

User Manual

Metaflex Medicare EI1 2.0

202571

General information

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Disclaimer

The contents of these operating instructions have been checked for compliance with the products described. However, deviations cannot be ruled out. Full compliance is not guaranteed.

Reprinting of these instructions, even in part, is only permitted with the written consent of Metaflex Doors Europe.

All product designations mentioned in these instructions are brands/trademarks of the respective companies.

We reserve the right to make technical changes.

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1. Introduction

Welcome to the user manual for the Medicare E11 Door System, designed and manufactured by Metaflex Doors Europe BV. The information in this manual is important for the good and safe functioning of the door system. Read this user manual thoroughly from cover to cover. Metaflex Doors Europe (MDE) urges that all new users (operators, installers, maintenance staff and where applicable cleaning staff) should receive training, for which this user manual may serve as a basis.

MDE advises that the original copy, including its attachments, should be stored in a safe, central place. Another copy of this manual should be stored close to the apparatus in the workspace.

The assembly instructions are intended for technical personnel.

The maintenance instructions assume that the maintenance staff have been authorized by Metaflex Doors Europe.

1.1 About the Medicare E11

The Medicare E11 is a state-of-the-art solution designed to provide convenience, accessibility, and security in various settings such as hospitals, healthcare facilities, pharmaceutical environments, and more. This door system is automated in every installation; it is equipped with advanced technology that automatically controls the opening and closing of the doors, enhancing ease of access and improving the flow of foot traffic. It is specifically designed to maintain a hermetic seal and is fire-rated with an E11 classification, intended to prevent the spread of fire and smoke in case of a fire emergency.

1.2 Purpose of this Manual

This manual is intended to serve as a guide for users, installers, and maintenance personnel involved with the Medicare E11 door system. It contains important information regarding installation procedures, operational guidelines, safety precautions, and maintenance procedures to ensure optimal performance and longevity of the system. For information on how to set up the automation and how to use it safely the installation and operation instructions of the installed automation must be followed.

1.3 How to Use this Manual

Read this user manual thoroughly before installing, operating, or maintaining the automatic fire-resistant sliding door.

This door is designed to comply with applicable European standards for fire-resistant doors. Use this door only for its intended purpose and follow all local building codes.

This product contains moving parts that can cause injury. Exercise caution when installing, operating, or maintaining the door. For any procedures or adjustments related to the controller, please refer to the manual provided with the controller.

In case of an emergency such as fire, immediately evacuate the building according to the applicable evacuation plan. This door may be fire-resistant but is not intended as the sole means of egress.

Perform regular maintenance on the Medicare E11 according to the instructions in this user manual.



This warning sign indicates points which require special attention during installation.

2 Safety Instructions

2.1 Warnings and recommendations during operation

- **Keep Clear of the Door:** Instruct users to keep a safe distance from the door when it's in operation. Warn against standing too close to prevent injury from moving parts.
- **Do Not Block Sensors:** Ensure that the sensors detecting obstructions are not obstructed themselves. Objects or debris blocking these sensors can prevent the door from functioning properly in an emergency.
- **Proper Maintenance:** Stress the importance of regular maintenance by trained professionals. The door system should be inspected and serviced according to manufacturer recommendations to ensure it operates reliably during emergencies.
- **Fire Safety Training:** Provide fire safety training to relevant personnel, including how to operate the automated sliding fire door during drills or real emergencies. Make sure they understand when and how to use the door safely.
- **No Wedging Open:** Prohibit wedging the door open or tampering with its operation. The door should remain closed to prevent the spread of fire and smoke unless specifically directed otherwise during an emergency.
- **Reporting Malfunctions:** Encourage users to report any malfunctions or irregularities in the operation of the automated sliding fire door immediately to maintenance personnel or building management.
- **Follow Local Regulations:** Remind users to follow local fire safety regulations and guidelines regarding the operation and maintenance of automated fire doors. Compliance with these regulations is essential for ensuring the safety of building occupants.
- **No Forcing the Door:** Emphasize that users should not force the door open or closed if it's not operating smoothly. Forcing the door can damage the mechanism and pose a safety risk.
- **Watch for Closing Door:** Remind users to watch for the closing door when entering or exiting. Sudden movements or distractions could lead to collisions with the door.

2.2 Instructions for handling and installation

- Always wear dry work clothes and safety shoes.
- Work may only be carried out if the local legal regulations are observed.
- Always switch the circuit breaker/power supply off and place warning signs when carrying out work so that the door cannot be operated.
- Before starting, check that the on/off switch is switched to the 'OFF' position. Only insert the plug once assembly has been completed.
- Ensure that fingers do not become trapped, especially:
 - During installation/adjustment of the guide rollers.
 - When installing/adjusting the toothed belt of the motor/return pulley.
 - Between the end stop and the door.
 - Between the rollers and the rail.
 - Between the frame and flush handle on the inner side of the door leaf.
- Use only original components and accessories.
- Do not alter the way in which the door is constructed or controlled. If done so, the manufacturer warranty will be void. All claims on the warranty due to the failure at the consumer unit will be rejected.
- Make sure that the installation of the Medicare EI1 door carried out by qualified personnel familiar with applicable building codes and standards.
- Ensure that the door is installed correctly and securely attached to the surrounding structure.
- Ensure that the electrical wiring is securely installed and does not pose a risk of short-circuiting or damage.



- Please consult the included controller manual for instructions on how to safely bring the door into operational mode. Test the door after installation to verify that it operates correctly and can be safely controlled.

Incorrect setting of the opening direction has a consequence on the safety systems. The changing of parameters concerning DIN direction and automation type can lead to improper functioning of the automation and/or the door and may cause damage.

Safety in special situations

Take extra safety precautions in all settings, for example in surroundings where people are unaware of the risks of becoming trapped. In order to prevent this, the following facilities are available:

- Radar and/or a light curtain detecting the opening.
- Light curtain sensor detecting the door when operating.
- Screening off of the area in which the door operates.

2.3 Transport and storage

Transport

Metaflex Doors takes care when packing the products. The door (system) and/or automation are shipped in crates or on pallets. During transport, no other goods may be stacked on the Metaflex packaging. Be careful not to shake the packaging. This door system is not intended for air or sea transport. If air or sea transport is required, it must be explicitly indicated or arranged by the customer.

Door

Only transport and handle the door leaf resting on the panel sides, the bottom or on the labyrinth on the open side. In all cases, ensure that the weight of the door leaf is well distributed over its supporting surface.

When lifting or moving the door leaf with suction cups, ensure that there is sufficient surface to lift the door leaf and ensure that multiple suction cups are used distributed over the door leaf to handle the door leaf. Keep the suction cups away from the edges of the door leaf, the edge of the window opening or away from a butt joint of HPL panels.

Storage
















The door (systems) and/or automation should be stored in their original packaging in a dry and frost-free environment until installation.

3 Installation Instructions

3.1 Fastening materials

- 202569 Assembly kit frame EI1 2.0
- 200234 Assembly kit MF5 rail
- VMF10063 Guiding roller set medical grounding
- 200235 Assembly kit MF5 hook lock

3.2 Tools required

				
				
 Ø 5.3 Ø 7.8	 TX-40	 3/8", 13mm	 PH2	 S13 / S17

3.3 Necessary PPE

Ensure to proceed with installation wearing specialized safety clothing/equipment.



Safety goggles



Helmet



Hearing protection



Safety shoes



Gloves

3.4 Installation steps



Follow the described sequence and, if in doubt, contact Metaflex Doors Europe to clarify. **DO NOT IMPROVISE** as the doors have to be assembled according to certified guidelines.

3.4.1 Dimension check

Check the dimensions and proceed.



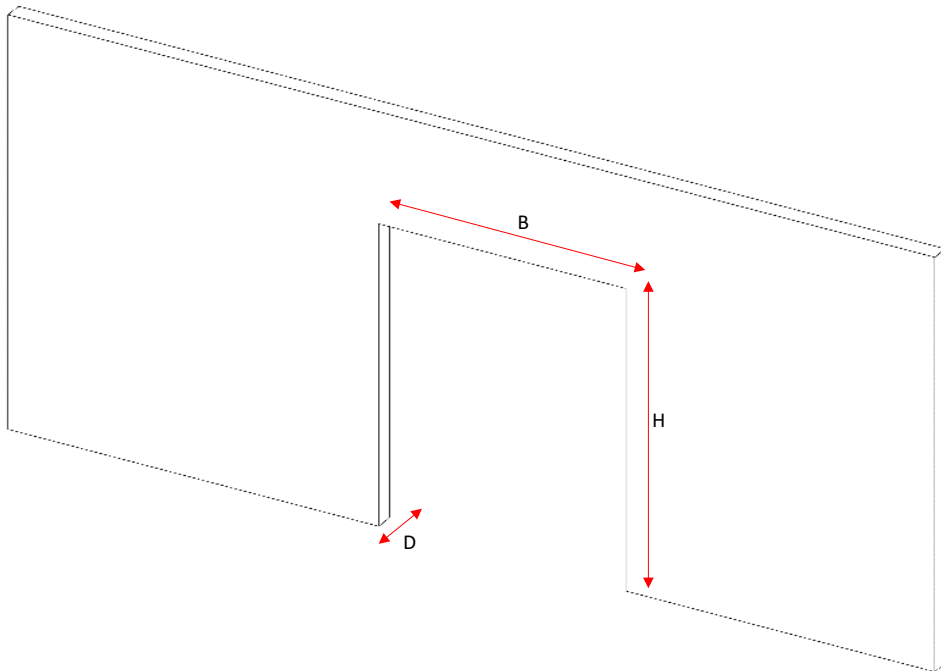
Check the width (B), the height (H) and the wall thickness (D) of the door opening with floor plan. Clear opening data available on customer drawing.

