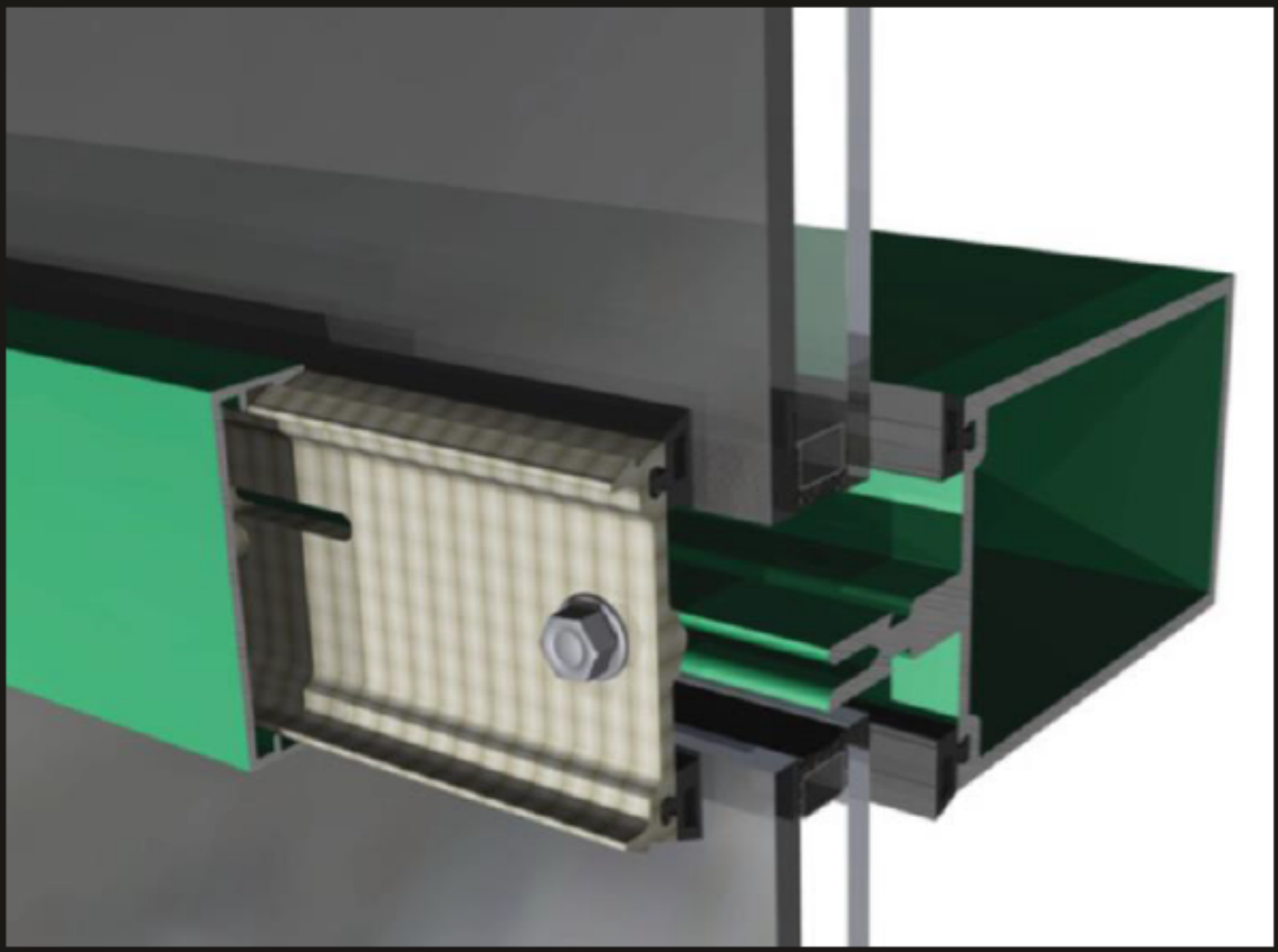
FIBERGLASS PRESSURE PLATE

Installation Instructions



July 2021

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Minimizing Condensation

Note: Please reference EFCO's "Understanding Condensation" brochure which can be obtained through your EFCO representative.

