

INSTALLATION MANUAL

Series MG-600 Casement Window



INTRODUCTION

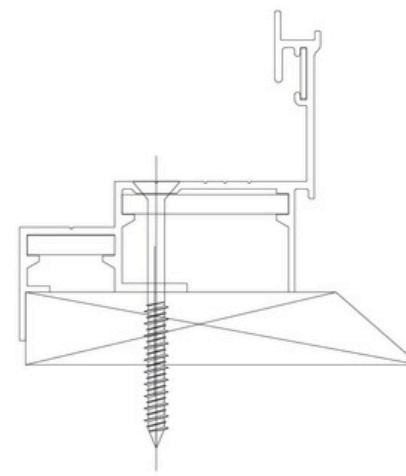
These installation instructions have been created as a guide. This guide should be used in combination with the product's Florida Approval. Only professional and experienced installers should attempt to install these products.

Please read all the instructions carefully. If in doubt, contact Mr-Glass Doors and Windows, Inc.

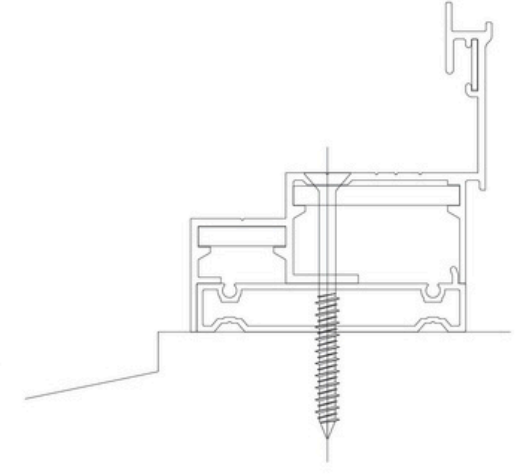
Ensure that you are using all necessary protective equipment and are taking safety precautions required while performing all installation tasks, specially if you are working at heights.

TYPE OF INSTALLATION

Casement Windows/Awning MG-600 is manufactured with a frontal flange to be installed over a pre-constructed wood buck or concrete windowsill. Alternatively, it can be installed as a box frame if utilizing an adaptor that equalizes a frame in a single surface.



Installation over wood buck.

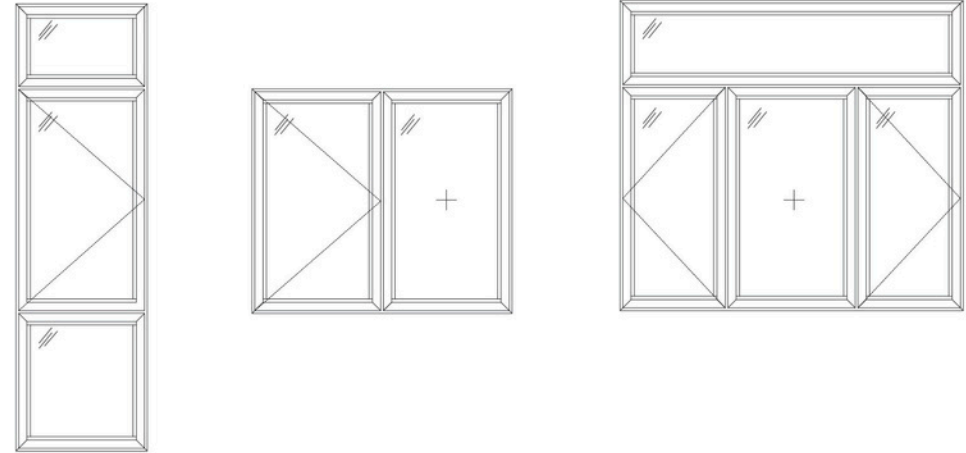


Installation with flush adapter.
(Box)

In both cases Mr-Glass recommends that the openings be treated in conformity with the regulations found under FMA/AAMA 200-12 and FMA/AAMA/WDMA 400-13. Note that liquid flashing and/or impermeabilization, is not within the scope of Mr-Glass field, and as such, it should be installed by the proper tradesman/professional.

INSTALLATION OPTIONS

Mr-Glass's casement and awning windows can be acquired in single, double, or triple, versions. All three versions of these windows can have superior transom. The single window is able to incorporate a fix casement bellow without the need of a clipped mullion.

