



Instructions for installing TM design windows

Instructions for installing TM design windows

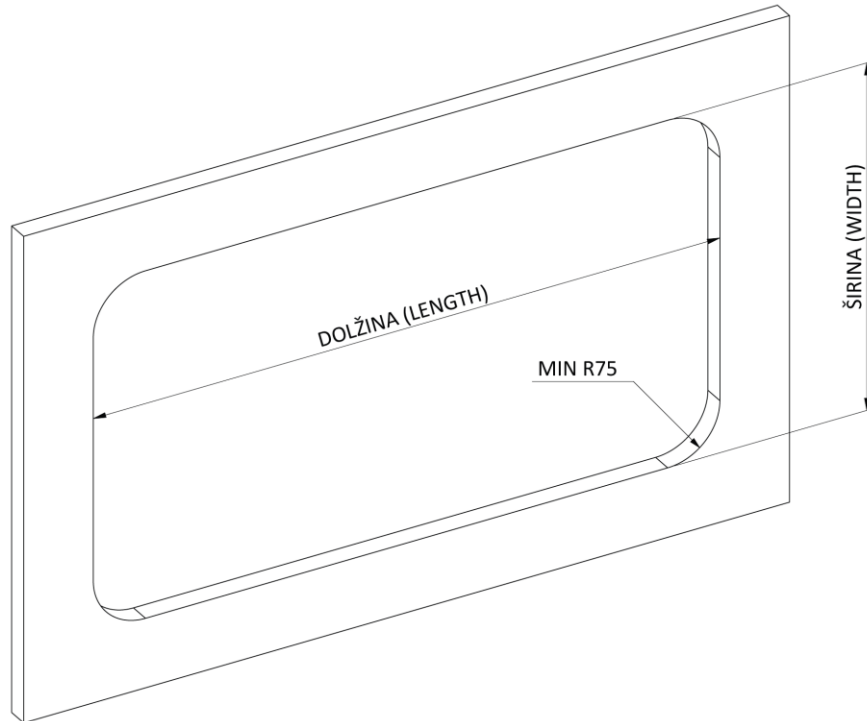
Wall opening:

The window opening should have radiuses $\geq R75$ mm.

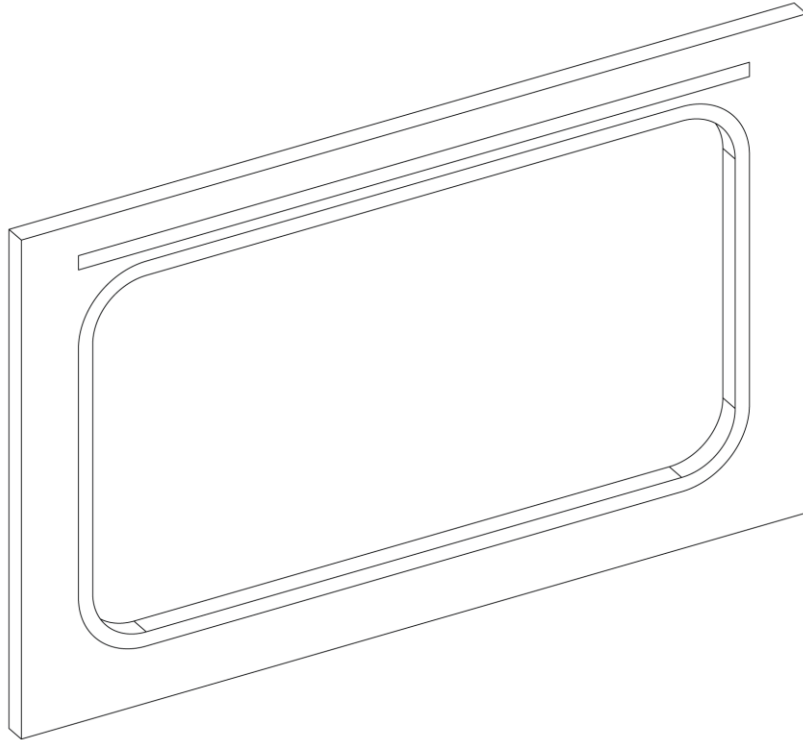
The tolerance of the window opening should not be bigger than ± 1 mm.

Make sure to use the right type of window seal by checking with Acryform sales department.

The window seal is delivered with butyl mastic.



Instructions for installing TM design windows



Reinforcements around the wall opening:

Several components (hinge, catchers and stays) are used to mount the entire window assembly on the wall.

All components are attached to the wall with screws.

It is therefore recommended that all sides of the opening and the area where the hinge is installed on the wall are reinforced with wooden inserts or similar elements enabling the firm and permanent installation of window components.

