

Manual

M-serie

Installation manual



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MERFORD

Shaping sound —

Preface

The fitting of a Merford-door requires solid expert knowledge. Since the method of fitting differs for each situation, this manual will provide general guidelines. Therefore, no rights can be derived from this manual.

For project-specific applications, such as bullet resistance, supplemental project-based instructions are in place. Are you in doubt, prior to the fitting of a door, whether you have been fully informed? Feel free to contact us! You can reach us via specialdoors@merford.com or 0183 520 402.

Merford is not responsible for inaccurate fitting, which could result in accidents, damage or reduced fire, noise or thermal properties.

Safety

Merford doors must be fitted by qualified staff. The installation location must be safe and the technicians must wear the required safety workwear. When relocating the doors, observe the Health & Safety Regulations with respect to the weight of the doors.

In this manual, pay attention to the safety warnings. They can be recognised by this symbol.



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Check the delivery

The following parts are included in the delivery:

- Door(s) and frame
- For a counter frame: Side trims and head trim
- Torx or drilling screws (including plugs)
- Screwdriver bit Torx T30 or hexagon bits 3/8"
- For a counter frame: double fill plate with punched slot
- For a corner frame: 2 x auxiliary threaded rod M8, length = 330mm
- For a corner frame: 2 x M8 Allen bolt for sealing auxiliary threaded rod gat
- For a corner frame: 2 x auxiliary nut M8
- For a corner frame: Fitting support trim
- Finishing caps: round 16 and round 7
- Finishing profiles
- Box with loose fill insulation
- Kit
- For a delivery of individual frame parts
 - Threshold
 - Head jamb
 - 2 Side jambs
 - Fastening screws M6

Is there a part missing? Or is there transport damage? Report this immediately to Merford! You can reach us via specialdoors@merford.com or 0183 520 402.

Make sure that you have the following tools at hand:

- Lifting installation (positioning and relocation of the door)
- Drilling machine
 - Concrete Ø 8mm or hardwood Ø 5.7mm
 - Metal : metal drill Ø 5mm
- Screwing machine or impact wrench
- Ring spanner 13
- Measuring tape
- Spirit level
- Pinch bar
- Disc cutter (when applying a counter frame)
[Please note! Do not use impact wrench for face plate.](#)
- Sealant gun
- Long Allen key 3mm (minimal length = 60mm)
- T-grip Allen key 3mm

Note: use the included Torx screws for a wooden frame or an opening in stone or concrete. The 6.3mm self driving screws are intended for a metal opening.

Required tools

Summary of Work method

Corner frame (possibly fitted with counter frame)

The door is placed in the opening via the front, while the flange of the frame falls over the opening or over the adjustment frame. The door is initially installed and secured by means of the included temporary fixing profile and threaded rods. Subsequently the door is adjusted. Finally the door is opened, fixed and fitted with a counter frame, if necessary. After this, the mounting and adjusting of accessories, for instance, a door limiter and door closer, takes place.

In order to firmly secure the door, it will be fixed into the structural opening from the reveal, by use of the mounting plate.

Block frame

The frame is placed into the opening from the bottom side. Check the spirit level while someone else is holding the frame. Subsequently, the frame can be secured, starting with the hinge side. On the other side, one screw can be attached to the top. Hang the door leaf in the frame, check if it closes properly and mark it before opening the door. Then assemble the rest of the frame. Open the door afterwards and fill the space between the opening and the frame. Then assemble and adjust accessories like the door limiter and door closer.

In order to firmly secure the door, it will be fixed into the structural opening from the reveal, by use of the mounting plate.



See to adequate personal protective equipment (such as safety gloves, goggles and helmet) and wear them consequently during transport and assembly of the door.

Points of attention for the structural opening

The structural opening must be designed sufficiently stable for the high weight of the door. Also consider the closing force.

Check whether the door fits in the opening and that the opening is perpendicular, by measuring diagonally.

The bottom of the opening must be flat and level. If not, filling or grouting is essential.

Check whether the jambs are level at the clearance side.

By means of the adjustment option in the frame (see image 1) it is possible to adjust the frame.

Are both jambs level at the front?

If not, then the flange of the door might not entirely close with the opening at the front side.

Points of attention during transport of the door

During transport, the door may not be lifted by the outer finishing edge and it must remain closed. For large doors, auxiliaries like a transport trolley or a mini-robot are required. Doors with a flat surface require an assembly robot.

The door can be lifted on the welded lifting points (if door leaves come assembled in door frame), by use of the suction caps of the mini-robot, or with an individual suction cap on the crane.

Double leaf internal doors are delivered with the leaves detached from the frame. The leaves can be lifted by screwing lifting eyes in the upper side of the leaf.

