

*MOUNTING INSTRUCTION  
FOR HINGED FIRE DOORS  
FREEZER ROOMS*

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MODEL

MH1251FEI<sub>2</sub>60

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## General conditions

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- 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, 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, 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 the door is operational.

## The instruction covers

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This instruction covers all variations of the models stated on the front page.

## 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/m<sup>3</sup>.
- Min. 100 mm panel EI60 fire wall, built as Kingspan KS1150 RF C.
- Min. 120 mm flexible wall (EI60 fire wall) built with a stud wall of steel or wood. The wall opening 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:

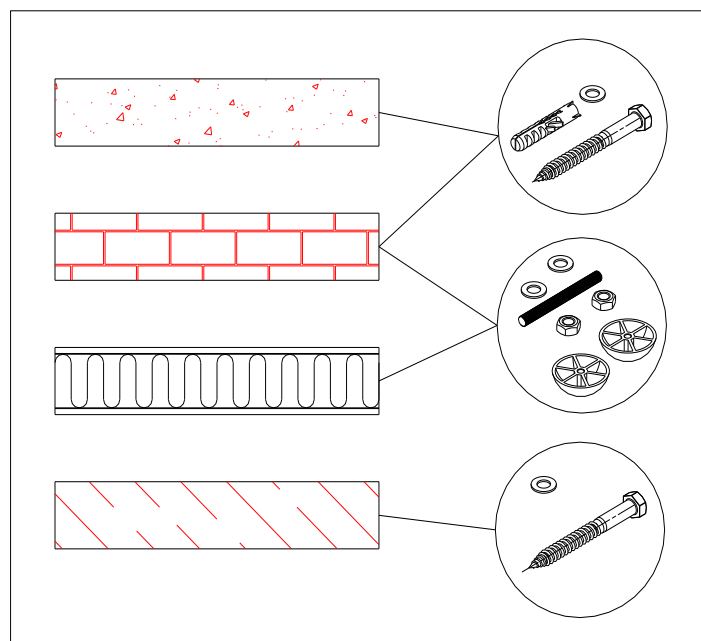
Rigid wall: M8 x 100 mm screws and plastic plugs.

Panel wall: through-going Ø8 threaded 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.

Spacer screws and plastic blocks can be used between the frame and the wall.

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.



## Mounting

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### Tools for mounting

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

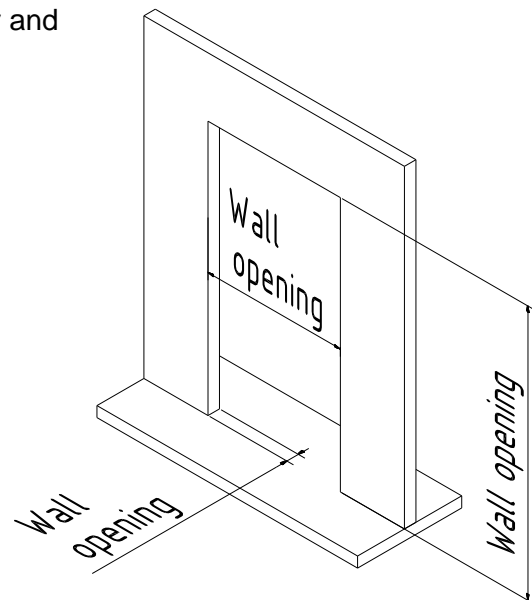
### Before mounting

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#### Control of wall opening

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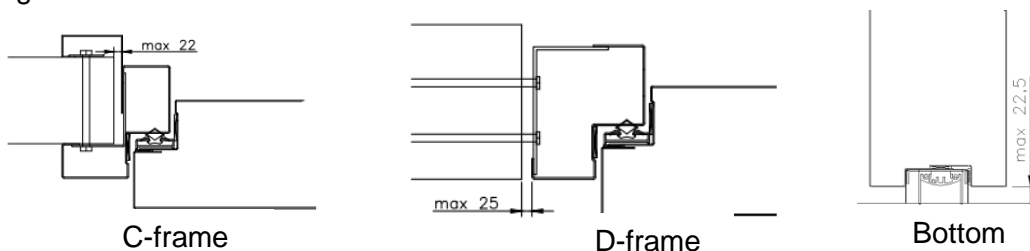
Make sure the wall opening is level and perpendicular and in accordance with the order confirmation.



