DOORSYSTEM

MOUNTING INSTRUCTION FOR HINGED FIRE DOORS

MODEL

MH0751EI$_2$60 / MH0752EI$_2$60

Content

General conditions

- It is essential for the fire properties of the fire door, that the door is correctly installed in accordance with these instructions.
- The fire door shall be mounted by qualified personnel.
- The person/company who mounts the fire door, is responsible for ensuring that the door is mounted correctly.
- Do not change the content or texture of the insulation of the frame. It will impair the fire properties of the fire door.
- Do not mill, cut, drill or do any other machining of the door or frame.
- Do not mount letter slot or peep hole in the door.
- By inflammable flooring, ex. Carpet/vinyl, a bottom plate of min. 75 mm width is required. Inflammable wallcovering must not go through the wall opening.
- Door sign, or other signs moreover, shall be visible, valid, and must not be covered or painted.
- If door plate or other signs is damaged or disappears, the door must not be used as a fire door until it is identified as a fire door and the signs are re-established. The identification shall be done by the fire authority.
- If changes to the door are required, please contact Door System A/S, to ensure the changes will not affect the fire safety and fire classification of the door.
- The owner of the building/fire door is responsible for that the door is operational.

The instruction covers

This instruction covers all variations of the models stated on the front page. A variation contains the model number and following letters and possible numbers. For example, a variation can be (based on the model number MH0751EI260): MH0751EI260-C.

Content of delivery

Description	Comment
Counter frame	Option
Frame + door leaf	
Necessary bolts, muster, screws and plugs for installation	

Type of wall/fastening

The fire door must always be installed in a fire wall.
The following wall types are approved for the fire door:
- Min. 150 mm rigid wall with a density of at least 575 kg/m³.
- Min. 150 mm lightweight concrete blocks with a density of at least 575 kg/m³ (525-574 kg/m³).
- Min. 100 mm panel EI60 fire wall, build as PAROC AST-S.
- Min. 95 mm flexible wall (EI60 fire wall) built with a stud wall of steel or wood. The doorframe must have a screw-fast substrate in the form of a wooden stud or steel profile. A stainless steel profile must be 2 mm, while a galvanized steel profile must be 2.5 mm.

Approved fixing elements:
Rigid wall: M8 120 mm screws and plastic plugs or M7,5 x 112 mm steel screws.
Lightweight concrete blocks: M8 x 140 mm lag screws and plastic rawlplugs (in the opening), and for C-frame M8 x 120 mm lag screws and plastic rawlplugs or M7.5 x 112 mm frame screws.
Panel wall: through-going Ø8 treaded steel rods with washer and nuts or through-going M8 steel screws with washer and nuts or flange nuts. Length approximately wall thickness + 20 mm.
Flexible wall: M8 x 80 mm screws with washer or M6 x 80 mm steel screws with washer or M8 x 50 mm screws and washer and steel reinforcement. For an encasing frame (C-frame), M8 threaded rod with washers and nuts or flange nuts can be used.
Threshold: M6x80 mm screws
It is possible to use alternative fixing elements provided they are made of metal with a melting point of at least 850°C and that the fixing elements are appropriate for the type of supporting construction in question.


MOVE-MH-05-F-EN

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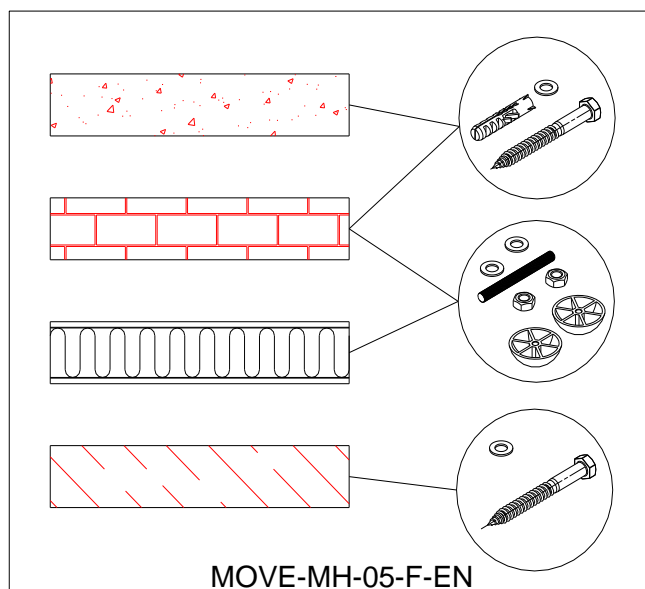
Mounting