B = Clear opening width

H = Clear opening height

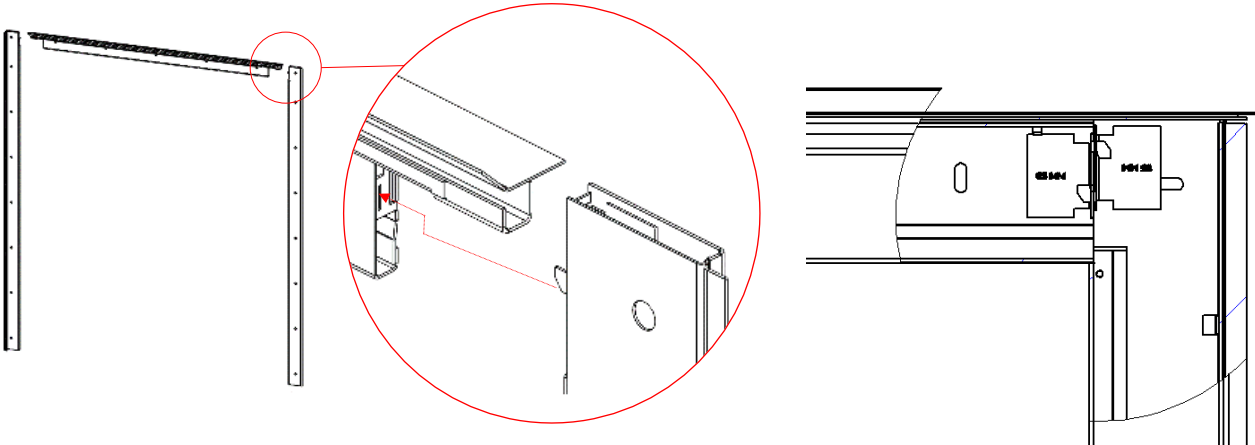
D = Wall thickness

Check if the finished floor and walls are level and straight. Maximum tolerances ± 2 mm.

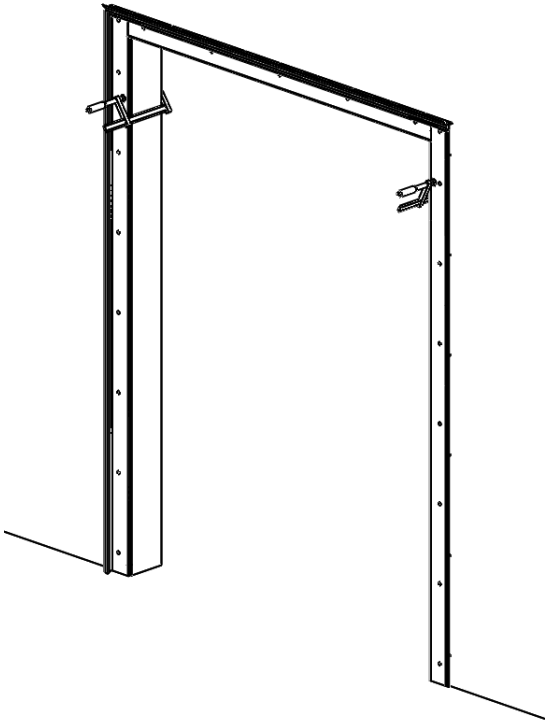


3.4.2 Frame assembly

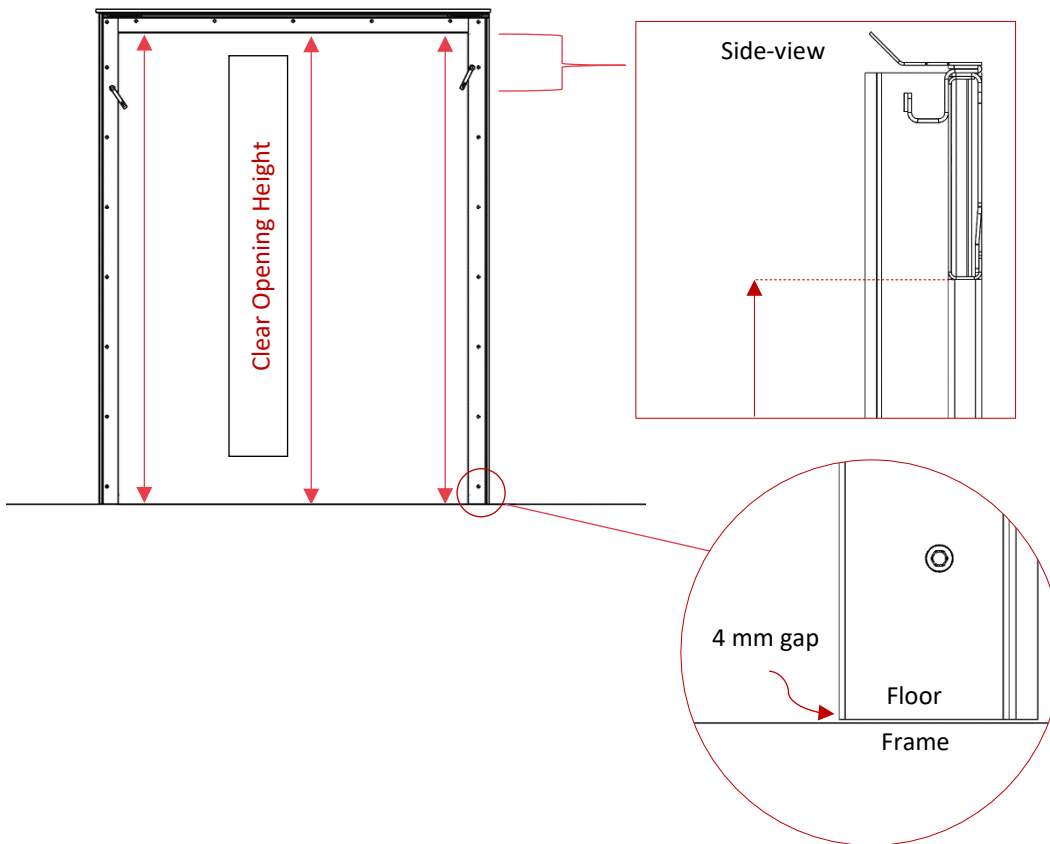
Step 1: Align the 3 frame components (left, right and top) and connect to each other using the click-in construction as shown below.



Step 2: Once the frame components are connected, align the frame around the wall opening and temporary fixate the frame with the help of bar clamps. Make sure that the bar clamps have soft clamping surfaces that prevent damaging the door frame and/or the finished wall. Use a spirit level to check all frame components are installed correctly.



Step 3: Measure the distance from the finished floor level to the inside frame height at the 3 points (see image below). This distance must be “Clear Opening Height”. Make sure all three positions are within tolerance by adjusting the frame along the wall. In the ideal situation, the wall frame should be 4 mm free from the finished floor level.

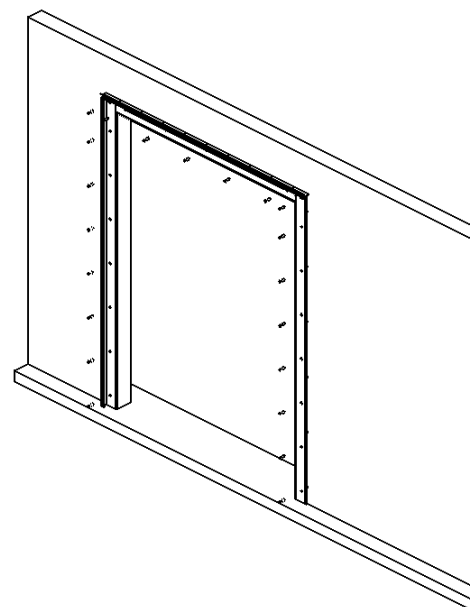


Step 4: Pre-drill the holes before installing the screws with drill \varnothing 5.3 mm.

Fix the frame to the wall using screws (6,5 x 50 mm self-tapping screw). Make sure the base of the frame is free from the finished floor level.

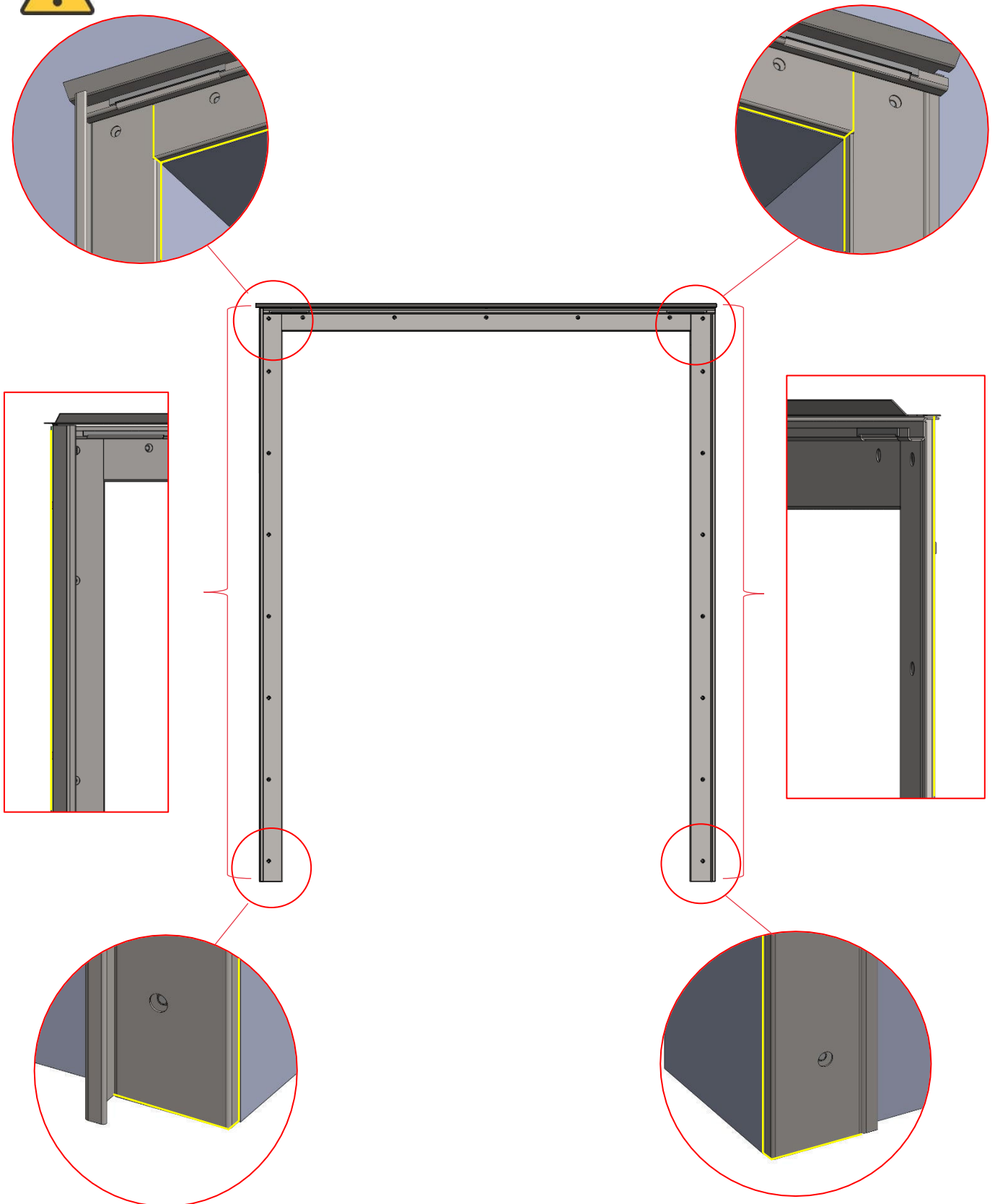
Tool: 3/8" Hexagon socket

► **In case of medical grounding:** Slide the plastic covers over the mounting screws. After securing the frame, measure whether the frame is grounded.



