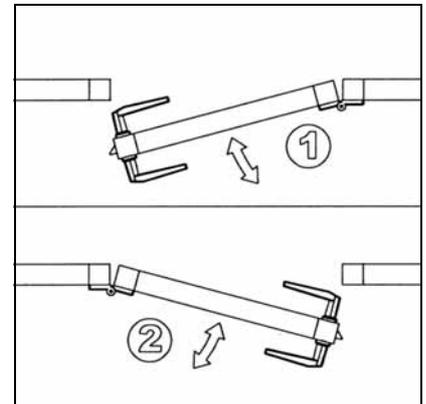
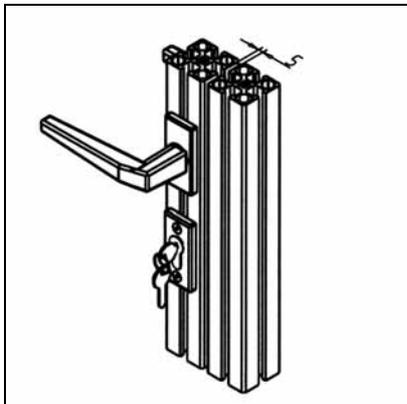
- Locking of doors and lids in connection with handles or bolt locks

ASSEMBLY

- Use fastening kit
- Selection of locks see page 120

DOOR HANDLE

Part. N° 21.1748/0



TECHN. DATA / ITEMS SUPPLIED

- Lock housing steel, zinc plated, fitted into profile 45 x 45
- Fittings, aluminium, anodized
- Profile cylinder with 3 keys, mounted
- Weight 0,850 kg
- Weight + 1,950 kg/m
- When ordering, please indicate the required profile length
- Please select version 1 or 2

APPLICATIONS

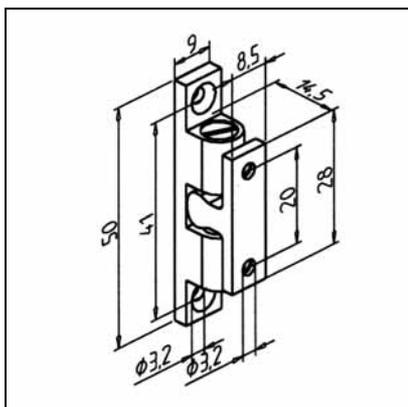
- Swing doors for guard units

ASSEMBLY

- Allow 5 mm space between door and frame
- Door lock meshes into groove of opposite profile
- Position horizontal profile offside lock area or use counter sunk screw M8 x 25

BALL LATCH 50

Part. N° 21.1763/0



TECHN. DATA / ITEMS SUPPLIED

- Brass
- Holding force adjustable 10 - 50 N
- Fastening kit
- Weight 0,030 kg

APPLICATIONS

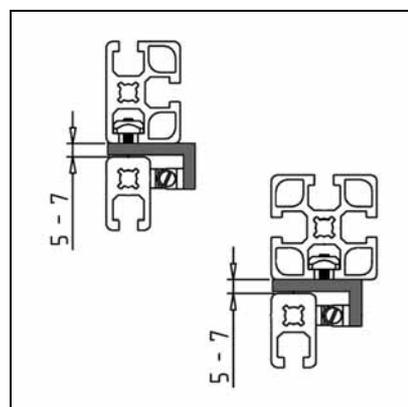
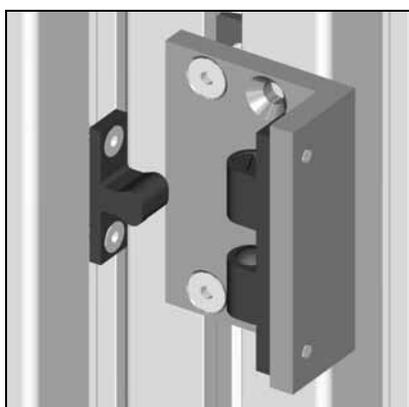
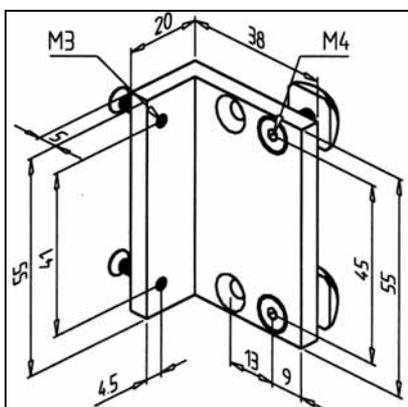
- Stop and catch for swing and sliding doors
- You can put in ball latch 50 into the T-slots of reworked profiles. This allows gap-free closing of sliding doors
- Doors, lids, removable panel elements

ASSEMBLY

- Use fastening kit to fix the ball latch on any surface.
- Use ball latch support 50 **Part N° 21.1139/0** if necessary.

BALL LATCH SUPPORT 50

Part. N° 21.1139/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized
- Fastening kit
- Weight 0,050 kg

APPLICATIONS

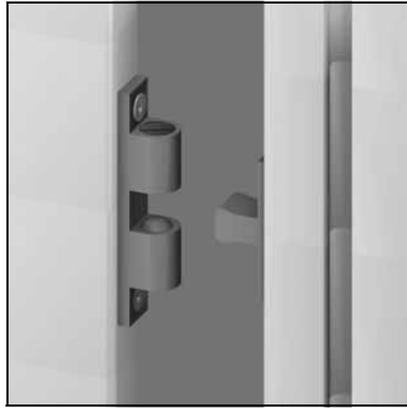
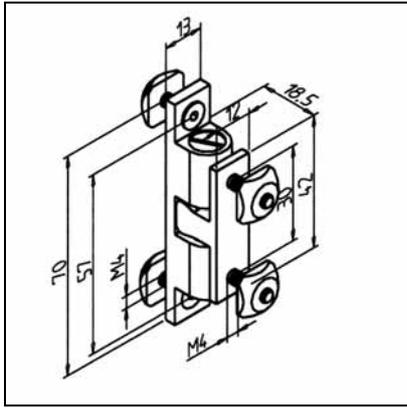
- Attachment of ball latch 50 in doors, lids
- Removable panel elements
- Door stop

ASSEMBLY

- Use fastening kit

BALL LATCH 70

Part. N° 21.1757/0



TECHN. DATA / ITEMS SUPPLIED

- Brass
- Holding force adjustable 50 - 150 N
- Fastening kit
- Weight 0,095 kg

APPLICATIONS

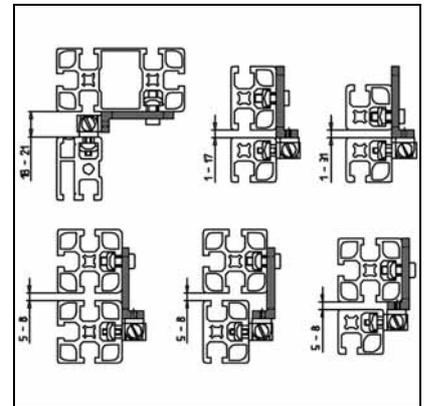
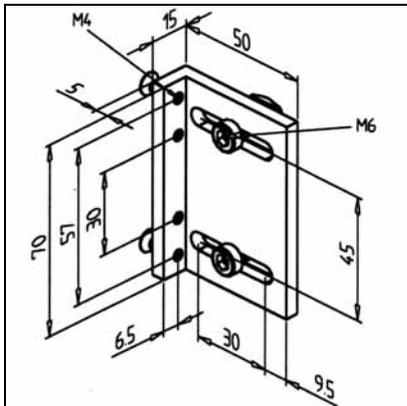
- Quick attachment of easy to remove panel elements
- Stop and catch for sliding doors, swing doors, lids

ASSEMBLY

- Use fastening kit

BALL LATCH SUPPORT 70

Part. N° 21.1137/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized
- Fastening kit
- Weight 0,050 kg

APPLICATIONS

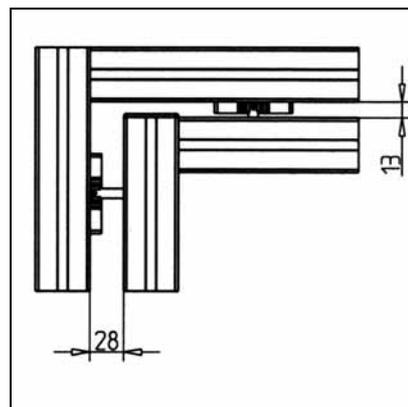
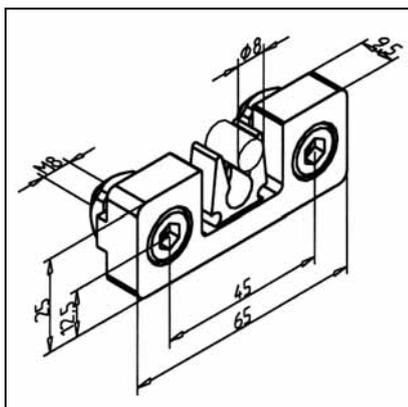
- Attachment of ball latch 70 in doors, lids, removable panel elements
- Door stop
- If using profile 32, ball latch support has to be shortened

ASSEMBLY

- Use fastening kit

DOOR CATCH

Part. N° 21.1756/1



TECHN. DATA / ITEMS SUPPLIED

- PA 6, grey
- On request also deliverable in black
Part N° 21.1756/0
- Fastening kit
- Weight 0,041 kg
- Holding force between 50 - 70 N

APPLICATIONS

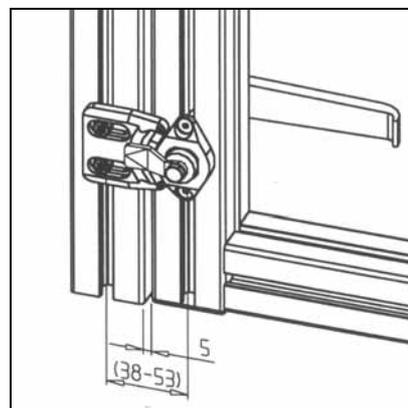
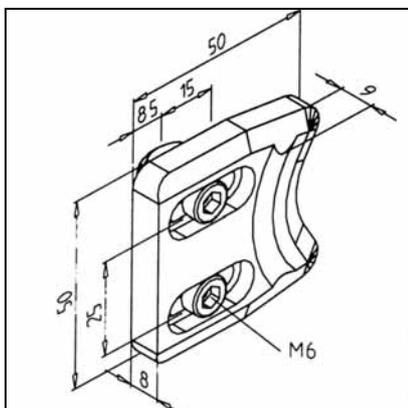
- Quick catch of doors and lids
- Function in connection with snap bolt
- Roller carrier for transport rollers

ASSEMBLY

- Mount on all profiles with fastening kit from supply schedule
- Alternative use of snap bolt 25 or 40

DOOR STOP S

Part. N° 21.1767/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, black
- Fastening kit
- Weight 0,077 kg

APPLICATIONS

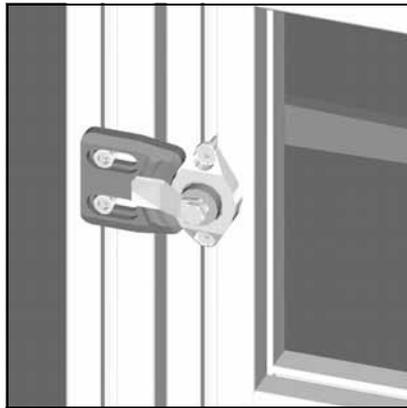
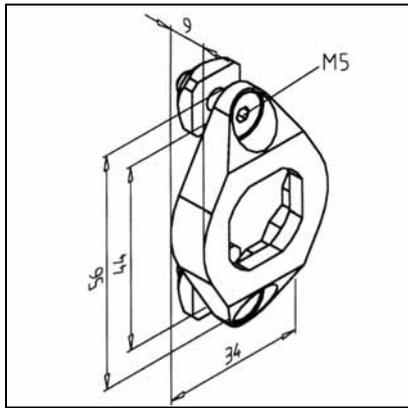
- Adjustable stop for swing doors
- Especially designed for use in combination with handles, bolt-locks or t-handles
- Also door catch

ASSEMBLY

- Screw with fastening kit on door frame
- See page 120

TWIST-STOP

Part. N° 21.1768/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, black
- Fastening kit
- Weight 0,04 kg

APPLICATIONS

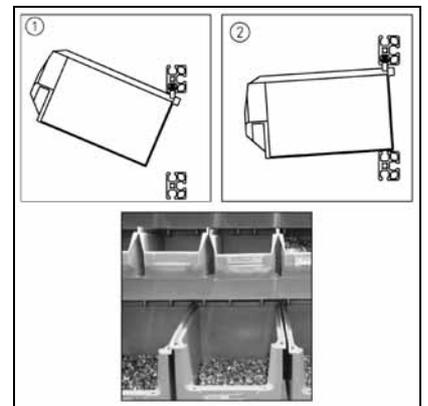
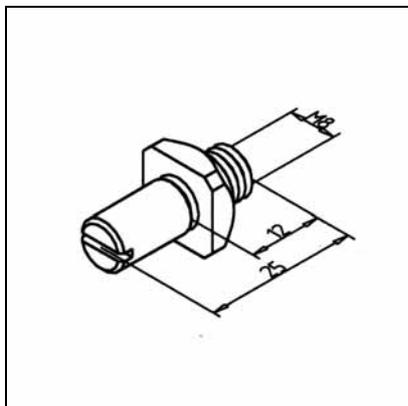
- Protection of bolt-locks, handles and T-handles against unwanted loosening or overturning
- In particular fitting in combination with Door Stop S Part N° 21.1767/0

ASSEMBLY

- Mount handle or bolt lock as usual
- Fix Twist-Stop using fastening kit
- Mount lock

SNAP BOLT 25

Part. N° 21.1758/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- With square nut, zinc plated
- Weight 0,010 kg

APPLICATIONS

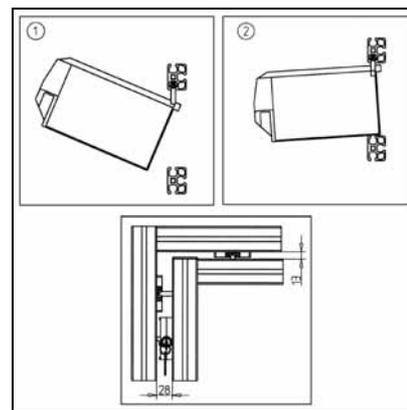
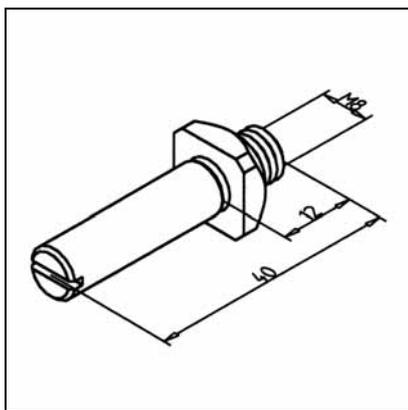
- Door catches
- Attachment of grab trays in work benches between 2 profiles
- Supports

ASSEMBLY

- Use fastening kit

SNAP BOLT 40

Part. N° 21.1760/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- With square nut, zinc plated
- Weight 0,020 kg

APPLICATIONS

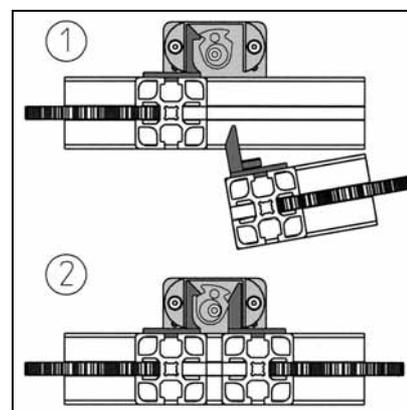
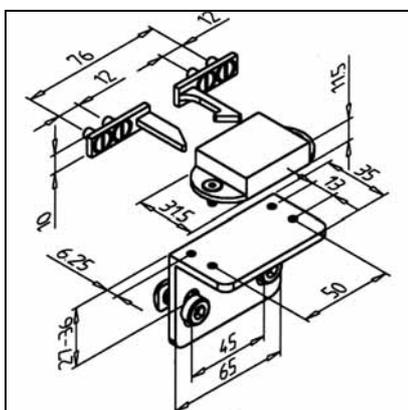
- Door catches
- Attachment of grab trays in work benches between 2 profiles
- Supports

ASSEMBLY

- Screw with square nut in profile groove

LOCK FOR DOUBLE DOOR

Part. N° 21.0990/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, chrome plated
- 2 locks
- Holding angle
- Fastening kit
- Weight 0,145 kg

APPLICATIONS

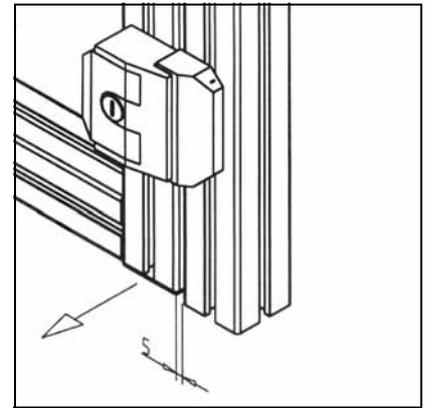
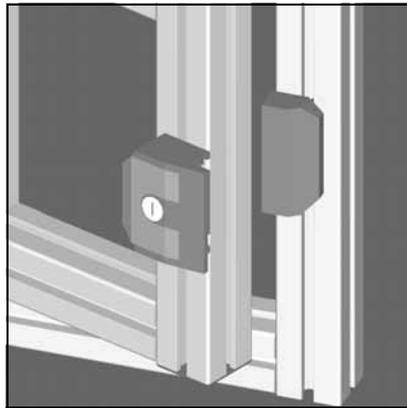
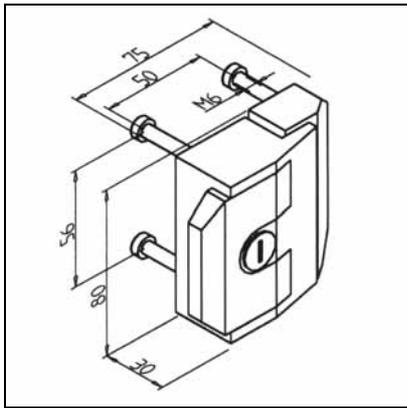
- Locking of double doors with only one profile cylinder lock
- After insertion of the second tongue, the first door cannot be opened. A locking mechanism on the second door suffice for bolting

ASSEMBLY

- Fix lock angle to upper or lower frame, position at door folding, select the threads according to the profiles used for the doors
- Screw catches on door wings and adjust to lock

TRUNK-LOCK

Part. N° 21.1764/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, black
- Lock with 2 keys
- Fastening kitixing kit
- Weight 0,55 kg

APPLICATIONS

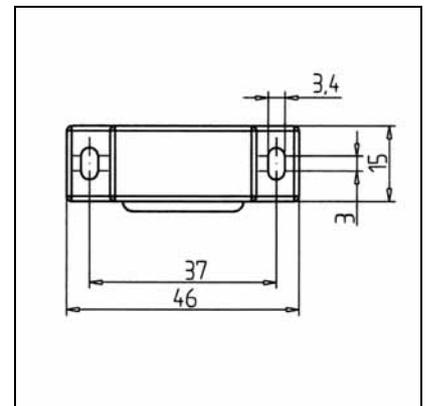
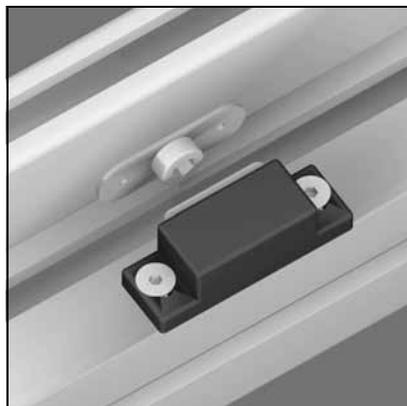
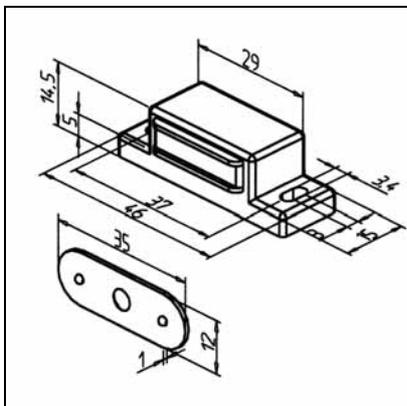
- Locking of door or lids
- No additional door-stop necessary
- Usable for frameless doors

ASSEMBLY

- Insert nuts of fastening kit in lock and stop
- Drill trough-holes \varnothing 6,5 mm in door and post with a distance of 56 mm
- Screw both parts from backside

MAGNETIC CATCH

Part. N° 21.1753/0



TECHN. DATA / ITEMS SUPPLIED

- Housing PA 6, black
- Holding plate, steel, zinc plated
- Fastening kit
- Weight 0,021 kg

APPLICATIONS

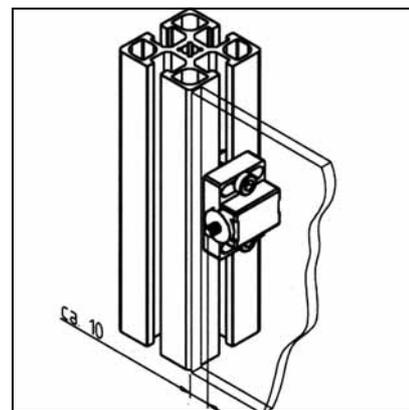
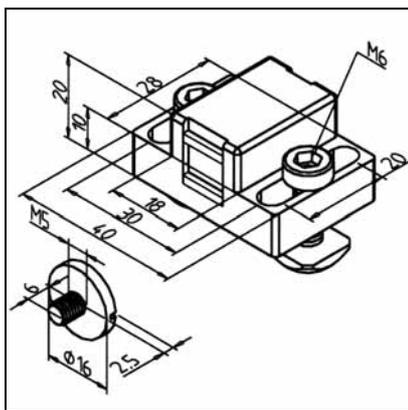
- Quick catch for swing doors
- Attachment of light panel elements

ASSEMBLY

- Mount with fastening kit on profile surface

MAGNETIC CATCH N

Part. N° 21.1741/0



TECHN. DATA / ITEMS SUPPLIED

- Housing PA 6, grey
- Holding plate, steel, zinc plated
- Fastening kit
- Weight 0,060 kg
- Holding force 30 - 40 N

APPLICATIONS

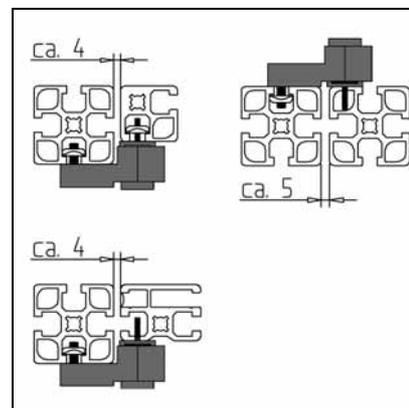
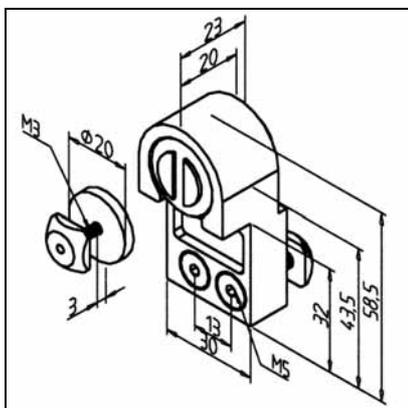
- Stop and quick catch for swing doors
- Fastening of light panel elements

ASSEMBLY

- Use fastening kit
- Opposite plate directly on profile surface or panel element; thread M5 required

MAGNETIC CATCH S

Part. N° 21.1740/0



TECHN. DATA / ITEMS SUPPLIED

- Housing PA, grey
- Holding plate, steel, zinc plated
- Fastening kit
- Weight 0,080 kg
- Holding force 50 - 75 N

APPLICATIONS

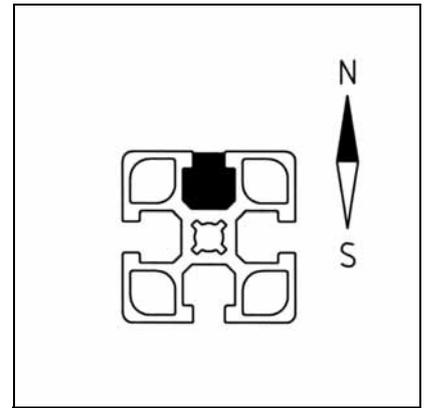
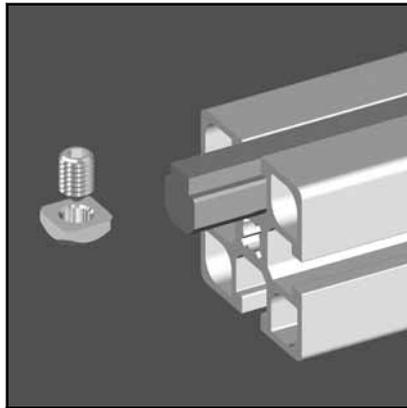
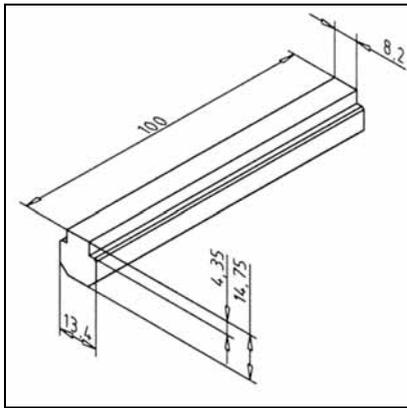
- Stop and quick catch for swing doors
- Fastening of light panel elements

ASSEMBLY

- Use fastening kit
- Opposite plate directly on profile surface or panel element; thread M3 required

T-SLOT MAGNET

Part. N° 21.0023/0



TECHN. DATA/ITEMS SUPPLIED

- 1 Magnet zinc plated

- Energy density $BH_{max} = 263 \text{ kJ/m}^3$

- Magnetic remanence, $B_r = 1170 \text{ mT}$

- Coercive force, $JH_c = 955 \text{ kA/m}$

- Without fastening kit

- Weight 0,13 kg

- Attention: Electric- and memory devices can be faulted by the magnet

APPLICATIONS

- Adhesive magnet for tools

- Below conveyors as guidance, for magnetic transported material or higher conveyor speeds

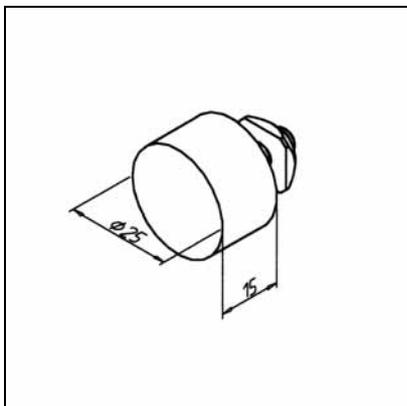
ASSEMBLY

- Insert magnet into t-slot

- For fixing: (highly recommended) Use end cap Al, set screw with square nut of t-slot bar

STOPPER 25

Part. N° 21.1759/0



TECHN. DATA / ITEMS SUPPLIED

- NBR, black

- Square nut M6, zinc plated

- Weight 0,020 kg

APPLICATIONS

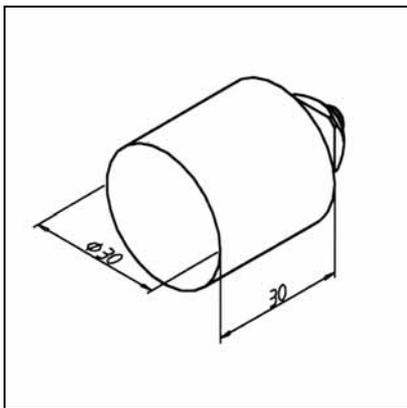
- Stop for doors, linear guides

ASSEMBLY

- Fix with square nut M6 in profile groove

STOPPER 30

Part. N° 21.1759/1



TECHN. DATA / ITEMS SUPPLIED

- NBR, black

- Square nut M8, zinc plated

- Weight 0,060 kg

APPLICATIONS

- Stop for heavy doors, linear guides

ASSEMBLY

- Fix with square nut M8 in profile groove



FEET, WHEELS, FLOOR,
FASTENINGS, SUPPORT



BASE AND TRANSPORT PLATE 32 X 90



Items supplied

- Aluminium, powder coated, grey
- With fastening kit

Applications

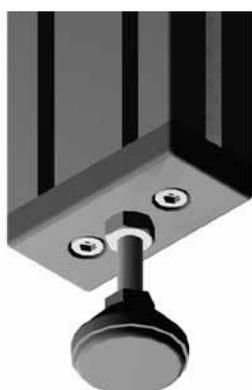
- Mounting of adjustable feet on profiles 90 x 32 UL

Assembly

- Connection with fastening kit on profile face

Thread	Thickness	Weight	Part no.
M8	15 mm	0.164 kg	21.1356/0
M10	15 mm	0.162 kg	21.1357/0
M12	15 mm	0.160 kg	21.1358/0

BASE AND TRANSPORT PLATE 45 X 90



Items supplied

- Aluminium, powder coated, grey
- With fastening kit

Applications

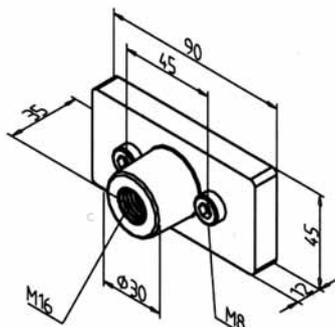
- Mounting of adjustable feet or wheels on profiles 45 x 90

Assembly

- Connection with fastening kit on profile face

Thread	Thickness	Weight	Part no.
M10	15 mm	0.164 kg	21.1038/0
M12	15 mm	0.162 kg	21.1039/0
M16	15 mm	0.160 kg	21.1040/0
M20	15 mm	0.156 kg	21.1047/0

BASE AND TRANSPORT PLATE 45 X 90 GD-Z



Items supplied

- Aluminium, powder coated, grey
- With fastening kit

Applications

- Mounting of adjustable feet or add-on pieces on profile face with thread M16 for profile 90 x 45

Assembly

- Connection with fastening kit on profile face

Thread	Thickness	Weight	Part no.
M16	15 mm	0.135 kg	21.1136/0

BASE AND TRANSPORT PLATE 90 X 90



Items supplied

- Aluminium, powder coated, grey
- With fastening kit

Applications

- Mounting of adjustable feet or wheels on profiles 90 x 90

Assembly

- Connection with fastening kit on profile face

Thread	Thickness	Weight	Part no.
M10	15 mm	0,332 kg	21.1041/0
M12	15 mm	0,330 kg	21.1042/0
M16	15 mm	0,345 kg	21.1043/0
M20	15 mm	0,290 kg	21.1057/0

BASE AND TRANSPORT PLATE 90 R 90°



Items supplied

- Aluminium, powder coated, grey
- With fastening kit

Applications

- Mounting of adjustable feet or wheels on profiles 90 R 90°

Assembly

- Connection with fastening kit on profile face

Thread	Thickness	Weight	Part no.
M10	15 mm	0,277 kg	21.0009/0
M12	15 mm	0,275 kg	21.0010/0
M16	15 mm	0,272 kg	21.0011/0
M20	15 mm	0,268 kg	21.0012/0

FEET PA



Items supplied

- Plate PA, grey
- Anti skid insert NBR
- Threaded bolt, steel, zinc plated
- Locknut, steel, zinc plated
- All bolts are suitable for all plates

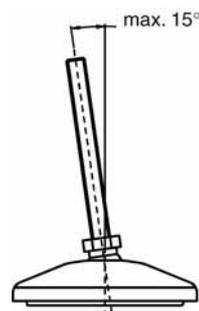
Applications

- Levelling of machine bases or constructions
- Boards, partitions, enclosures
- Tables, conveyors and work stations

Assembly

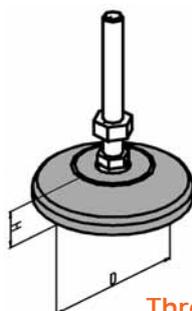
- Directly on core boring of profiles, reborable up to M12
- On larger threads use base and transport plate
- For profiles 45 x 90 und 90 x 90 a base and transport plate is required, if the feet are to be positioned centrally.

threaded bolt	Plate			
	Ø 30	Ø 45	Ø 60	Ø 80
M8	21.1851/0	21.1871/0	21.1881/0	21.1891/0
M10	21.1852/0	21.1872/0	21.1882/0	21.1892/0
M12	----	21.1873/0	21.1883/0	21.1893/0
M16	----	21.1874/0	21.1884/0	21.1894/0



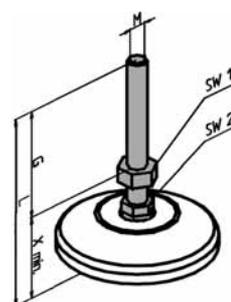
Plate

D mm	H mm	max. load
30	20	300 kg
45	20	500 kg
60	20	1000 kg
80	20	1000 kg



Threaded bolt

M	G	X	SW1	SW2	L
M8	33.5	38.5	13	14	72
M10	37	40	17	14	77
M12	140	42	19	14	182
M16	137	45	24	17	182

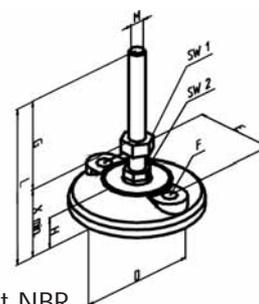


FEET PA WITH ATTACHMENT BORES



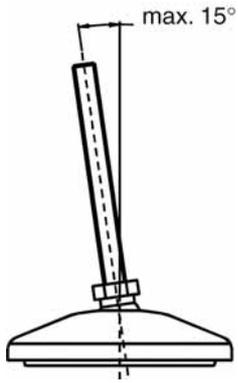
Items supplied

- Plate PA, grey
- Anti skid insert NBR
- Threaded bolt, steel, zinc plated
- Locknut, steel, zinc plated
- Feet with load 1800 kg are supplied without anti skid insert NBR



Part no.	Colour	M	G	X	SW1	SW2	L	E	F	D	Load
21.1846/0	grey	M10	82	40	17	14	122	74	Ø 9	100	1000 kg
21.1847/0	grey	M12	140	42	19	14	182	74	Ø 9	100	1000 kg
21.1848/0	grey	M16	137	45	24	17	182	74	Ø 9	100	1000 kg
21.1141/0	black	M16	132	58	24	24	190	74	Ø 12.5	100	1800 kg
21.1075/0	black	M20	129	61	30	24	190	74	Ø 12.5	100	1800 kg

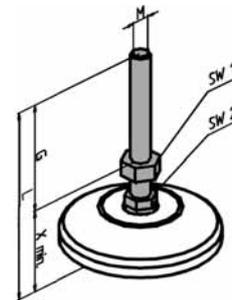
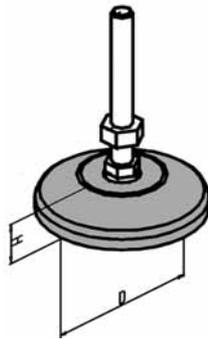
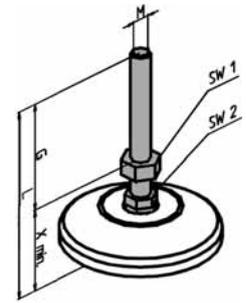
FEET GD



Items supplied

- Plate, aluminium, pressure die casting, powder coated, grey
- Anti skid insert NBR
- Threaded bolt, steel, zinc plated
- Locknut, steel, zinc plated
- All bolts are suitable for all plates

Spindle	Plate	
	Ø 45	Ø 90
M10	21.1842/0	21.1862/0
M12	21.1843/0	21.1863/0
M16	21.1844/0	21.1864/0



Plate

D mm	H mm	Load capacity
45	25	3000 kg
90	27	4000 kg

Threaded bolt

M	G	X	SW1	SW2	L
M10	52.6	37.5	17	17	89.5
M12	50.5	41	19	19	91.2
M16	68	45.6	24	24	112.6

FOOT VA

Part. N° 21.1865/0

Items supplied

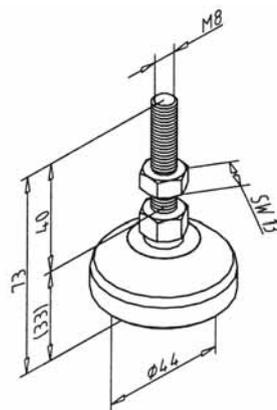
- Plate: stainless steel
- Threaded bolt: stainless steel
- Locknut: stainless steel
- Anti skid insert: hard rubber

Applications

- Levelling of machine bases or constructions
- Guards, tables, show cases
- Conveying systems, workstations

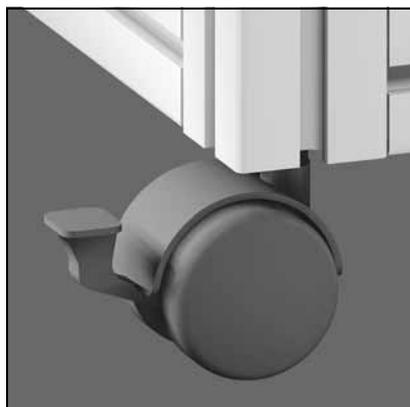
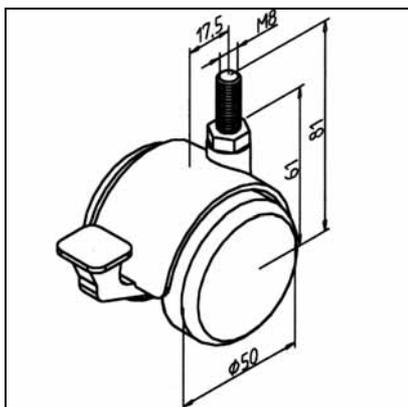
Assembly

- Directly on core boring of profiles



FURNITURE WHEEL WITH LOCKING DEVICE

Part. N° 21.1153/0



TECHN. DATA / ITEMS SUPPLIED

- Housing, polyamide, black	
- Double wheel, polyamide, black with slide bearing	
- Fastening kit	
- Weight	0,080 kg
- Load max.	30 kg

APPLICATIONS

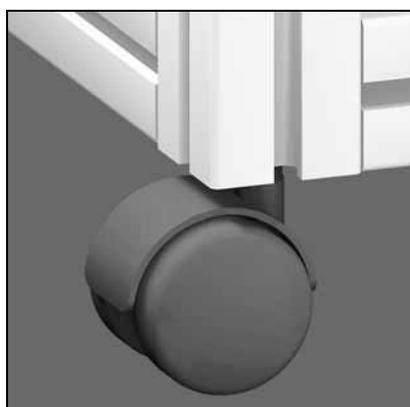
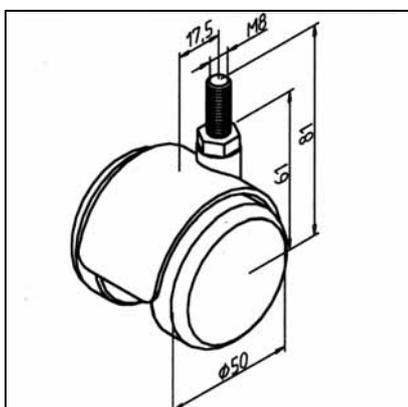
- Light movable tables
- Movable file box
- Office furniture, Tool boxes

ASSEMBLY

- Directly on central bore of the vertical profile
- If the wheel is to be positioned centrally, for profiles 45 x 90 or bigger a base plate with thread M8 is required

FURNITURE WHEEL WITHOUT LOCKING DEVICE

Part. N° 21.1105/0



TECHN. DATA / ITEMS SUPPLIED

- Housing, polyamide, black	
- Double wheel, polyamide, black with slide bearing	
- Fastening kit	
- Weight	0,076 kg
- Load max.	30 kg

APPLICATIONS

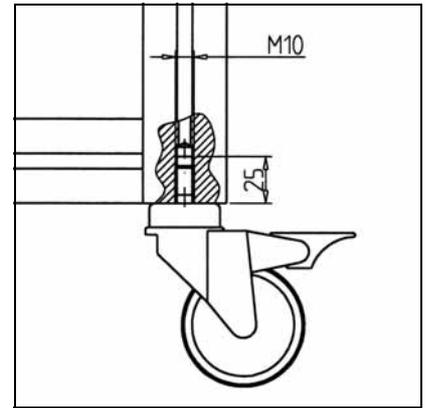
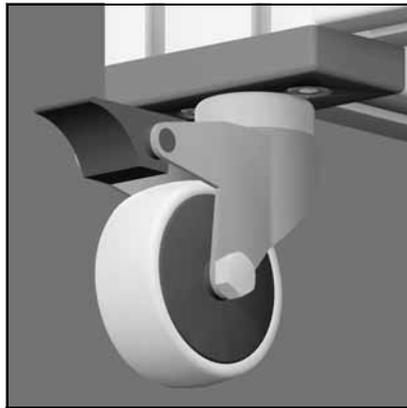
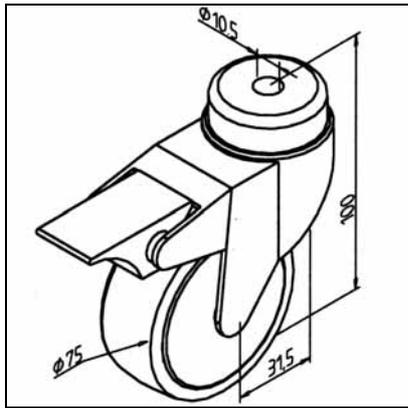
- Light movable tables
- Movable file box
- Office furniture, Tool boxes

ASSEMBLY

- Directly on central bore of the vertical profile
- If the wheel is to be positioned centrally, for profiles 45 x 90 or bigger a base plate with thread M8 is required

WHEEL SWIVEL TYPE WITH BRAKE D 75 X 100

Part. N° 21.1120/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber, grey
- With fastening kit
- Weight 0,250 kg
- Load max. 50 kg
- Further constructions on demand

APPLICATIONS

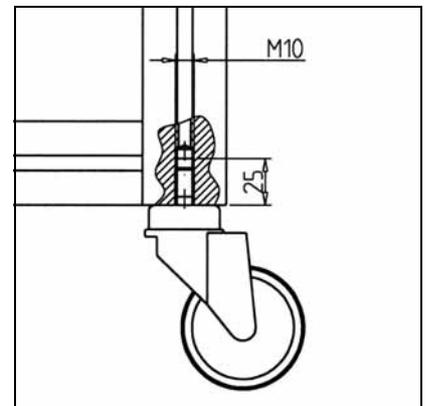
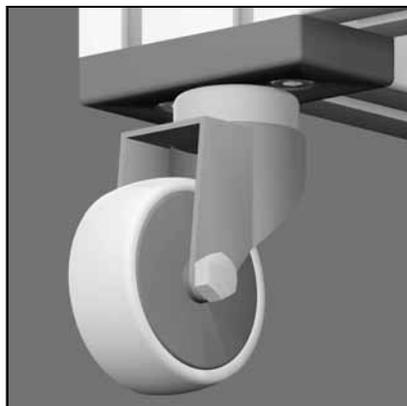
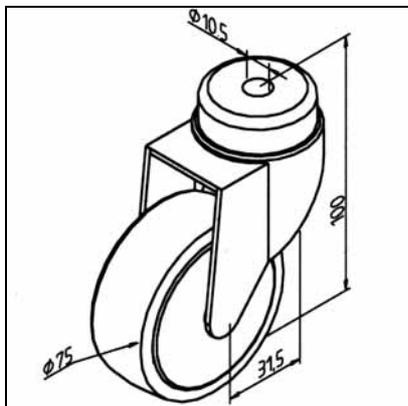
- Movable tables
- Material-pillars
- Show cases etc.

ASSEMBLY

- Directly on central bore of the vertical profile; thread M10 required
- With profiles 45 x 90 or bigger use base plate M10

WHEEL SWIVEL TYPE WITHOUT BRAKE D 75 X 100

Part. N° 21.1118/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber, grey
- Fastening kit
- Weight 0,372 kg
- Load max. 50 kg
- Further constructions on demand

APPLICATIONS

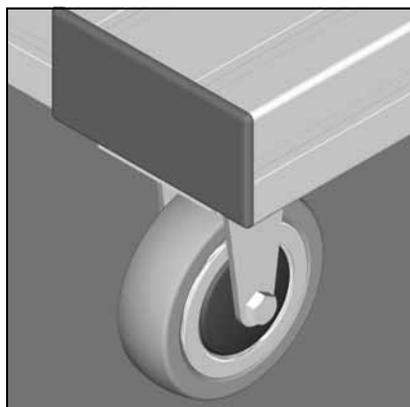
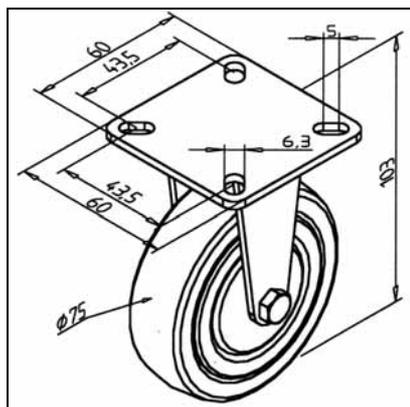
- Movable tables
- Material-pillars
- Show cases etc.