Tools for mounting

Wedges/chocks
Spirit level
Power drill/screwdriver/riveter
Impact wrench
Stone wool
Adhesive – NB, the fire approval is only valid with the correct type of adhesive
E.g. concrete for casting

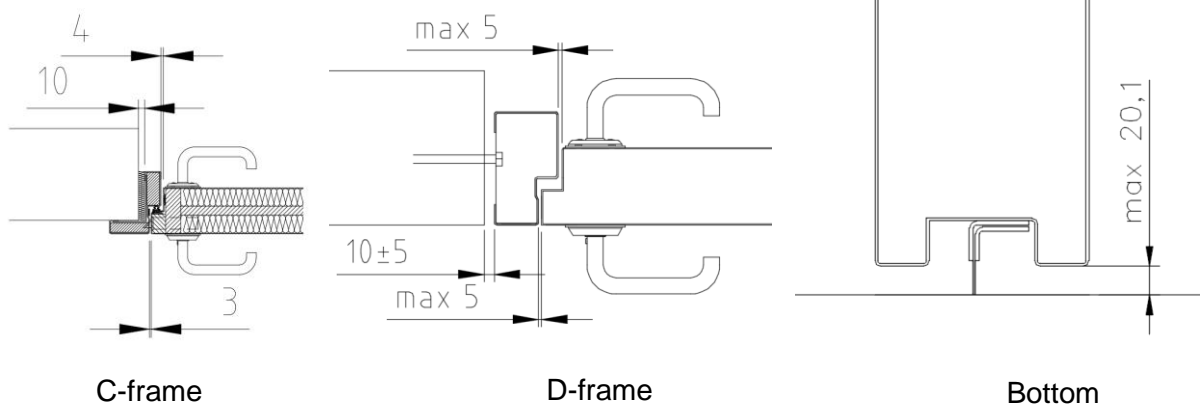## Before mounting

Control of wall opening

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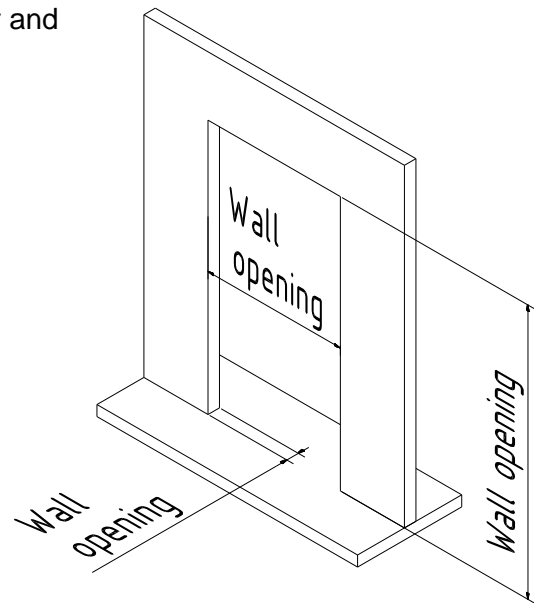

Distances between wall and frame

The sealing width is the distance between the frame and the wall opening. This distance must be between 5-20 mm, see below figur.

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 door is responsible for this agreement.


