

INSTALLATION MANUAL

AF85 - SYSTEM

SEMI-AUTOMATIC SLIDING DOOR



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1 GENERAL NOTES

SYSTEM DESCRIPTION

- Extruded and filled aluminum framing, tested and approved by European NB - institutes.
- 85 mm frame depth
- Clear, fire-rated safety glazing

REQUIRED TOOLS

13/17mm open wrench



Heavy-duty glass handling tools



Non-metal hand wedges



Knife



Power drill with normal/long 6-6,5 drill, pozidriv and TX30 head



Level



Gasket roller



Silicone caulking



Tape measure



Rubber mallet



C-clamps



7.5x72/92/152mm TX30 and 4.8x32mm pozidriv countersink head screw, M10 Bolt



Mineral wool insulating material



Soap Water



Piece of wood



Strap cutter



Forklift



L-rack



Check to make sure that you have the required supplies and tools necessary for the installation. Any material substitutions must be of equal or greater quality. Consult Aluflam prior to substituting any material or for any other questions to ensure that the products' fire ratings are not violated.

Installation instructions are of a general nature and may not address every condition you encounter.

Cutting tolerances are ± 1 mm unless otherwise specified.

All work must start from, and be referenced to benchmarks, offset lines and/or column centerlines established by the architectural drawings and the general contractor.

All frames must be installed plumb, square, level and in accordance with approved shop drawings. Glass and glazing building codes governing the design and use of products vary widely.

Aluflam does not control the selection of the products, product configurations, operating hardware and its function, or glazing materials and assumes no responsibility for these design considerations.

It is the responsibility of the design professional, owner, architect or general contractor to make these selections in strict accordance with all applicable codes and project requirements.

System-to-structure fasteners are usually not supplied by Aluflam or if so - they need to be specified by customer.

Fasteners called out on shop drawings usually show the tested and approved type and are to indicate minimum sizes.

1.1. Installation materials like sealants, bolts and screws are incl. Aluflam works unless other specified in the project or shop drawings.

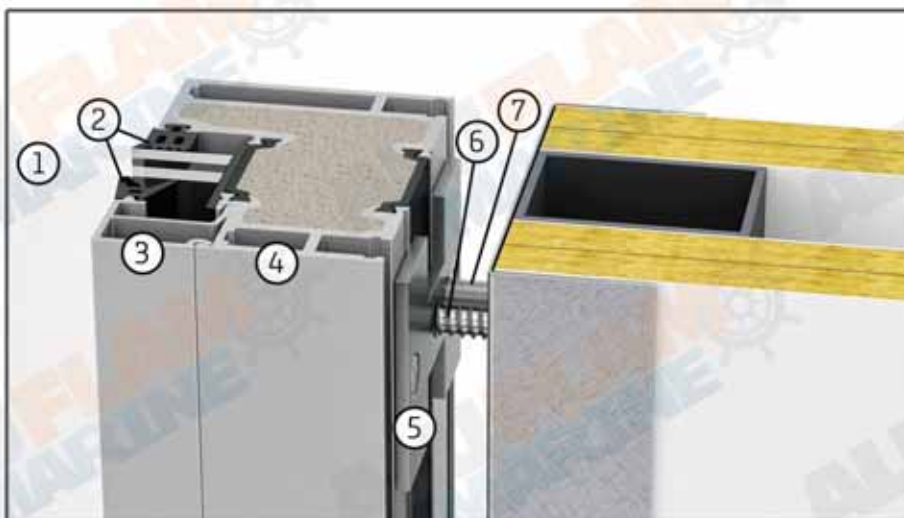
Screws or bolts must be suitable for substrate or wall to be confirmed from customer/yard

1.2. Statically stable underlay, framing or walls are excluded Aluflam works and solutions are given just as advice.

Aluflam is not taking any responsibility for its statical stability.



