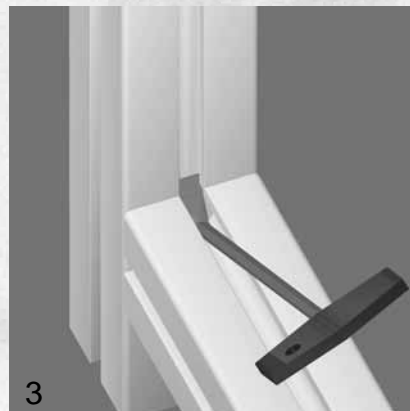
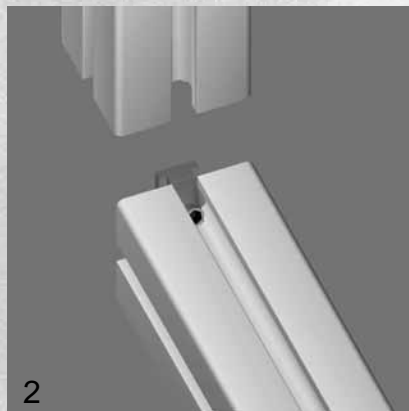
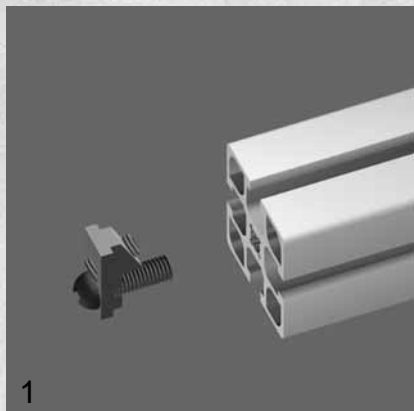


FASTENING ELEMENTS

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

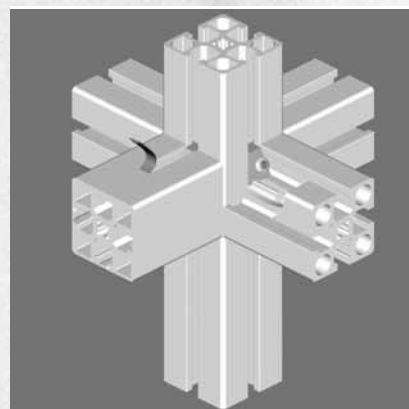
Power lock fastener(standard): Part N° 21.1018/0 For profile connections without special requirements. Profile needs to be tapped (thread M8).

Power lock fastener SF: Part N° 21.0818/0 For profile connections without special requirements. With self-cutting screw, so tapping is not necessary.

Power lock fastener ESD: Part N° 21.1393/0 For profile connections that need to be electrically conducting. Profile needs to be tapped (thread M8).

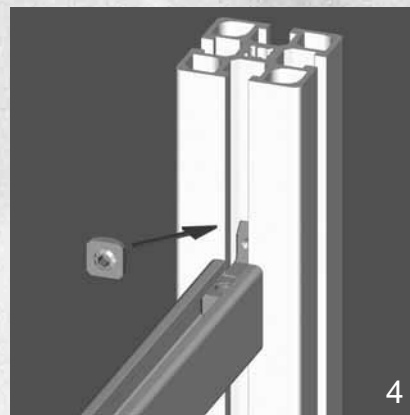
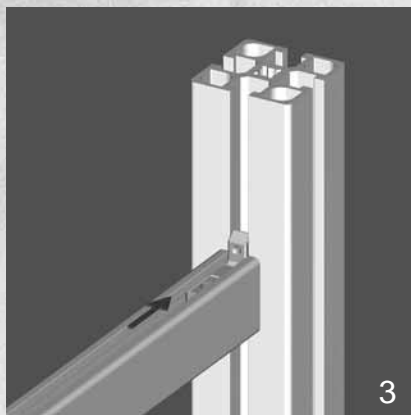
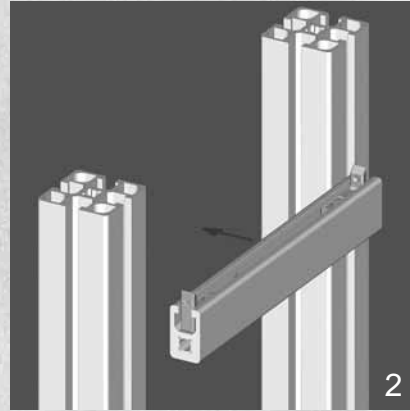
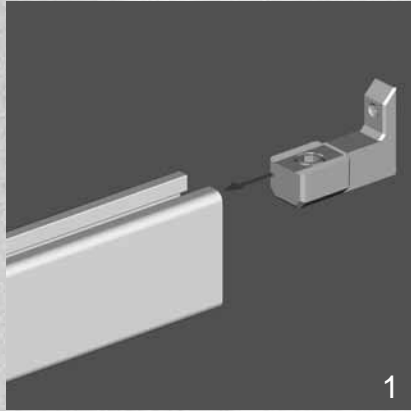
Power lock fastener ESD SF: Part N° 21.0810/0 For profile connections that need to be electrically conducting. With self-cutting screw, so tapping is not necessary.

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

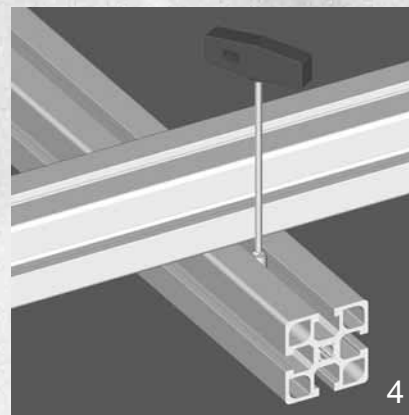
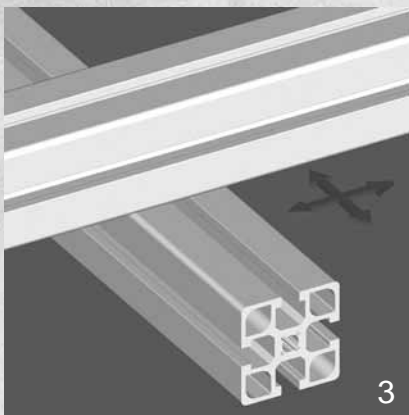
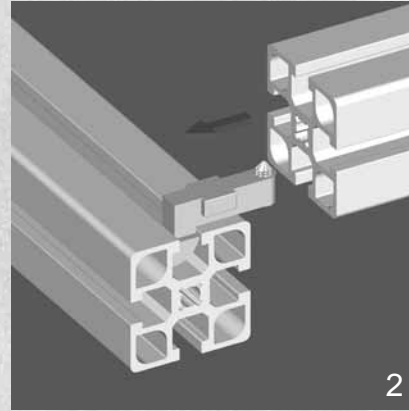
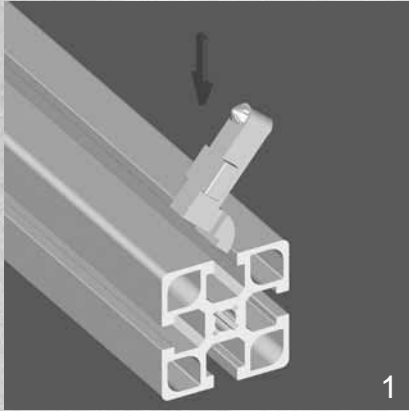
Applications For subsequent insert of profiles in existing frames



- 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 fastener 10 Nm).

MINITEC - CROSS-CONNECTOR

Applications For the retrospective installation 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

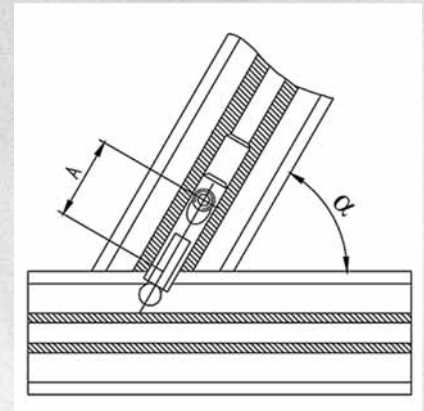
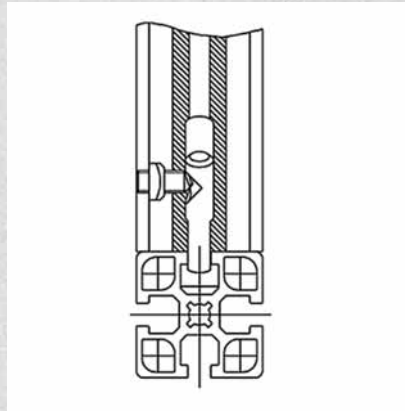
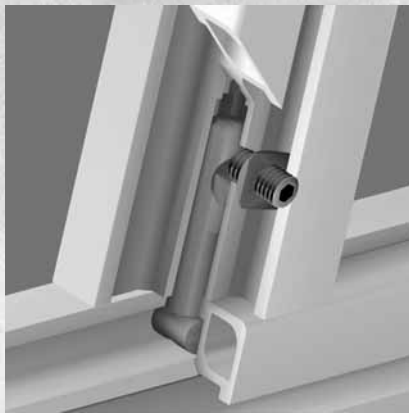
MITRE CONNECTIONS

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 setscrew and tighten it.

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

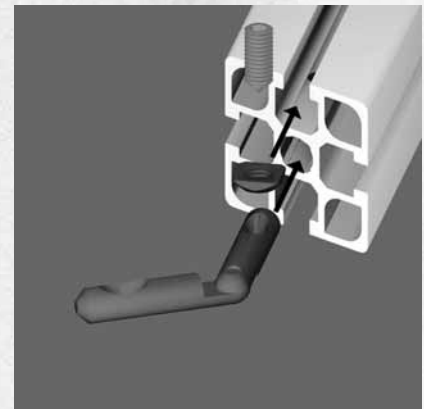
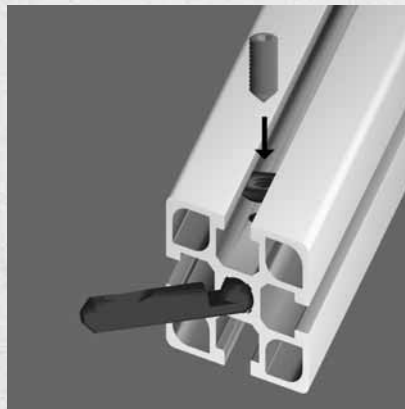
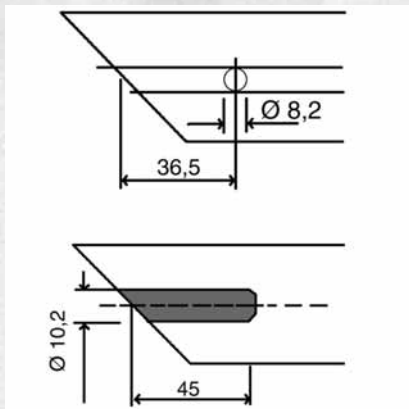
Angle α	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°
Distance A (mm)	21	24	26	28	29	30	30.5	31	31.5	32	32	32	32



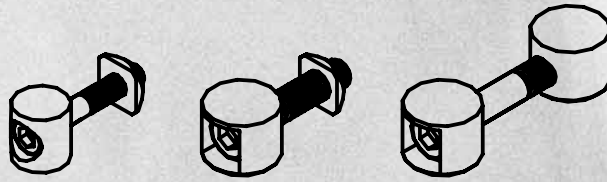
Mitre connector

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 setscrew, and tighten it.

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



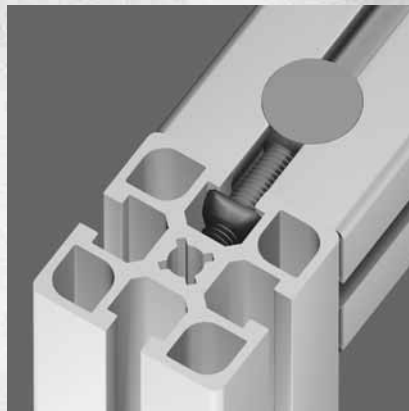
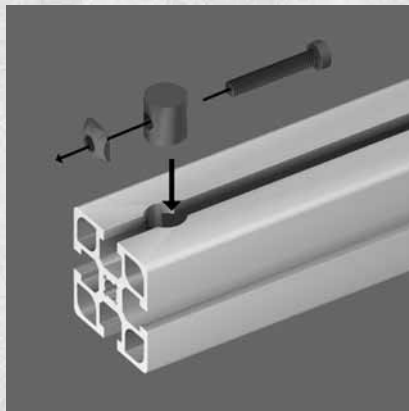
BOLT AND BUTT FASTENER



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



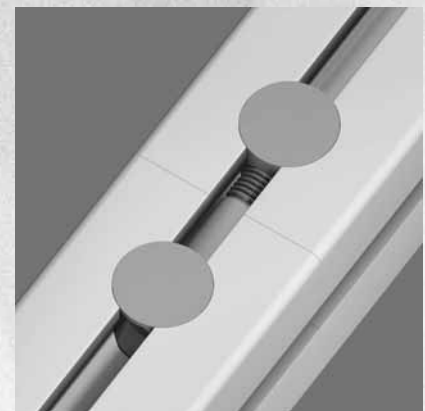
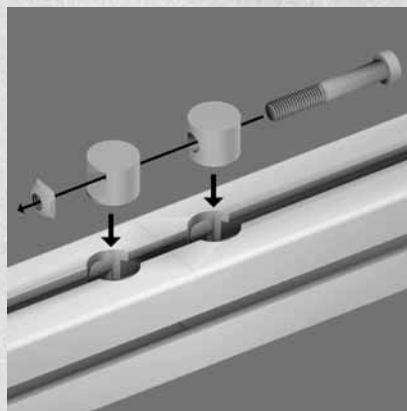
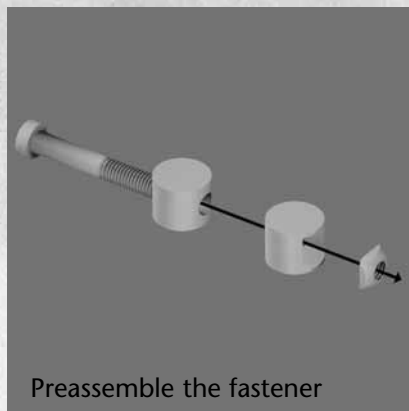
Assembly

- 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.