Condensation will form on any surface when unfavorable conditions (interior temperature and relative humidity and exterior temperature) are present. When the formation of excessive condensation is a concern, it is highly recommended that a design professional is utilized to perform an analysis of the shop drawings to recommend the best possible installation methods. Please contact your EFCO representative for information on EFCO's Thermal Analysis Services.

Many current installation practices lead to an increase in the possibility of the formation of condensation. Though not all inclusive, the list of examples below illustrates conditions under which condensation is likely to occur:

1. Bridging system thermal break with non-thermally broken metal flashing or lintels that are exposed to the exterior
2. System exposure to cold air cavities
3. Interior relative humidity levels not maintained at recommended levels, see EFCO's "Understanding Condensation" brochure
4. Inadequate separation between system and surrounding condition at perimeter
5. Product combinations during the shop drawing stage that result in bridging thermal breaks of one or all products involved

Note: These installation instructions are a supplement to the approved final shop drawings and are to be used in conjunction with those drawings.

Section I: General Notes and Guidelines

I. HANDLING / STORING / PROTECTING DURACAST - The following precautions are recommended to assure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY - Store with adequate separation between components so the material will not rub together. Store the material off the ground. Protect materials against weather elements and other construction trades.

B. KEEP MATERIAL AWAY FROM WATER, MUD, AND SPRAY - Prevent cement, plaster, and other materials from contacting with and damaging the finish. Do not allow moisture to be trapped between the finished surface and the wrapping material.

C. PROTECT MATERIALS AFTER ERECTION - Wrap or erect screens of plastic sheeting over material. Cement, plaster, terrazzo, and other alkaline materials are very harmful to the finish and are to be removed with soap and water before hardening. Under no circumstances should these materials be allowed to dry or permanent staining will occur.

D. CUTTING OF FIBERGLASS - Fiberglass can be cut with a standard miter saw using a carbide blade; however, the life of the blade life will be shortened significantly due to the high glass content of fiberglass. For best results use a diamond tipped or concrete blade for extended blade life.

II. GENERAL GUIDELINES - The following practices are recommended for all installations:

A. REVIEW APPROVED SHOP DRAWINGS – Become thoroughly familiar with the project. Shop drawings govern when conflicting information exists in these installation instructions.

B. INSTALL ALL FRAMING MATERIAL PLUMB, LEVEL, AND TRUE – Proper alignment and relationships to benchmarks and column centerlines, as established by the architectural drawings and the general contractor, must be maintained.

C. The sequence of erection should be coordinated with the project superintendent to prevent delays and minimize the risk of material damage. **Note: If preset anchors are required, coordinate and supervise anchor placement with the general contractor.**

D. Verify that all job site conditions and accompanying substrates receiving the installation are in accordance with the contract documents. If deviations occur, notification must be given **IN WRITING** to the general contractor and differences resolved before proceeding further with the installation in the questionable area.

E. Prevent all aluminum from coming in direct contact with masonry or dissimilar materials by means of an appropriate primer.

SECTION I: GENERAL NOTES and GUIDELINES

F. Follow EFCO framing installation and glazing instructions.

G. Verify contents of all material shipments received upon their arrival. Verify quantity and correct finishes. **NOTIFY EFCO IMMEDIATELY OF ANY DISCREPANCIES OR DAMAGE THAT MAY HAVE OCCURRED.**

H. Throughout these instructions the term "**SEALANT**" will appear. For the purposes of these instructions, sealant is to be defined as the following:

SEALANT - A weather resistant, gunnable liquid filler which when cured provides a resilient, flexible (± 50% movement capability) air and water seal between similar and dissimilar materials.
All sealant must meet **ASTM C 920, CLASS 50.**

BUTYL SEALANT- A non-skinning, non-hardening material **(NAAMM Reference Standard 5C-1).**

NOTE: All sealant must be compatible with all surfaces on which adhesion is required, including other sealant surfaces. All frame surfaces should be clean, dry, dust, and frost free. If a primer is required, it must be applied to clean surfaces. All perimeter substrates shall be clean and properly treated to receive sealant.