Please note: the door is heavy. Careless transport could lead to hazardous situations.



Fitting description

Are you fitting a **block frame**?
Then browse further to page 9

Were the **frame parts separately**
delivered? Then go to page 11.



Corner Frame

- 1 Check the opening using a spirit level. Check the following parts:
 - Threshold
 - Reveal
 - Front of the frame
- 2 Place the lower part of the door in the opening and put the door upright.
- 3 Apply the M8-threaded rods in the blind rivet nuts in the frame.

Beware: the protruding threaded rods may cause injury.

- 4 Install the temporary fixing profile over the threaded rods. Tighten the nuts, so the door can no longer fall forward. Do not tighten the nuts too far yet, so adjustments can still be made.

Beware:

The frame parts may have sharp edges. Gloves must be worn during fitting.

Only when the door has been sufficiently secured, it is justified to detach the auxiliaries.

- 5 Make sure that the door frame is against the front and directly check the front by use of a spirit level.
- 6 Check that the girt is level and perform filling near one of the lower corners, if necessary.
- 7 If necessary, adjust the door frame level, from the front view. Recheck the two earlier points before proceeding to the preliminary fastening of the door.

- 8 Now the space between the opening and the door frame must be filled by means of adjustment screws in the frame (see image 1). The most convenient way is to first screw the screws a few turns into the opening of the adjustment frame (screws in reveal) and subsequently adjust the frame using the adjustment screws. Adjustment must be performed in such a way that the reveals of the steel frames are level on both

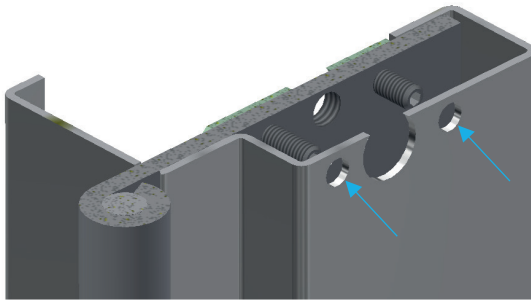


Image 1. Adjustment options corner frame

- 9 Preliminarily fasten the hinge side of the frame and the top corner of the non-hinge side.
- 10 Shut the door and check whether the slack between the door leaf and frame along the upper side is parallel.
- 11 Set the door ajar and check whether it is parallel from top to bottom.
- 12 When all screws have been tightened, the finishing caps can be applied.
- 13 Fill the space between the door (adjustment) frame and the opening with loose fill insulation if the seam exceeds 3 mm. This is required only when the door has sound-insulating, fire-resistant and/or thermally insulating properties. Do not exert force when pressing. A filling without compression will suffice.

- 14 Do you make use of a counter frame Slide the counter frame between the frame and the structural opening on the inside. Then clamp the counter frame by means of an adjustment screw (see image 2) between the frame and the structural opening.

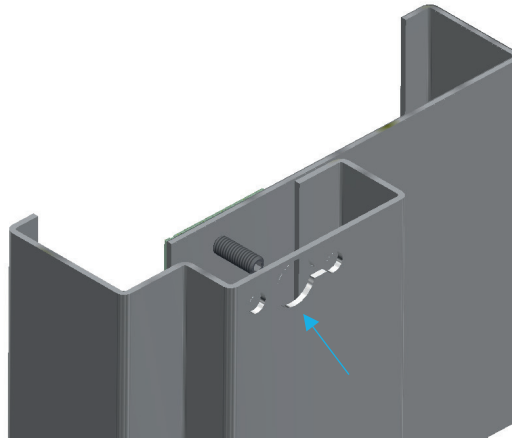


Image 2. Adjustment options counter frame

- 15 Optionally install the included finishing profiles and fix them by use of sealant.
- 16 Where applicable:
- Fine-tuning, locks, door closers, etc.
 - If no coating varnish is available, this must be applied within two weeks after delivery. Please note: the door rubbers must not be varnished.
 - The threshold must also be sealed, in case of a sound insulating and/or fire rated door.

Block frame

- 1 Check the level of the opening. Check the following parts (if possible):
 - Threshold
 - Reveal
 - Front of the frame
- 2 Place the frame into the opening from the bottom side and set the frame upright. Do this with two persons. The first person subsequently holds the frame, while the second person checks the spirit level. If necessary, first fill the threshold.
- 3 Fasten the frame at the top and bottom on the hinge side. Is this a double-winged door? Then fix the frame on just one vertical side and screw on the top side of the other vertical side of the frame.
- 4 Hang the door leaf in the frame by use of the hinge pins and rings.
- 5 Check whether the door can be closed properly, so it is parallel to the frame. If this is the case, the door can be opened and fixed in this position.
- 6 Finish-mount the rest of the frame.
- 7 Open the door. Now the space between the opening and the door frame must be filled by means of adjustment screws in the frame (see image 3)(The most convenient way is to first screw the screws a few turns into the opening of the adjustment frame (screws in reveal) and subsequently adjust the frame using the adjustment screws. Adjustment must be performed in such a way that the reveals of the steel frame are level on both sides.