ASSEMBLY

- Directly on central bore of the vertical profile; thread M10 requested
- If the wheel is to be positioned centrally, for profiles 45 x 90 or bigger a base plate is required

WHEEL RIGID TYPE

Part. N° 21.1475/0



TECHN. DATA / ITEMS SUPPLIED

- Housing, steel
- Tire, rubber, grey
- Fastening kit
- Weight 0,350 kg
- Load max. 50 kg
- Further constructions on demand

APPLICATIONS

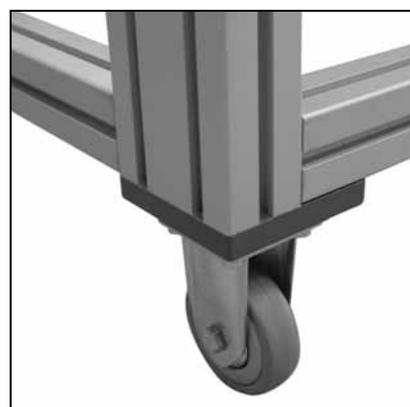
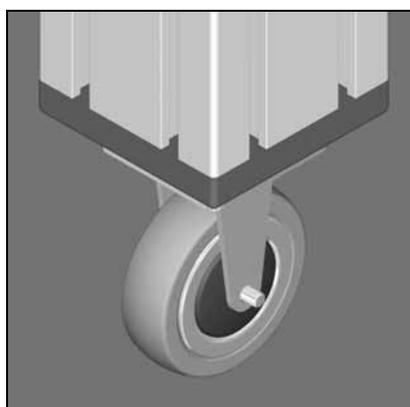
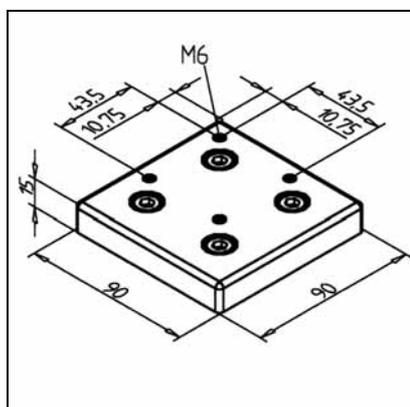
- Material-pillars
- Frames
- Movable tables

ASSEMBLY

- With fastening kit from supply schedule directly on profile groove
- With fixing plate for wheel rigid type Part N° 21.1476/0 on profile

FIXING PLATE FOR WHEEL RIGID TYPE

Part. N° 21.1476/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,330 kg

APPLICATIONS

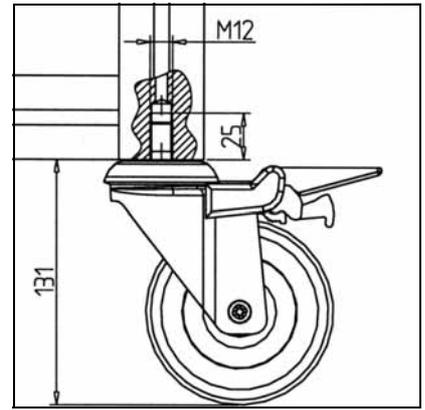
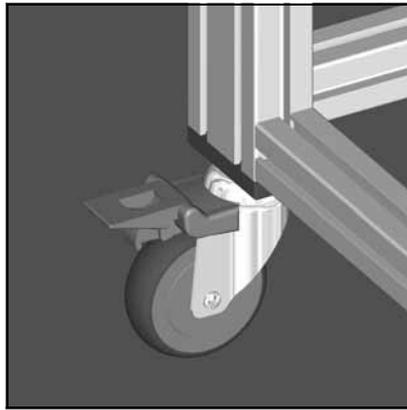
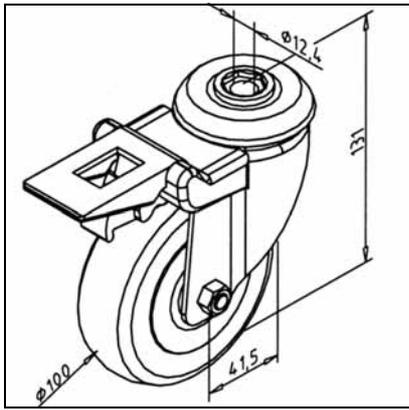
- For fastening of wheel Ø 75 x 100 rigid type Part N° 21.1475/0 on profile face 90 x 90

ASSEMBLY

- Use fastening kit

WHEEL SWIVEL TYPE WITH BRAKE D 100 X 131

Part. N° 21.0031/0



TECHN. DATA/ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber
- With fastening kit
- Weight 0,75 kg
- Load max. 100 kg
- Further constructions on demand

APPLICATIONS

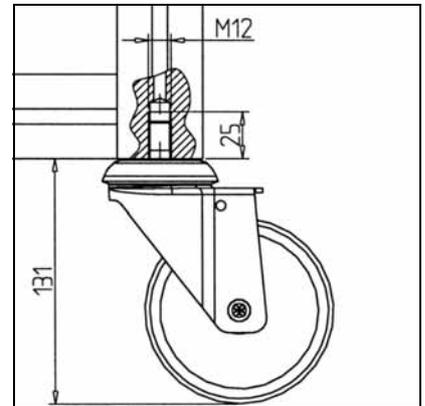
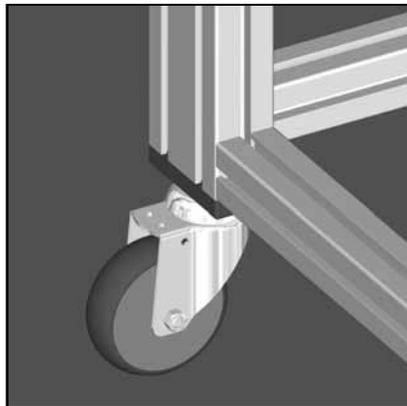
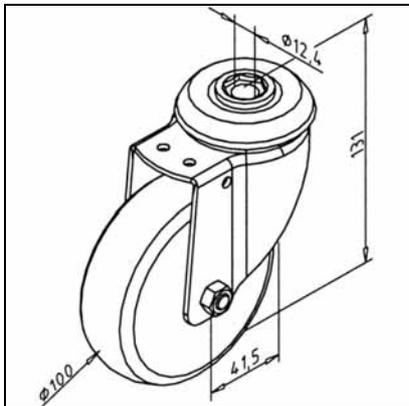
- Movable tables
- Material-pillars
- Show cases etc.

ASSEMBLY

- Directly on central bore of the vertical profile; thread M10 requested
- If the wheel is to be positioned centrally, for profiles 45 x 90 or 90 x 90 a base plate is required

WHEEL SWIVEL TYPE WITHOUT BRAKE D 100 X 131

Part. N° 21.0030/0



TECHN. DATA/ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber
- With fastening kit
- Weight 0,65 kg
- Load max. 100 kg
- Further constructions on demand

APPLICATIONS

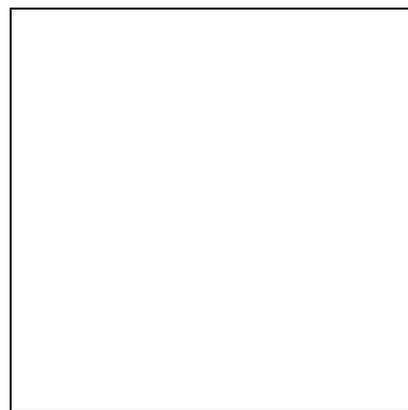
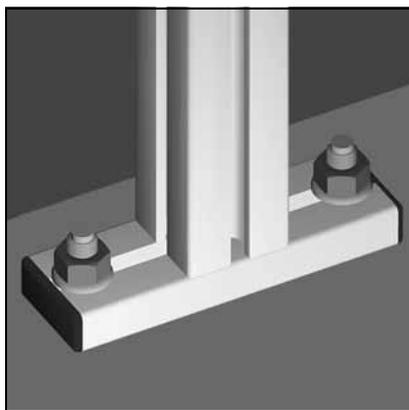
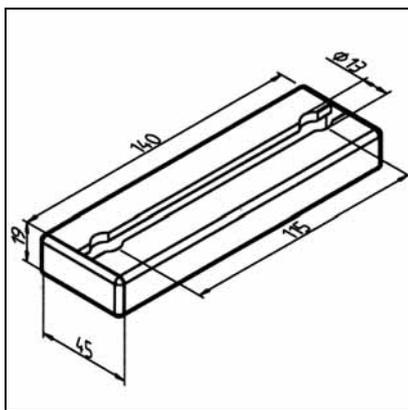
- Movable tables
- Material-pillars
- Show cases etc.

ASSEMBLY

- Directly on central bore of the vertical profile; thread M10 requested
- If the wheel is to be positioned centrally, for profiles 45 x 90 or 90 x 90 a base plate is required

FLOOR MOUNTING PLATE 45

Part. N° 21.1730/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 19
- End caps, grey
- Without fastening kit
- Weight 0,130 kg

APPLICATIONS

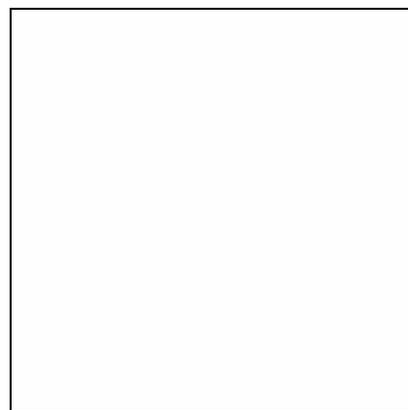
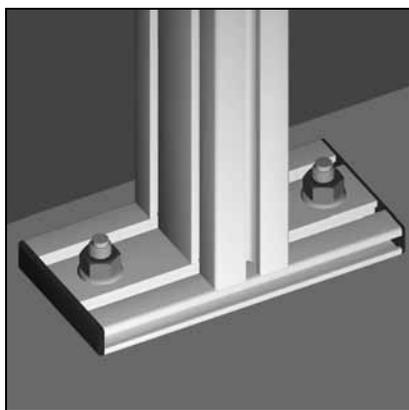
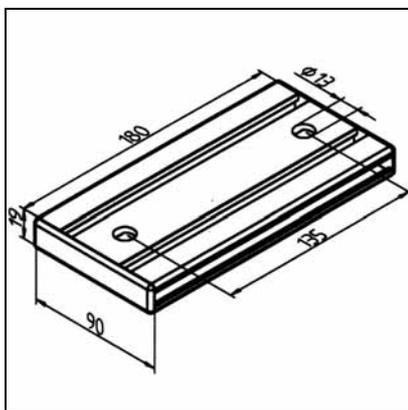
- Floor mounting of pillars 45 x 45

ASSEMBLY

- On profile side: MiniTec power-lock fastener
- On floor side: 2 floor anchors 10
Part N° 21.1082/0

FLOOR MOUNTING PLATE 45 / 90

Part. N° 21.1732/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 19
- End caps, grey
- Without fastening kit
- Weight 0,330 kg

APPLICATIONS

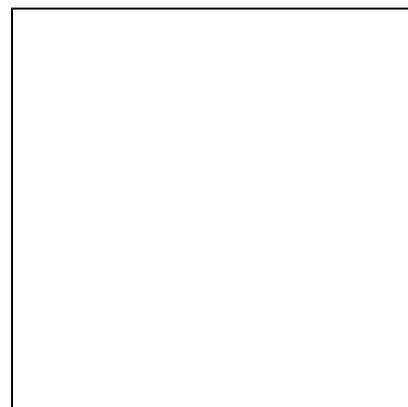
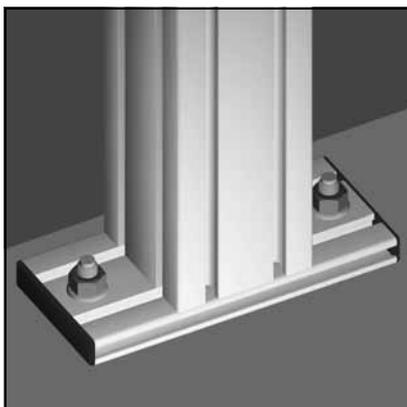
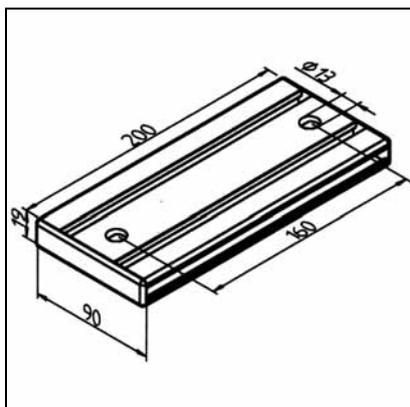
- Floor mounting of pillars 45 x 45 or 45 x 90 transversal

ASSEMBLY

- On profile side: 1 or 2 MiniTec power-lock fasteners
- On floor side: 2 floor anchors
Part N° 21.1082/0

FLOOR MOUNTING PLATE 90

Part. N° 21.1733/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 19	
- End caps, grey	
- Without fastening kit	
- Weight	0,465 kg

APPLICATIONS

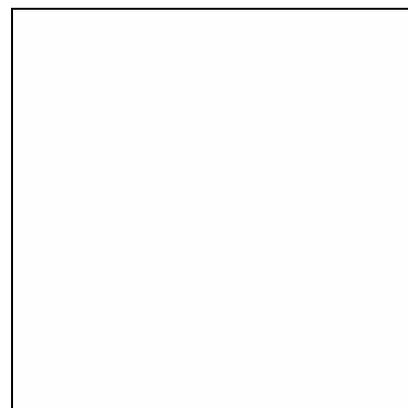
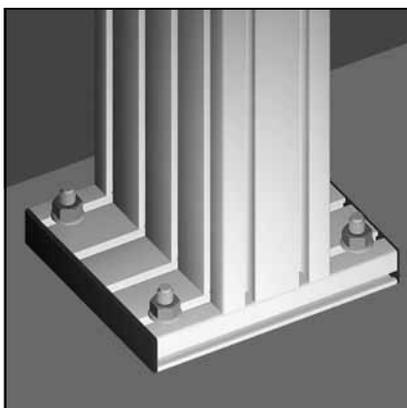
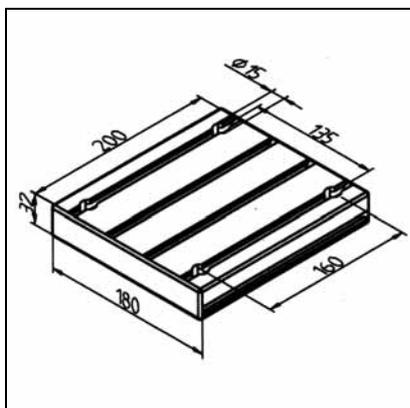
- Floor mounting of pillars 45 x 90 lengthwise or 90 x 90

ASSEMBLY

- On profile side: 2 or 4 MiniTec power-lock fasteners
 - On floor side: 2 floor anchors
Part N° 21.1082/0

FLOOR MOUNTING PLATE 90 X 180

Part. N° 21.1734/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 32 x 180	
- End caps, grey	
- Without fastening kit	
- Weight	2,03 kg

APPLICATIONS

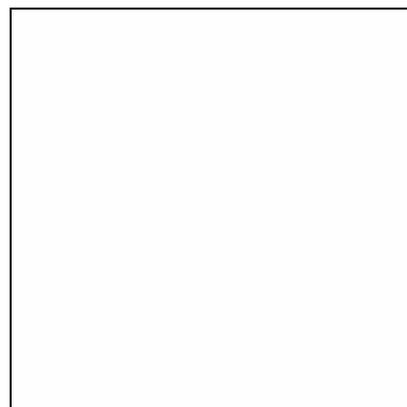
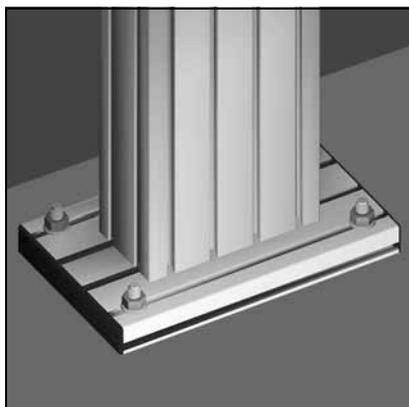
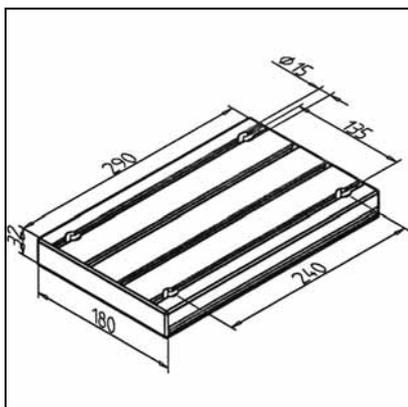
- Floor mounting of pillars 90 x 90 or 90 x 180 transversal

ASSEMBLY

- On profile side: 4 MiniTec power-lock fasteners
 - On floor side: 4 floor anchors
Part N° 21.1115/0

FLOOR MOUNTING PLATE 180

Part. N° 21.1735/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 32 x 180
- End caps, grey
- Without fastening kit
- Weight 2,800 kg

APPLICATIONS

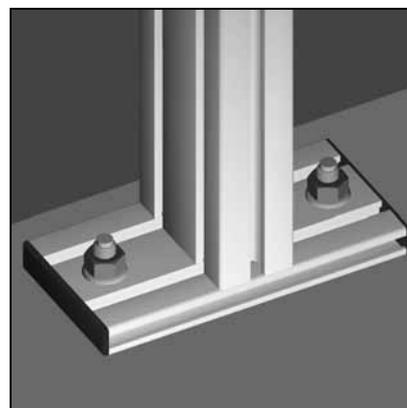
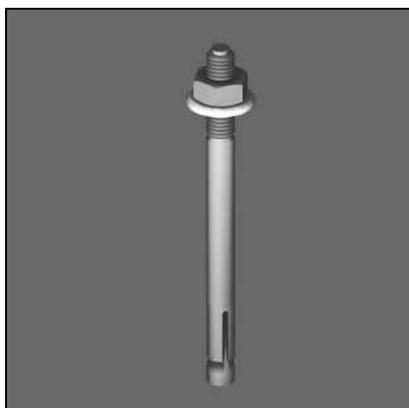
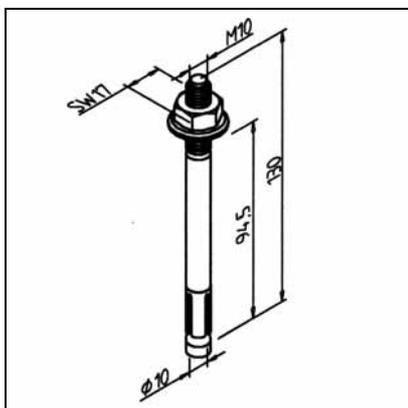
- Floor mounting of pillars 90 x 180 lengthwise

ASSEMBLY

- On profile side: 4 MiniTec power-lock fasteners
- On floor side: 4 floor anchors
Part N° 21.1115/0

FLOOR ANCHOR 10

Part. N° 21.1082/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Ø 10
- Complete with nut and washer
- Weight 0,084 kg

APPLICATIONS

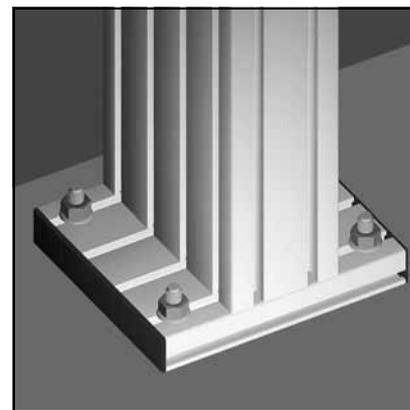
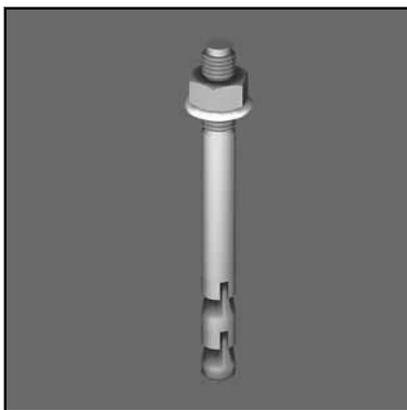
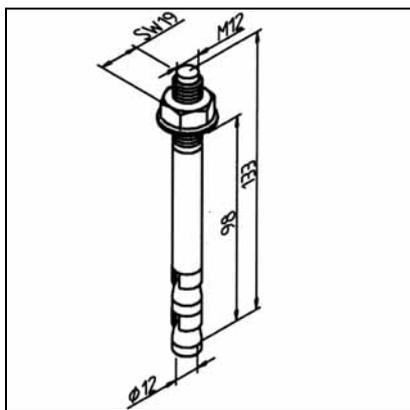
- Attachment of pillars to floor or wall. To be used together with angle bracket for floor fastening, levelling plate or floor mounting plate

ASSEMBLY

- Fit bore in the bottom
- Use floor anchor in connection with angle, levelling plate or floor mounting plate

FLOOR ANCHOR 12

Part. N° 21.1115/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Ø 12 mm

- Complete with nut and washer

- Weight 0,116 kg

APPLICATIONS

- Attachment of pillars to floor or wall. To be used together with angle bracket for floor fastening, levelling plate or floor mounting plate

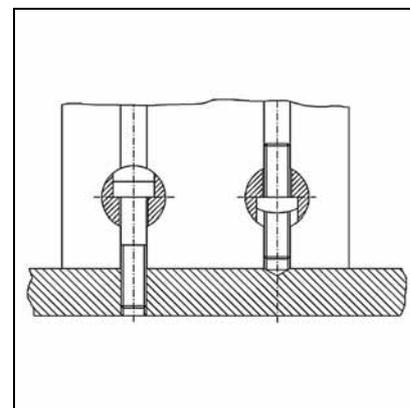
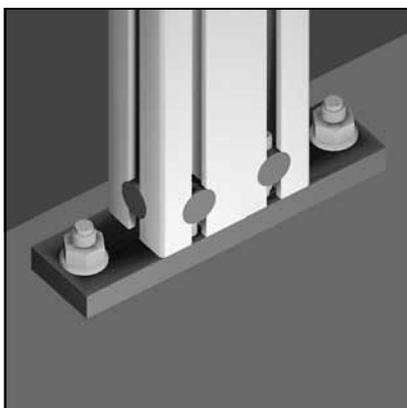
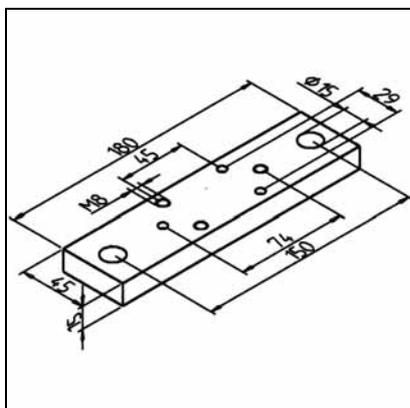
ASSEMBLY

- Fit bore in the bottom

- Use floor anchor in connection with angle, levelling plate or floor mounting plate

LEVELLING PLATE 45

Part. N° 21.1053/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, completely processed

- Without fastening kit

- Without levelling elements

- Weight 0,150 kg

APPLICATIONS

- Precise levelling of pillars 45 x 90 in profile constructions

- Particularly suitable for vertical sliding doors

ASSEMBLY

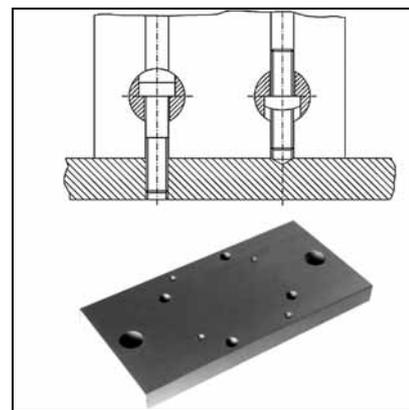
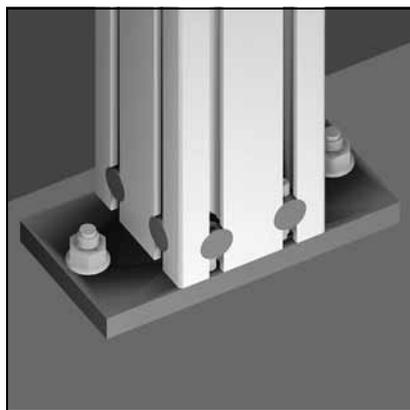
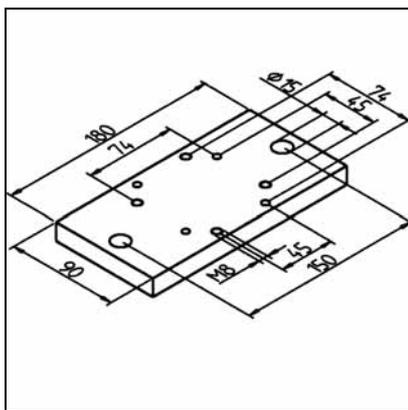
- Fasten levelling plate with floor anchor on floor or wall

- Insert bolt-fasteners for levelling plate Part N° 21.1049/0 into the step bores of the profile and pretighten the bolt-fasteners

- Insert the levelling elements Part N° 21.1054/0 and correct the vertical position of the profile by screwing the levelling elements

LEVELLING PLATE 90

Part. N° 21.1052/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, completely processed
- Without fastening kit
- Without levelling elements
- Weight 0,300 kg

APPLICATIONS

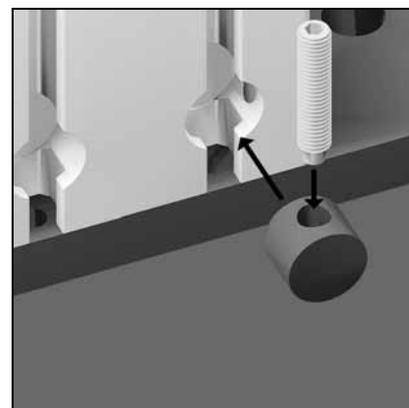
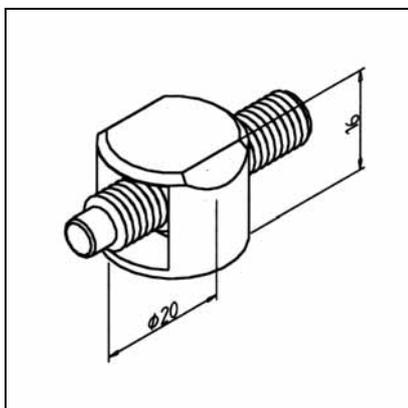
- Precise levelling of pillars 90 x 90 in profile constructions
- Particularly suitable for vertical sliding doors

ASSEMBLY

- Fasten levelling plate with floor anchor on floor or wall
- Insert bolt-fasteners for levelling plate Part N° 21.1049/0 into the step bores of the profile and pretighten the bolt-fasteners
- Insert the levelling elements Part N° 21.1054/0 and correct the vertical position of the profile by screwing the levelling elements

LEVELLING ELEMENT

Part. N° 21.1054/0



TECHN. DATA / ITEMS SUPPLIED

- GD-Zn
- Square nut M8
- set screw M8 x 40, 4 A/F
- Weight 0,027 kg

APPLICATIONS

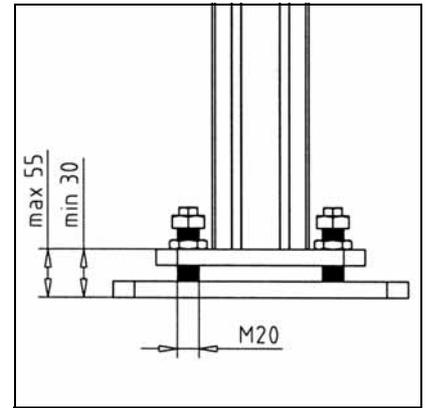
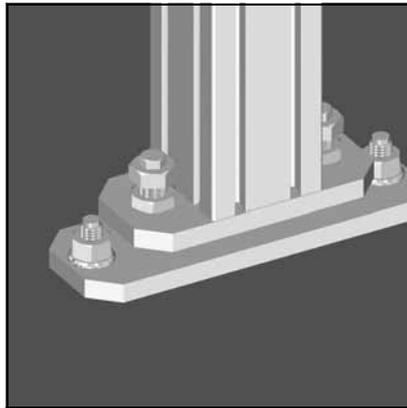
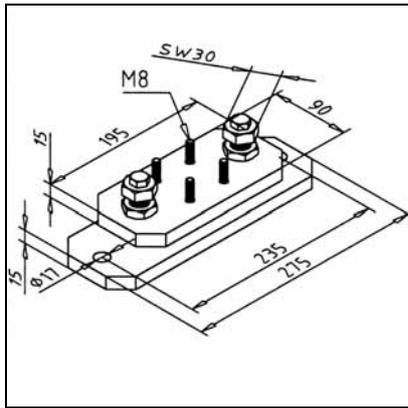
- Alignment of profile constructions in connection with levelling plate

ASSEMBLY

- Same processing as for bolt-fasteners
- The set screw M8 x 40 meshes into the centering bore on the levelling plate

LEVELLING PLATE 90 ST

Part. N° 21.0976/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- With fastening kit for profile
- With levelling elements
- Without dowels
- Weight 5,120 kg

APPLICATIONS

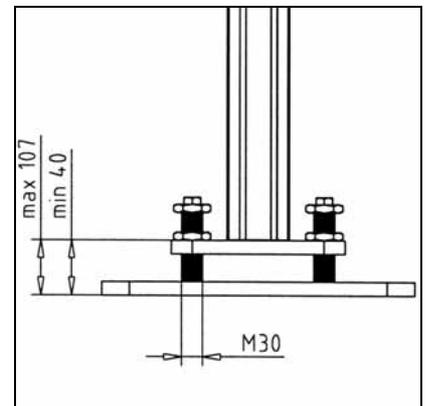
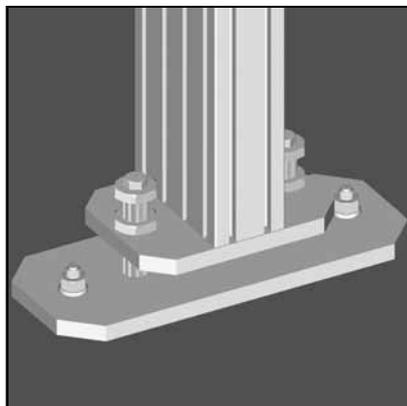
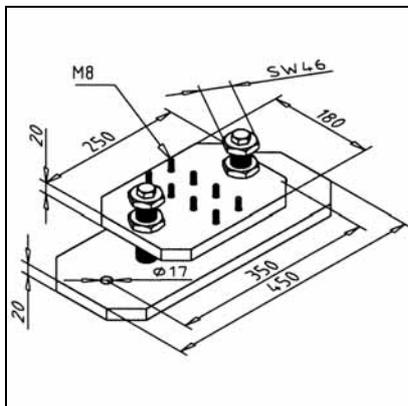
- Exact layout of heavy structures with post profile 90x90

ASSEMBLY

- Fasten footplate to the floor using a high performance anchor
- Fasten profile panel to the profile with the fastening material in the scope of delivery
- Turn the M20 screw to set the height and secure it with the counter nut

LEVELLING PLATE 180 ST

Part. N° 21.0977/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- With fastening kit for profile
- With levelling elements
- Without dowels
- Weight 20,347 kg

APPLICATIONS

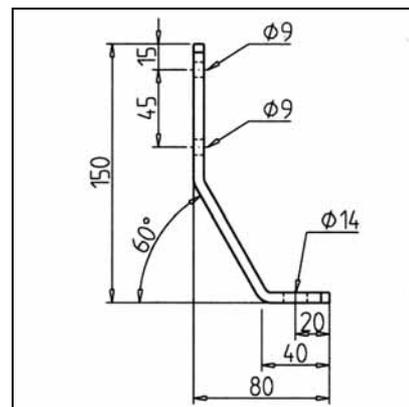
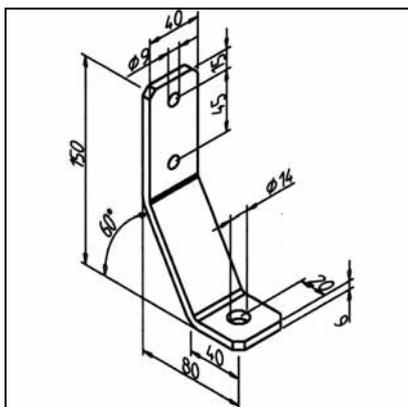
- Exact layout of heavy structures with post profile 90x180

ASSEMBLY

- Fasten foot plate to the floor using a high performance anchor
- Fasten profile panel to the profile with the fastening kit
- Turn the M20 screw to set the height and secure it with the counter nut

ANGLE BRACKET FOR FLOOR FASTENING

Part. N° 21.1112/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated, grey
- Without fastening kit
- Weight 0,360 kg

APPLICATIONS

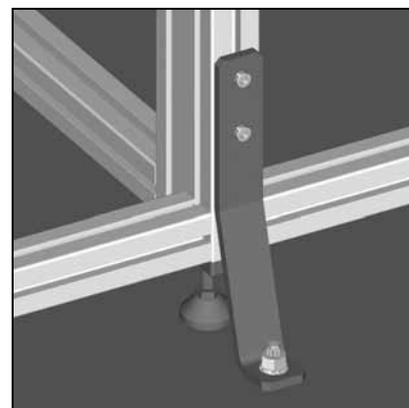
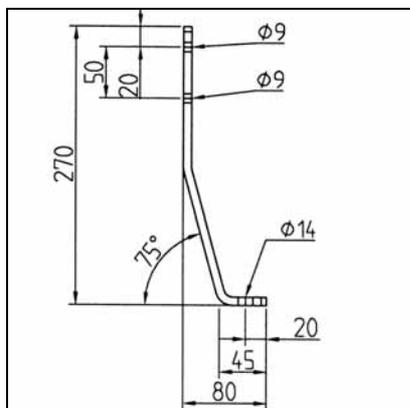
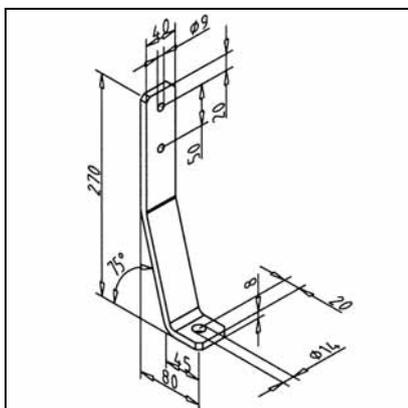
- Securing and fastening of constructions on floor or wall

ASSEMBLY

- On profile side: Use hex socket head socket head socket cap screws M8 x 20 5 A/F
- On floor side: Use floor anchor 12 Part N° 21.1115/0
- Also suitable for subsequent mounting

ANGLE BRACKET FOR FLOOR FASTENING

Part. N° 21.0015/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated, grey
- Without fastening kit
- Weight 0,757 kg

APPLICATIONS

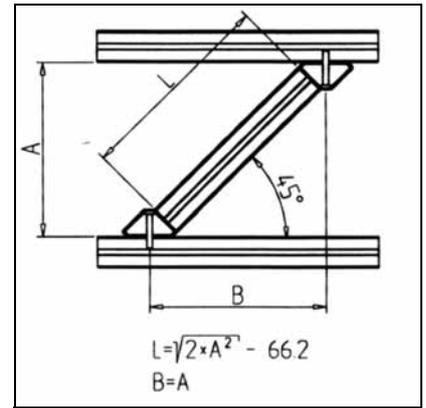
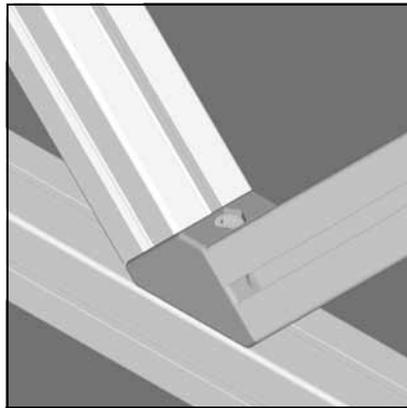
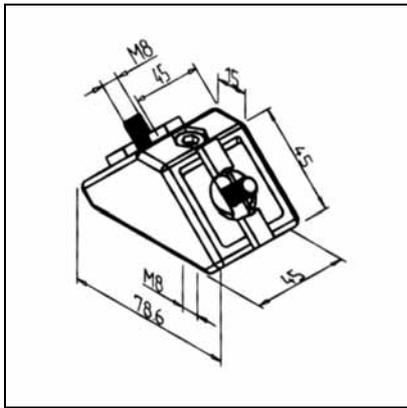
- Securing and fastening of constructions on floor or wall

ASSEMBLY

- On profile side: Use hex socket head socket head socket cap screws M8 x 20 5 A/F
- On floor side: Use floor anchor 12 Part N° 21.1115/0
- Also suitable for subsequent mounting

BRACE SOCKET 45 GD

Part. N° 21.1729/0



TECHN. DATA / ITEMS SUPPLIED

- GD Zn, powder coated, grey
- End caps, fastening kit
- Weight 0,261 kg

APPLICATIONS

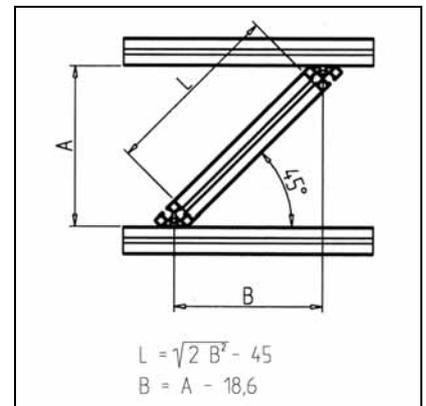
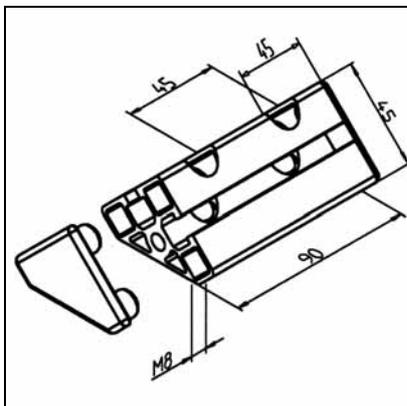
- Support in half-timbered constructions

ASSEMBLY

- Screw brace socket onto the frame
- Insert supports by means of MiniTec power-lock fasteners and tighten

BRACE SOCKET 45° / 90

Part. N° 21.1727/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium profile 45/45°
- End caps, grey
- Fastening kit
- Weight 0,175 kg

APPLICATIONS

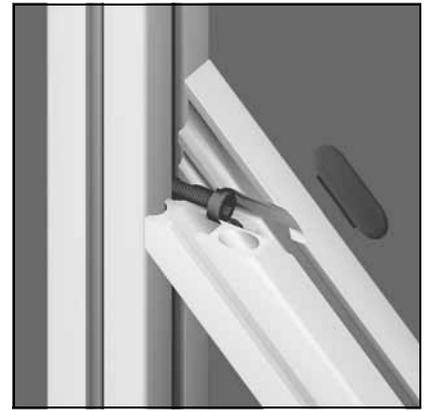
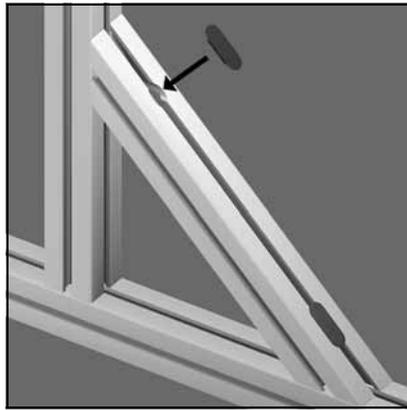
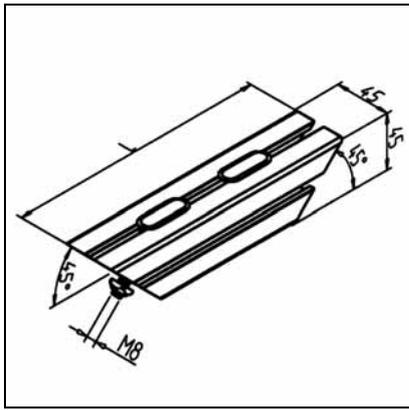
- Support in half-timbered constructions

ASSEMBLY

- Screw brace socket onto the frame
- Insert supports by means of MiniTec power-lock fasteners and tighten
- Fix end caps

STRENGTHENING ELEMENT 45

Part. N° 21.1761/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 45, ready for use
- Both ends cut at 45° with counter-bores for fastening kit
- Fastening kit
- Weight 0,870 kg
- Length 360 mm

APPLICATIONS

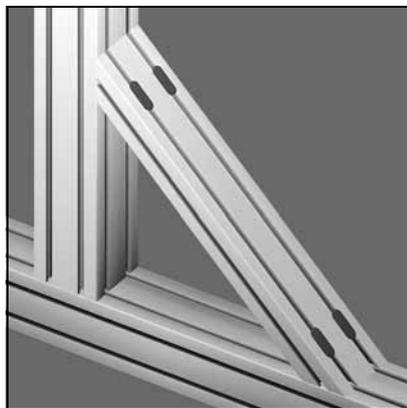
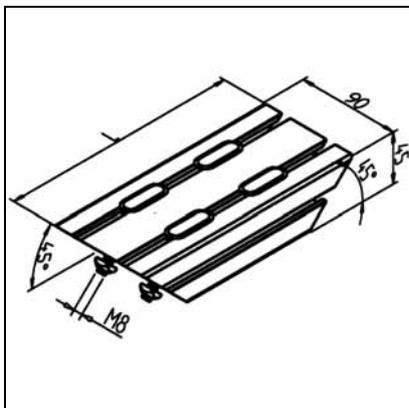
- Reinforcement of constructions in half-timbered principle

ASSEMBLY

- Screw onto profile groove use the fastening kit

STRENGTHENING ELEMENT 90

Part. N° 21.1762/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 90, ready for use
- Both ends cut at 45° with 4 counter-bores for fastening kit
- Fastening kit
- Weight 1,416 kg
- Length 360 mm

APPLICATIONS

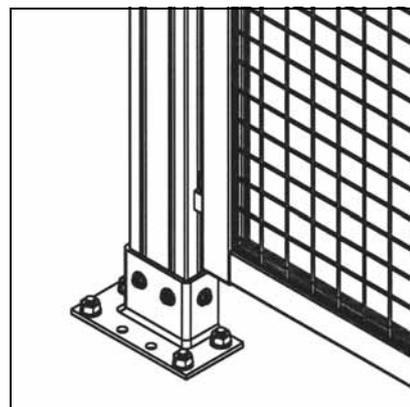
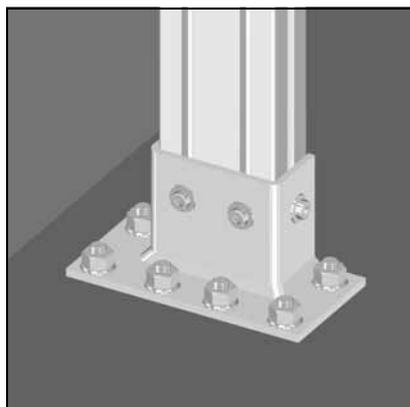
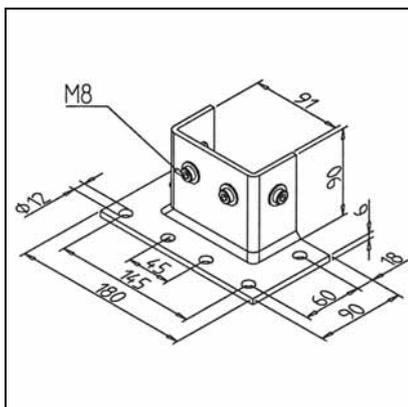
- Reinforcement of constructions in half-timbered principle

ASSEMBLY

- Screw onto profile groove use the fastening kit

FOOT 90 S

Part. N° 21.1707/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit for profile
- Weight 1,438 kg

APPLICATIONS

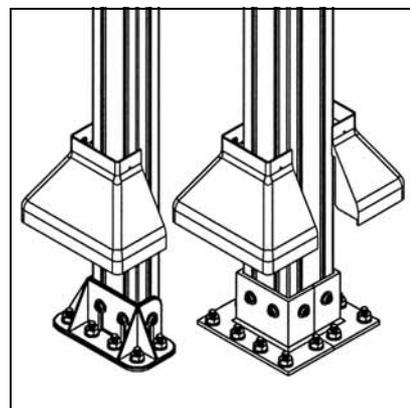
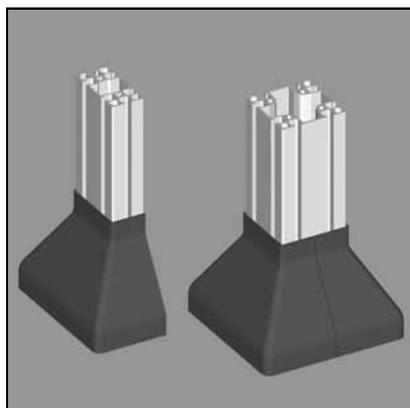
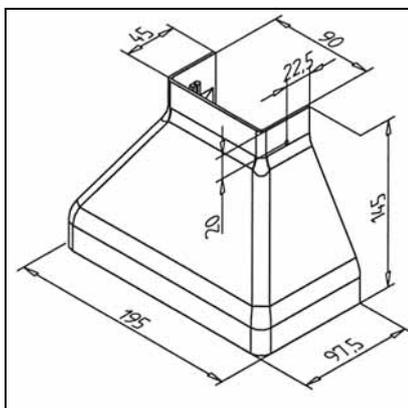
- Suitable for profiles up to dimension 45 x 90, 90 x 90 and 90 x 180
- Floor mounting of guard units, information plates and frames
- Connection element for wall attachment; can be used for both sides

ASSEMBLY

- Insert spring-loaded square nuts in profile grooves and slide to fixing position
- Fasten the foot on the floor or on the wall; for floor mounting use high performance anchors 12 mm or universal dowels with hexagon screws M12
- Tighten the screws on profile

COVER FOOT GD

Part. N° 22.1025/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Weight 0,131 kg

APPLICATIONS

- Suitable for foot 90 GD and 90 S
- Less dust and dirt deposit on the foot
- Easy to clean

ASSEMBLY

- Expand the cover manually and clip in the slots of the profile
- Push the cover downwards
- Laterally fix with self tapping screw 3,4 x 16; in addition drill $\varnothing 2,5$ on the marked place



FITTING OF PANEL
ELEMENTS ASSEMBLY
POSSIBILITIES

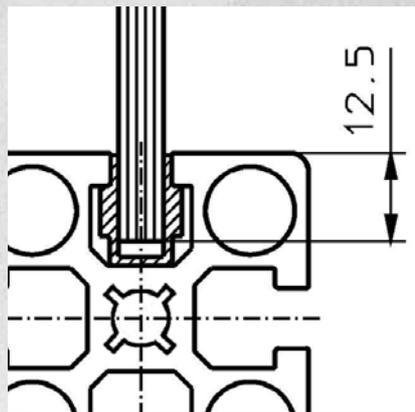
FITTING OF PANEL ELEMENTS

There are two assembly modes that have to be distinguished: the mounting of elements into the profile groove and the subsequent attachment of panel elements.