This system is designed and has been tested to utilize butyl or silicone sealants at all internal joineries, i.e., joint plugs, gasket intersections, etc.

Regardless of the sealant used, the customer should contact the sealant manufacturer to determine compatibility and adhesion. Follow sealant manufacturer's proper application procedures and quality assurance programs for weather sealing.

Maintain caulk joints as shown in the approved shop drawings. Unless specified otherwise, most sealant manufacturers recommend a 3/8" minimum perimeter caulk joint. A 3/4" minimum joint is recommended at the head condition to accommodate thermal expansion and contraction.

Anchoring surfaces of perimeter construction must be level and plumb within the adjustable limits of the head, jamb, and sill framing.

Section II: Glazing Prep. & Installation

Note: All anchors must be "FIXED" before glazing installation begins.

5600 Series — Outside Glazed Installation

A. Seal and install Joint plugs per Installation Instruction *Y302 - Section VI: Glazing Preparation*. **DO NOT install a Thermal Isolator as indicated in Steps 1A and 1B**.

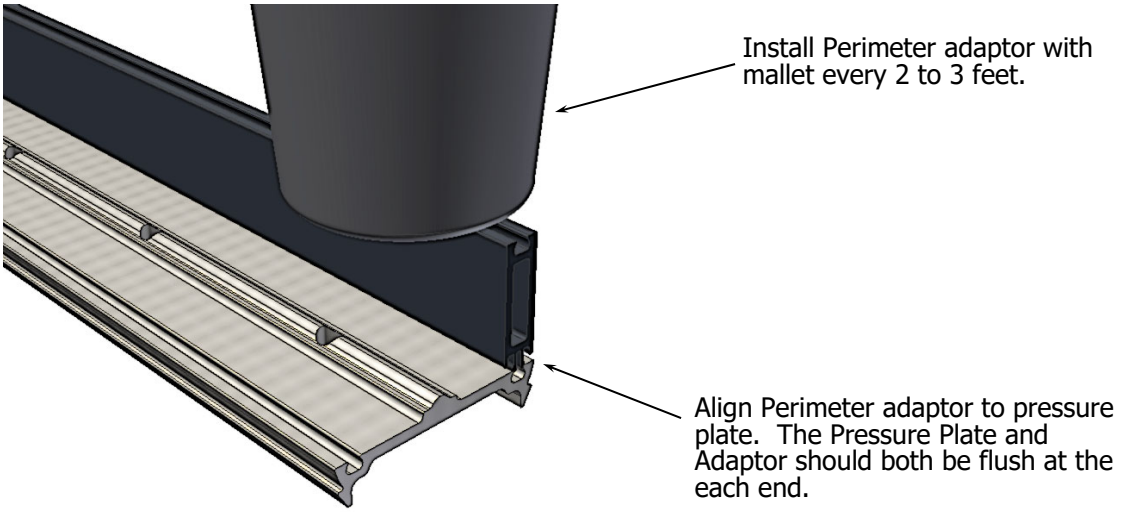
B. Install Setting Blocks, Infill Glazing Material, Temporary Retainers, and Side Blocks per Installation Instruction *Y302 - Section VII: Glazing Installation, Steps #3 thru #5.*