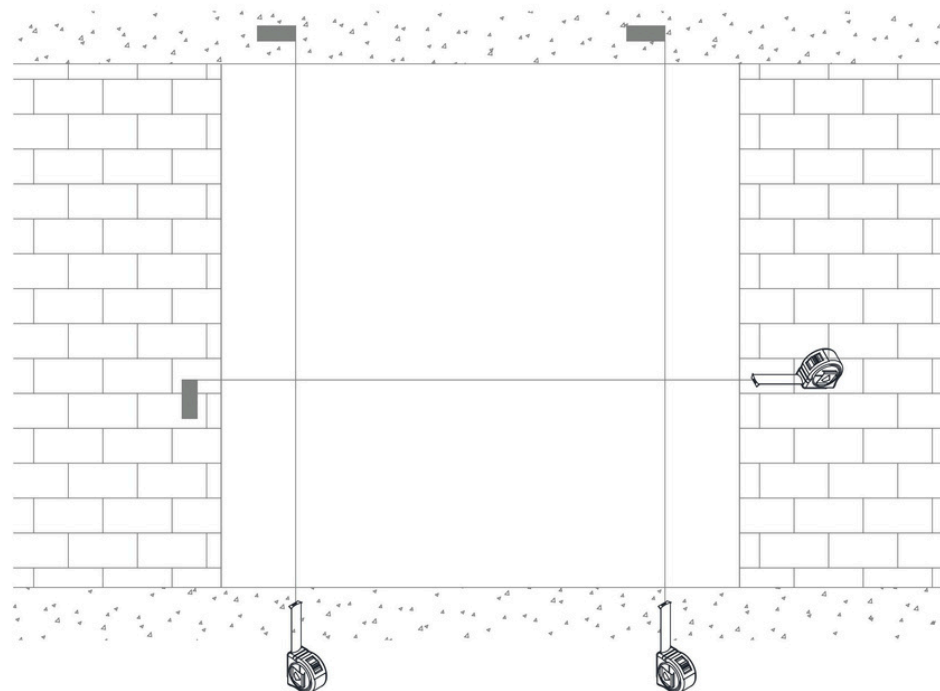


Example of different configuration options.

INSPECTING THE OPENING

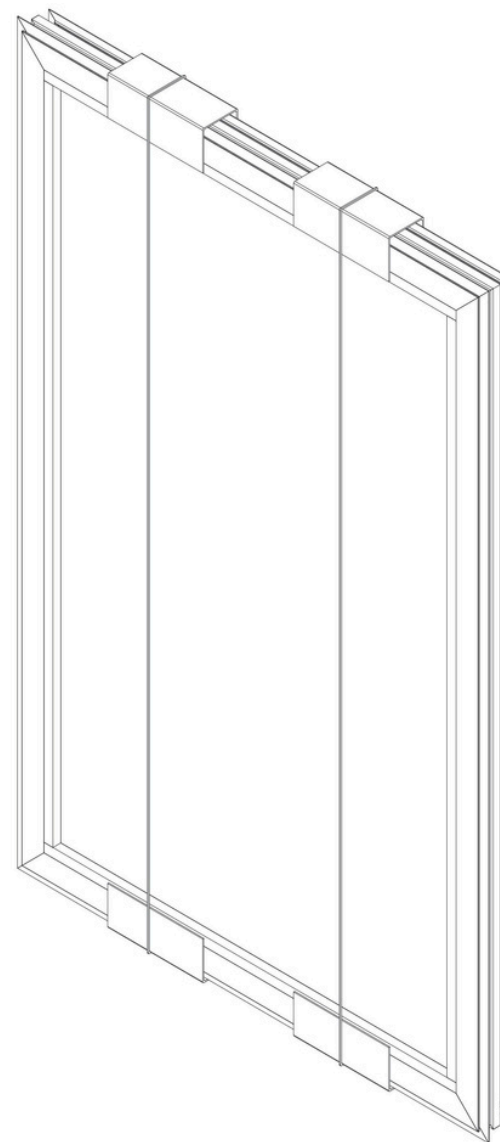
This is the first step, regardless of the type of installation. In all cases:

