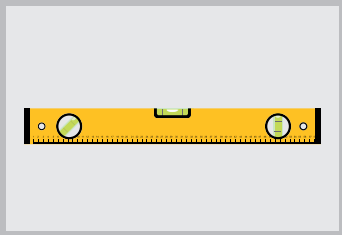
glaströsch

SWISSRAILING FLAT

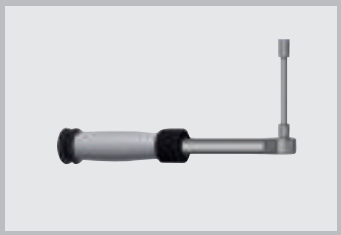
Assembly Instructions

Tools required

Drill with appropriate drill bit
(see mounting accessories)

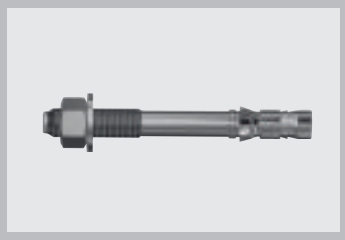


Spirit level

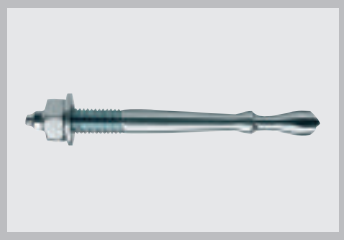


Torque wrench
adjustment range: 20 - 60 Nm

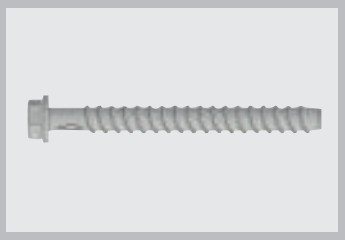
Mounting accessories



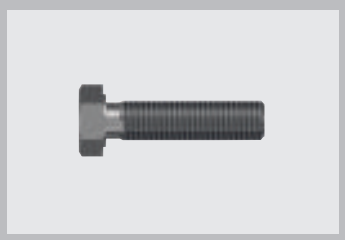
Fischer bolt anchor
FAZ-II-12-A4
Drilled hole nominal diameter:
diameter 12 socket SW 19



Fischer adhesive anchor
FHB II-AL-12-A4
In combination with injection mortar FIS HB
Drilled hole nominal diameter:
diameter 14 socket SW 19

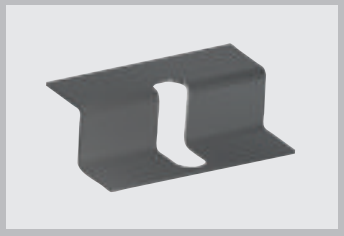


Fischer concrete screw
ULTRACUT FBS-II-A4-12
Drilled hole nominal diameter:
diameter 12 Aluminium bored
hole diameter 15 socket SW 17



Hex head set screw
M 7×28 A4-80
(Flat system screw)
Aluminium bored hole diameter 7.5
socket SW 11

