HSW EASY SAFE

Installation instructions

Contents

All dimensions in these instructions are given in mm.

1. Safety instructions

Important safety instructions for the installation and use of DORMA glass fittings
Please follow the instruction in the installation and operating manual in order to prevent damage to the product as well as body injury and property damage .

Important: All operators are to be informed about the relevant points of the following notes as well as the notes in the installation and operating manual!

General
DORMA recommends the use of:

• ESG-H (heat-soaked single-pane safety glass) according to EN 12150-1 •VSG (laminated safety glass) according to EN ISO 12543-1

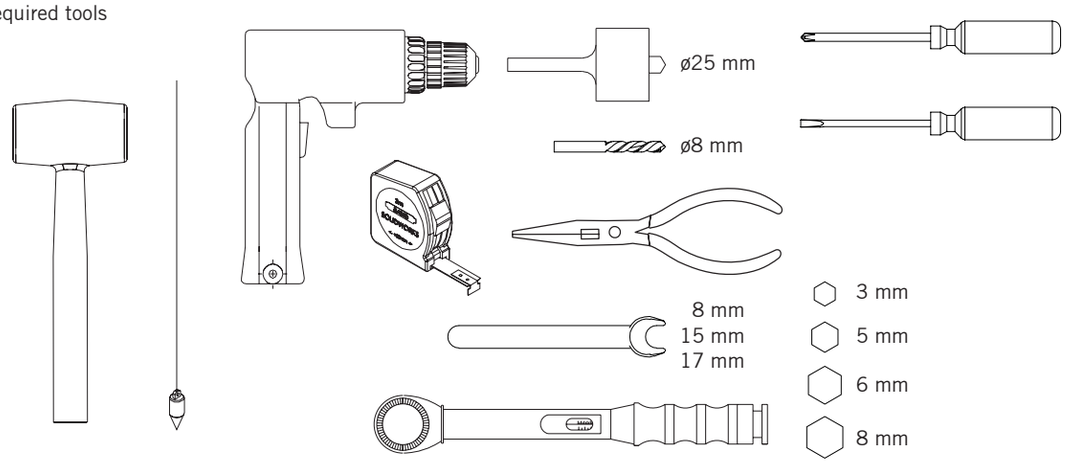
1. DORMA glas fittings are not suitable for rooms in which chemicals (e. g. chlorine) is used, e. g. swimming pools, saunas and salt-water pools. For those cases DORMA offers special glas fitting designs from its product portfolio that are suitable in such areas. Please contact us for more information.
2. Sliding panels may not be moved faster than walking speed and have to be stopped by hand before they reach the end position.
3. Do not force the swing-pivoted door during closing. Fitting a door stop is recommended to prevent the door the door from being opened too far.

Installation
1. DORMA glass fittings are to be installed only by qualified personnel that has been trained especially for the installation of glass.
2. Glasses with chonchoidal fractures and/or damaged edges may not be installed.
3. There is a risk of getting pinched, among other things, in the area of the secondary closing edge as well as a risk of injuries due to glass breaking during the installation. Wear the required protective clothing (especially gloves and safety goggles).
4. Prior to the final installation of the fittings, the glass must be freed from grease in the clamping area by using fat-dissolving household cleaning agents.
5. Structured glass surfaces (except for frosted glass) or glasses with large variations in thickness may be used if a compensating coat has been applied.
6. Self-cleaning coats on the glass may not be used in case of clamp fittings.
7. Observe the gap dimensions specified for the respective fitting when aligning the glass elements. The gap dimensions must be adjusted accordingly so that a contact of the glass with hard material (e. g. glass, concrete) is prevented.
8. Ensure a zero-stress installation (without excessive local tensions due to screws tightened to much) .

Maintenance
The fit and the operation of the fittings as well as the adjustment of the door must be regularily checked. Especially in case of highly frequented systems the test should be carried out by a specialist company or installing company. Damaged glass elements (flaking and /or chonchoidal fractures) must be replaced immediately. Use only suitable cleaners and cleaning agents for cleaning the surfaces.

2. Product description

Required tools



2.1 Installation options

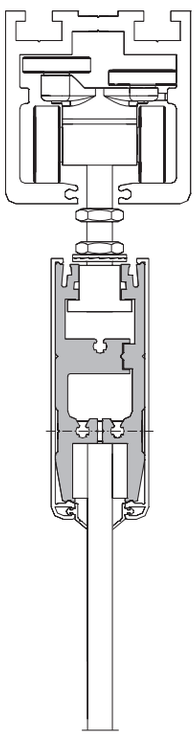
In case of systems without functional panels the rollers and upper swivels are installed in the door rail by default.

In case of systems with functional panels single-action sliding panel and double-action sliding panel) the rollers and upper swivels are installed in the support profile so that the rotation and swinging functions are possible.

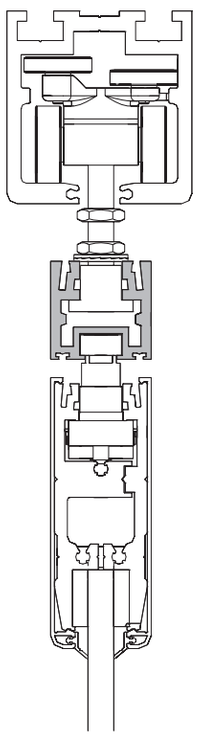
☞ This installation manual shows the installation in the support profile.
The installation in the door rail is identical.

☞ Please note other enclosed installation and operating manuals.

Installation in the door rail
Single-action panel/end panel, sliding panel, fixed panel



Installation in support profile
Single-action sliding panel, double-action sliding panel



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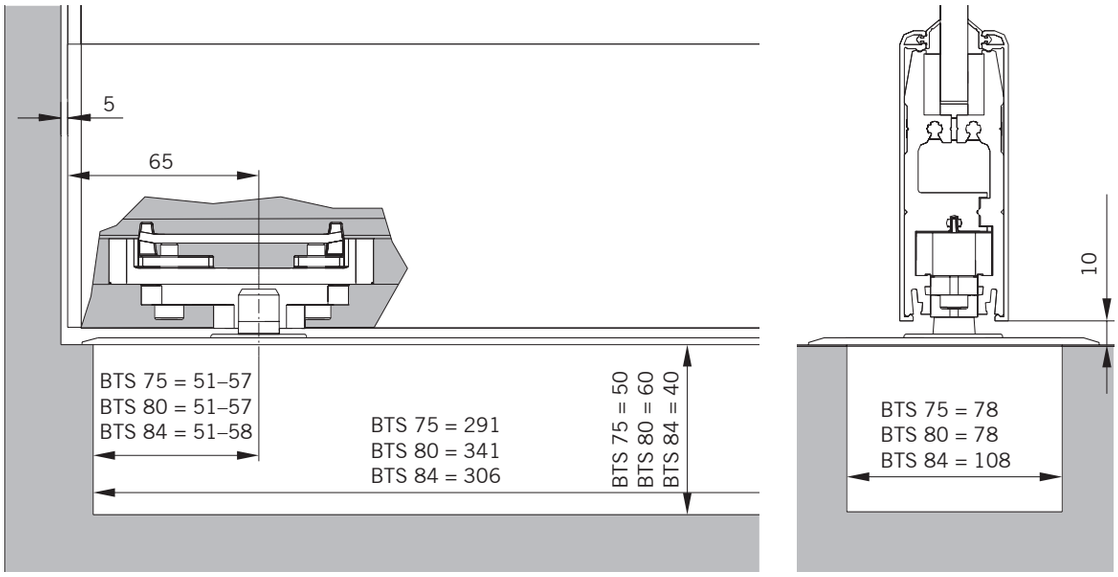
2.2 Floor concealed door closer and floor bearing

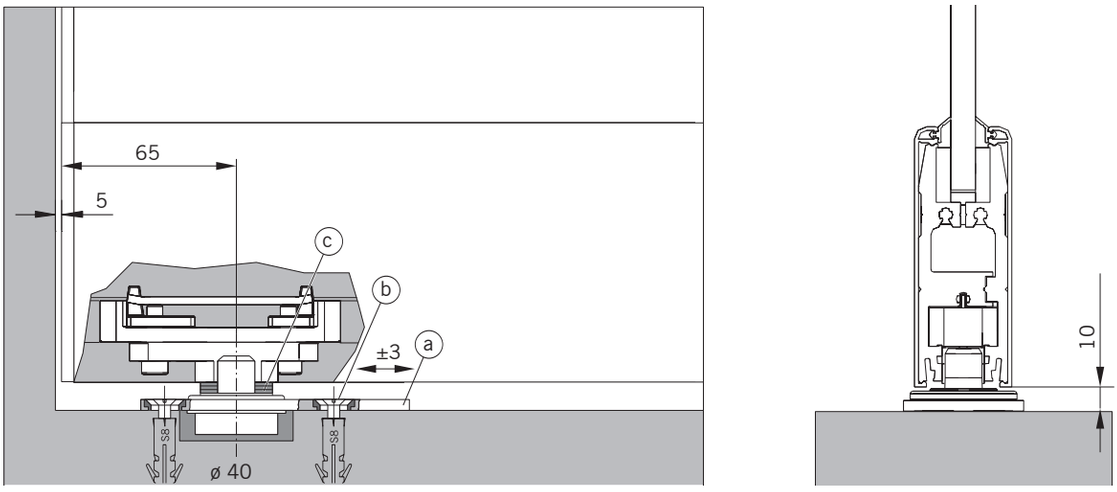
Floor concealed door closer (FDC)

A recess must be provided for the floor concealed door closers (FDC),
which is covered with a stainless steel cover plate. The FDC comes with a separate, extended axis.
Replace the pre-mounted axis with the extended axis.
The required distance of 10 mm to the ground can only be achieved with this axis.



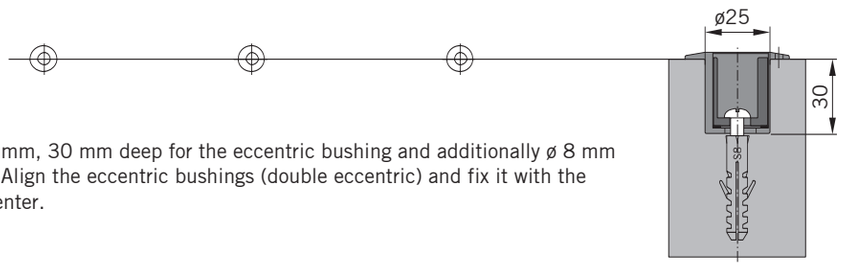
Floor bearing

The 5 mm can be corrected by adjusting the floor bearing (a).
Loosen the fastening screws (b), move the floor bearing and retighten the screws. In order to adjust the height please use the enclosed washers (c), (3 pieces, each 1 mm thick).

