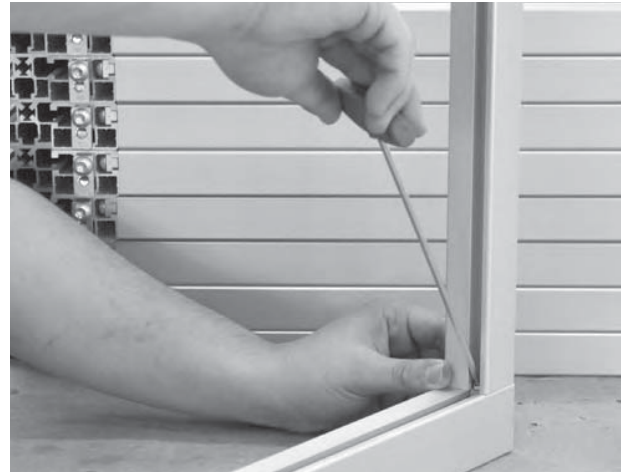
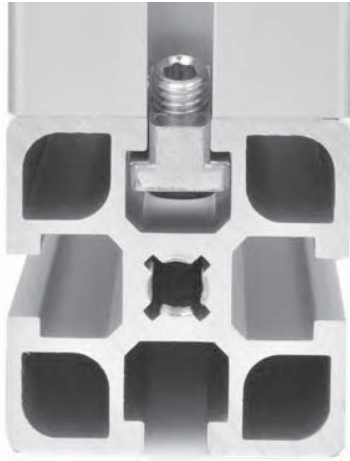


## POWER-LOCK FASTENER

### PROFILE CONNECTION WITHOUT MACHINING



Due to recent studies there is much optimization potential especially in connection technology for profile systems. The connection must be seen as a complete system.

The total cost of a connection is composed of a number of factors:

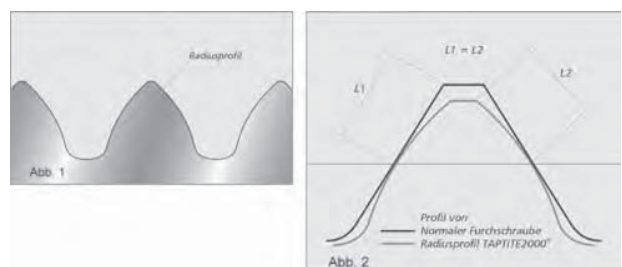
- Design and dimensioning of bores and threads
- Providing equipment and devices
- Procurement and management of drilling and threading tools
- Work Preparation
- Working time for drilling, threading
- Internal transport

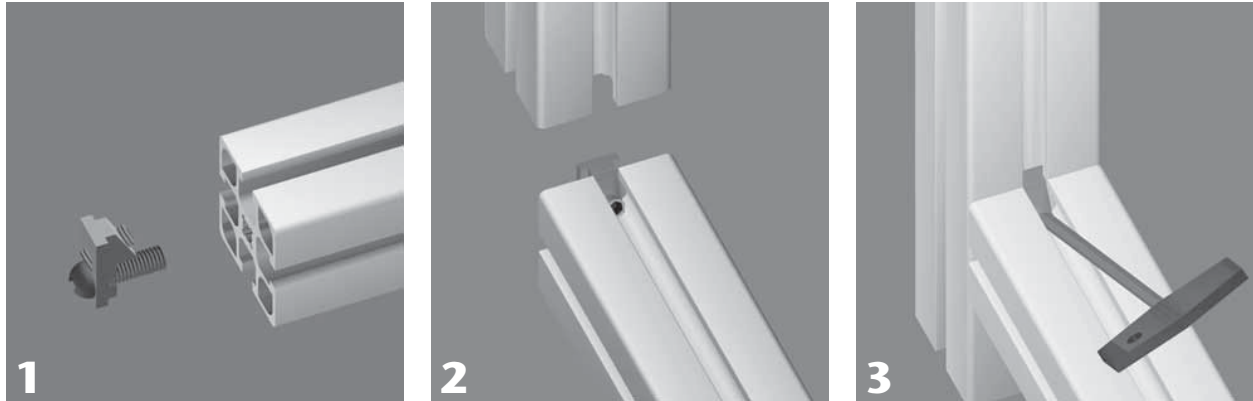
The decisive factor in this consideration is not the cost of the individual connectors. Fundamental cost factor is working time - both in design, production planning and workshop.

#### MiniTec power-lock fastener 45 SF

Apart from the cost and time advantage the MiniTec profile connector has numerous other benefits such as post-adjustability, ESD performance, ergonomic design and optical benefits. With self-tapping screws the MiniTec power-lock fastener has become even faster. The fastener is simply screwed on to the front side of the profile with the screw. With a standard cordless screwdriver this whole process takes a maximum of 3 seconds. There is no preparation for drilling, tapping, measuring or planning required.

Not only the economic superiority speaks for the MiniTec connector with self-tapping screw. Thanks to the trilobular socket shape combined with the radial profile shape of the thread flanks the new screws have low friction moments. The radial profile shape causes only little material displacement and reduces the amount of shaping work. Thus, the forming torque is lowered by up to 50%. This ensures controlled assembly and higher clamping forces with less clamping force scattering.





Easy three-step-assembly

**ASSEMBLY**

- 1 Slightly tighten pressure piece with screw M8 x 25 on the front side of the profile
- 2 Push profile 2 with its groove beneath the edges of the pressure piece until the desired position is reached
- 3 Tighten set screw M8 with hex screwdriver SW4.  
Recommended tightening torque approximately 12 Nm

**ADVANTAGES**

- The corners of the profile connection remain free for panel elements
- The joint is invisible from the outside
- Secured against rotation
- Load capacity: 6000 N (UL Profile: 4000N)
- Cross connections can be easily implemented
- The compound is electrically conductive
- Ergonomically optimized

NAME	PART NO.	DESCRIPTION
Power-Lock fastener 45	21.1018/0	with filister screw M8/SW5
Power-Lock fastener 45 SF	21.0818/0	with self-tapping Torx screw M8/T40
Power-Lock fastener 45 H	21.1018/1	Cylindrical screw M8/SW5, Corrosion resistant version for use in corrosive environments
Power-Lock fastener 45 SF short	21.0020/0	with self-tapping Torx screw M8/T40, for profile connections with flush end cap
Power-Lock fastener 30	21.0014/0	with filister screw M8/SW5
Power-Lock fastener 30 SF	21.0016/0	with self-tapping Torx screw M8/T40
Power-Lock fastener 30 SF ESD	21.0037/0	with self-tapping Torx screw M8/T40



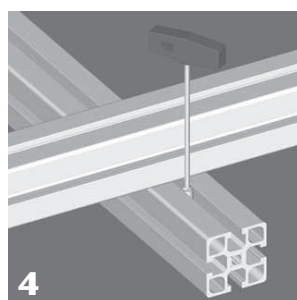
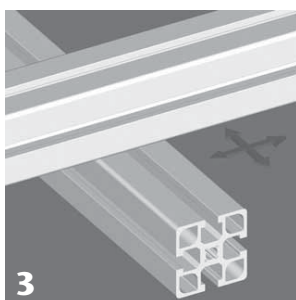
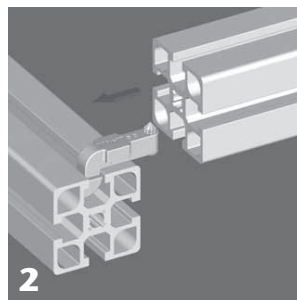
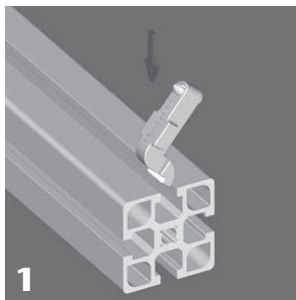
Impuls wrench part no. 26.0800/0 for joint-friendly work.

## CROSS-CONNECTOR

### FRICITIONAL CONNECTION OF INTERSECTING PROFILES WITHOUT MACHINING



Both profiles are adjustable in direction of the groove.  
Particularly suitable for the attachment of linear axes LR / LB to machine frames.



#### ASSEMBLY

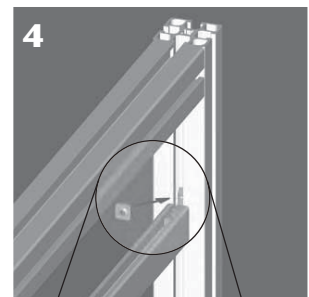
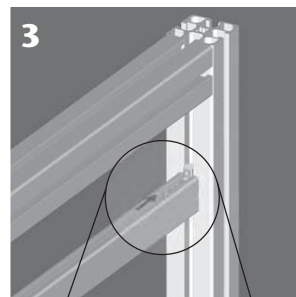
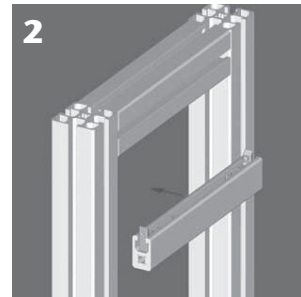
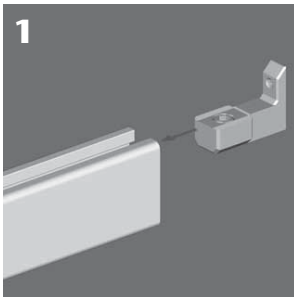
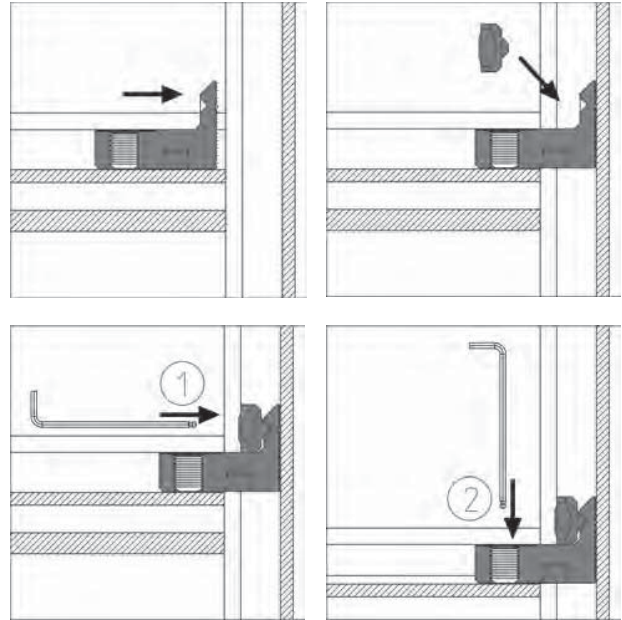
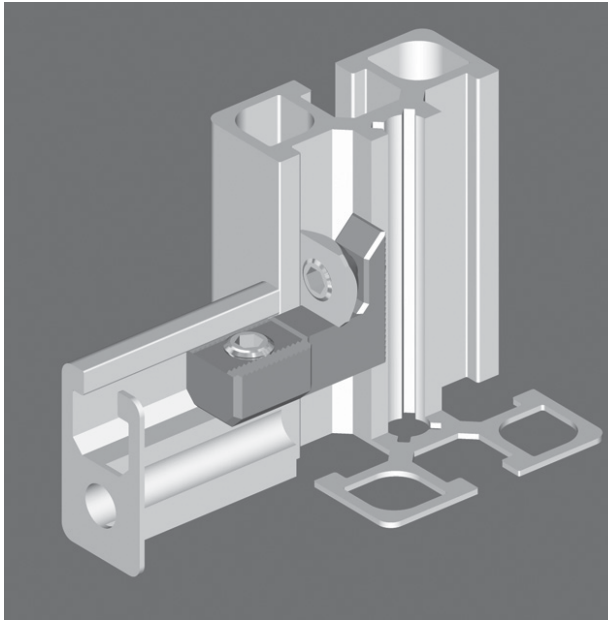
- 1 Swivel the connector into any existing base frame
- 2 Insert the profile to be connected over the connector
- 3 Position the brace profile
- 4 Tighten the set screw in the connector with a torque of 10 Nm



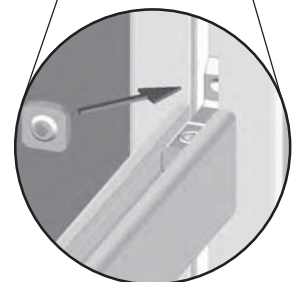
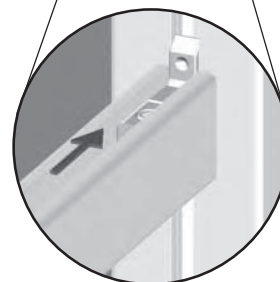
Slightly grease profiles at the contact points to avoid noise due to vibration.

## POWER-LOCK FASTENER N

FOR SUBSEQUENT FITTING OF PROFILES INTO EXISTING FRAMES WITHOUT MACHINING

**ASSEMBLY**

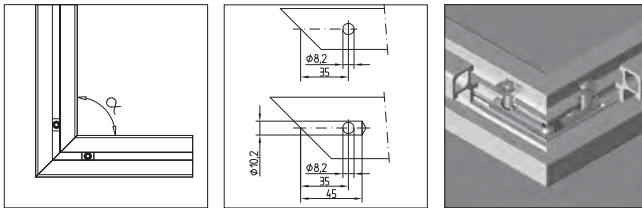
- 1** Insert Power-lock fastener N into profile
- 2** Set profile in the required position
- 3** Insert fastener in the existing profile
- 4** Slide nut over the L-shape end of the fastener and tighten with hex-key. Then tighten set screw (both 10 Nm).



## MITRE CONNECTIONS

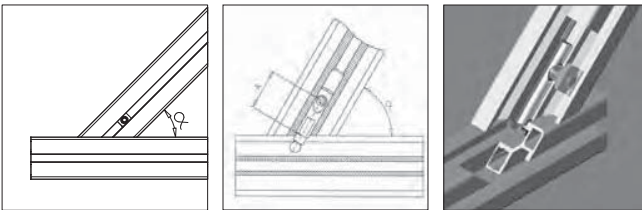
### CONSTRUCTIONS WITH HIGH VISUAL DEMANDS

Mitre connections are used for high visual requirements on design. It should be noted that the capacity of these compounds are less than standard connectors. For heavily loaded structures mitre connections should not be used!



#### Mitre connector

for front side connection of profiles at any angle of 30° to 180°



#### Mitre connector N

for connecting profiles with the grooves of continuous profiles at any angle of 30° to 90°

NAME	PART NO.	DESCRIPTION
Mitre connector 45 for profiles series 30	21.1400/0	Drill Ø 10.2 mm bore in the profile core bore. Drill Ø 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.
Mitre connector 30 for profiles series 30	21.1890/0	Core bore needs no machining. Other installation steps like mitre connector 45.
Mitre connector N 45 for profiles series 45	21.1401/0	Drill Ø 10.2 mm bore in the profile core bore. Drill Ø 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.
Mitre connector N 30 for profiles series 45	21.0945/0	Core bore needs no machining. Other installation steps like mitre connector N 45.

### TIP

Drilling jig part no. 26.1050/0 for mitre connector 45  
 Drilling jig part no. 26.1060/0 for mitre connector N45  
 Drilling jig part no. 26.1063/0 for mitre connector 30  
 Drilling jig part no. 26.1056/0 for mitre connector N30

### Drilling jig for mitre connector N

Distance A (position of the lateral bore of the threaded pin) depends on the mitre angle. The exact amount is to be taken from the middle bore core drilling of the mitred profile to the middle of the drilling. To safely exclude dimensional errors and ensure the correct functioning of the connection, we recommend the use of our drilling jig for mitre connector N, part no. 26.1060/0.

#### Distances for common angles:

$\alpha$	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
A(mm)	21,0	22,9	24,8	25,9	27,0	27,6	28,2	28,6	29,0	29,2	29,4	29,45	29,5



Mitre connection N

### Drilling jig for mitre connector

Distance A (position of the lateral bore of the threaded pin) for front-side connection of profiles is consistently 35 mm. The exact amount is to be taken from the middle bore core drilling of the mitred profile to the middle of the drilling. To safely exclude dimensional errors and ensure the correct functioning of the connection, we recommend the use of our drilling jig for mitre connector.



#### Use of MiniTec drilling jigs

Slide jig in central bore of the mitred profile to the stopper. Tighten with screw. Insert into profile with bore through the drilling guide inside the fixing screw.

## BOLT AND BUTT FASTENER

### SUBSEQUENT ASSEMBLY OF PROFILES INTO EXISTING FRAMES, EXTENSION OF PROFILES.

#### Bolt fastener

To compensate for the reduced capacity compared to our standard connector, bolt connectors should always be used in pairs. Note the weakening of the profile cross section.

Another criterion is the precise form of the connection bore. Deviations from the circular shape lead to reduction in the bearing surface of the connector. It is therefore necessary to process the connection bore on a milling machine.

This connection is not suitable for structures with air supply inside the profile (e.g. pneumatic applications)

#### Butt fastener

The processing of the profiles corresponds to processing for the bolt connectors. For the profile extension we recommend a combination of butt connectors and mounting strips made of steel.

#### Application

For rectangular connection of profiles

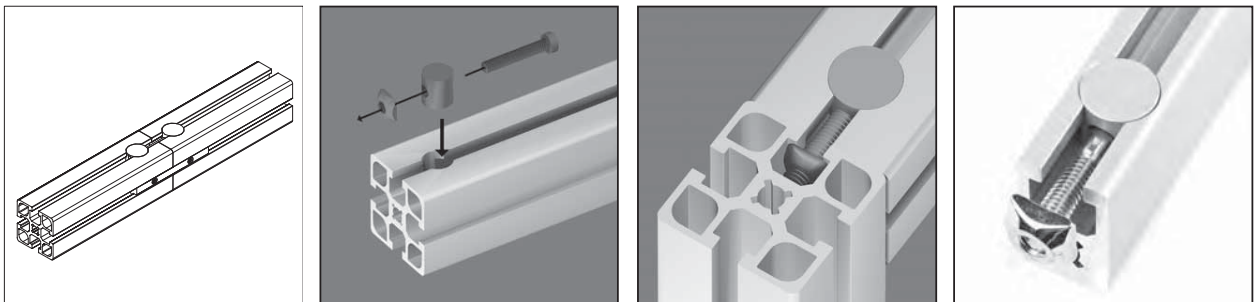
- Subsequent mounting of profiles into existing frames.
- Adjustable
- Extension of profiles

#### 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. Use drilling jig for positioning.

- 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



NAME	PART NO.	DESCRIPTION
Bolt fastener 15	21.1024/0	For profile series 32 and narrow side 19 9x15 stepped bore, 16 mm deep, 22.5 mm from the end of profile
Bolt fastener 20	21.1021/0	For profile series 45 7x20 stepped bore, 16 mm deep, 22.5 mm from the end of profile
Butt fastener 20	21.1020/0	For profile series 45 7x20 stepped bore, 16 mm deep, 22.5 mm from both ends of profile



Drilling jig part no. 26.1092/0 for correct position of the stepped bore

## SCREW CONNECTION

FORM-LOCKING CONNECTIONS WHICH MUST BE SECURED AGAINST DISLOCATION.

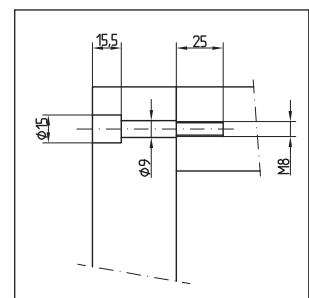
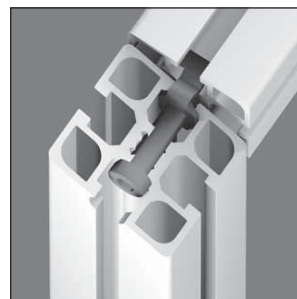
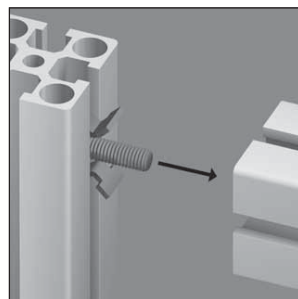
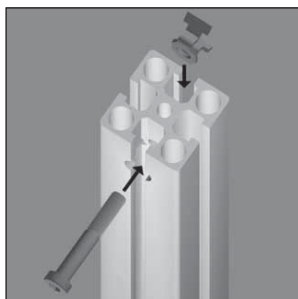
**Application**

- Constructions with high dynamic loads

**Processing**

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

- Position anti-twist lock in the groove
- Push the screw through anti-twist lock
- Screw in and tighten the screw into threaded connection profile
- Recommended locking torque: 20 Nm
- Static load: 18000 N



Stepped bore

**TIP**

Drilling jig part no. 26.1092/0  
for correct position of stepped bore



## MOUNTING ANGLES

### EASY INSTALLATION WITHOUT MACHINING



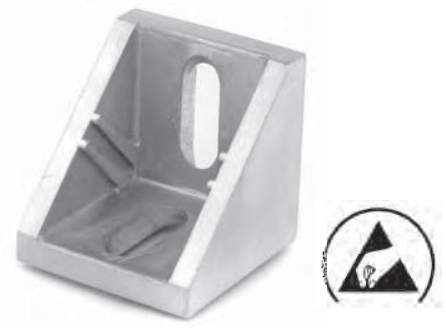
**Angle aluminum die casting, powder coated, grey**

- No processing
- retrofitting of profiles possible
- adjustable



**Optional with cover**

- Caps made of oil resistant ABS, grey



**ESD version**

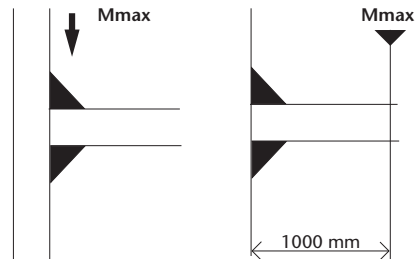
- without powder coating
- with ESD square nuts Z

#### Assembly

- Use mounting material from fastening kit.

#### LOAD CAPACITY

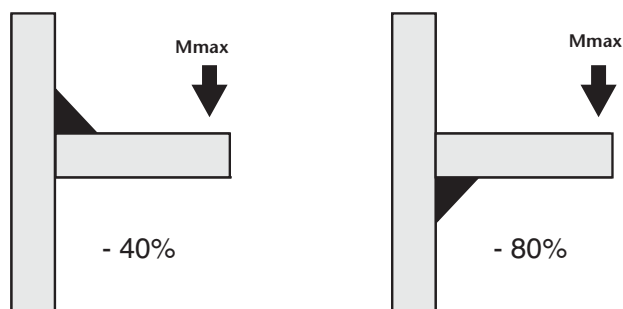
ANGLE	NUMBER OF SCREWS	Mmax (N)	Mmax (Nm)
Angle 19	2	3.600	280
Angle 25	2	3.600	280
Angle 45	2	3.600	280
Angle 45x90	4	7.200	560
Angle 90	8	14.400	1.120



All values include double safety.

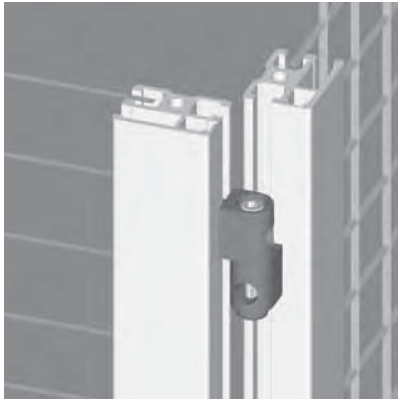
These values are valid only for angles mounted in pairs

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

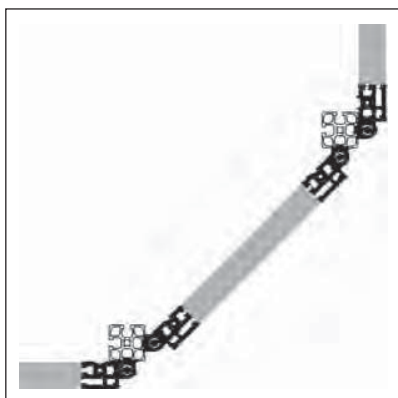
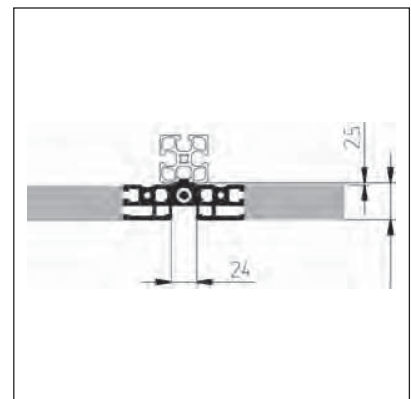
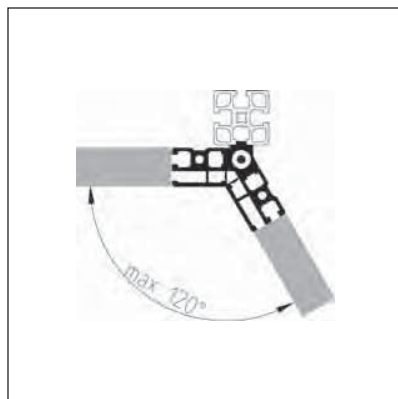
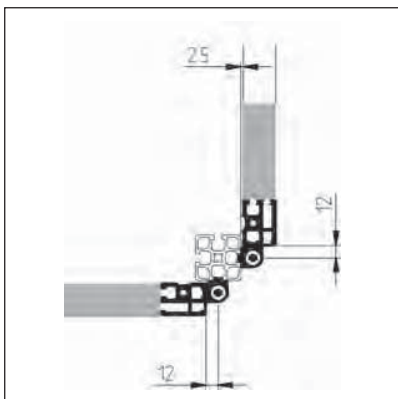


## PROTECTIVE FIELD SUSPENSION, ADJUSTABLE ANGLE

### CONNECTING PROTECTION FIELDS



### MOUNTING POSSIBILITIES



SCREWS

OTHER STANDARDS AND DIMENSIONS ARE AVAILABLE ON REQUEST

CYLINDRICAL SCREWS

M8 with flat head and hexagon socket



THREAD	GALVANIZED	STAINLESS
M08 x 12	21.1264/0	
M08 x 16	21.1200/0	21.1200/1
M08 x 18	21.1268/0	
M08 x 20	21.1202/0	21.1202/2
M08 x 22	21.1280/0	21.2017/0
M08 x 24	21.1269/0	
M08 x 25	21.1204/0	21.1204/1
M08 x 30	21.1206/0	21.1206/1
M08 x 35	21.1208/0	21.1208/1
M08 x 40	21.1210/0	21.1210/1
M08 x 45	21.1211/0	
M08 x 50	21.1212/0	21.1212/1
M08 x 55	21.1877/0	
M08 x 60	21.1214/0	
M08 x 65	21.1299/0	
M08 x 70	21.1282/0	
M08 x 75	21.1392/0	
M08 x 80	21.1225/0	
M08 x 90	21.1226/0	
M08 x 100	21.1662/0	

M6 with flat head and hexagon socket

THREAD	GALVANIZED	STAINLESS
M06 x 12	21.1143/0	21.1143/1
M06 x 14	21.1367/0	
M06 x 16	21.1238/0	21.1238/1
M06 x 18	21.1239/0	
M06 x 20	21.1240/0	21.1340/1
M06 x 22	21.1265/0	
M06 x 25	21.1242/0	21.1242/1
M06 x 30	21.1243/0	21.1243/1
M06 x 35	21.1245/0	21.1693/0
M06 x 40	21.1247/0	21.1247/1
M06 x 45	21.1172/0	
M06 x 50	21.1171/0	21.1171/1
M06 x 55	21.1248/0	21.1248/1
M06 x 60	21.1154/0	
M06 x 65	21.1868/0	
M06 x 70	21.1591/0	

M5 with flat head and hexagon socket

THREAD	GALVANIZED	STAINLESS
M05 x 08	21.1193/0	
M05 x 10	21.1279/0	
M05 x 12	21.1220/0	21.1220/1
M05 x 16	21.1235/0	
M05 x 20	21.1222/0	
M05 x 25	21.1224/0	21.1224/1
M05 x 30	21.1237/0	21.1237/1
M05 x 35	21.2195/0	
M05 x 40	21.1284/0	21.1284/1
M05 x 45	21.1219/0	
M05 x 50	21.1691/0	
M05 x 55	21.1353/0	

COUNTERSUNK SCREWS

M8 with hexagon socket



THREAD	GALVANIZED	STAINLESS
M08 x 10	21.1552/0	21.1550/0
M08 x 12	21.1263/0	
M08 x 16	21.1513/0	21.1513/1
M08 x 20	21.1514/0	21.1514/1
M08 x 25	21.1520/0	
M08 x 30	21.1516/0	
M08 x 35	21.1947/0	
M08 x 40	21.1547/0	
M08 x 45	21.1645/0	
M08 x 50	21.1517/0	21.1517/1
M08 x 55	21.1546/0	
M08 x 60	21.1523/0	
M08 x 65	21.1949/0	
M08 x 70	21.1950/0	
M08 x 90	21.1946/0	

M6 with hexagon socket

THREAD	GALVANIZED	STAINLESS
M06 x 10	21.2219/0	21.2219/1
M06 x 12	21.1518/0	
M06 x 16	21.1506/0	21.1506/1
M06 x 20	21.1507/0	
M06 x 25	21.1566/0	
M06 x 30	21.1508/0	
M06 x 35	21.1509/0	
M06 x 40	21.1510/0	
M06 x 45	21.1951/0	
M06 x 50		21.2236/1
M06 x 55	21.1511/0	
M06 x 60	21.1512/0	
M06 x 65	21.2156/0	
M06 x 70	21.2134/0	

M5 with hexagon socket

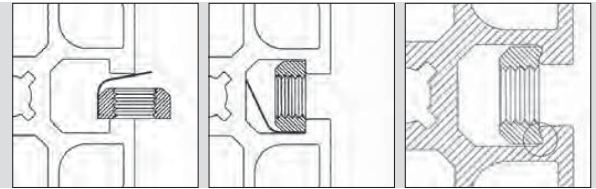
THREAD	GALVANIZED	STAINLESS
M05 x 10	21.1532/0	
M05 x 12	21.1543/0	21.1595/0
M05 x 14	21.1519/0	
M05 x 16	21.1503/0	21.1503/1
M05 x 18	21.1537/0	
M05 x 20	21.1504/0	
M05 x 25	21.1505/0	
M05 x 30	21.1482/0	
M05 x 35	21.2215/0	
M05 x 40	21.2127/0	
M05 x 45	21.1945/0	21.1945/1
M05 x 50	21.2123/0	

M4 with hexagon socket

THREAD	GALVANIZED	STAINLESS
M04 x 08	21.1500/0	
M04 x 10	21.1557/0	
M04 x 12	21.1948/0	
M04 x 16	21.1501/0	21.1501/1
M04 x 20	21.1502/0	
M04 x 25	21.1571/0	
M04 x 30	21.1203/0	

## SQUARE NUTS, RHOMBUS NUTS AND SQUARE WASHERS

AVAILABLE FOR M3, M4, M5, M6 AND M8



with position-fixing

ESD conductive

### Square nut M5 for profile series MINI

THREAD	GALVANIZED	STAINLESS
M5 x 08	21.1382/0	-

### Square nut 30 with position-fixing

THREAD	GALVANIZED	STAINLESS
M8	21.1570/0	-
M6	21.1569/0	-
M5	21.1568/0	-
M4	21.1567/0	-

Square nuts can be pivoted at any point in the profile. When used in the vertical profile apply square nut with position-fixing. Can be pivoted like the standard square nut; the position-fixing holds the nut in the desired position.

Use square nuts M6 and M8 Z for ESD applications.

### Square nuts

THREAD	GALVANIZED	STAINLESS
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 position-fixing

THREAD	GALVANIZED	STAINLESS
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 nut Z, ESD conductive

THREAD	GALVANIZED	STAINLESS
M8	21.1390/0	-
M6	21.1391/0	-
M5	21.1627/0	-

### Square nut Z with position-fixing, ESD conductive

THREAD	GALVANIZED	STAINLESS
M8	21.1390/2	-
M6	21.1391/2	-
M5	21.1627/2	-

### Square nut M8 L

THREAD	GALVANIZED	STAINLESS
M8	21.1368/0	-

### Square nut M8 L with position-fixing

THREAD	GALVANIZED	STAINLESS
M8	21.1368/2	-

### Rhombus nut F

(Thread M6 with pitch error for self-locking of screw connection)

THREAD	GALVANIZED	STAINLESS
M6	21.1354/0	-

### Square washers

THREAD	GALVANIZED	STAINLESS
Square washer 8	21.1360/0	21.1360/1
Square washer 6	21.1363/0	-
Square washer 5	21.1362/0	-

### Hex nut with flange, self-locking

THREAD	GALVANIZED	STAINLESS
M8	21.1334/0	-

## SPECIAL SCREWS

### Screws for power-lock fasteners

Fillister head screw	GALVANIZED	STAINLESS
M08 x 25	21.1189/0	-
M08 x 25 SF* self-tapping thread	21.1492/0	-

### Screws for end caps VA/AL/LR

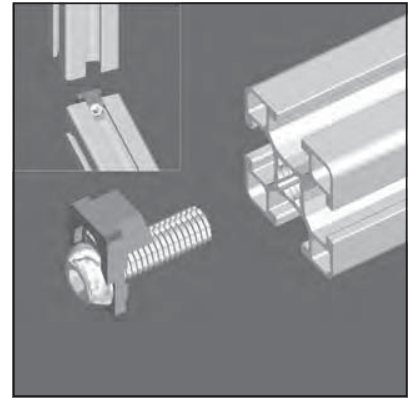
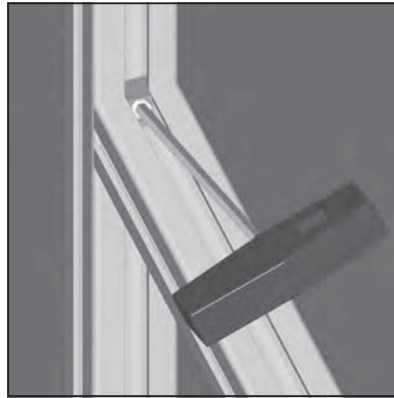
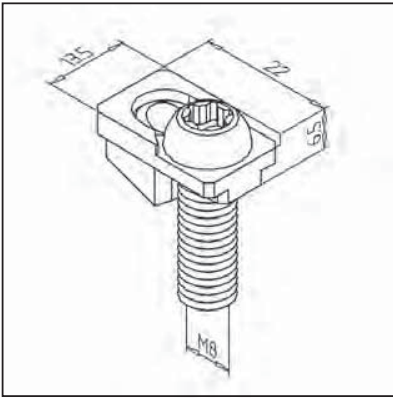
Flat head screw	GALVANIZED	STAINLESS
M08 x 10	-	21.1666/0

### Screws for mounting surface elements

Flat head screw	GALVANIZED	STAINLESS
M06 x 12	21.2074/0	-
M06 x 16	21.1246/0	-
M06 x 20	21.1246/1	-

## POWER-LOCK FASTENER 30 SF

part no. 21.0016/0



### TECHN. DATA / ITEMS SUPPLIED

- Connecting element steel, zinc plated, chromated
- Self tapping torx screw T40
- Weight 0,020 kg
- **Power-Lock fastener 30 (standard) part no. 21.1014/0** with filister head screw A/F 5
- **Power-Lock fastener 30 SF ESD part no. 21.0037/0** with self - threading torx screw

### APPLICATIONS

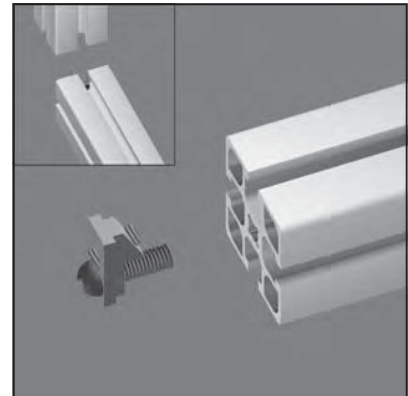
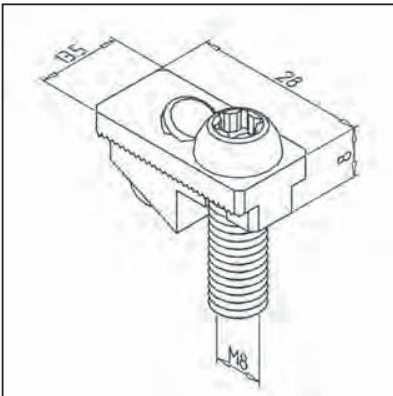
- Power-lock connection of profiles series 30
- Also suitable for cross joints

### ASSEMBLY

- Mount fastener by hand onto profile face with torx wrench T40
- Tighten set screw M8 with key A/F 4
- Recommended locking torque: 12 Nm

## POWER-LOCK FASTENER 45 SF

part no. 21.0818/0



### TECHN. DATA / ITEMS SUPPLIED

- Connecting element steel, zinc plated, chromated
- 1 self tapping screw M8 x 25, galvanized
- Weight 0,029 kg
- **Power-Lock fastener 45 (standard) part no. 21.1018/0** with filister head screw A/F 5
- **Power-Lock fastener 45 H - stainless version part no. 21.1018/1** with cylinder head screw A/F 5

### APPLICATIONS

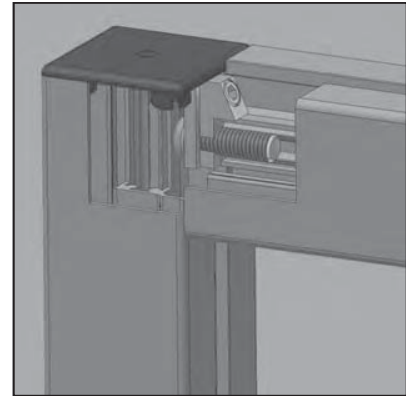
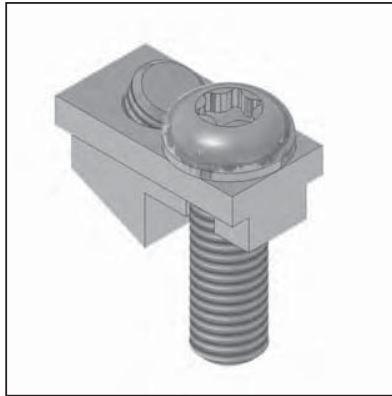
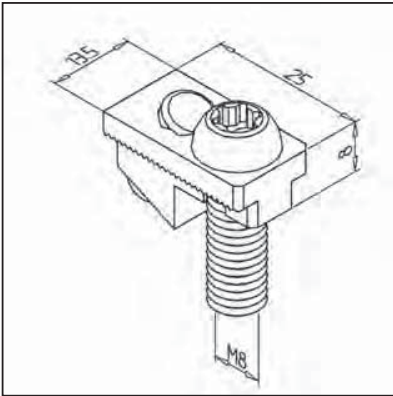
- Power-lock connection for all profiles, also suitable for crossjoints
- For larger profile sections several fasteners can be used
- **part no. 21.1018/0 and 21.0818/0** suitable for ESD applications

### ASSEMBLY

- Mount fastener by hand onto profile face with torx wrench T40
- Tighten set screw M8 with key A/F 4
- Recommended locking torque 12 Nm

**POWER-LOCK FASTENER 45 SF SHORT**

part no. 21.0020/0

**TECHN. DATA / ITEMS SUPPLIED**

- 1 connecting element steel, zinc plated, chromated
- 1 fillister head screw M8 x 25
- Weight 0,028 kg

**APPLICATIONS**

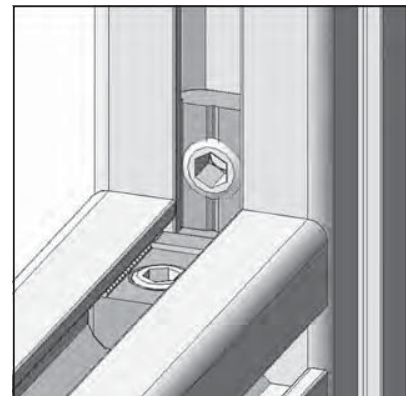
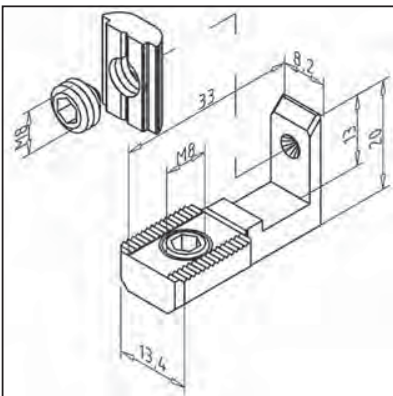
- For the Assembly of profiles with flush end cap

**ASSEMBLY**

- Mount fastener by hand onto profileface with torx wrench T40
- Tighten set screw M8 with key A/F 4
- Recommended locking torque 12 Nm

**POWER-LOCK FASTENER N 30**

part no. 21.0033/0

**TECHN. DATA / ITEMS SUPPLIED**

- 1 connecting element steel, zinc plated, chromated, with set screw M8
- 1 square nut M8 with pre-mounted screw
- Weight 0,025 kg

**APPLICATIONS**

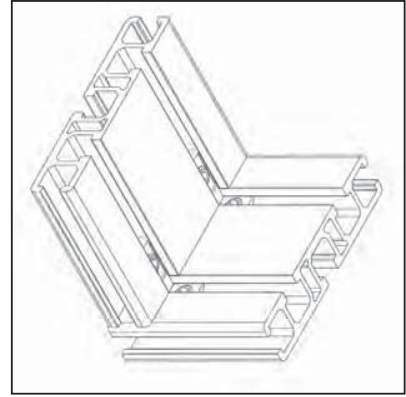
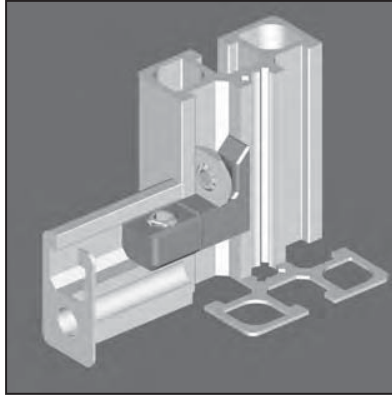
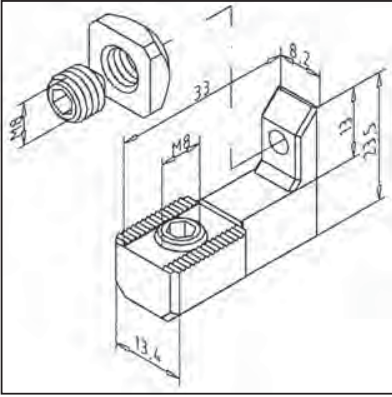
- Power-lock connection of profiles series 30
- Particularly for subsequent insertion of profiles into existing frames

**ASSEMBLY**

- Set profile with fastener in required position
- Slide square nut over the L-shape end of the fastener and tighten it
- Tighten set screw of fastener
- Recommended torque for both set screws: 10 Nm

## POWER-LOCK FASTENER N 45

part no. 21.0918/0



### TECHN. DATA / ITEMS SUPPLIED

- 1 connecting element steel, zinc plated, chromated, with set screw M8 x 10
- 1 Nut M8 with set screw M8 x 08
- Weight 0,036 kg/m

### APPLICATIONS

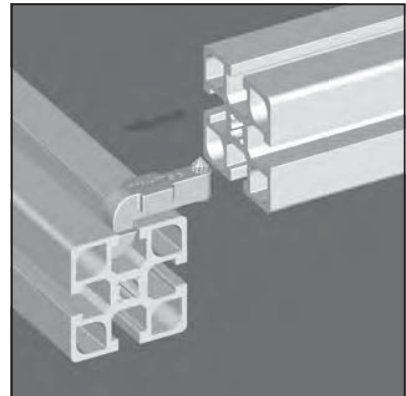
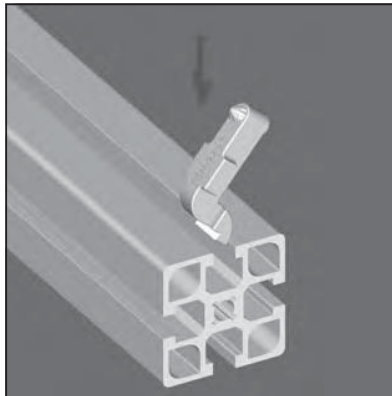
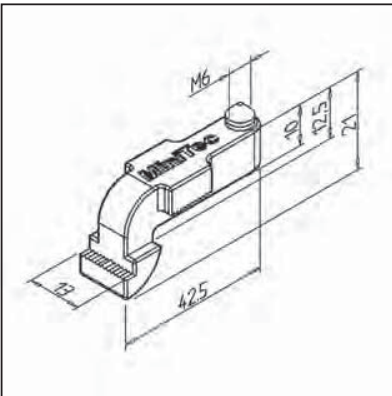
- Connects to all types of profiles
- Particularly for subsequent insertion of profiles into existing frames
- For profile sections bigger than 45 x 45 several fasteners can be used

### 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 M8 x 10 of fastener
- Recommended torque for both screws: 10 Nm

## CROSS-CONNECTOR 45

part no. 21.0006/0



### TECHN. DATA / ITEMS SUPPLIED

- 1 connecting element, steel, zinc plated, chromated, with preassembled set screw M6 x 16
- Weight 0,035 kg

### APPLICATIONS

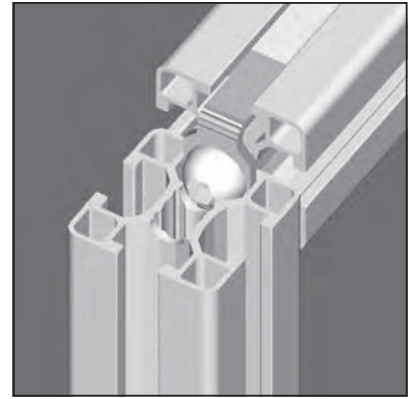
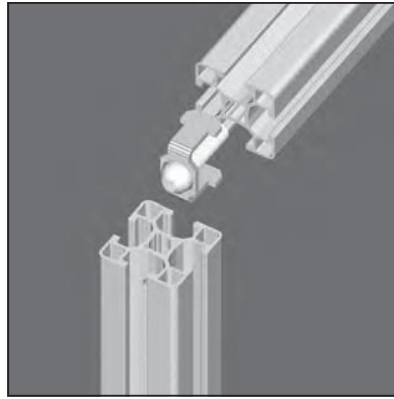
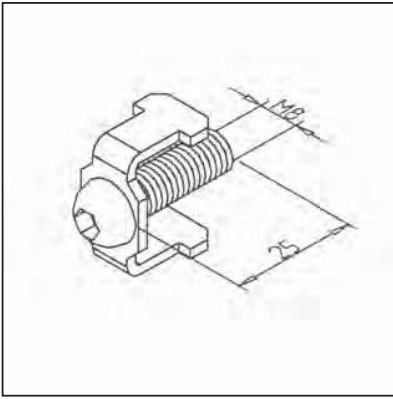
- For connecting all types of profile
- Particularly for subsequent insertion profiles into existing constructions
- For profile sections bigger than 45 x 45 several fasteners can be used
- Suitable for ESD applications

### 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 30 N

part no. 21.1385/0



### TECHN. DATA / ITEMS SUPPLIED

- Screw M8 x 25, zinc plated
- Locking device steel, zinc plated
- Weight 0,017 kg

### APPLICATIONS

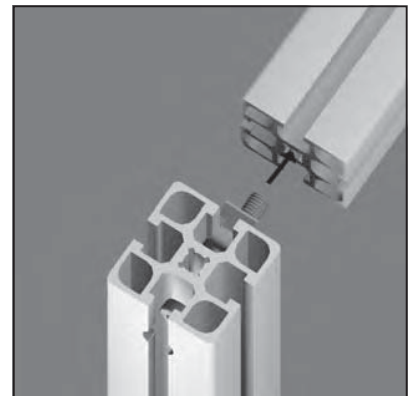
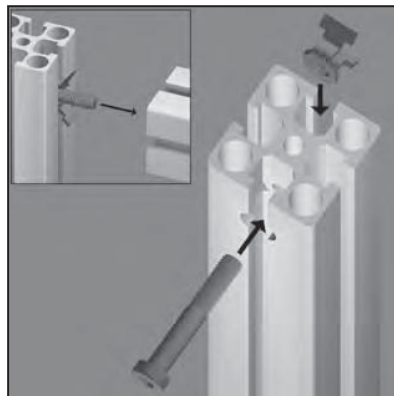
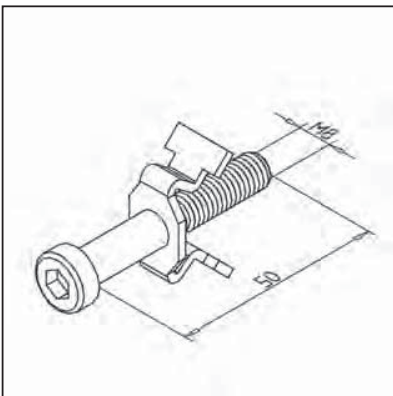
- Connection of profiles

### ASSEMBLY

- Form thread M8 x 25 into core bore of the profile to be fixed
- Bore through-hole  $\varnothing$  7 mm into second profile
- Preassemble screw and locking device to Profile 1 attach and insert into the groove by profile 2
- Tighten screw with allen-key through hole  $\varnothing$  7 mm
- Recommended locking torque: 20 Nm

## SCREW CONNECTION 45

part no. 21.1017/0



### TECHN. DATA / ITEMS SUPPLIED

- Hex socket cap screw M8 x 50, zinc plated
- Locking device: steel, zinc plated
- Weight 0,027 kg

### APPLICATIONS

- Profile connections which must be secured against dislocation
- Secure connection all types of profiles

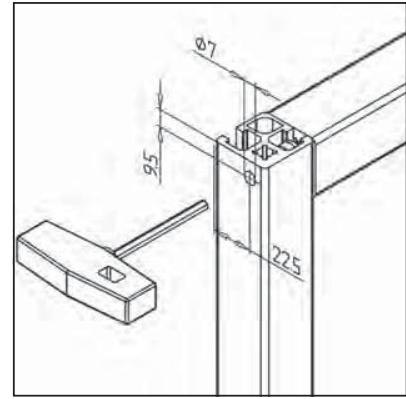
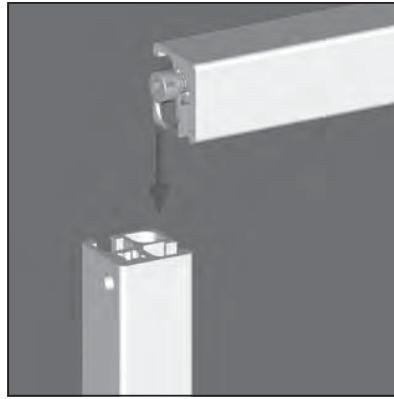
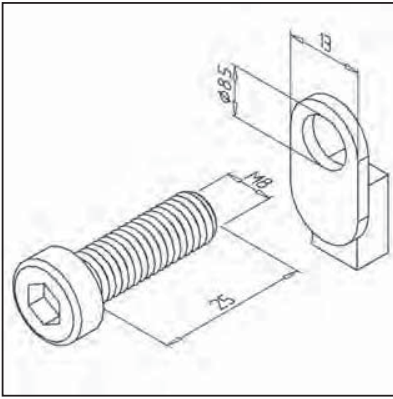
### ASSEMBLY

- Form thread M8 x 25 into profile to be fixed
- Bore step-drilling  $\varnothing$  9 x 15 at the position of required connection
- Insert the locking device into the groove and put the screw through the bore of the element
- Tighten the screw
- Recommended locking torque: 20 Nm
- see page 70



## SCREW CONNECTION 32

part no. 21.1386/0



### TECHN. DATA / ITEMS SUPPLIED

- Hex socket cap screw M8 x 25
- Anti-rotation device AL GD
- Weight 0,015 kg

### APPLICATIONS

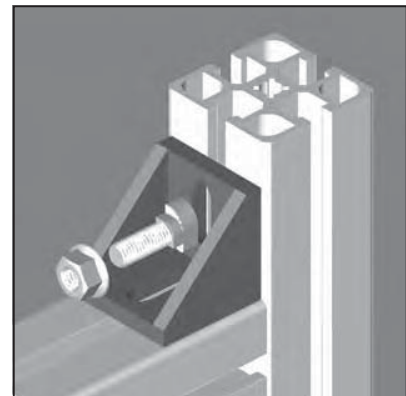
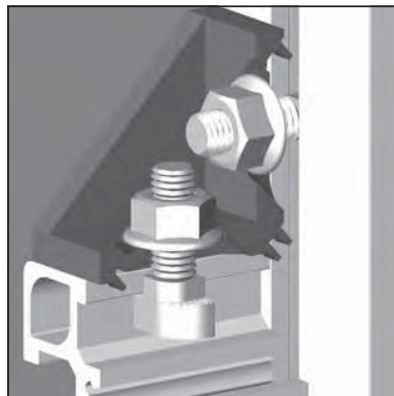
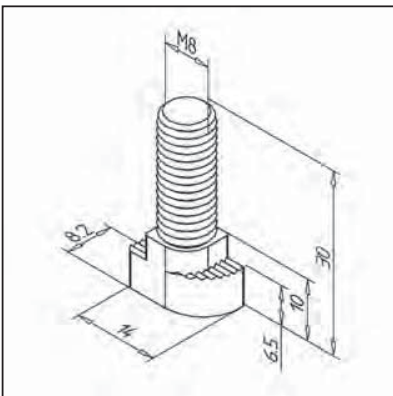
- Connection with effective anti-rotation function for profile series 32 and 19

### 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
- Tighten the screw with recommended locking torque: 20 Nm

## HAMMER HEAD SCREW

part no. 21.1370/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Weight 0,013 kg

### APPLICATIONS

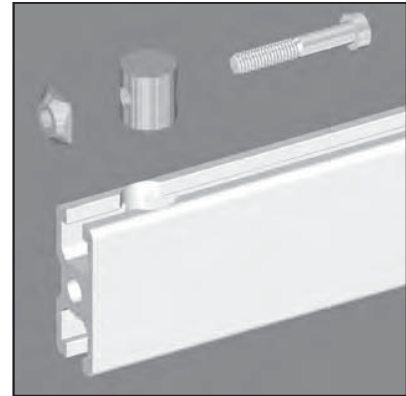
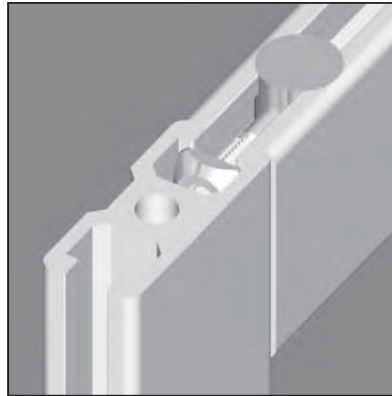
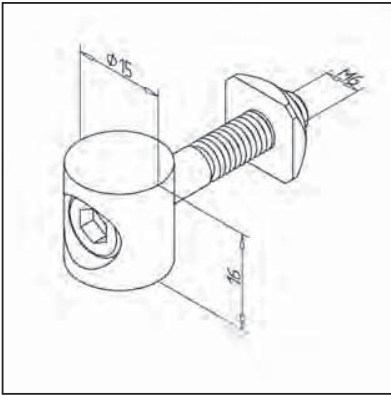
- Simple attachment of add-on parts or accessories on profiles
- Attachment of mounting angle  
45 GD 45 x 90 GD-Z **part no. 21.1397/0**  
45 GD **part no. 21.1133/0**  
45 GD-Z **part no. 21.1349/0**  
90 GD-Z **part no. 21.0978/0**

### ASSEMBLY

- Insert hammer head screw into profile groove, tighten nut M8
- When tightening the nut, the hammer head will turn crosswise
- **Recommended nut:**  
Self-locking flange hex nut **part no. 21.1334/0**

**BOLT-FASTENER 15**

part no. 21.1024/0

**TECHN. DATA / ITEMS SUPPLIED**

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

**APPLICATIONS**

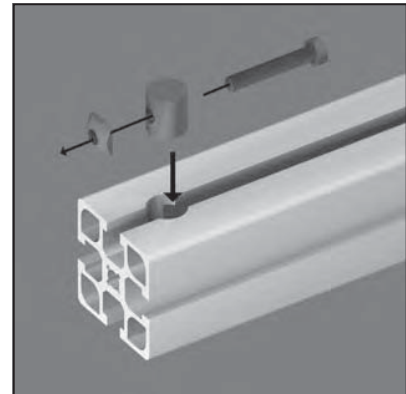
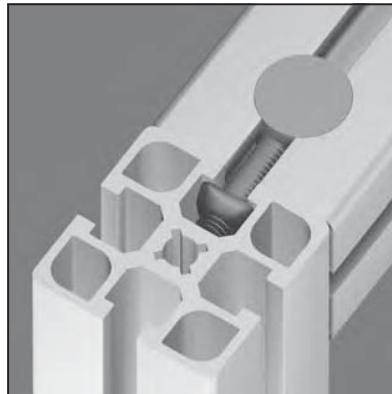
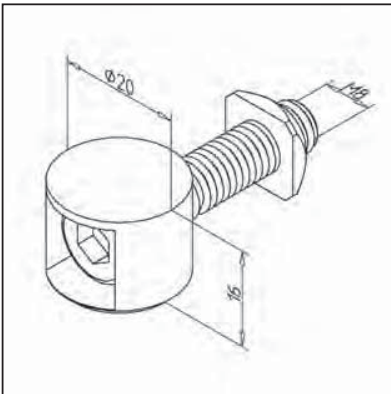
- For connection of profiles 19 and 32
- Particularly for subsequent insertion into existing constructions

**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 68

**BOLT-FASTENER 20**

part no. 21.1021/0

**TECHN. DATA / ITEMS SUPPLIED**

- 1 Bolt GD- Zn
- Fastening kit
- Weight 0,036 kg

**APPLICATIONS**

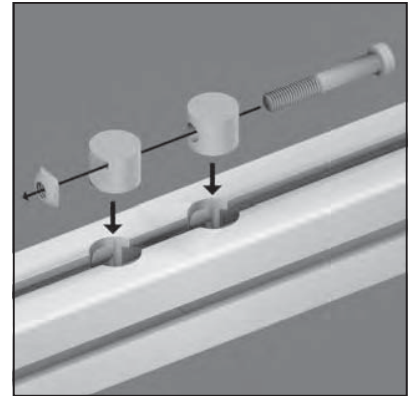
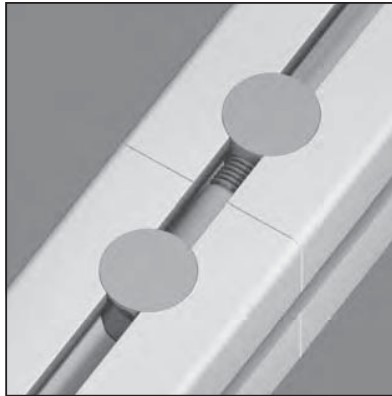
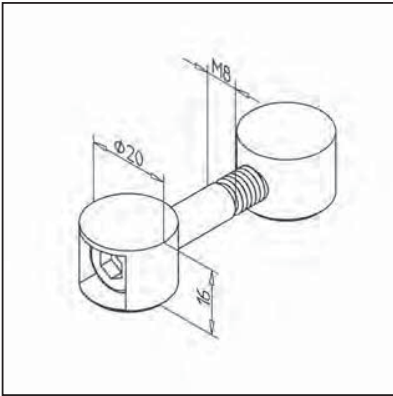
- For connection of all types of profiles
- Particularly for subsequent insertion into existing constructions
- For connection of profile 45 x 19

**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 68

## BUTT FASTENER

part no. 21.1020/0



### TECHN. DATA / ITEMS SUPPLIED

- 2 Bolts GD - Zn
- Fastening kit
- Weight 0,056 kg

### APPLICATIONS

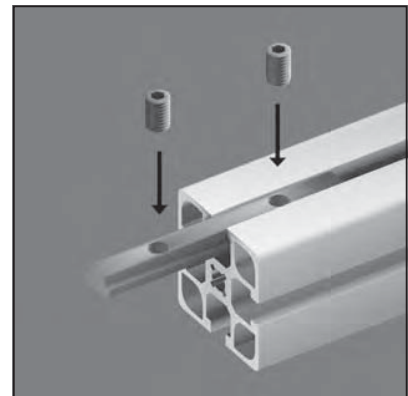
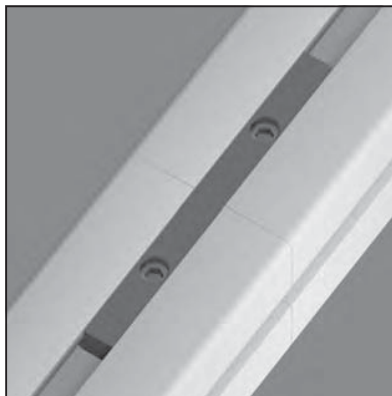
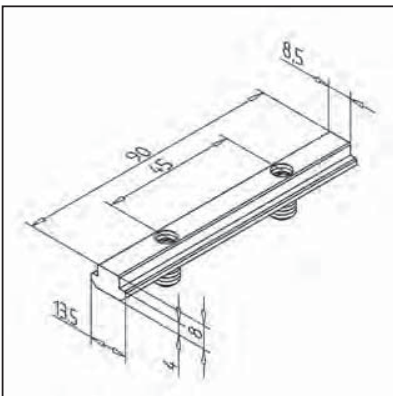
- Profile extension
- Butt connector

### 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 69

## T-SLOT BAR 90

part no. 21.1029/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- 2 set screws M8 x 14, 4 A/F, zinc plated
- Weight 0,062 kg
- **Stainless version part no. 21.0992/0**

### APPLICATIONS

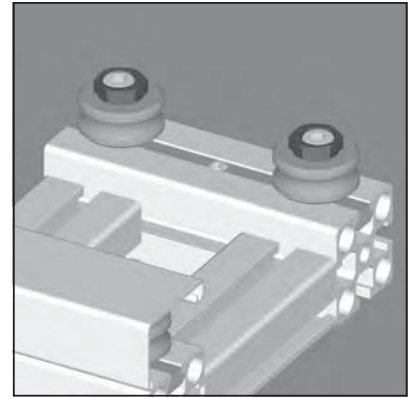
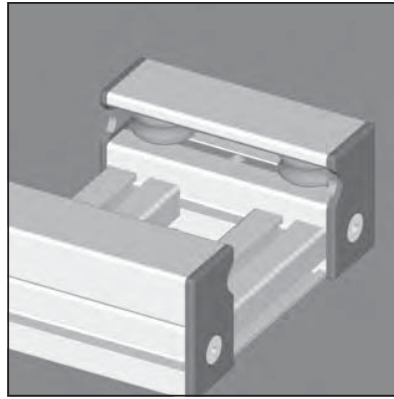
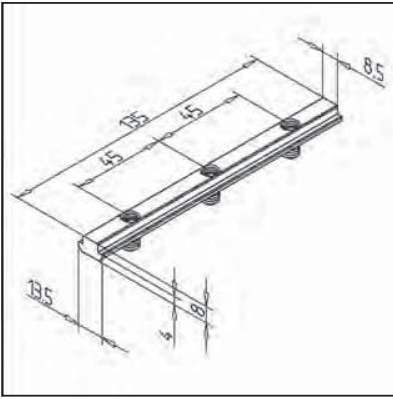
- Profile extension
- Fixing of bearings for linear guides

### 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

**T-SLOT BAR 135**

part no. 21.0988/0

**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 no. 21.0987/0**

**APPLICATIONS**

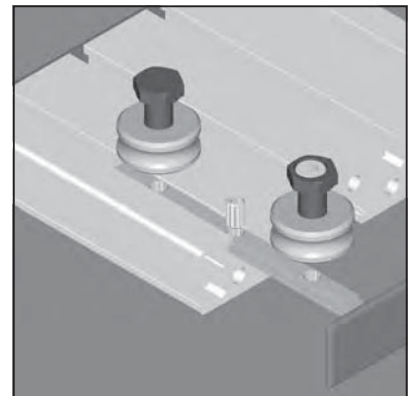
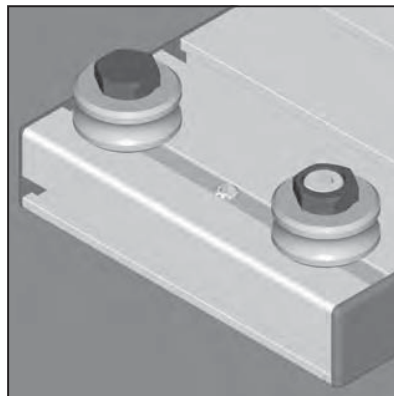
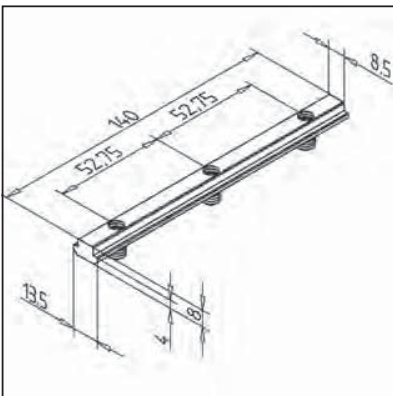
- Fixing of bearings in standard slide LW

**ASSEMBLY**

- Insertion into the profile groove
- No processing required

**T-SLOT BAR 140**

part no. 28.0026/0

**TECHN. DATA / ITEMS SUPPLIED**

- Steel, zinc plated
- 3 set screws M8 with hexagonal A/F 4, zinc plated
- Weight 0,096 kg
- **Stainless version part no. 28.0030/0**

**APPLICATIONS**

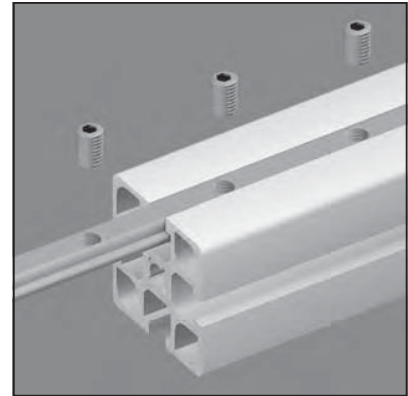
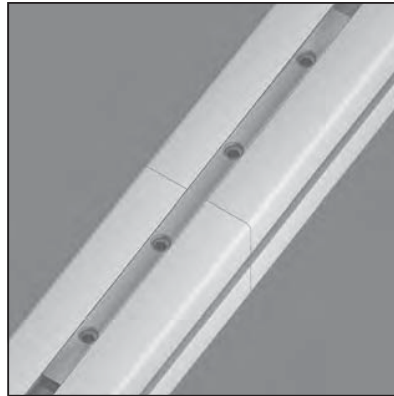
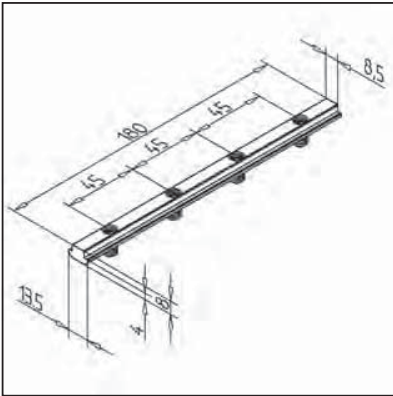
- Fixing of bearings in linear slides LW 32 E

**ASSEMBLY**

- Insertion into the profile groove
- No processing required

## T-SLOT BAR 180

part no. 21.1101/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- 4 set screws M8 with hexagonal A/F 4, zinc plated
- Weight 0,125 kg
- **Stainless version part no. 21.0986/0**

### APPLICATIONS

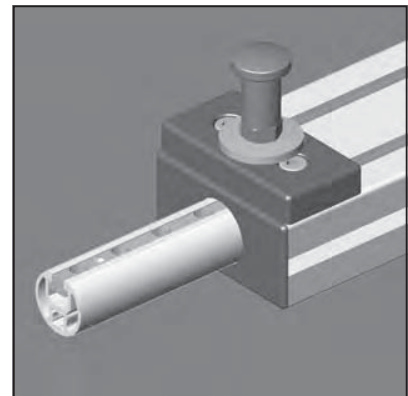
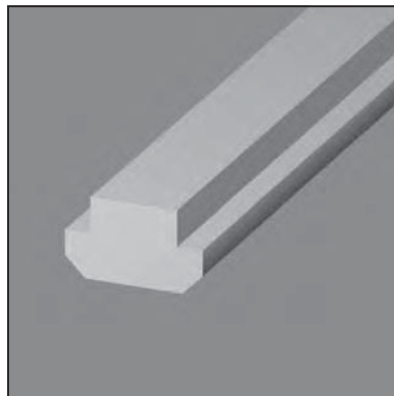
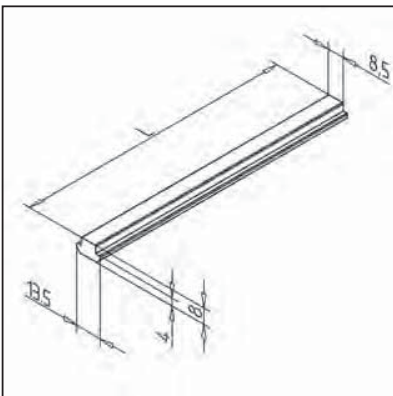
- Face fastening of profiles or ready-for-use elements
- Profile extension
- Fixing of bearings for linear guides

### ASSEMBLY

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

## T-SLOT BAR PROFILE

part no. 21.1030/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, plain
- Weight 0,650 kg/m
- Length 3 m
- **Stainless version part no. 21.1030/1**

### APPLICATIONS

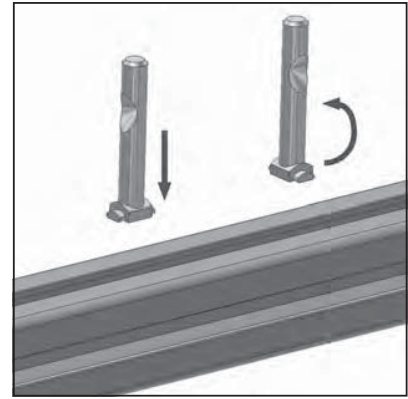
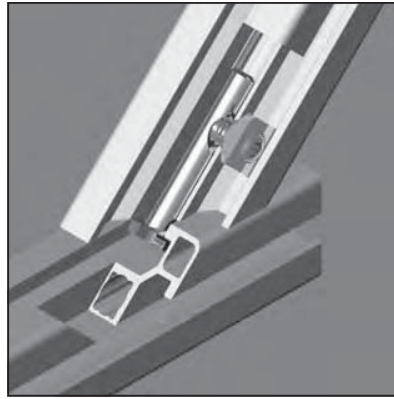
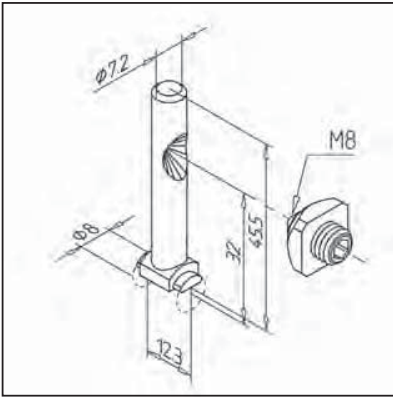
- Production of clamping ledges, connecting elements for special lengths
- Production of reinforcing elements
- Ledges with special perforation

### ASSEMBLY

- Insertion into the profile groove

## MITRE CONNECTOR N 30

part no. 21.0945/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,022 kg

### APPLICATIONS

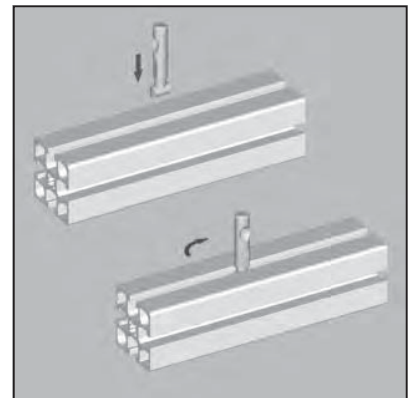
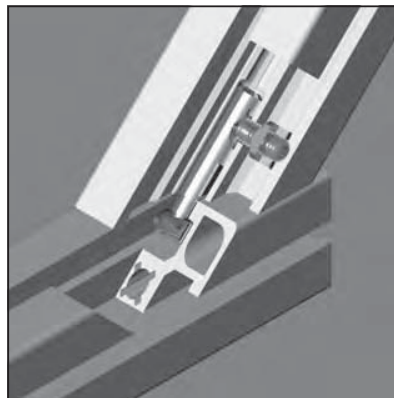
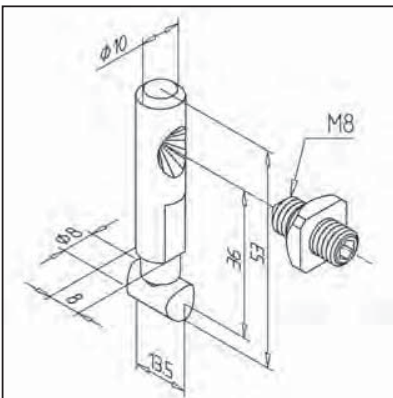
- Mitre connection of profiles on profile groove
- For subsequent fitting in the groove

### ASSEMBLY

- Insert mitre connector N 30 into groove and core bore
- Use drilling jig for mitre connector N30 **part no. 26.1056/0**

## MITRE CONNECTOR N 45

part no. 21.1401/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,035 kg

### APPLICATIONS

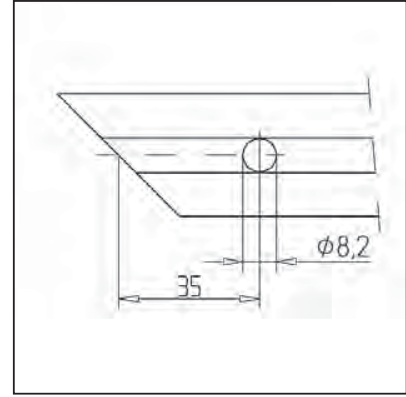
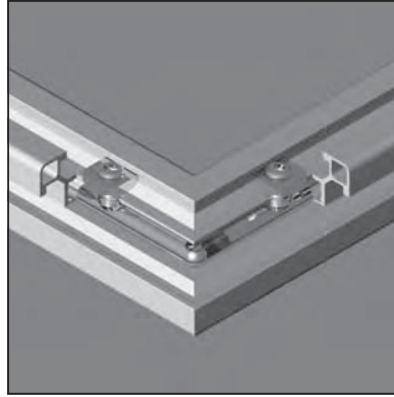
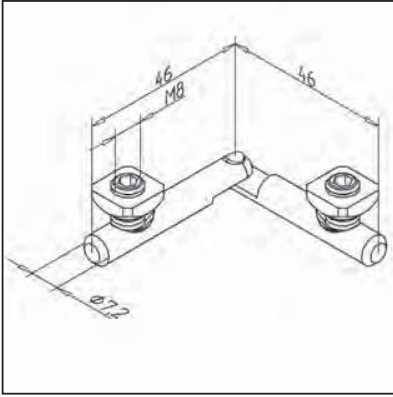
- Mitre connection of profiles on profile groove
- For subsequent fitting in the groove

### ASSEMBLY

- Drill  $\phi 10,2$  mm bore in the profile core bore
- Alternatively use drilling jig for mitre connector N 45 **part no. 26.1060/0 597**
- see page 597

## MITRE CONNECTOR 30

part no. 21.1890/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,040 kg

### APPLICATIONS

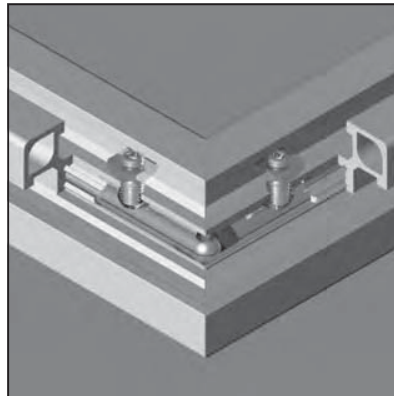
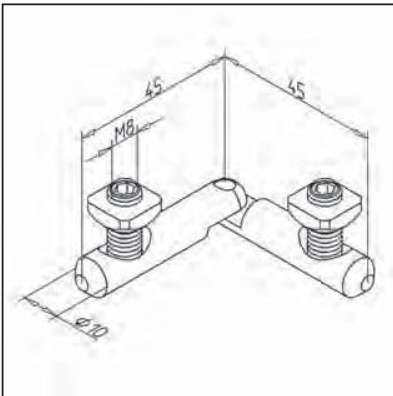
- Show cases
- Exhibition racks
- Displays
- Frames

### ASSEMBLY

- Insert mitre connector 30 into both profile ends
- Position square nuts on top of the thread M8; tighten the connector with set screws M8
- Use drilling jig for mitre connector 30 **part no. 26.1063/0**
- see page 597

## MITRE CONNECTOR 45

part no. 21.1400/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

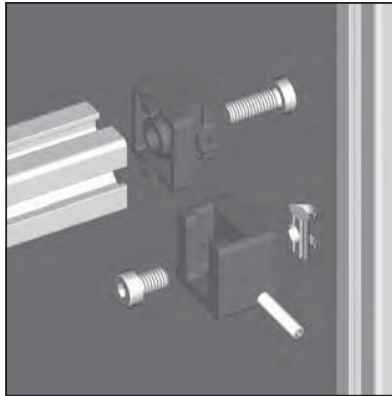
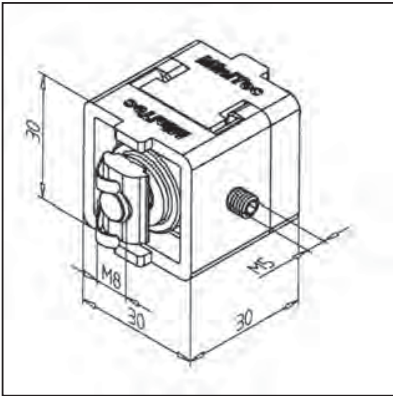
- Show cases
- Exhibition racks
- Displays
- Frames

### ASSEMBLY

- Insert the mitre connector into both profile ends
- Position square nuts on top of the thread M8; tighten the connector with set screws M8
- Alternatively use drilling jig for mitre connector 45 **part no. 26.1050/0** see page 597

## MOUNTING BRACKET 30

part no. 21.2068/0



### TECHN. DATA / ITEMS SUPPLIED

- Polyamide, grey
- Fastening kit, unilateral for cross-tie and upright piece
- Weight 0,041 kg