The **mounting of elements into the groove** has to be pre-planned. It is recommended to put together elements to a complete frame that can be fitted into existing constructions. This assembly method is of particular use for large panel elements, corrugated mesh and sealing constructions.

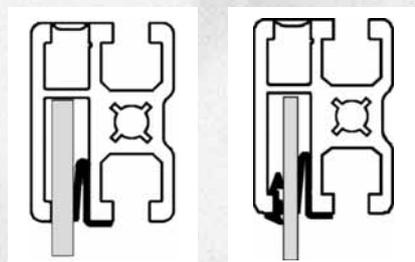
Subsequent mounting of panel elements is easier to perform and causes less damage.

Mounting elements into the profile groove



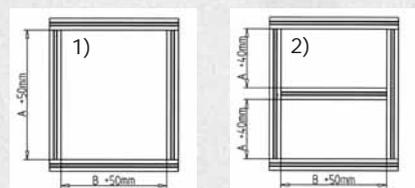
Cover profiles

Panel elements of max. 6 mm thickness can be mounted directly into the profile groove by using a PVC cover profile. Allow an enlargement of panel elements in x and y direction of: +25 mm



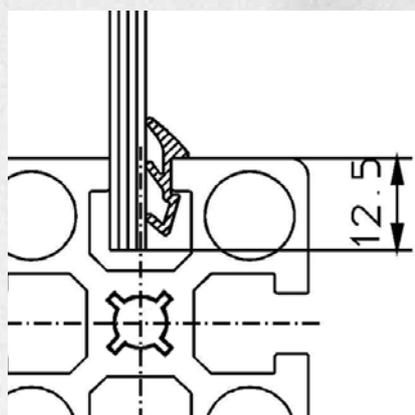
Clamp profile 45 x 32

The clamp profile 45 x 32 combines the properties of the construction profiles and the secure fixing for panel elements of max. 8 mm thickness. This profile is best suited for large elements and corrugated mesh. The ready assembled frames are subsequently fixed to the stand profiles with guard unit fixing angles. Quick removal of the units is ensured.



Allow an enlargement of panel elements in x and y direction of:

- 1) Simple frames: +50 mm
- 2) Frames with intermediate brackets: +40 mm

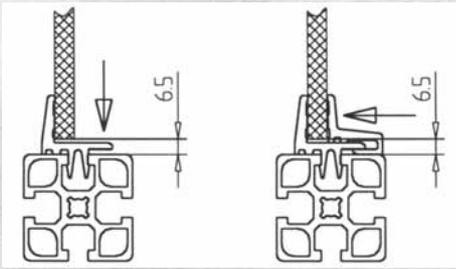


Insert seals

Sheet material, plastic panels, and panes etc. from 2 to 6 mm can easily be mounted and sealed with insert seal 2, 4, 5 and 6. The seals are subsequently pressed into free space between panel element and profile groove with a blunt tool made from wood or plastic. For mounting of sheets < 2 mm use insert seals from both sides of the panel.

Allow an enlargement of panel elements in x and y direction of: +25 mm

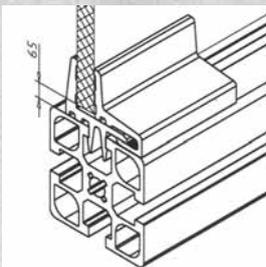
Fitting of panels into existing frames



Clamp profiles PVC

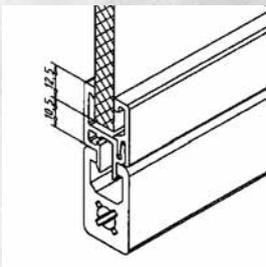
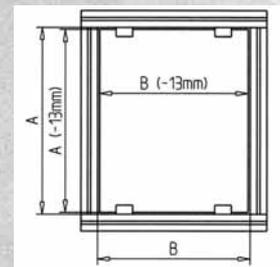
For easy fitting of panel elements of all kinds into existing frames without free space between frame and panel. Suitable for panel elements of max. 8 mm, also for corrugated mesh.

For the panel element allow a min of 13 mm reduction in x- and y-direction.



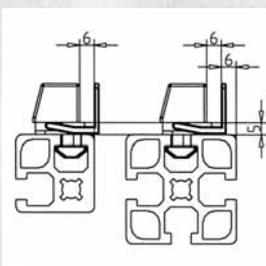
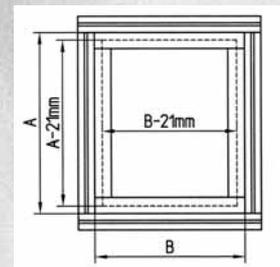
Panel holder

For easy and economic fitting of panel elements into existing frames. The panel holders are of two elements. Best suited for all panel elements of max. 8 mm thickness, except for corrugated mesh. For the panel element allow a min. of 13 mm reduction in x- and y-direction. (6,5 free space between profile surface and panel)



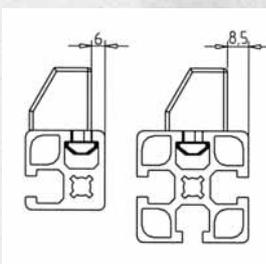
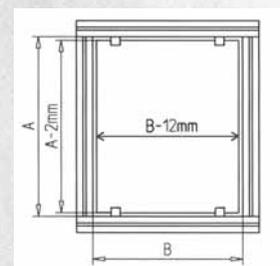
Panel clamp profile

For an easy and cost efficient assembling of panel elements (also for subsequent assembling). No mitre cuts necessary. Suitable for panel elements up to a thickness of 8 mm. For a tight fastening of panel elements < 8 mm use insert seal.



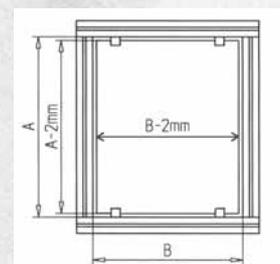
Clamp block

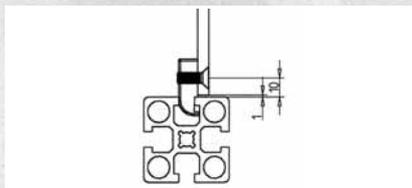
Simple and economical fastening of panel elements. The clamp block consists of block and clip. Suitable for all panel elements from 2 - 6 mm thickness. Not for mesh. For the panel element allow a reduction of 12 mm in x- and y-direction (6 mm free space between profile surface and panel)



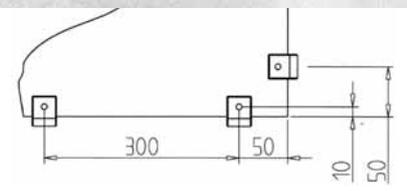
Screw block

Suitable for all kind of panel elements up to 6 mm thickness, except mesh. For the panel element allow a reduction of 2 mm in x- and y-direction (1 mm free space between profile surface and panel)

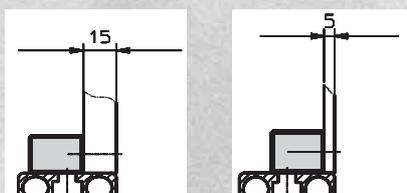




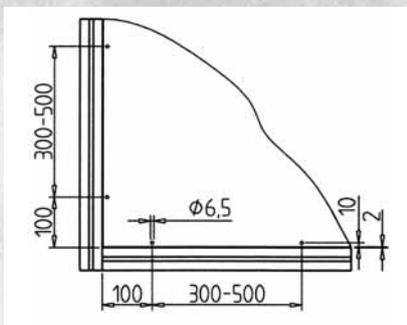
Thread socket



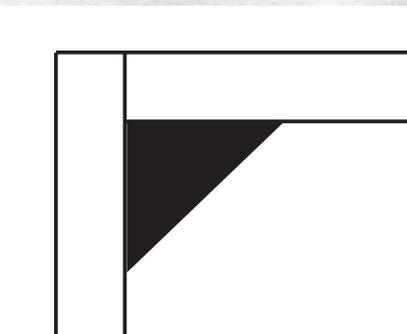
Secure and easy fastening of panel elements of all kinds, except for corrugated mesh. Insert the socket into profile grooves in 300 mm grid. Select screw form and length appropriate to thickness and type of panel element. For the panel element allow a min. of 2 mm reduction in x- and y-direction.



Multiblock

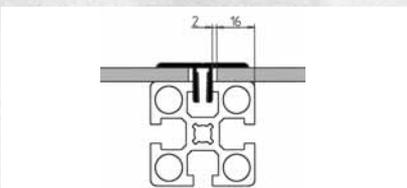


The multiblocks are installed in the clear space of the frame construction at a spacing of approx. 300 mm using cylinder-head screws M6 and rhombus nuts. Best suited for compound sheet materials. Material of 5-15 mm can be attached bundled. Select screw form and length appropriate to type and thickness of panel element. Bore holes for the attachment screws in the panel elements 6.5 mm in diameter and with 10 mm distance to edge. For the panel element, allow a min. of 4 mm reduction in the x- and y-direction (- 2 mm space on all sides).

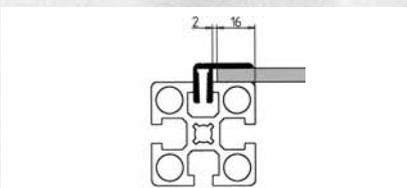


Angles

Fastening of incumbent panel elements for tables, consoles.



Panel-clamping profile

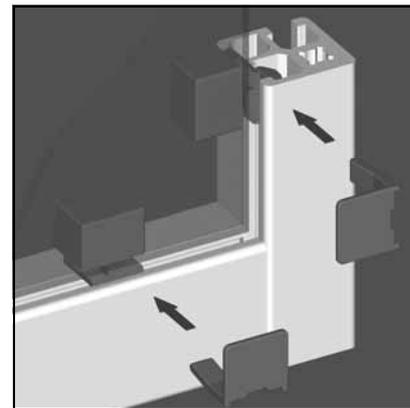
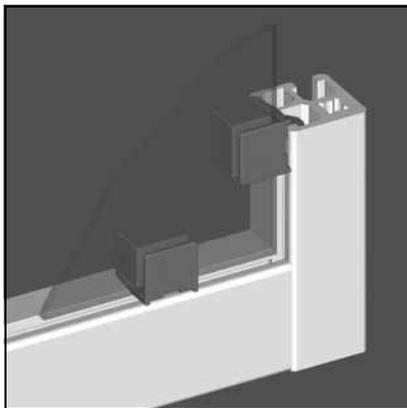
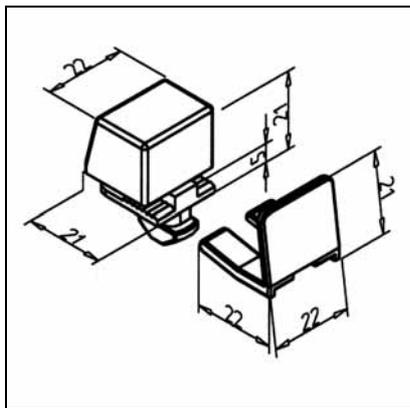


Suitable for panel elements from 2 to 10 mm. Insert fixing bores $\text{Ø } 5,5$ mm for set screw M5 in ~ 250 mm grid. Press into profile groove and fix with set screw M5 x 16.

Best suited for panels, corrugated mesh and expanded metal.

PANEL CLAMP BLOCK 32

Part. N° 22.1110/1



TECHN. DATA / ITEMS SUPPLIED

- PA, grey

- Weight 0,010 kg

APPLICATIONS

- Suitable for all profiles > 32

- Subsequent fitting of panel elements from 2 to 6 mm thickness; For the panel element allow a min. of 12 mm reduction in x- and y-direction

ASSEMBLY

- Insert socket into profile groove

- Insert panel elements

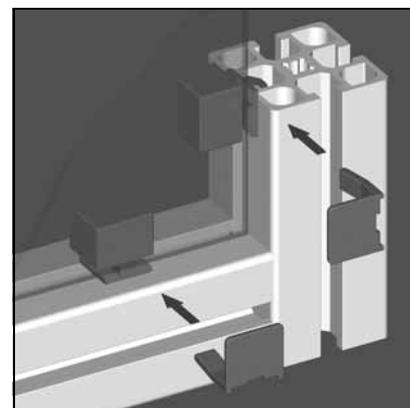
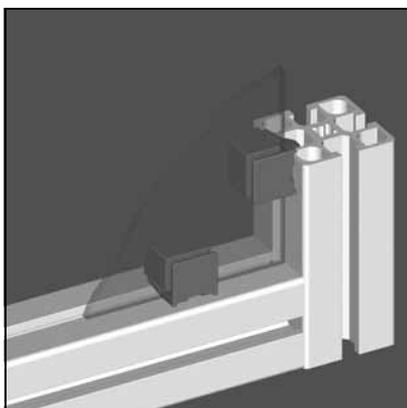
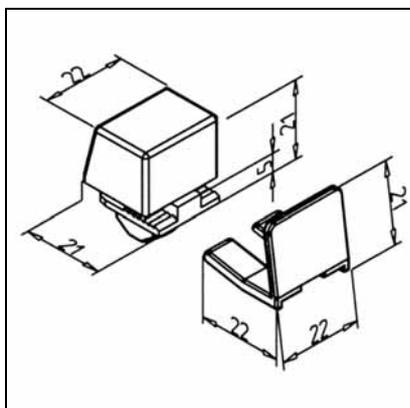
- Press on clip

- Disassembly: lift clip with a screwdriver

- See page 157

PANEL CLAMP BLOCK 45

Part. N° 22.1111/1



TECHN. DATA / ITEMS SUPPLIED

- PA, grey

- Weight 0,010 kg

APPLICATIONS

- Suitable for all profiles > 45

- Subsequent fitting of panel elements from 2 to 6 mm thickness; For the panel element allow a min. of 12 mm reduction in x- and y-direction

ASSEMBLY

- Insert socket into profile groove

- Insert panel elements

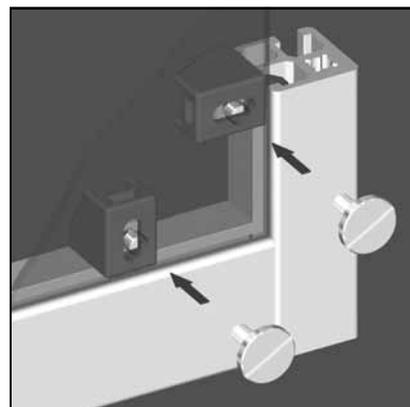
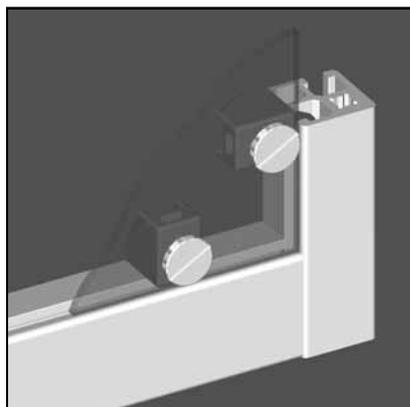
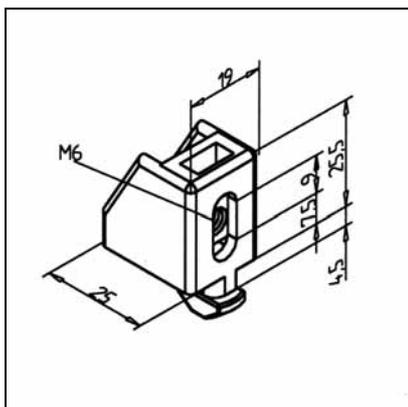
- Press on clip

- Disassembly: lift clip with a screwdriver

- See page 157

SCREW BLOCK 32

Part. N° 22.1112/1



TECHN. DATA / ITEMS SUPPLIED

- PA, grey

- Weight 0,010 kg

- Black version Part N° 22.1112/0

APPLICATIONS

- Suitable for all profiles > 32

- Subsequent fitting of panel elements from 2 to 6 mm thickness; a reduction in x- or y-direction of maximum 1 mm is requested

ASSEMBLY

- Insert socket into profile groove

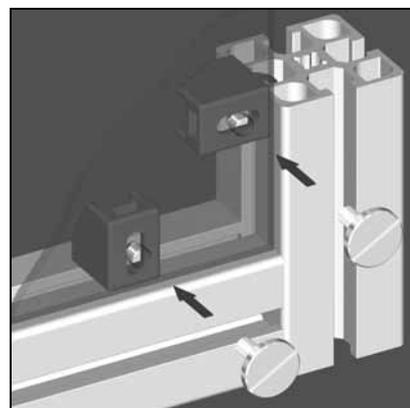
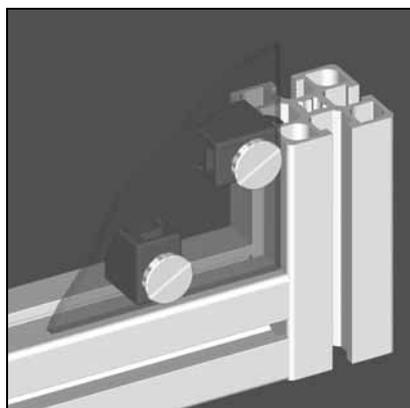
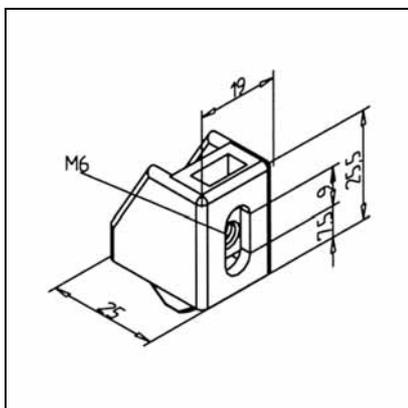
- Insert bored panel elements

- Screw with suited screws M6 (recommended: pan head screw 16 Part N° 21.1246/0)

- See page 157

SCREW BLOCK 45

Part. N° 22.1113/1



TECHN. DATA / ITEMS SUPPLIED

- PA, grey

- Weight 0,010 kg

- Black version Part N° 22.1113/0

APPLICATIONS

- Suitable for all profiles > 45

- Subsequent fitting of panel elements from 2 to 6 mm thickness; a reduction in x- or y-direction of maximum 1 mm is requested

ASSEMBLY

- Insert socket into profile groove

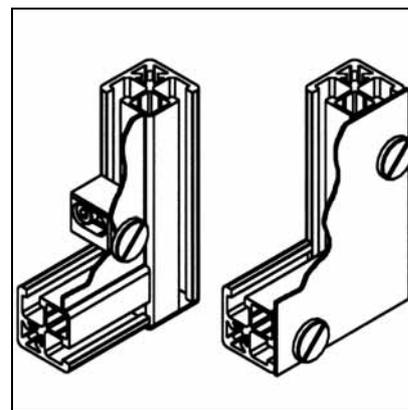
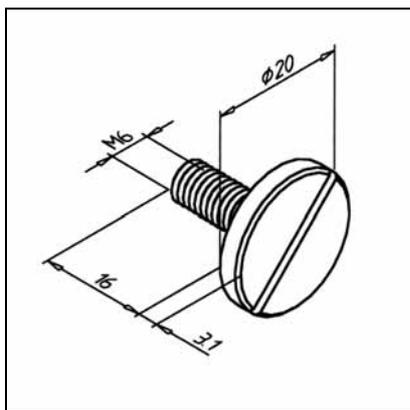
- Insert bored panel elements

- Screw with suited screws M6 (recommended: pan head screw 16 Part N° 21.1246/0)

- See page 157

PAN HEAD SCREW 16

Part. N° 21.1246/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Screw head: Ø 20 mm

- M6 x 16

- Weight 0,010 kg

APPLICATIONS

- Mounting of panel elements directly on profile groove or

- In connection with screw block 32
Part N° 22.1112/0 or multiblock
Part N° 21.1355/0

ASSEMBLY

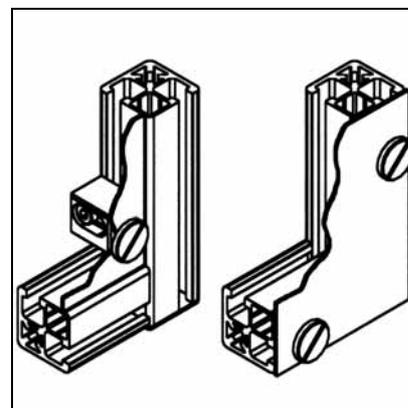
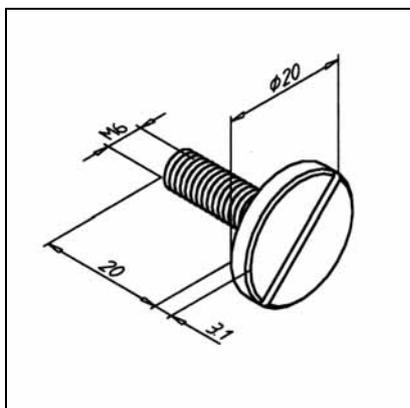
- Pre-drill panel elements: Ø 6,5 mm

- Recommed grid dimension: ca. 150 mm

- Edge distance: see screw block 32 and multiblock

PAN HEAD SCREW 20

Part. N° 21.1246/1



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Screw head: Ø 20

- M6 x 20

- Weight 0,010 kg

APPLICATIONS

- Mounting of panel elements directly on profile groove or

- In connection with screw block 32
Part N° 22.1112/0 or multiblock
Part N° 21.1355/0

ASSEMBLY

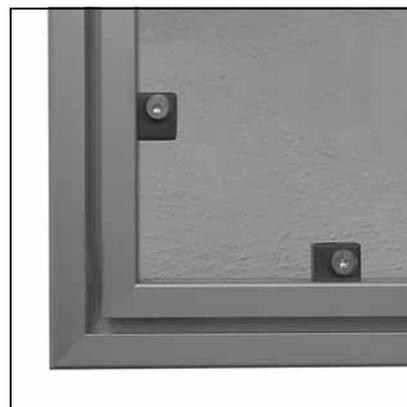
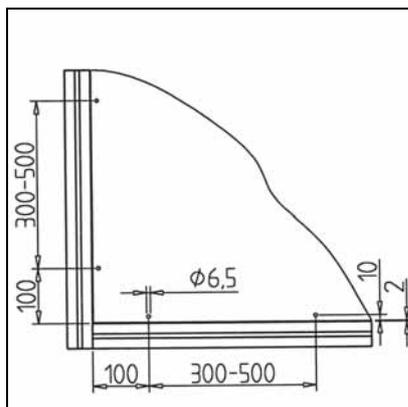
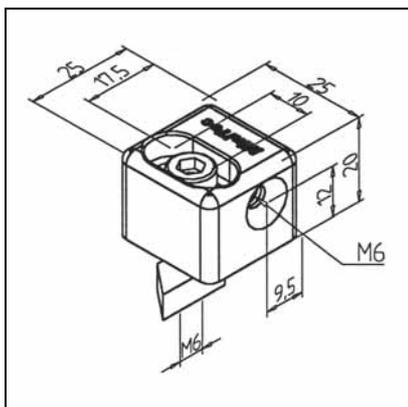
- Pre-drill panel elements: Ø 6,5 mm

- Recommed grid dimension: ca. 150 mm

- Edge distance: see screw block 32 and multiblock

MULTIBLOCK GD

Part. N° 21.1355/0



TECHN. DATA / ITEMS SUPPLIED

- AL GD, powder coated, grey
- Fastening kit
- Without pan head screw
- Weight 0,035 kg/m

APPLICATIONS

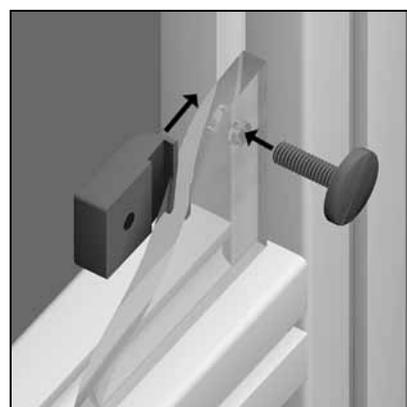
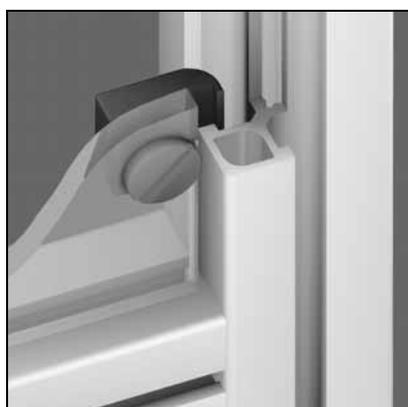
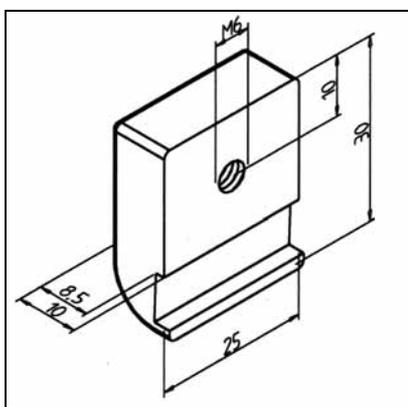
- Subsequent fastening of panel and add-on elements
- Flush installation of panels, thickness 5 to 15 mm

ASSEMBLY

- For all profile grooves
- Subsequent fastening of panel elements with screws M6 or pan head screw
- Calculation of the panel element dimension: see page 158
- Fixing bores Ø 6,5 for screws M6, 8 mm from edge of the panel element

THREAD SOCKET GD

Part. N° 21.1117/1



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD
- Without pan head screw
- Weight 0,018 kg/m

APPLICATIONS

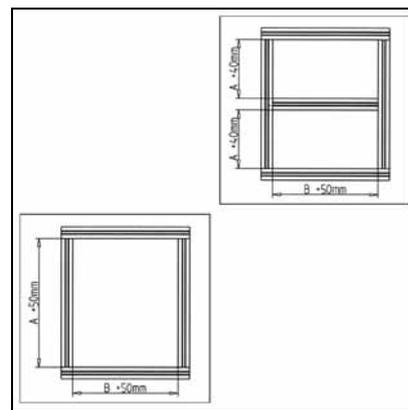
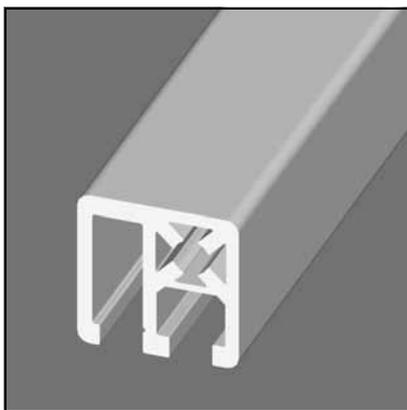
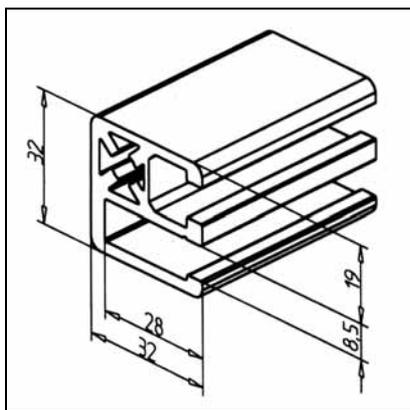
- Fastening of panel elements in profile frames
- Table tops

ASSEMBLY

- Insert the thread socket into profile groove
- Fasten the element with screws M6 or with pan head screw
- Edge distance: 10 mm
- Calculation of the panel element dimension: see page 158

CLAMP PROFILE 32 X 32

Part. N° 20.1070/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	5,024 cm ⁴
- Iy =	4,418 cm ⁴
- wx =	3,041 cm ³
- wy =	2,398 cm ³
- Weight	1,211 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

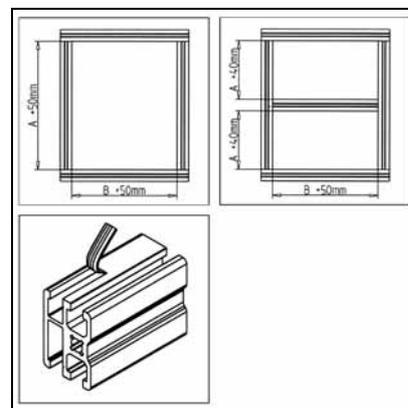
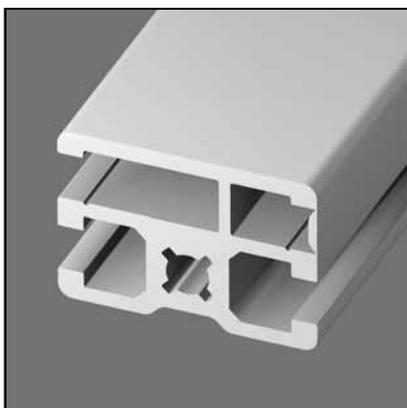
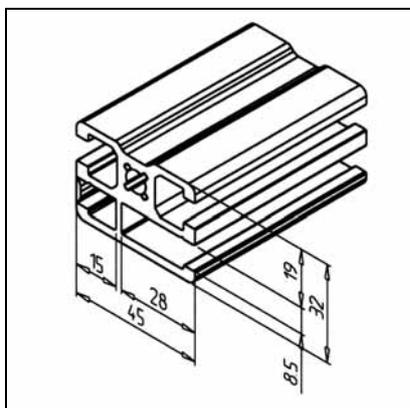
- All types of safety equipment
- For clamping surface elements such as wire mesh, panes, and plates up to a thickness of 8 mm
- Additional struts from clamping profile 45 x 32 must be used for larger safety fields to ensure sufficient protection against the surface elements pushing out; separate out covering strips for profile 45 x32

ASSEMBLY

- MiniTec power lock fastener; no drilling required
- No cut-outs in surface elements required
- Preassemble the framework on three sides with the closed side outwards
- Insert surface element and last profile strut
- Push in distance profile on the inside or knock in with a flat tool
- Also mount appropriate seal for surface elements < 4 mm

CLAMP PROFILE 45 X 32

Part. N° 20.1053/0



TECHN. DATA / ITEMS SUPPLIED

- Ix =	6,465 cm ⁴
- Iy =	9,521 cm ⁴
- wx =	3,999 cm ³
- wy =	4,119 cm ³
- Weight	1,615 kg/m
- Length	6 m
- Packing unit	48 m

APPLICATIONS

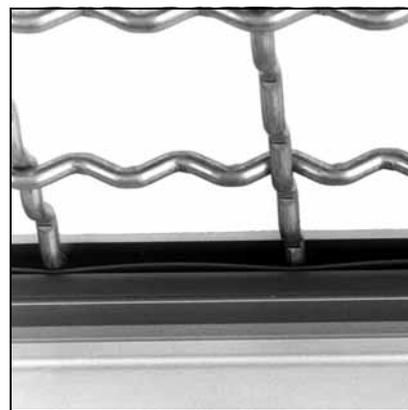
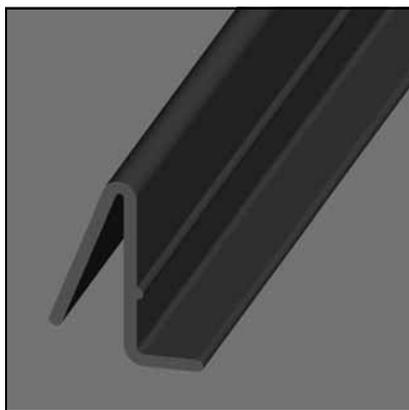
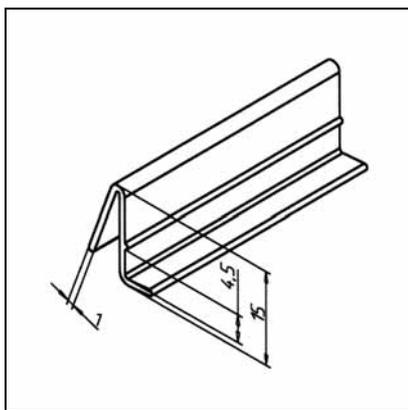
- All kinds of guard units
- Clamping of corrugated mesh or panel elements of all kinds up to 8 mm thickness
- For larger guards we propose to mount an additional brace to guarantee sufficient security
- After open the cover, the second groove is accessible
- See page 156

ASSEMBLY

- MiniTec power-lock fastener; no bores necessary
- No cut-outs in panel elements for fastening elements necessary
- Premount 3 sides of the frame, the eve side of the profile outwards
- Insert surface element and mount last profile brace
- Depress the distance profile on the inner side or hit it with a flat tool
- For panel elements < 4 mm mount an additional insert seal

DISTANCE PROFILE

Part. N° 22.1039/0



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey	
- Weight	0,055 kg/m
- Length	2 m

APPLICATIONS

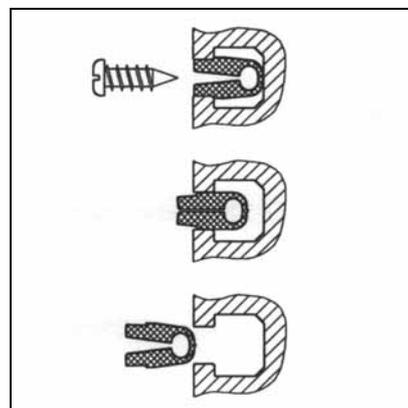
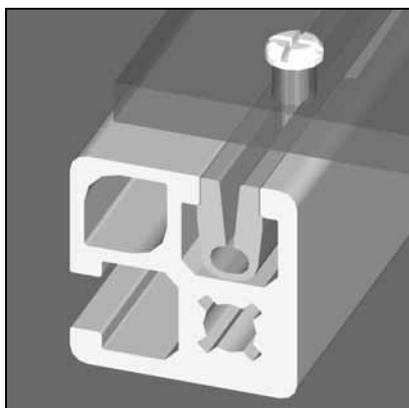
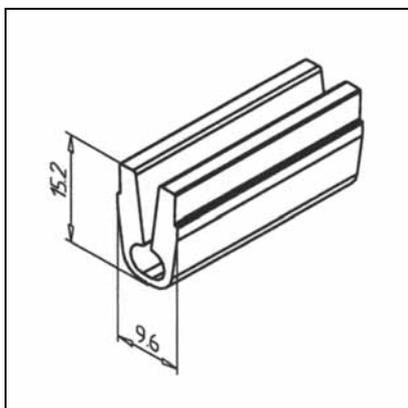
- Spacing element to use with clamp profile 45 x 32 Part N° 20.1053/0 and clamp profile 32 x 32 Part N° 20.1070/0 to fix corrugated mesh or panel elements
- Also for use with all other profiles to fix panel elements

ASSEMBLY

- Mount frame and panel elements
- Press in with suitable tool in space between panel element and clamp profile

SCREW-IN STRIP

Part. N° 22.1076/0



TECHN. DATA / ITEMS SUPPLIED

- PVC, grey RAL 7012	
- Weight	0,118 kg/m
- Length	2 m

APPLICATIONS

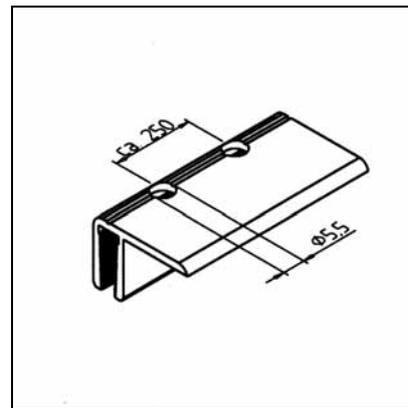
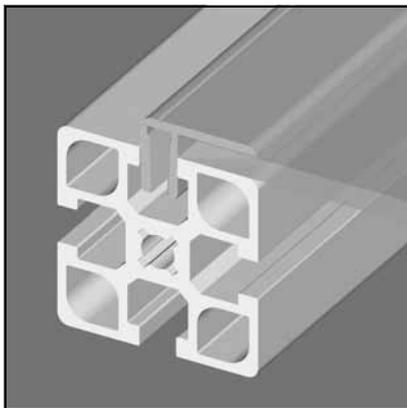
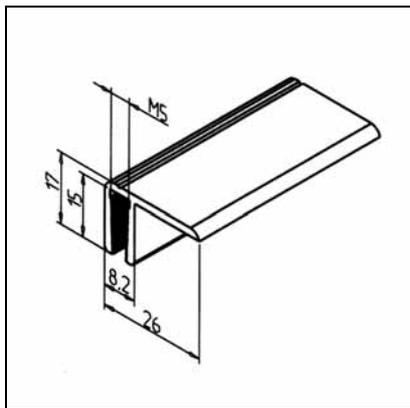
- Easy fastening of panels or panel elements at any point

ASSEMBLY

- Clip profile into groove
- Fasten element with commercial-type selftapping screws Ø 4-5 mm, Length min: 16 mm
- For material 1-6 mm, use self tapping screw 3,5 x 16 mm Part N° 21.1365/0

PANEL CLAMPING PROFILE

Part. N° 20.1025/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, anodized E6/EV1	
- Weight	0,260 kg/m
- Length	6 m

APPLICATIONS

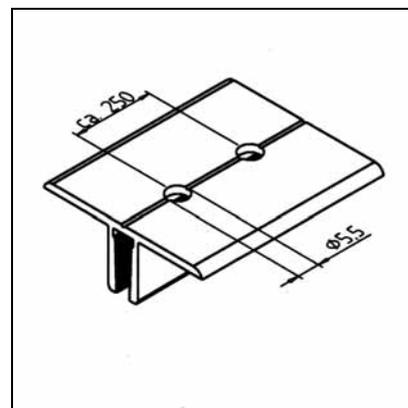
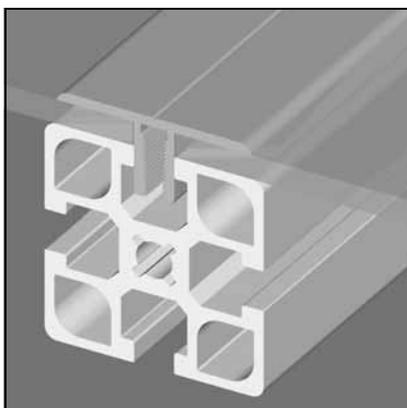
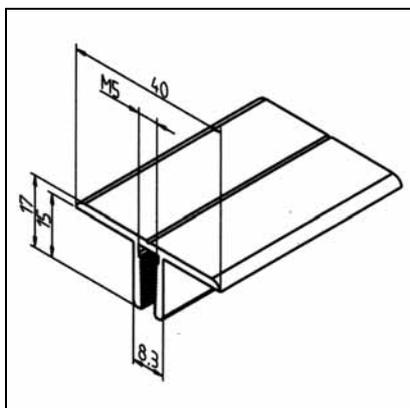
- Fastening of panel elements
- Subsequent fitting of panels on facade side
- Subsequent fitting of panel elements of max. 10 mm thickness

ASSEMBLY

- Drill bores Ø 5,5 mm for set screw M5 in panel element dimension of 250 mm
- Press into profile groove and clamp with set screw M5 x 12
- Calculation of the panel element dimension: see page 158

DOUBLE PANEL CLAMPING PROFILE

Part. N° 20.1018/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, anodized E6/EV1	
- Weight	0,375 kg/m
- Length	6 m

APPLICATIONS

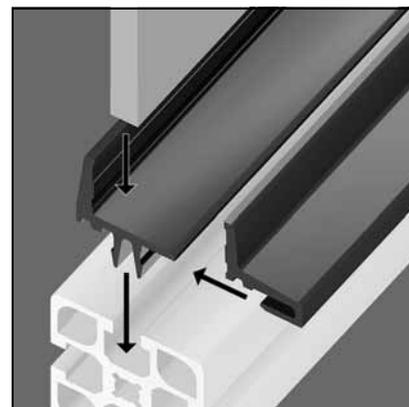
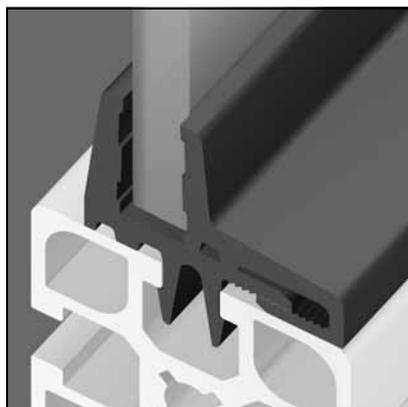
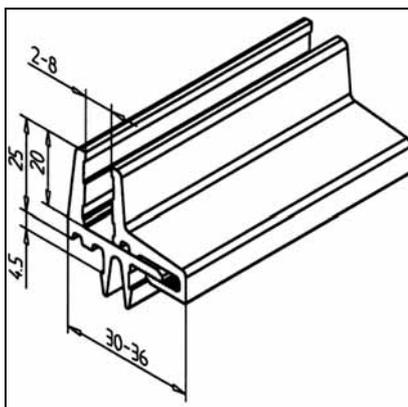
- Fastening of panel elements
- Support of panel elements of a thickness up to 10 mm

ASSEMBLY

- Drill bores Ø 5,5 mm for set screw M5 in panel element dimension of 250 mm
- Press into profile groove and clamp with set screw M5 x 12
- Also see panel clamping profile Part N° 20.1025/0
- Calculation of the panel element dimension: see page 158

CLAMP PROFILE PVC

Part. N° 22.1092/0



TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey
- On request also deliverable in black
Part N° 22.1080/0
- Weight 0,230 kg/m
- Length 2 m

APPLICATIONS

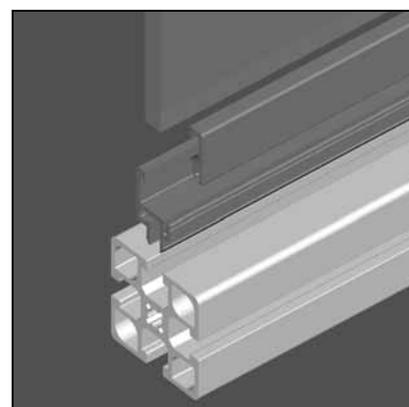
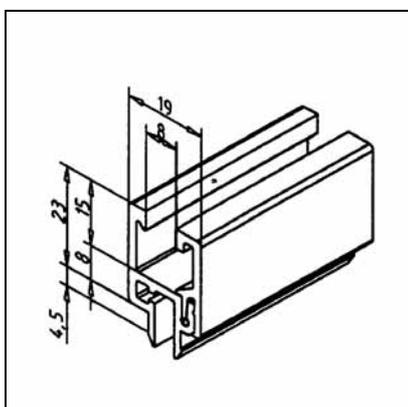
- Fastening of panel elements up to 8 mm
- If the panel elements are < 4 mm, a cellular rubber should be inserted
- Windows, door fillins
- No free space between profile and panel element
- Also suitable for corrugated mesh

ASSEMBLY

- Snap socket half into profile groove
- Insert the panel element
- Press clamping half firmly on socket half
- Calculation of the panel element dimension: see page 157

PANEL CLAMP PROFILE

Part. N° 22.1107/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- On request also deliverable in black
- Weight 0,158 kg/m
- Length 2 m

