

**HANDLING, STORING, AND PROTECTION OF ALUMINUM**

The material must be protected against damage. The following precautions are recommended to assure early acceptance of your products and workmanship.

**A. HANDLE CAREFULLY** - Don't drop from the truck. Stack with adequate separation so material will not rub together. Store off the ground. Protect against elements and other construction trades. Wear hand protection to prevent injury due to sharp edges of cut extrusions.

**B. KEEP MATERIAL AWAY FROM WATER, MUD AND SPRAY** - Prevent cement, plaster, or other materials from damaging the finish.

**C. PROTECT THE MATERIALS AFTER ERECTION** - Protect by wrapping with Kraft paper or by erecting Visqueen or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions and acid based materials used to clean masonry are very harmful to the finish and should be removed with water and mild soap IMMEDIATELY.

**GENERAL INSTALLATION NOTES**

The following practices are recommended for all installations:

**A. CHECK SHOP DRAWINGS, INSTALLATION INSTRUCTIONS and GLAZING INSTRUCTIONS** to become thoroughly familiar with the project. The SHOP DRAWINGS take precedence and include specific details for the project. The INSTALLATION INSTRUCTIONS are of a general nature and cover most common conditions.

**B. All materials are to be INSTALLED PLUMB, LEVEL, AND TRUE.**

**C. All work should start from bench marks and/or column lines as established by the ARCHITECTURAL DRAWINGS and the GENERAL CONTRACTOR.** Check mullion spacing from both ends of the masonry opening to prevent dimensional buildup of day light opening.

**D. Make certain that construction which will receive your materials is in accordance with the contract documents.** If not, notify the GENERAL CONTRACTOR IN WRITING and resolve differences before proceeding with your work.

**E. Isolate all aluminum to be placed directly in contact with uncured masonry or incompatible materials with a heavy coat of zinc chromate or bituminous paint.**

**F. Check all materials on arrival for quantity and be sure you have everything required to begin installation.**

**G. Sealants must be compatible with all materials with which they have contact, including other sealant surfaces.** Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, priming, tooling, adhesion, etc.

**H. FASTENING** - "Fastening" means any method of securing one part to another or to adjacent materials. These instructions specify only those fasteners used within the system. Due to varying perimeter conditions and job performance requirements, anchor fasteners are not specified in these instructions. For anchor fastening, refer to the Shop Drawings or consult the fastener supplier.

**I. CHECK OPENINGS** - Make certain that the opening which will receive your materials is in accordance with the contract documents. If not, notify the GENERAL CONTRACTOR IN WRITING and resolve differences before proceeding with your work.

**J. BUILDING CODES** - Glass and glazing codes governing the design and use of products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility for these design considerations. It is the responsibility of the owner, specifier, architect, general contractor and the installer to make these selections in strict conformance with all applicable codes.

**K. EXPANSION JOINTS** - Expansion joints and perimeter seals shown in these instructions and in the shop drawings are shown at normal size. Actual dimensions may vary due to perimeter conditions and /or difference in metal temperature between the time of fabrication and time of installation. For example, a 12 foot unrestrained length of aluminum extrusion can expand or contract 3/32" over a 50° F temperature change. Any movement potential should be accounted for at the time of installation.

**L. FIELD TESTING** - It is recommended that a Water Hose Test be conducted once a sufficient portion of the framing is installed, glazed and caulked to ensure proper installation. The Water Hose Test shall be conducted in accordance with AAMA 501.2. In addition, larger projects should have periodic Water Hose Tests as additional precautionary measures.

**SILICONE GLAZING NOTE**

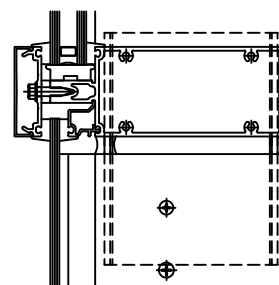
This SSG system requires structural silicone. The glazing installer is responsible for selecting and contacting the silicone manufacturer to determine which type of silicone is to be used and what samples are required to be submitted for adhesion and compatibility testing. The silicone sealant shall not be applied to Kawneer products without the approval of the silicone manufacturer and until all required testing is completed and detailed application instructions have been delivered to the installer by the silicone manufacturer. If you find that silicone manufacturer's installation instructions are not in accordance with Kawneer's installation instructions, it is your responsibility to notify Kawneer of the conflict **prior to glazing**.

Your glass supplier must be made aware that their glass will be used in an SSG application. The application must be approved by the glass supplier **prior to glazing**.

For any structural silicone glazed product application that is not shown in Kawneer's standard literature, the application must be approved.

Vertical mullion splice - Vertical mullions that are structurally glazed must be spliced at a horizontal. Location of the splice must be reviewed for structural integrity by factory engineering.

Typical splice location, vision over spandrel horizontal



**1600 SS SSG NOTES**

1600 SS SSG is available with 1" framing members which accept both 1" and 1/4" infills.

Glass bite is 1" at SSG verticals and 1/2" at captured verticals and horizontals. Glass sizes must be calculated from approved shop drawings.

Note: When 1600 SS SSG has Versoleil Outrigger Application glass bite is 3/4" at SSG verticals and 1/2" at captured verticals (jambs) and horizontals. Glass sizes must be calculated from approved shop drawings.

Unless otherwise specified, it is recommended that silicone sealant be used for all internal seals.

Sealant must be applied per the sealant manufacturer's recommendations and pass all adhesion and compatibility testing. At all joint seals, sealant must adhere to metal, gaskets, thermal separator and joint plug materials. Clean all surfaces prior to application of sealant and prime where necessary to achieve proper adhesion.

**CHECK OPENINGS**

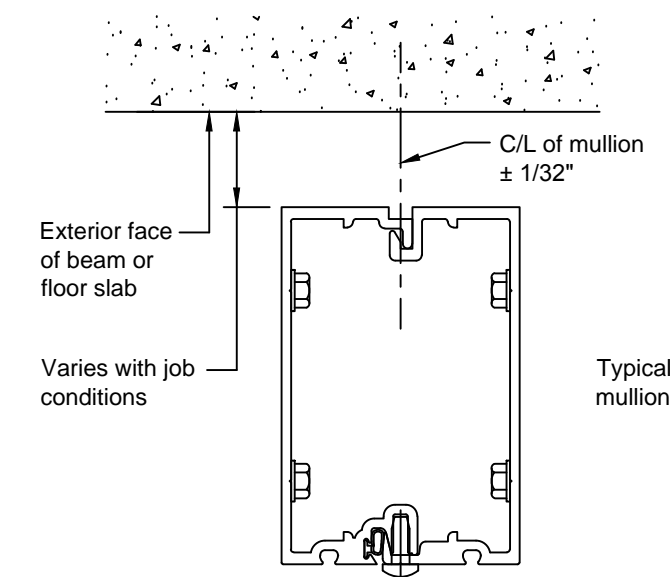
Elevations and slabs must be within adjustment of anchoring system. See approved shop drawings for allowable adjustment.

Anchoring surfaces of perimeter construction must be level and plumb within the adjustment limits of the head, sill and jamb. See approved shop drawings for allowable adjustment.

**LAYOUT ANCHOR AND MULLIONS CENTERLINES**

Use wall lines established by the general contractor. On each floor lay out a reference line to establish in and out wall locations.

Use column center lines established by the general contractor. On each floor lay out mullion center lines and anchor center lines.



See approved shop drawings for anchor lay outs.

These instructions show the 6" system. The 7 1/2" system is similar.

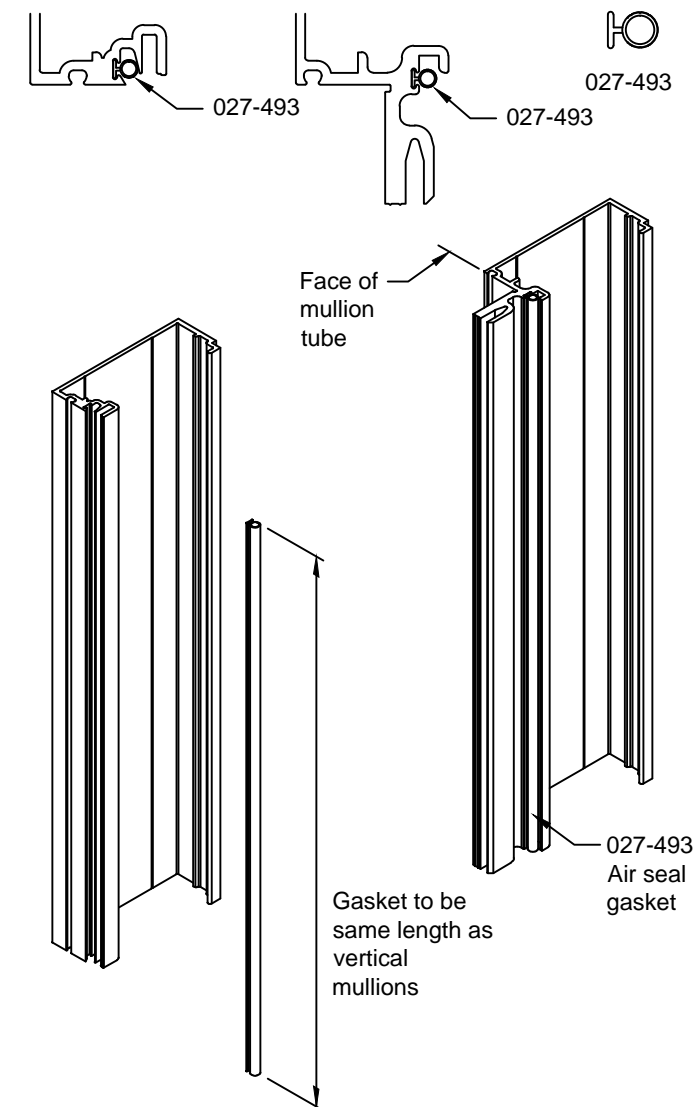
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**INSTALL 027-493 VERTICAL AIR SEAL**

Install 027-493 air seal into reglet of mullion full length as shown. Spray water on gasket and pull plastic base with pliers to facilitate installation at SSG mullions. Stake into reglet after the gasket is centered in the correct position.

AIR SEAL IS REQUIRED AT ALL CAPTURED AND SSG MULLIONS



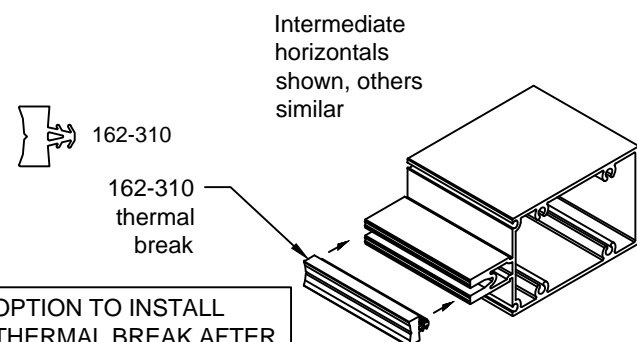
1600 SS  
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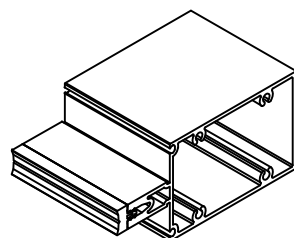
**INSTALL 162-310 THERMAL BREAK AT HORIZONTALS**

DO NOT STRETCH WHEN REMOVING FROM COIL, CARTON AND DURING INSTALLATION

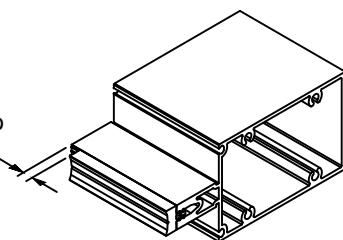


OPTION TO INSTALL THERMAL BREAK AFTER VERTICALS AND HORIZONTALS ARE ASSEMBLED

NOTE: Thermal break to be the same length as the horizontal at SSG verticals

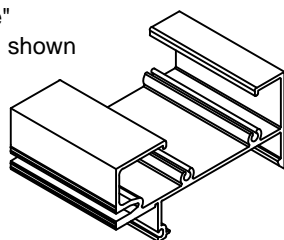


NOTE: Thermal break to be 1/4" short at each end of horizontal at captured verticals



Do not install thermal break into captured verticals or "perimeter type" head and sill horizontals at this time.

"Perimeter type" head horizontal shown



Thermal break to be installed at the same time as joint plugs. The thermal separator will hold joint plugs in place.

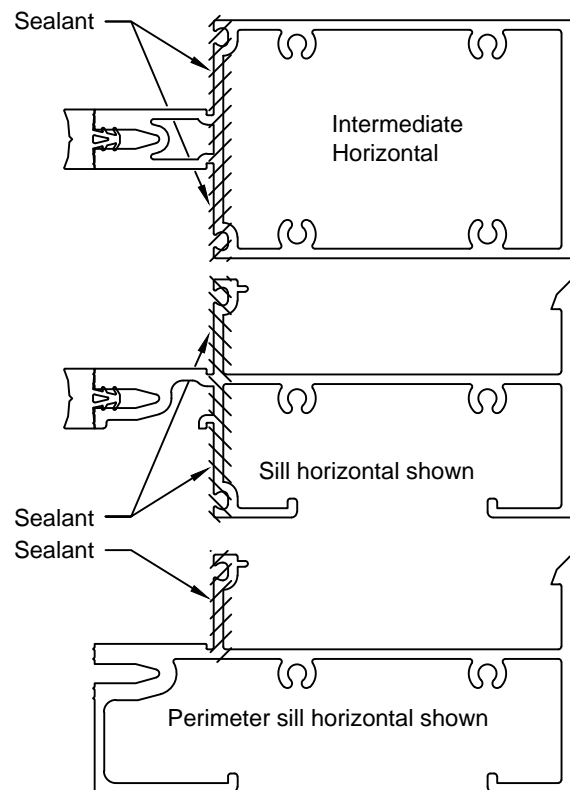
**FRAME ASSEMBLY - Bottom Units**

Assemble verticals to horizontals using 128-509 #12 x 1" Hex Washer Head Type AB. Install stop screws as noted.

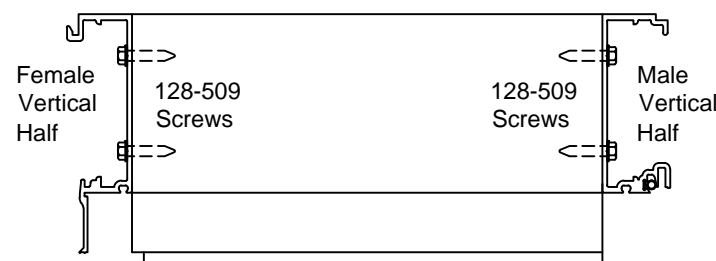
Frame is shown in the upright position, but may be assembled in any desirable position.

For both horizontal ends apply sealant as shown below and tool sealant after assembly.

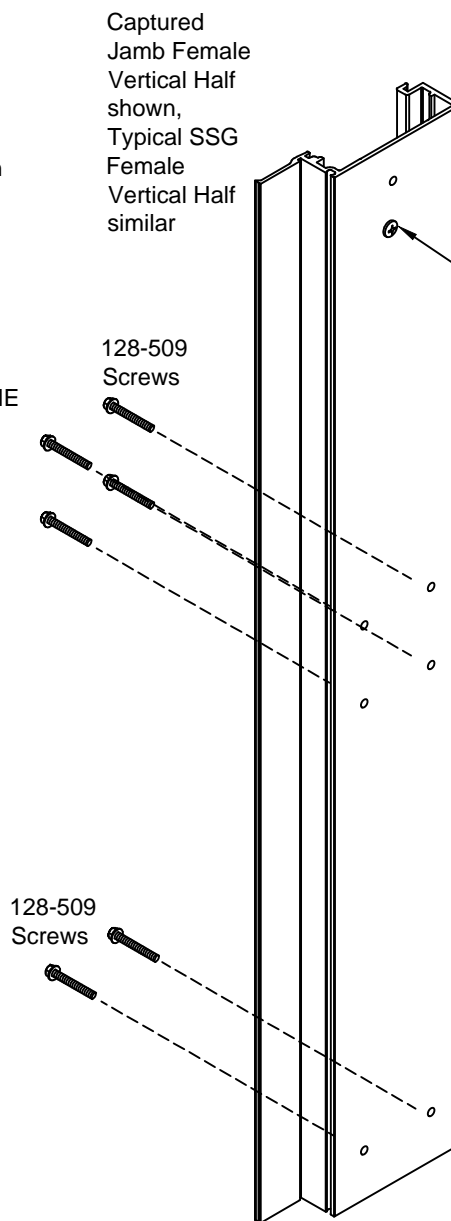
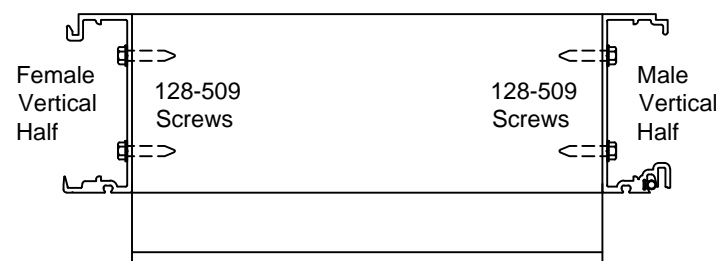
NOTE: FACE SEALING JOINTS AT ALL 4 CORNERS MAY BE DONE IN LIEU OF SEALING HORIZONTAL ENDS PRIOR TO INSTALLING GLAZING GASKETS. REFER TO PAGE 5 OF THE INSTALLATION INSTRUCTIONS.