1. Steel endcap
2. Steel profile-reinforcement 35x50mm
3. B15 panel



1. Glass
2. Glazing gasket
3. Glazing bead
4. Frame
5. H-plate
6. 92mm tx30 head screw
7. M8 adjustment bolt

1.3. Glass is always supplied dismounted.

2 INSTALLATION

2.1.1. Unpack Frame

2.1.2. Remove loose components, such as glazing beads, intumescent strips, seals etc. and set aside in a well-protected area.

2.1.3. Carefully lift frame out of packaging. At this point, the frame joints are unprotected. Handle the frame with extreme care to avoid separation of the corner joints.



2.2.1. Determine The Frame Reference Point

Establish the frame reference lines on the exterior/interior plane of the frames to be installed using benchmarks, offset lines, or column centrelines provided by the general contractor and referenced in the shop drawings.

2.2.2. Use the established reference points to determine the installation points for each frame opening at the head, and jambs.



2.2.3. Measure the size of the frame and confirm that it meets the dimensions referenced in the shop drawings.



2.3.1. Installation Of The Frame

2.3.2. The sliding doors can be ordered with a 105mm structural profile. If this is the case, the structural profile must be connected to the main frames. For connection support foothold must be installed.



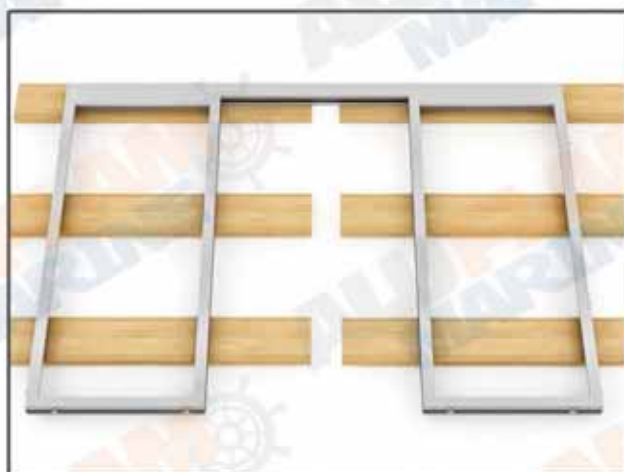
2.3.3. Drill the anchor locations using the predrilled hole at the connection of the frames. Use a 6-6.5 mm drill but DO NOT drill completely through. Leave the other side of the frame intact. Place 92mm screws in the pre-drilled locations and fasten them



2.3.4. Be careful, the side of the frame with the steel angle brackets always goes on the bottom.



2.3.5. To connect the second frame repeat step 2.3.2 .



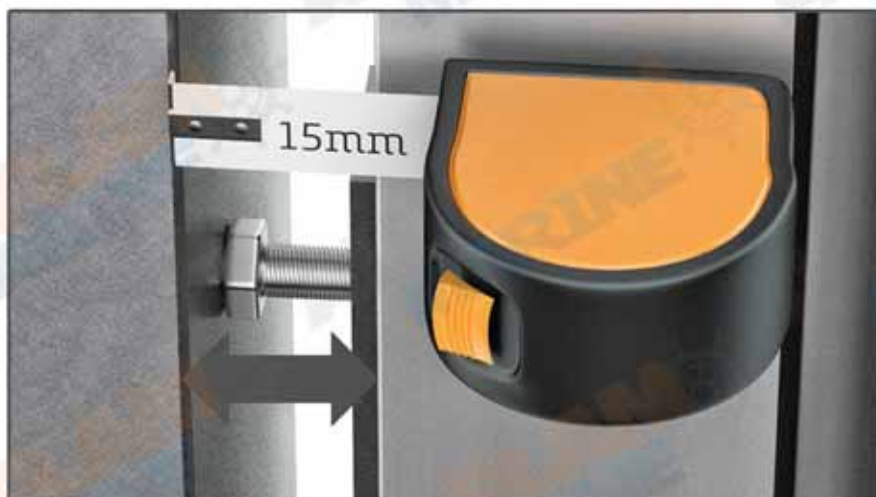
2.3.6. Install the frame plumb, square, level and true.