Instructions for installing TM design windows

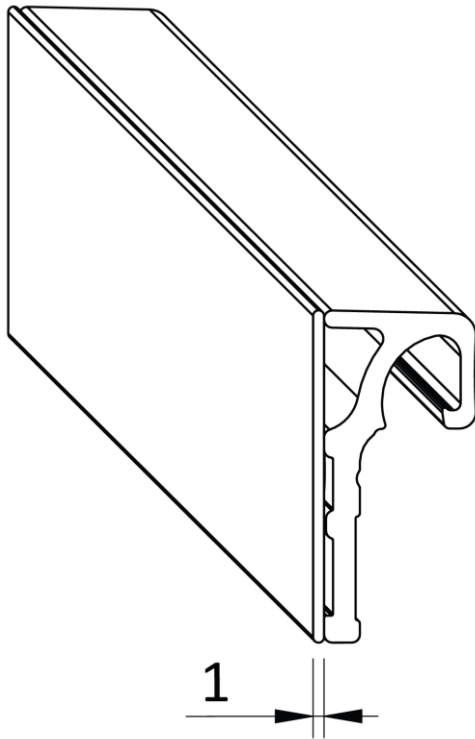
Preparing the wall hinge:

Clean the wall hinge if necessary.

Place a butyl tape on the back of the wall hinge.

It is important that the butyl tape is installed throughout the height and length of the hinge.

The recommended thickness of the butyl tape is 1 mm.



Instructions for installing TM design windows

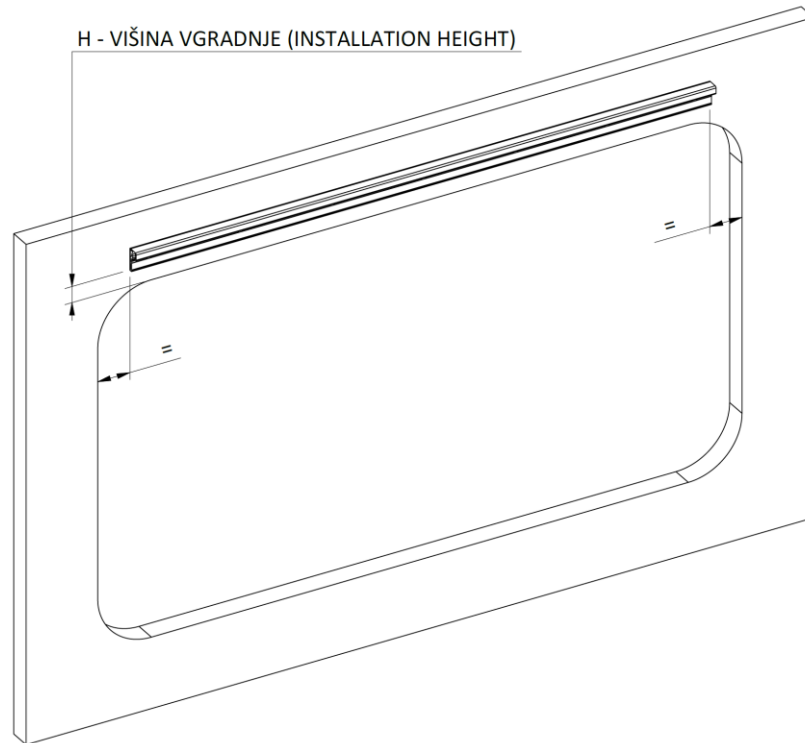
Positioning the wall hinge:

Position the wall hinge above the window opening.

Height H is 24mm.

Align the wall hinge with the window opening. The distance from the wall hinge to the window opening should be the same on the left and right side.

A jig can be made and used for the accurate and repeatable installation of wall hinges.