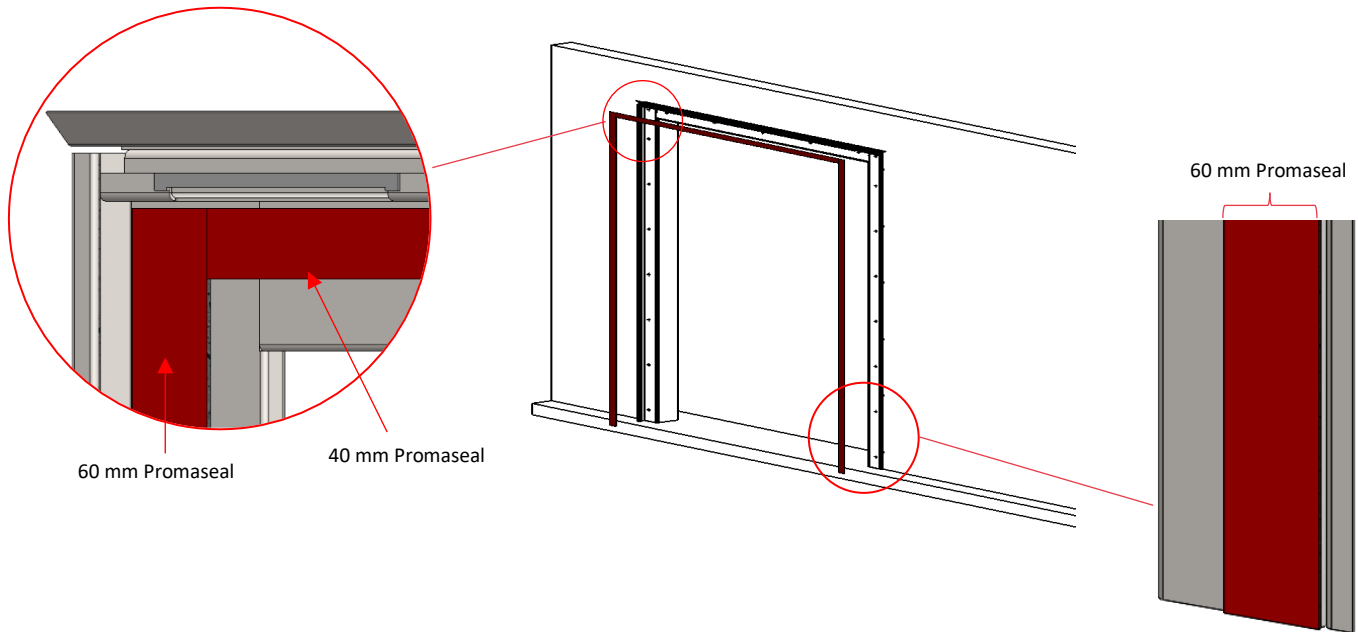


Step 5: Using the silicone sealant from assembly kit 202569, surrounding (path along yellow highlight) the frame, seal both inside and outside to make it **airtight and smoke resistance**.



Step 6: Attach the Promaseal on the frame. Cut the Promaseal strips to the according sizes. The strips have a maximum length of 2150 mm. Therefore, divide one 60 mm strip in length over the two lateral frame parts. Start fixating the lateral strips from the top, so that the seam between the strips is not at visual height.

- The vertical strips (60 mm wide) should be taped approximately 40 mm from the inside of the frame edge.
- Horizontal strip (40 mm wide) should be level with the top labyrinth as shown in the following figure.

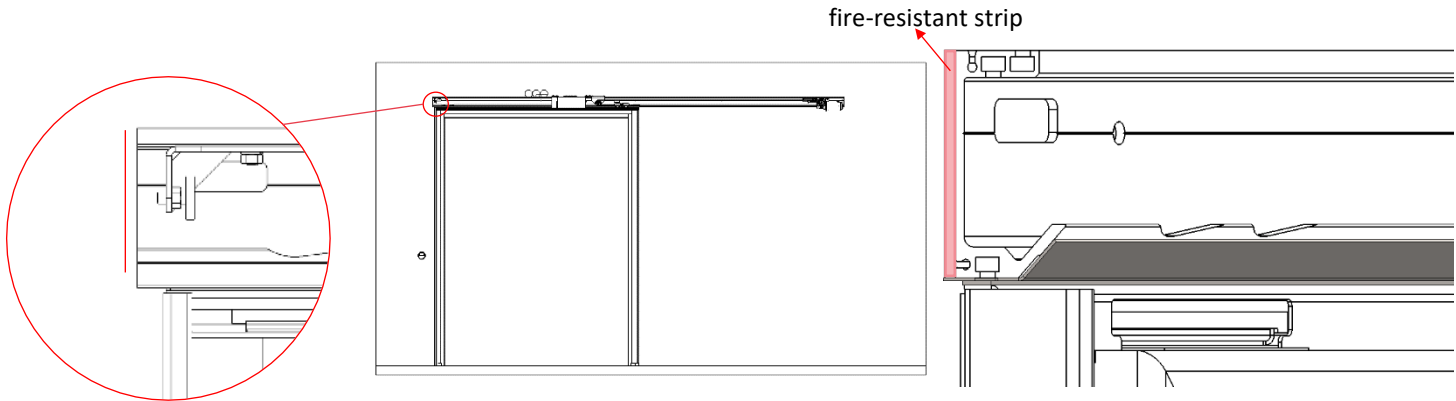


3.4.3 Rail system installation

ATTENTION: PLEASE USE CAUTION WHEN INSTALLING. FALL HAZARD!

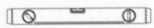


Step 1: Ensure that the fire-resistant strip is mounted behind the rail, should be already attached to create an offset of 6 mm between wall and rail. Rest the rail on top of the wall frame (rail support profile), and align it with the rail support profile on the opener side.



Step 2: Use the holes in the rail as a reference for drill point coordinates.

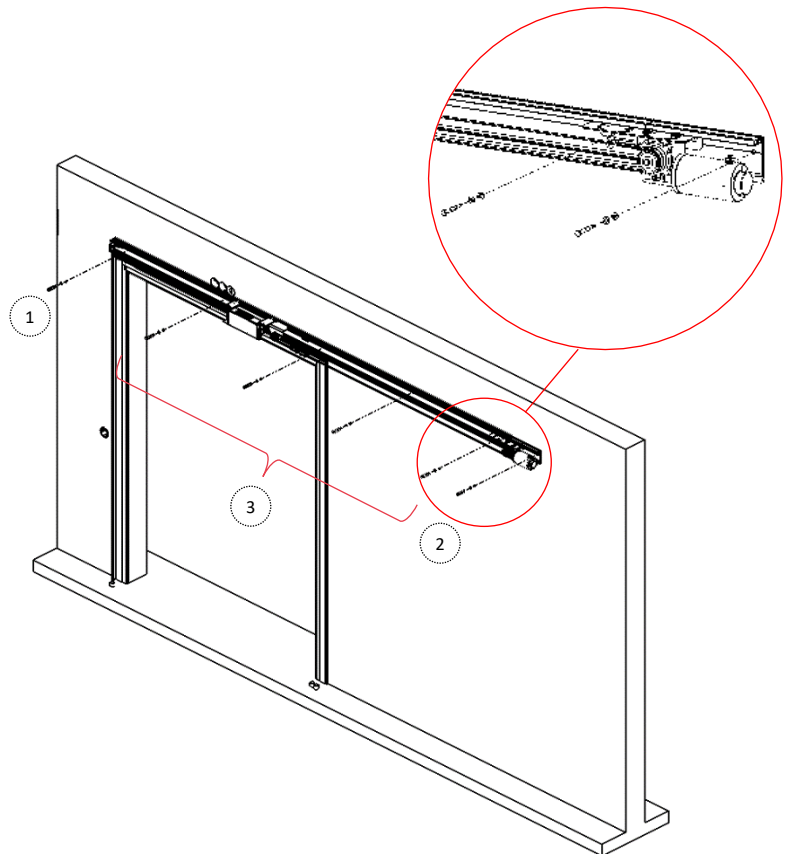
Before marking any hole points, use a spirit level to check if the rail is horizontally levelled.



1. Secure the rail to the first hole at opening side using bolts from assembly kit 200234. Use plastic bushes over the mounting screws if the door system must be set up grounded medical.
2. Keep the rail level and secure the end of the rail.
3. Mount the remaining bolts to secure the rail.