Please note: the door frame must be firmly anchored, but should not be under tension.



Please note! Do not use impact wrench.

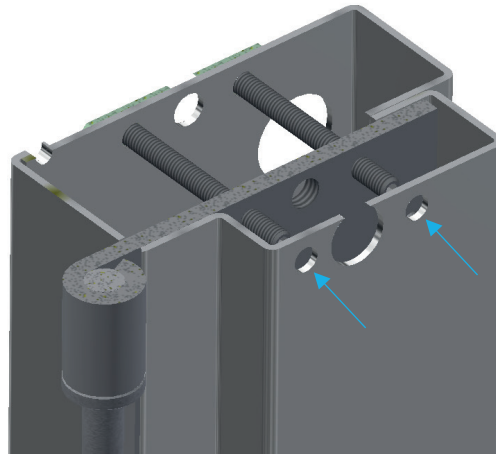
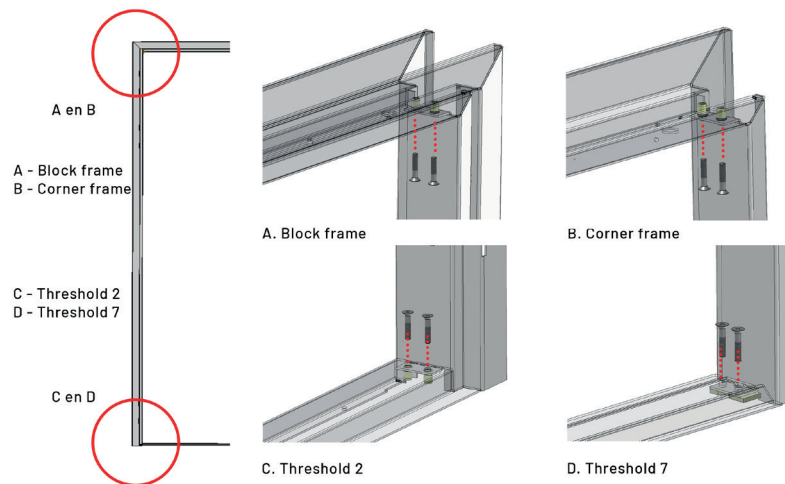


Image 3. Adjustment options block frame

- 8 Preliminarily attach the hinge side of the frame and the top corner of the non-hinge side.
- 9 Shut the door and check whether the slack between the door leaf and frame along the upper side is parallel.
- 10 Set the door ajar and check whether it is parallel from top to bottom.
- 11 When all screws have been tightened, the finishing caps can be applied.
- 12 Fill the space between the door (adjusting) frame and the opening with loose fill insulation. This is required only when the door has sound-insulating, insulating, fire-resistant and/or thermally insulating properties. Do not exert force when pressing. A filling without compression will suffice.
- 13 Optionally position the included finishing profiles and attach them by use of sealant.
- 14 Where applicable:
 - Fine-tuning, locks, door closers, etc.
 - If no coating varnish is present, this must be applied within two weeks after delivery. Please note: the door rubbers must not be varnished.
 - The threshold must also be sealed, in case of a sound insulating and/or fire-resistant door.

Coupling of individual frame parts

- 1 Check whether all parts are present. Check the threshold, side jambs and head jamb and the fixing materials (screws M6 and finishing caps).
- 2 Place the parts on a flat and clean floor, in the correct position. Protect the frame when doing this (see image 4).



- 3 Slide the individual side jambs of the frame into the head jamb. Make sure that the parts fit seamlessly.
- 4 Screw the M6 into the designated holes (see details on image 4).
- 5 Slide the threshold into the side jambs of the frame. Make sure that the parts fit seamlessly.
 - Threshold type 7: see bullet 6
 - Threshold type 2: see bullet 7
- 6 Threshold type 7: screw the M6 into the designated holes as shown in image 4.
- 7 Threshold type 2: screw the M6 into the designated holes as shown in image 4.
- 8 The frame is now ready for assembly.



Beware the frame must first be assembled before it can be placed in the opening.



Beware: when picking up the frame, pay attention that you not just pick up the frame in one corner, in order to retain the squareness.

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