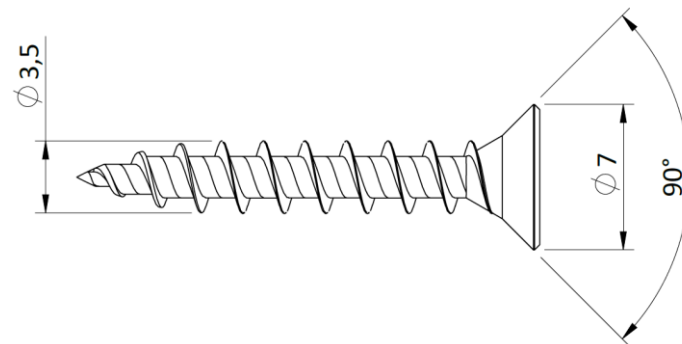
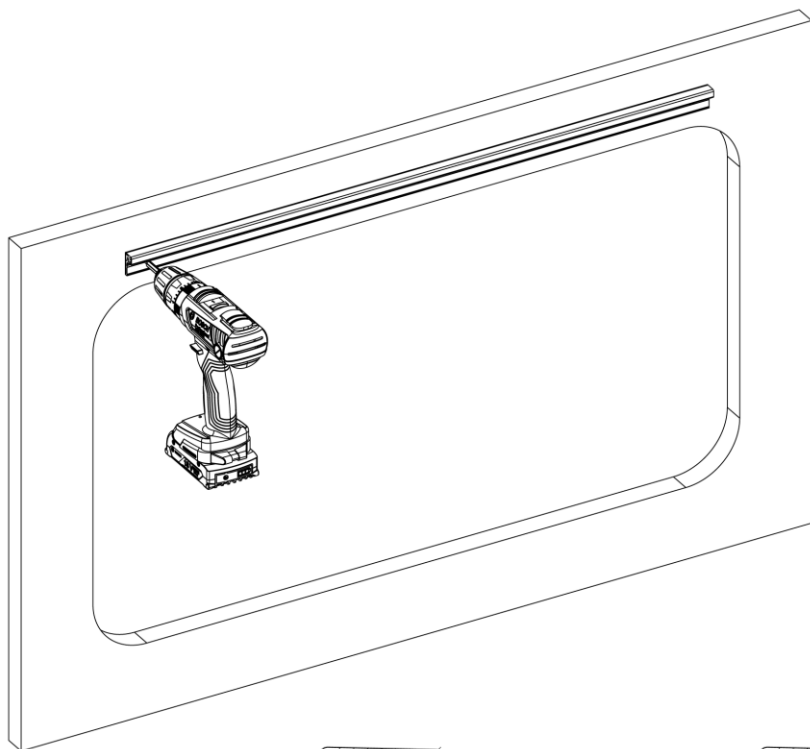


Instructions for installing TM design windows

Installing the wall hinge:

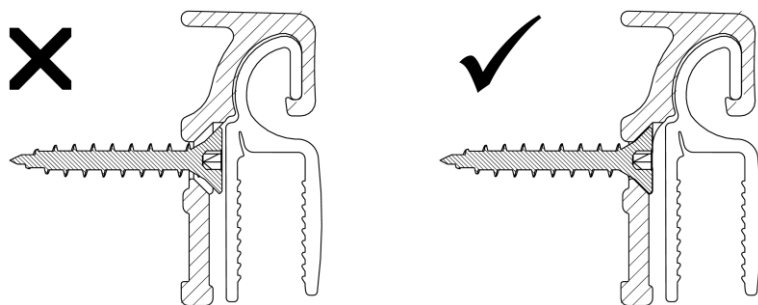
Once the wall hinge is correctly positioned attach it to the wall with screws. All of the wall hinges pre-drilled holes should be used.

Screws of the specified dimensions are recommended for attaching the wall hinge.

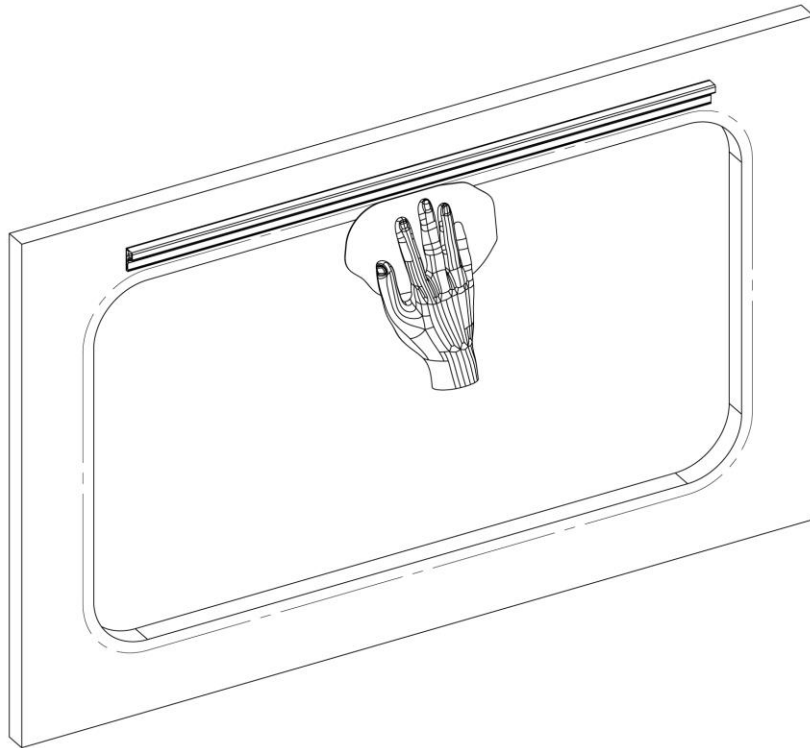


The appropriate length of the screws must be defined by the screw supplier.

It is important that the screws are completely sunken into the hinge material (see pictures to the left).



Instructions for installing TM design windows



Preparing the wall for sealing:

Before mounting the window seal make sure that the sealing surface is properly prepared and cleaned.

Lightly scrub the sealing surface with 3M Scotch-Brite Hand pad 07447.