Assembled Left Jamb Unit (Right Jamb opposite)

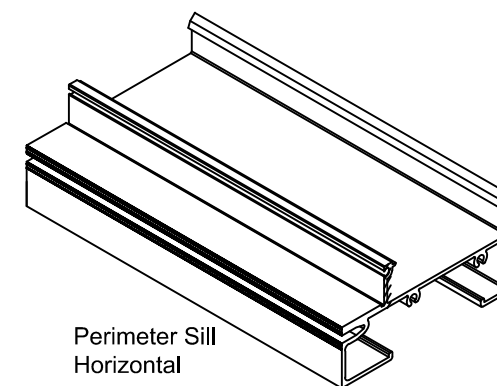
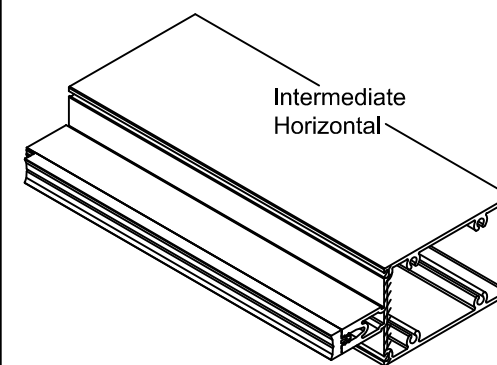


Assembled Typical Unit

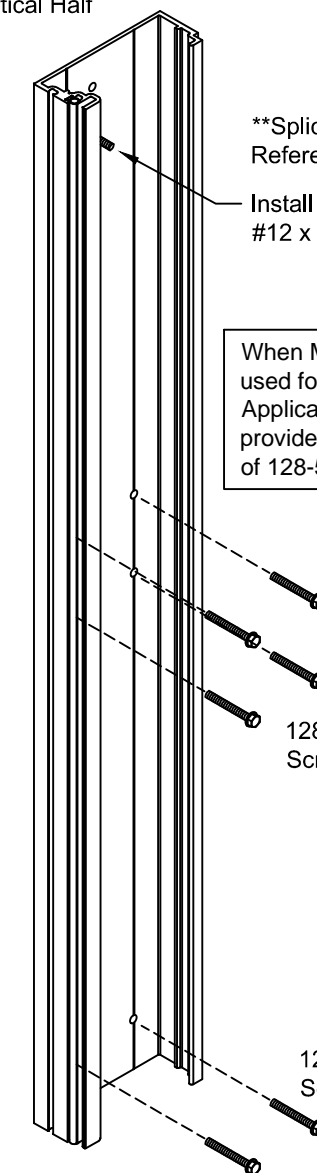


\*\*Splice prep Reference fabrication instructions  
Install 128-271 sleeve stop screw #12 x 5/8" Pan Head Type B

ALIGN BACK OF HORIZONTAL WITH BACK OF MULLION PRIOR TO TIGHTENING FRAMING SCREWS



Male SSG Vertical Half



\*\*Splice prep Reference fabrication instructions  
Install 128-271 sleeve stop screw #12 x 5/8" Pan Head Type B

When Male Mullion Half, 169043, is used for Versoleil Outrigger Application, access holes will be provided in inner wall for installation of 128-509 fasteners.

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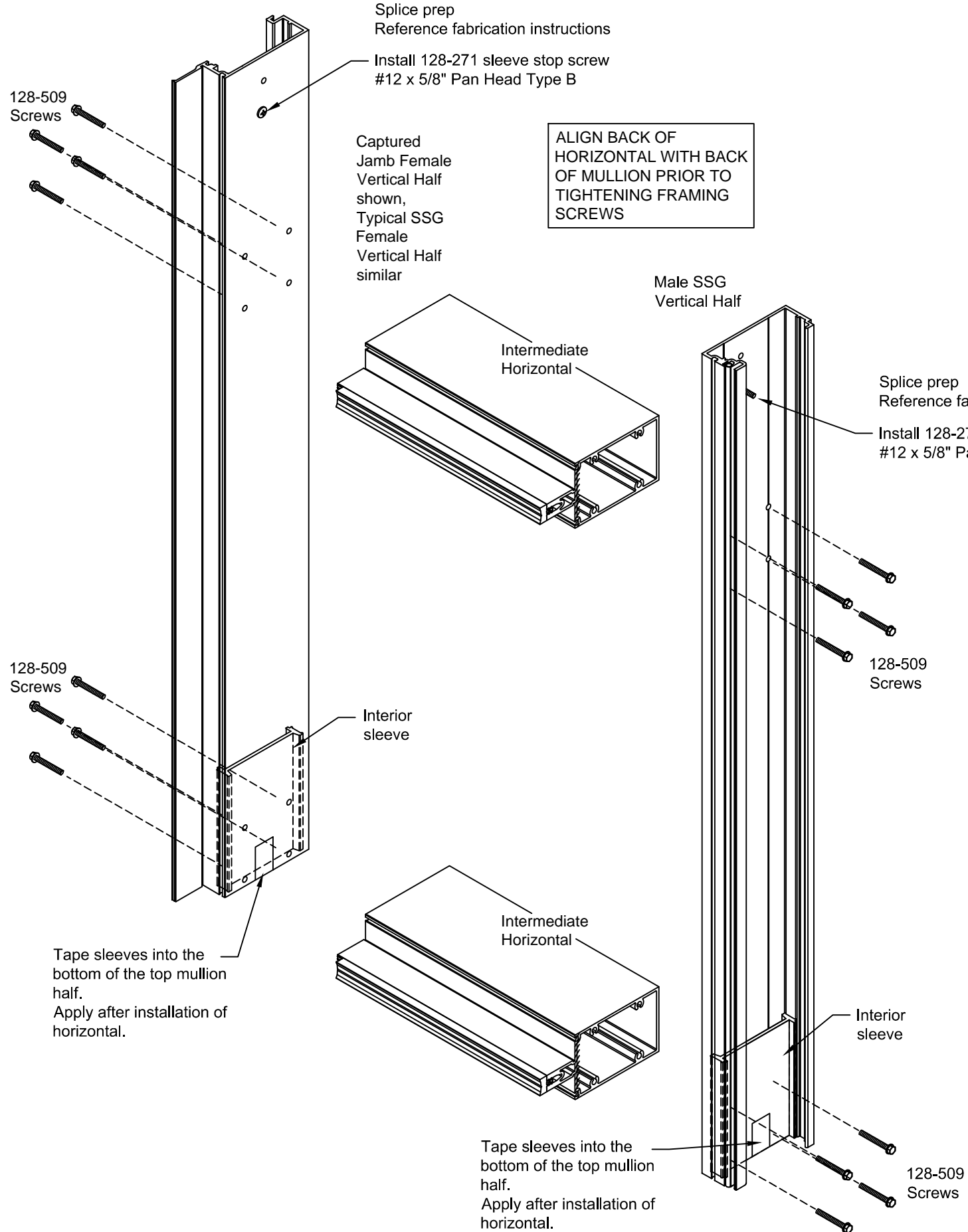
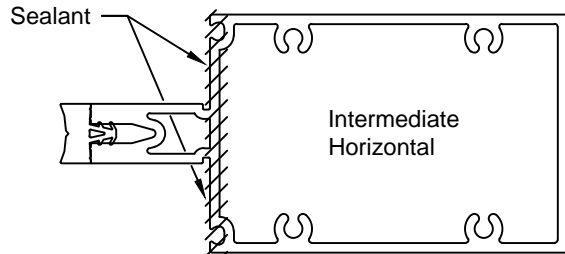
**FRAME ASSEMBLY - Intermediate Units**

Assemble verticals to horizontals using 128-509 #12 x 1" Hex Washer Head Type AB. Install stop screw at mullion top and splice sleeve at mullion bottom as noted.

Frame is shown in the upright position, but may be assembled in any desirable position.

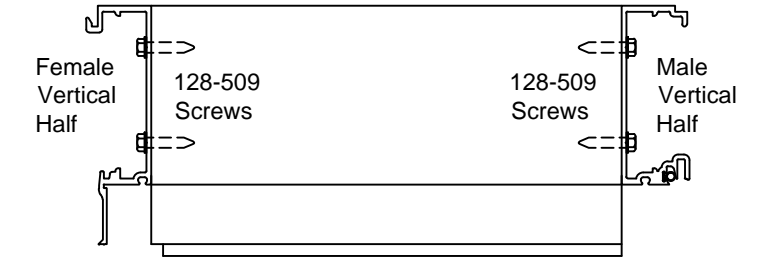
For both horizontal ends apply sealant as shown below and tool sealant after assembly.

NOTE: FACE SEALING JOINTS AT ALL 4 CORNERS MAY BE DONE IN LIEU OF SEALING HORIZONTAL ENDS PRIOR TO INSTALLING GLAZING GASKETS. REFER TO PAGE 5 OF THE INSTALLATION INSTRUCTIONS.

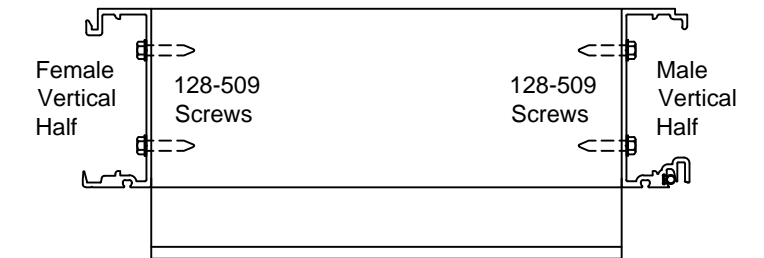


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Assembled Left Jamb Unit (Right Jamb opposite)



Assembled Typical Unit

Note: When Male Mullion Half, 169043, is used for Versoleil Outrigger Application, access holes will be provided in inner wall for installation of 128-509 fasteners.

When Male Mullion Half, 169043, is used; Interior Sleeve, 494393, must be used.



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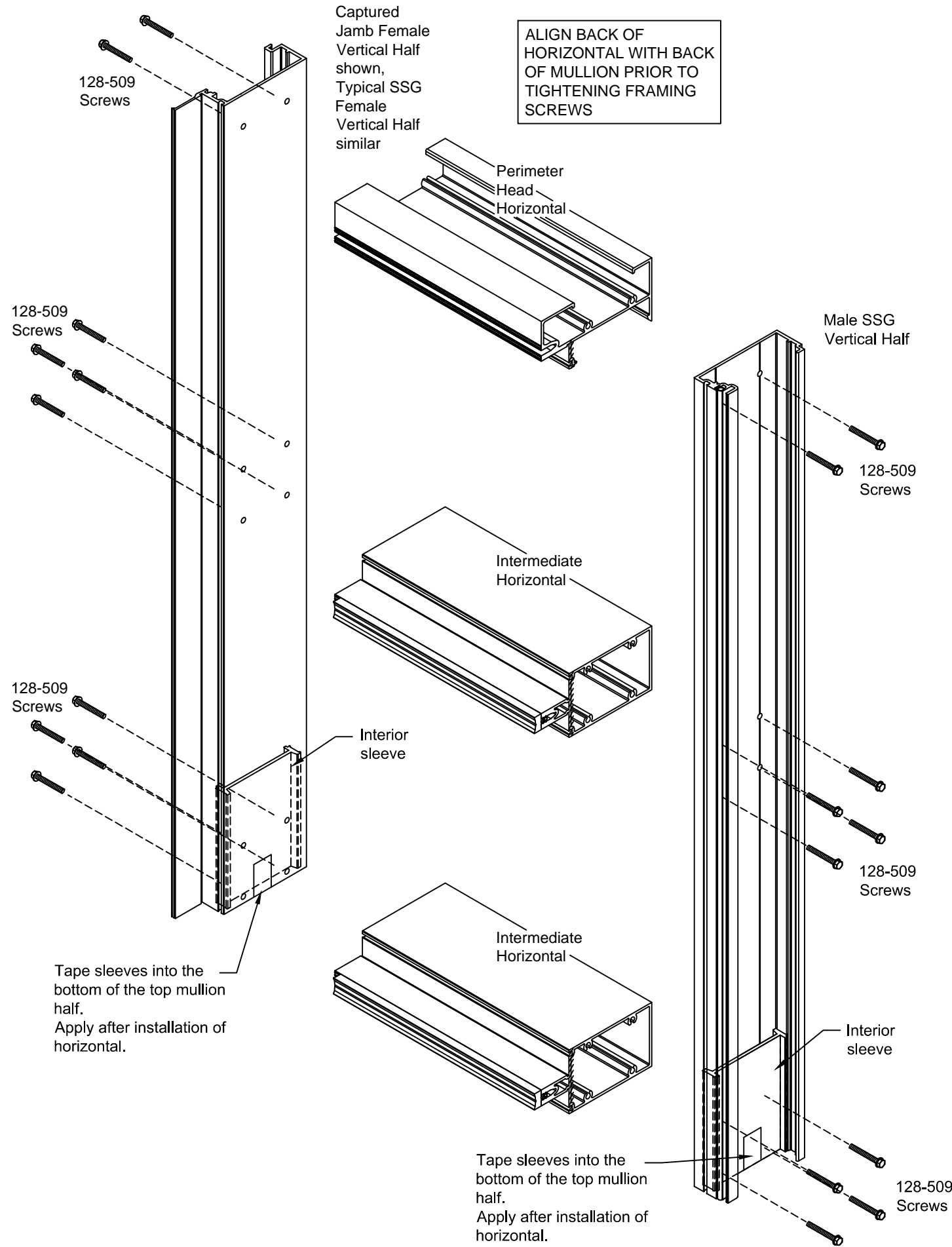
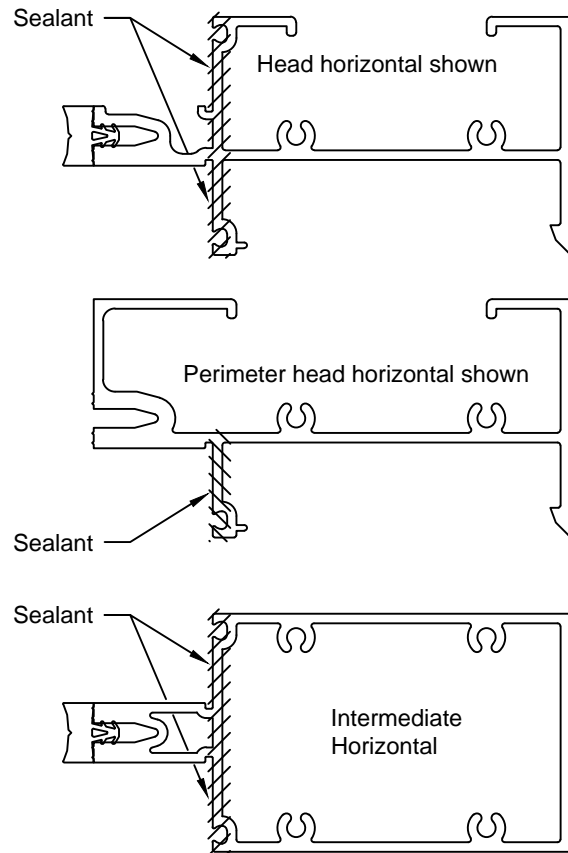
**FRAME ASSEMBLY - Top Units**

Assemble verticals to horizontals using 128-509 #12 x 1" Hex Washer Head Type AB. Install splice sleeve at mullion bottom as noted.

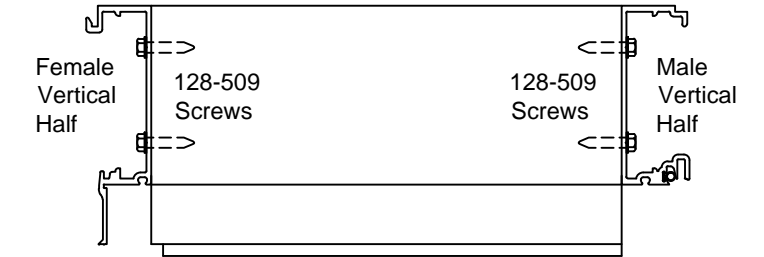
Frame is shown in the upright position, but may be assembled in any desirable position.

For both horizontal ends apply sealant as shown below and tool sealant after assembly.

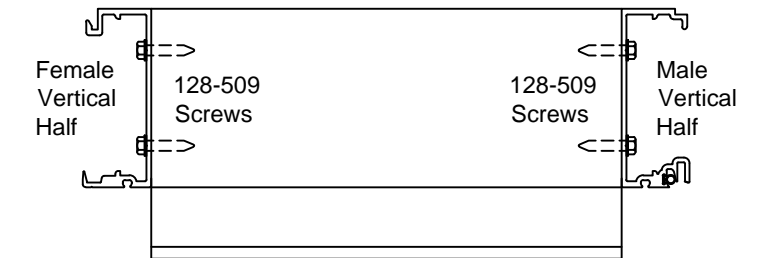
NOTE: FACE SEALING JOINTS AT ALL 4 CORNERS MAY BE DONE IN LIEU OF SEALING HORIZONTAL ENDS PRIOR TO INSTALLING GLAZING GASKETS. REFER TO PAGE 5 OF THE INSTALLATION INSTRUCTIONS.



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Assembled Left Jamb Unit (Right Jamb opposite)



Assembled Typical Unit

Note: When Male Mullion Half, 169043, is used for Versoleil Outrigger Application, access holes will be provided in inner wall for installation of 128-509 fasteners.

When Male Mullion Half, 169043, is used; Interior Sleeve, 494393, must be used.



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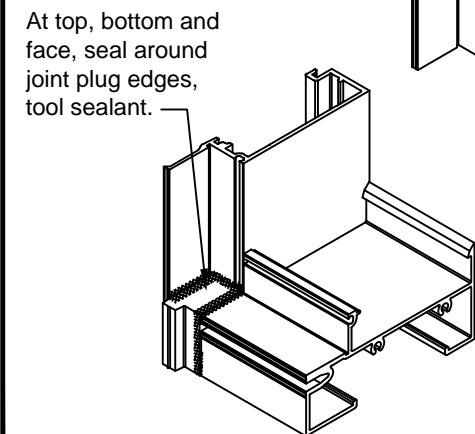
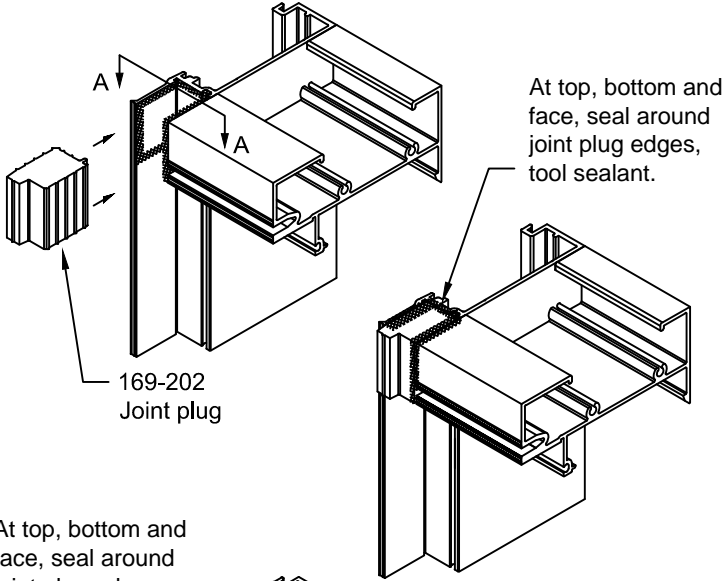
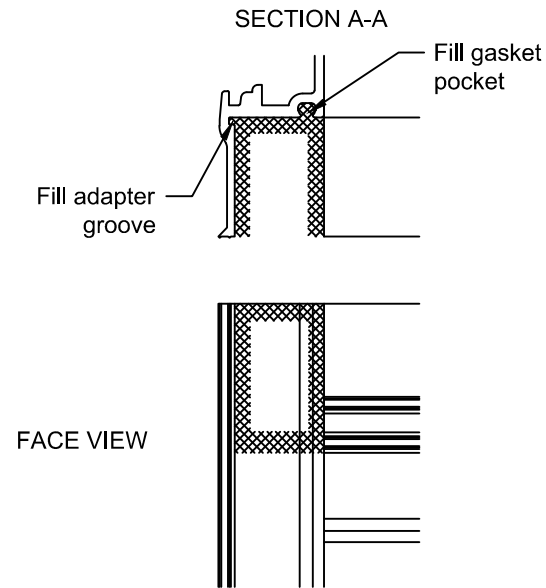
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**INSTALL "PERIMETER TYPE" HORIZONTAL HEAD AND SILL JOINT PLUGS AT CAPTURED VERTICALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

Just before installing joint plugs apply sealant as shown filling gasket pocket and adapter groove.