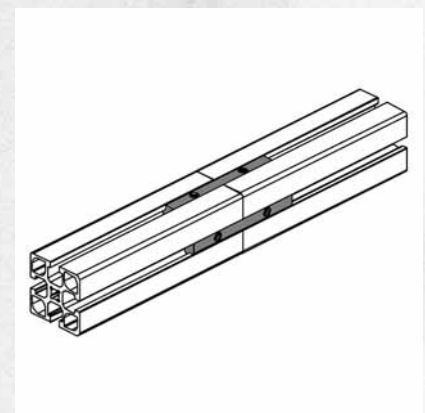
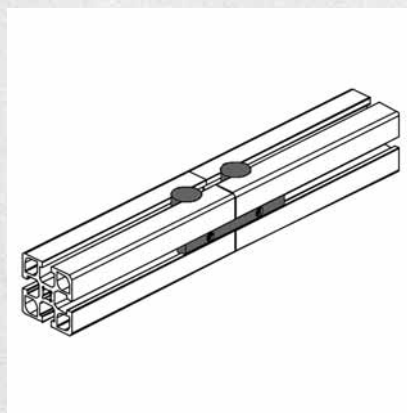
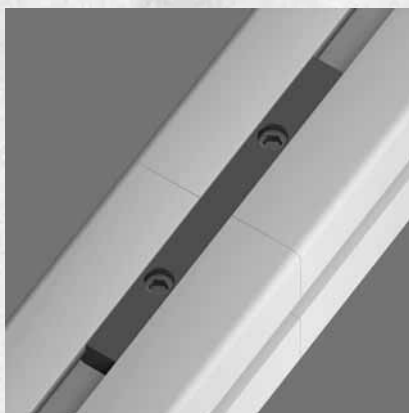
- Recommended locking torque: 15 Nm
- Static load: 3500 N

BUTT FASTENER

- Butt Fastener** Insert the fastener into the bore holes $\varnothing 7 \times 20$ mm. Tighten the fastener 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.

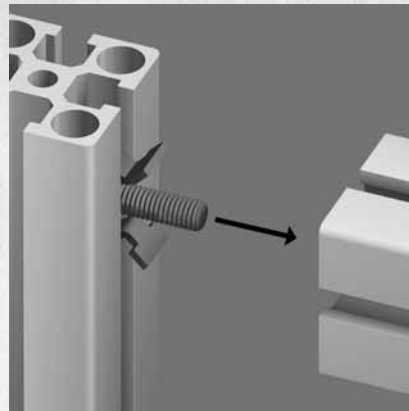
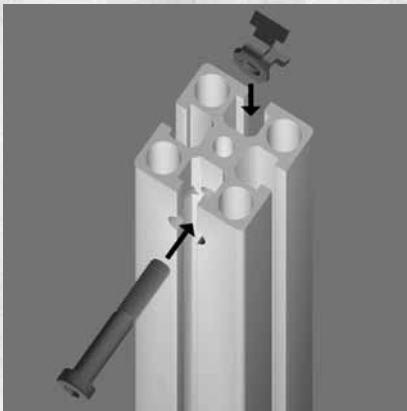


SCREW CONNECTION



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

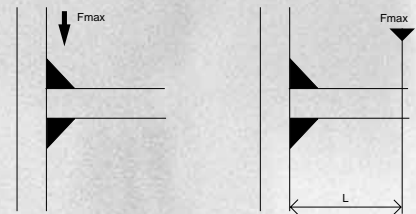


- Assembly**
- Form the tread M8 with thread former
 - Drill the through hole bore 9 x 15 at the position where the connection is required.
 - Insert the position fixing element and the screw.
 - Tighten the screw with hexagon key 5 A/F
- Definitely secured against dislocation
 - Static load: 18000 N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

MOUNTING ANGLES



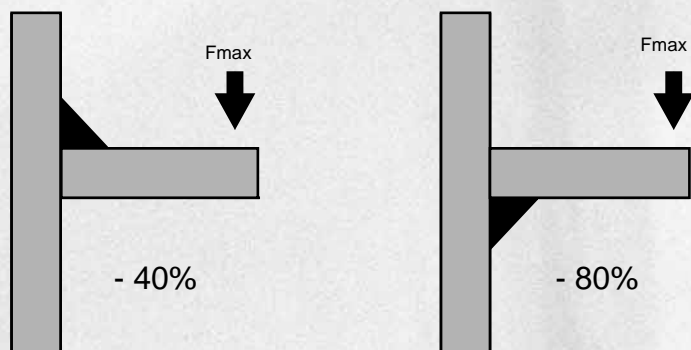
- None processing
- Suitable for subsequent mounting of profiles into existing frames
- Adjustable



Load Capacity:	Angle	Screws	Force (N)	Moment (Nm)
	Angle 19:	2 screws	1.200 N	400 Nm
	Angle 25:	2 screws	1.200 N	400 Nm
	Angle 45:	2 screws	1.200 N	400 Nm
	Angle 45 x 90:	4 screws	2.400 N	800 Nm
	Angle 90:	8 screws	4.800 N	1.600 Nm

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

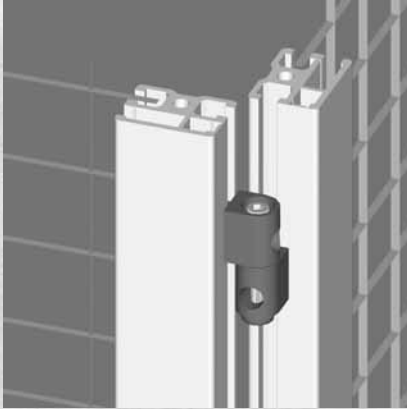
If used one-sided, the load reduces as follows:



Assembly

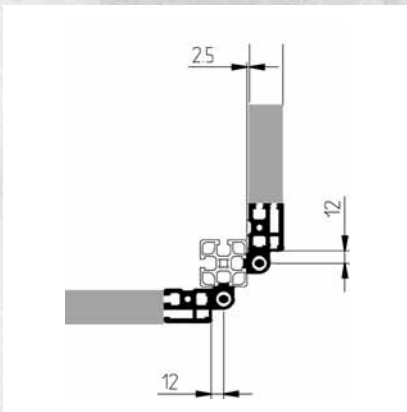
1. Preassemble the angle with necessary screws and nuts M8.
2. Fix the angle slightly at the vertical profile in the desired position.
3. Insert the horizontal profile and tighten all screws.
Recommended locking torque: 20 Nm

GUARD UNIT WITH ADJUSTABLE FIXING ANGLE

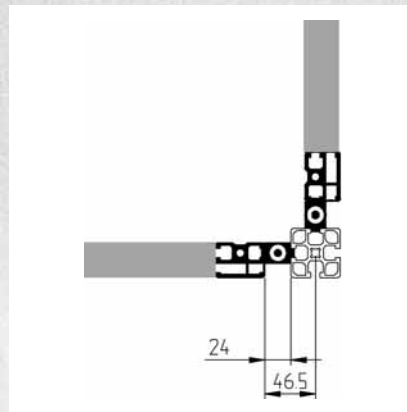


For fixing of MiniTec-aluminium profile guard units and erection of protective guard units at any angle.

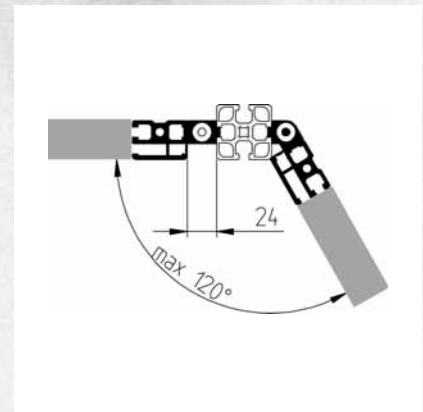
Assembly options:



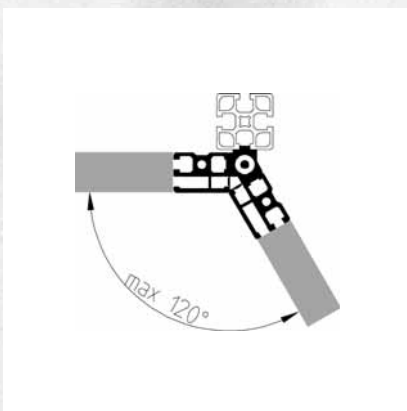
Without gap between guard unit and post



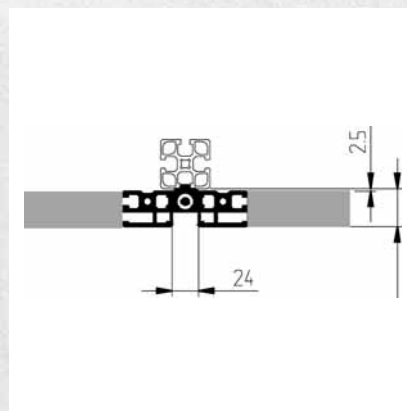
24 mm gap between guard unit and post



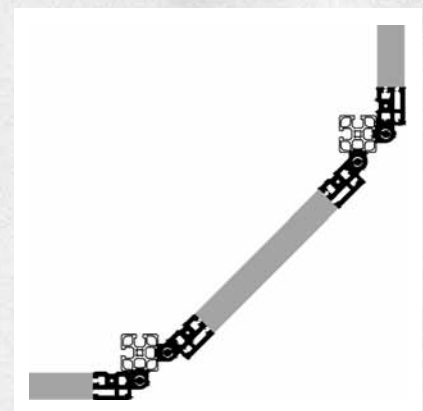
24 mm gap between guard unit and post



No gap between guard unit and post

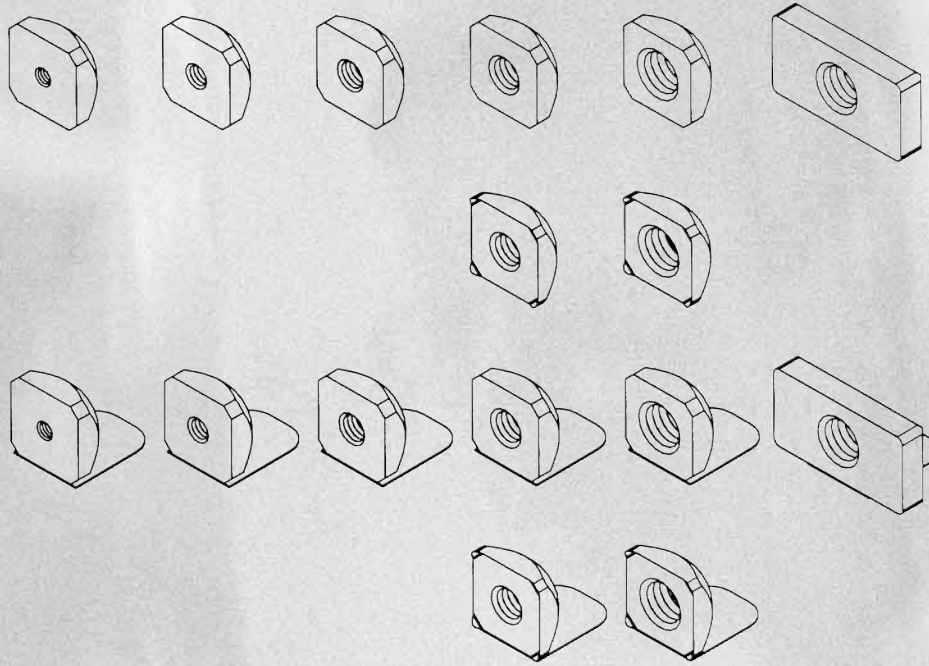


No gap between guard unit and post

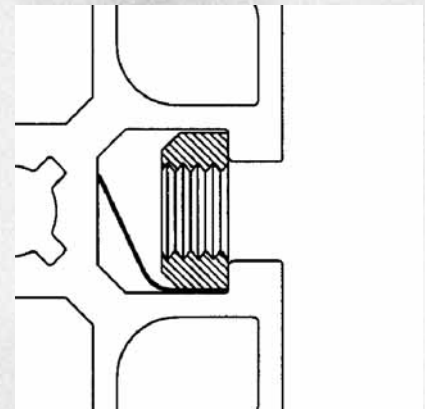
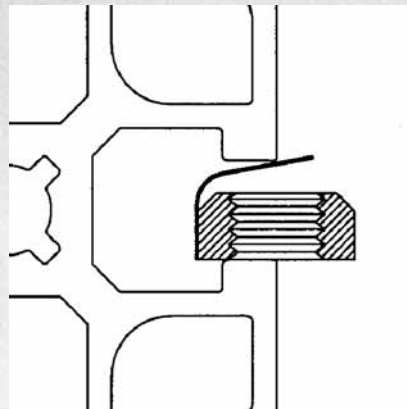
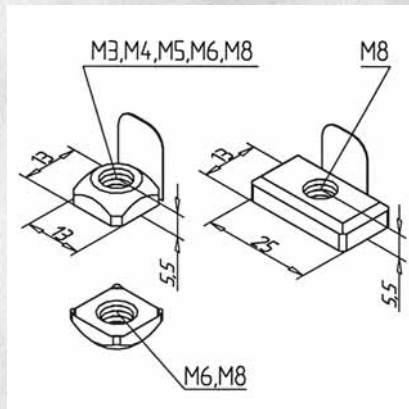


No gap between guard unit and post

SQUARE NUTS

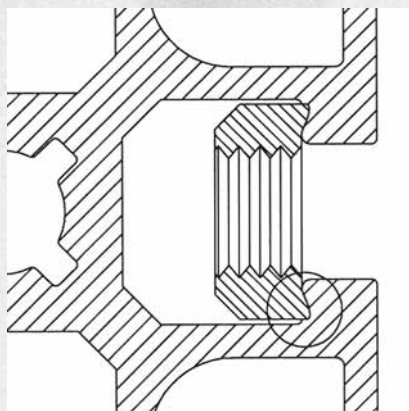


Application Economical and easy fixing of fasteners and elements available with threads M3, M4, M5, M6 and M8.