### APPLICATIONS

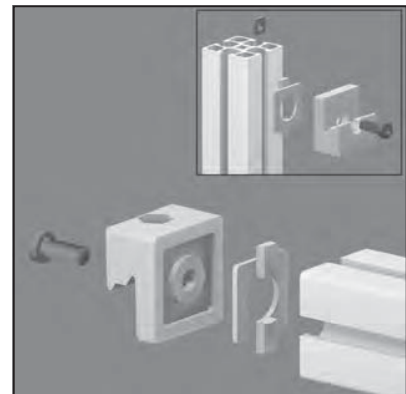
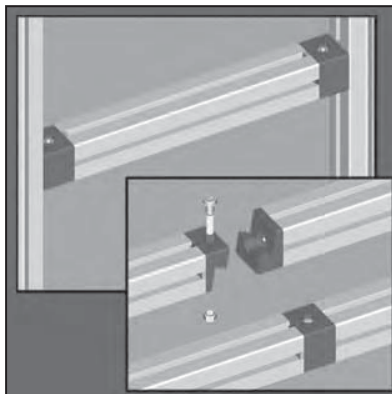
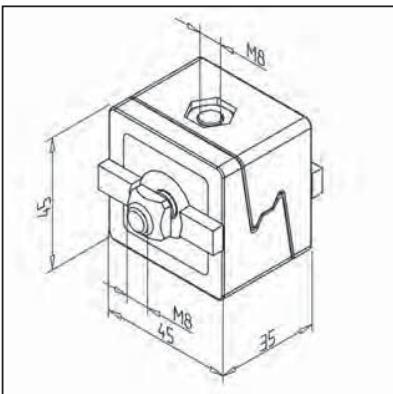
- Connection of profiles
- For subsequent insertion of profiles into existing constructions, relocatable in direction of the groove
- Removable attachments

### ASSEMBLY

- Use fastening kit
- Insert cross-tie profile into T-solt
- For adjustment use set screw M5

## MOUNTING BRACKET 45

part no. 21.1411/0



### TECHN. DATA / ITEMS SUPPLIED

- GD- Zn, powder coated, grey
- Fastening kit
- Weight 0,428 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

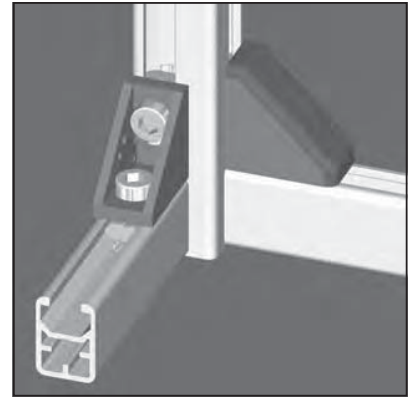
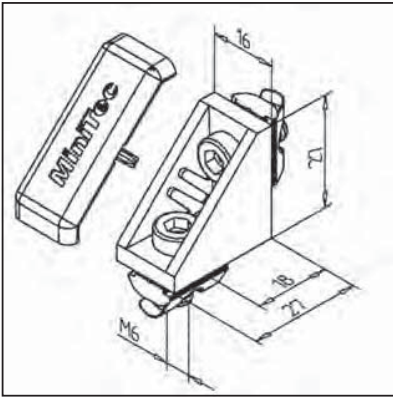
### ASSEMBLY

- Use fastening kit
- In case of mounting into vertical profiles, the use of square-nut M8 with position-fixing **part no. 21.1351/2** is recommended
- Recommended locking torque: 20 Nm



## ANGLE 16 GD-Z

part no. 21.2077/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- **Conductive version part no. 21.2077/6**
- Weight 0,038 kg

### APPLICATIONS

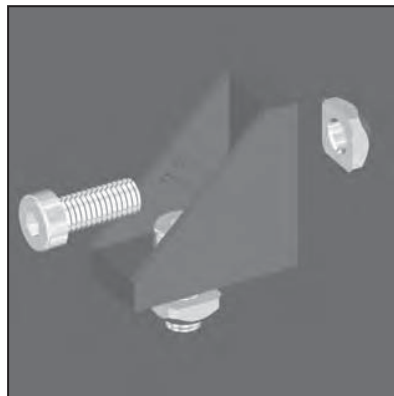
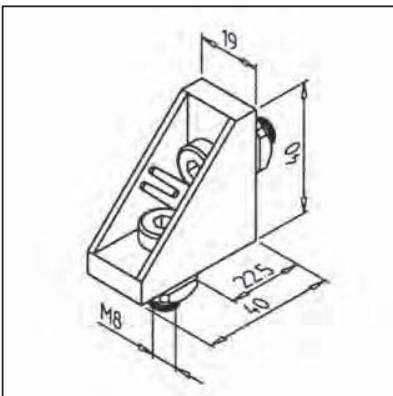
- Constructions made from profile series 16 or 23, subsequent insertion of profiles or components into existing constructions
- Fixing of panels, table-tops
- Reinforcement of constructions made from profile series 16 or 23

### ASSEMBLY

- Use fastening kit
- Recommended locking torque: 8 Nm
- Suitable end cap MW 16 GD-Z, grey: **part no. 22.1138/1**

## ANGLE 19 GD-Z

part no. 21.2078/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- **Conductive version part no. 21.2078/6**
- Weight 0,055 kg

### APPLICATIONS

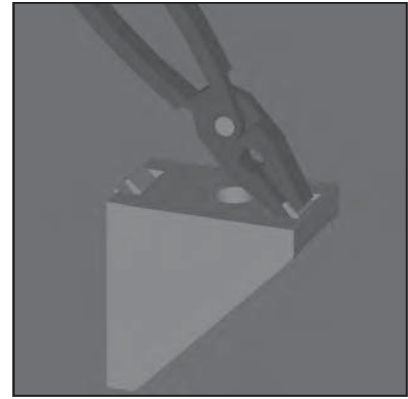
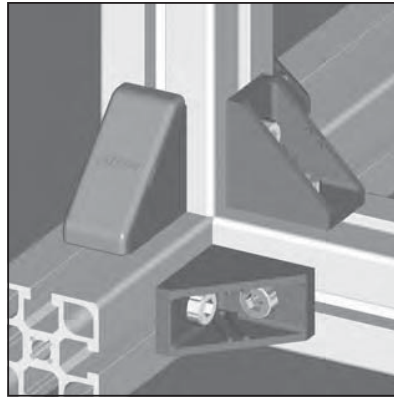
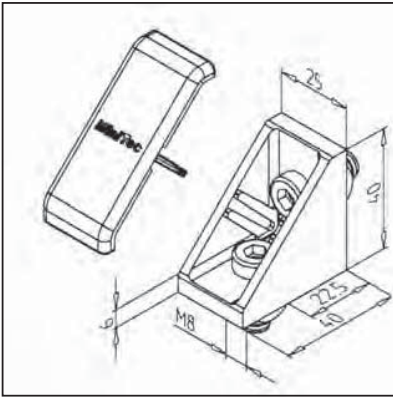
- Connection of profiles 19 and 32
- For subsequent insertion of profiles into existing constructions, relocatable in direction of the groove
- Fixing of bearing surfaces

### ASSEMBLY

- Use fastening kit
- In case of mounting into vertical profiles, use of square-nut M8 with position-fixing, **part no. 21.1351/2**
- Suitable end-cap MW 19 GD-Z, grey **part no. 22.1139/1**
- Recommended locking torque: 20 Nm

## ANGLE 25 GD-Z

part no. 21.0969/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Removable centering tabs
- **Conductive version part no. 21.0969/6**
- Weight 0,066 kg

### APPLICATIONS

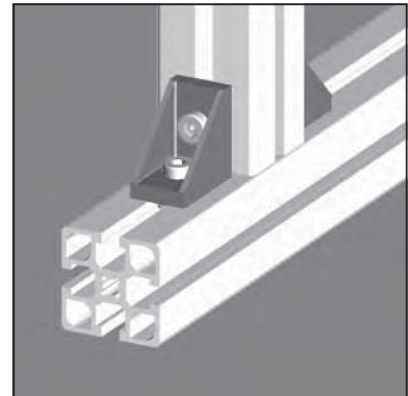
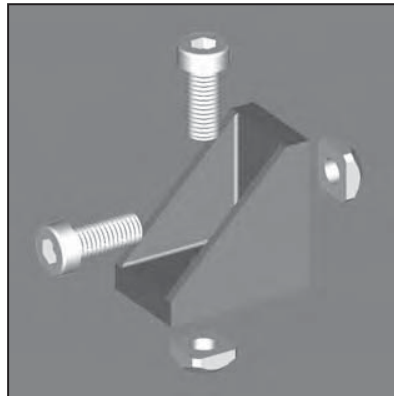
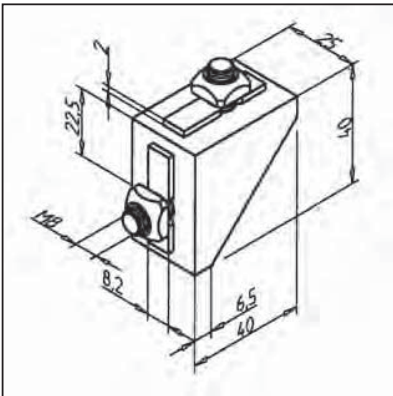
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

### ASSEMBLY

- Use fastening kit
- If non-aligning grooves, break centering tabs with pliers
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing **part no. 21.1351/2**
- End cap MW 25 GD-Z **part no. 22.0997/1**
- Recommended locking torque: 20 Nm

## ANGLE 25 S

part no. 21.1134/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Locking device against torsion
- Fastening kit
- **Conductive version part no. 21.1134/6**
- Weight 0,066 kg

### APPLICATIONS

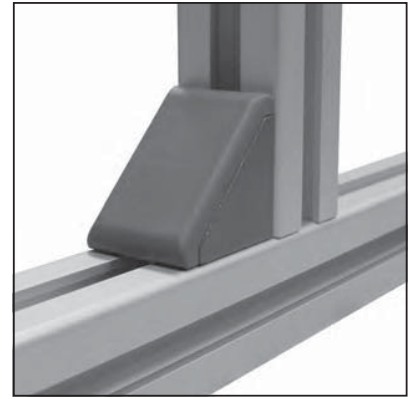
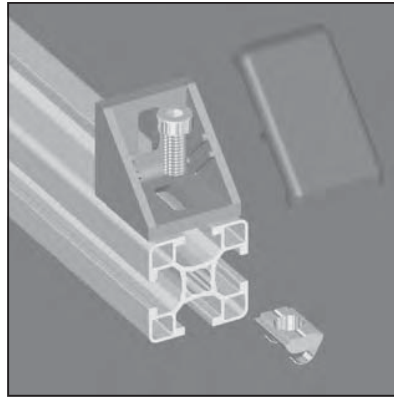
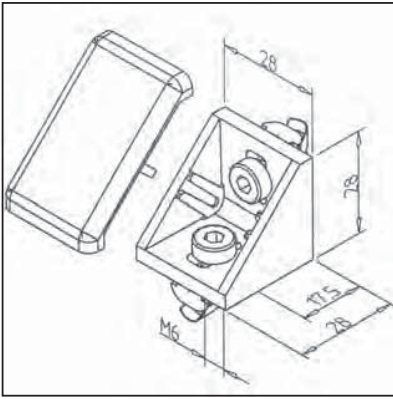
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Strengthening of profile connections

### ASSEMBLY

- Use fastening kit
- For mounting into vertical profile use square nut M8 with position-fixing **part no. 21.1351/2**
- Recommended locking torque 20 Nm

## ANGLE 30 GD

part no. 21.1347/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- **Conductive version part no. 21.1347/6**
- Weight 0,053 kg

### APPLICATIONS

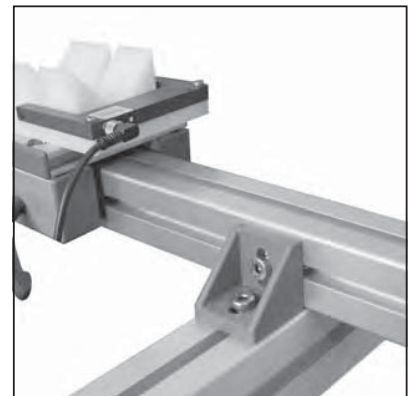
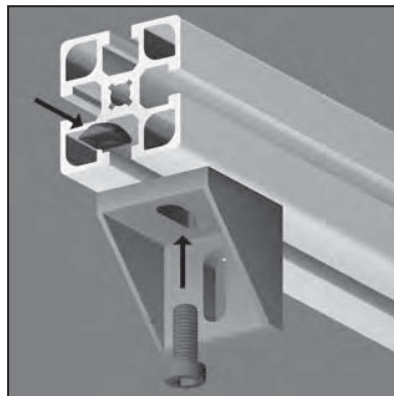
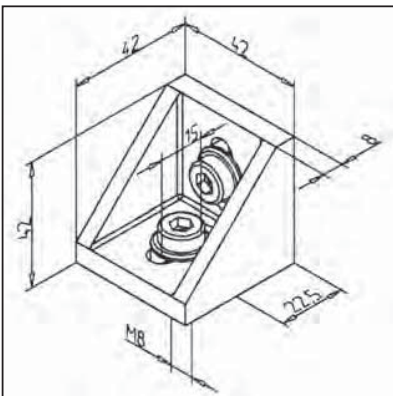
- Constructions made from profile series 30, subsequent insertion of profiles or components into existing constructions
- Fixing of panels, table-tops
- Reinforcement of constructions made from profiles series 30

### ASSEMBLY

- Use fastening kit
- Recommended locking torque: 8 Nm
- Suitable end cap MW 30 GD-Z, grey: **part no. 22.1026/1**

## ANGLE 45 GD

part no. 21.1133/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- **Conductive version part no. 21.1133/6**
- Weight 0,114 kg

### APPLICATIONS

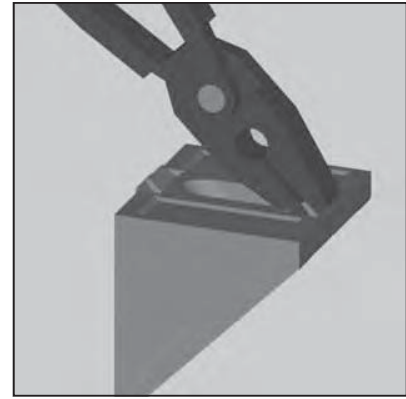
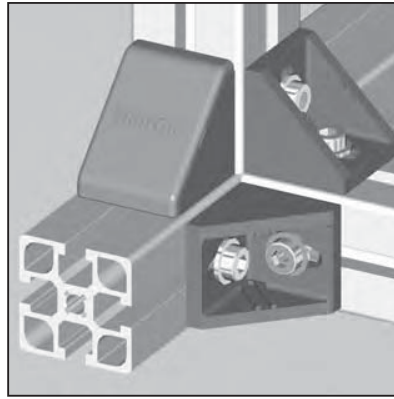
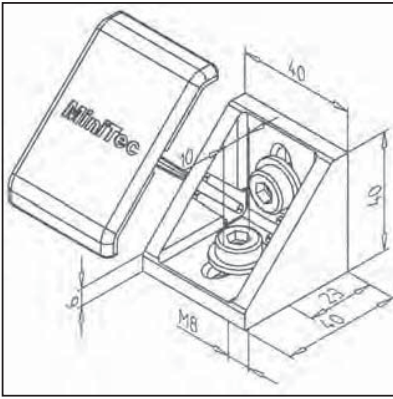
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

### ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing **part no. 21.1351/2**
- Hammer head screw **part no. 21.1370/0** can be used
- Recommended locking torque 20 Nm

## ANGLE 45 GD-Z

part no. 21.1349/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Removable centering tabs
- Conductive version **part no. 21.1349/8**
- Weight 0,086 kg

### APPLICATIONS

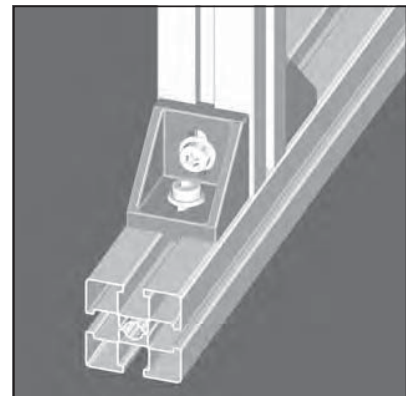
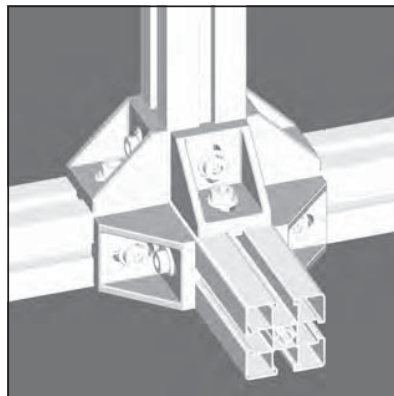
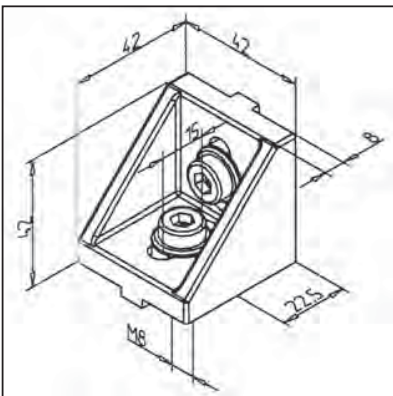
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

### ASSEMBLY

- Use fastening kit
- If non-aligning grooves, break centering tabs with pliers
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing **part no. 21.1351/2**
- Use hammer head screw **part no. 21.1370/0**
- Recommended locking torque: 20 Nm
- End cap MW 45 GD-Z **part no. 22.1024/1**

## ANGLE 45 VA

part no. 21.0007/0



### TECHN. DATA / ITEMS SUPPLIED

- Material: WN DIN 1.4301 X5 CR NI 18 - 10, SUS 304, stainless steel
- Fastening kit
- Weight 0,255 kg

### APPLICATIONS

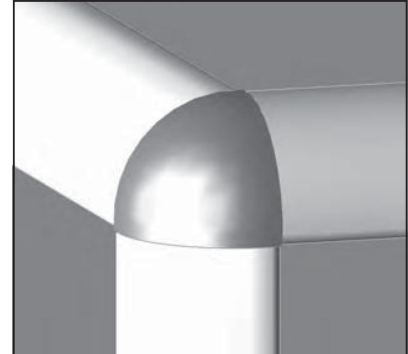
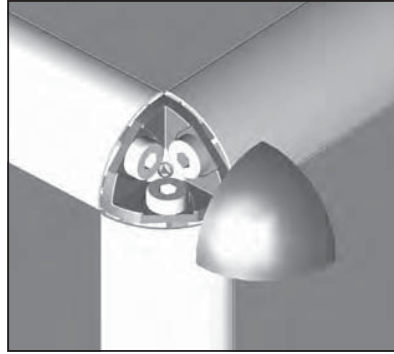
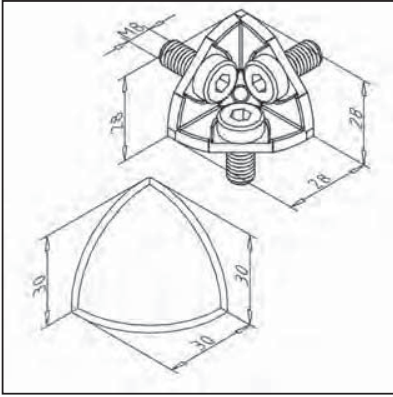
- General constructions, particularly suitable for subsequent insertion of profiles into existing constructions
- Strengthening of profile constructions

### ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position fixing **part no. 21.1351/4**
- Recommended locking torque 20 Nm

## ANGLE 30 R 90°

part no. 21.2109/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, nature

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- End cap MW 30 R 90°, grey, **part no. 22.1143/1**

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- Fastening kit

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- Weight 0,043 kg

### APPLICATIONS

- Corner fastening of profiles 30 R 90°

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- Constructions for show cases, tables etc.

### ASSEMBLY

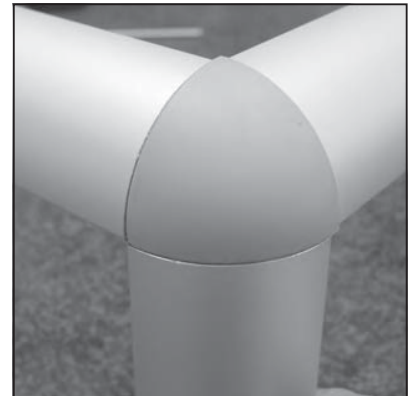
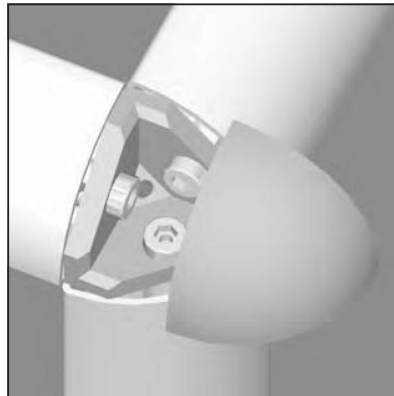
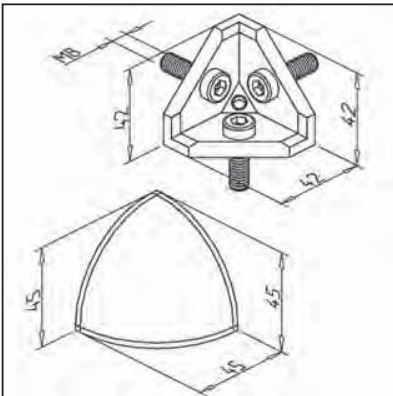
- With mounting material from scope of supply in central drilling of the profile

---

- Clip on end cap

## ANGLE 45 R 90°

part no. 21.1710/1



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, nature

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- End cap MW 45 R 90°, grey, **part no. 22.1033/1**

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- Fastening kit

---

- Weight 0,098 kg

### APPLICATIONS

- Corner fastening of profiles 45 R 90°

---

- Constructions for show cases, tables etc.

### ASSEMBLY

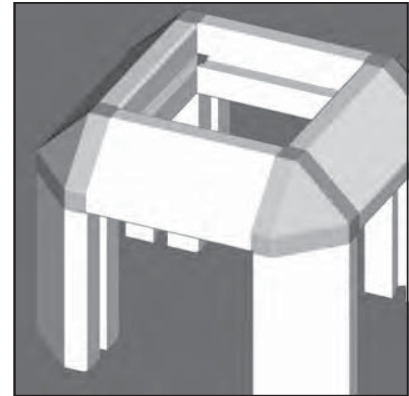
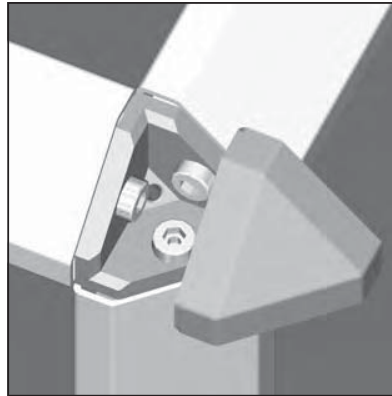
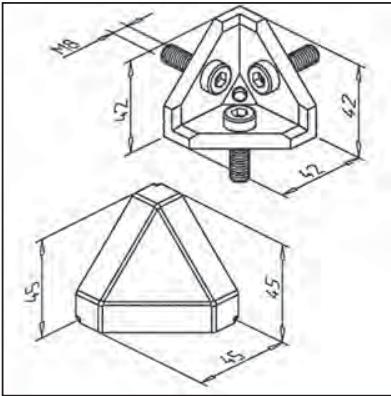
- With mounting material from scope of supply in central drilling of the profile

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- Clip into the end cap

## ANGLE 45°

part no. 21.1708/1



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, nature
- End cap 45°/3, grey
- Fastening kit
- Weight 0,107 kg

### APPLICATIONS

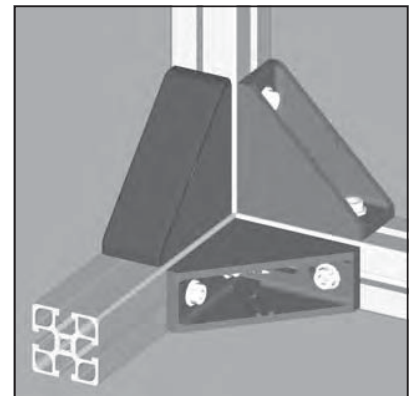
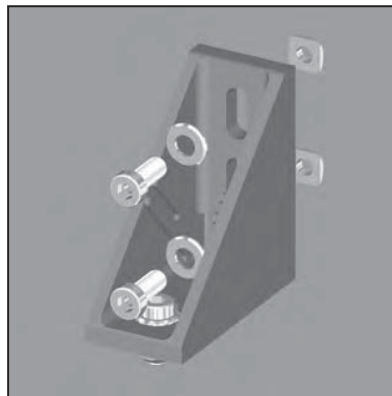
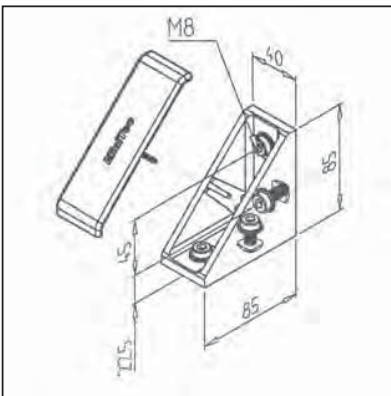
- Corner fastening of profiles 45 / 45°
- Constructions for show cases, tables etc.

### ASSEMBLY

- With mounting material from scope of supply in central drilling of the profile
- Clip into the end cap

## ANGLE 45 X 90 GD-Z

part no. 21.1397/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,281 kg
- **Conductive version part no. 21.1397/6**

### APPLICATIONS

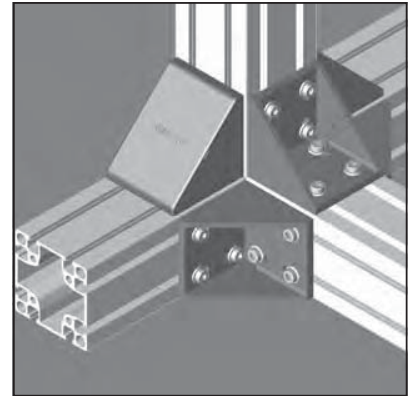
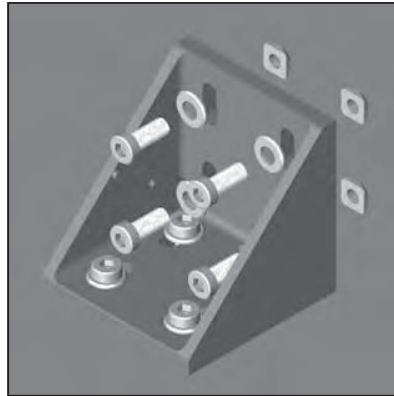
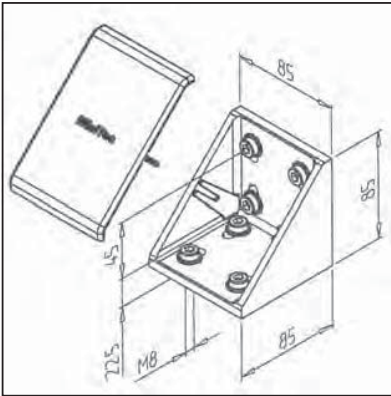
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Fixing of panel elements, table tops
- Strengthening of profile constructions

### ASSEMBLY

- Use fastening kit
- For mounting into vertical profile use square nut M8 with position-fixing **part no. 21.1351/2**
- Recommended locking torque: 20 Nm
- Use hammer head screw **part no. 21.1370/0**
- Suitable end cap MW 45 x 90 GD-Z **part no. 22.0998/1**

## ANGLE 90 GD-Z

part no. 21.0978/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,497 kg
- **Conductive version part no. 21.0978/6**

### APPLICATIONS

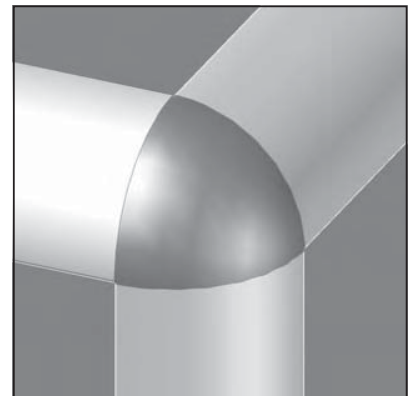
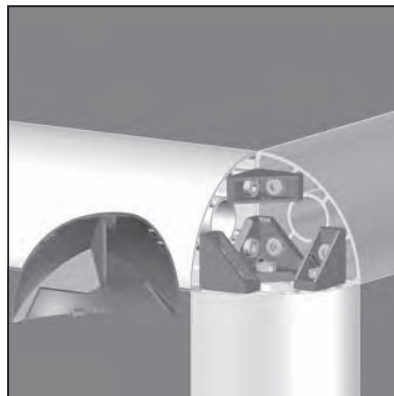
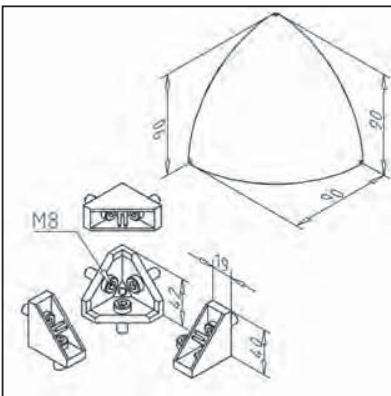
- For profiles 90 and 180
- General constructions, particularly for subsequent insertion of profiles into existing constructions
- Strengthening of all profile connections

### ASSEMBLY

- Use fastening kit
- For subsequent mounting into vertical profiles use square nut M8 with position-fixing **part no. 21.1351/2**
- Hammer head screw can be used
- Recommended locking torque: 20 Nm
- Suitable end cap MW 90 GD-Z **part no. 22.0999/1**

## CORNER CONNECTION 90 R 90°

part no. 21.2199/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD
- End cap MW 90 R 90°, grey, **part no. 22.0980/1**
- Angle 45°, **part no. 21.1708/2**
- Angle 19 GD-Z, **part no. 21.2078/2**
- Fastening kit
- Weight 0,267 kg

### APPLICATIONS

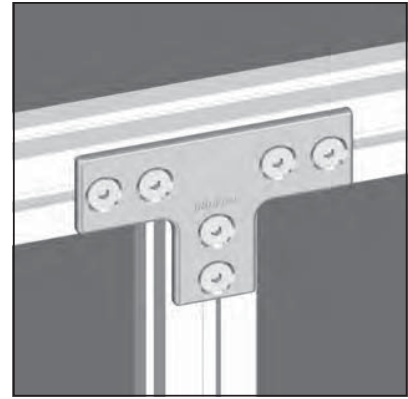
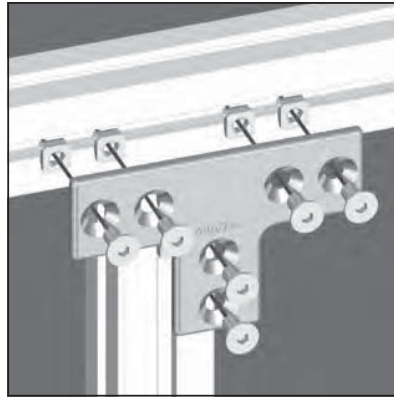
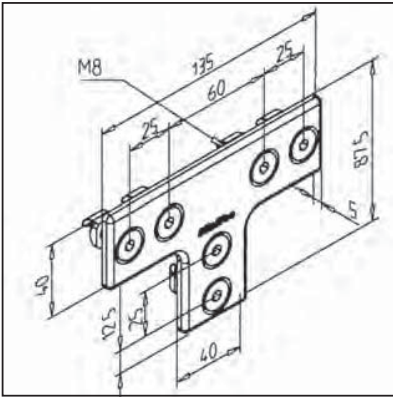
- Corner connections of profiles 90 R 90°
- Constructions for show cases, tables etc.

### ASSEMBLY

- Fasten with screws from the fastening kit in central bore of the profile
- Clip into the end cap

## T-SHEET VA

part no. 21.0019/0



### TECHN. DATA / ITEMS SUPPLIED

- Sheet stainless steel

---

- Fastening kit

---

- Weight 0,259 kg

### APPLICATIONS

- Strengthening of profile constructions

### ASSEMBLY

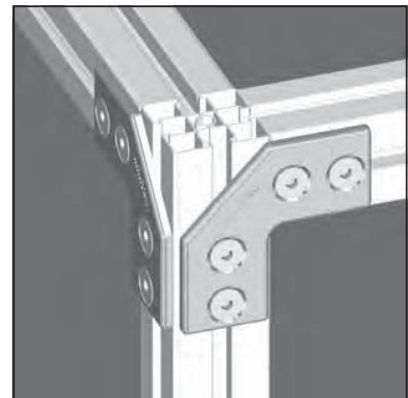
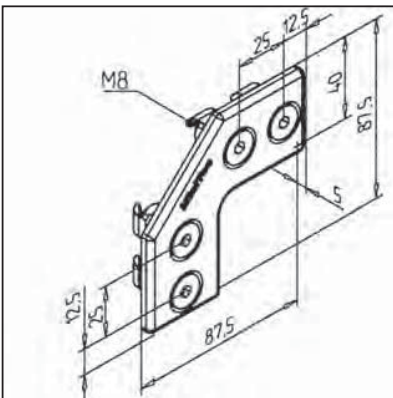
- Use fastening kit

---

- Use power-lock fasteners if tractive forces appear

## ANGLE-SHEET VA

part no. 21.0018/0



### TECHN. DATA / ITEMS SUPPLIED

- Sheet stainless steel

---

- Fastening kit

---

- Weight 0,163 kg

### APPLICATIONS

- Strengthening of profile constructions

---

- Also suitable for cross joints (double application)

### ASSEMBLY

- Use fastening kit

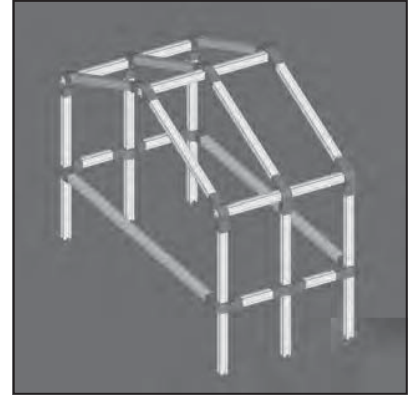
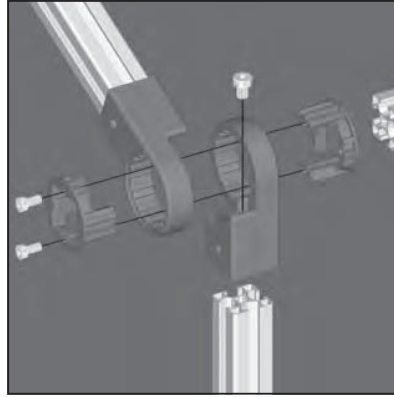
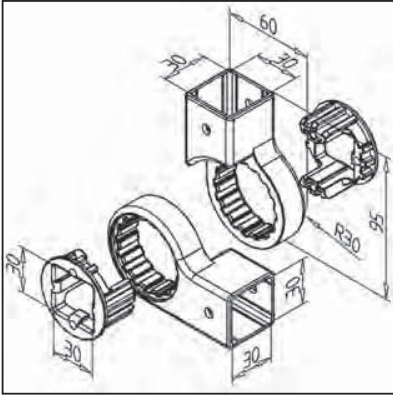
---

- Use power-lock fasteners if tractive forces appear



## MULTI CONNECTOR 30

part no. 22.1140/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Fastening kit
- Weight 0,135 kg

### APPLICATIONS

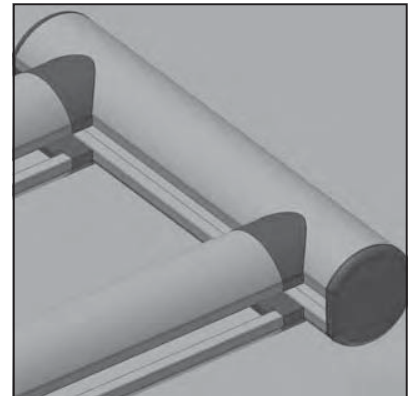
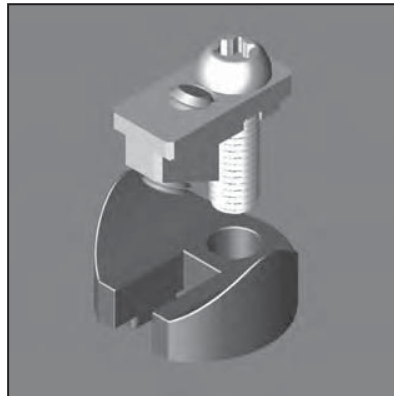
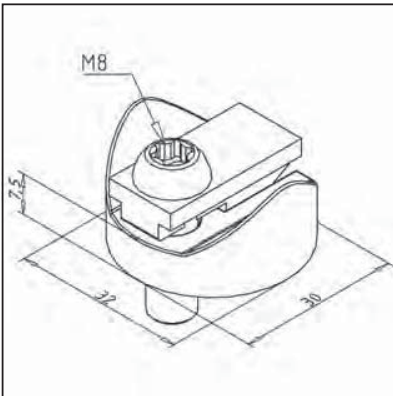
- Easy connection for profiles
- Angle adjustable in 22,5° raster

### ASSEMBLY

- Attach swivel arm on face side of profile
- Insert socket from the side
- Insert other profile into socket and position it
- Secure it with 2 hex socket cap screws against movement

## ADAPTER G32 / G32

part no. 21.0954/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,041 kg

### APPLICATIONS

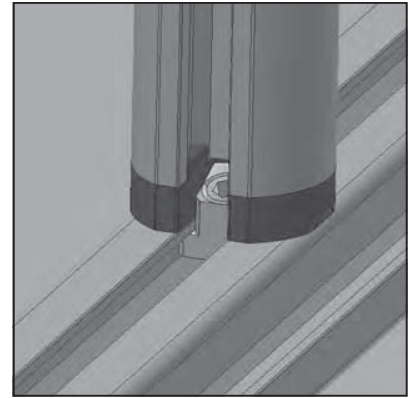
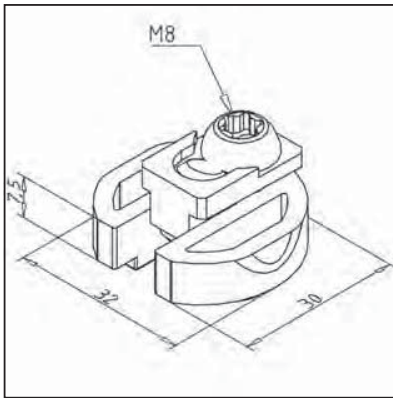
- For connection of handle profile 32 with handle profile 32

### ASSEMBLY

- Screw on profile face and fasten with power-lock fastener
- Push in cross direction profile and attach it to the desired location

**ADAPTER G32 / 30 X 30**

part no. 21.0955/0

**TECHN. DATA / ITEMS SUPPLIED**

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,032 kg

**APPLICATIONS**

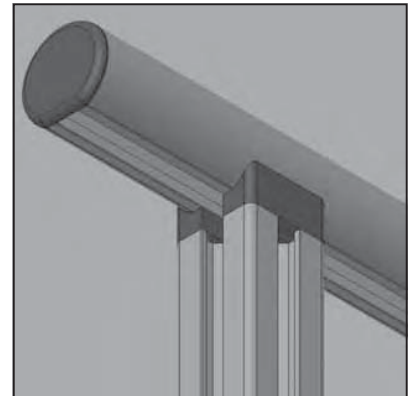
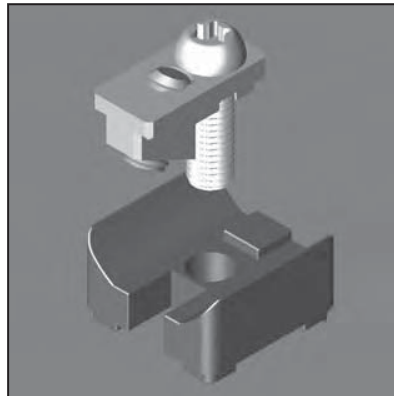
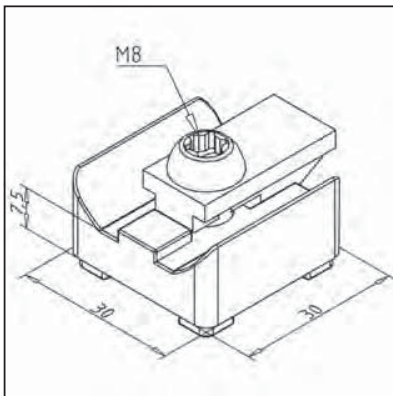
- For connection of handle profile 32 with profile 30 x 30

**ASSEMBLY**

- Screw on profile face and fasten with power-lock fastener
- Push in cross direction profile and attach it to the desired location

**ADAPTER 30 X 30 / G32**

part no. 21.0953/0

**TECHN. DATA / ITEMS SUPPLIED**

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,046 kg

**APPLICATIONS**

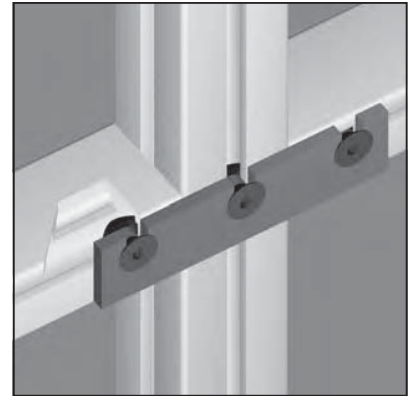
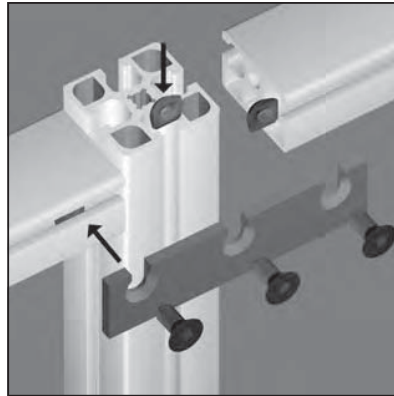
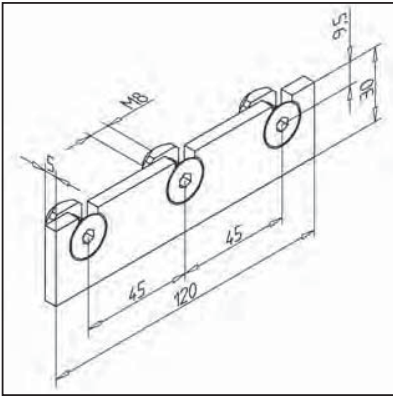
- For connection of profile 30 x 30 with handle profile 32

**ASSEMBLY**

- Screw on profile face and fasten with power-lock fastener
- Push in cross direction profile and attach it to the desired location

## CONNECTING BAR

part no. 21.1113/0



### TECHN. DATA / ITEMS SUPPLIED

- Bar steel, zinc plated
- Fastening kit
- Weight 0,156 kg

### APPLICATIONS

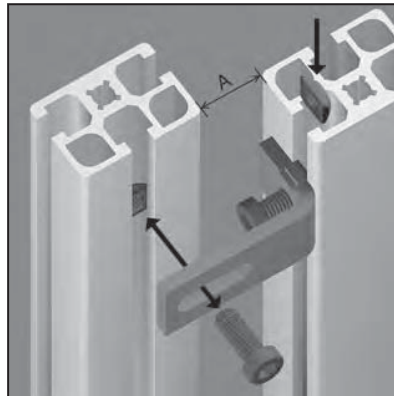
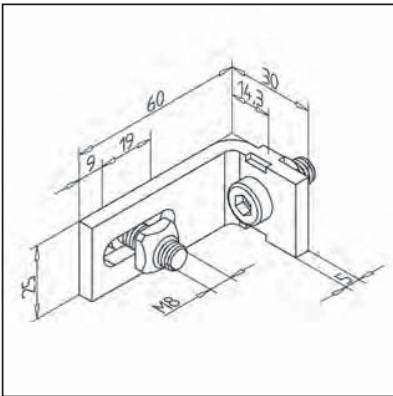
- Connection of different profiles
- Subsequent insertion of profiles into existing constructions

### ASSEMBLY

- Use fastening kit
- No processing required

## GUARD UNIT FIXING ANGLE 45 ST

part no. 21.1404/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,103 kg

### APPLICATIONS

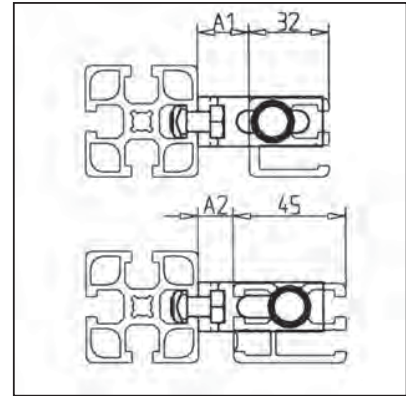
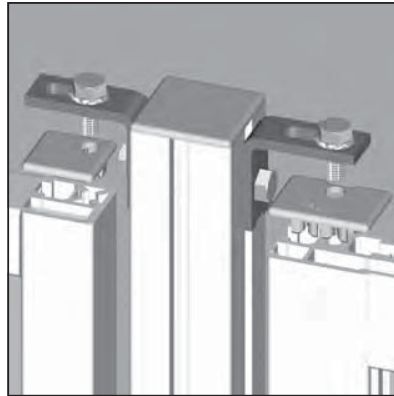
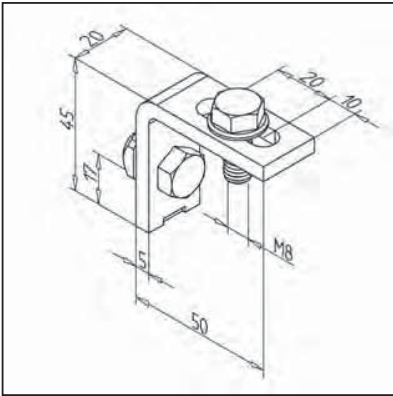
- Fixing of guards made from profile 45 x 32
- Usable in frames made from any profile
- Flush mounting of element

### 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 19

part no. 21.1399/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,089 kg

### APPLICATIONS

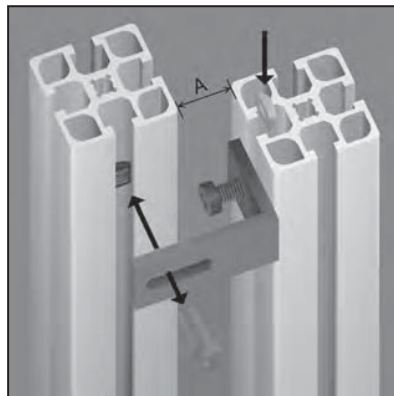
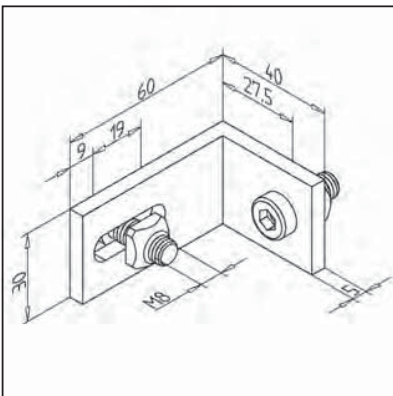
- Fixing of guards made from clamp-profiles 32 x 32 or 45 x 32 or from all other standard profiles
- Fixing of guards at any angle
- For clamp profile 32 x 32 use end cap part no. 22.1032/3
- For clamp profile 45 x 32 use end cap part no. 22.1046/3

### 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 guard with screws of fastening kit
- Alternatively: use snap bolts 25 part no. 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 45 AL

part no. 21.1407/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Weight 0,067 kg

### APPLICATIONS

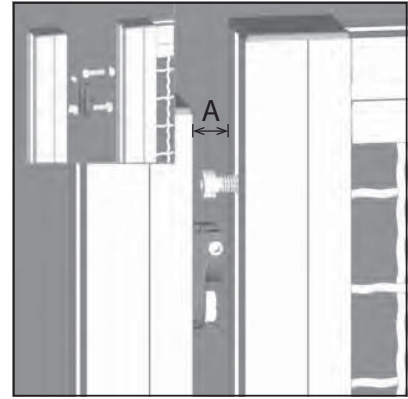
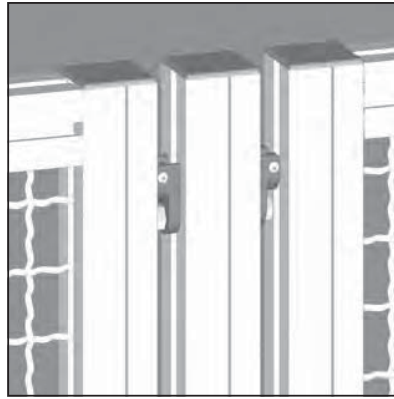
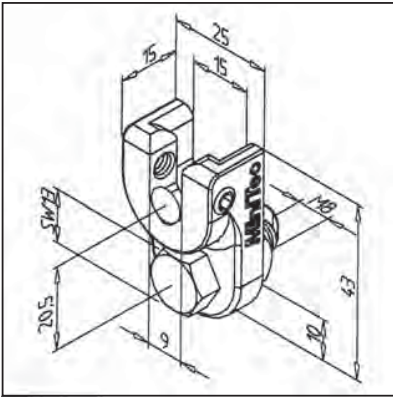
- Fixing of frame-elements made from profile 45 x 45
- Usable in frames made from any profile
- Flush mounting of element

### ASSEMBLY

- Use 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 no. 21.0008/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,039 kg

### APPLICATIONS

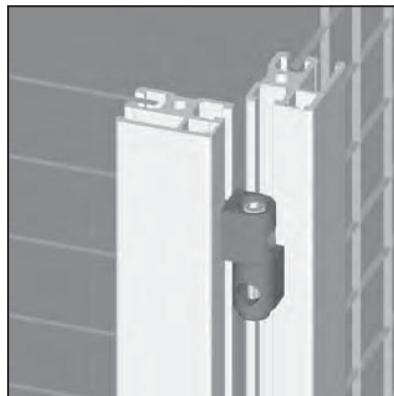
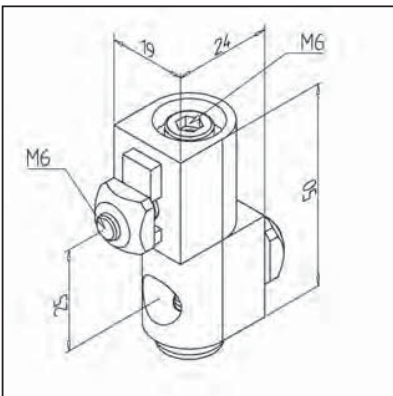
- Guards from all profiles
- Movable flaps
- It is also possible to mount the guards at the front when fitting the suspensions to the front of the post

### 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 no. 21.1403/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,114 kg

### APPLICATIONS

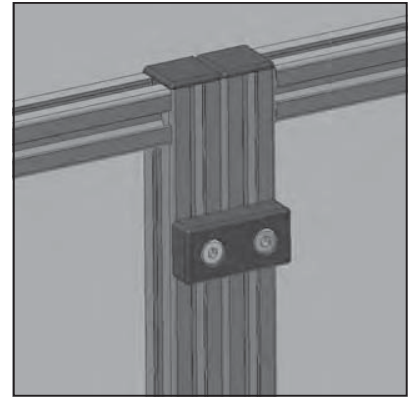
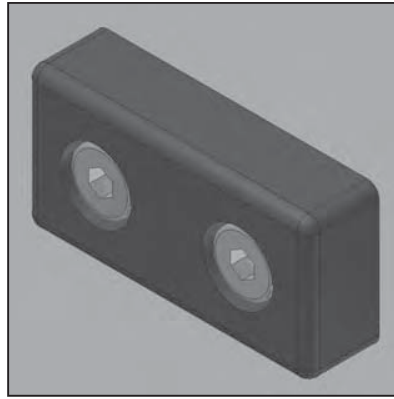
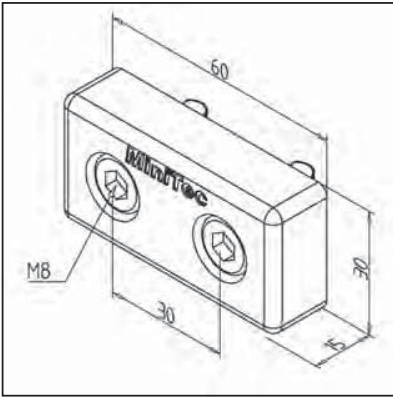
- Connection of profiles at any angle
- Erection of guard units at any angle

### 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 73

## CONNECTING PLATE 30 X 60

part no. 21.2113/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,085 kg

### APPLICATIONS

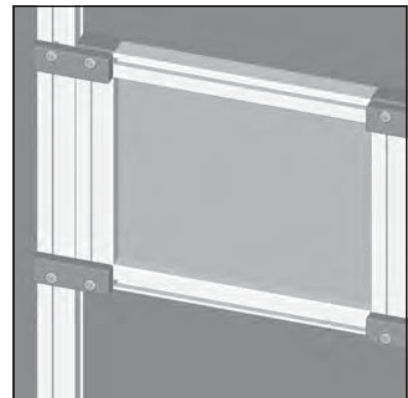
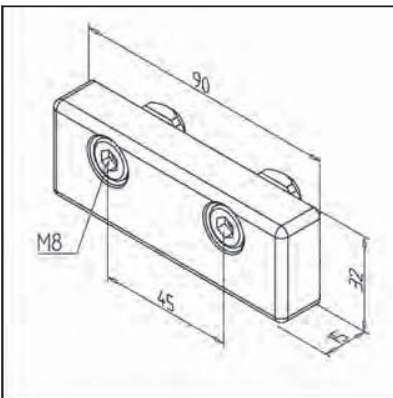
- Connection of two guards without gap
- Strengthening of guard units
- Connection of premounted units or modules

### ASSEMBLY

- Use fastening kit; fasten on profile groove of save guard and pile

## CONNECTING PLATE 90 X 32

part no. 21.1346/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,135 kg

### APPLICATIONS

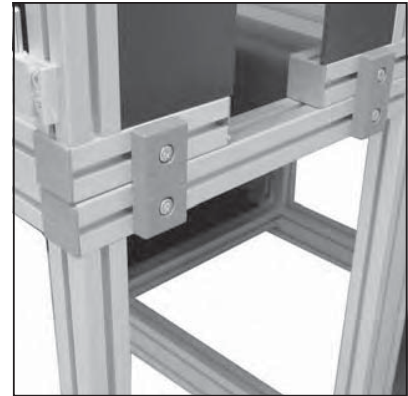
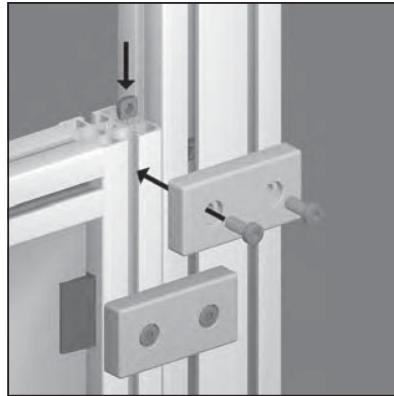
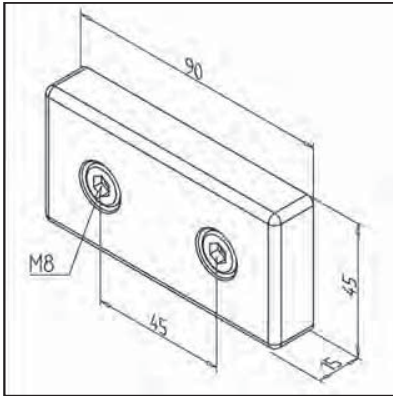
- Connection of two guards without gap
- Strengthening of guard units
- Connection of premounted units or modules

### ASSEMBLY

- Use fastening kit

## CONNECTING PLATE 45 X 90

part no. 21.1472/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,181 kg

### APPLICATIONS

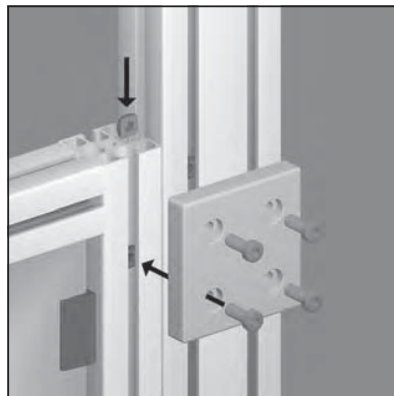
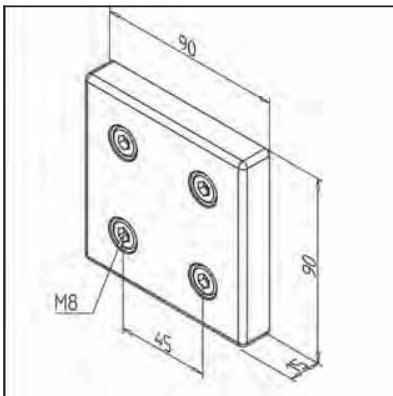
- Connection of guards without gap
- Strengthening of guard units
- Connection of premounted units or modules

### ASSEMBLY

- Use fastening kit

## CONNECTING PLATE 90 X 90

part no. 21.1473/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,366 kg

### APPLICATIONS

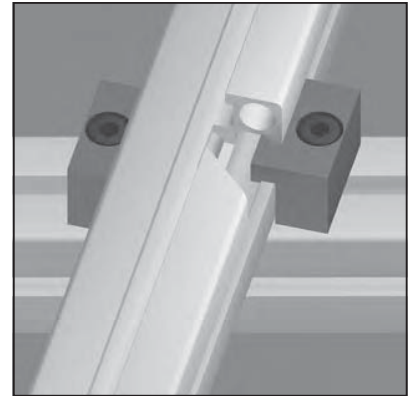
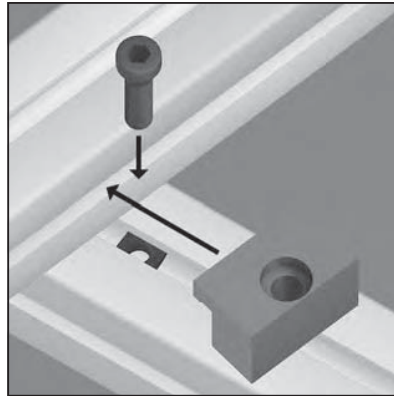
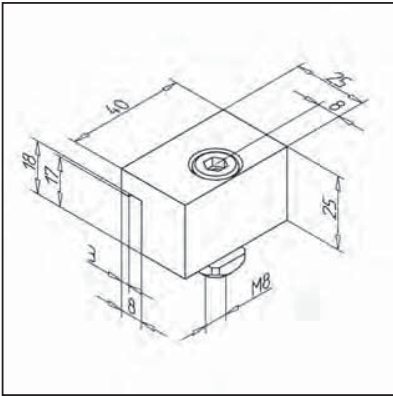
- Connection of guards without gap
- Strengthening of guard units
- Connection of premounted units or modules

### ASSEMBLY

- Use fastening kit

# CLAMPING CLAW

part no. 21.1027/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized

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- Fastening kit

---

- Weight 0,063 kg

### APPLICATIONS

- Parallel connection of profiles at various angles

### ASSEMBLY

- Use fastening kit

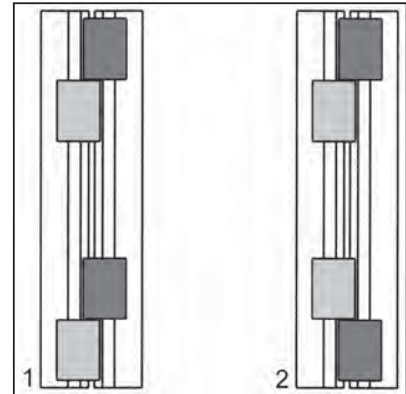
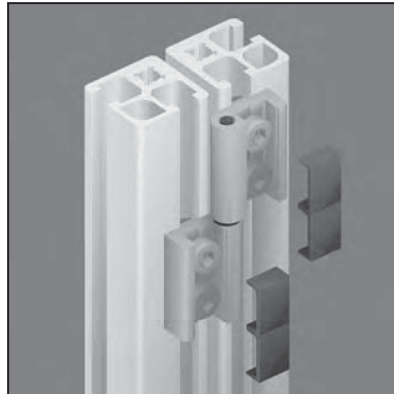
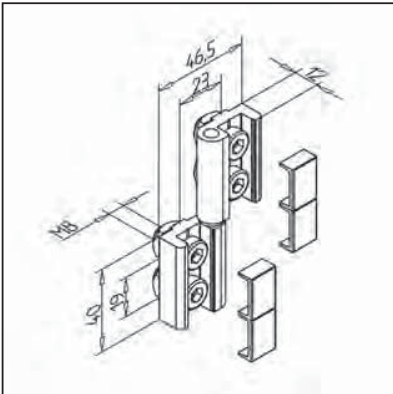
---

- No processing required



## HINGE 19

part no. 21.1100/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with stainless steel cylinder
- Fastening kit
- End caps
- Weight 0,111 kg
- Load max. 400 N
- Order with position fixing nuts, part no. 21.1100/7

### APPLICATIONS

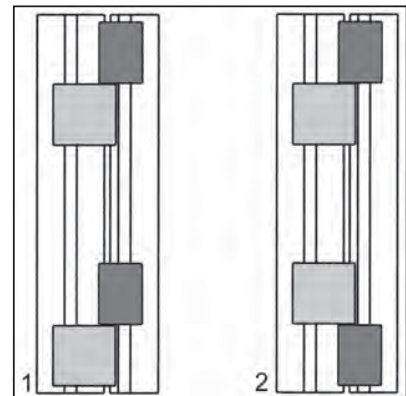
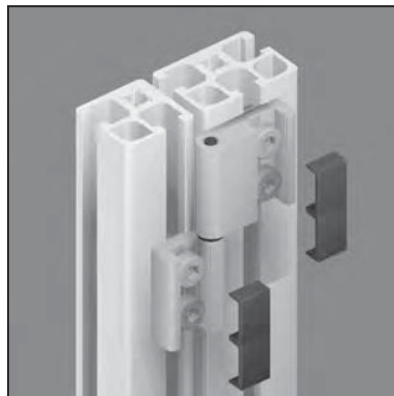
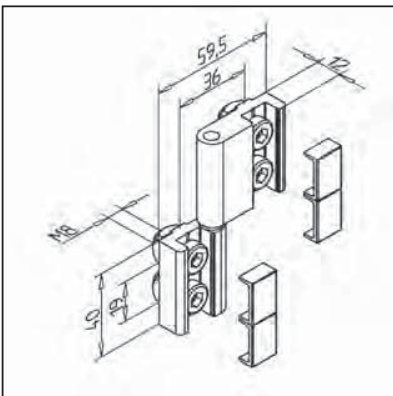
- Swing doors and lids
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19 at various angles

### ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 19 without fixing element **part no. 21.1100/2**
- 1: lift removable
- 2: non lift removable

## HINGE 32

part no. 21.1095/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with stainless steel cylinder
- Fastening kit
- End caps
- Weight 0,128 kg
- Load max. 400 N
- Order with position fixing nuts, part no. 21.1095/7

### APPLICATIONS

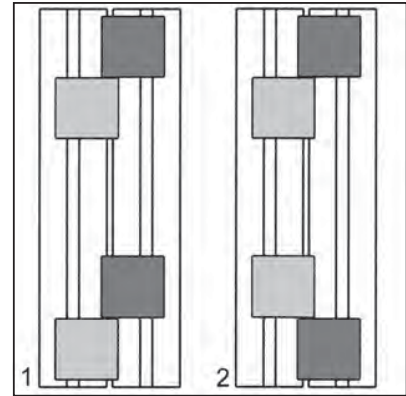
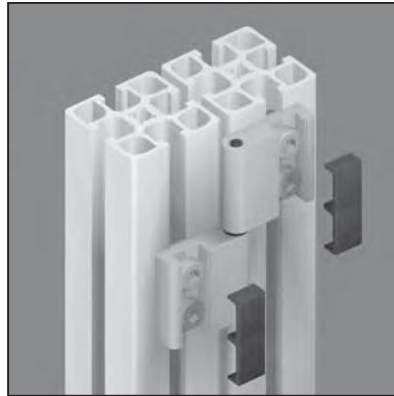
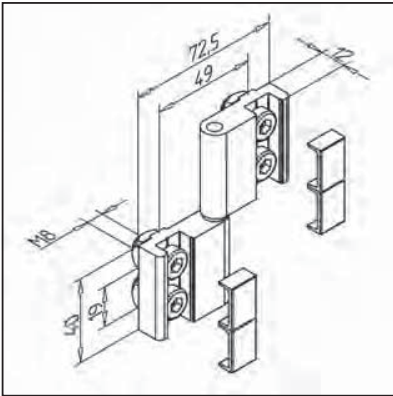
- Swing doors and lids
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19, 32 and 45 at various angles

### ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 32 without fixing element **part no. 21.1095/2**
- 1: lift removable
- 2: non lift removable

## HINGE 45

part no. 21.1096/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized with stainless steel cylinder
- Fastening kit
- End caps
- Weight 0,145 kg
- Load max. 400 N
- Order with position fixing nuts, part no. 21.1096/7

### APPLICATIONS

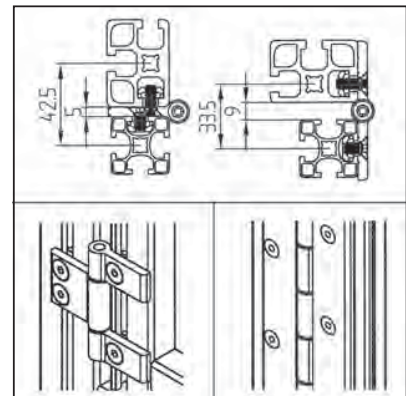
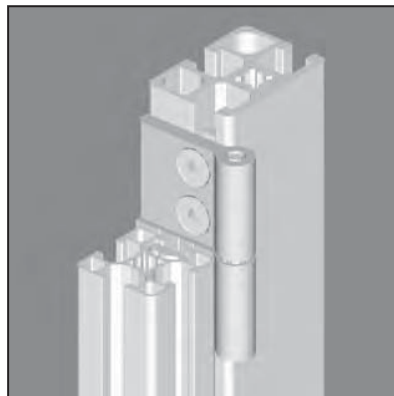
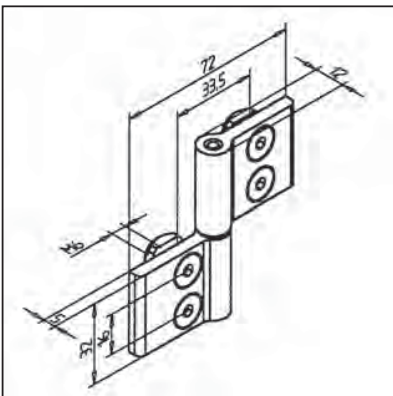
- Swing doors and lids
- Connection of profiles 45 at various angles
- Attachment of guards
- Mount in reversed orientation for non lift removable or horizontal applications

### ASSEMBLY

- Use fastening kit
- For fixing directly on panel elements or on profile surfaces we deliver hinge 45 without fixing element **part no. 21.1096/2**
- 1: lift removable
- 2: non lift removable

## HINGE L 19/30

part no. 21.1374/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

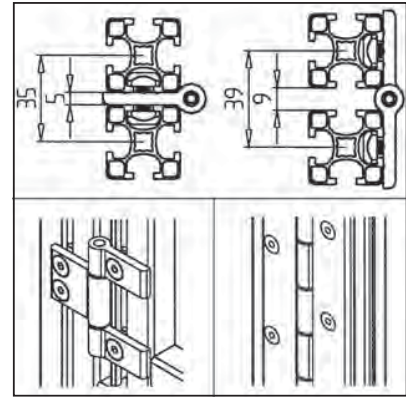
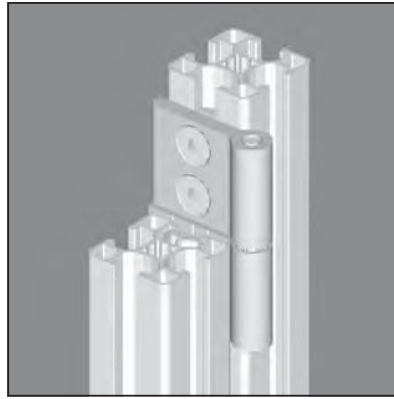
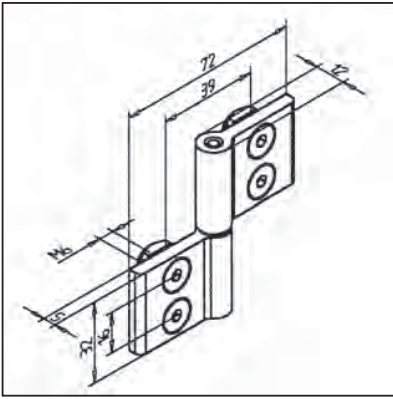
- Doors, lids, movable attached constructions on profiles 19, 32 and 45
- According to arrangement of hinges, lift removable or non-lift-removable constructions are possible
- Connection of profiles 19 and 30 at various angles

### ASSEMBLY

- Use fastening kit
- For production of hinges in various length or bore distances or piano-hinges extrusion **part no. 20.0093/0** is available

## HINGE L 30/30

part no. 21.1376/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

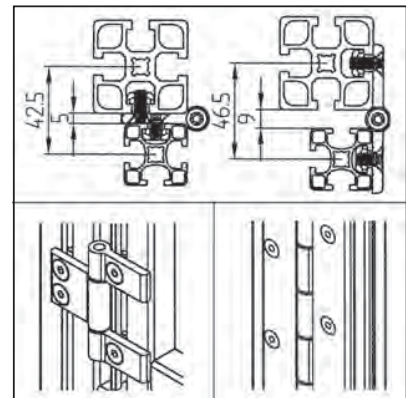
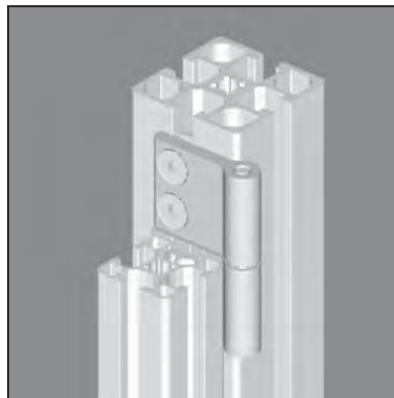
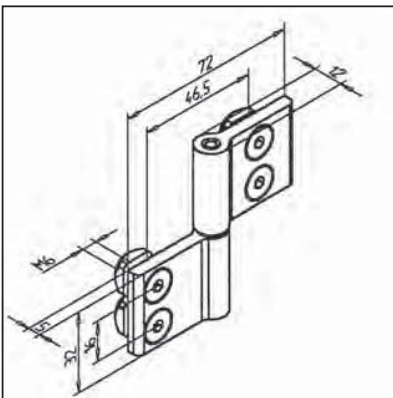
- Doors, lids, movable attached constructions
- According to arrangement of hinges, lift removable or non-lift-removable constructions are possible
- Connection of profiles 30 at various angles

### ASSEMBLY

- Use fastening kit
- For production of hinges in various length or bore distances or piano-hinges extrusion **part no. 20.0093/0** is available

## HINGE L 30/45

part no. 21.1377/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

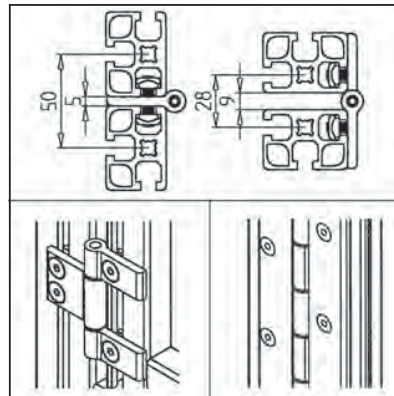
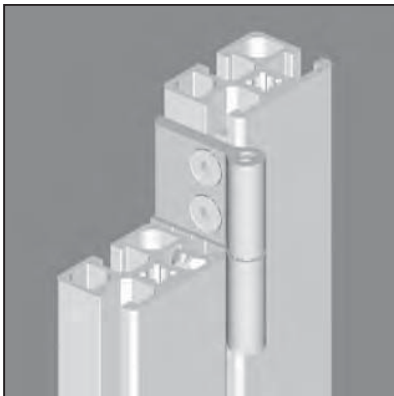
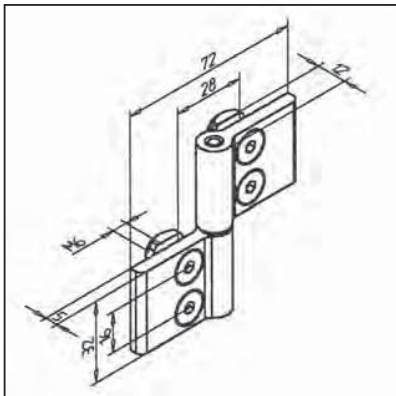
- Doors, lids, movable attached constructions
- According to arrangement of hinges, lift removable or non-lift-removable constructions are possible
- Connection of profiles 30 and 45 at various angles

### ASSEMBLY

- Use fastening kit
- For production of hinges in various length or bore distances or piano-hinges extrusion **part no. 20.0093/0** is available

### HINGE L 19/19

part no. 21.1373/0



#### TECHN. DATA / ITEMS SUPPLIED

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

#### APPLICATIONS

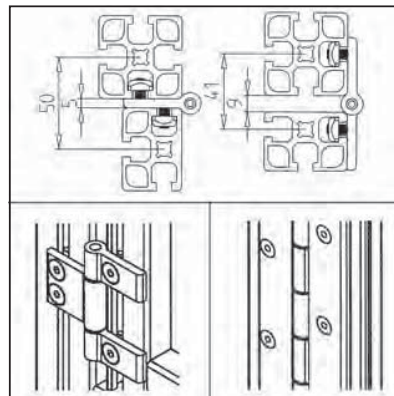
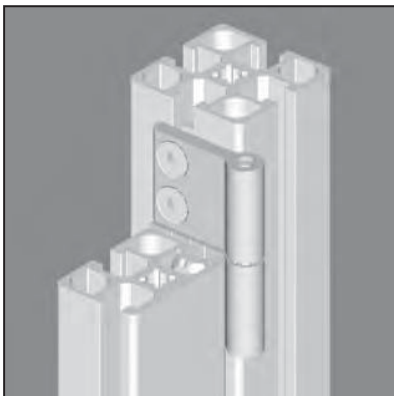
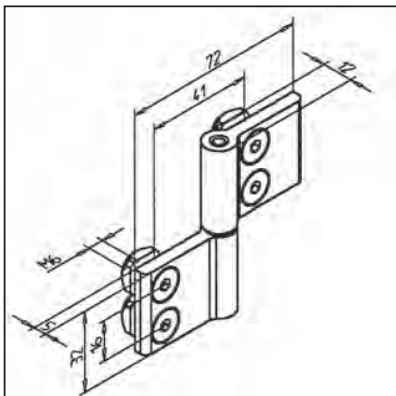
- Doors, lids, movable attachments at profiles 19 and 32
- Attachment of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19 at various angles

#### ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5GB, **part no. 20.0093/0** available

### HINGE L 19/45

part no. 21.1375/0



#### TECHN. DATA / ITEMS SUPPLIED

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

#### APPLICATIONS

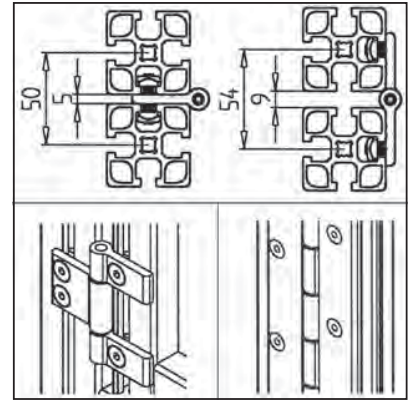
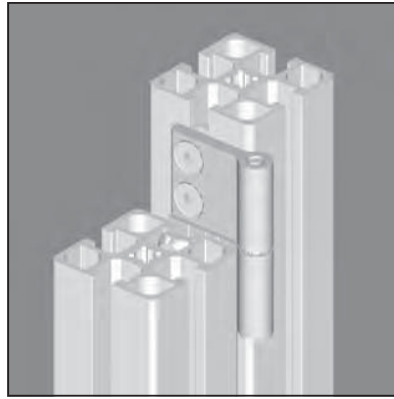
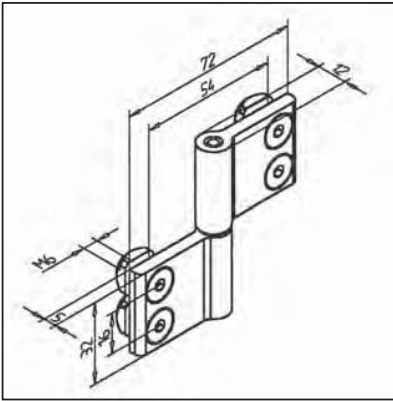
- Doors, lids, movable attachments at profiles 19, 32 and 45
- Mounting of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 19, 32 and 45 at various angles

#### ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5GB, **part no. 20.0093/0** available

## HINGE L 45/45

part no. 21.1378/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

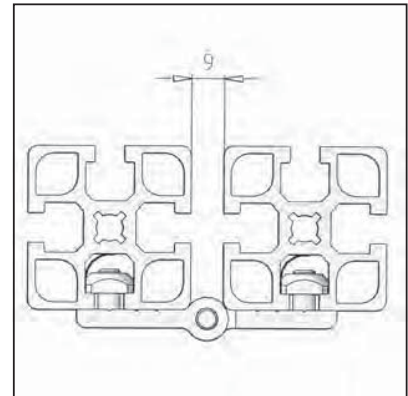
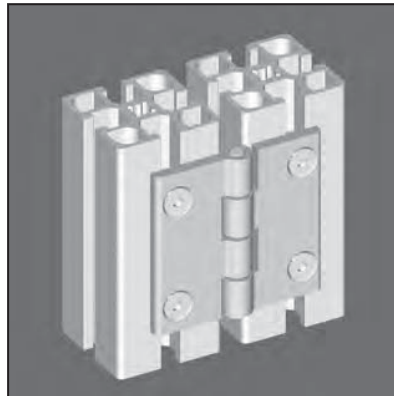
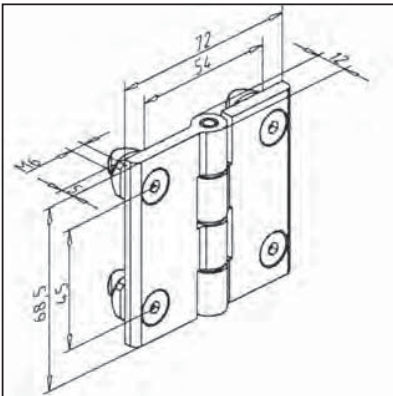
- Doors, lids, movable attachments at profiles 45
- Mounting of guards
- Mount in reversed orientation for non lift removable or horizontal applications
- Connection of profiles 45 at various angles

### ASSEMBLY

- Use fastening kit
- For production of hinges at various length or piano-hinges is hinge-profile 5GB, **part no. 20.0093/0** available

## DOOR HINGE SMALL

part no. 21.0973/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium
- Fastening kit
- Weight 0,120 kg