#### Distances between wall and frame

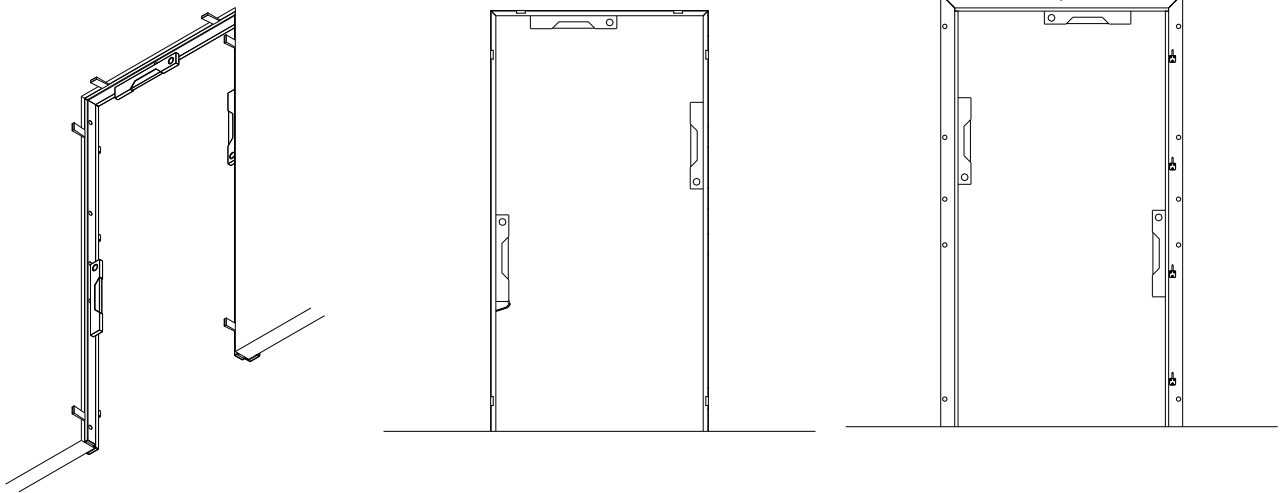
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The sealing width is the distance between the fire door frame and the wall. The distance must not be less than 5 mm in any place. For a C-frame the distance between frame and wall must be a maximum of 22 mm, while the distance between frame and wall for a D-frame must be a maximum of 25 mm. The distance between the door leaf and the floor must be a maximum of 22,5 mm. See the figures below.



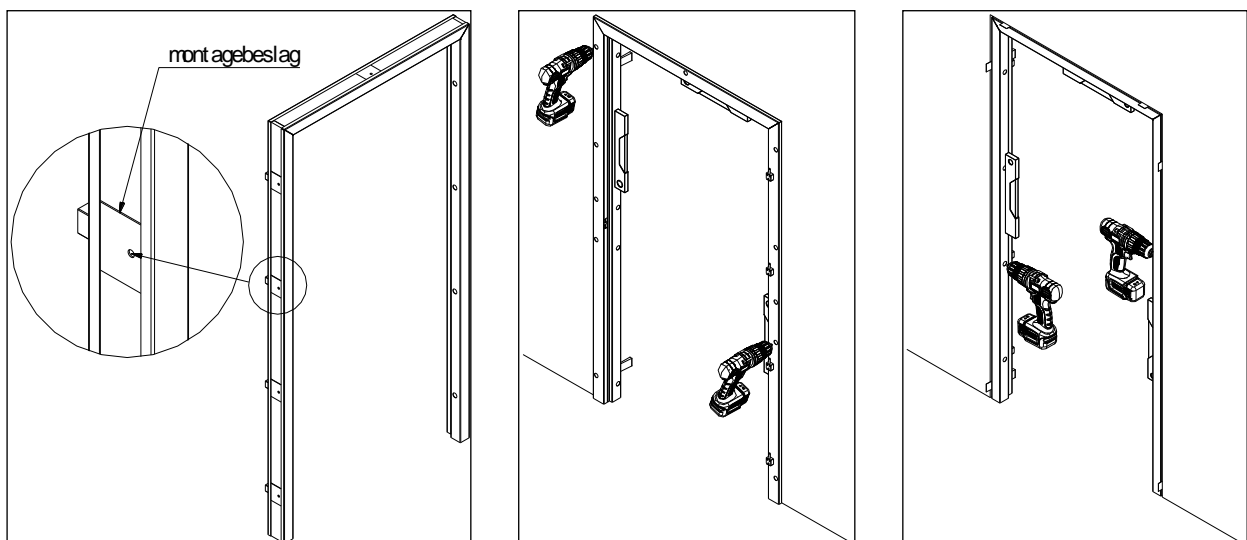
If the requirements are not kept, the wall opening has to be adjusted, so the requirements can be fulfilled. This adjustment is to be agreed with the owner of the door. The company/person who mounts the door is responsible for this agreement.

## 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, according to the figures in the section “Distances between wall and frame”.
- The distance between the frame and the wall according to the figures in the section “Distances between wall and frame”.