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.

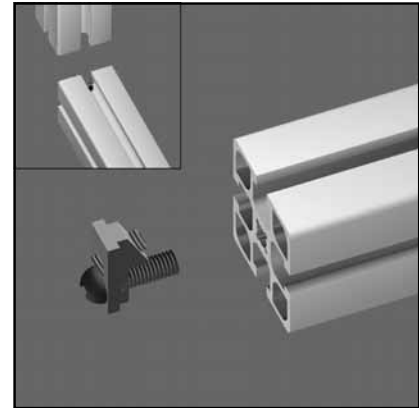
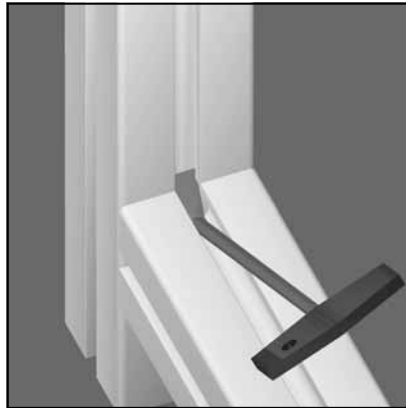
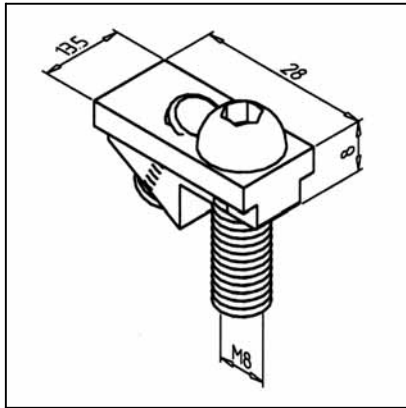
- Insertable into the profile groove at any desired point.



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 Hex socket cap screw M8 x 25, galvanized
- Weight 0,029 kg
- Stainless version Part N° 21.1018/1
- ESD suitable version Art.-Nr. 21.1393/0
- Power-Lock fastener SF Part. N° 21.0818/0

APPLICATIONS

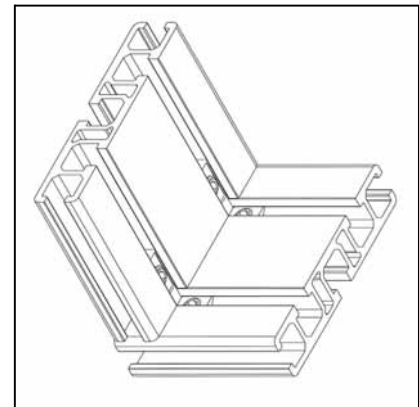
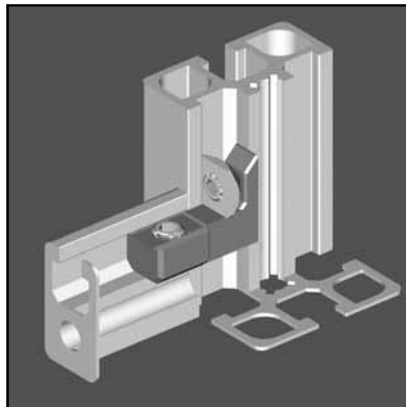
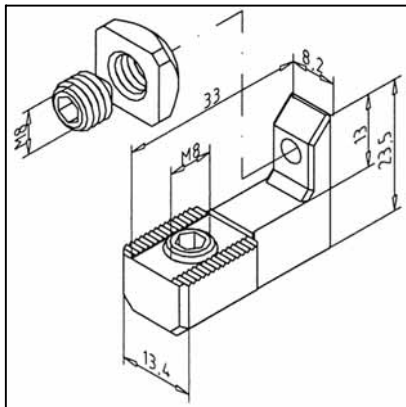
- Power-lock connection for all profiles, also suitable for crossjoints
- For larger profile sections several fasteners can be used
- For all profiles

ASSEMBLY

- Mount fastener by hand onto profileface
- Tighten setscrew M8 with key SW 4
- Recommended locking torque 12 Nm
- See page 66

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

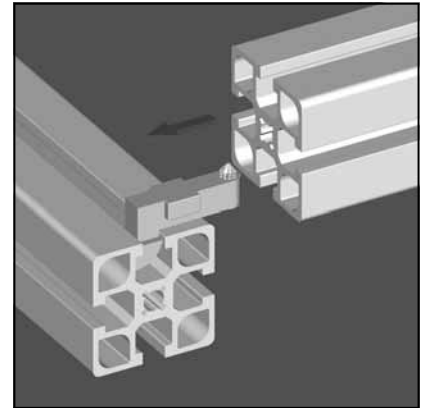
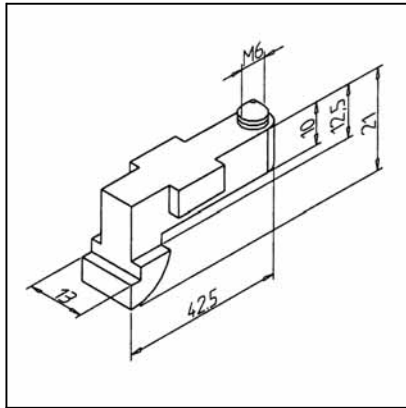
- For all profiles
- In particular useful for subsequent inset of profiles in existing frames
- For profile sections bigger than 45x45 several fasteners can be used

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

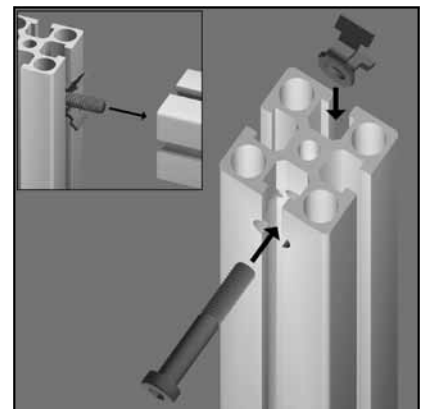
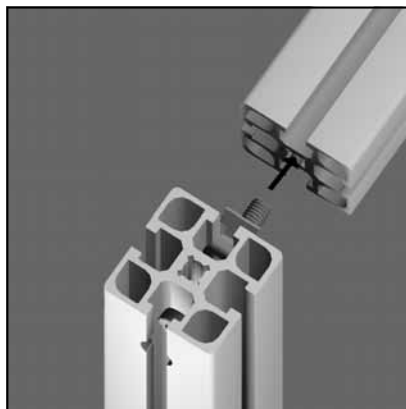
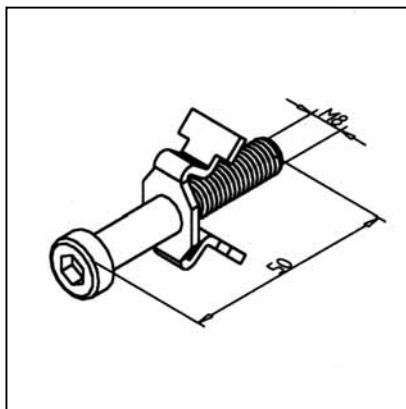
- For connecting all types of profile
- Particularly for mounting profiles on existing constructions
- For profile sections bigger than 45 x 45 several fasteners can be used

ASSEMBLY

- Swing the connector into the existing frame
- Push the new profile over the connector
- Tighten stud bolt in connector with wrench size 3 to 10 Nm torque

SCREW CONNECTION 45

Part. N° 21.1017/0



TECHN. DATA / ITEMS SUPPLIED

- Hex socket cap screw M8 x 50, zinc plated
- Position fixing element, steel zinc plated
- Weight 0,03 kg

APPLICATIONS

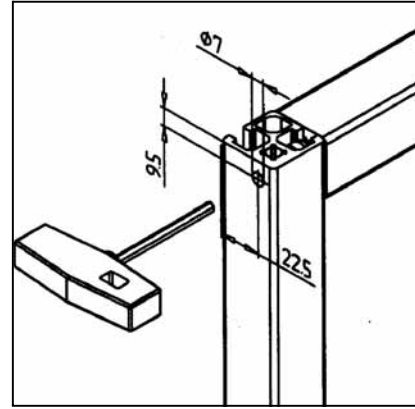
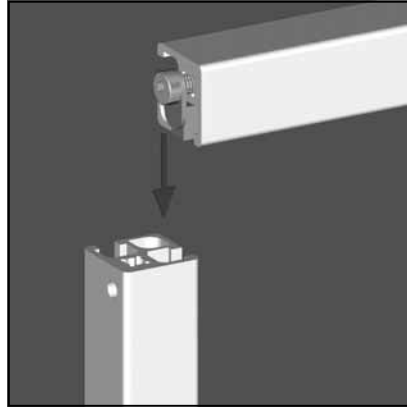
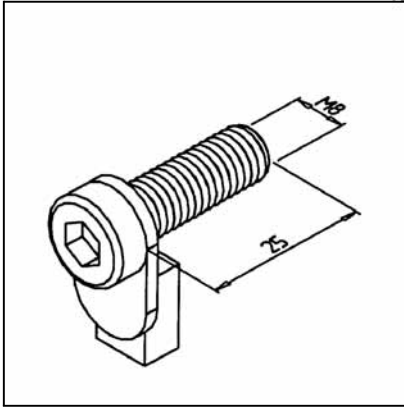
- Profile connections which must be secured against dislocation

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 72

SCREW CONNECTION 32

Part. N° 21.1386/0



TECHN. DATA / ITEMS SUPPLIED

- Hex socket cap screw
- Anti-rotation device
- Weight 0,02 kg

APPLICATIONS

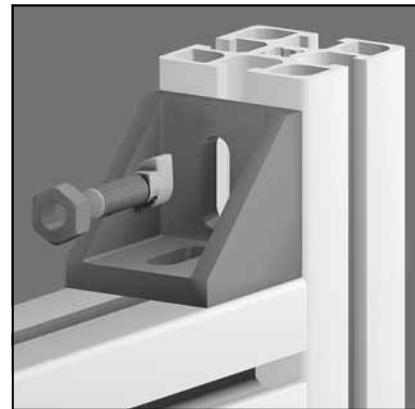
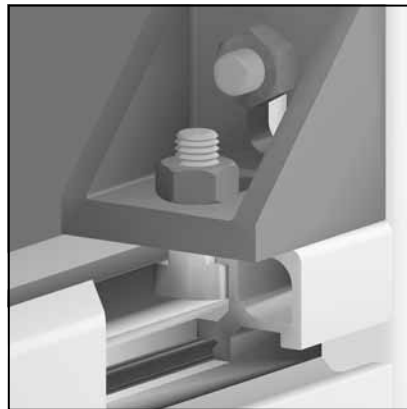
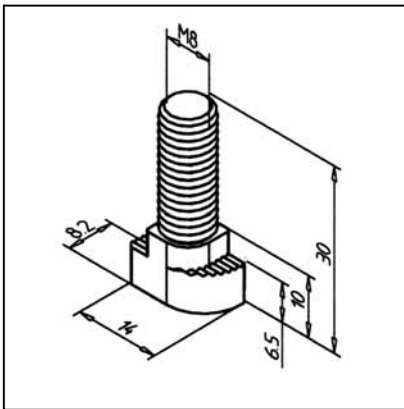
- Connection with effective anti-rotation function for profile series 32 and 19

ASSEMBLY

- Form a thread M8 with thread former
- Drill a through hole bore $\varnothing 7$ in profile 2
- Insert the anti-rotation device in profile 1 and connect with profile 2
- Tight 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