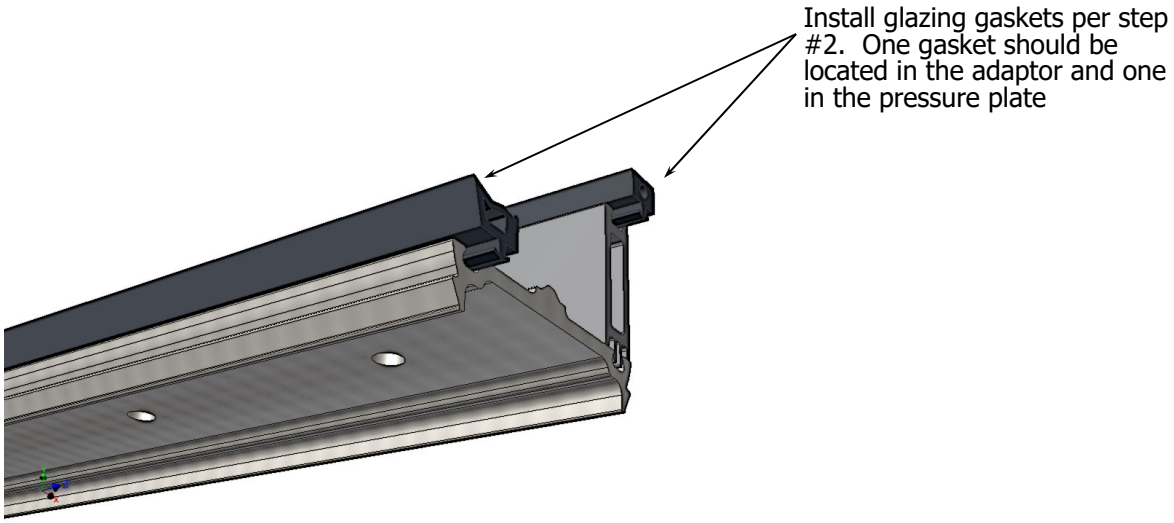
Section III: Pressure Plate Installation

Note: All anchors must be "FIXED" before glazing installation begins.

STEP #1 Perimeter Pressure Plate Preparation

A. If not using a Perimeter Adaptor skip to Step #2
B. Align the Perimeter Adaptor the Pressure plate and install using a rubber mallet or hammer every 2 to 3 feet. The adaptor should be installed flush with each end of the pressure Plate.
C. When installing the exterior gasket material as described in step #2, one gasket should be installed in the pressure plate and the second gasket installed in the Perimeter Adaptor.



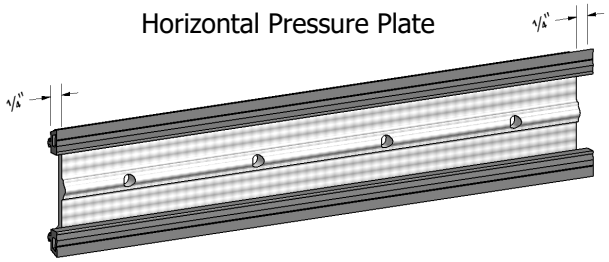


Section III: Pressure Plate Installation

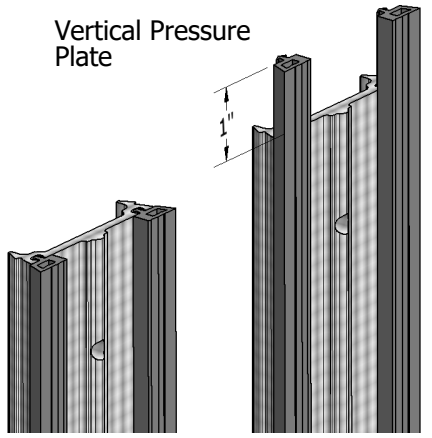
Note: All anchors must be "FIXED" before glazing installation begins.

STEP #2 Pressure Plate Preparation

A. Remove exterior gasket material from the reel and allow to relax and shrink.
B. Insert glazing gaskets into the pressure plates. For horizontals, gaskets should extend 1/4" beyond each end of the pressure plate. For vertical single story applications, gaskets should be flush with both ends of the pressure plate. For vertical multi-story applications, gaskets should extend 1" beyond the top end of the pressure plate and flush with the bottom end of the pressure plate.