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.**



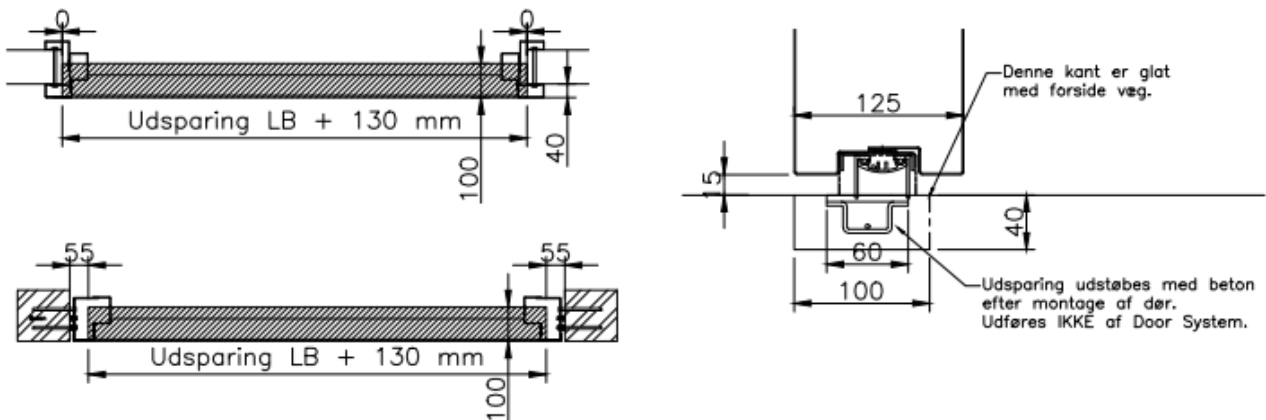
The frame can be bricked up with spacer screws and/or plastic blocks at the mounting brackets.

When installing the D-frame, fire paste 30x3 mm must be applied. Do not use plastic plugs for these mounting holes.

### Mounting of threshold

For doors with a bottom rail for heating cables, a trench/recess in the floor measuring 100x40 mm must be made, see the figure below.

The recess must align with the front of the frame and extend 100 mm into the wall opening. The recess should be made according to the type of frame, as shown in the drawings below, where LB indicates the reveal width (the horizontal distance between the frame legs).



### 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.

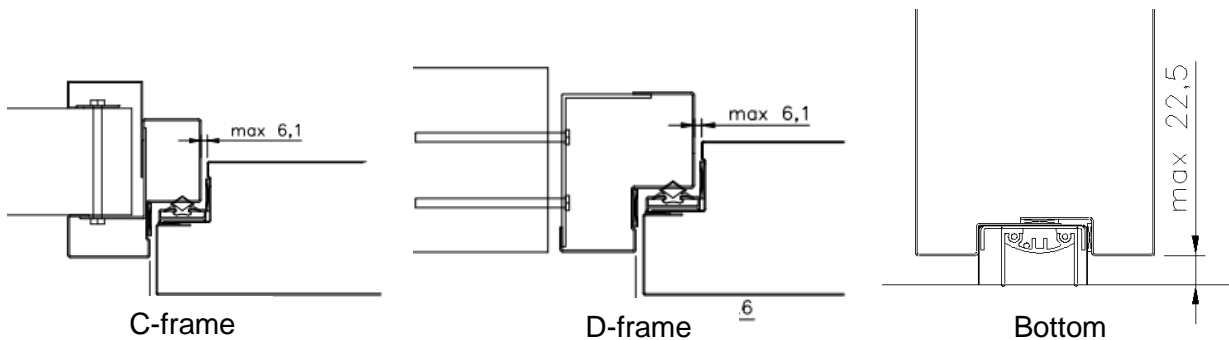
#### Door leaf

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 inside and over frame must not be more than 6,1 mm at the back of the door and max. 6,6 mm at the front of the door (see figure below)
- The distance from the bottom edge of the door leaf to the flooring or to a visible metal rail at least 5 mm thick embedded in the flooring, must not be more than 22,5 mm.

- The fire curtain and seal must touch the floor when closed. If the fire curtain and seal are too long, they must be shortened so they do not bend against the floor. The seals must not be shortened to the point where they cannot reach the floor when closed.

The doors are adjusted so that the distances comply with the figures below:



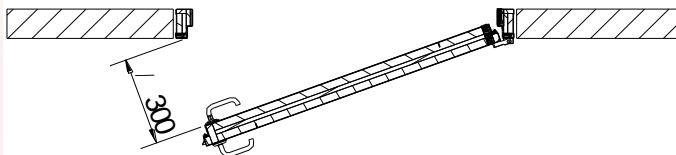
### Fitting of hardware:

Complete the door by mounting all supplied accessories on the door e.g. door closer (see fig. 2.3.1) and 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



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.

### Heating cables

Heating cables in the freezer frame and door leaf are connected to 230V/50Hz. At the door to the freezer room the heating wire must not be connected if the freezer is turned off, as overheating may occur and the heating cables would be damaged.



## Sealing of doors

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Side- and top-frame:

- The gap between the frame and the wall is filled with stone wool.
- Seal the gap with approved adhesive.

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

## Cleaning after mounting

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- Make sure the frame and the stainless bottom control are clean and all concrete, adhesive or other materials are removed.
- 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 with the supplied corks (except on the front of the D-frame).
- 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

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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