

MOUNTING INSTRUCTION FOR FIREWINDOWS

MODELLER

VI65EI30

VI70EI60

Content

General conditions	3
The instruction covers.....	3
Content of delivery	3
Type of wall/fastening	4
Mounting.....	5
Tools for mounting.....	5
Before mounting	5
Control of wall opening.....	5
Distances between wall and frame.....	6
Mounting of U-flashing/angle flashing	7
Mounting of frame.....	8
Mounting of glass and glass list	9
Filling in adhesive	12
Principle drawings of steel windows.....	13
Cleaning after mounting	14
Documentation	14

General conditions

- It is essential for the fire safety properties of the fire window that it is installed correctly in accordance with these installation instructions.
- The fire window must be installed by qualified personnel.
- The person/company installing the fire window is responsible for ensuring that the window is installed correctly.
- The content or nature of the insulation in the frame must not be changed. This impairs the fire window's fire technical properties.
- No milling, cutting, drilling or other processing of the fire window frame.
- Fire windows must be fixed in a fire wall and flammable cladding must not be passed through the wall opening.
- Window signs and other nameplates must be visible, valid and must not be covered or painted over.
- If the window plate or other signs is damaged or disappears, the window must not be used as a fire window until it is identified as a fire window and the signs are re-established. The fire window and identification must be verified by the fire authority.
- If changes to the window are required, please contact Door System A/S to ensure the changes will not affect the fire safety and fire classification of the window.
- The owner of the building/fire window is responsible for the window is operational.

The instruction covers

This mounting instruction covers all variations of the models mentioned on the front page. Marked fire-approved windows are covered by this mounting instruction.

Content of delivery

Description	Comment
Frame – window profile	
Stained glass	
Glass list	
Window sealing	
Fireproofing, stone wool	
Sloping bottom profile over glass list	Option
Extension frame	Option
Wall flashing	Option
Necessary bolts, washers, screws, blocks for installation	

Type of wall/fastening

The fire window must always be installed in a fire wall. The fire window has not been tested in the panel wall. Fire windows not approved for freezer or cold rooms.

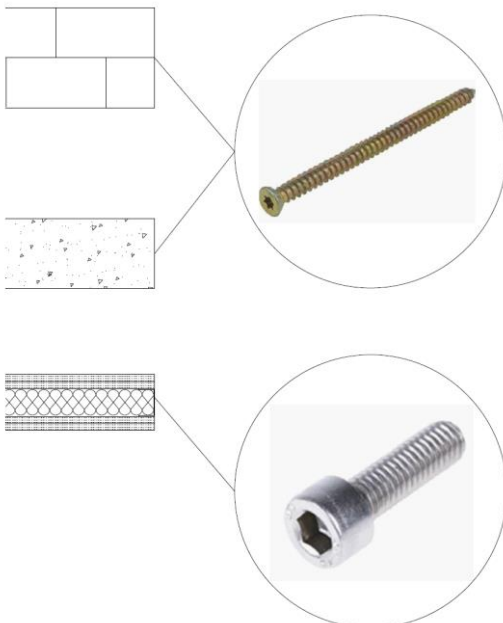
The following wall types are approved for the fire window VI65EI30:

- Min. 80 mm wall with a density of min. 850 kg/m³ (e.g. block wall, masonry, concrete).
- Min. 100 mm wall with a density of min. 650±200 kg/m³ (e.g. aerated concrete, concrete, masonry). The EI30 window must be moved at least 20 mm from the wall edge if it is to be installed in a heavy wall.
- Min. 70 mm flexible wall (e.g. plaster) (EI30) built with a skeleton wall of either wood or steel. Around the wall opening, a screw-resistant base must be made in the form of a wooden stud or steel profile. A stainless-steel skeleton should be 2.0 mm, while a galvanized steel skeleton should be 2.5 mm. The thickness of the wooden skeleton must be at least 45 mm. Plasterboard should be 1 or 2 layers of min. 12.5 mm boards on each side of the skeleton.