Wipe the surface with a clean cloth and a cleaner.

Verify with the supplier of the cleaner that the selected product is suitable for use on all installed materials.

Change the cleaning cloth frequently if the wall is very dirty and/or contains fat residues.

When the surface is free of dirt and fat, wait till the cleaner evaporates or remove it in accordance with the instructions of the cleaner supplier.

Instructions for installing TM design windows

Preparing the seal:

The length of the window seal should be 1% longer than the rim of the window opening due to the temperature deviations of the material.

Measure the length of the outside rim of the window opening and multiply it by 1,01. Or measure its length, width and radiuses and calculate the length of the window seal using the formulas below.

Calculation of window seal length for window openings with radius R75:
 $(2x \text{ length} + 2x \text{ width} - 129) * 1,01$

Calculation of window seal length for window openings with larger radiuses:
 $(2x \text{ length} + 2x \text{ width} - 8R + 2\pi R) * 1,01$

Cut the seal to the required length.

The seal must be cut in a straight line and perpendicularly to the seal itself.

The gasket must be stabilized at room temperature before measuring, cutting or installation. 8

Instructions for installing TM design windows

Mounting the seal on the wall:

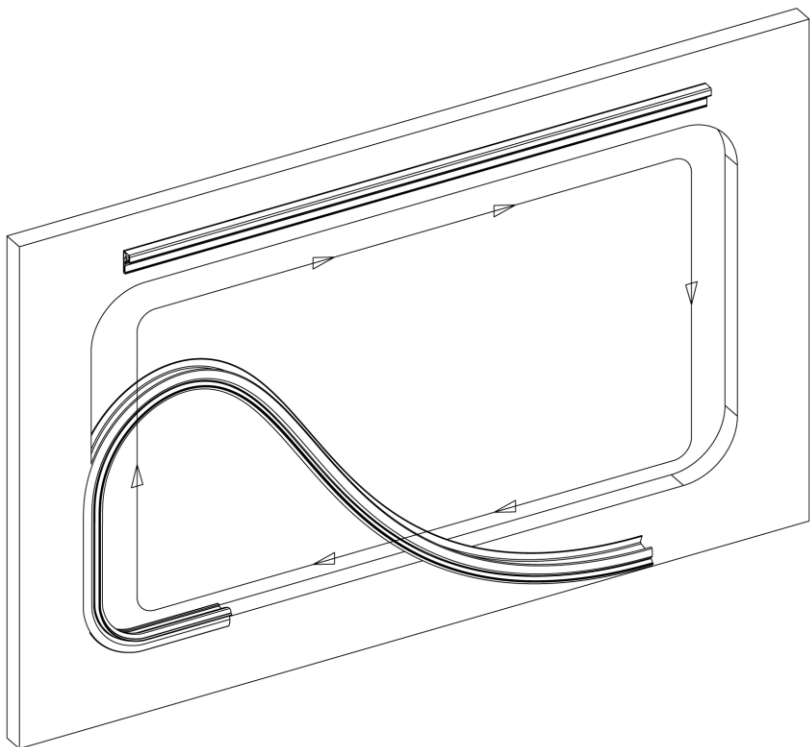
Start mounting the seal at the lower part of the opening at a point where the catcher will be installed later on.

It is recommended to install butyl tape under the joint of the seal.

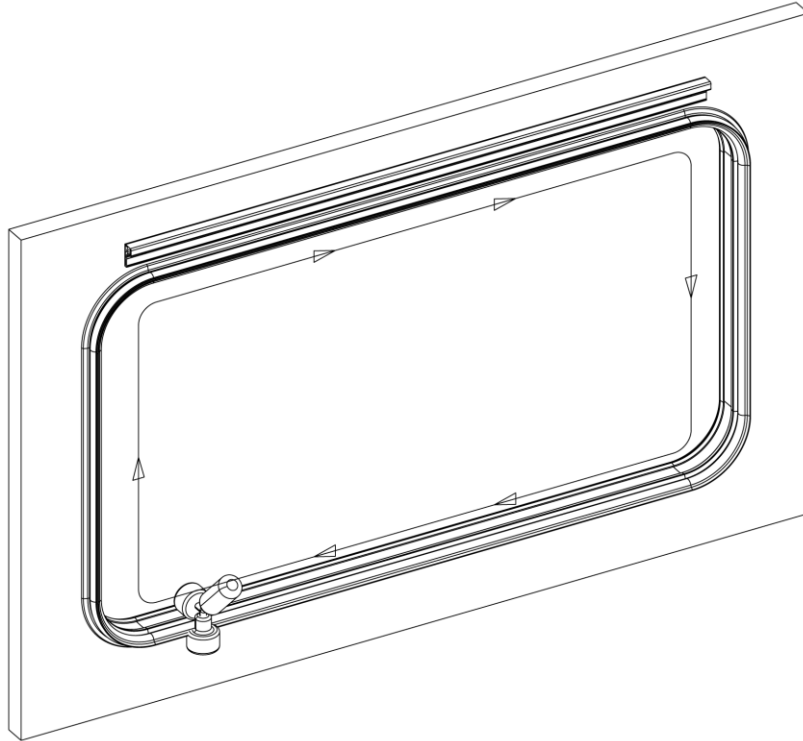
During installation, push the seal evenly in the direction of the already installed seal the entire time. Pay even greater attention to this in the radial parts of the opening where the seal must be tightly pressed against the wall.

