

SERIES 5600

CONCEALED VENT CURTAIN WALL

INSTALLATION INSTRUCTIONS



Part NO. Y310

February 2013

WHERE WINDOWS ARE JUST THE BEGINNING®



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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

Section I: General Notes & Guidelines

- I. **HANDLING / STORING / PROTECTING ALUMINUM** - 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 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 with 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.

- 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 & Guidelines

- F. Follow EFCO framing installation and glazing instructions.
- G. Verify Contents of all material shipments received upon 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 ($\pm 50\%$ 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 where 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: Concealed Vent Notes

Concealed Vent Notes

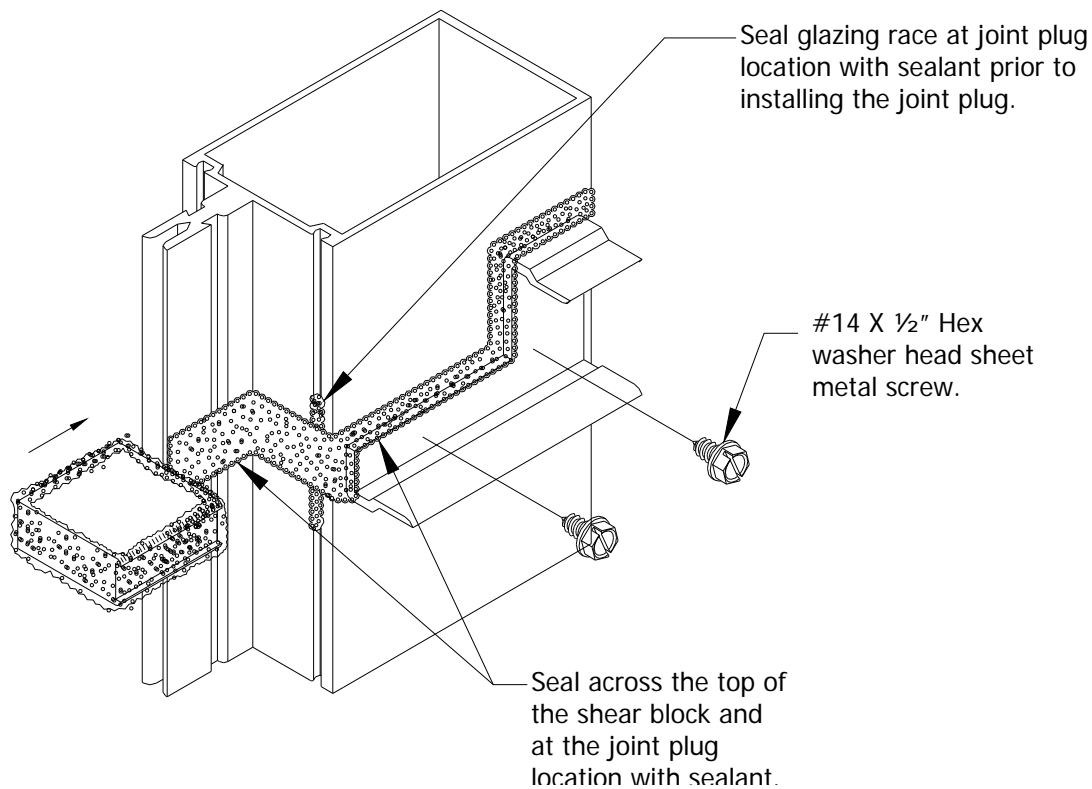
- A.) The S-5600 Wall Concealed vent is a factory fabricated, assembled, and glazed product. All vent gaskets, hardware, screws, and fabricated jamb adaptor will be included with the vent.
- B.) The following items, unless otherwise specified, WILL NOT be fabricated.
 - 1. Intermediate Horizontal Mullion
 - 2. Horizontal Pressure Plate
 - 3. Horizontal Cover at Vent Head
- C.) Use this concealed vent in the exterior dry glazed option of the S-5600 Curtain Wall only.
- D.) The vent is “two-sided” structurally glazed. Insulated glass units (a type that is compatible to the application) will be provided by EFCO.
- E.) Structural sealant at the vent jambs will be DOW CORNING #983, two-part silicone sealant. Structural sealant is installed in compliance with sealant manufacturer’s recommendations.
- F.) Cap seals (nonstructural seals) will be DOW CORNING #795, one-part silicone sealant. Sealant is installed in compliance with sealant manufacturer’s recommendations.
- G.) Sash joinery seals: All joints of the sash members (heavy sash to vertical jamb, and sill sash to vertical jamb) will be sealed with ACRYL-R SEAM SEALER as manufactured by SCHNEE-MOREHEAD.