The following wall types are approved for the fire window VI70EI60:

- Min. 95 mm wall with a density of min. 850 kg/m³ (e.g. block wall, masonry, concrete).
- Min. 100 mm wall with a density of min. 650±200 kg/m³ (e.g. aerated concrete, concrete, masonry). The EI60 window must be moved at least 15 mm from the wall edge if it is to be installed in a heavy wall.
- At least 95 mm flexible wall (e.g. plaster) (EI60) built with a skeleton wall of either wood or steel. Around the wall opening a screw-resistant base must be made in the form of a wooden stud or steel profile. A stainless-steel skeleton should be 2.0 mm, while a galvanized steel skeleton should be 2.5 mm. The thickness of the wooden skeleton must be at least 45 mm. Plasterboard must be 2 layers of min. 12.5 mm boards on each side of the skeleton.

Approved fixing elements



Rigid wall: M7,5 x 92 mm frame screws with head.

Flexible wall: M8 x 80 mm insex-screw cylindrical and washers.

It is possible to use alternative fasteners for walls with a density of min. 850 kg/m³ and heavy walls with a density of min. 650±200 kg/m³ with steel concrete screws of min. \varnothing 7,5 mm.

Bolt length in the wall must be min. 50 mm of type Fischer concrete screws or similar.

Alternative fasteners for plaster walls are steel screws min. \varnothing 6.3 mm and bolt length min. 50 mm of type Essve "Super Teak" or similar.

