

INSTALLATION MANUAL

SERIES MG-200 / MG-350 SH
(SINGLE HUNG WINDOW)



MR-GLASS[®]
DOORS & WINDOWS
MANUFACTURING



INDEX

INTRODUCTION / TYPE OF INSTALLATION	3
INSPECTION OF THE OPENING	4
UNPACKING THE WINDOW	5
WOOD BUCK INSTALLATION	6
WINDOW INSTALLATION ON WOOD BUCK	7
WINDOW INSTALLATION WITH FLUSH ADAPTER (BOX FRAME).....	8
ANCHORS (MG-200)	9
ANCHORS (MG-350 SH)	11
WINDOW CLEANING	13

INTRODUCTION

These instructions are provided as general guide for installation. The Florida Approvals FL-20352 and 41887 (for MG-200 and MG-350 SH respectively) should be used together with these instructions.

Only professionals and experienced installers should attempt to install these windows.

Read all instructions carefully. If in doubt contact Mr-Glass Doors and Windows, we will be happy to assist.

Use the required protection gear and take all necessary safety precautions depending on the type of installation, especially those concerning working on heights.

TYPE OF INSTALLATION

The single hung window MG-200 and MG-350SH features a frontal flange to install on wood buck or specially shaped concrete sill. With the help of a flush adapter it can also be installed as a box frame on a flat substrate.

In constructions with extreme wind and water exposure, Mr-Glass recommends that masonry openings be treated with liquid flashing and sealed per standards FMA/AAMA 200-12 and FMA/AAMA/WDMA 400-13. That is not mandatory per code and depends on the specifications of the project.

MG-200

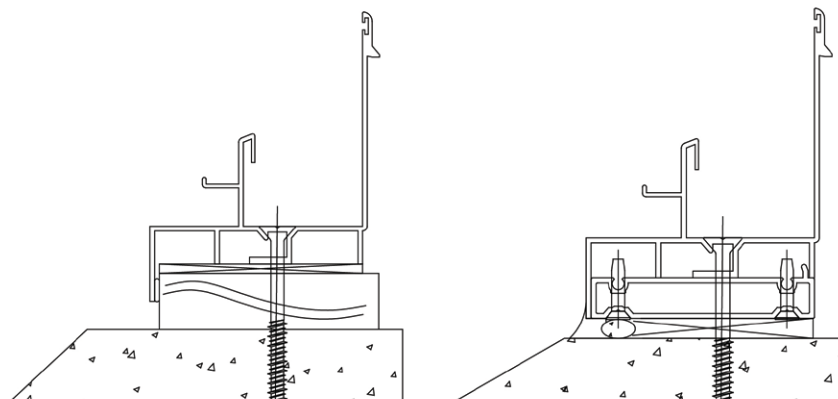


Fig. 1

MG-350 SH

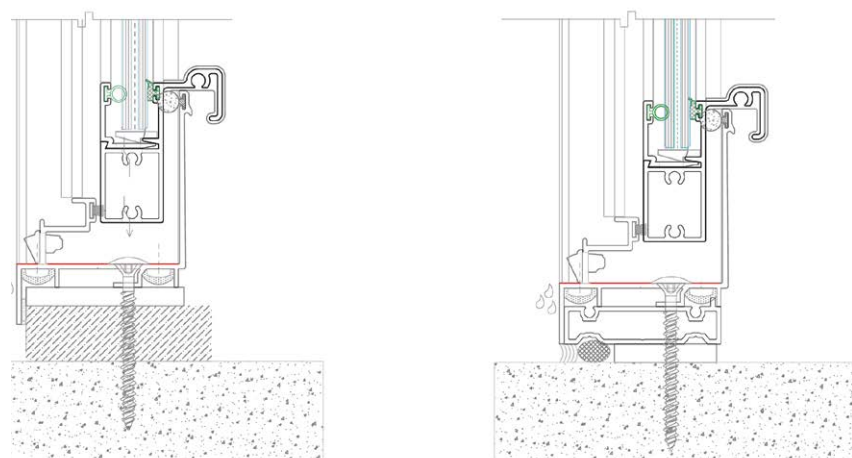


Fig. 2

INSPECTION OF THE OPENING

This is the first step and needs to be executed regardless of the type of installation:

- A. Verify that the opening has the correct dimensions. That it is square, plumb and true. No more than 1/4" difference in square (diagonals) is acceptable. The dimensions of height and width should be within 1/8" of the nominal opening dimension.
- B. In case of masonry openings check for cracks or missing mortar, mainly in the sill that might eventually allow water and humidity migration. Clean any residue of mortar. Any defect should be addressed and corrected by the trade responsible for the opening.
- C. Mr-Glass recommends the sill to have a slope to direct the water out of the building. No openings with inverted slope should be accepted. That will compromise the correct drainage and function of the window.
- D. Check the shop drawings and verify that the opening preparation follows the specifications.
- E. In case the installation is with wood buck, verify that a proper seal has been applied all around between the wood and the masonry. Also verify that the wood bucks touch each other and that they have been sealed to one another.
- F. The wood buck opening dimensions should be verified. It should be plumb, square and true. In case of detecting any defects, do not install until the issue is corrected.

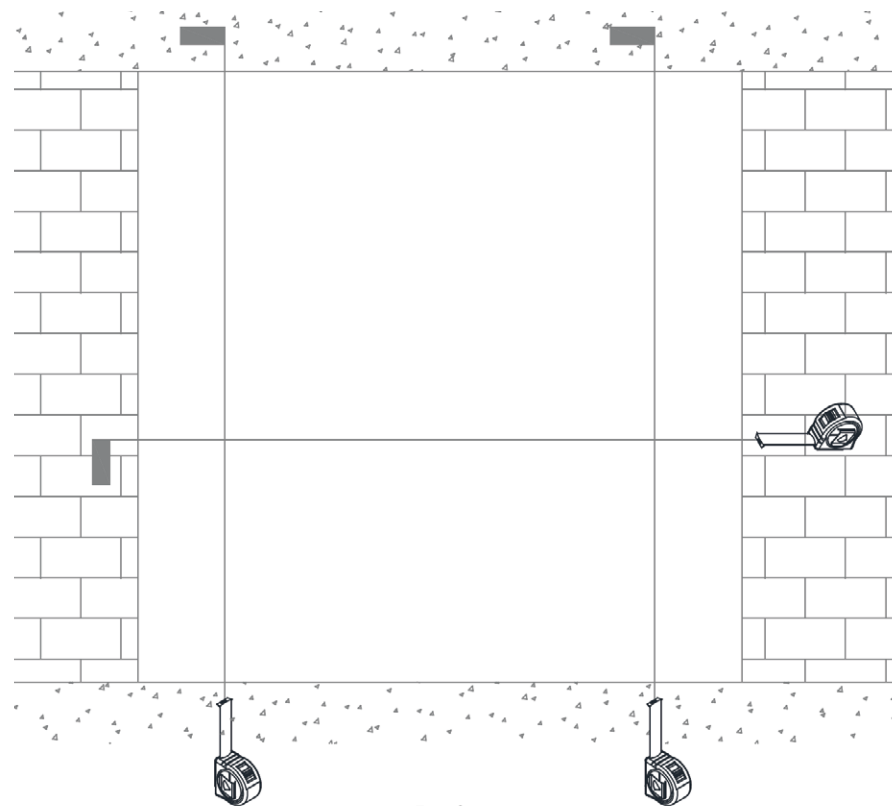


Fig. 3

UNPACKING THE WINDOW

- A. In case of a retrofit: Before removing any existing window verify that the new window corresponds to the specifications of the project in type and dimensions and that they match the opening size.
- B. Carefully remove the straps and cardboard. Do not use sharp or pointy objects that may damage the aluminum finish or the glass.
- C. Verify the window and check that everything is correct. To verify the operation, make sure that the window is standing upright. In any other position the weight of the sash will not be loading the balances and opening the locks will trigger a sudden, violent opening of the sash that may injure the installer and damage the window.
- D. Remove and place the covers and vent tops in a safe location. The covers cannot be installed until the anchor installation inspection has been completed and approved by the building official.