| C-frame | D-frame | Bottom |

Mounting of frame
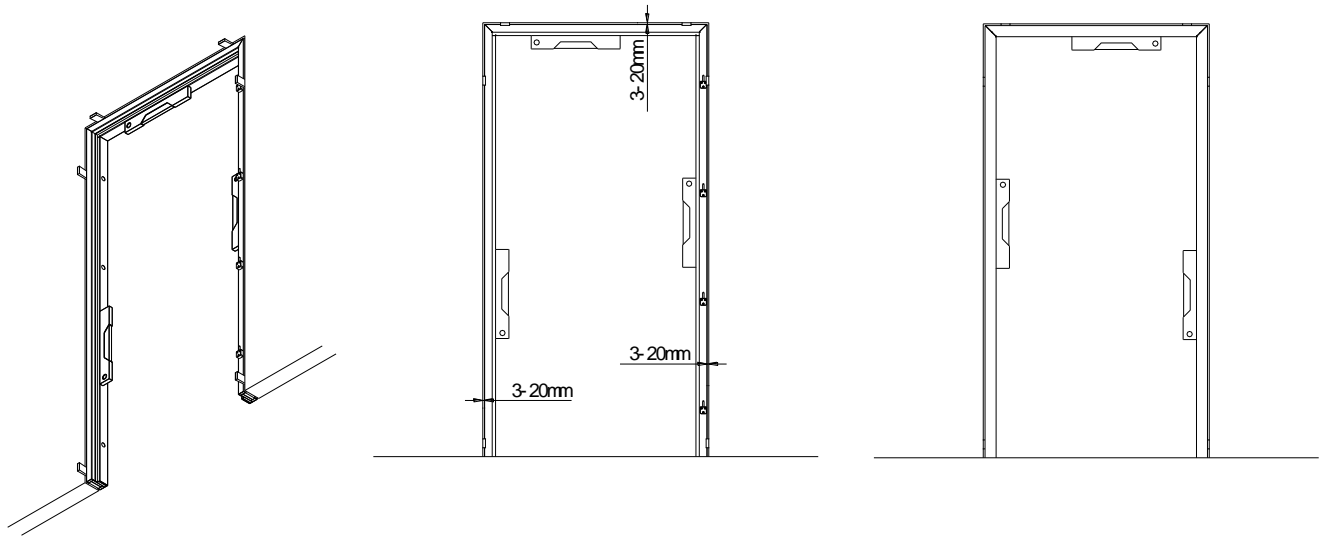
Before final fastening of the frame, the following has to be checked:
- The frame is level both horizontal and vertical
- The placement of the frame is correct according to the finished floor level, which means the door leaf is clear of the floor at an opening of 90°/180° and complies with the maximum distance between the door leaf and the floor in the closed position, see above.
- The distance between the frame and the wall according to the above figure "Distance between wall and frame".

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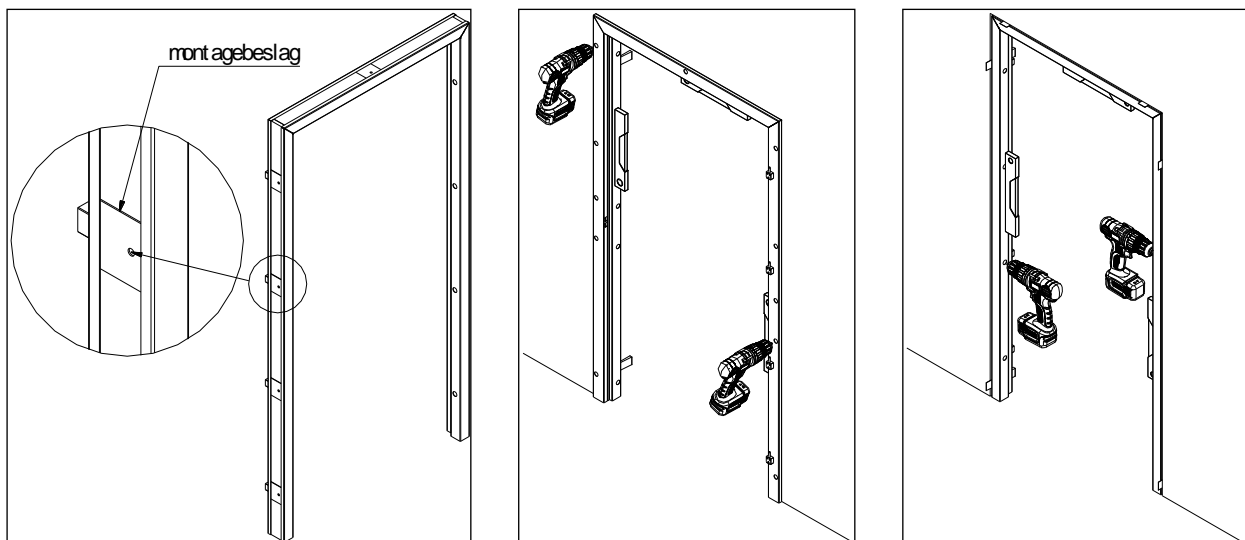
Fasten the frame through the existing mounting holes and underlying mounting connectors in the frame. Drill holes through the mounting holes and fasten the frame with the supplied fasteners. Any counter frame is also fastened through the prepared holes for mounting. The frame ALWAYS has to be fastened to a fire wall.