Mounting

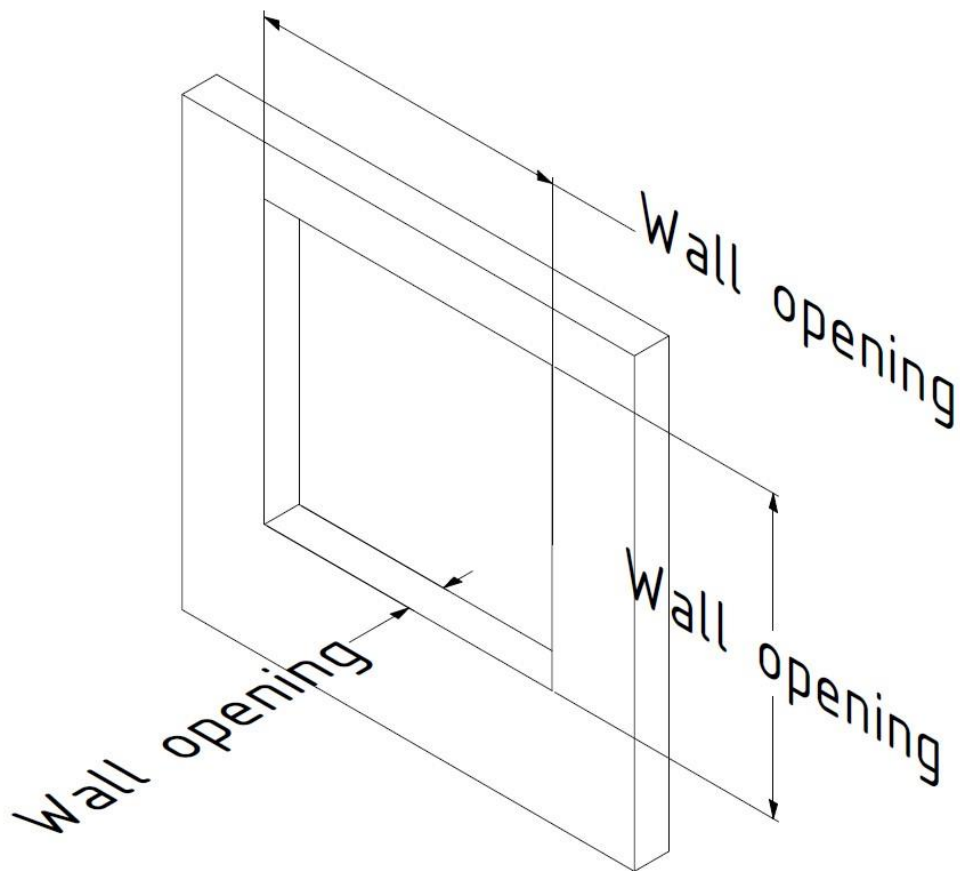
Tools for mounting

Wedges/chocks
Spirit level
Power drill/screwdriver
Stone wool
Adhesive

Before mounting

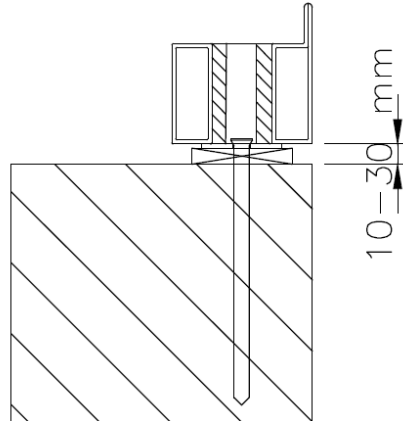
Control of wall opening

Make sure the wall opening is level and perpendicular and in accordance with the order confirmation.



Distances between wall and frame

The sealing width is the distance between the window frame and the wall. The distance must not be less than 10 mm or more than 30 mm in any place – see the figure below.

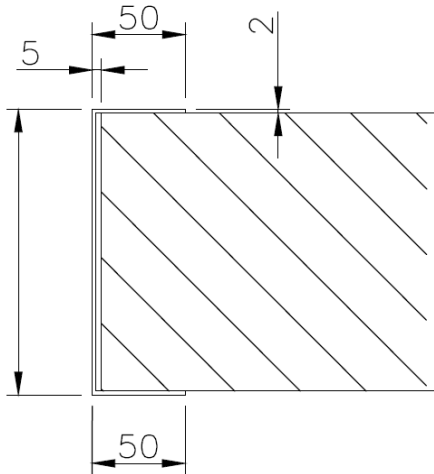


If the requirements are not kept, the wall opening has to be adjusted, so the requirements can be fulfilled. This adjustment is to be agreed with the owner of the door. The company/person who mounts the fire window is responsible for this agreement.

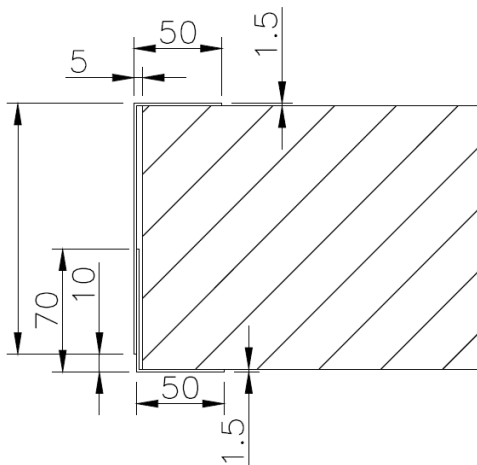
Mounting of U-flashing/angle flashing

First, wall flashing is installed, if it is stated in the order confirmation.

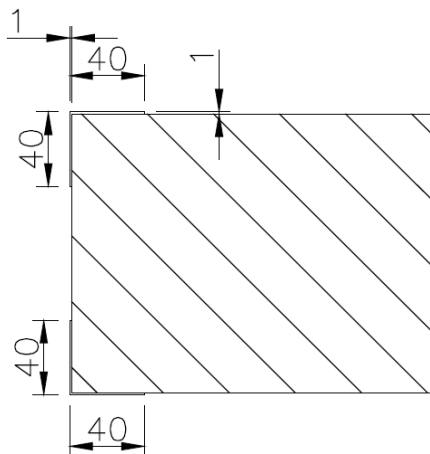
Flashing is used for quick and easy installation, protection of the wall edge and aesthetic expression around the window. In addition to aesthetics, the flashing also protects the wall edge from wind and weather if the window is to be installed in the façade. The flashing is mounted with blind rivets $\varnothing 3.2$ mm, screws or glue to the wall and sealed with adhesive.



U – flashing



U – flashing in 2 parts
(if wall thickness is varied).