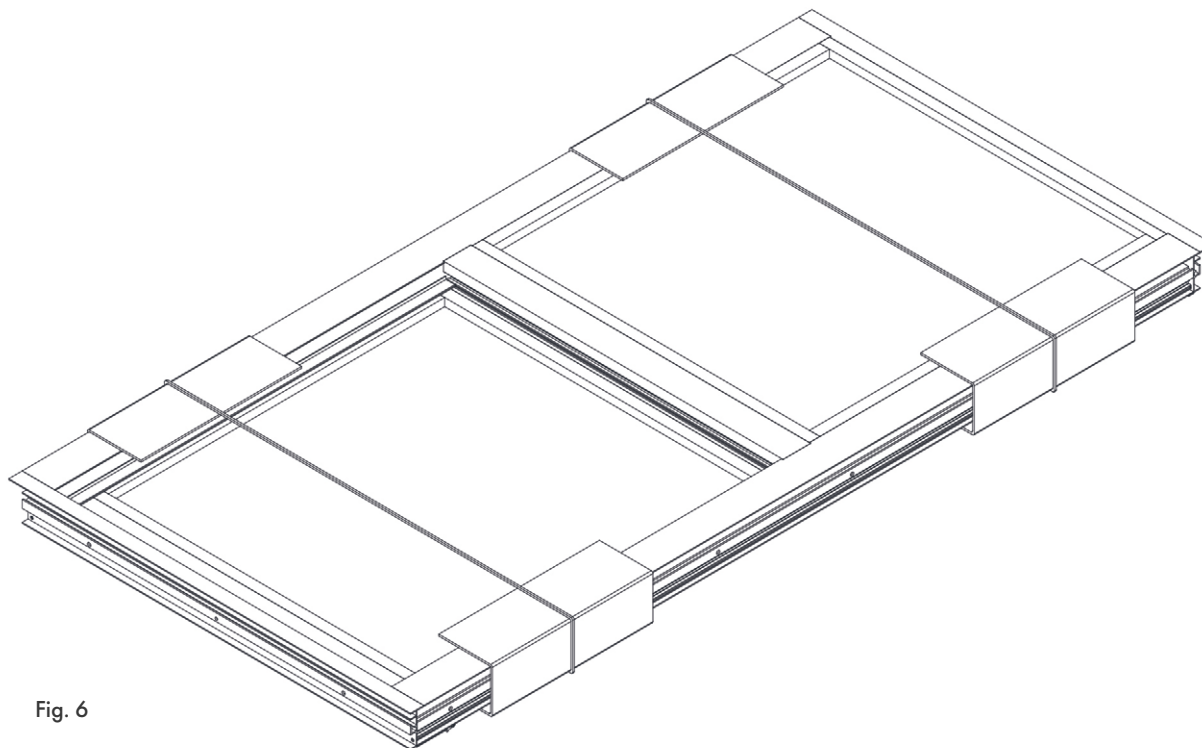


Fig. 6

WOOD BUCK INSTALLATION

In case the wood buck installation falls in the installers scope:

- A. Use only pressure treated wood buck of appropriate dimensions.
- B. The wood buck should be attached to the masonry independently of the window. Quantity and anchor disposition will be according to the engineer's or shop drawings' specifications.
- C. Prior to installation of the buck apply a 3/8" bead of silicone on the face of the wood buck around the entire perimeter (see figure 4) This seal will be smashed to the masonry opening when the wood buck is applied to it.
- D. When installing the bucks, make sure that they align with the concrete sill

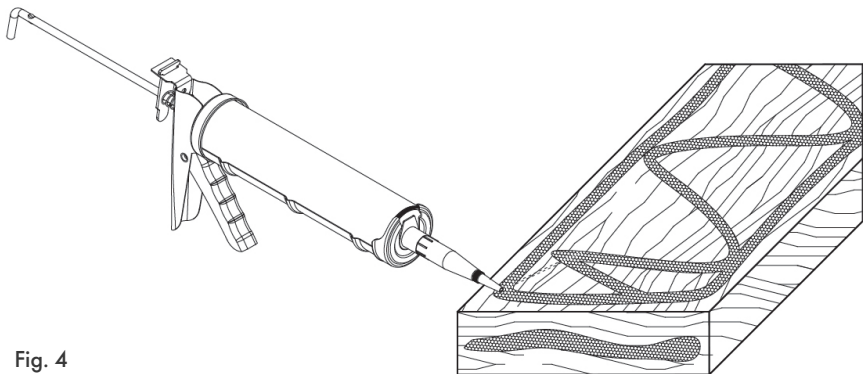


Fig. 4

(if it is the case) creating a continuous, planar mounting surface for the flanges.