- A. Verify that the opening has the correct dimensions. That it is angled correctly and that it is in a single plane. There should not be more than 1/4" difference between the angles (in length or width), or more than 1/8" level. If any of these dimensions are incorrect, correct the problem before continuing to the next step.
- B. Inspect the opening and check whether there is mortar missing, cracks on the sill or anything that may cause a vacuum or cavity that could cause infiltration of humidity or water. Also, clean any excess mortar or residue. Before continuing on to the next step make sure you correct any of these possible issues.
- C. Mr. Glass recommends that the sill have an exterior slope in order to guarantee quick evacuation of any water. Do not install into openings with an inverted slope or some other opening that is not the correct drainage of the window.
- D. Verify the shop drawings and ensure that the preparation of the opening conforms with the specifications.
- E. In the case of installation with wood buck, ensure that all bucks are sealed correctly and that the pre-made sill is on the same plane. In case of a problem, **DO NOT INSTALL** until the issue is resolved by the correct tradesman/professional.



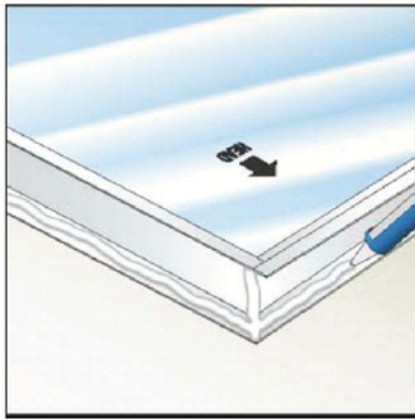
2. UNPACKING THE WINDOW

- A. Remove and discard the cardboard carefully. Do not use a knife, blade, or any other sharp tool that may damage or scratch the aluminum.
- B. The window comes with all the necessary hardware needed to install the window.



INSTALLING THE WINDOW OVER WOOD BUCK

- A. Carefully remove any residue on the wood buck and sill.
- B. Inspect the back of the window flanges. Ensure whether silicone is needed in the corners or in the union of the flanges which may have become misaligned during transportation. Correct this before moving on.
- C. Using alcohol, clean and dry the interior flanges. Then, apply a 3/8" strip of silicone, through the entire perimeter of the flanges including the corners and connections.



Silicone application to the perimeter of the flange.

- D. Before the exterior silicone begins to dry, place the window against the surface of the wood buck and/or concrete sill (if applicable).
- E. Temporarily hold the window while checking the plumb, level, and shape. Then, place the shims, if applicable, from the interior. Lastly, place the temporary screws, if applicable.
- F. Smooth the excess silicone from the flange extending it over the wood buck. If there are still exposed areas around the wood buck, use silicone to cover the area ensuring that the silicone extends from the concrete or CMU to the flanges of the windows.
- G. Place the anchors with the diameters and spacing required by the Florida Approval or the NOA depending on the specifications of the shop drawings. Verify that the anchor that is being used conforms with the minimum length required by Florida Approval. Note that this specific window uses an Ultracon of 5/16" of diameter.
- H. The anchors should be sealed carefully after installation. Place special care on the anchors that are on the sill. Mr. Glass recommends applying a sealant directly on the hole before inserting an anchor to guarantee that it is applied on the base of the anchor head before tightening.
- I. Verify that the window opens and closes correctly. Ensure that window is plumb and that the overlap over the frame is even. If necessary, adjust the hinges. MG 600 uses exclusively four bar hinges which have two regulation slots on the track. The screws come installed in the position that provides the maximum adjustment possible. Once the required adjustment is done apply the final fixing screw in the pre-made hole. After the screw is tightened seal each screw tightly to avoid water infiltration.

Installation after the adjustments
(seal holes before installing screw)



Adjustable holes

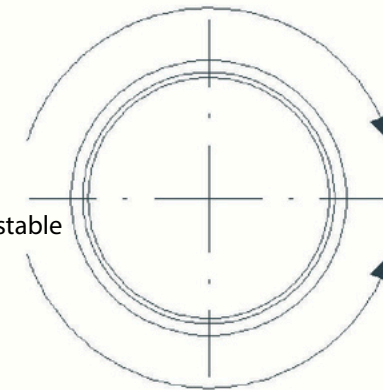
Adjustable holes.