Joint plugs for SSG verticals must be applied after unit installation.

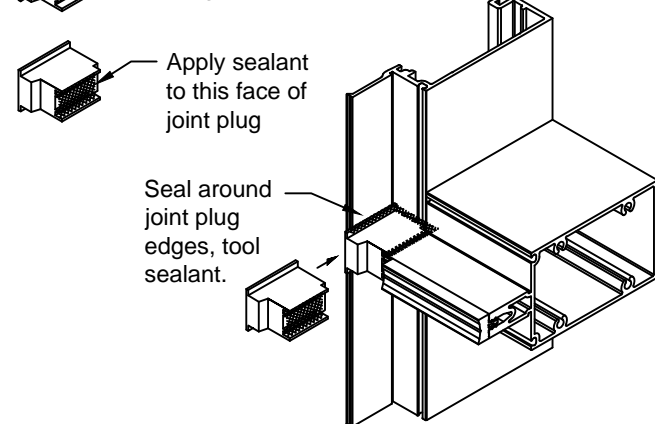
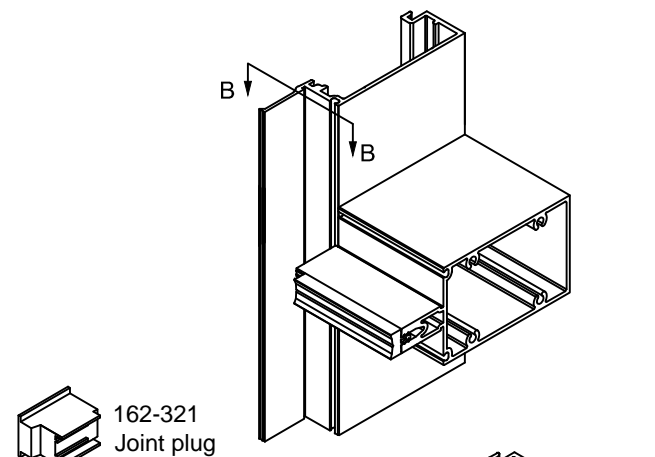
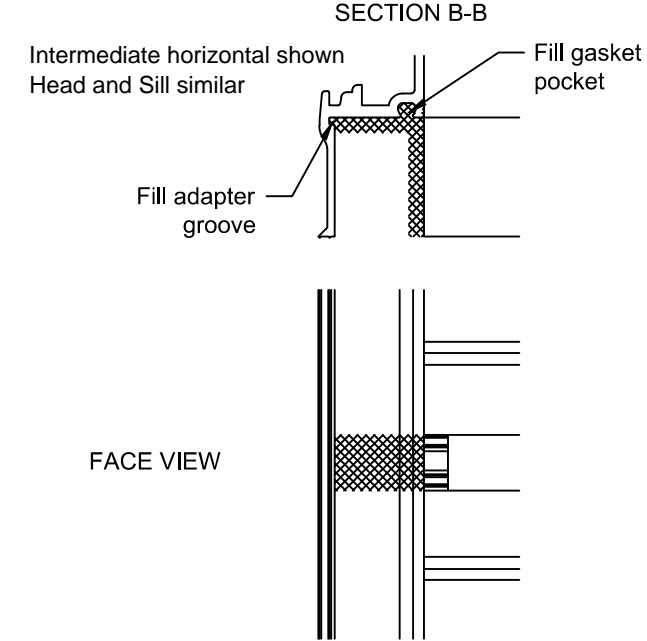


**INSTALL HEAD, SILL AND INTERMEDIATE JOINT PLUGS AT CAPTURED VERTICALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

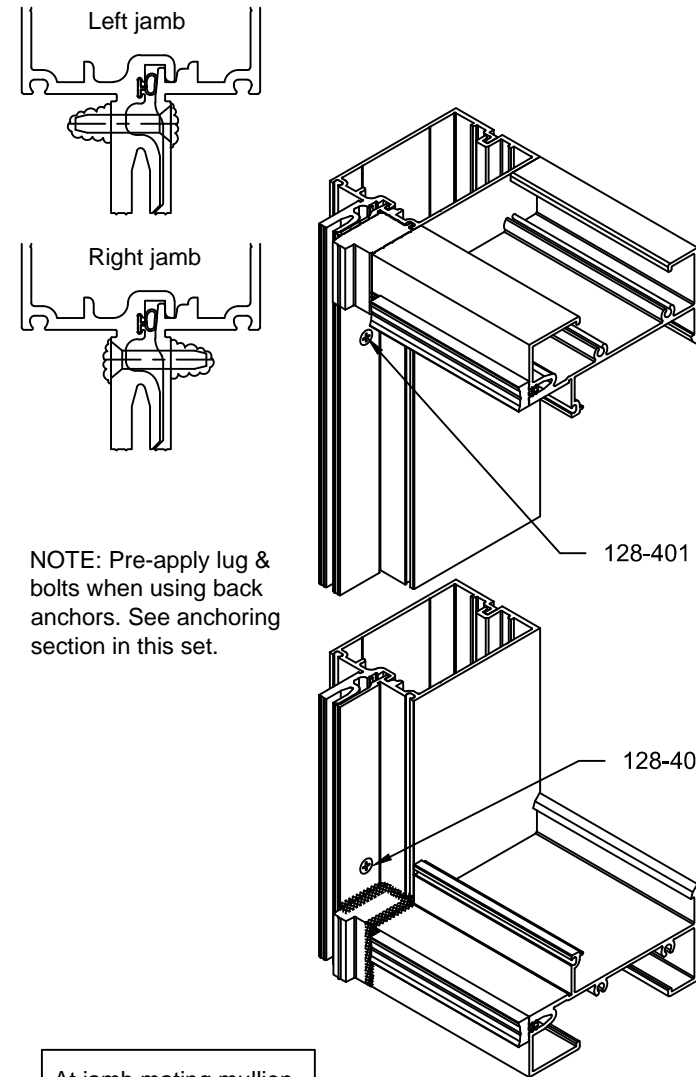
Just before installing joint plugs apply sealant as shown filling gasket pocket and adapter groove.

Joint plugs for SSG verticals must be applied after unit installation.



**JAMB UNITS**

At jamb units, mate male and female mullions together. Match drill .154 dia. holes (#23 drill) and fix with 128-401 # 10 x 1" flat head fasteners. Fastener locations are 4" from each end and 48" on center. Seal over fastener head and fastener shaft on both sides of the tongue. Tool sealant.



At jamb mating mullion half, install stop screw at back face of mullion and splice sleeve as required per previous instruction similar.

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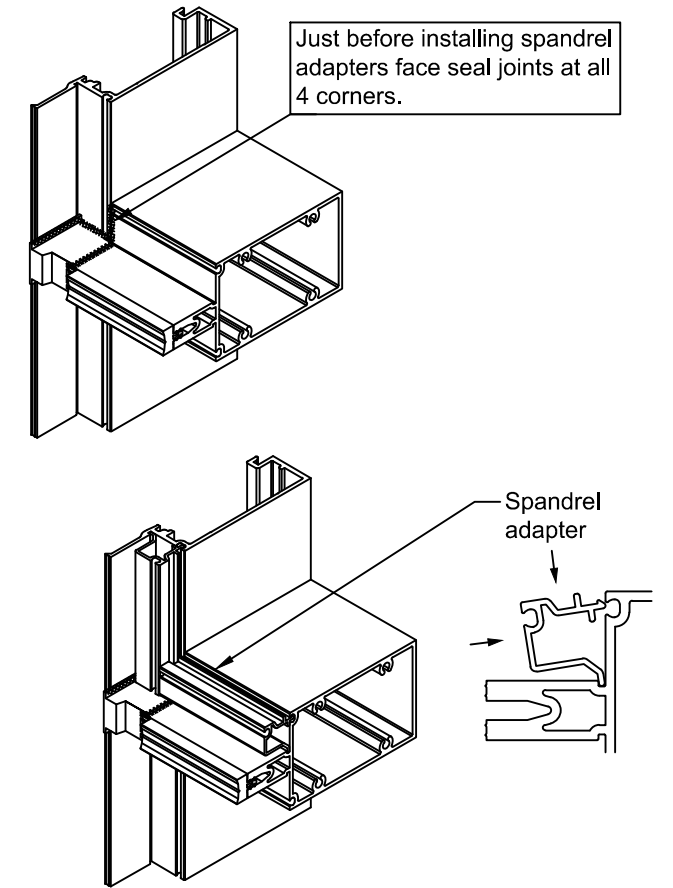
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**INSTALL SPANDREL ADAPTERS WHERE APPLICABLE AT CAPTURED VERTICALS AND HORIZONTALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

Do not install perimeter fillers at this time. Perimeter fillers must be installed in the field.

NOTE: IF HORIZONTAL ENDS WERE SEALED DURING FRAME ASSEMBLY, FACE SEALING JOINTS AT ALL 4 CORNERS NOT REQUIRED.



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**INSTALL SPANDREL ADAPTERS WHERE APPLICABLE AT SSG VERTICALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

NOTE: IF HORIZONTAL ENDS WERE SEALED DURING FRAME ASSEMBLY, FACE SEALING JOINTS AT ALL 4 CORNERS NOT REQUIRED.

Just before installing spandrel adapters face seal joints at all 4 corners. See previous step.

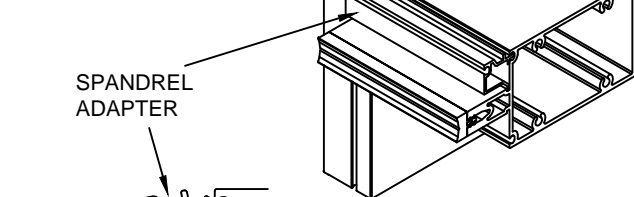


Standard Adapter Application

494022 Adapter for Versoleil Application

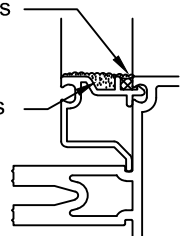
Set adapter in sealant 6" up from bottom. Tool off excess sealant.

Install vertical adapter with 128-348 #10 x 1 1/4" flat head self drilling screws. Locate a maximum 6" and a minimum 4 5/8" from each end and 9" on center.



Seal the bottom adapter continuous

Seal all 4 spandrel adapter corners



**INSTALL INTERIOR GLAZING GASKETS**

Prior to installing gaskets, make sure all gasket grooves and pockets should be clean.

Gaskets can become deformed during storage in cartons. They should be removed from cartons several hours prior to installation and laid flat or hung to allow recovery of correct shape. Temperatures should be at least 50° F to allow this.

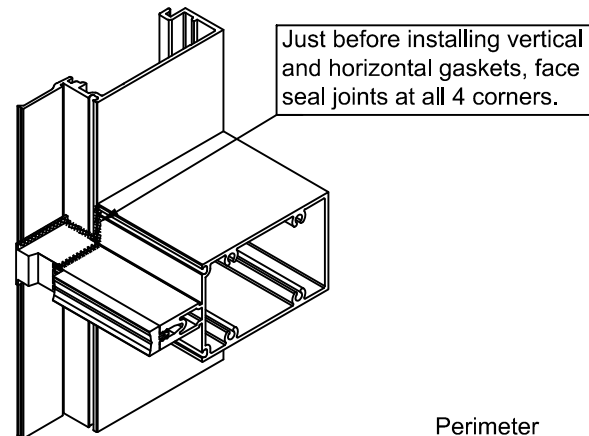
Gasket installed length to be daylight opening. Gaskets to be cut long for some "crowd in". Gaskets should never be "stretched to fit".

"Crowd in" to be 1/8" per foot up to 5'-0", 3/16" per foot up to 8'-0", 1/4" per foot over 8'-0".

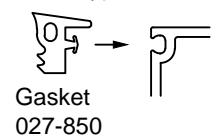
**NOTE: IN TEMPERATURES COLDER THAN 50° F, GASKETS SHOULD BE WARMED AND INSTALLED JUST PRIOR TO GLAZING. THIS WILL PREVENT EXCESSIVE GLAZING PRESSURE ON THE GLASS DUE TO COLD, STIFF RUBBER GASKETS.**

NOTE: IF HORIZONTAL ENDS WERE SEALED DURING FRAME ASSEMBLY, FACE SEALING JOINTS AT ALL 4 CORNERS NOT REQUIRED.

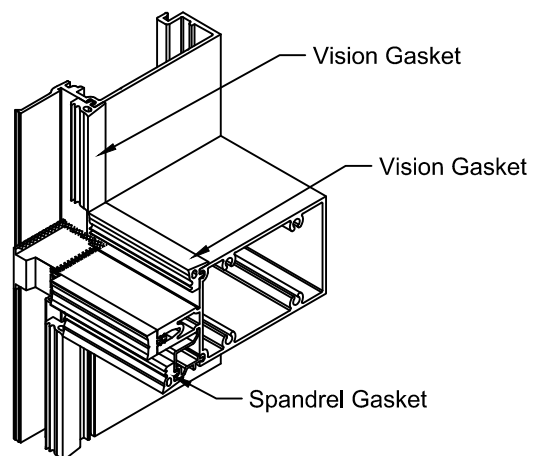
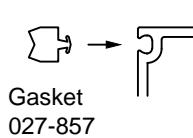
**CAPTURED VERTICALS**



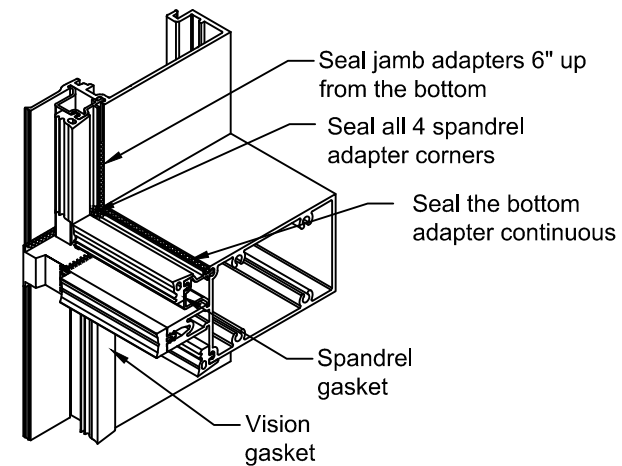
Typical



Perimeter Where applicable



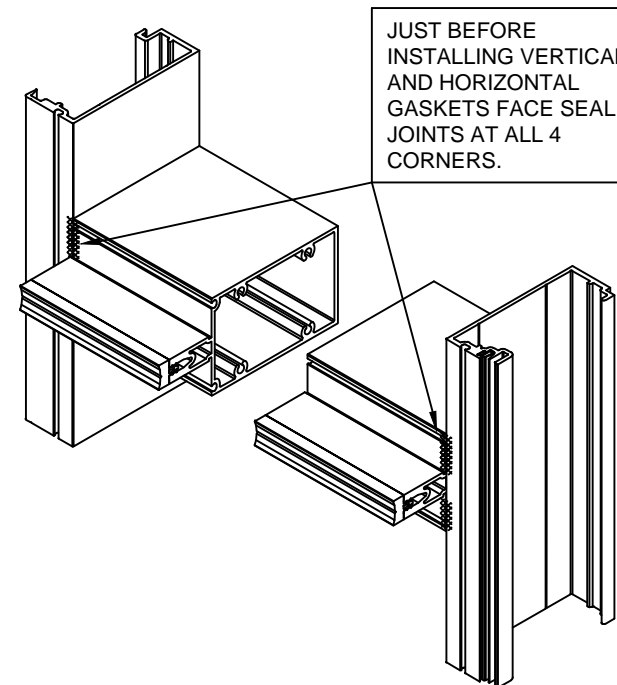
**INSTALL INTERIOR GLAZING GASKETS**



**STRUCTURAL GLAZED VERTICALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

NOTE: IF HORIZONTAL ENDS WERE SEALED DURING FRAME ASSEMBLY, FACE SEALING JOINTS AT ALL 4 CORNERS NOT REQUIRED.

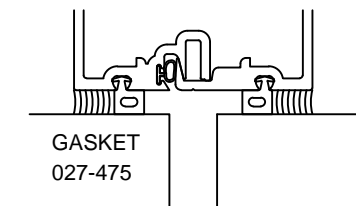


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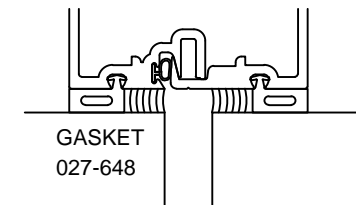
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**INSTALL INTERIOR GLAZING GASKETS**

VERTICAL GASKETS TO RUN  
DAYLIGHT OPENING PLUS 7/8"



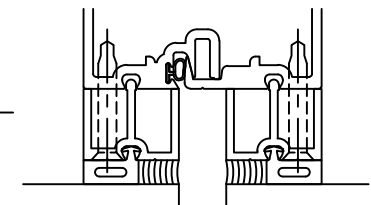
VISION AT INTERIOR  
STRUCTURAL SEAL



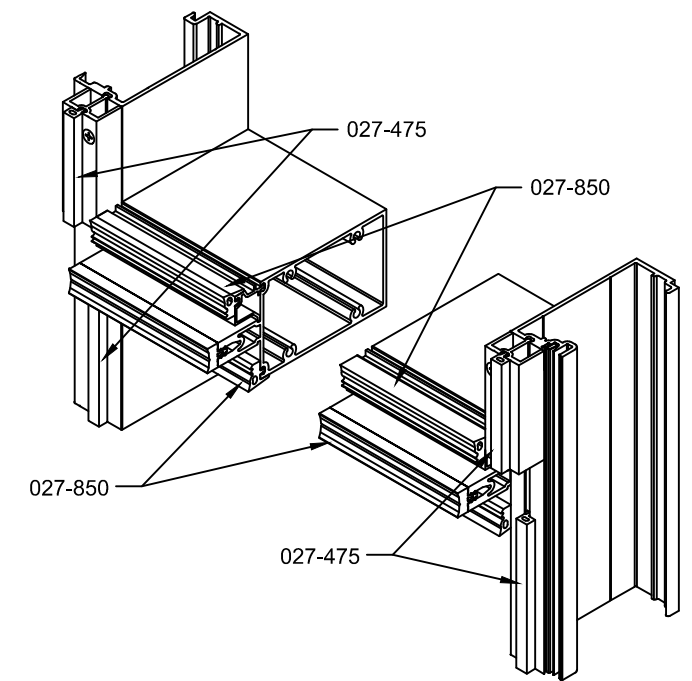
VISION AT EXTERIOR  
STRUCTURAL SEAL

For Versoleil Outrigger Application refer to Approved Shop Drawings and Versoleil Outrigger Installation Instructions, 494974, for correct Gaskets and Structural Seals.