APPLICATIONS

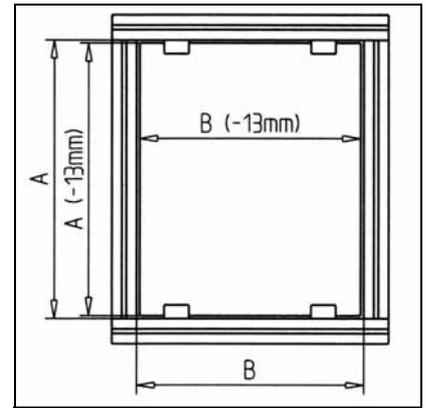
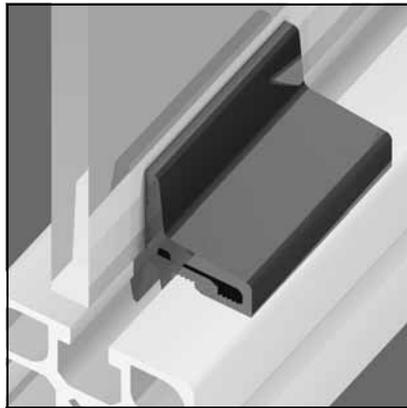
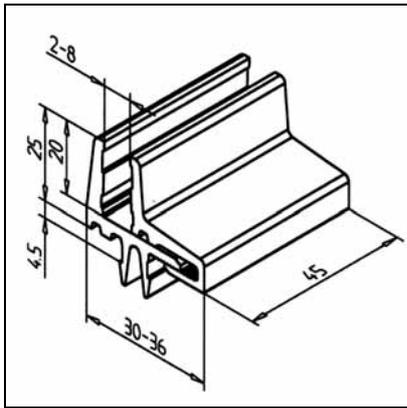
- Useful for subsequent fitting of profiles into existing profile frames
- Fastening of panel elements up to 8 mm
- For panels up to 8 mm use additional insert seal
- Windows, panels
- No air gap

ASSEMBLY

- Snap socket half into profile groove
- Insert the panel element
- Press clamping half firmly on socket half
- Calculation of the panel element dimension: see page 156
- No mitre cut necessary

PANEL HOLDER

Part. N° 22.1090/1



TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey
- On request also deliverable in black
Part N° 22.1090/0
- Weight 0,011 kg

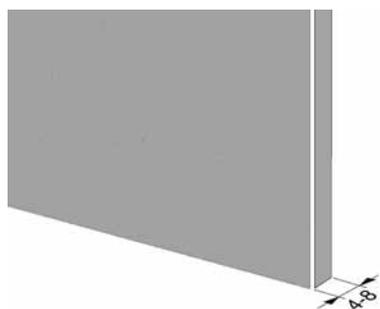
APPLICATIONS

- Fastening of panel elements up to 8 mm
- If the panel elements are < 4 mm, a cellular rubber should be inserted
- Windows, door fillings
- Not suitable for corrugated mesh

ASSEMBLY

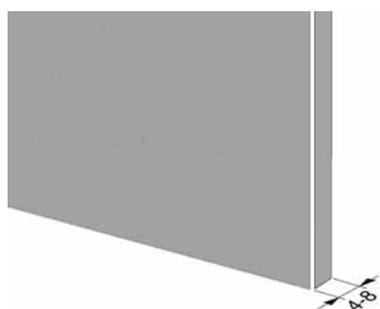
- Snap socket half into profile groove
- Insert the panel element
- Press clamping half firmly on socket half
- Calculation of the panel element dimension: see page 157

ACRYLIC



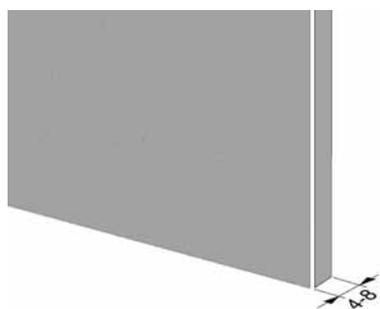
Part N°	Thickness	Colour	Weight	Dimension mm
21.1832/0	4 mm	tinted	4,76 kg/m ²	2030 x 3050
21.1811/0	5 mm	tinted	5,95 kg/m ²	2030 x 3050
21.1812/0	6 mm	tinted	7,14 kg/m ²	2030 x 3050
21.1813/0	8 mm	tinted	9,52 kg/m ²	2030 x 3050
21.1826/0	4 mm	clear	4,76 kg/m ²	2050 x 3050
21.1836/0	5 mm	clear	5,95 kg/m ²	2030 x 3050
21.1827/0	6 mm	clear	7,14 kg/m ²	2050 x 3050
21.1828/0	8 mm	clear	9,52 kg/m ²	2050 x 3050

POLYCARBONATE



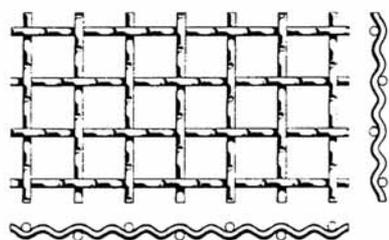
Part N°	Thickness	Colour	Weight	Dimension mm
21.1809/0	4 mm	tinted	4,80 kg/m ²	2050 x 3050
21.1808/0	5 mm	tinted	5,95 kg/m ²	2050 x 3050
21.1807/0	6 mm	tinted	7,20 kg/m ²	2050 x 3050
21.1821/0	8 mm	tinted	9,78 kg/m ²	2050 x 3050
21.1829/0	4 mm	clear	4,80 kg/m ²	2050 x 3050
21.1833/0	5 mm	clear	5,95 kg/m ²	2050 x 3050
21.1830/0	6 mm	clear	7,20 kg/m ²	2050 x 3050
21.1831/0	8 mm	clear	9,78 kg/m ²	2050 x 3050

PETG

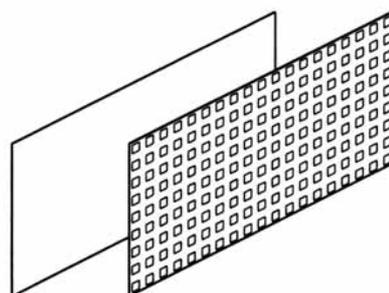


Part N°	Thickness	Colour	Weight	Dimension mm
21.1858/0	4 mm	clear	5,08 kg/m ²	2050 x 3050
21.1859/0	5 mm	clear	6,35 kg/m ²	2050 x 3050
21.1860/0	6 mm	clear	7,62 kg/m ²	2050 x 3050
21.1861/0	8 mm	clear	10,16 kg/m ²	2050 x 3050

CORRUGATED MESH



Part N°	Wire size	Mesh-size	Weight kg/m ²	max. Size mm	Material
21.1803/0	4 mm	30 mm	6,2	2000 x 3000	St, zinc pl.
21.1805/0	4 mm	40 mm	4,7	2000 x 3000	St, zinc pl.
21.1818/2	4 mm	30 mm	2,14	2000 x 2000	AlMg3
21.1818/1	4 mm	40 mm	1,6	2000 x 2000	AlMg3

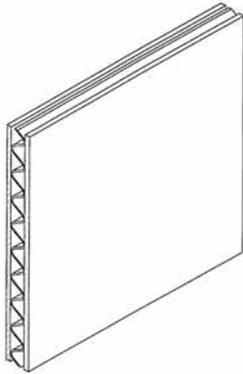


ON DEMAND

Aluminium sheets, steel plates,
perforated plates, laminated wood panels

CORRUGATED ALUMINIUM PANEL

Part N° 21.1816/0

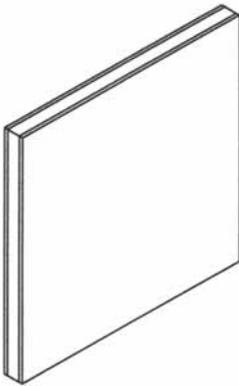


Front plate (anodized)	1	mm
Rear plate (natural)	0.3	mm
Interior corrugated plate (Al)	0.2	mm
Total thickness	5.5	mm
Weight	4.6	kg/m ²
Panel size	1500 x 2500	mm

- All material can be recycled!
- Suitable for painting and printing.

COMPOSITE PANEL

Part N° 21.1834/0

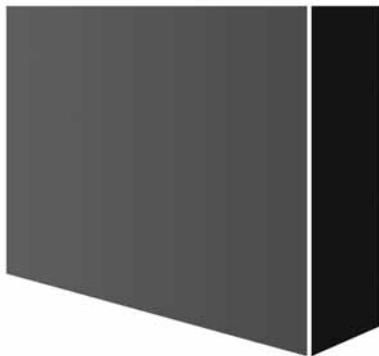


Material outside	Aluminium	(anodized)
Material inside	PE	
Total thickness	6	mm
Weight	7,3	kg/m ²
Panel size	1500 x 3000	mm

- All material can be recycled!
- Suitable for painting and printing.

PVC-PLATE

Part N° 21.1817/0



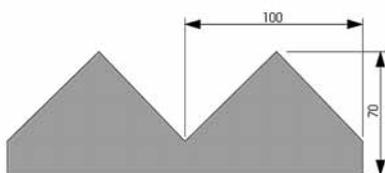
Thickness	20	mm
Colour	grey	7011 RAL
Weight	28	kg/m ²
Panel size	1000 x 2000	mm



- Other colours and measurements as well as antistatic table plate upon request.

SOUND-PROTECTION SHEET

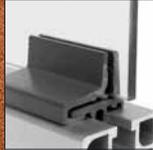
Part N° 21.1819/0



Thickness	70	mm
Coefficient of thermal conduction	0.032	W/mK
	at	0°C
Weight	28	kg/m ³
Panel size	1000 x 1000	mm



- Primary noise reduction by enclosing of noise sources
- Secondary noise protection in working rooms, offices
- Other sizes on demand



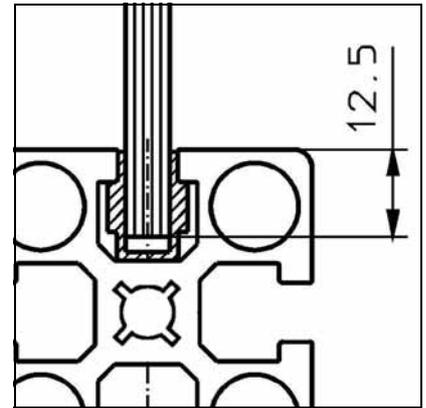
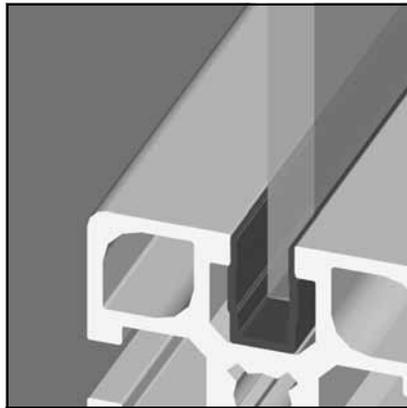
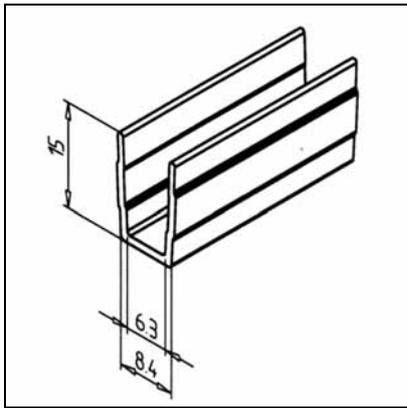
EDGE-, COVER-, SLIDE-
AND SEALING PROFILES

These profiles are used for groove covering or for reception of panel elements up to 6 mm. Covering of grooves is necessary if flush profile surfaces are required or for the installation of wiring and piping. With slide profiles simple and economic linear guides for drawers, sliding doors, jigs etc. can be realized.

For sealing of enclosures against sound, water or dust insert seals and frame seals are available.

COVER PROFILE

Part. N° 22.1070/1



TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey
- Deliverable in lightgrey Part N° 22.1070/2
- Deliverable in black Part N° 22.1070/0
- Deliverable in orange Part N° 22.1071/0
- Deliverable in blue Part N° 22.1072/0
- Deliverable in yellow Part N° 22.1074/0
- Weight 0,060 kg/m
- Length 2 m

APPLICATIONS

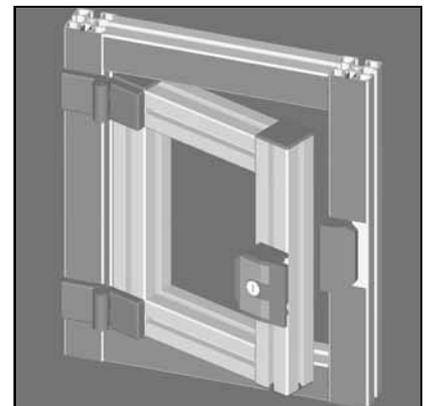
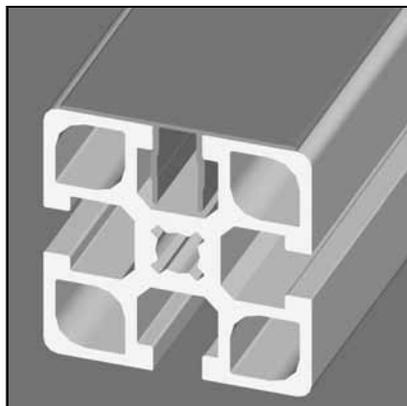
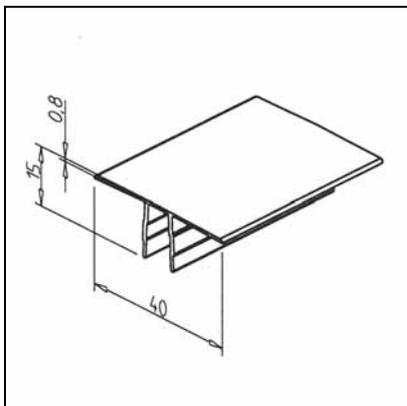
- Mounted with groove inwards: for covering of profile grooves
- Mounted with groove outwards: attachment of panel elements up to 6 mm; thickness compensation for thin panels with silicon or rubber string

ASSEMBLY

- Snap or slip into profile groove
- Allowance for the panel elements: see page 156

SIGNAL PROFILE

Part. N° 22.1097/2



TECHN. DATA / ITEMS SUPPLIED

- PVC, yellow-orange
- Deliverable in red Part N° 22.1097/3
- Deliverable in signal-yellow Part N° 22.1097/4
- Weight 0,090 kg/m
- Length 2 m

APPLICATIONS

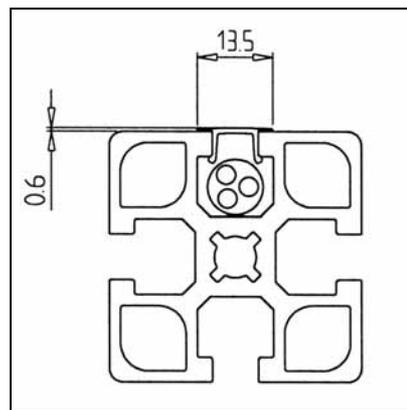
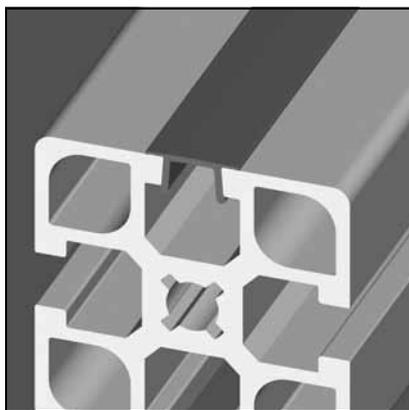
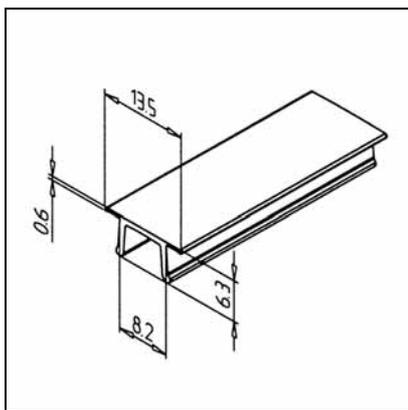
- Marking of safety relevant construction units such as doors and risk zones
- Coloured organization of constructions or parts

ASSEMBLY

- Clip in profile groove

COVER PROFILE K

Part. N° 22.1020/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Weight 0,023 kg/m
- Length 2 m
- Yellow version, Part N° 22.1020/4

APPLICATIONS

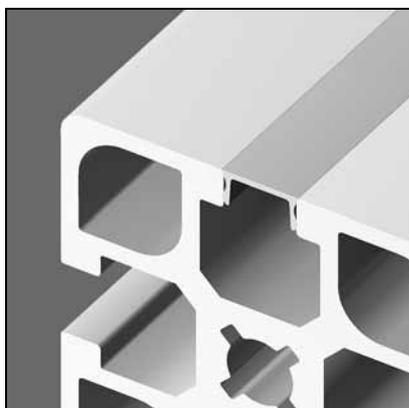
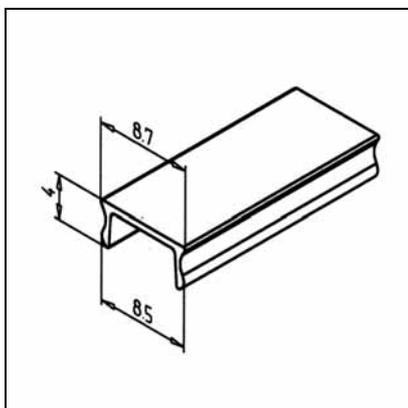
- Flush, dust-proof covering of profile grooves
- Groove cross-section usable as installation conduit for wiring or piping
- Information plates

ASSEMBLY

- Press by hand onto profile groove
- Cut of with pliers

COVER PROFILE L

Part. N° 20.1021/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural
- Weight 0,030 kg/m
- Length 2 m
- Also deliverable in aluminium anodized Part.-N° 20.1021/1

APPLICATIONS

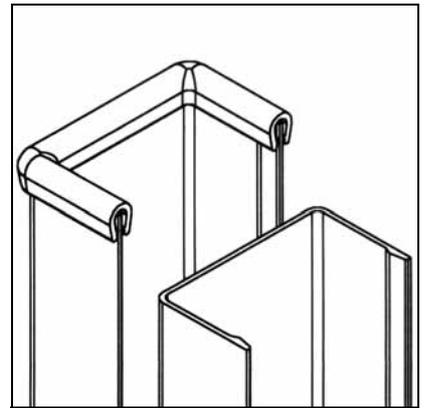
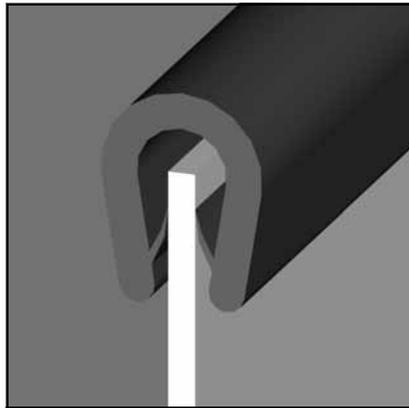
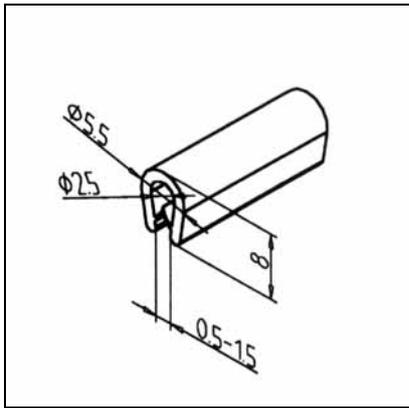
- Flush, dust-proof covering of profile grooves
- Groove cross-section usable as installation conduit for wiring or piping
- Information plates

ASSEMBLY

- Press by hand onto profile groove
- Cut of with pliers

EDGE PROTECTION 0,5 - 1,5

Part. N° 22.1029/0



TECHN. DATA / ITEMS SUPPLIED

- PVC, black, strengthened with steel sheet	
- Weight	0,050 kg/m
- Length	100 m

APPLICATIONS

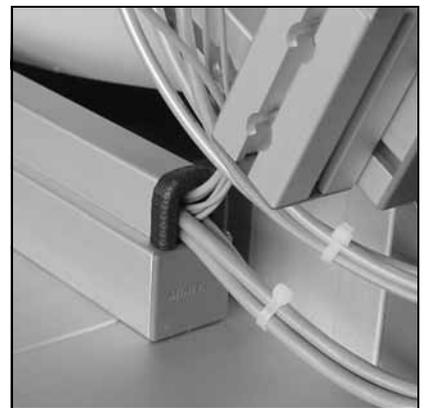
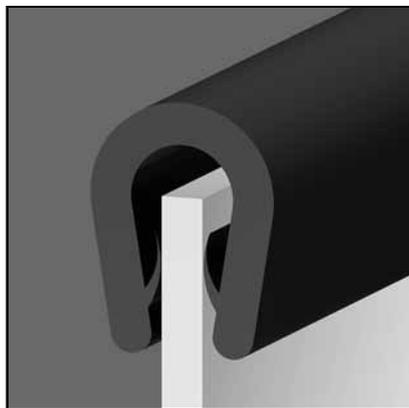
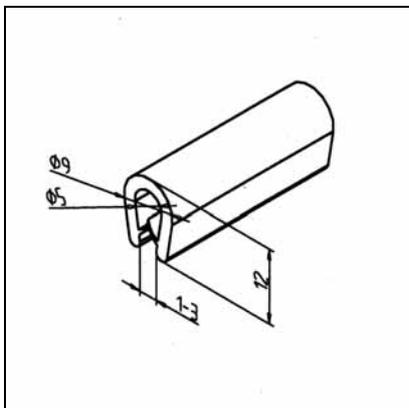
- Edge protection for panel elements
- Protection of MiniTec conduit
- Protection of bores and openings

ASSEMBLY

- Slip on edge of the panel element

EDGE PROTECTION 1 - 3

Part. N° 22.1036/0



TECHN. DATA / ITEMS SUPPLIED

- PVC, black, strengthened with steel sheet	
- Weight	0,120 kg/m
- Length	100 m

APPLICATIONS

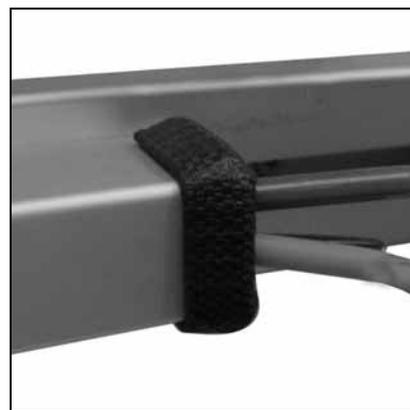
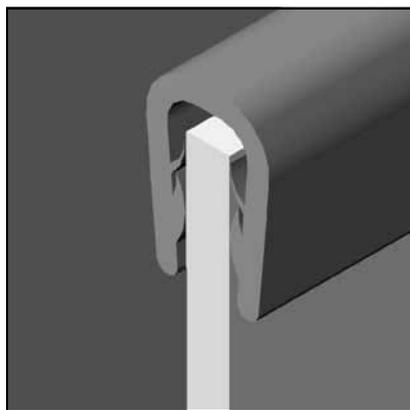
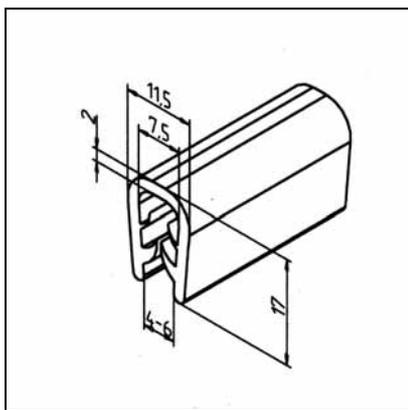
- Edge protection for panel elements

ASSEMBLY

- Slip on edge of the panel element

EDGE PROTECTION 4 - 6

Part. N° 22.1037/0



TECHN. DATA / ITEMS SUPPLIED

- PVC, black, strengthened with steel sheet
- Weight 0,190 kg/m
- Length 100 m

APPLICATIONS

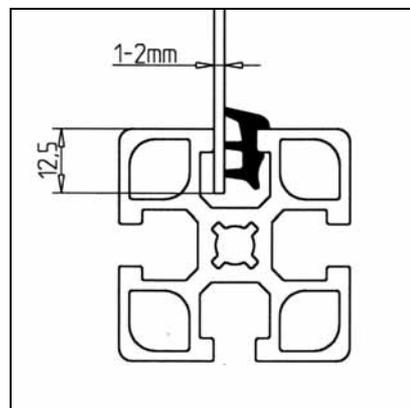
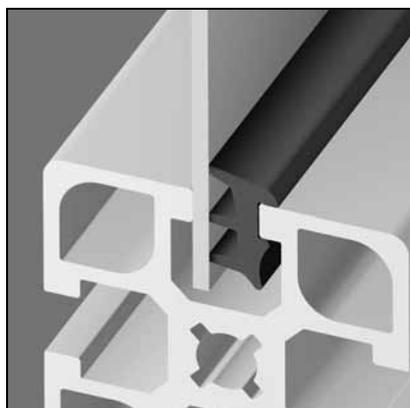
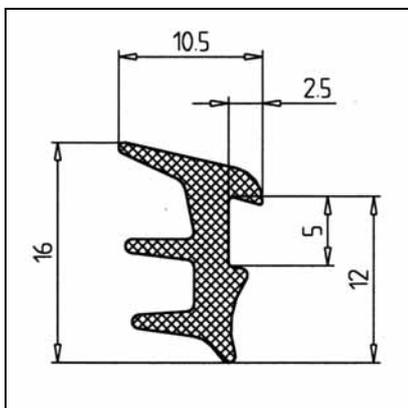
- Edge protection for panel elements

ASSEMBLY

- Slip on edge of the panel element

INSERT SEAL 2

Part. N° 22.1083/0



TECHN. DATA / ITEMS SUPPLIED

- EPDM, black
- Weight 0,096 kg/m
- Length 100 m

APPLICATIONS

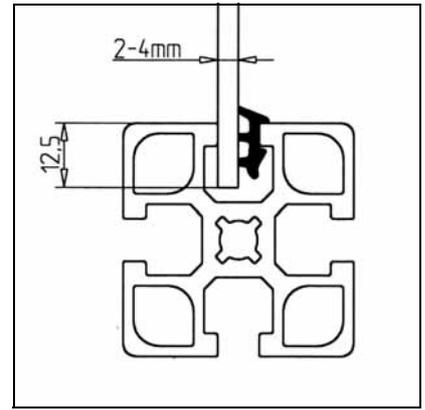
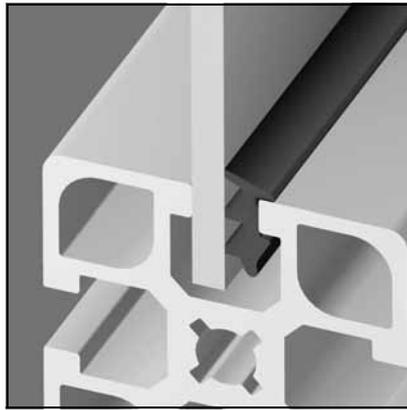
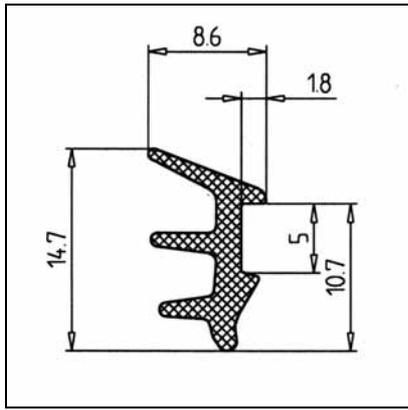
- Not suitable for acrylic plastic and polycarbonate
- Fastening and sealing of panel elements up to 2 mm thickness, directly in the profile groove

ASSEMBLY

- Insert panel into profile groove
- Press insert seal subsequently into free space between panel element and profile groove with blunt tool made of wood or plastic
- Materials Ø 2 mm can be clamped by using insert seal 6 Part N° 22.1086/1 on both sides
- Allowance for the panel elements: see page 156

INSERT SEAL 4

Part. N° 22.1081/0



TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,070 kg/m
- Length	200 m

APPLICATIONS

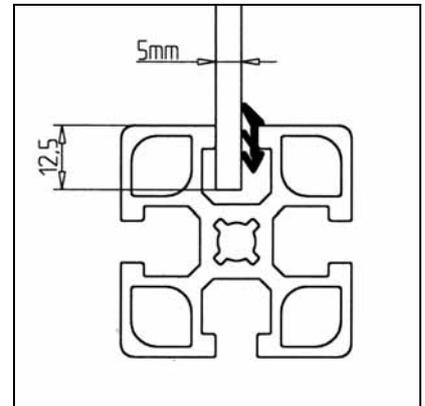
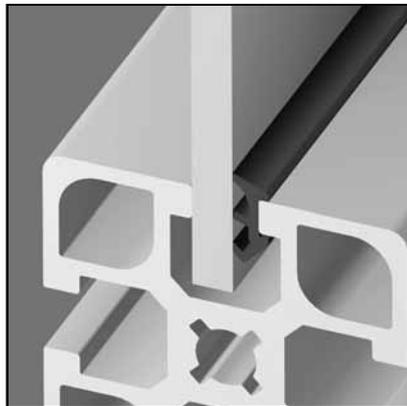
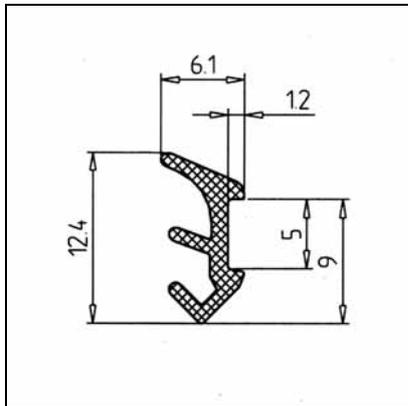
- Fastening and sealing of panel elements up to 2 - 4 mm in the profile groove
- Also suitable for acrylic plastic and polycarbonate

ASSEMBLY

- Insert panel element into profile groove and press insert seal subsequently into free space between panel element and profile groove with blunt tool made of wood or plastic
- Allowance for the panel elements: see page 156

INSERT SEAL 5

Part. N° 22.1099/0



TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,040 kg/m
- Length	200 m

APPLICATIONS

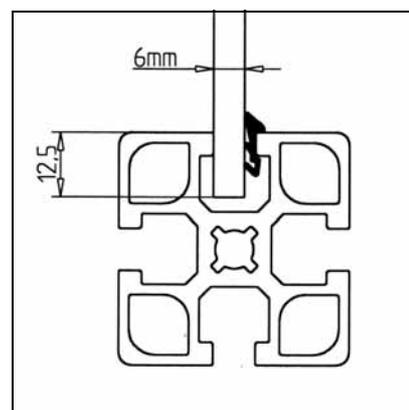
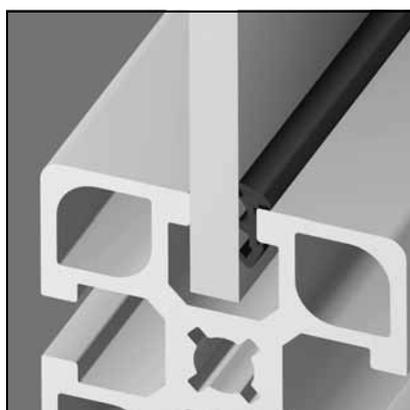
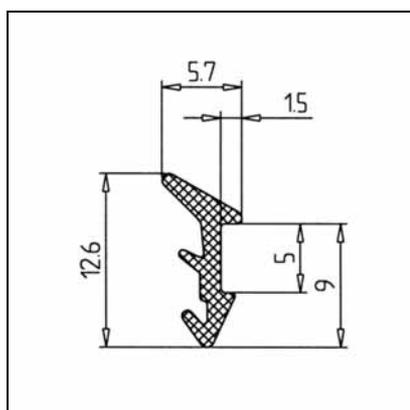
- Fastening and sealing of panel elements up to 5 mm thickness, directly in the profile groove
- Also suitable for acrylic plastic and polycarbonate

ASSEMBLY

- Insert panel into profile groove
- Allowance for the panel elements: see page 156

INSERT SEAL 6 (F)

Part. N° 22.1086/1



TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black
- Weight 0,020 kg/m
- Length 200 m
- Oil-resistant execution, Part. N° 22.1086/3

APPLICATIONS

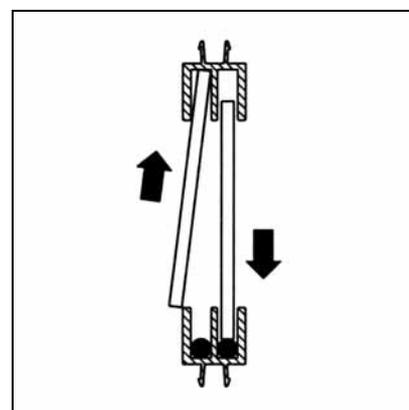
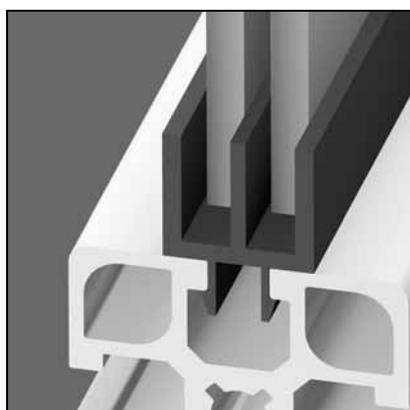
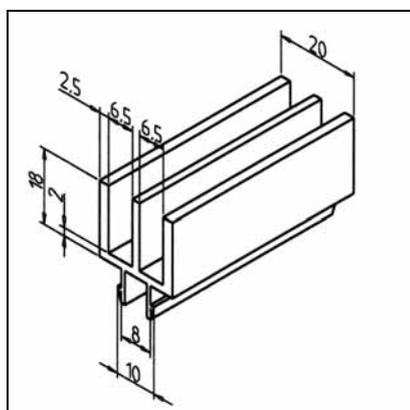
- Fastening and sealing of panel elements up to 6 mm thickness, directly in the profile groove
- Also suitable for acrylic plastic and polycarbonate

ASSEMBLY

- Insert panel into profile groove
- Materials Ø 2 mm can be clamped by using insert seal 6 on both sides
- Allowance for the panel elements: see page 156

GUIDE PROFILE 2

Part. N° 22.1073/1



TECHN. DATA / ITEMS SUPPLIED

- Hard, PVC, grey
- On request also deliverable in black Part N° 22.1073/0
- Weight 0,270 kg/m
- Length 2 m

APPLICATIONS

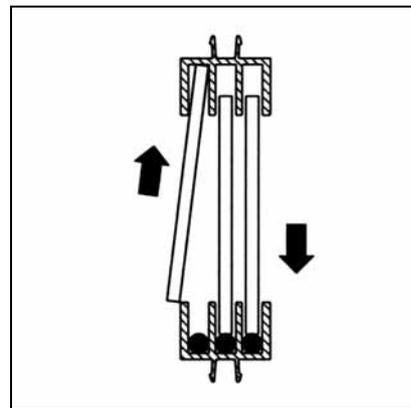
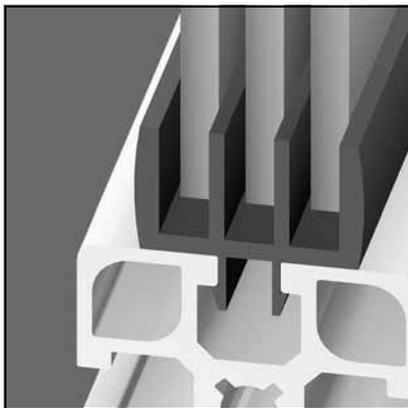
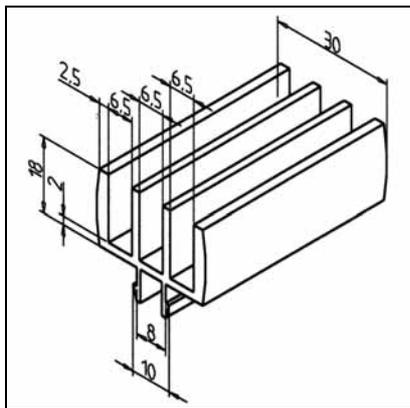
- 2-fold sliding doors made of panel elements of max. 6 mm

ASSEMBLY

- Snap into profile groove
- Suitable for subsequent mounting
- For subsequent mounting of panel elements PVC-bars Part N° 22.1077/0 are to be inserted into grooves of the lower guide profile
- For the panel element allow a min. of 20 mm reduction in y-direction, for direct fitting without PVC-bars allow a min. of 10 mm reduction in y-direction

GUIDE PROFILE 3

Part. N° 22.1075/1



TECHN. DATA / ITEMS SUPPLIED

- Hard, PVC, grey
- On request also deliverable in black
Part N° 22.1075/0
- Weight 0,342 kg/m
- Length 2 m

APPLICATIONS

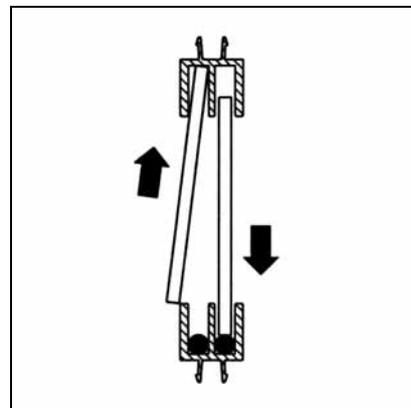
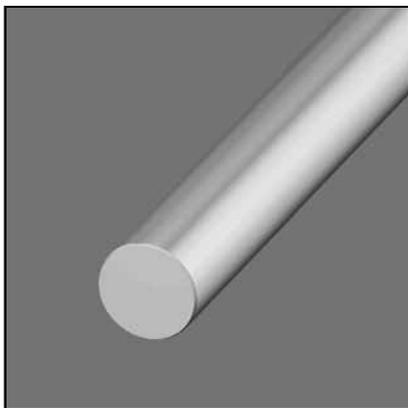
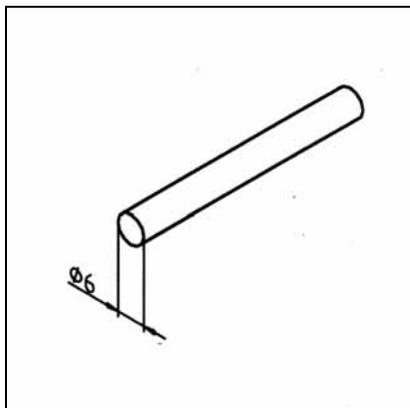
- 3-fold sliding doors, made of panel elements of max. 6 mm

ASSEMBLY

- Snap into profile groove
- Suitable for subsequent mounting
- For subsequent mounting of panel elements PVC-bars Part N° 22.1077/0 are to be inserted into grooves of the lower guide profile
- For the panel element allow a min. of 20 mm reduction in y-direction, for direct fitting without PVC-bars allow a min. of 10 mm reduction in y-direction

PVC-BAR

Part. N° 22.1077/0



TECHN. DATA / ITEMS SUPPLIED

- PA, natural
- Ø 6 mm
- Weight 0,040 kg/m
- Length 3 m

APPLICATION

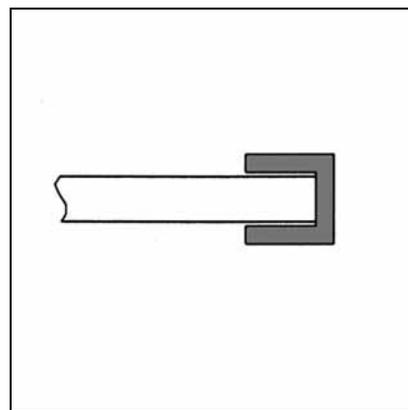
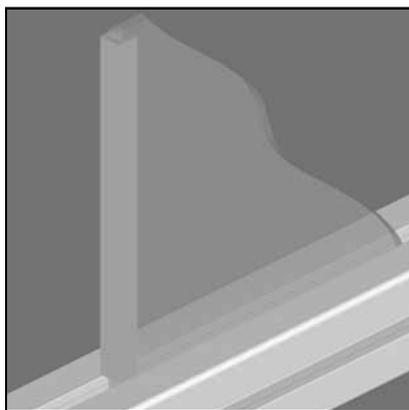
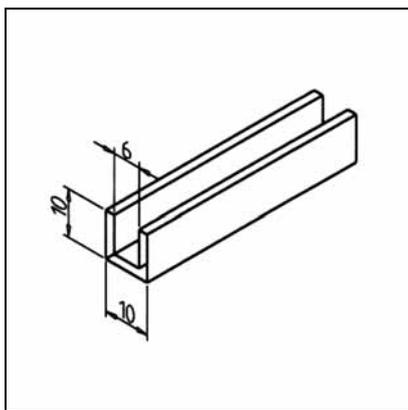
- Guiding of windows or doors in guide profiles

ASSEMBLY

- Insert in the lower grooves of guide profiles 2 and 3

U-PROFILE

Part. N° 21.1002/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, anodized E6/EV1	
- Weight	0,150 kg/m
- Length	6 m

APPLICATIONS

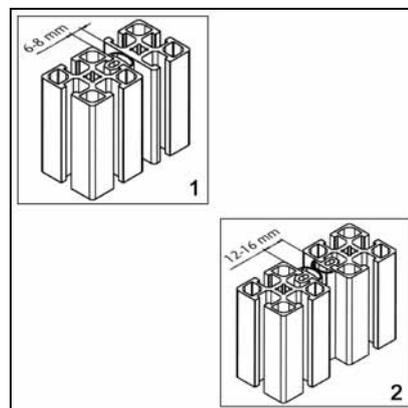
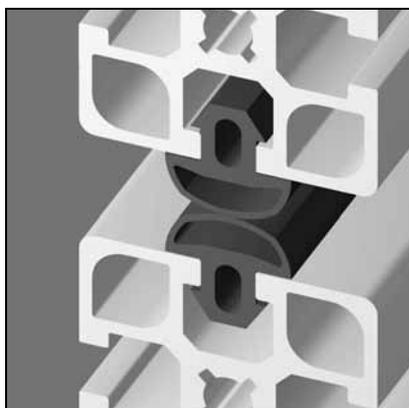
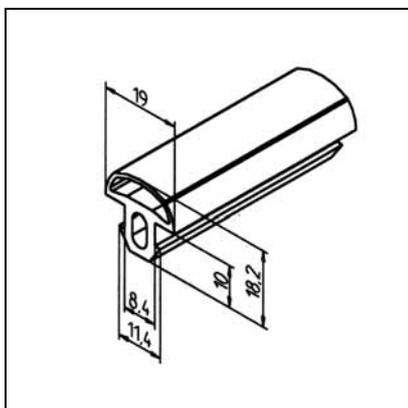
- Frame for screens of max. 5 mm

ASSEMBLY

- Glue on edges of panel elements with suitable adhesive

SEALING LEDGE

Part. N° 22.1078/0



TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	70°
- Weight	0,175 kg/m
- Length	200 m

APPLICATIONS

- Sealing of doors, lids and other constructions against dust, water, noise etc.