2.3.7. Gradually and evenly back out all adjustment screws with a 13mm open wrench (see detail). Be careful, excessive adjustment may cause frame distortion. Always check the frame sides for the M8 bolts. The bolted side of the frame should always be beside the structural opening. The unbolted side should always be beside the next frame.



2.3.8. 15mm is the standard between the wall opening and the frame.



2.3.9. Drill the anchor locations into the surrounding structure using the factory pre-drilled frame holes as guides. Use a 6-6.5 mm drill.



2.3.10. **DO NOT** turn the screws into the head yet, since adjustments needs to be made when all the frames are installed.



2.3.11. With the tape measurer, check and confirm that the frame is centred in the opening. If the frame is not centred, adjust the M8 bolts so that the distances are matching on opposite sides.



2.3.12. Check the horizontal alignment of the middle small frame. Measure the distance between the two large fixed frame and confirm that it meets the dimensions referenced in the shop drawings.



2.3.13. Finish fixation at the vertically and horizontally placed screws by turning them completely in.



2.3.14. To install the doorframe, first mount the labyrinths. Push the aluminum labyrinth into the profile on the door leaf landing side.



2.3.15. After fixation with C-clamps drill the screen locations using the factory pre-drilled labyrinth holes as guides. Use a 3.2 - 3.5 mm drill.



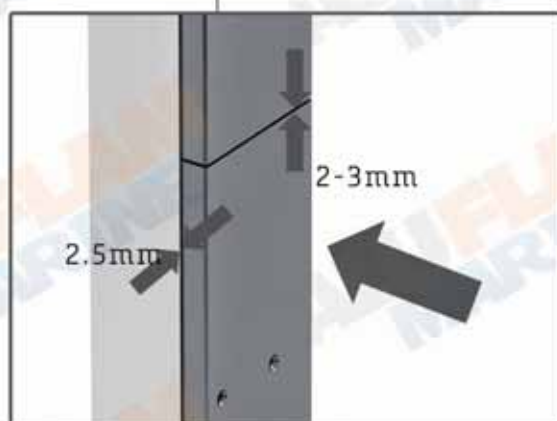
2.3.16. Place the 32 mm screws in the predrilled locations and fasten them carefully so they do not bend the aluminium labyrinth.



2.3.17. Drill the anchor locations into the surrounding frame or structure using the factory predrilled holes as guides. Use a long type 6-6.5mm drill. Fasten the aluminium labyrinth carefully with 152mm long screws.



2.3.18. The steel labyrinths need to be mounted on the other 2 sides of the opening. One vertical, the other horizontally fixed in a way that the aluminum cover caps align with the edge of the frames. This means 2.0 - 2.5 mm from the edges.



2.3.19. To fasten the steel labyrinths, drill holes for fixation using the factory predrilled labyrinth holes as guides. Use a 3.2-3.5mm drill.