Tool: 13mm Hexagon socket wrench

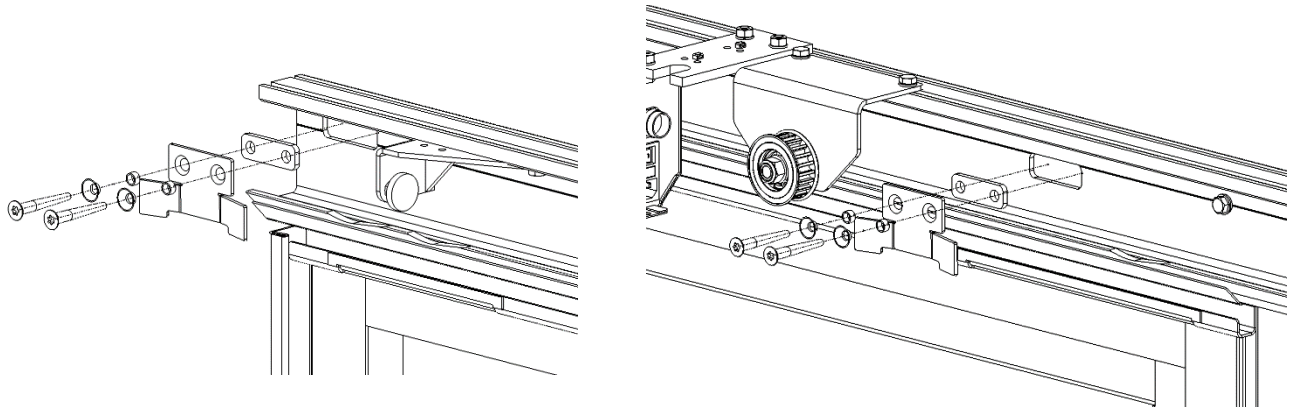
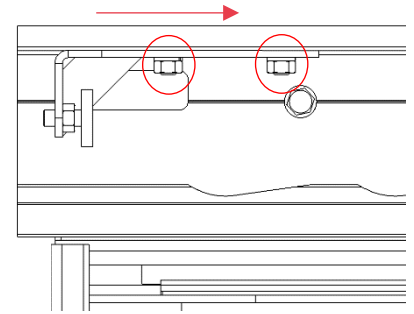
► **In case of medical grounding:** Use plastic covers over the mounting screws if the door system must be set up grounded medical.



Step 3: Untighten the two bolts of the end stop at the opening side and slide the end stop near the clear opening. Correctly install both fire hooks to the wall through the rail using the self-tapping screws. All the required fastening material are in assembly kit number 200235.

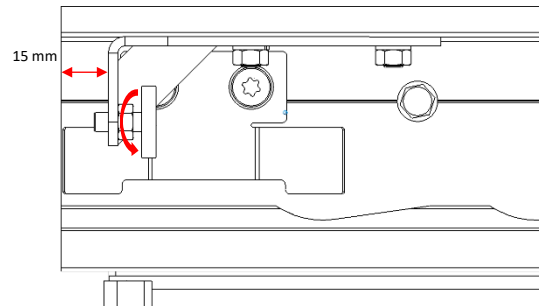
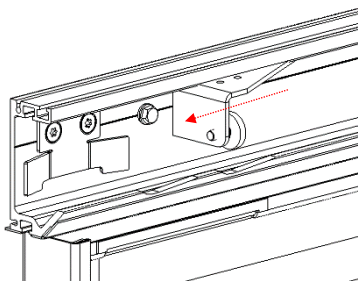
Tool: 13 mm wrench, TX-40

► **In case of medical grounding:** Use plastic covers over the mounting screws if the door system must be set up grounded medical.

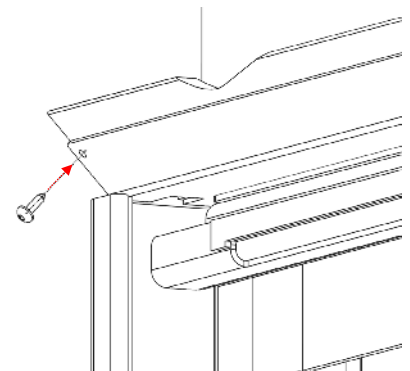


Step 4: Slide the end stop back in the previous position and tighten the bolts. Maintain a distance of 15 mm from the rail end and lock it in position using hex nuts. The stopper can also be manually adjusted by rotating the stopper knob.

Tool: 13mm wrench



► **In case of medical grounding:** Drill a $\varnothing 2,5$ mm hole in the aluminium rail at the position of the $\varnothing 3$ mm hole that can be found on the rail support profile at the opening side of the door system. Use the 2,9 x 9,5 mm self-tapping screw from assembly set 202569 and mount the screw in the pre-drilled hole.