ASSEMBLY

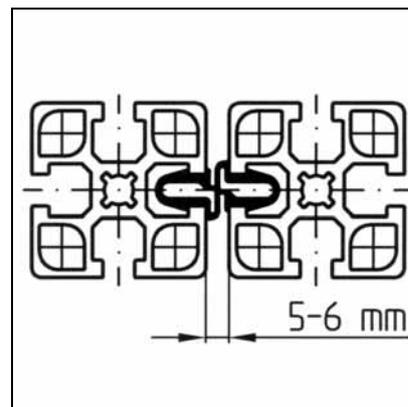
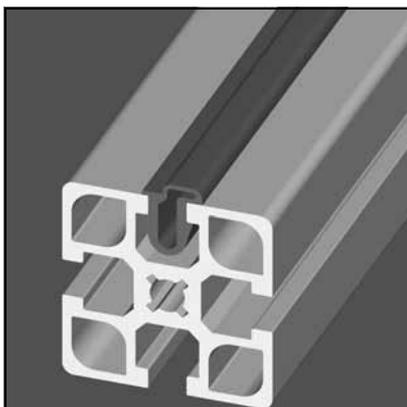
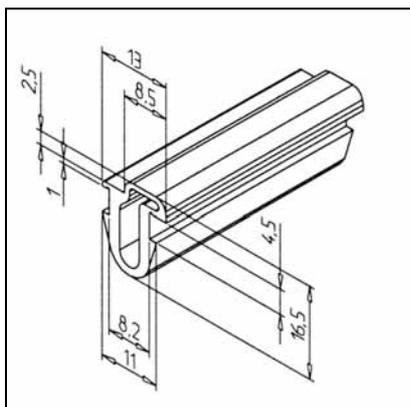
- Press into profile groove

- 1) Sealing of one side:
gap width = 6 - 8 mm

- 2) Sealing of both sides:
gap width = 12 - 16 mm

SEALING PROFILE

Part. N° 22.1011/0



TECHN. DATA/ITEMS SUPPLIED

- Weight	0,122 kg/m
- Length	100 m

APPLICATIONS

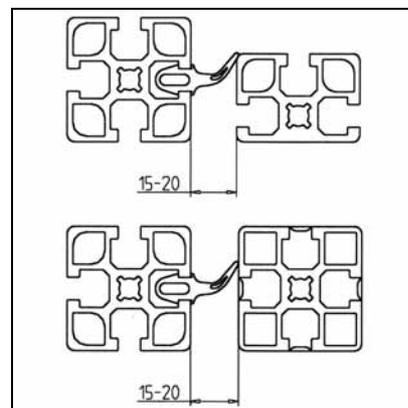
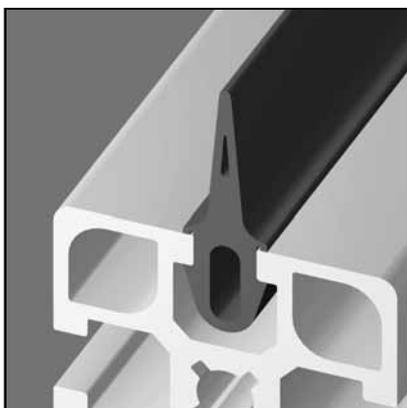
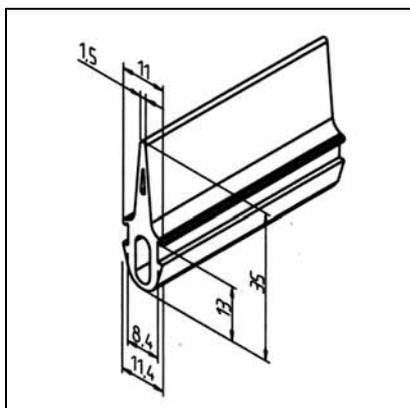
- Sealing of doors, lids and other constructions against water, dust and noise

ASSEMBLY

- Press into profile groove

SEALING LIP PROFILE

Part. N° 22.1038/0



TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	60°
- Weight	0,245 kg/m
- Length	75 m

APPLICATIONS

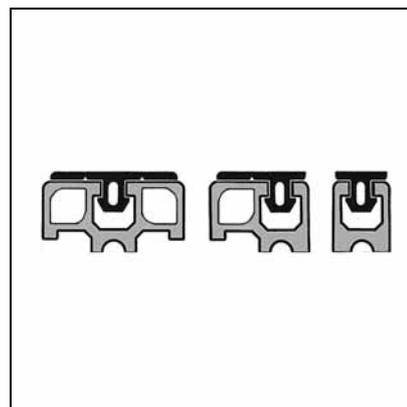
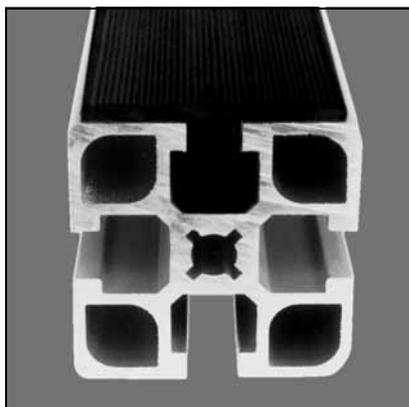
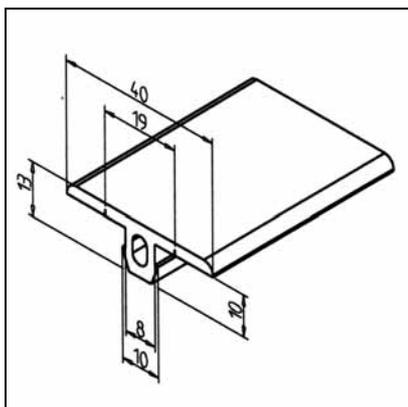
- Sealing of doors, lids and other constructions against dust, water, noise, light etc.

ASSEMBLY

- Press into profile groove

COVER PROFILE NBR

Part. N° 22.1098/0



TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Weight	0,230 kg/m
- Length	20 m

APPLICATIONS

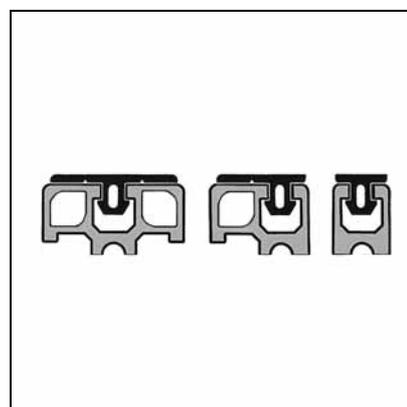
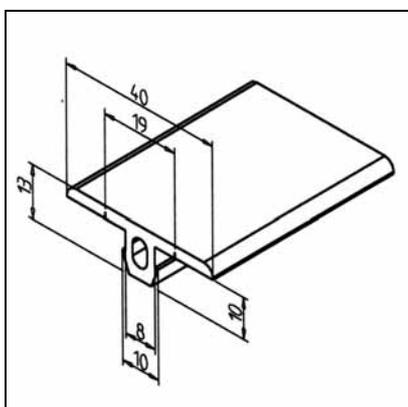
- Edge Protection
- Buffer strip
- Ladder rungs
- Buffer for sliding doors

ASSEMBLY

- Press into profile groove
- The lower side of the profile has 2 tear-off notches for adjustment of width to the aluminium profile

COVER PROFILE EPDM

Part. N° 22.1098/1



TECHN. DATA / ITEMS SUPPLIED

- EPDM, grey	
- Weight	0,230 kg/m
- Length	20 m

APPLICATIONS

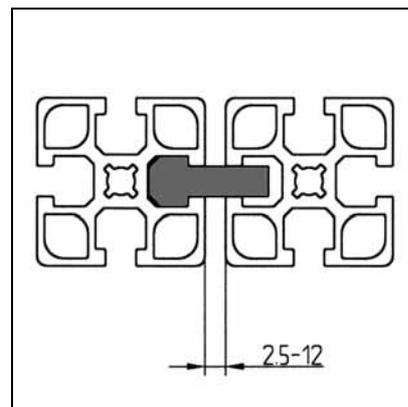
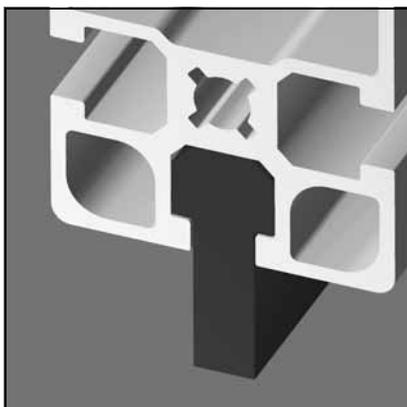
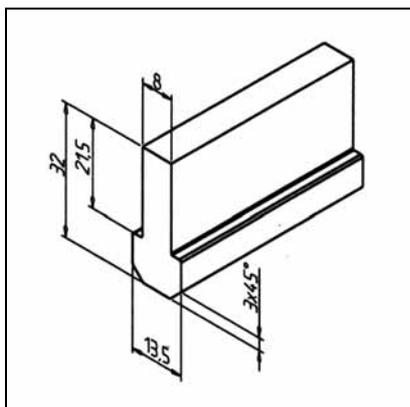
- Edge Protection
- Buffer strip
- Ladder rungs
- Buffer for sliding doors

ASSEMBLY

- Press into profile groove
- The lower side of the profile has 2 tear-off notches for adjustment of width to the aluminium profile

SLIDE BAR 8N

Part. N° 22.1085/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black

- Highly wear-resistant

- Weight 0,300 kg/m

- Length 2 m

APPLICATIONS

- Guiding device for sliding doors and other sliding elements

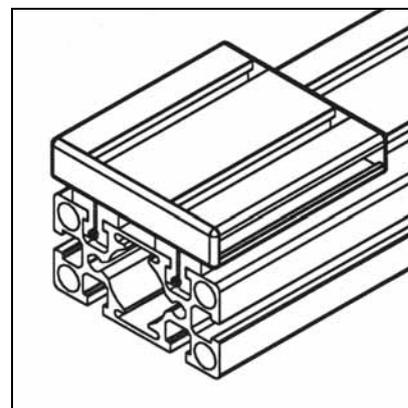
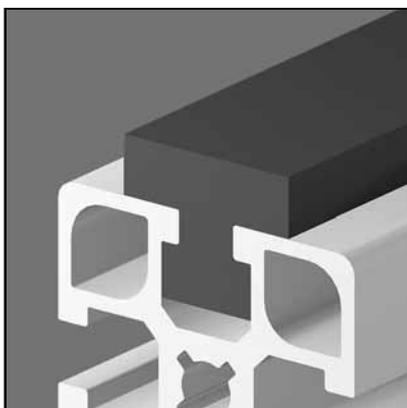
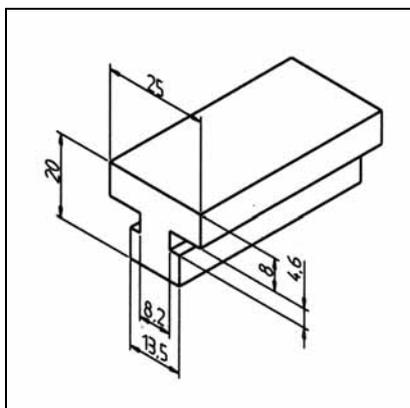
- Lateral guide for conveyors

ASSEMBLY

- Slide into profile groove

SLIDE BAR 8

Part. N° 22.1088/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black

- Highly wear-resistant

- Weight 0,311 kg/m

- Length 2 m

APPLICATIONS

- Sliding support

- workpiece slide

- Guide for lifting doors

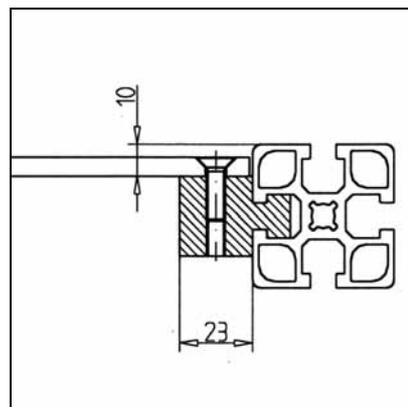
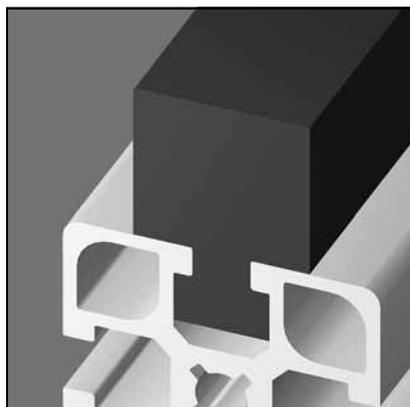
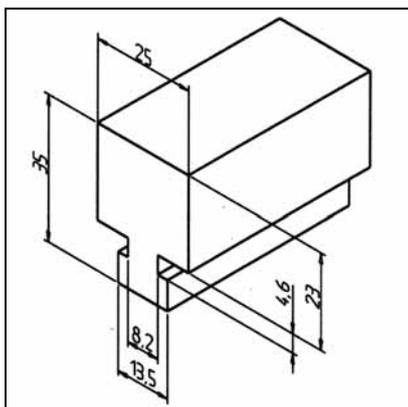
- Slides

ASSEMBLY

- Slide into profile groove

SLIDE BAR 23

Part. N° 22.1089/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Highly wear-resistant
- Weight 0,673 kg/m
- Length 2 m

APPLICATIONS

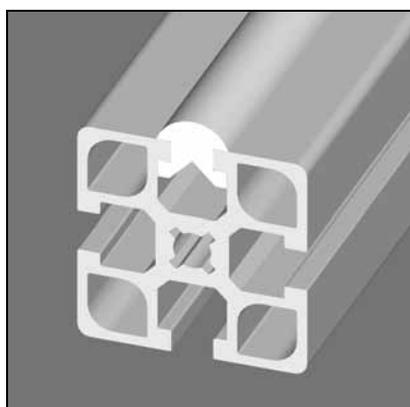
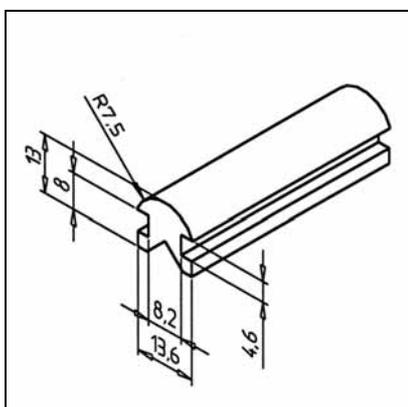
- Sliding support
- workpiece slide
- Customer processing possible by additional machining allowance

ASSEMBLY

- Slide into profile groove

SLIDE BAR R

Part. N° 22.1104/0



TECHN. DATA / ITEMS SUPPLIED

- PE, white
- Highly wear-resistant
- Weight 0,115 kg/m
- Length 2 m

APPLICATIONS

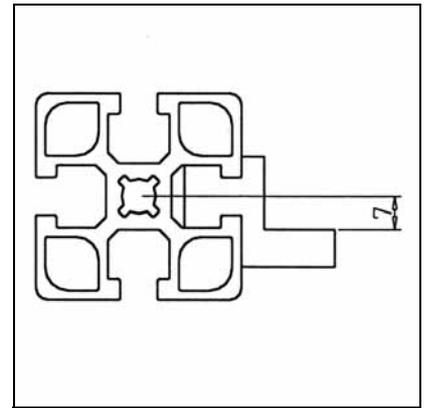
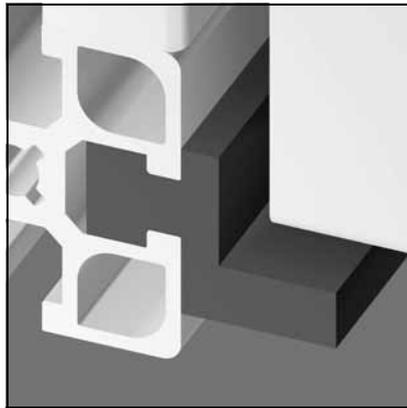
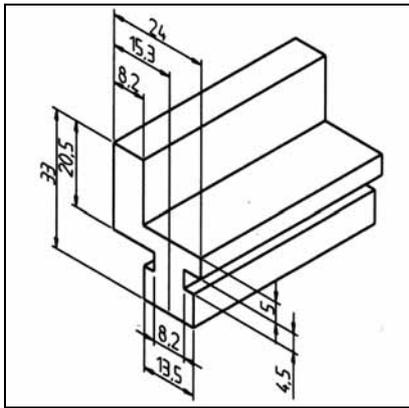
- Lateral guides
- Slide ways
- Kan-Ban racks
- Protective surface and supporting plates

ASSEMBLY

- Slide into profile groove
- Suitable for all profiles

ANGULAR SLIDE BAR

Part. N° 22.1040/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black	
- Highly wear-resistant	
- Weight	0,48 kg/m
- Length	2 m

APPLICATIONS

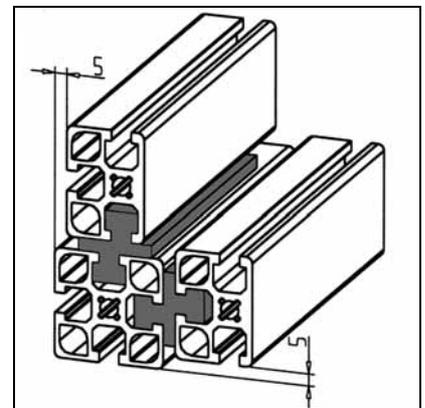
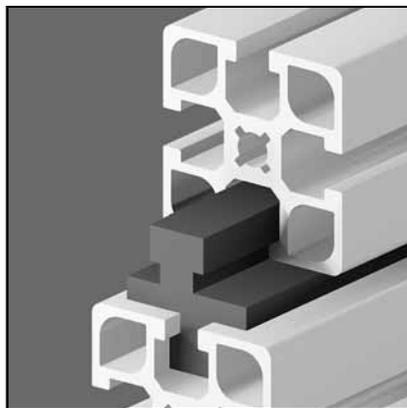
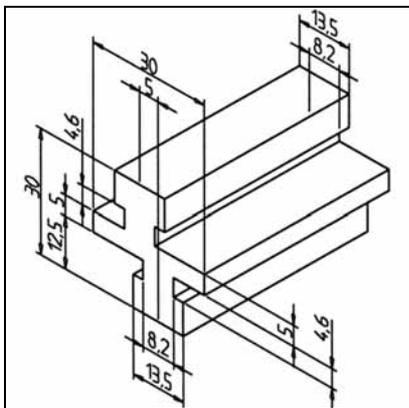
- Conveying systems
- Belt conveyors
- Lateral guides

ASSEMBLY

- Slide into profile groove

DOUBLE SLIDE BAR

Part. N° 22.1087/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black	
- Highly wear-resistant	
- Weight	0,420 kg/m
- Length	2 m

APPLICATIONS

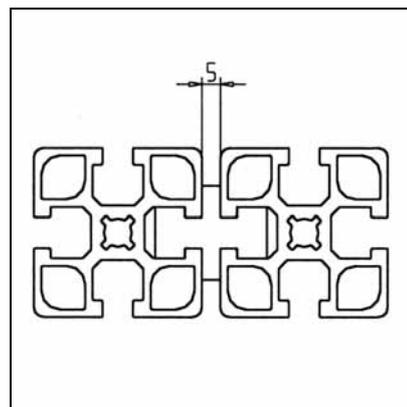
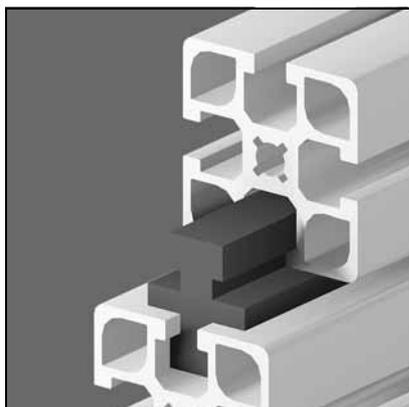
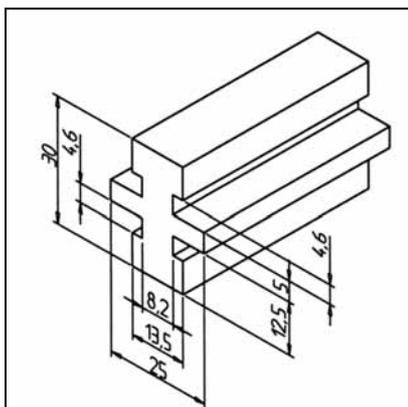
- Simple Workpiece slides
- Guide for drawers

ASSEMBLY

- Slide the double slide unit into profile groove of frame and sliding element
- Secure the sliding element at both ends with hex socket cap screws M8 x 16

PARALLEL SLIDE BAR

Part. N° 22.1041/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Highly wear-resistant
- Weight 0,387 kg/m
- Length 2 m

APPLICATIONS

- Parallel guide without difference in height
- Sliding elements that are flush on the outside

ASSEMBLY

- Slide into profile groove
- If necessary, they can be locked on one side by means of straight pins M6 x 16



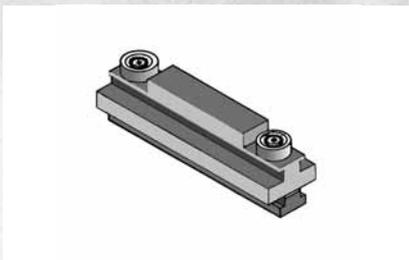
PREASSEMBLED
ELEMENTS FOR LIFTING
AND SLIDING DOORS

PREASSEMBLED ELEMENTS FOR LIFTING AND SLIDING DOORS

All elements are preassembled from our standard products ready for use. They are easily fixed to our profiles by using our fastening elements. Stock of parts is not necessary and planning and assembly time can be reduced significantly.

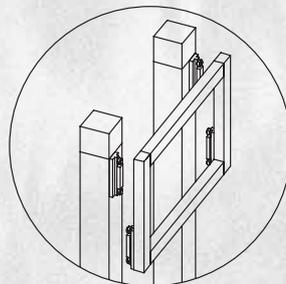


Slide-roll element

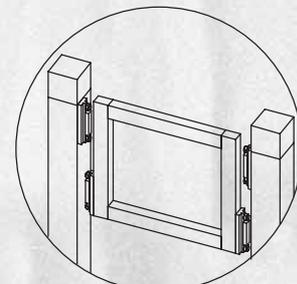


For one door four elements are necessary:
 One each to be fixed at end positions of pillar.
 One each to be fixed at door element.
 Length of sliding profile:
 desired stroke + 180 mm min.

1. Disassemble slide-roll element.
2. Insert T-slot bar into profile groove and fix at desired position.
3. Reassemble the slide-roll element and lock with glue.

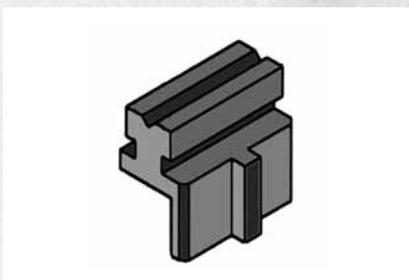


Assembly in front of pillars.
 Gap= 8 mm



Assembly between pillars.
 Gap= 8 mm

Guide for sliding-door



For a simultaneous guidance of two elements in one profile groove. Subsequent mounting of sliding-doors into existing constructions possible.

For one door element 4 guides are necessary.

Allow for door elements:

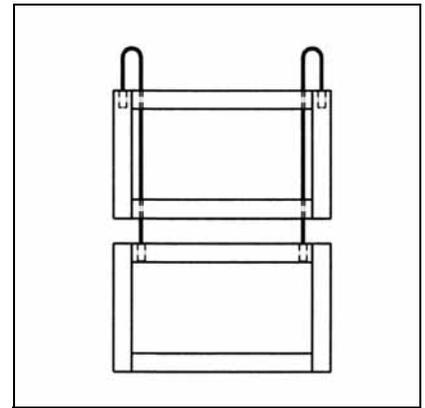
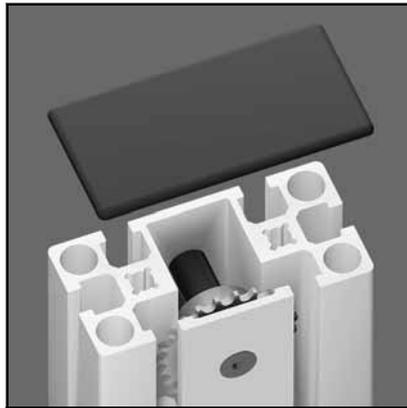
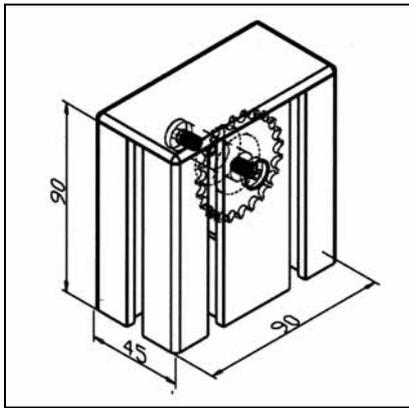
Height: Clearance of the opening minus 11 mm

Width for 2 elements: $\frac{\text{Clear width of the opening} + 55}{2}$

2

SYNCHRONOUS PULLEY 45

Part. N° 21.1792/0



TECHN. DATA / ITEMS SUPPLIED

- Housing made of profile 45 x 90
- Chain wheel, steel, preassembled for installation on broad side of the profile
- Weight 0,343 kg
- Load max. 34 kg

APPLICATIONS

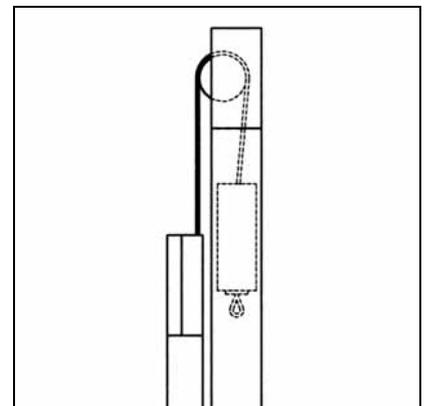
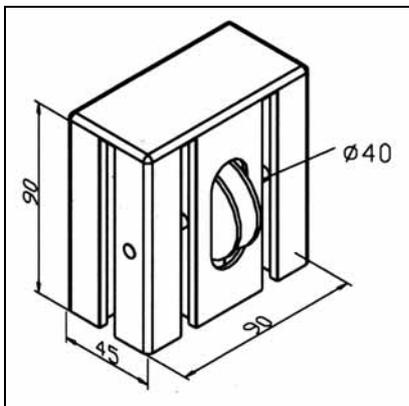
- Simultaneous opening and closing of two lifting doors running in the opposite direction; doors are of similar weight
- The chain is guided in the profile groove, thus no hand-protection is required

ASSEMBLY

- Attachment on vertical profile with 2 T-slot bars 90 Part N° 21.1029/0
- Insert chain Part N° 21.1713/0 in pulley; fasten it with the door chain clamping device Part N° 21.1712/0 on both doors and insert it in the vertical profiles

CABLE PULLEY 45

Part. N° 21.1775/0



TECHN. DATA/ITEMS SUPPLIED

- Housing made of profile 45 x 90
- Cable roller preassembled; built-in on broad side of the profile
- End cap
- Weight 0,350 kg
- Load max. 12 kg

APPLICATIONS

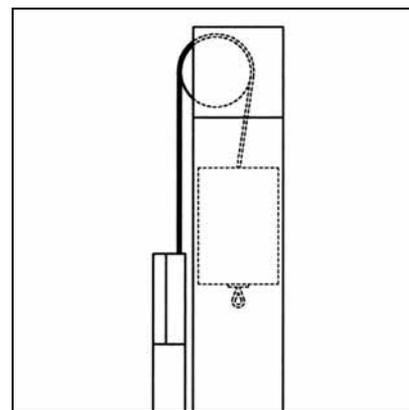
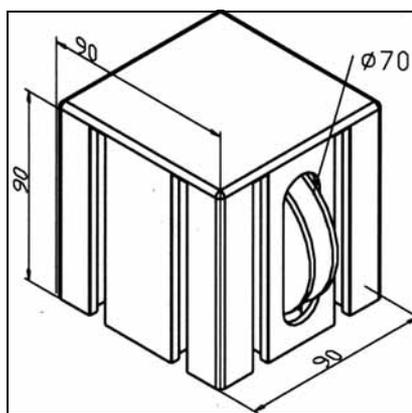
- Cable reverse for counterweights in lifting doors made of profiles 45 x 90 L or 45 x 90 G
- For continuous operation and heavy loads use chain pulley 45

ASSEMBLY

- Attachment on vertical profile with 2 T-slot bars 90 Part N° 21.1029/0
- Corresponding cable Part N° 21.1777/0 is a wear part and must be regularly checked and lubricated if required

CABLE PULLEY 90

Part. N° 21.1776/0



TECHN. DATA/ITEMS SUPPLIED

- Housing made of profile 90 x 90 L
- Built-in cable roller St, zinc plated
- End cap
- Weight 0,680 kg
- Load max. 30 kg

APPLICATIONS

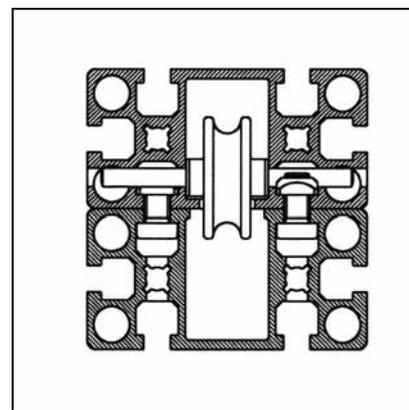
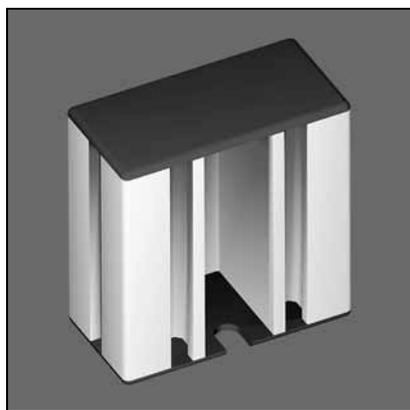
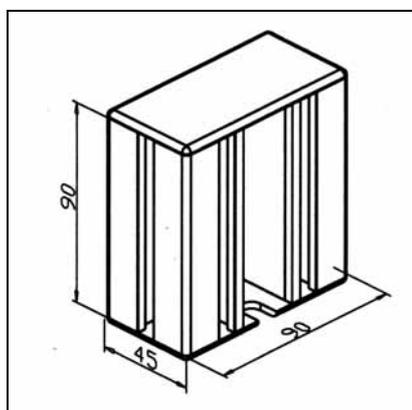
- Cable reverse for counterweights in lifting doors made of profiles 90 x 90 L
- For continuous operation and heavy loads use chain pulley 90

ASSEMBLY

- Attachment on vertical profile with 4 T-slot bars 90 Part N° 21.1029/0
- Corresponding cable Part N° 21.1777/0 is a wear part and must be regularly checked and lubricated if required

END BLOCK

Part. N° 21.1780/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 90
- End caps 45 x 90, one of them with slot for cable passage
- Fastening kit
- Weight 0,290 kg
- Length 90 mm

APPLICATIONS

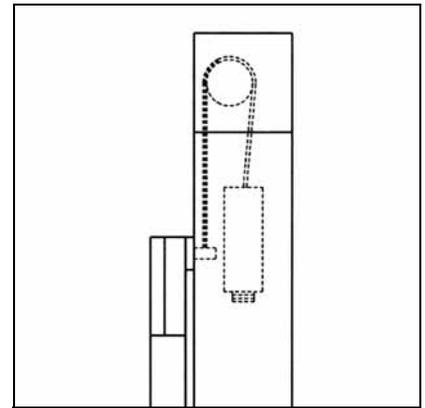
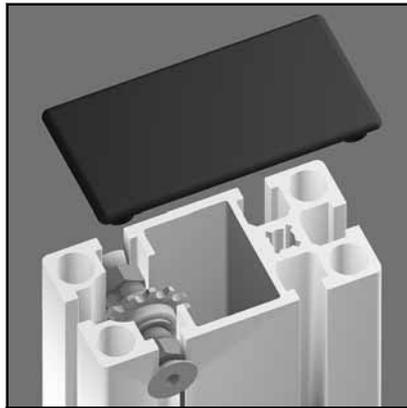
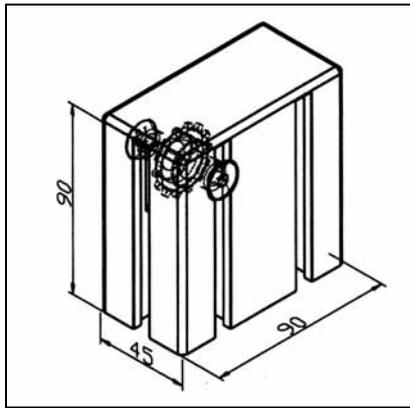
- Safety device for cable pulleys

ASSEMBLY

- Use fastening kit

CHAIN PULLEY 32

Part. N° 21.1774/0



TECHN. DATA / ITEMS SUPPLIED

- Housing made of profile 45 x 90
- Chain wheel, steel, zinc plated, preassembled, for small profile side
- End cap
- Weight 0,372 kg
- Load max. 50 kg

APPLICATIONS

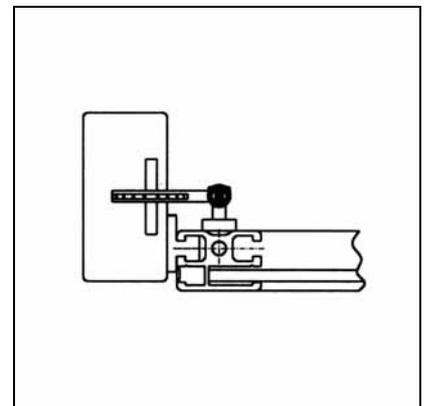
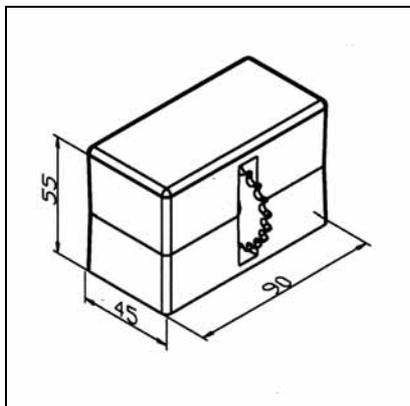
- Chain reverse for counterweights in lifting doors; for inner balancing weight in profiles 45 x 90 F or 45 x 90 G
- The cable is guided in the profile groove, thus no hand-protection is required

ASSEMBLY

- Attachment on vertical profiles with 2 slot-bars 90 Part N° 21.1029/0
- Application of chain Part N° 21.1713/0 with door chain clamping device Part N° 21.1712/0 and weight chain clamping device Part N° 21.1711/0

CHAIN PULLEY 45 A

Part. N° 21.1838/0



TECHN. DATA / ITEMS SUPPLIED

- Housing aluminium GD, powder coated, grey
- Chain wheel, steel, zinc plated preassembled
- End cap
- Fastening kit
- Weight 0,347 kg
- Load max. 50 kg

APPLICATIONS

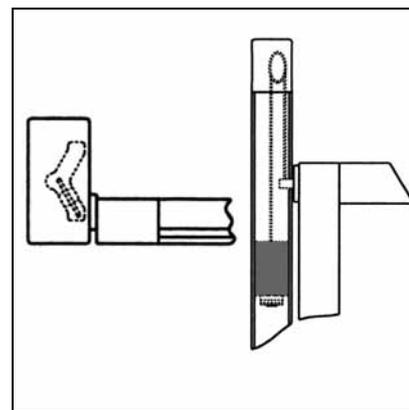
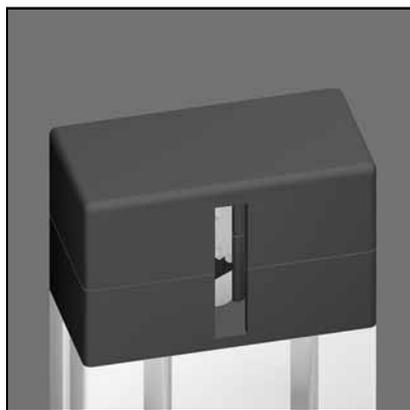
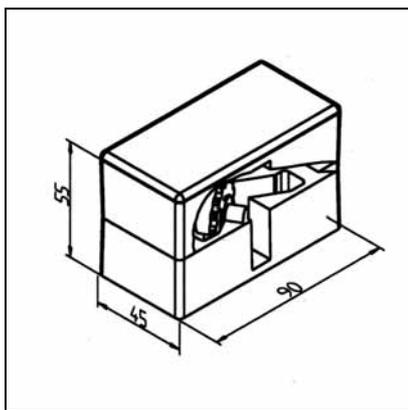
- Chain reverse of counterweights for lifting doors for inner counterweight in profile 45 x 90 L or 45 X 90 G
- Chain runs on the outer profile side and in the middle of the broad side; if required covered with hand-protection Part N° 21.1780/0

ASSEMBLY

- Attachment with fastening kit from supply schedule; thread M8 in vertical profile required
- Use of chain Part N° 21.1713/0 with door chain clamping device Part N° 21.1712/0 and weight chain clamping device Part N° 21.1711/0

CHAIN PULLEY 45 I

Part. N° 21.1840/0



TECHN. DATA / ITEMS SUPPLIED

- Housing aluminium GD, powder coated, grey
- Chain wheel, steel, zinc plated, preassembled
- End cap
- Fastening kit
- Weight 0,347 kg
- Load max. 50 kg

APPLICATIONS

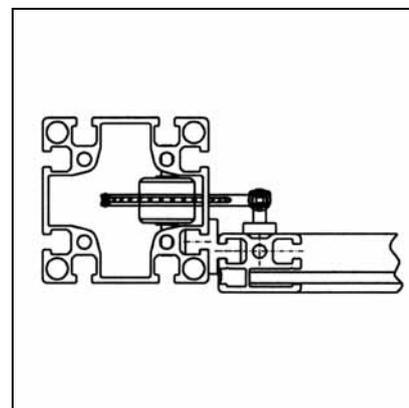
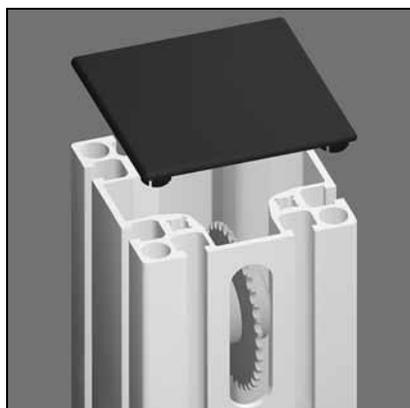
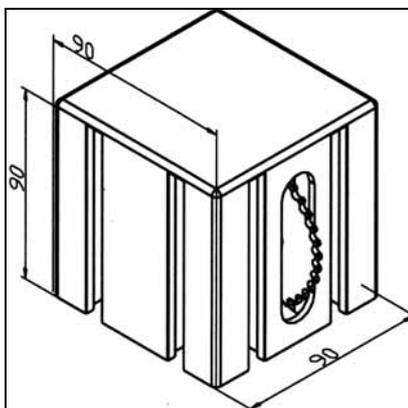
- Chain reverse of counterweights for lifting doors for inner counterweight in profile 45 x 90 L or 45 X 90 G
- Chain runs on the broad side of the profile in the right or left profile groove (adjustable chain wheel) no handprotection required

ASSEMBLY

- Attachment with fastening kit from supply schedule; thread M8 in vertical profile required
- Use of chain Part N° 21.1713/0 with door chain clamping device Part N° 21.1712/0 and weight chain clamping device Part N° 21.1711/0

CHAIN PULLEY 90

Part. N° 21.1839/0



TECHN. DATA / ITEMS SUPPLIED

- Housing aluminium GD, powder coated, grey
- Chain wheel, steel, zinc plated, preassembled
- End cap
- Weight 0,681 kg
- Load max. 70 kg

APPLICATIONS

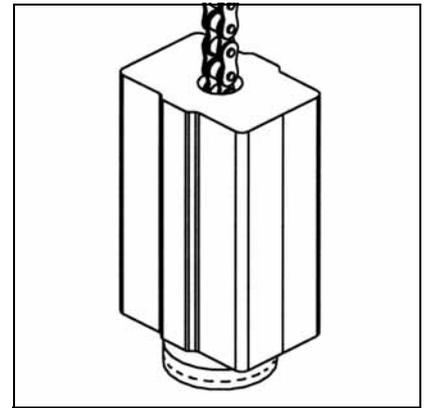
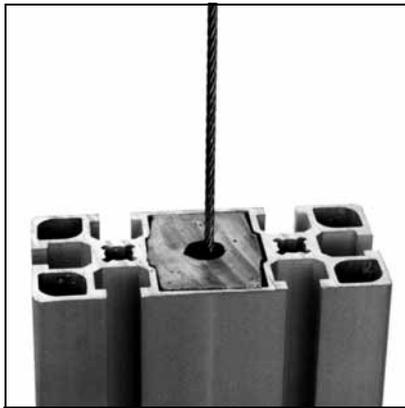
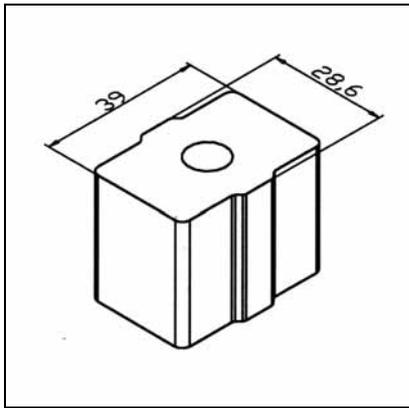
- Chain reverse for counterweights for lifting doors, for inner balancing weight in profile 90 x 90 L
- The chain is guided on the outside and in the middle of the profile surface; cover with hand-protection Part N° 21.1780/0

ASSEMBLY

- Attachment on vertical profiles with 4 slot-bars Part N° 21.1029/0
- Use of chain Part N° 21.1713/0 with door chain clamping device Part N° 21.1712/0 and weight chain clamping device Part N° 21.1711/0

COUNTERWEIGHT 45

Part. N° 21.1772/0



TECHN. DATA / ITEMS SUPPLIED

- Pb cast, special hard
- For profiles 45 x 90 L or 45 x 90 G
- Weight 10 kg/m
- Length 0,330 m

APPLICATIONS

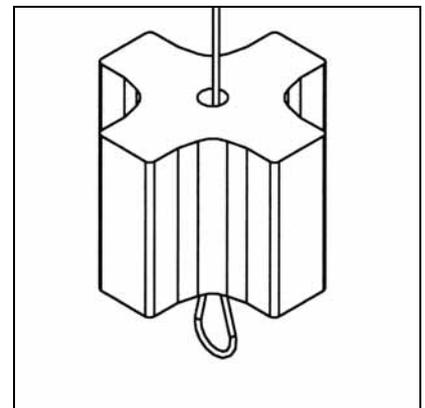
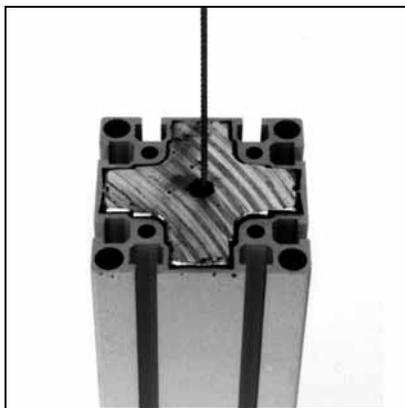
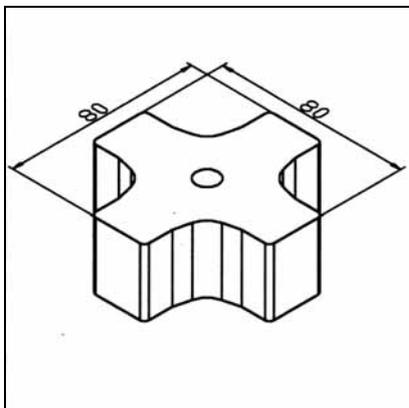
- Counterweight for large lifting doors
- For cable and chain

ASSEMBLY

- Insert the counterweight into the profile
- Fasten the steel cable Part N° 21.1777/0 with cable clamping device Part N° 21.1797/0 on the lifting door
- Fasten chain Part N° 21.1713/0 with weight chain clamping device Part N°. 21.1711/0 and with door chain clamping device Part N° 21.1712/0 on the door

COUNTERWEIGHT 90

Part. N° 21.1778/0



TECHN. DATA / ITEMS SUPPLIED

- Pb cast, special hard
- For profiles 90 x 90 L or 90 x 90 G
- Weight 38,5 kg/m
- Length 0,260 m

APPLICATIONS

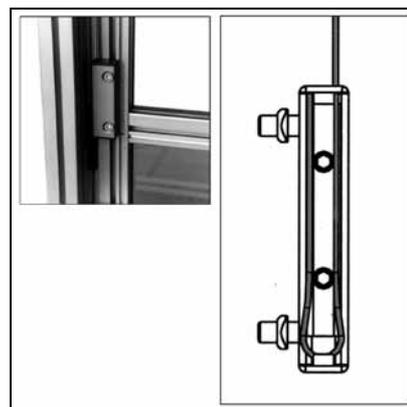
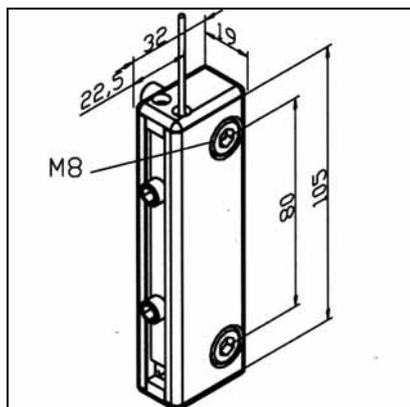
- Counterweight for large lifting doors

ASSEMBLY

- Insert the counterweight into the profile
- Fasten the steel cable Part N° 21.1777/0 with cable clamping device Part N° 21.1797/0 on the lifting door
- Fasten chain Part N° 21.1713/0 with weight chain clamping device Part N°. 21.1711/0 and with door chain clamping device Part N° 21.1712/0 on the door

ROPE CLAMP

Part. N° 21.1797/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 19 x 32
- 1 Clamping plate
- 2 hex socket head socket head socket cap screws M8 x 25 with square nuts M8
- 2 End caps, one with throughbore
- Weight 0,149 kg

APPLICATIONS

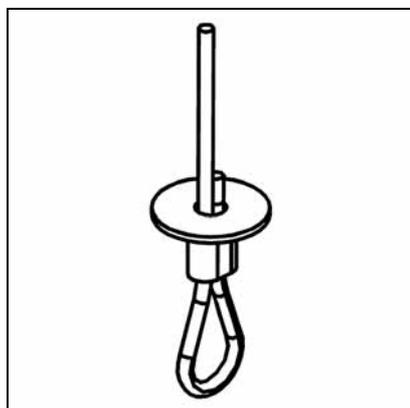
- Connection of counterweight and door element in lifting doors