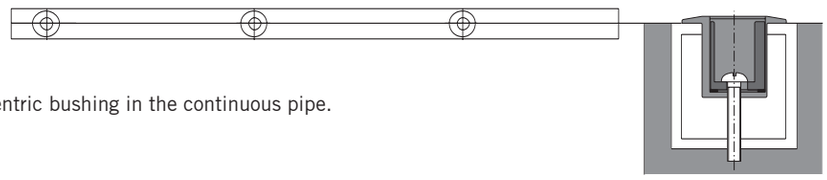


2.3 Preparation on the floor

Eccentric bushings are standard for the locking devices.



Borehole ø 25 mm, 30 mm deep for the eccentric bushing and additionally ø 8 mm for wall plugs. Align the eccentric bushings (double eccentric) and fix it with the screw in the center.



Insert the eccentric bushing in the continuous pipe.

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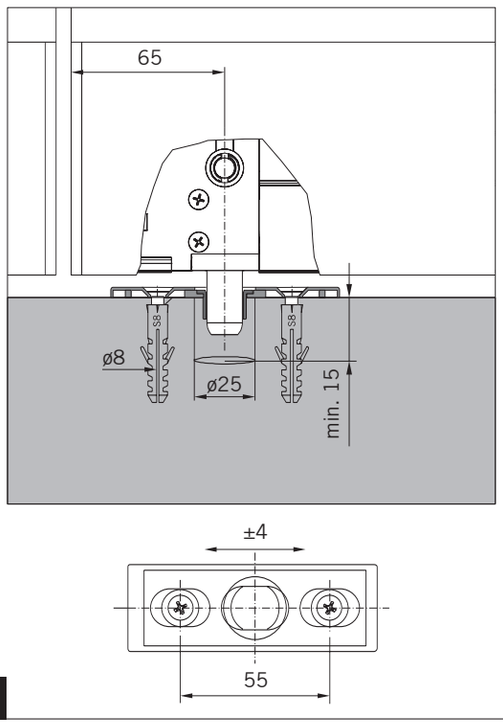
2.4 Borehole for locking plate bush and eccentric bush

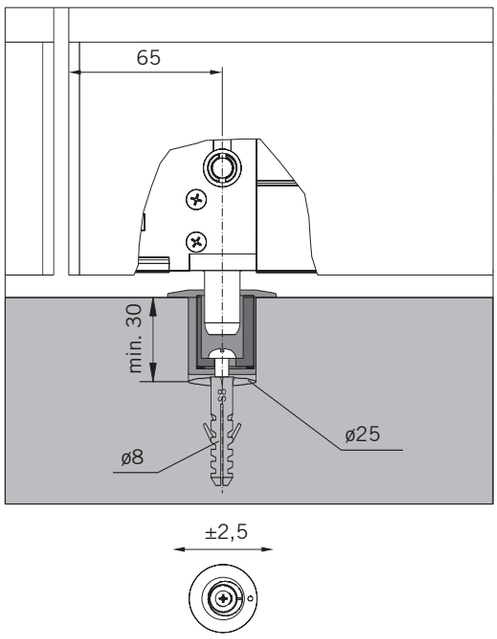
Adjustable locking plates are used for single-action sliding panels with TS 92 and double-action sliding panels with plastic bushings. Drill the borehole for the locking plate bush ø 25 mm, at least 15 mm deep and at a distance of 65 mm to the outer edge of the door. Also drill the 8 mm boreholes for the wall plugs.

Adjustable eccentric bushings are used as the standard design with plastic inner sleeve. Drill the 8 mm boreholes for the wall plug and also in the center the borehole for the eccentric bushing ø25 mm, min. 30 mm deep and at a distance of 65 mm to the outer edge of the door.

Locking plate



Eccentric bushing



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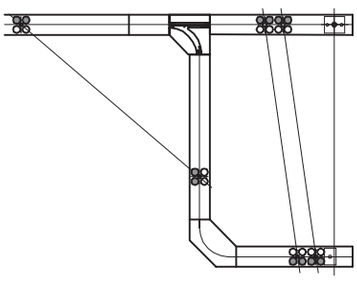
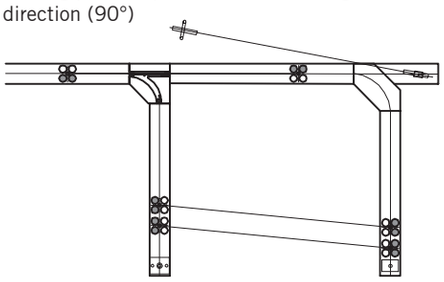
2.5 Arrangement of the guide rollers

Redirection of the guide rollers in the stacking area:
The arrangement of the guide rollers is critical for the moving into the stacking area.
The graphics below show the standards. This standard also applies to the 135° station areas. Install one high guiding roller on the right and one high guiding roller on the left for each leaf.

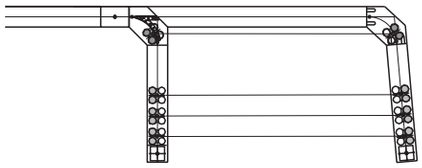
Standard stacking area 1
Parking position at right angles to the running direction (90°)



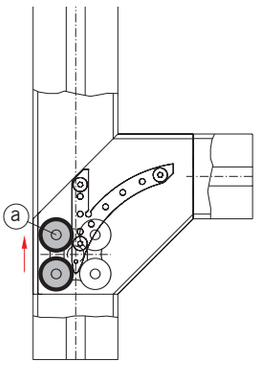
Standard stacking area 2
Parking position parallel to the running direction (90°)

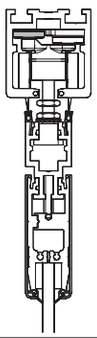


Standard stacking area 3
Parking position parallel to the running direction (95°)

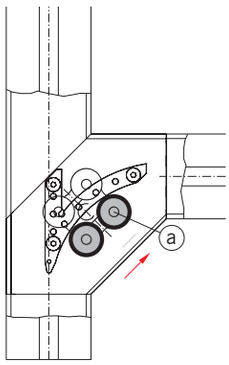


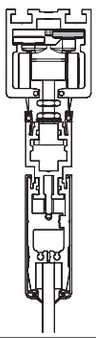
Roller running straight through = high guide rollers (a) left





Roler in bend = high guide rollers (a) right





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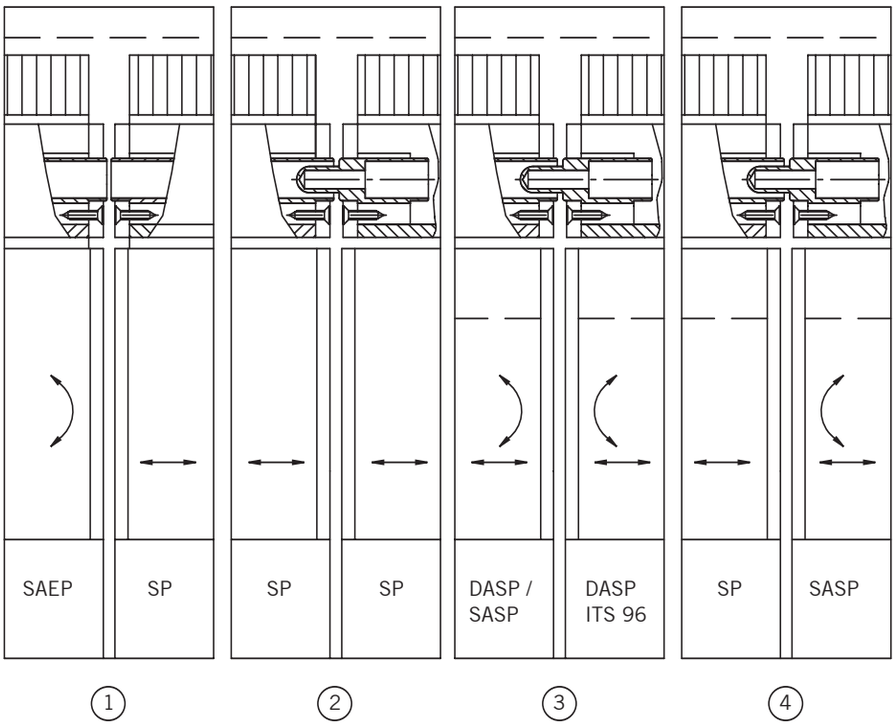
2.6 Connecting options with combi fixing block

1. Single-action end panel (SAEP) to sliding panel (SP)
2. Sliding panel (SP) to sliding panel (SP)
3. Double-action sliding panel (DASP) / single-action sliding panel (SASP) to double-action sliding panel with ITS 96 (DASP ITS 96)
4. Sliding panel (SF) to single-action sliding panel (SASP)



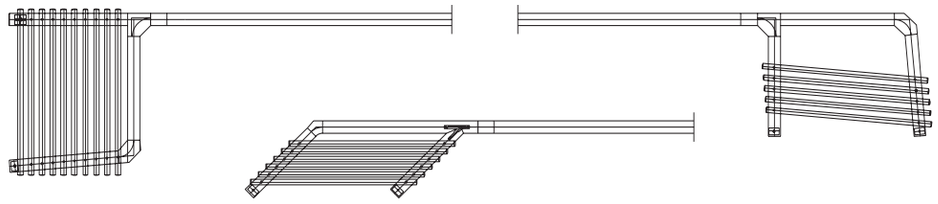
3. Installing the system

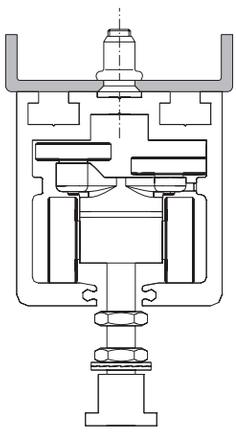
3.1 Installing the substructure and guide rail

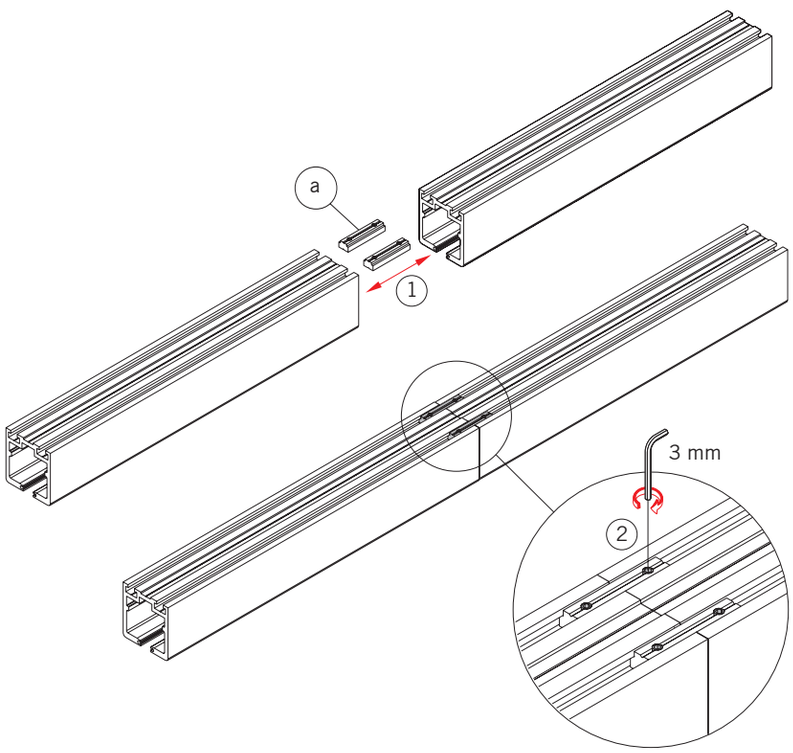
The installation of the guide rail requires a horizontally (lengthwise and crosswise) aligned and bearing subconstruction (e. g. DORMA-UK systems). When determining this substructure you need to consider the fastening of the guide rail and the total weight of all panels in the stacking area.
Screw the guide rail along the entire length (also in the stacking area) to the substructure.
The fastening points of the guide rail on the substructure are approx. every 300 mm on the straight line and approx. every 100 mm in the stacking area.