SPANDREL AT INTERIOR  
STRUCTURAL SEAL



SPANDREL AT EXTERIOR  
STRUCTURAL SEAL



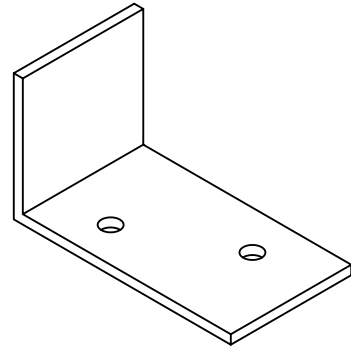
1600 SS  
SSG  
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Product Engineering & Development

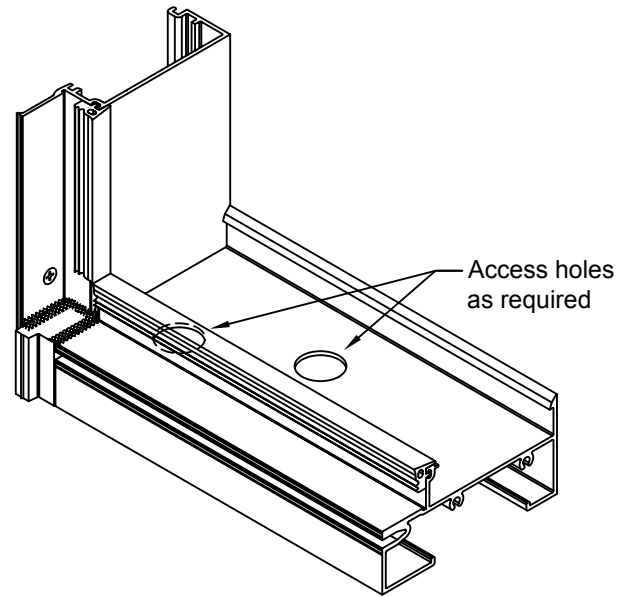
95505-17  
05/18/12

**ANCHORING OPTIONS**

Where aluminum angle head and sill anchors are required, prep for perimeter fasteners per approved shop drawings.



NOTE: Head and sill horizontals will require access holes to install perimeter fasteners.

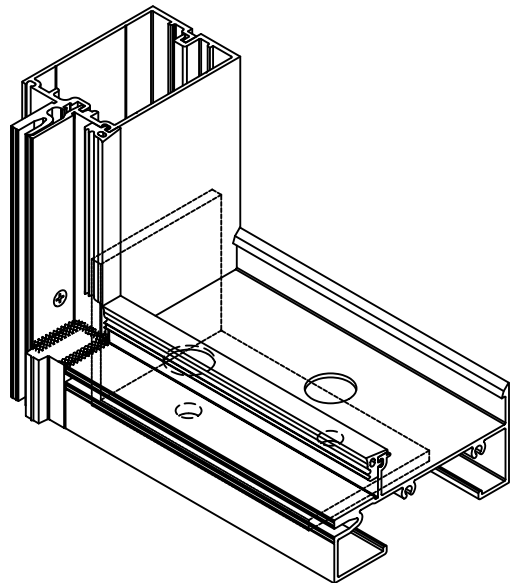


**INSTALL UNITS**

Install assembled frames according to erection drawings.

Install anchors into top and bottom of mullions as shown below.

Bring first unit into place and measure opening to make sure you will have a minimum of 1/2" shim space at terminating jamb before anchoring.



**INSTALL UNITS**

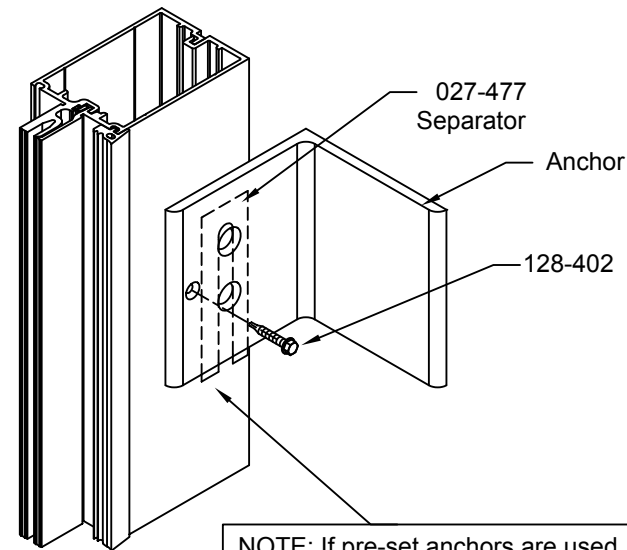
Reference approved shop drawings for anchoring.

All steel anchors must be separated from aluminum mullions. Use 027-477 separators.

Units must be installed level, plumb and square.

Secure frame with clamps and apply 128-402 1/4-14 x 1" HWSD to temporarily fix frame in place. Install next frame prior to match drilling mullion and applying thru bolts.

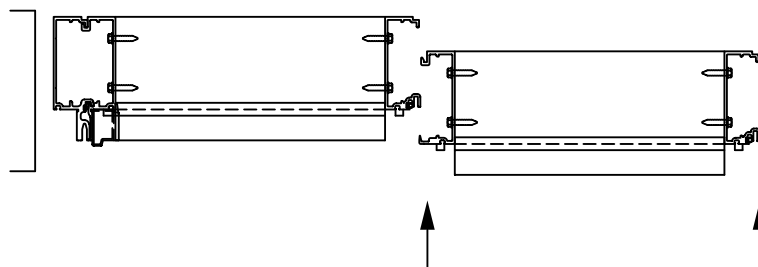
Note: Temporary fastener must be removed after thru bolting mullions at all wind load anchors.



NOTE: If pre-set anchors are used, allow for an additional 1/8" between anchors at this side for unit frame installation. Shim as required.

Install the next unit into place per approved shop drawings. Straps applied to units for hoisting should not interfere with mullion engagement.

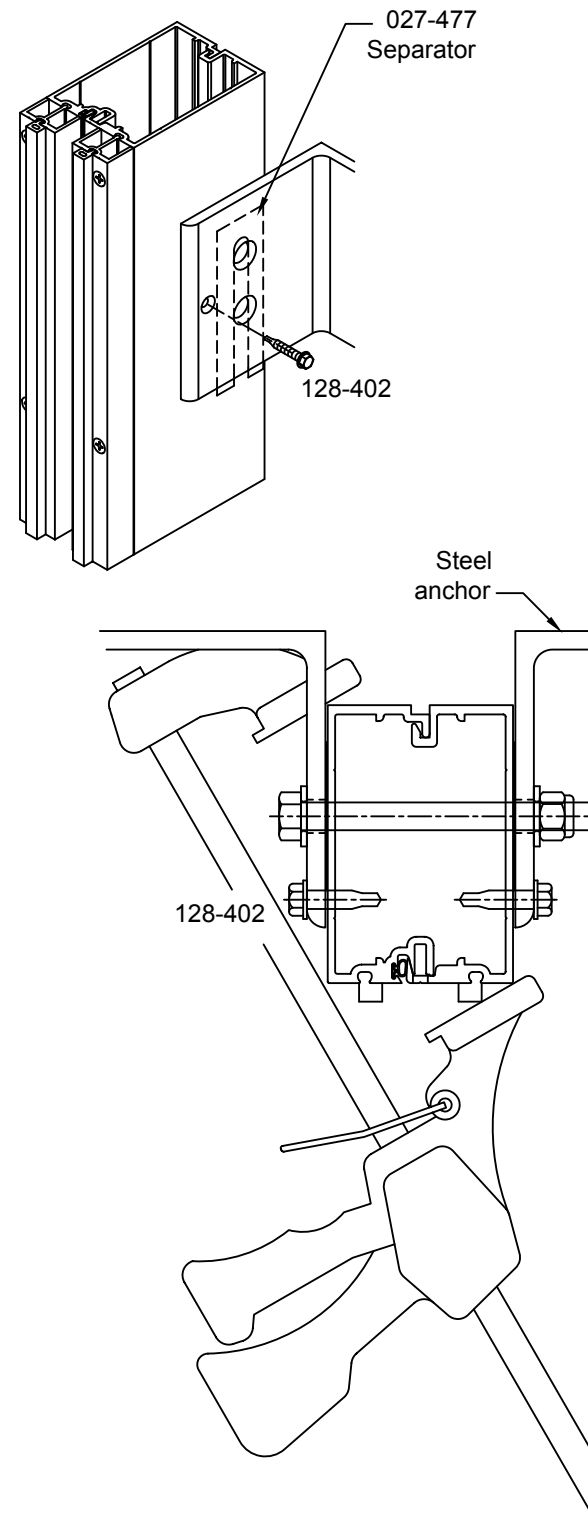
NOTE: CHECK OVERALL FRAME DIMENSIONS ABOUT EVERY FIVE UNITS ON LONG RUNS TO AVOID DIMENSIONAL BUILD-UP.



**INSTALL UNITS**

Secure frame with clamps and apply 128-402 1/4-14 x 1" HWSD to temporarily fix frame in place. Install next frame prior to match drilling mullion and applying thru bolts.

Note: Temporary fastener must be removed after thru bolting mullions at all wind load anchors.



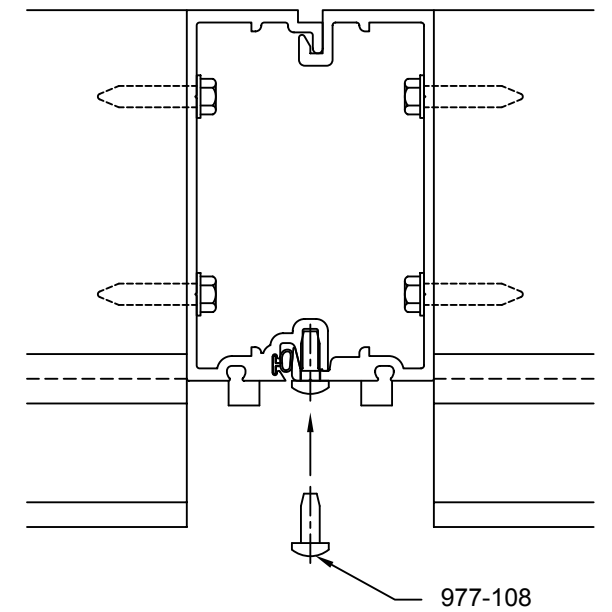
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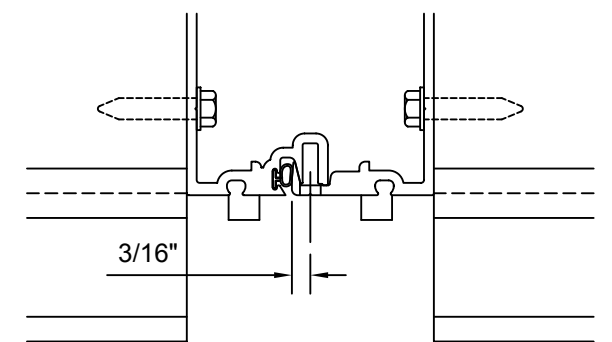
**INSTALL UNITS**

Secure unit frames together. Install 977-108 #10 x 1/2" PHTF screws at 24" O.C.

Seal over fastener heads.



Prep additional .201 dia. (#7 drill) holes at the same location for SSG glass temporaries. Locate at 1/3 points or as required between horizontals. For DLO heights less than 4', only one temp is required around the DLO center. Mark holes if necessary to identify SSG temp locations. DO NOT allow drill bit to penetrate screw spline.



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INSTALLATION  
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**INSTALL UNITS USING BACK ANCHORS**

Reference approved shop drawings for anchoring.

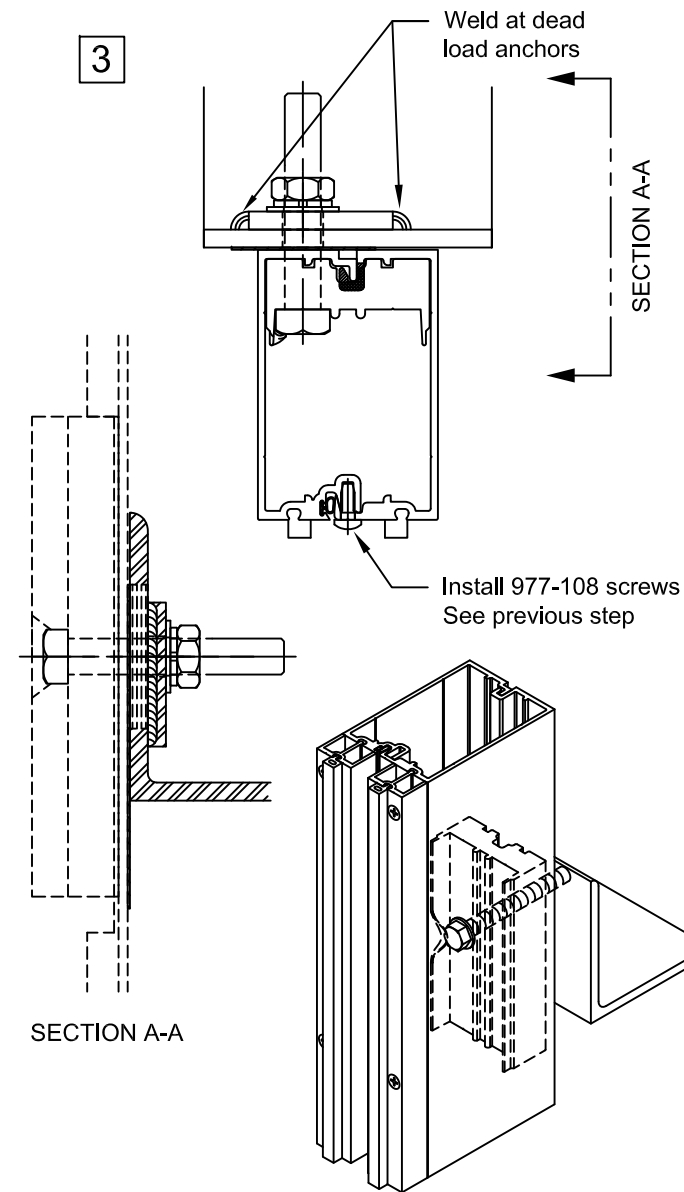
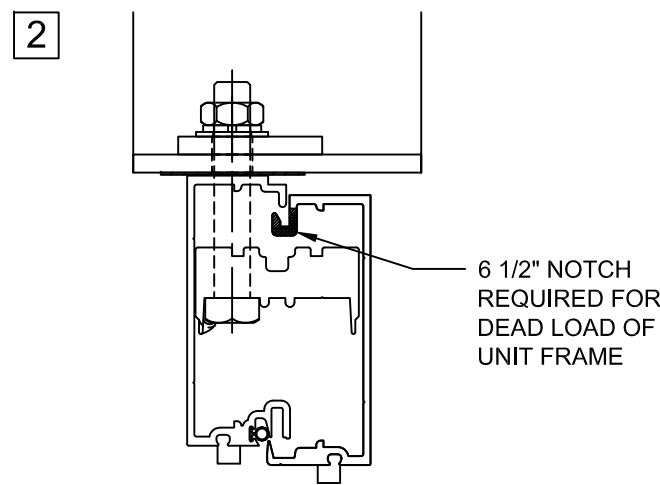
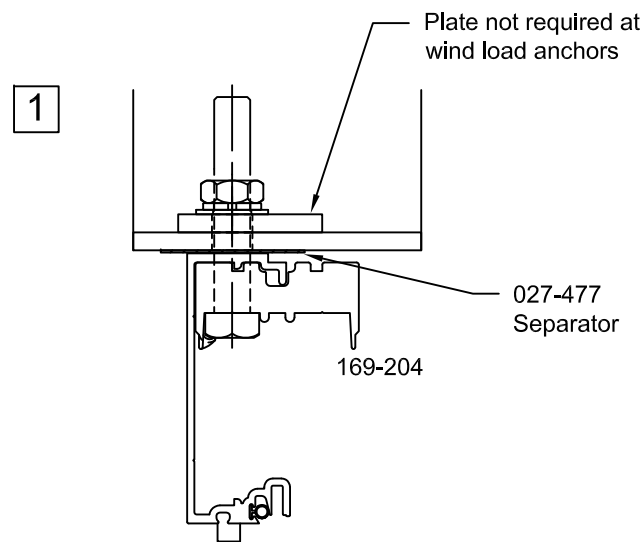
NOTE: Back Anchors **cannot** be used with Versoleil Outrigger Application

All steel anchors must be separated from aluminum mullions. Use 027-477 separators.

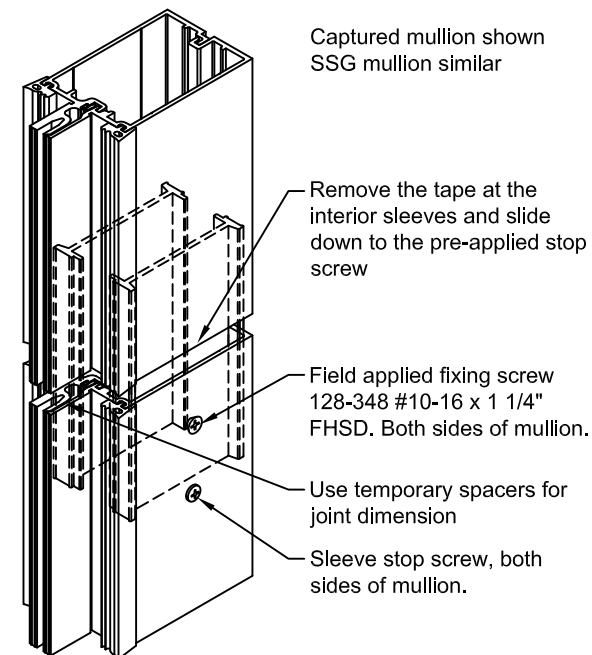
Units must be installed level, plumb and square.