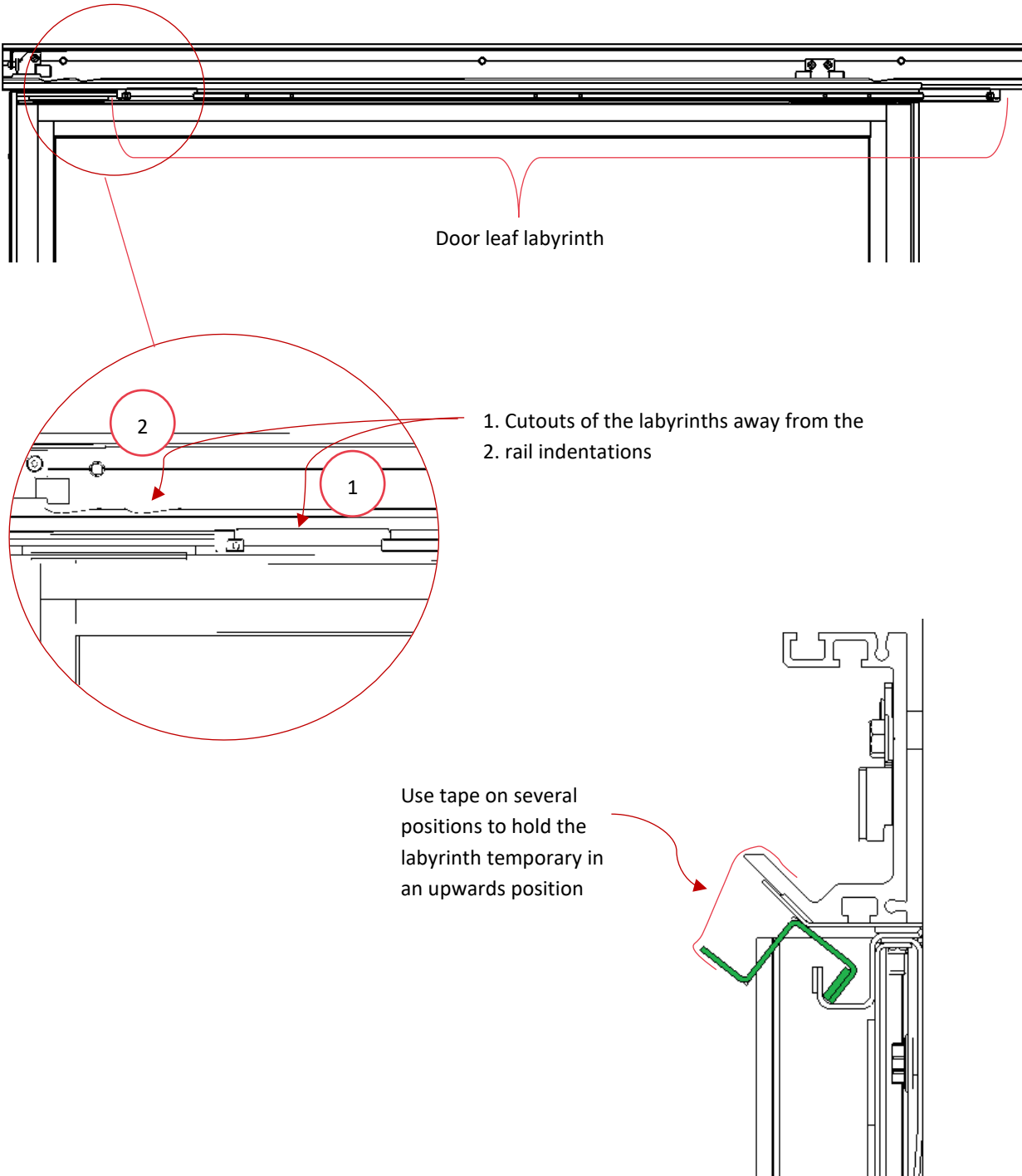


3.4.4 Door Leaf Assembly

ATTENTION: PLEASE HANDLE WITH CARE



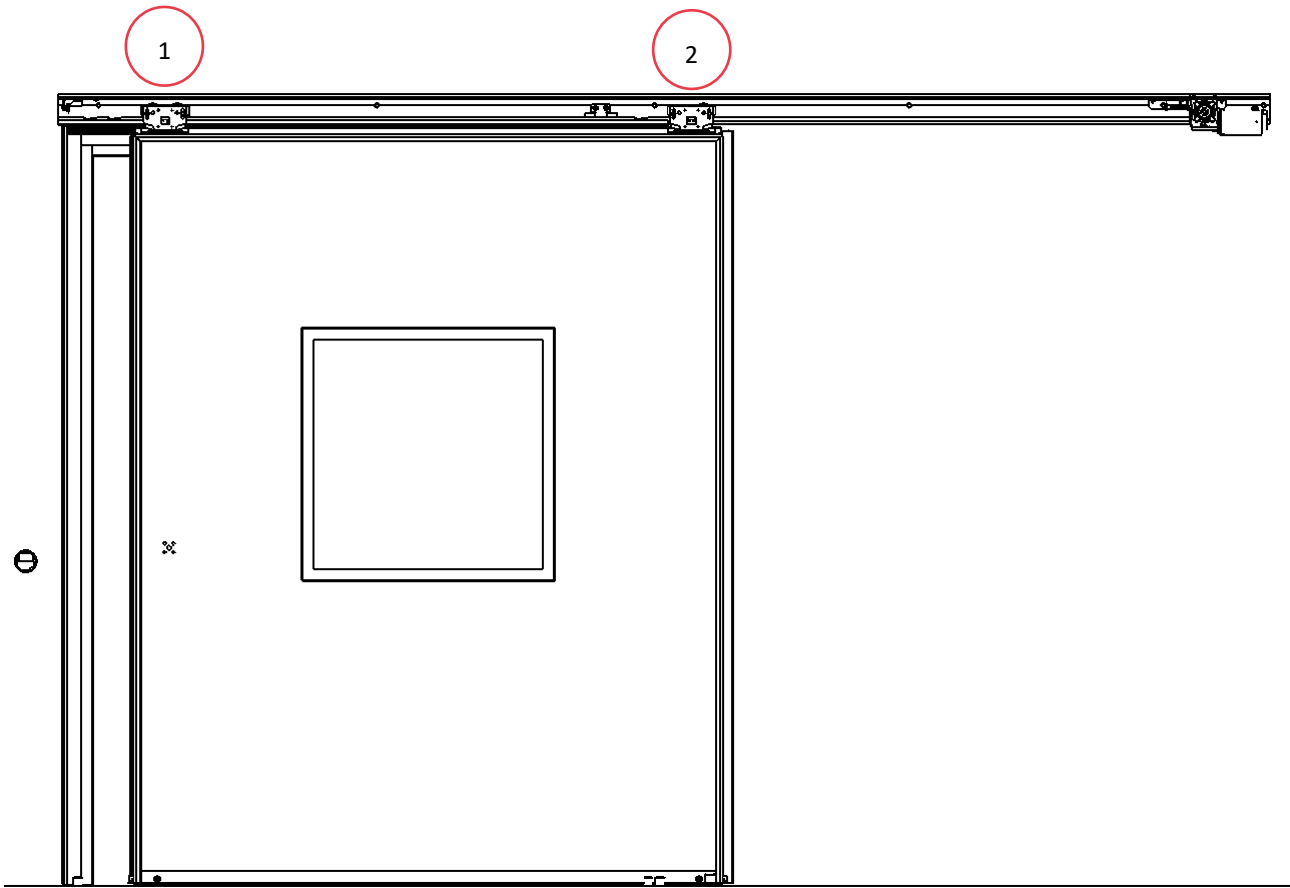
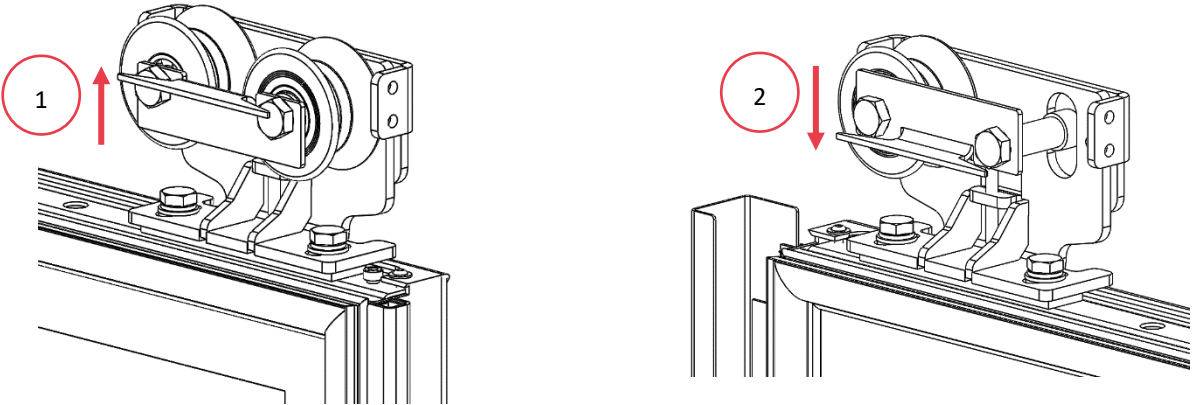
Step 1: Prior installing the door leaf, first place the “door leaf top labyrinth” inside the wall frame labyrinth. Keep the labyrinth in an upwards placed position with the help of tape. Position the cutouts of the labyrinths away from the rail indentations.



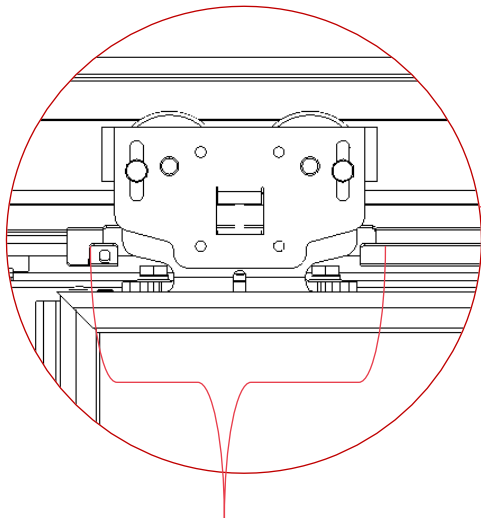
Step 2: Mount the track trolleys on top of the door leaf with M10 x 25 stainless steel bolts already mounted in the door. Ensure that the hooks [1] on the track trolleys are placed on the correct side. At the opening side, the hook should be placed upwards. On the closing side the hook should be placed downwards.

Lock it just, but not all the way, for later adjustment

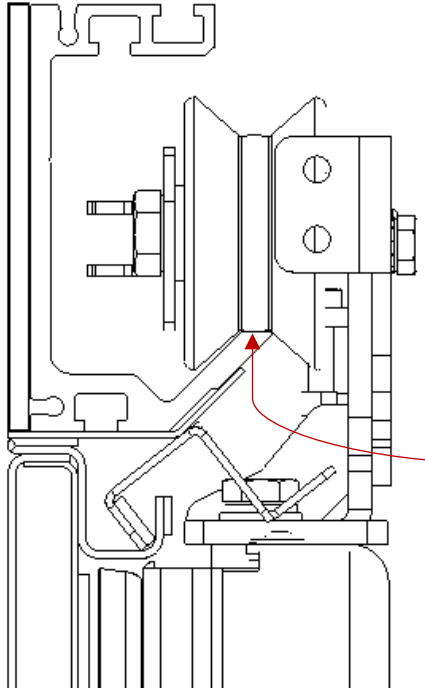
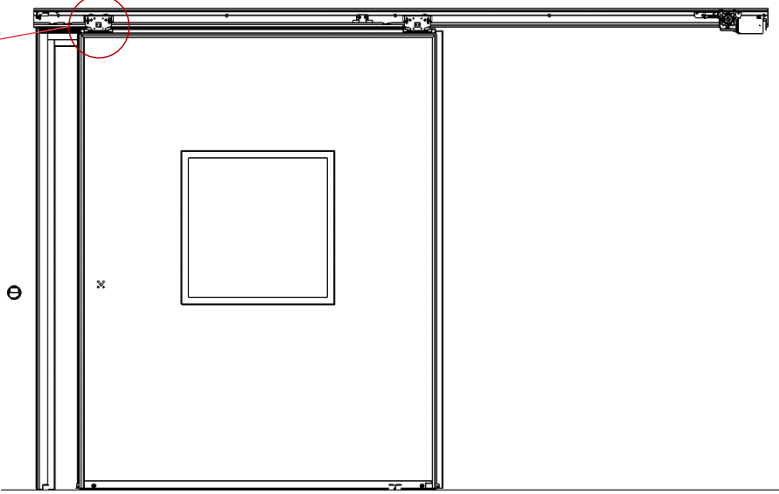
Tool: 17 mm wrench



Step 3: Stand the door upright in front of the frame. Make sure that the track trolleys are aligned with the cutouts in the labyrinth. Lift the door into the rail making sure the wheels positioned onto the rail.



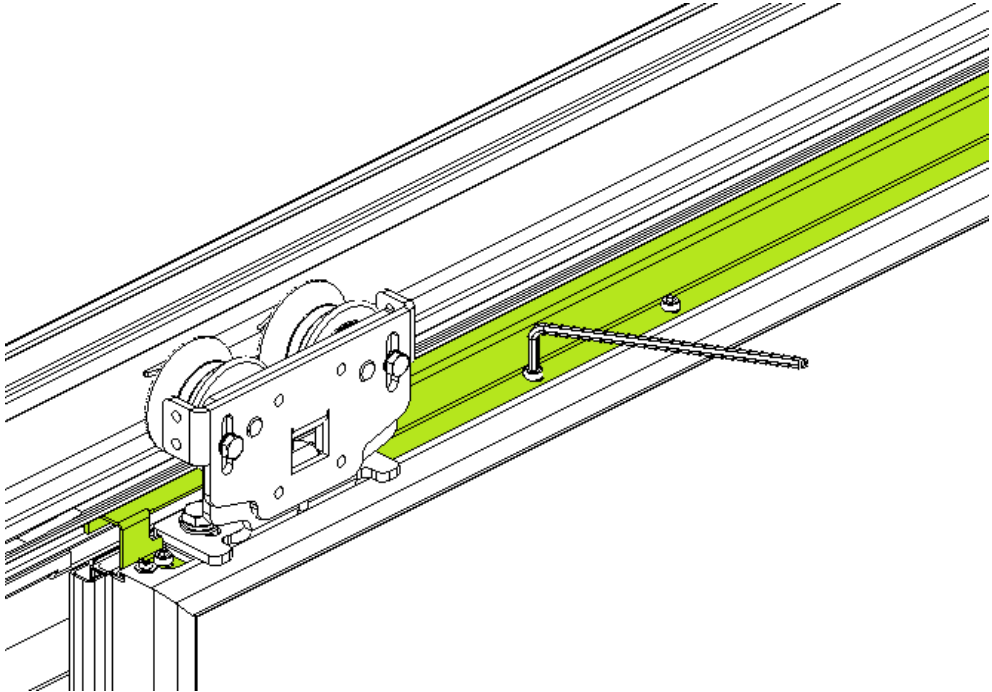
Alignment of the labyrinth cutout and track trolley



Wheel position after lifting the wheels onto the rail.

Step 4: Remove the tape that's keeping the labyrinth in its upward position and install the labyrinth on the door leaf with the help of stainless steel M6 x 16 Hexagon socket head screws.