ASSEMBLY

- Remove lower end cap and unscrew set screw
- Attach rope clamp with fastening kit at the top of the door element
- Pull the rope through the bore of the upper end cap
- Put the counterweight in desired position (test in upper and lower end position of the door element)
- Lay rope end in loop around clamping plate, slide into the slot and fix the two set screws
- If necessary cut cable end
- Fix lower end cap

CABLE

Part. N° 21.1777/0



TECHN. DATA/ITEMS SUPPLIED

- Steel cable VA, 2,5 mm
- With clamping eye hook on one side, pressed
- Weight 0,072 kg/m
- Length 2,5 m
- On request also deliverable in other length

APPLICATIONS

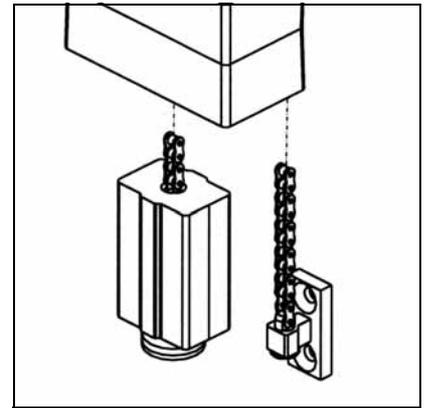
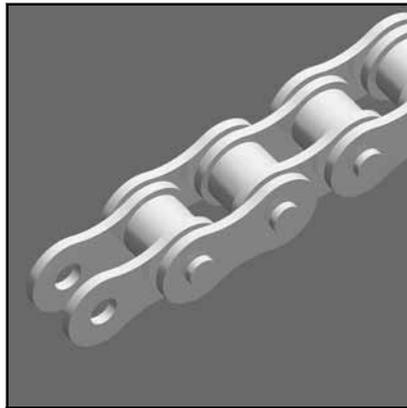
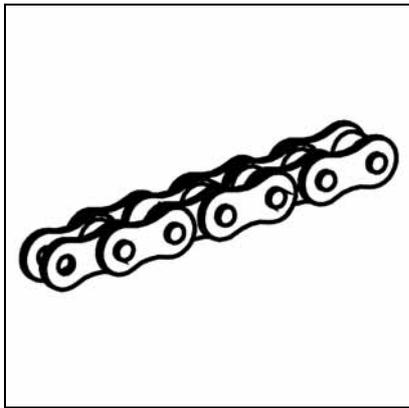
- Use in connection with counterweight 45 or 90 and cable pulleys

ASSEMBLY

- Lead the cable through the center bore and into the counterweight
- Fasten the cable with the cable clamping device Part N° 21.1797/0 on the lifting door
- Cable is a wear part and must be regularly checked and lubricated if required

CHAIN

Part. N° 21.1713/0



TECHN. DATA / ITEMS SUPPLIED

- Roller chain, steel

- Size 4

- Weight 0,120 kg/m

- Breacking load min. 3000 N

- Please indicate desired length

APPLICATIONS

- Use in connection with counterweight 45 or 90 and chain pulleys

- Use in connection with door chain clamping device **Part N° 21.1712/0** for fastening the chain on the door

- Use in connection with weight chain clamping device **Part N° 21.1711/0** for fastening the chain on the side of the counterweight

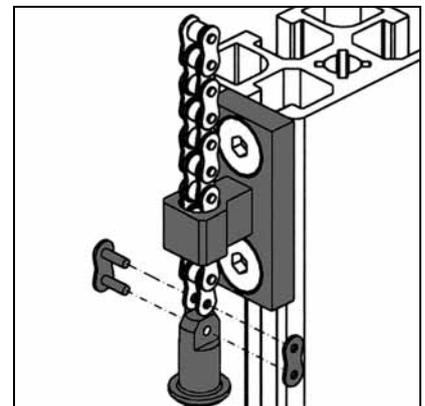
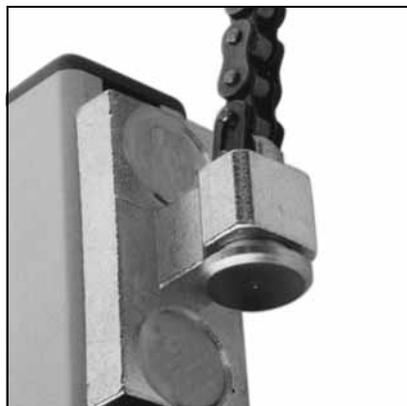
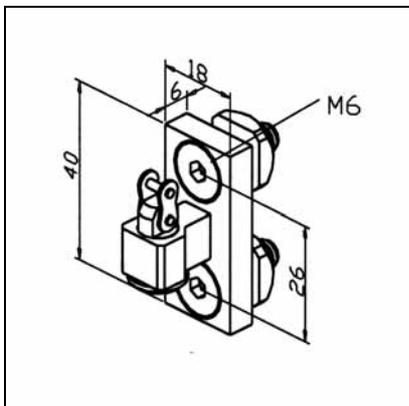
ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **Part N° 21.1711/0** mount chainlock

- For mounting on door lead chain through fastening kit for chain (door side) **Part N° 21.1712/0**

DOOR CHAIN CLAMPING DEVICE

Part. N° 21.1712/0



TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated

- Fastening kit

- Weight 0,060 kg

APPLICATIONS

- Use in connection with counterweight 45 or 90 and pulleys

- Use in connection with chain **Part N° 21.1713/0** for fastening on door side

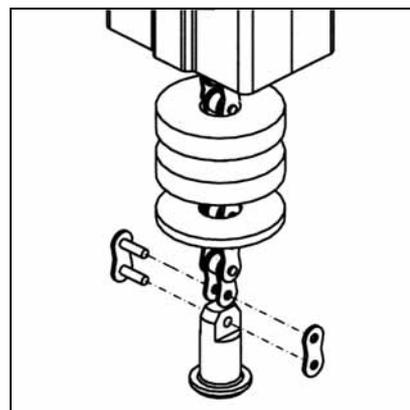
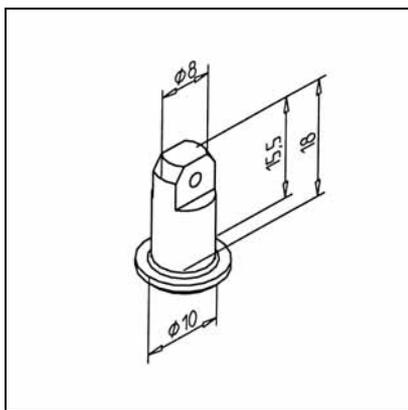
ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **Part N° 21.1711/0** mount chainlock

- For mounting on door lead chain through fastening kit for chain (door side) **Part N° 21.1712/0** and mount bolt with link for chain

FASTENING KIT FOR CHAIN (COUNTERWEIGHT SIDE)

Part. N° 21.1711/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Rubber-ring
- Link for chain
- Weight 0,015 kg

APPLICATIONS

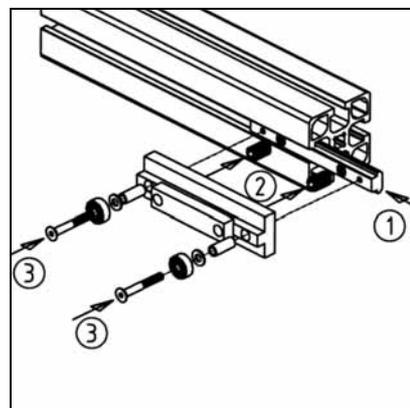
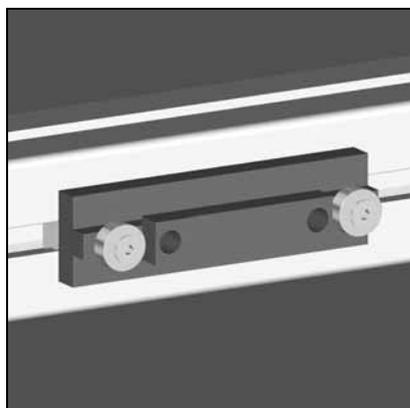
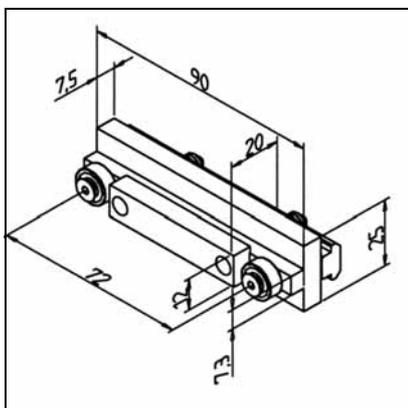
- Use in connection with counterweight 45 or 90 and pulleys
- Use in connection with chain Part N° 21.1713/0 to fasten chain to counterweight

ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) Part N° 21.1711/0 mount chain lock
- For mounting on door lead chain through fastening kit for chain (door side) Part N° 21.1712/0

SLIDE-ROLL ELEMENT

Part. N° 21.1796/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic black, highly wear resistant
- 1 T-slot bar, steel, zinc plated
- 2 ball-bearings, premounted
- Weight 0,093 kg
- Load max. 200 N

APPLICATIONS

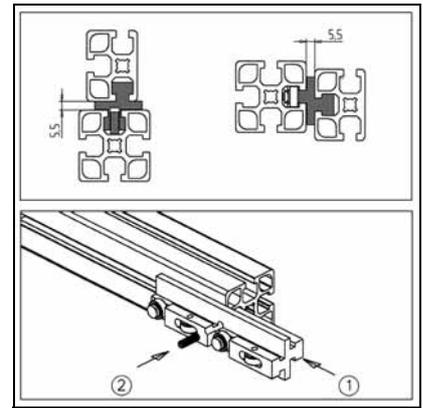
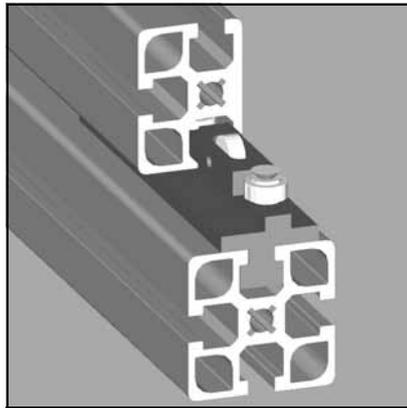
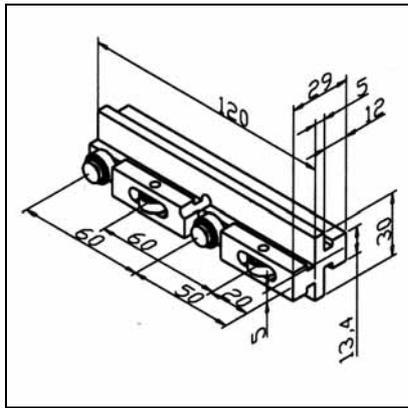
- Guide for lifting doors in the groove of the vertical profile
- Light linear slides
- Workpiece-slides, drawers

ASSEMBLY

- 1: Disassemble the bearings from the element
- 2: Insert t-slot bar into profile groove and lock at desired position
- 3: Reassemble the slide and the bearings with t-slot bar, secure with suitable glue

GLIDE-ROLL ELEMENT

Part. N° 21.1799/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic black, highly wear resistant
- 1 clamping screw, steel, zinc plated
- 4 built-in ball-bearings
- Weight 0,060 kg
- F max 300 N

APPLICATIONS

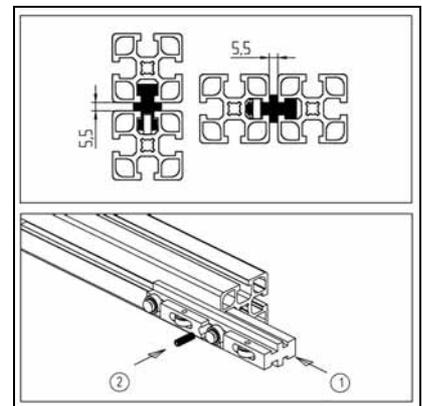
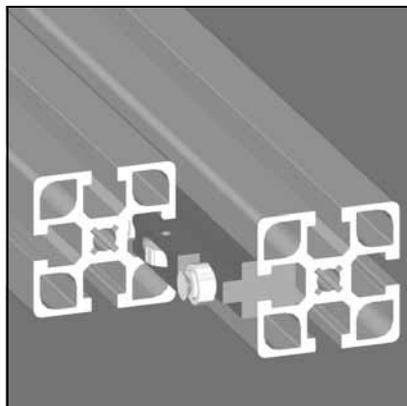
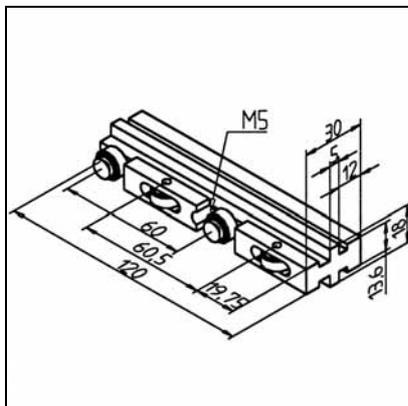
- Guide for sliding doors, lifting-doors, workpiece-slides, light linear guides
- The element provides 5 mm eccentricity for the construction of sliding doors with 2 casements or guides with 5 mm ground clearance

ASSEMBLY

- 1: Insert the element with screw side into profile groove of movable construction part
- 2: Tighten the screw
- Slide the completely mounted movable part into the grooves of the guiding profiles. Secure the movable part against falling out with screws at both end

GLIDE-ROLL ELEMENT PARALLEL

Part. N° 21.1714/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic black, highly wear resistant
- 1 clamping screw, steel, zinc plated
- 4 built-in ball-bearings
- Weight 0,060 kg
- F max 300 N

APPLICATIONS

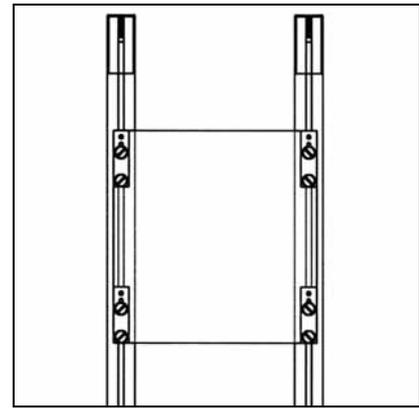
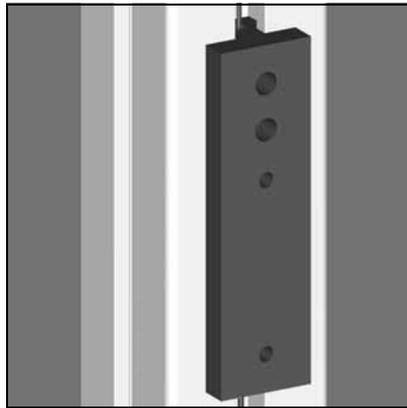
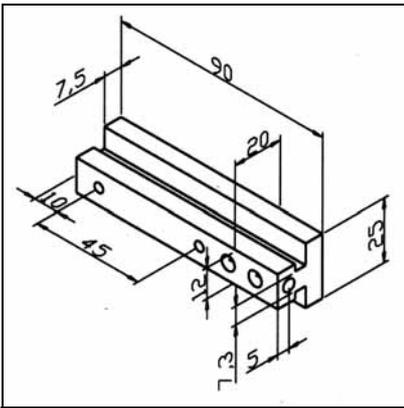
- Guide for sliding doors, lifting-doors, workpiece-slides, light linear guides
- Both slots are parallel to each other for construction of flush sliding doors

ASSEMBLY

- 1: Insert the element with screw side into profile groove of movable construction part
- 2: Tighten the screw
- 3: Slide the completely mounted movable part into the grooves of the guiding profiles. Secure the movable part against falling out with screws at both ends

SLIDE ELEMENT

Part. N° 21.1795/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic black, highly wear resistant
- Ready for use with rope-bore and clamp
- Weight 0,029 kg

APPLICATIONS

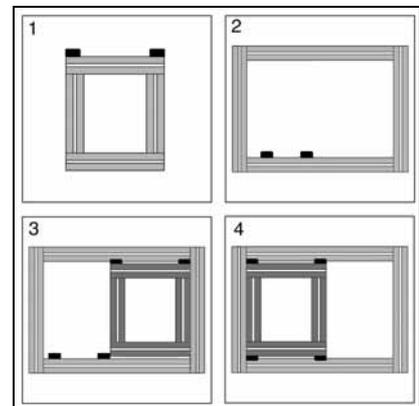
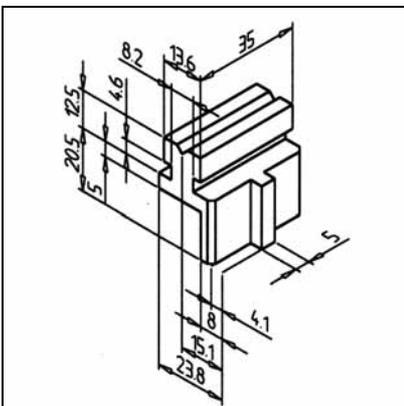
- Guide for light lifting doors and in same function connection of door element and counterweight
- Especially suitable for direct attachment on panel elements without frame

ASSEMBLY

- Connect the cable of the counterweight with slide element
- Secure cable end with clamp
- Screw into the groove of the vertical profile
- Screw panel element

GUIDE FOR SLIDING DOOR

Part. N° 22.1079/0



TECHN. DATA / ITEMS SUPPLIED

- Plastic PA 6.6, black
- 1 screw
- For 1 door element 4 guides are necessary
- Weight 0,029 kg

APPLICATIONS

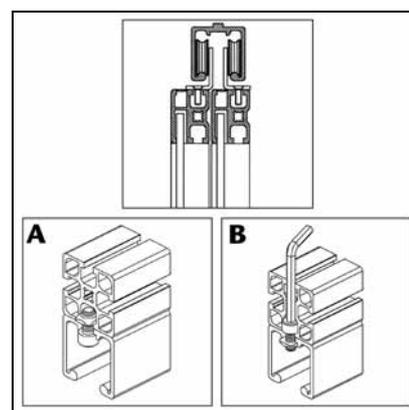
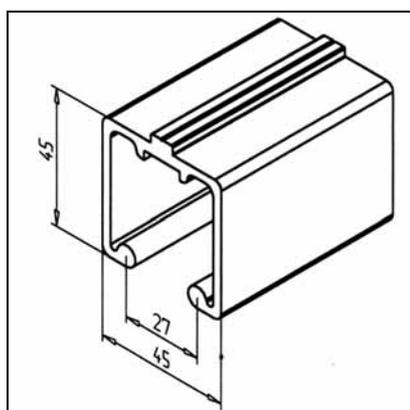
- Sliding doors
- Sliding elements
- Workpiece-slides, drawers
- For a simultaneous guidance of 2 elements in 1 profile groove
- Subsequent mounting of sliding doors into existing constructions possible

ASSEMBLY

- 1: Fasten the upper guide to the frame of the door element
 - 2: Insert the lower guide into the frame construction
 - 3: Insert the door element
 - 4: Slide it into the lower guide and secure at desired position
- Mount second door element
 - Allowance: see page 186

SLIDING DOOR PROFILE

Part. N° 20.1038/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	15,347 cm ⁴
- ly =	15,597 cm ⁴
- wx =	5,912 cm ³
- wy =	6,932 cm ³
- Weight	1,474 kg/m
- Length	5 m
- Packing unit	40 m

APPLICATIONS

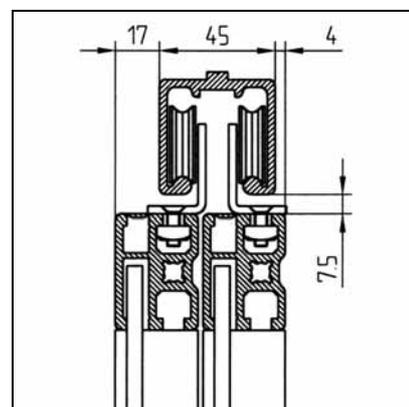
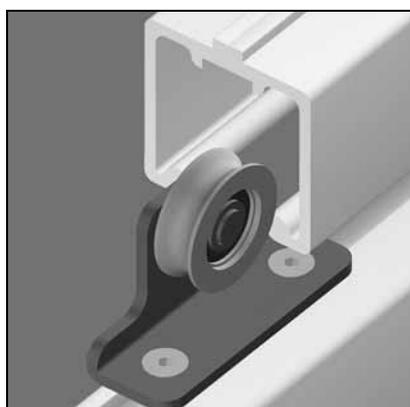
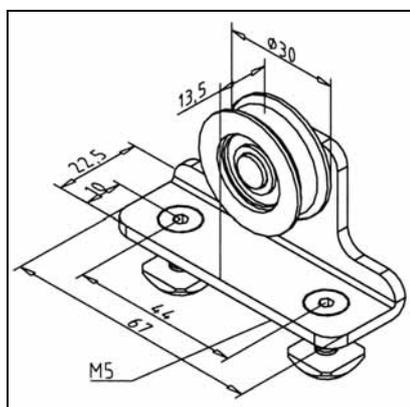
- Two wing sliding doors
- One wing sliding doors

ASSEMBLY

- Drill Ø 8,5 mm holes in centering groove; bore pitch: 250 - 400 mm depending on the load
- A) Position M8 F square nuts in the supporting profile and fasten the sliding door profile with M8 x 25 head socket cap screw
- B) Drill holes or step holes in the supporting profile and insert the square nuts in the sliding profile; the nuts are secured against torsion

ROLLER ELEMENT FOR SLIDING DOOR

Part. N° 21.2000/0



TECHN. DATA / ITEMS SUPPLIED

- Plastic roller with ball-bearing	
- Zinc plated steel support	
- Fastening kit	
- Weight	0,080 kg
- Load max.	60 kg

APPLICATIONS

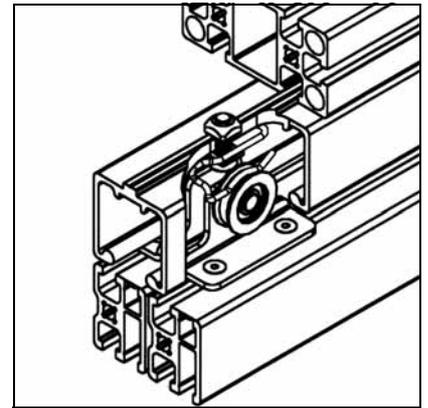
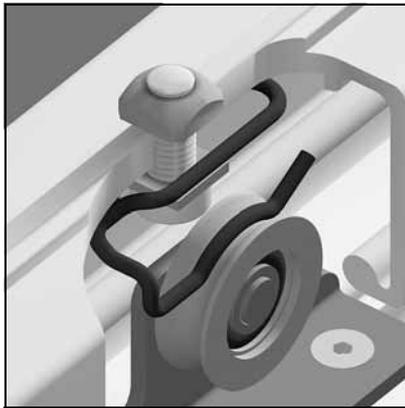
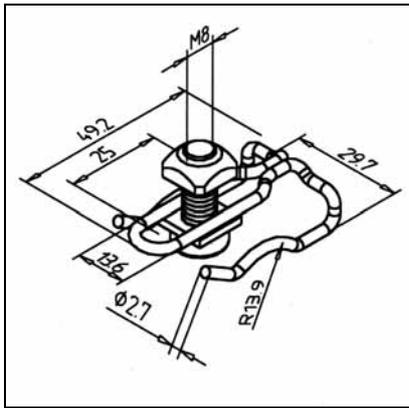
- Easy-running, multi-wing sliding doors in guard units, exhibition stands, testing units, etc.

ASSEMBLY

- Fasten the roller elements on profile groove; Use fastening kit
- Insert the doors in the sliding rail profile and gently swing out the doors at their bottom end
- Secure the sliding door at the bottom with locking pins, sliding rails 8N Part N° 22.1085/0 or U-Profile Part N° 21.2002/0 against swinging

STOP FOR SLIDING DOOR

Part. N° 21.2001/0



TECHN. DATA / ITEMS SUPPLIED

- Spring steel wire
- Fastening kit
- Weight 0,010 kg

APPLICATIONS

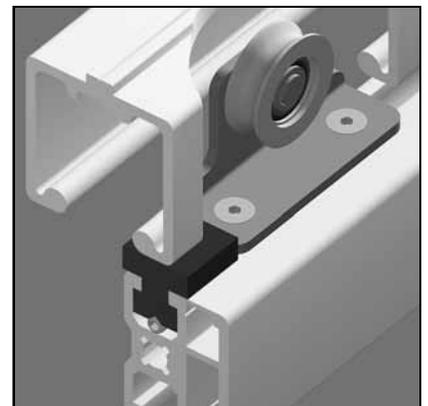
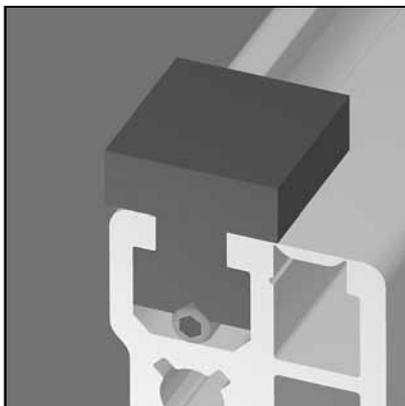
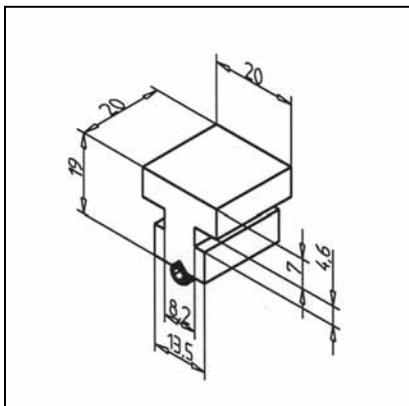
- Stop for sliding doors in their end positions (open / closed)

ASSEMBLY

- Mark end position of the wheel
- Bore drill Ø 8,5 m in sliding door profile
- Use fastening kit

ANTI LIFT FOR SLIDING DOOR

Part. N° 21.2003/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Fastening kit
- Weight 0,010 kg

APPLICATIONS

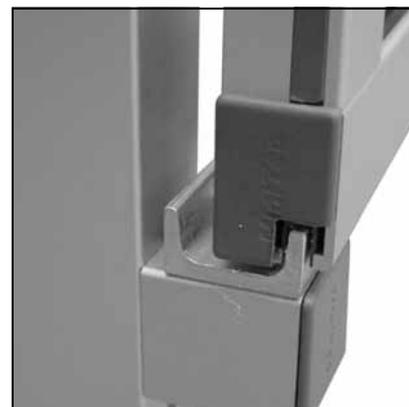
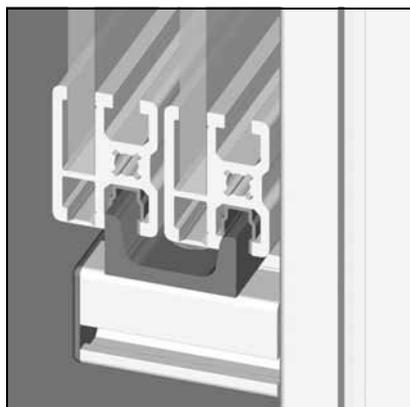
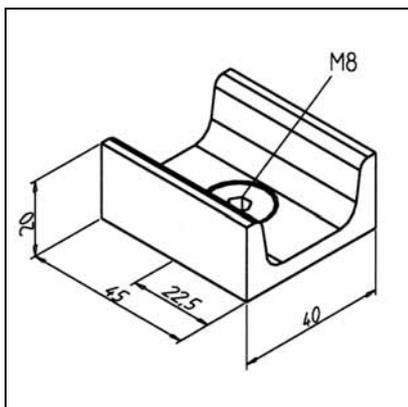
- Securing of sliding doors against lift off
- Reduction of pendulum motion

ASSEMBLY

- Slip lift for sliding door in upper profile groove of the door-element
- Secure the position by mount the included set screw horizontally in profile groove underneath antilift
- Fix end cap

U-BAR FOR SLIDING DOOR

Part. N° 21.2002/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,012 kg

APPLICATIONS

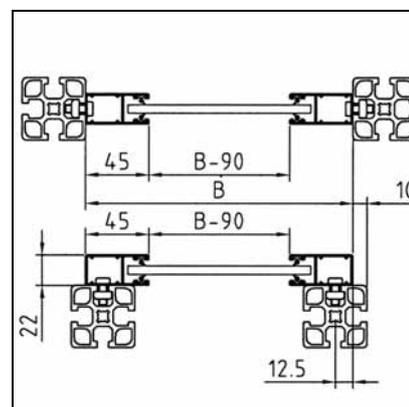
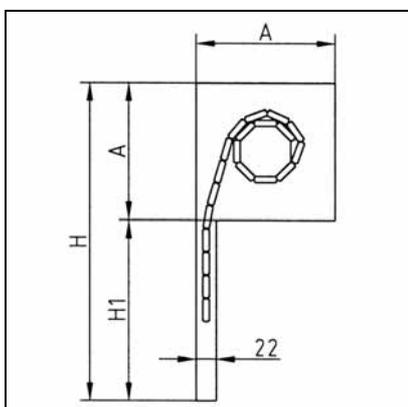
- Securing of sliding doors against lateral swinging

ASSEMBLY

- Hang up the doors
- Mount U-Bar on profile (-60 mm), slide in position and fix
- For smooth movement provide profile grooves with cover profile

ROLLING DOOR WITH DRIVE

Part. N° 29.0402/0



TECHN. DATA / ITEMS SUPPLIED

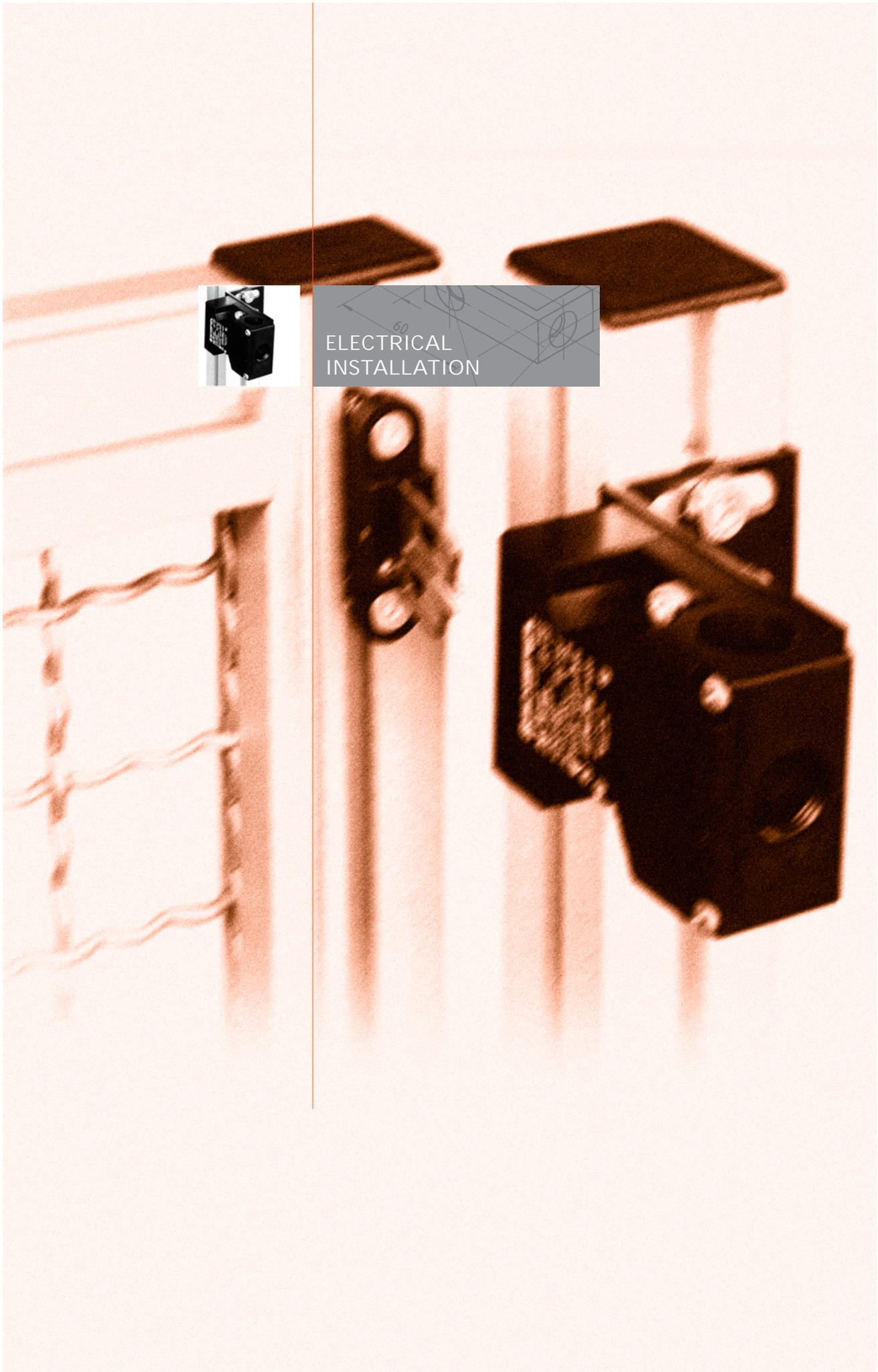
- Aluminium, powder coated, silver
- 2 lateral guide rails, housing
- Electrical drive 230 V
- Without switch
- Max. width 2,70 m
- Cable length 2 m
- Please indicate width B and dimension H

APPLICATIONS

- Cupboard for instruments
- Tools boxes
- Computer racks
- Counters
- Machine guards

ASSEMBLY

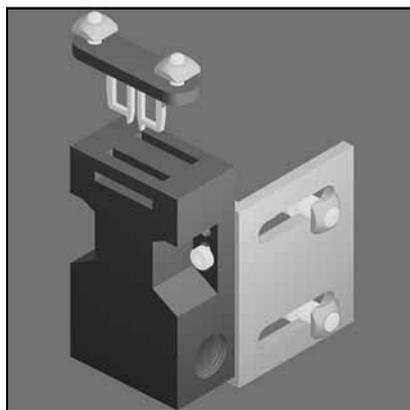
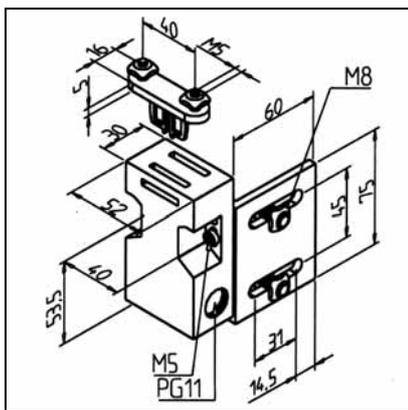
- Assemble lateral guides with housing
- Fix guides and housing in frame
- Housing A = 152, H up to 1,70 m, Part. N° 29.0402/0
- Housing A = 167,5, H up to 2,20 m, Part. N° 29.0403/0
- Housing A = 181, H up to 2,70 m, Part N° 29.0404/0
- Stroke H1: H-A



ELECTRICAL
INSTALLATION

SECURITY SWITCH AZ 16 ZVR K

Part. N° 21.1110/0



TECHN. DATA / ITEMS SUPPLIED

- Security switch, complete with switching pad, type B1, standard, IP 67
- 1 normally closed, 1 normally open switch
- Force to engage 30 N
- Fastening angle, aluminium, natural anodized
- Fastening kit
- Weight 0,343 kg

APPLICATIONS

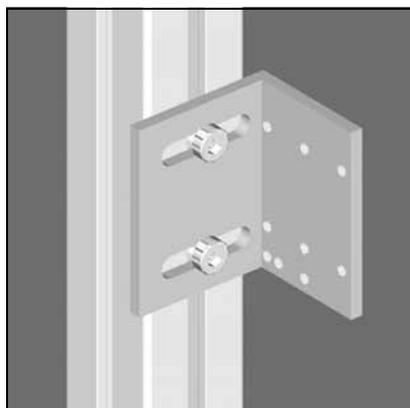
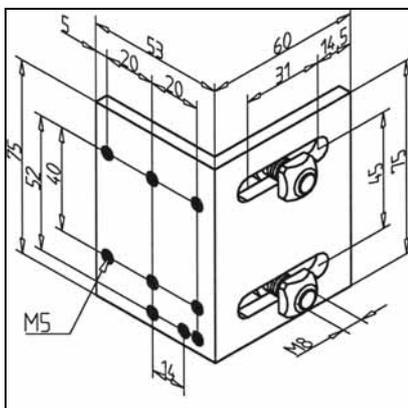
- Electrical securing of swing doors, sliding doors, windows
- Suitable for all profiles

ASSEMBLY

- With fastening kit from apply schedule
- Easy adjustment in x-, y- and z-axis by means of long holes in the angle-bracket
- For small radii use actuating bow B2 Part N° 21.1110/2 or B3 Part N° 21.1110/3

ANGLE-BRACKET FOR SECURITY SWITCH

Part. N° 21.1359/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized
- Fastening kit
- Weight 0,128 kg

APPLICATIONS

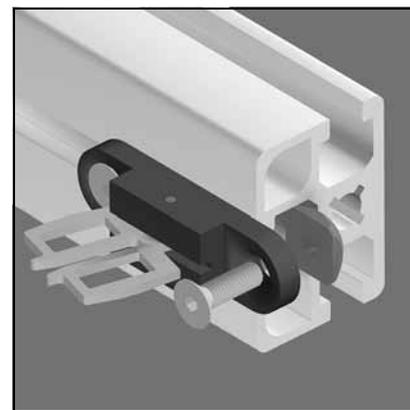
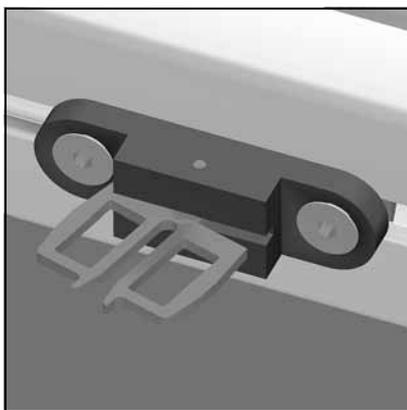
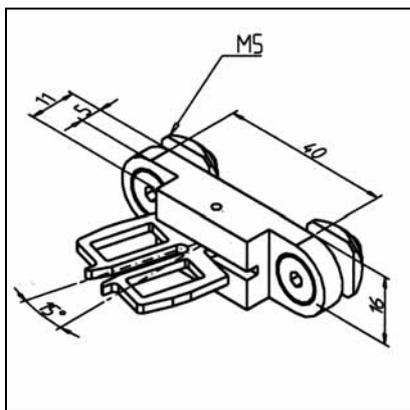
- For security switches DIN EN 50041
- Fitting to all standard types, facilitated adjustment of the switch in x-, y- and z-axis

ASSEMBLY

- Fasten with fastening kit on profile groove

ACTUATING BOW FOR SECURITY SWITCH B2

Part. N° 21.1110/2



TECHN. DATA / ITEMS SUPPLIED

- Switching pad, type b2, for particularly small actuating radii over the broad side of the bow

- Fastening kit

- Weight 0,032 kg

APPLICATIONS

- Actuating bow for small actuating radii in connection with security switch
Part N° 21.1110/0 replaces standard bow

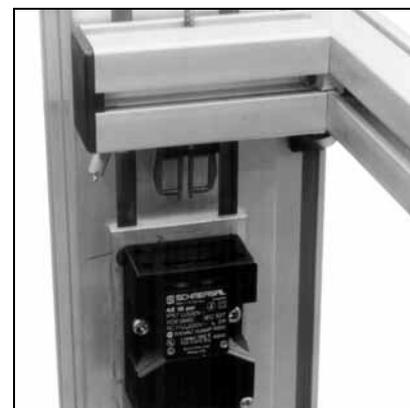
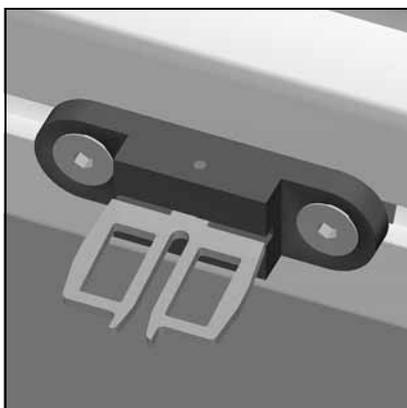
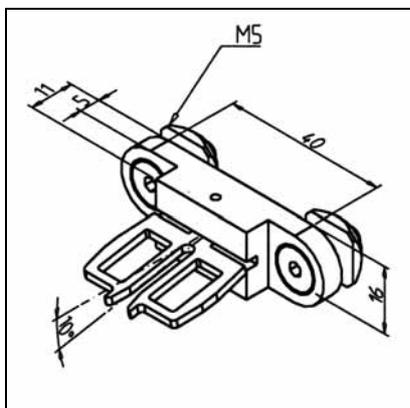
ASSEMBLY

- Fasten with fastening kit on profile groove

- Directly in panel element with countersunk screw M5 according to the material thickness

ACTUATING BOW FOR SECURITY SWITCH B3

Part. N° 21.1110/3



TECHN. DATA / ITEMS SUPPLIED

- Switching pad, type B3, for particularly small actuating radii over the small side of the bow

- Fastening kit

- Weight 0,032 kg

APPLICATIONS

- Actuating bow for small actuating radii in connection with security switch
Part N° 21.1110/0 replaces standard bow

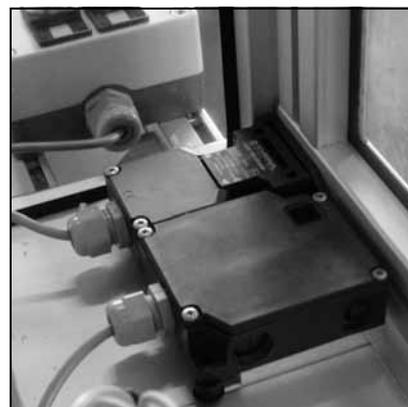
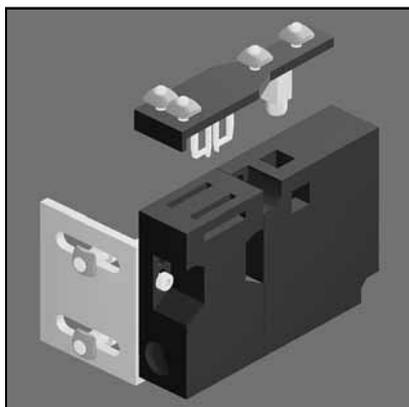
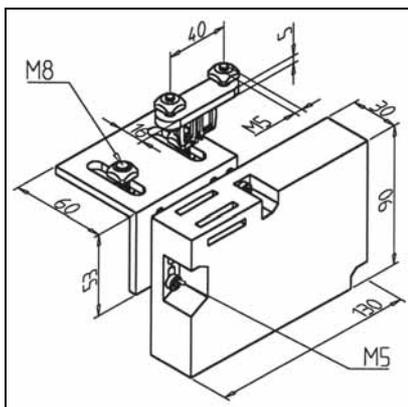
ASSEMBLY

- Fasten with fastening kit on profile groove

- Directly in panel element with countersunk screw M5 according to the material thickness

SECURITY SWITCH WITH LOCK

Part. N° 21.1766/0



TECHN. DATA / ITEMS SUPPLIED

- Switch, type AZM 161SK-12/12RK-024
- Housing thermoplast, black, self-extinguishing
- Protective system IP67, nominal operating current 10 A (230 V), driving voltage 24 V AC/DC, power consumption 10 W
- Fastening kit
- Optionally with actuating bow 110 V AC or 230 V AC
- Weight 0,475 kg

APPLICATIONS

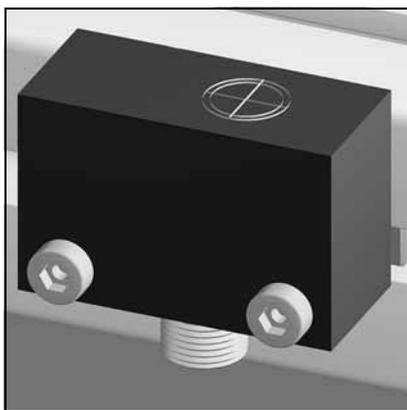
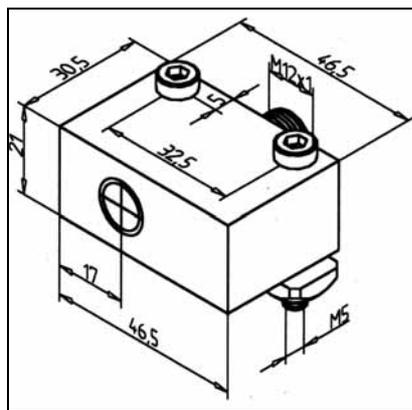
- Protective gears with high requirements to security

ASSEMBLY

- Fasten with fastening kit on profile groove

PROXIMITY SWITCH PNP (NORMALLY OPEN CONTACT)

Part. N° 33.0403/0



TECHN. DATA / ITEMS SUPPLIED

- PNP-normally open contact
- Housing polyamide with GF
- Protective system IP 67
- Ambient temperature -25 to +75 °C
- Nom. Working distance 0 - 4,8 mm
- Nom. Switch distance 6 mm
- Current max. 200 mA