2.3.20. Fasten the steel labyrinths with the 32 mm screws using the predrilled locations.



2.3.21. To install cover caps for the steel labyrinths, apply a thin layer of silicon to the surface of the labyrinths.



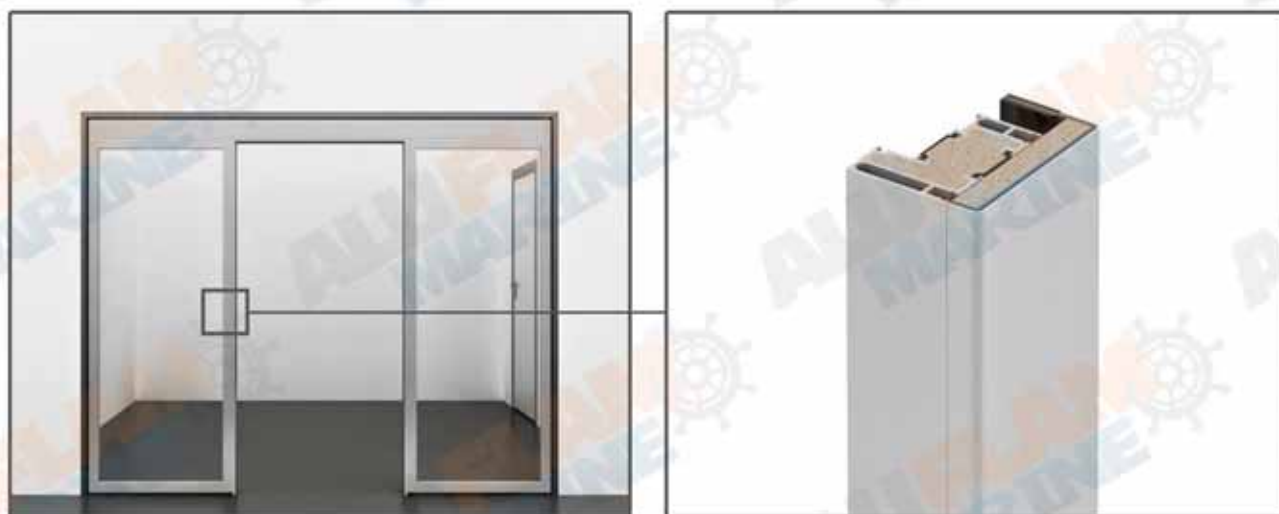
2.3.22. First install the horizontal cover (see picture below). First the right side then the left side.



2.3.23. To finish cover caps installation install the vertical cover for the steel labyrinth like in the picture.



2.3.24. To make sure that the endcaps remain in their position, you can wrap them to the frame, with tape or plastic foil and keep it so for half a day.



2.4.1. Glazing and finish

2.4.2. Prepare the glass for installation.
Move the box onto an L-rack.

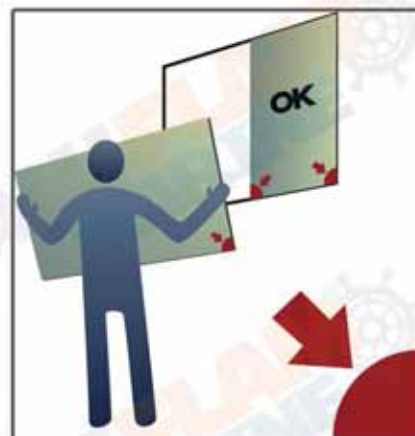


2.4.3. When the box is secured on the L-rack, cut the steel straps using a strap-cutter/metal-cutter. First, remove the top and front. Second, remove the two side covers.



2.4.4. Remove overlaps of glue if they are more than 5mm with a knife to ensure easy installation.
Always check for direction signs in the glass.

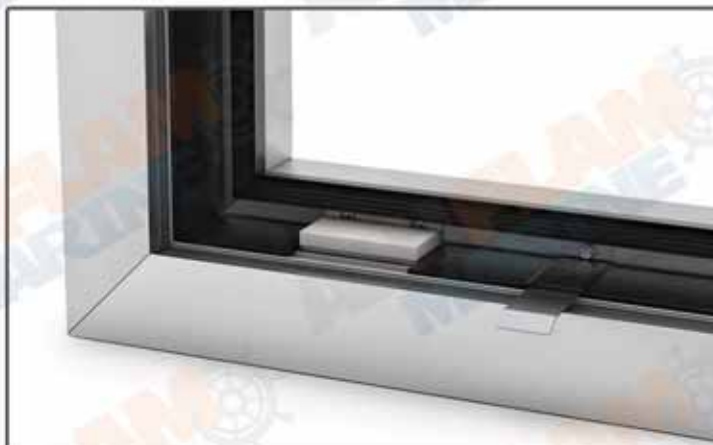
NEVER Rotate the glass (see picture), this may cause bubbles inside the fire gel.



2.4.5. Prepare for the glass mounting by retrieving the correct glazing gasket from the package. Confirm the correct type by checking the shop drawings for each frame. Push the gasket in the channel on all sides.



2.4.6. Promatect glazing bricks will provide the exact height and placement of glass. The bricks has to be placed on top of the steel angle brackets on the top of bottom profiles.