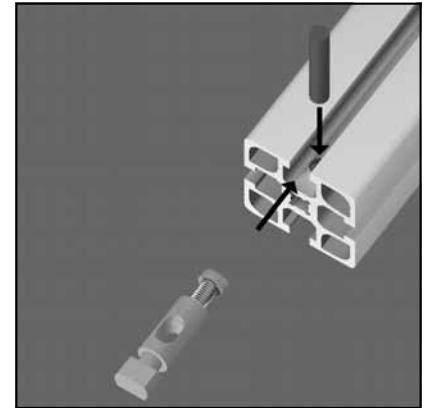
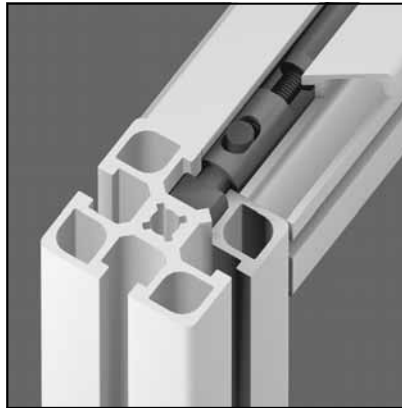
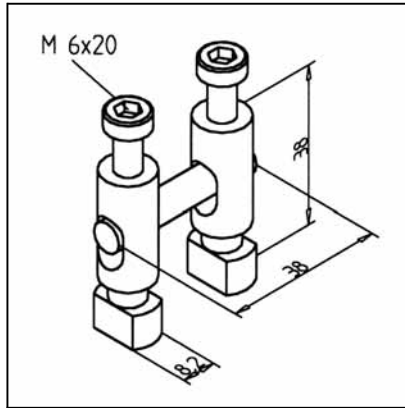
- Simple attachment of add-on parts or accessories on profiles
- Attachment of mounting angle 45 GD Part N° 21.1133/0 and 90 GD Part N° 21.1000/0

ASSEMBLY

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

CROSS BOLT FASTENER

Part. N° 21.1036/0



TECHN. DATA / ITEMS SUPPLIED

- 2 stretch connectors, steel zinc plated
- 1 cross-bolt Ø 7, special steel
- 2 hex socket cap screws M6 x 20
- Weight 0,067 kg

APPLICATIONS

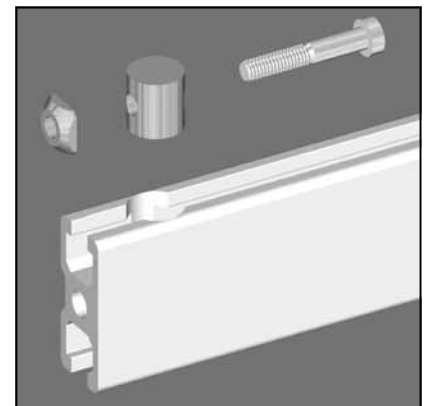
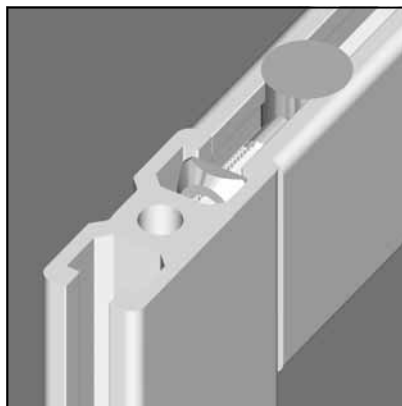
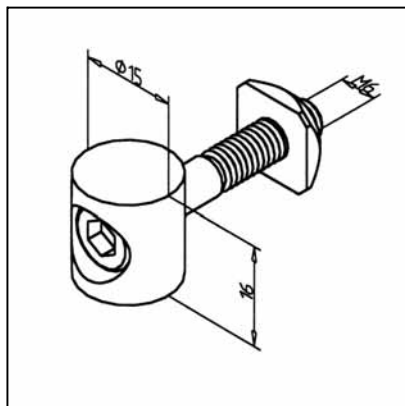
- Fitting to all profiles
- For subsequent fitting of profiles into existing frames

ASSEMBLY

- Drill cross bore Ø 7,5 mm; 12 mm from profile end
- Insert stretch connectors into profile grooves and cross-bolt through connectors
- Pre-tighten the screws M6 with ball-headed key 5 A/F, final tightening with L-key

BOLT-FASTENER 15

Part. N° 21.1024/0



TECHN. DATA / ITEMS SUPPLIED

- 1 bolt aluminium
- Fixing kit
- Weight 0,032 kg

APPLICATIONS

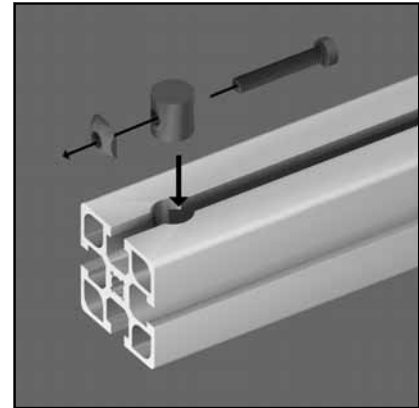
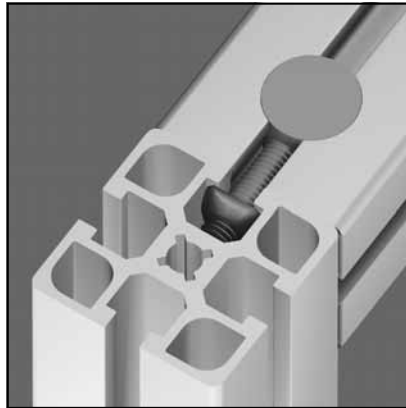
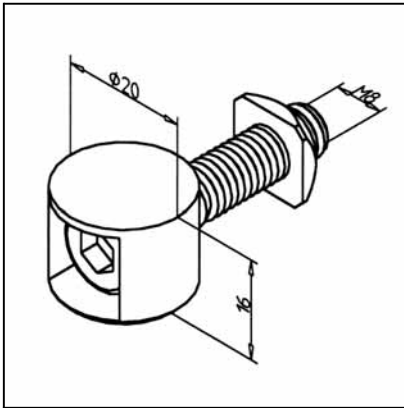
- For connection of profiles 19 and 32
- Particularly useful for profiles which have to be fitted subsequently into existing constructions

ASSEMBLY

- Step drilling Ø 9 x 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 70

BOLT-FASTENER 20

Part. N° 21.1021/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

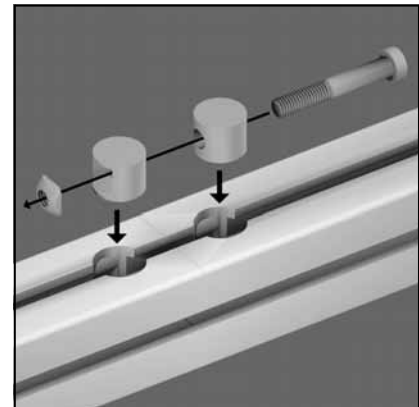
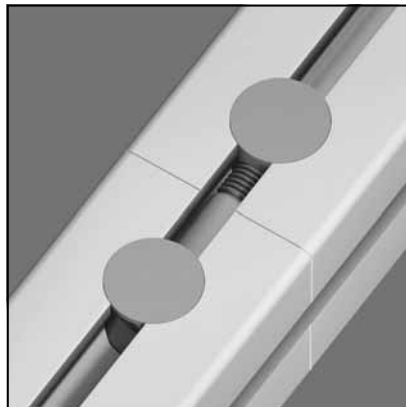
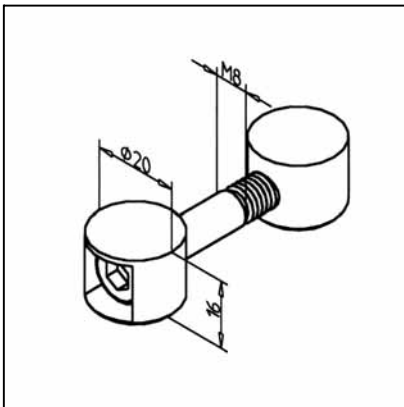
- For connection of all profiles
- Particularly useful for profiles which have to be fitted subsequently into existing constructions
- For connection of profile 45 x 19

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 70

BUTT FASTENER

Part. N° 21.1020/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

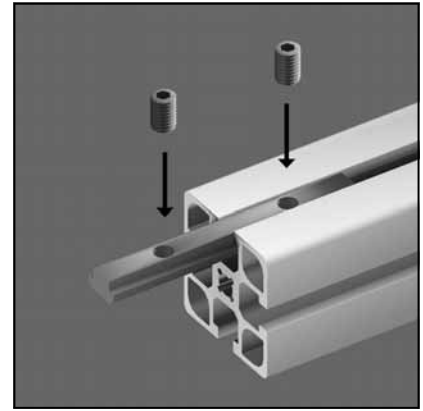
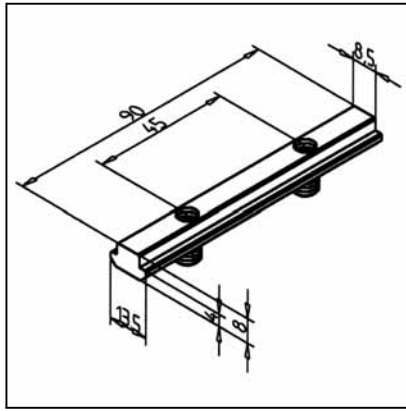
- Profile extension
- Butt fastener

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 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 71

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

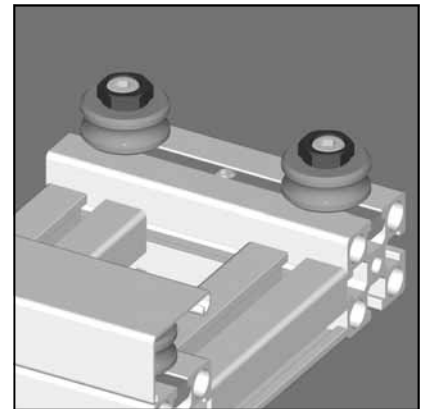
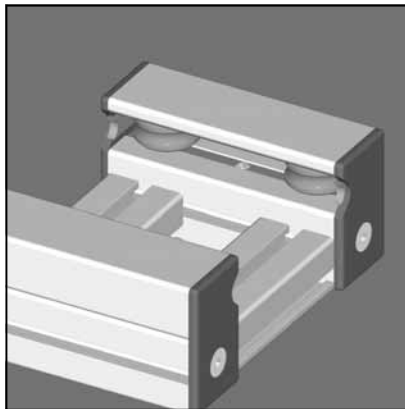
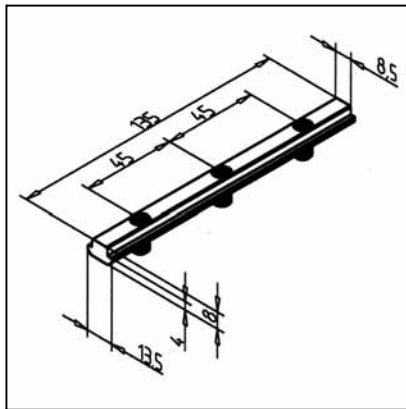
- No processing required

- For larger profiles or heavy - duty applications use multiple t-slot bars

- See page 71

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

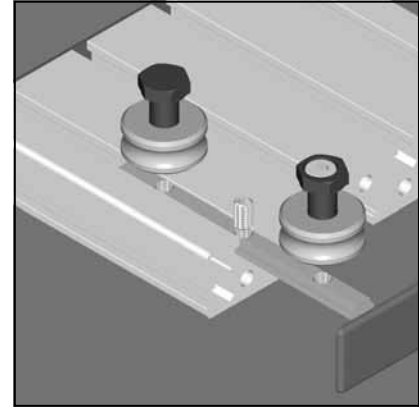
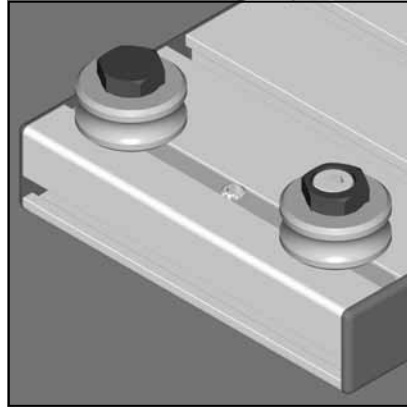
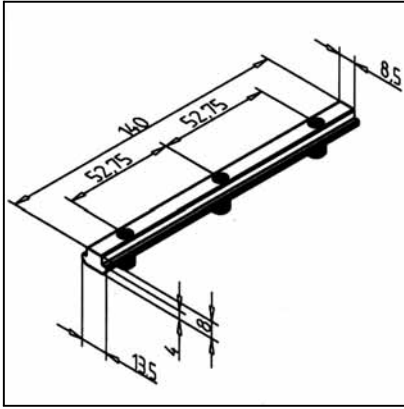
ASSEMBLY