- E. Once the bucks are attached to the masonry apply a bead of silicone to

the exterior perimeter between the wood, the masonry, and into the joinery between the end of the bucks. Tool the sealant ensuring its continuity.

- F. The wood buck opening dimensions should be verified. It should be plumb, square and true. In case of detecting any defects do not install until the issue is

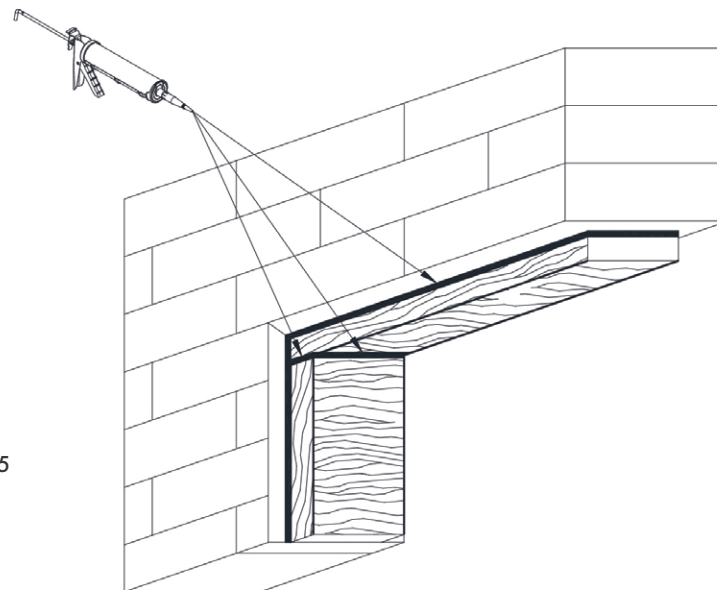


Fig. 5

corrected.

WINDOW INSTALLATION ON WOOD BUCK

- A. Carefully remove any residues from the face of the bucks and concrete sill (if that is the case).
- B. Thoroughly inspect the back of the flanges of the window as well as the corners. It may occur that they are misaligned, or a seal is damaged due to manipulation and transport movements. Ensure that the connection between flanges is properly sealed and that they are properly aligned.
- C. Before inserting the window frame into the opening, thoroughly clean the interior of the flanges and apply a generous bead of silicone all around the flange perimeter where it will be in contact with the wood buck.
- D. Immediately after, insert the window into the opening. Do not allow for the silicone to start curing which will occur within a few minutes from application. Insert the shims as required to make the window plumb. To hold it in place use temporary screws to fix the window to the wood buck.

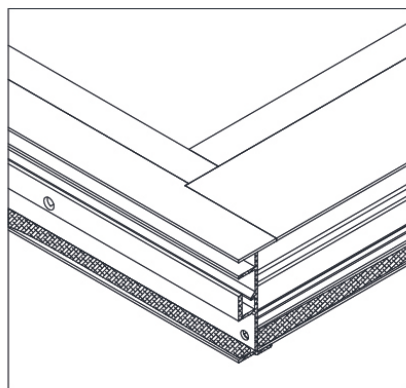


Fig. 7
Application of silicone at flange

- E. Use the appropriate anchor type and length per Florida Approval. Ensure that each anchor is properly shimmed before applying full torque. See in the next section the anchor length that is required to ensure that the appropriate embedment is being provided.