Please note:

Provide all profile joints (except for the revision piece, „3.10 Installing or disassembling the revision piece“) with the clamping pieces (a) incl. the pins in order to ensure a proper run through alignment.







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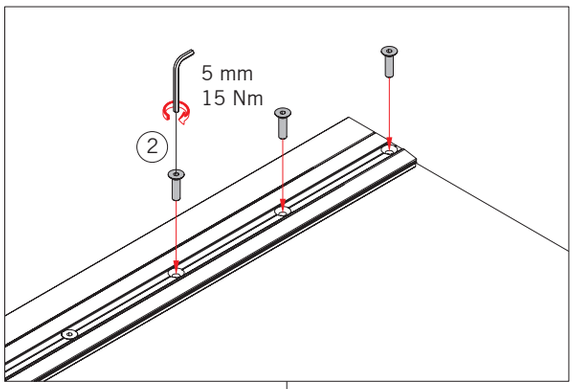
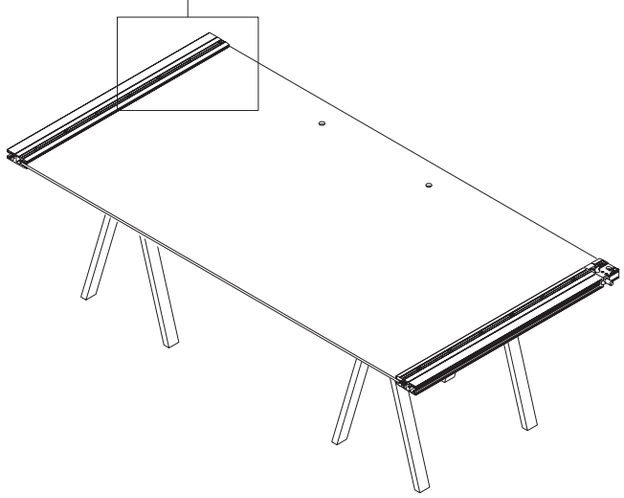
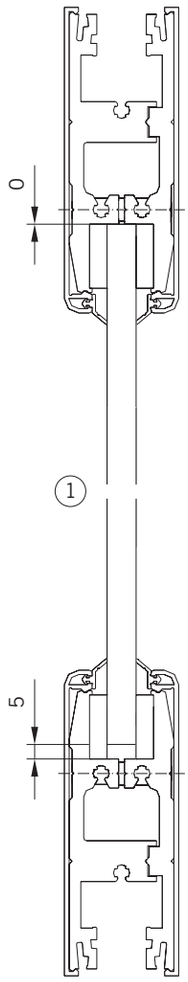
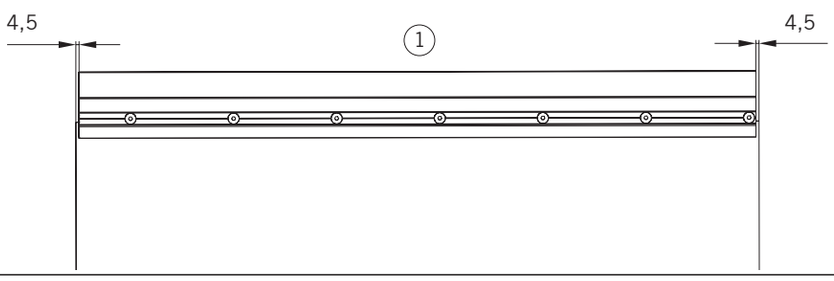
3.2 Installing door rails on the glass panel

The door rail consists of 2 shells that are screwed together.
Slide the door rail on the glass and align it at a distance of 4.5 mm on both sides (1).
Now tighten the screws so that the rail is tightly clamped to the glass
(socket wrench 5 mm, tightening torque 15 Nm).









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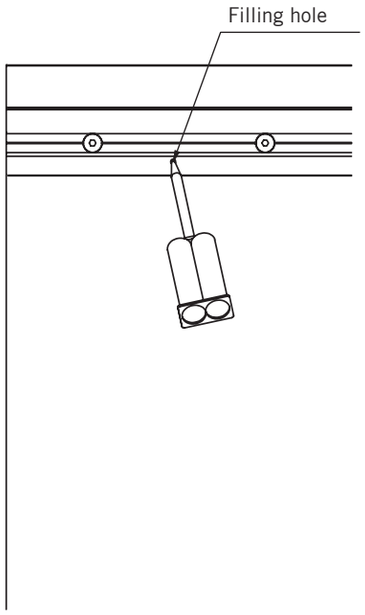
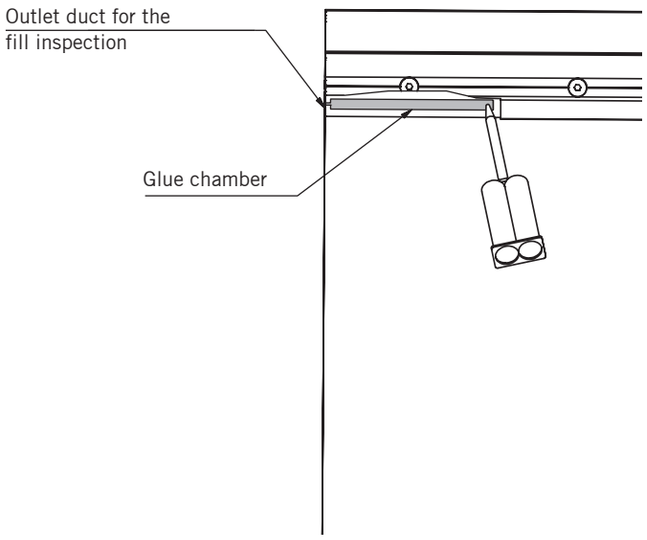
3.3 Glueing the door rails to the laminated safety glass panel (optional)

The clamping of the upper door rail is especially important due to the supporting function. If vibrations are expected on the object the glass panels in the upper door rail area should be glued in addition to the clamping.
The chambers in the intermediate layer and the boreholes in the door rail have been pre-manufactured.
They are to the right and left on the face side on the inner side of the panel.

Install the door rail according to the general instructions (see chapter 3.2).
Inject the glue through the filling hole. As soon as the glue exits the outlet duct, the glue chamber is completely filled.
Remove the excess glue. The glue needs 10 minutes to harden. The panel can then be installed.
The glue is completely hardened after 24 hours and the normal operation of the system is possible.





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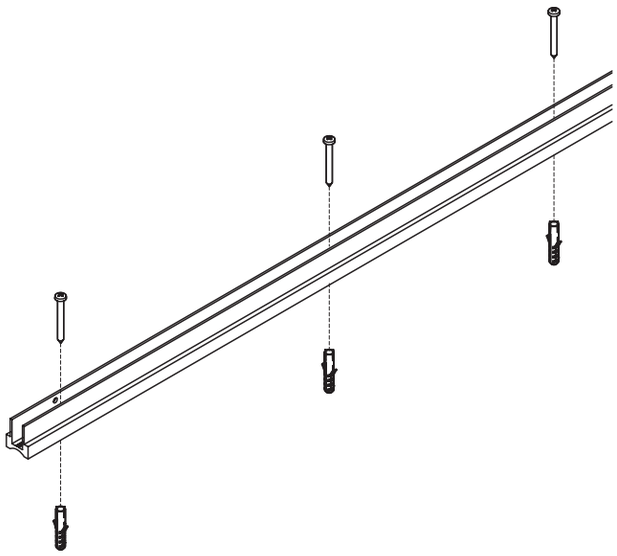
3.4 Mounting the bottom rail

If a fixed panel is included in the delivery, mount the bottom rail to the floor.

Align the bottom rail according to the system drawing. Mark the boreholes and and drill the holes.
Fasten the bottom rail with screws and dowels to the floor.

Please note:
The mounting material must be suitable for the fabric of the building.



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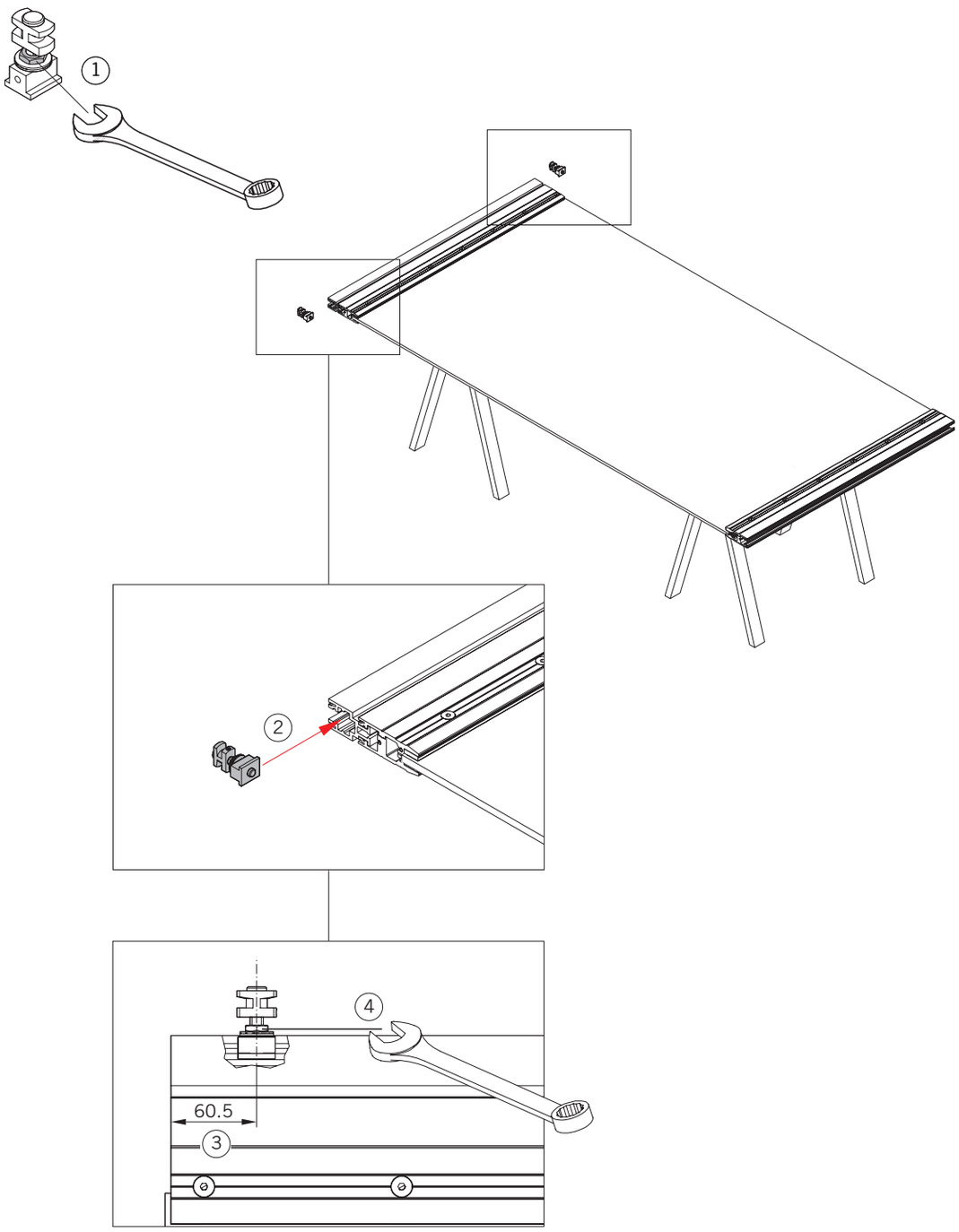
3.5 Mounting the fixed panel holders