J. Verify the "lock" and "unlock" operation of the locking mechanism. This mechanism is composed of a vertical bar with multiple locking points distributed along the height of the frame. These locking points or "cams" engage with strikes located on the leaf, creating a positive pressure upon locking. The gaskets should provide a uniform compression across the perimeter of the frame. To that end, the "cams" are adjustable, and by turning clockwise the leaf moves in towards the frame increasing the gasket compression. Turning counterclockwise loosens it.



Adjustable Cam

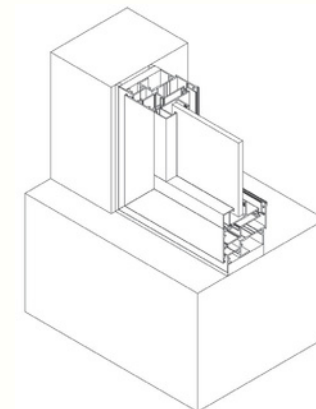
Increase the compression of the Gasket



Loosen the compression of the Gasket

Adjust the compression by using the Cams

K. Reverify plumb, level, and square.



L. On the hinge stile of the frame there are 2 security points and 1 snubber.



Security Points

Snubbers

Security Points are located at top and bottom of the frame and are designed to prevent excessive displacement of the leaf under wind cyclic action. They are not supposed to touch each other upon closing or opening of the window. You should receive them in their nominal position installed from the factory. Nevertheless, they are attached through slots that allow for some adjustment in and out in case it is necessary. The snubbers are located at the center of the frame and help maintain a compression of the gaskets in the hinge stile side, the one part in the frame mates the part in the sash making the desired compression at the end of the sash travel, when closing the sash. They may require some adjustment to allow for more clearance or to create more compression in the gasket. To that purpose, they are attached through slots.



FLUSH ADAPTER INSTALLATION (BOX TYPE)

INSTALLATION WITHOUT WOOD BUCK

- A. Carefully remove any construction residue including dust from the superficial structure where the window will be mounted and sealed.
- B. Inspect the corner joints and ensure that they are correctly sealed. If there are issues, correct before moving on to the next step.
- C. Ensure that the exterior part of the flush adaptor is clean of any residue and if needed clean it with alcohol to guarantee that the silicone will adhere correctly.
- D. Place the window temporarily and check the plumb, level, and angle before placing the "shims" (from the interior) if applicable.
- E. Place the anchors with the diameters and spacing required by the Florida Approval or the NOA depending on the specifications of the shop drawings. Verify that the anchor that is being utilized conforms with the minimum length required by Florida Approval. Note that this specific window uses an Ultracon of 5/16" of diameter.
- F. The anchors should be sealed carefully after installation. Place special care with the anchors that are on the sill. Mr. Glass recommends applying a sealant directly over the hole before inserting an anchor to guarantee that it is applied at the base of the head before tightening.
- G. Verify that the window opens and closes correctly. Ensure that window is plumb and that the overlap over the frame is even. If necessary adjust the hinges. MG 600 uses exclusively four bar hinges which have two regulation slots on the track. The screws come installed in the position that has the maximum adjustment possible. Once the required adjustment is done apply the final fixed screw in the pre-made hole. After the screw is tightened seal each screw tightly to avoid water infiltration (see Fig. 5).

- H. Verify the "lock" and "unlock" operation of the locking mechanism. This mechanism is composed of a vertical bar with multiple locking points distributed along the height of the frame. These locking points or "cams" engage with strikes located on the leaf creating a positive pressure upon locking. The gaskets should provide a uniform compression across the perimeter of the frame. To that end, the "cams" are adjustable, and by turning clockwise the leaf moves in towards the frame increasing the gasket compression. Turning counterclockwise loosens it.
- I. On the hinge stile of the frame there are 2 security points and 1 snubber.