2.4.7. To ensure easy installation of the glass, place two wood pads on the floor in front of the frame. NEVER place the glass on a hard surface like concrete or steel. With help of suction cups, the glass is carried to the frame and placed on the wooden pads.



2.4.8. Position the bottom of the glass on the glazing bricks and carefully push the top of the glass inside the frame. Secure the glass with 3-4 glazing clips by bending them over the glass.

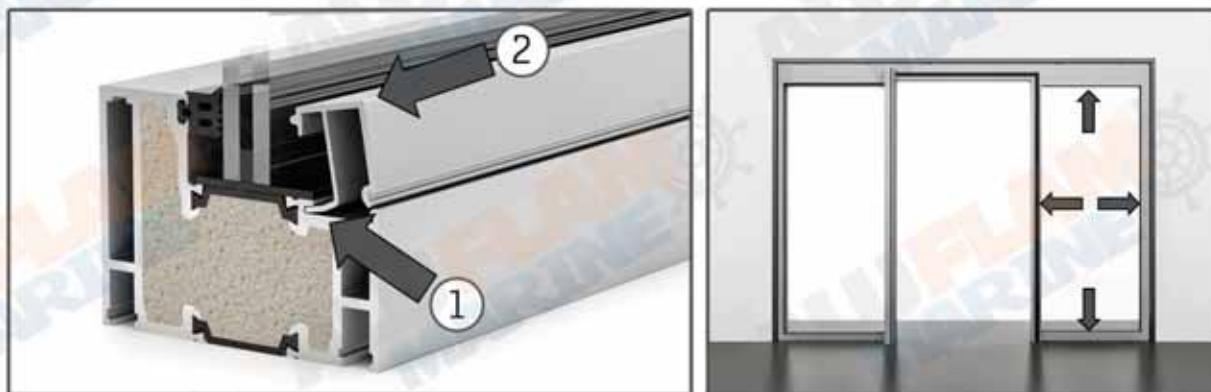


2.4.9. Start bending the glazing clips by using a piece of wood. First press towards the glass with care, then gently hammer from top down until the end part of the clips is horizontal to the glass and pushes the glass in.

Even the clips where it got bend to secure stability.



2.4.10. Snap in the glazing beads on all four sides of the frame.



2.4.11. Lubricate the glazing beads with liquid soap to ease insertion of the correct gasket.

Always use 5mm extra gasket on each side, since in cold conditions the gasket will shrink.



2.4.12. Cut the gaskets in the corners by bending them 90 degrees and cutting them up to the inner channel. The inner side of the channel must be kept intact, to hold and connect the gasket.



2.4.13. Make two incisions on the gaskets in the end corner at a 45 degree angle and connect them inside the channel.



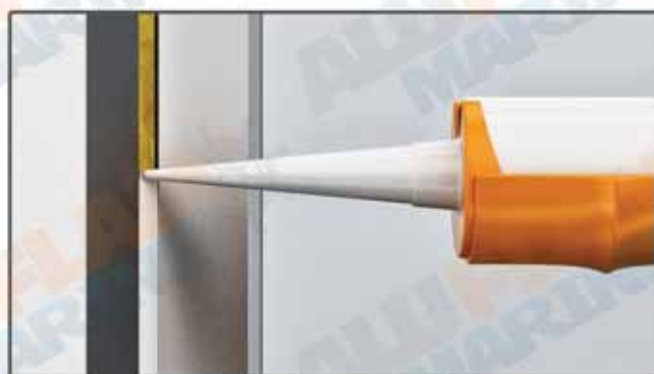
2.4.14. For every fixed frame installation, repeat steps 2.4.5.-2.4.13.



2.4.15. Cut the mineral wool into 35-50mm thick pieces for 15mm gap. Fill gaps around frame with mineral wool insulating material. Use the non-metal hand wedge to push to its central position.