If installed correctly, a few millimeters of seal shall remain at the end of the assembly.

This remainder of the seal is further compressed in the direction of the already installed seal so it can be fully mounted on the window opening. Shortening the seal from the calculated length is not recommended.



Instructions for installing TM design windows



Bonding butyl mass on the seal with the wall:

After installing the seal, press the outer side, where the butyl mass is located, hard against the wall of the vehicle.

It is recommended to use a tool, such as a pressing roller, to ensure good tightness of the butyl.

With the pressing roller, the seal is pressed against the wall easily, firmly and all over the surface.

After pressing/rolling the seal, the soft foam part of the seal is manually smoothed to ensure that it is free of any irregularity and without breaking points in the balloon.

Instructions for installing TM design windows

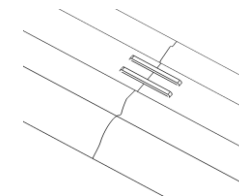
Stapling the seal:

The seal is then stapled to the wall.

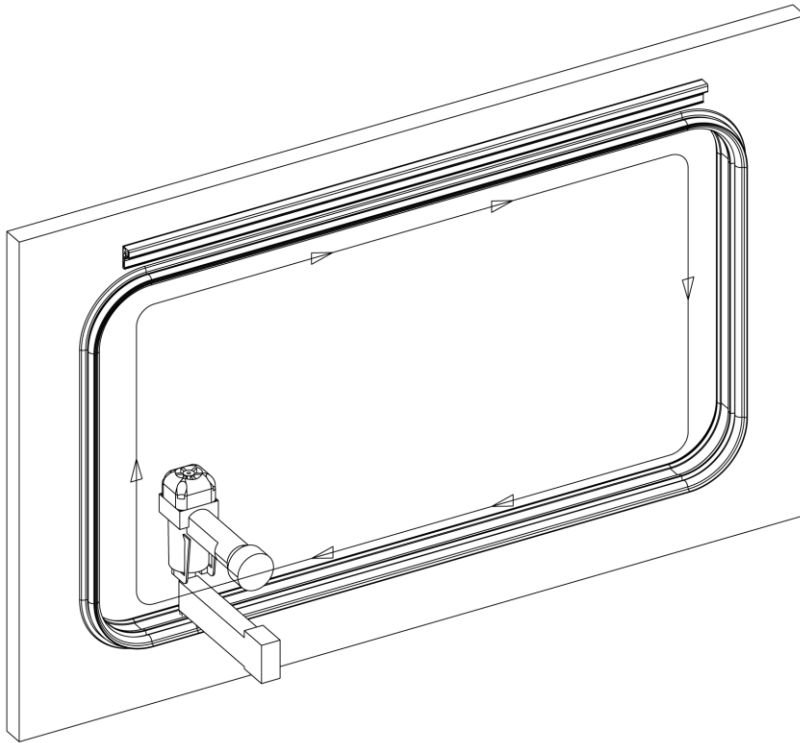
Use a staple every 100 mm or less.

It is recommended that the seal is stapled especially well in the radial parts of the wall.

Use two additional staples on the joint of the seal to hold the ends of the seal together.



The two additional staples are not necessary if a butyl tape was used under the joint of the seal.



Instructions for installing TM design windows

Punching and gluing the seal:

Near the ends of the seal two 3 mm cut-outs should be made on the seal balloon.

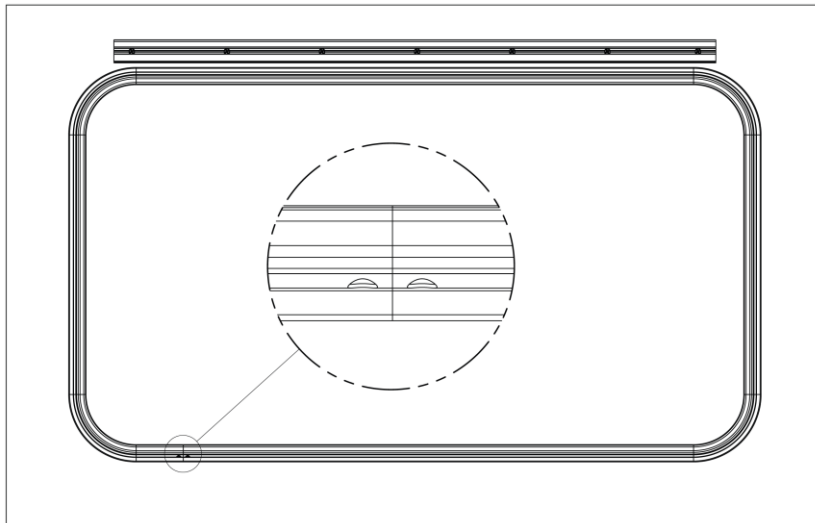
Make the cut-outs on the underside of the balloon using a punch plier.