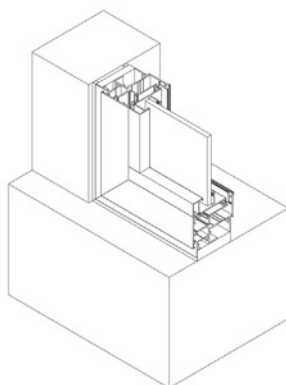
Security Points



Snubbers

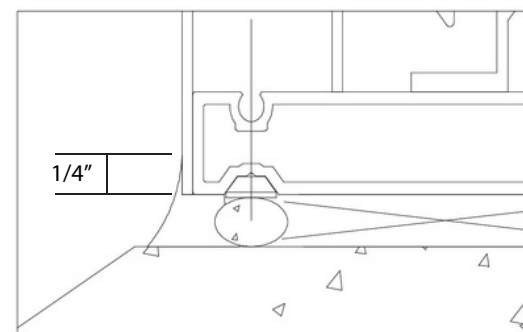
Security Points are located at the top and bottom of the frame and are designed to prevent excessive displacement of the leaf under wind cyclic action. They are not supposed to touch each other upon closing or opening of the window. You should receive them in their nominal position installed from the factory. Nevertheless, they are attached through slots that allow for some adjustment in and out in case it is necessary. The snubbers are located at the center of the frame and help maintain a compression of the gaskets in the hinge stile side the one part in the frame mates the part in the sash making the desired compression at the end of the sash travel when closing the sash. They may require some adjustment to allow for more clearance or to create more compression in the gasket. To that purpose they are attached through slots.

J. Reverify the plumb, level, and angle.



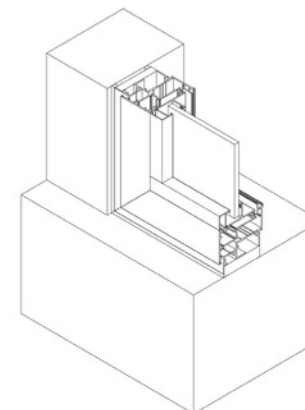
SEALING THE WINDOW

- A. Use an open cell backer rod around the perimeter of the window. Push the backer softly toward the inside creating enough space to allow penetration of the silicone.
- B. Apply the silicone around the entire perimeter. Ensure that the silicone flows forward and over the border of the window approximately 1/4" as shown in the following figure.



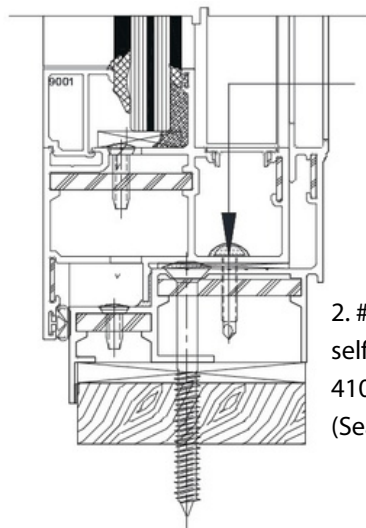
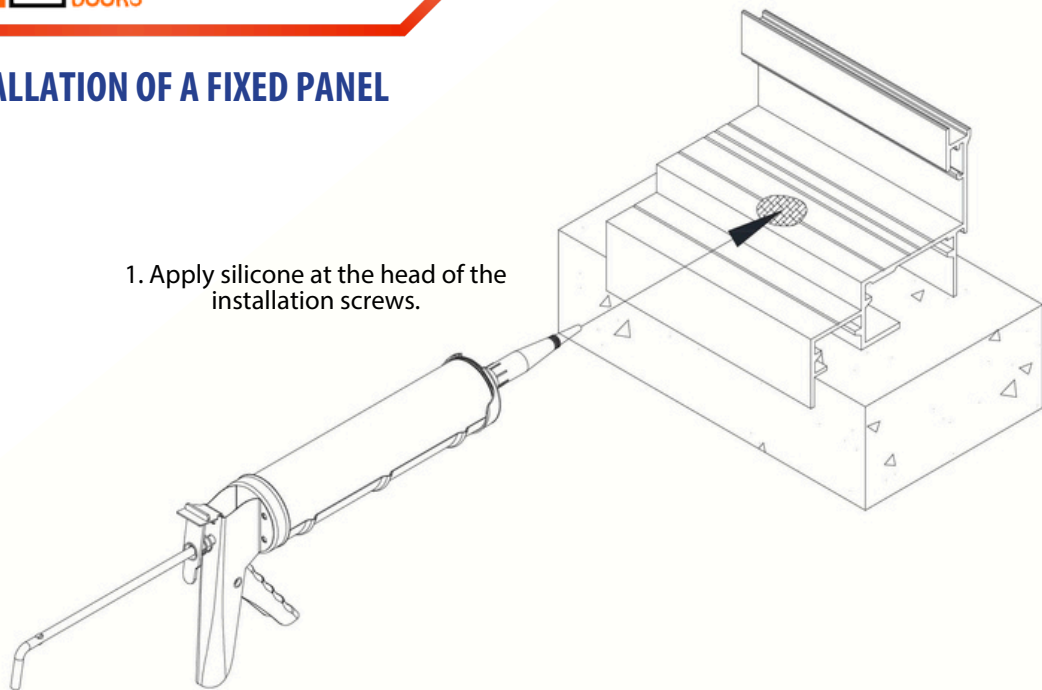
Seal the window with a flush adapter.