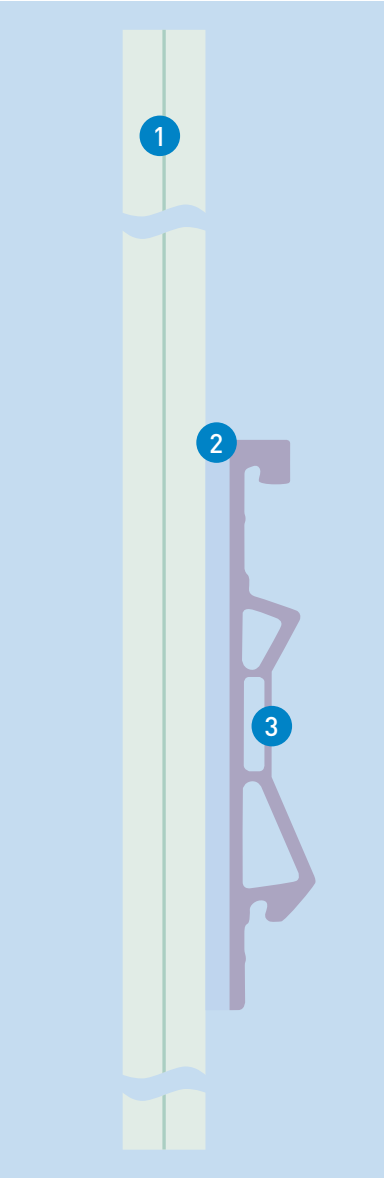
Connection pin diameter 6mm



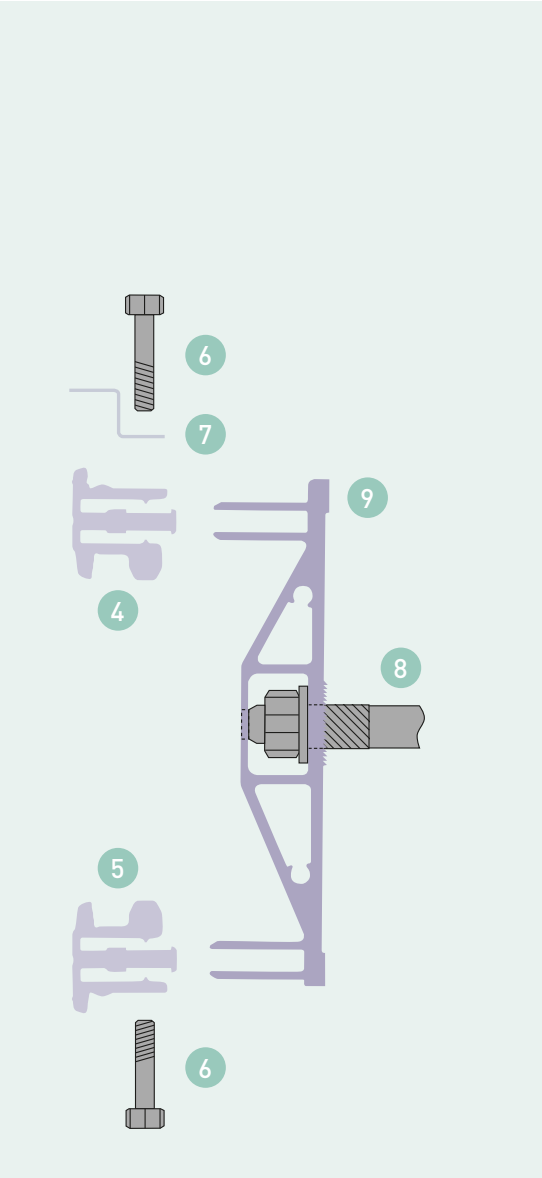
safety device against lifting
(Z profile)