Section III: Installation / Frame Assembly

Installation / Frame Assembly

- A.) Assemble shear blocks to mullion as required. Follow standard installation instructions noted in steps #3 thru #5 in the S-5600 Exterior Glazed Curtain Wall Instructions.

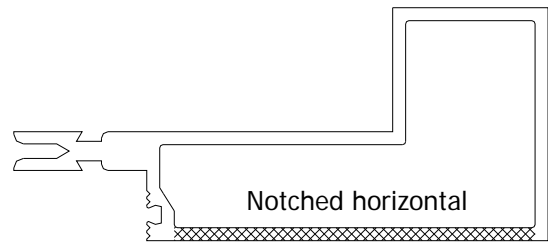
Note: Sealant at horizontals as shown below.



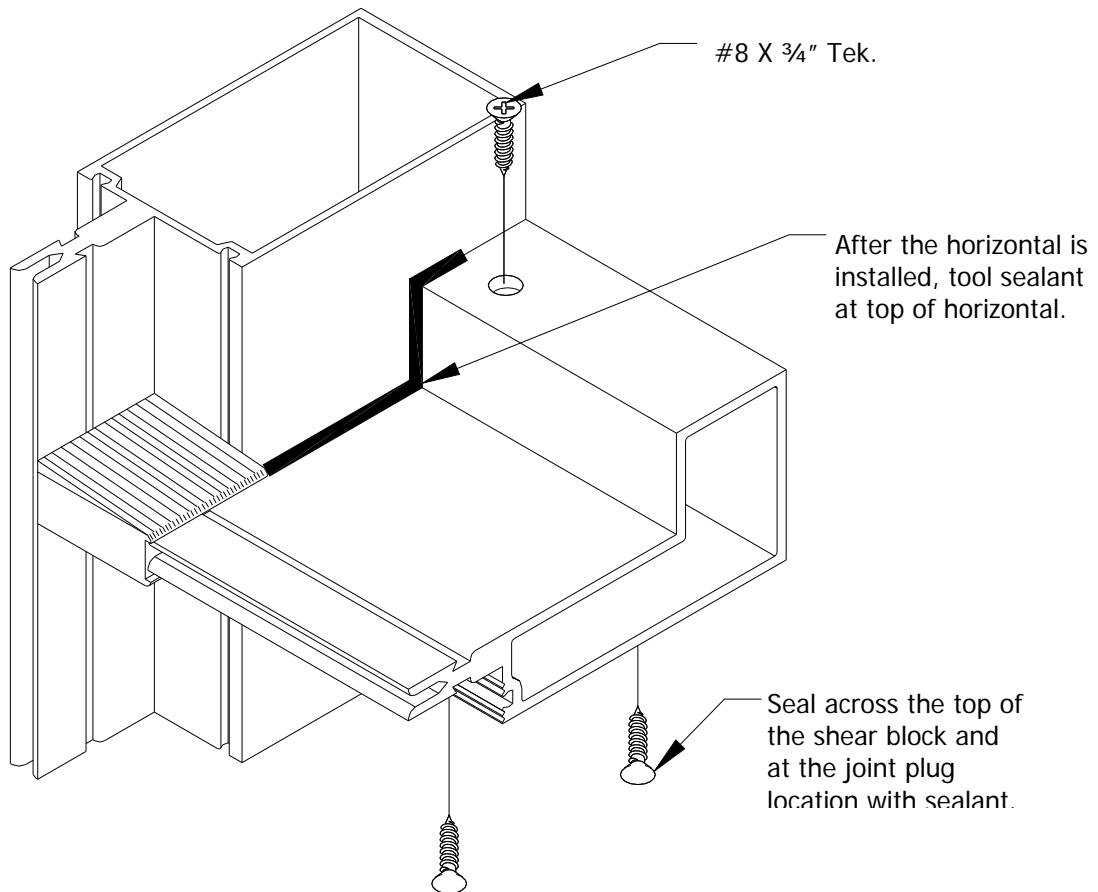
Note: The joinery of the sealant at this area is CRITICAL.