Loosen the nut of the fixed panel holder with a 17 mm wrench (1).
Slide the support block into the door rail or the support profile (2).
Position the support block at a distance of 60.5 mm from the outer edge (3).
Slightly tighten the nut (4).



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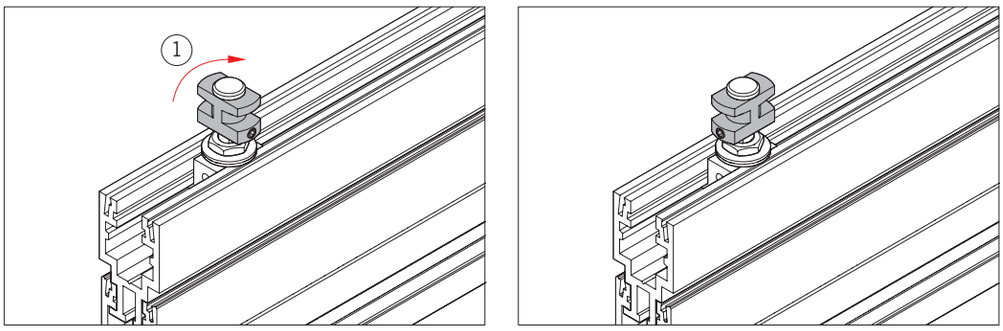
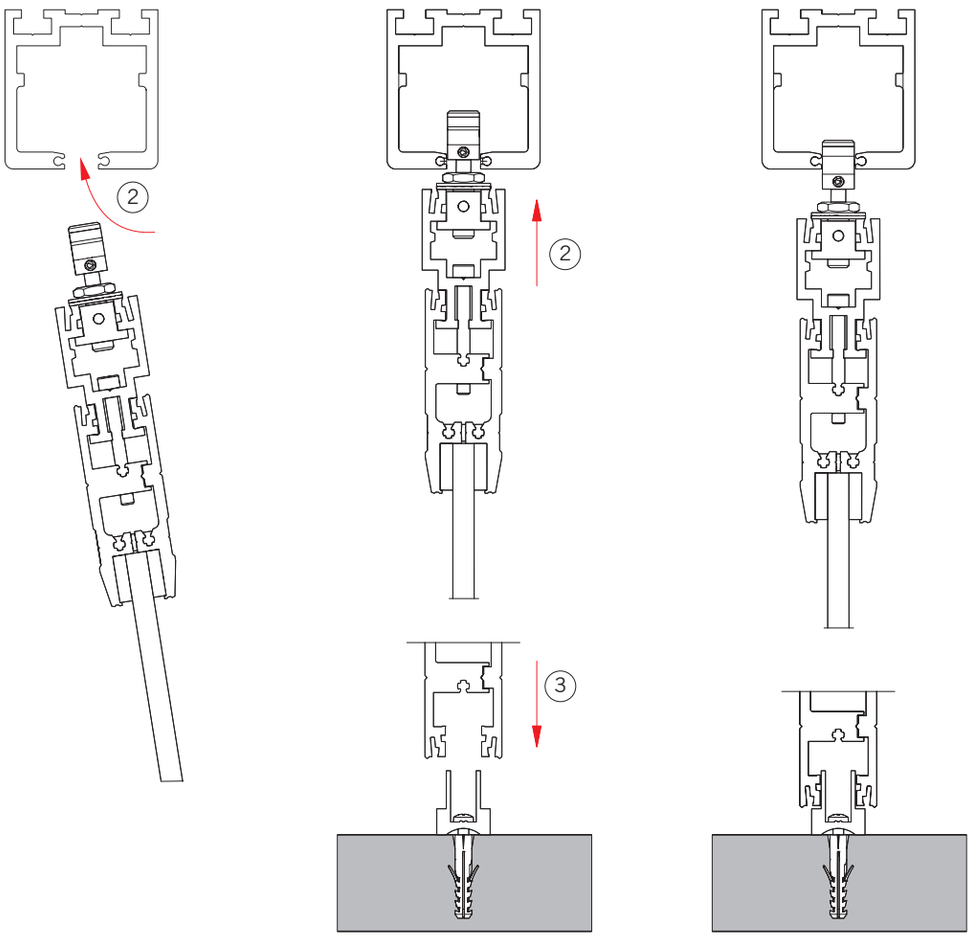
3.6 Mounting the fixed panel holders

If a fixed panel is included is included in the delivery, mount the bottom rail to the floor.
The fixed panel has holders instead of the roller carriers.

Turn the head of the fixed panel holder by 90° (1) so that the panel with the holder can be inserted into the guide rail.



Insert the fixed panel holders at the top into the guide rail (2).
Place the panel at the bottom rail (3).



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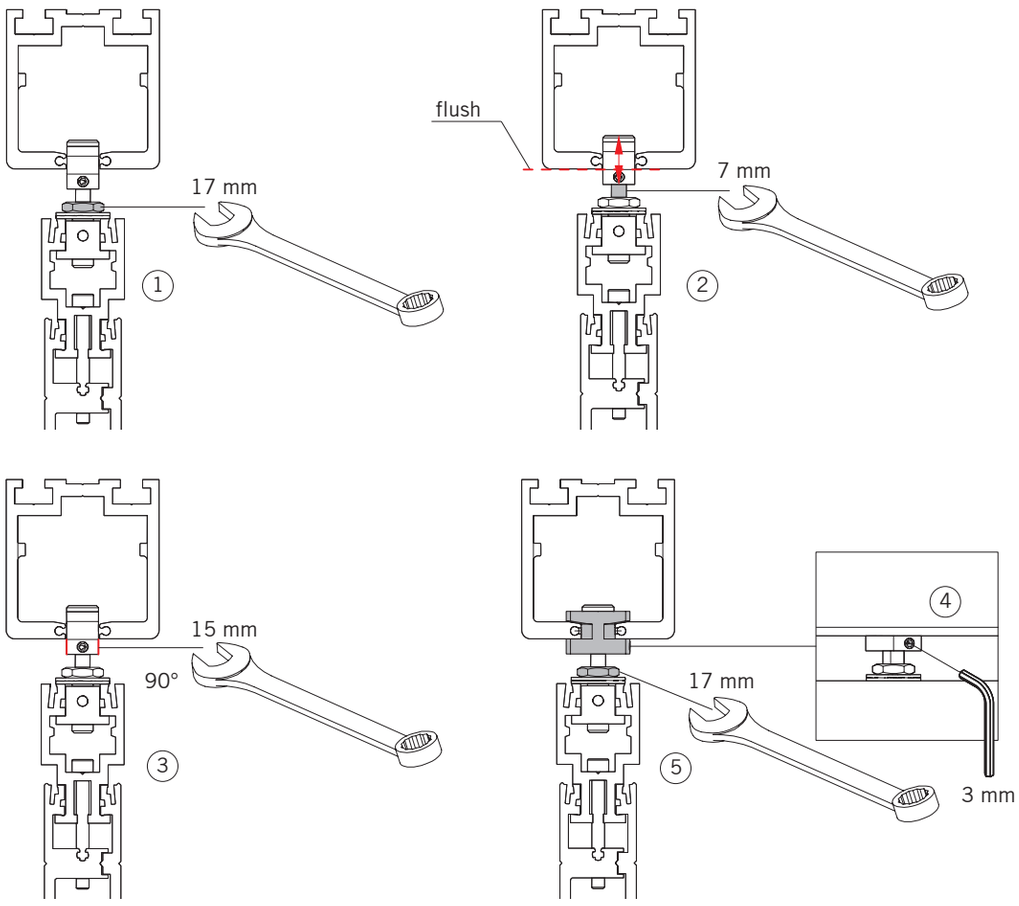
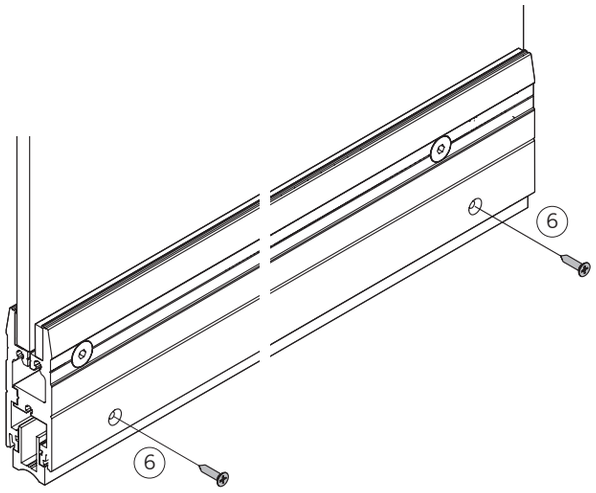
Loosen the nut of the fixed panel holder (1).
Adjust the bolt up or down until the fixed panel holder is flush with the guide rail (2).
Turn the head of the fixed panel holder by 90° (3) so that the holder can be engages into the guide rail.
Secure the position of the fixed panel holder using the threaded pin (4).
Secure the height of the panel with the nut (5).
Screw the fixed panel with the bottom rail to the floor (6).