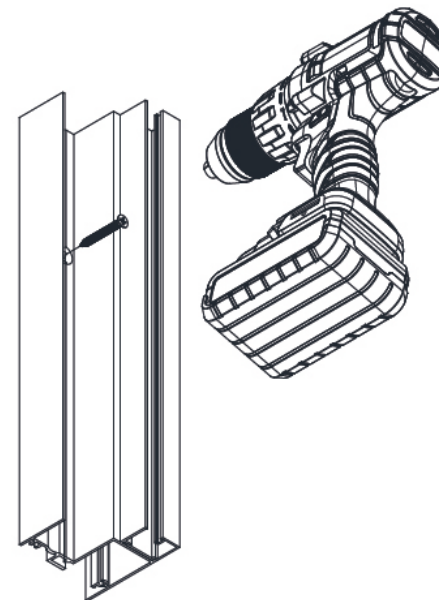


Fig. 8
Anchors at Jamb

- F. See the next section for the anchor length that is required to ensure the appropriate embedment is being provided.
- G. Seal all the screw heads.
- H. Verify the plumb, level and square.
- I. Tool the overflowing silicone from the flange extending it over the buck. Make sure that the exposed surface of the wood buck is covered with silicone. Apply extra silicone if required (this does not apply to openings treated with liquid flashing).
- J. Install the vent top (at MG200 only. The vent top at MG350SH is already in place from the factory) and covers. Verify that the vent locks/unlocks and operates satisfactorily.

WINDOW INSTALLATION WITH FLUSH ADAPTER (BOX FRAME)

- A. Carefully remove any residues from the masonry opening and concrete sill (if that is the case).
- B. Thoroughly inspect the back of the flanges of the window as well as the corners. They may be misaligned, or a seal may be damaged due to manipulation or transportation movements. Ensure that the connection between flanges is properly sealed and that they are properly aligned. Apply a generous silicone bead all along the flange around the window.
- C. Clean the face of the flush adapter that will be in contact with the interior of the flange of the window and put together using #8 screws.
- D. Use the appropriate anchor type and length per Florida Approval. Ensure that each anchor is properly shimmed before applying full torque. Note that the window is provided with a standard hole pattern (spacing) from the factory. At certain wind load pressures additional anchors may be required at sill and jambs. The current Florida Approval should be consulted.
- E. See the next section for the anchor length that is required to ensure that the appropriate embedment is being provided.
- F. Seal all the screw heads.
- G. Verify that it is plumb, level and square.
- H. To seal the perimeter use open cell backer rod as required. Apply sealant all around and project the seal up and out to cover the flange 1/4" (See Fig.9).
- I. Install the vent top and covers. Verify that the vent locks/unlocks and operates satisfactorily.
- J. Apply the plastic covers at ends of horizontals in the vent. Use silicone to fix them if necessary.

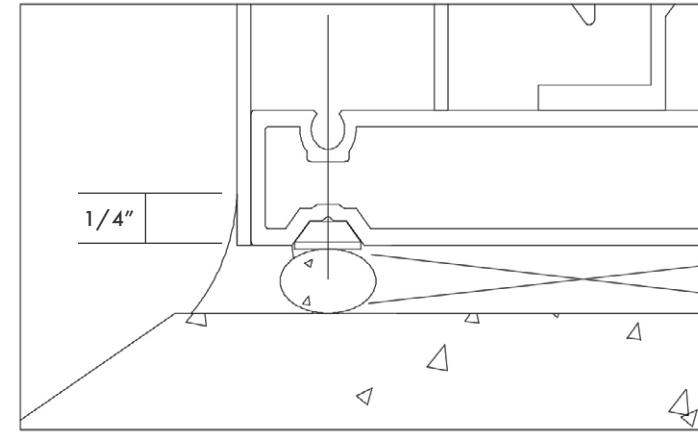


Fig. 9 Window seal with "Flush Adapter"

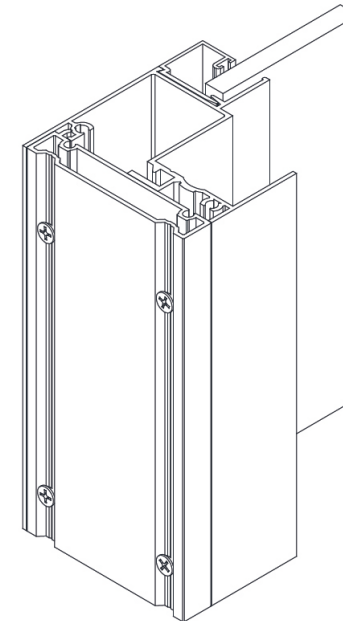


Fig. 10 "Flush Adapter" detail at Jamb

ANCHORS (MG-200)