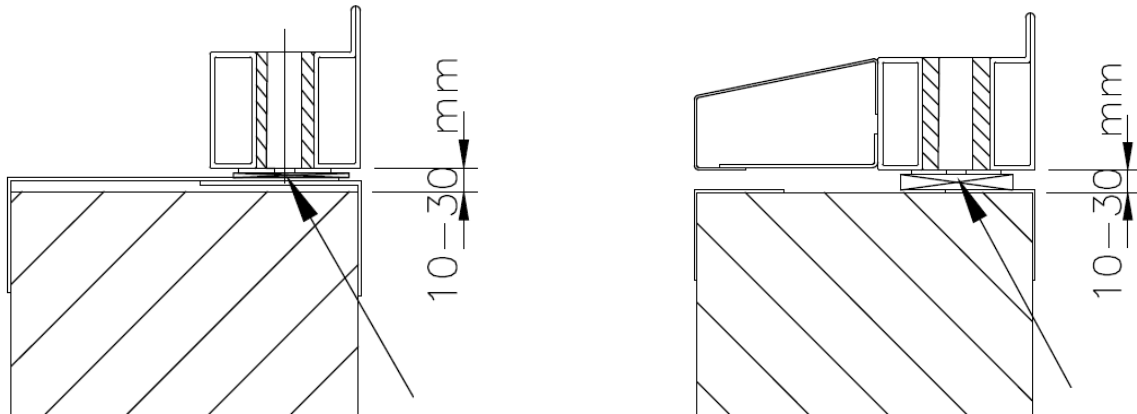
Angle flashing 40x40.

Mounting of frame

Before final fastening of the frame, the following must be checked:

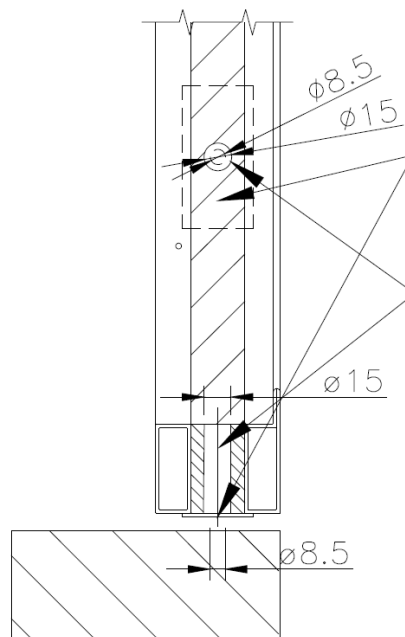
- The frame is level both horizontal and vertical.
- The distance between the frame and the wall according to the figures in the section “Distances between wall and frame”.

The frame is installed with or without an additive frame. The frame is bricked up with Promatect blocks 50x50 mm in different thicknesses.



The frame is prepared with mounting holes $\varnothing 15$ mm and underlying mounting brackets $\varnothing 8.5$ mm, where the frame is to be attached. Drill holes ($\varnothing 10$ mm for concrete, lightweight concrete, block wall or masonry or $\varnothing 6.5$ mm for steel skeleton wall) in the masonry through the mounting holes and secure with the supplied fasteners. The frame **MUST** be fixed in a fire wall.

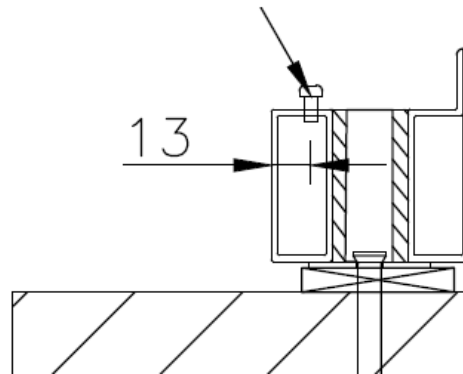
NOTE! DO NOT use mounting foam for mounting or attaching frames.