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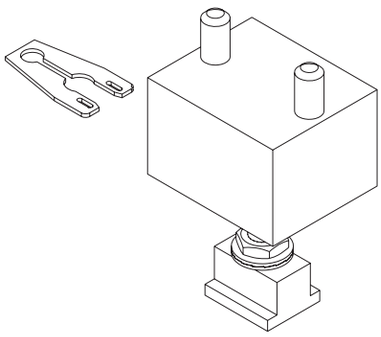
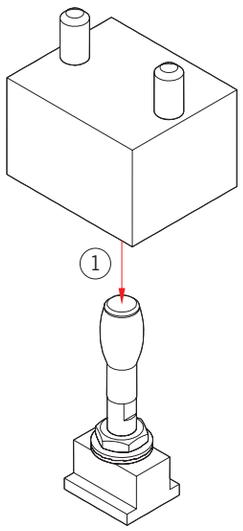
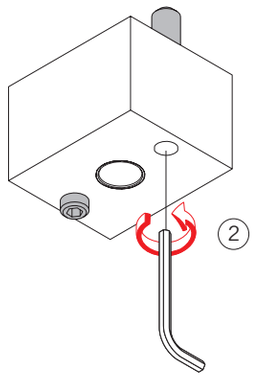
3.7 Preparing the upper swivel





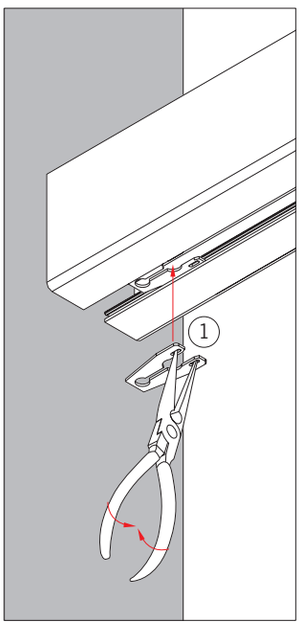


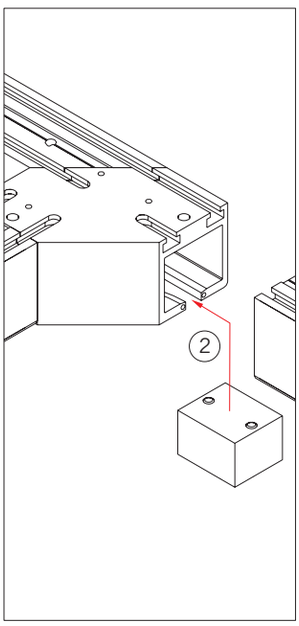
Loosen the threaded pin until they are flush with the upper surface.

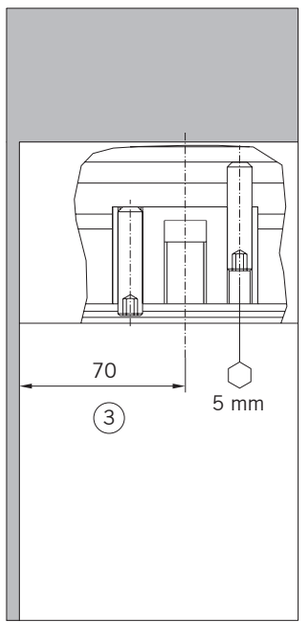
8

3.8 Installing the upper swivel

Press the retaining washer together using a gripper and insert it into the pin channels of the guide rail. Insert the upper swivel into the guide rail, position it at a distance of 70 mm (pivot point towards the wall) and fix it using the threaded pins (5 mm socket wrench).







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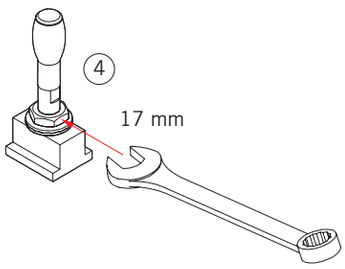
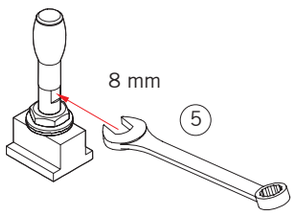
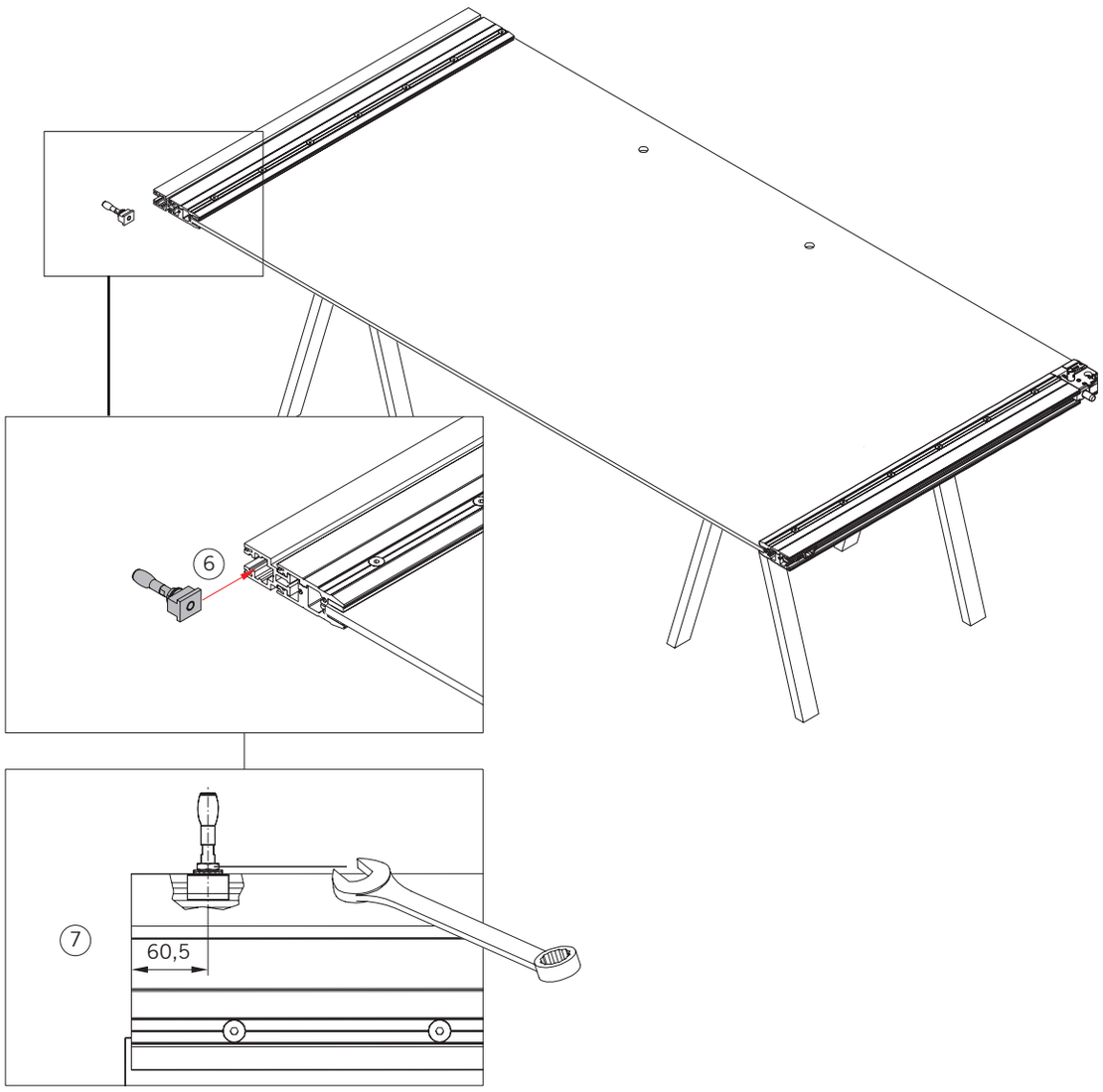
First screw the bolt downward in order to install the panel.
Loosen the nut with a 17 mm wrench (4) and then turn the bolt downward using a 8 mm wrench (5).
Insert the supporting block into the door rail or the support profile and position it at a distance of 60.5 mm from the outer edge. Now secure the nut again.







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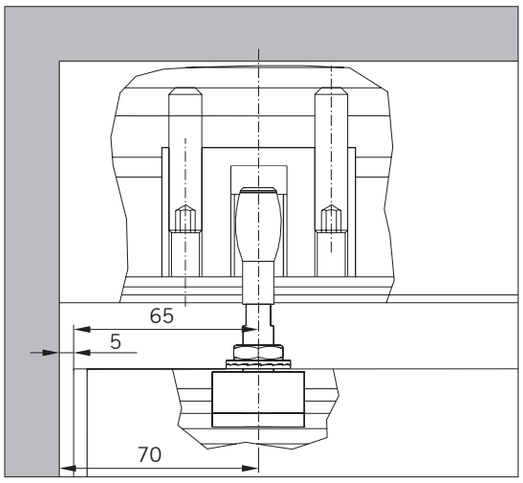
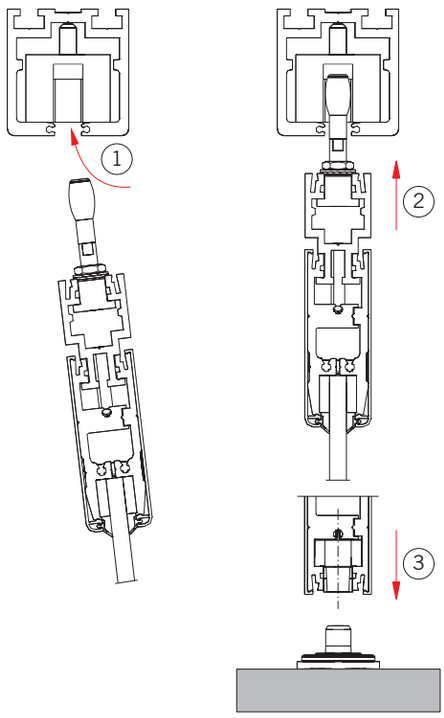
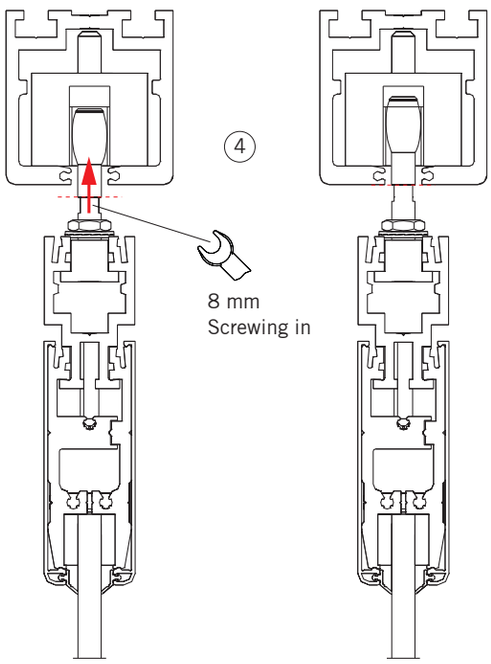
3.9 Installing the single-action end panel

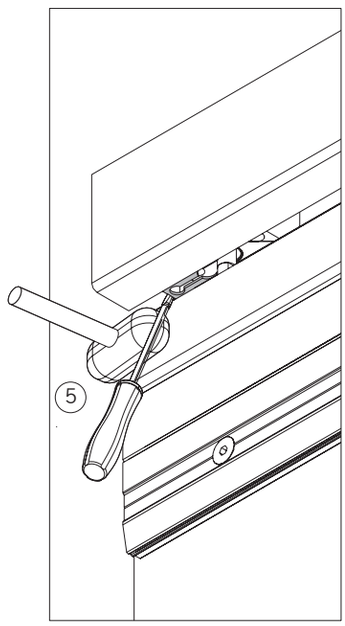
Install the panel (1) by inserting the bolt into the upper swivel (2) and by subsequently placing it on the floor bearing (3).