The system in detail

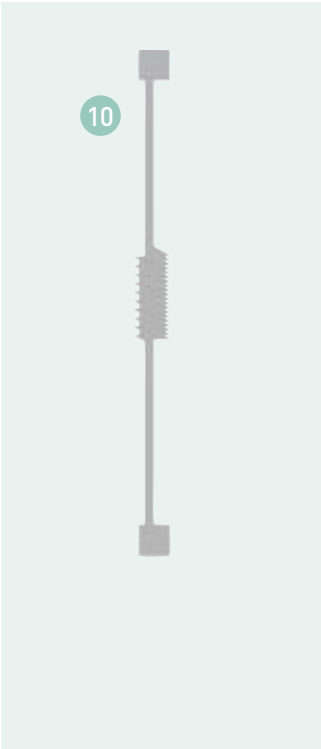
Assembly takes place at the factory



Components for on-site assembly

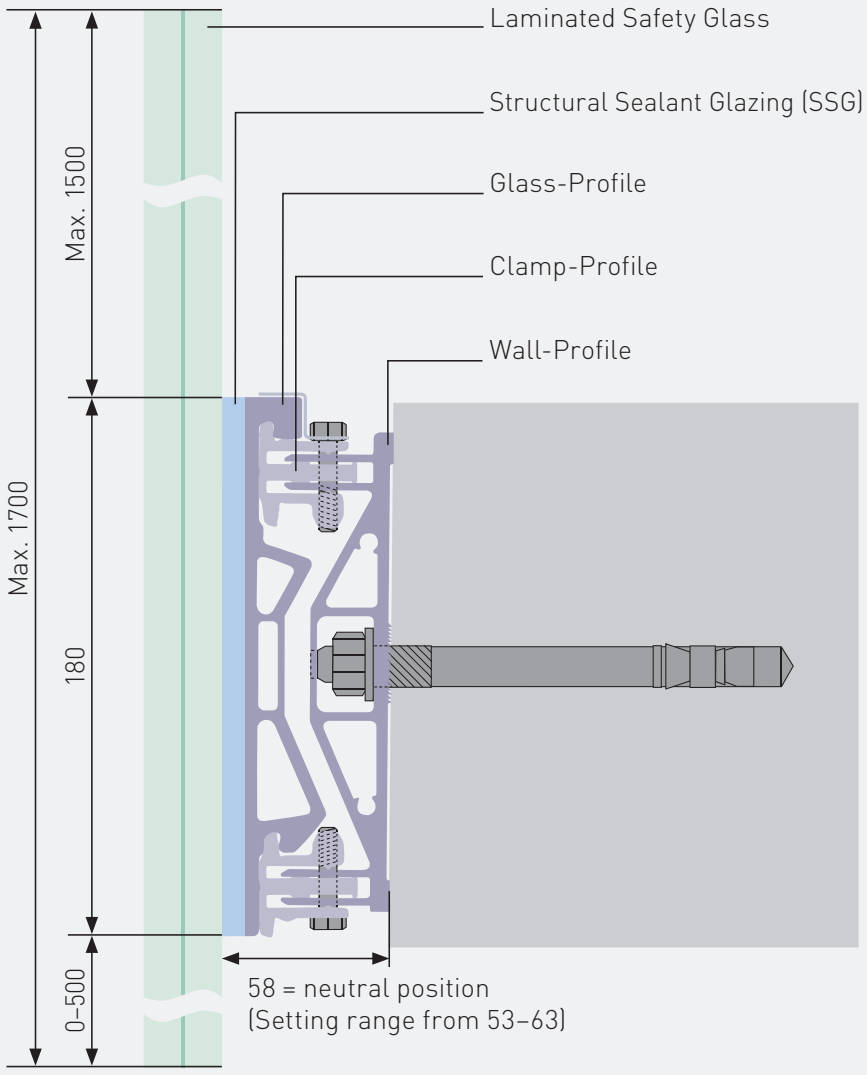


1 glass unit
2 factory bonded connection
3 carrier profile
4 upper clamping profile
5 bottom clamping profile
6 special assembly screw
7 uplift fixation
8 dowel
9 wall profile
10 (Optional) shimplate