Mounting of glass and glass list

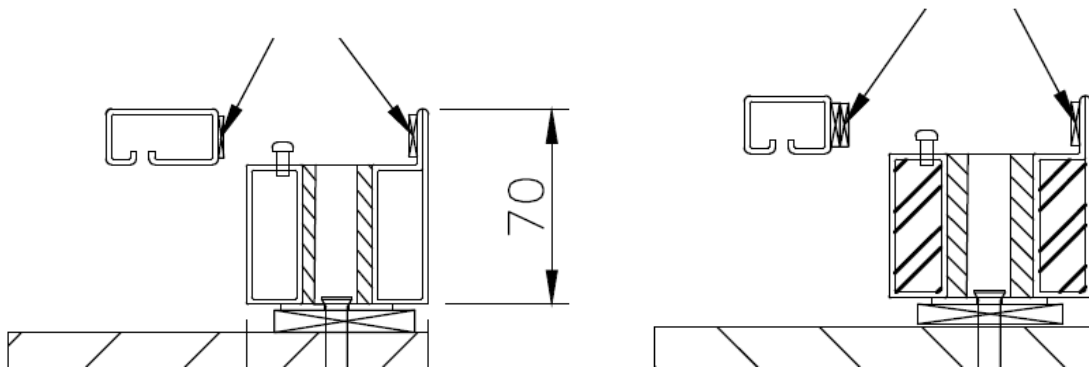
When the frame and possibly the flashing are fixed in the wall hole and all dimensions have been checked, glass and glass strips are mounted on the frame.

The frame is supplied with holes $\varnothing 3.3$ mm for the glass strip screws. The supplied glass strip screws are mounted along a straight line. Control dimensions are 13 mm from the edge of the frame.



Put window sealing on profiles and glass strips.

- a) EI30 must be with 3 mm thickness window seal on the glass strip and 4 mm window seal on the frame.
- b) EI60 must be with 2 layers of 4 mm thickness window seal on the glass strip and 1 layer of 4 mm window seal on the frame.



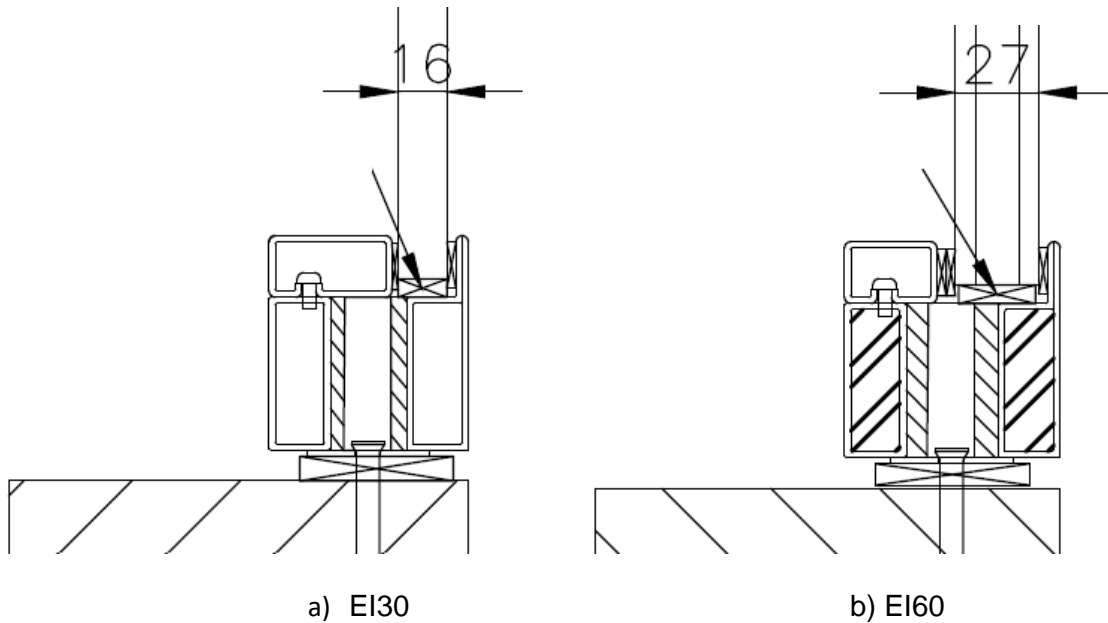
a) EI30

b) EI60

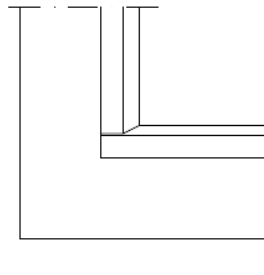
If there is a problem with space, use window sealing with a thickness of 1, 2, 3 or 4 mm.