Typical horizontal gasket extended ¼" each end.

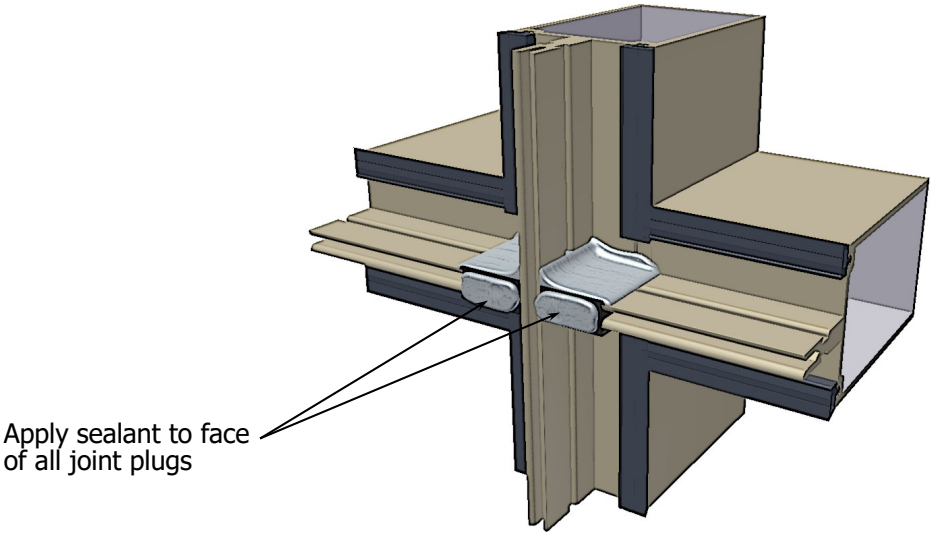


Typical vertical gasket cut flush top and bottom.

Vertical at multi-story, gasket extended 1" at top only

STEP #3 Joint Plug Face Sealing

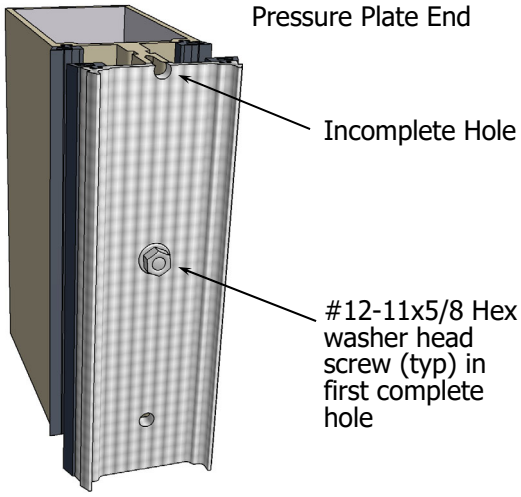
A. Apply sealant to the face of the joint plugs prior to installation of vertical and horizontal pressure plates.