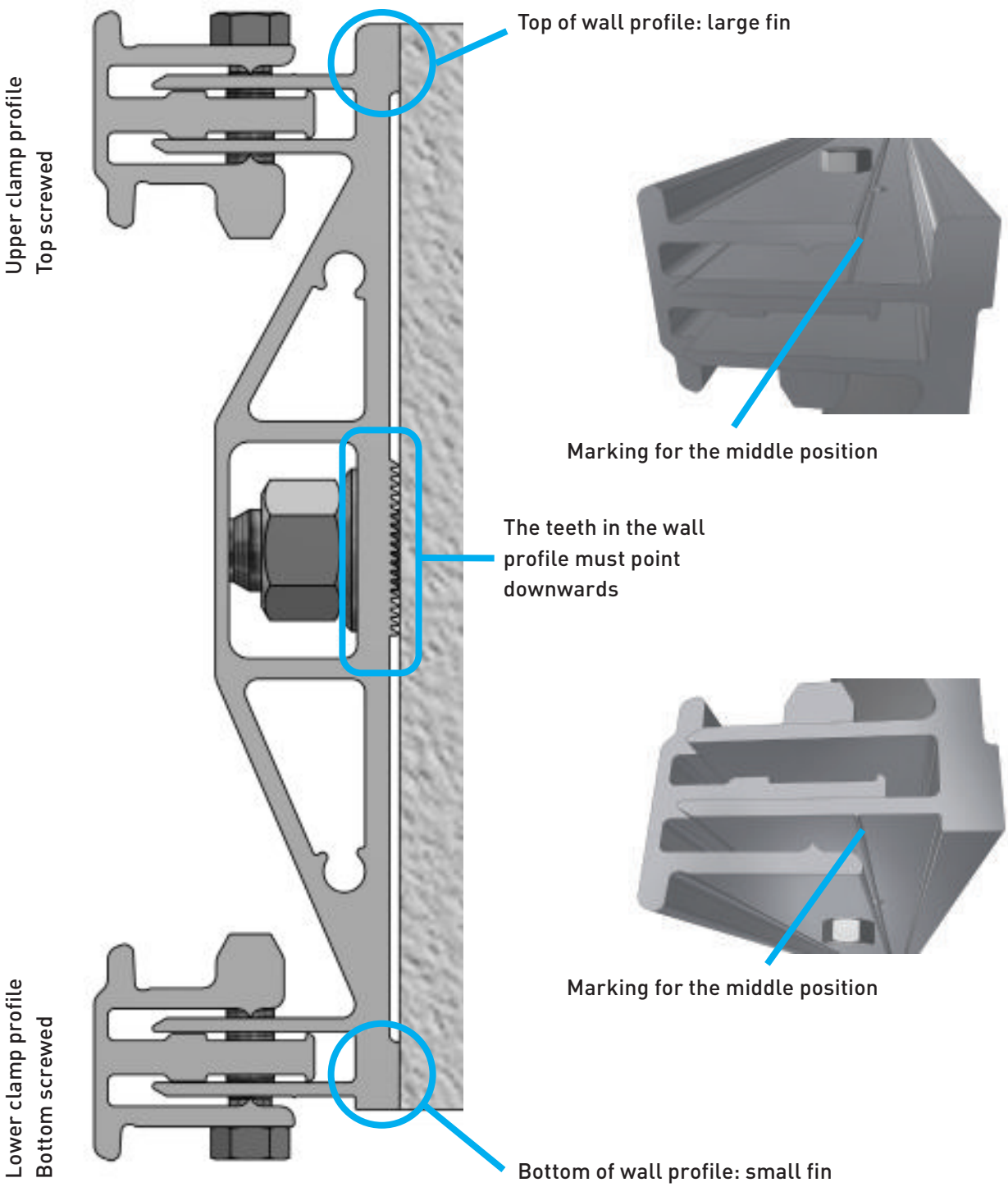
- Fixing of the wall profile to the concrete construction is integrated in the type static calculations of the balustrade system. The following criteria must be complied with:
  - Minimum concrete strength C20/25
  - Use of the prescribed anchor type from Fischer (stainless steel A4, Fischer FAZ II - M12 or Fischer FHB II M12) depending on load category
  - Edge distances in accordance with Glas Trösch specifications
  - The wall profile is pre-drilled at 200 mm intervals, the position of the anchor plugs is prescribed by Glas Trösch in the form of a table

The mounted system



- Fixing of the wall profile to any desired support structure:
  - Glas Trösch provides detailed information on the forces occurring in the unit kNm/m (for the fixing moment) and kN/m for the shear forces
  - Based on this information, the on-site support structure can be statically checked (load application, deformation, load transmission)
  - The M12 connecting bolt, A4 stainless steel, strength class K700, can always be used as a general principle; this is verified by Glas Trösch within the scope of the system statics.
  - Substructure made of wood or steel needs to be checked by others