APPLICATIONS

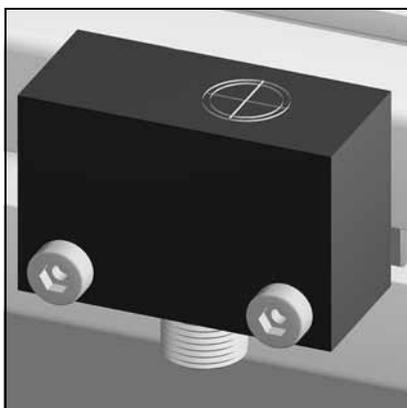
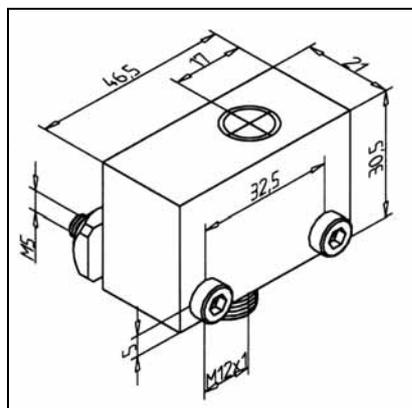
- Proximity switch of position or reference for MiniTec LR-system
- Actuating distance suitable for MiniTec system

ASSEMBLY

- Fasten with fastening kit
- Suitable cable Part N° 33.0401/0 L = 5 m

PROXIMITY SWITCH PNP (NORMALLY CLOSED CONTACT)

Part. N° 33.0404/0



TECHN. DATA / ITEMS SUPPLIED

- PNP-normally closed contact
- Housing polyamide with GF
- Protective system IP 67
- Ambient temperature -25 to +75 °C
- Nom. Working distance 0 - 4,8 mm
- Nom. Switch distance 6 mm
- Current max. 200 mA

APPLICATIONS

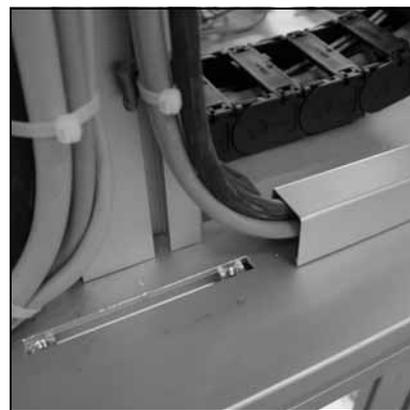
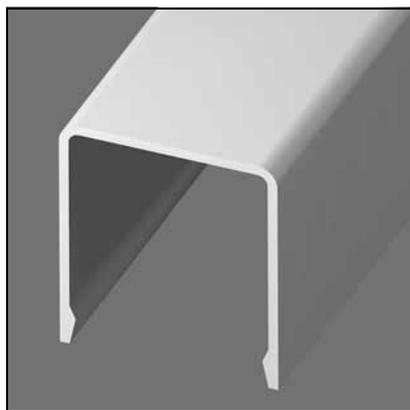
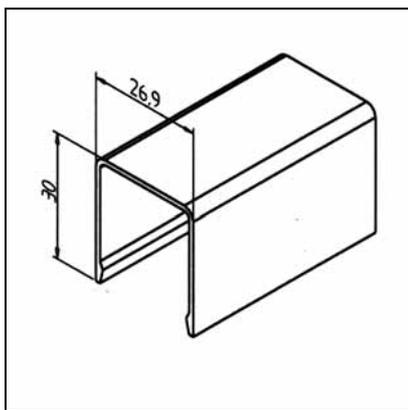
- Proximity switch of position or reference for MiniTec LR-system
- Actuating distance suitable for MiniTec system

ASSEMBLY

- Use fastening kit from supply schedule
- Suitable cable Part N° 33.0401/0 L = 5 m

CONDUIT AL

Part. N° 20.1051/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized	
- Weight	0,280 kg/m
- Length	6 m

APPLICATIONS

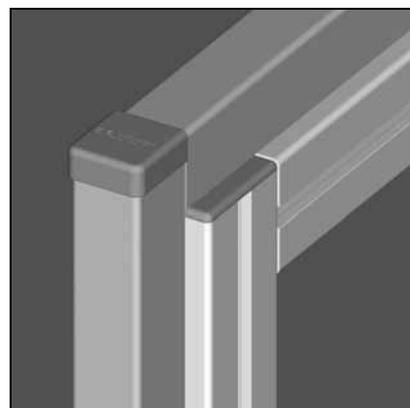
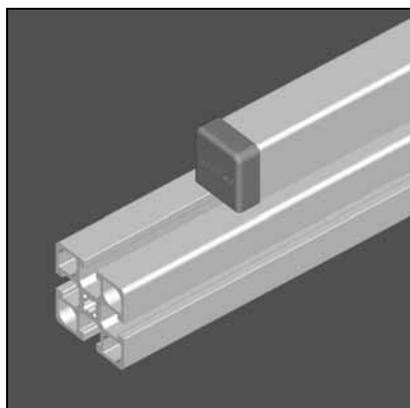
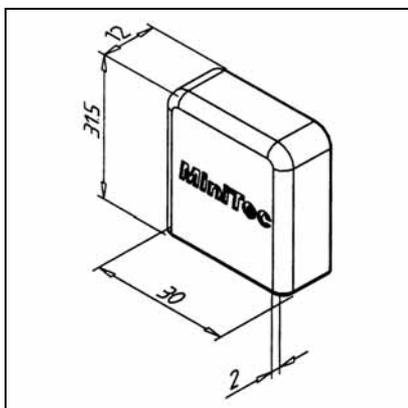
- Cover for cables and pneumatic hoses on all MiniTec aluminium profiles

ASSEMBLY

- Clip on cable clips Part N°22.1204/0

END CAP CONDUIT AL

Part. N° 22.1119/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012	
- Weight	0,004 kg

APPLICATIONS

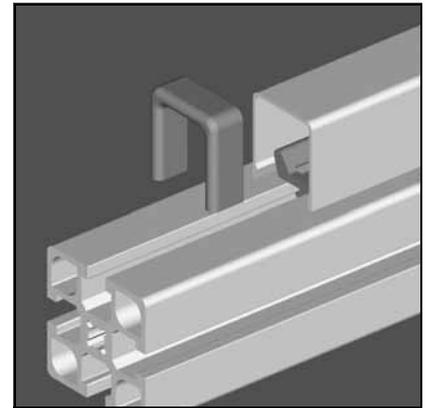
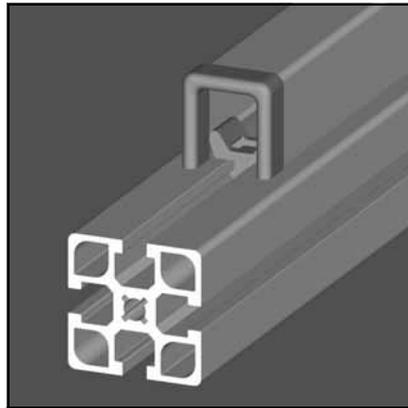
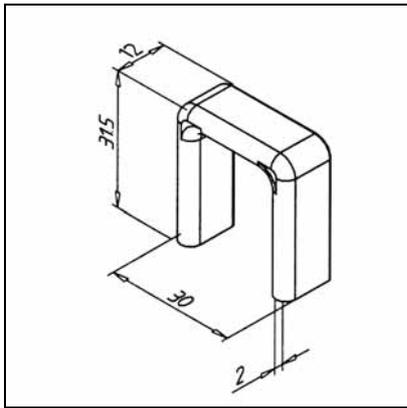
- End cap for conduit AL
- Fabrication of external angle with conduit AL

ASSEMBLY

- Simply push onto the end of the conduit

EDGE PROTECTION FOR CONDUIT AL

Part. N° 22.1120/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012

- Weight 0,003 kg

APPLICATIONS

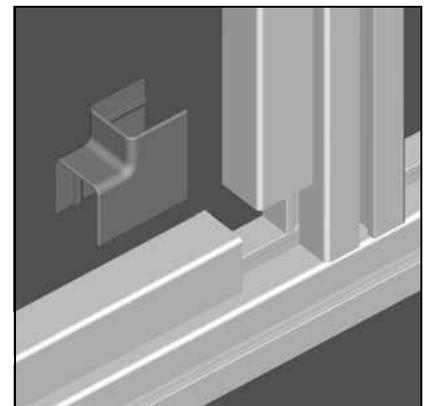
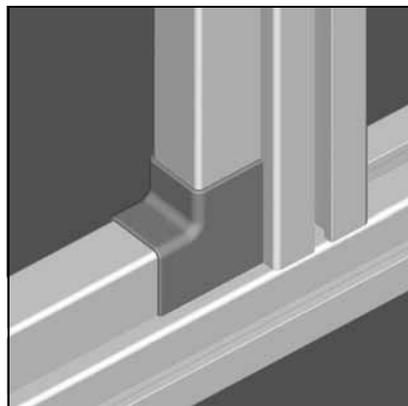
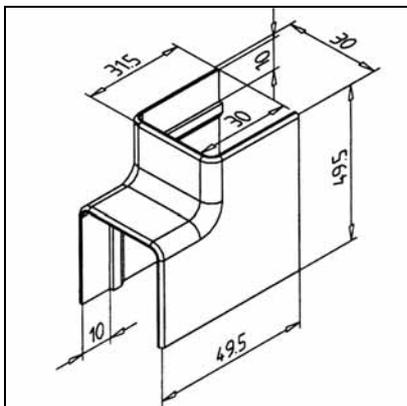
- Edge protection for conduit AL

ASSEMBLY

- Simply push onto the end of the conduit

INTERNAL ANGLE BRACKET OF CONDUIT AL

Part. N° 22.1121/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012

- Weight 0,01 kg

APPLICATIONS

- Connection of conduit AL to internal angle bracket

ASSEMBLY

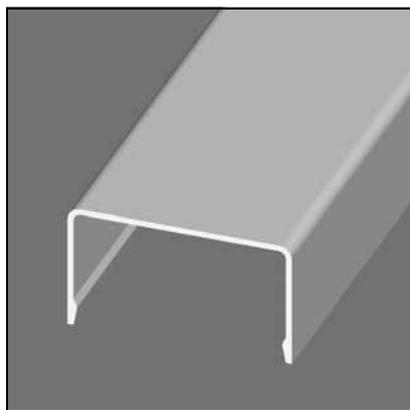
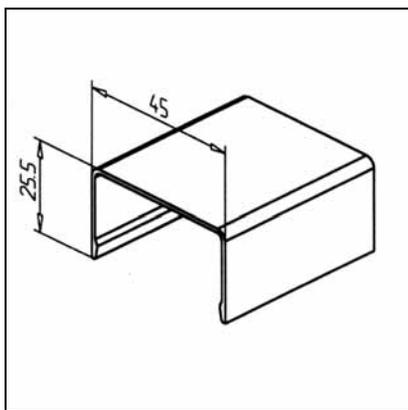
- 1) Click the first side of the conduit to collar clamps.
Distance to corner: 39.5 mm

- 2) Insert angle bracket

- 3) Click on the second side of the cable duct and slide along as far as the stop

CONDUIT 45 AL

Part. N° 20.1071/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized	
- Weight	0,301 kg/m
- Length	6 m

APPLICATIONS

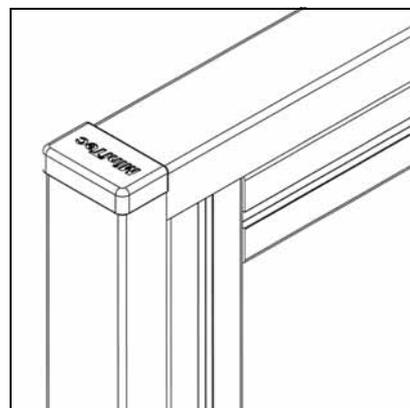
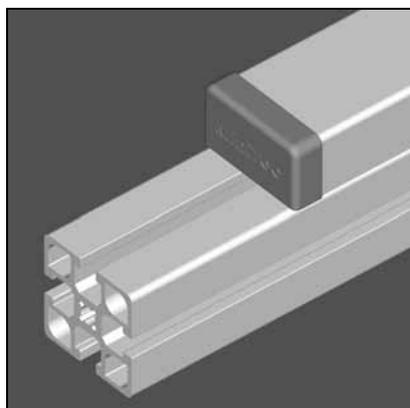
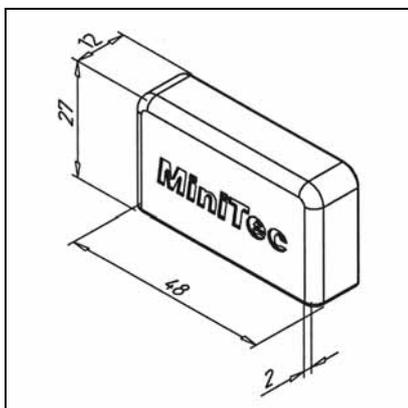
- Cover for cables and pneumatic hoses

ASSEMBLY

- Clip on cable clips Part N°22.1210/0

END CAP FOR CONDUIT 45 AL

Part. N° 22.1116/1



TECHN. DATA/ITEMS SUPPLIED

- ABS, grey RAL 7012	
- Weight	0,006 kg

APPLICATIONS

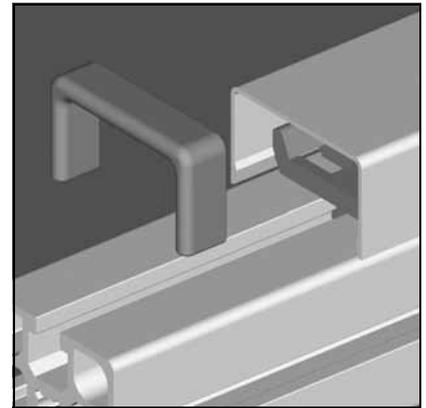
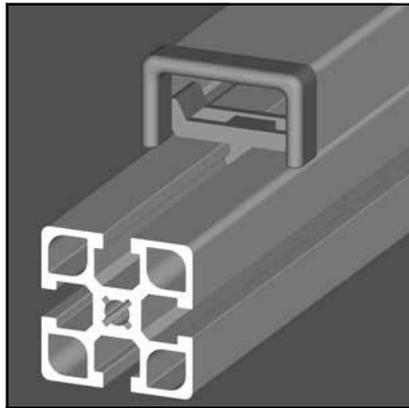
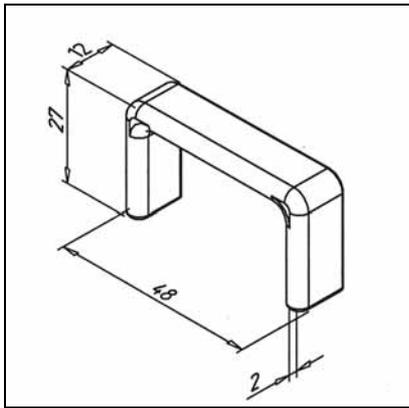
- End cap for conduit 45
- Construction of corners on outside face

ASSEMBLY

- Clip onto end of conduit 45

EDGE PROTECTION FOR CONDUIT 45 AL

Part. N° 22.1117/1



TECHN. DATA/ITEMS SUPPLIED

- ABS, grey RAL 7012

- Weight 0,005 kg

APPLICATIONS

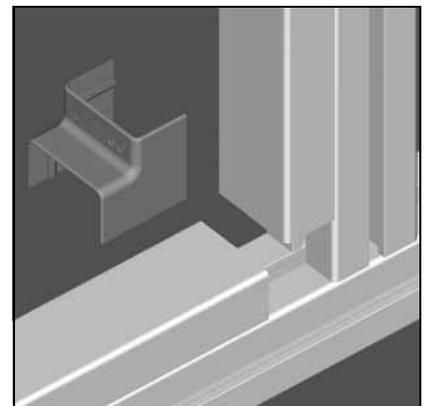
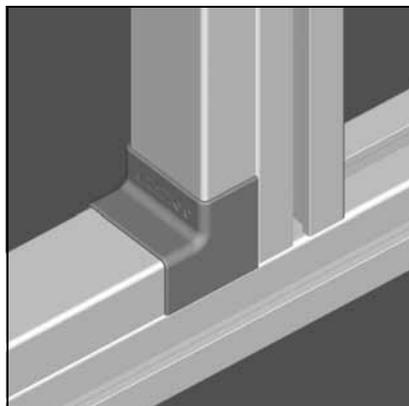
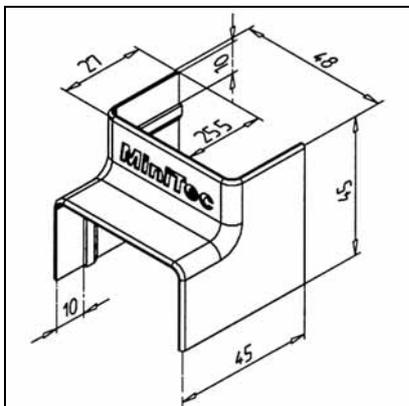
- Edge protection for conduit 45 AL

ASSEMBLY

- Clip onto end of conduit 45 AL

INTERNAL ANGLE FOR CONDUIT 45 AL

Part. N° 22.1118/1



TECHN. DATA/ITEMS SUPPLIED

- ABS, grey RAL 7012

- Weight 0,010 kg

APPLICATIONS

- Connection of conduit 45 AL to internal angle

ASSEMBLY

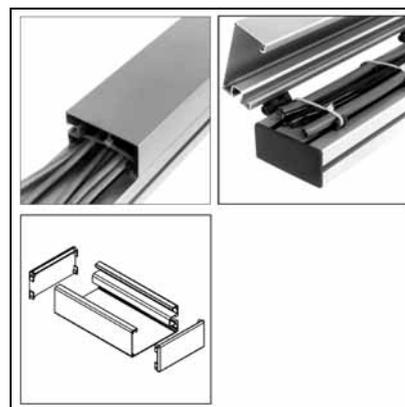
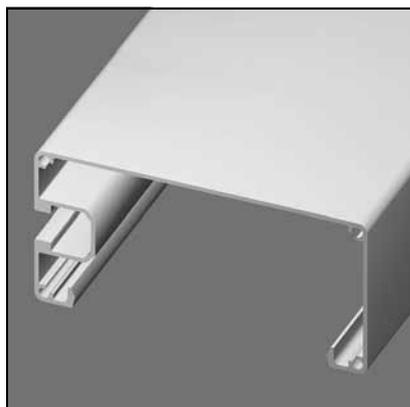
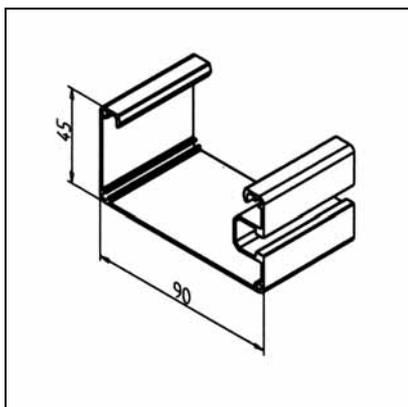
- 1) Clip conduit 1 onto cable clips. Distance for the edge 36 mm

- 2) Insert the angle

- 3) Clip on conduit 2 and push to tight fit

CONDUIT 90 AL

Part. N° 20.1056/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized	
- Weight	0,970 kg/m
- Length	6 m

APPLICATIONS

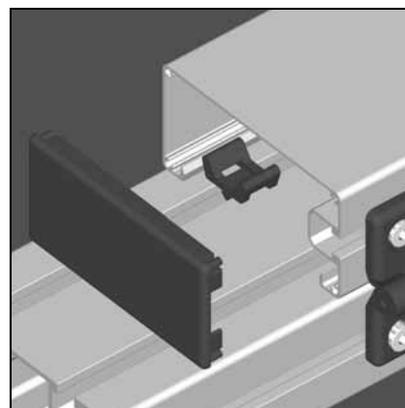
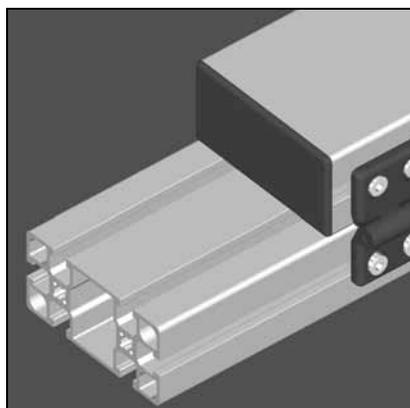
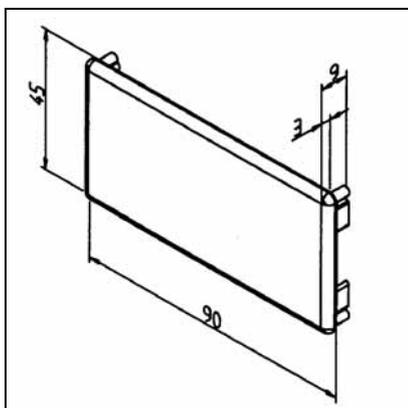
- Cover for cables and pneumatic hoses
- Suitable for MiniTec profiles, grid dimension: 90
- Can also be swung open, when used with hinges
- End ledges with integrated energy supply

ASSEMBLY

- Clip on cable clips Part N°22.1204/0
- End caps Part N° 22.1045/0

END CAP FOR CONDUIT 90 AL

Part. N° 22.1045/0



TECHN. DATA/ITEMS SUPPLIED

- ABS, grey RAL 7012	
- Weight	0,011 kg

APPLICATIONS

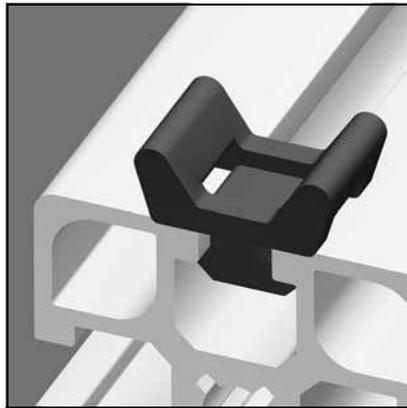
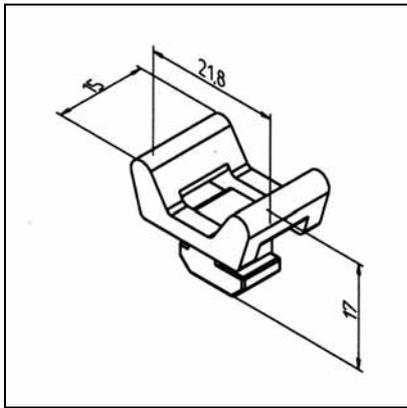
- End cap for conduit 90
- Constructions of corners on outside face

ASSEMBLY

- Clip onto end of conduit 90

CABLE CLIP

Part. N° 22.1204/0



TECHN. DATA / ITEMS SUPPLIED

- PA 6, grey
- Weight 0,002 kg

APPLICATIONS

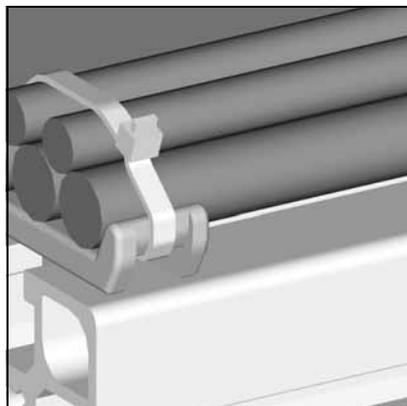
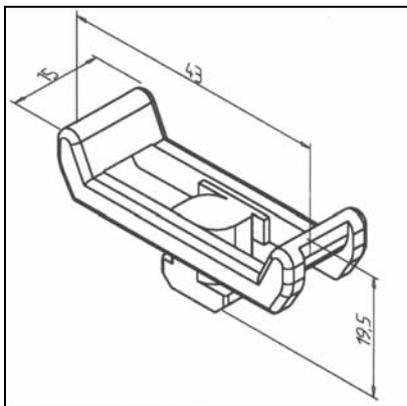
- Simple and rational fastening of cables and pneumatic hoses
- Suitable for conduit 45 AL and conduit 90 AL

ASSEMBLY

- Insert into profile groove and secure it with a 90° rotation
- Insert cable tie band through the cable clip and around the cable. Bind together, cut off any excessive length

CABLE CLIP 45

Part. N° 22.1210/0



TECHN. DATA / ITEMS SUPPLIED

- PA 6, grey
- Weight 0,004 kg

APPLICATIONS

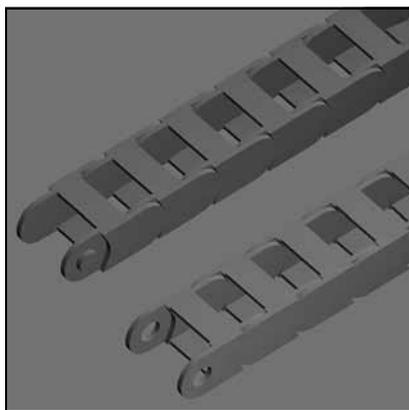
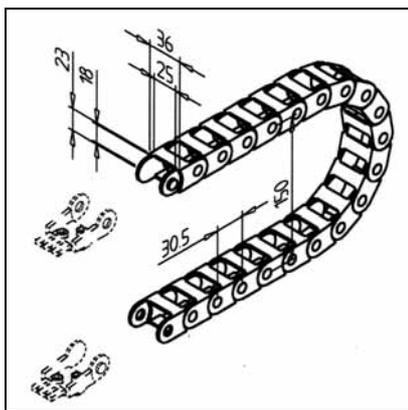
- Simple and rational fastening of cables and pneumatic hoses
- Suitable for conduit 45 AL

ASSEMBLY

- Insert into profile groove and secure it with a 90° rotation
- Insert cable tie band through the cable clip and around the cable. Bind together, cut off any excessive length

ENERGY CHAIN R

Part. N° 33.0410/0



TECHN. DATA / ITEMS SUPPLIED

- Plastic, black
- Without fastening kit
- Weight 0,341 kg

APPLICATIONS

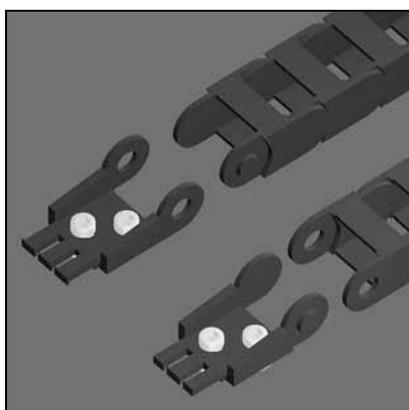
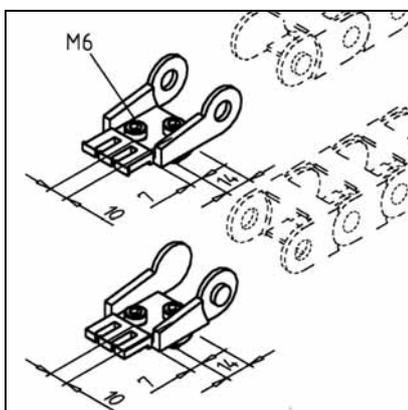
- Energy chain to bind cables and hoses on slides and movable elements

ASSEMBLY

- Fastening of the energy chain by means of mounting brackets Part N° 33.0411/0

MOUNTING BRACKETS FOR ENERGY CHAIN R

Part. N° 33.0411/0



TECHN. DATA / ITEMS SUPPLIED

- 1 bracket each left or right
- Plastic, schwarz
- Fastening kit
- Weight 0,058 kg

APPLICATIONS

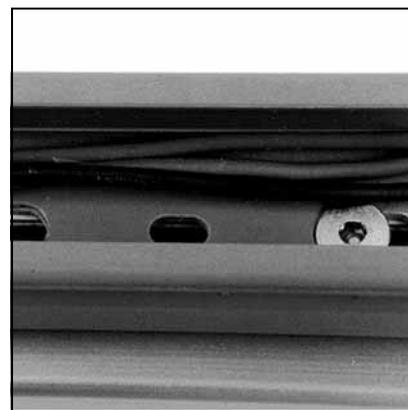
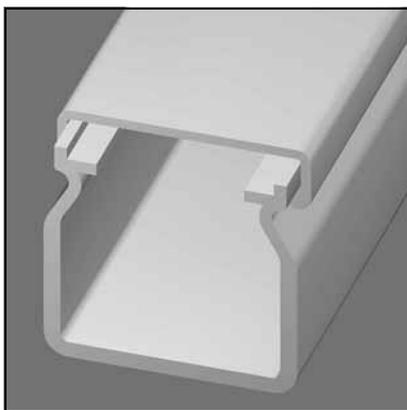
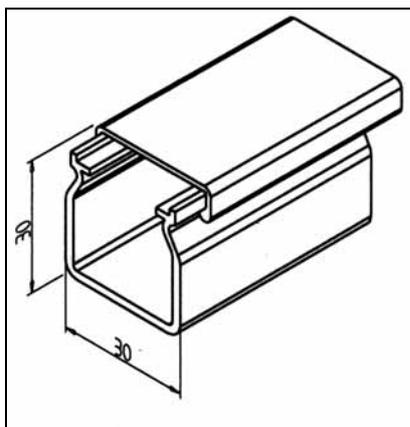
- For fastening energy chain R Part N° 33.0410/0 on profile constructions

ASSEMBLY

- Use fastening kit from apply schedule
- Use cable tie band to fix cables and hoses

CONDUIT 32

Part. N° 22.1082/0



TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey	
- Snap-cover	
- Cross-section: 660 mm ²	
- Weight	0,323 kg/m
- Length	2 m

APPLICATIONS

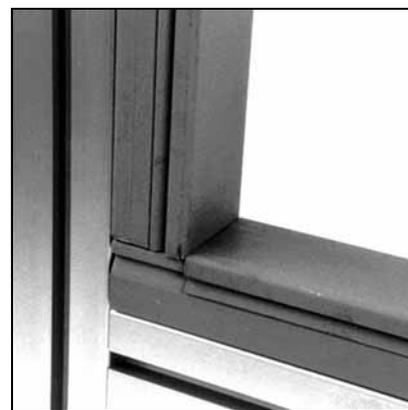
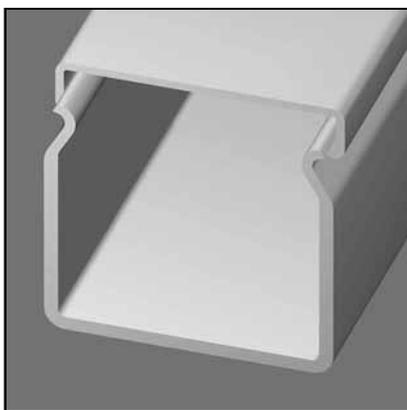
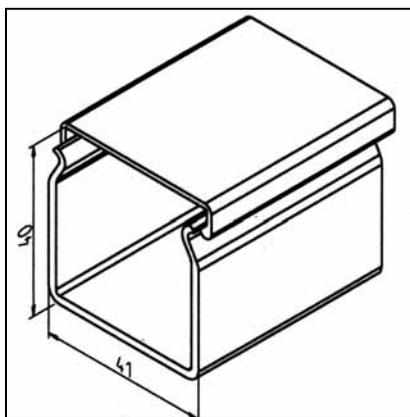
- Installation of cables or tubings in all kinds of constructions

ASSEMBLY

- Fastening with screws M6 x 12 and rhombus-nut M6

CONDUIT 45

Part. N° 22.1084/0



TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey	
- Snap-cover	
- Cross-section: 1584 mm ²	
- Weight	0,523 kg/m
- Length	2 m

APPLICATIONS

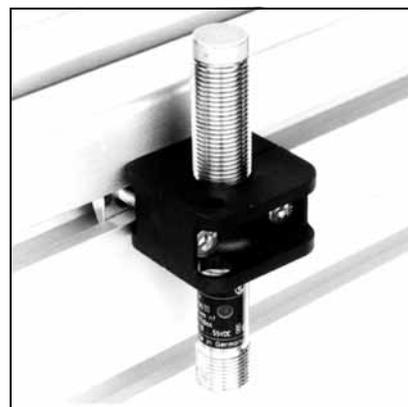
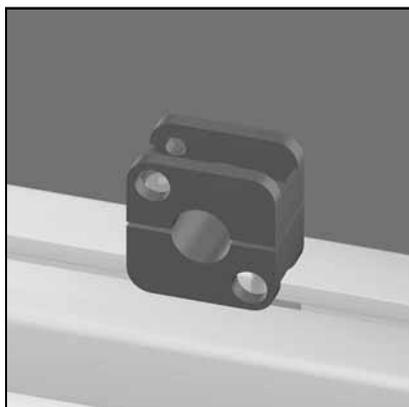
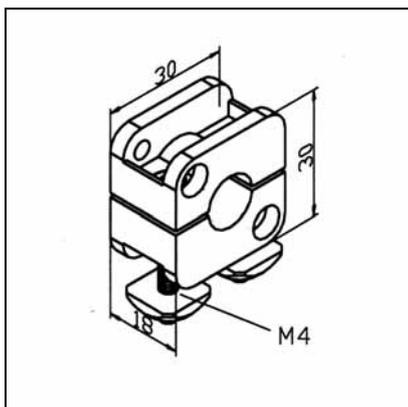
- Installation of cables or tubings in all kinds of constructions

ASSEMBLY

- Fastening with screws M6 x 12 and rhombus-nut M6

PROXIMITY SWITCH HOLDER 12

Part. N° 28.0120/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Ø 12
- Fastening kit
- Weight 0,040 kg

APPLICATIONS

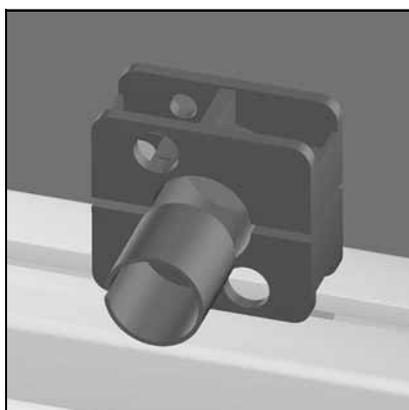
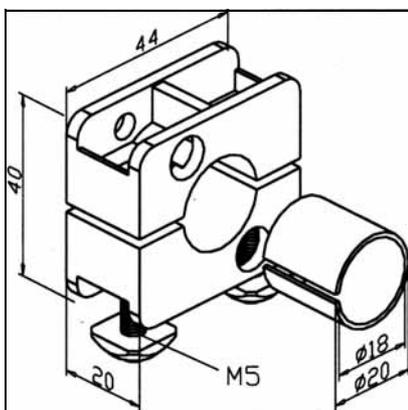
- Fastening of proximity switches Ø 12 in profile constructions and linear guides

ASSEMBLY

- On profile groove with fastening kit from supply schedule

PROXIMITY SWITCH HOLDER 18

Part. N° 28.0121/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Ø 18
- Ø 20
- Fastening kit
- Weight 0,050 kg

APPLICATIONS

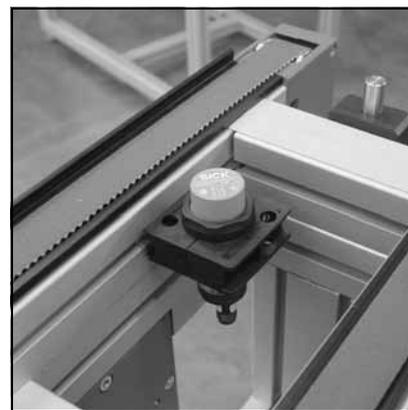
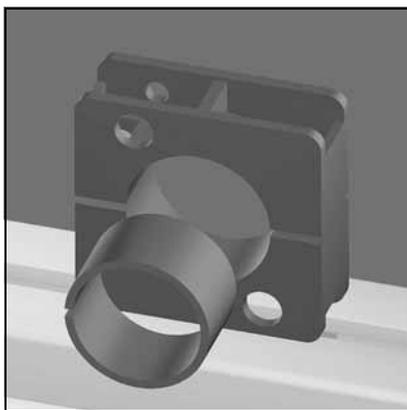
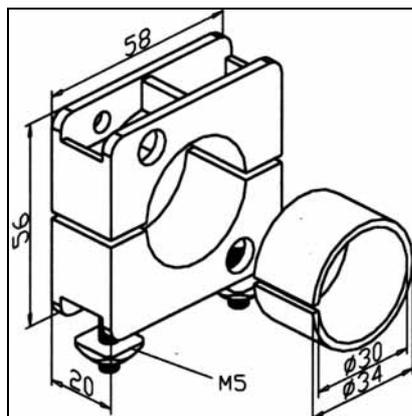
- Fastening of proximity switches Ø 18 and Ø 20 in profile constructions and linear guides

ASSEMBLY

- On profile groove with fastening kit from supply schedule

PROXIMITY SWITCH HOLDER 30

Part. N° 28.0122/0



TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Ø 30
- Ø 34
- Fastening kit
- Weight 0,060 kg

APPLICATIONS

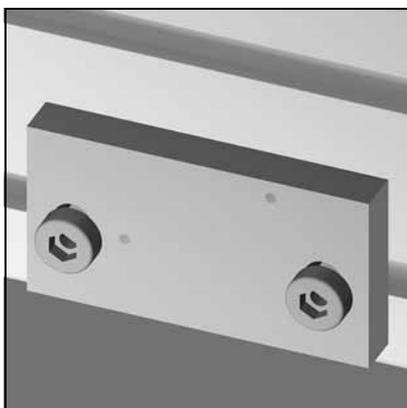
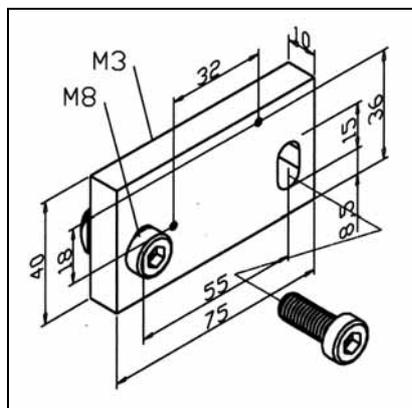
- Fastening of proximity switches Ø 30 and Ø 34 in profile constructions and linear guides

ASSEMBLY

- On profile groove with fastening kit from supply schedule

PROXIMITY SWITCH HOLDER AL

Part. N° 28.0117/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural
- Fastening kit
- Weight 0,120 kg

APPLICATIONS

- Fastening of limit stops switches for standard constructions; cuboid form (40 mm x 26 mm x 12 mm) in profile constructions and linear guides

ASSEMBLY

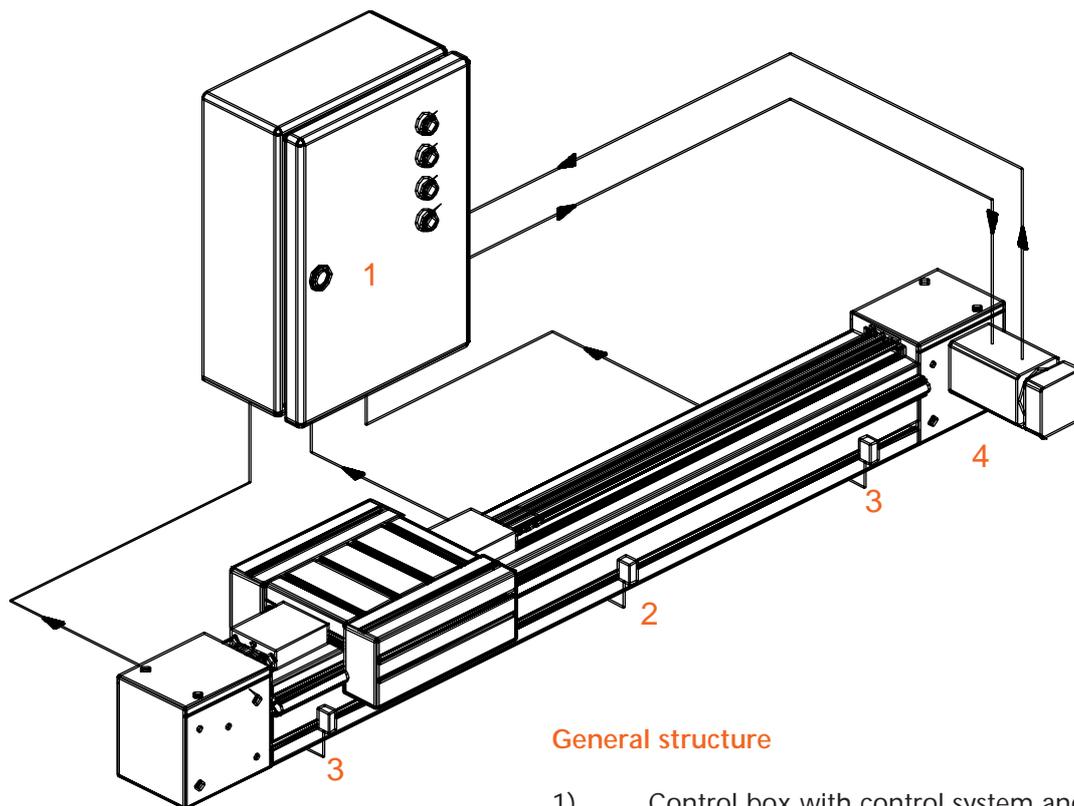
- On profile groove with fastening kit from supply schedule
- Adjust exact distance



DRIVE UNITS AND
CONTROL SYSTEM

With the MiniTec standard program you can choose between several drive units. They offer economic solutions for all applications of normal operation. It is a pleasure for us to help you finding out the type of construction that is the most economic for you. Please indicate the necessary data, e. g. for travelling speed, acceleration, positioning and repeating accuracy, strengths and moments, conditions of application and process, etc.

ONE-AXIS OR MULTIPLE-AXIS LINEAR SYSTEMS

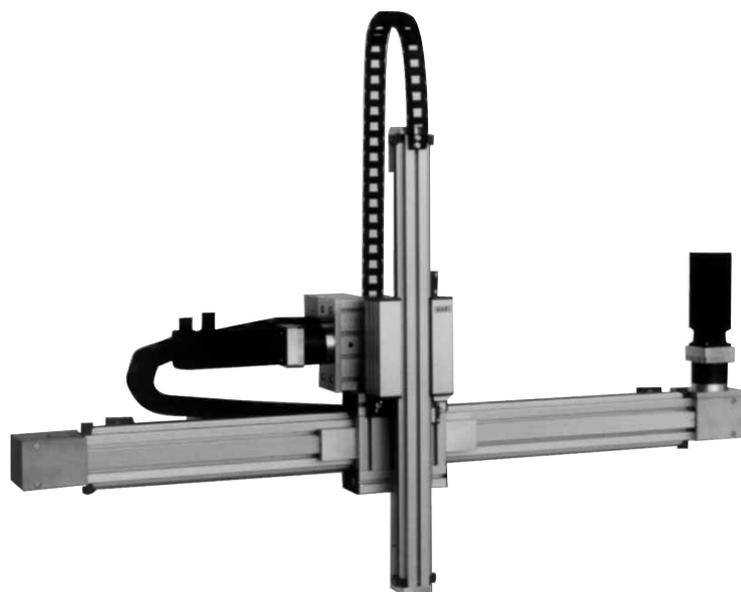


General structure

- 1) Control box with control system and servo control
- 2) Reference switch
- 3) Position limit switch
- 4) Servo motor with integrated incremental encoder

Multiple-axis systems designed for carrying out complex tasks like loading and unloading systems, palettizers, milling machines, drilling machines, engraving machines, etc.

Can be implemented with the same driving components as for single-axis system. Control-unit only must be adapted to the individual demands of the system.



DRIVE AND CONTROL TECHNOLOGY

Comprehensive Solutions All in One Place

Comprehensive solutions ranging from problem analysis to implementation are applied effectively and in a targeted manner by experienced, professional staff and resources. Together with our experienced team of professionals, we also design and implement individual overall concepts for material flow and installation engineering featuring tried and tested components for general plant construction and automation technology.

All solutions are based on a flexible, modular, section-based construction system featuring linear execution and elements ensuring ergonomic workplace design. These are supplemented by pneumatic and control technology components, as well as conveyors, work piece conveyor systems and drives. Using these components, experienced professionals design modules which are later consolidated into overall automation solutions for unique performance requirements.

Our objective is to find the best solution to every problem. Even during the planning phase, our clients benefit from our extensive experience covering many branches of industry.

Our team provides comprehensive, professional follow-up from initial design to final implementation.



Control technology

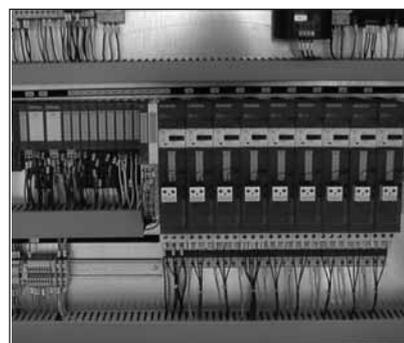
All hardware selection is dictated solely by job requirements and cost-effectiveness, using only top-quality products from well-known manufacturers with worldwide client service, for example Siemens, Beckhoff or Berger Lahr.

SPS

The preferred control concept is modular, with decentralized peripherals and on-the-spot intelligence. Either ProfiNet Profibus CAN-Bus or Asi-Bus may be used, at the election of the client and based on job requirements and/or client specifications.