### APPLICATIONS

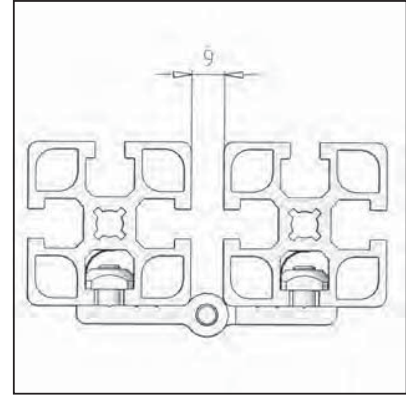
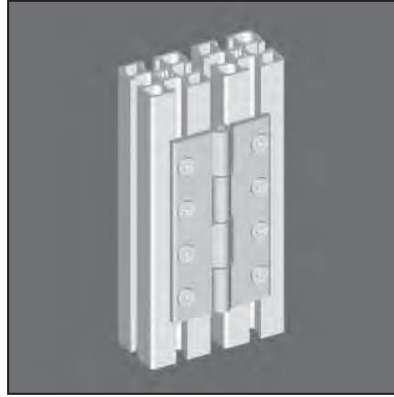
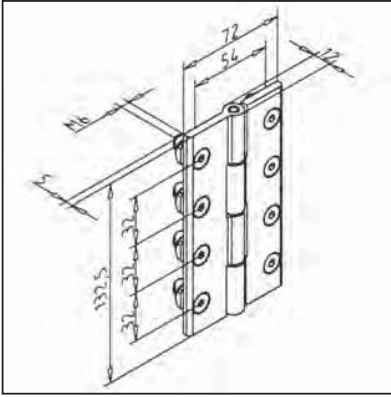
- Suitable for large doors and lids
- Guard units
- Connection of profiles at any angle

### ASSEMBLY

- Use fastening kit

## DOOR HINGE LARGE

part no. 21.0970/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium
- Fastening kit
- Weight 0,235 kg

### APPLICATIONS

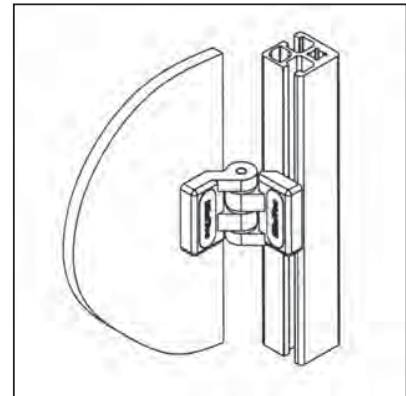
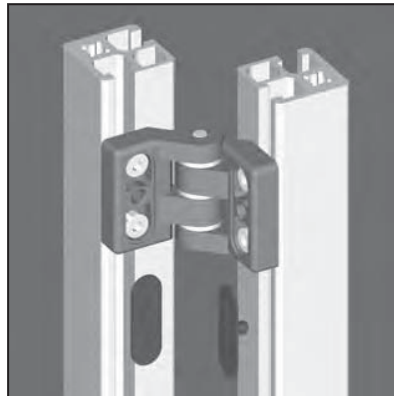
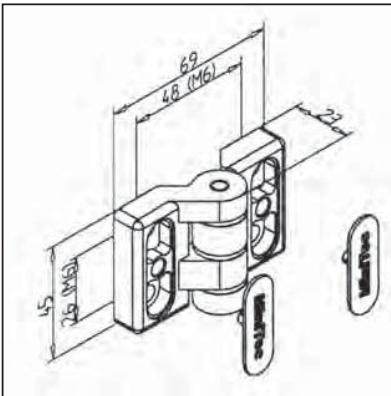
- Suitable for large doors and lids
- Guard units
- Connection of profiles at any angle

### ASSEMBLY

- Use fastening kit

## HINGE 19 S

part no. 21.1044/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

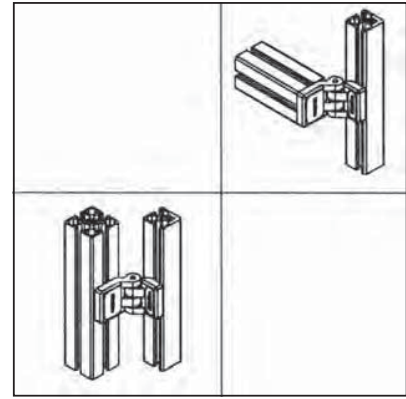
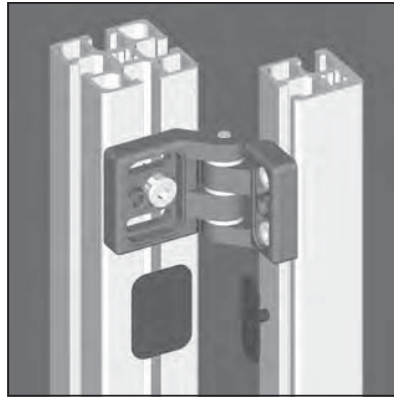
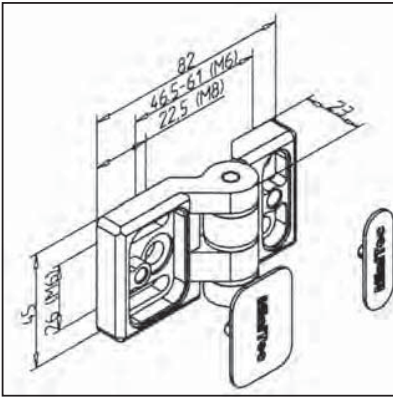
- Suitable for large doors and flaps of profiles type 19 or 32
- Guard units
- Connection of profiles 19 and 32 at any angle

### ASSEMBLY

- Fasten hinge with 2 M6 x 18 bolts and 2 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 no. 21.1055/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

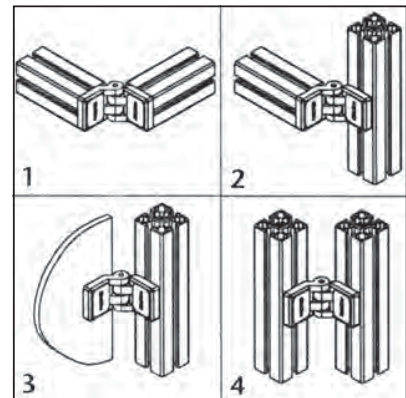
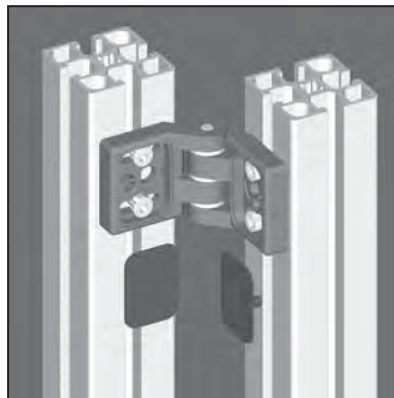
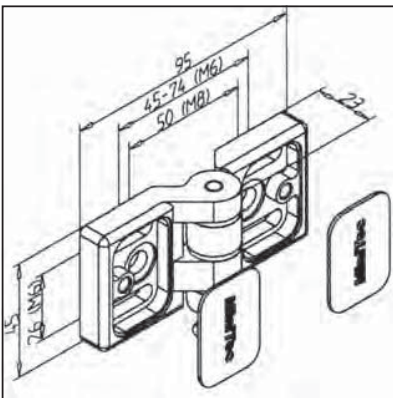
- Suitable for large doors and flaps
- Guard units
- Connection of profiles 19, 32 and 45 at any angles

### ASSEMBLY

- Fasten hinge with 2 M6 x 18 bolts and 2 square nuts on the profile groove or with screws corresponding to the material thickness directly on the panel elements
- Other hinge half on profile 45 x 45 with screw M8 x 30 or 2 screws M6 x 18 fasten
- For heavy-duty applications use multiple hinges
- Bending range 270°

## HINGE 45 S

part no. 21.1098/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

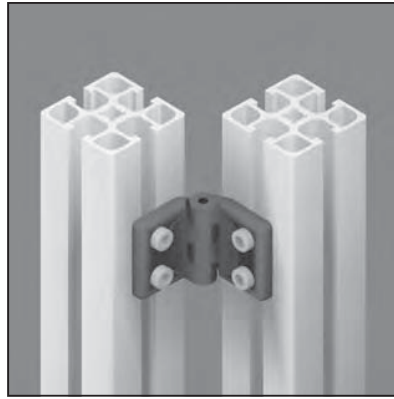
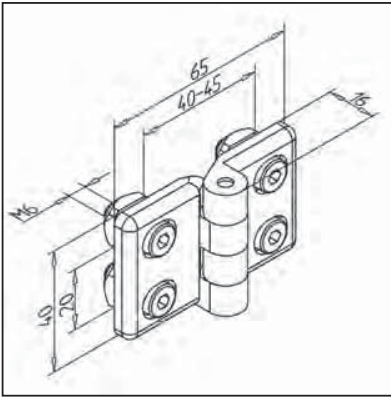
- Suitable for large doors and flaps
- Guard units
- Connection of profiles at various angles
- For heavy-duty application use multiple hinges

### 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 no. 21.1175/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

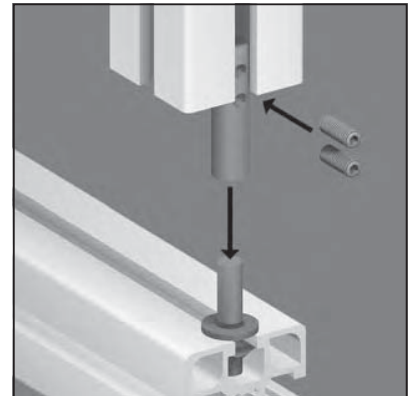
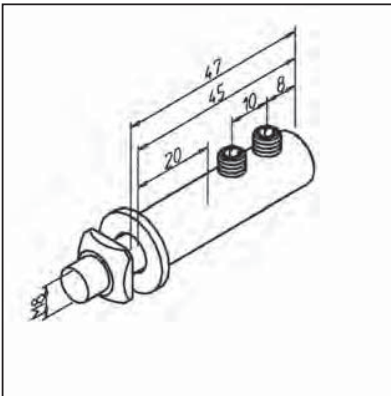
- Suitable for light doors and lids
- Guard units
- Connection of profiles at various angles

### ASSEMBLY

- Use fastening kit

## INTERNAL HINGE AL

part no. 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

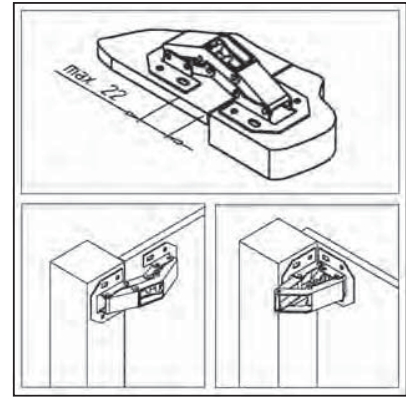
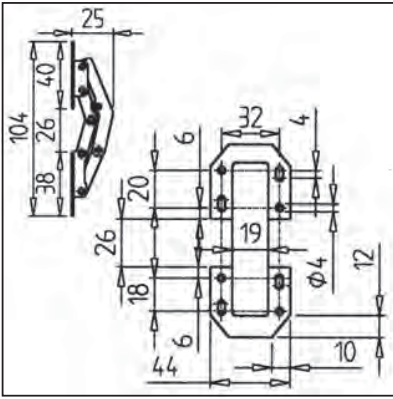
### ASSEMBLY

- 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



## SWING-OUT HINGE

part no. 21.1187/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

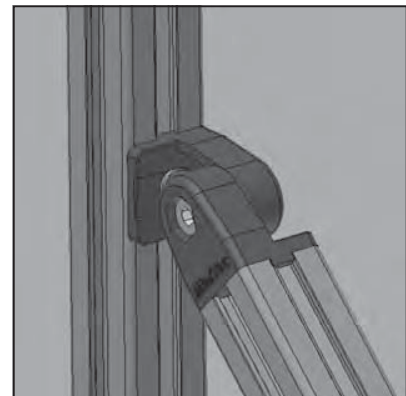
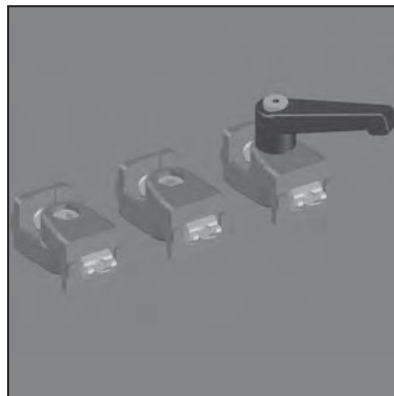
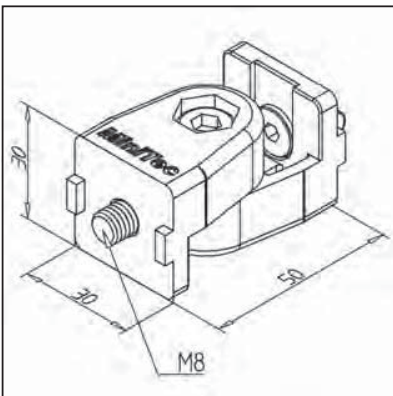
- Light doors
- Show cases, Fair equipment, guards
- Doors close without gap, bearing on the outside or flush on the inside

### 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 30 S

part no. 21.2106/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey	
- Fastening kit	
- Locking device against torsion	
- Weight	0,087 kg

### APPLICATIONS

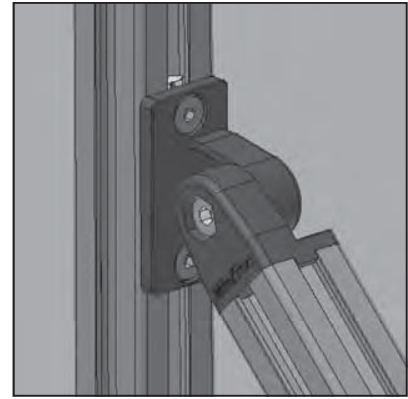
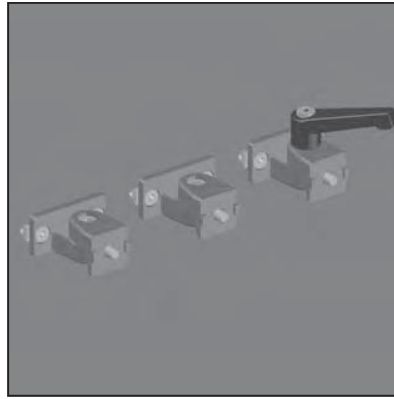
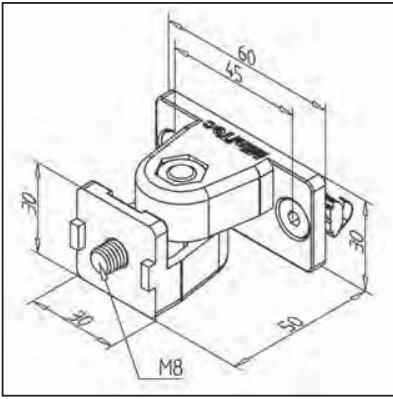
- Connection of profiles at any angle
- Subsequent insertion of profiles into existing frames
- Alternatively: Angle bracket 30 S **part no. 21.2222/0**
- Alternatively: Angle bracket fixed 30 S **part no. 21.2225/0**

### ASSEMBLY

- First part of hinge to be mounted on profile face
- Second part of hinge to be mounted on frame
- Screw both parts together on hinge point

## LINK 30 F / S

part no. 21.2105/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Locking device against torsion
- Weight 0,105 kg

### APPLICATIONS

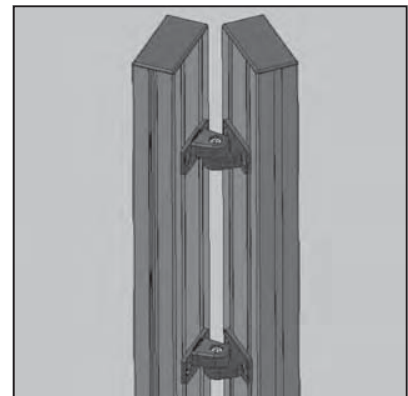
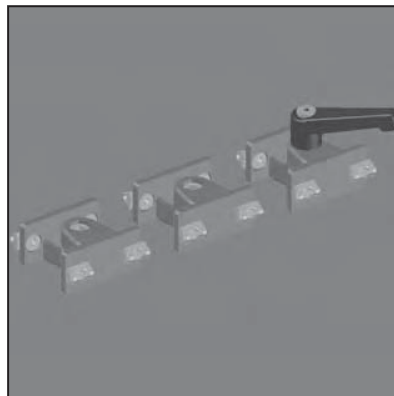
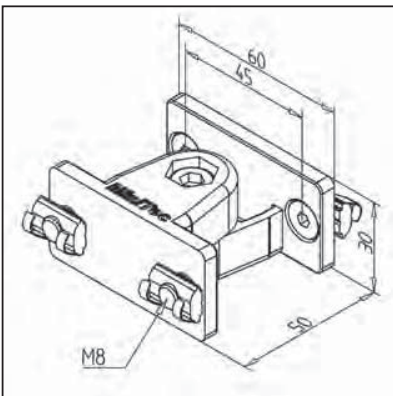
- Connection of profiles at any angle
- Subsequent insertion of profiles into existing frames
- Alternatively:  
Angle bracket 30 F / S **part no. 21.2221/0**
- Alternatively:  
Angle bracket fixed 30 F / S **part no. 21.2224/0**

### ASSEMBLY

- First part of hinge to be mounted on profile face
- Mount profile with angle bracket on frame

## LINK 30 F

part no. 21.2111/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Locking device against torsion
- Weight 0,126 kg

### APPLICATIONS

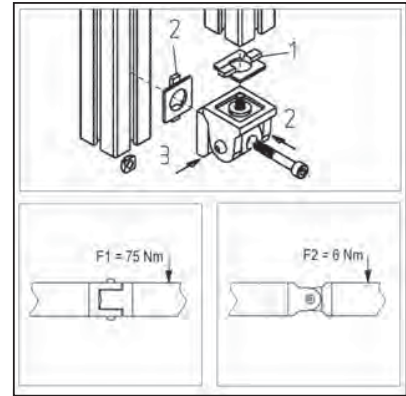
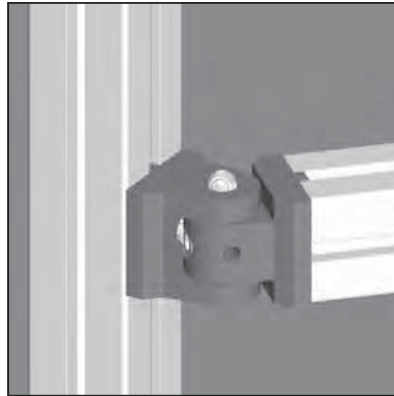
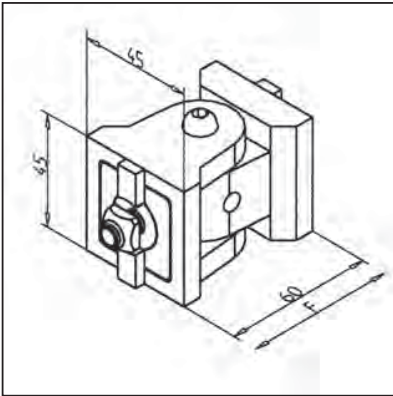
- Connection of profiles at any angle
- Subsequent insertion of profiles into existing frames
- Alternatively:  
Angle bracket 30 F **part no. 21.2223/0**
- Alternatively:  
Angle bracket fixed 30 F **part no. 21.2226/0**

### ASSEMBLY

- Fastening of hinges on profile groove
- Screw both parts together on hinge point

## LINK

part no. 21.2030/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

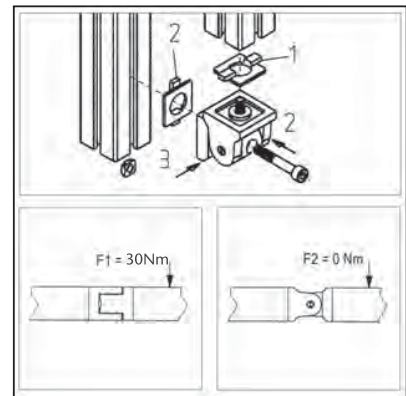
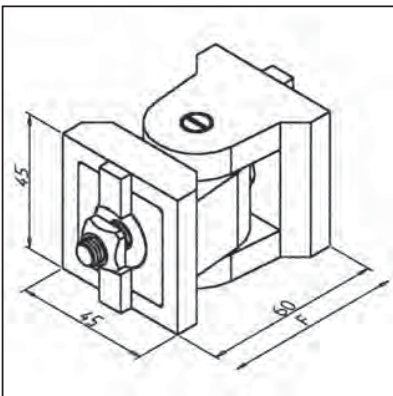
- Connection of profiles at any angle
- Braces
- Reinforcement of frame constructions
- Not to be used as a hinge

### ASSEMBLY

- 1: Joint half with pre-mounted screw to desired position fasten
- 2: Screw from scope of supply insert and joint half of 2 fix swivel (to it mobile side 90°)
- 3: Tighten lateral connecting screws

## ANGLE BRACKET

part no. 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

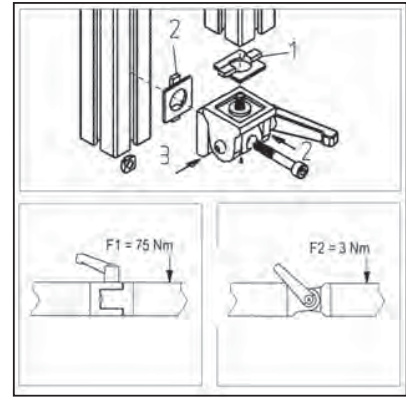
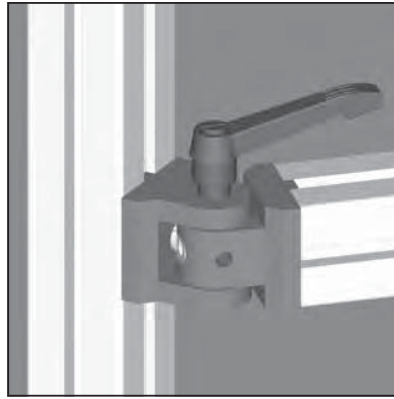
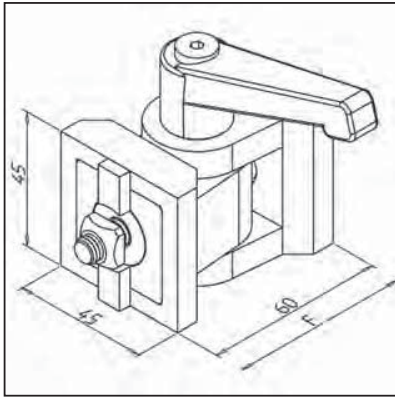
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Not lockable
- For heavy loads use multiple hinges

### ASSEMBLY

- 1: Joint half with pre-mounted screw to desired position fasten
- 2: Screw from scope of supply insert and joint half of 2 fix (to it, do not solve camp pins swivel mobile side 90°!)

## ANGLE BRACKET FIXABLE

part no. 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

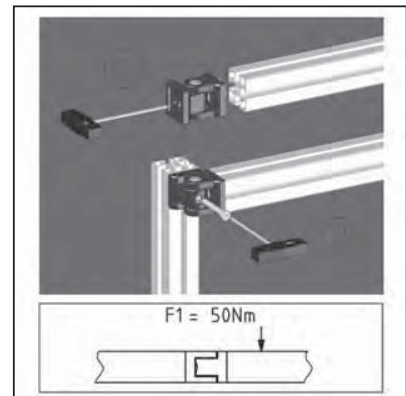
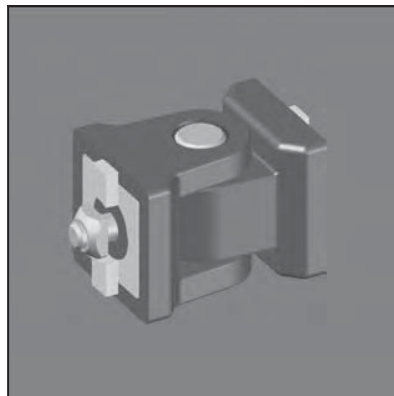
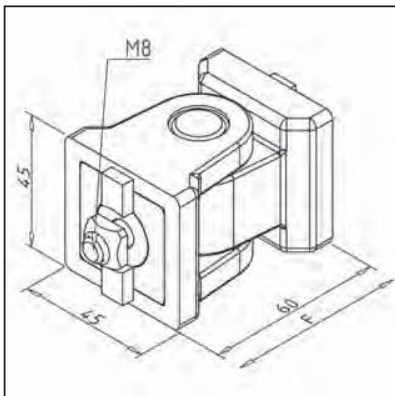
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Clamping lever for positioning of add-on parts
- Fixing of pieces such as measuring devices that need to be adjusted quickly
- For heavy loads use multiple hinges

### ASSEMBLY

- 1: Joint half with pre-mounted screw to desired position fasten
- 2: Insert screw M8 x 50 and fix hinge half 2
- 3: Tighten clamping lever

## ANGLE BRACKET 45 / 15

part no. 21.2315/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- AL GD locking device against torsion
- Load max. 2700 N
- Weight 0,312 kg

### APPLICATIONS

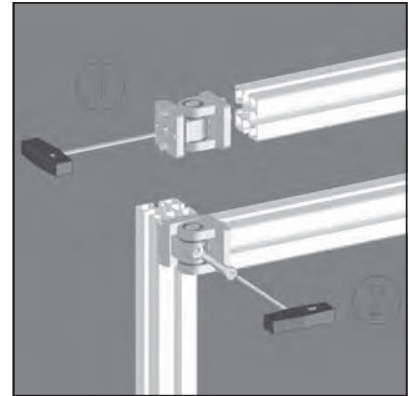
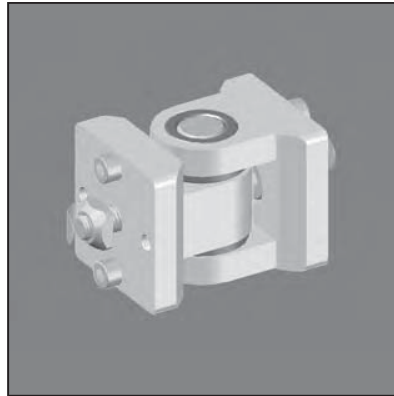
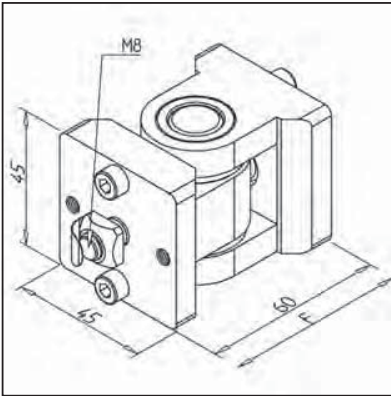
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Clamping lever for positioning of add-on parts
- For heavy loads use multiple hinges

### ASSEMBLY

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

## HEAVY DUTY HINGE

part no. 21.2034/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc-plated
- Fastening kit
- Locking device against torsion
- Load 3500 N
- Weight 0,679 kg

### APPLICATIONS

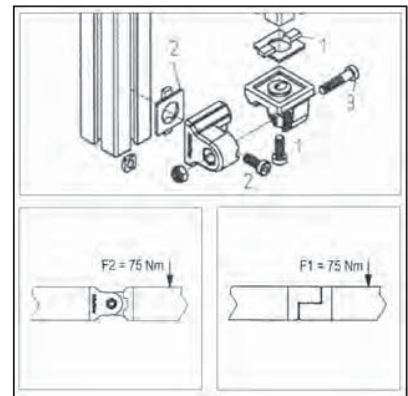
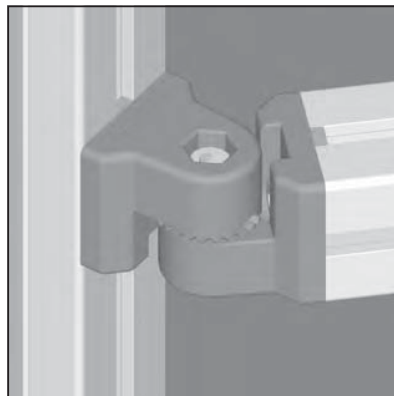
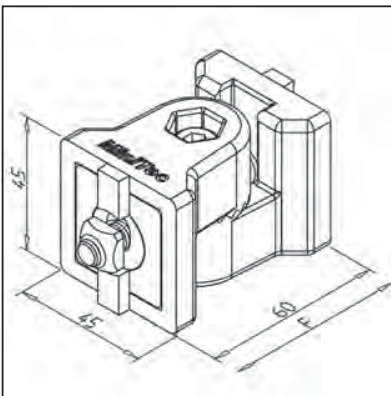
- Heavy swivel doors, bearing assembly of movable add-on pieces
- Not lockable
- For heavy loads use multiple hinges

### ASSEMBLY

- First part of hinge to be mounted on profile face
- Second part of hinge to be mounted on frame

## ANGLE BRACKET R

part no. 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

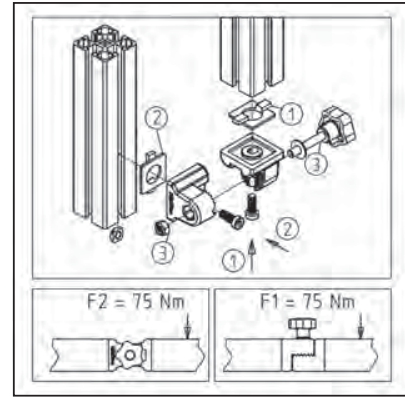
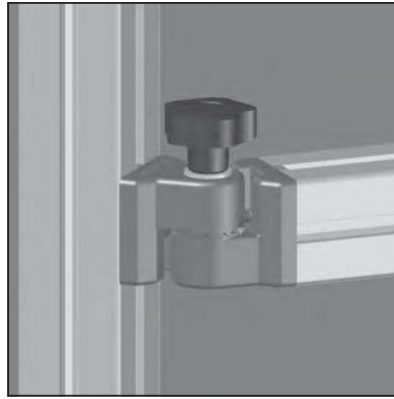
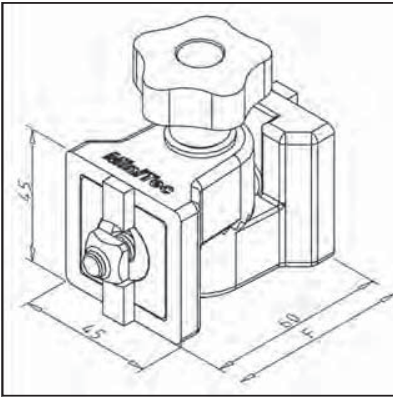
- Setting angle 180° in steps of 15°
- Adjustable fixing of add-on parts such as grip-boxes, beams or monitors
- Safe adjustment through tooth system

### 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 no. 21.2230/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Locking device against torsion AL GD
- Load max. 5000 N
- Weight 0,279 kg

### APPLICATIONS

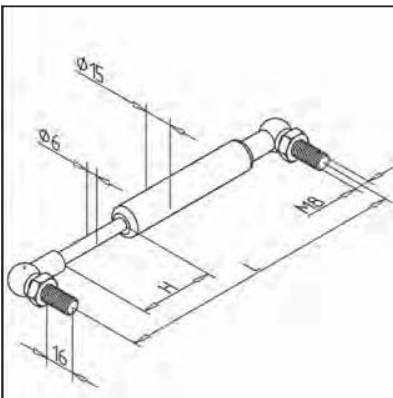
- Setting angle 180° in steps of 15°
- Adjustable fixing of add-on parts such as grip-boxes, beams or monitors
- Safe adjustment through tooth system

### 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 no. 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

- 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

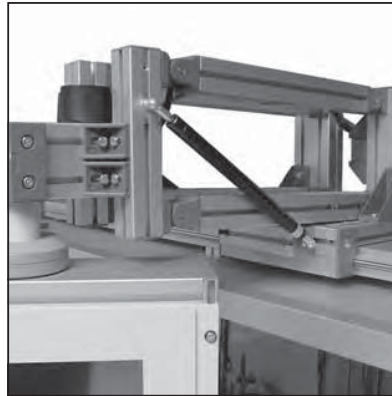
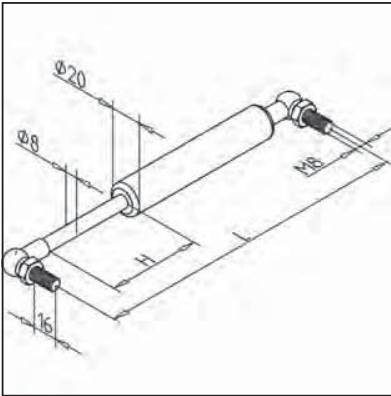
### APPLICATIONS

- Lift assist for hinged elements
- Suitable for lift and swivel movements

### ASSEMBLY

## GAS SPRING 8 / 20

part no. 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

- 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

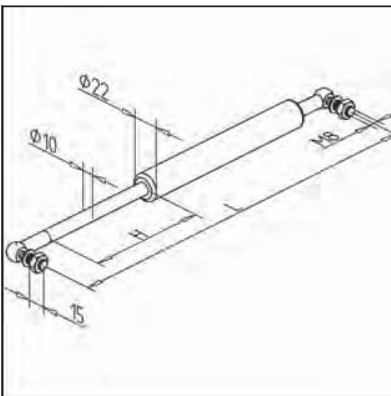
### APPLICATIONS

- Lift assist for hinged elements
- Suitable for lift and swivel movements

### ASSEMBLY

## GAS SPRING 10/22

part no. 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

- 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

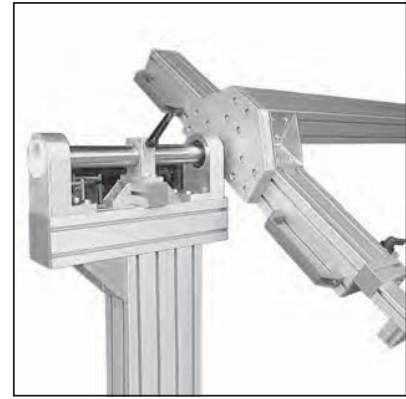
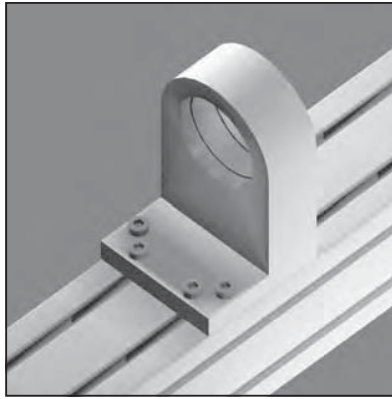
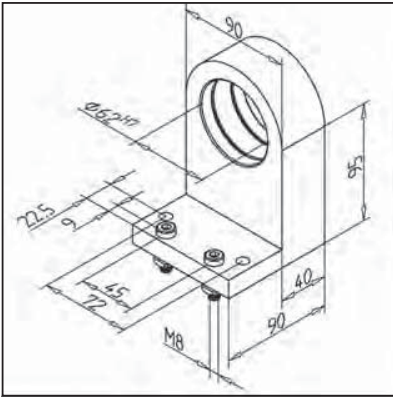
### APPLICATIONS

- Lift assist for hinged elements
- Suitable for lift and swivel movements

### ASSEMBLY

## UPRIGHT BEARING

part no. 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

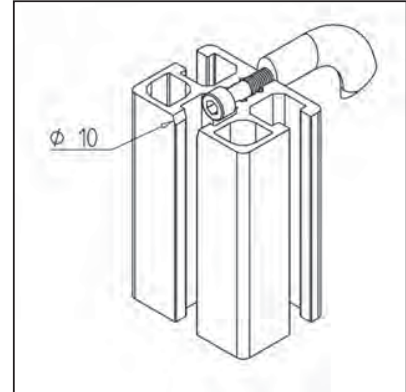
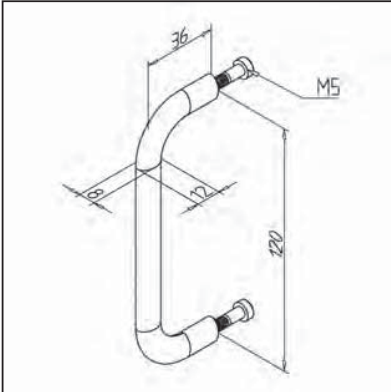
### ASSEMBLY

- Location hole fitting for radial ball bearing 6206 2RS **part no. 50.0977/1**
- Use fastening kit



## HANDLE AL

part no. 21.1138/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

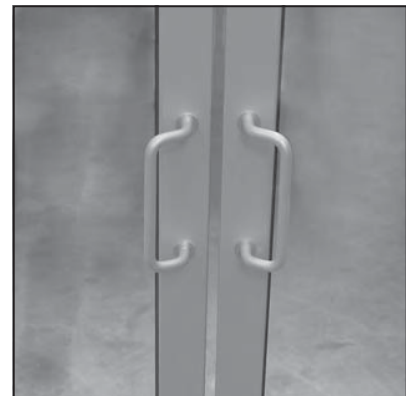
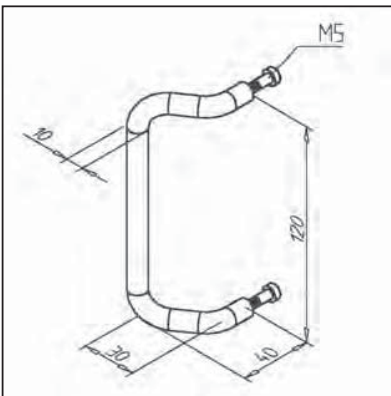
- Show cases
- Cabinets
- Light doors

### ASSEMBLY

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

## HANDLE AL ANGLED

part no. 21.1348/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

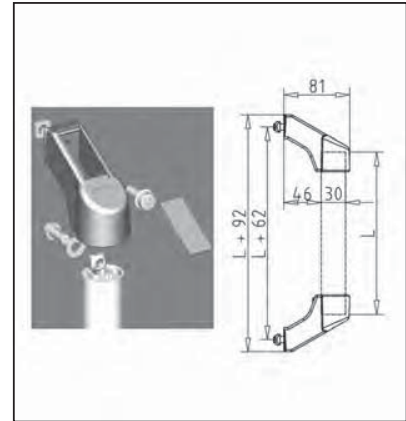
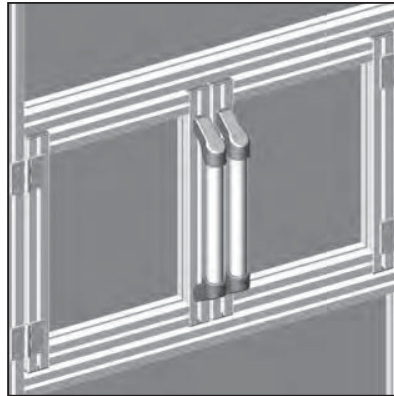
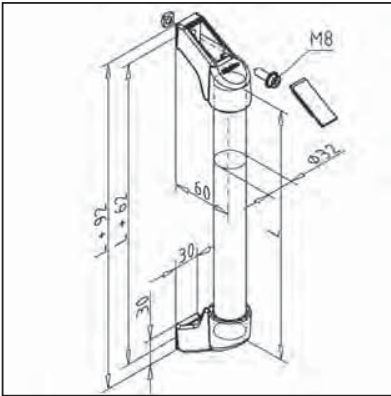
- Show cases
- Cabinets
- Light doors

### ASSEMBLY

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

## HANDLE GP

part no. 21.2317/0



### TECHN. DATA / ITEMS SUPPLIED

- Handle profile aluminium, anodized E6/ EV1
- Bracket ABS, grey
- Fastening kit steel, zinc-plated
- Weight 0,247 kg
- Length 300 mm

- Other lengths on request

- Please measure L specify

- Construction set without profile part no. 21.2317/1

### APPLICATIONS

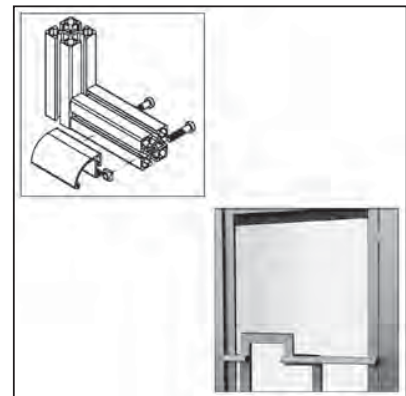
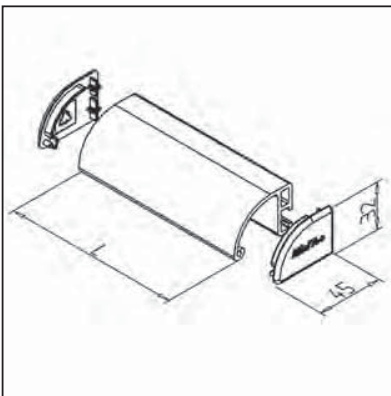
- Doors and lids
- Creeper
- Railing

### ASSEMBLY

- Attach bracket to handle profile
- Attach handle to profile grooves using mounting material from fastening kit

## CLOSED PROTECTIVE HANDLE

part no. 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

- Please measure L specify

### APPLICATIONS

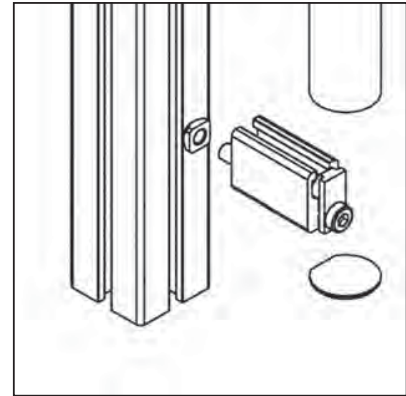
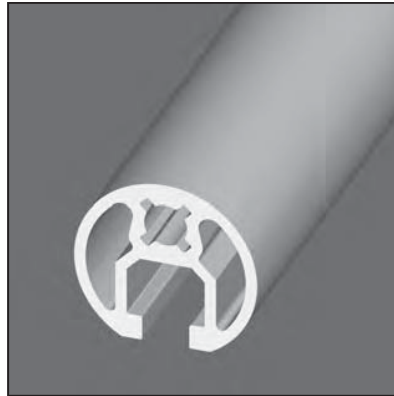
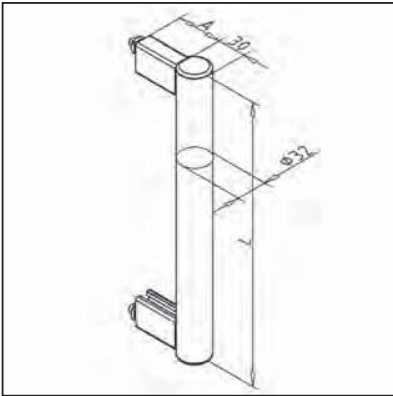
- Doors
- Lids
- Guards
- Furniture

### ASSEMBLY

- On profile groove with 2 hex socket cap screws M6 x 16 and square nut M6
- Directly on panel element with hex 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

## PROFILE HANDLE 32

part no. 21.0962/0



### TECHN. DATA / ITEMS SUPPLIED

- Assembly kit made from MiniTec aluminium profiles
- Fastening kit
- Weight 0,510 kg
- Length (L) 300 mm
- Standard distance (A) 48 mm
- **Other lengths on request**
- **Please specify dimension L and A level**

### APPLICATIONS

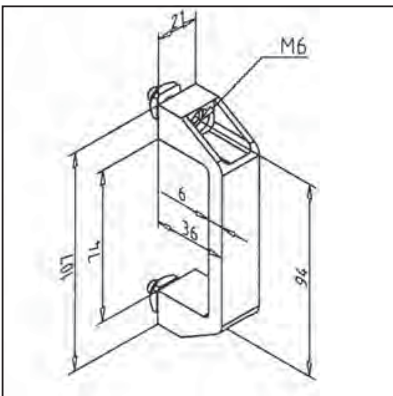
- Handle for very large doors, lids, trolleys, removable panel elements

### 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

## HANDLE 90

part no. 21.1099/1



### TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black **part no. 21.1099/0**
- Fastening kit
- Weight 0,025 kg

### APPLICATIONS

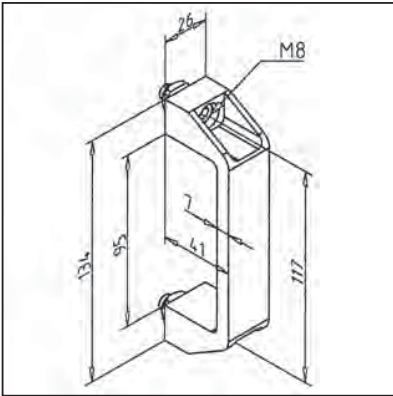
- Doors
- Lids
- Guards

### ASSEMBLY

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

## HANDLE 120

part no. 21.1092/1



### TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black  
**part no. 21.1092/0**
- Fastening kit
- Weight 0,074 kg
- On request ESD capability available in black **part no. 32.1007/0**

### APPLICATIONS

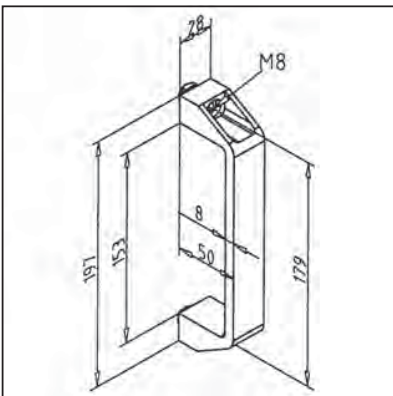
- Doors
- Lids
- Guards

### ASSEMBLY

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

## HANDLE 180

part no. 21.1094/1



### TECHN. DATA / ITEMS SUPPLIED

- PA 6.6, grey
- On request also deliverable in black  
**part no. 21.1094/0**
- Fastening kit
- Weight 0,099 kg

### APPLICATIONS

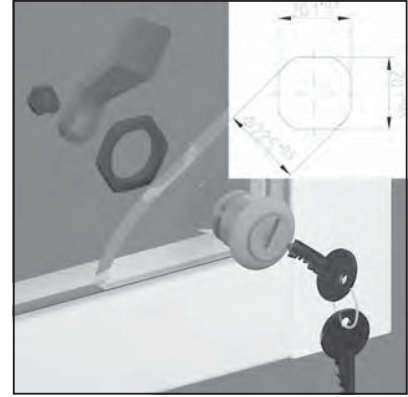
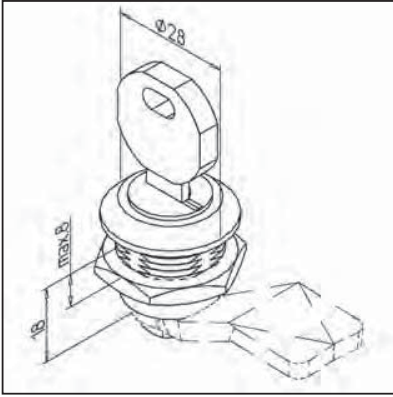
- Doors
- Lids
- Guards

### ASSEMBLY

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

## CYLINDER LOCK

part no. 21.1752/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

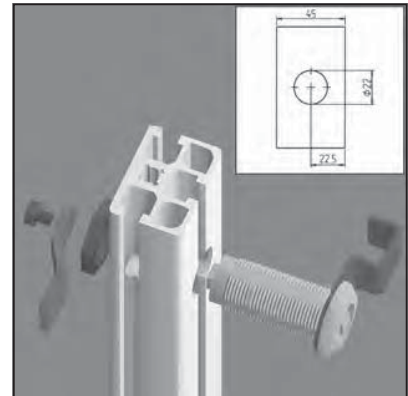
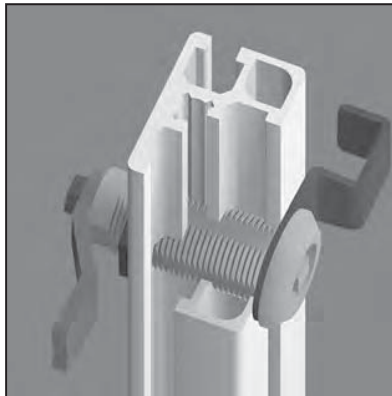
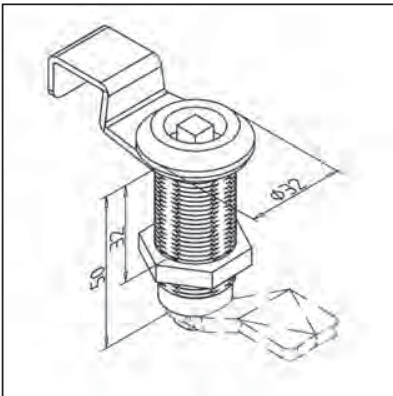
- Light doors from panel elements up to 8 mm thickness

### ASSEMBLY

- Bore Ø 22 mm in panel element
- Position: 22 mm from edge in both directions
- Selection of locks see page 132

## BOLT LOCK 32 FOR FOUR-FACED KEY

part no. 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

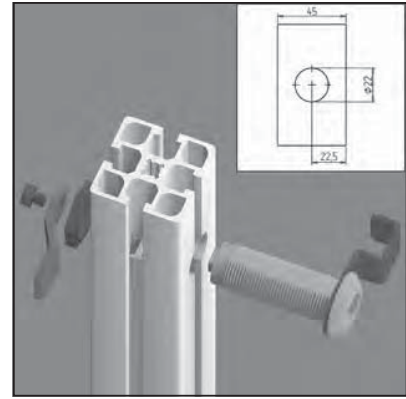
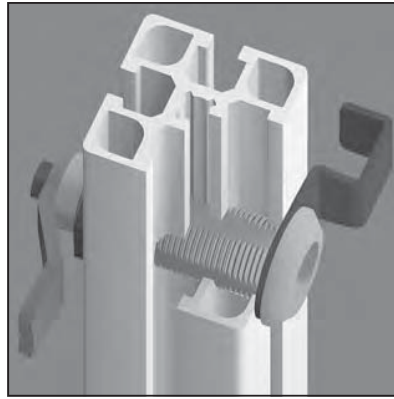
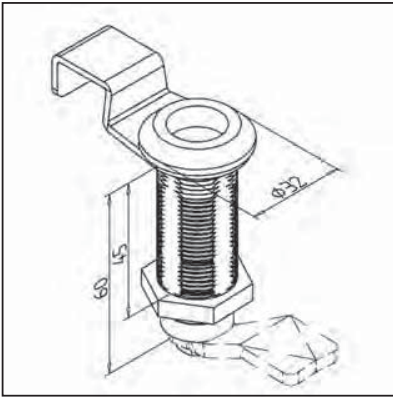
### APPLICATIONS

- 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 132

## BOLT LOCK 45 SOCKERT HEX HEAD WRENCH 10 A/F part no. 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

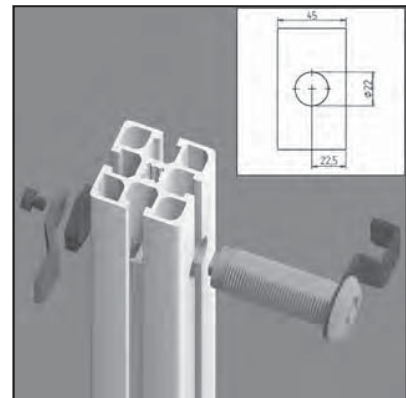
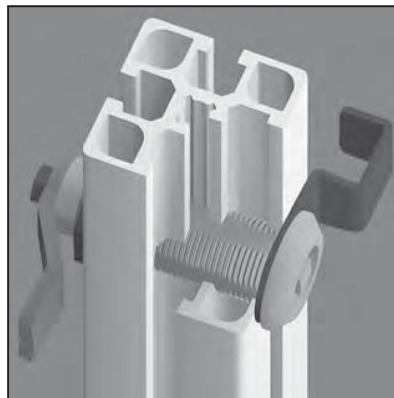
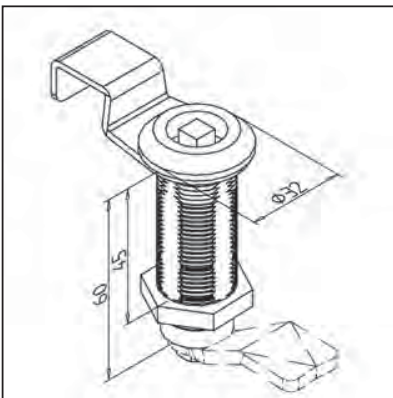
### APPLICATIONS

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

### ASSEMBLY

- Bore Ø 22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 132

## BOLT LOCK 45 FOR FOUR-FACED KEY part no. 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

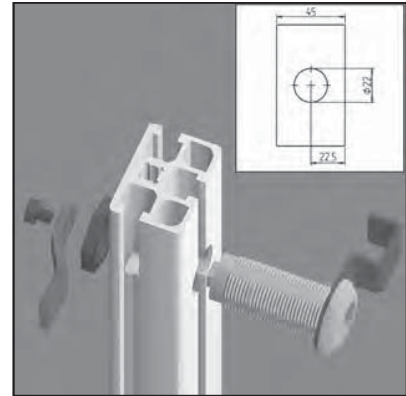
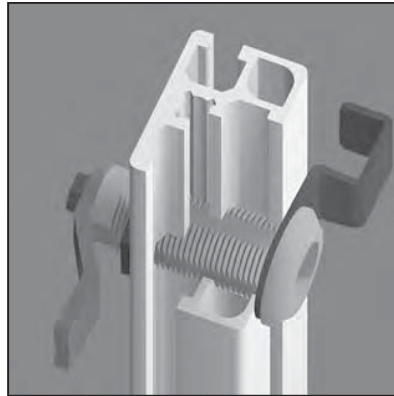
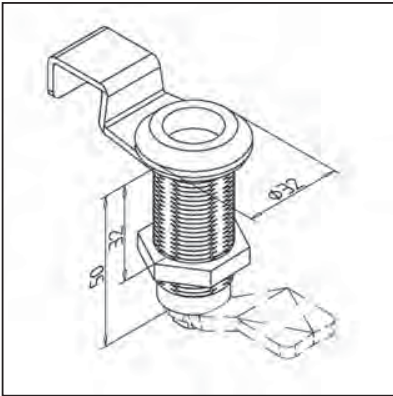
- For profiles 45
- Locking of doors and lids in guard units

### 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 132

## BOLT LOCK 32 SOCKET HEX HEAD WRENCH A/F 10

part no. 21.1087/8



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

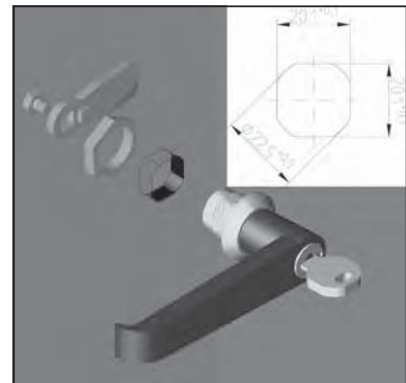
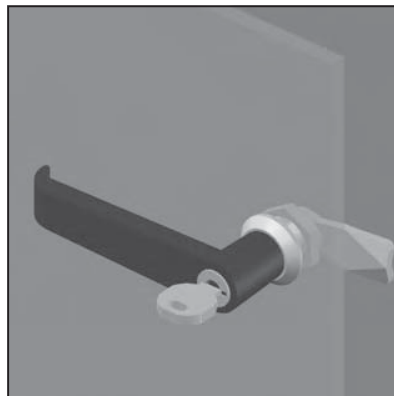
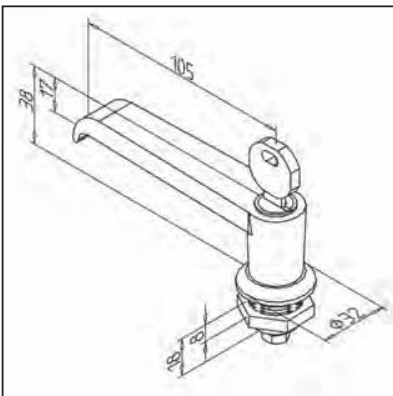
- For profiles 32
- Locking of doors and lids in guard units

### ASSEMBLY

- Bore  $\varnothing$  22 mm in the middle of the profile
- Tighten bolt lock from the rear with fixing nut
- Selection of locks see page 132

## HANDLE 8 WITH PROFILE CYLINDER LOCK GREY

part no. 21.2305/0



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- Fixing nut, steel, zinc-plated
- Without lock
- Weight 0,145 kg

### APPLICATIONS

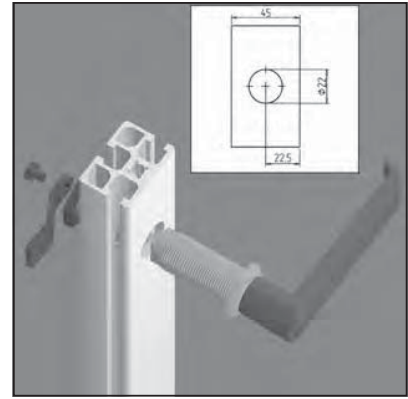
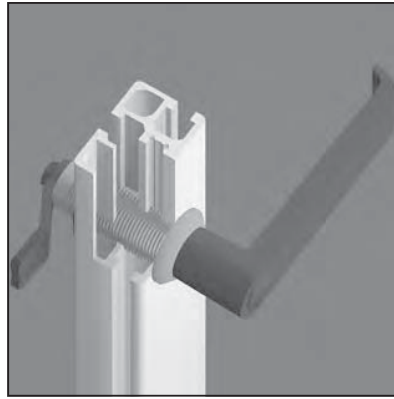
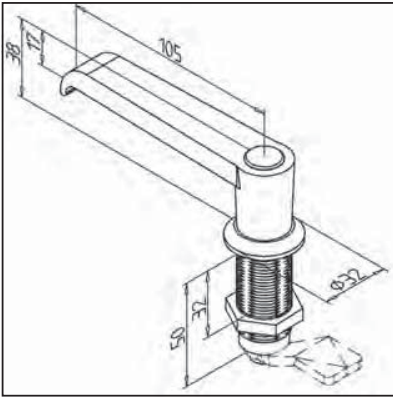
- Locking of doors and lids in guard units
- For panel elements up to 8 mm thickness

### ASSEMBLY

- Drill borehole according to drawing
- Tighten handle lock from the rear with fixing nut

## HANDLE 32 WITHOUT PROFILE CYLINDER LOCK

part no. 21.1087/4



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black **part no. 21.1087/2**
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,172 kg

### APPLICATIONS

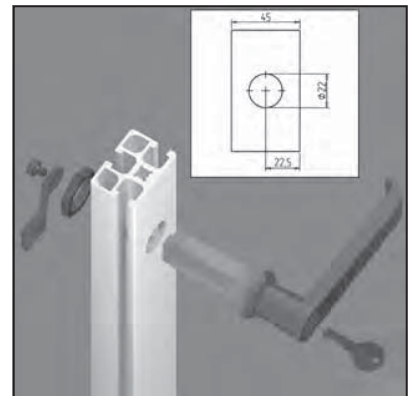
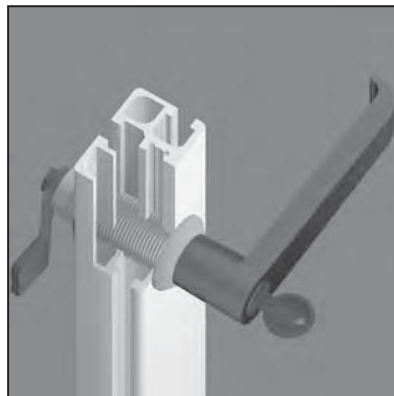
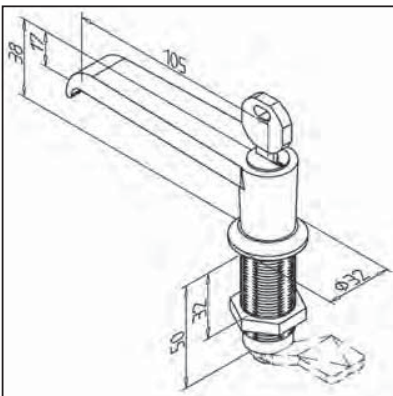
- For profiles 32
- Locking of doors and lids in guard units

### 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 132

## HANDLE 32 WITH PROFILE CYLINDER LOCK

part no. 21.1091/4



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black **part no. 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

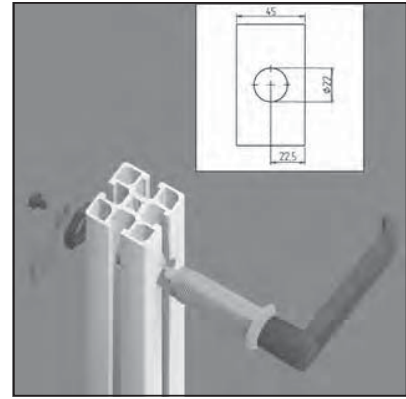
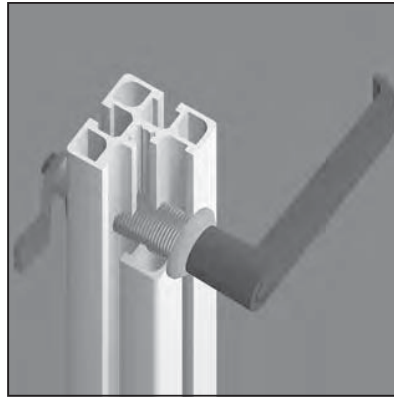
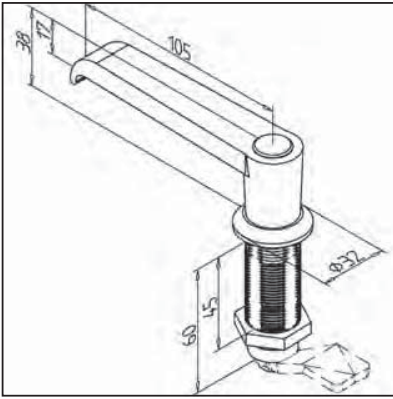
### ASSEMBLY

- Bore  $\varnothing$  22 mm in the middle of the profile
- Tighten handle lock from the rear with fixing nut
- Selection of locks see page 132



## HANDLE 45 WITHOUT PROFILE CYLINDER LOCK

part no. 21.1087/3



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA/GD Zn, grey
- On request also deliverable in black **part no. 21.1087/1**
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,195 kg

### APPLICATIONS

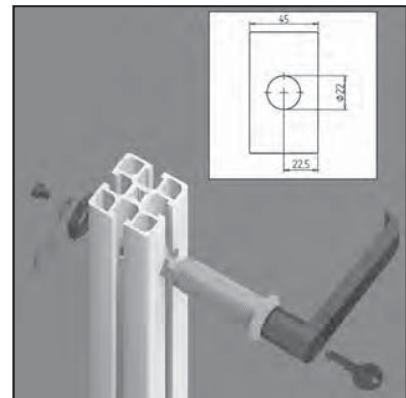
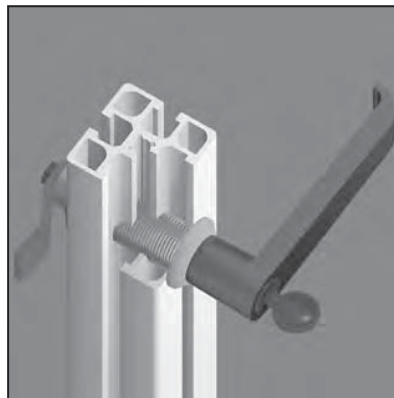
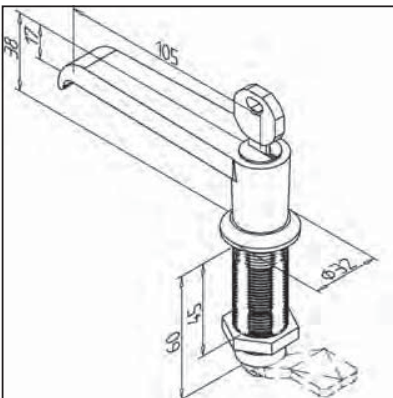
- For profiles 45
- Locking of doors and lids in guard units

### ASSEMBLY

- Bore  $\varnothing$  22 mm in the middle of the profile
- Tighten handle lock from the rear with fixing nut
- Selection of locks see page 132

## HANDLE 45 WITH PROFILE CYLINDER LOCK

part no. 21.1091/3



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA / GD Zn, grey
- On request also deliverable in black **part no. 21.1091/1**
- Fixing nut, steel, zinc plated
- Without lock
- Weight 0,230 kg

### APPLICATIONS

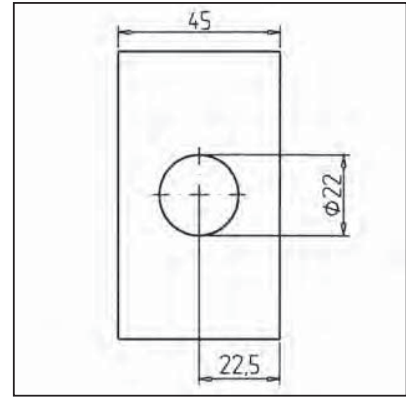
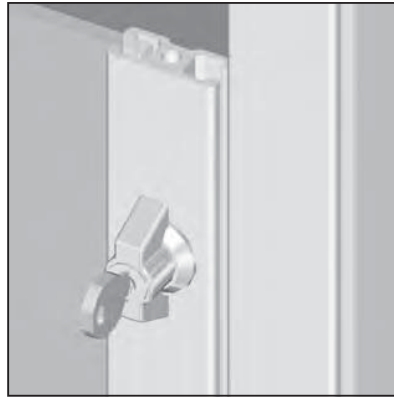
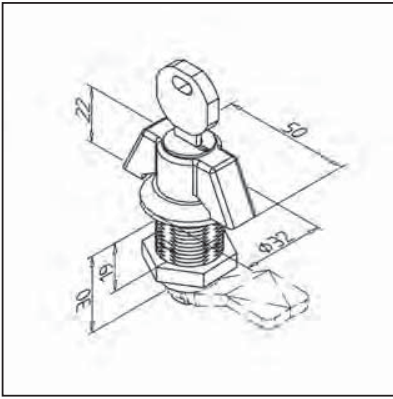
- For profiles 45
- Locking of doors and lids in guard units

### 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 132

## T-HANDLE 19

part no. 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

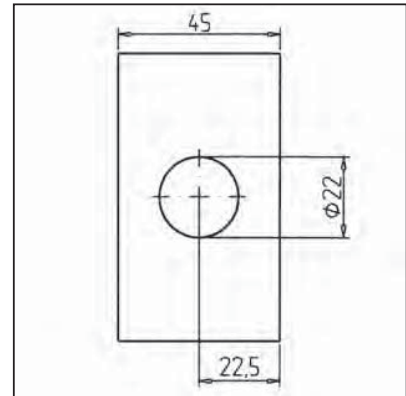
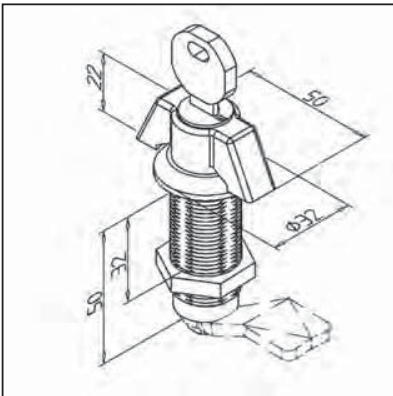
- For profiles 19
- Locking of doors and lids in guard units

### 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 132

## T-HANDLE 32

part no. 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

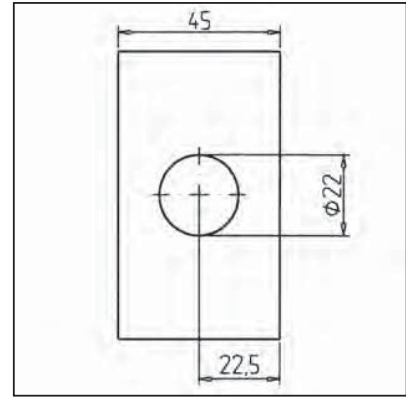
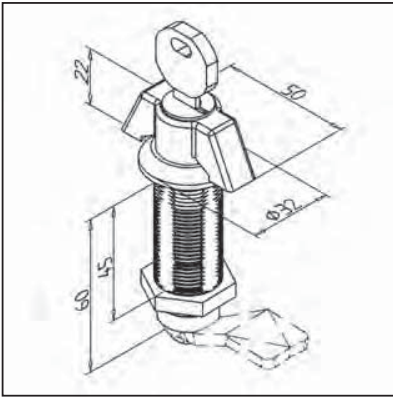
- For profiles 32
- Locking of doors and lids in guard units

### 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 132

## T-HANDLE 45

part no. 21.1015/1



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

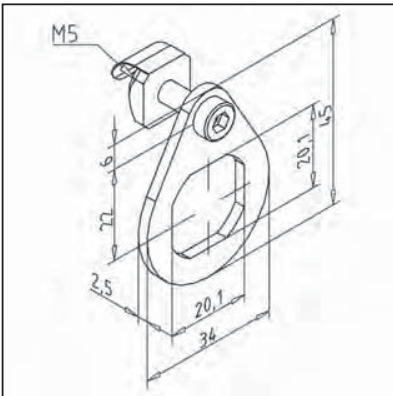
- For profiles 45
- Locking of doors and lids in guard units

### 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 132

## TWIST-STOP F

part no. 21.0941/0



### TECHN. DATA / ITEMS SUPPLIED

- 1.4305 / steel zinc-plated
- Fastening kit
- Weight 0,0213 kg

### APPLICATIONS

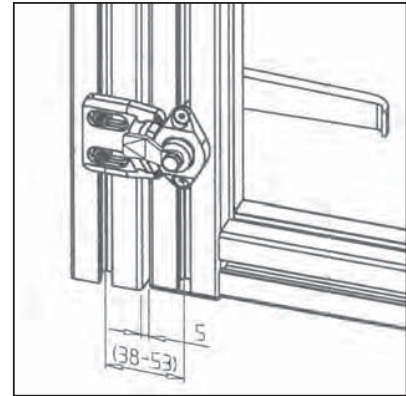
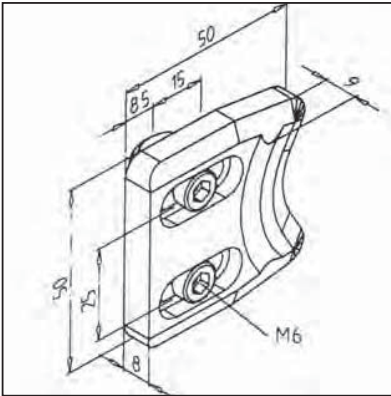
- Protection of bolt-locks, handles and T-handles against unwanted loosening or overturning
- In particular fitting in combination with Door stop S, **part no. 21.1767/0**

### ASSEMBLY

- Mount handle or bolt lock as usual, fasten hexagon nut
- Fix Twist-Stop F using fastening kit
- Mount lock

## DOOR STOP 5

part no. 21.1767/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

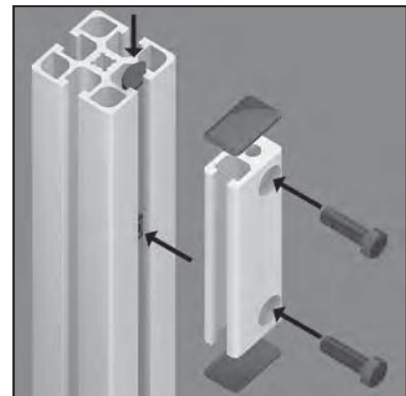
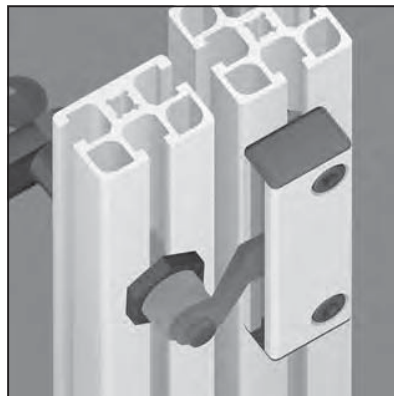
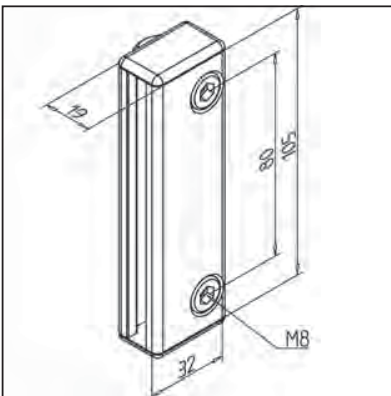
- Adjustable stop for swing doors
- Especially designed for use in combination with handles, bolt-locks or T-handles
- Also door catch

### ASSEMBLY

- Screw with fastening kit on door frame
- See page 132

## CATCH 19

part no. 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

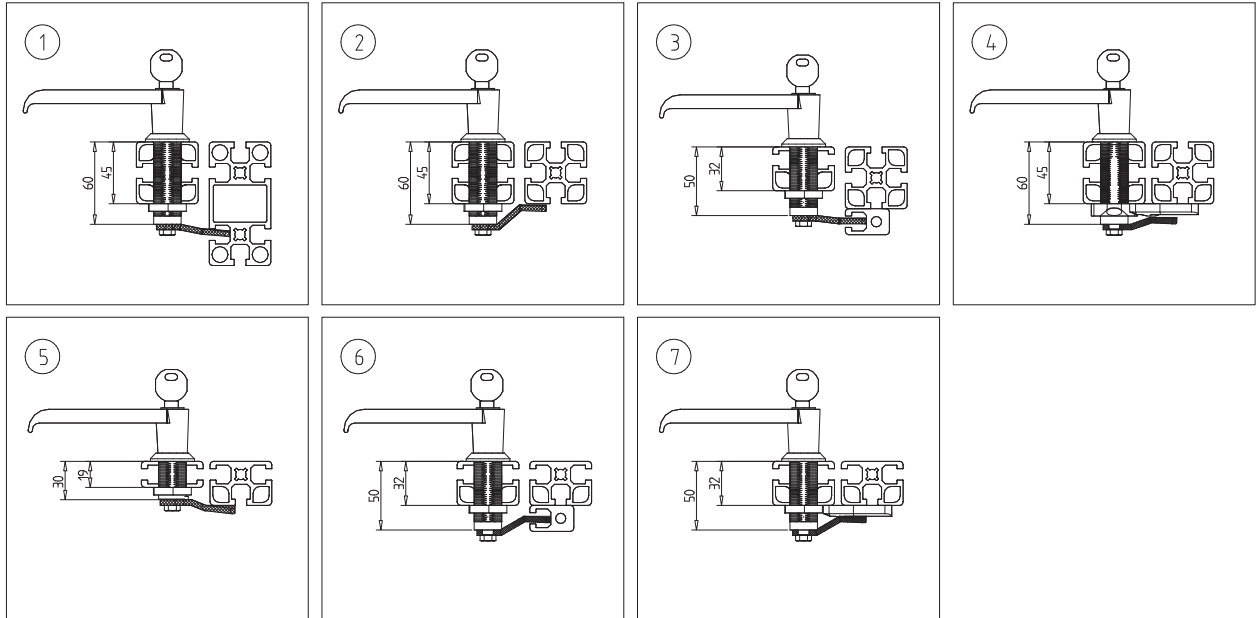
### ASSEMBLY

- Use fastening kit
- Selection of locks see page 132

# LOCKS

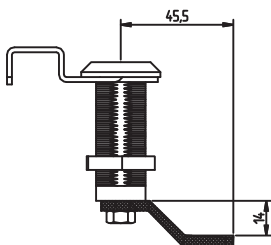
## FITTING PRINCIPLES & SELECTION OF LOCKS

### FITTING PRINCIPLES

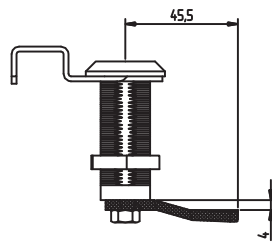


### SELECTION OF LOCKS

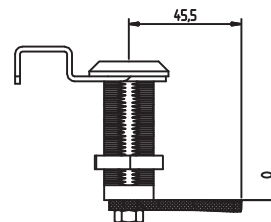
DOOR PROFILE	Door profile 45 x 45 mm	Door profile 32 X 45 mm	Door profile 19 X 45 mm	Surface element 4-8 mm
	Handle, T-Handle or Bolt lock 45	Handle, T-Handle or Bolt lock 32	Handle, T-Handle or Bolt lock 19	CYLINDER LOCK
	part no. of locks			
① 90 x 45	21.1093/1	21.1093/0	-	21.1093/2
② 45 x 45	21.1093/5	21.1093/3	21.1093/4 o. /0	21.1093/2
③ with Catch 19	21.1093/4	21.1093/2	-	-
④ with Door catch S	21.1093/3	21.1093/1	-	-
⑤ 32 x 45	-	-	21.1093/1	-
⑥ with Catch 19	-	21.1093/5	-	21.1093/0
⑦ with Door catch S	-	21.1093/4	21.1093/0	-



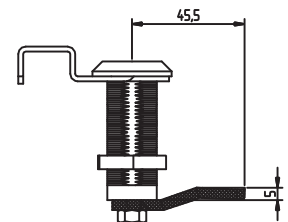
part no. 21.1093/0



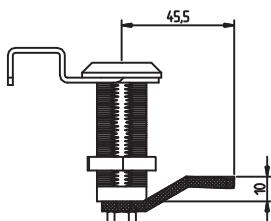
part no. 21.1093/1



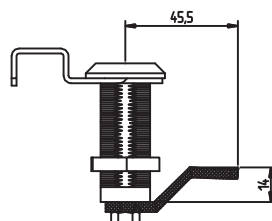
part no. 21.1093/2



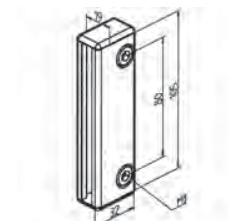
part no. 21.1093/3



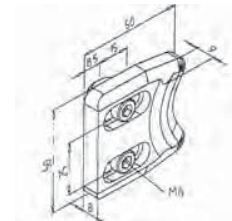
part no. 21.1093/4



part no. 21.1093/5



Catch 19  
part no. 21.1755/0



Door catch S  
part no. 21.1767/0

## ROD LOCK

### ONE OR TWO-SIDED LOCKING

#### Items supplied

- Bolt lock, steel, black with square key
- Guiding element, steel, galvanized
- Latch with rollers (l = 1100 mm), steel, galvanized
- Rod guide, plastic, black with injected nut M6

#### Optional

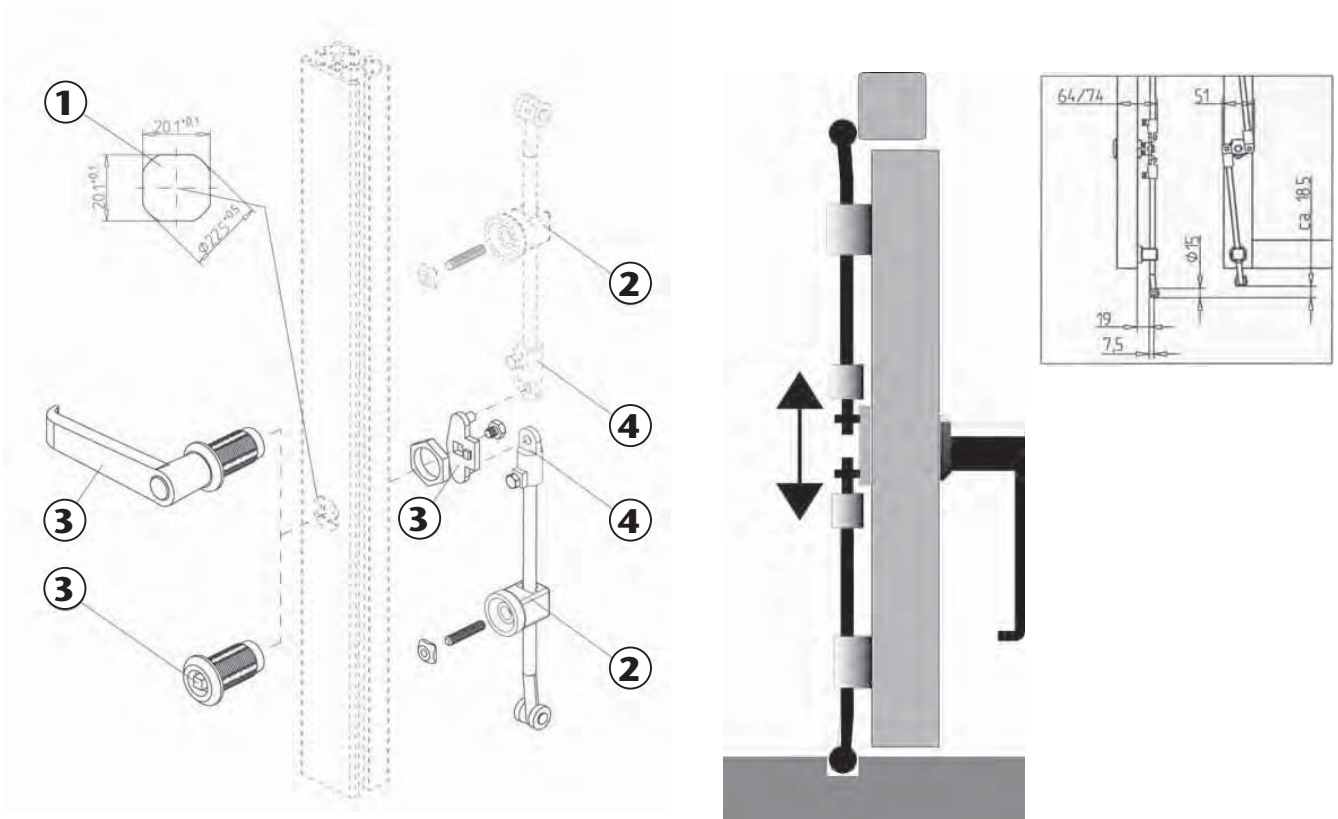
- Handle with or without lock

#### 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

### AVAILABLE VERSIONS

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



#### 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

## ROD LOCK WITH FALLING LATCH

### TWO-SIDED INTERLOCK WITH FALLING LATCH

#### Items supplied

- ① Rod lock insert
- ② handle
- ③ Falling latch (2 pcs.)
- ④ Adaptors for rods
- ⑤ Rods with lug (Lmax = 1200) (2 pcs.)