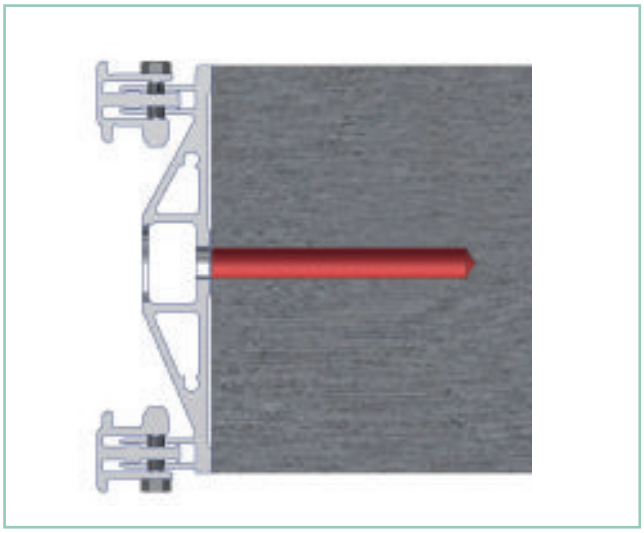
Mounting position of the wall profile



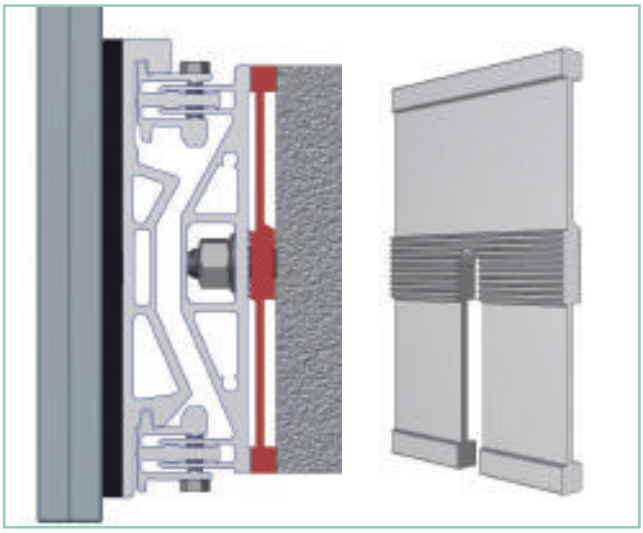
Installation

Important: this step has to be documented in the assembly log.

Step 1
Align the profile using the spirit level to a suitable substructure for attachment. You will receive verified information about fixing materials from Glas Trösch. The arrangement of the fastening points are given in the project-specific tables from Glas Trösch. Please note the specific instructions from the dowel manufacturer.

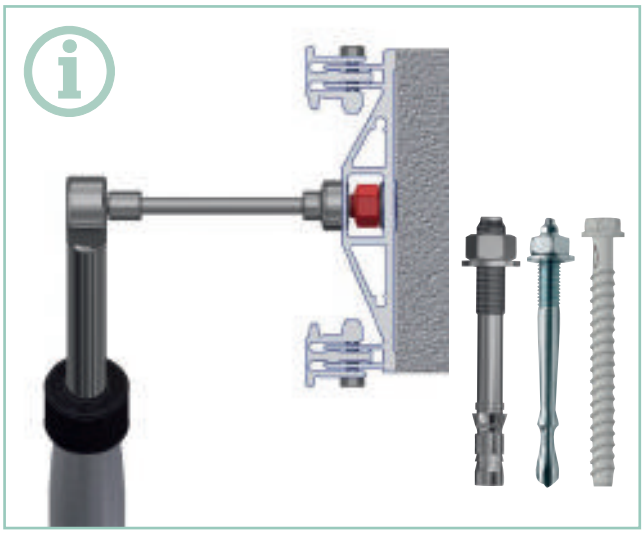


Step 1 (optional)
Spacer plates with a thickness of 10 mm and a width of 100 mm can be obtained to compensate for concrete tolerances or to create a specific distance (e.g. drainage).
The spacer plates are tied positively to the wall profile using the gear teeth.