Section III: Installation / Frame Assembly

Installation / Frame Assembly



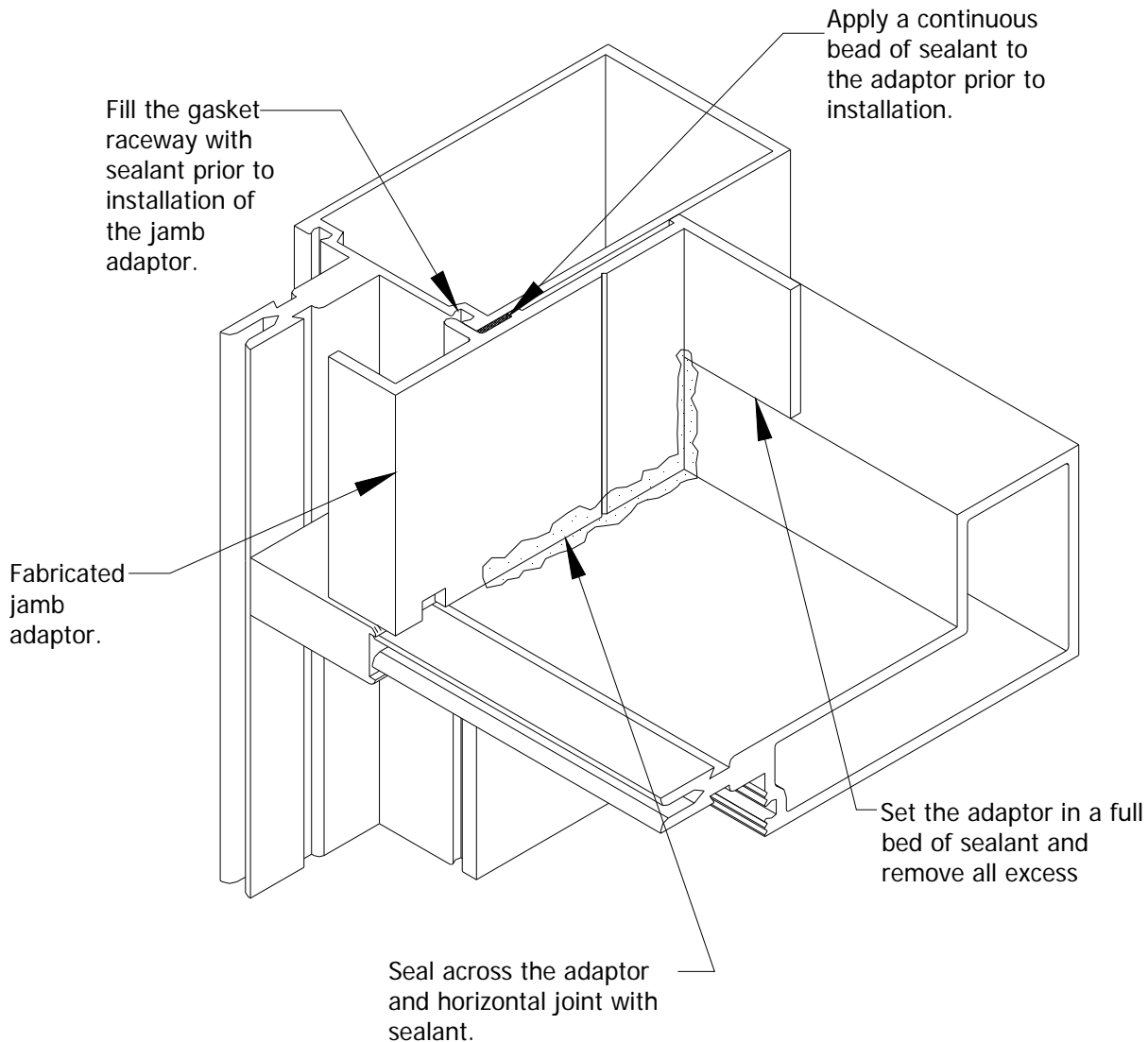
- B.) Notch bottom of horizontal for drop-in assembly where required. Reference S-5600 standard installation instructions.