#### Application

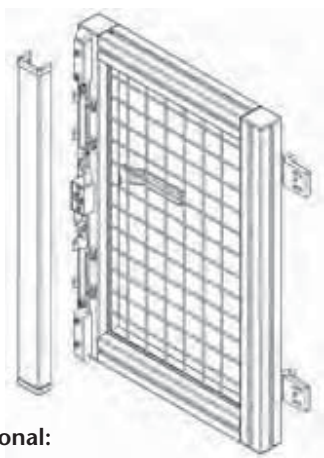
- For locking doors at upper and lower beam
- Especially suited for doors in frames
- Max. door height 2750 mm

#### Optional

- ⑥ Cable channel part no. 20.1071/0
- ⑦ Protecting cap for cable channel part no. 22.1117/1
- ⑧ Cable clip part no. 22.1210/0

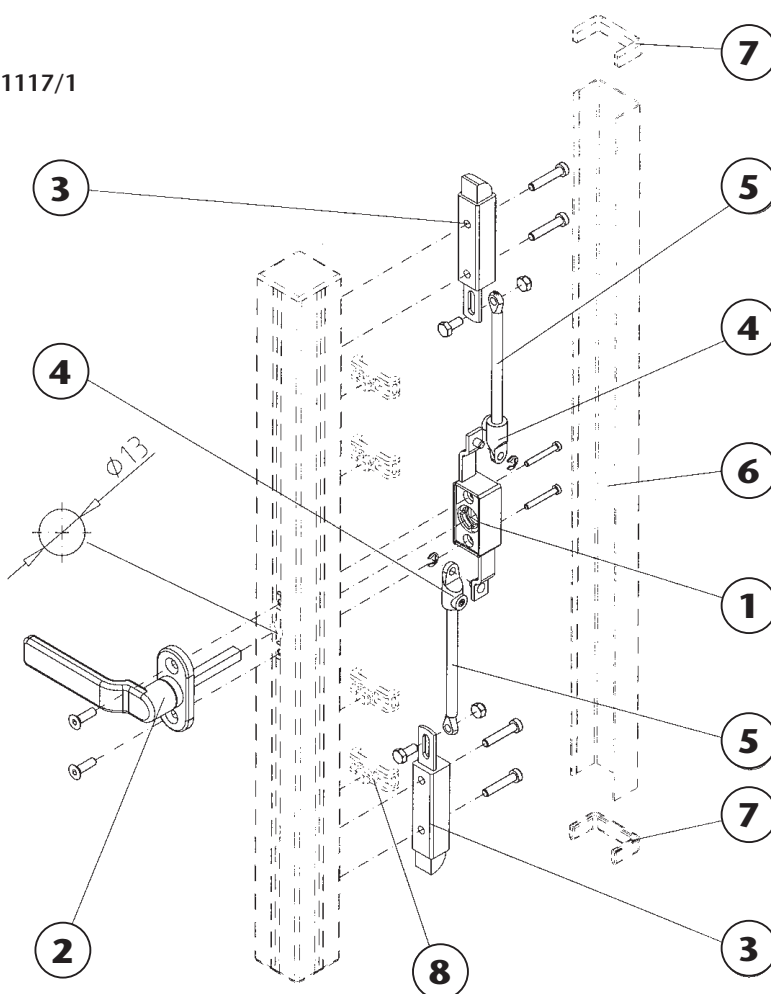
#### Assembly

- ① Bore  $\varnothing$  13 mm in vertical door profile
- ② Screw lock and falling latch at door profile
- ③ Cut rods according to your doorsize.  
Mount adaptors at rod-ends. Link rods with lock and falling latch
- ④ Insert handle and fix
- ⑤ Adjust falling latch



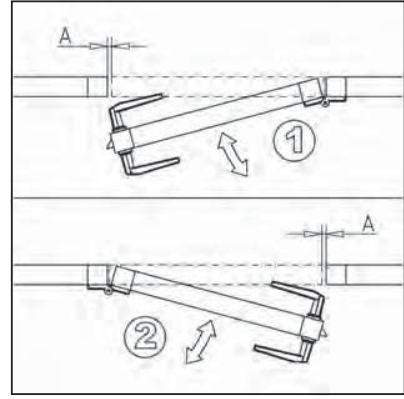
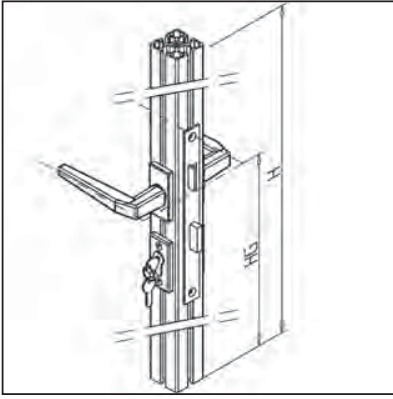
#### Optional:

Rod cover with cable channel



## DOOR HANDLE

part no. 21.1748/0



### TECHN. DATA / ITEMS SUPPLIED

- Door Lock steel, zinc-plated, fitted in profile 45x45
  - Fittings aluminum anodized
  - Profile cylinder with 3 keys mounted
  - Weight 0,850 kg
  - Weight + 1,950 kg/m
- 
- **Standard version**
  - H = 2000mm
  - HG = 1000mm
  - **Other lengths and profiles on request**
  - **Please specify dimension H and HG level**
  - **Please specify a version 1 or 2**
  - Construction set without profile
  - part no. 21.1748/2**

### APPLICATIONS

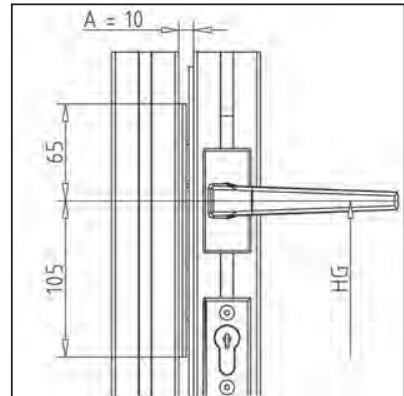
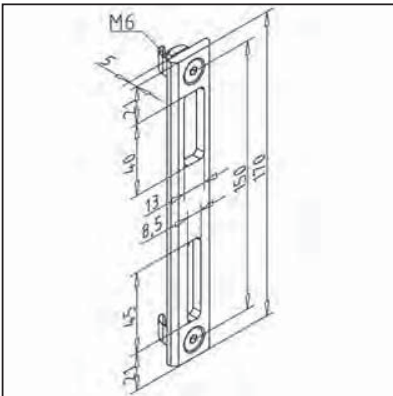
- Swing doors for guard units
- Other embodiments and profiles on request , for Example, G - sided profile with fixed knob but without lock mounting

### ASSEMBLY

- Allow 5mm space between door and frame
- Using striking plate with 10 mm gap
- Closing wedge engages in opposite groove
- Position horizontal profile offside lock area or use counter sunk screw M8 x 25

## STRIKING PLATE FOR DOOR LOCK

part no. 21.0966/0



### TECHN. DATA / ITEMS SUPPLIED

- Profile 19 x 32
- Fastening kit
- Weight 0,061 kg

### APPLICATIONS

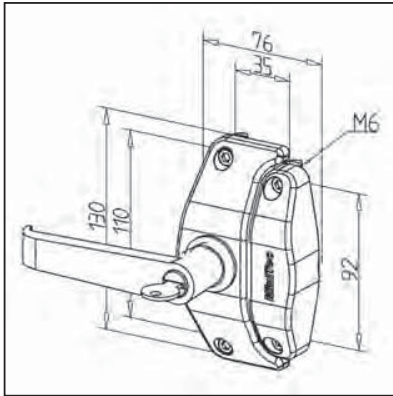
- Locking of doors and lids in connection with handles or bolt locks
- No post processing required to profile groove of the door pillar

### ASSEMBLY

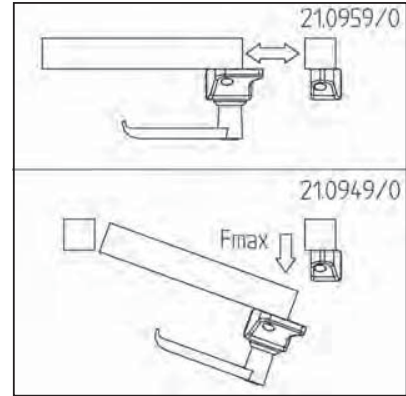
- Use fastening kit
- Door gap at lock 10 mm



## ROTARY LOCK 30



part no. 21.0949/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 210949/0            0,432 kg
- Weight 210959/0            0,441 kg
- Fmax.                            1000 N

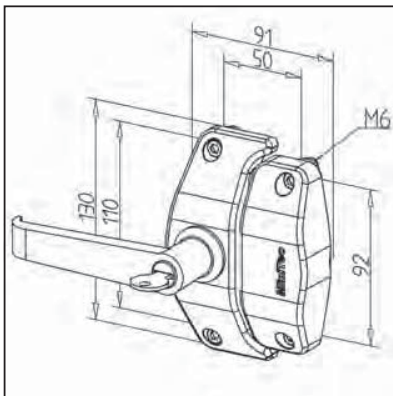
### APPLICATIONS

- Rotary Lock 30 for swing doors:  
**part no. 21.0949/0**
- Rotary Lock 30 for sliding doors:  
**part no. 21.0959/0**
- For profiles series 30
- Locking of doors and lids
- No processing of profile necessary
- Position moveable

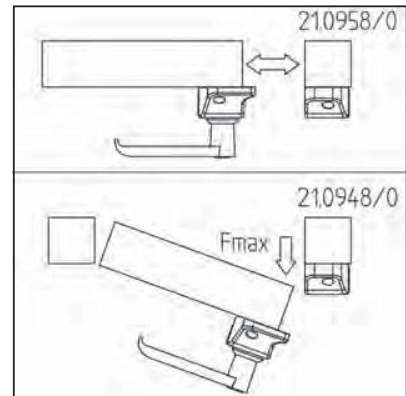
### ASSEMBLY

- Use fastening kit
- Fastening on profile groove - without processing/boring of profiles

## ROTARY LOCK 45



part no. 21.0948/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 210948/0            0,476 kg
- Weight 210958/0            0,493 kg
- Fmax.                            2200 N

### APPLICATIONS

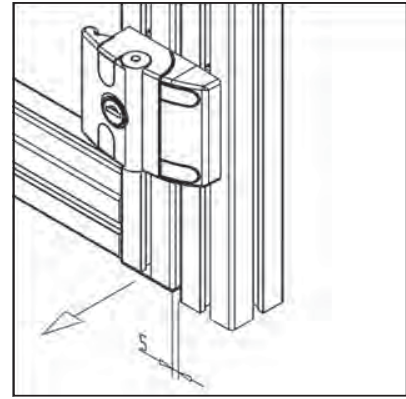
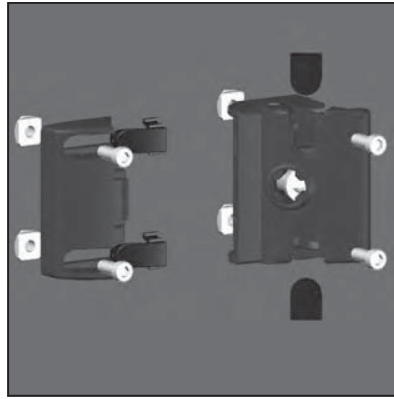
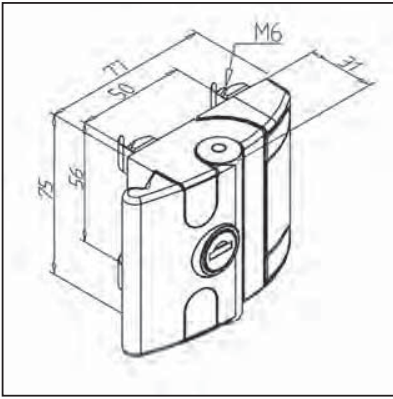
- Rotary lock 45 for swing doors:  
**part no. 21.0948/0**
- Sliding door lock 45 for sliding doors:  
**part no. 21.0958/0**
- Locking of doors and lids
- No processing of profile necessary
- Position moveable

### ASSEMBLY

- Use fastening kit
- Fastening on profile groove - without processing/boring of profiles
- No extra door stop necessary

## TRUNK LOCK COMPACT

part no. 21.2311/0



### TECHN. DATA / ITEMS SUPPLIED

- GD-Zn, black
- Lock cylinder with two keys
- Fastening kit
- Weight 0,255 kg

### APPLICATIONS

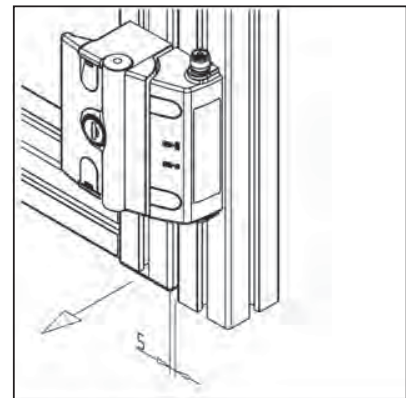
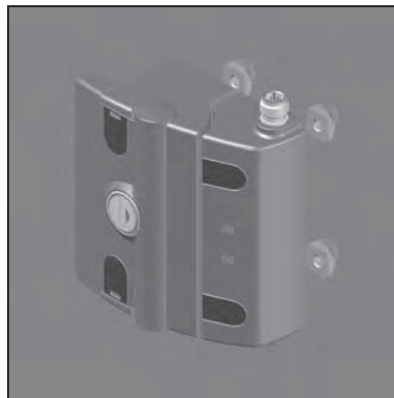
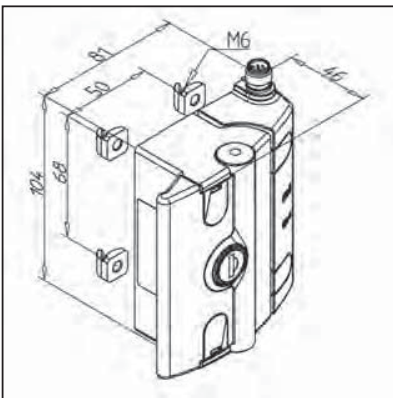
- Closing of doors and lids in guard units
- At the same door stop
- Also suitable for frameless doors
- Closed trunk can not be removed

### ASSEMBLY

- Mount trunk lock on the door and jamb and mount screw cover
- To mount no profile be required

## TRUNK LOCK WITH QUERY

part no. 21.2323/0



### TECHN. DATA / ITEMS SUPPLIED

- GD-Zn, black
- Lock cylinder with two keys
- Fastening kit
- Reliability values according to EN ISO 13849-1 category 4 performance Level PL<sub>e</sub>
- Operating voltage DC24V ±15%
- 2 safety outputs, p-type, short-circuit proof
- Connection type M12, 8-pin
- UL-approved
- Weight 0,448 kg

### APPLICATIONS

- Closing and securing doors and lids kat. 4 / PL<sub>e</sub> thanks to integrated transponder coded technology
- At the same door stop
- Closed trunk lock can not be removed

### ASSEMBLY

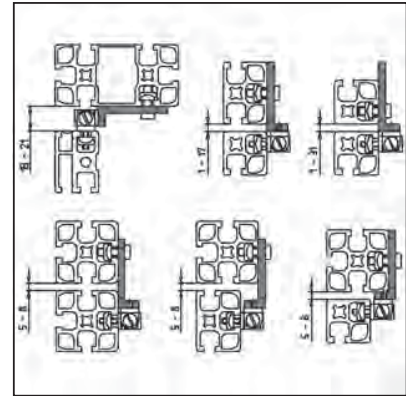
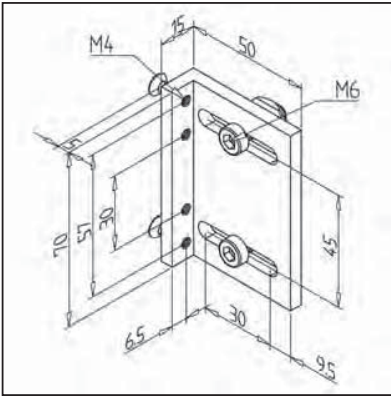
- Mount trunk lock on the door and jamb and mount screw cover
- Electrical connection may also optionally be mounted below
- To mount no profile be required
- Matching leads available on request





## BALL LATCH SUPPORT 70

part no. 21.1137/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized

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- Fastening kit

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- Weight 0,050 kg

### APPLICATIONS

- Attachment of ball latch 70 in doors, lids, removable panel elements

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- Door stop

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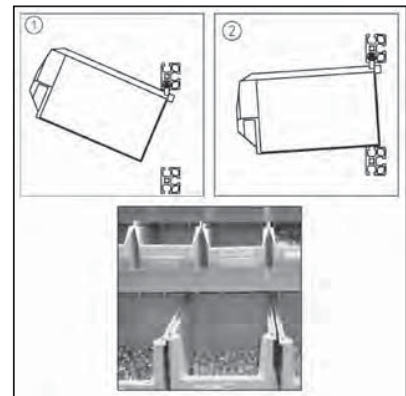
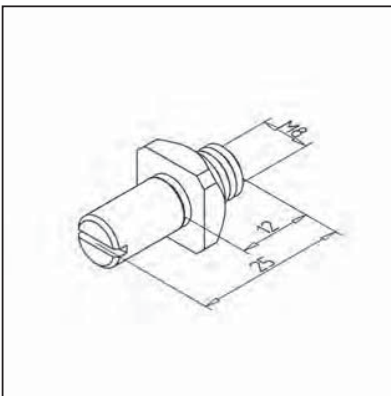
- If using profile 32, ball latch support has to be shortened

### ASSEMBLY

- Use fastening kit

## SNAP BOLT 25

part no. 21.1758/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated

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- With square nut, zinc plated

---

- Weight 0,010 kg

---

- Stainless version **part no. 21.1758/1**

### APPLICATIONS

- Attachment of grab trays in work benches between 2 profiles

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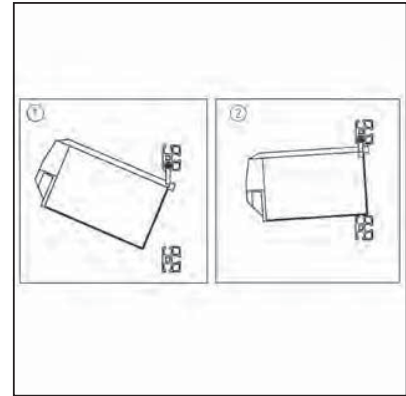
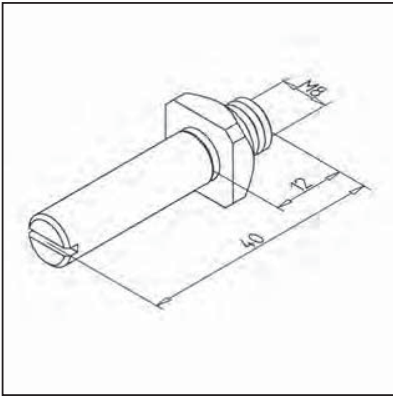
- Supports

### ASSEMBLY

- Use fastening kit

## SNAP BOLT 40

part no. 21.1760/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

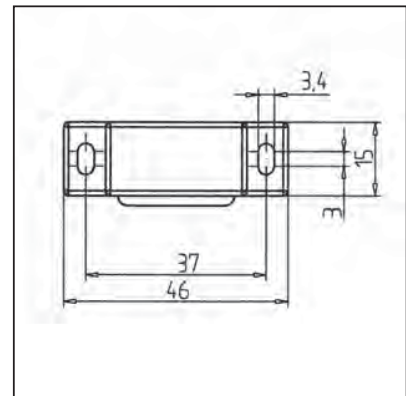
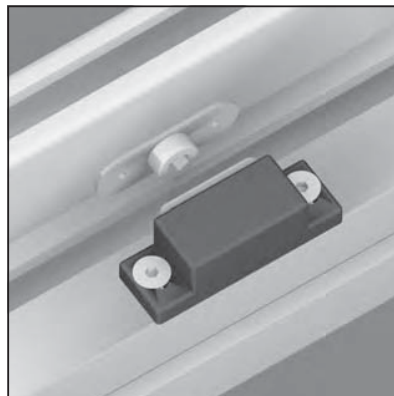
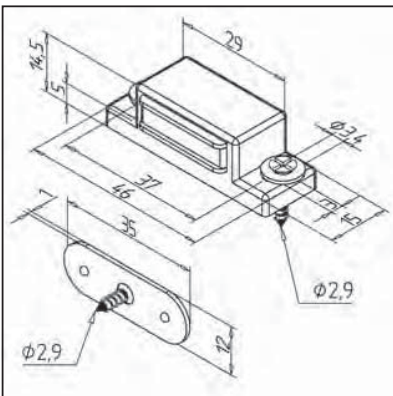
- Attachment of grab trays in work benches between 2 profiles
- Supports

### ASSEMBLY

- Screw with square nut in profile groove

## MAGNETIC CATCH

part no. 21.1753/0



### TECHN. DATA / ITEMS SUPPLIED

- Housing PA 6, black
- Holding plate, steel, zinc plated
- Fastening kit
- Weight 0,021 kg
- Holding force 20 N

### APPLICATIONS

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

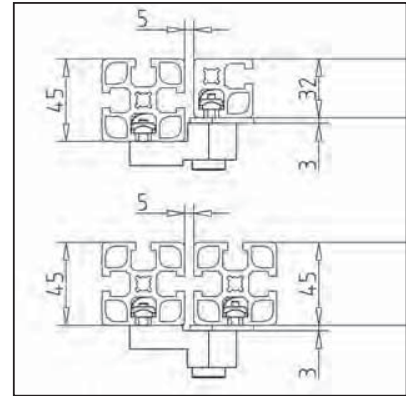
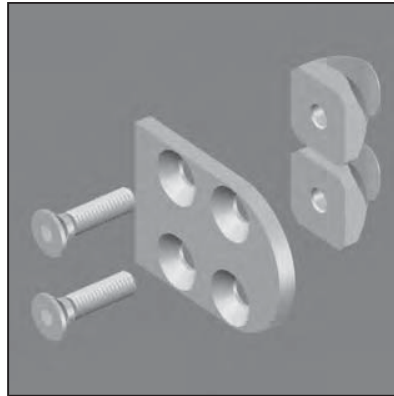
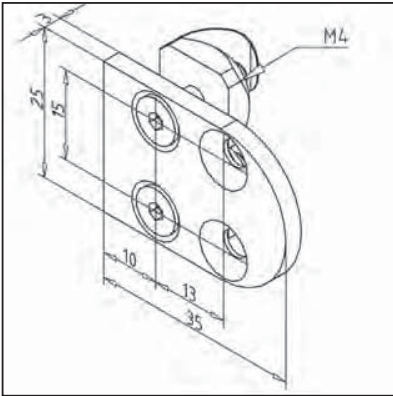
### ASSEMBLY

- Mount with fastening kit on profile surface



## MAGNET PLATE S

part no. 21.2308/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc-plated
- Fastening kit
- Weight 0,031 kg

### APPLICATIONS

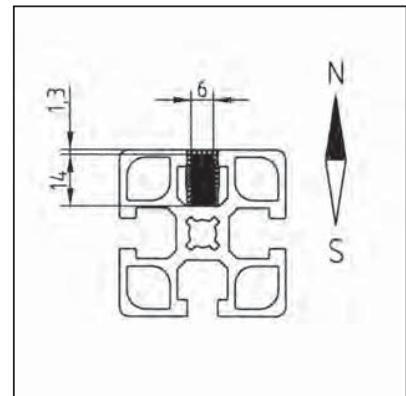
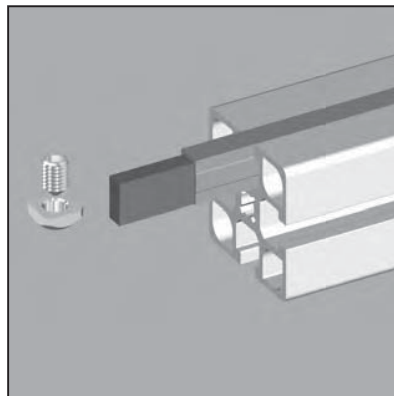
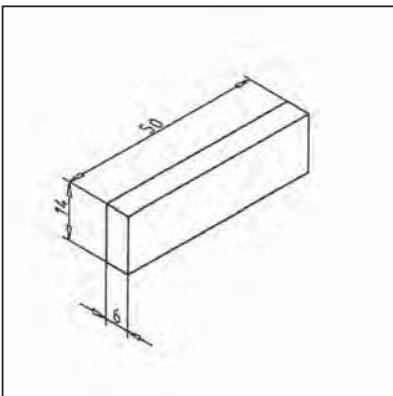
- Magnetic catch S, part no. 21.1740/0

### ASSEMBLY

- Fasten on profile groove
- No drilling necessary

## MAGNET 6 X 14 X 50

part no. 21.0032/0



### TECHN. DATA / ITEMS SUPPLIED

- 1 magnet, zinc-plated
- Energy density BHmax= 263 kJ/m<sup>3</sup>
- Magnetic remanence, Br = 1170 mT
- Coercive force, JHc = 955 kA/m
- max. service temperature +120 °C
- Without fastening kit
- Weight 0,033 kg
- Attention: Electric- and memory devices can be faulted by the magnet

### APPLICATIONS

- Adhesive magnet for tools
- Below conveyors as guide, for magnetic transported material or higher conveyor speeds

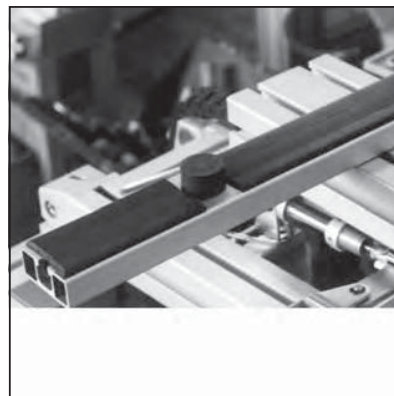
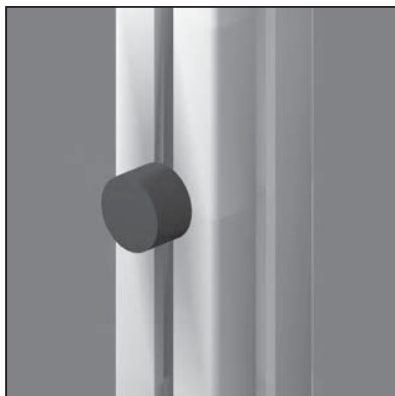
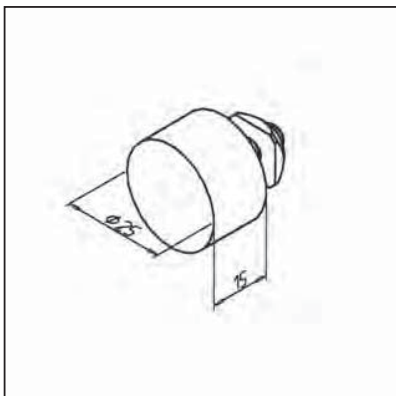
### ASSEMBLY

- Snap or slip the cover profile into profile groove
- Insert magnet into t-slot
- For fastening: (mighty recommended) Use end cap AL, set screw with square nut or t-slot bar



## STOPPER 25

part no. 21.1759/0



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black
- Square nut M6, zinc plated
- Weight 0,020 kg

### APPLICATIONS

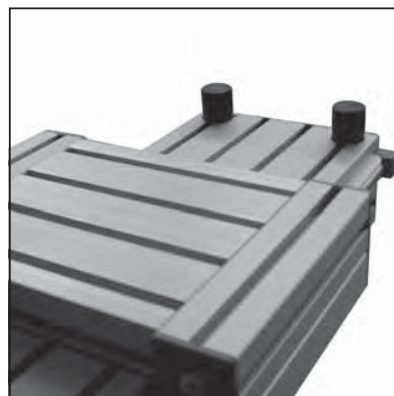
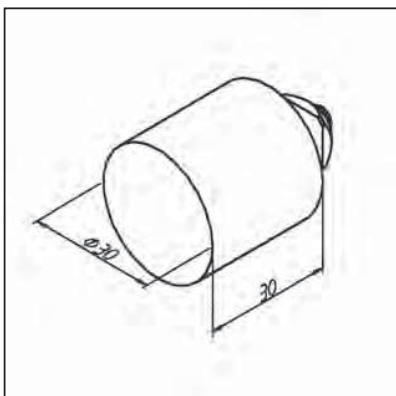
- Stop for doors, linear guides

### ASSEMBLY

- Fix with square nut M6 in profile groove

## STOPPER 30

part no. 21.1759/1



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black
- Square nut M8, zinc plated
- Weight 0,060 kg

### APPLICATIONS

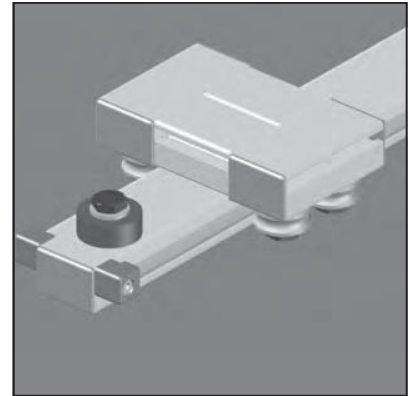
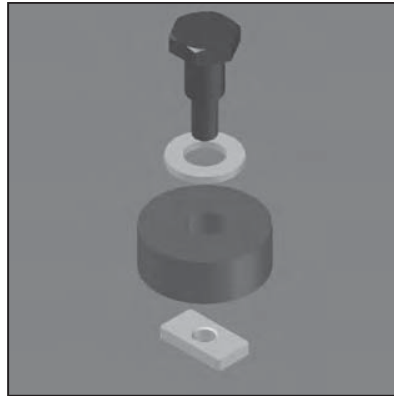
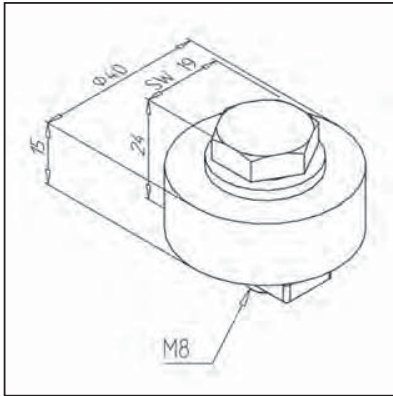
- Stop for heavy doors, linear guides

### ASSEMBLY

- Fix with square nut M8 in profile groove

**STOPPER 40**

part no. 21.2301/0

**TECHN. DATA / ITEMS SUPPLIED**

- NBR, black
- Square nut M8, zinc-plated
- Weight 0,0553 kg

**APPLICATIONS**

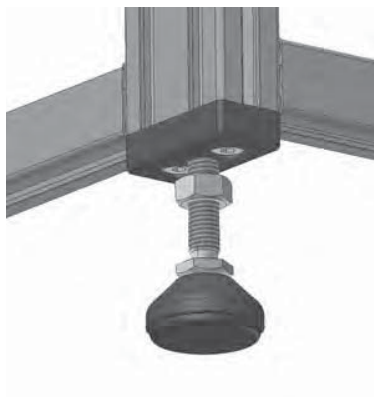
- Stop for heavy doors, linear guides

**ASSEMBLY**

- Fix with square nut in profile groove and tighten stopper

## BASE AND TRANSPORT PLATES

### BASE AND TRANSPORT PLATE 30 X 60



#### Items supplied

- Aluminium, powder coated, grey
- with fastening kit

#### Application

- 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	0.085 kg	21.2114/0
M10	15 mm	0.084 kg	21.2115/0
M12	15 mm	0.082 kg	21.2116/0

### BASE AND TRANSPORT PLATE 32 X 90



#### Items supplied

- Aluminium, powder coated, grey
- with fastening kit

#### Application

- 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

#### Application

- Mounting of adjustable feet 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 PLATES

## BASE AND TRANSPORT PLATE 90 X 90



## Items supplied

- Aluminium, powder coated, grey
- with fastening kit

## Application

- Mounting of adjustable feet 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

## Application

- Mounting of adjustable feet on profiles 90 R 90°

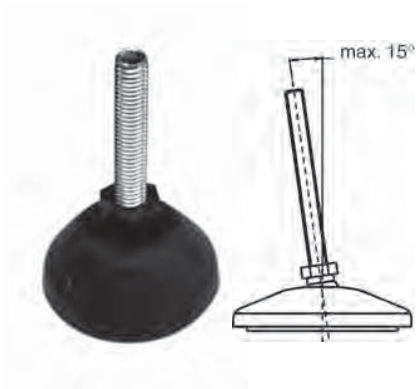
## Assembly

- 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

FEET PA



Items supplied

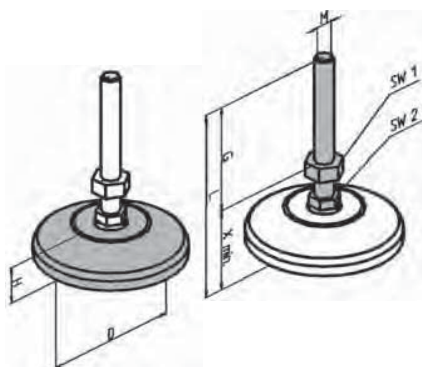
- Plate PA, grey
- Anti skid insert NBR
- Threaded bolt, steel, zinc plated
- Locknut, steel, zinc plated
- All bolts are suitable for all plates

Application

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

Assembly

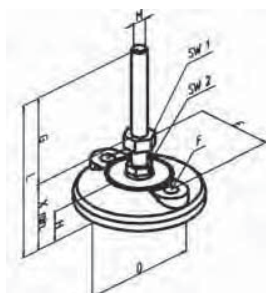
- Directly on core boring of profiles, reborable up to M12
- On larger threads use base and transportplate
- For profiles 45 x 90 und 90 x 90 a base and transport plate is required, if the feet are to be positioned centrally.



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			THREADED BOLT					
D mm	H mm	max. load	M	G	X	SW1	SW2	L
30	20	300 kg	8	33,5	38.5	13	14	72,5
45	20	500 kg	10	42	40.5	17	14	82,5
60	20	1000 kg	12	90	42.5	19	14	132,5
80	20	1000 kg	16	107	45.5	24	17	152,5

FEET PA WITH ATTACHMENT BORES



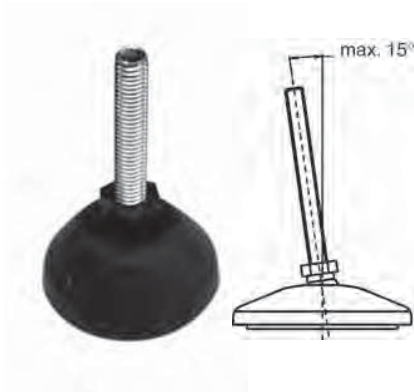
Items supplied

- 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	MAX. LOAD
21.1846/0	grey	10	82	40	17	14	122	74	Ø9	100	1000 kg
21.1847/0	grey	12	140	42	19	14	182	74	Ø9	100	1000 kg
21.1848/0	grey	16	137	45	24	17	182	74	Ø9	100	1000 kg

FEET

FEET PA



Items supplied

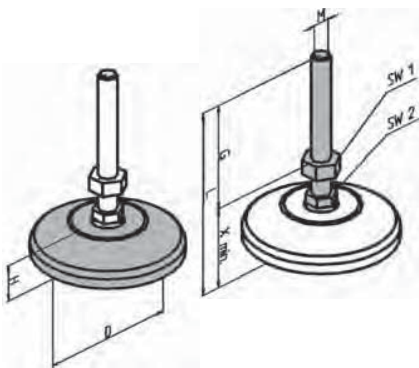
- Plate PA, grey
- Anti skid insert NBR
- Threaded bolt, steel, zinc plated
- Locknut, steel, zinc plated
- All bolts are suitable for all plates

Application

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

Assembly

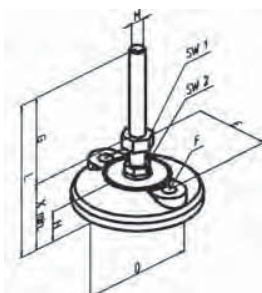
- Directly on core boring of profiles, reborable up to M12
- On larger threads use base and transportplate
- For profiles 45 x 90 und 90 x 90 a base and transport plate is required, if the feet are to be positioned centrally.



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			THREADED BOLT					
D mm	H mm	max. load	M	G	X	SW1	SW2	L
30	20	300 kg	8	33,5	38.5	13	14	72,5
45	20	500 kg	10	42	40.5	17	14	82,5
60	20	1000 kg	12	90	42.5	19	14	132,5
80	20	1000 kg	16	107	45.5	24	17	152,5

FEET PA WITH ATTACHMENT BORES



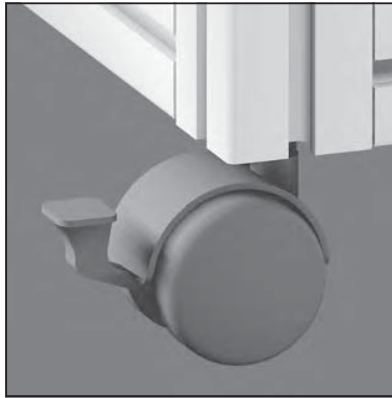
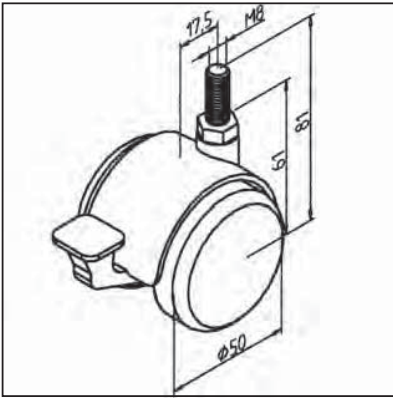
Items supplied

- 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	max. load
21.1846/0	grey	10	82	40	17	14	122	74	Ø9	100	1000 kg
21.1847/0	grey	12	140	42	19	14	182	74	Ø9	100	1000 kg
21.1848/0	grey	16	137	45	24	17	182	74	Ø9	100	1000 kg

## FURNITURE WHEEL WITH LOCKING DEVICE

part no. 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

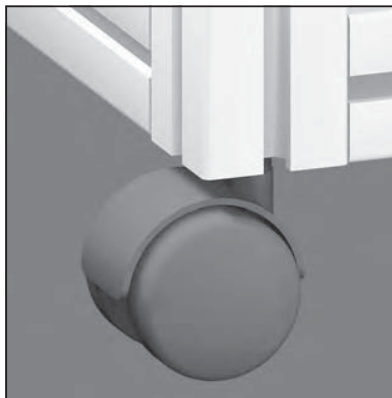
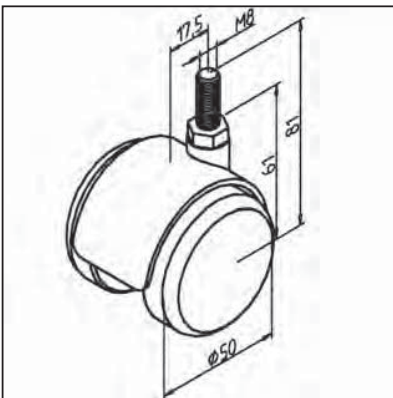
- Light movable tables
- Movable file box
- Office furniture, Tool boxes

### ASSEMBLY

- Directly on central bore of the vertical profile
- If 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 no. 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

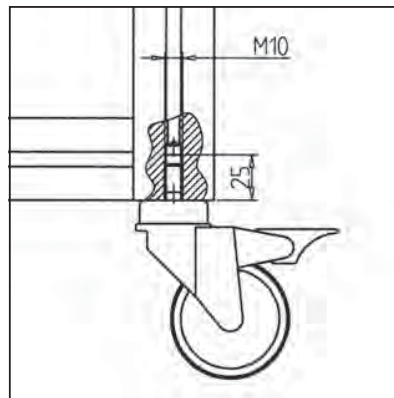
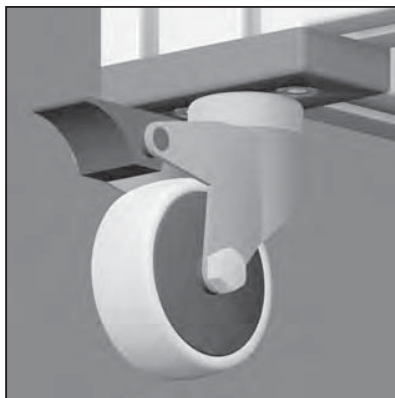
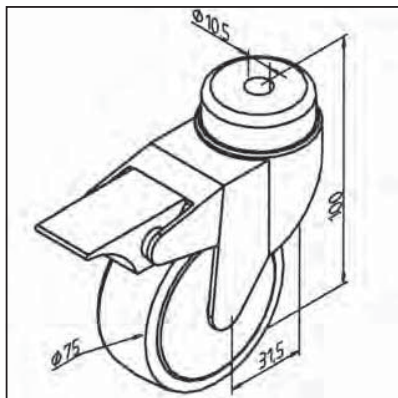
- Light movable tables
- Movable file box
- Office furniture, Tool boxes

### ASSEMBLY

- Directly on central bore of the vertical profile
- If 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 no. 21.1120/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

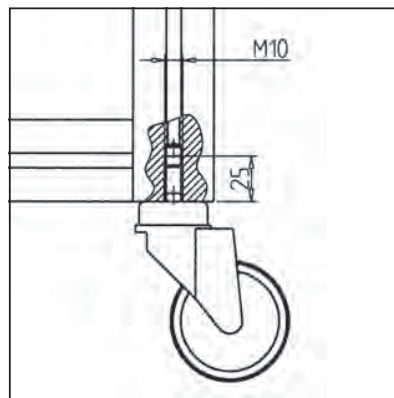
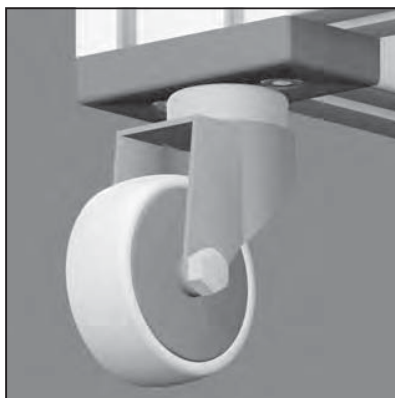
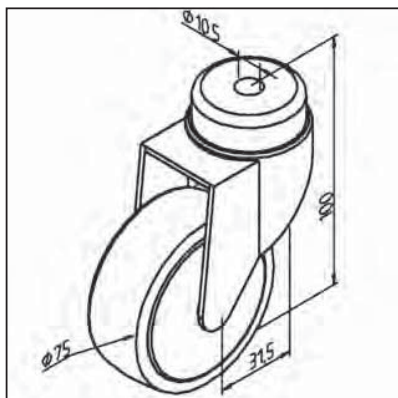
- Movable tables
- Material-pillars
- Show cases, etc.

### 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 no. 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.

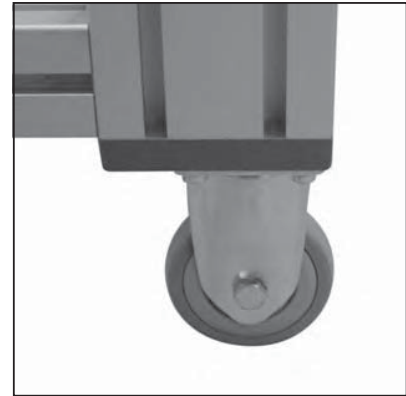
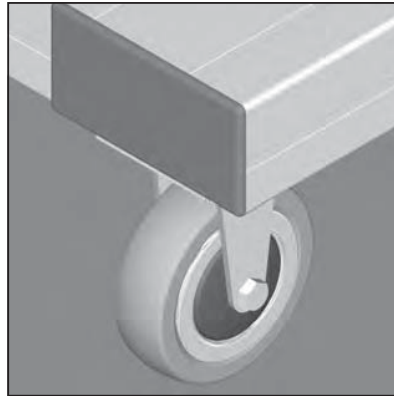
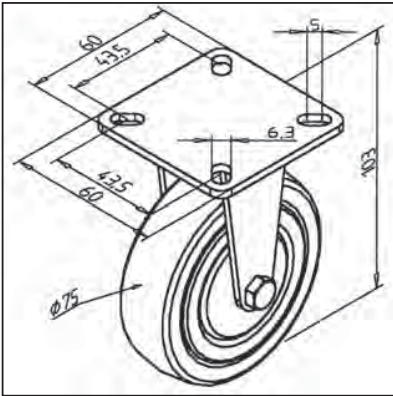
### ASSEMBLY

- 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 no. 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

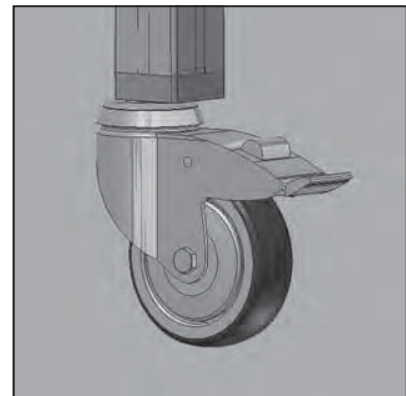
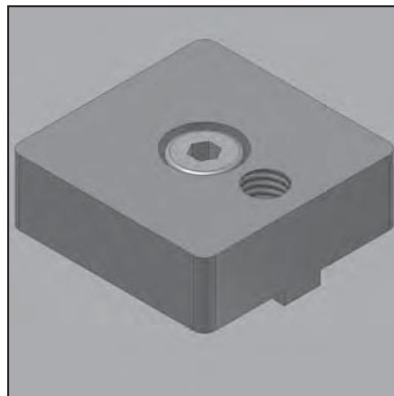
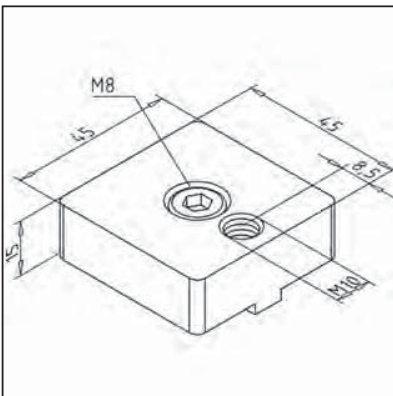
- Material-pillars
- Frames
- Movable tables

### ASSEMBLY

- With fastening kit from supply schedule directly on profile groove
- With fixing plate for wheel rigid type **part no. 21.1476/0** on profile

## BASE AND TRANSPORT PLATE 45 X 45 VA M10

part no. 21.2059/0



### TECHN. DATA / ITEMS SUPPLIED

- Stainless steel
- Fastening kit
- Weight 0,23 kg

### APPLICATIONS

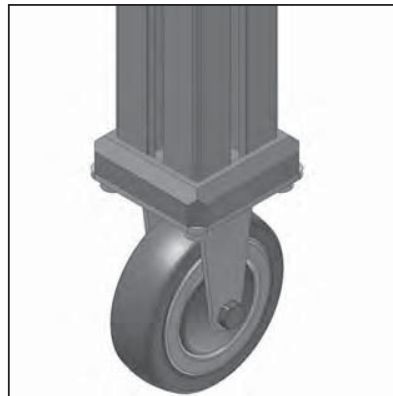
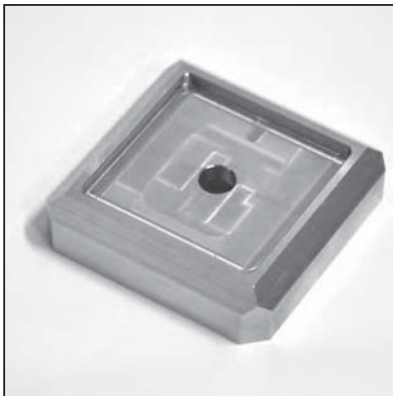
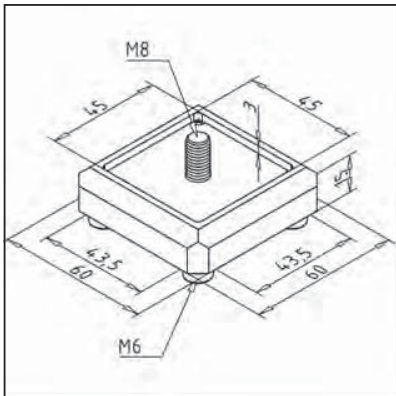
- Profile 45 x 45
- Profile 45 x 45 VA
- Height compensation for mounting of swivel wheels in combination with wheels rigid type
- For using feet M10

### ASSEMBLY

- Connect with fastening kit on profile face

## FIXING PLATE 45 VA FOR WHEEL RIGID TYPE

part no. 21.2058/0



### TECHN. DATA / ITEMS SUPPLIED

- Stainless steel
- Fastening kit
- Weight 0,36 kg

### APPLICATIONS

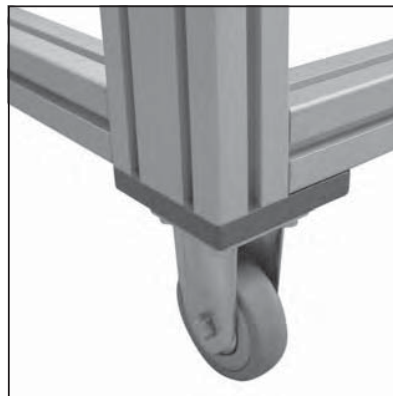
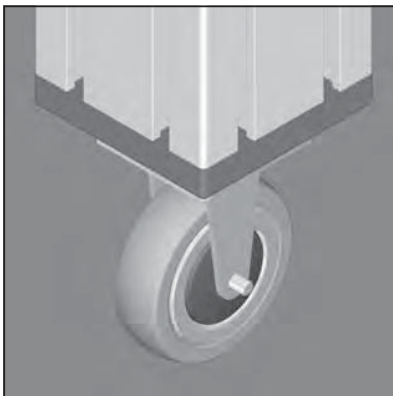
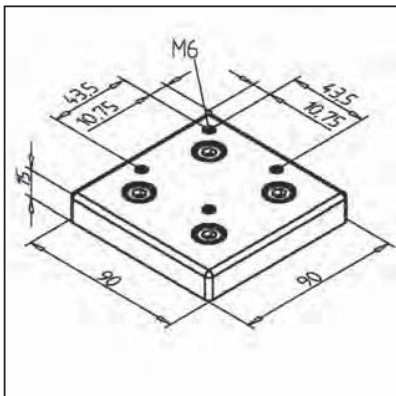
- Profile 45 x 45
- Profile 45 x 45 VA
- For fastening of wheel rigid type on profile face 45 x 45 and 45 x 45 VA

### ASSEMBLY

- Connect with fastening kit on profile face

## FIXING PLATE FOR WHEEL RIGID TYPE

part no. 21.1476/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

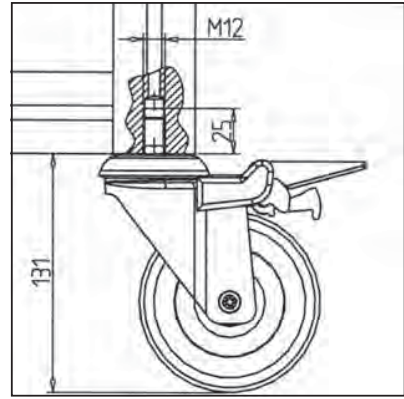
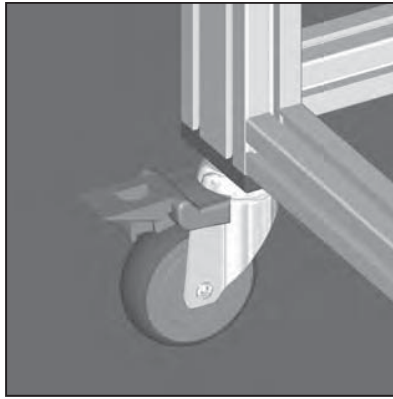
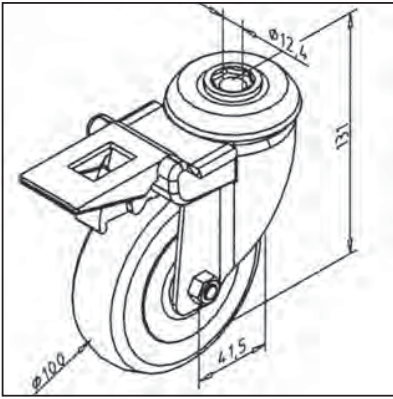
- For fastening of wheel Ø 75 x 100 rigid type **part no. 21.1475/0** on profile face 90 x 90

### ASSEMBLY

- Use fastening kit

## WHEEL SWIVEL TYPE WITH BRAKE D 100 X 131

part no. 21.0031/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber
- Fastening kit
- Weight 0,75 kg
- Load max. 100 kg
- Further models on demand

### APPLICATIONS

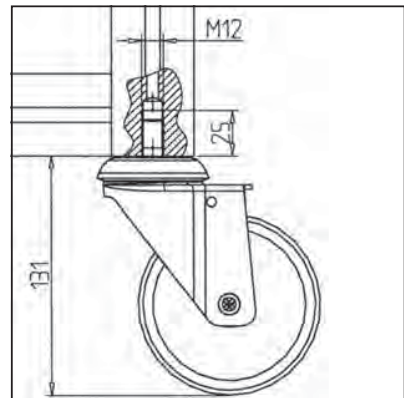
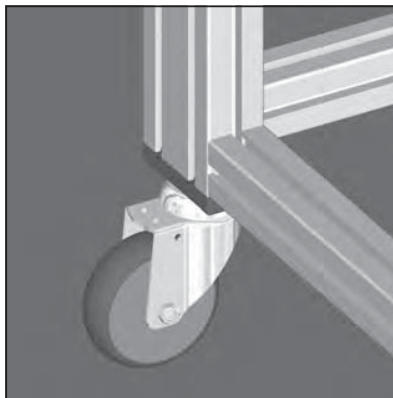
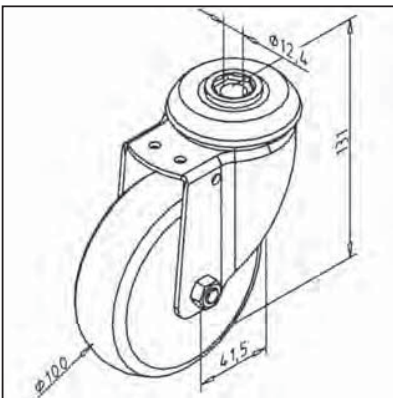
- Movable tables
- Material-pillars
- Show cases, etc.

### ASSEMBLY

- Mount directly on central bore of the vertical profile; drill thread M12
- 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 no. 21.0030/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Tire, rubber
- Fastening kit
- Weight 0,65 kg
- Load max. 100 kg
- Further models on demand

### APPLICATIONS

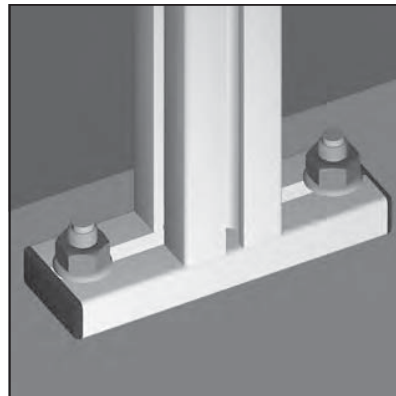
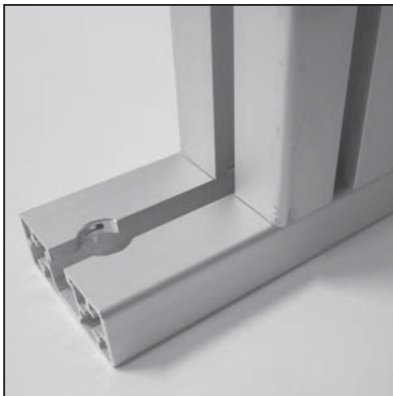
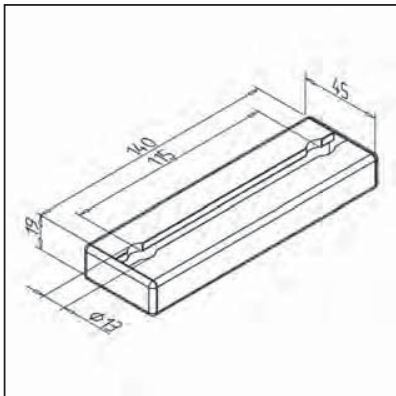
- Movable tables
- Material-pillars
- Show cases, etc.

### 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 no. 21.1730/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

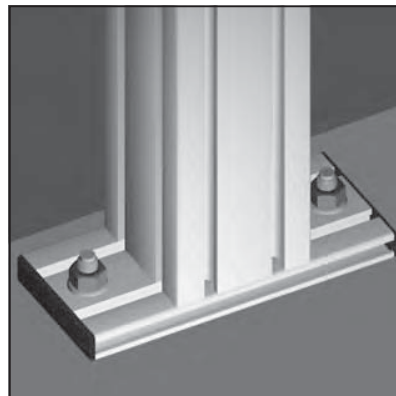
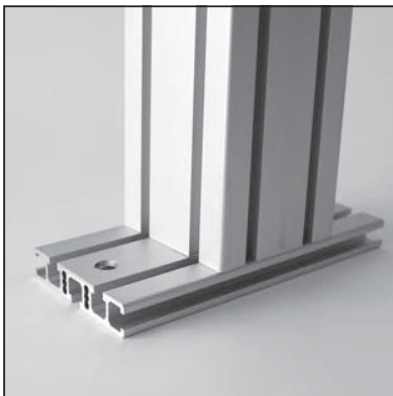
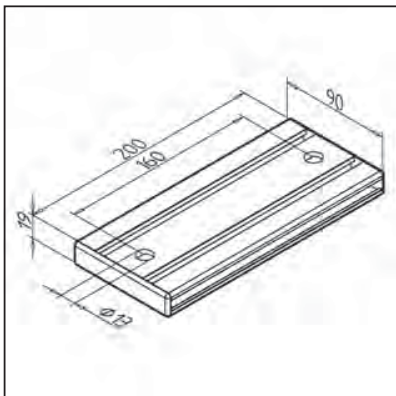
- Floor mounting of pillar 45 x 45

### ASSEMBLY

- On profile side: MiniTec power-lock fastener
- On floor side: 2 floor anchors **part no. 21.1082/0**

## FLOOR MOUNTING PLATE 90

part no. 21.1733/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

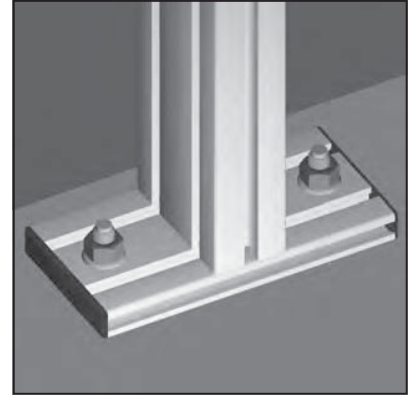
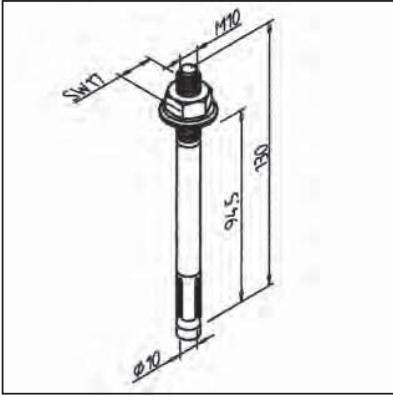
- Floor mounting of pillars 45 x 90 or 90 x 90

### ASSEMBLY

- On profile side: 2 or 4 MiniTec power-lock fasteners
- On floor side: 2 floor anchors **part no. 21.1082/0**

## FLOOR ANCHOR 10

part no. 21.1082/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

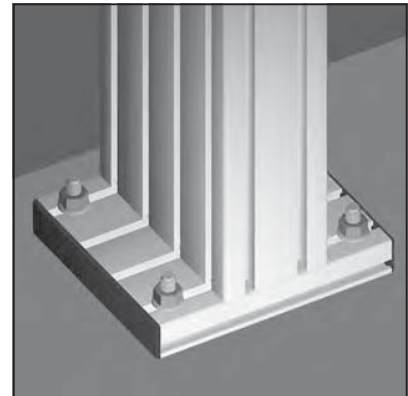
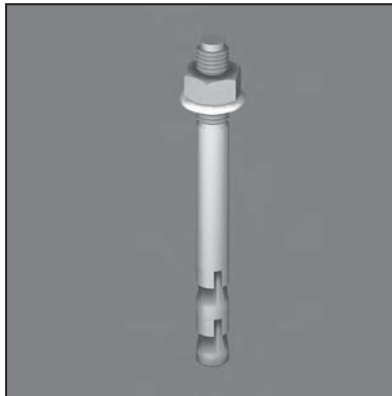
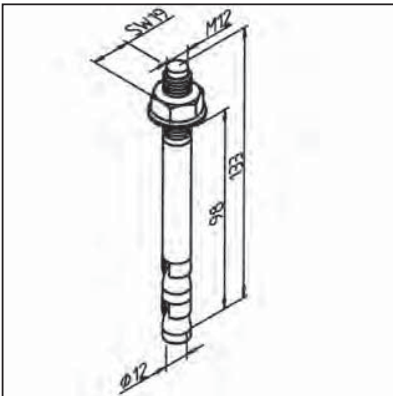
- Attachment of pillars to floor or wall. To be used together with angle bracket for floor fastening, levelling plate or floor mounting plate

### ASSEMBLY

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

## FLOOR ANCHOR 12

part no. 21.1115/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Ø 12
- Complete with nut and washer
- Weight 0,116 kg

### APPLICATIONS

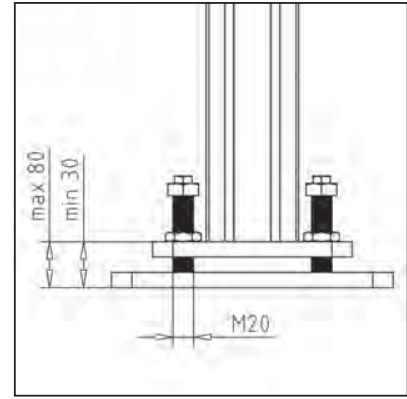
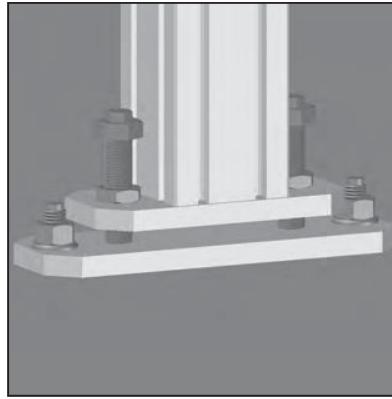
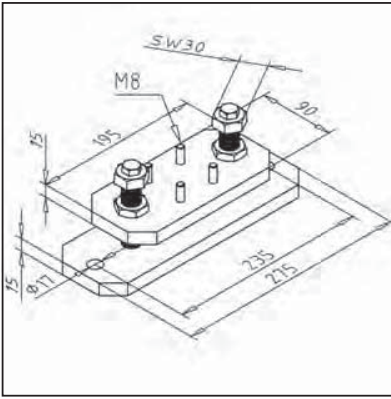
- Attachment of pillars to floor or wall. To be used together with angle bracket for floor fastening, levelling plate or floor mounting plate

### ASSEMBLY

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

## LEVELLING PLATE 90 ST

part no. 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

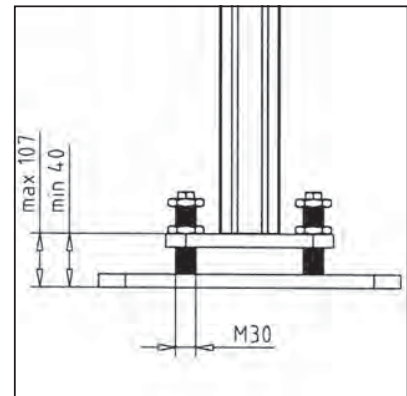
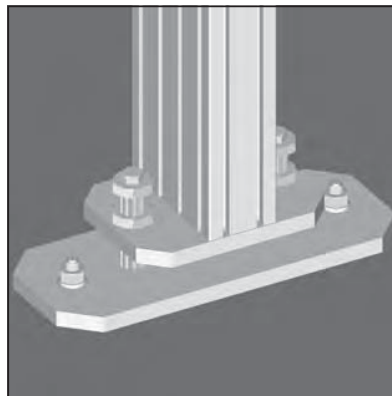
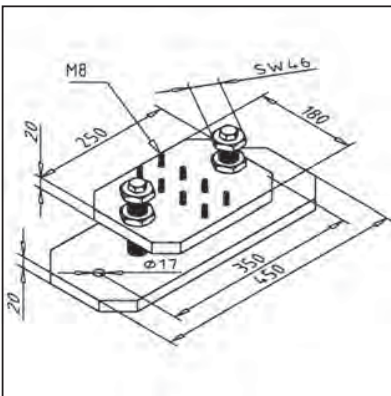
- Exact layout of heavy structures with post profile 90x90

### ASSEMBLY

- Fasten footplate to the floor using a high performance anchor
- Fasten profile panel to the profile with the fastening kit 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 no. 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

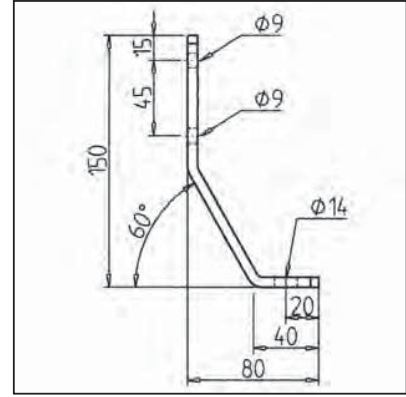
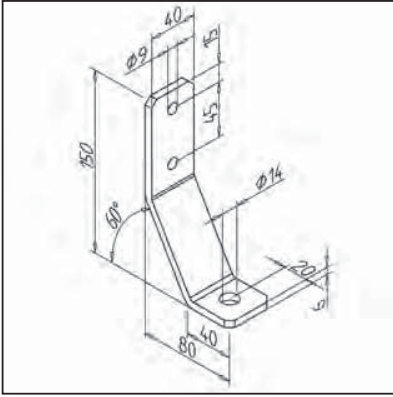
- Exact layout of heavy structures with post profile 90x180

### 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 no. 21.1112/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated, grey
- With fastening kit for profile
- Weight 0,360 kg

### APPLICATIONS

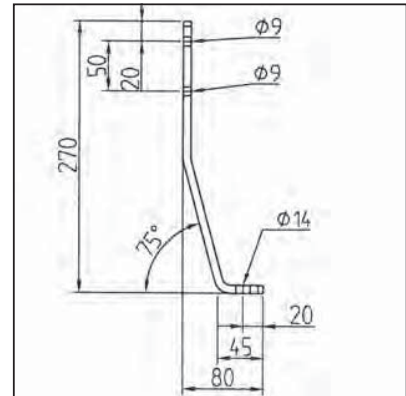
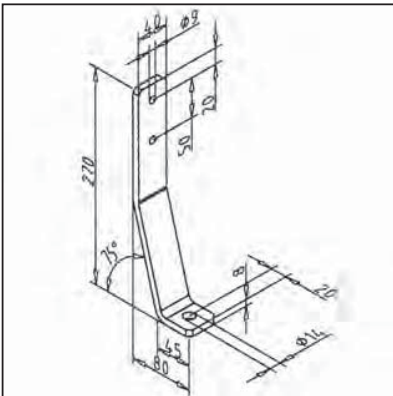
- Securing and fastening of constructions on floor or wall

### ASSEMBLY

- On profile side: Use hex socket cap screws M8 x 20 5 A/F
- On floor side: Use floor anchor 12 **part no. 21.1115/0**
- Also suitable for subsequent mounting

## ANGLE BRACKET FOR FLOOR FASTENING

part no. 21.0015/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated, grey
- With fastening kit for profile
- Weight 0,757 kg

### APPLICATIONS

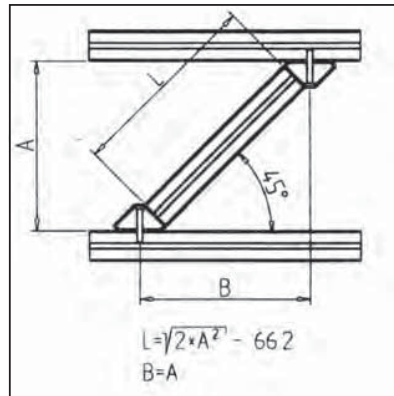
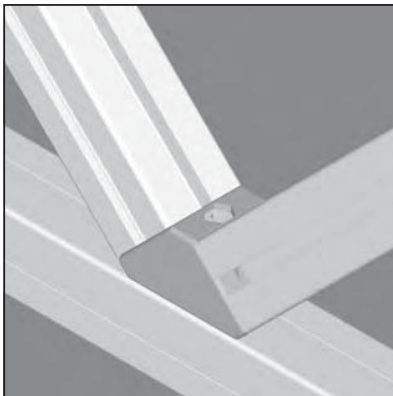
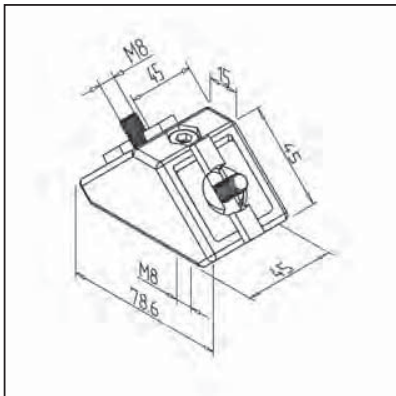
- Securing and fastening of constructions on floor or wall

### ASSEMBLY

- On profile side: Use hex socket cap screws M8 x 20 A/F 5
- On floor side: Use floor anchor 12 **part no. 21.1115/0**
- Also suitable for subsequent mounting

## BRACE SOCKET 45 GD

part no. 21.1729/0



### TECHN. DATA / ITEMS SUPPLIED

- GD Zn, powder coated, grey
- Fastening kit
- Weight 0,261 kg

### APPLICATIONS

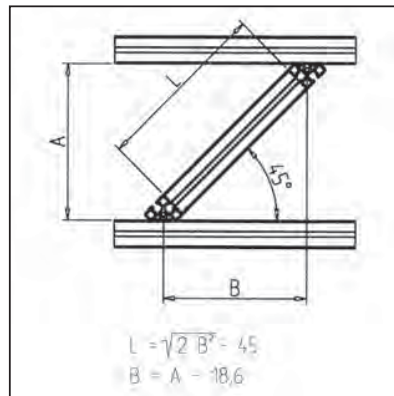
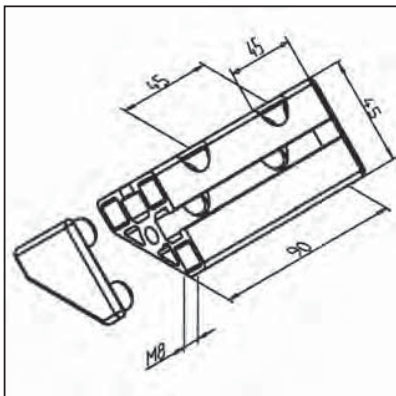
- Support in half-timbered constructions

### ASSEMBLY

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

## BRACE SOCKET 45° / 90

part no. 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

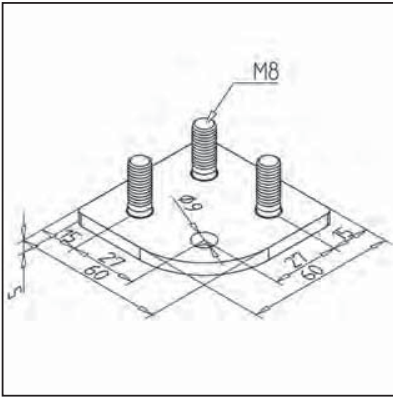
### ASSEMBLY

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



## BASE AND TRANSPORT PLATE 45 X 45 VA M10

part no. 21.0038/0



### TECHN. DATA / ITEMS SUPPLIED

- Stainless steel
- Fastening kit
- Weight kg

### APPLICATIONS

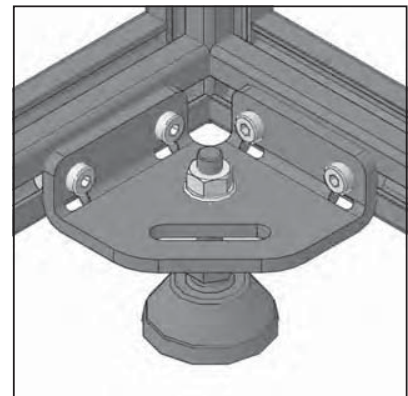
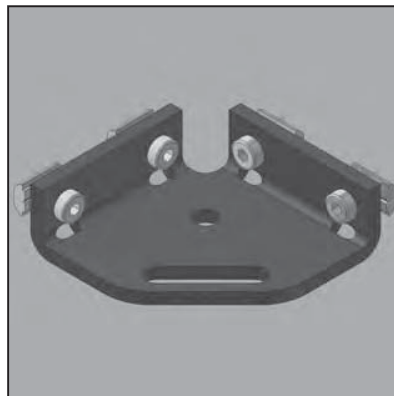
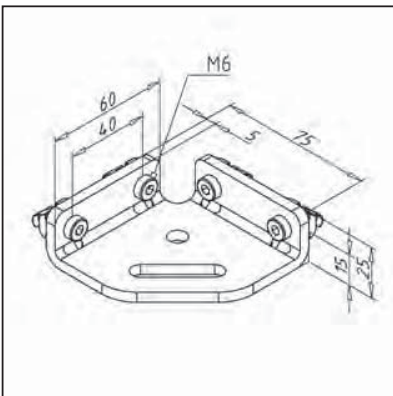
- Profile 45 x 45
- Height compensation for mounting of swivel wheels in combination with wheels rigid type
- For using feet M10

### ASSEMBLY

- Connect with fastening kit on profile face

## ADAPTER FLANGE 30

part no. 21.2120/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated grey
- Fastening kit
- Weight 0,261 kg

### APPLICATIONS

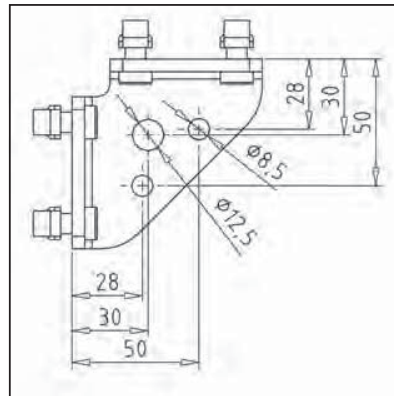
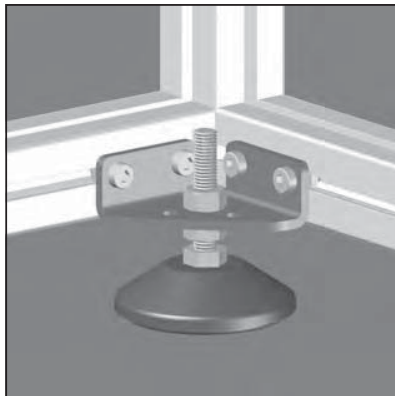
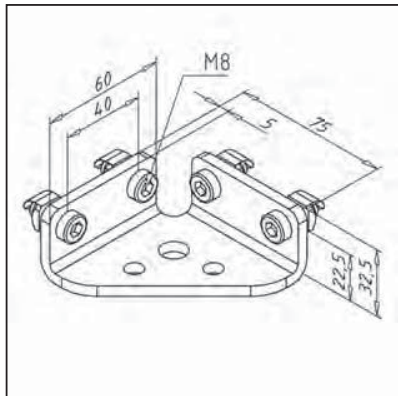
- Strengthening of profile constructions
- Attachment of internal feet or wheels
- Floor mounting and levelling of frames

### ASSEMBLY

- Use fastening kit; screw onto profile groove

## ADAPTER FLANGE 45

part no. 21.2300/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, powder coated, grey
- Fastening kit
- Weight 0,311 kg