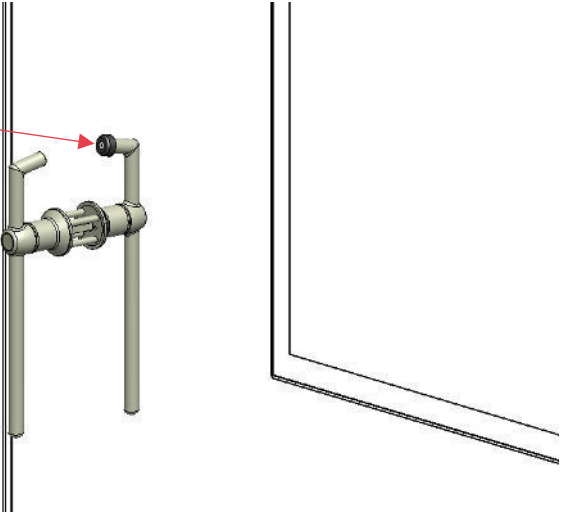
Tool: 5 mm Allen key



3.4.5 Opener (optional)

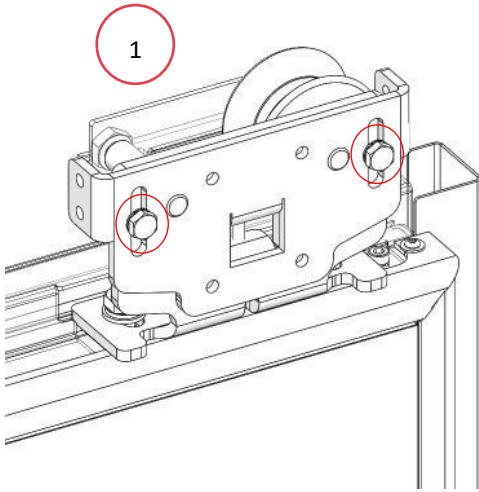
Step 1: Install the openers on the door body using the instruction manual included.

The black cap used in the opener is placed on the inside wall opening to damper if any contact with door frame.

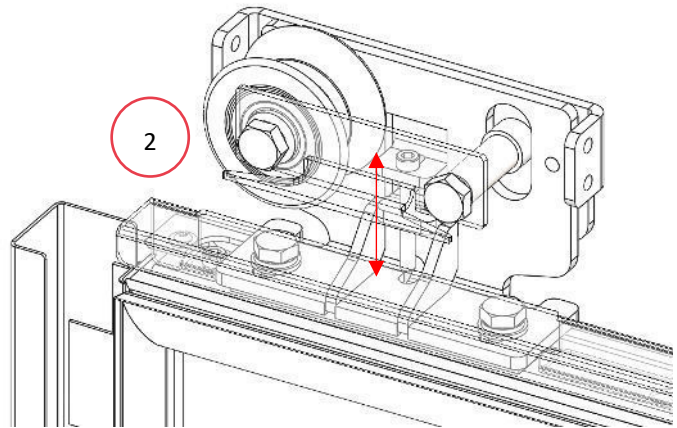


3.4.6 Adjusting door leaf and drive belt

Adjust both the track trolleys so that no fouling occurs during operation and the door is fully sealed when in closed position.

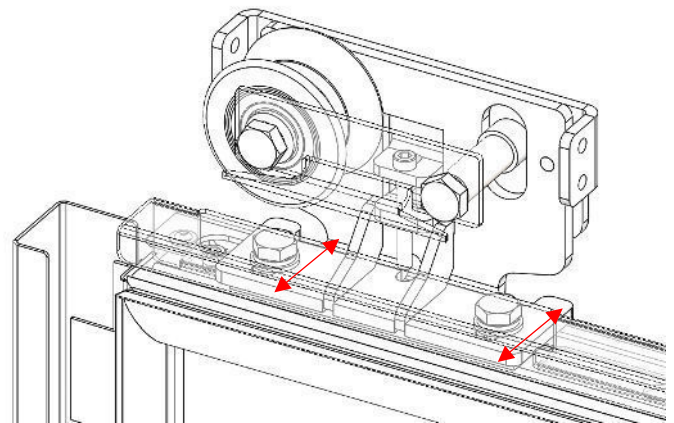


Adjusting height: Make sure that the door is in the open position and the trolleys are out of rail indents. The bottom floor seal should be at a distance of ± 4 mm from the finished floor. Before adjusting the height with the M6 bolt, untighten the M8 bolts located on the opposite side [1]. Tighten the M8 bolts after adjusting the height.
Tool: 5 mm Allen key, 13 mm wrench



Note: The right wheel is missing, this is only a representation for clear understanding of the sequence.

It is also possible that a trolley is supplied with two wheels, use the same procedure mentioned above for adjustment.



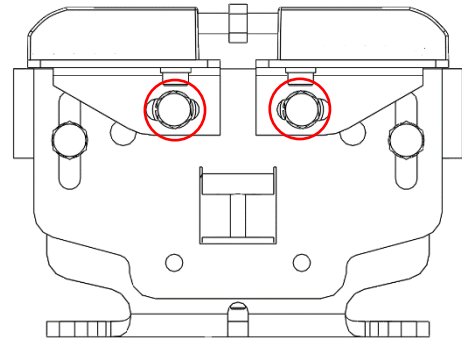
Adjusting depth: Make sure that the door is in the open position. The distance between the wall surrounding seal and the Promaseal strip on the frame should be 3 to 4 mm.

Tool: 17mm wrench (Torque: 40 Nm)

NOTE: When in *Closed position* make sure the sealing is pressed against the Promaseal strip and the floor to create air tight passage

3.4.6.1 Carriage

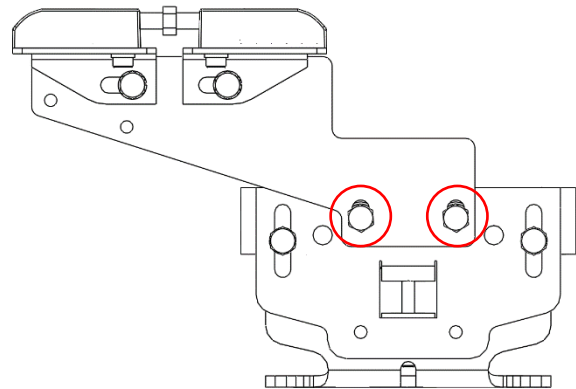
Mount the carriage to the track trolley (M8x10).
Tool: 13 mm wrench (Torque: 25,5 Nm)



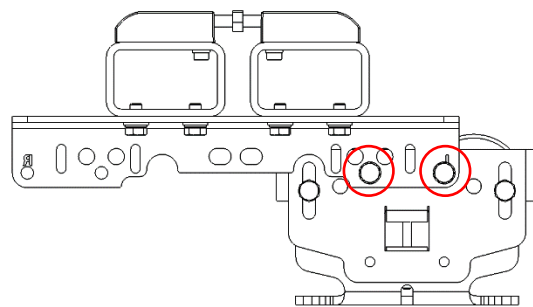
Alternatively if the motor is positioned above the rail – Mount the Drive Support bracket including the Carriage to the Track Trolley.

Tool: 13 mm wrench (Torque: 20 Nm)

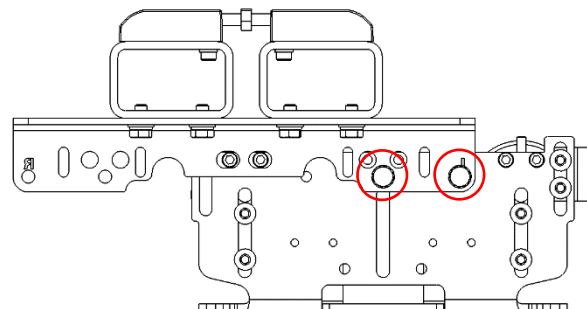
In case of SDA-04 in combination with motor on top (Example is left opening door)



In case of SDA-05 in combination with motor on top (Example is left opening door)



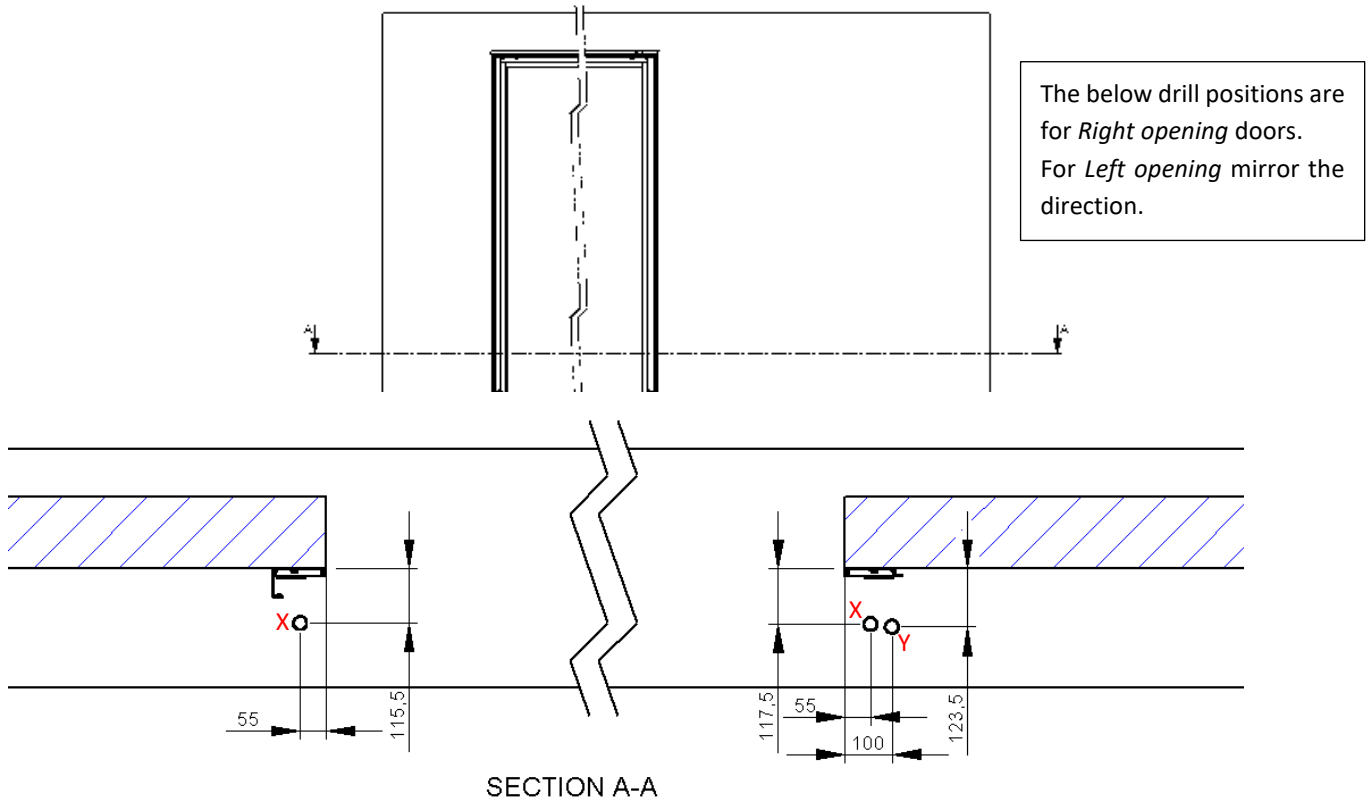
In case of SDA-05 in combination with motor on top and wide track trolley (Example is left opening door)