The cut-outs in the rubber balloon allow air flow through the gasket which ensures the full functionality of the seal itself.

The images show the recommended place for the cut-outs.

Glue the ends of the seal together with a glue for fast bonding of plastics, rubber and elastomers.

Verify with the adhesive supplier that the selected product is suitable for use on all installed materials.



Instructions for installing TM design windows

Installing the insert tape:

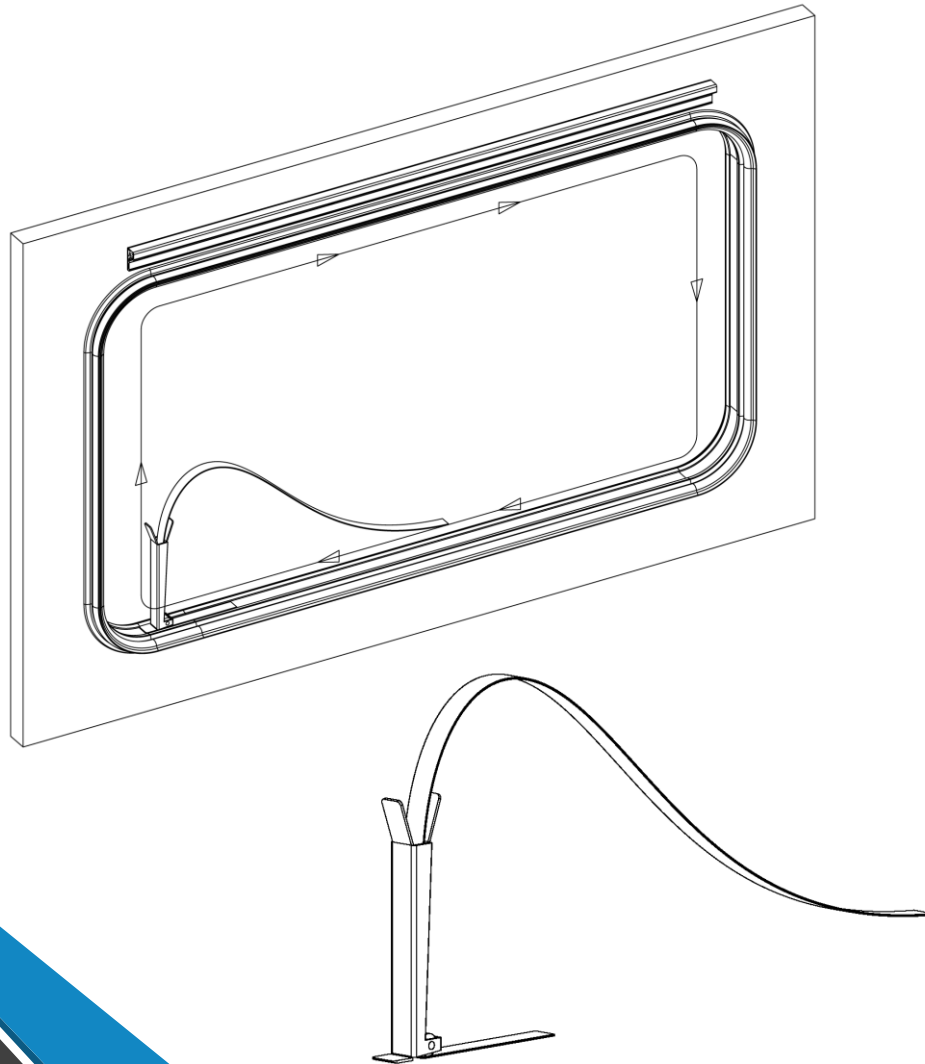
The installation of the insert tape starts under the catcher, the same as the mounting of the seal.

The installation of the insert tape will be easier if soapy water is applied with a brush into the groove where the insert tape will be installed.