- Insertion into the profile groove

- No processing required

T-SLOT BAR 140

Part. N° 28.0026/0



TECHN. DATA / ITEMS SUPPLIED

APPLICATIONS

ASSEMBLY

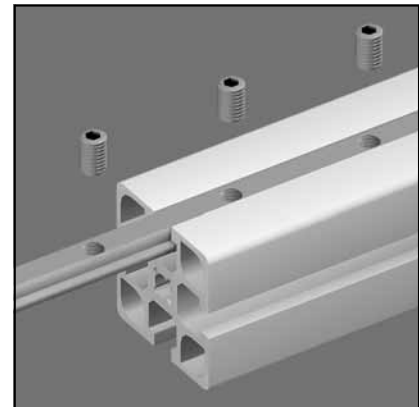
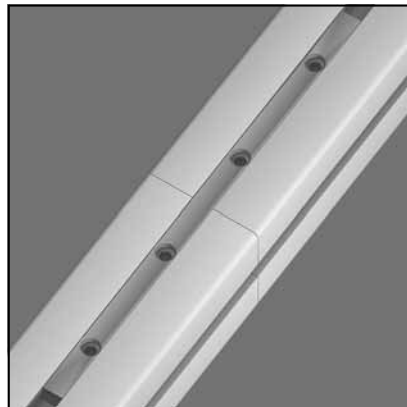
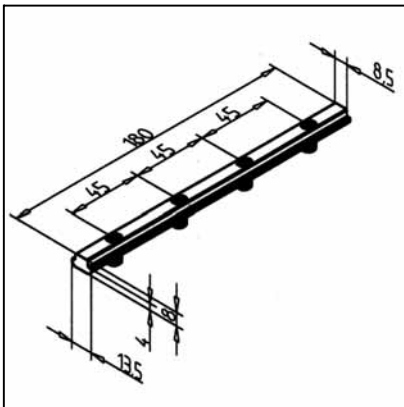
- Steel, zinc plated
- 3 set-screws M8 x 14, 4 A/F, zinc plated
- Weight 0,094 kg
- Stainless version Part N° 28.0030/0

- Fixing of bearings in linear slides LW 32 E

- Insertion into the profile groove
- No processing required

T-SLOT BAR 180

Part. N° 21.1101/0



TECHN. DATA / ITEMS SUPPLIED

APPLICATIONS

ASSEMBLY

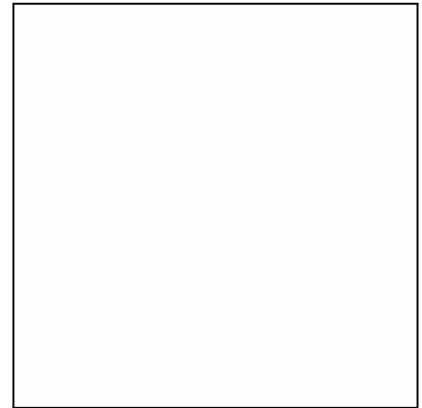
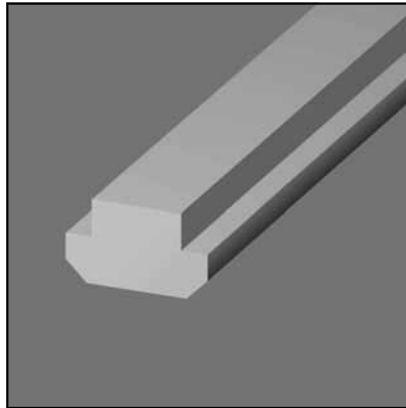
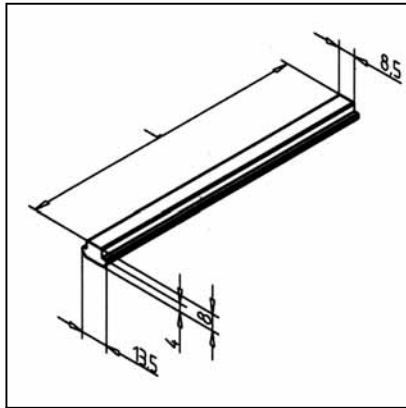
- Steel, zinc plated
- 4 set-screws M8 x 14, 4 A/F, zinc plated
- Weight 0,120 kg
- Stainless version Part N° 21.0986/0

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

- Insertion into the profile groove
- No processing required
- For larger profiles or heavy - duty applications use multiple t-slot bars
- See page 71

T-SLOT BAR PROFILE

Part. N° 21.1030/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, plain

- Weight 0,680 kg/m

- Length 3,000 m

- Stainless version Part N° 21.1030/1

APPLICATIONS

- Production of clamping ledges, connecting elements for special lengths

- Production of reinforcing elements

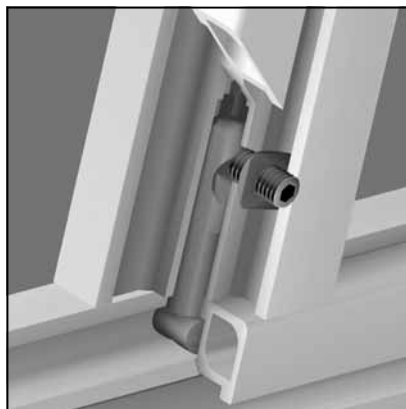
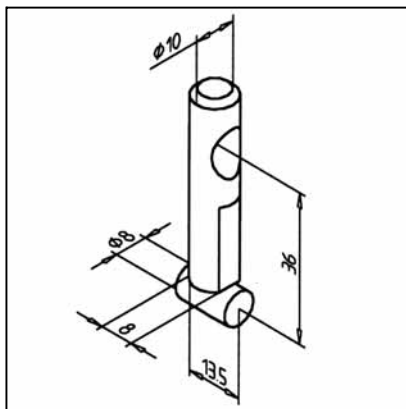
- Ledges with special perforation

ASSEMBLY

- Insertion into the profile groove

MITRE CONNECTOR N

Part. N° 21.1401/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

- Fixing kit

- Weight 0,051 kg

APPLICATIONS

- Mitre connection of profiles on profile groove

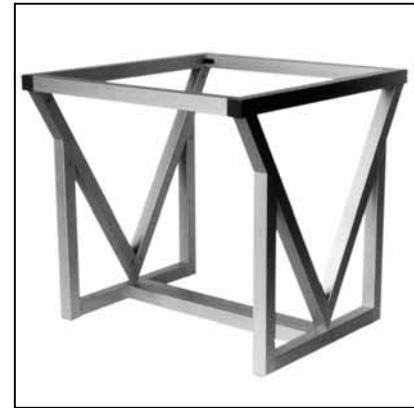
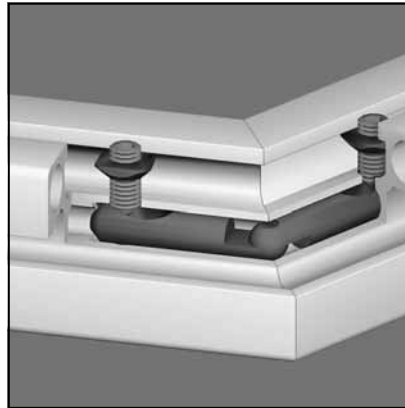
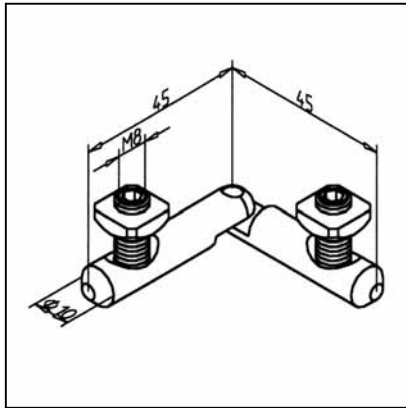
ASSEMBLY

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

- Drilling jig see page 354

MITRE CONNECTOR

Part. N° 21.1400/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fixing kit
- Weight 0,065 kg

APPLICATIONS

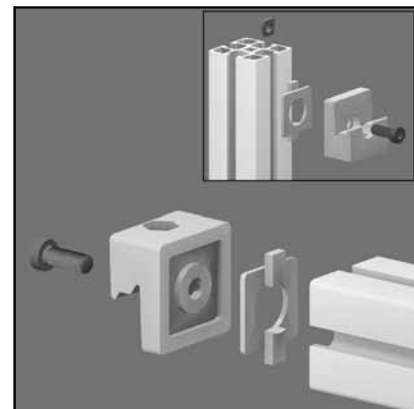
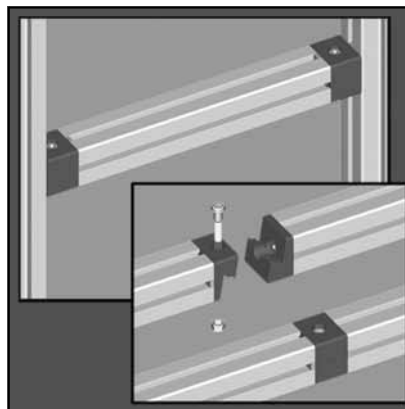
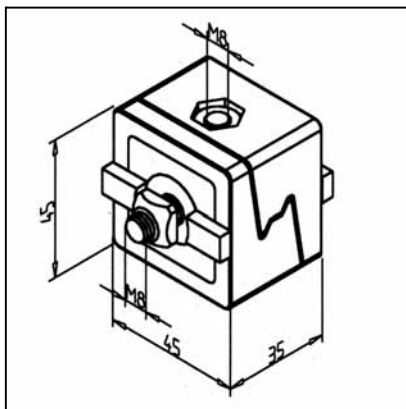
- Show cases
- Exhibition racks
- Displays
- Frames

ASSEMBLY

- Rebore core bore to $\varnothing 10,2$ mm
- Process a drill $\varnothing 8,2$ 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, see page: 354
- Measure see page 69

MOUNTING BRACKET 45

Part. N° 21.1411/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

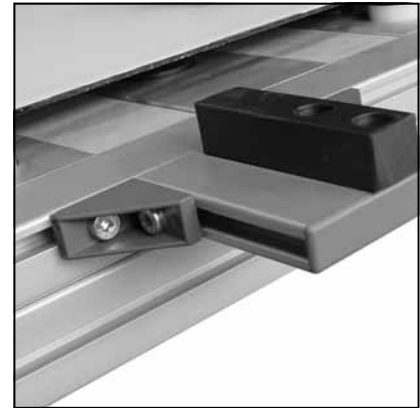
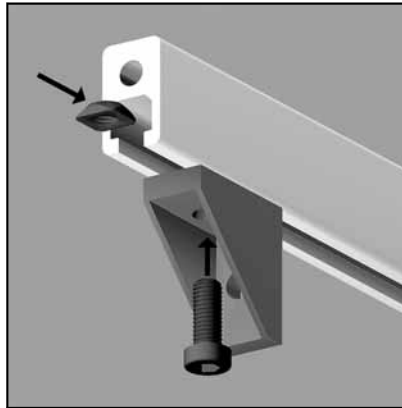
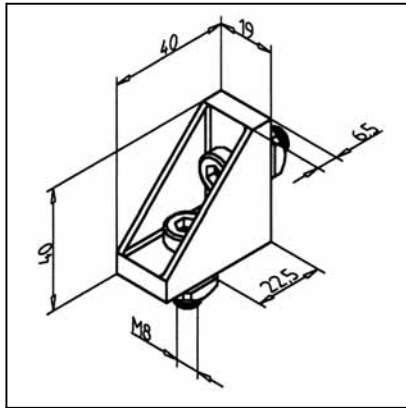
- Connection of profiles
- For subsequent fitting of profiles into existing constructions, displacable in direction of the groove
- Fixing of supports
- removable attachments

ASSEMBLY

- Use fixing kit from supply schedule
- 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
- Fixing kit
- Weight 0,033 kg

APPLICATIONS

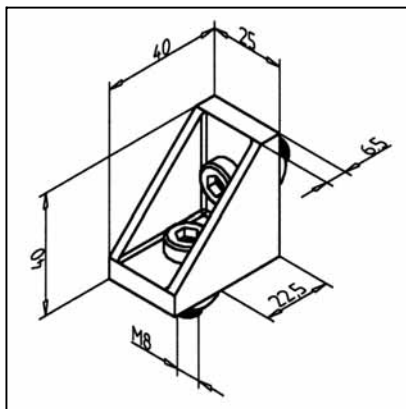
- Connection of profiles 19 and 32
- Subsequent fitting of profiles into existing constructions, displaceable in direction of the groove
- Fixing of supports

ASSEMBLY

- Use fixing kit from supply schedule
- 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 73

ANGLE 25 GD

Part. N° 21.1102/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

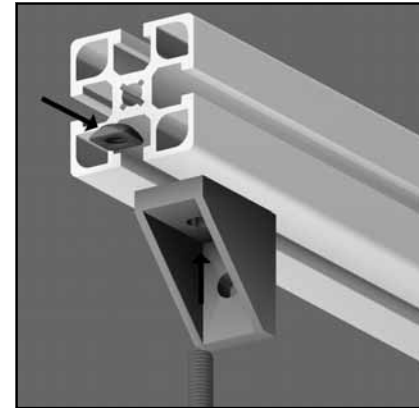
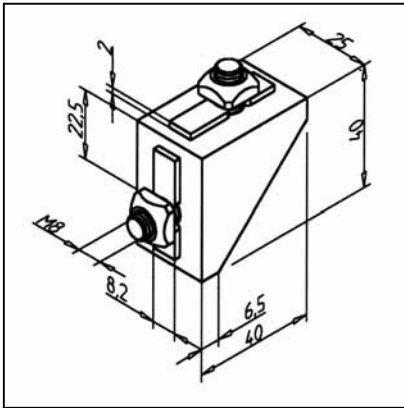
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of all profile constructions

ASSEMBLY

- Use fixing kit from supply schedule
- 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 73