3.4.7 Guiding rollers assembly

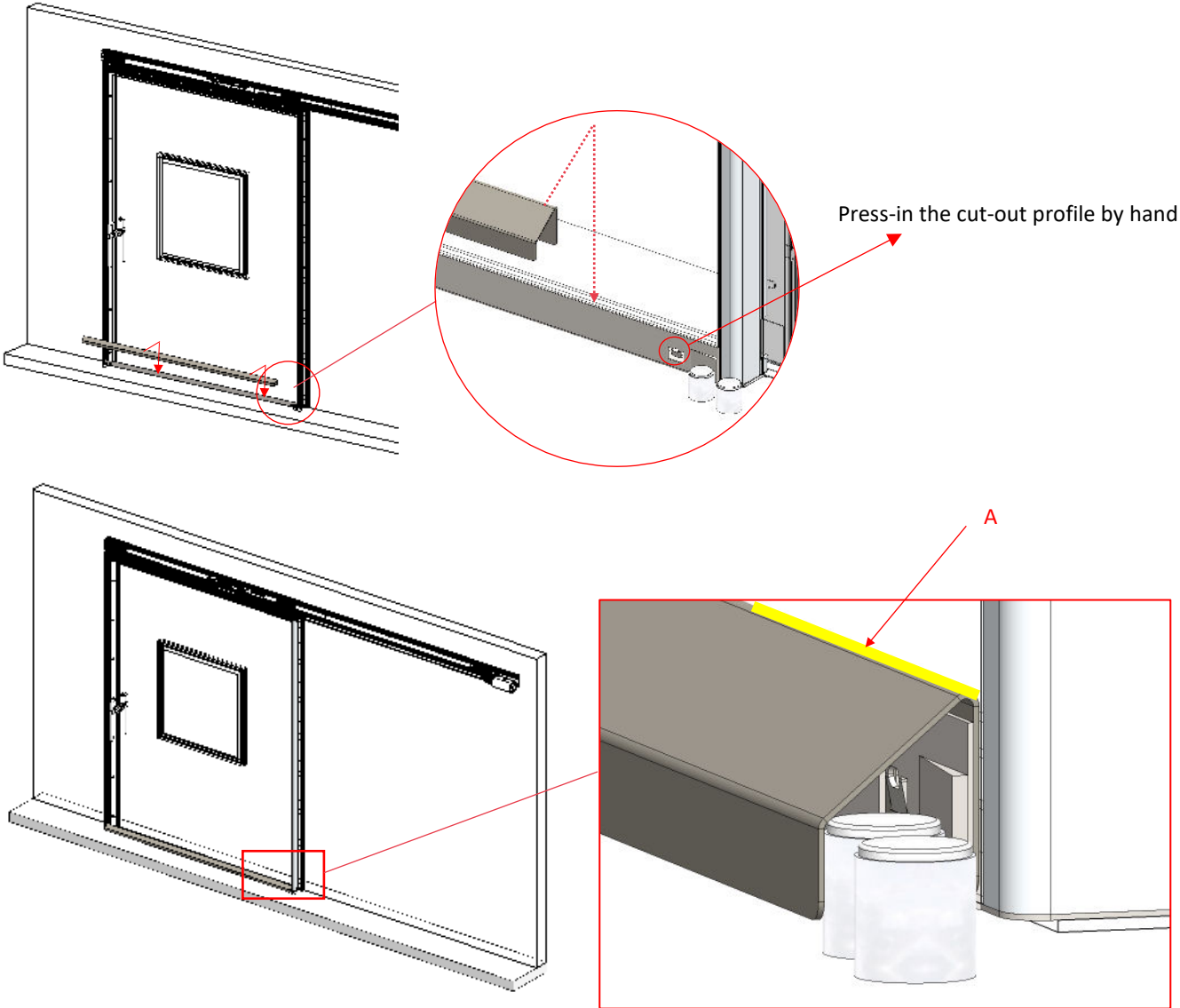
Step 1: Open the door and mark the drill points on the floor. Then drill 3 holes of \varnothing 10 mm each on the marked points.

► The positioning of the guiding rollers as shown below is indicational. Place the guiding rollers on sight to get a proper sealing.



- | | | | |
|-----------------|---|---|---------------------------|
| Guiding rollers | – | X | With metal stud inside |
| Guiding rollers | – | Y | Without metal stud inside |

Step 4: Place the guiding roll cover into the gaps and snap it inside the cut-out.



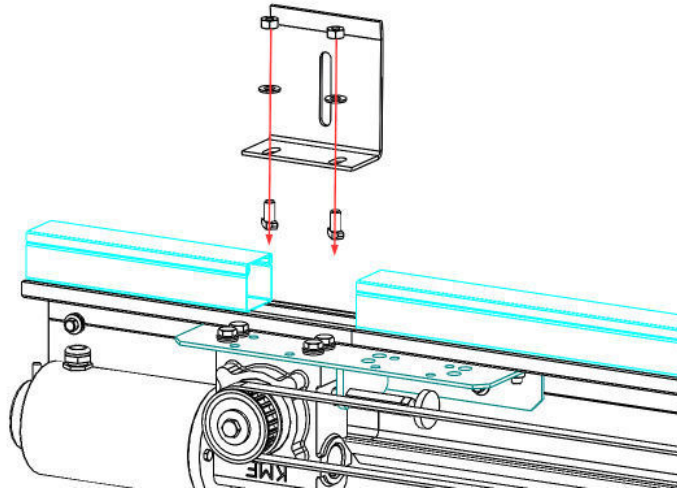
A = Sealant along the length of lower guide (Silicone from assembly kit 202569).

3.4.8 Canopy

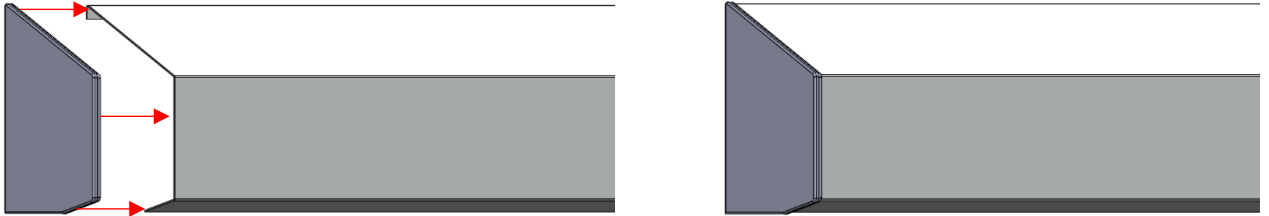
ATTENTION: PLEASE HANDLE SAFELY WHEN HANGING THE PROTECTIVE COVER DUE TO FALL HAZARD!



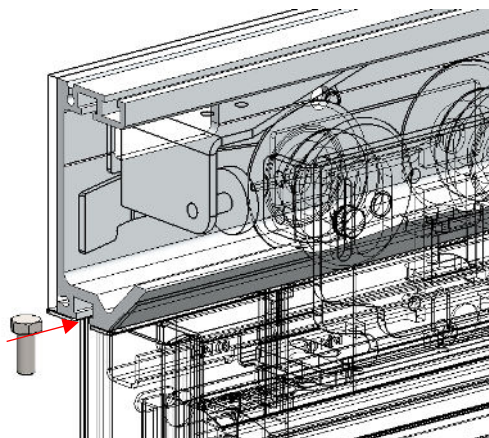
Step 1: Mount cap brackets on top of the rail. The number of delivered cap brackets depends on the length of the rail.



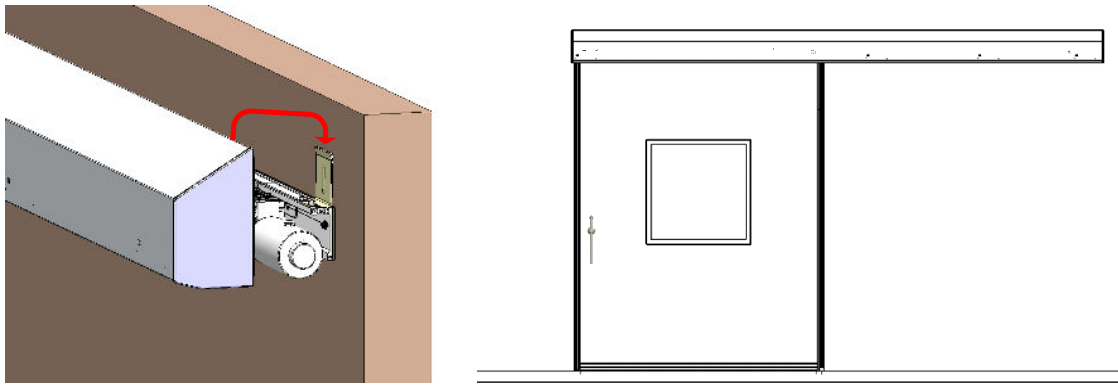
Step 2: Snap-in the plastic/steel caps over the ends of the canopy and keep it aside.



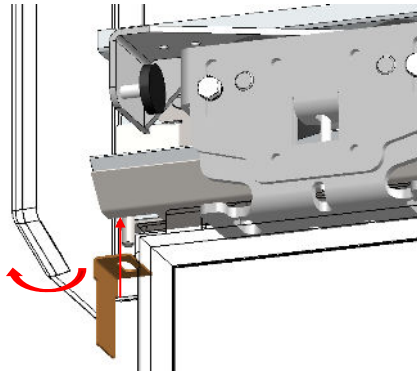
Step 3: Slide in the M8 hex bolt on the opening side of the rail assembly up to the very end possible.