- C. Smooth the silicone and clean any excess residue.



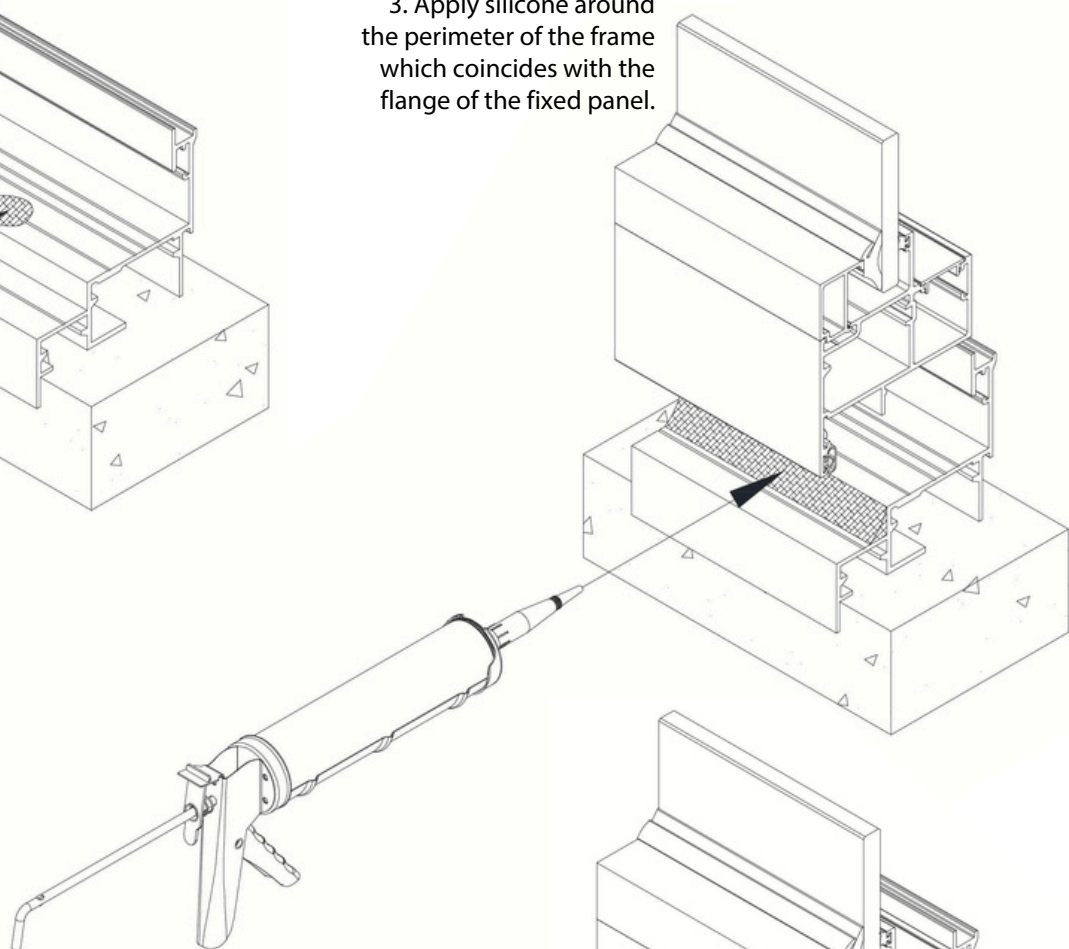
INSTALLATION OF A FIXED PANEL

1. Apply silicone at the head of the installation screws.

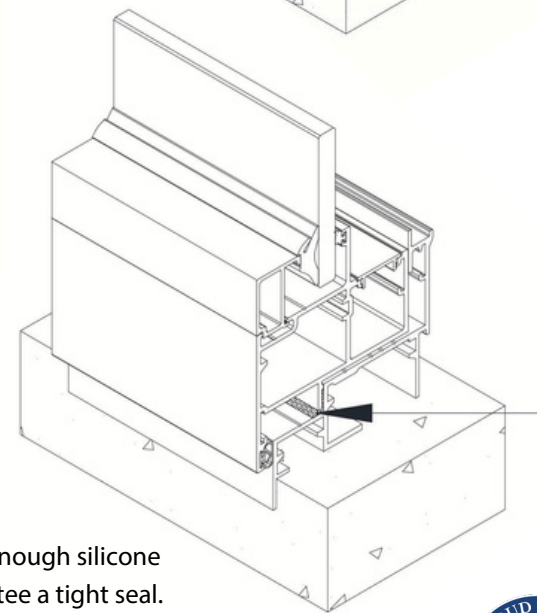


2. #10-16 PH-PH
self drilling screw
410 S/S LG 1"
(Seal heads)

3. Apply silicone around the perimeter of the frame which coincides with the flange of the fixed panel.

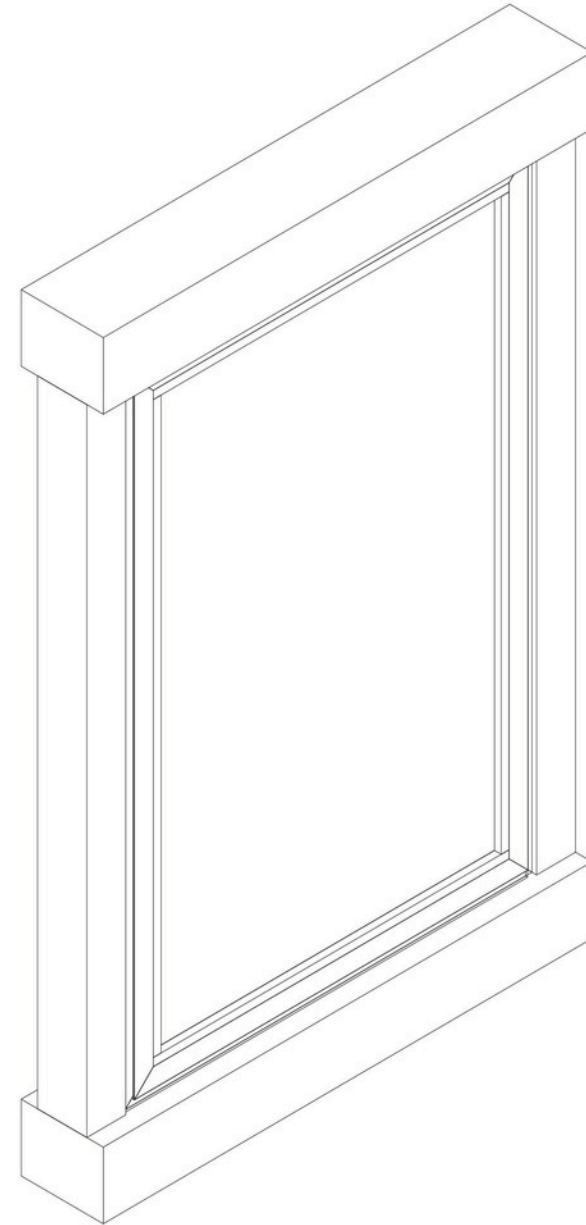


4. Apply enough silicone to guarantee a tight seal.



CLEANING OF THE WINDOW

- A. Once installation is complete and inspected, the window should be cleaned with water or a mild soap, Remove all grease stains and silicone as possible on the aluminum and on the glass.
- B. Do not use sharp objects or scissors that could scratch or dent the aluminum or scratch the glass.
- C. Remove all temporary paper seals from the glass and/or window.
- D. Pick up the work area. Discard all cardboard, packaging and throw away in a location specified by the GC.



GUTTER INSTALLATION

The gutter is provided separately and should be installed on-site. The installation process is very simple:

1. Carefully clean the upper flange of the frame and the inner part of the gutter, ensuring they are free of dust, debris, water, and soil.
2. Apply a bead of silicone to the surfaces of the gutter that come into contact with the window frame (Refer to figure ___ for the installed gutter).
3. Hook the gutter onto the frame.
4. Thoroughly clean the gutter and frame.