ANGLE 25 S

Part. N° 21.1134/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

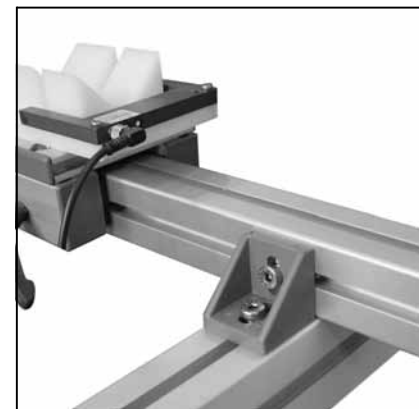
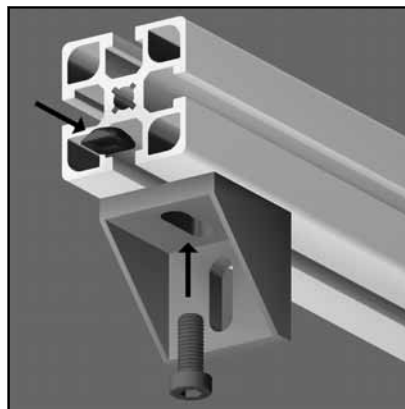
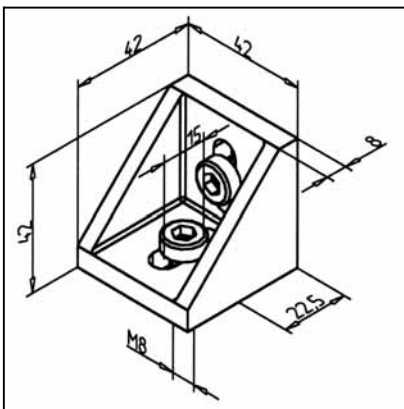
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Strengthening of profile connections

ASSEMBLY

- Use fixing kit from supply schedule
- For mounting into vertical profile use square nut M8 with position-fixing **Part N° 21.1351/2**
- Recommended locking torque 20 Nm
- See page 73

ANGLE 45 GD

Part. N° 21.1133/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

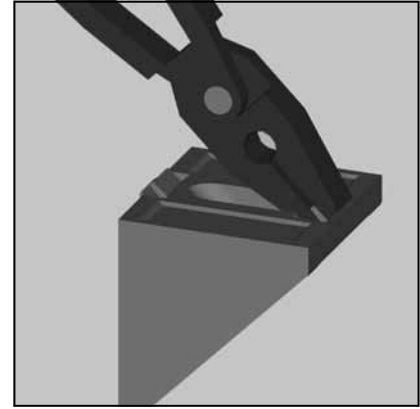
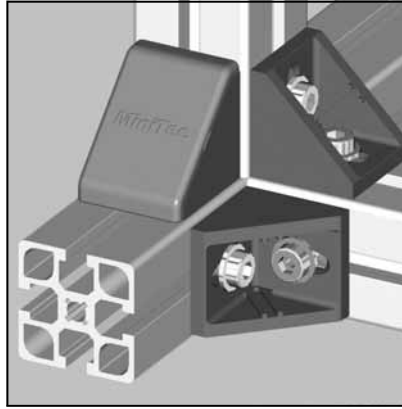
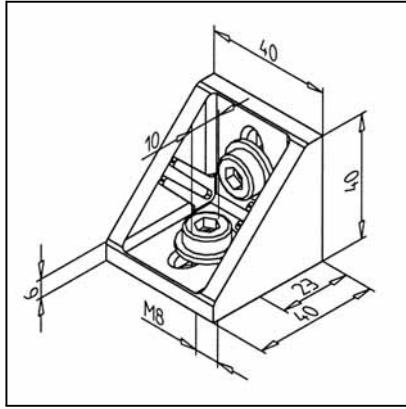
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fixing kit from supply schedule
- 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 73

ANGLE 45 GD-Z

Part. N° 21.1349/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

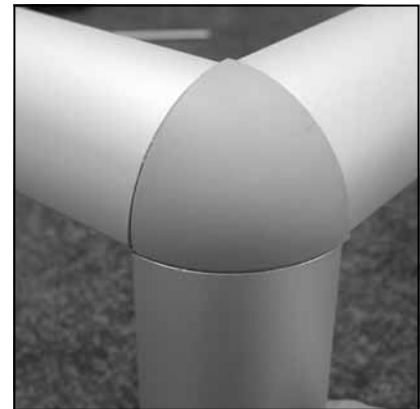
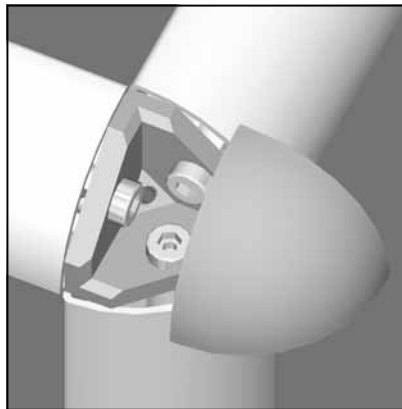
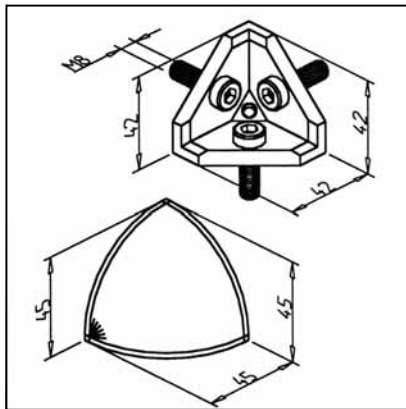
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fixing kit from supply schedule
- 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 45 R 90°, grey
- Fixing kit
- Weight 0,063 kg

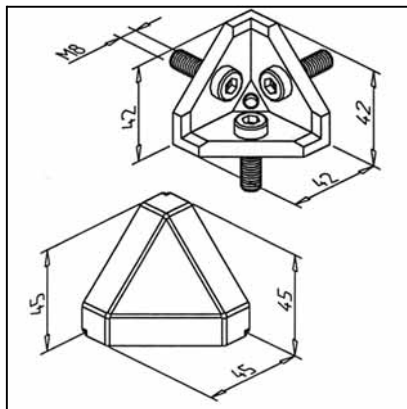
APPLICATIONS

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

ASSEMBLY

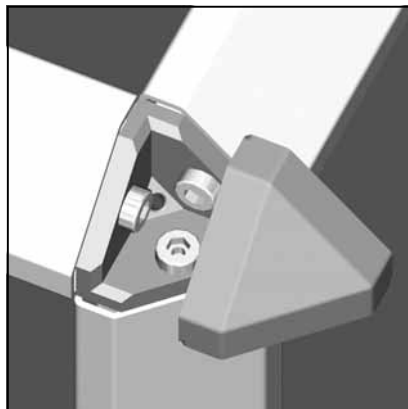
- With screws M8 x 25 from the fastening kit in central bore of the profile
- Clip into the end cap

ANGLE 45°



TECHN. DATA / ITEMS SUPPLIED

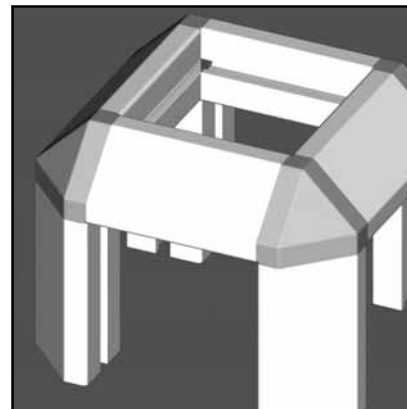
- Aluminium GD, nature
- End cap 45°/3, grey
- Fixing kit
- Weight 0,062 kg



APPLICATIONS

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

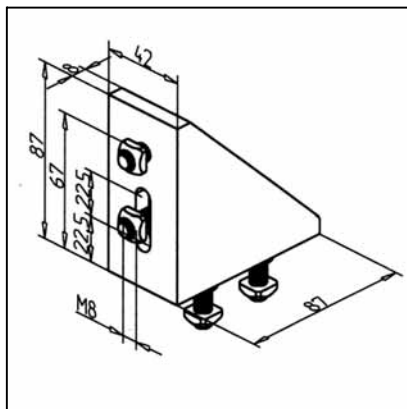
Part. N° 21.1708/1



ASSEMBLY

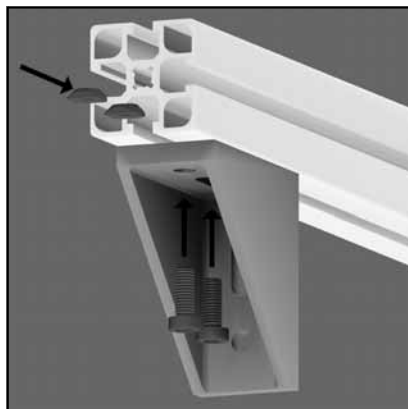
- With screws M8 x 25 from the fastening kit in central bore of the profile
- Clip into the end cap

ANGLE 45 X 90 GD



TECHN. DATA / ITEMS SUPPLIED

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



APPLICATIONS

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

Part. N° 21.1135/0

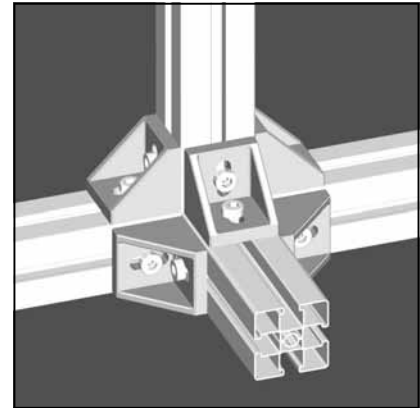
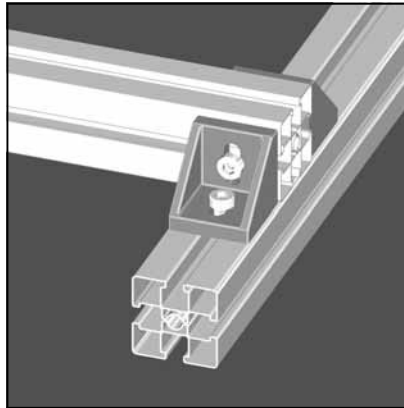
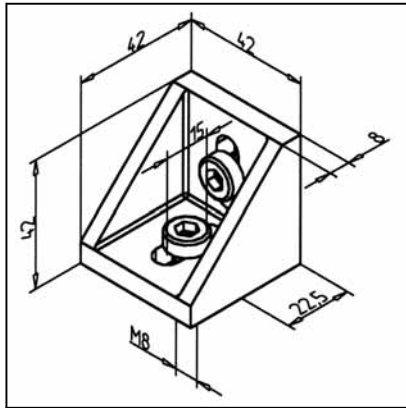


ASSEMBLY

- Use fixing kit from supply schedule
- For mounting into vertical profile use square nut M8 with position-fixing Part N° 21.1351/2
- Recommended locking torque 20 Nm
- See page 73

ANGLE 45 VA

Part. N° 21.0007/0



TECHN. DATA / DELIVERY CONTENTS

- Material: WN DIN 1.4301 X5 CR NI 18 - 10, SUS 304, stainless steel
- Fixing kit
- Weight 0,072 kg

APPLICATIONS

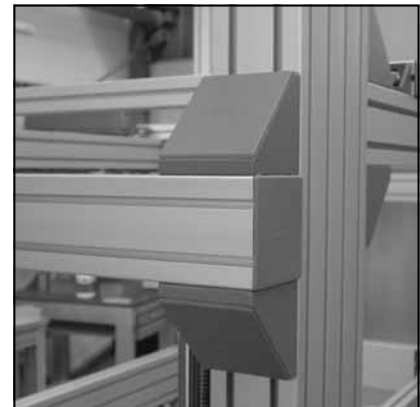
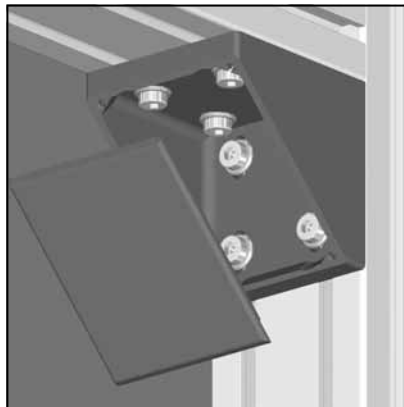
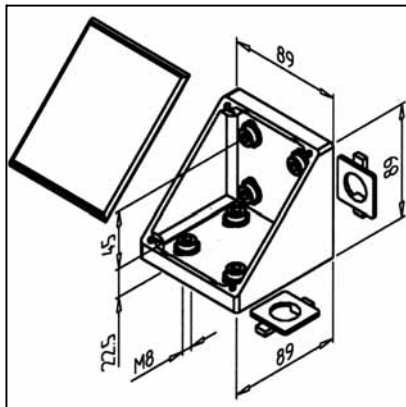
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

ASSEMBLY

- Use fixing kit from supply schedule
- 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

ANGLE 90

Part. N° 21.1000/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fixing kit
- Locking device against rotation
- End caps
- Weight 0,270 kg