### APPLICATIONS

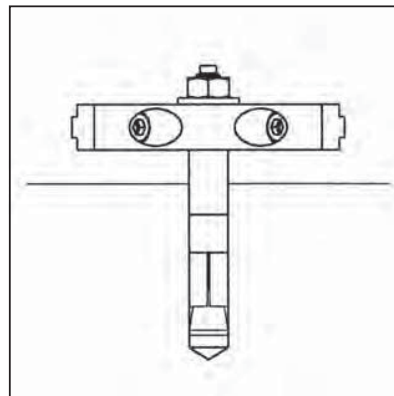
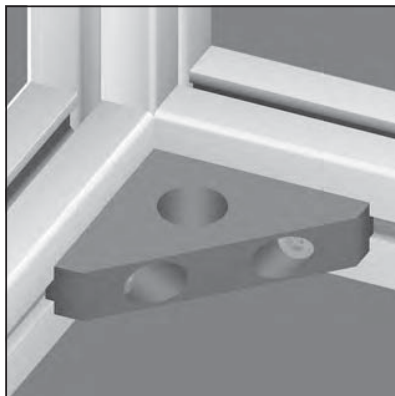
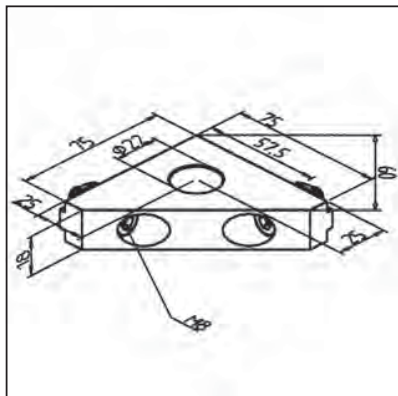
- Strengthening of profile constructions
- Attachment of internal feet or rollers
- Floor mounting and levelling of frames

### ASSEMBLY

- Use fastening kit; screw onto profile groove

## CORNER 90

part no. 21.1783/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Weight 0,170 kg

### APPLICATIONS

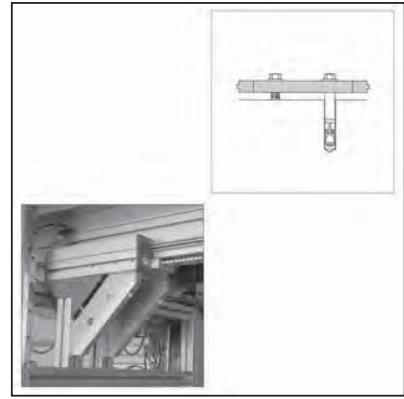
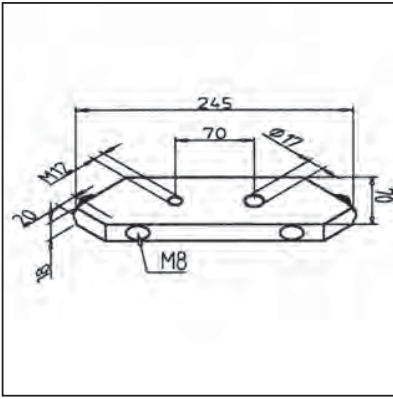
- Strengthening of constructions
- Attachment of internal feet
- Floor mounting and levelling of frames

### ASSEMBLY

- On profile side with fastening kit
- On floor side fasten with floor anchor

## CORNER 180

part no. 21.1784/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Fastening kit
- Weight 0,690 kg

### APPLICATIONS

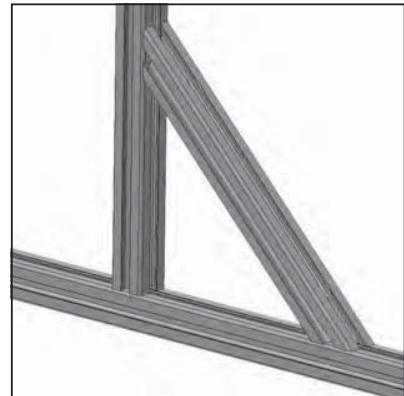
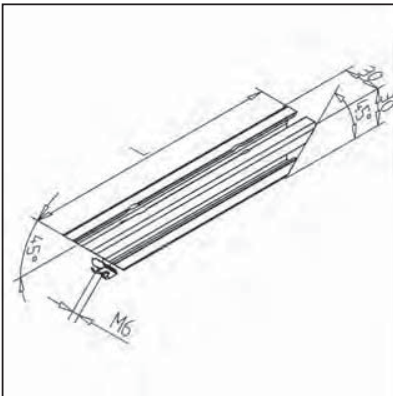
- Strengthening of heavy constructions
- Attachment of internal feet
- Floor mounting and levelling of frames

### ASSEMBLY

- On profile side with fastening kit
- On floor side fasten with floor anchor and levelling screw M 12

## STRENGTHENING ELEMENT 30

part no. 21.2110/0



### TECHN. DATA / ITEMS SUPPLIED

- Profile 30 x 30, ready for use
- Both ends cut at 45° with counter-bores for fastening kit
- Fastening kit
- Weight 0,213 kg
- Length 300 mm

### APPLICATIONS

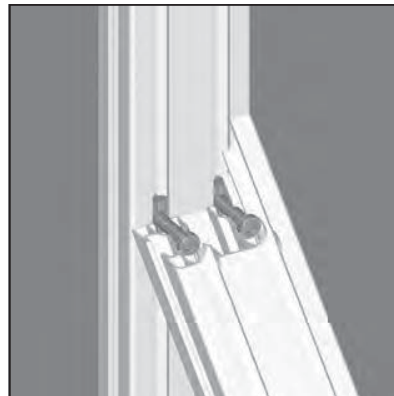
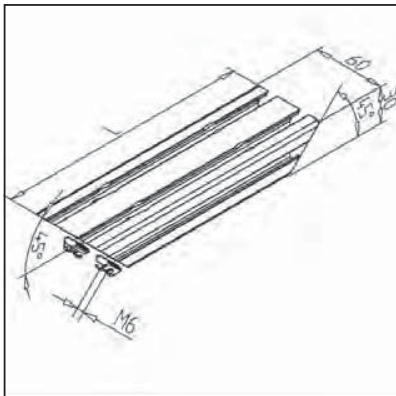
- Reinforcement of constructions in half-timbered principle

### ASSEMBLY

- Screw onto profile groove; use fastening kit

## STRENGTHENING ELEMENT 30 X 60

part no. 21.2210/0



### TECHN. DATA / ITEMS SUPPLIED

- Profile 30 x 60, ready for use
- Both ends cut at 45° with counter-bores for fastening kit
- Fastening kit
- Weight 0,338 kg
- Length 300 mm

### APPLICATIONS

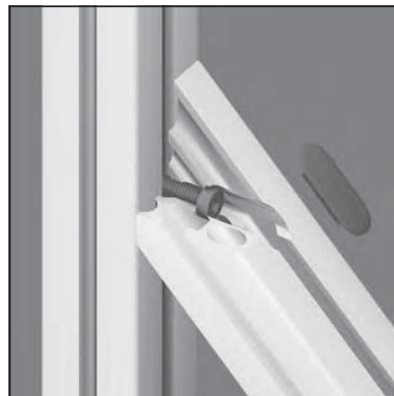
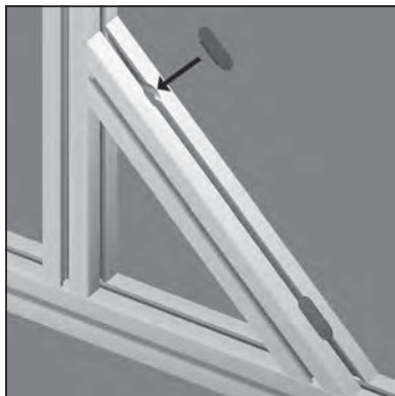
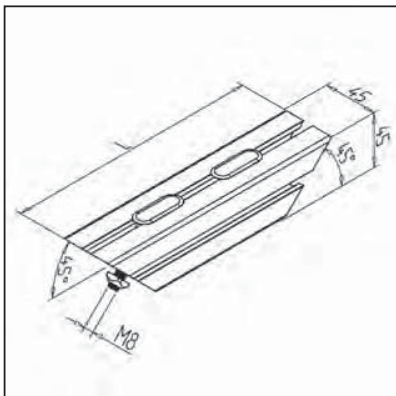
- Reinforcement of constructions in half-timbered principle

### ASSEMBLY

- Screw onto profile groove; use fastening kit

## STRENGTHENING ELEMENT 45

part no. 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

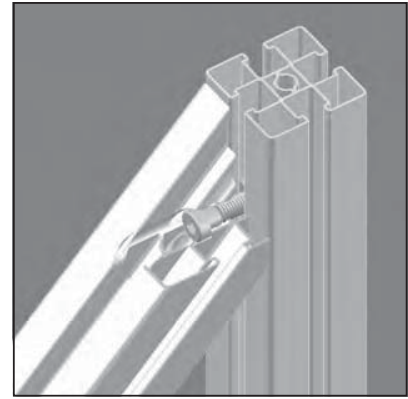
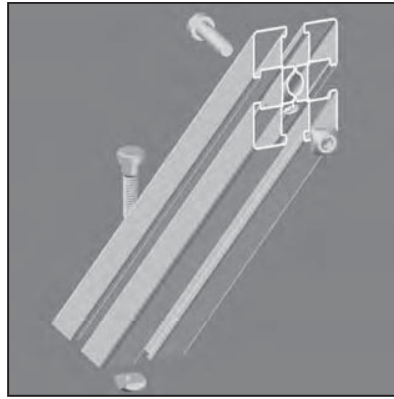
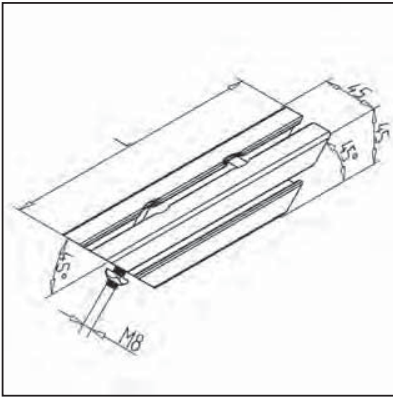
- Reinforcement of constructions in half-timbered principle

### ASSEMBLY

- Screw onto profile groove; use fastening kit

## STRENGTHENING ELEMENT 45 VA

part no. 21.1706/0



### 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 0,890 kg
- Length 360 mm
- Other lengths and profiles on request
- Please specify dimension L

### APPLICATIONS

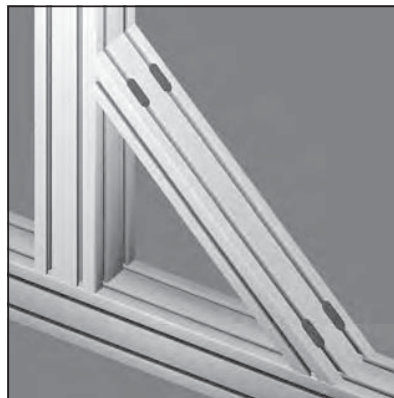
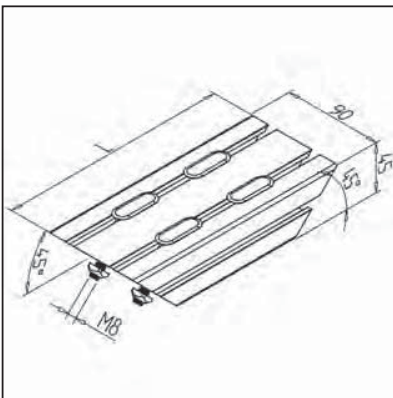
- reinforcement profile construction, half-timbered building

### ASSEMBLY

- Screw with fastening kit on profile groove of the frame construction

## STRENGTHENING ELEMENT 90

part no. 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

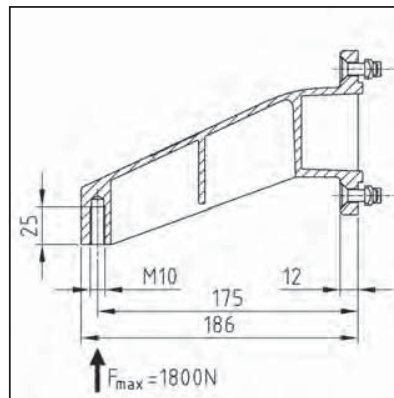
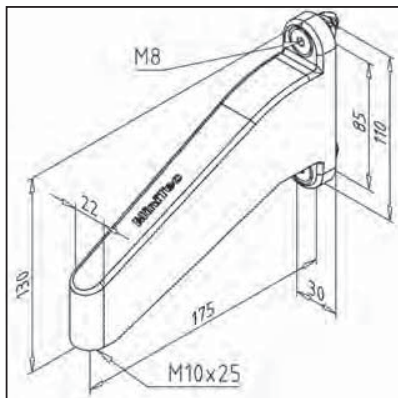
- Reinforcement of constructions; essentially in half-timbered principle

### ASSEMBLY

- Screw onto profile groove, use fastening kit

## CANTILEVER FOOT 175

part no. 21.2191/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Weight 0,368 kg

### APPLICATIONS

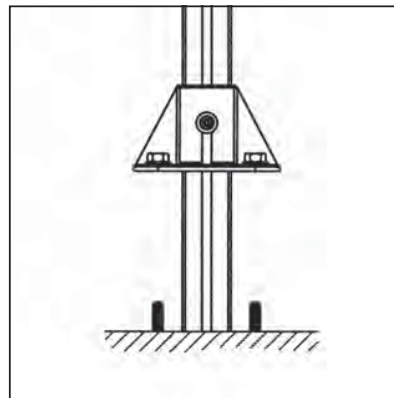
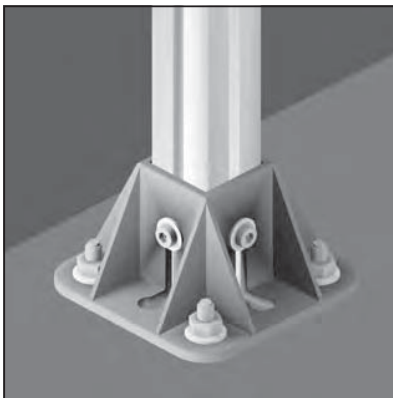
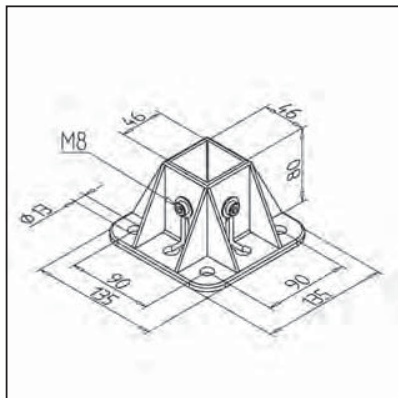
- Arrangement of frames and fastening of feet

### ASSEMBLY

- Mounting onto profile strut with fastening kit
- Fastening of wheel swivels, feet and screws M10

## FOOT 45 GD

part no. 21.1731/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit for profile
- Weight 0,587 kg

### APPLICATIONS

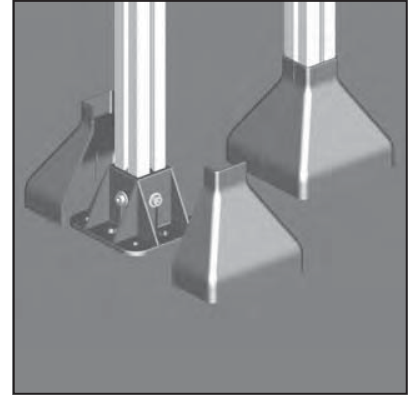
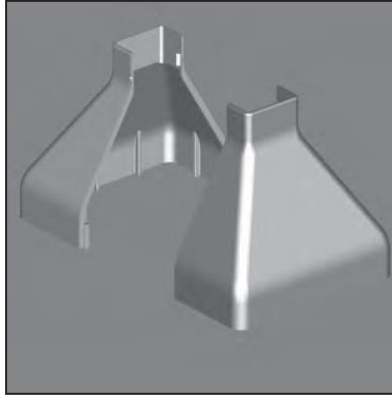
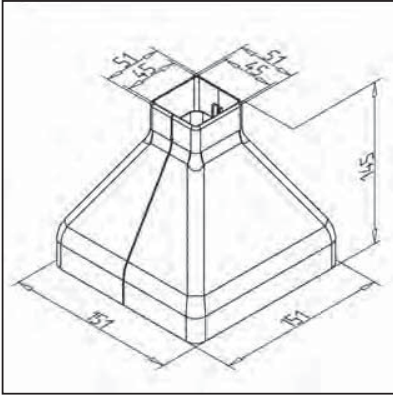
- Suitable for profiles up to dimension 45 x 45
- Floor mounting of guard units, information plates and frames
- As connection element for wall attachment

### ASSEMBLY

- Insert profile into foot
- Insert the square nut with spring steel sheet into the profile groove; preassemble the screws
- Fix the foot on the floor or on the wall; for this purpose use high-performance anchors or universal dowels with hexagon screws
- Tighten the fastening screws

## COVER FOR FOOT 45

part no. 22.1164/0



### TECHN. DATA / ITEMS SUPPLIED

- Material: ABS, grey
- Weight 0,166 kg

### APPLICATIONS

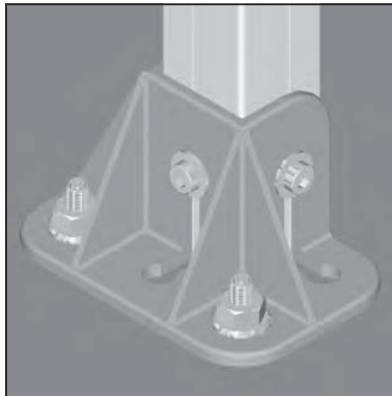
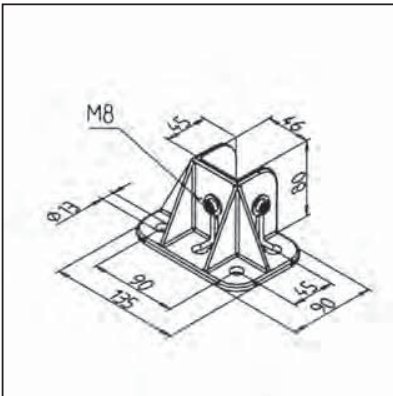
- To cover foot 45 GD 45 and GD open

### ASSEMBLY

- Mounting on profile / foot

## FOOT 45 GD OPEN

part no. 21.1738/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit for profile
- Weight 0,356 kg

### APPLICATIONS

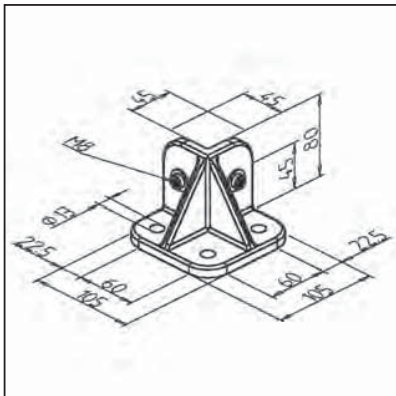
- Floor mounting of guard units, information plates and frames
- As connection element for wall attachment; can be used both-sided

### ASSEMBLY

- Insert profile into foot
- Insert the square nut with spring steel sheet into the profile groove; preassemble the screws
- Fix the foot on the floor or on the wall; for this purpose use high-performance anchors or universal dowels with hexagon screws
- Tighten the fastening screws

## FOOT 45 GD S

part no. 21.1723/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit for profile
- Weight 0,499 kg

### APPLICATIONS

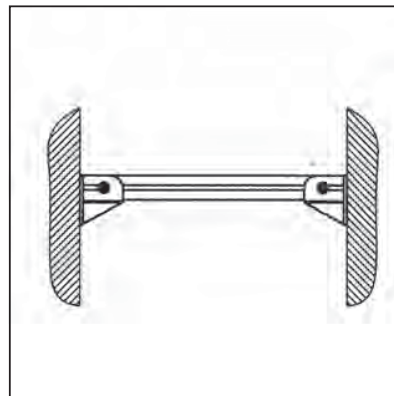
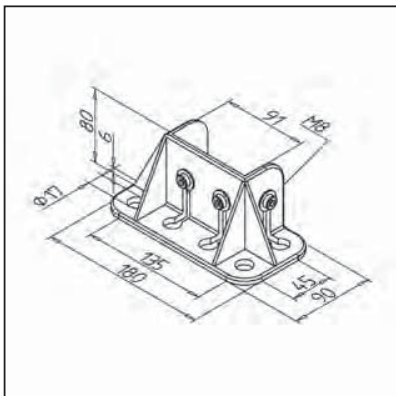
- Suitable for all profiles
- Floor mounting of guard units, information plates and frames
- As connection element for wall attachment; can be used both-sided

### ASSEMBLY

- Fix the foot on the floor or on the wall; for this purpose use high-performance anchors or universal dowels with hexagon screws
- Tighten the fastening screws

## FOOT 90 GD

part no. 21.1737/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit for profile
- Weight 0,465 kg

### APPLICATIONS

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

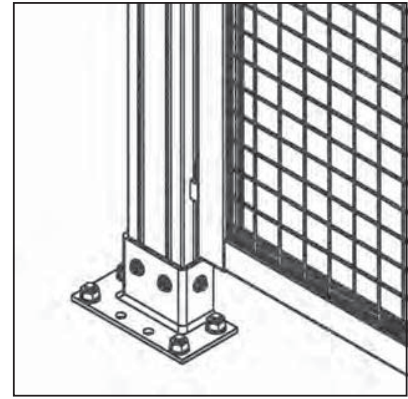
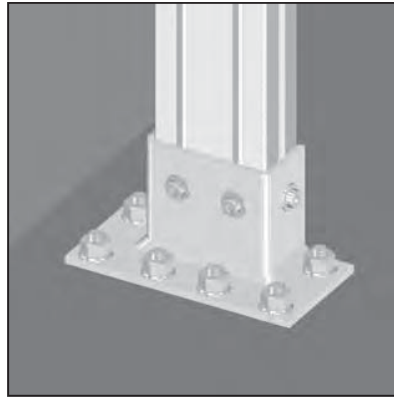
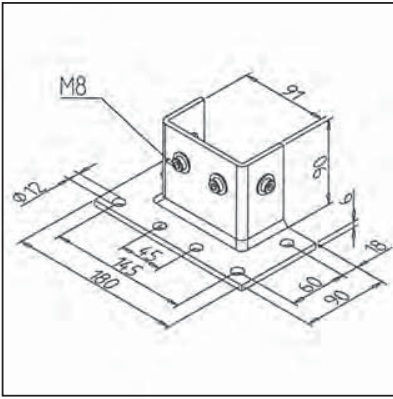
### ASSEMBLY

- Insert profile into foot
- Insert the square nut with spring steel sheet into the profile groove; preassemble the screws
- Fix the foot on the floor or on the wall; for this purpose use high-performance anchors or universal dowels with hexagon screws
- Tighten the fastening screws



## FOOT 90 S

part no. 21.1707/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

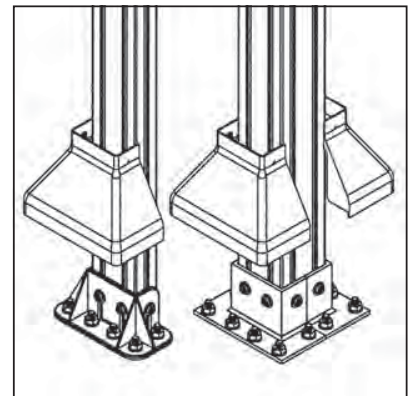
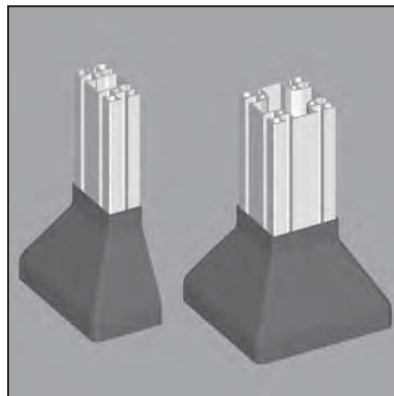
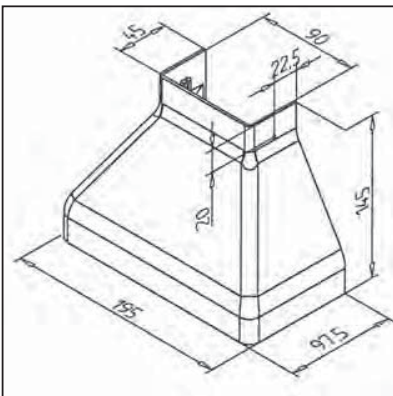
- Suitable for profiles up to dimension 45 x 90, 90 x 90 and 90 x 180
- Floor mounting of guard units, information plates and frames
- Connection element for wall attachment; can be used for both sides

### 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 no. 22.1025/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Weight 0,131 kg

### APPLICATIONS

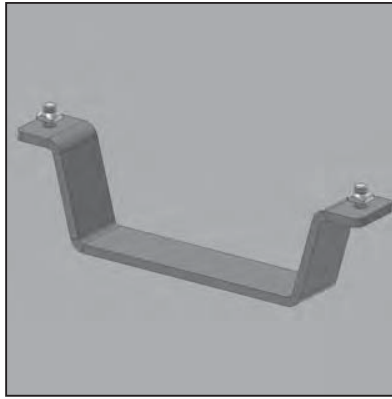
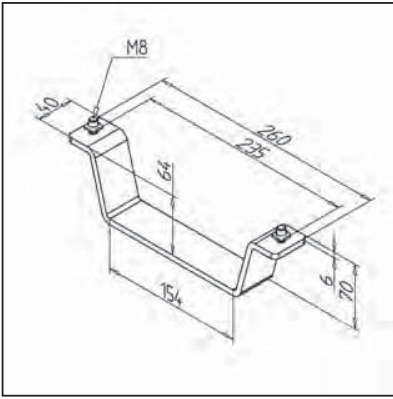
- Suitable for foot 90 GD and 90 S
- Less dust and dirt deposit on the foot
- Easy to clean

### 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

## CLAMP FOR TRANSPORTATION

part no. 26.1101/0



### TECHN. DATA / ITEMS SUPPLIED

- 1 clamp
- Steel, zinc-plated
- Fastening kit
- Weight 0,708 kg

### APPLICATIONS

- For fixation of goods during transport with forklift

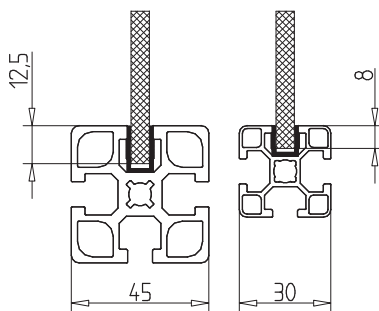
### ASSEMBLY

- Fastening on bottom side of construction with fastening kit
- Use always in pairs

## FITTING OF PANEL ELEMENTS

### MOUNTING ELEMENTS INTO THE PROFILE GROOVE

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 particularly use for large panel elements, corrugated mesh and sealing constructions. Subsequent mounting of panel elements is easier to perform and causes less damage.

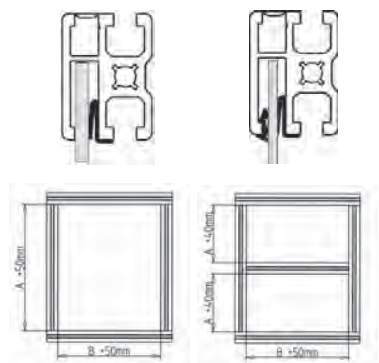


#### Cover profiles

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:*

- groove system 30: +16 mm
- groove system 45: +25 mm

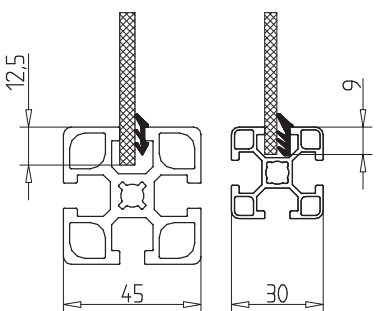


#### Clamp profile 45 x 32

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

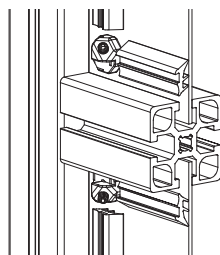


#### Insert seals

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.

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

- groove system 30: +18 mm with Insert seal 30
- groove system 45: +25 mm with Insert seal 2/4/5/6

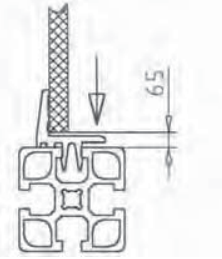


#### Grounding / conductive connection

Please use our grounding block **part no. 22.1163/0** for conductive connections of aluminum or steel plates with profile frames (thickness of 1.5 mm - 2.5 mm).

One grounding block is sufficient for each surface element. In conjunction with our plug seal 2, the sheet is fixed in panel frames.

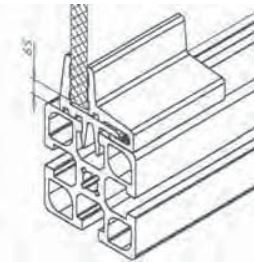
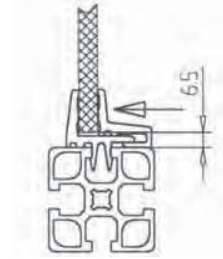
SUBSEQUENT MOUNTING OF PANEL ELEMENTS



**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.

*Calculation of pane size:* Clear opening - 13 mm

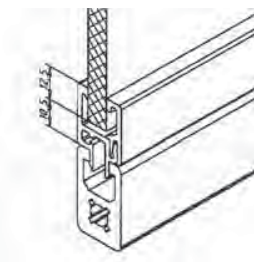
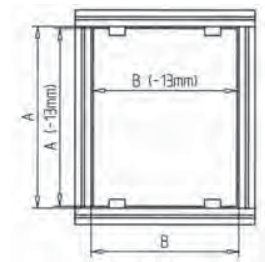


**Panel holder**

For easy and economic fitting of panel elements into existing frames. The panel holders made are of two elements. Best suited for all panel elements of max. 8 mm thickness, except for corrugated mesh.

*Calculation of pane size:*

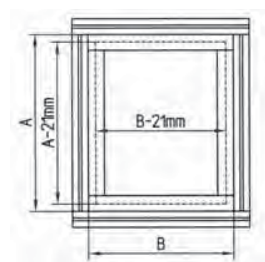
Clear opening - 13 mm (6,5 mm free space circumferentially)



**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.



## FITTING OF PANEL ELEMENTS

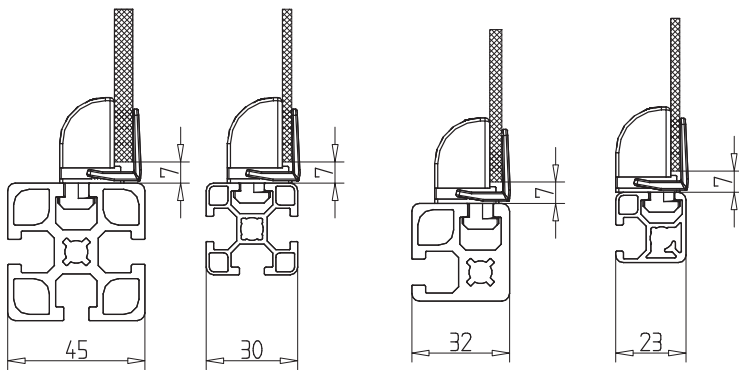
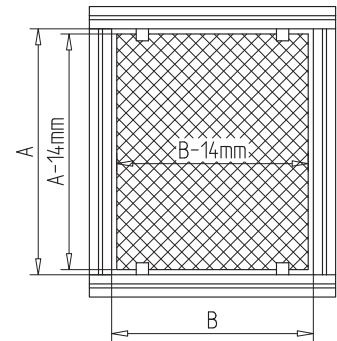
### SUBSEQUENT MOUNTING OF PANEL ELEMENTS

#### 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.

#### Calculation of pane size:

Clear opening - 14 mm (7 mm free space circumferentially)

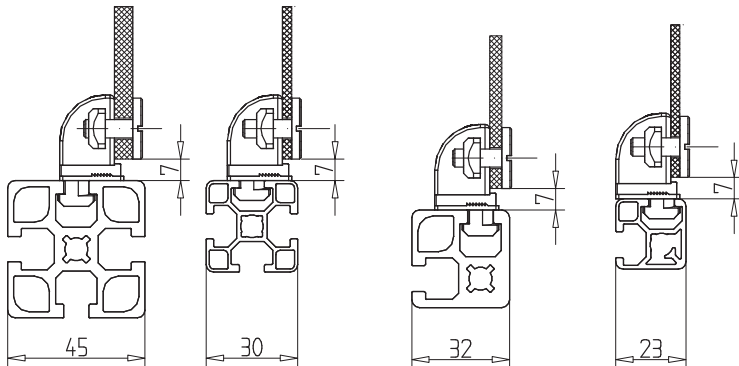
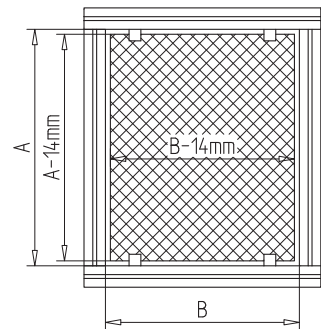


#### Screw block

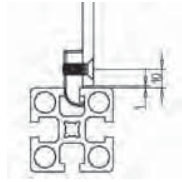
Suitable for all kind of panel elements up to 6 mm thickness, except mesh.

#### Calculation of pane size:

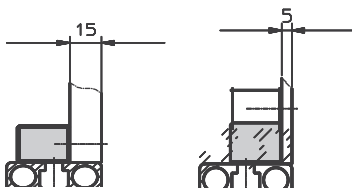
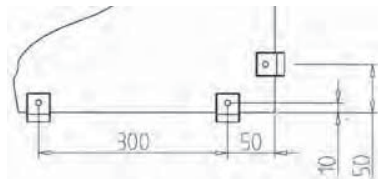
Clear opening - 14 mm (7 mm free space circumferentially)



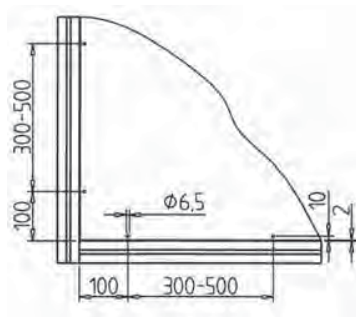
## SUBSEQUENT MOUNTING OF PANEL ELEMENTS

**Thread socket**

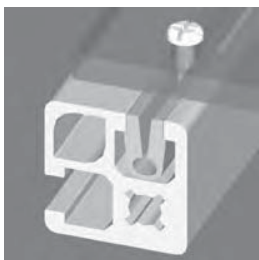
Secure and easy fastening of panel elements of all kinds, except for corrugated mesh. Insert the socket into profile grooves in 300 mm grid. Select screw form and length appropriate to thickness and type of panel element.

**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.

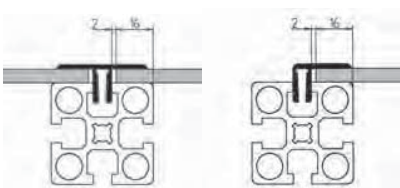
**Calculation of pane size:**

Clear opening - 4 mm (~2 mm free space circumferentially)

**Screw socket profile**

Material: PVC

Easy fastening of panels or panel elements at any point with commercial-type self-tapping screws.

**Panel-clamping profile**

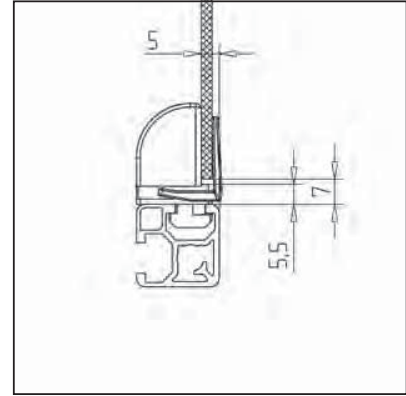
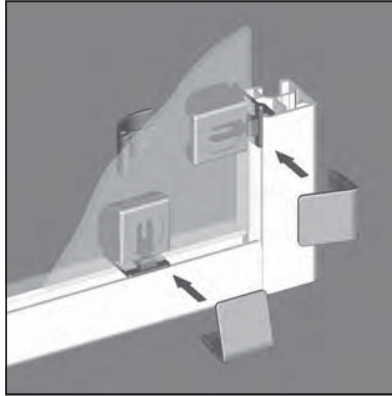
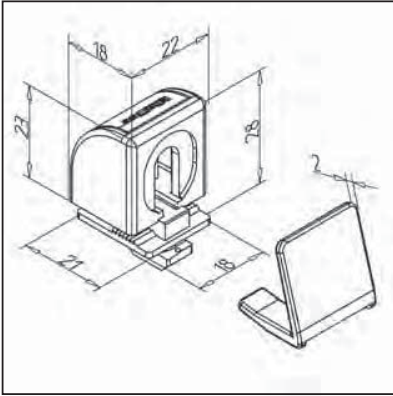
Suitable for panel elements from 2 to 10 mm.

Insert fixing bores  $\varnothing 5.5$  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 23

part no. 22.1235/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Weight 0,008 kg

### APPLICATIONS

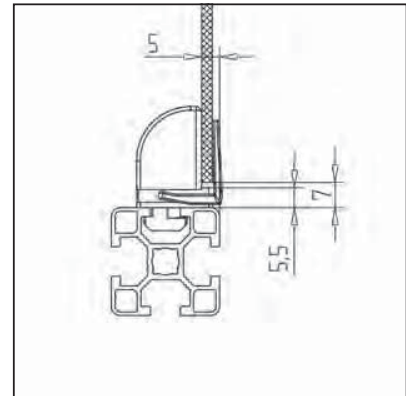
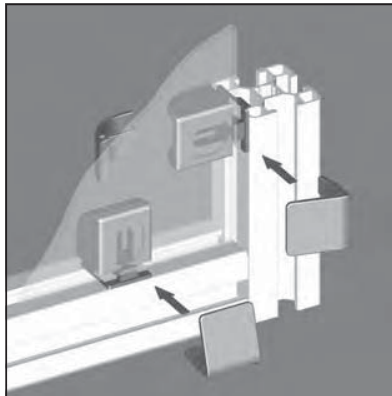
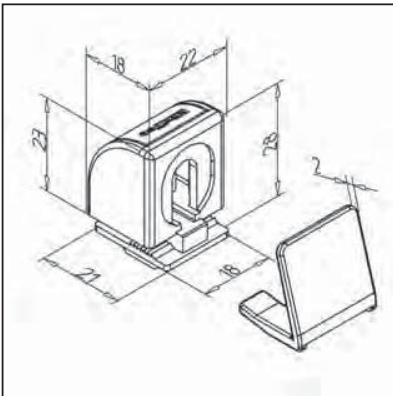
- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove
- Insert panel elements
- Press on clip
- **Disassembly:**  
Lift clip with a screwdriver

## PANEL CLAMP BLOCK 30

part no. 22.1230/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Weight 0,008 kg

### APPLICATIONS

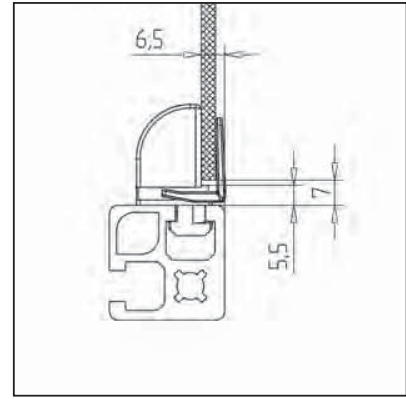
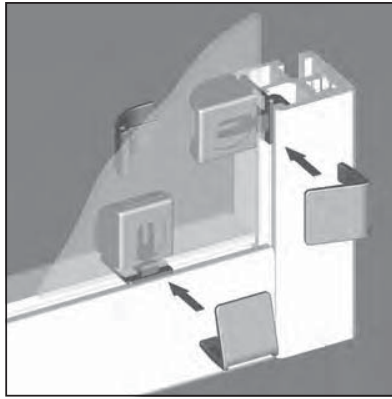
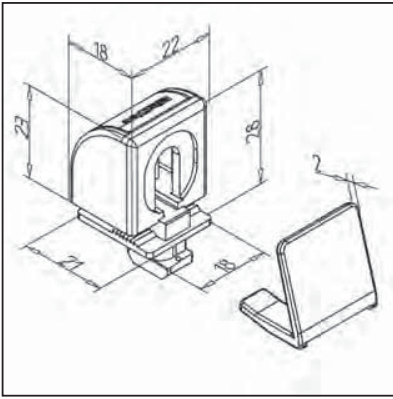
- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove
- Insert panel elements
- Press on clip
- **Disassembly:**  
Lift clip with a screwdriver

## PANEL CLAMP BLOCK 32

part no. 22.1245/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Weight 0,008 kg

### APPLICATIONS

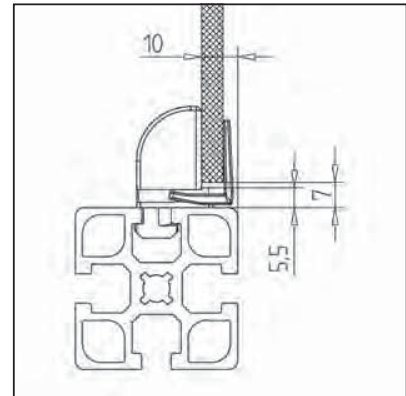
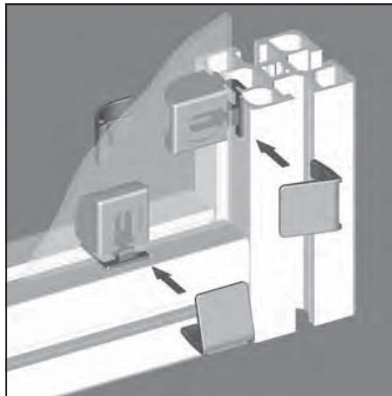
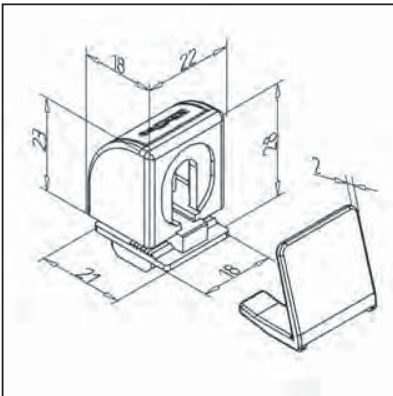
- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove
- Insert panel elements
- Press on clip
- **Disassembly:**  
Lift clip with a screwdriver

## PANEL CLAMP BLOCK 45

part no. 22.1240/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Weight 0,008 kg

### APPLICATIONS

- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

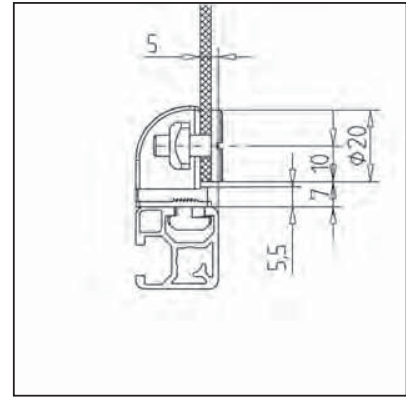
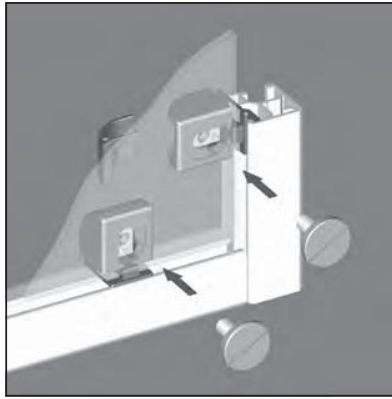
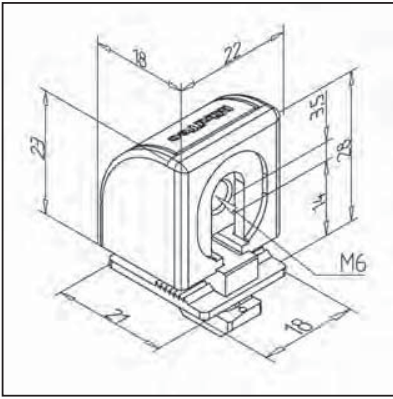
### ASSEMBLY

- Insert socket into profile groove
- Insert panel elements
- Press on clip
- **Disassembly:**  
Lift clip with a screwdriver



## SCREW BLOCK 23

part no. 22.1255/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Nut M6, steel, zinc-plated
- Weight 0,011 kg
- Also available with thread size M4 / M5 / M8

### APPLICATIONS

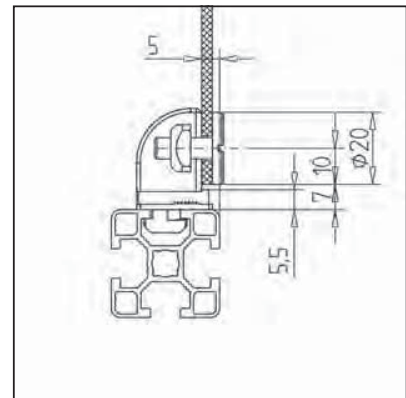
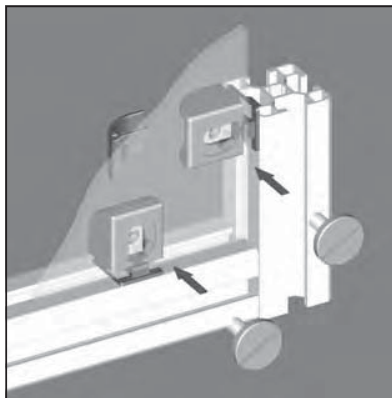
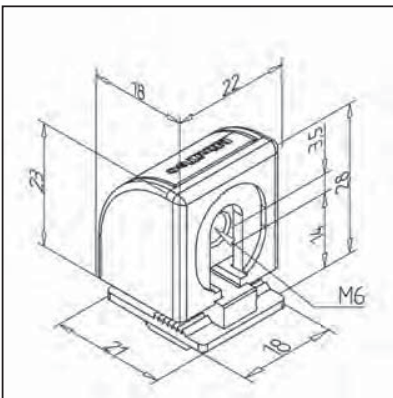
- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove
- Insert bored panel elements
- To screw panel elements
- Recommended flat head screw M6x12 **part no. 21.2074/0** 3 mm slice thickness or M6x16 **part no. 21.1246/0** for greater strength

## SCREW BLOCK 30

part no. 22.1250/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey
- Nut M6, steel, zinc-plated
- Weight 0,011 kg
- Also available with thread size M4 / M5 / M8

### APPLICATIONS

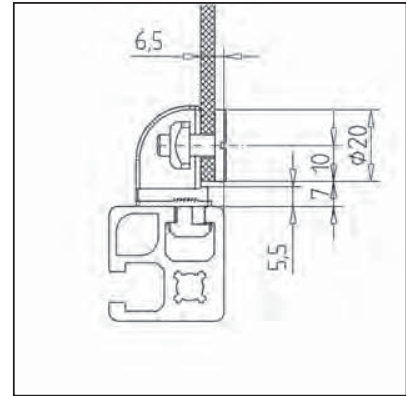
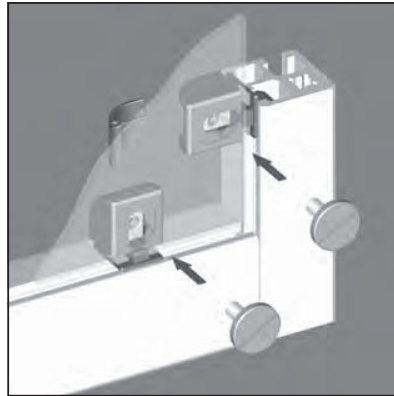
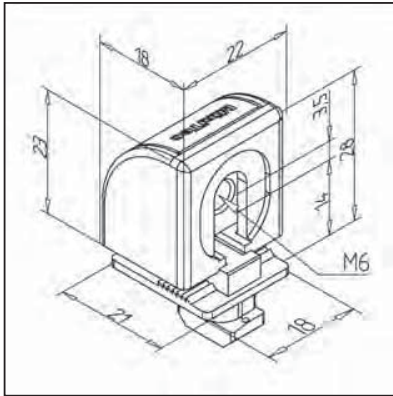
- Suitable for all profiles 30
- Subsequent fitting of panel elements from 2 to 6 mm thickness
- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove
- Insert bored panel elements
- To screw panel elements
- Recommended flat head screw M6x12 **part no. 21.2074/0** 3 mm slice thickness or M6x16 **part no. 21.1246/0** for greater strength

## SCREW BLOCK 32

part no. 22.1265/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey

---

- Nut M6, steel, zinc-plated

---

- Weight 0,011 kg

---

- Also available with thread size M4 / M5 / M8

### APPLICATIONS

- Suitable for all profiles 45

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- Subsequent fitting of panel elements from 2 to 6 mm thickness

---

- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove

---

- Insert bored panel elements

---

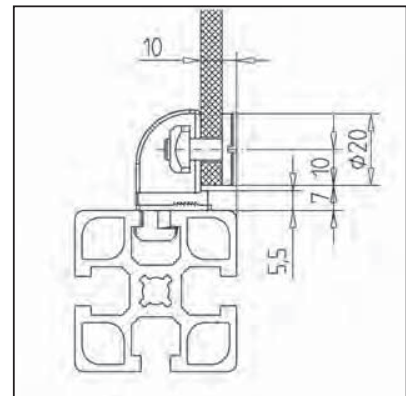
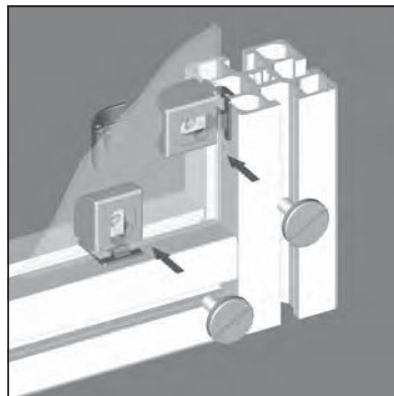
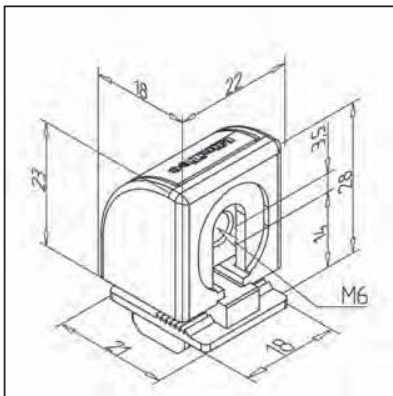
- To screw panel elements

---

- Recommended flat head screw M6x12 **part no. 21.2074/0** 3 mm slice thickness or M6x16 **part no. 21.1246/0** for greater strength

## SCREW BLOCK 45

part no. 22.1260/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS grey

---

- Nut M6, steel, zinc-plated

---

- Weight 0,011 kg

---

- Also available with thread size M4 / M5 / M8

### APPLICATIONS

- Suitable for all profiles 45

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- Subsequent fitting of panel elements from 2 to 6 mm thickness

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- Circulating air gap 7 mm

### ASSEMBLY

- Insert socket into profile groove

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- Insert bored panel elements

---

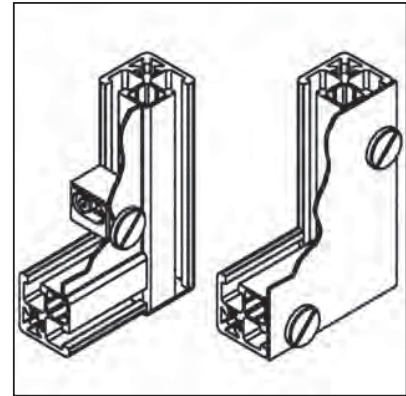
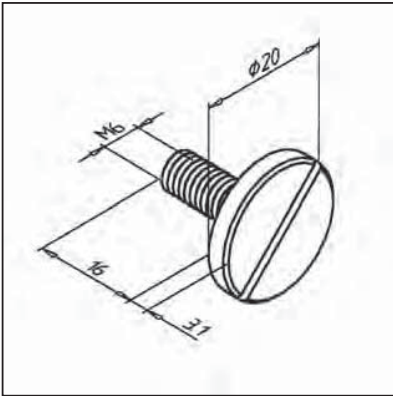
- To screw panel elements

---

- Recommended flat head screw M6x12 **part no. 21.2074/0** 3 mm slice thickness or M6x16 **part no. 21.1246/0** for greater strength

## PAN HEAD SCREW 16

part no. diverse



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Screw head:  $\phi 20$
- M6 x 12, part no. 21.2074/0
- M6 x 16, part no. 21.1246/0
- M6 x 20, part no. 21.1246/1
- Weight 0,010 kg

### APPLICATIONS

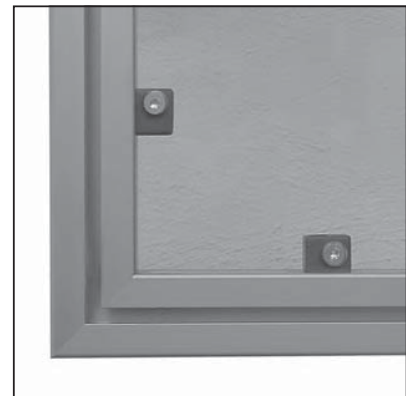
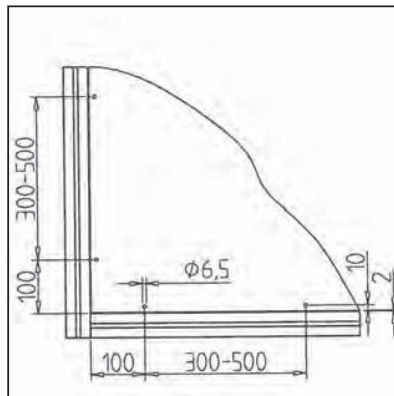
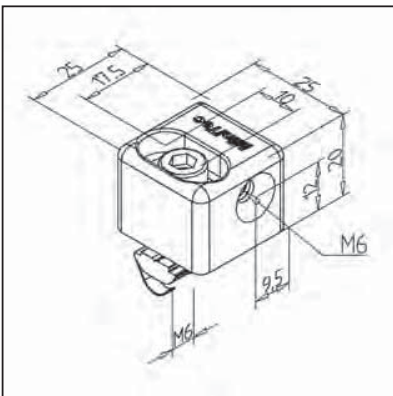
- Mounting of panel elements directly on profile groove or
- In connection with screw block 32 part no. 22.1112/0 or multiblock part no. 21.1355/0

### ASSEMBLY

- Predrill panel elements:  $\phi 6,5$  mm
- Recommend grid dimension: ca. 150 mm
- Edge distance: see screw block 32 and multiblock

## MULTIBLOCK 30 GD

part no. 21.2220/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Fastening kit
- Without pan head screw
- Weight 0,0316 kg

### APPLICATIONS

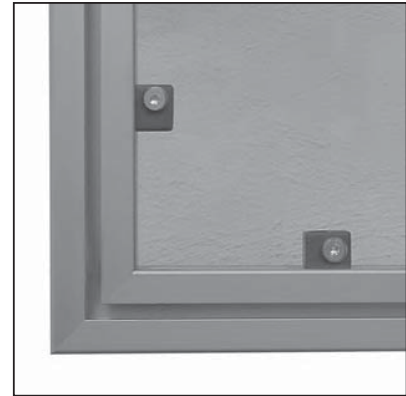
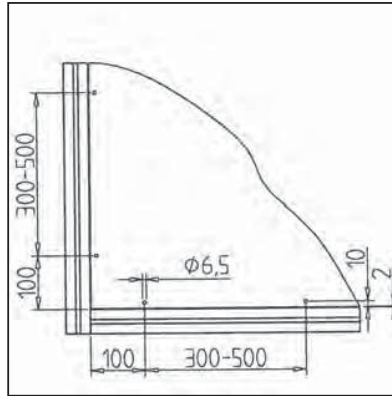
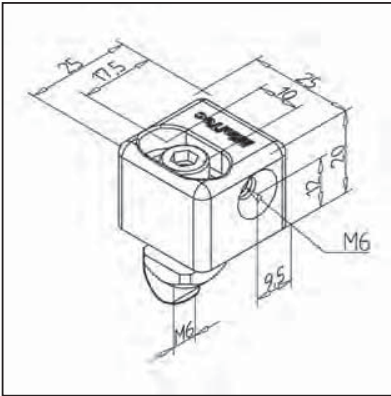
- Subsequent fitting of panel and add-on elements
- Flush installation of panels, thickness 6 to 7 mm

### ASSEMBLY

- Subsequent fastening of panel elements with screws M6 or pan head screw
- Calculation of the panel element dimension: clear opening - 4 mm (~2 mm space afloat)
- Fixing bores  $\phi 6,5$  mm, 10 mm distance from edge of the panel element

## MULTIBLOCK GD

part no. 21.1355/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

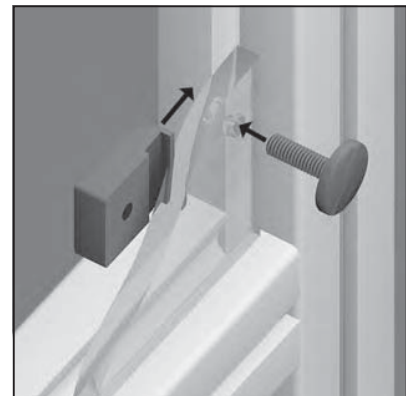
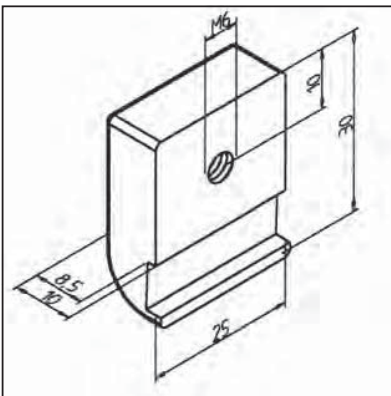
- Subsequent fitting of panel and add-on elements
- Flush installation of panels, thickness 5 to 15 mm

### 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 173
- Fixing bores  $\varnothing$  6,5 mm for screws M6, 8 mm from edge of the panel element

## THREAD SOCKET GD

part no. 21.1117/1



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

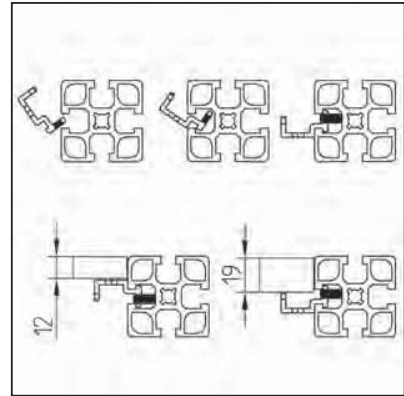
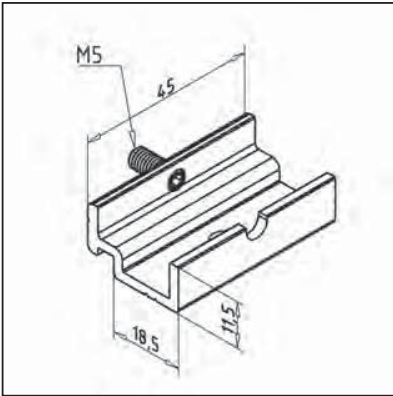
- Fastening of panel elements in profile frames
- Table tops

### 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 173

## MOUNTING BASE, PIVOTED

part no. 21.0036/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Set screw M05
- Weight 0,016 kg

### APPLICATIONS

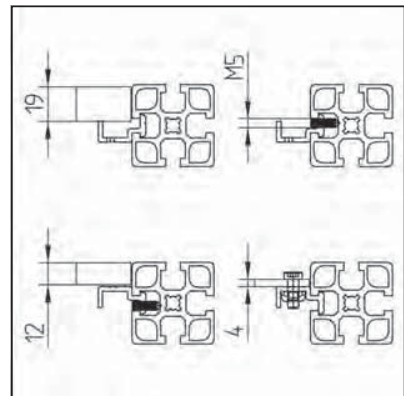
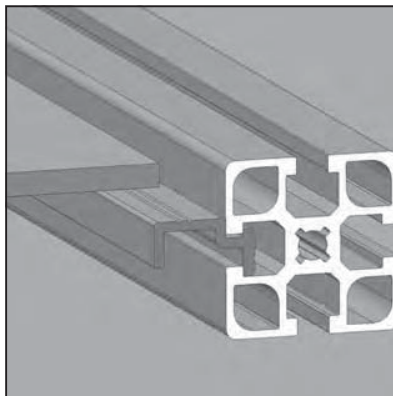
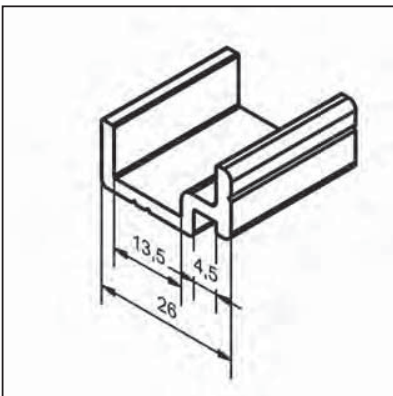
- For placing and fasten table tops and surface elements

### ASSEMBLY

- Insertion into the profile groove
- Clamp with set screw
- No processing required

## SUPPORT PROFILE

part no. 20.1121/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural anodized
- Weight 0,339 kg/m
- Length 6 m

### APPLICATIONS

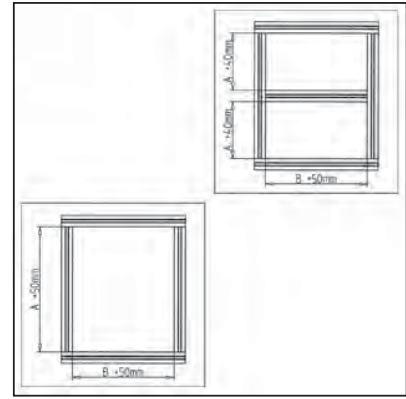
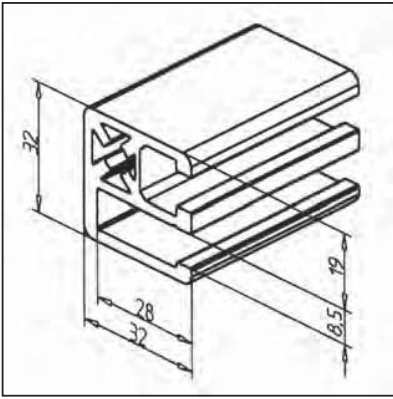
- All types of safety equipment
- For installation of surface elements such as panels and plates up to a thickness of 19 mm
- Subsequent insertion

### ASSEMBLY

- Swivel support profile in groove, if necessary to be fastened with set screw
- Surface element: clear opening x+y: -2 mm

## CLAMP PROFILE 32 X 32

part no. 20.1070/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

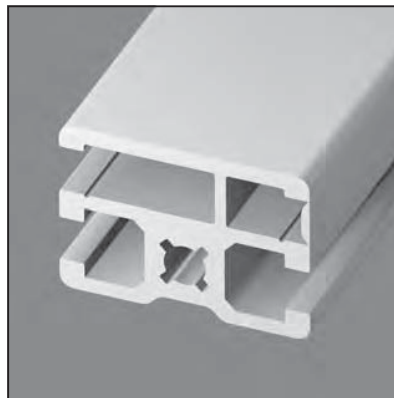
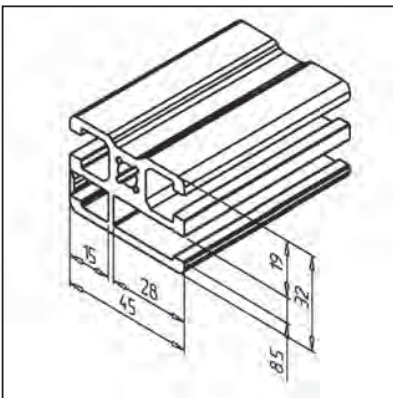
- All types of safety equipment
- For clamping surface elements such as corrugated mesh, panels or plates up to a thickness of 8 mm
- For large flexible panels, split panel into sections using a center bar of clamp profile 45x32

### ASSEMBLY

- MiniTec power-lock fastener; no bores required
- No cut-outs in surface elements required
- Premount 3 sides of the frame
- Insert surface element and mount last profile strut
- Push in distance profile on the inside or knock in with a flat tool
- For panel elements < 4 mm mount additional insert seal

## CLAMP PROFILE 45 X 32

part no. 20.1053/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

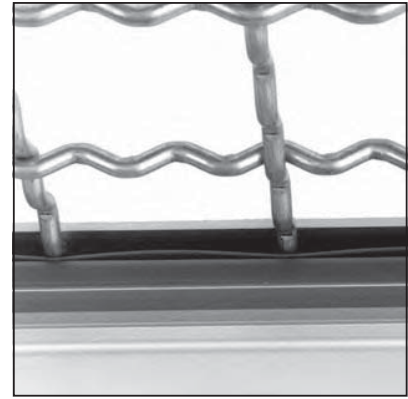
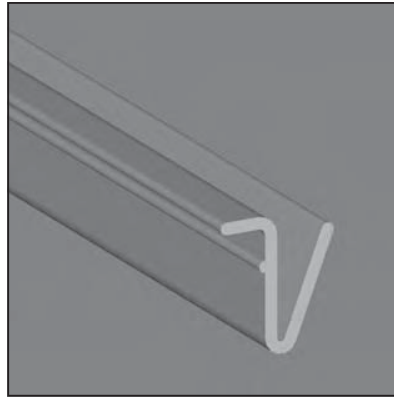
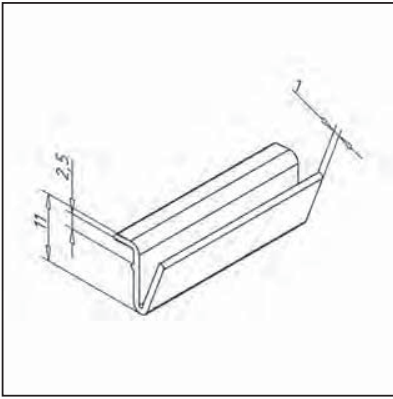
- All types of safety equipment
- For clamping surface elements such as corrugated mesh, panels or plates up to a thickness of 8 mm
- With larger protection fields intermediate rods from mounting rail 45 x 32 are to be used, in order to ensure sufficient security against squeezing the two dimensional elements out
- Additional struts of clamp profile 45 x 32 must be used for larger guarding elements to ensure sufficient protection against extrusion of surface element; detach covering strips of profile 45 x 32

### ASSEMBLY

- MiniTec power-lock fastener
- No cut-outs in surface elements required
- Premount 3 sides of the frame
- Insert surface element and mount last profile strut
- Push in distance profile on the inside or knock in with a flat tool
- For panel elements < 4 mm mount additional insert seal

## DISTANCE PROFILE 30

part no. 22.1158/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey	
- Weight	0,02 kg/m
- Length	2 m

### APPLICATIONS

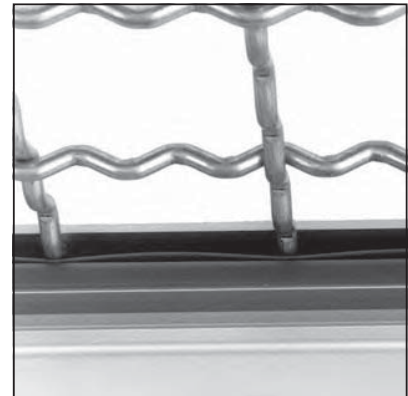
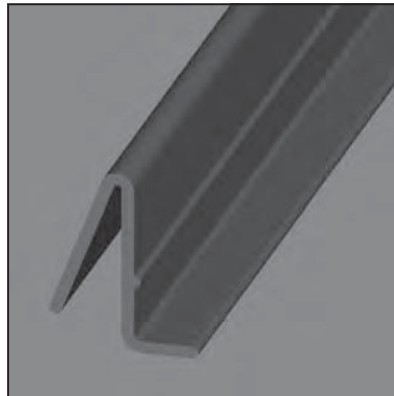
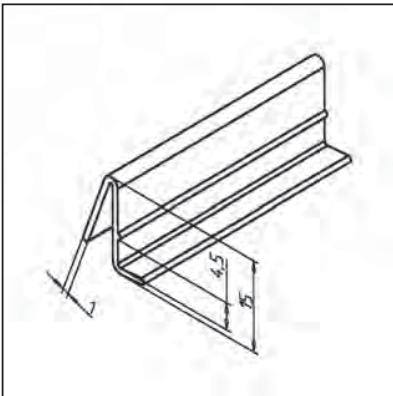
- For clamping surface elements such as corrugated mesh, panels and plates for profile series 30

### ASSEMBLY

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

## DISTANCE PROFILE

part no. 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 no. 20.1053/0** and clamp profile 32 x 32 **part no. 20.1070/0** to fix corrugated mesh or panel elements

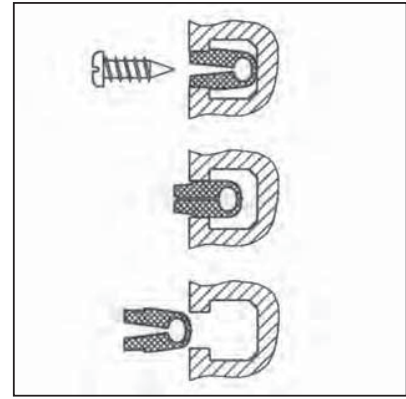
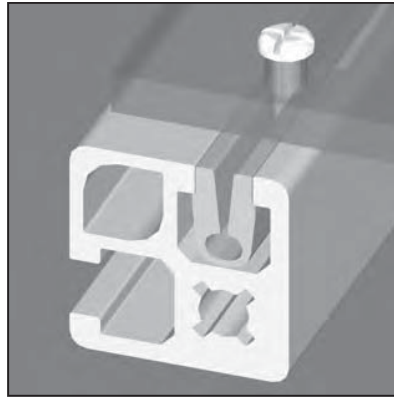
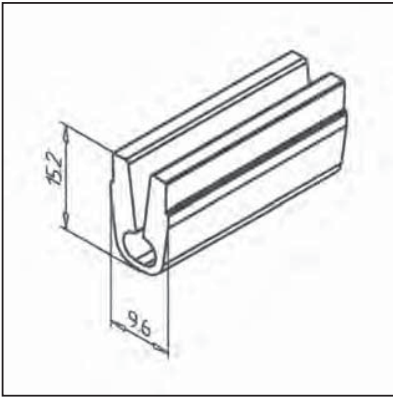
- Also for use with all other profiles to fix panel elements

### ASSEMBLY

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

## SCREW SOCKET PROFILE

part no. 22.1076/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

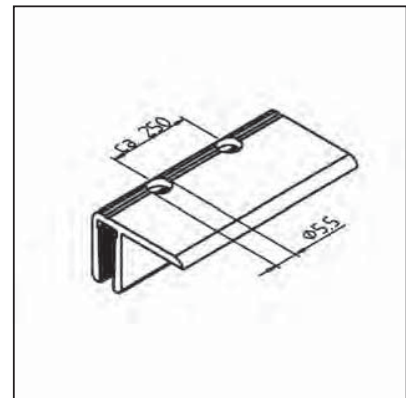
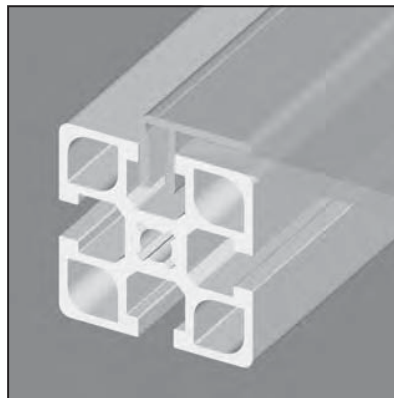
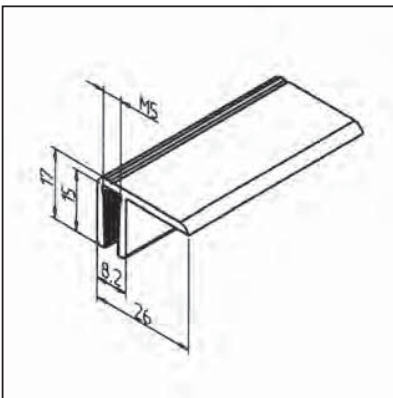
- Easy fastening of panels or panel elements at any point

### ASSEMBLY

- Clip profile into groove
- Fasten element with commercial-type selftapping screws  $\varnothing$  4-5 mm; Length min: 16 mm
- For material 1-6 mm, use self tapping screw 3,5 x 16 mm **part no. 21.1365/0**

## PANEL CLAMPING PROFILE

part no. 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

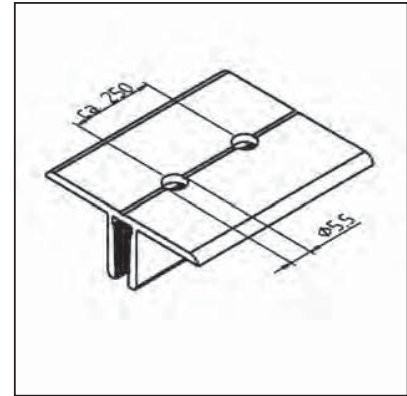
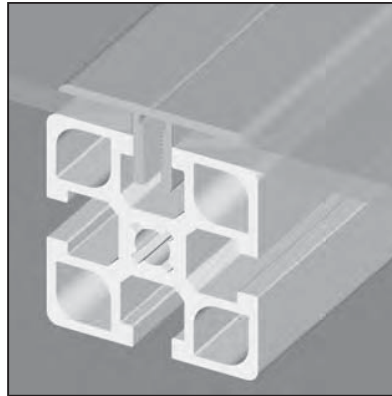
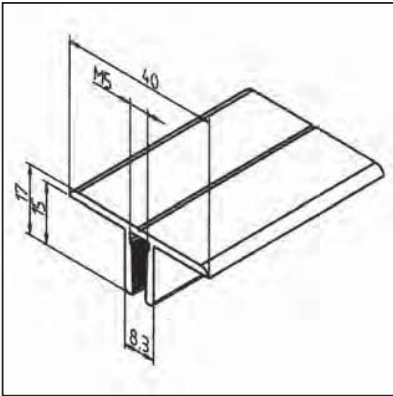
### ASSEMBLY

- Drill bores  $\varnothing$  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 173



## DOUBLE PANEL CLAMPING PROFILE

part no. 20.1018/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

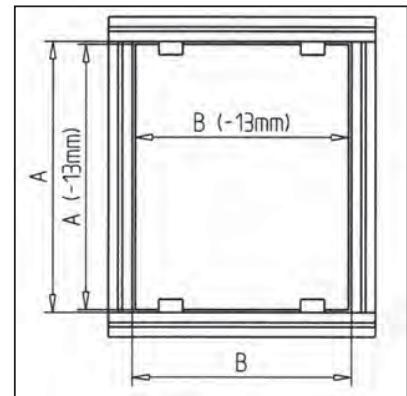
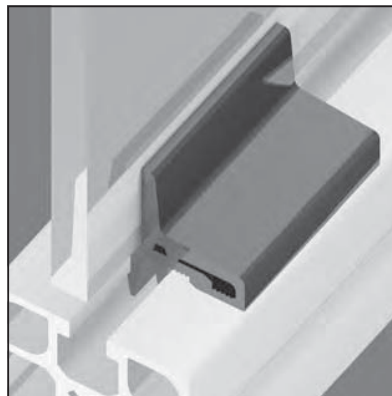
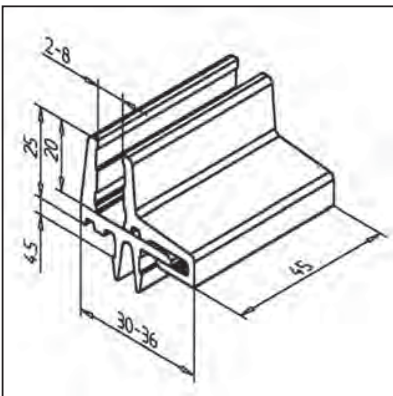
- Fastening of panel elements
- Support of panel elements of a thickness up to 10 mm

### ASSEMBLY

- Drill bores  $\varnothing$  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 no. 20.1025/0**
- Calculation of the panel element dimension: see page 173

## PANEL HOLDER

part no. 22.1090/1



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey	
- On request also deliverable in black <b>part no. 22.1090/0</b>	
- Weight	0,011 kg

### APPLICATIONS

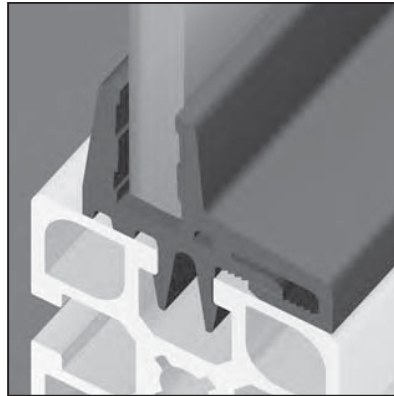
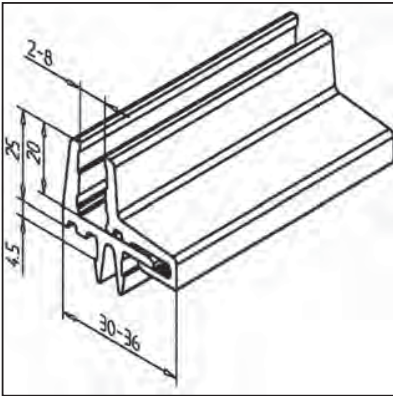
- Fastening of panel elements up to 8 mm
- If the panel elements are < 4 mm, a cellular rubber should be inserted
- Windows, door fillings
- Not suitable for corrugated mesh

### 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 171

## CLAMP PROFILE PVC

part no. 22.1092/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey
- On request also deliverable in black **part no. 22.1080/0**
- Weight 0,230 kg/m
- Length 2 m

### APPLICATIONS

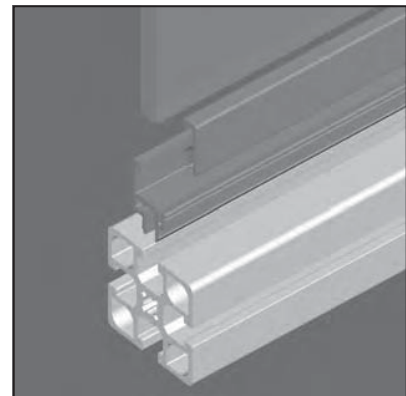
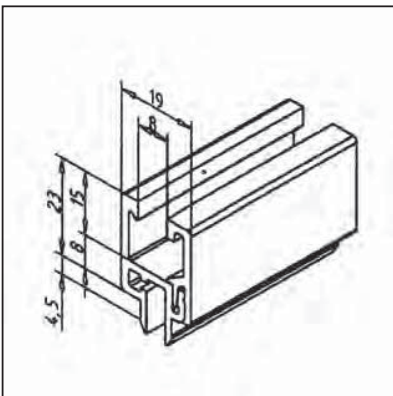
- Fastening of panel elements up to 8 mm
- If the panel elements are < 4 mm, a cellular rubber should be inserted
- Windows, door fillins
- No free space between profile and panel element
- Also suitable for corrugated mesh