Turn the bolt into the upper swivel until (8 mm wrench) the flat is flush with the lower edge of the guide rail (4).
Now slide the retaining washer forcefully over the bolt (5).

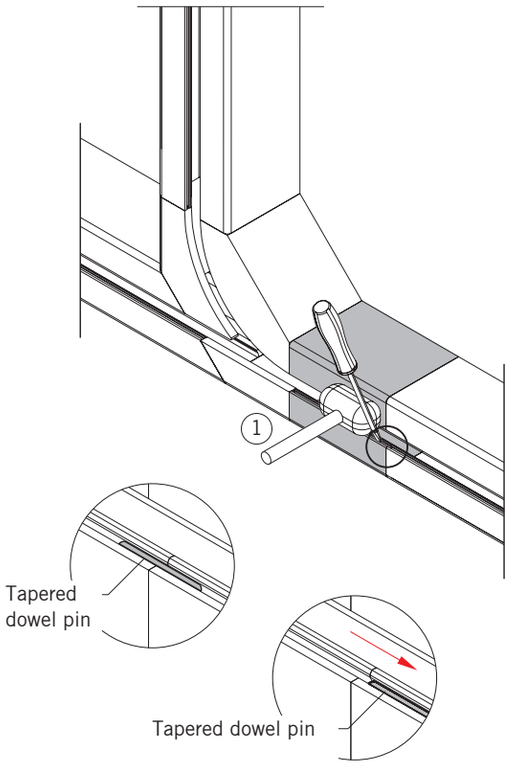


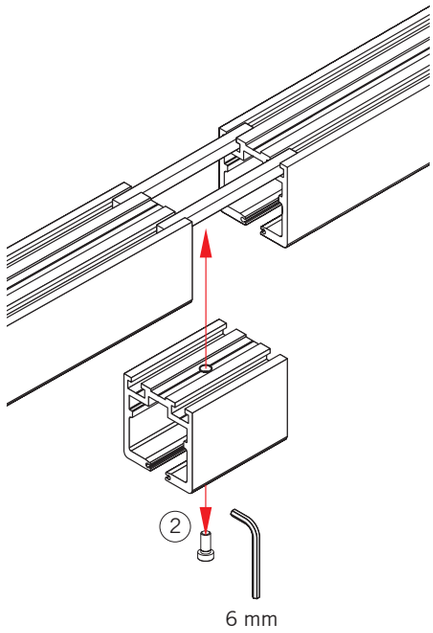


11

3.10 Installing or disassembling the revision piece

The revision piece can be disassembled during the replacement of defective rollers. Drive the tapered dowel pins out of the revision piece and unscrew the screw. The revision piece must always be screwed in place again.





12

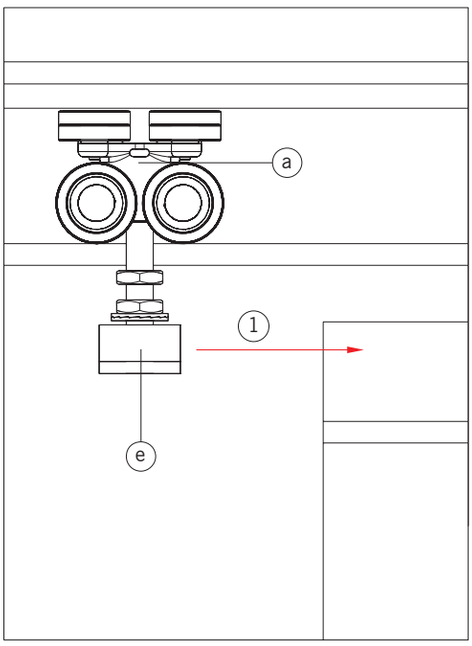
3.11 Attaching the sliding panel

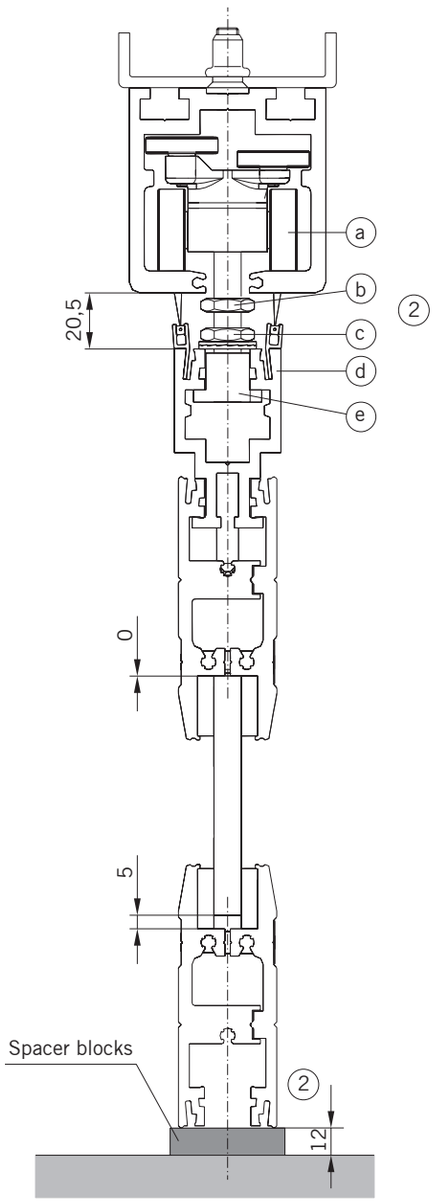
Insert the rollers (a) with the attachment blocks (e) of all the panels into the guide rail.
☞ Pay attention to the arrangement of the guide rollers (high or low, see chapter 2.5).

Place the panel on 12 mm spacer blocks on the floor and insert the attachment blocks on the left and right into the support profile (d).

Aligning the panel height:
Align the panel so that there is a 12 mm gap at the bottom (without cover profiles) between the floor and the base profile. Loosen the nut for the height adjustment (c). Adjust the height via the nut (b) (17 mm wrench).

Turning left = more play at the bottom
Turning right = less play at the bottom





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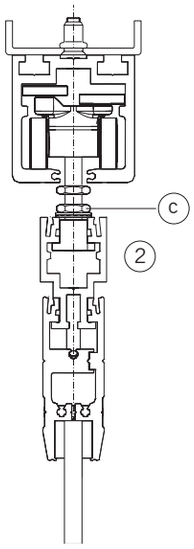
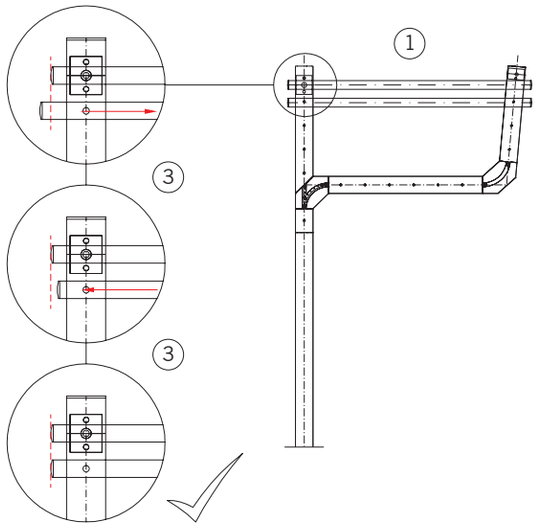
3.12 Aligning the panels in the stacking area

Slide the attached panel into the stacking area and align the panel laterally to the first panel. Carefully move the panel. The rollers are not fixed at this point so that they will assume the correct distance in the stacking area. If necessary, loosen the nut (c). Align the panel in the stacking area. Retighten the nut (c) once the alignment has been completed.



Lateral alignment
in the stacking area



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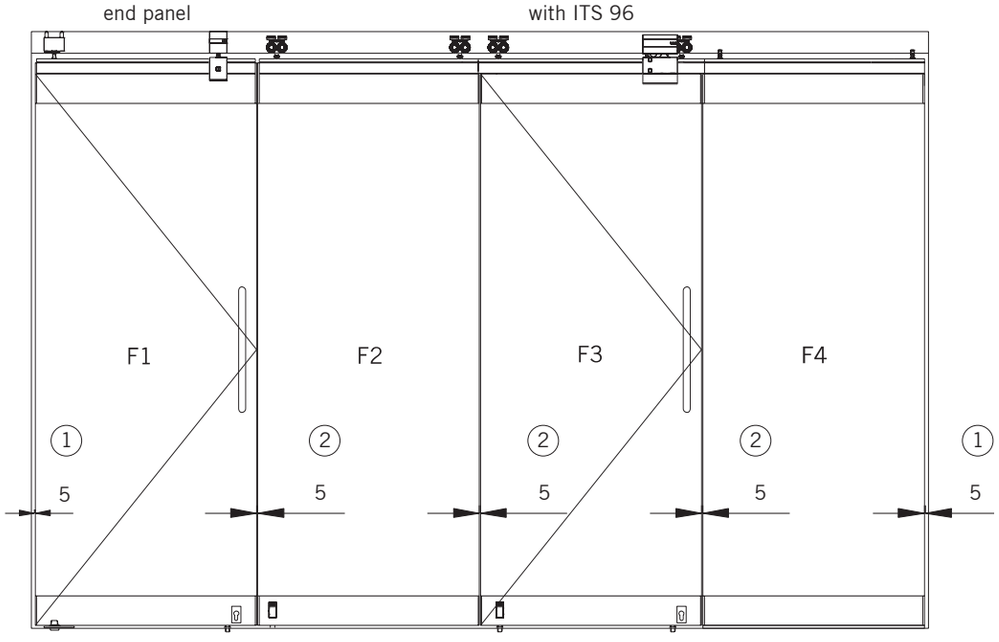
3.13 Aligning the panels in the front area

Aligning the panels:
Align the single-action end panel F1 to the wall with a gap of 5 mm. Close all panels (bringing them to the front). Now align the remaining panels (F2-F4) according to the already aligned single-action end panel (F1) with a gap of 5 mm each.