APPLICATIONS

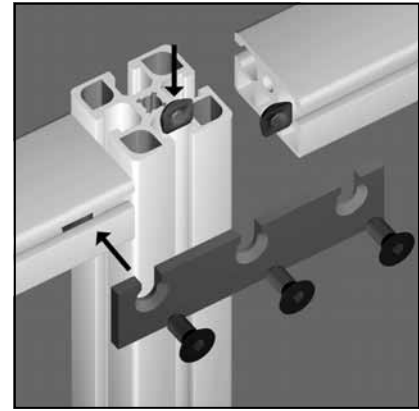
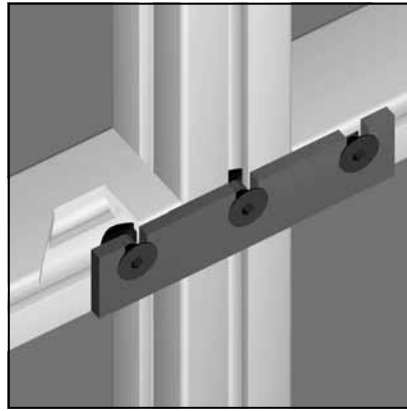
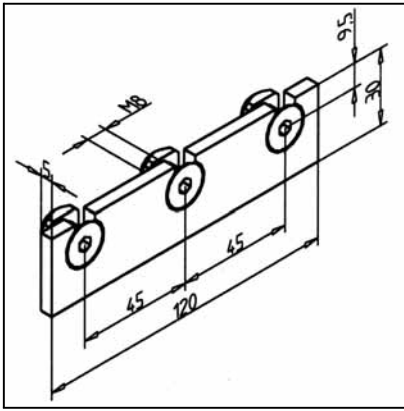
- For profiles 90 and 180
- General constructions, particularly useful for subsequent fitting of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of all profile connections

ASSEMBLY

- Use fixing kit from supply schedule
- 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
- See page 73

CONNECTING BAR

Part. N° 21.1113/0



TECHN. DATA / ITEMS SUPPLIED

- Bar steel, zinc plated
- Fixing kit
- Weight 0,103 kg

APPLICATIONS

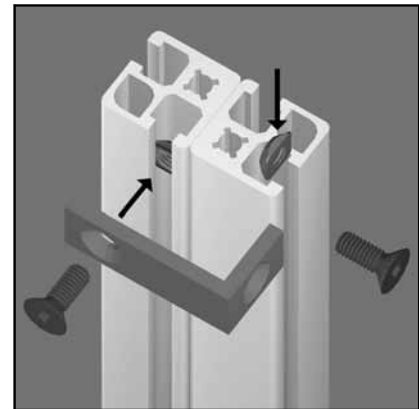
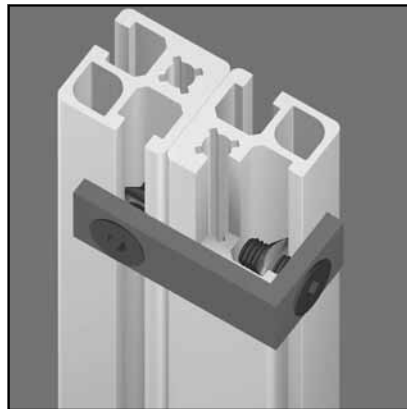
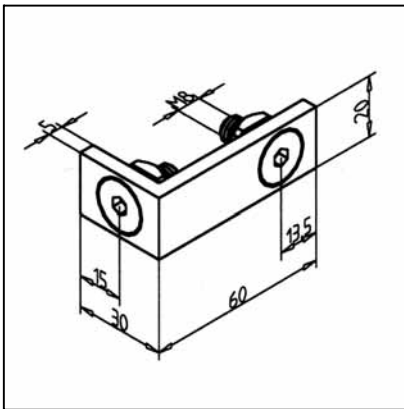
- Connection of different profiles
- Subsequent fitting of profiles

ASSEMBLY

- Use fixing kit from supply schedule
- No processing required

CONNECTING ANGLE 32

Part. N° 21.1406/0



TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fixing kit
- Weight 0,093 kg

APPLICATIONS

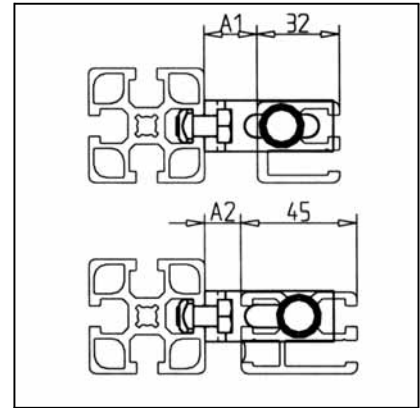
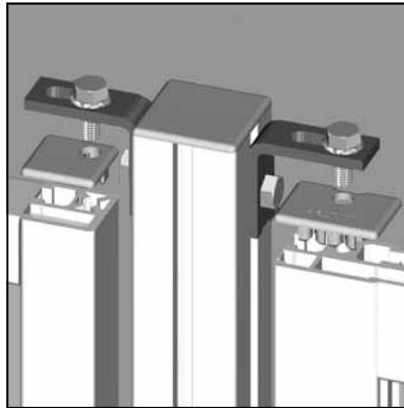
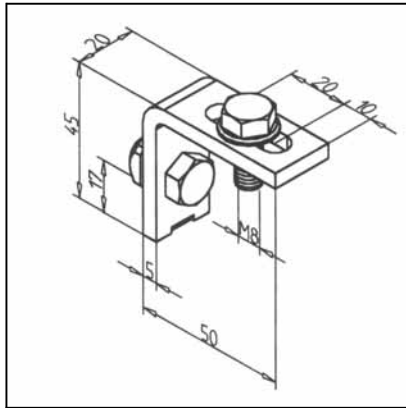
- Parallel fastening of profiles 32 x 32

ASSEMBLY

- Use fixing kit from supply schedule
- No processing required

GUARD UNIT FIXING ANGLE 19

Part. N° 21.1399/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

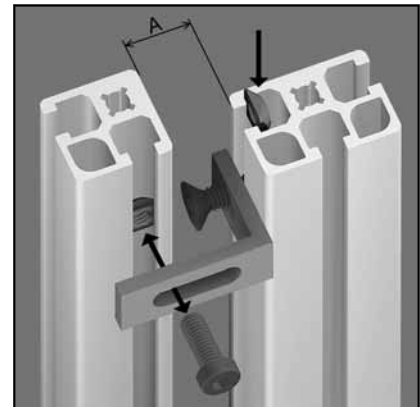
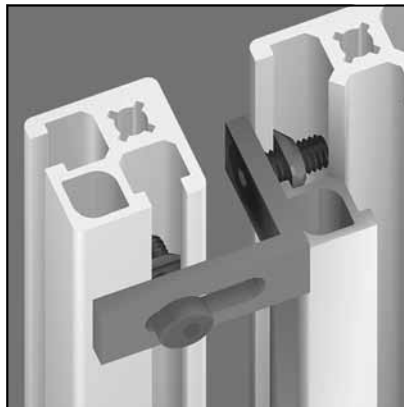
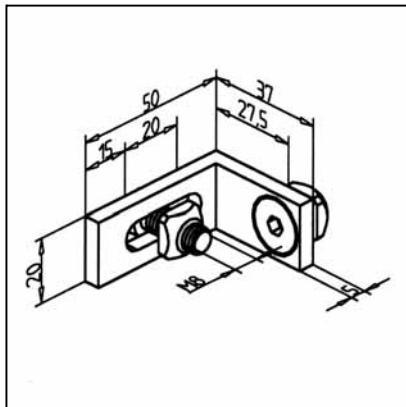
- Fixing of frame-elements made from clamp-profiles 32 x 32 or 45 x 32 or from all other standard profiles
- Fixing of guards at any angle
- For clamp profile 32 x 32 use end cap Part N° 22.1032/3
- For clamp profile 45 x 32 use end cap Part N° 22.1046/3

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 supply schedule
- 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

Part. N° 21.1405/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

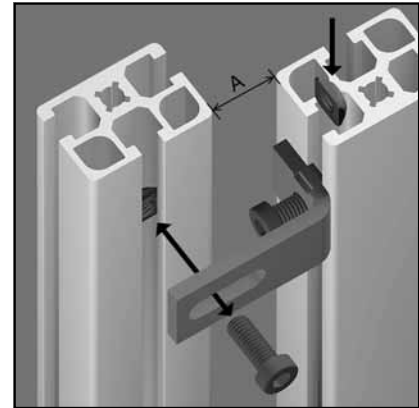
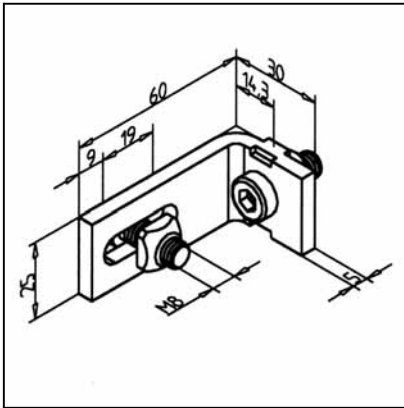
- Fixing of frame-elements made from profiles 32 x 32 and 45 x 32. For frames made of profiles in 32 range
- This element differs from connecting angle 32 by a long hole, enabling adjustment up to 15 mm

ASSEMBLY

- Use fixing kit from supply schedule
- 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

Part. N° 21.1404/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

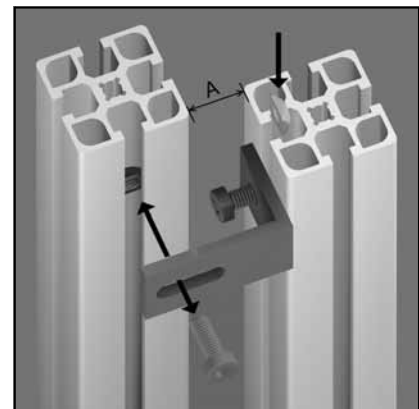
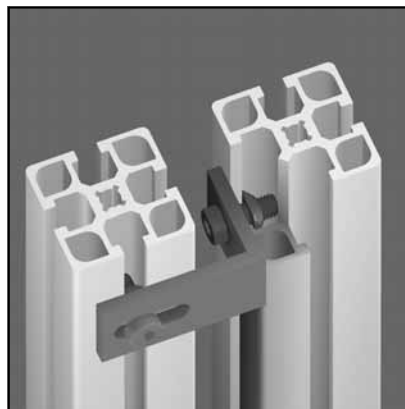
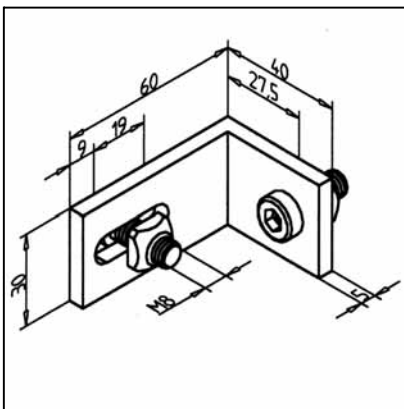
- Fixing of frame-elements made from profile 45 x 32
- Usable in frames made from any profile, flush mounting of element

ASSEMBLY

- Use fixing kit from supply schedule
- 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
- fixing kit
- Weight 0,045 kg

APPLICATIONS

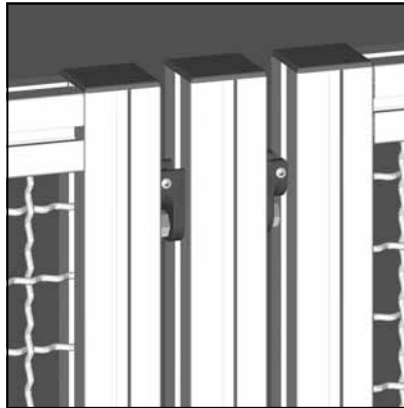
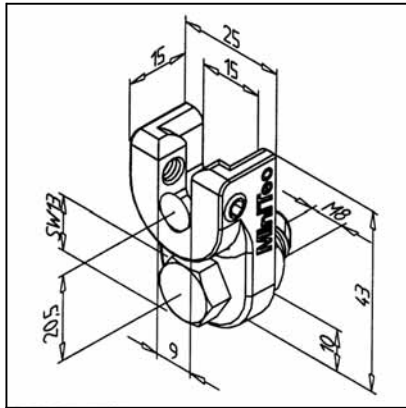
- Fixing of frame-elements made from profile 45 x 45
- Usable in frames made from any profile
- Flush mounting of element

ASSEMBLY

- Use fixing kit from supply schedule
- 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

Part. N° 21.0008/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

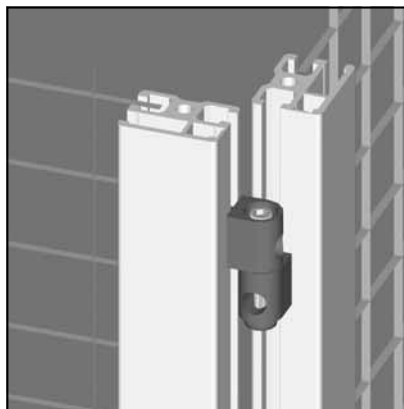
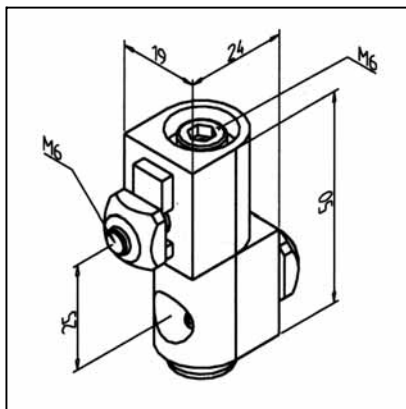
- Protective panels from all profiles
- Movable flaps
- It is also possible to mount the panels at the front when fitting the suspensions to the front of the post