NB! DO NOT USE FOAM FOR MOUNTING OR FIXING OF THE FRAME.

Mounting of counterframe

The counter frame is pushed into place in the C-frame and secured to the wall using the mounting brackets with the provided fasteners.
Then, the counter frame is fixed to the frame through the mounting holes using the supplied screws.
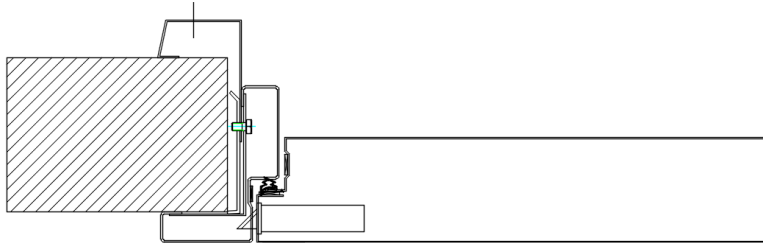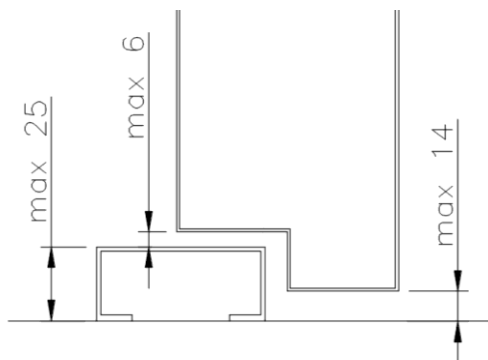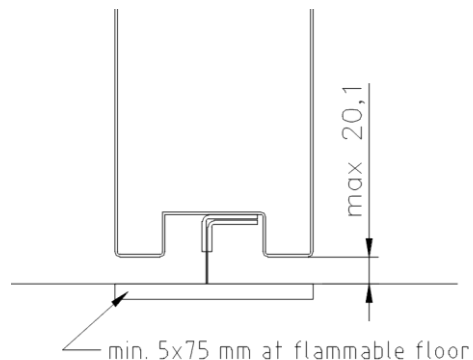

Mounting of threshold

The threshold is delivered either welded on the frame or detached.
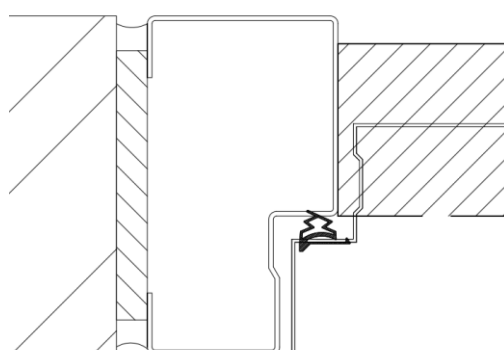A welded threshold is mounted as the frame.
Detached threshold is bolted to the floor at the same time as the frame is being mounted. The threshold must be flush with the rebate towards the front of the door, see drawing below.
It is possible to seal between the threshold and the floor on both sides of the threshold.

C-frame with counterframe   D-frame
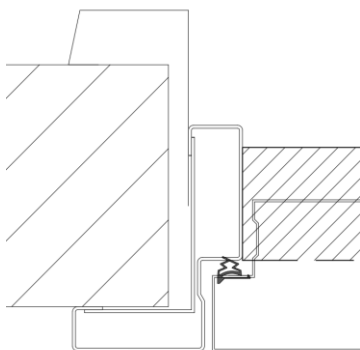
When disassembling the threshold, cut the joints free and remove the screws.
When reassembling the threshold follow the instructions above.

Mounting of door leaf and fitting of hardware

When the frame and eventually counter frame is mounted in the wall opening and all measurements are checked, the door leaf is mounted on the hinges on the frame.