Section IV: Installation / Vent Adaptor

Installation / Vent Adaptor

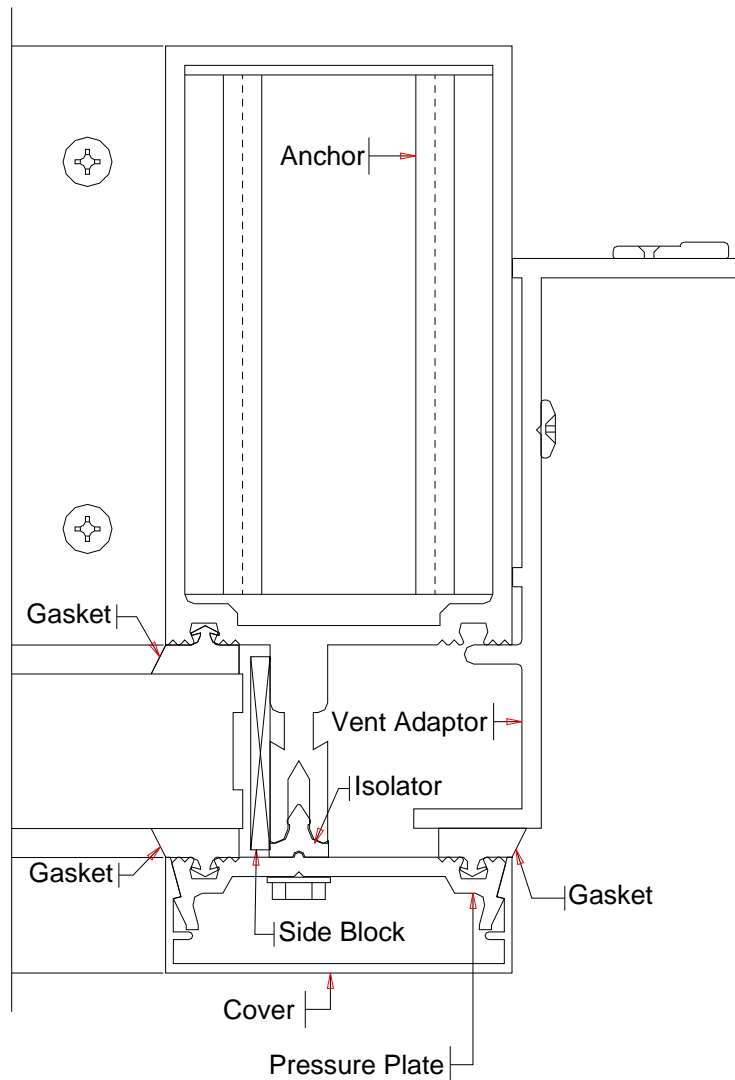
- A.) Install the jamb adaptor into the openings after completion of the previous sealant details.
- B.) Attach the adaptor to the vertical with #10 X 3/4" PL-PH-SMS Tek3 at 5" from the bottom of the adaptor and 6" O.C. (Staggered around arm brackets)
- C.) Seal the adaptors to the horizontal as shown below.



Section V: Installation / Pressure Plate

Installation / Pressure Plate

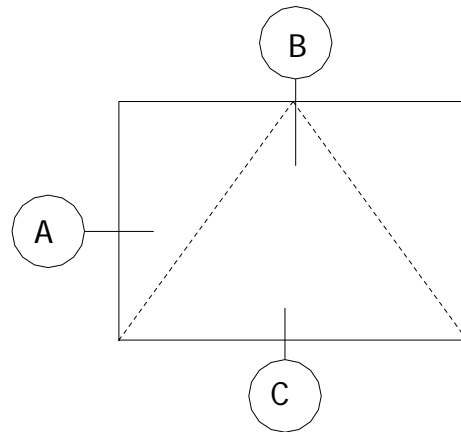
- A.) Complete glazing and exterior covers per the typical S-5600 Outside Glazed Installation Instructions.