### 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 171

## PANEL CLAMP PROFILE

part no. 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

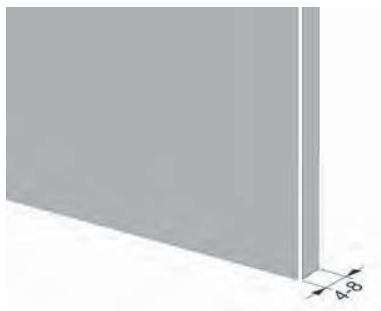
### ASSEMBLY

- 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 171
- **No mitre cut necessary**

## SURFACE ELEMENTS

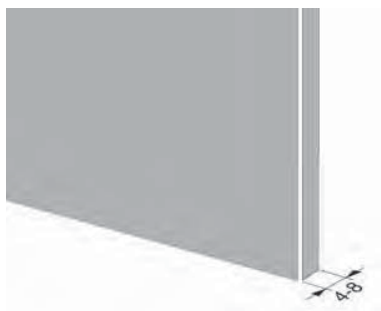
### OPTIONS & MATERIAL

#### ACRYLIC



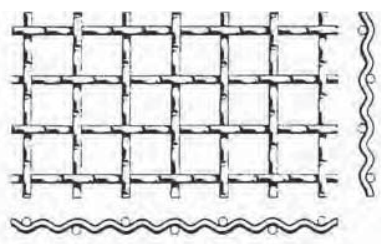
PART NO.	THICKNESS	COLOUR	WEIGHT	DIMENSION
21.1832/0	4 mm	tinted	4.76 kg/m <sup>2</sup>	2030 x 3050 mm
21.1811/0	5 mm	tinted	5.95 kg/m <sup>2</sup>	2030 x 3050 mm
21.1812/0	6 mm	tinted	7.14 kg/m <sup>2</sup>	2030 x 3050 mm
21.1813/0	8 mm	tinted	9.52 kg/m <sup>2</sup>	2030 x 3050 mm
21.1826/0	4 mm	clear	4.76 kg/m <sup>2</sup>	2030 x 3050 mm
21.1836/0	5 mm	clear	5.95 kg/m <sup>2</sup>	2030 x 3050 mm
21.1827/0	6 mm	clear	7.14 kg/m <sup>2</sup>	2030 x 3050 mm
21.1828/0	8 mm	clear	9.52 kg/m <sup>2</sup>	2030 x 3050 mm

#### POLYCARBONATE



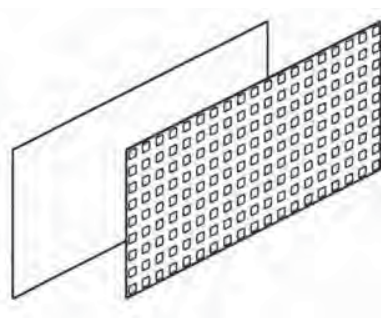
PART NO.	THICKNESS	COLOUR	WEIGHT	DIMENSION
21.1809/0	4 mm	tinted	4.76 kg/m <sup>2</sup>	2030 x 3050 mm
21.1808/0	5 mm	tinted	5.95 kg/m <sup>2</sup>	2030 x 3050 mm
21.1807/0	6 mm	tinted	7.20 kg/m <sup>2</sup>	2030 x 3050 mm
21.1821/0	8 mm	tinted	9.78 kg/m <sup>2</sup>	2030 x 3050 mm
21.1829/0	4 mm	clear	4.80 kg/m <sup>2</sup>	2030 x 3050 mm
21.1833/0	5 mm	clear	5.95 kg/m <sup>2</sup>	2030 x 3050 mm
21.1830/0	6 mm	clear	7.20 kg/m <sup>2</sup>	2030 x 3050 mm
21.1831/0	8 mm	clear	9.78 kg/m <sup>2</sup>	2030 x 3050 mm

#### CORRUGATED MESH



PART NO.	WIRE SIZE	MESH SIZE	WEIGHT	DIMENSION	MATERIAL
21.1803/0	4 mm	30 mm	6.2 kg/m <sup>2</sup>	2000 x 3000 mm	St, galvanized
21.1805/0	4 mm	40 mm	4.7 kg/m <sup>2</sup>	2000 x 3000 mm	St, galvanized
21.1818/2	4 mm	30 mm	2.14 kg/m <sup>2</sup>	2000 x 2000 mm	ALMg3
21.1818/1	4 mm	40 mm	1.6 kg/m <sup>2</sup>	2000 x 2000 mm	ALMg3

#### ON DEMAND

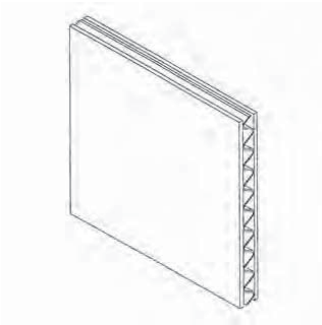


Aluminium sheets, steel plates,  
perforated plates, laminated wood panels

## SURFACE ELEMENTS

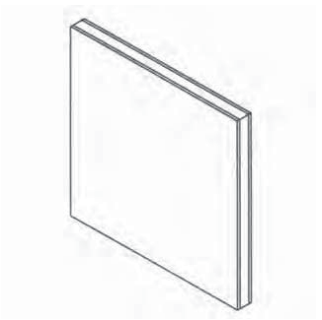
## OPTIONS &amp; MATERIAL

## CORRUGATED ALUMINIUM PANEL



Front plate (anodized)	1 mm
Rear Plate (natural)	0.3 mm
Aluminium Welle	5.5 mm
Total thickness	4.6 kg/m <sup>2</sup>
Panel Size	1500 x 2500 mm
Material	Aluminum, paintable, printable, recyclable

## COMPOSITE PANEL



Material outside	Aluminium (anodized)
Material inside	Polyethylene
Total thickness	6 mm
Weight	7.3 kg/m <sup>2</sup>
Panel Size	1500 x 3000 mm
Others	Aluminum, paintable, printable, recyclable

## PVC-PLATE



Thickness	20 mm
Colour	grey, 7011 RAL
Weight	28 kg/m <sup>2</sup>
Panel Size	1000 x 2000 mm
On Demand	other sizes and thicknesses, antistatic table plates

## RECYCLED PE PLATE

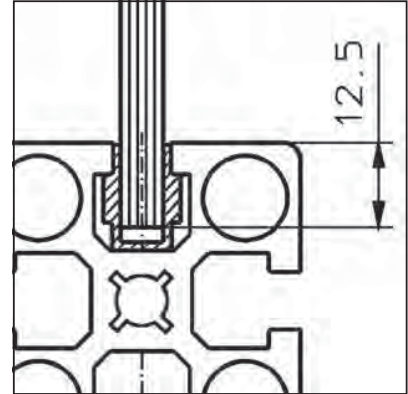
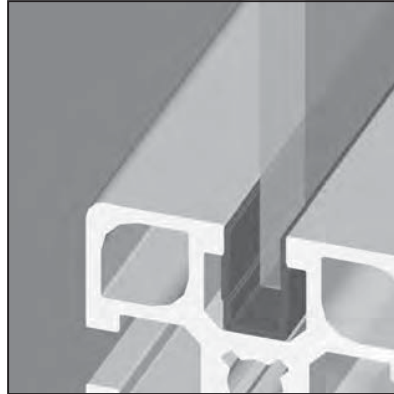
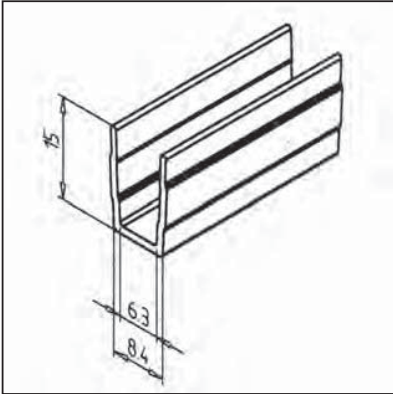


Thickness	10 - 40 mm
Colour*	black oder black-coloured
Dimension	1000 x 2000 mm
Density	0.93 kg/dm <sup>3</sup>
Material	PE-Regenerate

\* (In black-colored the color variance may vary depending on delivery)

## COVER PROFILE

part no. 22.1070/1



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey

---

- Available in lightgrey **part no. 22.1070/2**
- Available in black **part no. 22.1070/0**
- Available in orange **part no. 22.1071/0**
- Available in blue **part no. 22.1072/0**
- Available in yellow **part no. 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

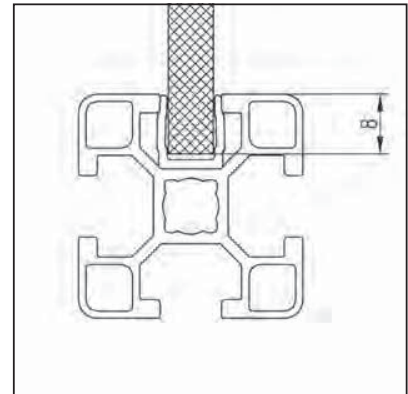
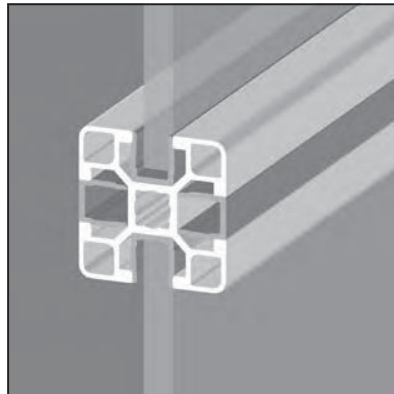
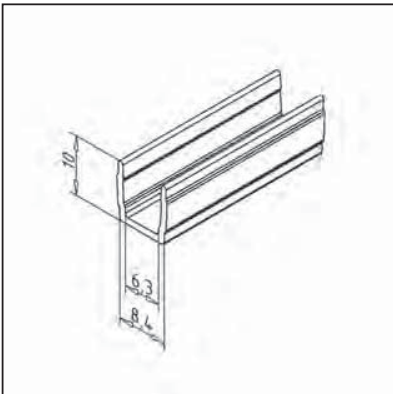
- Snap or slip into profile groove

---

- Allowance for the panel elements: see page 170

## COVER PROFILE 30

part no. 22.1161/1



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey

---

- Available in lightgrey **part no. 22.1161/2**

---

- Weight 0,040 kg/m

---

- Length 2 m

### APPLICATIONS

- Mounted with the groove to the inside: For closing of the profile

---

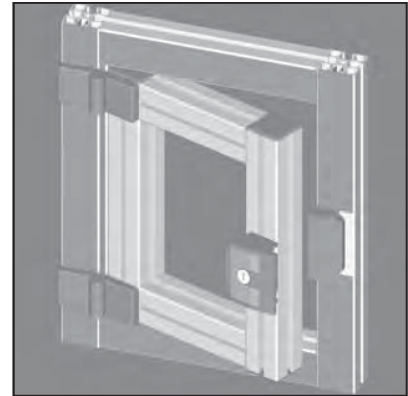
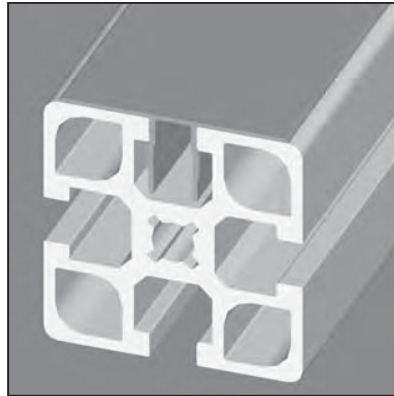
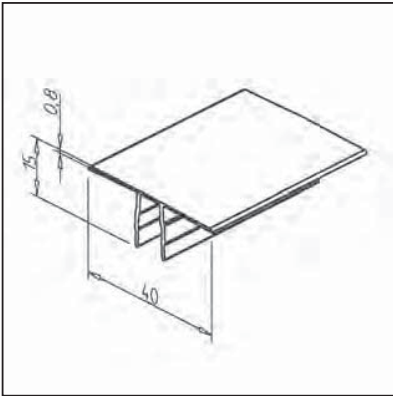
- Mounted with the groove on the outside: To accommodate surface elements to 6mm thickness

### ASSEMBLY

- Press onto profile groove

## SIGNAL PROFILE

part no. 22.1097/2



### TECHN. DATA / ITEMS SUPPLIED

- PVC, yellow-orange
- Deliverable in red **part no. 22.1097/3**
- Deliverable in signal-yellow **part no. 22.1097/4**
- Weight 0,090 kg/m
- Length 2 m

### APPLICATIONS

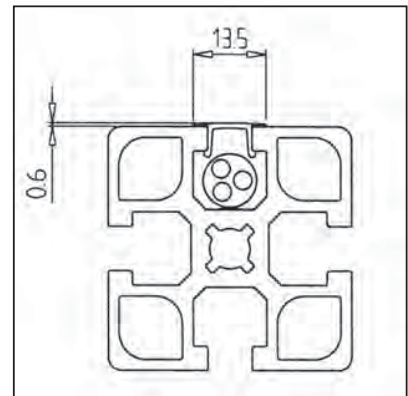
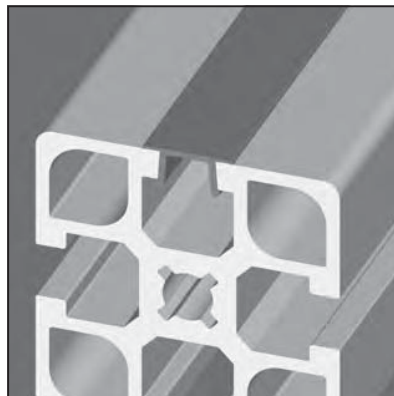
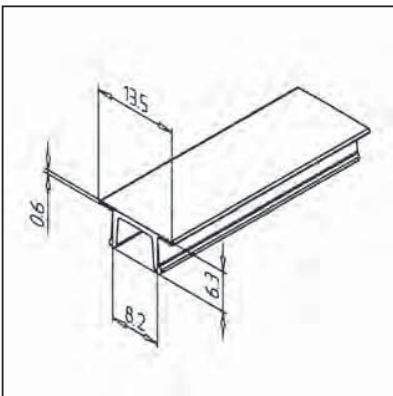
- Marking of safety relevant construction units such as doors and risk zones
- Coloured organization of constructions or parts

### ASSEMBLY

- Clip in profile groove

## COVER PROFILE K

part no. 22.1020/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey
- Weight 0,023 kg/m
- Length 2 m
- Colour: yellow, part no. 22.1020/4

### APPLICATIONS

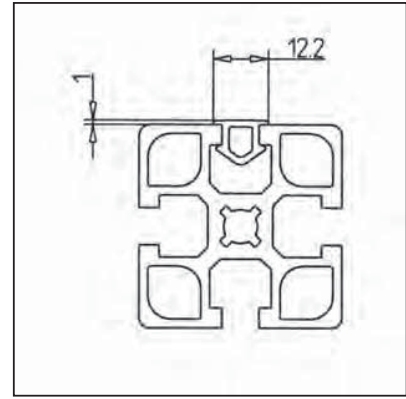
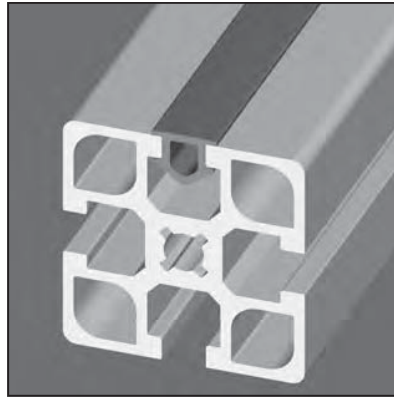
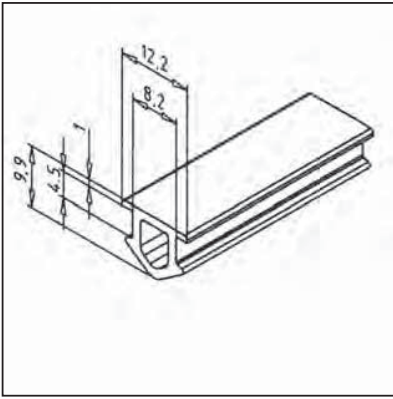
- Flush, dust-proof covering of profile grooves
- Groove cross-section usable as installation conduit for wiring or piping
- Information plates

### ASSEMBLY

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

## COVER PROFILE G

part no. 22.1010/0



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	70°
- Weight	0,072 kg/m
- Length	25 m

### APPLICATIONS

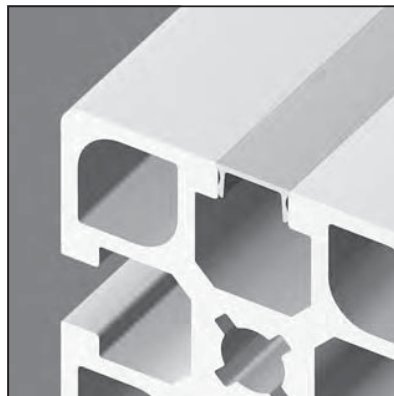
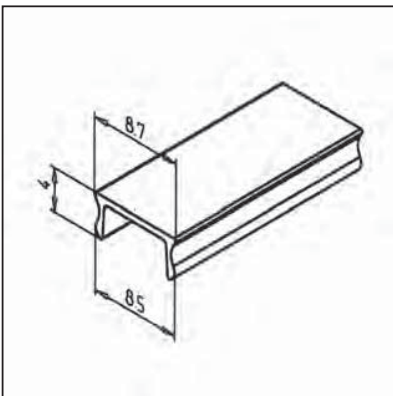
- Flush, dust-proof covering of profile grooves
- Groove cross-section usable as installation conduit for wiring or piping

### ASSEMBLY

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

## COVER PROFILE L

part no. 20.1021/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural	
- Weight	0,030 kg/m
- Length	2 m
<b>- Also deliverable in aluminium anodized part no. 20.1021/1</b>	

### APPLICATIONS

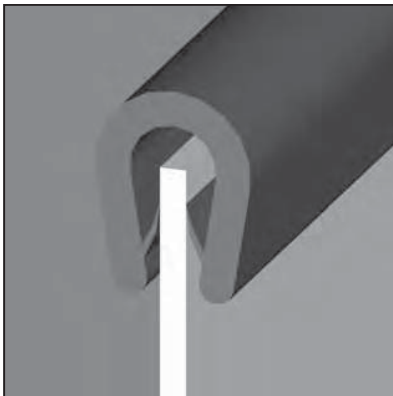
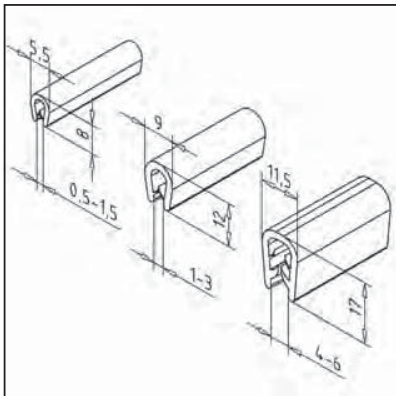
- Flush, dust-proof covering of profile grooves
- Groove cross-section usable as installation conduit for wiring or piping
- Information plates

### ASSEMBLY

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

## EDGE PROTECTION

part no. diverse



### TECHN. DATA / ITEMS SUPPLIED

- PVC, black, strengthened with steel sheet
- Edge Protection 0,5-1,5 **part no. 22.1029/0**
- Edge Protection 1-3 **part no. 22.1036/0**
- Edge Protection 4-6 **part no. 22.1037/0**
- Weight (0,5-1,5) 0,050 kg/m
- Weight (1-3) 0,120 kg/m
- Weight (4-6) 0,190 kg/m
- Length (0,5-1,5) 50 m
- Length (1-3 u. 4-6) 100 m

### APPLICATIONS

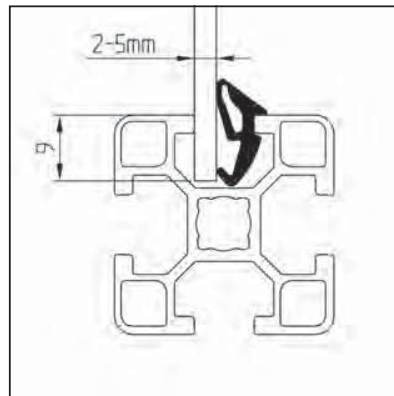
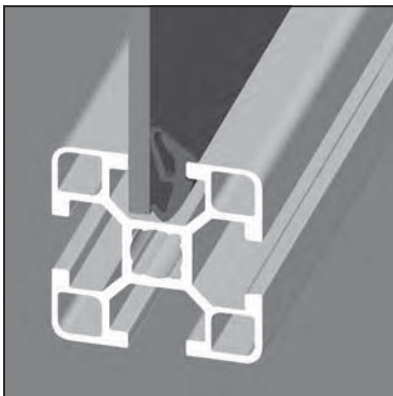
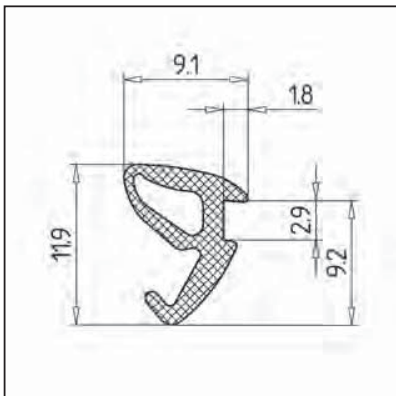
- Edge protection for panel elements
- Protection of MiniTec conduit
- Protection of bores and openings

### ASSEMBLY

- Slip on edge of the panel element

## INSERT SEAL 30

part no. 22.1174/0



### TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black
- Weight 0,05 kg/m
- Length max. 100 m

### APPLICATIONS

- Attachment and sealing of panel elements from 2-5 mm in the profile groove

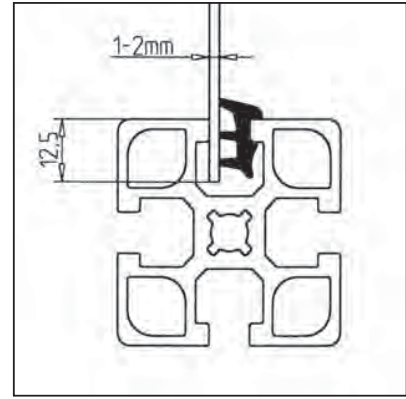
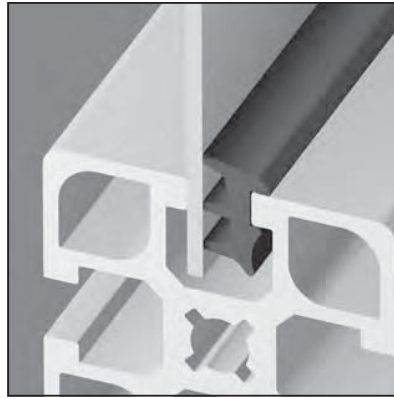
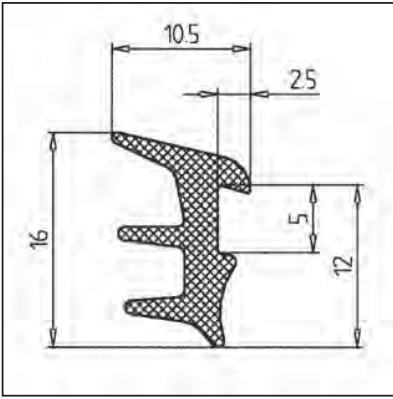
### ASSEMBLY

- 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



## INSERT SEAL 2

part no. 22.1083/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

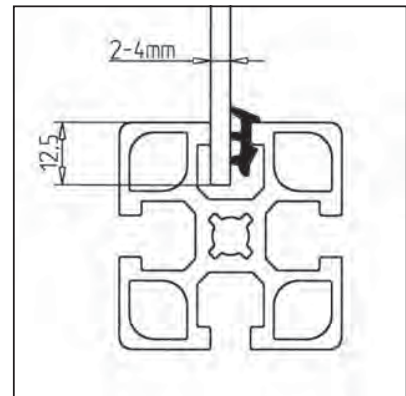
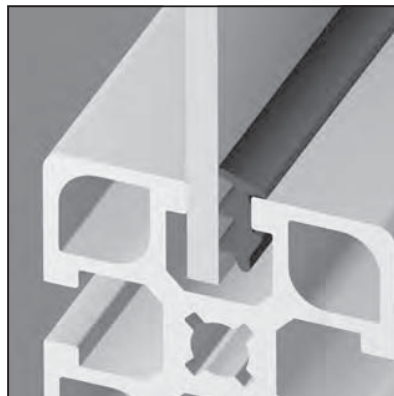
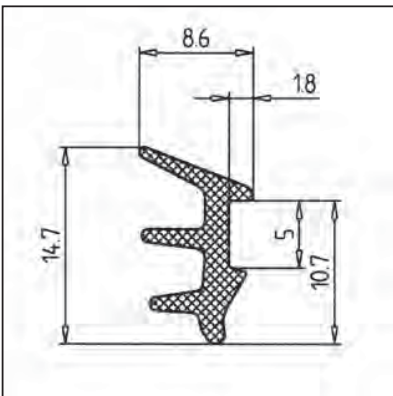
- Not suitable for acrylic plastic and polycarbonate
- Fastening and sealing of panel elements up to 2 mm thickness, directly in the profile groove

### 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 no. 22.1086/1 on both sides

## INSERT SEAL 4

part no. 22.1081/0



### TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,070 kg/m
- Length	100 m

### APPLICATIONS

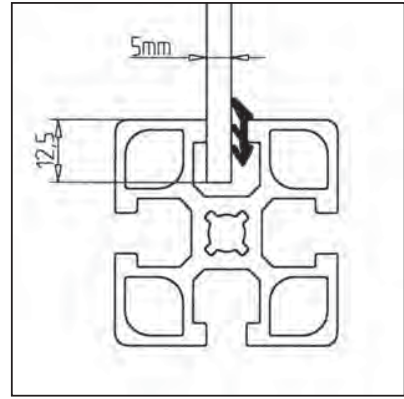
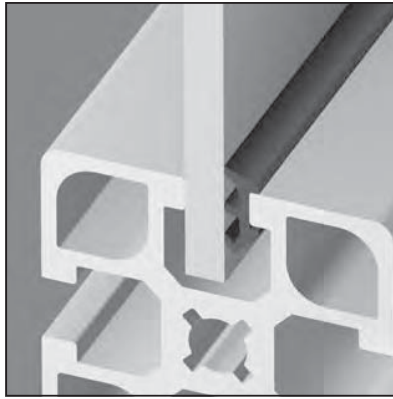
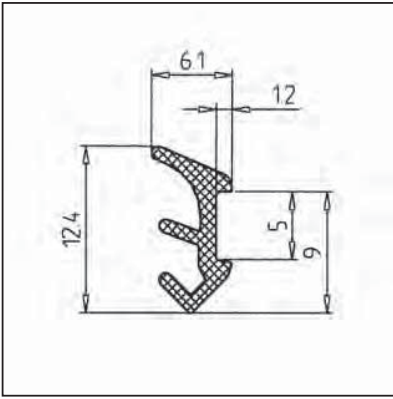
- Fastening and sealing of panel elements up to 2-4 mm in the profile groove
- Also suitable for acrylic plastic and polycarbonate

### 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

## INSERT SEAL 5

part no. 22.1099/0



### TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,040 kg/m
- Length	100 m

### APPLICATIONS

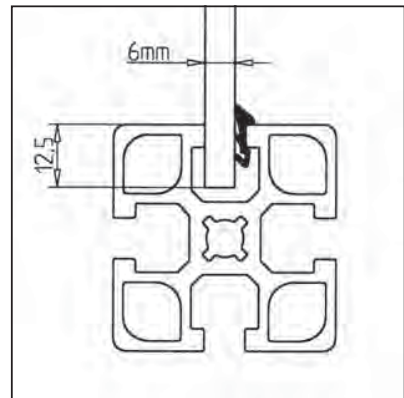
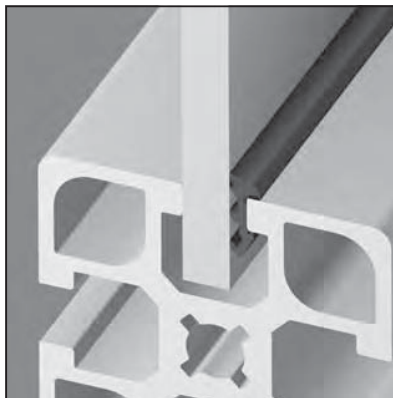
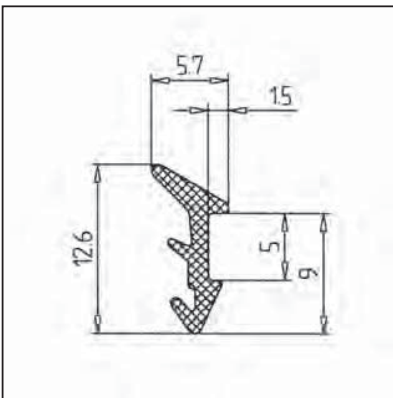
- Fastening and sealing of panel elements up to 5 mm thickness, directly in the profile groove
- Also suitable for acrylic plastic and polycarbonate

### ASSEMBLY

- Insert panel into profile groove

## INSERT SEAL 6

part no. 22.1086/1



### TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,020 kg/m
- Length	100 m
- Oil-resistant execution, <b>part no. 22.1086/3</b>	

### APPLICATIONS

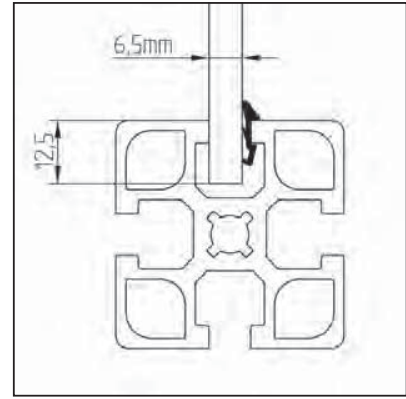
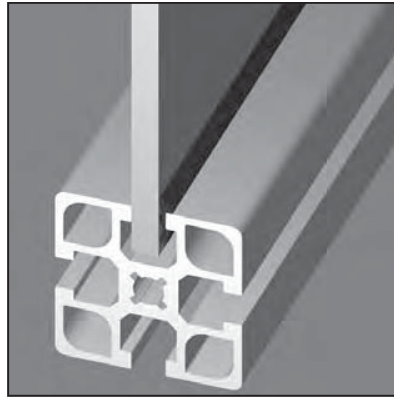
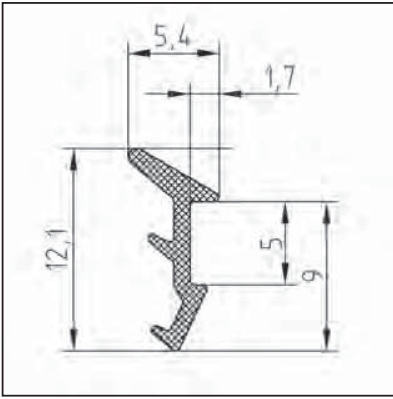
- Fastening and sealing of panel elements up to 6 mm thickness, directly in the profile groove
- Also suitable for acrylic plastic and polycarbonate

### ASSEMBLY

- Insert panel into profile groove
- Materials Ø 2 mm can be clamped by using insert seal 6 on both sides

## INSERT SEAL 6,5

part no. 22.0991/0



### TECHN. DATA / ITEMS SUPPLIED

- EPDM-AGV, black	
- Weight	0,033 kg/m
- Length	100 m

### APPLICATIONS

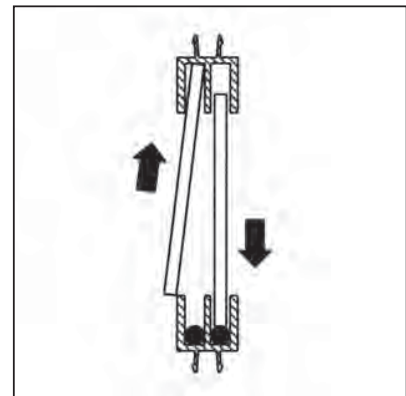
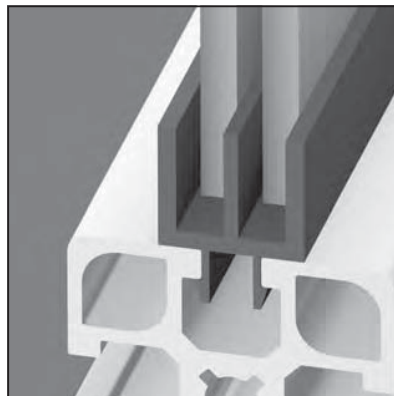
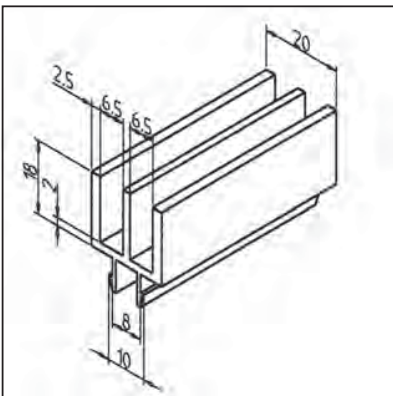
- Fastening and sealing of panel elements up to 6,5 mm thickness, directly in the profile groove
- Also suitable for acrylic plastic and polycarbonate

### ASSEMBLY

- Insert panel into profile groove, press it subsequently with blunt tool made of wood or plastic
- Materials Ø 2 mm can be clamped by using insert seal 6,5 on both sides

## GUIDE PROFILE 2

part no. 22.1073/1



### TECHN. DATA / ITEMS SUPPLIED

- Hard, PVC, grey	
- On request also deliverable in black <b>part no. 22.1073/0</b>	
- Weight	0,270 kg/m
- Length	2 m

### APPLICATIONS

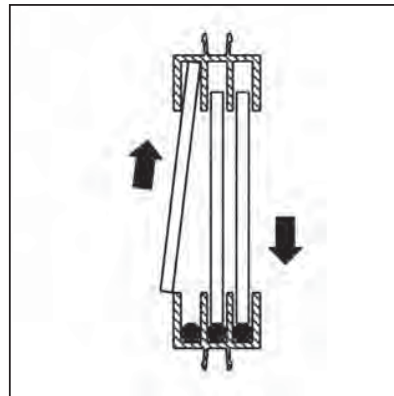
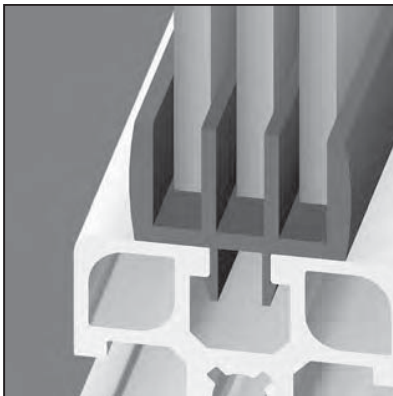
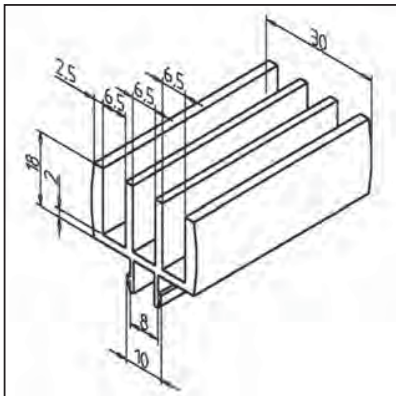
- 2-fold sliding doors made of panel elements of max. 6 mm

### ASSEMBLY

- Snap into profile groove
- Suitable for subsequent mounting
- For subsequent mounting of panel elements PVC-bars **part no. 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 no. 22.1075/1



### TECHN. DATA / ITEMS SUPPLIED

- Hard, PVC, grey
- On request also deliverable in black  
**part no. 22.1075/0**
- Weight 0,342 kg/m
- Length 2 m

### APPLICATIONS

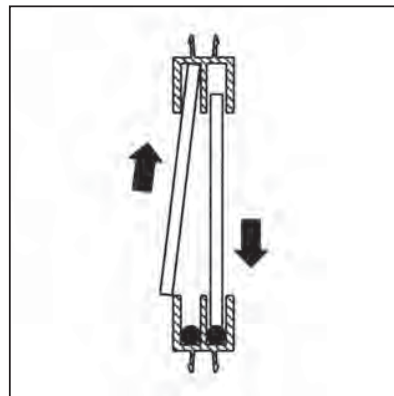
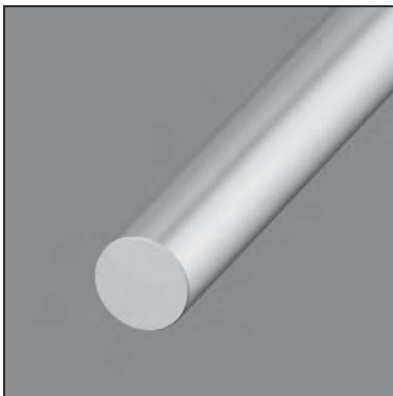
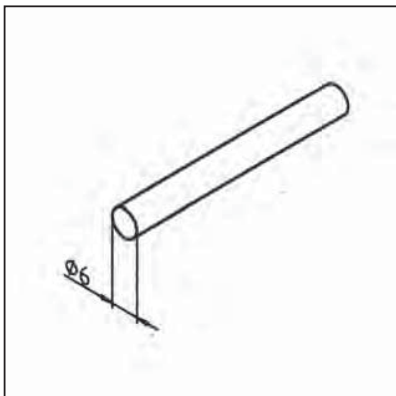
- 3-fold sliding doors, made of panel elements of max. 6 mm

### ASSEMBLY

- Snap into profile groove
- Suitable for subsequent mounting
- For subsequent mounting of panel elements PVC-bars **part no. 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 no. 22.1077/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

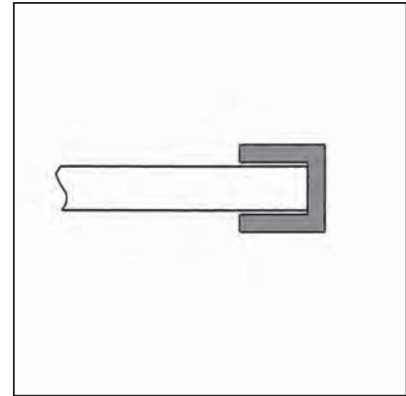
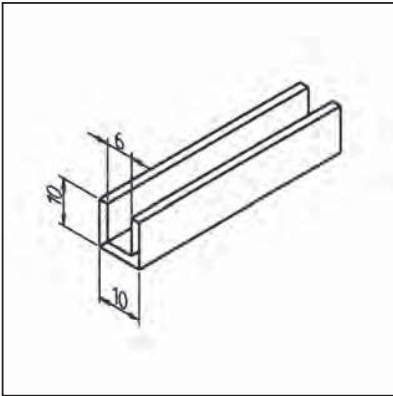
- Guiding of windows or doors in guide profiles

### ASSEMBLY

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

## U-PROFILE

part no. 21.1002/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

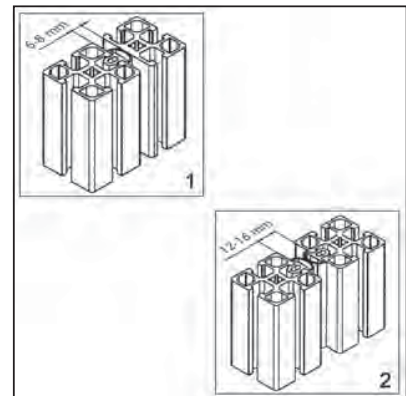
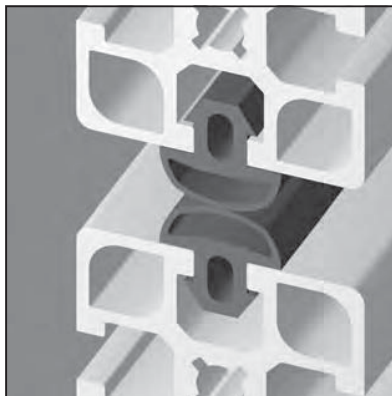
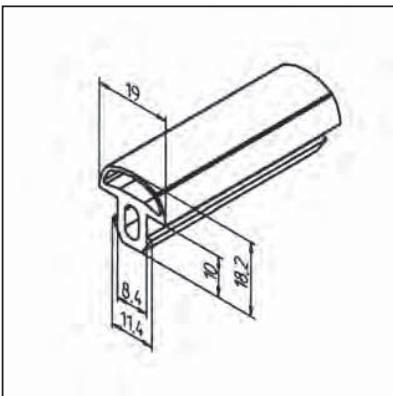
- Frame for screens of max. 5 mm

### ASSEMBLY

- Glue on edges of panel elements with suitable adhesive

## SEALING LEDGE

part no. 22.1078/0



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	70°
- Weight	0,175 kg/m
- Length	50 m

### APPLICATIONS

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

### ASSEMBLY

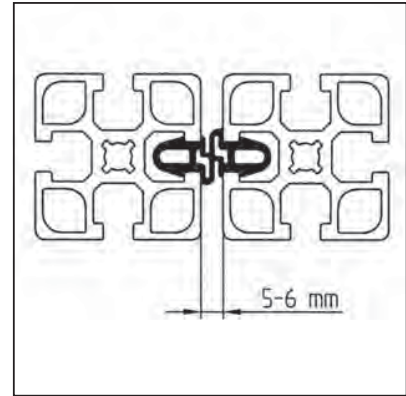
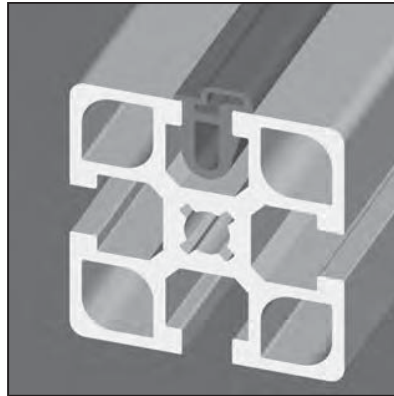
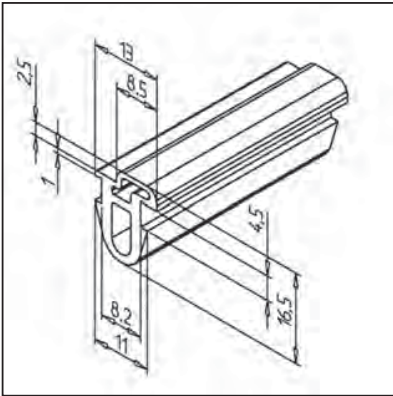
- Press into profile groove

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

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

## SEALING PROFILE

part no. 22.1011/0



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	70°
- Weight	0,122 kg/m
- Length	50 m

### APPLICATIONS

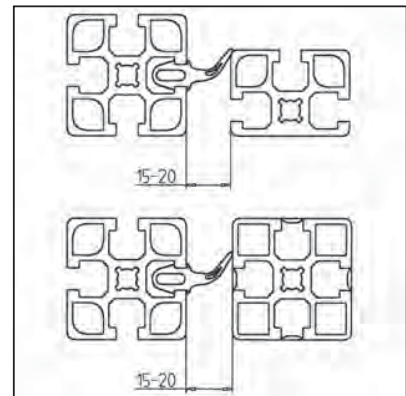
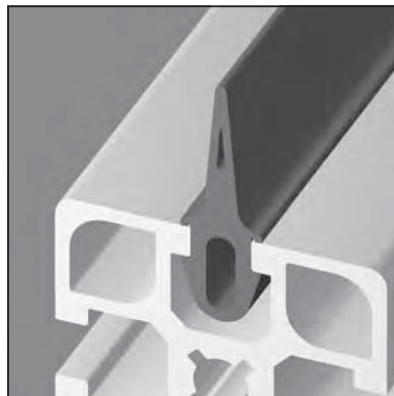
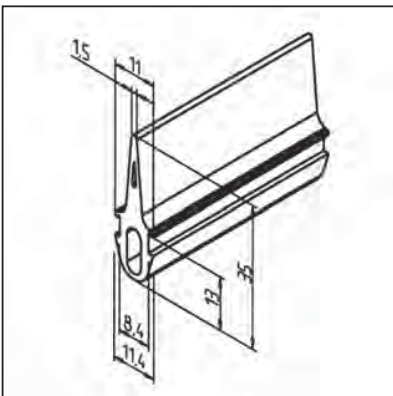
- Sealing of doors, lids and other constructions against water, dust and noise

### ASSEMBLY

- Press into profile groove

## SEALING LIP PROFILE

part no. 22.1038/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

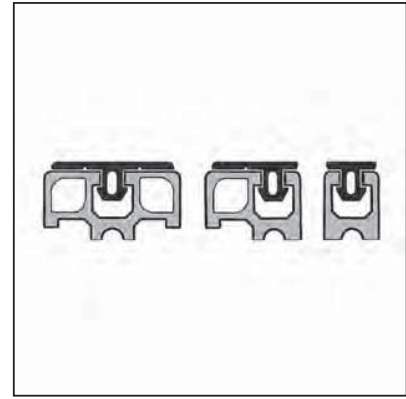
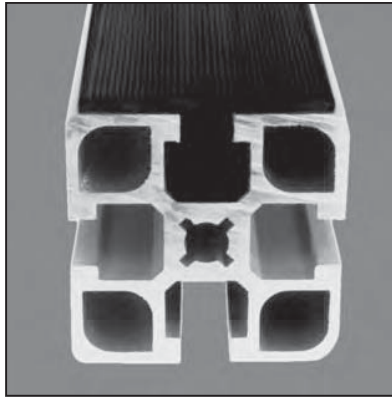
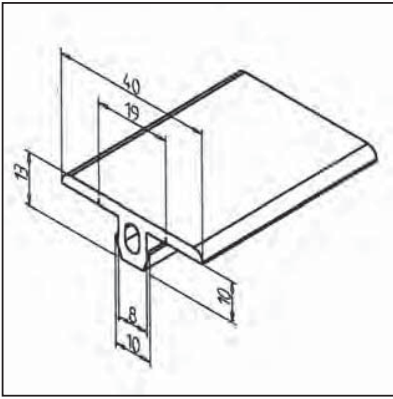
- Sealing of doors, lids and other constructions against dust, water, noise, light etc.

### ASSEMBLY

- Press into profile groove

## COVER PROFILE

part no. 22.1098/0



### TECHN. DATA / ITEMS SUPPLIED

- NBR, black	
- Hardness (Shore A)	70°
- Weight	0,230 kg/m
- Length	50 m
<b>- Cover Profile EPDM part no. 22.1098/1</b>	

### APPLICATIONS

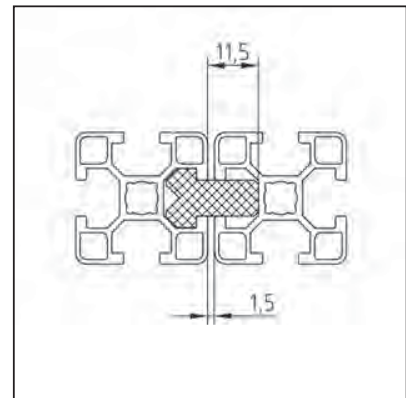
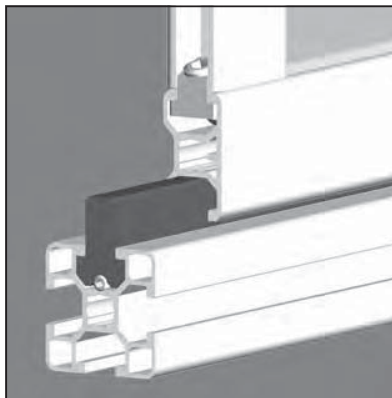
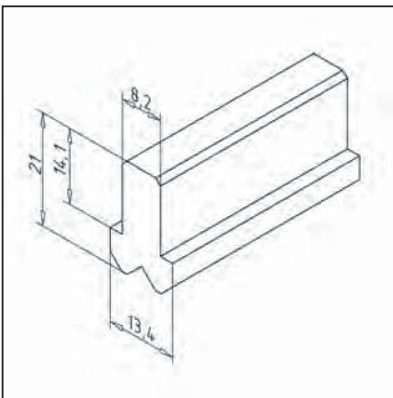
- Edge Protection
- Buffer strip
- Ladder rungs
- Buffer for sliding doors

### 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 8 N 30

part no. 22.1170/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black	
- Highly wear-resistant	
- Weight	0,178 kg/m
- Length	2 m

### APPLICATIONS

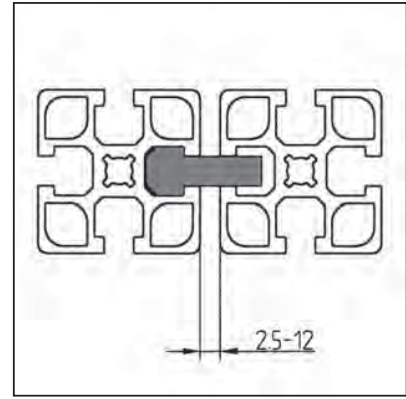
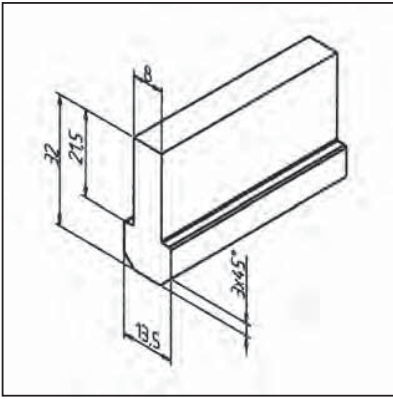
- Guiding device for sliding doors and other sliding elements

### ASSEMBLY

- Slide into profile groove
- The slide can be fixed with a set screw M4

## SLIDE BAR 8 N

part no. 22.1085/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black	
- Highly wear-resistant	
- Weight	0,300 kg/m
- Length	2 m

### APPLICATIONS

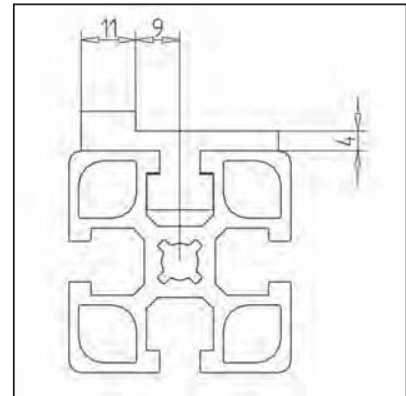
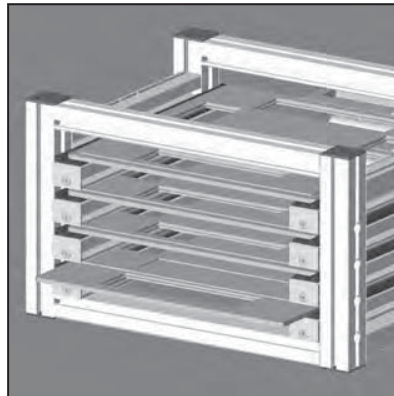
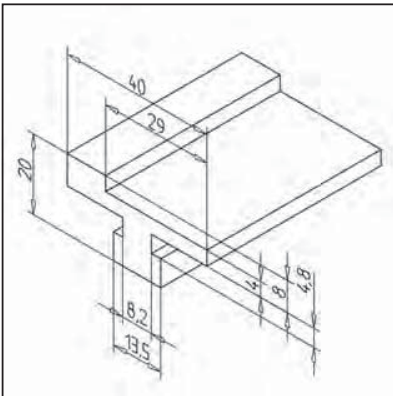
- Guiding device for sliding doors and other sliding elements
- Lateral guide for conveyors

### ASSEMBLY

- Slide into profile groove

## SLIDE BAR 8-40 A

part no. 29.8012/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black	
- Highly wear-resistant	
- Weight	0,317 kg/m
- Length	2 m

### APPLICATIONS

- Sliding support
- workpiece slide
- Guide for lifting doors
- Slides

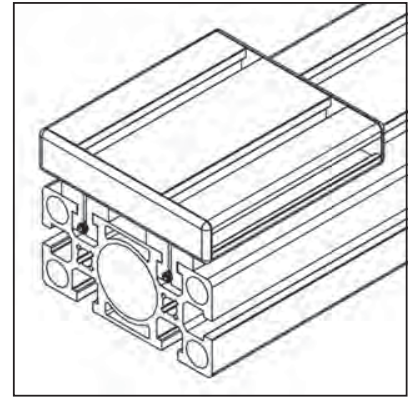
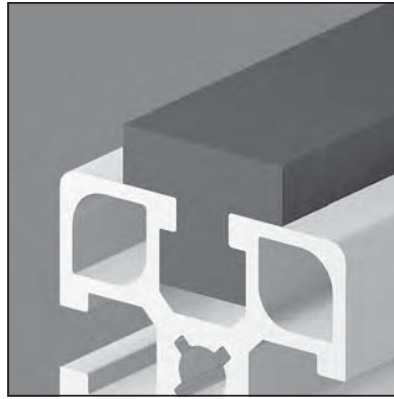
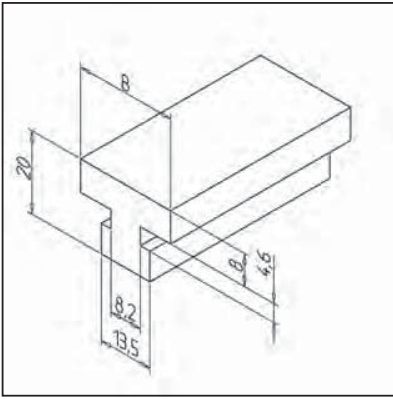
### ASSEMBLY

- Slide into profile groove



## SLIDE BAR 8

part no. diverse



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Highly wear-resistant
- B=25 **part no. 22.1088/0**
- Weight 0,311 kg/m
- B=40 **part no. 22.1088/1**
- Weight 0,401 kg/m
- B=45 **part no. 22.1088/3**
- Weight 0,463 kg/m
- Length 2 m

### APPLICATIONS

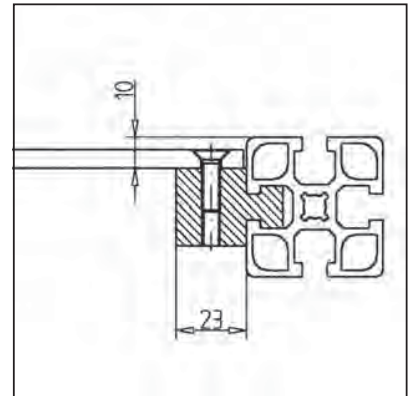
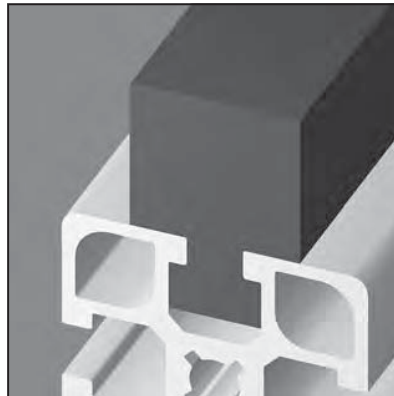
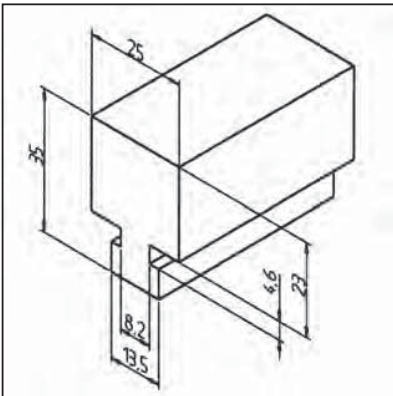
- Sliding support
- workpiece slide
- Guide for lifting doors
- Slides

### ASSEMBLY

- Slide into profile groove

## SLIDE BAR 23

part no. 22.1089/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

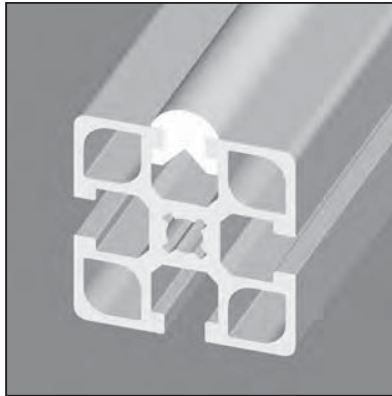
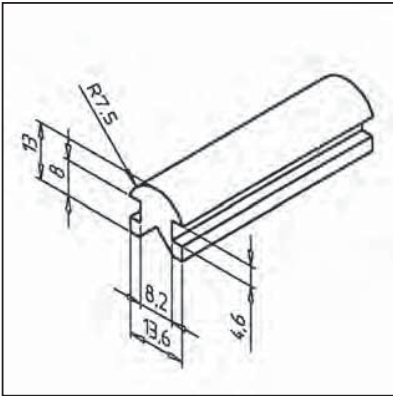
- Sliding support
- workpiece slide
- Customer processing possible by additional machining allowance

### ASSEMBLY

- Slide into profile groove

## SLIDE BAR R

part no. 22.1104/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

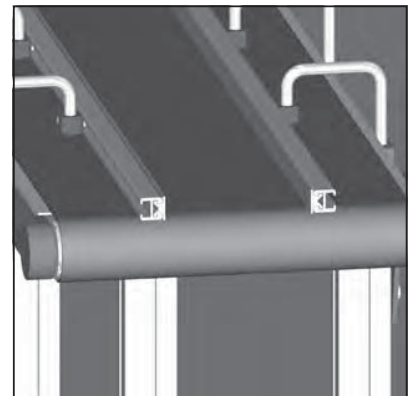
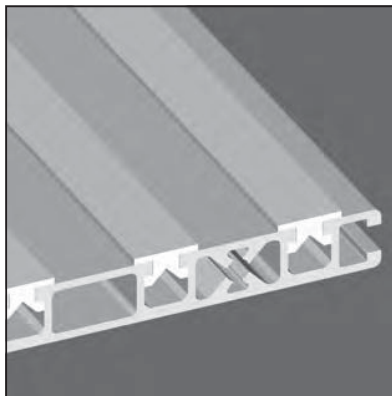
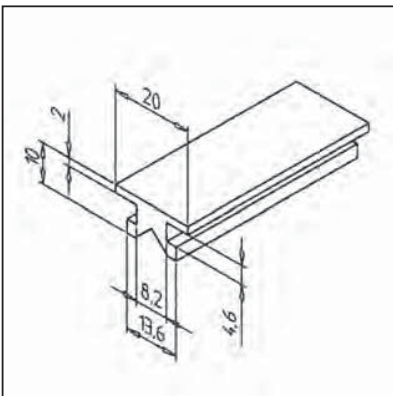
- Lateral guides
- Slide ways
- Kan-Ban racks
- Protective surface and supporting plates

### ASSEMBLY

- Slide into profile groove
- Suitable for all profiles

## SLIDE BAR F

part no. 22.1135/0



### TECHN. DATA / ITEMS SUPPLIED

- PE, white
- highly wear resistant
- Weight 0,098 kg
- Length 2 m

### APPLICATIONS

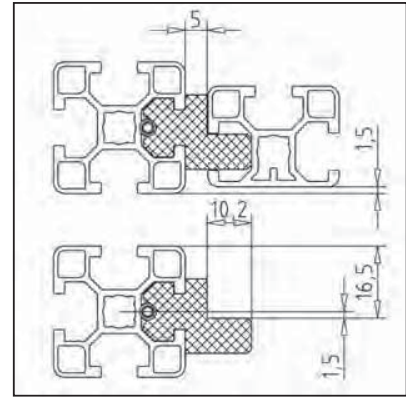
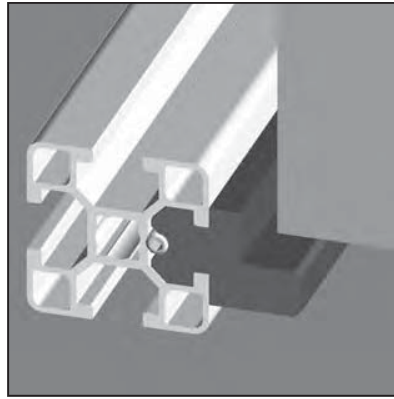
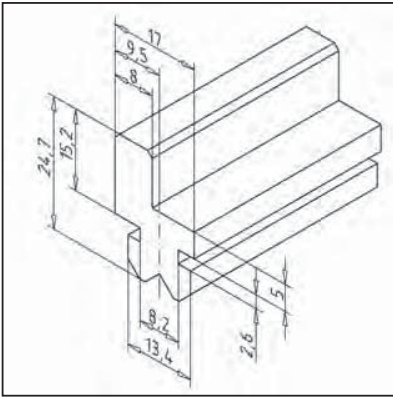
- lateral guide for flat components
- slide for containers
- accumulator roller / rail

### ASSEMBLY

- slide into profile groove
- secure slide bar at both ends with set screw or adjustable end caps

## ANGULAR SLIDE BAR 30

part no. 22.1171/0



### TECHN. DATA / ITEMS SUPPLIED

- PE, black
- highly wear resistant
- Weight 0,248 kg/m
- Length 2 m

### APPLICATIONS

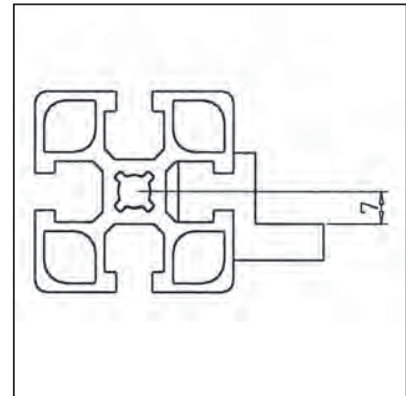
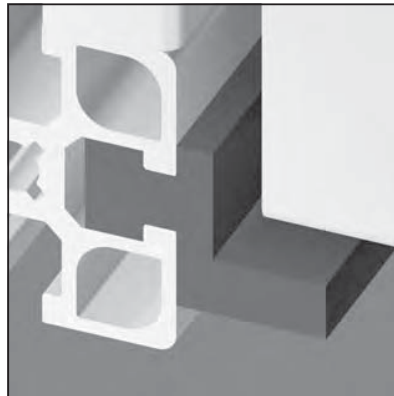
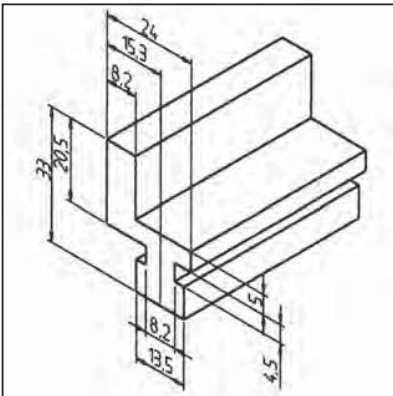
- Guiding device for sliding doors and other sliding elements

### ASSEMBLY

- slide into profile groove
- The slide can be fixed with a set screw M4

## ANGULAR SLIDE BAR

part no. 22.1040/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

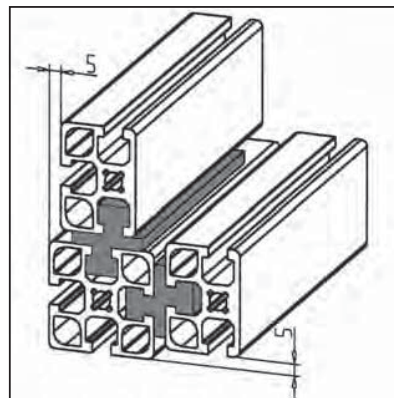
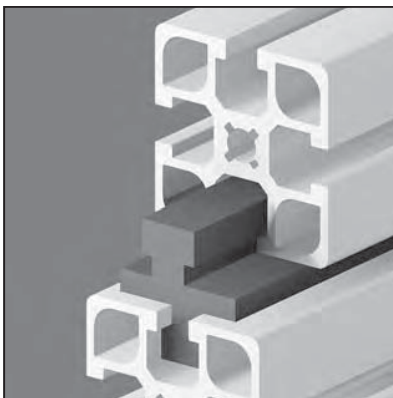
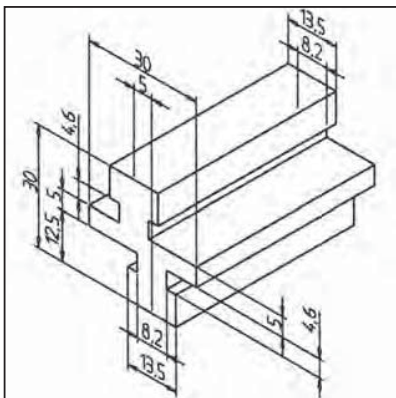
- Conveying systems
- Belt conveyors
- Lateral guides

### ASSEMBLY

- Slide into profile groove

## DOUBLE SLIDE BAR

part no. 22.1087/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

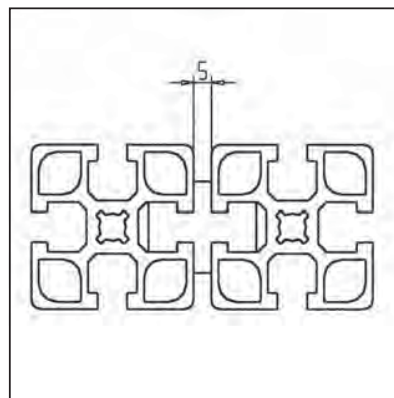
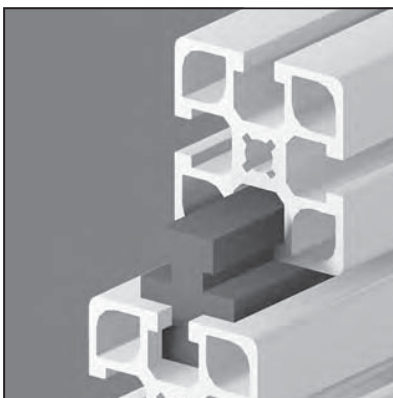
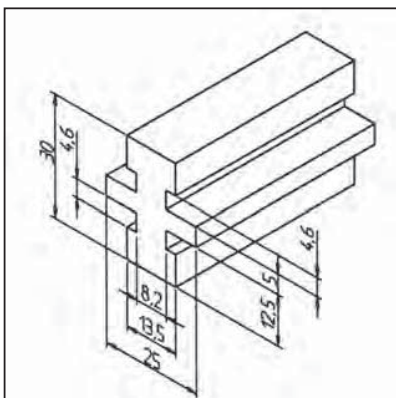
- Simple workpiece slides
- Guide for drawers

### 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 no. 22.1041/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

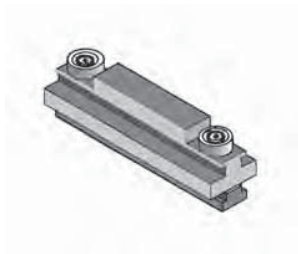
- Parallel guide without difference in height
- Sliding elements that are flush on the outside

### 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

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

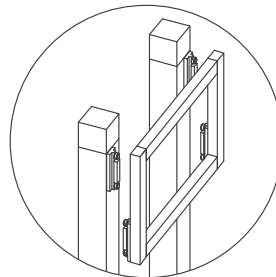
For one door four elements are necessary:

- One each to be fixed at end positions of pillar.
- One each to be fixed at door element.

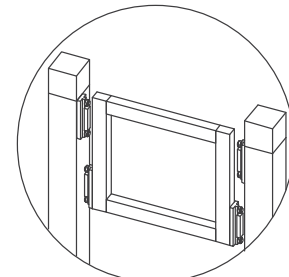
### Length of sliding profile:

desired stroke + 180 mm min.

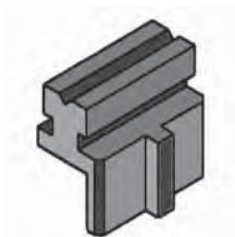
1. Disassemble slide-roll element.
2. Insert T-slot bar into profile groove and fix at desired position.
3. Reassemble the slide-roll element and lock with glue.



Assembly in front of pillars.  
Gap = 8 mm



Assembly between pillars.  
Gap = 8 mm



### Guide for sliding-door

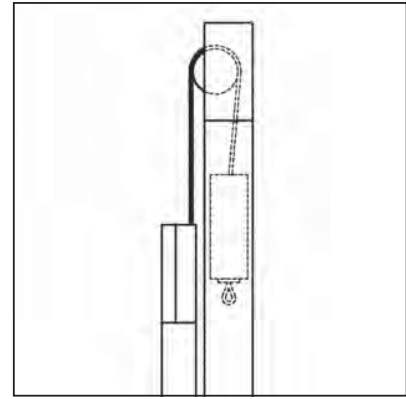
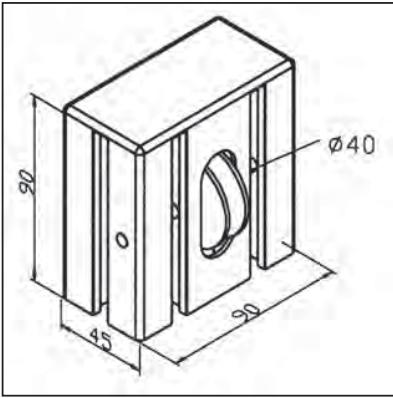
For a simultaneous guidance of two elements in one profile groove. Subsequent mounting of sliding-doors into existing constructions possible. For one door element 4 guides are necessary.