ProfiNet and Profibus DP and ECOFAST (Energy and Communication Field Installation System) have proven themselves cost-effective solutions; ECOFAST offers numerous advantages in planning and assembly, as well as during operation, not to mention considerable cost savings potential. The use of plug-in technology and standardized plug-in connections ensures error-free wiring for both data and energy transmission. And the pre-finished conduits considerably accelerate installation.

Reliability is further enhanced by extensive trouble-shooting possibilities and facility of parts replacement during maintenance or repair, eliminating the need for most additional precautions.



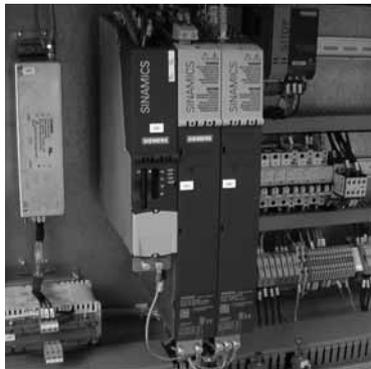
DRIVE AND CONTROL TECHNOLOGY

PC-based control

PC-based control is available for a comprehensive solution coupled with a data bank or data transmission, for example a superimposed ERP system with distance maintenance.

The PC-controls are programmed using ordinary vendor-independent CoDe-Sys interfaces according to IEC standards.

The PC-controls are constructed based on the same decentralized principle as SPS control, with the same options as the desired Bus-System.



Drive technology

Our specialists take over the interpretation of the drives with full consideration of cost-effectiveness and mechanics. For demanding positioning or automation tasks, we use the latest drive technology, with digital axial control and AC servotechnology.

For especially cost optimized or simpler solutions, multiphase motors can also be used.

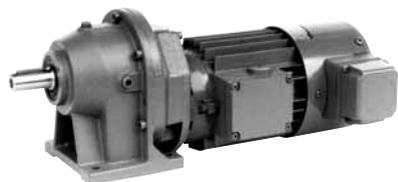
Your partner for perfect design:

- Advice
- Planning
- Mechanical planning
- Drive
- Programming and control
- Activation
- Execution and documentation in compliance with all EU standards



SPURE WHEEL BACK-GEARED MOTOR

Type CB, B3



Technical data

- Foot design without flange
- Nominal voltage 230 / 400 V
- 50 Hz
- Protective system IP 44
- Weight 11 - 15 kg

Data given refer to the individual speeds; different levels for one type possible; data sheets upon request.

Can also be supplied with brake, heat detector or separate fan as an option; other equipment upon request.

Type	Part N°	Power W	Min. output speed (for output torque)		Max. output speed (for output torque)	
DGM 120-00	33.0050/0	120	20 1/min	(59 Nm)	462 1/min	(2.5 Nm)
DGM 120-0	33.0060/0	120	17.4 1/min	(69 Nm)	41 1/min	(27 Nm)
DGM 180-00	33.0051/0	180	26.6 1/min	(63 Nm)	466 1/min	(3.6 Nm)
DGM 180-0	33.0061/0	180	26.5 1/min	(63 Nm)	64.4 1/min	(26 Nm)
DGM 250-00	33.0052/0	250	39.4 1/min	(57 Nm)	476 1/min	(5 Nm)
DGM 250-0	33.0062/0	250	20.2 1/min	(111 Nm)	88.6 1/min	(28 Nm)
DGM 370-00	33.0053/0	370	73.6 1/min	(48 Nm)	476 1/min	(7.5 Nm)
DGM 370-0	33.0063/0	370	27 1/min	(120 Nm)	177 1/min	(20 Nm)
DGM 550-00	33.0054/0	550	108 1/min	(50 Nm)	618 1/min	(8.5 Nm)
DGM 550-0	33.0064/0	550	42.7 1/min	(128 Nm)	618 1/min	(8.5 Nm)
DGM 750-00	33.0055/0	750	201 1/min	(26 Nm)	482 1/min	(11 Nm)
DGM 750-0	33.0065/0	750	95 1/min	(60 Nm)	616 1/min	(8.5 Nm)

SPURE WHEEL BACK-GEARED MOTOR

Type CB, B5



Technical data

- Flange design without recess installation on the motor kit Ø 16 (Typ-00F) or Ø 20 (Typ-0F)
- Nominal voltage 230 / 400 V
 - 50 Hz
 - Protective system IP 44
 - Weight 11 - 15 kg

Data given refer to the individual speeds; different levels for one type possible; data sheets upon request.

Can also be supplied with brake, heat detector or separate fan as an option; other equipment upon request.

Type	Part N°	Power W	Min. output speed (for output torque)		Max. output speed (for output torque)	
DGM 120-00F	33.0050/1	120	20 1/min	(59 Nm)	462 1/min	(2.5 Nm)
DGM 120-0F	33.0060/1	120	17.4 1/min	(69 Nm)	41 1/min	(27 Nm)
DGM 180-00F	33.0051/1	180	26.6 1/min	(63 Nm)	466 1/min	(3.6 Nm)
DGM 180-0F	33.0061/1	180	26.5 1/min	(63 Nm)	64.4 1/min	(26 Nm)
DGM 250-00F	33.0052/1	250	39.4 1/min	(57 Nm)	476 1/min	(5 Nm)
DGM 250-0F	33.0062/1	250	20.2 1/min	(111 Nm)	88.6 1/min	(28 Nm)
DGM 370-00F	33.0053/1	370	73.6 1/min	(48 Nm)	476 1/min	(7.5 Nm)
DGM 370-0F	33.0063/1	370	27 1/min	(120 Nm)	177 1/min	(20 Nm)

PLUG-ON MOTOR FOR CONVEYOR BELT SERIES 45

Type	Part N°	Power W	Gear reduction ratio	Rpm	Drive torque
DSGM 120-60	33.0070/0	120	60	23 1/min	19 Nm
DSGM 120-40	33.0071/0	120	40	35 1/min	19 Nm
DSGM 120-30	33.0072/0	120	30	47 1/min	15 Nm
DSGM 180-20	33.0073/0	180	20	70 1/min	18 Nm
DSGM 180-15	33.0074/0	180	15	93 1/min	14 Nm
DSGM 180-10	33.0075/0	180	10	140 1/min	10 Nm
DSGM 180-7	33.0076/0	180	7	200 1/min	7 Nm

PLUG-ON MOTOR FOR CONVEYOR BELT SERIES 90*

Type	Part N°	Power W	Gear reduction ratio	Rpm	Drive torque
DSGM 180-60	33.0080/0	180	60	15 1/min	49 Nm
DSGM 250-48	33.0081/0	250	48	27 1/min	45 Nm
DSGM 370-39	33.0082/0	370	39	35 1/min	63 Nm
DSGM 370-27	33.0083/0	370	27	50 1/min	49 Nm
DSGM 370-19	33.0084/0	370	19	71 1/min	39 Nm
DSGM 558-24	33.0085/0	550	24	110 1/min	36 Nm

* other performances and conversions on request

FREQUENCY TRANSFORMER FU 370 PP

Part N° 33.0126/0



- Built in On/Off key
- 1Q mode of operation
- Mains overvoltage/ undervoltage monitoring device
- Motor load monitoring
- Short circuit monitoring phase/ phase, phase/ground
- Adjustable acceleration and deceleration ramp
- Adjustable voltage increase for low initial frequency
- 2 m mains cable with shock-proof plug
- Main power connection line with ground protected 230V plug and Ölflex motor line 110 square metres, 2m length
- EMC filter class B
- IP 55/ Nema- 12 housing
- Standard equipped with an operating device that enables operation and drive setup without additional devices.

Output motor

Max. motor output	0,37 kW
Nominal output current	2,1 A
Output voltage	3 x 0...230 V
Overload	150%/1min

Input mains

Nominal voltage	230 V
Input current	6,7 A
Mains frequency	50 - 60 Hz

General Data

Ambient temperature	0 - 40°C
Heat loss is a nominal rating	11 W
Dimensions H/ B/ T	200 x 140 x 165 mm

MAGNETIC MEASURING SYSTEMS ML

Length and stroke measurement is a standard task in machine and plant construction. A modern and economical solution is the ML magnetic length measurement system with magnetic tape, magnetic sensor, measurement display, or evaluation electronics. The advantages of this system are primarily the direct measurement procedure, being wear-resistant, the simple and economical installation, and the high precision that is possible. The core of this measurement system is the magnetic tape: a flexible, plastic band filled with magnetic particles. Using this tape, a magnetic sensor is moved along and the magnetic fields is probed at regular intervals without making contact. The direction of motion and increments are derived from these scanning signals and processed further in a control system or displayed via the measurement display.

Measuring display

Types deliverable:

- Mains voltage 24 V DC **33.0029/0**
- Battery operation (4 mignon cells) **33.0029/1**
- 230 V AC **33.0029/2**
- Measuring LED display, 6 places, with integrated evaluation system, keys for reference, zero and reset
- Housing, protecting system IP 40 (built-in IP 60)

- Operating temperature -5 up to +45° C
- Travelling speed max. 5m/sec.
- Measuring tolerance ± 0.1 mm/m



Magnetic sensor **33.0030/0**

- Measuring of magnetic signals
- in connection with the above imaged measuring display
- Magnetic sensor fitting for all MiniTec profiles, integrated cable (4 m) and D-sub plug (other cable length upon request max. 20 m)

Magnetic tape **33.0028/0**

Techn. data / length

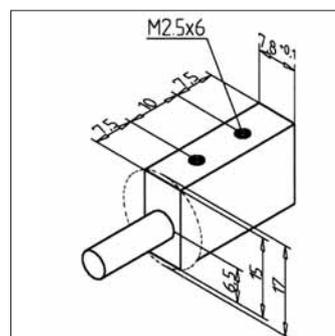
- Magnetic tape for installation on MiniTec profile surface, length max. 80 m, width 10 mm (optional: 5 mm tape width for sticking into the profile groove)

Application

- For all MiniTec linear guides with rails made from profiles
- Length measuring devices
- Material feeding

Assembly

- Stick magnetic tape on profile surface
- Attach sensor on slide
- Distance to the magnetic tape: 1.1 ± 0.9 mm



Please indicate desired measuring length (round up to full meters).





PNEUMATIC CONNECTIONS

MiniTec profiles are designed for integrated air-piping. The use of the profile grooves reduces the risk of pipe leaks significantly. Standard connectors g 1/4 and g 1/8 can be used.

PNEUMATIC SYSTEM



All standard pneumatic elements with thread G 1/8" und G 1/4" can be used with all standard MiniTec profiles. Fixing is possible at any desired point.

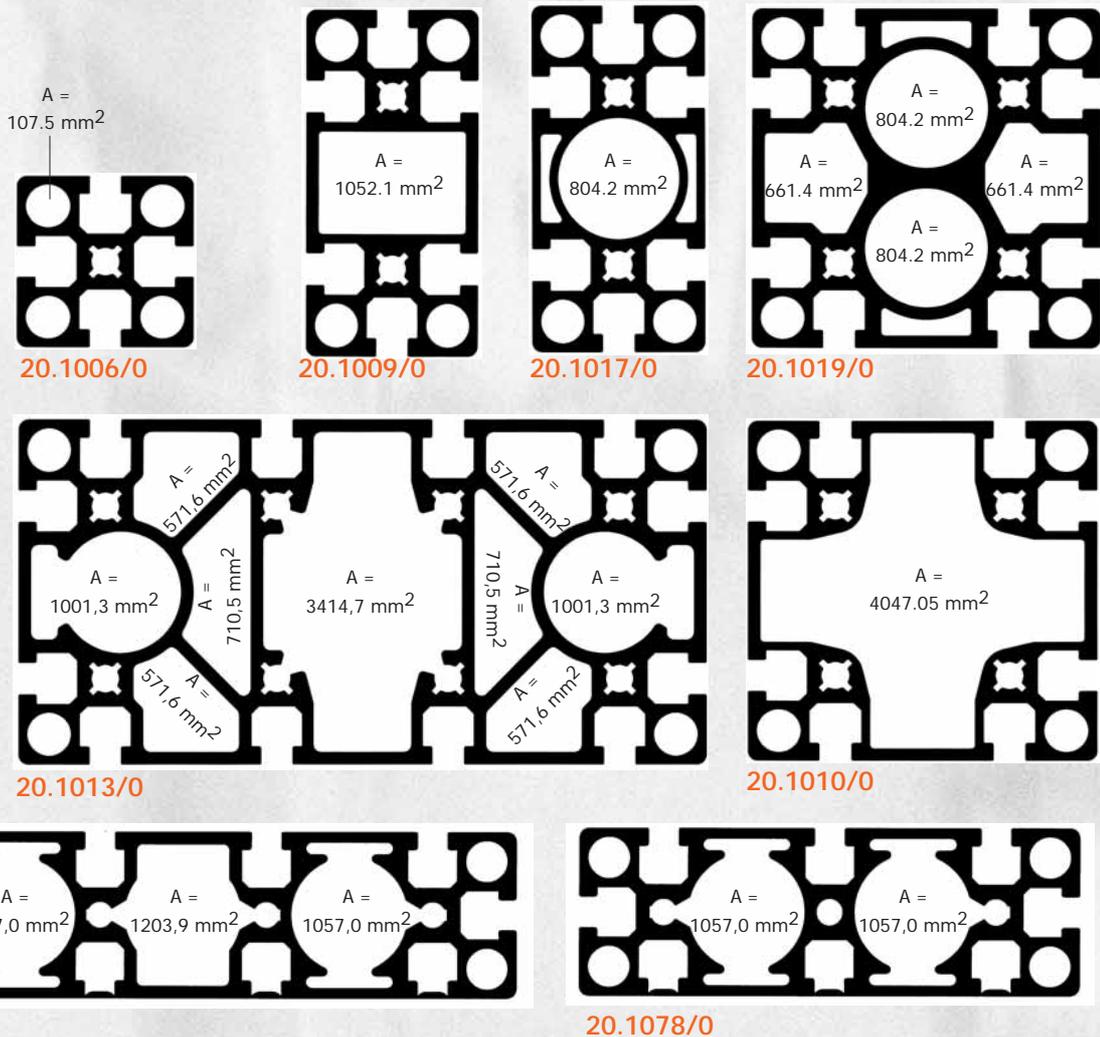


The standard profile 45 x 45 provides 4 pipes; in the larger profiles 4 pipes and 1 air chamber are included. Parts are required for face-connection .

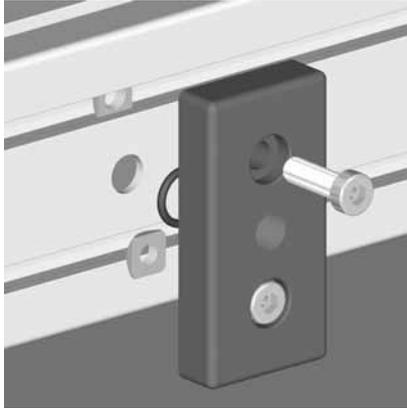
The Ø 11.7 mm bore in the standard profiles can be rebored to G 1/4" for fastening standard screw connections.

Max. pressure: for round chambers 20 bar; for others: 8 bar.

Use able air pipings



PNEUMATIC CONNECTION PLATE 45



Technical data/ items supplied

- Aluminium pressure die casting, powder-coated, grey
- One O-ring
- Fastening kit

Applications

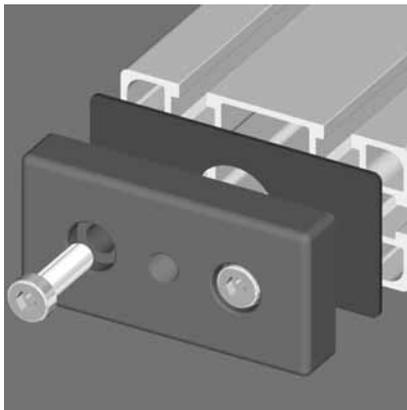
- Lateral connection of pneumatic connections at profiles 45 x 90 and 90 x 90

Assembly

- Fasten on to profile grooves with fastening kit
- Drill \varnothing 12 mm hole in the profile center.

Thread	Weight	Part no.
G 1/8"	0.170	24.1107/0
G 1/4"	0.168	24.1107/2
G 3/8"	0.165	24.1107/3

PNEUMATIC CONNECTION PLATE 45 X 90



Technical data/ items supplied

- Aluminium pressure die casting, powder-coated, grey
- Sealing plate
- Fastening kit

Applications

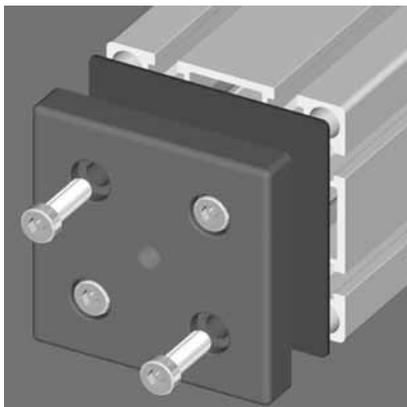
- Closing of chambers of profiles 45 x 90 for connection of pneumatic couplings

Assembly

- Insert sealing plate
- Fasten on to 2 central bores \varnothing 7.5 mm with fastening kit

Thread	Weight	Part no.
G 1/8"	0.181	24.1105/0
G 1/4"	0.178	24.1105/2
G 3/8"	0.174	24.1105/3

PNEUMATIC CONNECTION PLATE 90



Technical data/ items supplied

- Aluminium pressure die casting, powder-coated, grey
- Sealing plate
- Fastening kit

Applications

- Closing of chambers of profiles 90 x 90 for connection of pneumatic couplings

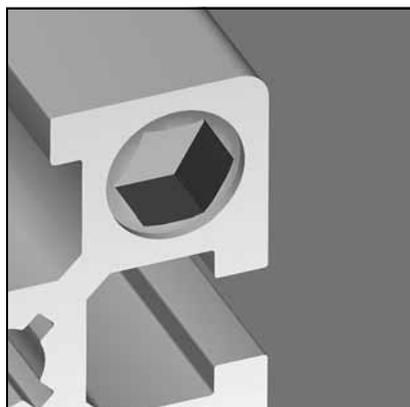
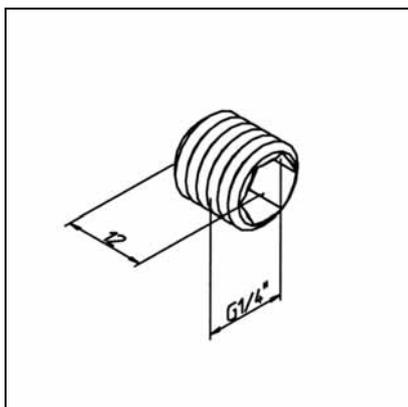
Assembly

- Insert sealing plate
- Attache on 4 central bores \varnothing 7.5 mm with fixing kit

Thread	Weight	Part no.
G 1/8"	0.434	24.1106/0
G 1/4"	0.429	24.1106/2
G 3/8"	0.421	24.1106/3

PLUG

Part. N° 24.1104/0



TECHN. DATA / ITEMS SUPPLIED

- Brass	
- Weight	0,006 kg

APPLICATIONS

- Closure for profile chambers Ø 11,7 mm

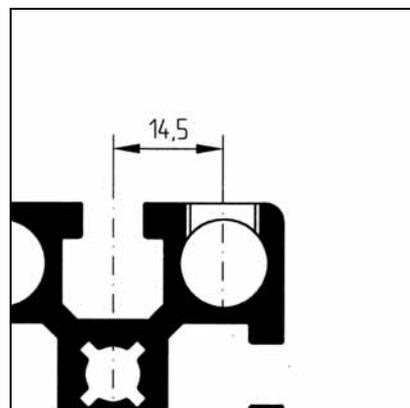
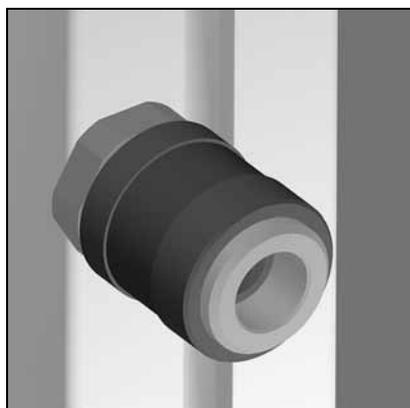
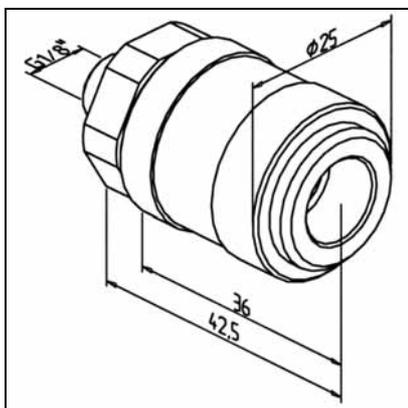
ASSEMBLY

- Thread the round profile chambers Ø 11,7 mm to G 1/4 "

- Screw-in the plug by using sealing tape

QUICK COUPLING 1/8

Part. N° 24.1109/0



TECHN. DATA / ITEMS SUPPLIED

- Brass, nickel plated, NW 7	
- Connection G 1/8", SW 22	
- Weight	0,064 kg

APPLICATION

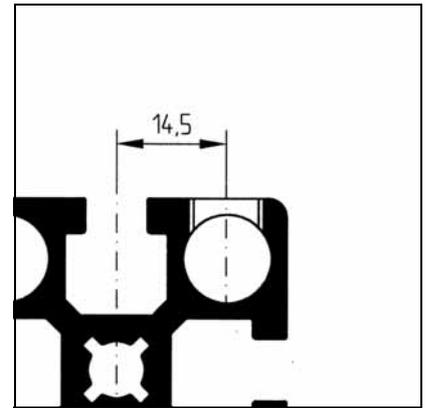
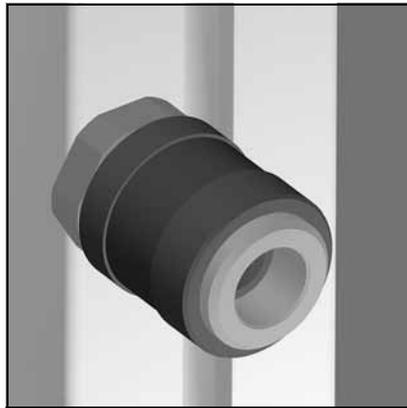
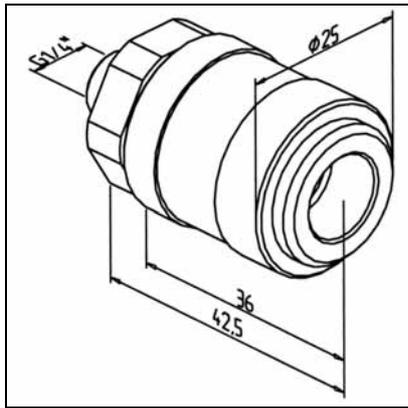
- Pressed air connection at any desired point on profile surface or faces, Ø 11,7 mm

ASSEMBLY

- Bore thread G 1/8" in profile surface; distance from center of profile groove: 14,5 mm

QUICK COUPLING 1/4

Part. N° 24.1110/0



TECHN. DATA / ITEMS SUPPLIED

- Brass, nickel plated, NW 7
- Connection G 1/4", SW 22
- Weight 0,065 kg

APPLICATIONS

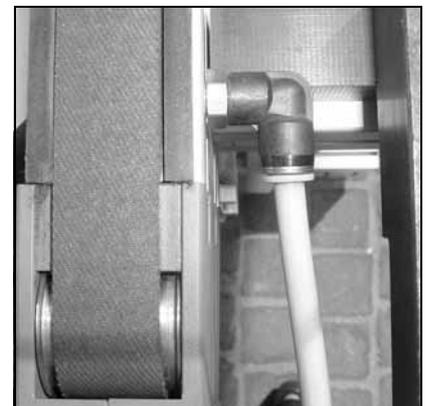
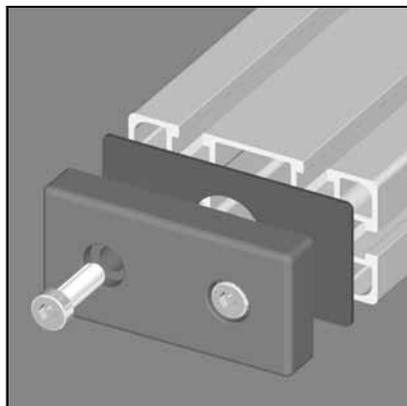
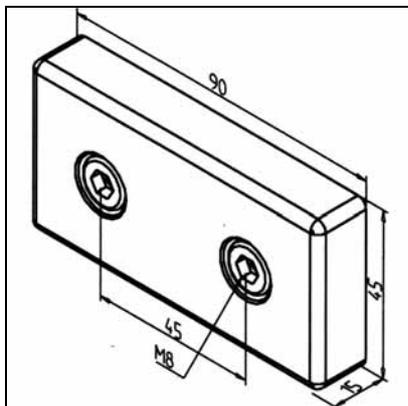
- Pressed air connection at any desired point on profile surface or faces, Ø 11,7 mm

ASSEMBLY

- Bore thread G 1/4" in profile surface; distance from center of profile groove: 14,5 mm

PNEUMATIC END PLATE 45 X 90

Part. N° 24.1105/7



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Sealing plate
- Fastening kit
- Weight 0,181 kg

APPLICATION

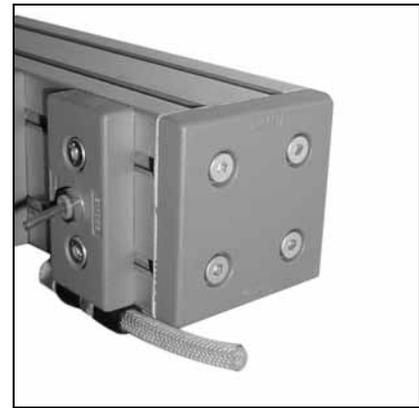
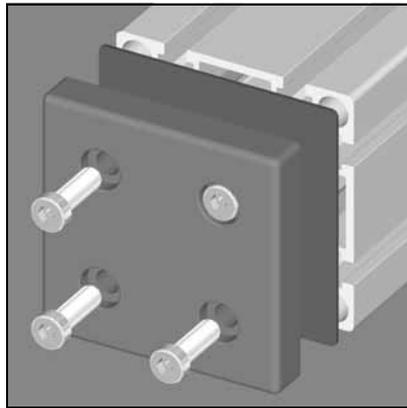
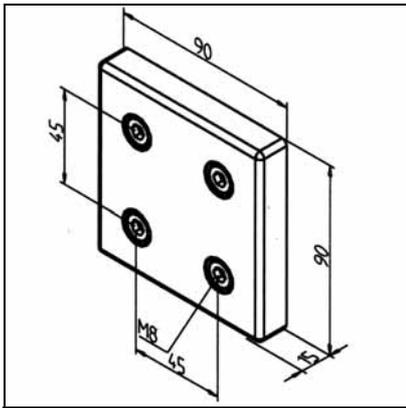
- Closing of chamber ends of profiles 45 x 90

ASSEMBLY

- Insert sealing plate
- Attachment on 2 central bores Ø 7,5 with fastening kit

PNEUMATIC END PLATE 90 X 90

Part. N° 24.1106/7



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Sealing plate
- Fastening kit
- Weight 0,434 kg

APPLICATIONS

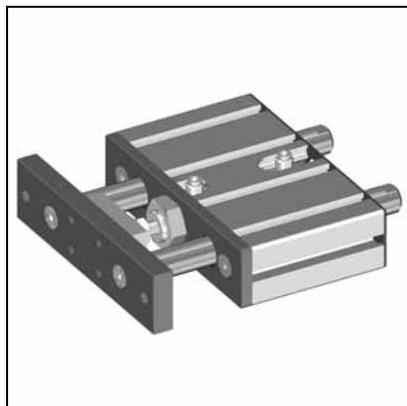
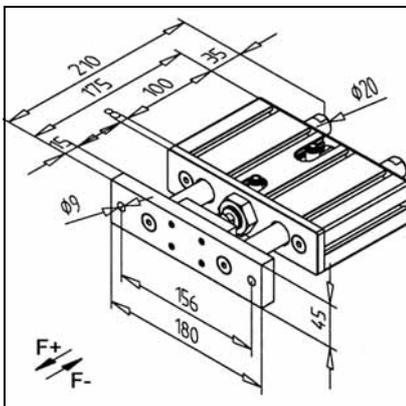
- Closing of chambers of profiles 90 x 90 for connection of pneumatic couplings

ASSEMBLY

- Insert sealing plate
- Attachment on 4 central bores $\varnothing 7,5$ with fastening kit

PNEUMATIC LIFTING UNIT 15

Part. N° 24.1201/0



TECHN. DATA / ITEMS SUPPLIED

- Incorporated into profile 45 x 180
- Overall cylinder size $\varnothing 25$ mm
- Guide shafts $\varnothing 20$ mm
- F+ with 6 bar = 256 N
- F- with 6 bar = 220 N
- Stroke = 15 mm
- Completely assembled with dual acting cylinder
- Weight 3,405 kg

APPLICATIONS

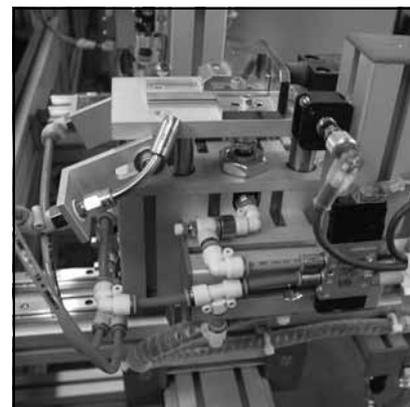
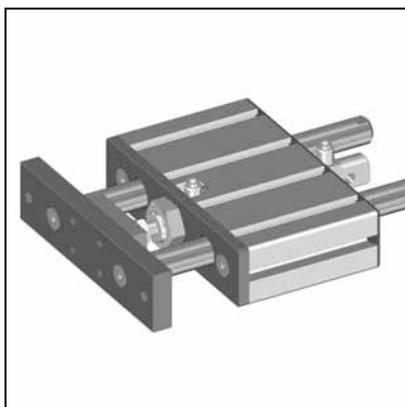
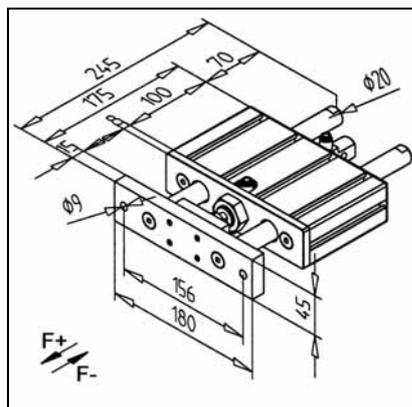
- Lifting and lowering of loads
- Attachment for gripper loc. Cit.
- Positioning of parts

ASSEMBLY

- With mounting angle on profile construction
- Other stroke lengths on request

PNEUMATIC LIFTING UNIT 50

Part. N° 24.1205/0



TECHN. DATA / ITEMS SUPPLIED

- Incorporated into profile 45 x 180	
- Cylinder Ø 25 mm	
- Guide shafts Ø 20 mm	
- F+ with 6 bar =	265 N
- F- with 6 bar =	220 N
- Stroke =	50 mm
- Completely assembled with dual acting cylinder	
- Weight	3,45 kg

APPLICATIONS

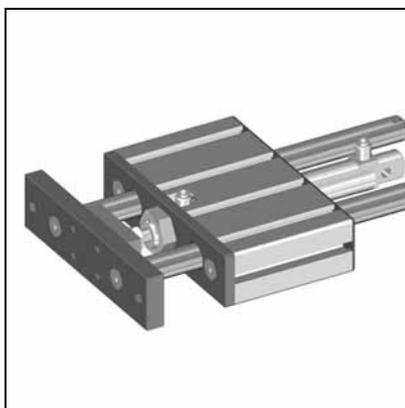
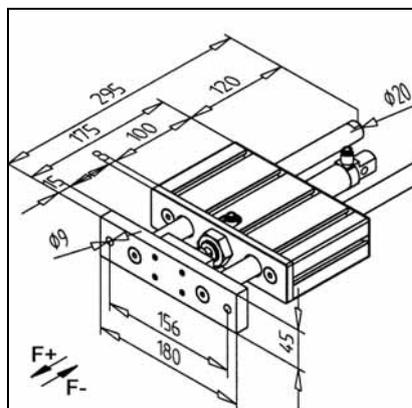
- Lifting and lowering of loads
- Attachment for gripper loc. Cit.
- Positioning of parts

ASSEMBLY

- With mounting angle on profile construction
- Other stroke lengths on request

PNEUMATIC LIFTING UNIT 100

Part. N° 24.1210/0



TECHN. DATA / ITEMS SUPPLIED

- Incorporated into profile 45 x 180	
- Cylinder Ø 25 mm	
- Guide shafts Ø 20 mm	
- F+ with 6 bar =	265 N
- F- with 6 bar =	220 N
- Stroke =	100 mm
- Completely assembled with dual acting cylinder	
- Weight	3,52 kg

APPLICATIONS

- Lifting and lowering of loads
- Attachment for gripper loc. Cit.
- Positioning of parts

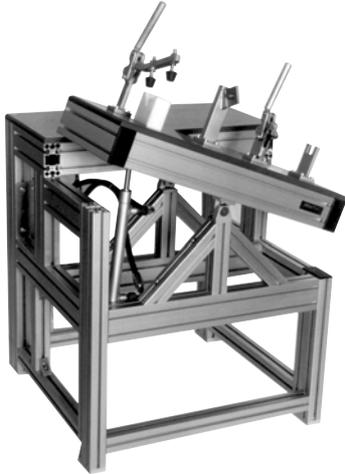
ASSEMBLY

- With mounting angle on profile construction
- Other stroke lengths on request



HYDRAULIC
VERTICAL ADJUSTMENT

HYDRAULIC VERTICAL ADJUSTMENT



Items supplied

- Hydraulic hand pump for 1 to 6 cylinders
- Cylinders with 150 - 500 mm stroke
- Hydraulic tubes PA 4 mm
- Single-acting cylinders
- Minimum load for return ~ 5 kg
- Temperature from -20°C to + 45°C

Applications

- Lifting and lowering of tables, work benches, terminals etc.

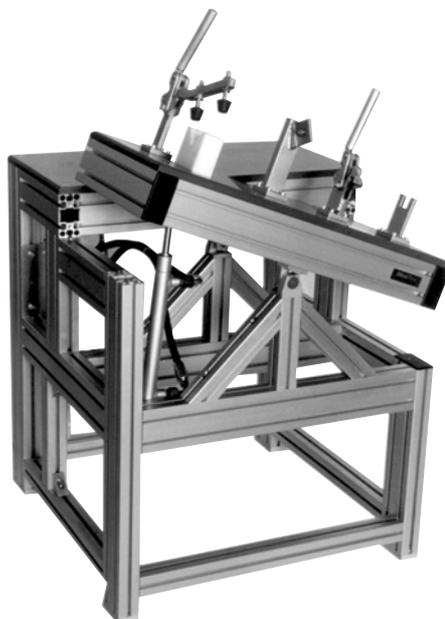
Assembly

- Screw pump at desired position onto the profile groove with screws M6
- Fasten cylinder into aluminium profile "S" with adaptor rings
- Attach cylinder onto profile groove with adaptor plate

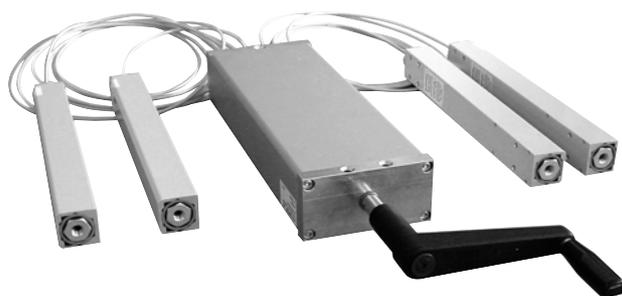
Available special models and accessories

- Angle connector **Part Nr. 27.0002/0** Angle 90°, for pump and cylinders
- Attachment parts for pumps and add-on cylinders according to customer request
- Attachment set 45 for add-in cylinder **Part Nr. 27.0005/0** for all profiles with bore \varnothing 32 except for profile 90 x 90 S and 90 x 180 S. For these, please use attachment set 90, **Part Nr. 27.0006/0**
- Service kit with oil, screw connections, special spanner, hose cutter, and filling injector

Use great caution when working on the hydraulics. To avoid penetration of air into the hydraulic system, we recommend having this work performed by us.



COMPLETE SYSTEM WITH ADD-ON CYLINDER AZ



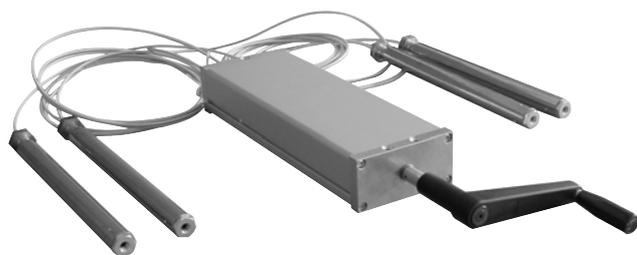
Items supplied

- Pump with folding crank
- Cylinder with 2.5 m hydraulic tube
- Completely assembled and inspected system

See the following pages for dimensions and data.

Pump system load	TB		PB			
	150 kg	300 kg	350 kg			
No. of cylinders	1	2	3	4	5	6
Type (stroke)						
AZ 150	27.0050/1	27.0050/2	27.0050/3	27.0050/4	27.0050/5	27.0050/6
AZ 200	27.0051/1	27.0051/2	27.0051/3	27.0051/4	27.0051/5	27.0051/6
AZ 300	27.0052/1	27.0052/2	27.0052/3	27.0052/4	27.0052/5	27.0052/6
AZ 400	27.0053/1	27.0053/2	27.0053/3	27.0053/4	27.0053/5	27.0053/6
AZ 500	27.0054/1	27.0054/2	27.0054/3	27.0054/4	27.0054/5	27.0054/6

COMPLETE SYSTEM WITH ADD-IN CYLINDER EZ



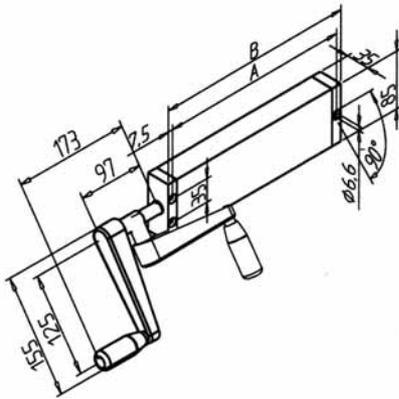
Items supplied

- Pump with folding crank
- Cylinder with 2.5 m hydraulic tube
- Completely assembled and inspected system

See the following pages for dimensions and data.

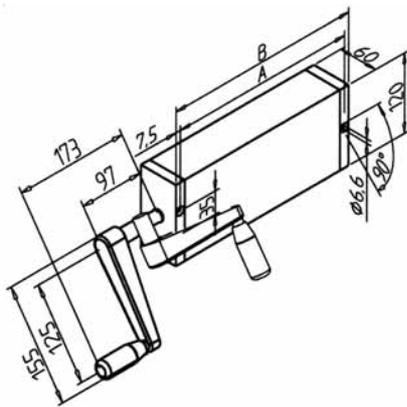
Pump system load	TB		PB			
	150 kg	300 kg	350 kg			
No. of cylinders	1	2	3	4	5	6
Type (stroke)						
EZ 150	27.0060/1	27.0060/2	27.0060/3	27.0060/4	27.0060/5	27.0060/6
EZ 200	27.0061/1	27.0061/2	27.0061/3	27.0061/4	27.0061/5	27.0061/6
EZ 300	27.0062/1	27.0062/2	27.0062/3	27.0062/4	27.0062/5	27.0062/6
EZ 400	27.0063/1	27.0063/2	27.0063/3	27.0063/4	27.0063/5	27.0063/6
EZ 500	27.0064/1	27.0064/2	27.0064/3	27.0064/4	27.0064/5	27.0064/6

HYDRAULIC PUMP TB FOR 1-2 CYLINDERS



Type	Stroke H mm	Dimension A mm	Dimension B mm
Hydraulic pump TB 150	150	283,5	298,5
Hydraulic pump TB 200	200	343,5	358,5
Hydraulic pump TB 300	300	465,5	480,5
Hydraulic pump TB 400	400	585,5	600,5
Hydraulic pump TB 500	500	707,5	722,5

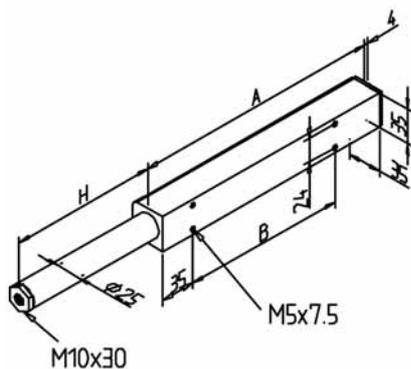
HYDRAULIC PUMP PB FOR 3-6 CYLINDERS



Type	Stroke H mm	Dimension A mm	Dimension B mm
Hydraulic pump PB 150	150	283,5	298,5
Hydraulic pump PB 200	200	343,5	358,5
Hydraulic pump PB 300	300	465,5	480,5
Hydraulic pump PB 400	400	585,5	600,5
Hydraulic pump PB 500	500	707,5	722,5

ADD-ON CYLINDER AZ

For attachment with adaptor plate.

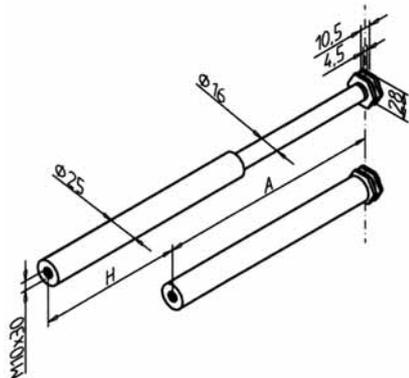


Type	Stroke H mm	Length A mm	Length B mm	lateral load kg max.
AZ 150	150	252	165	130
AZ 200	200	317	240	97
AZ 300	300	442	340	65
AZ 400	400	542	340	48
AZ 500	500	667	450	29

ADD-IN CYLINDER EZ

For installation in MiniTec profiles 45 x 90 S / 45 x 135 / 45 x 180 / 90 x 90 S / 90 x 180.

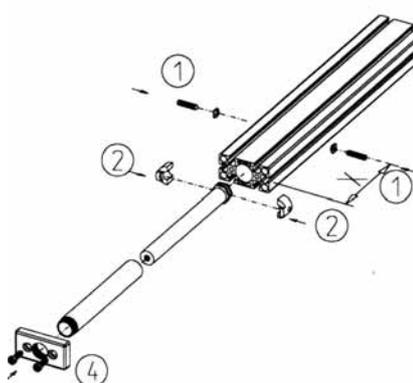
To install the cylinder, use attachment set "add-in cylinder"
Part N° 27.0005/0 or Part N° 27.0006/0.



Type	Stroke H mm	Length A mm	lateral load kg max.
EZ 150	150	235	130
EZ 200	200	300	97
EZ 300	300	425	65
EZ 400	400	525	48
EZ 500	500	650	29

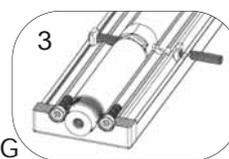
ATTACHMENT SET 45 FOR ADD-IN CYLINDER

Part N° 27.0005/0



Applications

- Suitable for all stroke lengths
- For profile 45 x 90 S, 45 x 135 G and 45 x 180 G



Installation

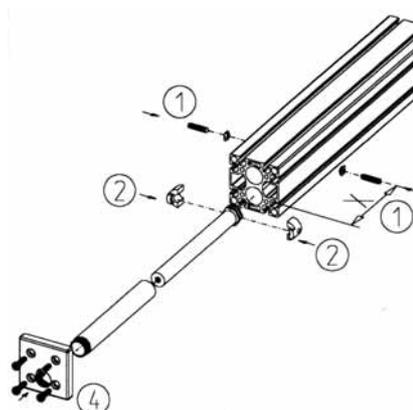
- 1) Bore Ø 8,5 mm in distance "X" from profile end
- 2) Place two holder pieces on cylinder and insert into the profile bore Ø 32 mm
- 3) Position holder pieces according to dimension table (below) and drill, fix with set screw
- 4) Screw guide pipe into connection plate, insert into profile and tighten

Table of Dimensions for Attachment Set 45 and 90

Cylinder	EZ 150	EZ 200	EZ 300	EZ 400	EZ 500
Distance X	224 mm	289 mm	414 mm	514 mm	639 mm

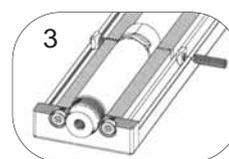
ATTACHMENT SET 90 FOR ADD-IN CYLINDER

Part N° 27.0006/0



Applications

- Suitable for all stroke lengths
- For profile 90 x 90 S, 90 x 180



Installation

- 1) Bore Ø 8,5 mm in distance "X" from profile end
- 2) Place two holder pieces on cylinder and insert into the profile bore Ø 32 mm
- 3) Position holder pieces according to dimension table (below) and drill, fix with set screw
- 4) Screw guide pipe into connection plate, insert into profile and tighten