Apply 128-935 1/2-13 x 3" Grade 5 HHMS to 169-204 back anchor lug and crimp into place.

1. Install unit into place. Apply 169-204 back anchor lug inside mullion half and fasten back to anchor per approved shop drawings.
2. When next unit is being installed, secure installed unit and loosen back anchor lug enough to engage next unit as shown. Notch in next unit should align with back anchor lug.
3. Tighten back anchor lug securing both units in place.



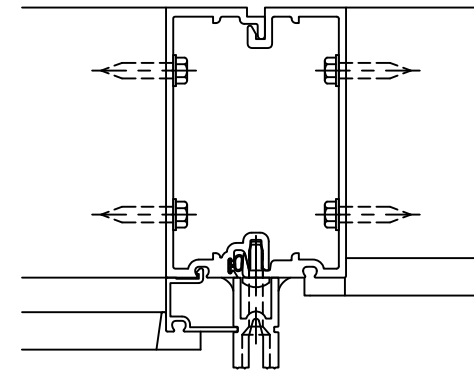
**AT MULLION SPLICE LOCATIONS**



**INSTALL SSG TONGUE ADAPTER WHERE REQUIRED**

Clamp tongue to mullion. Match drill .201 [#7 drill] dia. holes @ 6" on center in female mullion half only. Apply SSG tongue adapter with 028-761 #10 x 1 1/4" FHTF screws. Seal across top of tongue and down both sides where adapter contacts the face of the mullion.

Snap in 1/4" adapters and apply gaskets as required.



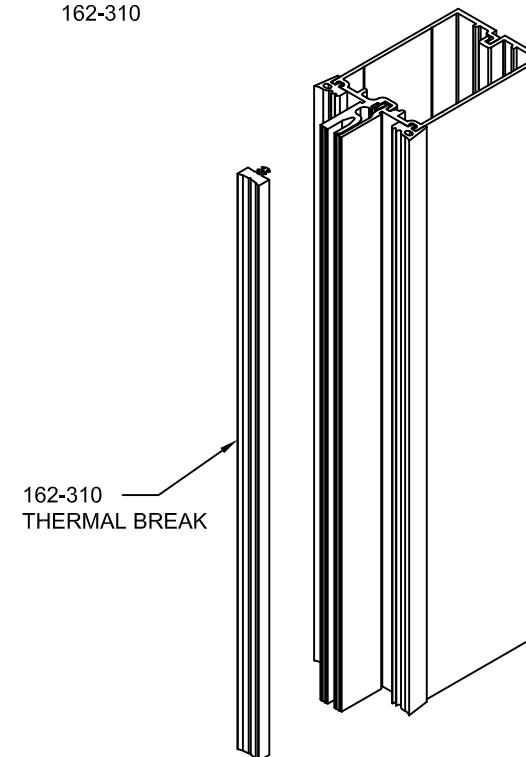
**INSTALL 162-310 THERMAL BREAK AT CAPTURED VERTICALS**

Do not stretch when removing from coil, carton and during installation.

Insert thermal break (162-310) along the full length of the vertical mullion tongue and trim flush at top and bottom of part.



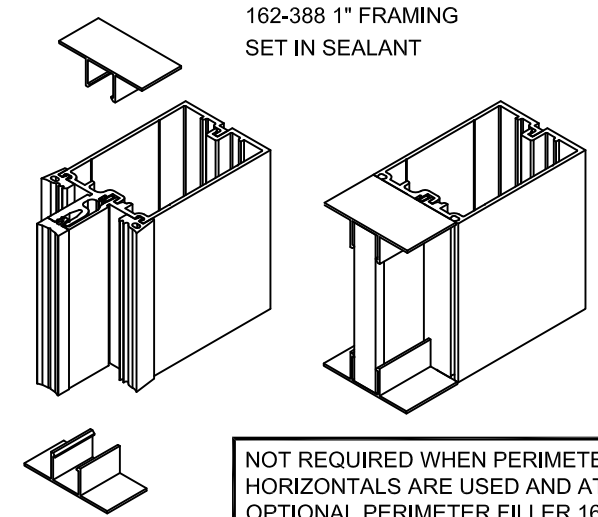
162-310



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**INSTALL HEAD AND SILL END CAPS WHERE APPLICABLE**



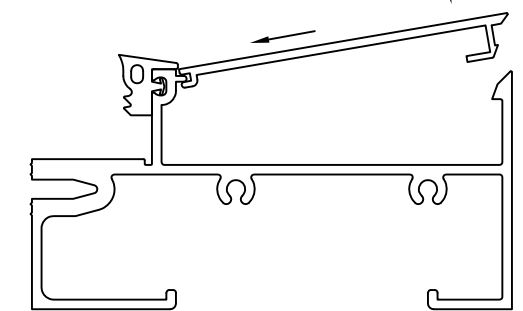
NOT REQUIRED WHEN PERIMETER HORIZONTALS ARE USED AND AT OPTIONAL PERIMETER FILLER 162-022. JOINT PLUG WILL SEAL OFF TOP OF MULLION GLAZING POCKETS.

**INSTALL INTERIOR FILLERS WHERE APPLICABLE**

Fillers used at exposed areas only.

Sill shown, head opposite.

Perimeter horizontal shown, other similar.



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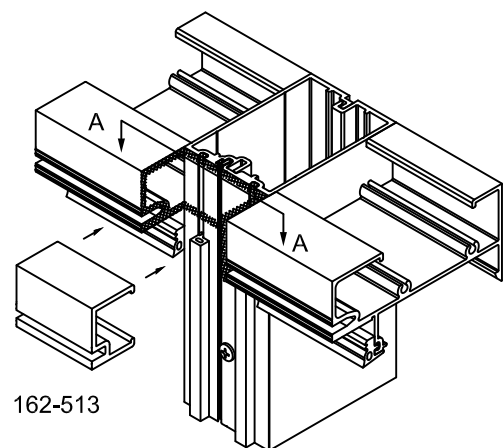
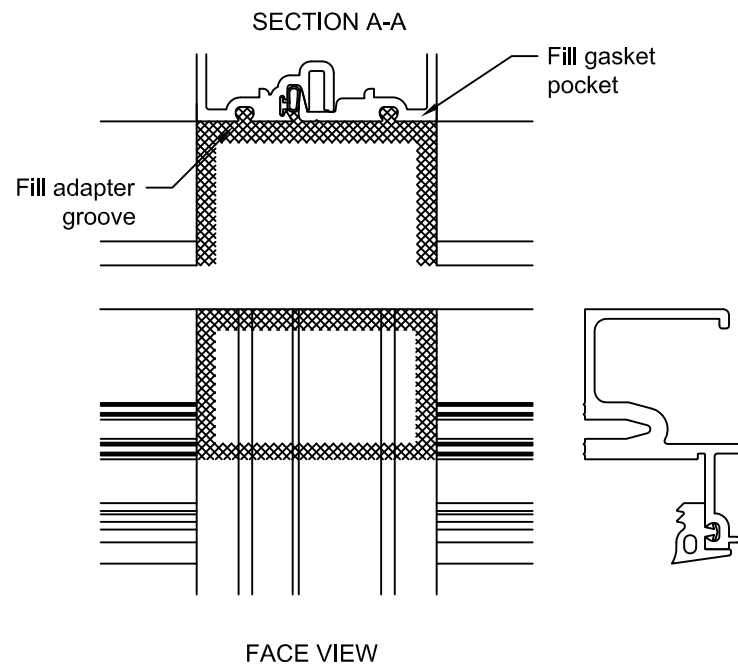


**INSTALL "PERIMETER TYPE" HORIZONTAL HEAD AND SILL JOINT PLUGS AT SSG VERTICALS AND THERMAL SEPARATOR**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

Just before installing joint plugs apply sealant as shown filling gasket pocket and adapter groove.

Joint plugs for SSG verticals must be applied after unit installation.

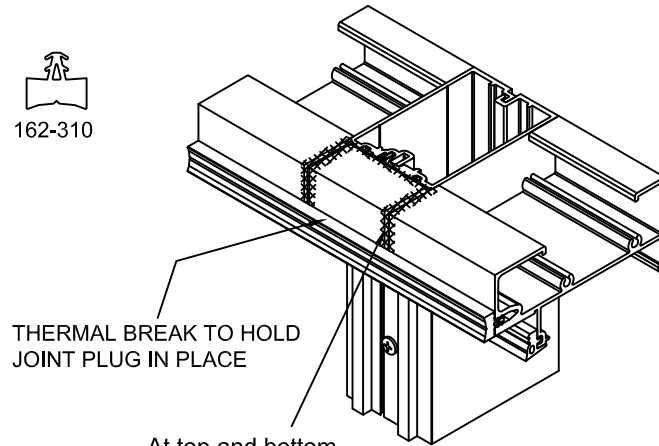


162-513

**INSTALL "PERIMETER TYPE" HORIZONTAL HEAD AND SILL JOINT PLUGS AT SSG VERTICALS AND THERMAL SEPARATOR**

Install 162-310 thermal separator. Reference sheet 2 for par lengths.

DO NOT STRETCH WHEN REMOVING FROM COIL, CARTON AND DURING INSTALLATION

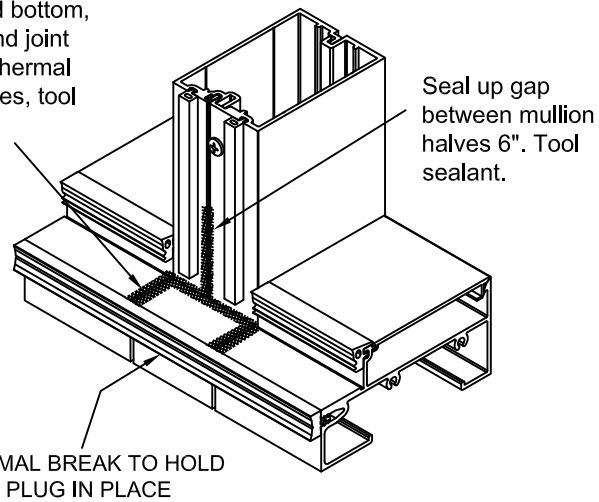


162-310

THERMAL BREAK TO HOLD JOINT PLUG IN PLACE

At top and bottom, seal around joint plug and thermal break edges, tool sealant.

At top and bottom, seal around joint plug and thermal break edges, tool sealant.



Seal up gap between mullion halves 6". Tool sealant.

THERMAL BREAK TO HOLD JOINT PLUG IN PLACE

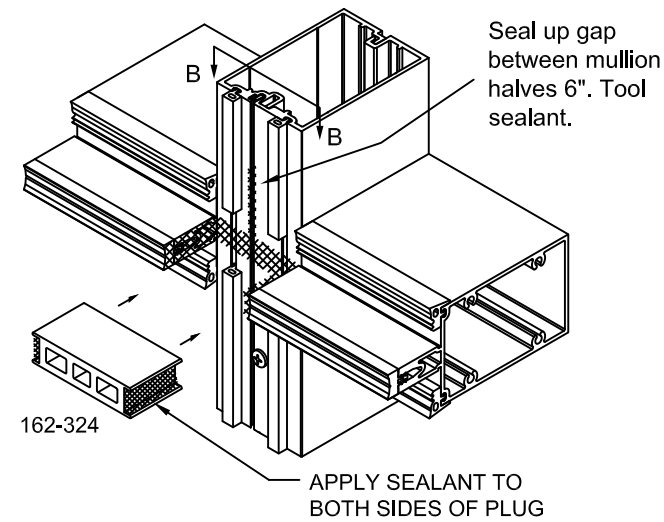
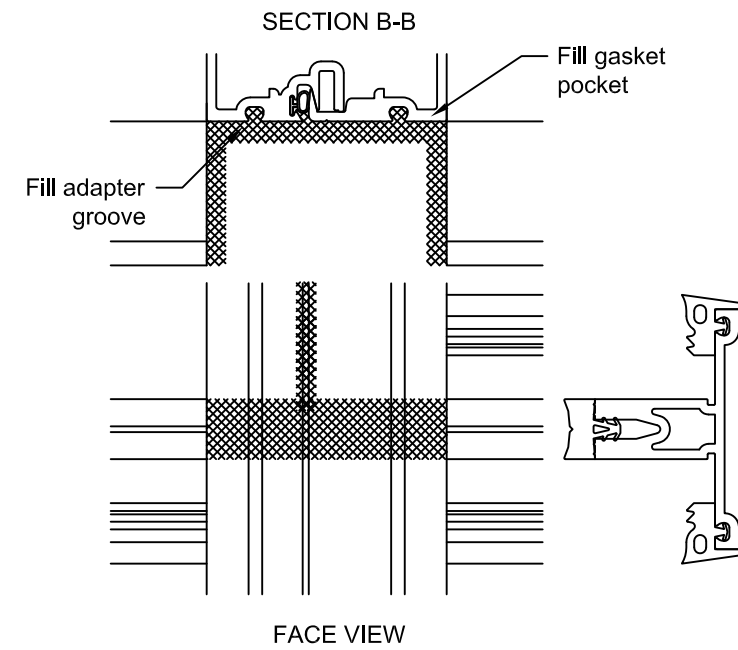
**INSTALL HEAD, SILL AND INTERMEDIATE JOINT PLUGS AT SSG VERTICALS**

All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

Just before installing joint plugs apply sealant as shown filling gasket pocket and adapter groove.

Joint plugs for SSG verticals must be applied after unit installation.

Intermediate shown, typical head and sill similar.



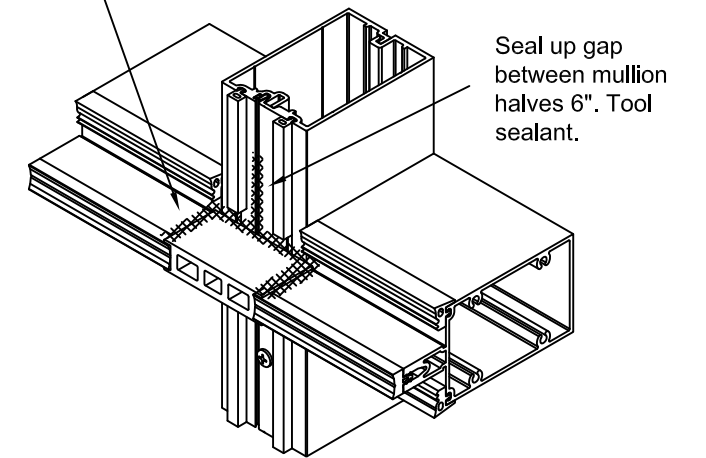
162-324

Seal up gap between mullion halves 6". Tool sealant.

APPLY SEALANT TO BOTH SIDES OF PLUG

**INSTALL HEAD, SILL AND INTERMEDIATE JOINT PLUGS AT SSG VERTICALS**

At top and bottom, seal around joint plug and thermal break edges, tool sealant.



Seal up gap between mullion halves 6". Tool sealant.

Note: When Versoleil Outrigger Application is used; Joint Plug, 494406, is used in Mounting Stem Locations. See Approved Shop Drawings and Versoleil Outrigger Installation Instructions, 494974, for details.



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**SPLICE JOINT SEAL - CAPTURED VERTICAL**

All surfaces and grooves must be cleaned and sealant applied per the sealant manufacturer's recommendations. Tool sealant.

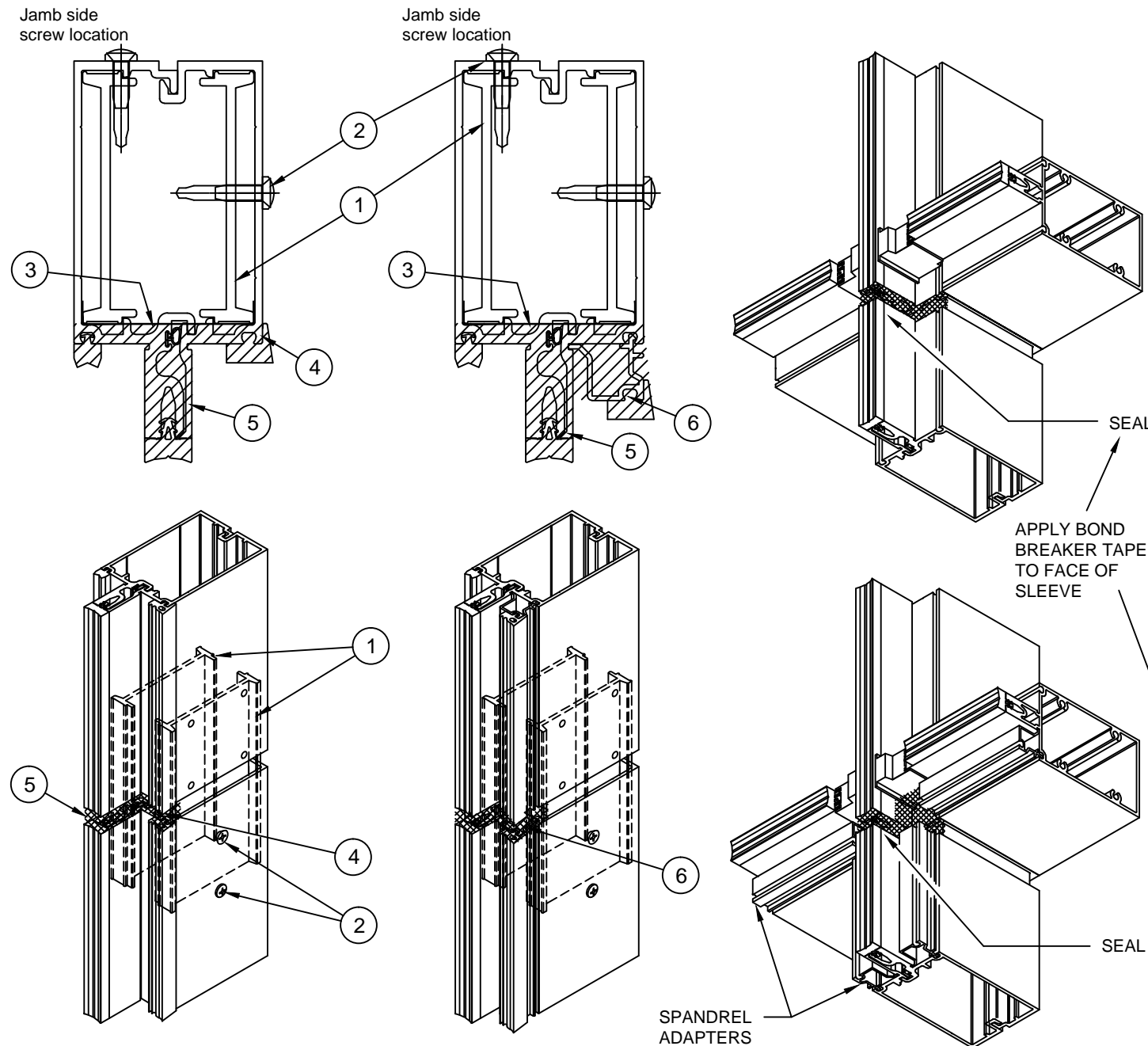
NOTE: SEALANT MUST BE CAPABLE OF ±50% MOVEMENT.