### Allow for door elements:

Height: clearance of the opening minus 11 mm  
 Width for 2 elements:  $\frac{\text{clear width} + 55}{2}$

## CABLE PULLEY 45

part no. 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

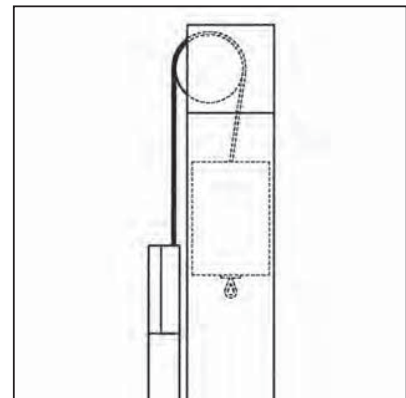
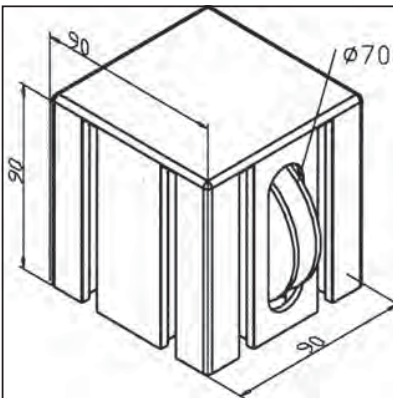
- Cable reverse for counterweights in lifting doors made of profiles 45 x 90 L or 45 x 90 G
- For continuous operation and heavy loads use chain pulley 45

### ASSEMBLY

- Attachment on vertical profile with 2 T-slot bars 90 **part no. 21.1029/0**
- Corresponding cable **part no. 21.1777/0** is a wear part and must be regularly checked and lubricated if required

## CABLE PULLEY 90

part no. 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

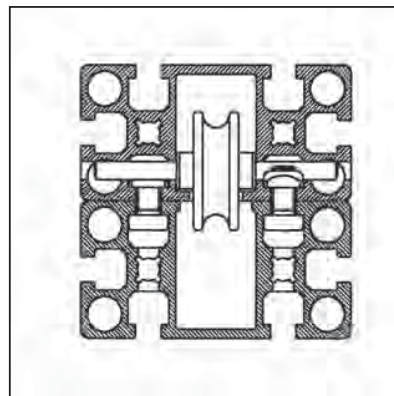
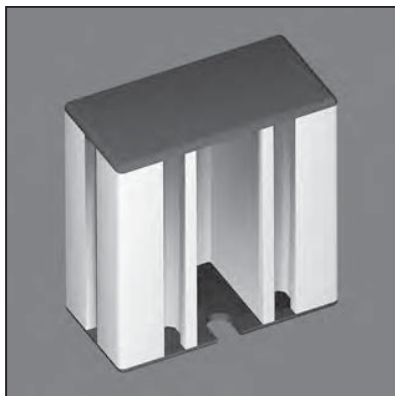
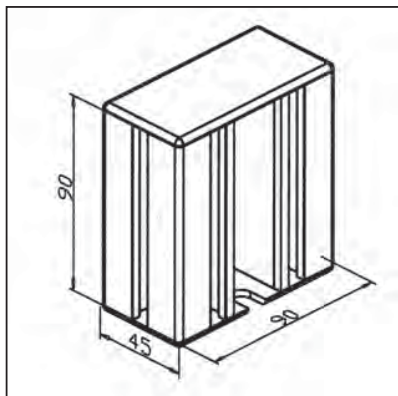
- Cable reverse for counterweights in lifting doors made of profiles 90 x 90 L
- For continuous operation and heavy loads use chain pulley 90

### ASSEMBLY

- Attachment on vertical profile with 4 T-slot bars 90 **part no. 21.1029/0**
- Corresponding cable **part no. 21.1777/0** is a wear part and must be regularly checked and lubricated if required

## END BLOCK

part no. 21.1780/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

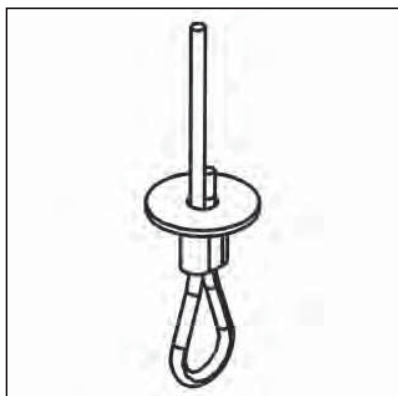
- Safety device for cable pulleys

### ASSEMBLY

- Use fastening kit

## CABLE

part no. 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 lengths

### APPLICATIONS

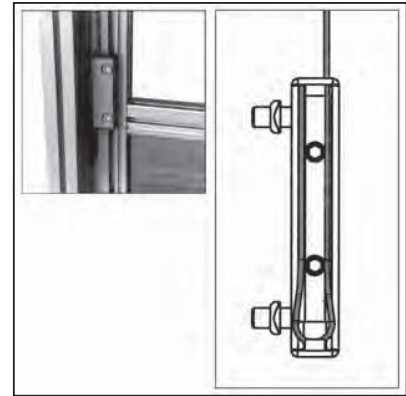
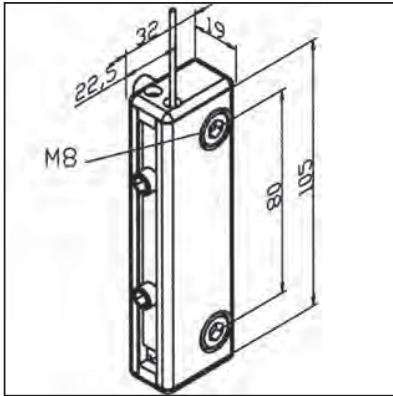
- Use in connection with counterweight 45 or 90 and cable pulleys

### ASSEMBLY

- Lead the cable through the center bore and into the counterweight
- Fasten the cable with the cable clamping device **part no. 21.1797/0** on the lifting door
- Cable is a wear part and must be regularly checked and lubricated if required

## ROPE CLAMP

part no. 21.1797/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

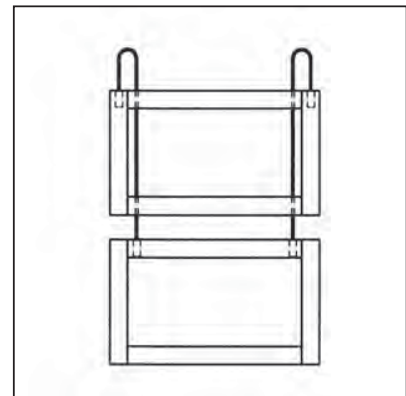
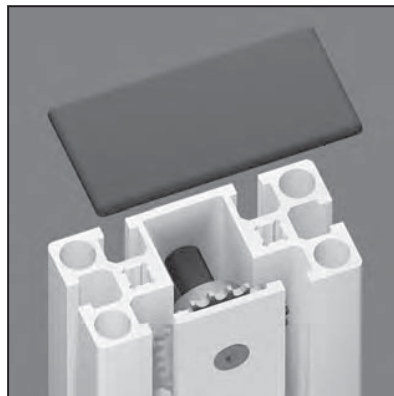
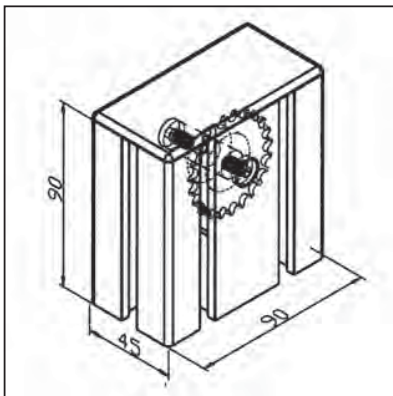
- Connection of counterweight and door element in lifting doors

### 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 and fix lower end cap

## SYNCHRONOUS PULLEY 45

part no. 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 operate direction; doors are of similar weight
- The chain is guided in the profile groove, thus no hand-protection is required

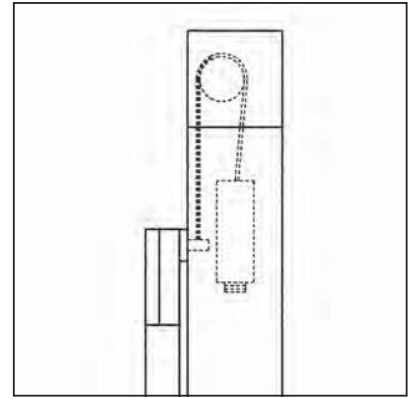
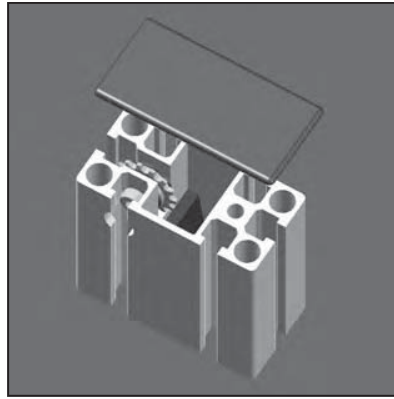
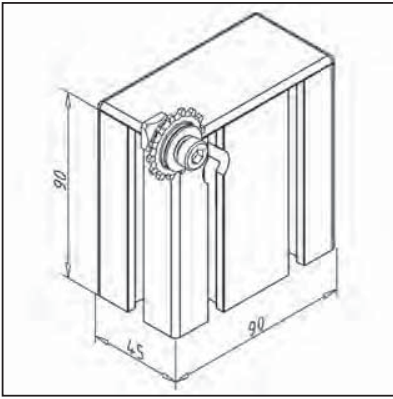
### ASSEMBLY

- Attachment on vertical profile with 2 T-slot bars 90 **part no. 21.1029/0**
- Insert chain **part no. 21.1713/0** in pulley; fasten it with the door chain clamping device **part no. 21.1712/0** on both doors and insert it in the vertical profiles



## CHAIN PULLEY 32

part no. 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 0,388 kg
- Load max. 50 kg

### APPLICATIONS

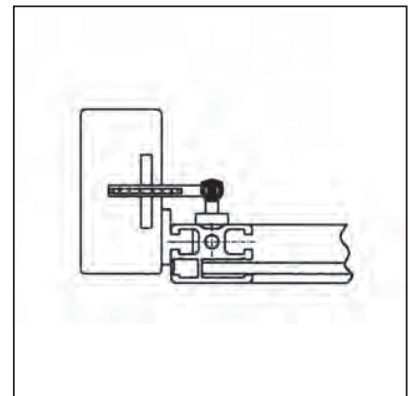
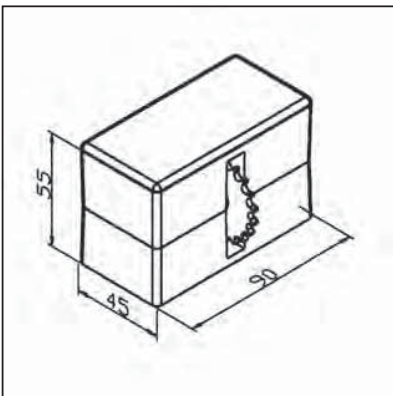
- Chain reverse for counterweights in lifting doors; for inner balancing weight in profiles 45 x 90 F or 45 x 90 G
- The cable is guided in the profile groove, thus no hand-protection is required

### ASSEMBLY

- Attachment on vertical profiles with 2 slot-bars 90 **part no. 21.1029/0**
- Applications of chain **part no. 21.1713/0** with door chain clamping device **part no. 21.1712/0** and weight chain clamping device **part no. 21.1711/0**

## CHAIN PULLEY 45 A

part no. 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

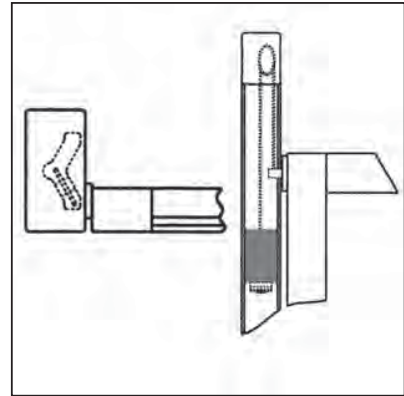
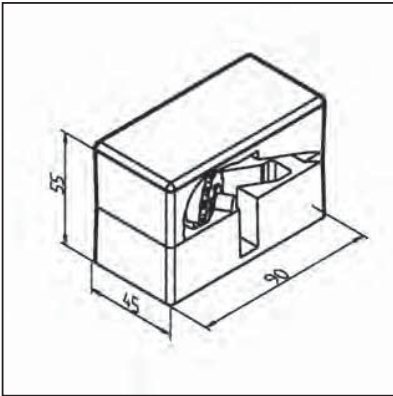
- Chain reverse of counterweights for lifting doors for inner counterweight in profile 45 x 90 L or 45 X 90 G
- Chain runs on the outer profile side and in the middle of the broad side; if required covered with hand-protection **part no. 21.1780/0**

### ASSEMBLY

- Attachment with fastening kit from supply schedule; thread M8 in vertical profile required
- Use of chain **part no. 21.1713/0** with door chain clamping device **part no. 21.1712/0** and weight chain clamping device **part no. 21.1711/0**

## CHAIN PULLEY 45 I

part no. 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

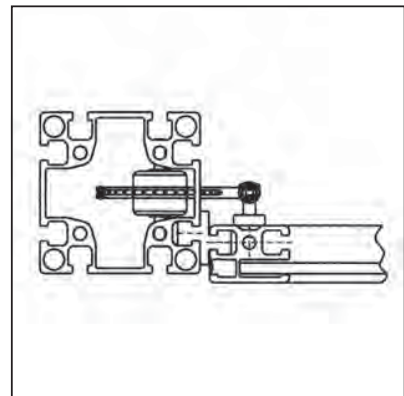
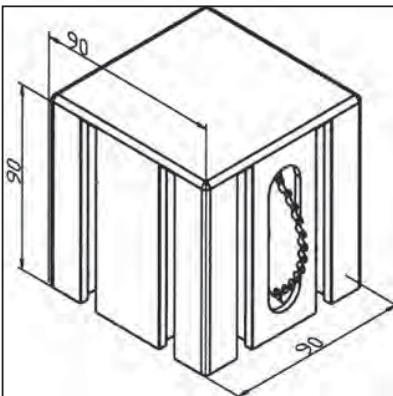
- Chain reverse of counterweights for lifting doors for inner counterweight in profile 45 x 90 L or 45 X 90 G
- Chain runs on the broad side of the profile in the right or left profile groove (adjustable chain wheel), no hand-protection required

### ASSEMBLY

- Attachment with fastening kit; thread M8 in vertical profile required
- Use of chain **part no.. 21.1713/0** with door chain clamping device **part no. 21.1712/0** and weight chain clamping device **part no. 21.1711/0**

## CHAIN PULLEY 90

part no. 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

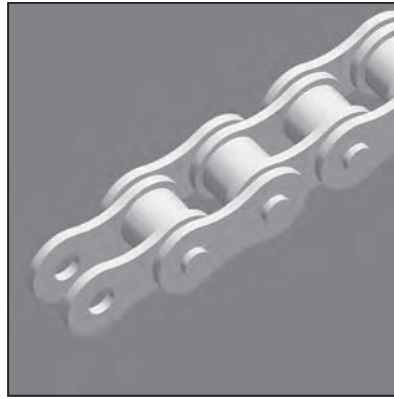
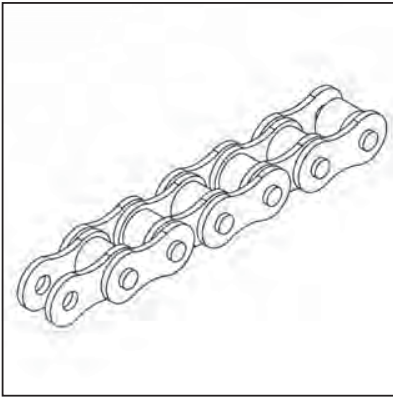
### APPLICATIONS

- 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 no. 21.1780/0**

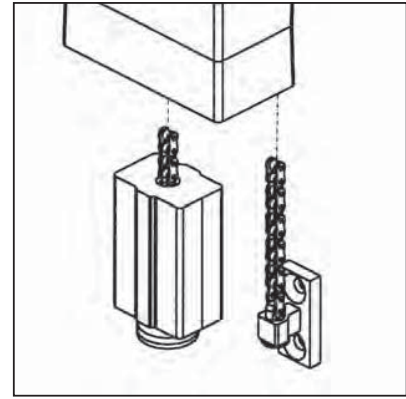
### ASSEMBLY

- Attachment on vertical profiles with 4 slot-bars **part no. 21.1029/0**
- Use of chain **part no.. 21.1713/0** with door chain clamping device **part no. 21.1712/0** and weight chain clamping device **part no. 21.1711/0**

## CHAIN 04



part no. 21.1713/0



### TECHN. DATA / ITEMS SUPPLIED

- Roller chain, steel
- Size 4
- Weight 0,120 kg/m
- Breaking load min. 3000 N
- **Please indicate desired length**

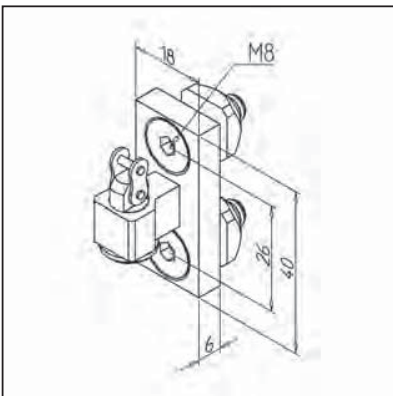
### APPLICATIONS

- Use in connection with counterweight 45 or 90 and chain pulleys
- Use in connection with door chain clamping device **part no. 21.1712/0** for fastening the chain on the door
- Use in connection with weight chain clamping device **part no. 21.1711/0** for fastening the chain on the side of the counterweight

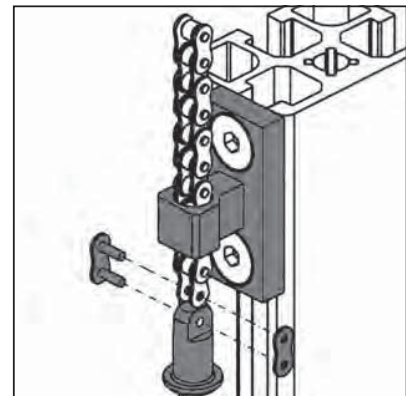
### ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **part no. 21.1711/0** mount chain lock
- For mounting on door lead chain through fastening kit for chain (door side) **part no. 21.1712/0**

## DOOR CHAIN CLAMPING DEVICE



part no. 21.1712/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Fastening kit
- Weight 0,060 kg

### APPLICATIONS

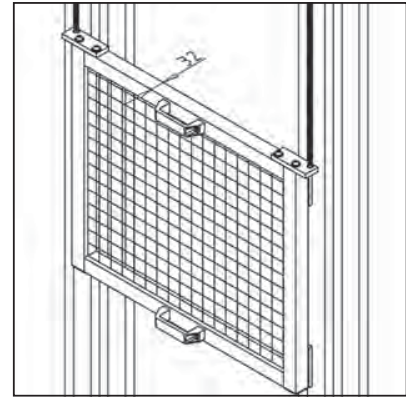
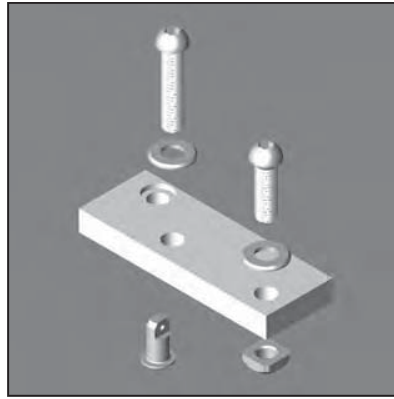
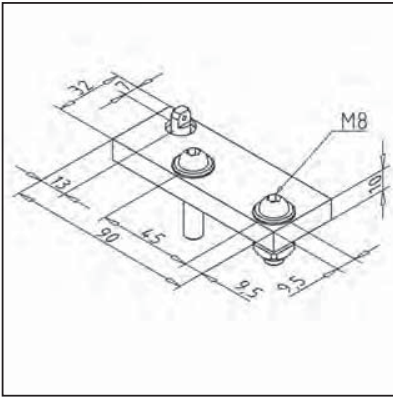
- Use in connection with counterweight 45 or 90 and pulleys
- Use in connection with chain **part no. 21.1713/0** for fastening on door side

### ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **part no. 21.1711/0** mount chain lock
- For mounting on door lead chain through fastening kit for chain (door side) **part no. 21.1712/0** and mount bolt with link for chain

## DOOR CHAIN CLAMPING DEVICE KV-32

part no. 21.1980/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Fastening kit and link for chain
- Weight 0,247 kg

### APPLICATIONS

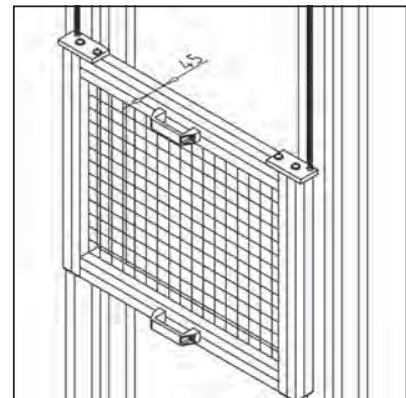
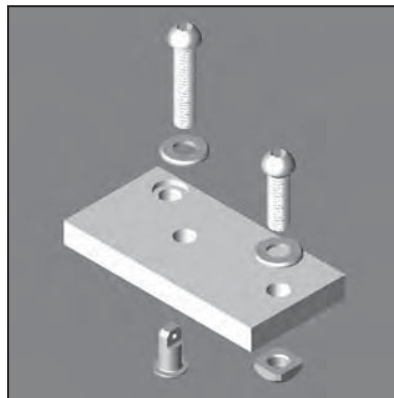
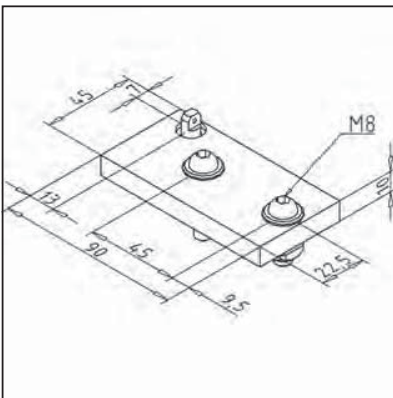
- Use in connection with chain pulley 90 and chain 04
- Mount lifting doors from profile 45 x 32 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 04
- Use 2 door chain clamping every lifting doors

## DOOR CHAIN CLAMPING DEVICE KV-45

part no. 21.1981/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Fastening kit and chain lock
- Weight 0,345 kg

### APPLICATIONS

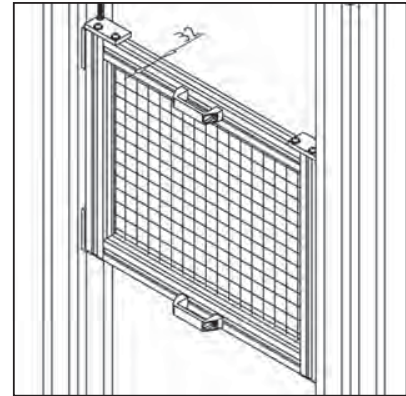
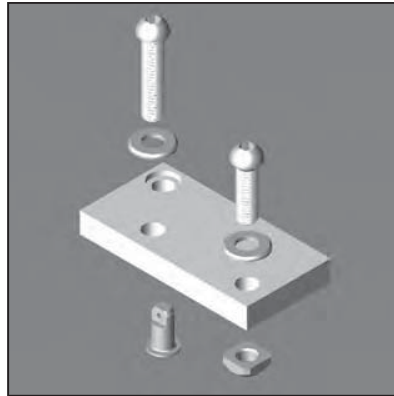
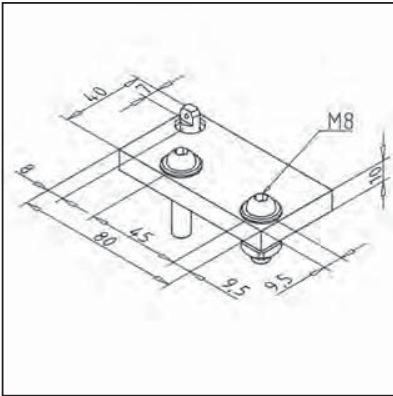
- Use in connection with chain pulley 90 and chain 04
- Mount lifting doors from profile 45 x 45 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 04
- Use 2 door chain clamping every lifting doors

## DOOR CHAIN CLAMPING DEVICE KI-32

part no. 21.1982/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Fastening kit and link for chain
- Weight 0,278 kg

### APPLICATIONS

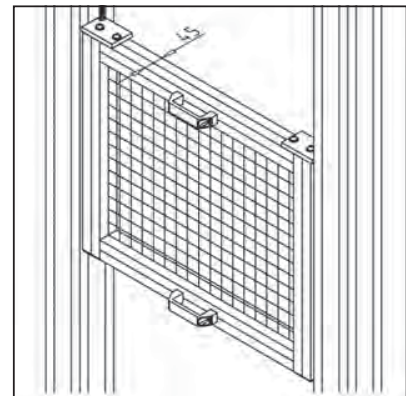
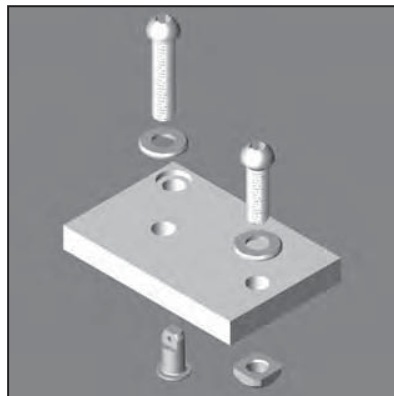
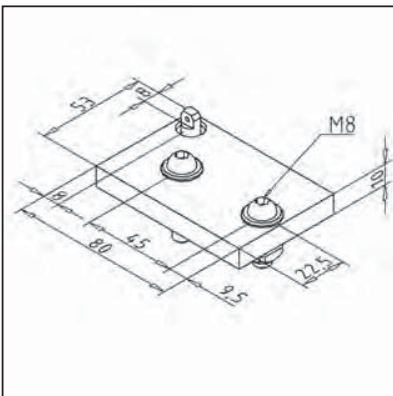
- Use in connection with chain pulley 90 and chain 04
- Mount lifting doors from profile 45 x 32 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 04
- Use 2 door chain clamping every lifting doors

## DOOR CHAIN CLAMPING DEVICE KI-45

part no. 21.1983/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel zinc plated
- Fastening kit and link for chain
- Weight 0,360 kg

### APPLICATIONS

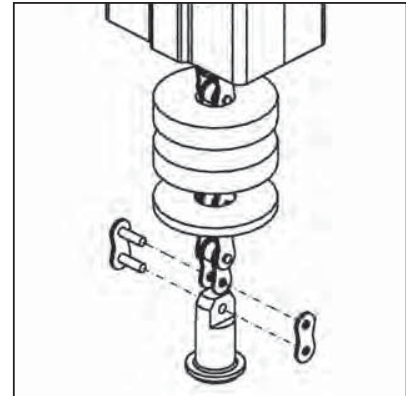
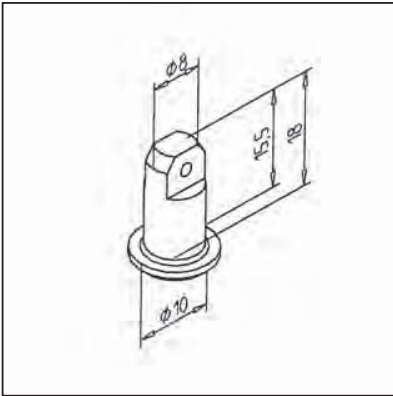
- Use in connection with chain pulley 90 and chain 04
- Mount lifting doors from profile 45 x 32 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 04
- Use 2 door chain clamping every lifting doors

## FASTENING KIT FOR CHAIN (COUNTERWEIGHT)

part no. 21.1711/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

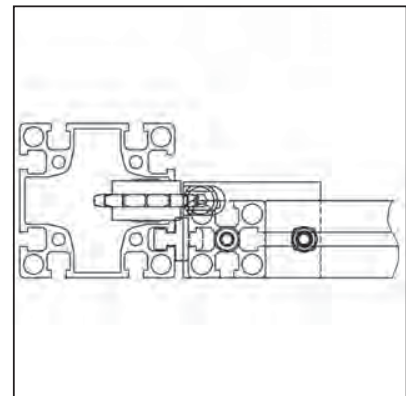
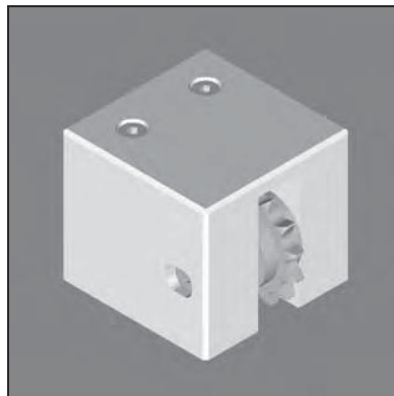
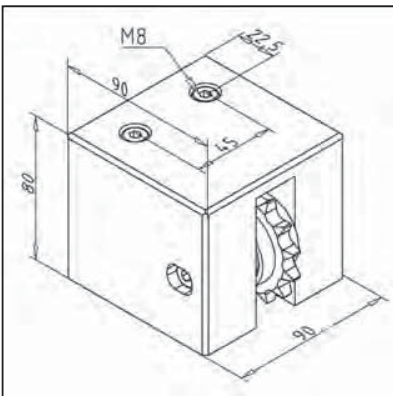
- Use in connection with counterweight 45 or 90 and pulleys
- Use in connection with chain 04 **part no. 21.1713/0** to fasten chain to counterweight

### ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **part no. 21.1711/0** mount chain lock
- For mounting on door lead chain through fastening kit for chain (door side) **part no. 21.1712/0**

## CHAIN REVERSE 90 S

part no. 21.0920/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- Fastening kit
- Weight 1,748 kg
- Load max. 150 kg

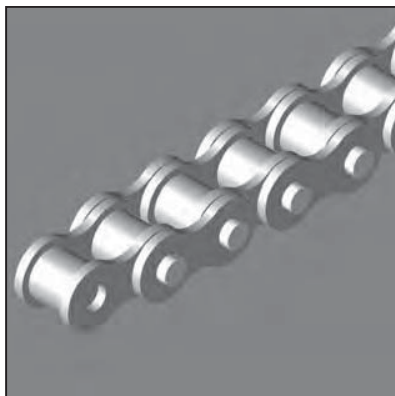
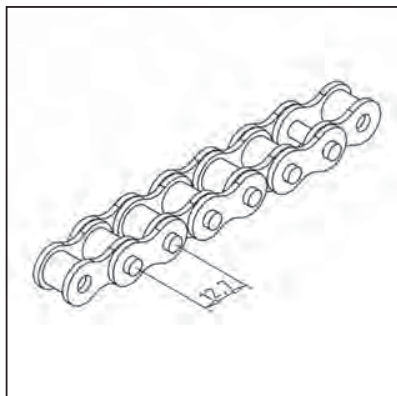
### APPLICATIONS

- Chain reverse for counterweights for lifting doors, for inner balancing weight in profile 90 x 90 L

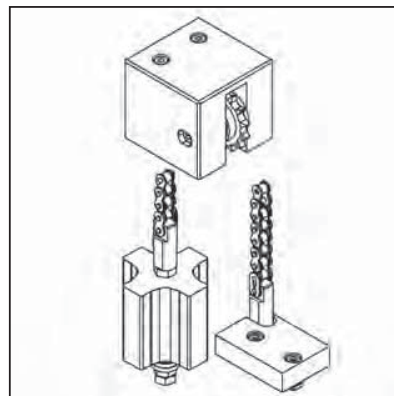
### ASSEMBLY

- Use fastening kit
- Use of chain 08 **part no. 29-0307/0** with weight chain clamping device **part no. 21.0925/0**

## CHAIN 08



part no. 29.0307/0



### TECHN. DATA / ITEMS SUPPLIED

- Chain, steel
- Size 8
- Weight 0,700 kg/m
- Breaking load min. 18.000 N
- **Please indicate desired length**

### APPLICATIONS

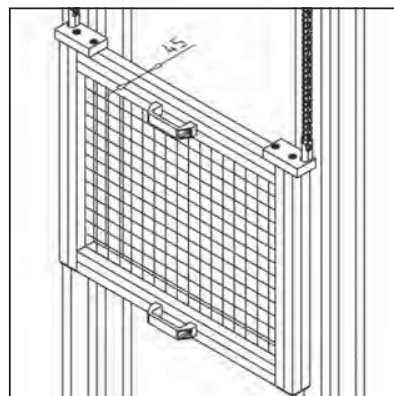
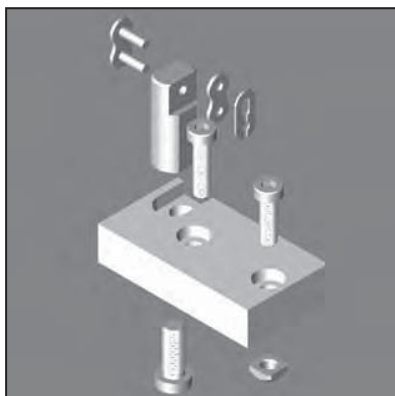
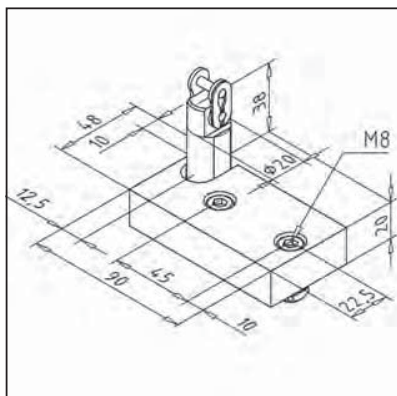
- Use in connection with counterweight 45 or 90 and chain reverse 90 S
- Fastening kit for chain (counterweight) S **part no. 21.0925/0**

### ASSEMBLY

- Mounting by Fastening kit for chain (counterweight) S **part no. 21.0925/0** of M10 threaded rod **part no. 21.1667/0** for receiving the counterweight

## DOOR CHAIN CLAMPING DEVICE 90 S FRONT

part no. 21.0927/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- Fastening kit and link for chain
- Weight 0,381 kg

### APPLICATIONS

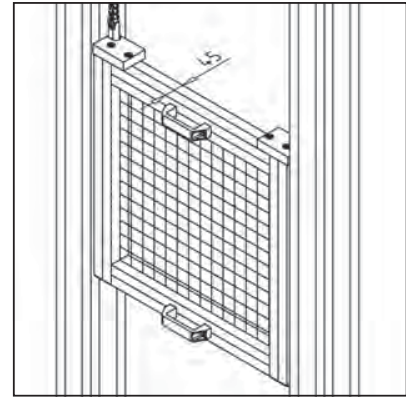
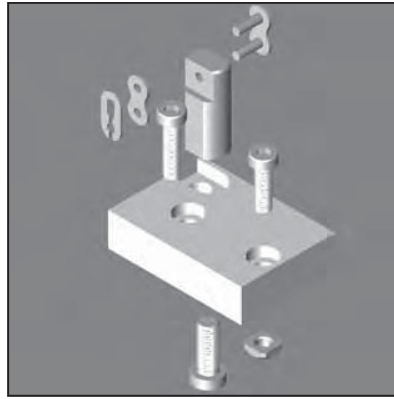
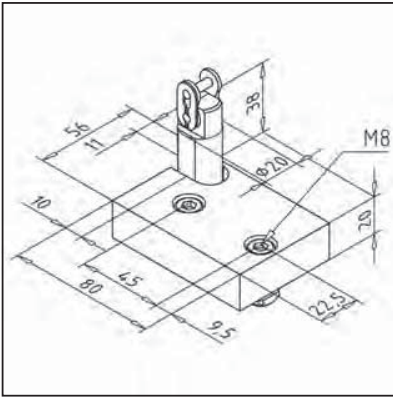
- Use in conjunction with chain reverse 90 S and chain 08
- Mount lifting doors from profile 45 x 45 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 08
- Use 2 door chain clamping every lifting doors

## DOOR CHAIN CLAMPING DEVICE 90 S SIDWAY

part no. 21.0928/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- Fastening kit and link for chain
- Weight 0,368 kg

### APPLICATIONS

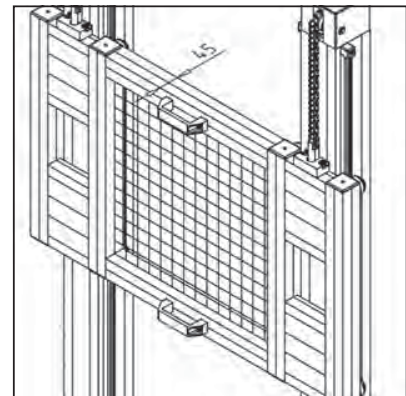
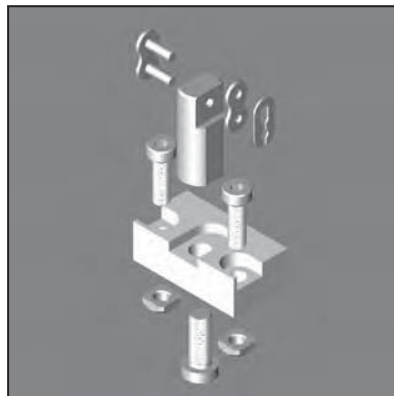
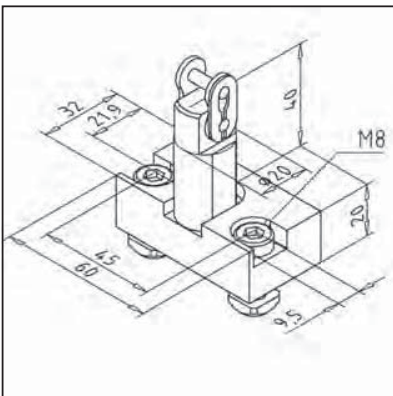
- Use in conjunction with chain reverse 90 S and chain 08
- Mount lifting doors from profile 45 x 45 with Slide-roll element in front of pillars

### ASSEMBLY

- Mount plate to lifting doors with the supplied lock chain roller 08
- Use 2 door chain clamping every lifting doors

## DOOR CHAIN CLAMPING DEVICE 90 S SLIDE

part no. 21.0929/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium anodized
- Fastening kit and link for chain
- Weight 0,375 kg

### APPLICATIONS

- Use in conjunction with chain reverse 90 S and chain 08
- For mounting on slide LW 45 or LW 90

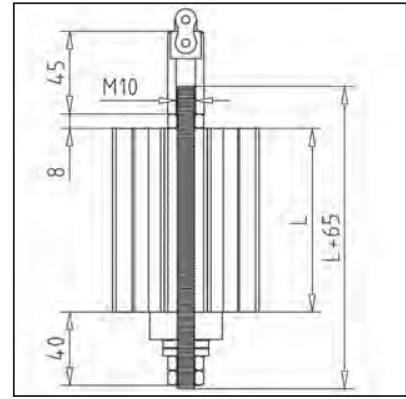
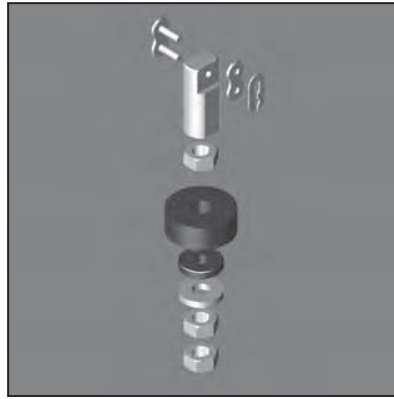
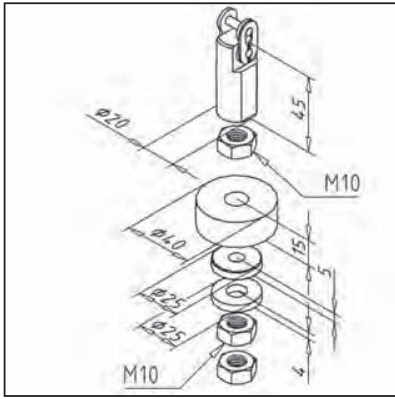
### ASSEMBLY

- Mount plate to slide with the supplied lock chain roller 08



## DOOR CHAIN CLAMPING DEVICE (COUNTERWEIGHT) S

part no.  
21.0925/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Rubber-ring
- Link for chain
- Weight 0,145 kg (ohne Gewindestange)
- Please order threaded rod M 10 **part no. 21.1667/0** in addition to desired length

### APPLICATIONS

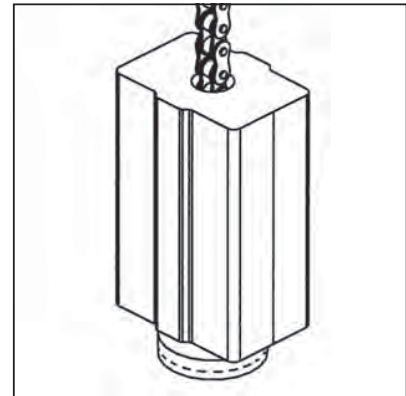
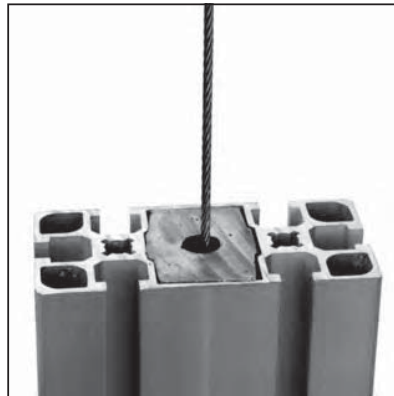
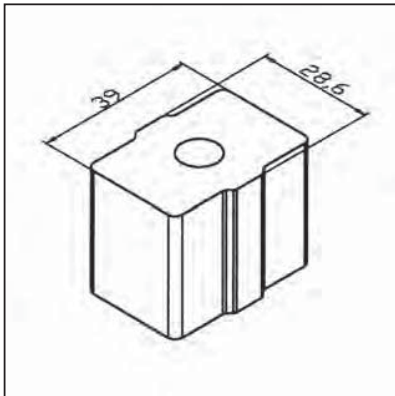
- Use in connection with counterweight 45 or 90 and pulleys
- Use in connection with chain **part no. 21.1713/0** to fasten chain to counterweight

### ASSEMBLY

- Lead the chain through the counterweight and through the fastening kit for chain (counterweight side) **part no. 21.1711/0** mount chain lock
- For mounting on door lead chain through fastening kit for chain (door side) **part no. 21.1712/0**
- Connect threaded rod with enclosed chain lock chain

## COUNTERWEIGHT 45

part no. 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

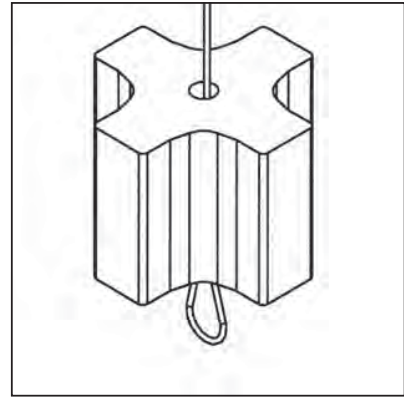
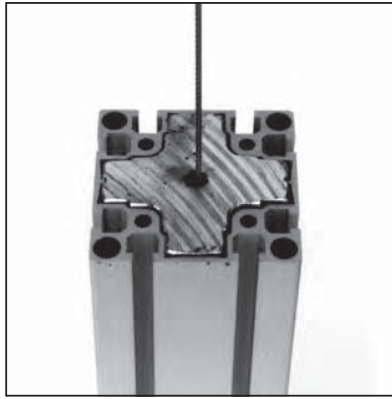
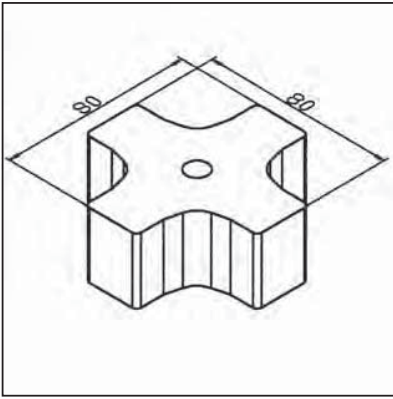
- Counterweight for large lifting doors
- For cable and chain

### ASSEMBLY

- Insert the counterweight into the profile

## COUNTERWEIGHT 90

part no. 21.1778/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

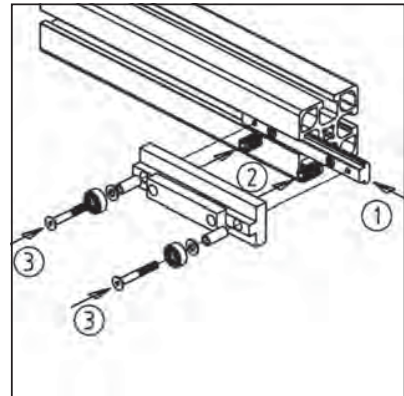
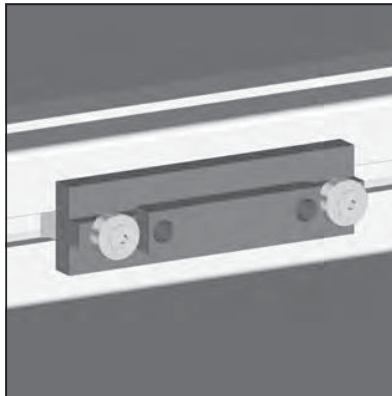
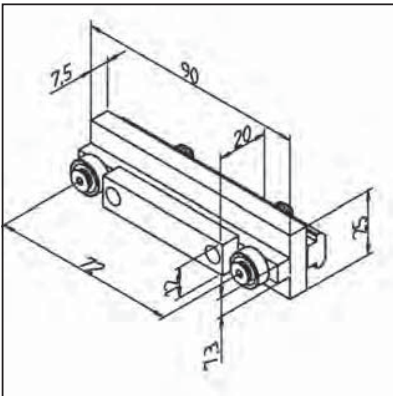
- Counterweight for large lifting doors
- For cable and chain

### ASSEMBLY

- Insert the counterweight into the profile

## SLIDE-ROLL ELEMENT

part no. 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

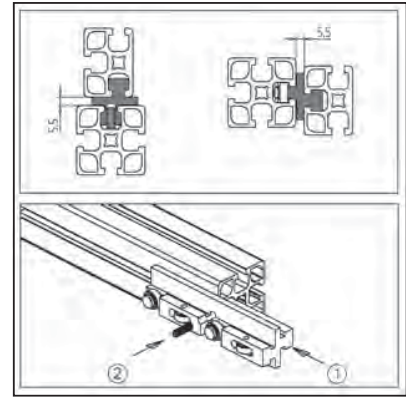
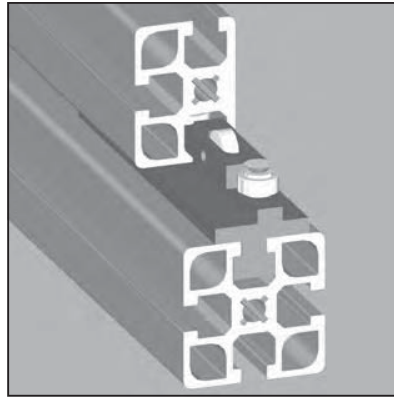
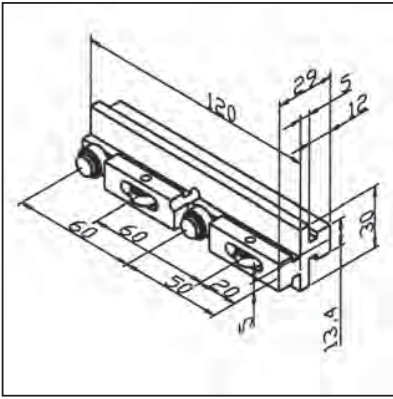
- Guide for lifting doors in the groove of the vertical profile
- Light linear slides
- Workpiece-slides, drawers

### 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 no. 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

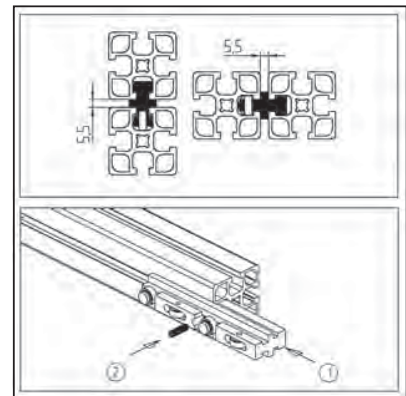
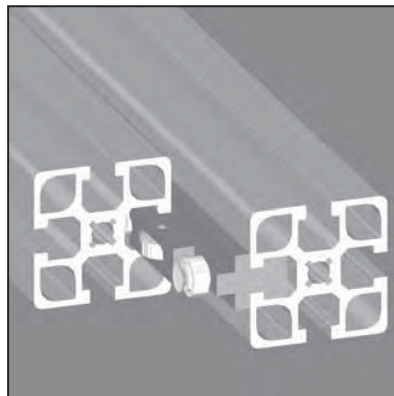
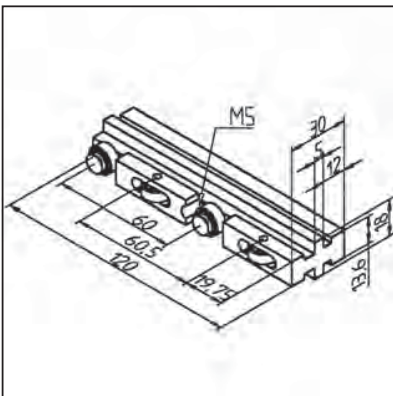
- Guide for sliding doors, lifting-doors, workpiece-slides, light linear guides
- The element provides 5 mm eccentricity for the construction of sliding doors with 2 casements or guides with 5 mm ground clearance

### ASSEMBLY

- 1: Insert the element with screw side into profile groove of movable construction part
- 2: Tighten the screw
- 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

## GLIDE-ROLL ELEMENT PARALLEL

part no. 21.1714/0



### TECHN. DATA / ITEMS SUPPLIED

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

### APPLICATIONS

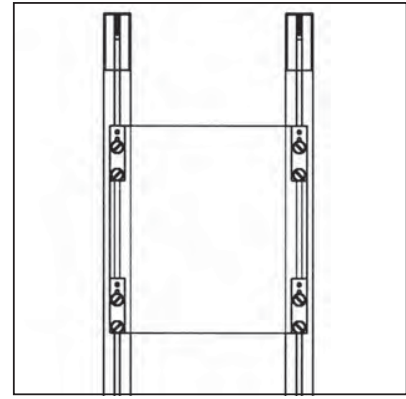
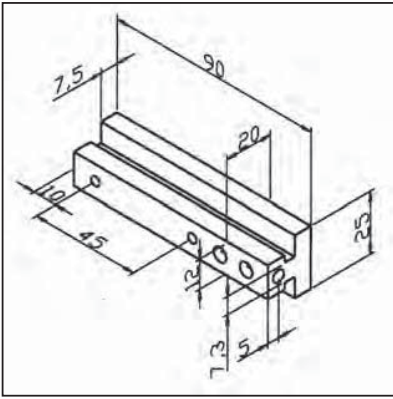
- Guide for sliding doors, lifting-doors, workpiece-slides, light linear guides
- Both slots are parallel to each other for construction of flush sliding doors

### 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 no. 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

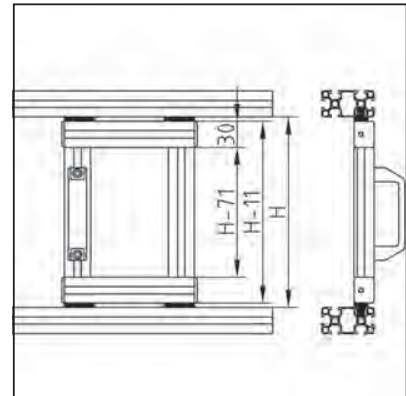
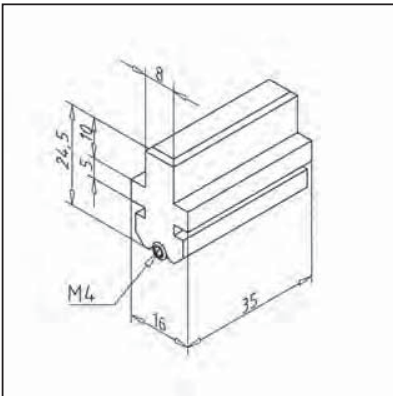
- Guide for light lifting doors and in same function connection of door element and counterweight
- Especially suitable for direct attachment on panel elements without frame

### 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 30

part no. 22.1159/0



### TECHN. DATA / ITEMS SUPPLIED

- PE-UHMW, black
- 1 fixing screw
- For 1 door element 4 guides are necessary
- Weight 0,01 kg

### APPLICATIONS

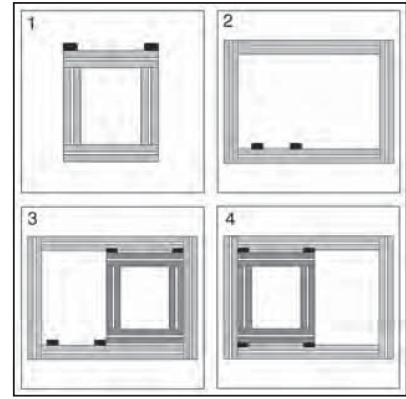
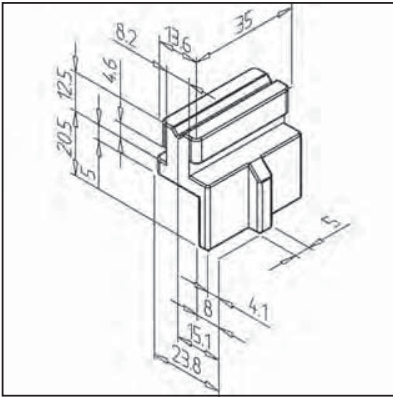
- Sliding doors
- Sliding elements
- Workpiece-slides, drawers
- Subsequent mounting of sliding doors into existing constructions possible

### ASSEMBLY

- Insert guidings laterally, mount cover caps
- Insert guidings laterally, mount cover caps

## GUIDE FOR SLIDING DOOR

part no. 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

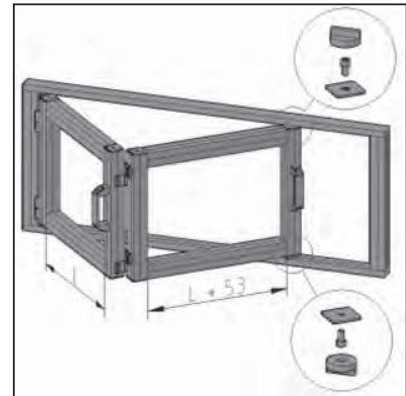
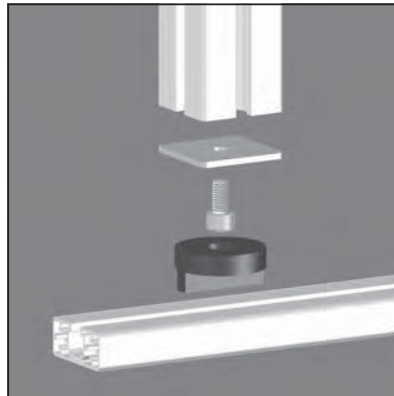
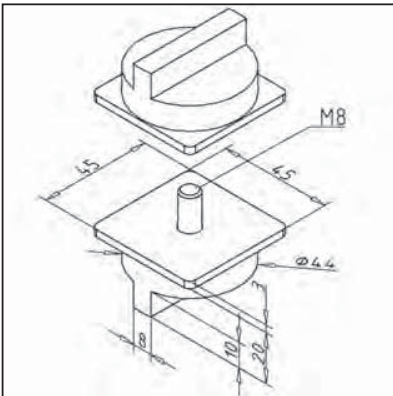
- Sliding doors
- Sliding elements
- Workpiece-slides, drawers
- For a simultaneous guidance of 2 elements in 1 profile groove
- Subsequent mounting of sliding doors into existing constructions possible

### 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

## FOLDING DOOR SUPPORT

part no. 22.1148/0



### TECHN. DATA / ITEMS SUPPLIED

- 2 slide elements; plastic, black
- Fastening kit and end caps 45 x 45 AL
- Weight 0,084 kg

### APPLICATIONS

- Slide element for guiding of folding doors
- Guiding in profile grooves

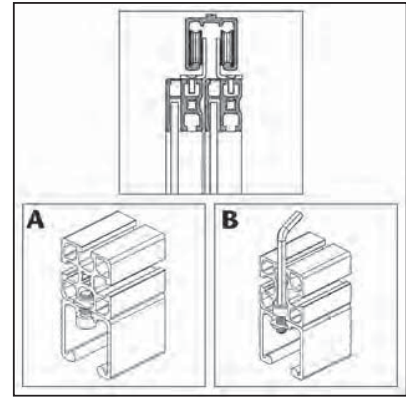
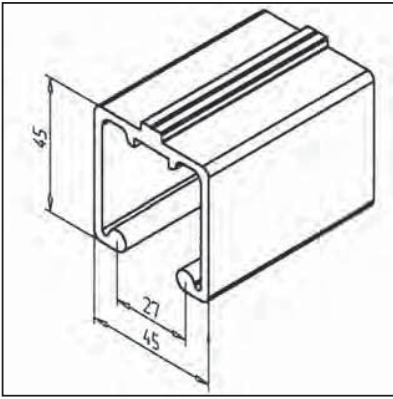
### ASSEMBLY

- Mounting of end caps with supplied fastening kit on front of door profile
- Insert slide elements into profile grooves
- Insert mounted screws into drill hole of slide element
- Use always in pairs
- Measures valid for profiles 45x45 for door mounted with hinge **part no. 21.1378/0**



## SLIDING DOOR PROFILE

part no. 20.1038/0



### TECHN. DATA / ITEMS SUPPLIED

- Ix =	15,347 cm <sup>4</sup>
- Iy =	15,597 cm <sup>4</sup>
- wx =	5,912 cm <sup>3</sup>
- wy =	6,932 cm <sup>3</sup>
- Weight	1,474 kg/m
- Length	6 m
- Packing unit	48 m

### APPLICATIONS

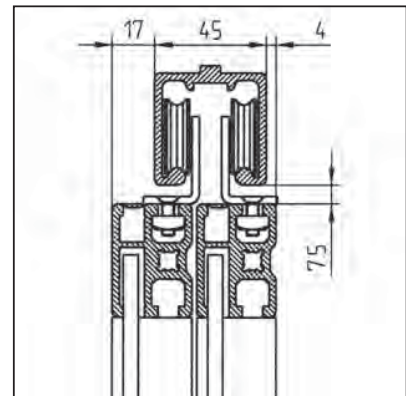
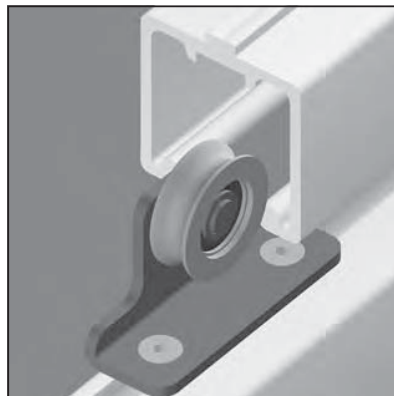
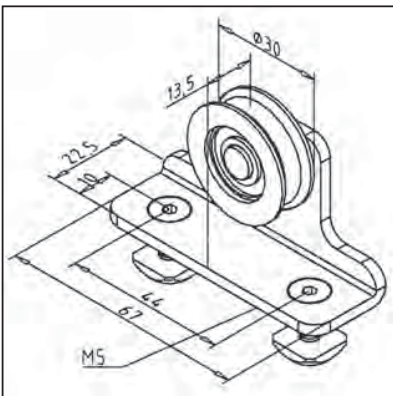
- Two wing sliding doors
- One wing sliding doors

### ASSEMBLY

- Drill  $\varnothing 8,5$  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 hex 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 no. 21.2000/0



### TECHN. DATA / ITEMS SUPPLIED

- Plastic roller with ball-bearing	
- Zinc plated steel support	
- Fastening kit	
- Weight	0,080 kg
- Load max./roller	600 N

### APPLICATIONS

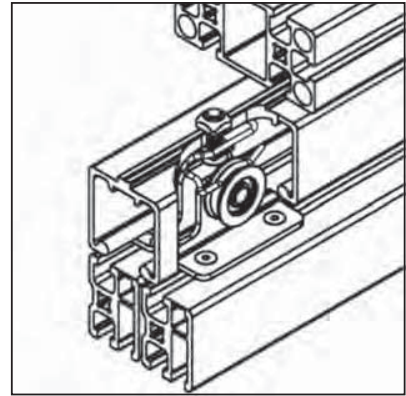
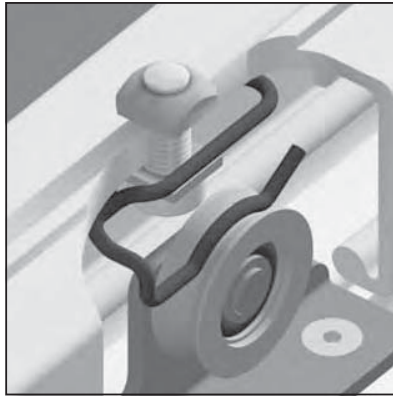
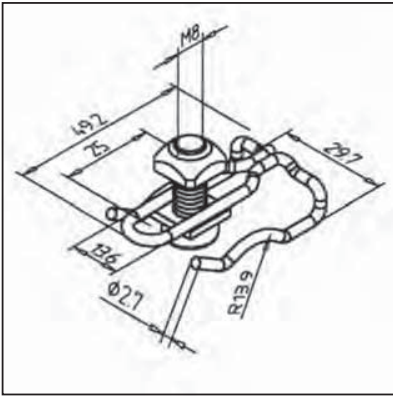
- Easy-running, multi-wing sliding doors in guard units, exhibition stands, testing units, etc.

### 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 no. 22.1085/0** or U-Profile **part no. 21.2002/0** against swinging

## STOP FOR SLIDING DOOR K

part no. 21.2019/0



### TECHN. DATA / ITEMS SUPPLIED

- Spring steel wire

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- Fastening kit

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- Weight 0,010 kg

### APPLICATIONS

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

### ASSEMBLY

- Mark end position of the wheel

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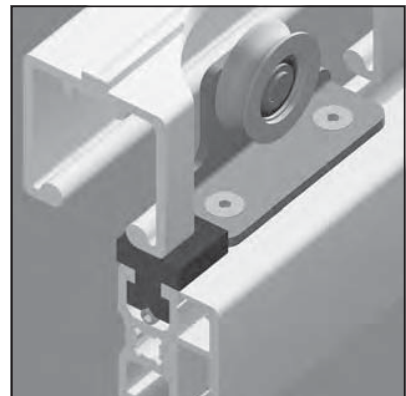
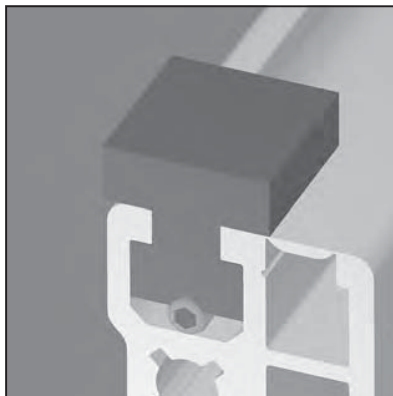
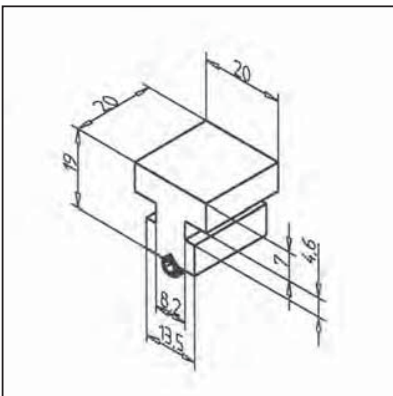
- Bore drill  $\varnothing 8,5$  m in sliding door profile

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- Use fastening kit

## ANTI LIFT FOR SLIDING DOOR

part no. 21.2003/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black

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- Fastening kit

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- Weight 0,010 kg

### APPLICATIONS

- Securing of sliding doors against lift off

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- Reduction of pendulum motion

### ASSEMBLY

- Slip lift for sliding door in upper profile groove of the door-element

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- Secure the position by the included set screw horizontally in profile groove underneath antilift

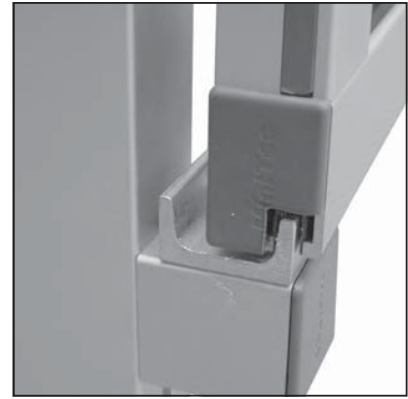
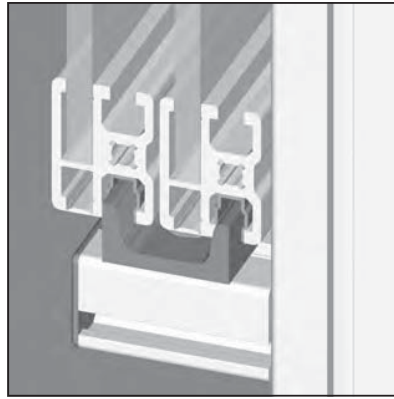
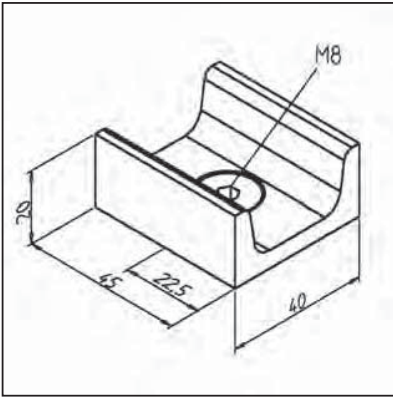
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- Mount end cap



## U-BAR FOR SLIDING DOOR

part no. 21.2002/0



### TECHN. DATA / ITEMS SUPPLIED

- Steel, zinc plated
- Fastening kit
- Weight 0,012 kg

### APPLICATIONS

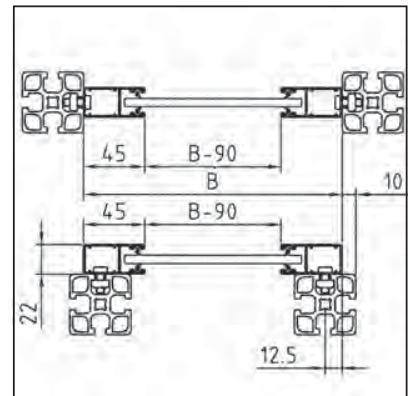
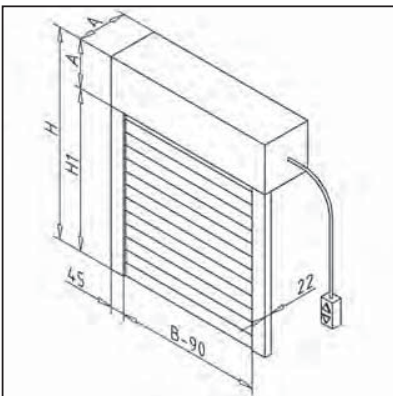
- Securing of sliding doors against lateral swinging

### 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 no. diverse



### 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

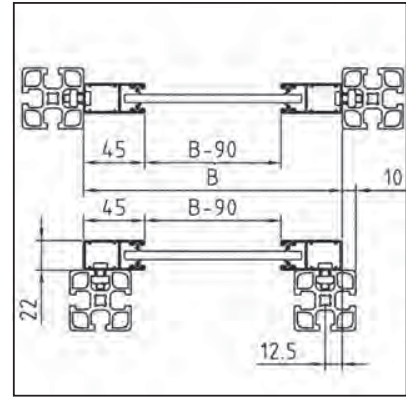
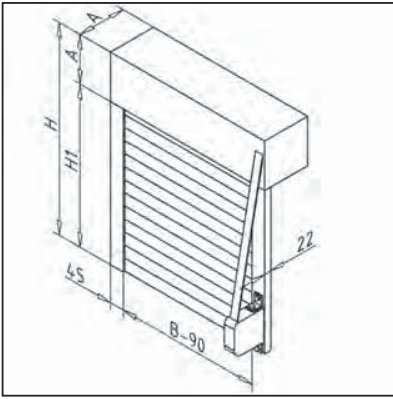
- Cupboard for instruments
- Tools boxes
- Computer racks
- Counters
- Machine guards

### ASSEMBLY

- Assemble lateral guides with housing
- Fix guides and housing in frame
- Housing A = 152, H up to 1,70 m, part no. 29.0402/0
- Housing A = 167,5, H up to 2,20 m, part no. 29.0403/0
- Housing A = 181, H up to 2,70 m, part no. 29.0404/0
- Stroke H1: H-A

## ROLLING DOOR WITH DRIVE

part no. 29.0405/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, powder coated, silver
- 2 lateral guide rails, housing
- Max. width 2,70 m
- Please indicate width B and dimension H

### APPLICATIONS

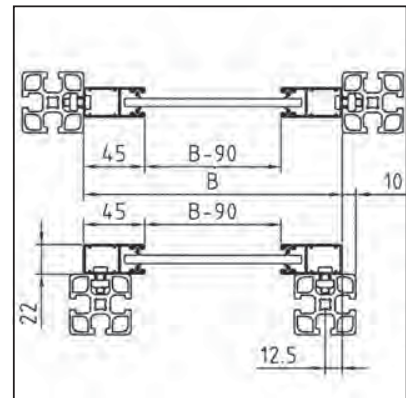
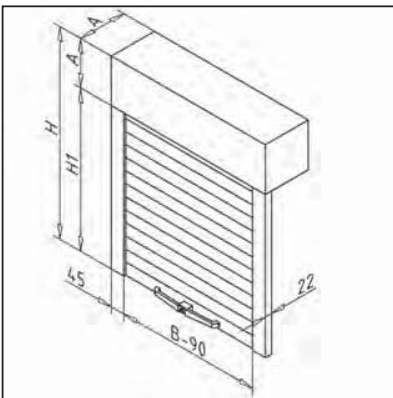
- Cupboard for instruments
- Tools boxes
- Computer racks
- Counters
- Machine guards

### ASSEMBLY

- Assemble lateral guides with housing
- Fix guides and housing in frame
- Stroke H1: H-A

## ROLLING DOOR WITH DRIVE

part no. 29.0406/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, powder coated, silver
- 2 lateral guide rails, housing
- Max. width 2,70 m
- Please indicate width B and dimension H

### APPLICATIONS

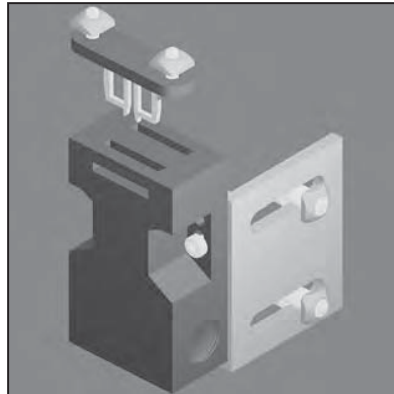
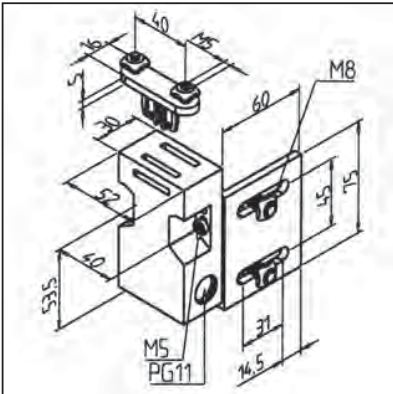
- Cupboard for instruments
- Tools boxes
- Computer racks
- Counters
- Machine guards

### ASSEMBLY

- Assemble lateral guides with housing
- Fix guides and housing in frame
- Stroke H1: H-A

## SECURITY SWITCH AZ 16 ZVR K

part no. 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

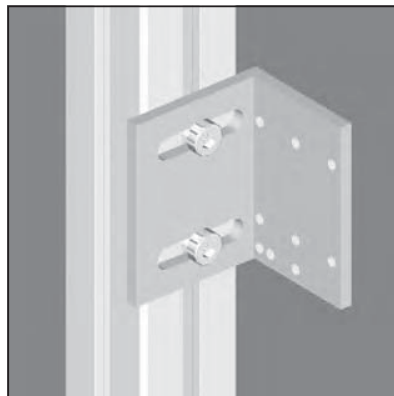
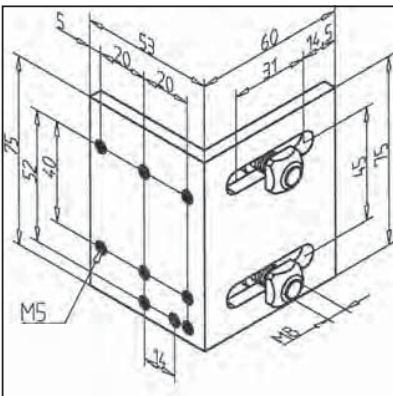
- Electrical securing of swing doors, sliding doors, windows
- Suitable for all profiles

### ASSEMBLY

- Use fastening kit
- 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 no. 21.1110/2** or B3 **part no. 21.1110/3**

## ANGLE-BRACKET FOR SECURITY SWITCH

part no. 21.1359/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized
- Fastening kit
- Weight 0,128 kg

### APPLICATIONS

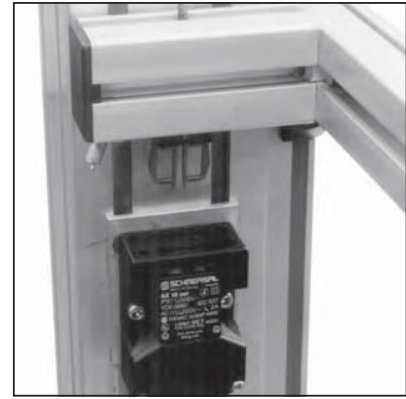
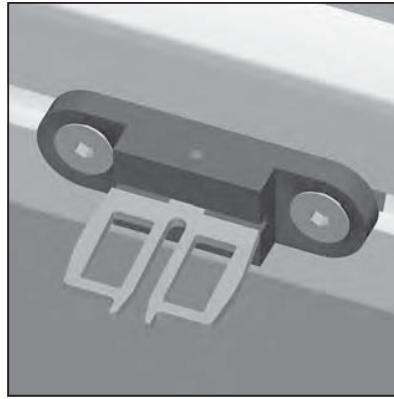
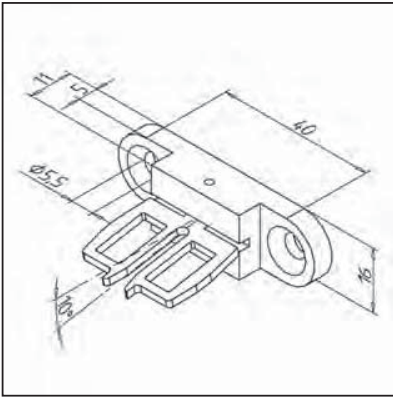
- For security switches DIN EN 50041
- Fitting to all standard types, facilitated adjustment of the switch in x-, y- and z-axis

### ASSEMBLY

- Fasten with fastening kit on profile groove

**ACTUATING BOW FOR SECURITY SWITCH B3**

part no. 21.1110/3

**TECHN. DATA / ITEMS SUPPLIED**

- Switching pad, type B3, for particularly small actuating radii over the small side of the bow

- Weight 0,032 kg

**APPLICATIONS**

- Actuating bow for small actuating radii in connection with security switch **part no. 21.1110/0** replaces standard bow

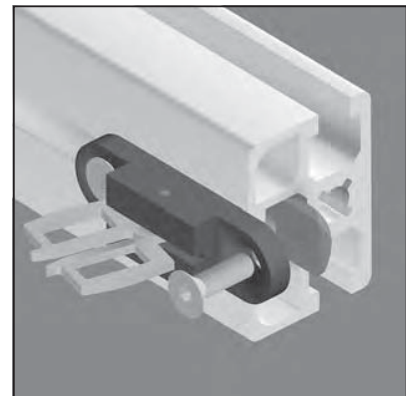
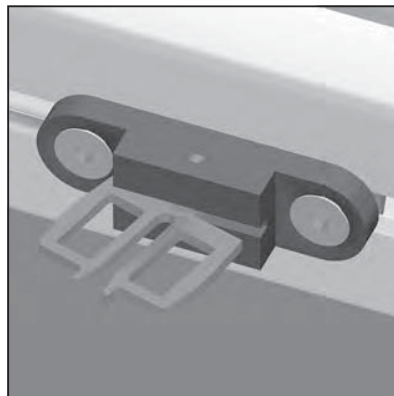
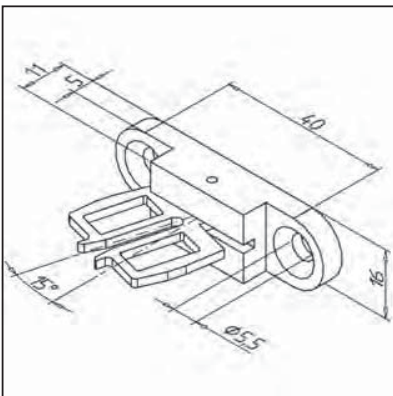
**ASSEMBLY**

- 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 B2**

part no. 21.1110/2

**TECHN. DATA / ITEMS SUPPLIED**

- Switching pad, type b2, for particularly small actuating radii over the broad side of the bow

- Weight 0,032 kg

**APPLICATIONS**

- Actuating bow for small actuating radii in connection with security switch **part no. 21.1110/0** replaces standard bow

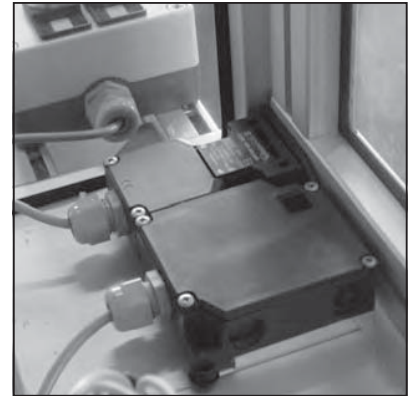
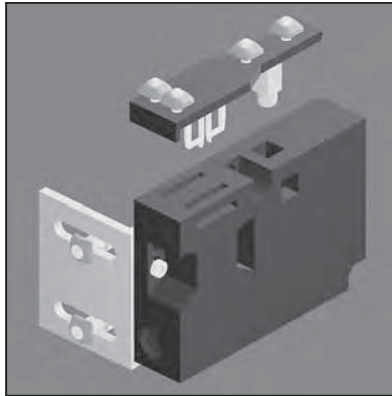
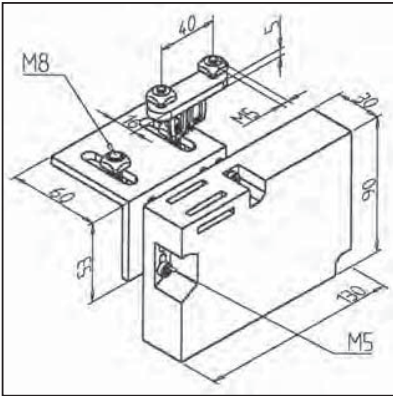
**ASSEMBLY**

- 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 no. 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

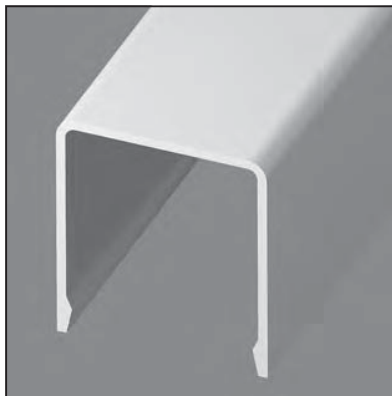
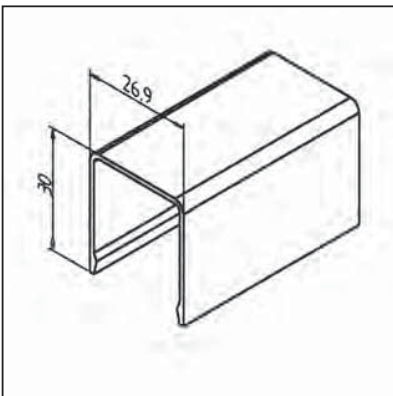
- Protective gears with high requirements to security

### ASSEMBLY

- Fasten with fastening kit on profile groove

## CONDUIT AL

part no. 20.1051/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized
- Weight 0,280 kg/m
- Length 6 m

### APPLICATIONS

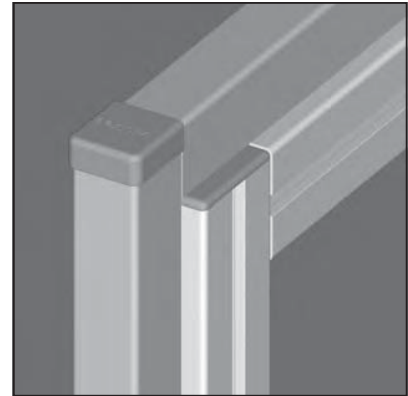
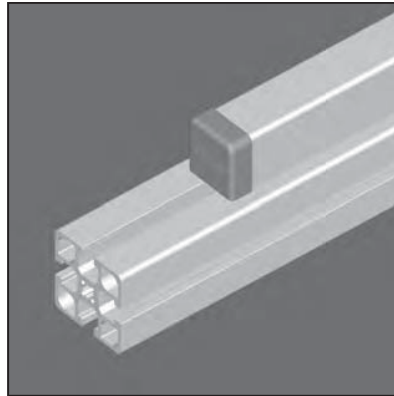
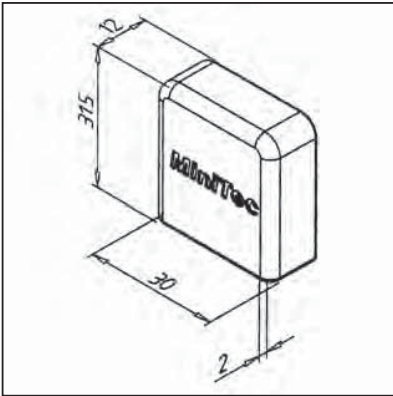
- Cover for cables and pneumatic hoses on all MiniTec aluminium profiles

### ASSEMBLY

- Clip on cable clips **part no.22.1204/0**

## END CAP CONDUIT AL

part no. 22.1119/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012
- Weight 0,004 kg

### APPLICATIONS

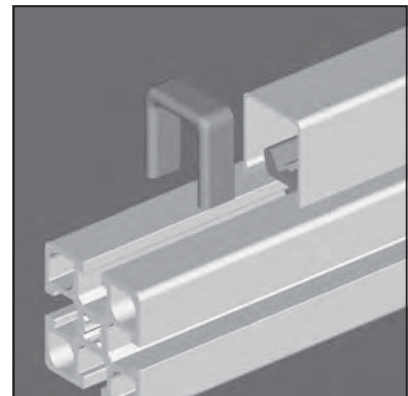
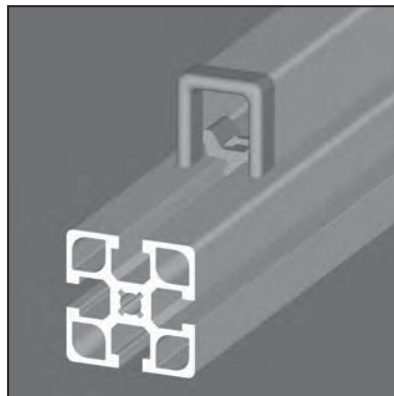
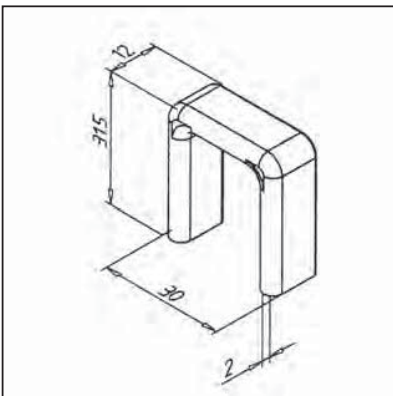
- End cap for conduit AL
- Fabrication of external angle with conduit AL

### ASSEMBLY

- Simply push onto the end of the conduit

## EDGE PROTECTION FOR CONDUIT AL

part no. 22.1120/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012
- Weight 0,003 kg

### APPLICATIONS

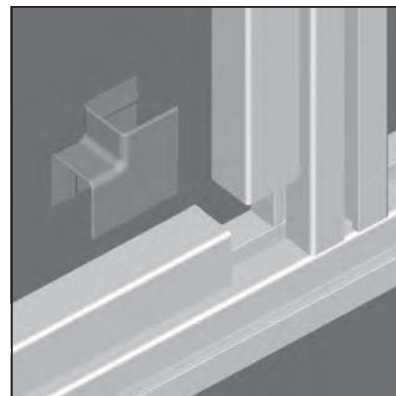
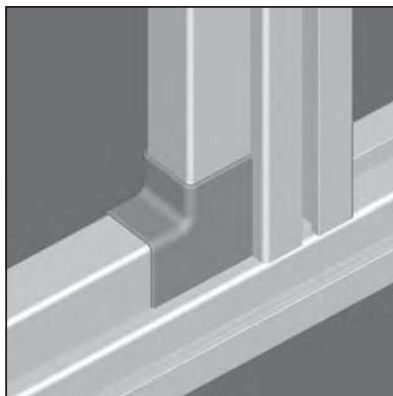
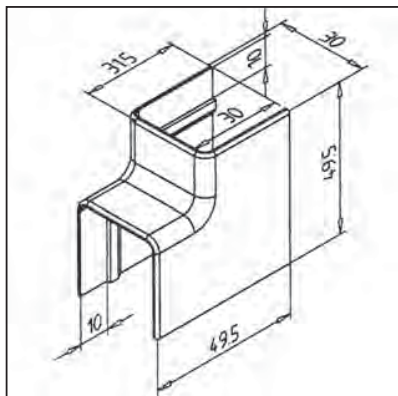
- Edge protection for conduit AL

### ASSEMBLY

- Simply push onto the end of the conduit

## INTERNAL ANGLE BRACKET OF CONDUIT AL

part no. 22.1121/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012

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- Weight 0,01 kg

### APPLICATIONS

- Connection of conduit AL to internal angle bracket

### ASSEMBLY

- Click the first side of the conduit to collar clamps.