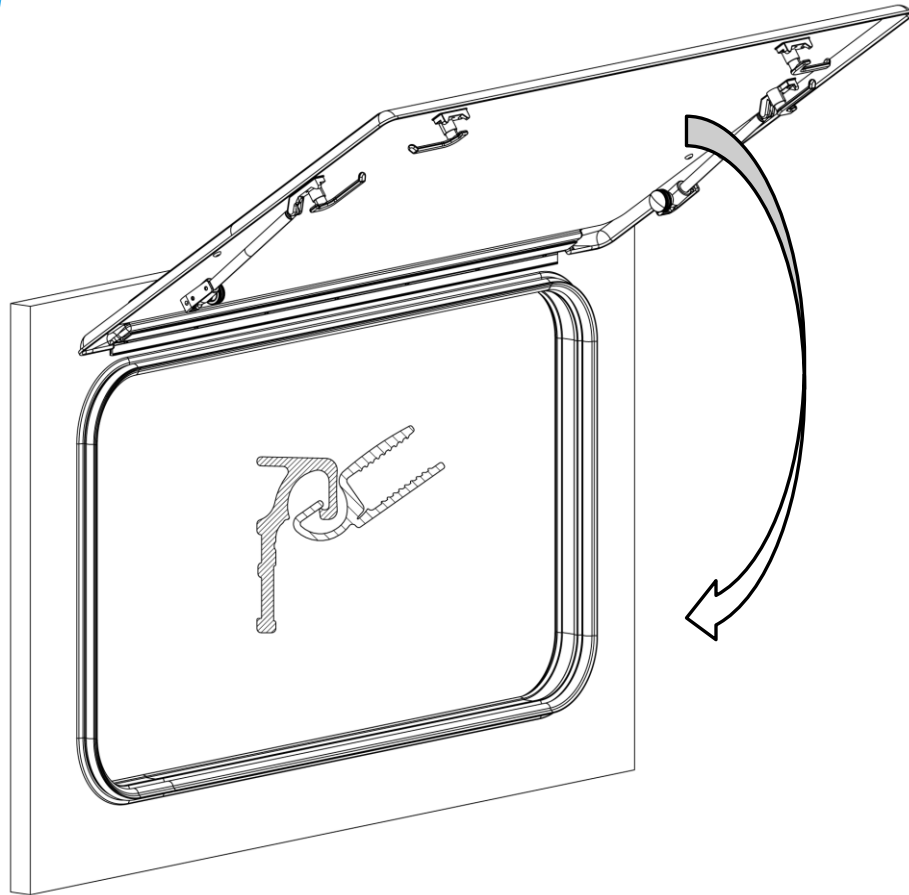
Verify with the supplier of soap that the selected product is suitable for use on all installed materials.

To help with the installation of insert tape a tool for mounting the insert tape can be used.

The appropriate tool can be ordered from Acryform sales department.



Instructions for installing TM design windows



Installing the window on the wall hinge:

Place the window over the opening at an angle as shown in the picture to the left. Insert the window hinge into the wall hinge.

Hold the window by the hinge so that it does not fall out of the wall hinge and slowly lower it into the closed position.

Check the alignment of the window hinge and the wall hinge by comparing the offset on the left and right sides. If necessary, correct the position so that the offsets on both sides are the same.

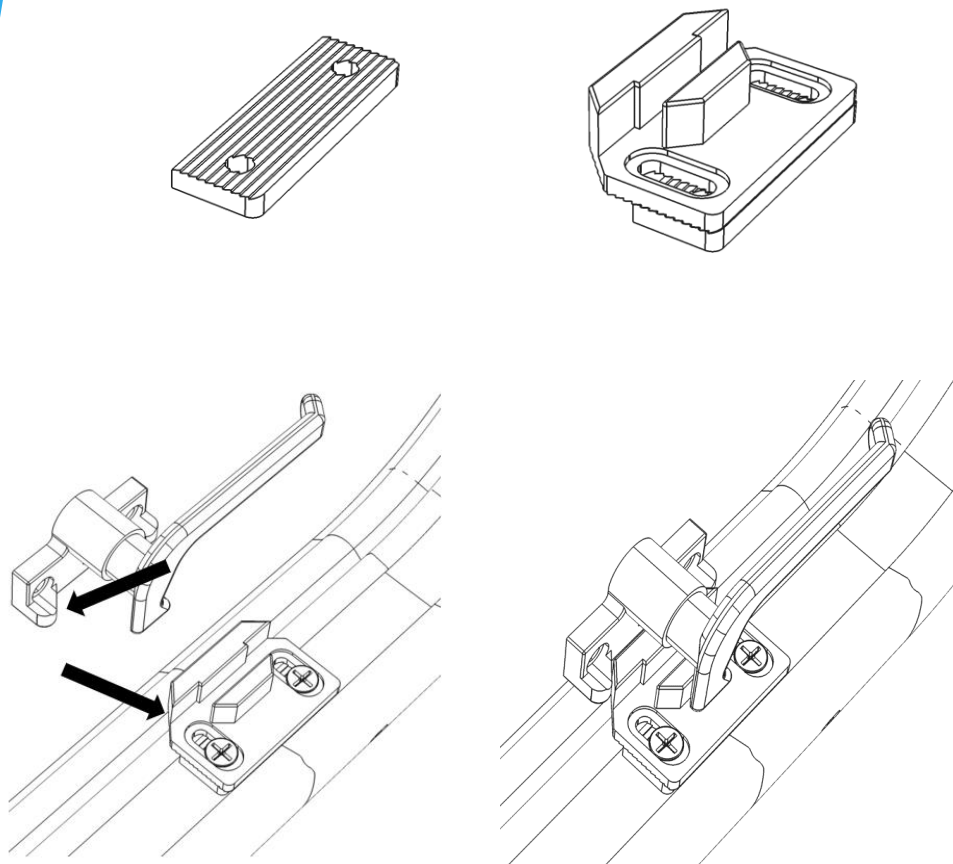
If the window has a mechanical hinge limit, the offset is adjusted automatically.