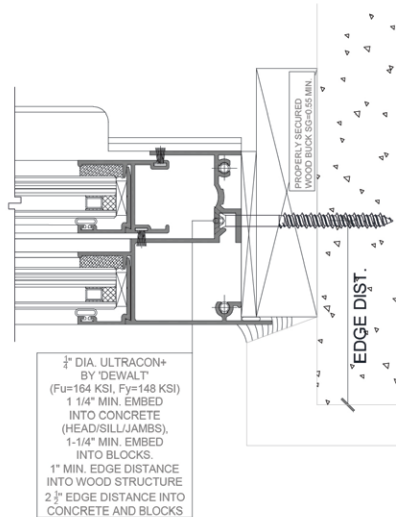
Anchor options for series MG-200 include:

a) THRU "1 BY" and into concrete.

Ultracon



ø1/4 FLAT HEAD (FH)
3 1/4" Minimum Length (For 1/4" max. shim space)

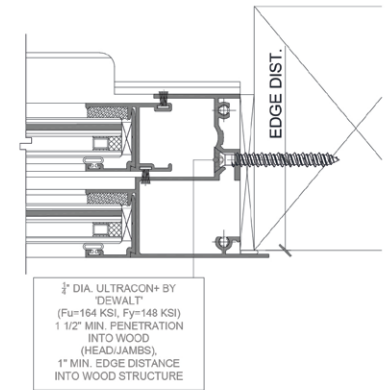


b) Into "2 BY" wood buck or wood structures.

Ultracon

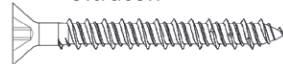


ø1/4 FLAT HEAD (FH)
2 1/4" Minimum Length (For 1/4" max. shim space)



c) Into concrete.

Ultracon



ø1/4 FLAT HEAD (FH)
2 1/4" Minimum Length (For 1/4" max. shim space)

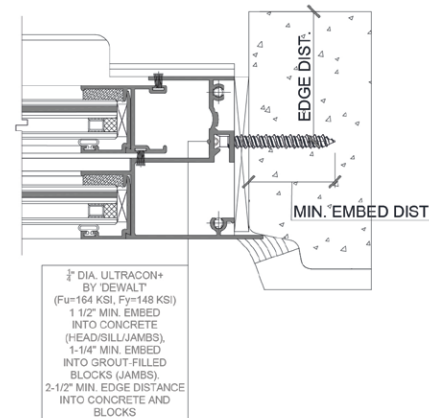
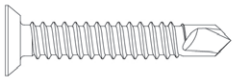


Fig. 11

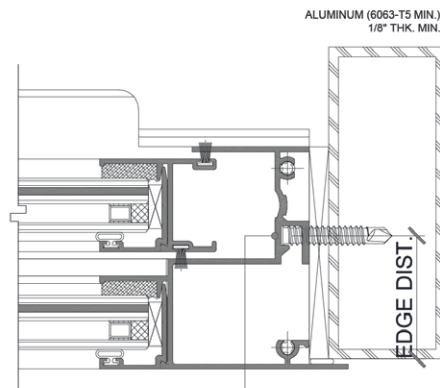
ANCHORS (MG-200) (CONT.)

d) Into Metal Structures (Aluminum)

#14 SMS OR SELF-DRILLING



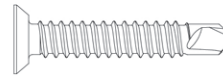
ø1/4 FLAT HEAD (FH)
1 1/2" Minimum Length (For 1/4" max. shim space)



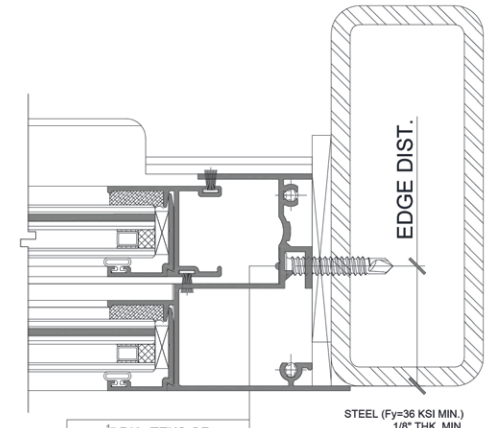
1/4" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS) (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS, 3/4" MIN. EDGE DISTANCE INTO METAL STRUCTURE

e) Into Metal Structures (Steel)