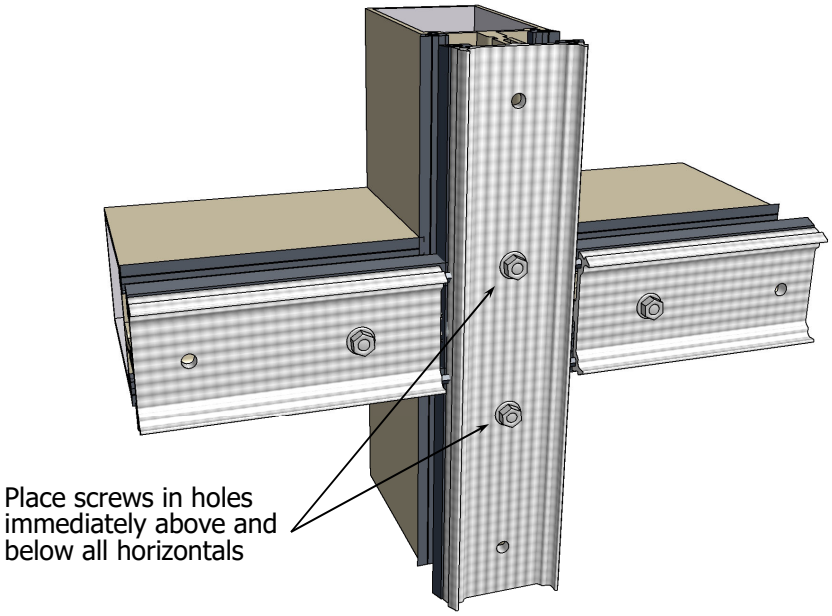


Section III: Pressure Plate Installation

STEP #4 Install Pressure Plate

A. First attach the vertical pressure plates and then the horizontal pressure plates into position using stainless steel hex washer head screws (#12-11 x 5/8) Locate screws in the first complete pre-punched hole on each end of the pressure plate no more than 3.5" from the end. Refer to the final approved shop drawings for screw spacing.
B. Torque screws to 80 inch-pounds.
C. In cold Weather, first torque all pressure plate screws to 40 inch-pounds. Once all four sides have been clamped down, torque all screws to 80 inch-pounds.
D. When possible, work from the center outward on horizontals and from the sill upward on verticals.
E. Glazier should always place screws in pre-punched holes immediately above and below each horizontal. This will provide maximum control of pressure on mullion plugs that provide a critical sealing function.
F. The pressure plate should extend 3" past any splice (**see Section IV: Vertical Splice Joints).**



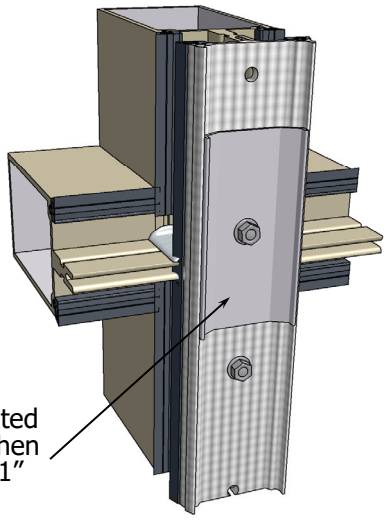


Section III: Pressure Plate Installation

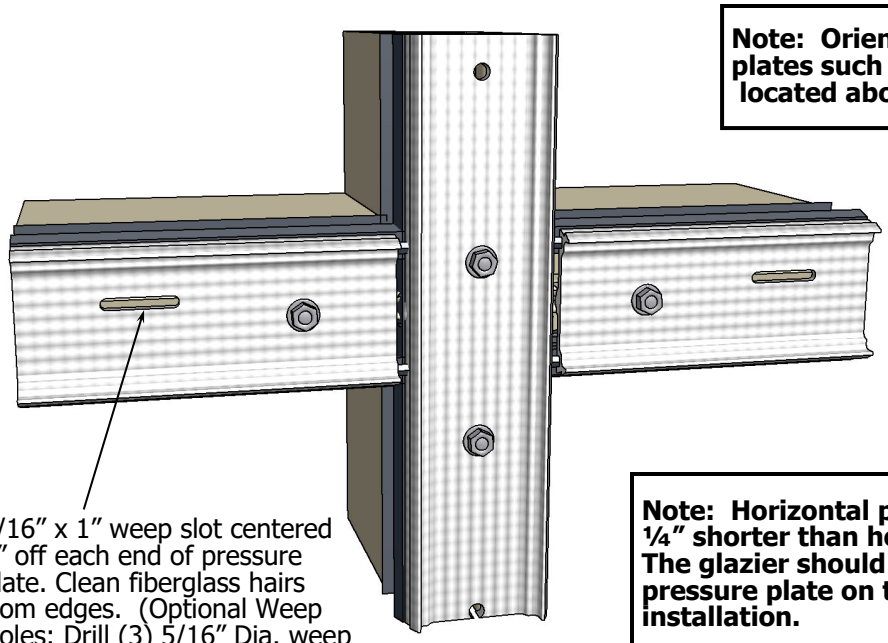
STEP #4 Install Pressure Plate (continued)

F. For curtain wall systems that utilize vertical covers 1" in depth and over, attach a Roll Pin Support on the vertical at each horizontal. This will allow the application of a roll pen after cover installation to prevent slippage.