Step 4: Hang the Canopy onto the rail. The edge flange of the Canopy must hang-in the edge flange of the cap brackets.

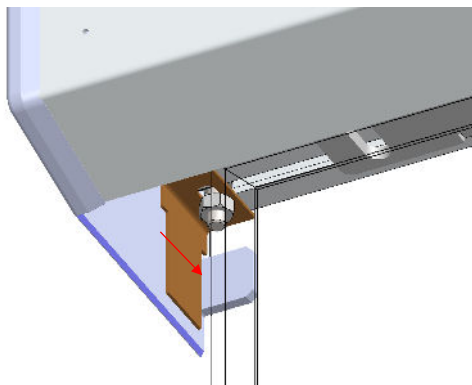


Step 5: Slide in the canopy cap locks to the M8 hex bolt inserted in step 3. Push the caps a bit outwards to make some slack/clearance.

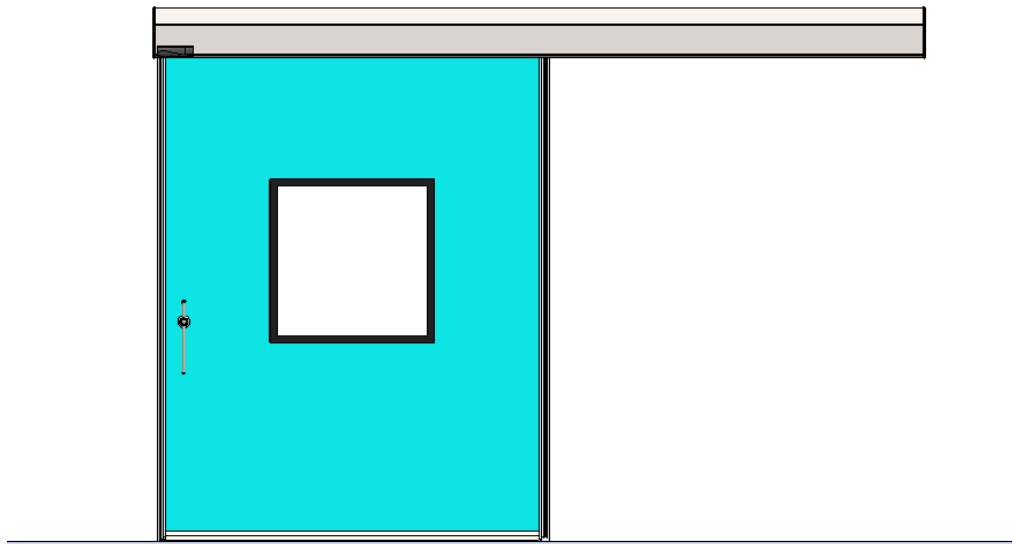
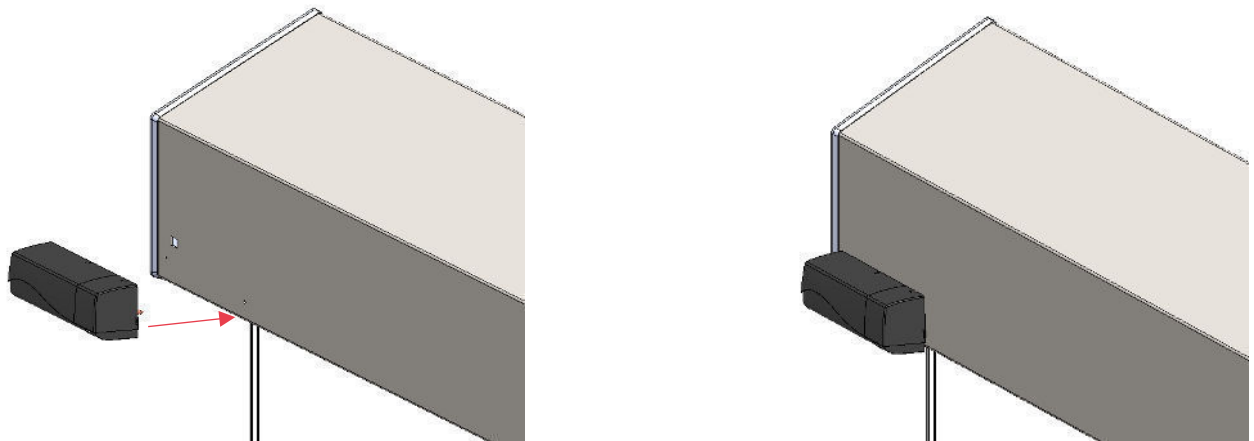


Step 6: Adjust the canopy cap lock by pushing it towards the wall, using the slot and restricting movement of canopy. Lock it in position using the M8 hex nut provided. Use a Hexagon Nut Driver for long reach and hold it in position with the other hand.

Note: This ensures that the canopy cannot be removed without using additional tooling and safety. To disassemble, simply follow the steps in reverse order.



Step 7: Mount the IXIO sensors on the holes provided, connect all the electrics (*IXIO sensor and motor*) to its correct supply unit and set the door to testing. Additional steps on controller configuration and IXIO sensor can be found in SDA (rail-automation) installation manual.



Installation of IXIO sensor in rooms requiring G2 or K3 classification:

In rooms with G2 or K3 classification, all accessible conductive parts that could be live due to a defect, as well as all external conductive touchable parts, must be included in the equipotential bonding system of the relevant room (NEN1010-7 / A3). This means that the parts mentioned are connected to a central earthing point via a compensating line, which means that the parts have a constant or almost constant potential.

3.5 Dismantling and Disposal

3.5.1 Safety instructions for dismantling



DANGER!

Danger to life from electric current!

- ▶ Never open the automation!
- ▶ Do not touch any live parts. There is an immediate risk of death from electric shock.
- ▶ Pay attention to batteries that have energy stored, even when disconnected.



WARNING!

Warning of crushing hands and/or fingers!

- ▶ You may only work on the drive when the door drive is deactivated and warning signs are posted so that the door cannot be opened or closed unnoticed.
- ▶ Under no circumstances may you dismantle, shut down and/or bridge safety devices!

3.5.2 Disassembly

Once the device has reached the end of its useful life, it must be dismantled and disposed of in an environmentally friendly manner. Dismantle all parts of the device.

3.5.3 Disposal

If no return or disposal agreement has been made, recycle the dismantled components:

- Scrap metals
- Hand in plastic elements for recycling
- Dispose of electronic waste properly.
- Dispose of batteries properly

4 Operating Instructions

- The automatic Medicare E11 sliding door can be opened by pressing the designated button, by motion sensors, or by other automated control systems.
- Exercise caution when passing through the door, especially when it is in motion.
- Ensure that there are no obstacles that could obstruct the movement of the door.
- If the door fails to open or close normally, immediately cease use and have the issue rectified by qualified personnel.

Automatically operated doors are opened by means of an encoder. If there is a defect in the electronic system, or a power cut, the door can be opened by means of the handle mounted on the door.

The installation and setup of the automation is described in the automation manual.

4.1 Maintenance (six-month intervals)

Safety Precautions:

- Always wear dry work clothes and safety shoes.
- Before starting maintenance, switch off the automation and unplug the unit from the socket.
- Ensure your fingers are kept clear from potential pinch points, especially during:
 - Installation or adjustment of the guide rollers.
 - Installation or adjustment of the motor's toothed belt/return pulley.
 - Operation between the end stop and the door.
 - Operation between the rollers and the rail.

Maintenance Checklist:

- Clean all moving parts thoroughly.
- Check the tension of the gear belt.
- Verify that the door seals hermetically when closed.
- Adjust the door leaf if necessary.
- Clean and inspect the rubber seals for any damage.
- Examine all components for unusual wear.
- Verify the functionality of the control system. If any modifications are required, please refer to the manual for the installed controller.

WARNING:

For medical ground systems, the door must be connected directly to the medical ground. Provisions for this connection are integrated into the rail, and the wire from the energy chain should be attached to the wheel set.

Additional Information:

Basic maintenance can be carried out by either a Metaflex Doors service technician or a member of your own staff. In either case, please keep a log to record all maintenance activities.

Cleaning Instructions:

Clean the door and frame components using a mild detergent. Keeping the rail system free from dust and contaminants is essential to ensure proper functioning.

4.2 Damage

If a door or frame component is damaged, a replacement can be ordered at Metaflex Doors Europe. Contact the sales department at Metaflex or your local retailer.

4.3 Troubleshooting: What to Do in Case of Malfunctions

- **Power Supply:**
Ensure that the door is receiving power. Verify that the power cable is properly connected and that the outlet is functioning.
- **Emergency Stop:**
Check that the emergency stop button has not been activated. Reset if necessary.
- **Obstructions:**
Inspect the door's path for any obstructions. Remove any objects that might be blocking its movement.
- **Sliding Mechanism:**
If the door is jammed or not moving smoothly, inspect the sliding mechanism for debris or damage. Clean and clear the track as needed.
- **Safety Sensors:**
Verify that all sensors and safety devices are clean and functioning correctly.
- **Controller Issues:**
If the malfunction appears to be related to the controller, please refer to the manual provided with the installed controller for detailed troubleshooting instructions.
- **Persistent Issues:**
If problems persist after performing the above steps, document the issue and contact a qualified service technician for further assistance.

Ensure to follow all safety precautions while performing maintenance or troubleshooting.

5 Technical Specifications

Product description

Serial number: Indicated on the component ID label

Areas of application

Healthcare facilities, hospitals, pharmaceutical.

Dimensions

Variable clear opening width x clear opening height, up to a maximum of 2000 x 2700 mm.

Lifespan

10 years when maintained according to Metaflex Doors Europe's maintenance guidelines.

Weight

The weight of a Medicare EI1 2.0 door system depends on the clear width and height. The maximum weight of the door leaf is 320 kilograms.

Assembly options

Panel wall, provided they are suitable for carrying the weight of the door.

6 Declaration of Conformity

For Declaration of Conformity go to website of Metaflex Doors Europe BV.

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