#14 SMS OR SELF-DRILLING



ø1/4 FLAT HEAD (FH)
1 1/2" Minimum Length (For 1/4" max. shim space)



1/4" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS) (3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS, 3/4" MIN. EDGE DISTANCE INTO METAL STRUCTURE

Fig. 12

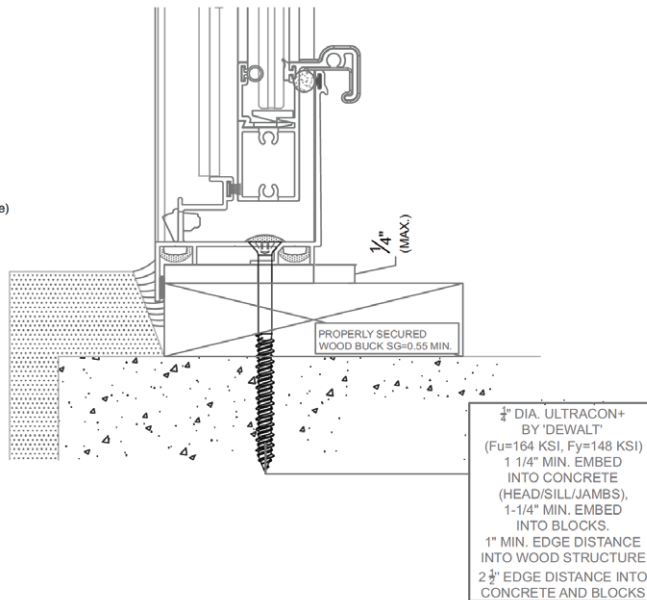
ANCHORS (MG-350 SH)

Anchor options for series MG-350 SH include:

a) THRU "1 BY" and into the concrete.
ULTRACON



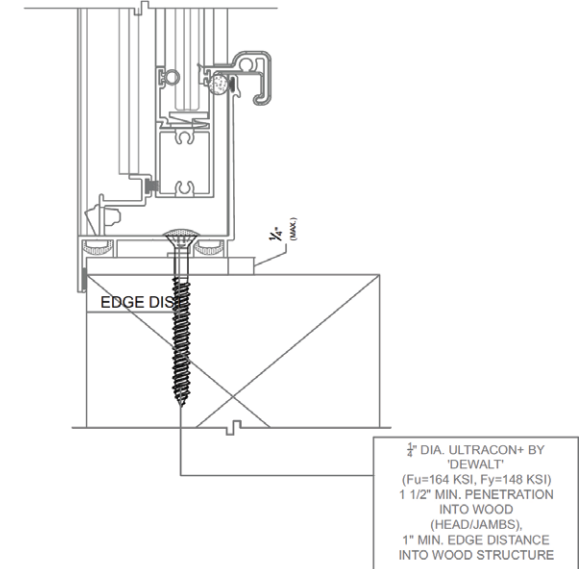
Ø 1/4" FLAT HEAD (FH)
3 1/2" Minimum Length (For 1/2" max. shim space)



b) THRU "2 BY" wood buck or wood structures.
ULTRACON



Ø 1/4" FLAT HEAD (FH)
2 1/2" Minimum Length (For 1/2" max. shim space)



c) Into concrete.
ULTRACON



Ø 1/4" FLAT HEAD (FH)
2 1/2" Minimum Length (For 1/2" max. shim space)