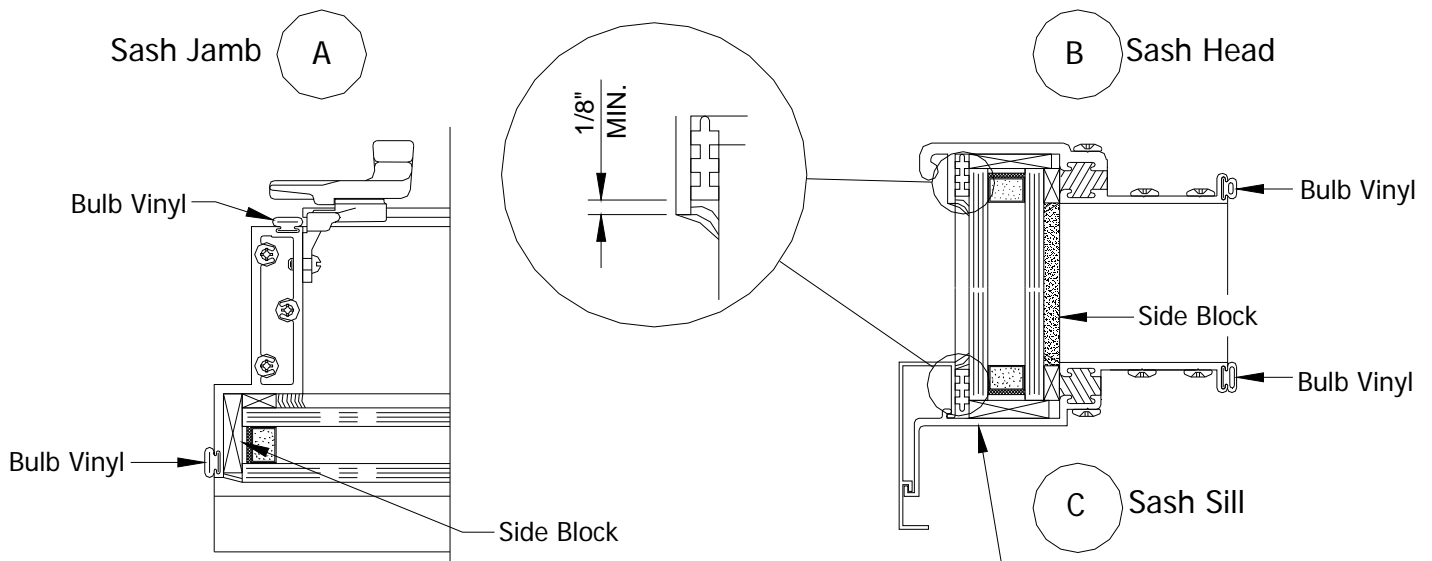
Section VI: Sash Inspection

Sash Inspection

- A.) Inspect Sash Assembly.
- 1.) Inspect all corners for square ness.
 - 2.) Verify that exposed surfaces are free of scratches dents, etc.
 - 3.) Verify the glass is free of scratches.
 - 4.) Inspect hardware to insure proper working order, and alignment.
 - 5.) Inspect bulb gasket around perimeter of sash frame to insure proper position.