2.4.16. Finish the gaps by applying a continuous bead of silicone caulking.



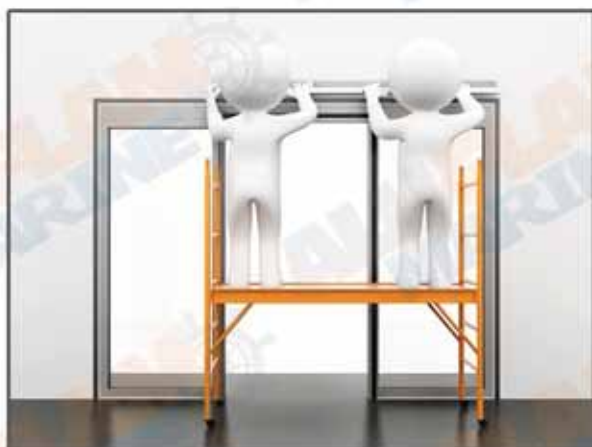
2.5.1. Door frame and railing system

The railing system has two main parts: the rail and the accessories for the semi-automatic.

To support the rail, clamp fixators must be installed.



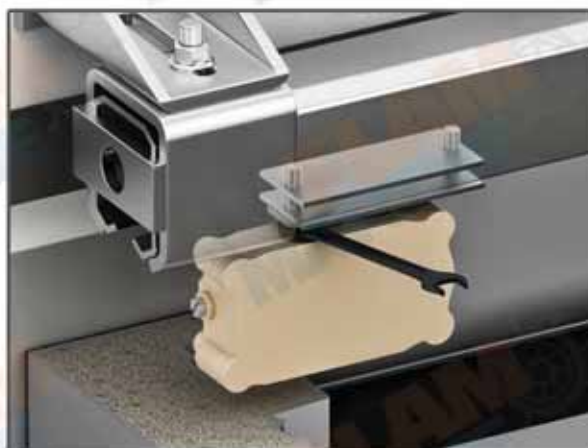
- 2.5.2. To install the rail, place and install the wall mount brackets with M10 bolts to the wall. Be sure to provide stable underlay since some of the doors weigh more than 200kg.



- 2.5.3. Install the floor guide for the door in the showed position.
Use screws or bolts suitable for your underlay.



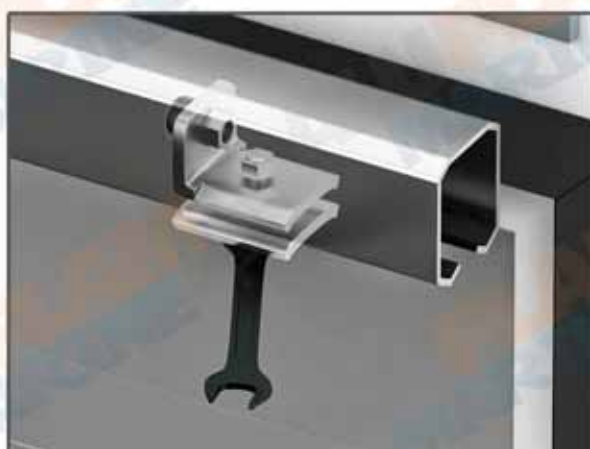
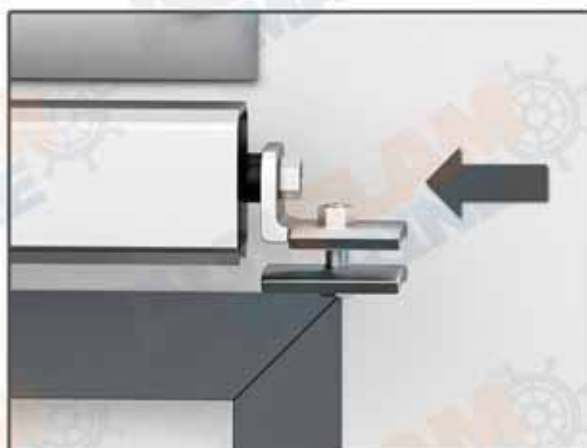
- 2.5.4. For installation of semi-automatic do as follows:
Glide the accessories into the rail and use the bolts for fixation. The first item must be the radial damper.



- 2.5.5. To prevent inversion of forces the steel cable/pipe tray or safety anchor must be installed as followed.