Instructions for installing TM design windows

Installing the catchers:

The catchers can be mounted on the wall independently, with one or more mounting plates.

Mounting plates compensate for deviations created during the manufacturing and installation of the window on the wall.



When installing the catchers take care to align the catcher with the groove on the handle.

Instructions for installing TM design windows

Installing the stays on the wall:

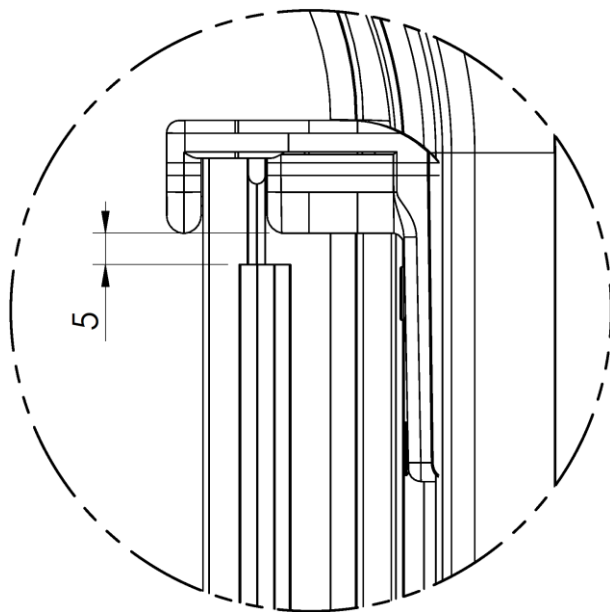
Move the window into a closed position.

Extend the stay for 5 mm.

Press the wall holder of the stay against the wall and slightly open the window.

Put in the bottom screw first.

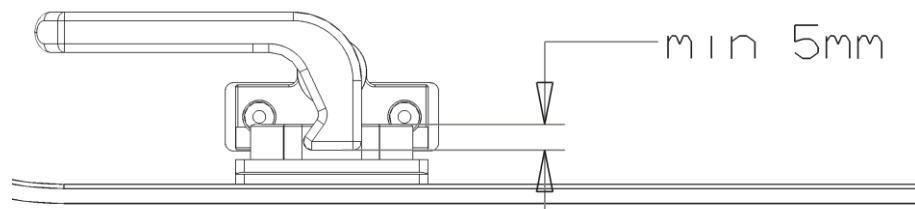
Then open the window further so that also the top screw of the wall holder can be installed.



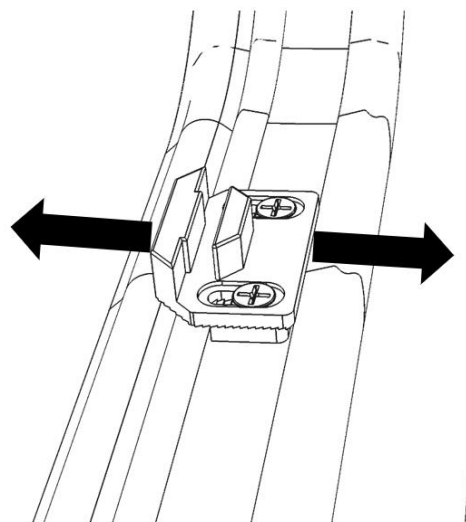
Instructions for installing TM design windows

Window installation control:

Close the window and close all the handles on the window.



The overlay of the catcher and the handle should be at least 5 mm. If necessary, place an additional mounting plate under the catcher.



The gap between the vehicle wall and the outside edge of the window must be an even 3 mm all around. If the gap is uneven or outside the recommended 3 mm, it can be aligned by moving the catchers.

Each catcher has slotted holes enabling simple adjustment: loosen the screws, adjust catcher position and tighten the screws.

Once the window is appropriately installed, protective foil should be removed from the window.

Instructions for installing TM design windows

Following these steps the installation of the window will be done correctly and when also considering instructions for safety and long lifetime:

<https://www.acryform.com/upload/download/SAFETY-INSTRUCTIONS.PDF>

You will have a window with correct functioning and a long lifetime.