F1 = Single-action end panel
F2 = Sliding wall
F3 = Double-action sliding panel with ITS 96
F4 = Fixed panel



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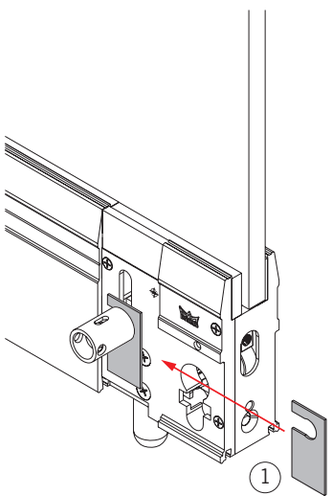
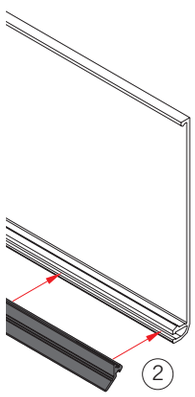
3.14 Installing the front locking bolt

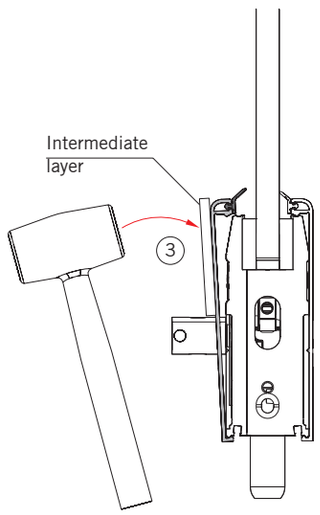
Lock the panel and insert the cover behind the sleeve onto the axis.

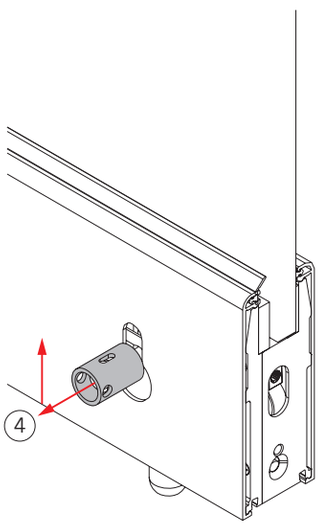
Now install the cover plate as follows: Insert the rubber seal along the entire length into the cover profile. Place the cover profile against the door rail at the bottom and carefully clip it onto the door rail using a protective piece and a hammer.

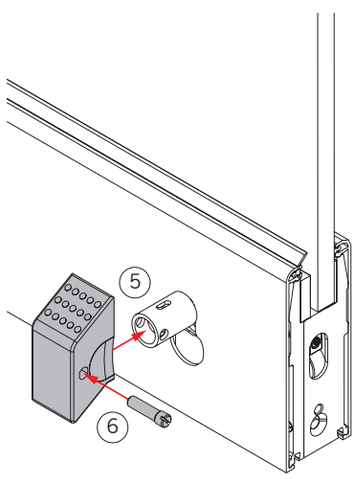
Pull the sleeve and unlock the panel so that the sleeve rests against the cover plate.
Now insert the front locking bolt straight onto the sleeve until the fastening hole in the sleeve and the bolt are along an axis. Insert the fastening screw and screw the bolt to the sleeve.











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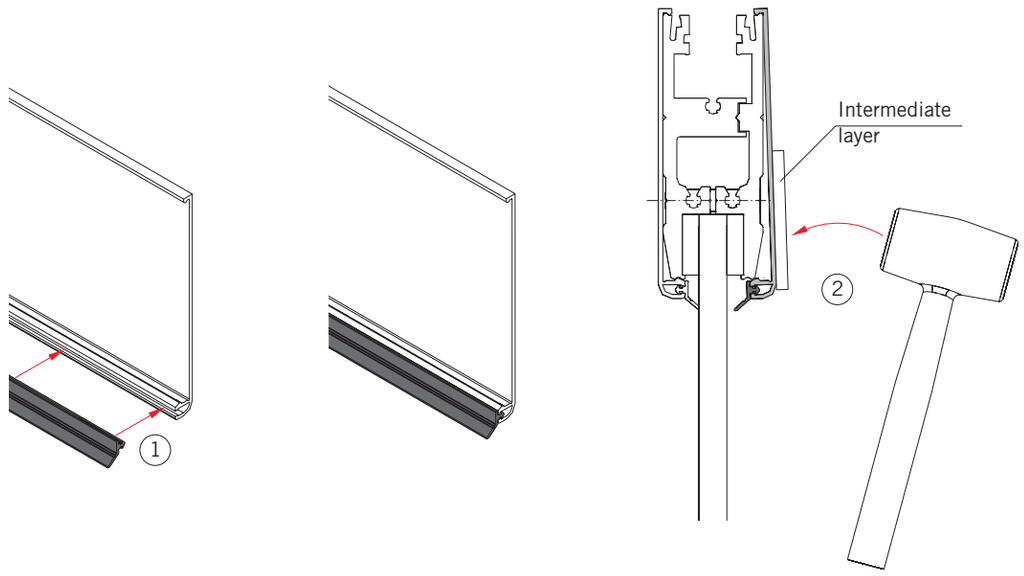
3.15 Installing the remaining cover plates

Insert the rubber seal along the entire length into the cover profile. Place the cover profile at the top against the the door rail and carefully clip it to the door rail using a protective piece and a hammer.



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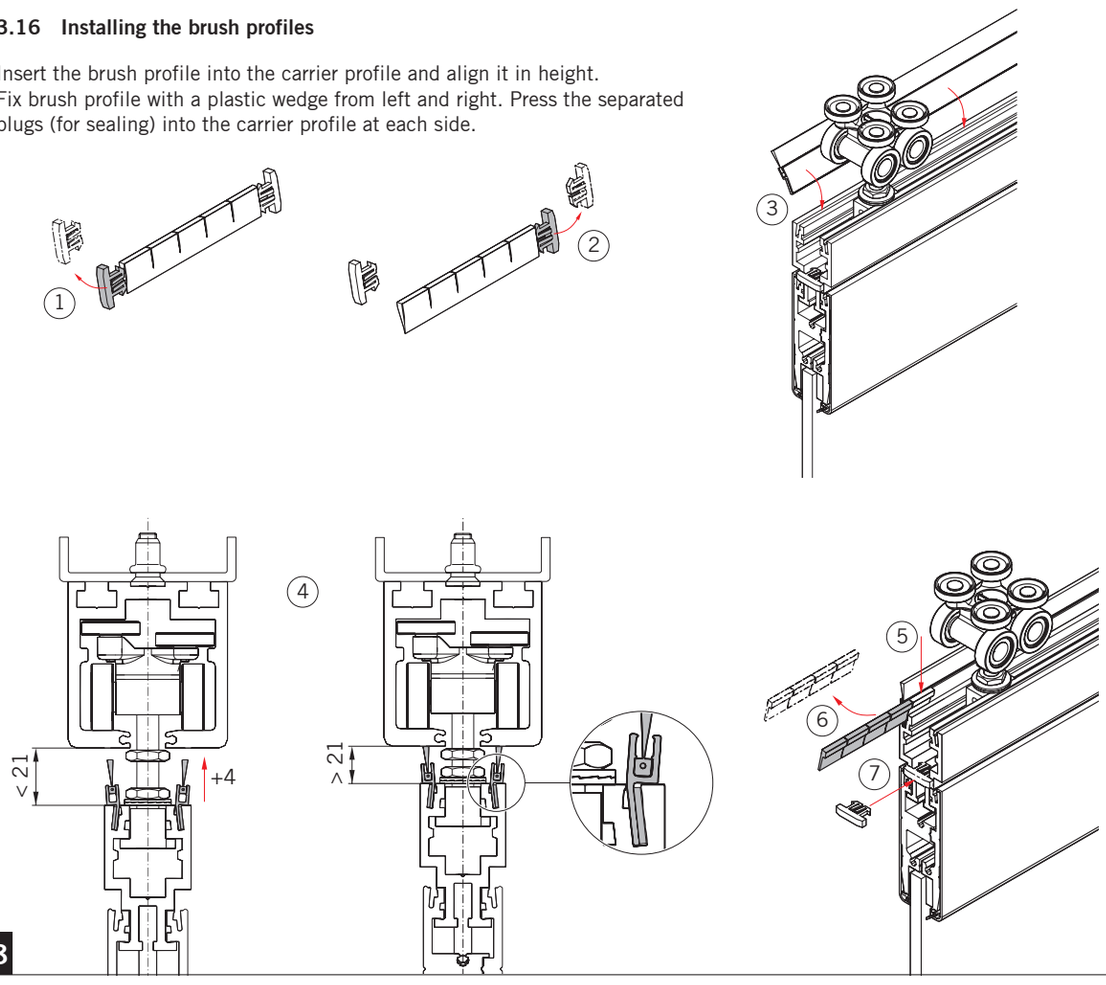
3.16 Installing the brush profiles

Insert the brush profile into the carrier profile and align it in height.
Fix brush profile with a plastic wedge from left and right. Press the separated plugs (for sealing) into the carrier profile at each side.



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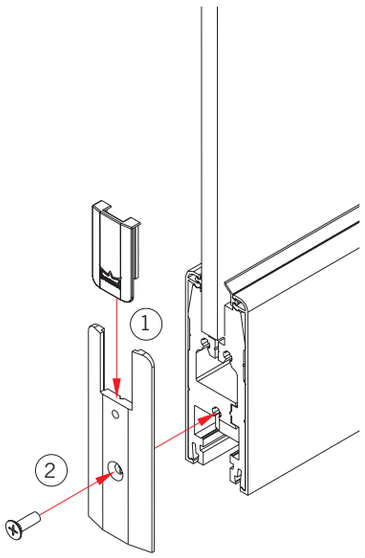
3.17 Installing the face covers

Insert the plastic cap on the face cover and fix the entire face cover using the screw on the door rail.



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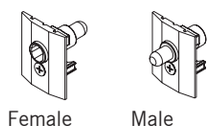
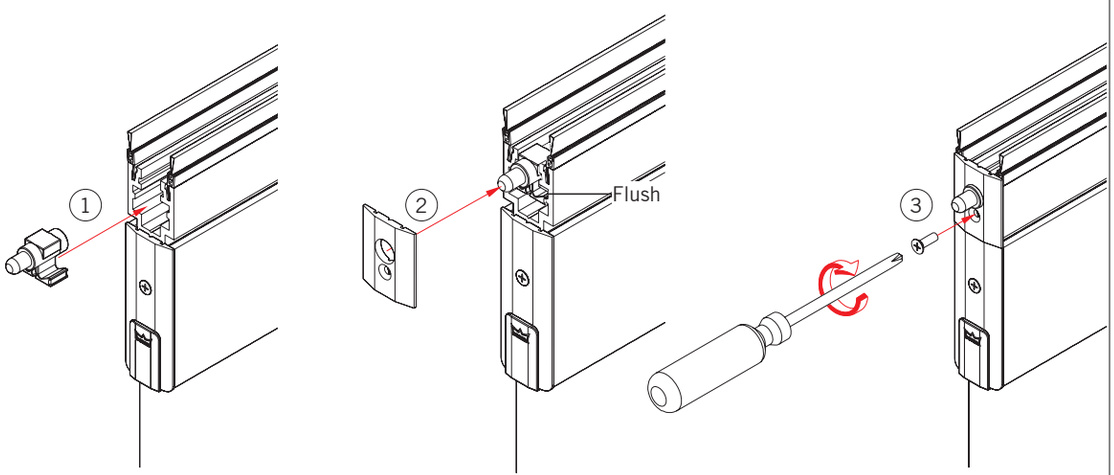
3.18 Installing the combi fixing block

☞ Note the connecting options with the combi fixing block (see chapter 2.6).