Expansion joint located at horizontal. Gasket not shown for clarity.

- 1 Interior sleeve
- 2 Stop screw and set screw
- 3 Apply bond breaker tape to sleeves
- 4 Seal face of interior sleeves and gaskets
- 5 Seal tongue joint
- 6 Seal spandrel adapter joints

Note: When Versoleil Outrigger Application is used; Interior Sleeve, 494393, is used in Male Mullion Half, 169043. See Approved Shop Drawings for details.

ALL SURFACES AND GROOVES MUST BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.



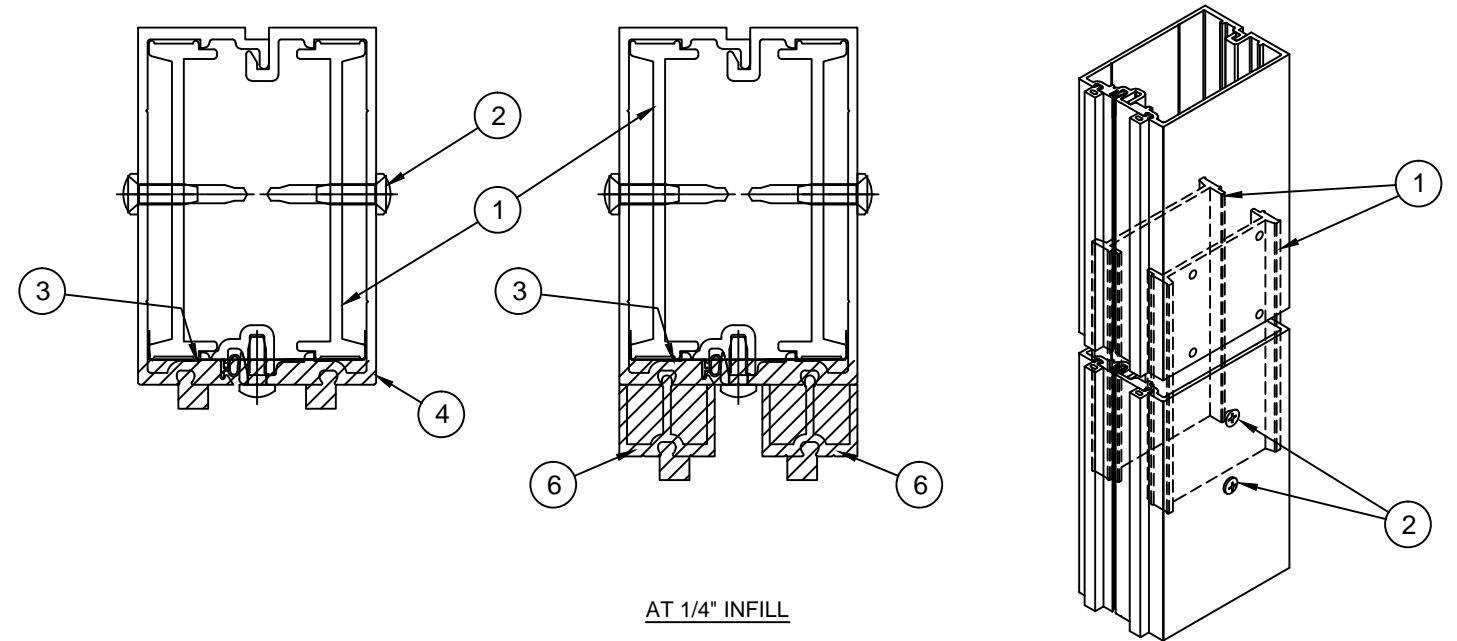
**SPLICE JOINT SEAL - SSG VERTICAL**

Reference notes at left.

169971 (SHT 10 OF 15)

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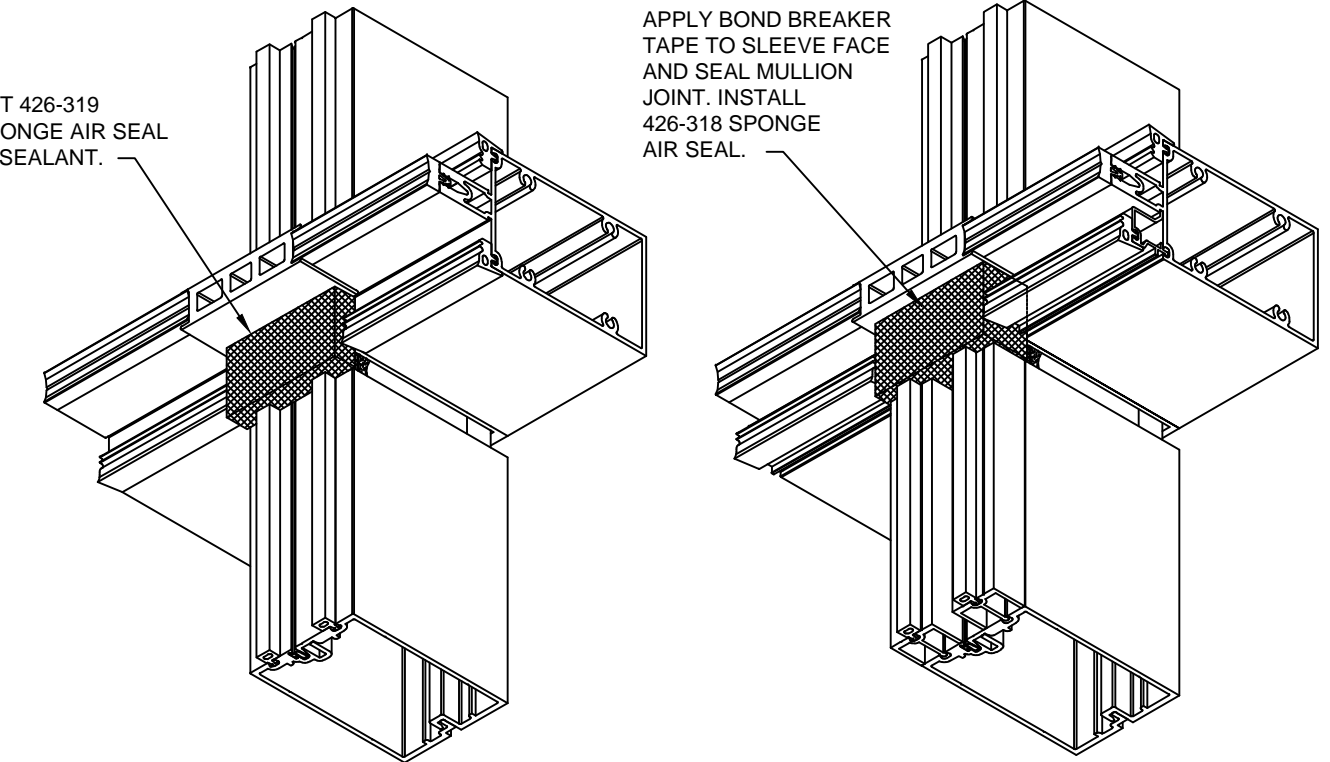
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SET 426-319 SPONGE AIR SEAL IN SEALANT.

AT 1/4" INFILL

APPLY BOND BREAKER TAPE TO SLEEVE FACE AND SEAL MULLION JOINT. INSTALL 426-318 SPONGE AIR SEAL.



Note: When Versoleil Outrigger Application is used; Joint Plug, 494406, is used in Mounting Stem Locations. See Approved Shop Drawings and Versoleil Outrigger Installation Instructions, 494974, for details.



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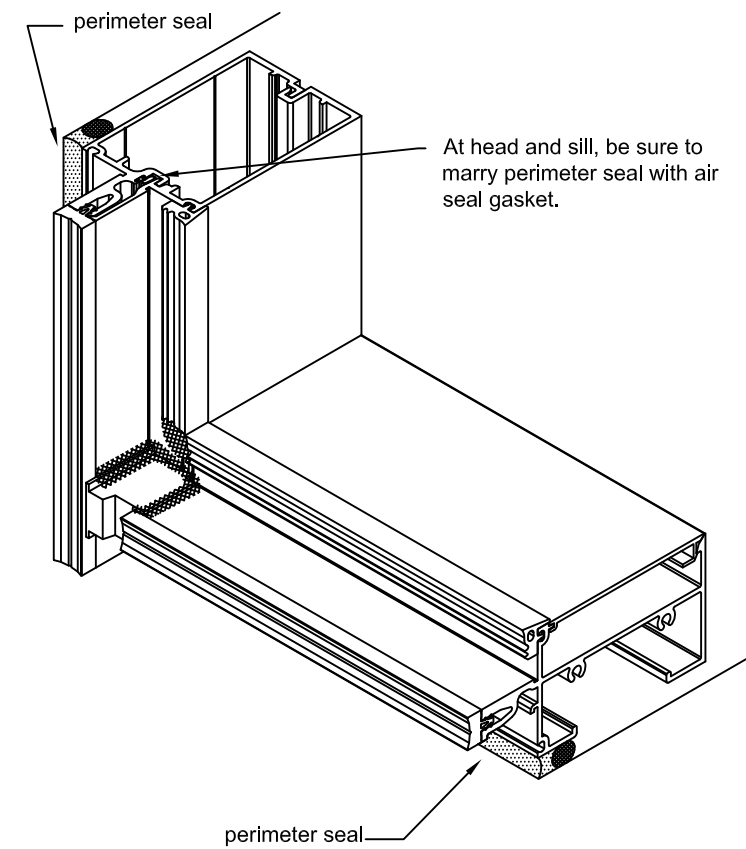
**PERIMETER SEAL AT FACE OF MULLION TUBES  
OPTIONAL**

Apply backer rod and primary perimeter seal as shown where specified. This application requires the 027-493 air seal gasket between mullion halves.

All surfaces and grooves must be cleaned and sealant applied per the sealant manufacturer's recommendations. Tool sealant.

Prior to glazing, inspect all seals and repair any that may be suspect.

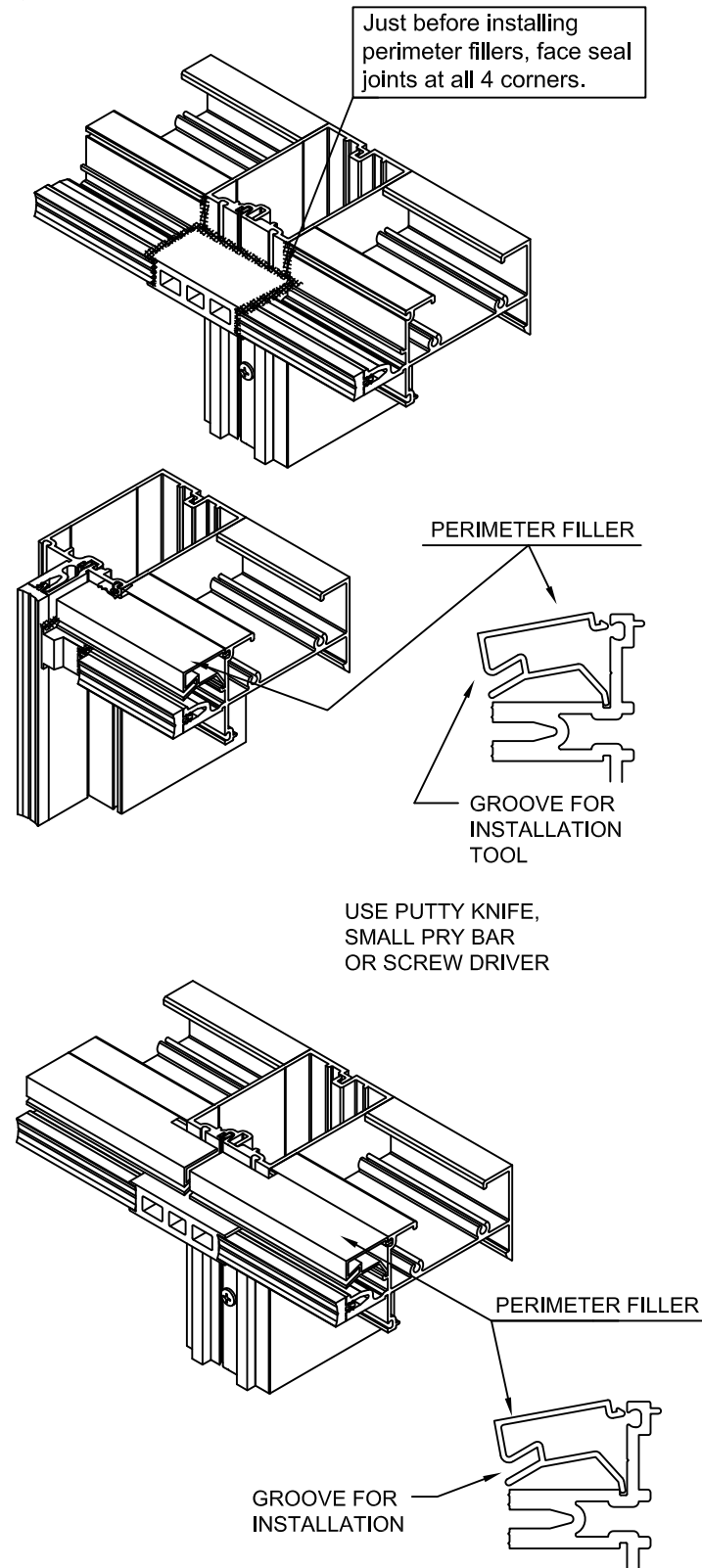
Perimeter seals required at pressure plates will be completed on a later step.



**INSTALL PERIMETER FILLERS WHERE APPLICABLE**

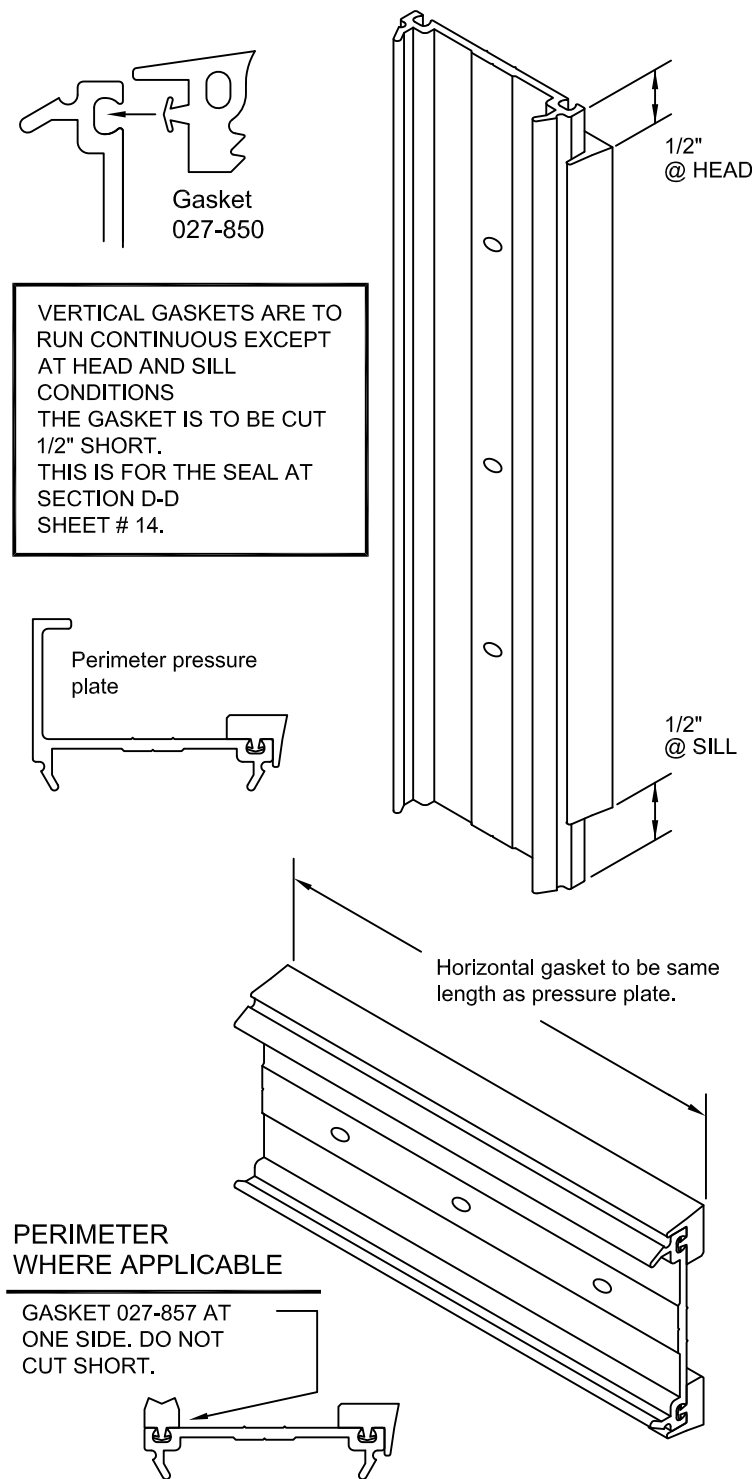
All surfaces and grooves must be cleaned per the sealant manufacturer's recommendations.

NOTE: IF HORIZONTAL ENDS WERE SEALED DURING FRAME ASSEMBLY, FACE SEALING JOINTS AT ALL 4 CORNERS NOT REQUIRED.