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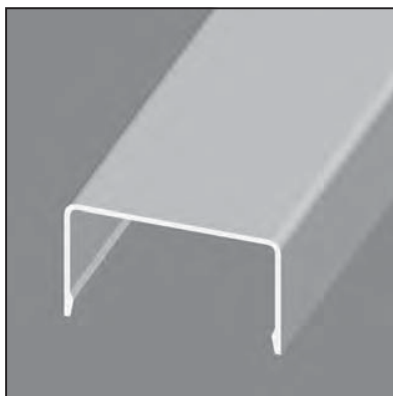
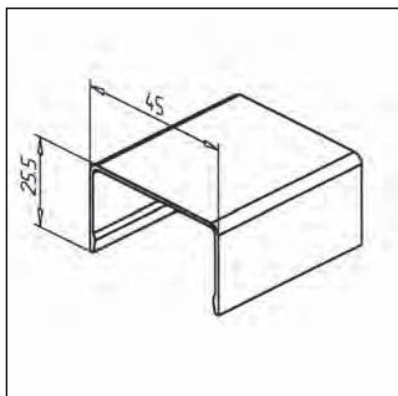
- Insert angle bracket

---

- Click on the second side of the cable duct and slide along as far as the stop

## CONDUIT 45 AL

part no. 20.1071/0



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural, anodized

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- Weight 0,301 kg/m

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- Length 6 m

### APPLICATIONS

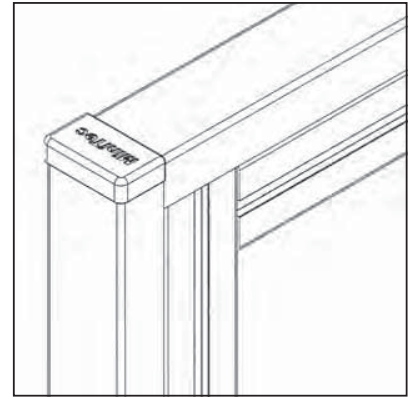
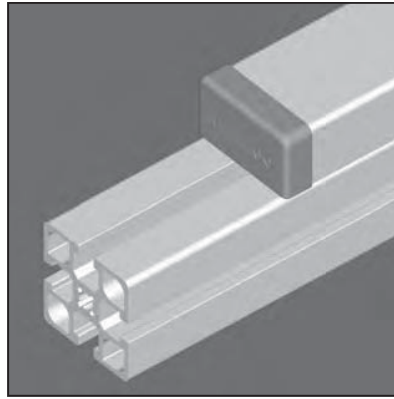
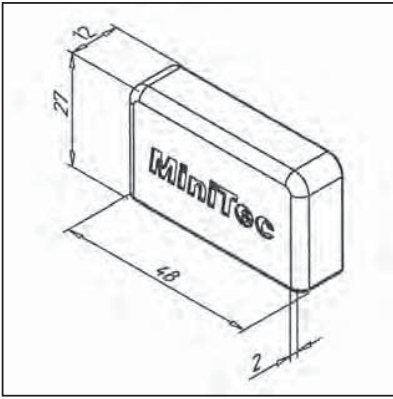
- Cover for cables and pneumatic hoses

### ASSEMBLY

- Clip on cable clips **part no. 22.1210/0**

## END CAP FOR CONDUIT 45 AL

part no. 22.1116/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012
- Weight 0,006 kg

### APPLICATIONS

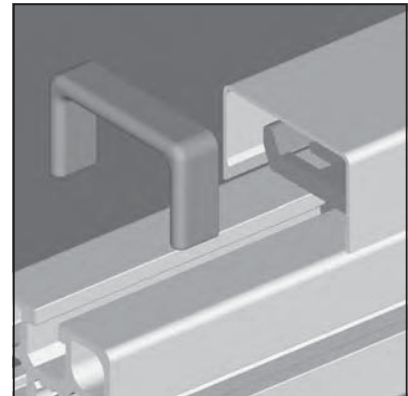
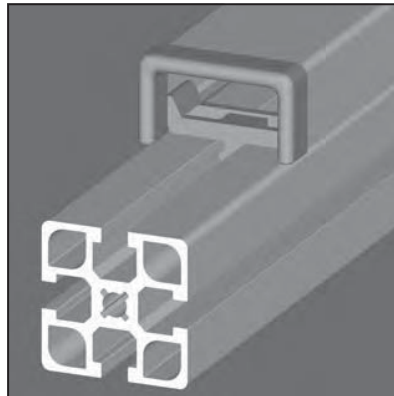
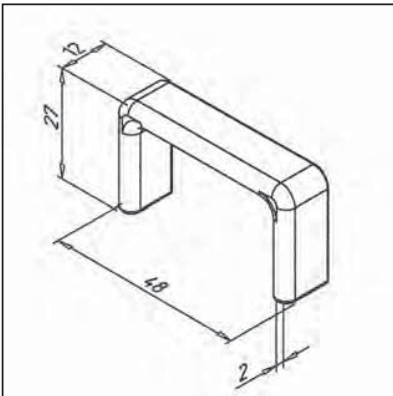
- End cap for conduit 45 AL
- Construction of corners on outside face

### ASSEMBLY

- Clip onto end of conduit 45

## EDGE PROTECTION FOR CONDUIT 45 AL

part no. 22.1117/1



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012
- Weight 0,005 kg

### APPLICATIONS

- Edge protection for conduit 45 AL

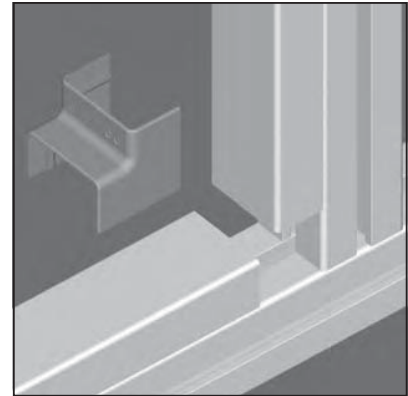
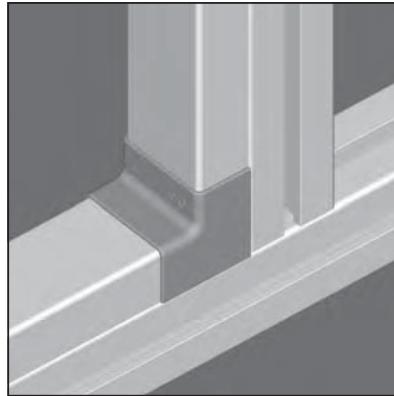
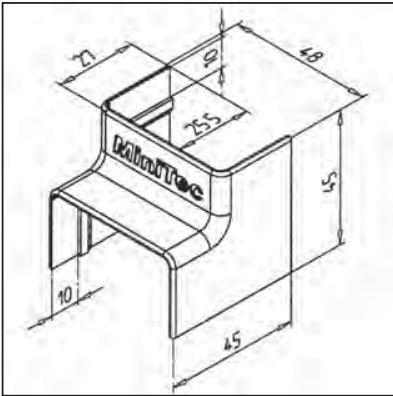
### ASSEMBLY

- Clip onto end of conduit 45 AL



## INTERNAL ANGLE FOR CONDUIT 45 AL

part no. 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

- Clip conduit 1 onto cable clips. Distance for the edge 36 mm

---

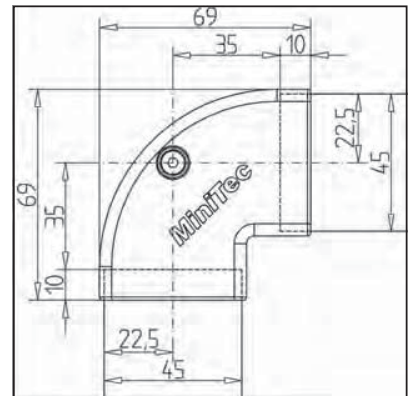
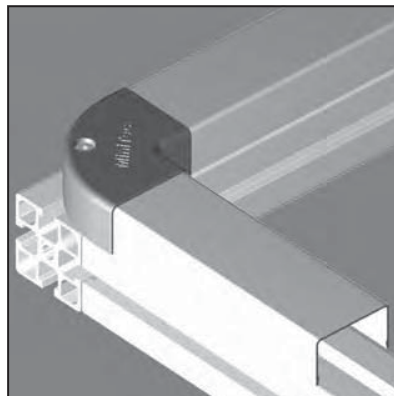
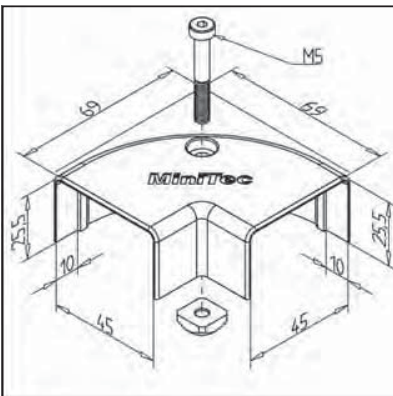
- Insert the angle

---

- Clip on conduit 2 and push to tight fit

## ANGLE BRACKET 90° FOR CABLE CONDUIT 45

part no. 22.1156/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012

---

- Fastening kit

---

- Weight 0,026 kg

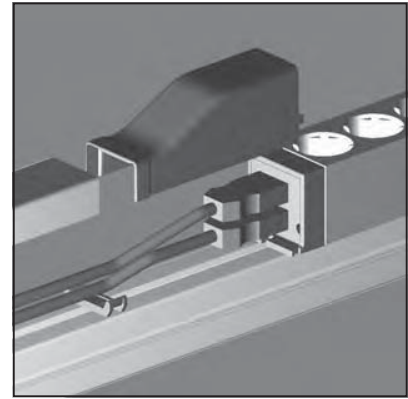
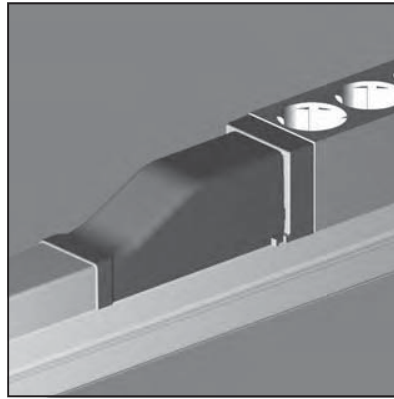
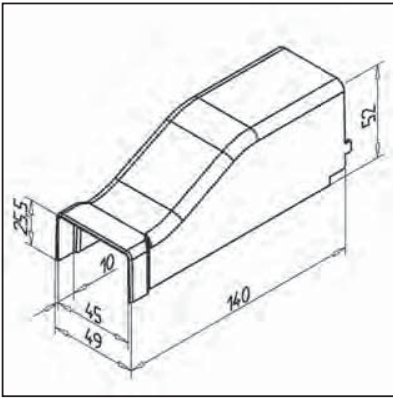
### APPLICATIONS

- Connection of cable conduit 45

### ASSEMBLY

- Push both ends of conduit 45, tighten screw

**ADAPTER CAP FOR CONNECTOR STRIP FOR CABLE CONDUIT 45** part no. 22.1154/1



**TECHN. DATA / ITEMS SUPPLIED**

- ABS, grey RAL 7012
- Weight 0,034 kg

**APPLICATIONS**

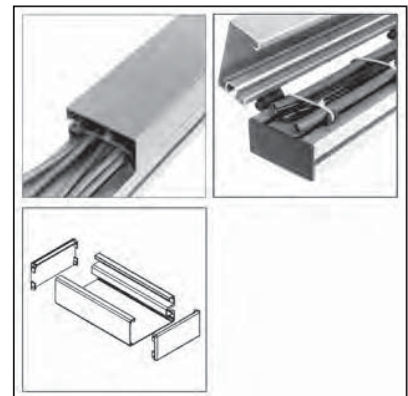
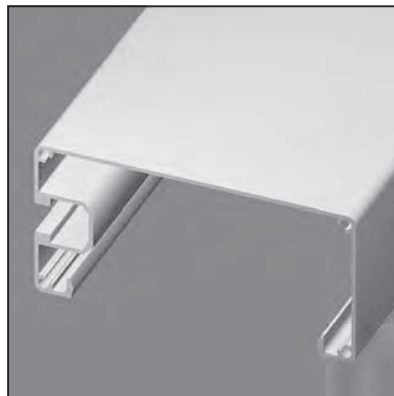
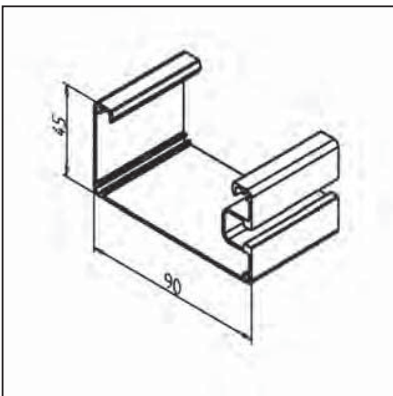
- Cover of cable conduit 45

**ASSEMBLY**

- Clip onto cable conduit 45

**CONDUIT 90 AL**

part no. 20.1056/0



**TECHN. DATA / ITEMS SUPPLIED**

- Aluminium, natural, anodized
- Weight 0,970 kg/m
- Length 6 m

**APPLICATIONS**

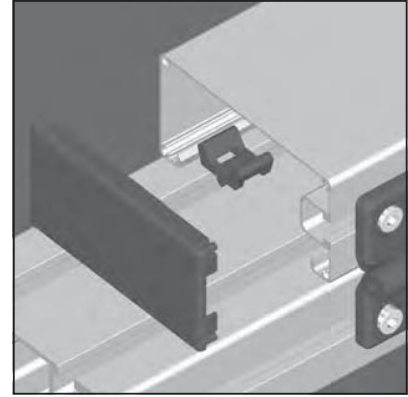
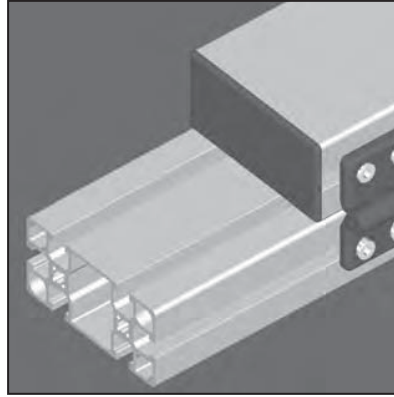
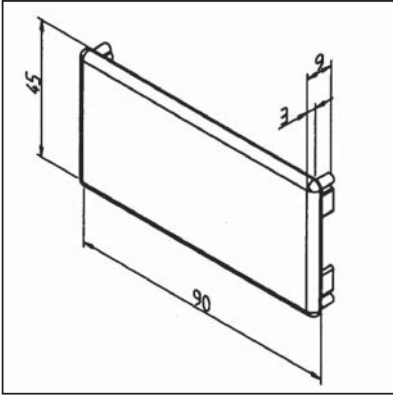
- Cover for cables and pneumatic hoses
- Suitable for MiniTec profiles, grid dimension: 90
- Can also be swung open, when used with hinges
- End ledges with integrated energy supply

**ASSEMBLY**

- Clip on cable clips **part no. 22.1204/0**
- End caps **part no. 22.1045/0**

## END CAP FOR CONDUIT 90 AL

part no. 22.1045/0



### TECHN. DATA / ITEMS SUPPLIED

- ABS, grey RAL 7012
- Weight 0,011 kg

### APPLICATIONS

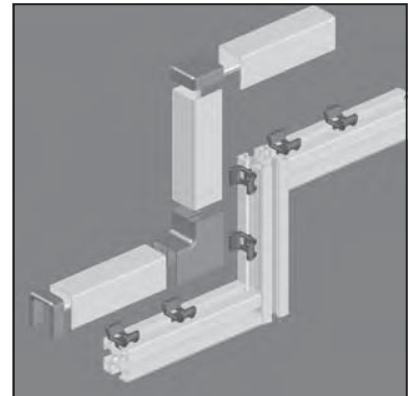
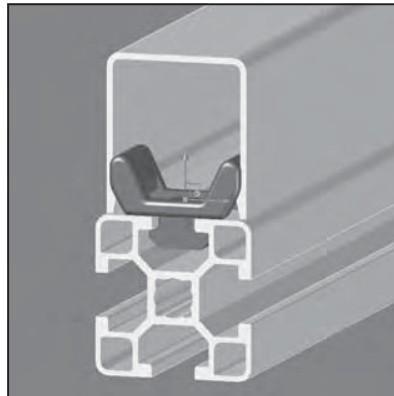
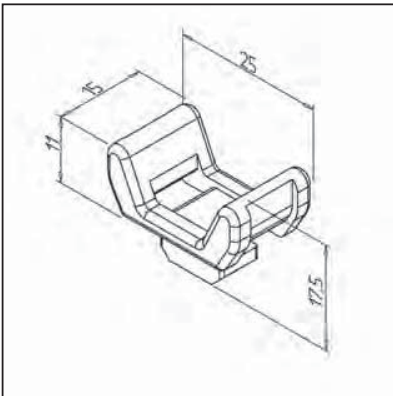
- End cover for conduit 90
- Constructions of corners on outside face

### ASSEMBLY

- Clip onto end of conduit 90

## CABLE CLIP 30

part no. 22.1212/0



### TECHN. DATA / ITEMS SUPPLIED

- PA 6, grey
- Weight 0,002 kg

### APPLICATIONS

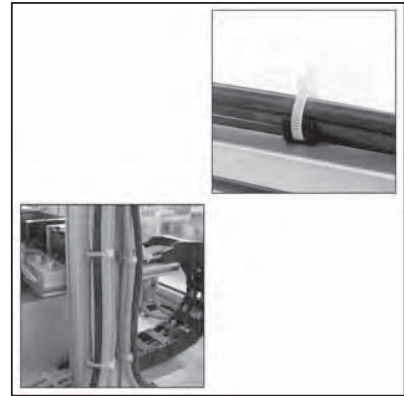
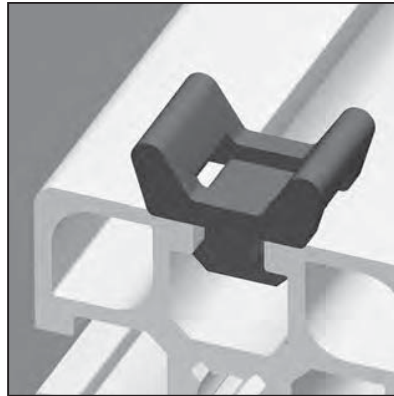
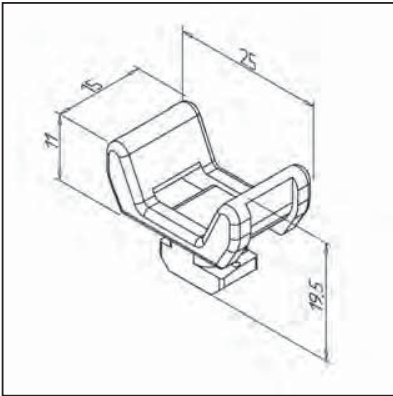
- Simple and rational fastening of cables and pneumatic hoses
- Suitable for conduit AL

### 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

part no. 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

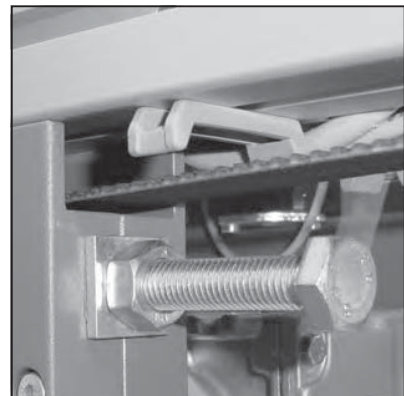
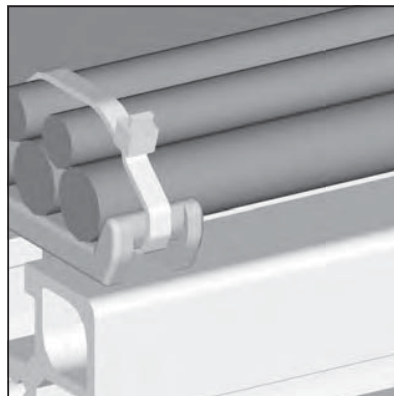
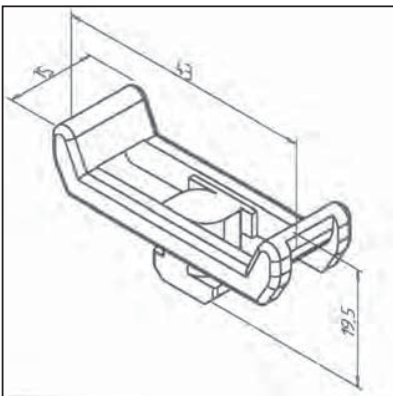
- Insert into profile groove and secure it with a 90° rotation

---

- Insert cable tie band through the cable clip and around the cable. Bind together, cut off any excessive length

## CABLE CLIP 45

part no. 22.1210/0



### TECHN. DATA / ITEMS SUPPLIED

- PA 6, grey

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- Weight 0,004 kg

### APPLICATIONS

- Simple and rational fastening of cables and pneumatic hoses

---

- Suitable for conduit 45 AL

### ASSEMBLY

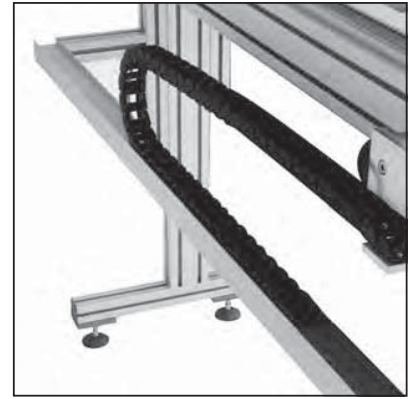
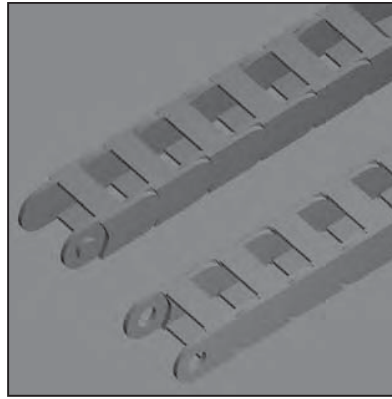
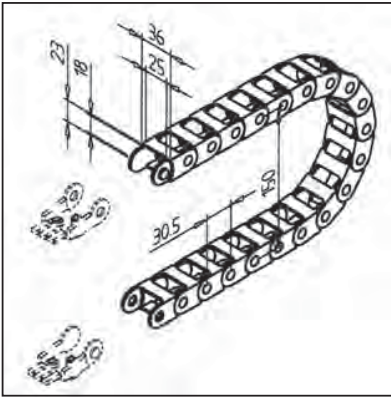
- Insert into profile groove and secure it with a 90° rotation

---

- Insert cable tie band through the cable clip and around the cable. Bind together, cut off any excessive length

## ENERGY CHAIN R

part no. 33.0410/0



### TECHN. DATA / ITEMS SUPPLIED

- Plastic, black
- Without fastening kit
- Weight 0,341 kg

### APPLICATIONS

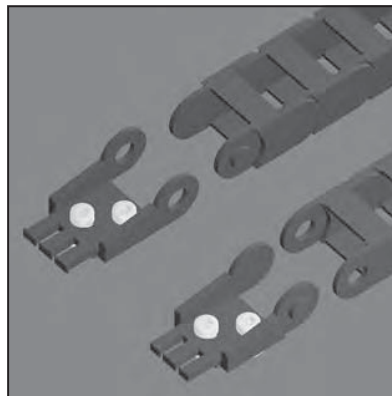
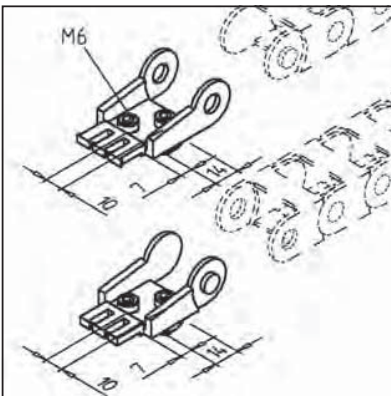
- Energy chain to bind cables and hoses on slides and movable elements
- Suitably profile 45 x 45 R **part no. 20.1046/0 44**

### ASSEMBLY

- Fastening of the energy chain by means of mounting brackets **part no. 33.0411/0**

## MOUNTING BRACKETS FOR ENERGY CHAIN R

part no. 33.0411/0



### TECHN. DATA / ITEMS SUPPLIED

- 1 bracket each left or right
- Plastic, schwarz
- Fastening kit
- Weight 0,058 kg

### APPLICATIONS

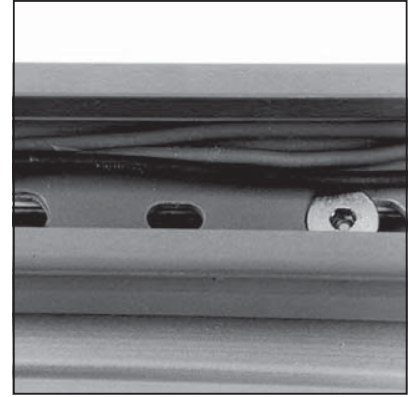
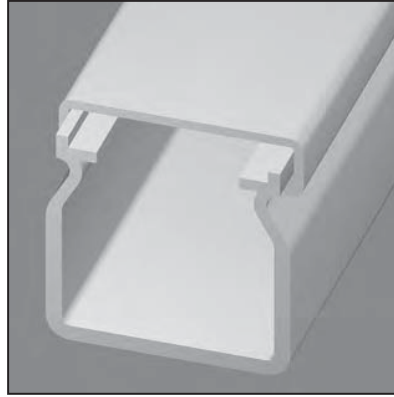
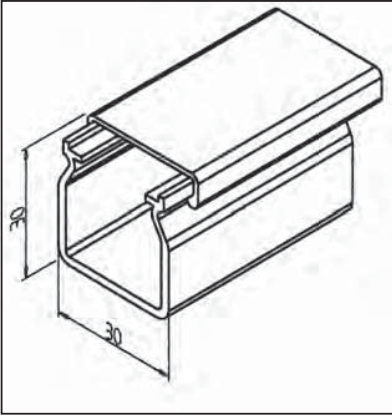
- For fastening energy chain R **part no. 33.0410/0** on profile constructions

### ASSEMBLY

- Use fastening kit
- Use cable tie band to fix cables and hoses

## CONDUIT 32

part no. 22.1082/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey	
- Snap-cover	
- Cross-section: 660 mm <sup>2</sup>	
- Weight	0,323 kg/m
- Length	2 m

### APPLICATIONS

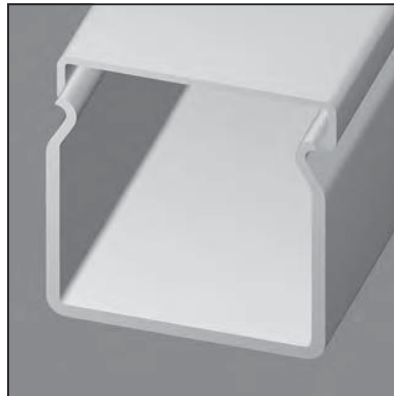
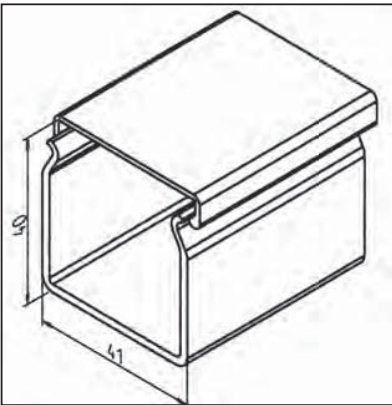
- Assembly of cables or tubings in all kinds of constructions

### ASSEMBLY

- Fastening with screws M6 x 12 and rhombus-nut M6

## CONDUIT 45

part no. 22.1084/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard PVC, grey	
- Snap-cover	
- Cross-section: 1584 mm <sup>2</sup>	
- Weight	0,523 kg/m
- Length	2 m

### APPLICATIONS

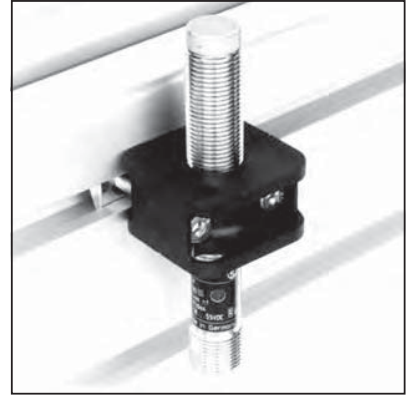
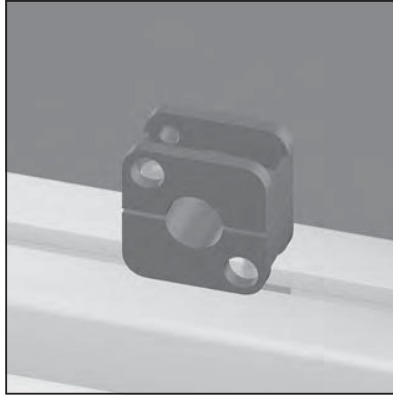
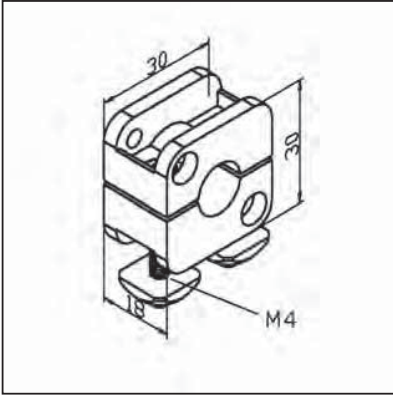
- Assembly of cables or tubings in all kinds of constructions

### ASSEMBLY

- Fastening with screws M6 x 12 and rhombus-nut M6

## PROXIMITY SWITCH HOLDER 12

part no. 28.0120/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Ø 12 mm
- Fastening kit
- Weight 0,040 kg

### APPLICATIONS

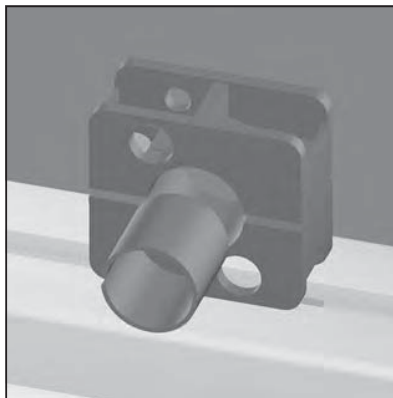
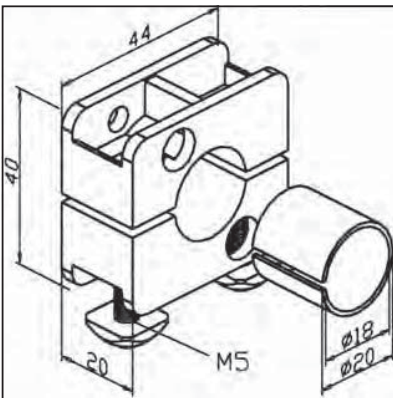
- Fastening of proximity switches Ø 12 mm in profile constructions and linear guides

### ASSEMBLY

- On profile groove with fastening kit from supply schedule

## PROXIMITY SWITCH HOLDER 18

part no. 28.0121/0



### TECHN. DATA / ITEMS SUPPLIED

- Hard plastic, black
- Ø 18 mm
- Ø 20 mm
- Fastening kit
- Weight 0,050 kg

### APPLICATIONS

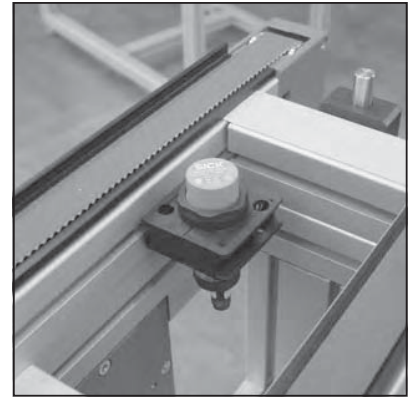
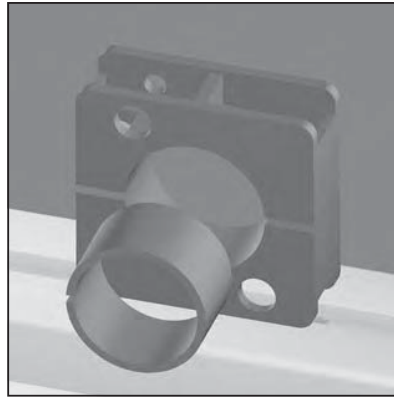
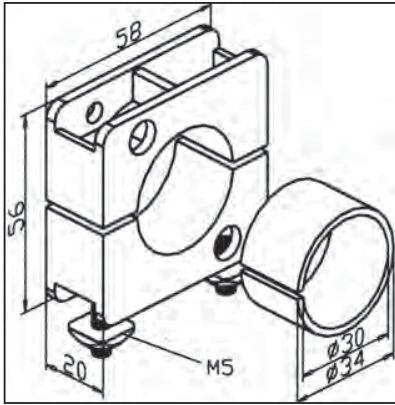
- Fastening of proximity switches Ø 18 mm and Ø 20 mm in profile constructions and linear guides

### ASSEMBLY

- On profile groove with fastening kit from supply schedule

**PROXIMITY SWITCH HOLDER 30**

part no. 28.0122/0

**TECHN. DATA / ITEMS SUPPLIED**

- Hard plastic, black
- Ø 30 mm
- Ø 34 mm
- Fastening kit
- Weight 0,060 kg

**APPLICATIONS**

- Fastening of proximity switches Ø 30 mm and Ø 34 mm in profile constructions and linear guides

**ASSEMBLY**

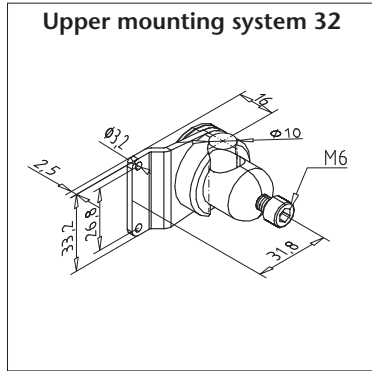
- On profile groove with fastening kit from supply schedule



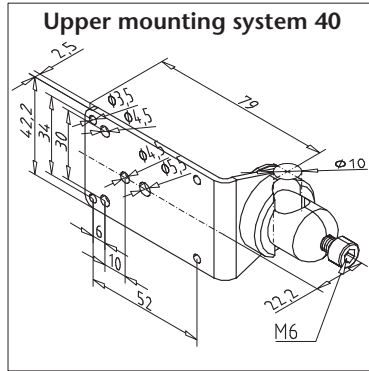
## SENSOR HOLDERS

ALL LATERAL HOLDERS CAN BE COMBINED WITH ALL CARRIERS

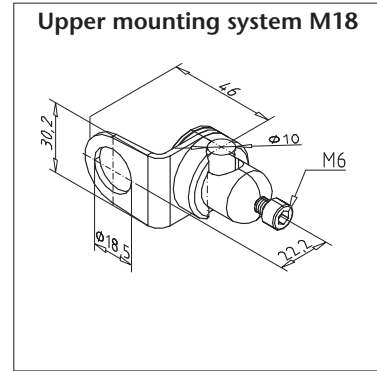
### Carriers



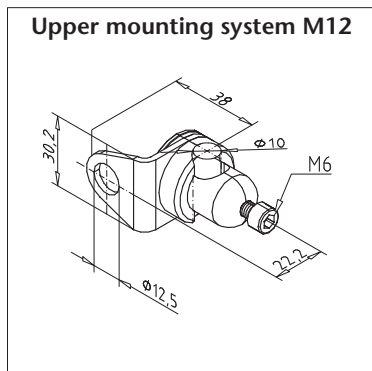
part no. E1.0055/0



part no. E1.0070/0

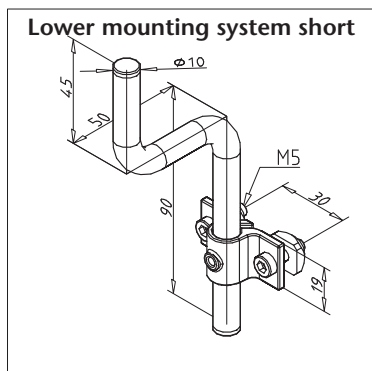


part no. E1.0068/0

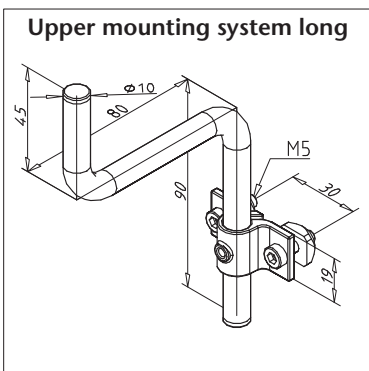


part no. E1.0069/0

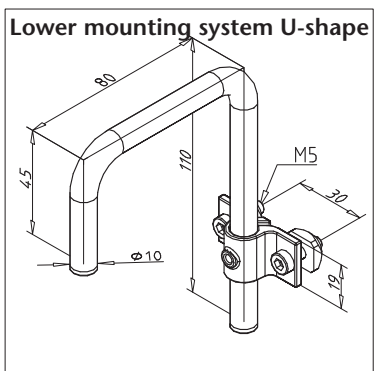
### Lateral holders



part no. 29.5046/2



part no. 29.5047/2



part no. 29.5048/2

## DRIVE AND CONTROL TECHNOLOGY

### ELECTRICAL DESIGN, SWITCH CABINET MANUFACTURING, SOFTWARE DEVELOPMENT AND VISUALIZATION

#### Solutions and services from a single source

Comprehensive solutions ranging from problem analysis to commissioning are applied effectively and help to reduce resources. We not only provide approved components for plant construction and automation technology – together with our experienced team of professionals we also design and implement individual master plans for material flow and assembly techniques.

All solutions are based on our flexible modular system consisting of profiles, linear guides and elements for ergonomic workplace design. These are complemented by components of pneumatic and control technology, conveyors, workpiece carrier transport systems and drives.

#### Electrical design

Basis of electrical engineering is hardware design. With our experience in all industry sectors and our long-term cooperation with efficient manufacturers, we are able to select the optimal configuration for each task.

We create the hardware plans using the latest CAD software E-Plan Electric P8. For each development an infor-



mative documentation is thereby generated.

We generally create the control concepts modular with distributed intelligence.

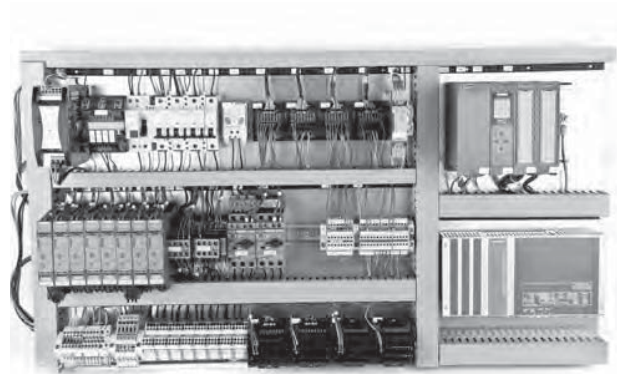
According to the requirements of our customers

and the job definition different bus systems such as Profi-net or I / O link are used. The design of the drives is done by our specialists. Here, cost effectiveness and mechanics are considered. In our systems the latest servo technology with integrated safety functions is standard.

From these parts skilled professionals create modules which are then assembled into complete automation solutions for individual tasks.

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 and professional follow-up from initial design to final implementation.



#### Switch cabinet manufacturing

Switch cabinets are equipped and wired as specified in electrical engineering design and after approval by our customers.

Intensive functional testing using the latest testing equipment guarantees quality and safe operation of our facilities.

## Software development

The sequence programs of our systems are created for PLC or PC control. Programming is done with Simatic Step 7 and the TIA Portal to IEC standard. Manufacturer-independent CoDe-Sys programming is also possible.

The integration of our solutions into the customer's existing ERP can also be realized on request.



## Visualization - safely operate and monitor

For safe operation of the plant the unique mapping of control processes is essential. With WinCC flexible we create user interfaces which not only visualize the process, but also visually indicate alarms or display easy to understand help texts for the operator. The operation and setting up of complex systems is made much easier with our mobile HMI panels. The visualization can be individually adjusted by different user levels.

.... Your partner for complete design:

- Consulting
- Planning
- Mechanical and electrical project planning
- Software development and visualization
- Commissioning
- CE compliant versions
- Documentation
- Service such as remote maintenance

## MOTORS

## SPURE WHEEL BACK-GEARED MOTOR [TYPEE CB, B5]

## Technical Data

Flange version with recess for mounting on engine kit  $\varnothing 20$  is still a motor flange for D120 part no. 29.5033/0 required.

- Nominal Voltage 230 / 400 V
- 50 Hz
- Protective system IP 44
- Weight 7 - 15 kg



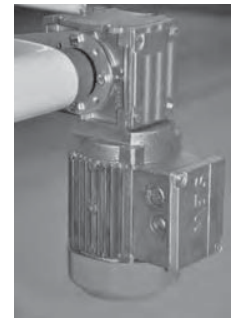
Data given refer to the individual speeds; different levels for one type possible; data sheets upon request.  
Can also be supplied with brake, heat detector or separate fan as an option; other equipment upon request.

TYPE	PART NO.	POWER [W]	MIN. OUTPUT SPEED (FOR OUTPUT TORQUE)	MAX. OUTPUT SPEED (FOR OUTPUT TORQUE)
DGM 120-00F	33.0050/1	120	23 U/min (50 Nm)	430 U/min (2,7 Nm)
DGM 120-0F	33.0060/1	120	17 U/min (68 Nm)	57 U/min (20 Nm)
DGM 180-00F	33.0051/1	180	28 U/min (62 Nm)	412 U/min (4,2 Nm)
DGM 180-0F	33.0061/1	180	16 U/min (106 Nm)	61 U/min (28 Nm)
DGM 250-00F	33.0052/1	250	38 U/min (62 Nm)	405 U/min (5,9 Nm)
DGM 250-0F	33.0062/1	250	23 U/min (105 Nm)	114 U/min (21 Nm)
DGM 370-00F	33.0053/1	370	75 U/min (47 Nm)	430 U/min (8,2 Nm)
DGM 370-0F	33.0063/1	370	36 U/min (99 Nm)	360 U/min (9,8 Nm)

## PLUG-ON MOTOR FOR CONVEYOR BELT SERIES 45

## Technical Data

- Nominal Voltage 230 / 400 V
- 50 Hz
- Protective system IP 44
- Weight approx. 6 kg



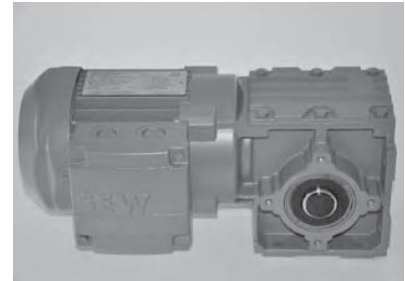
For mounting on a drum bearing 45 a torque arm WA part no. 29.5040/0 is required.

TYPE	PART NO.	POWER [W]	OUTPUTSPEED	OUTPUT TORQUE	CONVEYING SPEED
WA10 DT56 M4 - 17	33.0015/0	90	17 U/min	20 Nm	2,6 m/min
WA10 DT56 M4 - 22	33.0016/0	90	22 U/min	18 Nm	3,4 m/min
WA10 DT56 M4 - 33	33.0017/0	90	33 U/min	15 Nm	5,1 m/min
WA10 DT56 L4 - 67	33.0018/0	120	67 U/min	13 Nm	10,5 m/min
WA10 DT56 L4 - 79	33.0019/0	120	79 U/min	11 Nm	12,4 m/min
WA10 DT56 L4 - 127	33.0020/0	120	127 U/min	7,7 Nm	19,9 m/min
WA10 DT56 L4 - 159	33.0021/0	120	159 U/min	6,3 Nm	24,9 m/min

## PLUG-ON MOTOR FOR CONVEYOR BELT SERIES 90\*

**Technical Data**

- Nominal Voltage 230 / 400 V
- 50 Hz
- Protective system IP 44
- Weight approx. 7 – 13 kg



For mounting on a drum bearing 90 a torque arm is required.

Torque arm WA20 (part no. 29.5036/0) or torque arm WA30 (part no. 29.5037/0)

TYPE	PART NO.	POWER [W]	OUTPUT SPEED	OUTPUT TORQUE	CONVEYING SPEED	TORQUE SUPPORT
DSGM 180-60	33.0080/0	180	15 U/min	48 Nm	4.3 m/min	WA20
DSGM 250-48	33.0081/0	250	27 U/min	44 Nm	7.6 m/min	WA20
DSGM 370-39	33.0082/0	370	35 U/min	63 Nm	10 m/min	WA30
DSGM 370-27	33.0083/0	370	50 U/min	49 Nm	14.1 m/min	WA30
DSGM 370-19	33.0084/0	370	71 U/min	38 Nm	20 m/min	WA30
DSGM 550-24	33.0085/0	550	115 U/min	32 Nm	32.5 m/min	WA20

\* other performances and conversions on request

## FREQUENCY TRANSFORMER FU 370 PP

PART NO. 33.0126/0

### Technical Data

- Built-in on / off switch
- Mode 1Q (without brake - Chopper)
- Powernet overvoltage and undervoltage monitoring
- motor load monitoring
- Short-circuit monitoring phase / phase, phase / earth
- Adjustable acceleration and deceleration ramp
- Adjustable voltage boost at low output frequency
- Power cord with safety plug 230 V and motor cable, ELPUR, 5m long orange safety plug, color
- EMC filter, Class B
- IP 66 / NEMA 4X enclosure
- Equipped with a control unit, which allows operating the drives without additional devices by default.
- Output power motor side max. Motor power 0.37 kW
- Rated output current max. 2.3 A
- Output voltage 3 x 0...230 V
- 150% overload for 60 seconds
- Input voltage powergrid side rated voltage 230V
- Input current 6.7 A
- Frequency 50 - 60 Hz
- General data Ambient temperature -10 ° C to + 40 ° C
- Heat loss at rated power 11 W
- Dimensions H / W / D: 232 x 161 x 179 mm



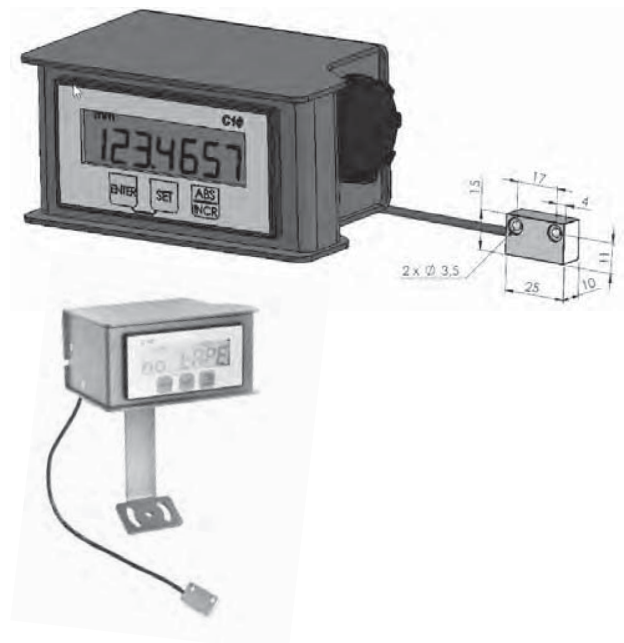
## MAGNETIC MEASURING SYSTEM

### MAGNETIC MEASURING SYSTEM 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.

#### LCD meter display with battery operation incl. Magnetic sensor (part no. 33.0038/0)

- 6-digit LCD display with 14mm character height
- Surface mount housing, aluminum powder coated RAL 5010
- Dimensions W = 125mm, H = 65mm, depth = 85mm.
- Power Battery C (R14, 1.5V)
- Battery compartment on right side
- With mounted magnetic sensor (cable length 0.5m) for fitting to stop slide over Bracket
- Operating temperature -5 to to +45 ° C
- Speed max. 3m / sec, counting frequency to 1MHz
- Actual value memory / offset value, selectable
- Absolute - Incremental - Conversion
- Measuring tolerance  $\pm 0.1$  mm / m



#### Measuring display for 230V connection part no. 33.0036/0

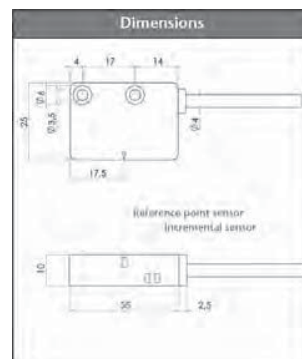
- 6-digit LCD display with 14mm character height
- Surface mount housing, aluminum powder coated RAL 5010
- Dimensions W = 1115mm, H = 70, depth = 120mm.
- Power supply 230V AC plug.
- 9-pin Sub-D sensor connection via plug-in, TTL 5VDC
- Operating temperature -5 to to +45 ° C
- Speed max. 3m / sec, counting frequency to 1MHz
- Actual value memory / offset value, selectable
- Magnetic Sensor part no. 33.0037/0  
Please order separately specifying the desired cable length



## MAGNETIC MEASURING SYSTEM


**Magnetic sensor with integrated processor**  
**part no. 33.0037/0**

- Non-contact measuring scanning unit with integrated digital evaluation
- Detecting the magnetic signals, with index pulse, resolution 10 microns
- In connection with the above-depicted meter
- Suitable for MiniTec profiles, connecting cable integrated (2 m) and D-sub connector (larger cable lengths on request up to 20 m).


**Magnetic tape part no. 33.0028/0**
**Techn. data / Items supplied**

- 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:  $1.1 \pm 0.9$  mm

Please indicate desired measuring length  
(round up to full meters).





## PNEUMATIC SYSTEM

The profiles can be used as an air guide and are also visually appealing and economical. The MiniTec standard profiles are particularly well suited for compressed air supply.

Commercially available connectors can be used without special connection components.

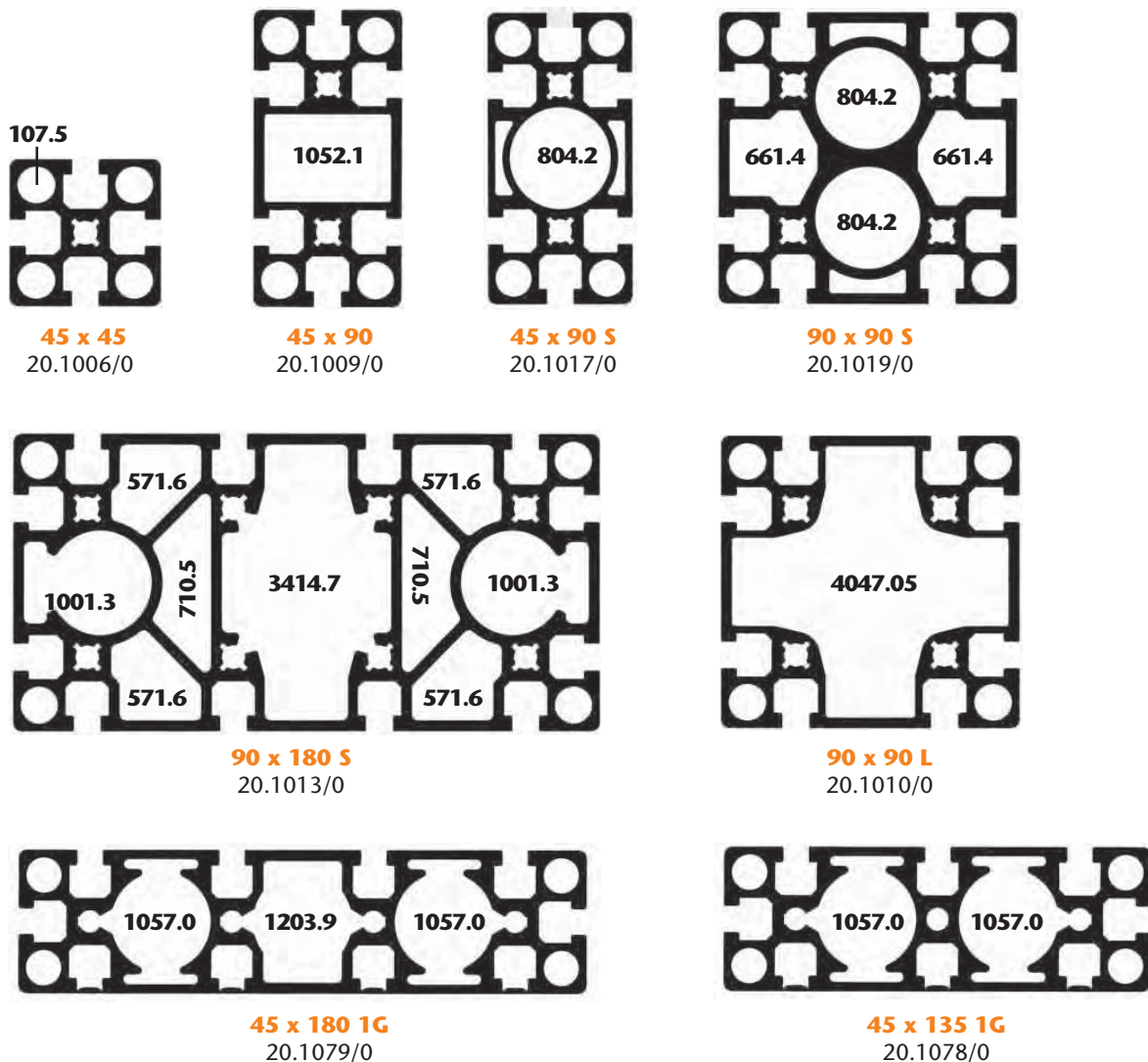
All standard pneumatic elements with thread G 1/8" und G 1/4" can be used with all standard MiniTec profiles. Fixing is possible at any desired point.

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 faceconnection.

The Ø 11.7 mm bore in the standard profiles can be re-bored to G 1/4" for fastening standard screw connectitons. Max. pressure: for round chambers 20 bar; for others: 8 bar.

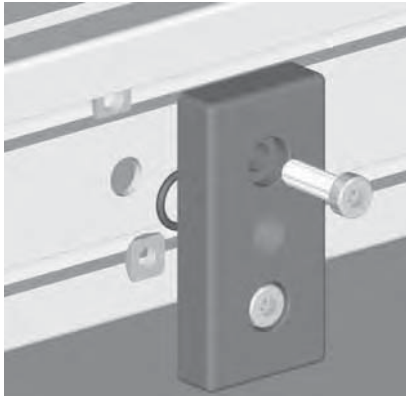
### Usable air pipings

All dimensions in mm<sup>2</sup>



## PNEUMATIC SYSTEM

PNEUMATIC CONNECTION PLATE 45  
 PNEUMATIC CONNECTION PLATE 45 X 90  
 PNEUMATIC CONNECTION PLATE 90



THREAD	WEIGHT	PART NO.
G 1/8"	0.170 kg	24.1107/0
G 1/4"	0.168 kg	24.1107/2
G 3/8"	0.165 kg	24.1107/3

## PNEUMATIC CONNECTION PLATE 45

## Technical Data/Items supplied

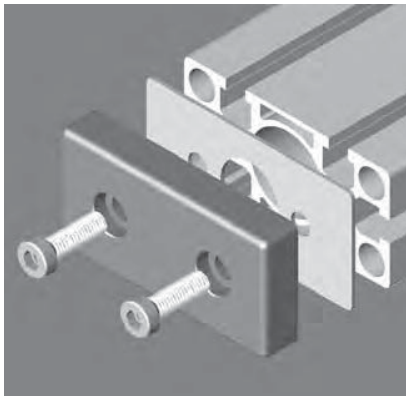
- Aluminium pressure die casting, powder-coated, grey
- One O-ring
- Fastening kit

## 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 Ø 12 mm hole in the profile center.



THREAD	WEIGHT	PART NO.
G 1/8"	0.181 kg	24.1105/0
G 1/4"	0.178 kg	24.1105/2
G 3/8"	0.174 kg	24.1105/3

## PNEUMATIC CONNECTION PLATE 45 X 90

## Technical Data/Items supplied

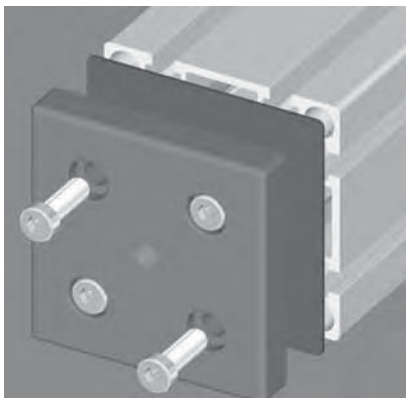
- Aluminium pressure die casting, powder-coated, grey
- Sealing plate
- Fastening kit

## Applications

- Closing of chambers of profiles 45 x 90 for connection of pneumatic couplings

## Assembly

- Insert sealing plate
- Fasten on to 2 central bores Ø 7.5 mm with fastening kit



THREAD	WEIGHT	PART NO.
G 1/8"	0.434 kg	24.1106/0
G 1/4"	0.429 kg	24.1106/2
G 3/8"	0.421 kg	24.1106/3

## PNEUMATIC CONNECTION PLATE 90

## Technical Data/Items supplied

- Aluminium pressure die casting, powder-coated, grey
- Sealing plate
- Fastening kit

## Applications

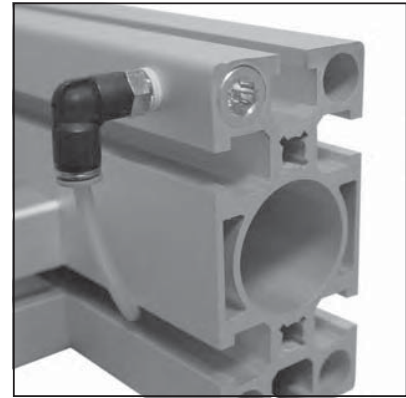
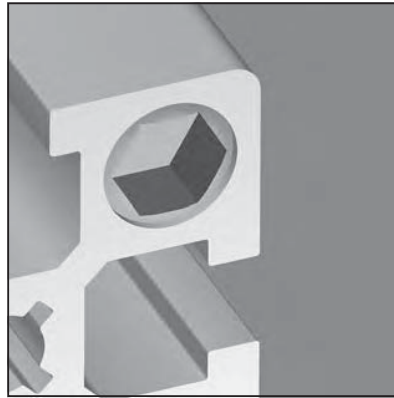
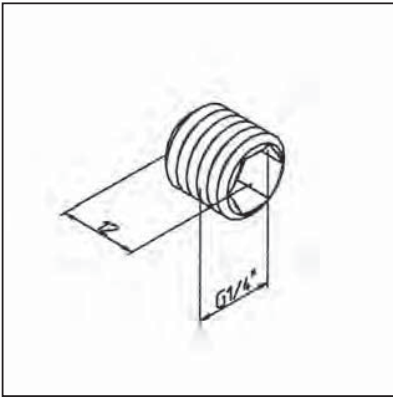
- Closing of chambers of profiles 90 x 90 for connection of pneumatic couplings

## Assembly

- Insert sealing plate
- Fasten on to 4 central bores Ø 7.5 mm with fastening kit

## PLUG

part no. 24.1104/0



### TECHN. DATA / ITEMS SUPPLIED

- Brass	
- Weight	0,006 kg

### APPLICATIONS

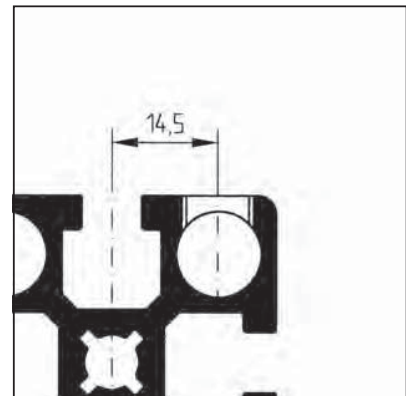
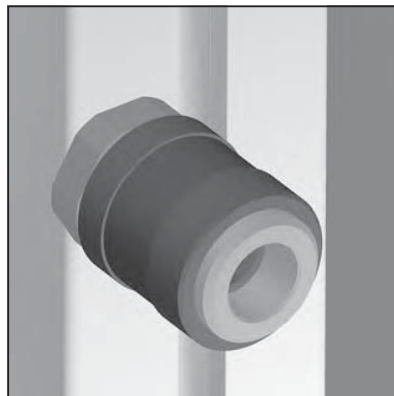
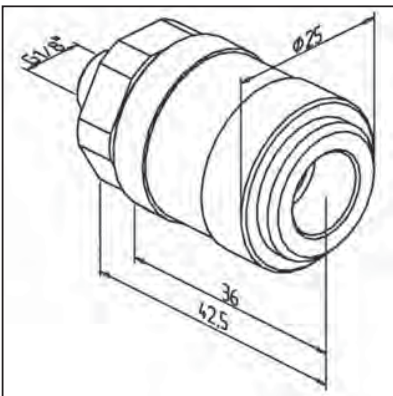
- Closure for profile chambers  $\varnothing$  11,7 mm

### ASSEMBLY

- Thread the round profile chambers  $\varnothing$  11,7 mm to G 1/4 "
- Screw in the plug by using sealing tape

## QUICK COUPLING 1/8

part no. 24.1109/0



### TECHN. DATA / ITEMS SUPPLIED

- Brass, nickel plated, NW 7	
- Connection G 1/8", A/F 22	
- Weight	0,064 kg

### APPLICATIONS

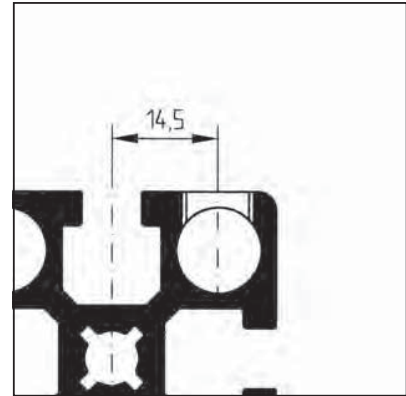
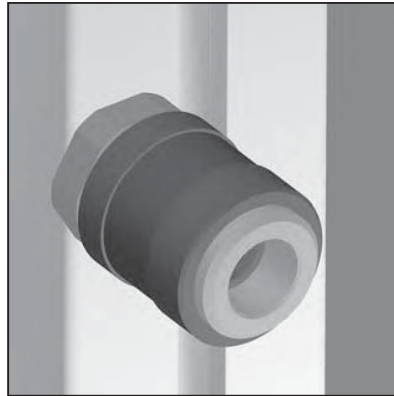
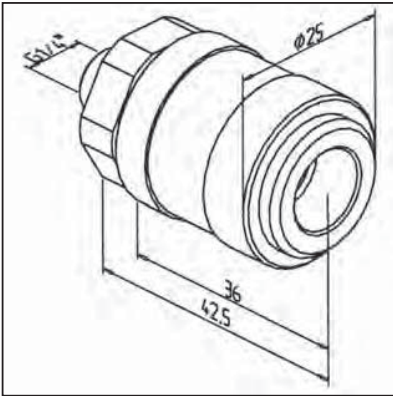
- Pressed air connection at any desired point on profile surface or faces,  $\varnothing$  11,7 mm

### ASSEMBLY

- Bore thread G 1/8" in profile surface; distance from center of profile groove: 14,5 mm

**QUICK COUPLING 1/4**

part no. 24.1110/0

**TECHN. DATA / ITEMS SUPPLIED**

- Brass, nickel plated, NW 7
- Connection G 1/4", A/F 22
- Weight 0,065 kg

**APPLICATIONS**

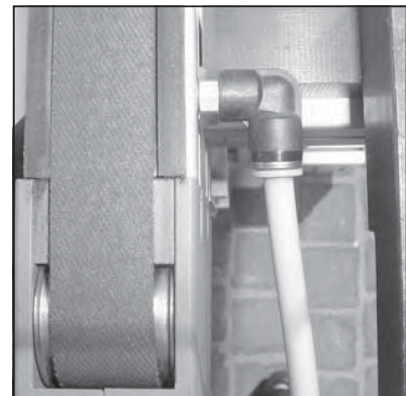
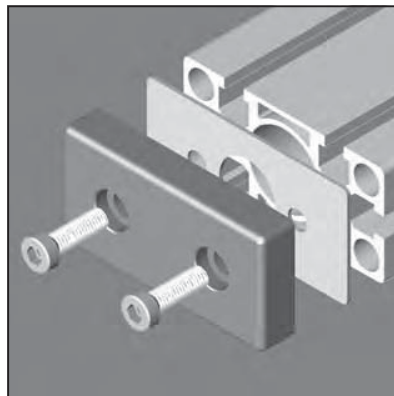
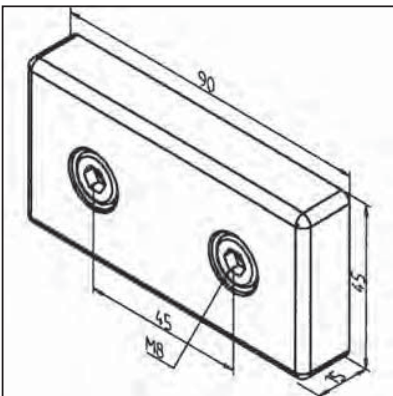
- Pressed air connection at any desired point on profile surface or faces, Ø 11,7 mm

**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 no. 24.1105/7

**TECHN. DATA / ITEMS SUPPLIED**

- Aluminium GD, powder coated, grey
- Sealing plate
- Fastening kit
- Weight 0,181 kg

**APPLICATIONS**

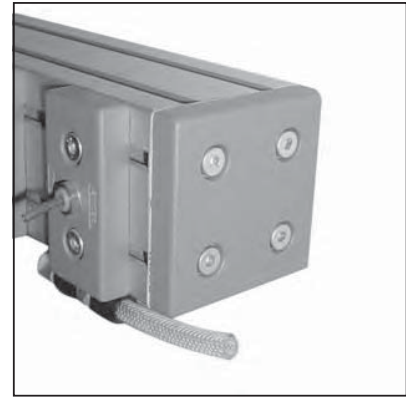
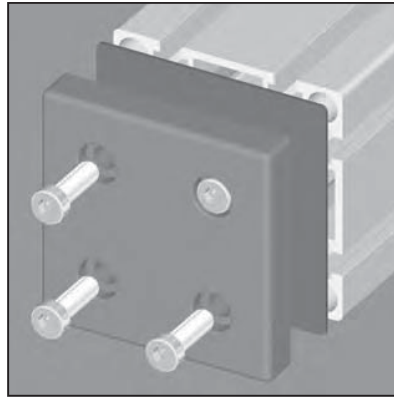
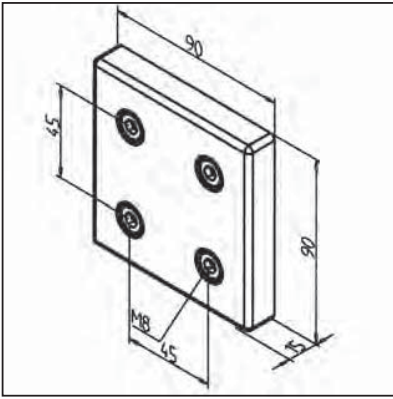
- Closing of chamber ends of profiles 45 x 90

**ASSEMBLY**

- Insert sealing plate
- Attachment on 2 central bores Ø 7,5 with fastening kit

## PNEUMATIC END PLATE 90 X 90

part no. 24.1106/7



### TECHN. DATA / ITEMS SUPPLIED

- Aluminium GD, powder coated, grey
- Sealing plate
- Fastening kit
- Weight 0,434 kg

### APPLICATIONS

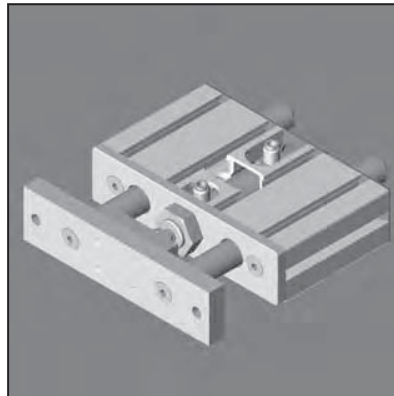
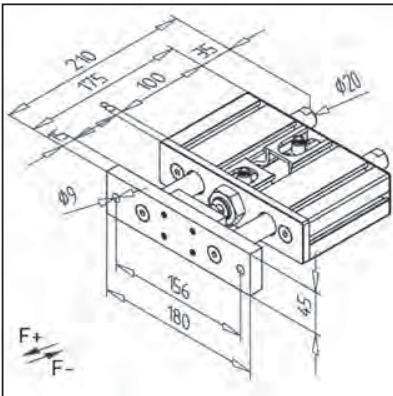
- Closing of chambers of profiles 90 x 90 for connection of pneumatic couplings

### ASSEMBLY

- Insert sealing plate
- Attachment on 4 central bores  $\varnothing 7,5$  with fastening kit from supply schedule

## PNEUMATIC LIFTING UNIT 15

part no. 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

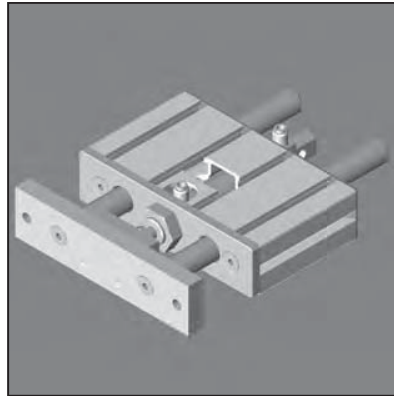
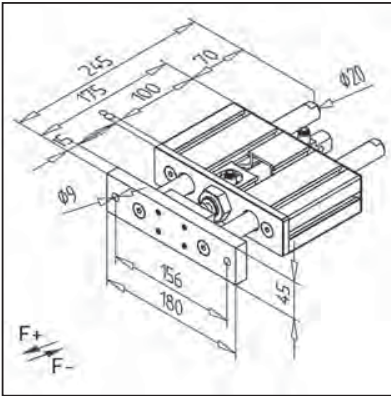
- Lifting and lowering of loads
- Attachment for gripper loc. Cit.
- Positioning of parts

### ASSEMBLY

- With mounting angle on profile construction
- Other stroke lengths on request

## PNEUMATIC LIFTING UNIT 50

part no. 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

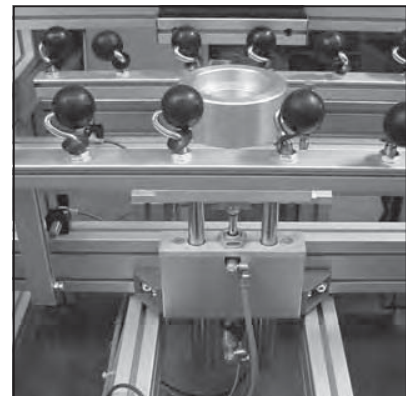
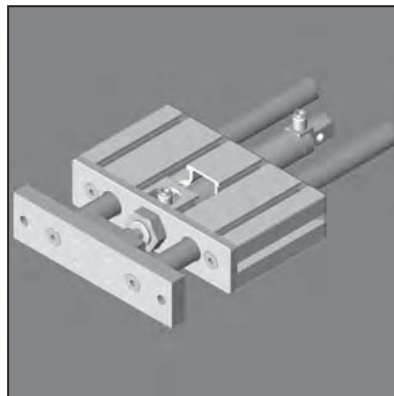
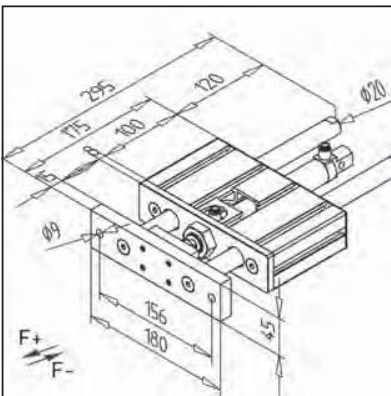
- Lifting and lowering of loads
- Attachment for gripper loc. Cit.
- Positioning of parts

### ASSEMBLY

- With mounting angle on profile construction
- Other stroke lengths on request

## PNEUMATIC LIFTING UNIT 100

part no. 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 SYSTEM

### Technical Data/Items supplied

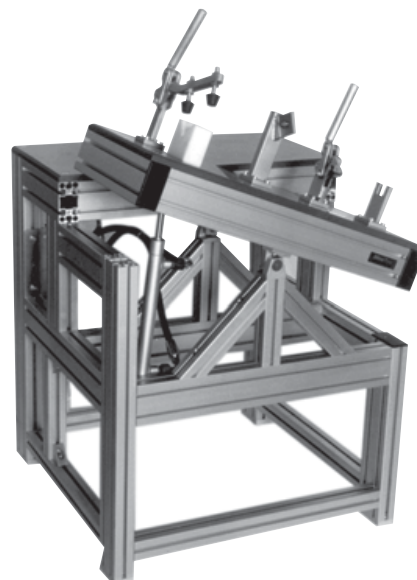
- Hydraulic hand pump for 1 to 6 cylinders
- Cylinders with 150 - 500 mm stroke
- Hydraulic tubes PA 4 mm
- Single-acting cylinders
- Minimum load for return ~ 5 kg
- Temperature from -20°C to + 45°C

### Application

- 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

- Attachment parts for pumps and add-on cylinders according to customer request
- Attachment set 45 for add-in cylinder **part no. 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 no. 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.



## HYDRAULIC SYSTEM

COMPLETE SYSTEM WITH ADD-ON CYLINDER LA  
COMPLETE SYSTEM WITH ADD-IN CYLINDER LB

Complete system with add-on cylinder LA – manually

PUMP	PA	PA	PB	PB	PB	PB
SYSTEM LOAD	150 kg	300 kg	350 kg			
NUMBER OF CYLINDERS	1	2	3	4	5	6
LA 150 MAN.	27.0118/1	27.0118/2	27.0118/3	27.0118/4	27.0118/5	27.0118/6
LA 200 MAN.	27.0122/1	27.0122/2	27.0122/3	27.0122/4	27.0122/5	27.0122/6
LA 300 MAN.	27.0126/1	27.0126/2	27.0126/3	27.0126/4	27.0126/5	27.0126/6
LA 400 MAN.	27.0130/1	27.0130/2	27.0130/3	27.0130/4	27.0130/5	27.0130/6
LA 500 MAN.	27.0134/1	27.0134/2	27.0134/3	27.0134/4	27.0134/5	27.0134/6

Complete system with add-on cylinder LA – electrically

LA 150 ELECTR.	27.0119/1	27.0119/2	27.0119/3	27.0119/4	27.0119/5	27.0119/6
LA 200 ELECTR.	27.0123/1	27.0123/2	27.0123/3	27.0123/4	27.0123/5	27.0123/6
LA 300 ELECTR.	27.0127/1	27.0127/2	27.0127/3	27.0127/4	27.0127/5	27.0127/6
LA 400 ELECTR.	27.0131/1	27.0131/2	27.0131/3	27.0131/4	27.0131/5	27.0131/6
LA 500 ELECTR.	27.0135/1	27.0135/2	27.0135/3	27.0135/4	27.0135/5	27.0135/6



Complete system with add-in cylinder LB – manually

PUMP	PA	PA	PB	PB	PB	PB
SYSTEM LOAD	150 kg	300 kg	350 kg			
NUMBER OF CYLINDERS	1	2	3	4	5	6
LB 150 MAN.	27.0120/1	27.0120/2	27.0120/3	27.0120/4	27.0120/5	27.0120/6
LB 200 MAN.	27.0124/1	27.0124/2	27.0124/3	27.0124/4	27.0124/5	27.0124/6
LB 300 MAN.	27.0128/1	27.0128/2	27.0128/3	27.0128/4	27.0128/5	27.0128/6
LB 400 MAN.	27.0132/1	27.0132/2	27.0132/3	27.0132/4	27.0132/5	27.0132/6
LB 500 MAN.	27.0136/1	27.0136/2	27.0136/3	27.0136/4	27.0136/5	27.0136/6

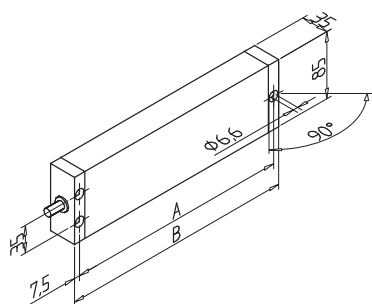
Complete system with add-in cylinder LB – electrically

LB 150 ELECTR.	27.0121/1	27.0121/2	27.0121/3	27.0121/4	27.0121/5	27.0121/6
LB 200 ELECTR.	27.0125/1	27.0125/2	27.0125/3	27.0125/4	27.0125/5	27.0125/6
LB 300 ELECTR.	27.0129/1	27.0129/2	27.0129/3	27.0129/4	27.0129/5	27.0129/6
LB 400 ELECTR.	27.0133/1	27.0133/2	27.0133/3	27.0133/4	27.0133/5	27.0133/6
LB 500 ELECTR.	27.0137/1	27.0137/2	27.0137/3	27.0137/4	27.0137/5	27.0137/6



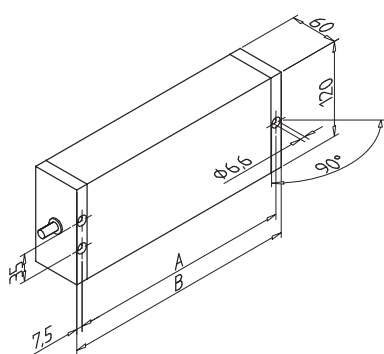
## HYDRAULIC SYSTEM

HYDRAULIC PUMPS PA FOR 1-2 CYLINDER  
 HYDRAULIC PUMPS PB FOR 3-6 CYLINDER  
 ADD-ON CYLINDER LA



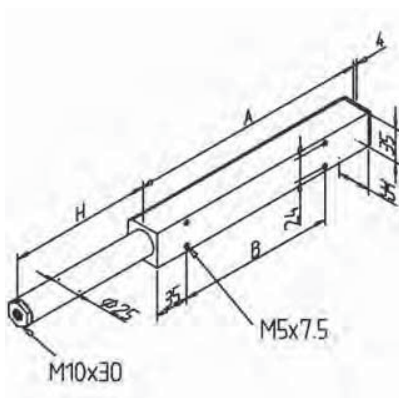
Hydraulic pumps PA for 1-2 Cylinder

TYPE	Stroke H mm	Dimension A mm	Dimension B mm
PA 150	150	283,5	298,5
PA 200	200	343,5	358,5
PA 300	300	465,5	480,5
PA 400	400	585,5	600,5
PA 500	500	707,5	722,5



Hydraulic pumps PB for 3-6 Cylinder

TYPE	Stroke H mm	Dimension A mm	Dimension B mm
PB 150	150	283,5	298,5
PB 200	200	343,5	358,5
PB 300	300	465,5	480,5
PB 400	400	585,5	600,5
PB 500	500	707,5	722,5



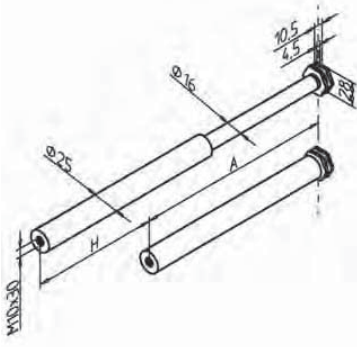
Add-on Cylinder LA

TYPE	Stroke H mm	Length A mm	Length B mm	lateral load kg max.
LA 150	150	252	165	130
LA 200	200	317	240	97
LA 300	300	442	340	65
LA 400	400	542	340	48
LA 500	500	667	450	29

For mounting on a variety of structures by means of adapter plates.

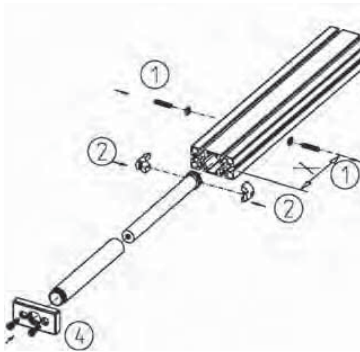
HYDRAULIC SYSTEM

ADD-IN CYLINDER LB  
ATTACHMENT SET 45 FOR ADD-IN CYLINDER  
ATTACHMENT SET 90 FOR ADD-IN CYLINDER



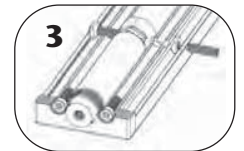
Add-on Cylinder LB

TYPE	Stroke H mm	Length A mm	lateral load kg max.
LB 150	150	235	130
LB 200	200	300	97
LB 300	300	425	65
LB 400	400	525	48
LB 500	500	650	29



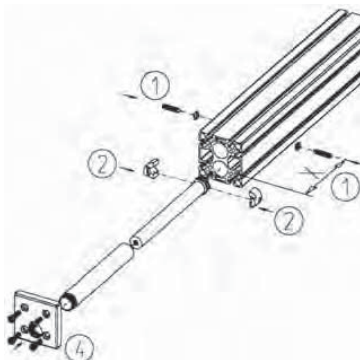
**Attachment set 45 for add-in cylinder (part no. 27.0005/0)**

Suitable for all stroke lengths and profile 45 x 90 S, 45 x 135 G and 45 x 180 G



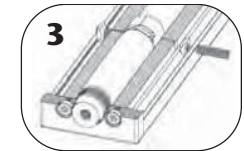
**Installation**

- 1) Bore  $\varnothing$  8,5 mm in distance "X" from profile end
- 2) Place two holder pieces on cylinder and insert into the profile bore  $\varnothing$  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



**Attachment set 90 for add-in cylinder (part no. 27.0006/0)**

Suitable for all stroke lengths and for profile 90 x 90 S and 90 x 180



**Installation**

- 1) Bore  $\varnothing$  8,5 mm in distance "X" from profile end
- 2) Place two holder pieces on cylinder and insert into the profile bore  $\varnothing$  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	LB 150	LB 200	LB 300	LB 400	LB 500
DISTANCE X (mm)	224	289	414	514	639