Install glass blocks between the frame and the glass. Measure the distance between the frame and the glass. The glass must be centered so that the distance is equal on both sides. Different sizes of glass blocks are used depending on the type of window:

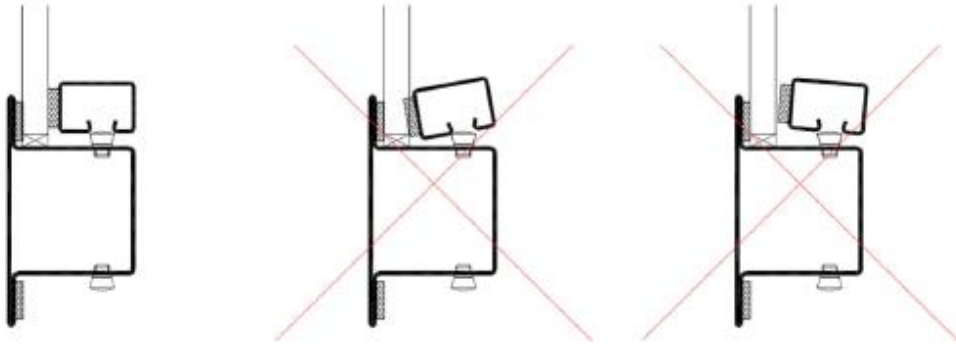
- a) for EI30, 16x6 mm glass block must be used.
- b) for EI60, use a 25x6 mm glass block.



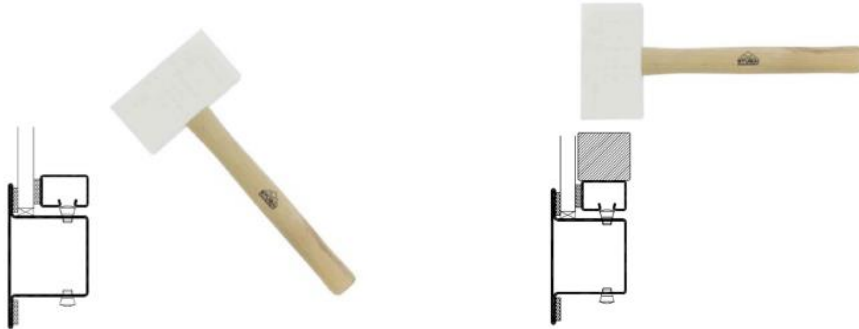
After mounting the glass block and glass, the glass strip must be applied to hold the glass in place in the frame. The glass strip is assembled with 90° joint in corners and at any bars. Horizontal glass strip should be full-length.



Use a plastic or rubber mallet to secure the glass strips over the glass skirting screws. The glass strip must be kept straight when attaching to the glass strip screws, otherwise there is a risk of damaging the glass.