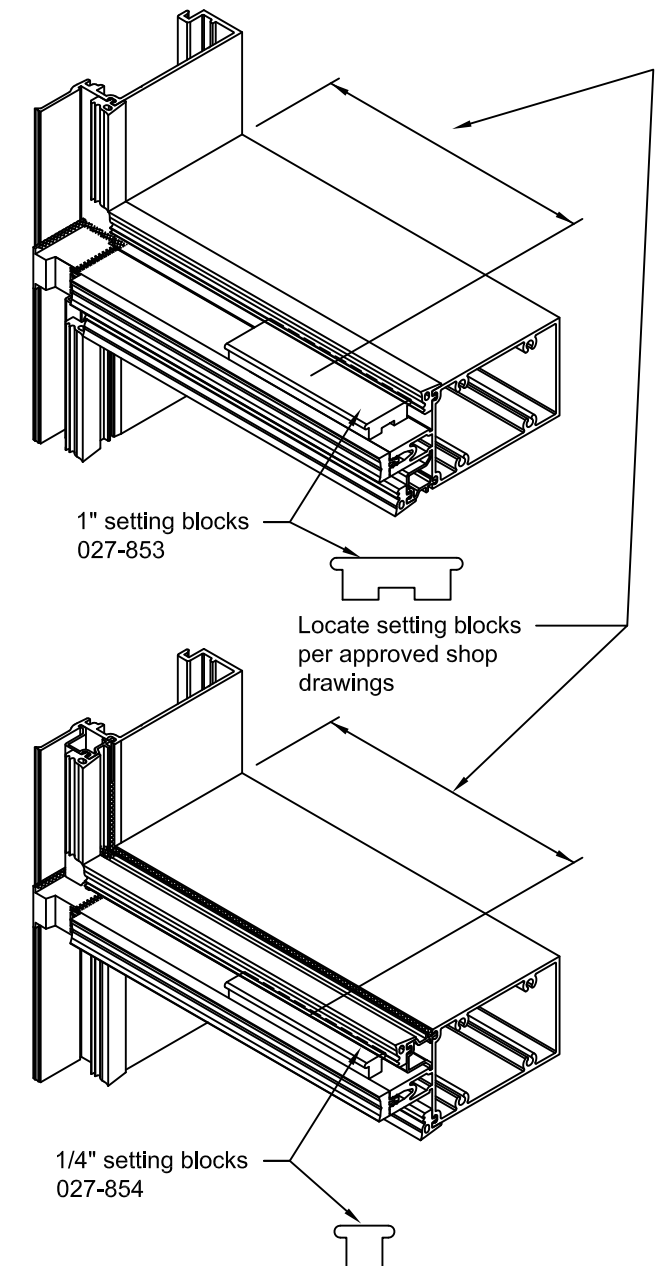
**INSTALL EXTERIOR GASKETS INTO PRESSURE PLATES**

Reference previous gasket notes, same notes apply



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**INSTALL SETTING BLOCKS**



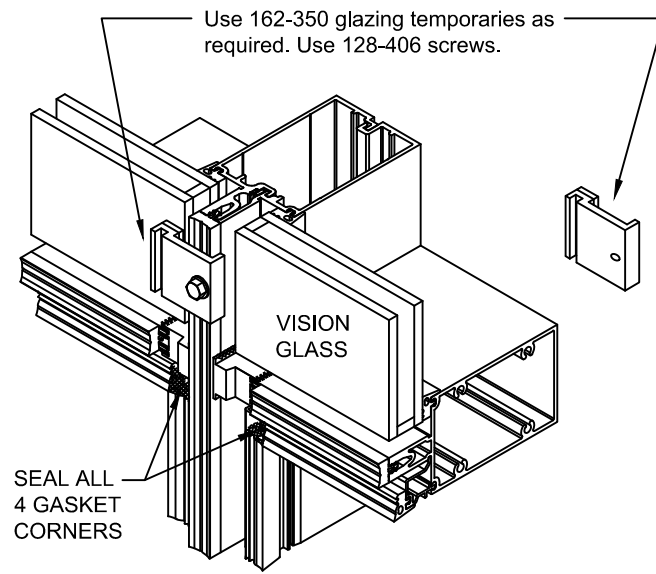
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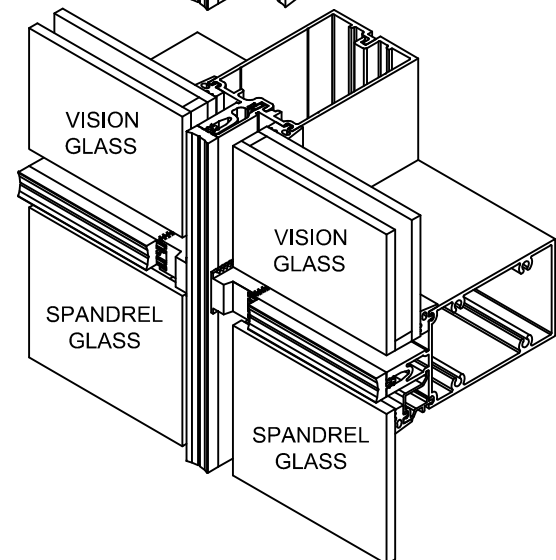
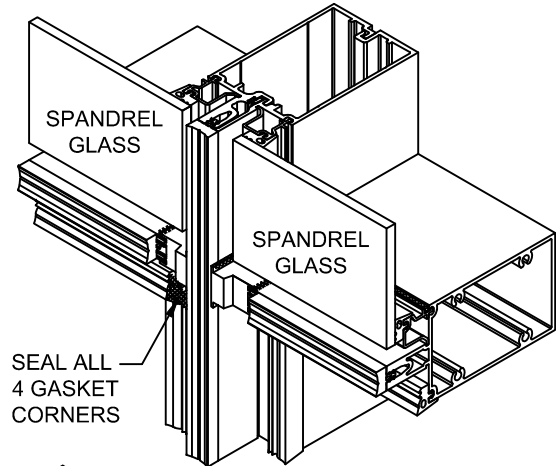
95505-019  
04/26/13

**INSTALL GLASS - CAPTURED VERTICALS**

JUST BEFORE INSTALLING GLASS, SEAL ALL 4 GASKET CORNERS.

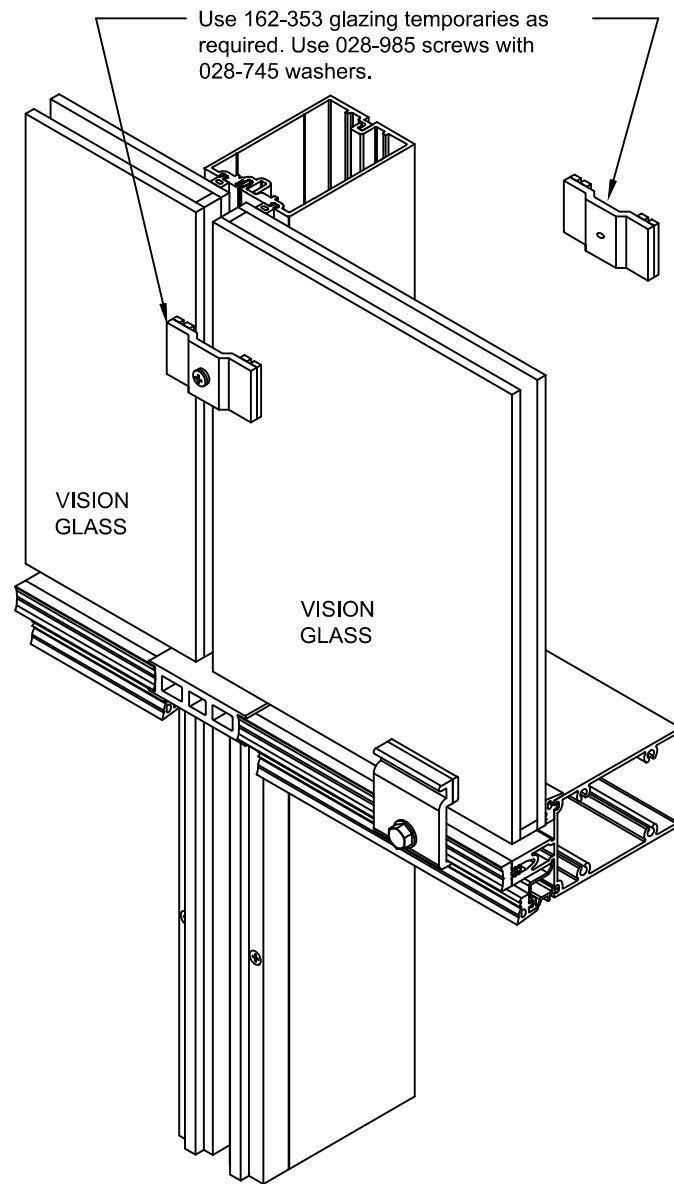


MAXIMUM TEMPORARY SPACING IS 30". IF WINDS GREATER THAN 50 MPH (80KPH) ARE EXPECTED, ADDITIONAL TEMPORARIES MAY BE REQUIRED. CONSULT YOUR SEALANT AND/OR INFILL SUPPLIER FOR SPACING RECOMMENDATIONS. INSTALL PRESSURE PLATES WHERE POSSIBLE.



**INSTALL GLASS - SSG VERTICALS**

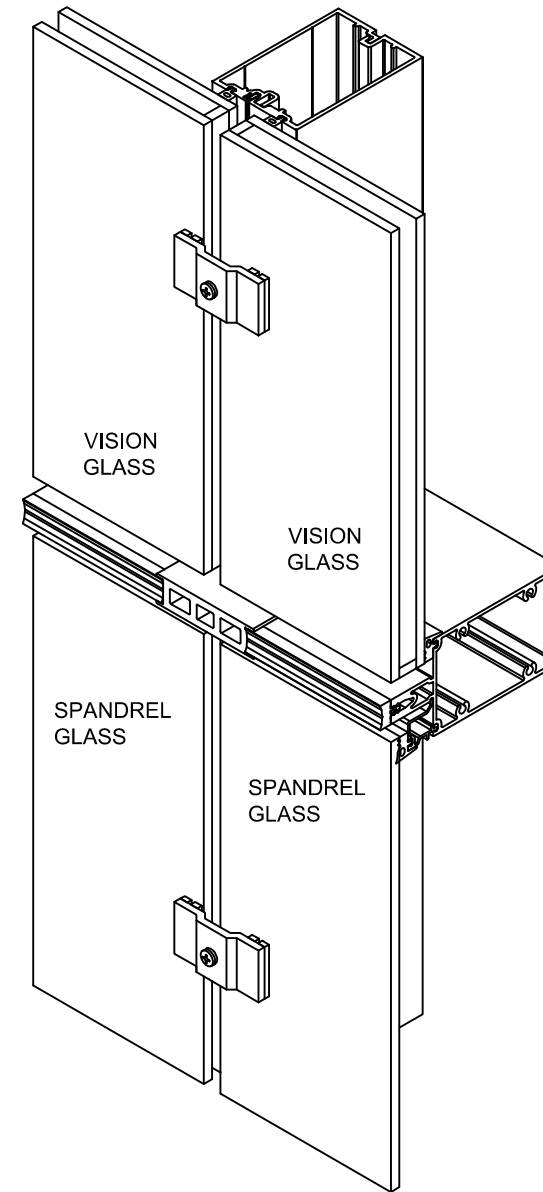
JUST BEFORE INSTALLING GLASS, SEAL ALL 4 GASKET CORNERS.



MAXIMUM TEMPORARY SPACING IS 30". IF WINDS GREATER THAN 50 MPH (80KPH) ARE EXPECTED, ADDITIONAL TEMPORARIES MAY BE REQUIRED. CONSULT YOUR SEALANT AND/OR INFILL SUPPLIER FOR SPACING RECOMMENDATIONS. INSTALL PRESSURE PLATES WHERE POSSIBLE.

AT CORNERS RETAINERS SHOULD BE MADE FROM A GOOD QUALITY HARDWOOD. THESE RETAINERS ARE NOT SUPPLIED BY KAWNEER.

**INSTALL GLASS - SSG VERTICALS**

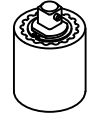


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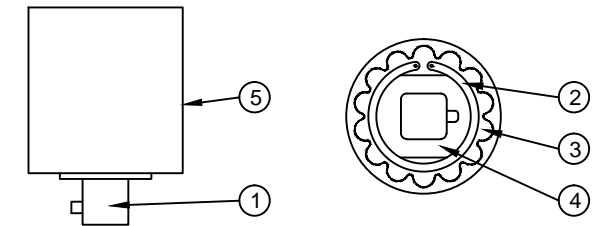
**INSTALL EXTERIOR PRESSURE PLATES**

Recommend using torque limit tool 162-399 see note.

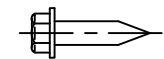


**HOW TO SET TORQUE LIMIT**

1. Attach any calibrated torque indicator to output stub (1) and determine present torque setting while holding the body (5), or vice-versa.
2. Remove snap ring (2) and locking plate (3).
3. Adjust nut (4) with open-end wrench : clockwise to increase torque, counter-clockwise to decrease torque.
4. Obtain new torque reading with the calibrated torque indicator. repeat preceding step if more adjustment is necessary to reach desired limit.
5. Replace locking plate into notches and install snap ring. If locking plate does not "seat", move the adjusting nut slightly until it drops in place. the direction is best determined by whether a minimum torque application or a maximum one is desired.



Install pressure plates using screws 128-406 1/4-14 x 1" hex washer head type AB.



Screws are to be located 9" on center. Always locate a screw as close as possible to a horizontal joint. This will provide maximum pressure for the critical joint seals.

Install horizontal pressure plates with the weep holes towards the top of the horizontal.

At each horizontal and vertical pressure plate install two screws part way, then install the third screw all the way and then tighten the first two screws. This eliminates lateral walking of the pressure plate position.

Torque all screws to 95 to 100 inch pounds. During cold weather torque screws to 50 inch pounds until all 4 sides have been clamped. Then torque screws to 95 to 100 inch pounds.



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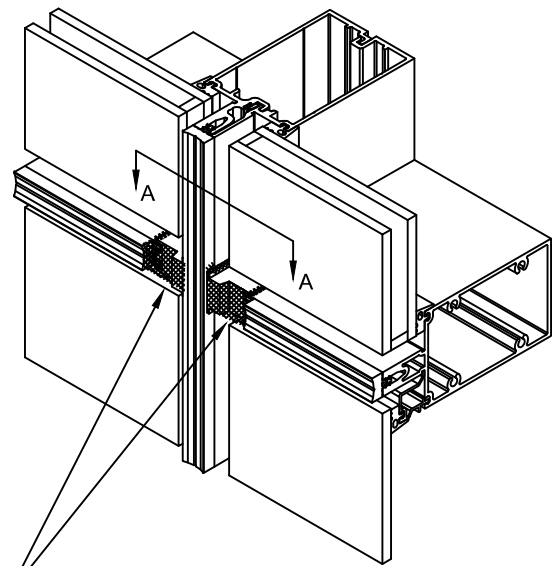
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**INSTALL EXTERIOR PRESSURE PLATES AT CAPTURED VERTICALS**

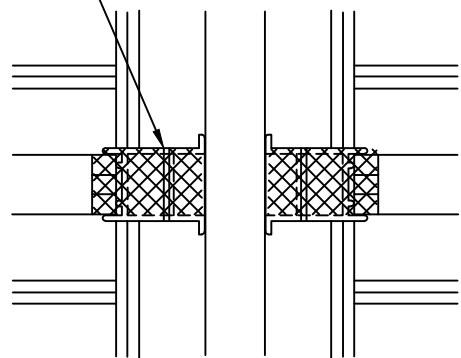
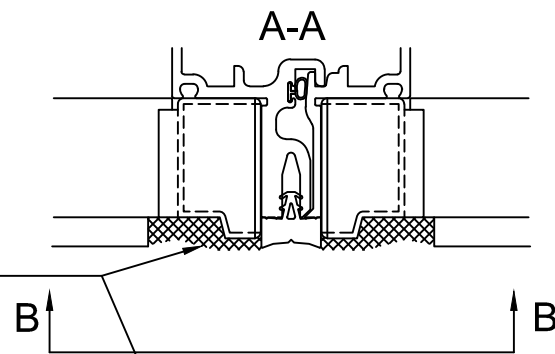
Intermediate horizontal vision over spandrel

Head and sill similar



Just before installing vertical pressure plates apply a generous amount of sealant to the joint plug face filling joints as shown.

CLEAN JOINT PER SEALANT MANUFACTURER'S RECOMMENDATIONS



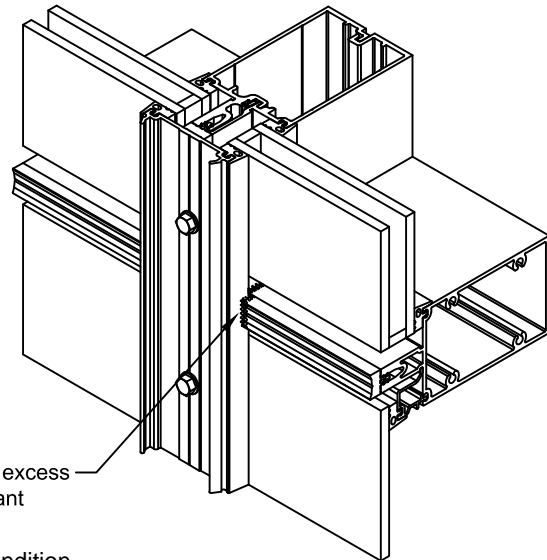
B-B

**INSTALL EXTERIOR PRESSURE PLATES AT CAPTURED VERTICALS**

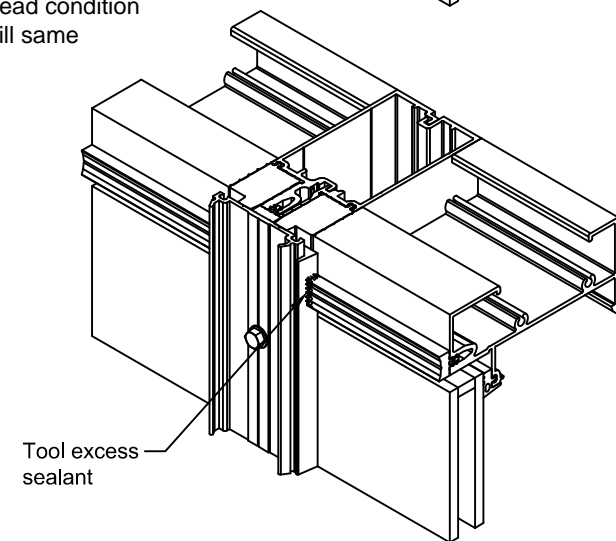
Install vertical pressure plates

Note - The torque limit tool was designed to be used with a hand driven device. The tool can be adapted to a drill motor if used at a maximum speed of approx. 300 rpm. Higher speeds can cause overheating and affect the accuracy. After approx. 1 hour of tool usage check torque settings with a torque wrench.