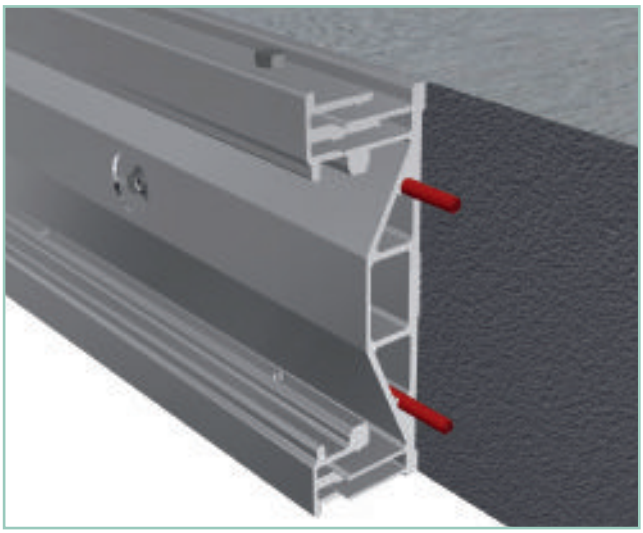


Step 2
Tighten the fixing materials received in the delivery:

- **FAZ II 12-A4: required torque 60 N-m**
- **FHB II AL-12-A4: required torque 40 N-m**
- **Ultracut FSB II A4: required angular momentum (tangential impact screwdriver) 650 N-m (re-tighten at 450 N-m)**



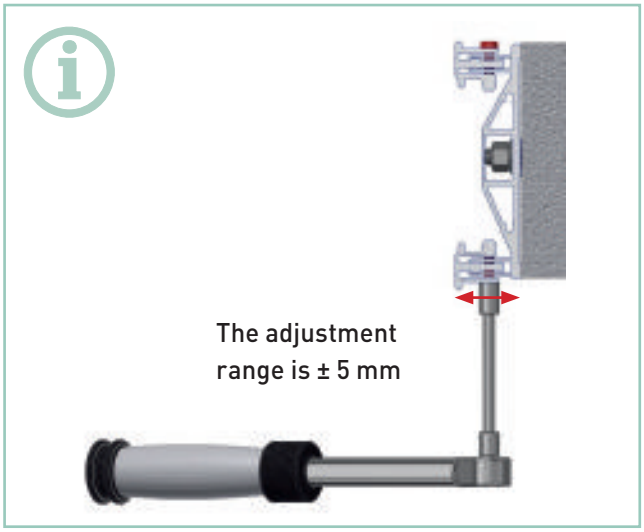
Step 3
Join the other wall profiles with joint pins of 6 mm diameter, which are pushed in, and align them with the wall profile using the spirit level.



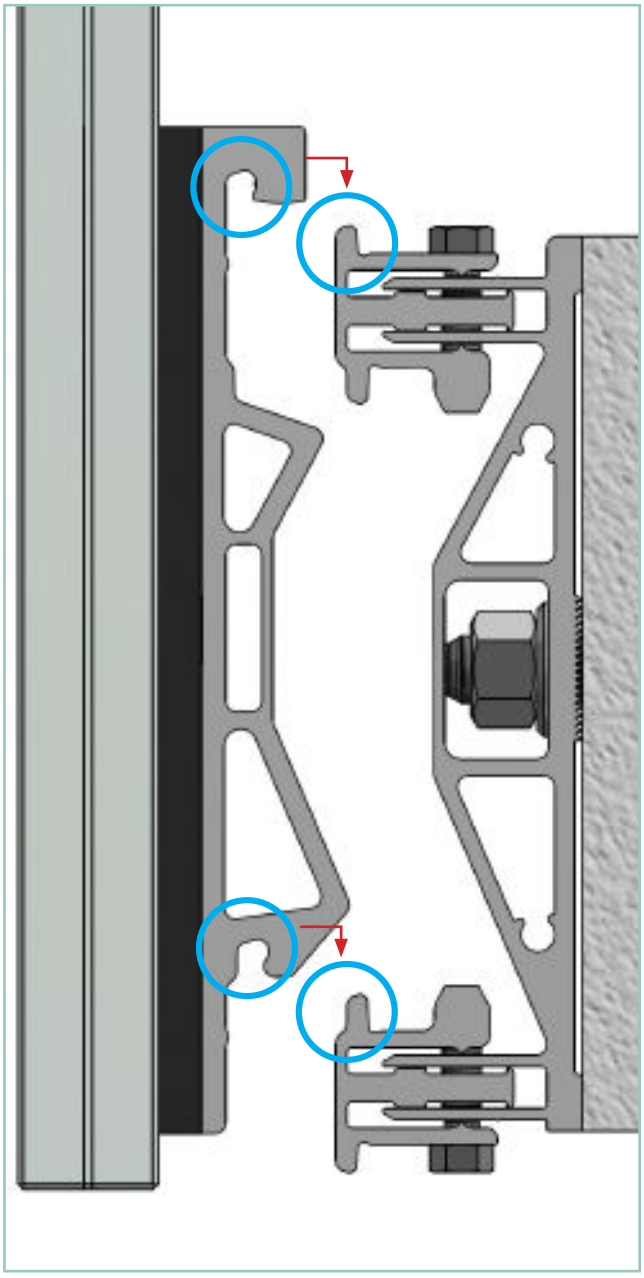
Important: this step has to be documented in the assembly log.