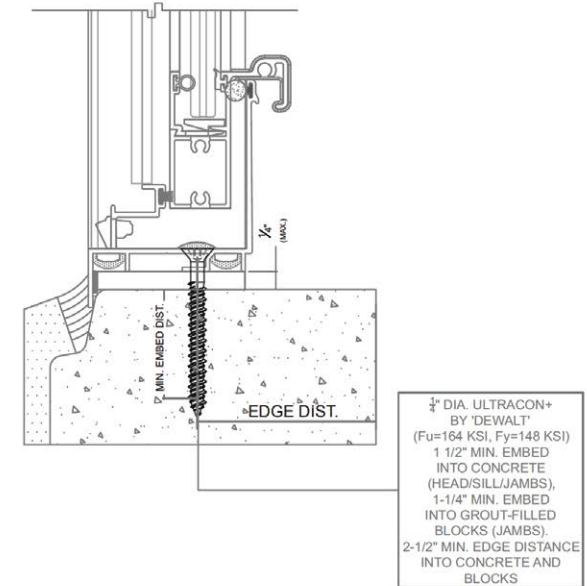


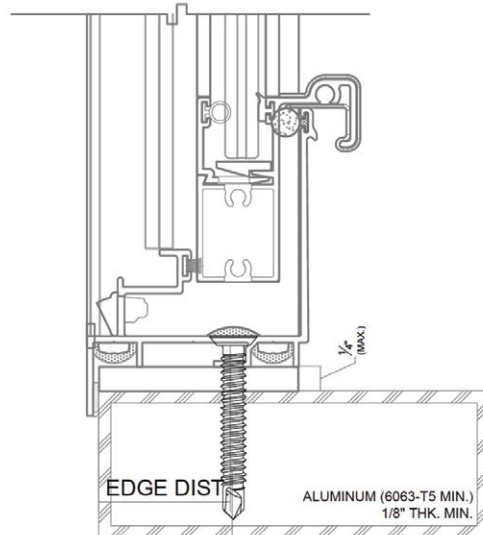
Fig. 13

ANCHORS (MG-350 SH) (CONT.)

d) Into Metal Structures. (Aluminum)
#14 SMS OR SELF-DRILLING



Ø ¼" FLAT HEAD (FH)
1 ½" Minimum Length (For ¼" max. shim space)

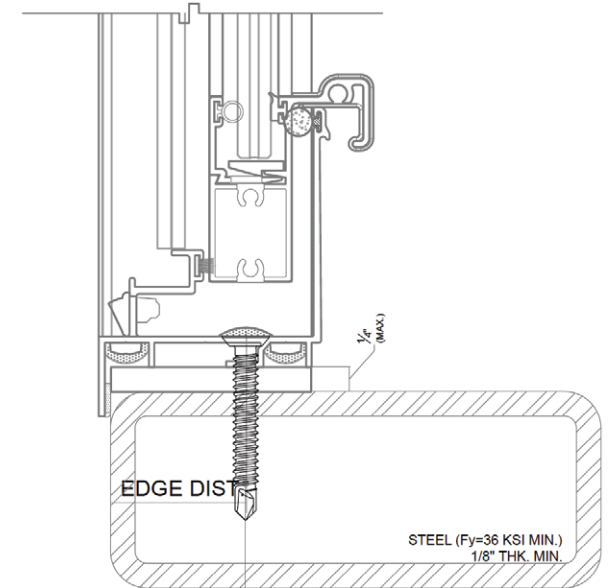


#14 SMS OR
SELF-DRILLING
SCREWS (GRADE 2 CRS)
(3) THREADS MIN.
TO EXTEND BEYOND
METAL THICKNESS,
3/4" MIN. EDGE DISTANCE
INTO METAL STRUCTURE

e) Into Metal Structures. (Steel)
#14 SMS OR SELF-DRILLING



Ø ¼" FLAT HEAD (FH)
1 ½" Minimum Length (For ¼" max. shim space)



#14 SMS OR
SELF-DRILLING
SCREWS (GRADE 2 CRS)
(3) THREADS MIN.
TO EXTEND BEYOND
METAL THICKNESS,
3/4" MIN. EDGE DISTANCE
INTO METAL STRUCTURE

Fig. 14

WINDOW CLEANING

- A. Once the installation is complete proceed to clean the window. Mr-Glass recommends using water and mild soap or detergent.
- B. Consult Service Bulletin 01-2021 "Maintenance of coated surfaces" and 02-2021 "Glass Cleaning Recommendations".
- C. Do not use sharp objects that may damage the finish in the aluminum or scratch the glass.
- D. Remove all temporary seals and logos.
- E. Clean the work area and dispose of all the packaging residues.

Fig. 15