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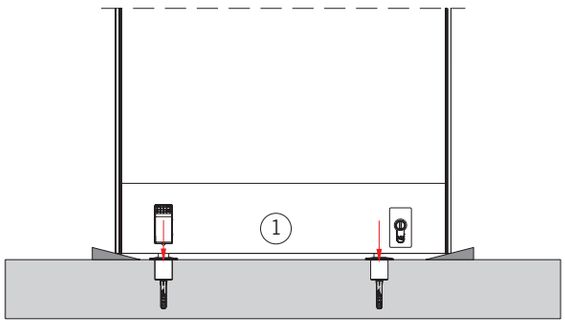
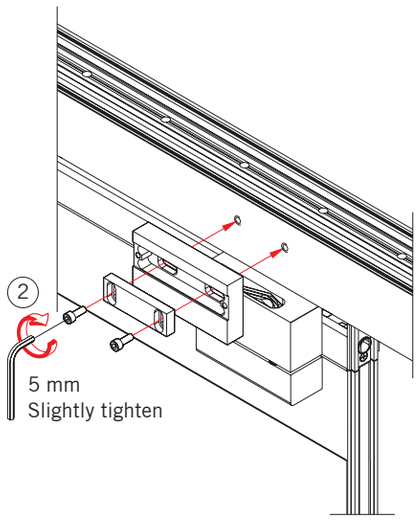
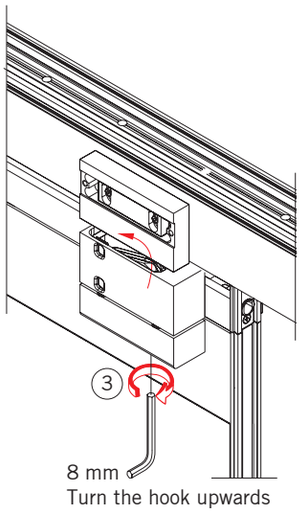
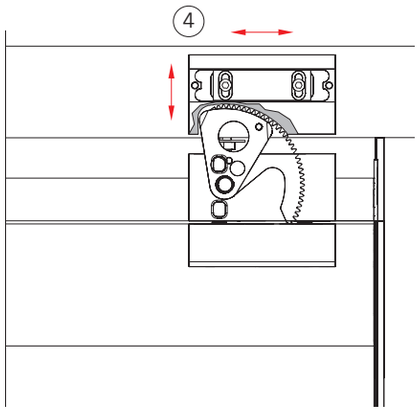
3.19 Installing the upper locking device

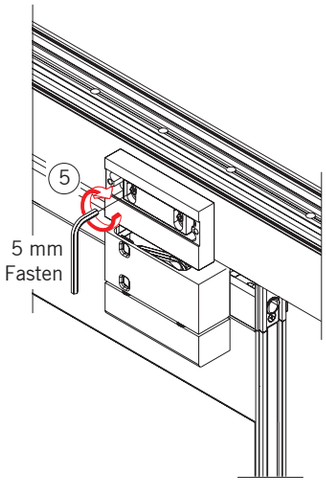
Position, fix and wedge the panel

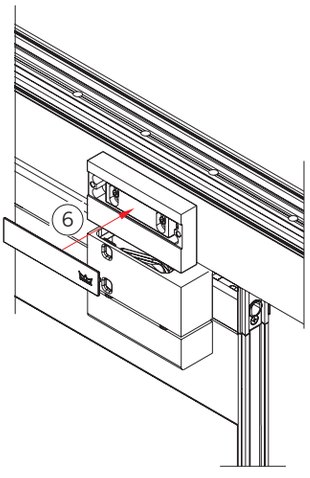












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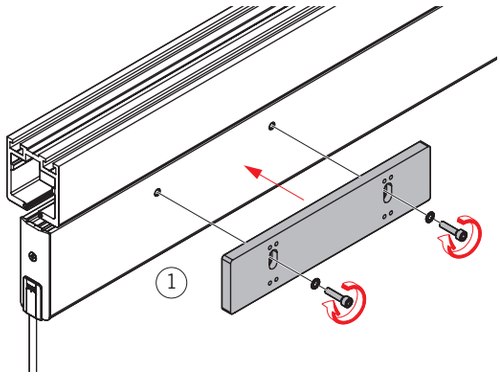
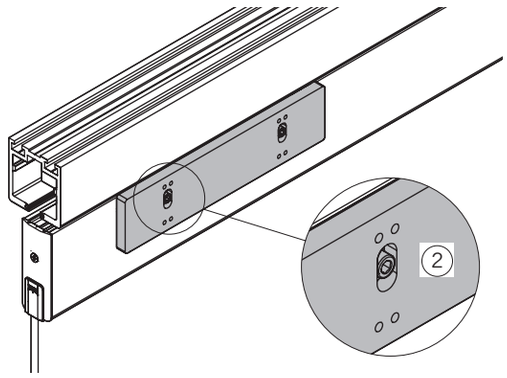
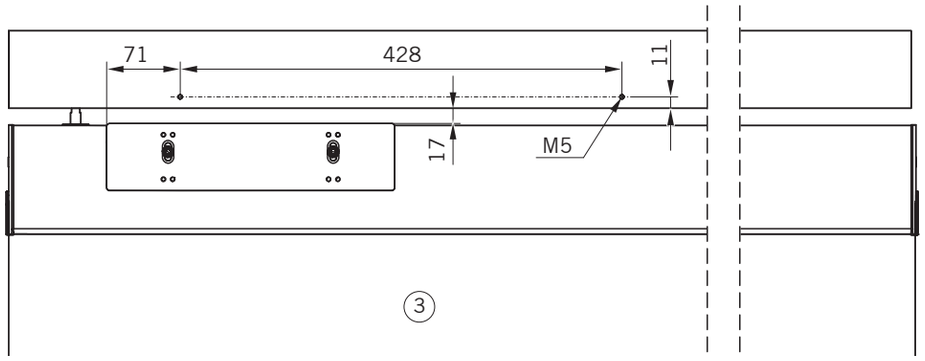
4. Installing a door closer TS 92/93 (optional)

If a door closer is provided on the single-action end panel, the door rail or the support profile has been prepared.

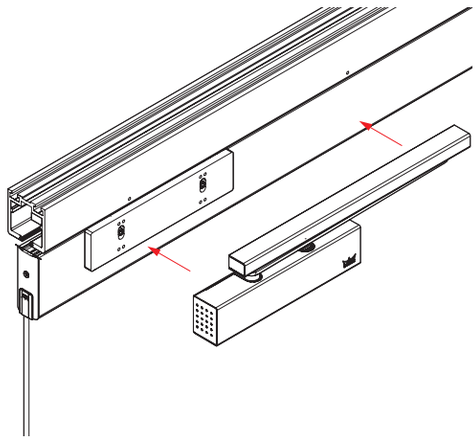
Mounting the spacer plate to the door rail or the support profile (1).
Make sure that the slotted holes are in the upper area of the spacer plate (2).
Drill the guide rail according to the provided drill pattern (2x M5) (3).
☞ Do not use the enclosed drilling template of the door closer for this installation.

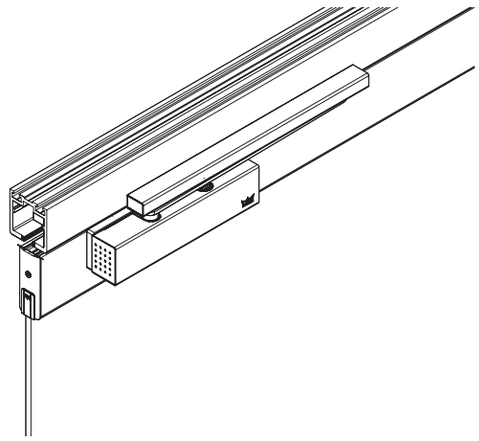






Mount the door closer to the single-action end panel according to the enclosed installation manual.
Position the mounting plate of the door closer in the center of the already mounted spacer plate.
Mount the slide rail flush at the bottom with the guide rail.

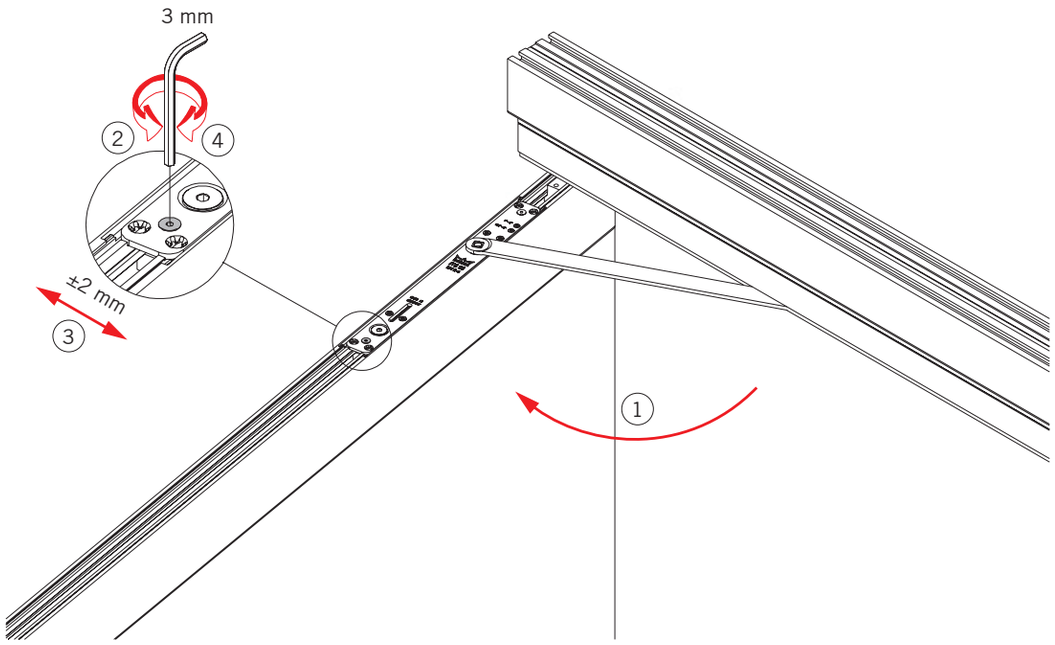




5. Setting the zero position for the ITS 96

Open the single-action sliding panel/double-action sliding panel. Loosen the screw from the clamping piece (3 mm socket wrench). The ITS 96 can now be adjusted ±2 mm in the zero position. Press the ITS in the direction of the offset side and fix the screw afterwards.

☞ For more adjustments of the closer, please follow the instructions in the installation manual.



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WN 058735 45532, 07/18, 013058, Subject to change without notice