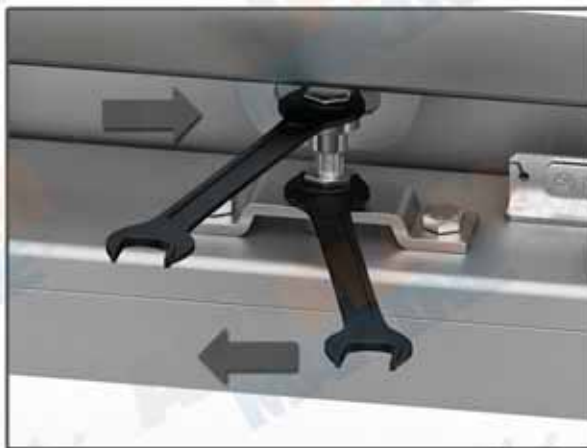
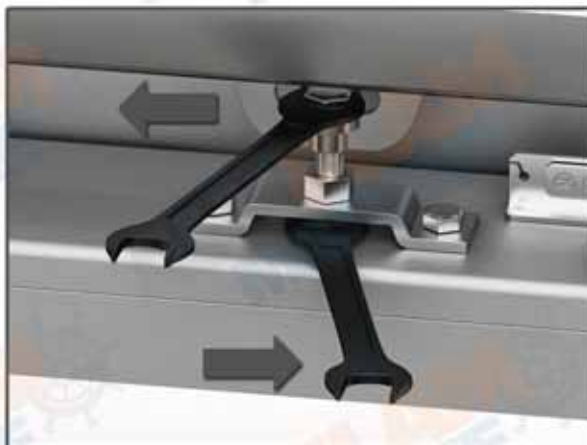
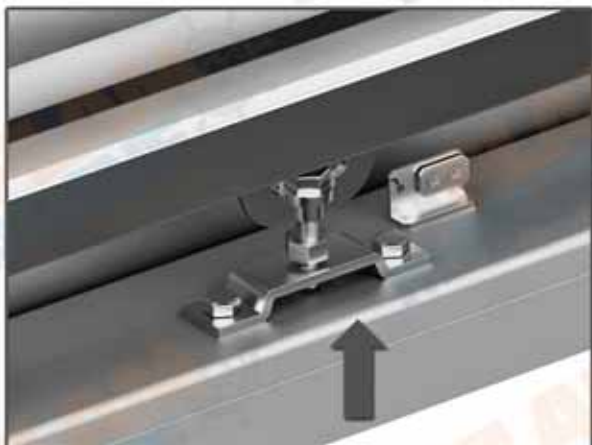
2.5.6. In the next step insert the sliding rollers and the stopper into the rail. Install the end wall mount bracket for the end of the rail.



2.5.7. Place the door in front of the partition to prepare for connecting the rollers with the door brackets.



2.5.8. Connect the rollers bolt with the bracket on top of the door using wrench keys. Rotate the nuts on the bolts until the door will hang, and the distance between the bottom of the door and the floor is app. 6 mm.



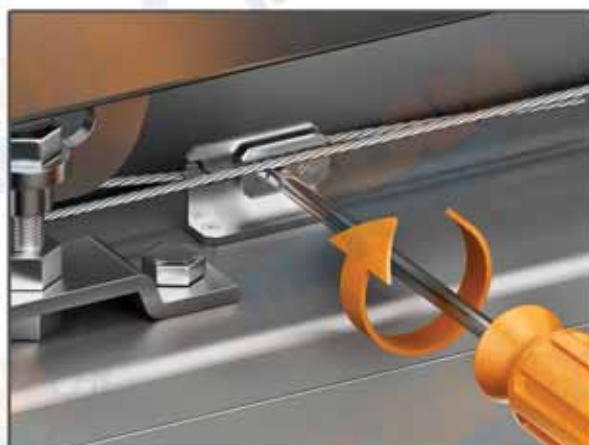
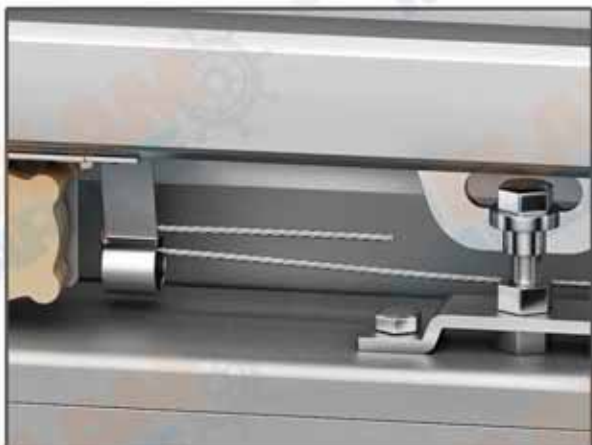
2.5.9. After the door is installed the rope pulley shall be mounted.