G. For curtain wall systems that utilize horizontal covers 1" in depth and over, attach a Roll Pin Support at the mid-span of the horizontal.



Roll Pin Support located at each horizontal when vertical cover depth 1" and over.



3/16" x 1" weep slot centered 4" off each end of pressure plate. Clean fiberglass hairs from edges. (Optional Weep Holes: Drill (3) 5/16" Dia. weep holes side by side . Locate center of holes 5/32" above top of tongue .Clear glass fray from holes with utility knife. Do before installing.)

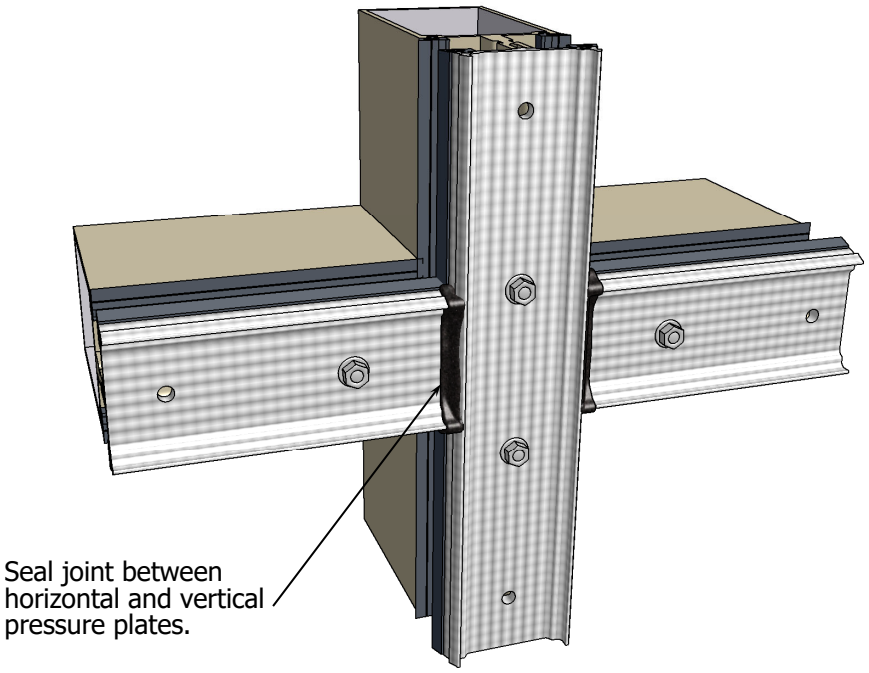
Note: Orient horizontal pressure plates such that the weeps are located above the mullion tongue

Note: Horizontal pressure plates are ¼" shorter than horizontal mullions. The glazier should center the horizontal pressure plate on the mullion before installation.

Section III: Pressure Plate Installation

STEP #5 Seal Pressure Plate Ends

A. Seal all joints between the vertical and horizontal pressure plates with sealant to provide a water and airtight joint.



Section IV: Vertical Splice Joints

5600 Series — Outside Glazed Installation

A. Vertical splices should be assembled per *Y302 - Section VIII: Vertical Splice Joints* including location of pressure plate and cover splice joint locations and overlaps.

Section V: Exterior Cover Installation

5600 Series — Outside Glazed Installation

A. Vertical and horizontal covers should be installed per Installation Instruction *Y302 - Section IX: Exterior Cover Installation.* **Note, if roll pins are required they should be located such that the pins engage the Roll Pin Supports applied in Section III, Step #3 of this instruction**.