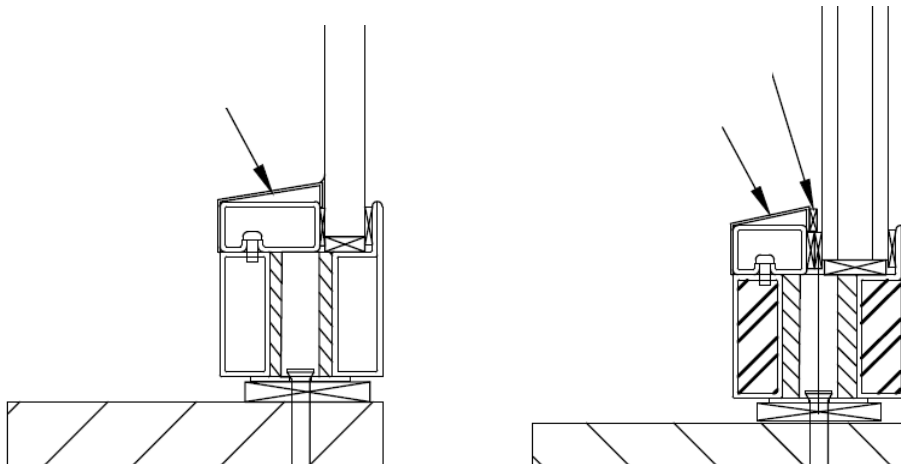


Hit one end of the glass strip. Hit the edge of the glass strip and directly over the glass strip screw. If the glass strip is hard to hit, try using a wooden or plastic block to help.



A sloping base profile can be mounted over the horizontal glass strip. The sloping bottom profile is pressed down between the glass and the glass strip. The window seal must be mounted on the sloping bottom profile towards the glass before it is pressed down between the glass and the glass strip.

- a) For EI30, the sloping bottom profile over the glass strip must be pressed down between the glass and the glass strip.
- b) For EI60, the sloping bottom profile above the glass strip must be pressed down between the glass and the glass strip. If it is emergency-friendly, ceramic window sealing must be installed before it can be pressed down between the glass and the glass strip.