Sash Elevation

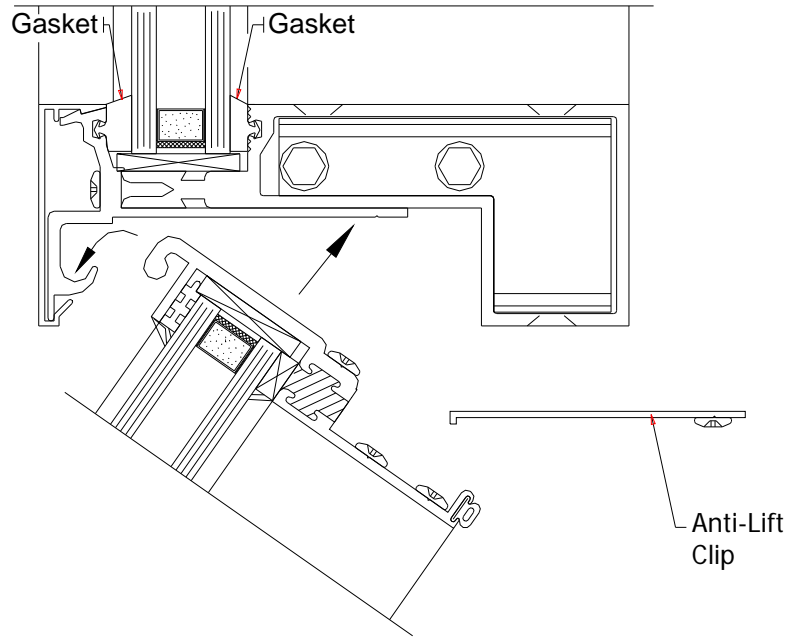


Note: Jamb sash is welded to head and sill at each corner.

Section VII: Installation of Sash Frame

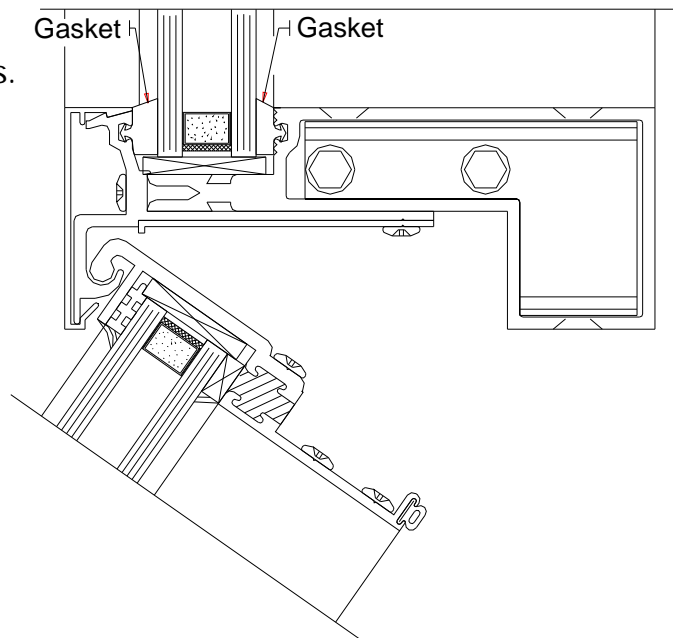
Installation of Sash Frame

- A.) Install sash frame into opening.
- B.) Set sash from exterior, tilting top of sash frame inward to allow front of frame to hook into horizontal as shown.



- C.) After sash frame is hung in opening, install anti-lift clip at 3" long. Locate one at each end of vent and one at centerline of D.L.O.