Step 4
Align the lower clamp profile.
The adjustment range is ± 5 mm.
Tighten the M7 screws with **35 N-m**.

From this point all further assembly steps can be performed from the floor. A scaffold in front is not necessarily required.

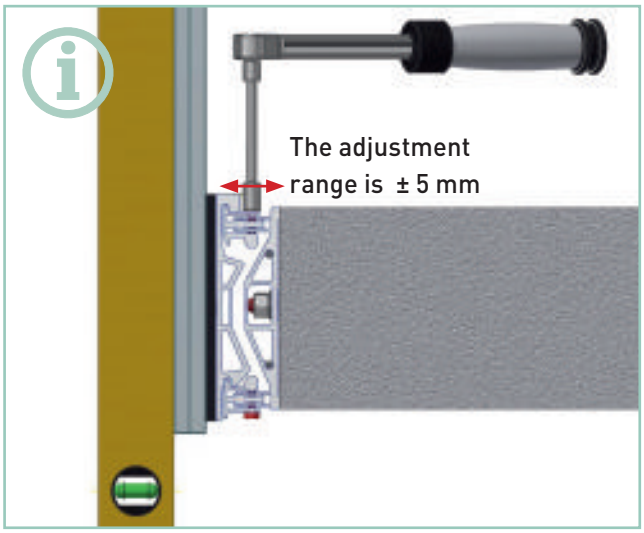


Step 5
Inserting the glass element. First the «noses» of clamp profiles must be cleaned. The glass element must be hung on the «nose» of the clamp profile, simultaneously at the top and bottom. The lift-out profiles (safety device against lifting) must be mounted and tightened slightly immediately after hanging. The other glass panes can be mounted and aligned.

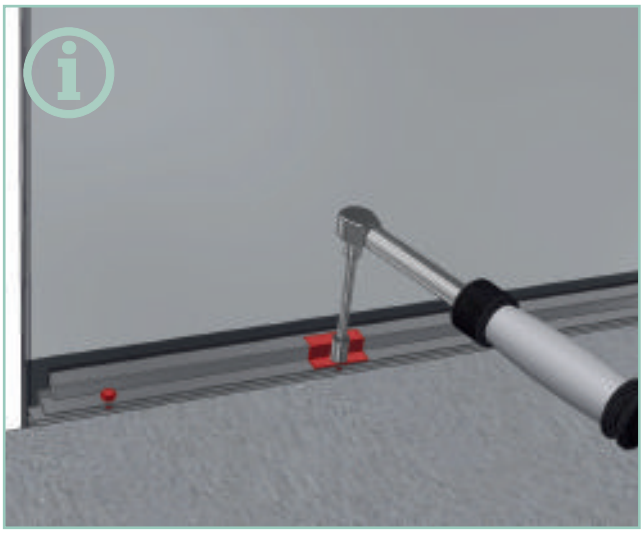


Important: this step has to be documented in the assembly log.

Step 6
Align the glass railing by adjusting the upper clamp profile.
The adjustment range is ± 5 mm.
Tighten the M7 screws with **35 N-m**.



Step 7
Attach the safety device against uplift.
Each glass panel requires a minimum of 2 safety devices against uplift, or all 1,600 mm of one.
Tighten the M7 screws with **35 N-m**.



Step 8
Record the tightening torques in a separate assembly log.

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More information