a) EI30

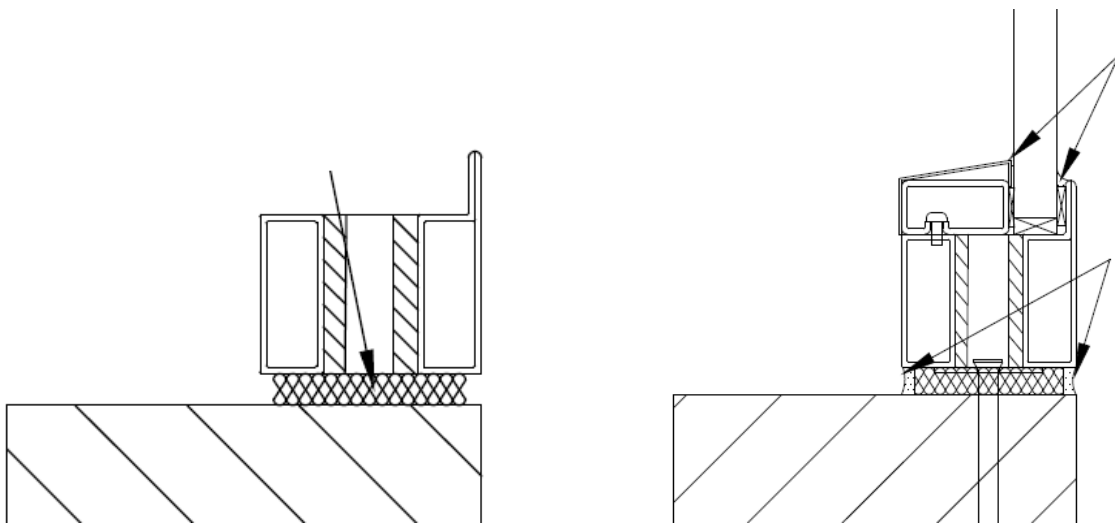
b) EI60

Filling in adhesive

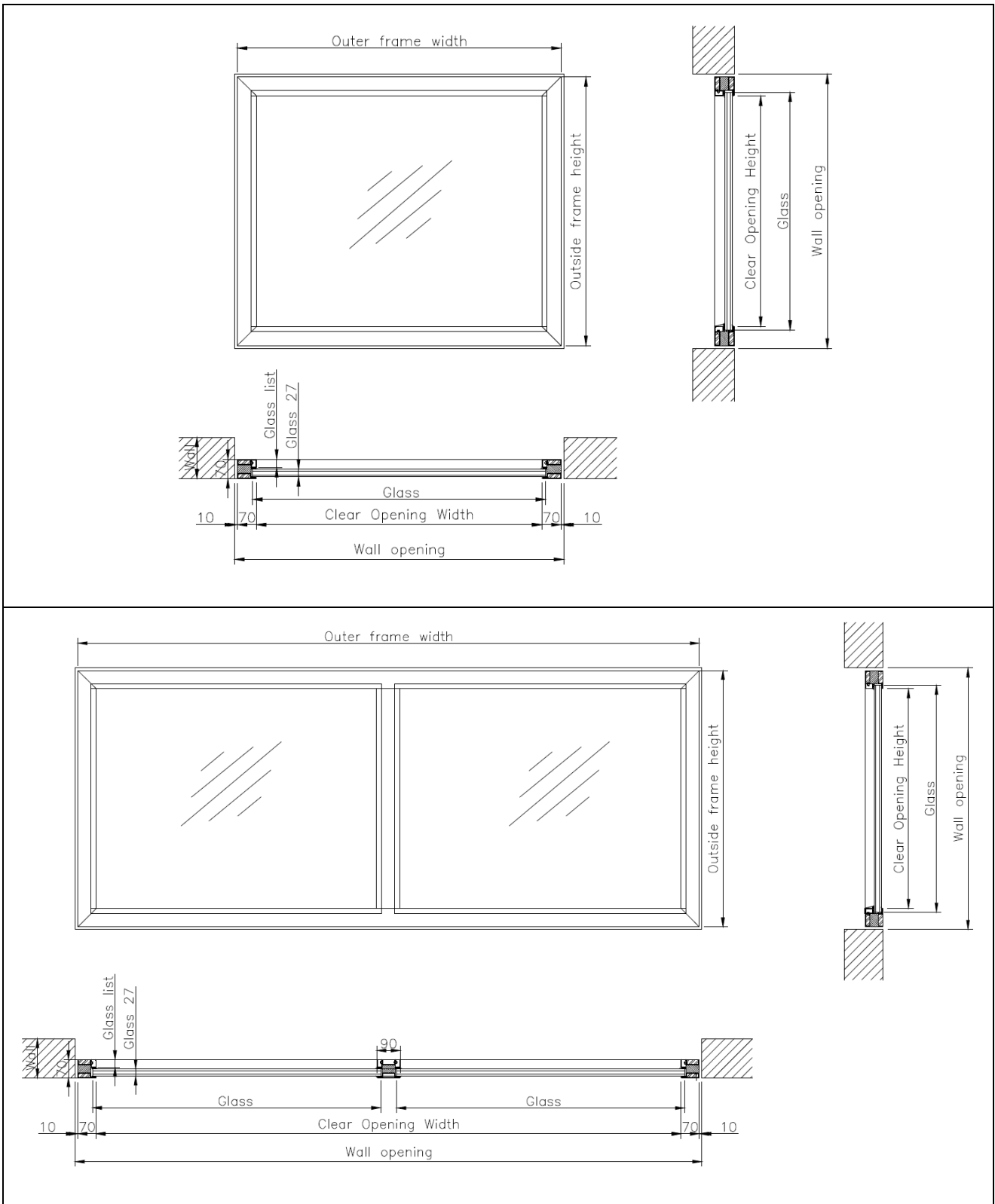
Frame:

- The joints between the frame and the adjacent building parts must be well stopped with the stone wool supplied (Paroc FPY 1).
- The joints are sealed with approved sealant between wall and frame - Dow Corning DC 791, Dow Corning DC 895 or Kerafix Finestop Putty. Grout is done directly on top of stone wool and no backstop must be used between stone wool and sealant.
- The joints are sealed with approved sealant between glass and frame, glass and glass strips as well as between glass and slanted bottom profile - transparent sanitary silicone sealant.

NOTE! DO NOT use a backstop between stone wool and sealant.



Principle drawings of steel windows



Cleaning after mounting

- Make sure that the window is fixed and that the glass has not been damaged.
- Make sure that the frame has been cleaned of dirt.
- Any foil on the frame is removed.
- Stainless steel frames are oiled with oil intended for stainless steel windows and intended for the environment in which the window is installed.

Documentation

Make sure the label is attached to the window.

The following documents have been prepared for the window:

- Operation and maintenance manual