Always install the rope pulley with unrolled wire.



2.5.10 Installation of the wire is performed in the following steps:

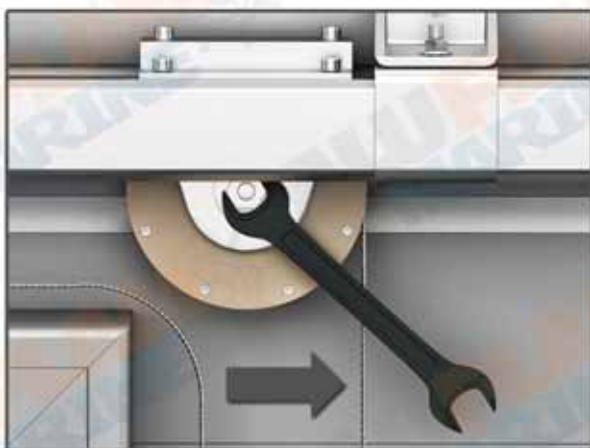
In the first step, the wire from the spring rope pulley is fed into the wire safety anchor, and fixed to the door actuator.



In the next step the cable from the wire safety anchor is pulled over the radial damper. Be attentive to place the wire in the way the picture shows. If the radial damper is installed reversed, the wire must be also installed reverse, so when the door is closing the radial damper can slow down the motion.



To give tension to this wire, the nut on the spring rope pulley is tightened. Tighten the nut until door can close itself.



2.5.11. Adjusting the speed of the closing can be done by adjusting the radial damper. To make the door slower, rotate the screw to right. To obtain a shorter closing time rotate it to the left.



2.5.12. For glazing the door, repeat steps from 2.4.4. to 2.4.13.



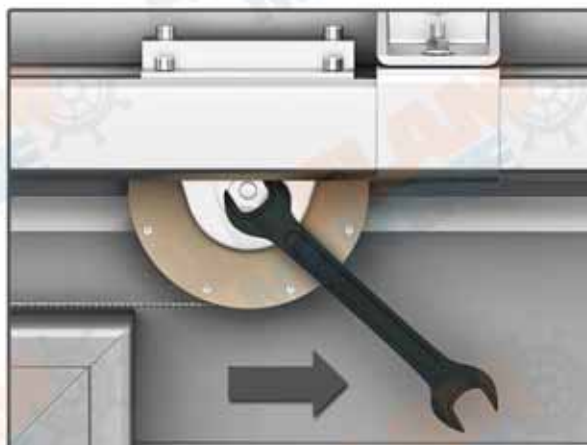
2.5.13. To ensure easy opening, the handles are installed on the door frame in the prepared holes.
First insert the connection bolt and screw it into the handle.
Then push the other handle over the head of these bolts and fasten it with the socket hex screws.



2.5.14. As last step the cover for the sliding rail is installed. To do this, the cover shall be inserted into the channel over the sliding rail.



2.5.14. Test the door to see if it is closing automatically. If it doesn't, the spring rope pulley shall be tightened. The rail rollers needs to be sprayed with lubricant occasionally.



Please do not hesitate to contact us if you have any further questions or concerns.

Kind Regards

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