ASSEMBLY

- Screw the protective panel suspension to the pillars
- Attach M8 x 25 cheese-head screws to the protective panel
- Hang the protective panel in place, and tighten the set screw using an Allen key from the rear
- A = 16 mm ± 0.75
- Protective panel 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
- Fixing kit
- Weight 0,118 kg

APPLICATIONS

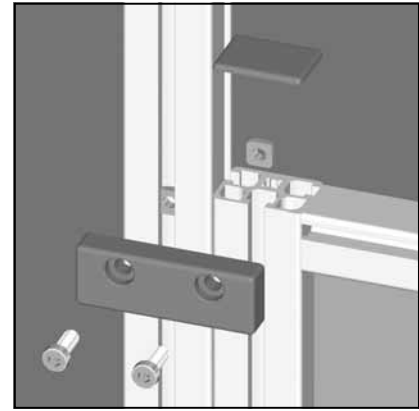
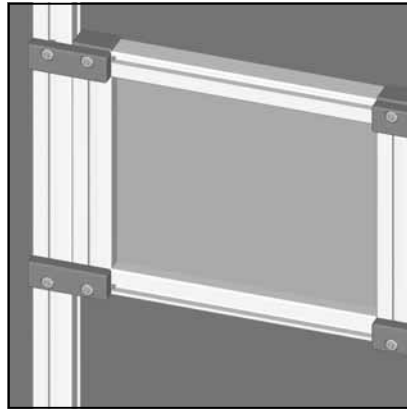
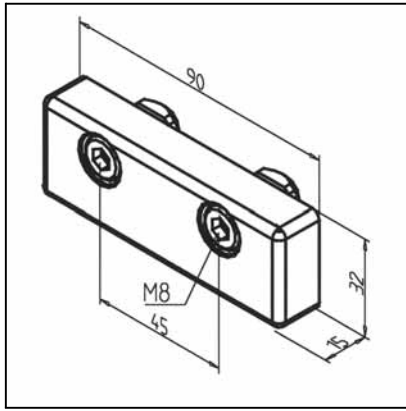
- Connection of profiles at any angle
- Erection of protective guard units at any angle

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 cap screw and tighten it with key 4 A/F. The inserted hexagon nut in the lower fixing half is secured against torsion
- See page 74

CONNECTING PLATE 90 X 32

Part. N° 21.1346/0



TECH. DATA / ITEMS SUPPLIED

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

APPLICATIONS

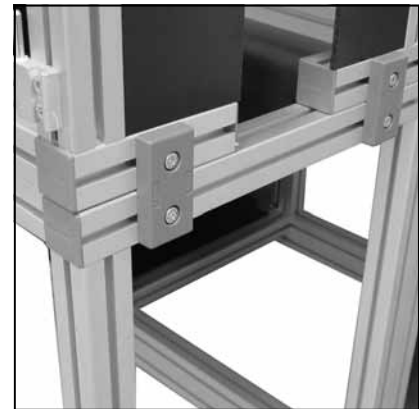
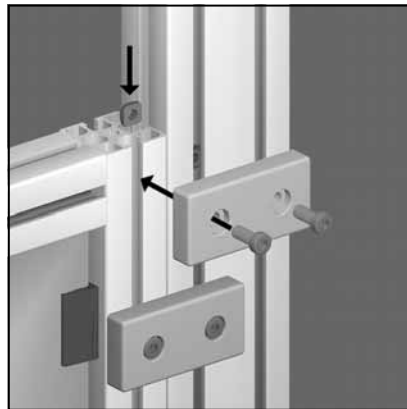
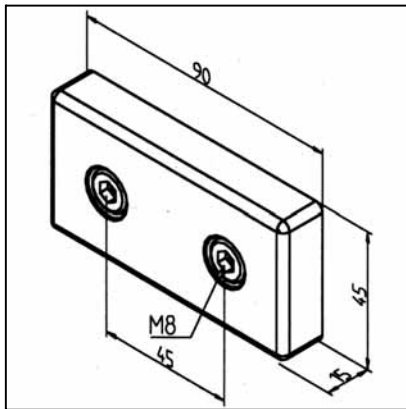
- Split-free connection of two guards
- Strengthening of guard units
- Connection of premounted units or modules

ASSEMBLY

- Use fixing kit from supply schedule

CONNECTING PLATE 45 X 90

Part. N° 21.1472/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

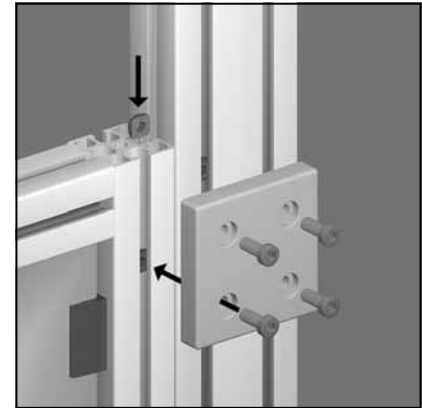
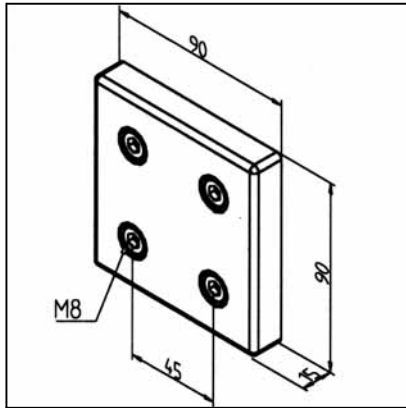
- Connection of guards without cracks
- Strengthening of guard units
- Connection of premounted constructions

ASSEMBLY

- Use fixing kit from supply schedule

CONNECTING PLATE 90 X 90

Part. N° 21.1473/0



TECHN. DATA / ITEMS SUPPLIED

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

APPLICATIONS

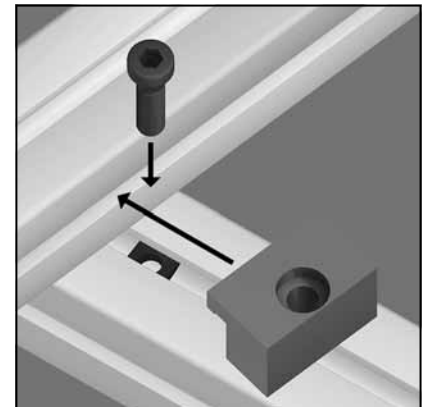
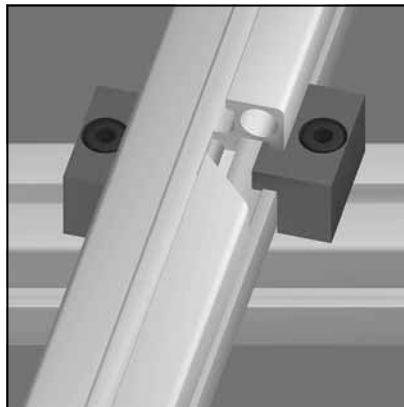
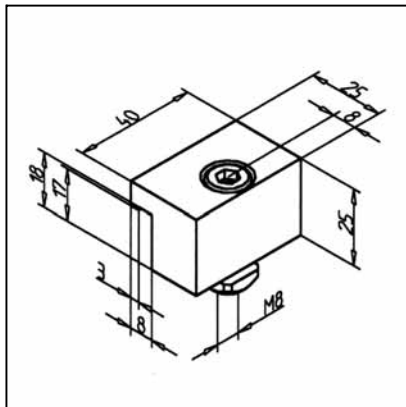
- Connection of guards without cracks
- Strengthening of guard units
- Connection of premounted constructions

ASSEMBLY

- Use fixing kit from supply schedule

CLAMPING CLAW

Part. N° 21.1027/0



TECHN. DATA / ITEMS SUPPLIED

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

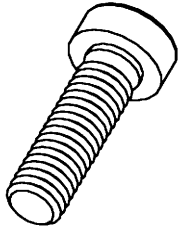
APPLICATIONS

- Parallel connection of profiles at various angles

ASSEMBLY

- Use fixing kit from supply schedule
- No processing required

HEX SOCKET CAP SCREWS



M8, 5 A/F Screw

M8 x 16
M8 x 20
M8 x 25
M8 x 30
M8 x 35
M8 x 40
M8 x 45
M8 x 50
M8 x 60
M8 x 70
M8 x 80
M8 x 90

Part no.
(steel, zincplated)
21.1200/0
21.1202/0
21.1204/0
21.1206/0
21.1208/0
21.1210/0
21.1211/0
21.1212/0
21.1214/0
21.1282/0
21.1225/0
21.1226/0

Part no.
(stainless steel)
21.1200/1
21.1202/2
21.1204/1

21.1208/1

21.1212/1

M6, 4 A/F Screw

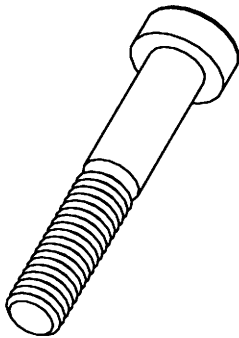
M6 x 12
M6 x 16
M6 x 20
M6 x 25
M6 x 30
M6 x 35
M6 x 40
M6 x 45
M6 x 50
M6 x 60
M6 x 80

Part no.
(steel, zincplated)
21.1143/0
21.1238/0
21.1240/0
21.1242/0
21.1243/0
21.1245/0
21.1247/0
21.1172/0
21.1171/0
21.1154/0
21.1199/0

Part no.
(stainless steel)

21.1238/1
21.1340/1
21.1242/1
21.1243/1

21.1199/1



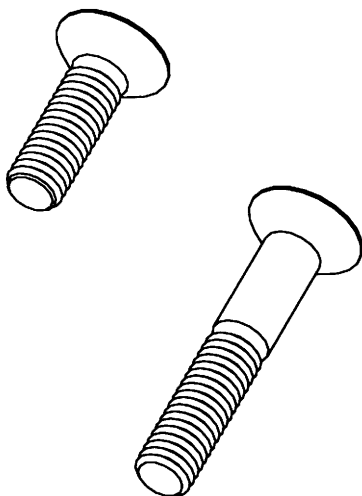
M5, 4 A/F Screw

M5 x 12
M5 x 16
M5 x 20
M5 x 25
M5 x 30
M5 x 40
M5 x 45

Part no.
(steel, zincplated)
21.1220/0
21.1235/0
21.1222/0
21.1224/0
21.1237/0
21.1284/0
21.1219/0

Part no.
(stainless steel)

COUNTERSUNK SCREWS



M8, hex socket

Screw

M8 x 16
M8 x 20
M8 x 25
M8 x 30
M8 x 40
M8 x 50
M8 x 60

Part no.
(steel, zincplated)
21.1513/0
21.1514/0
21.1520/0
21.1516/0
21.1547/0
21.1517/0
21.1523/0

M5, hex socket

Screw

M5 x 16
M5 x 20
M5 x 25

Part no.
(steel, zincplated)
21.1503/0
21.1504/0
21.1505/0

M6, hex socket

Screw

M6 x 16
M6 x 20
M6 x 30
M6 x 40
M6 x 60

Part no.
(steel, zincplated)
21.1506/0
21.1507/0
21.1508/0
21.1510/0
21.1512/0

M4, hex socket

Screw


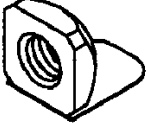


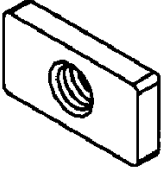
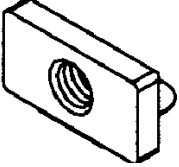
M4 x 16
M4 x 20
M4 x 30

Part no.
(steel, zincplated)
21.1501/0
21.1502/0
21.1203/0

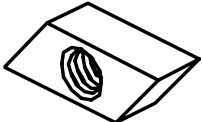
SQUARE NUTS

The square nuts are insertable into the profile groove at any desired point. See page 67. This enables subsequent mounting of elements into existing constructions without partial dismantling.

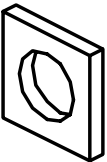
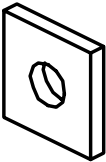
The spring metal keeps the nut in the right position. Moveable by screw-driver. Especially for use in vertical profiles.

	Square nuts	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1351/0	21.1351/1
	M6	21.1330/0	21.1330/1
	M5	21.1320/0	21.1320/1
	Square nuts with spring metal	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1351/2	21.1351/4
	M6	21.1330/2	21.1330/4
	M5	21.1320/2	21.1320/4
	Square nuts Z	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1390/0	-
	M6	21.1391/0	-
	Square nuts Z with spring metal	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1390/2	-
	M6	21.1391/2	-
	Square nuts M8 L	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1368/0	-
	Square nuts M8 L with spring metal	Part no.	Part no.
	square nut	(steel, zincplated)	(stainless steel)
	M8	21.1368/2	-

RHOMBUS NUT

	Rhombus nut	Part no.
	M6	(steel, zincplated) 21.1352/0
	F	21.1354/0

SQUARE WASHER

	Square washer	Part no.	Part no.	
		(steel, zincplated)	(stainless steel)	
		Square washer 8	21.1360/0	21.1360/1
		Square washer 6	21.1363/0	-----
	Square washer 5	21.1362/0	-----	