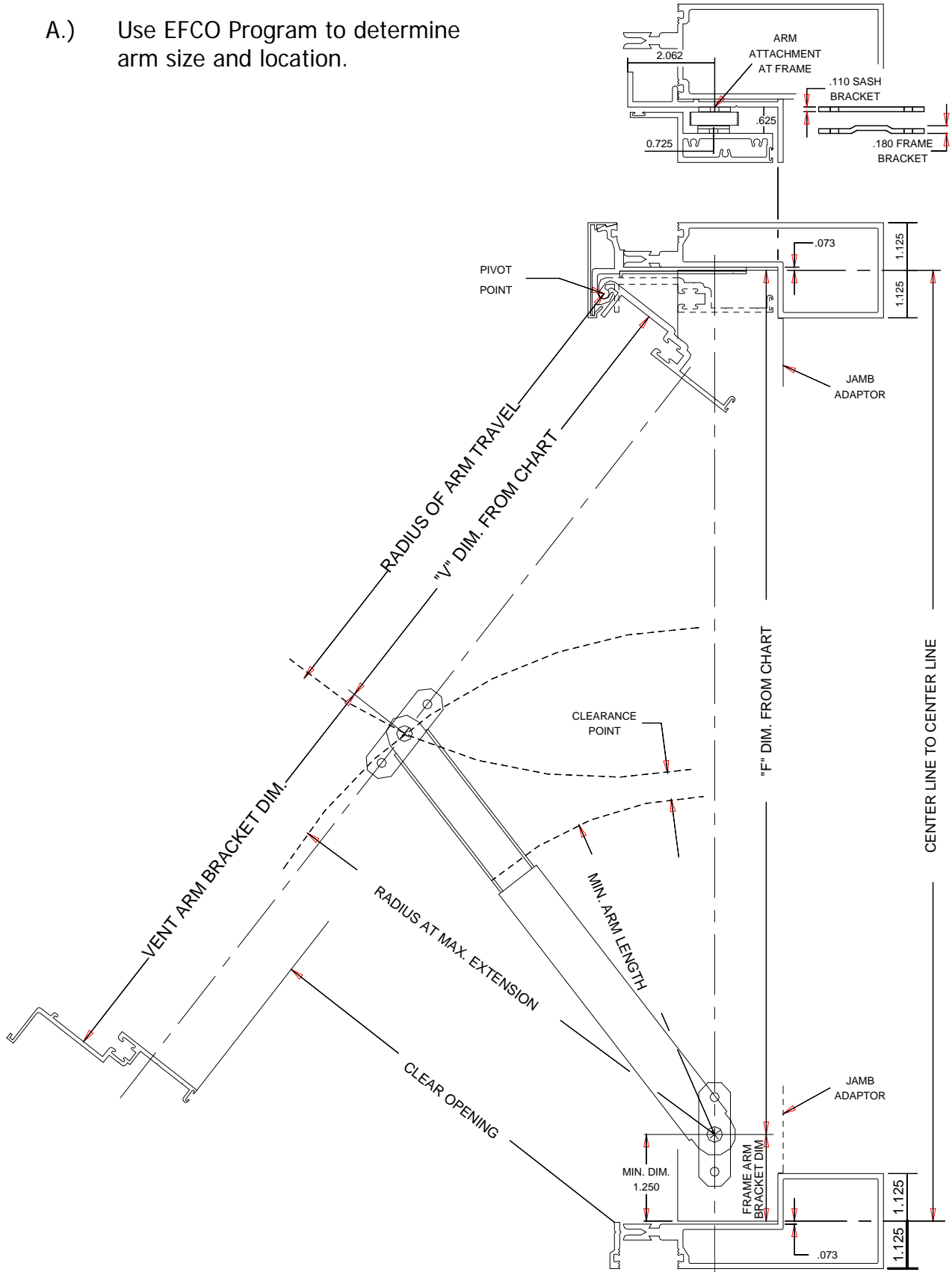
- D.) Attach to horizontal with 2 teks.



Section VIII: Attachment of Limit Device

Attachment of Limit Device

- A.) Use EFCO Program to determine arm size and location.



Section IX: Reglaze Instructions

Reglaze Instruction

- 1.) Remove Limit device and anti-lift clips.
- 2.) Remove sash from opening.
- 3.) Remove damaged or broken glass from sash.
- 4.) Remove old silicone sealant.
- 5.) Remove old setting blocks, jamb blocks, and glazing tape.
- 6.) Clean all metal and infill that will contact silicone with proper cleaner, and then apply primer, if required, as recommended by sealant manufacturer.
- 7.) Install setting blocks, jamb blocks, etc. to original position.
- 8.) Position infill in the sash frame.
- 9.) Apply structural seal to jamb of sash with DOW CORNING #795 Silicone sealant. Apply cap bead at head, sill, and exterior side of jamb with DOW CORNING #795 Silicone sealant. Allow a (5) to (7) day curing period after the unit is reglazed. DO NOT install sash into opening until sealant has properly cured.
- 10.) Reverse steps #5 and #6 as shown above for reinstallation of sash limit device.

Note: Insulated glass not manufactured by EFCO CORPORATION must be sent to DOW CORNING for compatibility testing!