- Control the following after mounting of frame and door leaf:
  The distance from the edge of the door leaf to the rebate of the frame in side- and over frame must not be more than 6 mm.

- The distance from the bottom of the door leaf/threshold to the rebate of the frame in the threshold must not be more than 6 mm.

- The distance from the bottom of the door leaf to the flooring or to a metal rail (min. 5 mm thick) on the floor must not be more than 20 mm.

- Flammable materials must not be passed througt the wall hole. There must be at least non-combustible material around the door leaf minimum corresponding to the thickness of the door leaf (75mm).
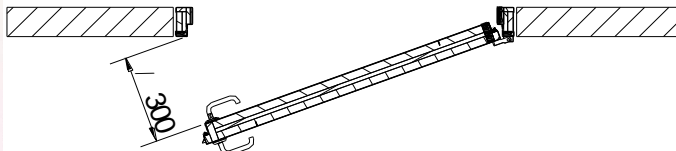
Fitting of hardware

Complete the door by mounting all supplied accessories on the door; door closer (see fig. 2.3.1), hold open device, espagnuette and/or other connectors – check the following:
- The door leaf and the latch can easily move.
- The latch engages when the door closer closes the door leaf from any given open position of 300 mm or more, see drawing.

FIG. 2.3.1

NB: A Lock which stops the door leaf from closing and the latch to engage (e.g. lock with deadlock) have to be approved by the fire authority. The owner of the building is responsible for all solutions are approved.

It is only permitted to retrofit fittings made of pure metal on the exterior of the door leaf and/or frame, without through-fixings. If something is retrofitted onto the door, it is important to note that the door is not pre-prepared for such fixings. Therefore, as a rule, reinforcement on the outside of the door will be required before installation.

The result of the modification to the fire door may be that the door is no longer approved and fire-resistant. To ensure that any modification to the fire door comply with fire certification, Door System A/S must be contacted.

Sealing of doors

Side- and top-frame:
- The gap between the frame and the wall is filled with stone wool.
- Seal the gap with approved adhesive - FP silicone sealant from Den Braven Sealants, Sabaprotect M500 from SABA Dinxperlo BV, Byg og sanitetessilicone from Ljungdahl, Vådrumssilicone 512 from Dana Lim, Sikasil-FDA from Sika or SikaHyflex-402 from Sika. Do not use a backstop between stone wool and sealant.

NOTE! **Do not** use a backstop between stone wool and sealant.

Side- and top frame, poured out with concrete:
- The gap between the frame and wall is packed tightly with stone wool and sealed with approved adhesive - FP silicone sealant from Den Braven Sealants, Sabaprotect M500 from SABA Dinxperlo BV, Byg og sanitetessilicone from Ljungdahl, Vådrumssilicone 512 from Dana Lim, Sikasil-FDA from Sika or SikaHyflex-402 from Sika. Do not use a backstop between stone wool and sealant.
- Before the pouring of concrete in the frames, stiffening must be made which is able to withstand the forces of the concrete (the weight) so the frame will not deform.
- Pour out the concrete in the frame. The concrete should be in a liquid consistency so the cavity can be filled completely.
- The stiffening must not be removed before the concrete is cured.

Cleaning after mounting

- Make sure the door and frame are clean and all concrete, adhesive or other materials are removed (acid may not be used on the steel surface).
- Make sure the door easily can open and close and there is no obstacles for the use of the door.
- When the door is closed, the sweeper gasket shall touch the floor and the gaskets in the sides and on the top of the door shall touch the frame.
  (The gaskets may not be squeezed flat as that will reduce their lifetime).
- Remove the foil from frame and door.
- Close all mounting holes and holes for pouring the concrete with the supplied corks.
- Oil all stainless surfaces with oil for stainless steel and intended for use in the environment where the door is mounted.
- Make sure that hinges, handles and locks are all greased with grease.

Documentation

Make sure the label is attached to the door. The label holds information regarding fire approval and CE-mark (if the door is CE-marked). In case of worn or damaged label, a new one can be ordered from Door System A/S.

Make sure the following documentation is supplied with the door:

- DoP, Declaration of performance (if the door is CE-marked)
- Operation – and maintenance manual