Intermediate horizontal vision over spandrel

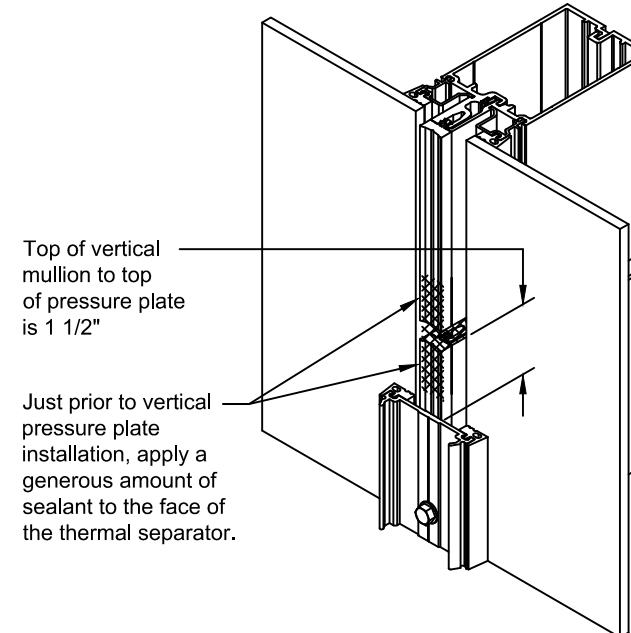


Head condition Sill same



**INSTALL EXTERIOR PRESSURE PLATES AT CAPTURED VERTICALS**

Install vertical pressure plates



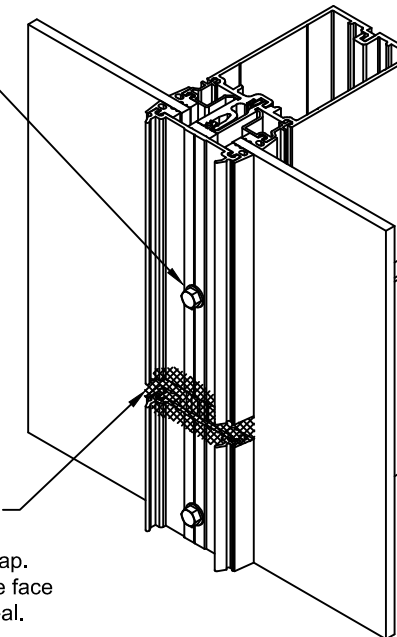
Top of vertical mullion to top of pressure plate is 1 1/2"

Just prior to vertical pressure plate installation, apply a generous amount of sealant to the face of the thermal separator.

At top pressure plate locate screw close to the mullion joint but not below the joint.

Clean joint per sealant manufacturer's recommendations

Completely seal joint. do not let sealant interfere with cover snap. Overlap pressure plate face creating a band-aid seal.

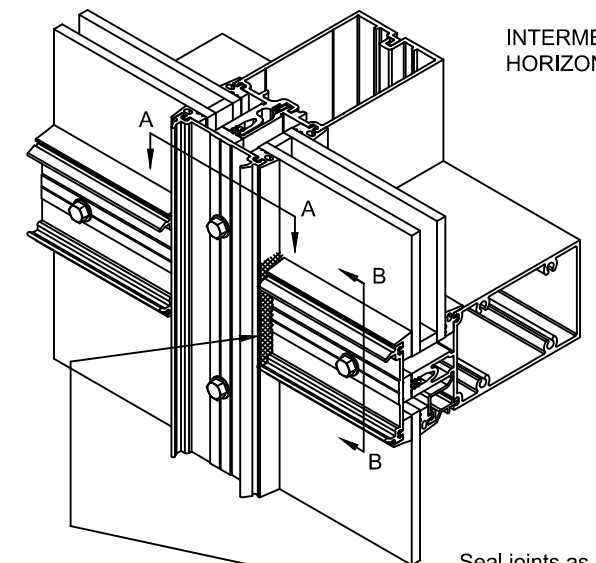


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**INSTALL EXTERIOR PRESSURE PLATES AT CAPTURED VERTICALS**

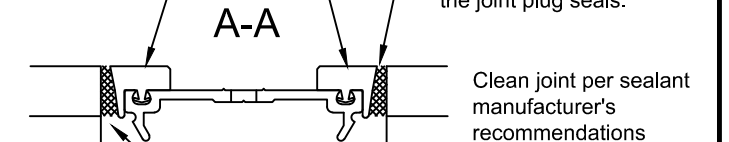
CENTER HORIZONTAL PRESSURE PLATES SO END GAPS ARE EQUAL.



INTERMEDIATE HORIZONTAL

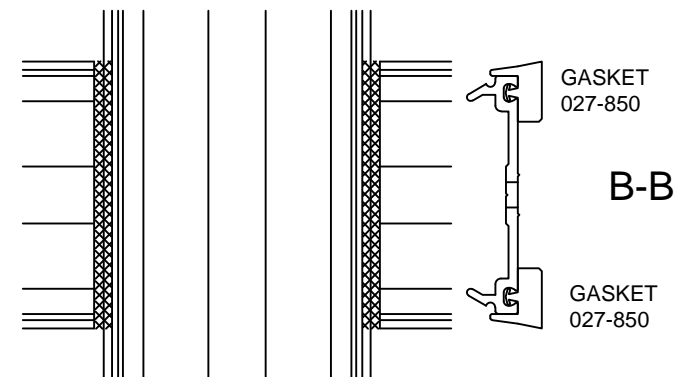
Seal joints as shown. Tool sealant. This seal is to join and adhere to the joint plug seals.

Gasket 027-850



Clean joint per sealant manufacturer's recommendations

DO NOT LET THE SEAL INTERFERE WITH THE COVER SNAP.



GASKET 027-850

B-B

GASKET 027-850

FACE VIEW



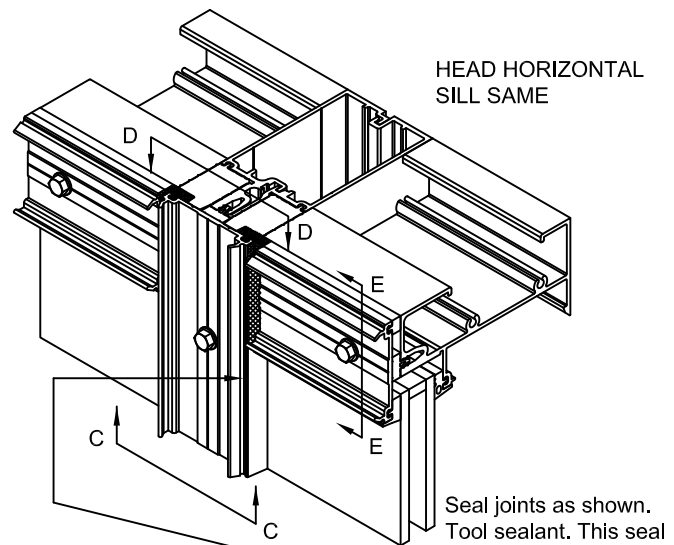
1600 SS  
SSG  
INSTALLATION  
INSTRUCTIONS

Product Engineering & Development

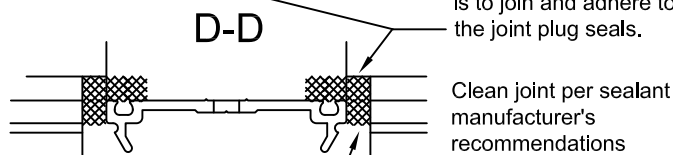
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**INSTALL EXTERIOR PRESSURE PLATES AT CAPTURED VERTICALS**

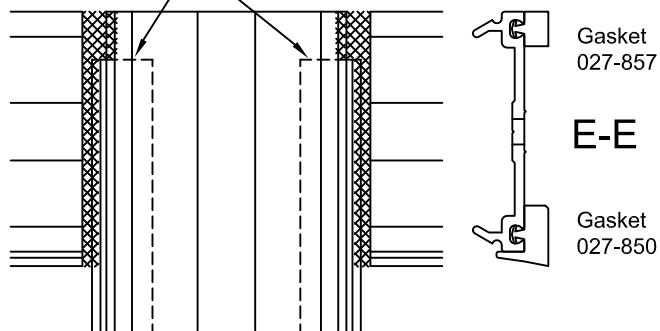
CENTER HORIZONTAL PRESSURE PLATES SO END GAPS ARE EQUAL.



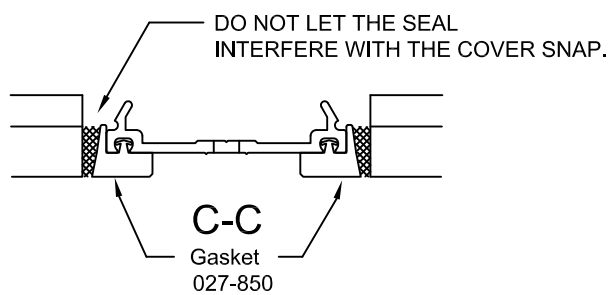
Seal joints as shown. Tool sealant. This seal is to join and adhere to the joint plug seals.



VERTICAL GASKET STOPS 1/2" SHORT OF END. DO NOT LET THE SEAL INTERFERE WITH THE COVER SNAP.

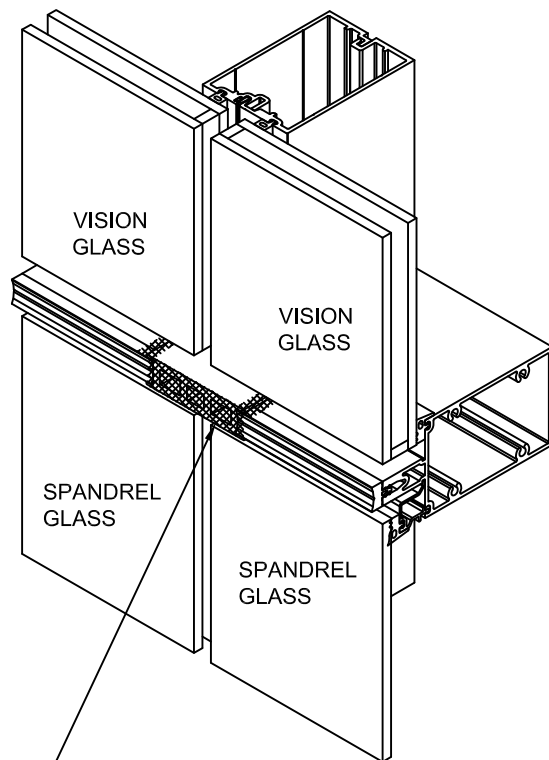


FACE VIEW



**INSTALL EXTERIOR PRESSURE PLATES AT SSG VERTICALS**

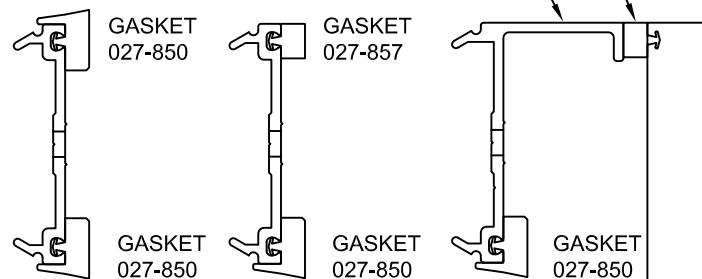
Note - The torque limit tool was designed to be used with a hand driven device. The tool can be adapted to a drill motor if used at a maximum speed of approx. 300 rpm. Higher speeds can cause overheating and affect the accuracy. After approx. 1 hour of tool usage check torque settings with a torque wrench.



Just before installing vertical pressure plates apply a generous amount of sealant to the joint plug face filling joints as shown.

Just before installing perimeter horizontal pressure plates, apply a generous amount of sealant between ends of perimeter gasket at face of mullion. Tool sealant.

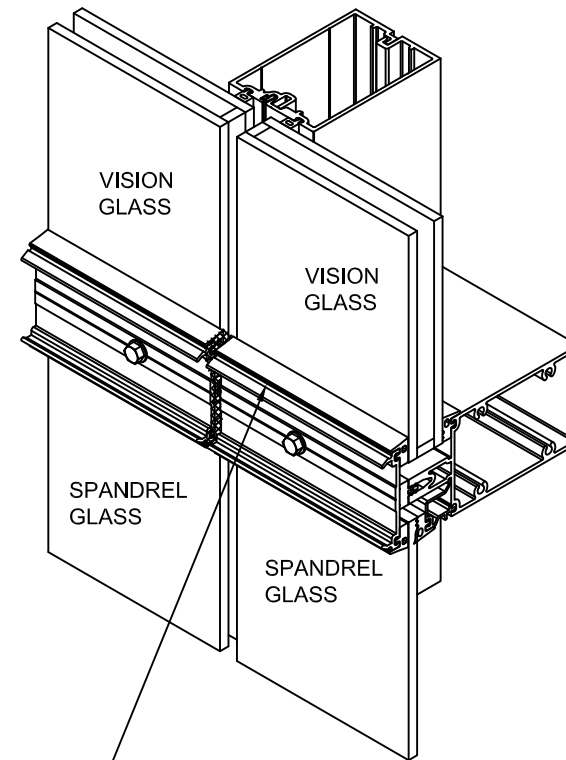
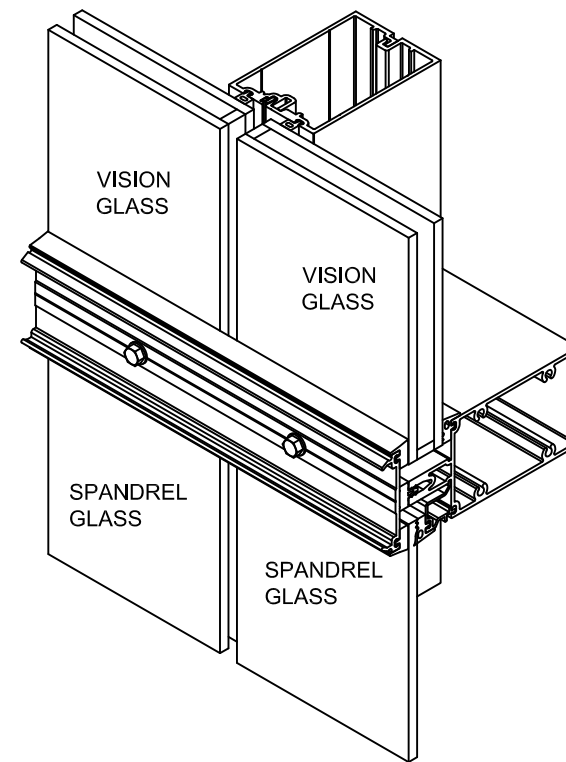
Seal between spliced perimeter pressure plates. Tool sealant.



INTERMEDIATE PERIMETER PERIMETER

Face of SSG mullion

**INSTALL EXTERIOR PRESSURE PLATES AT SSG VERTICALS**



Completely seal horizontal pressure plate joint. Do not let sealant interfere with cover snap.

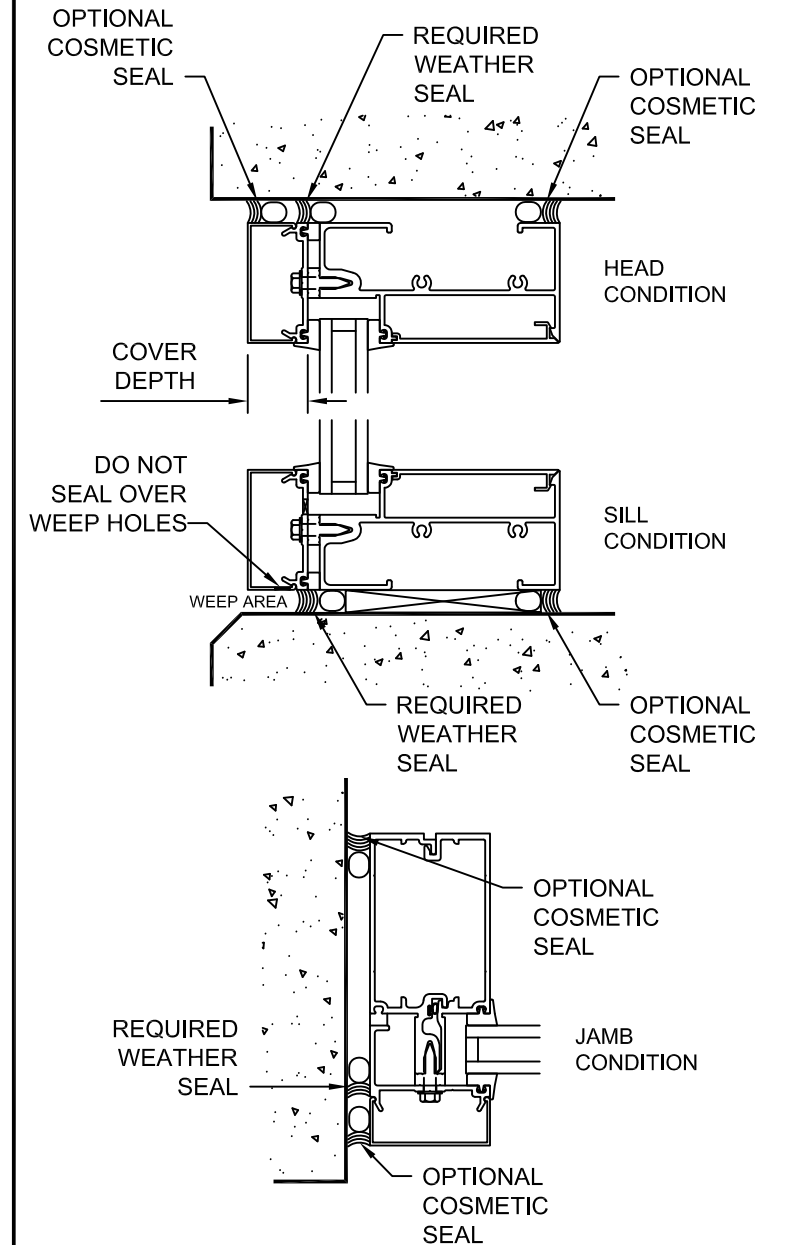
Clean joint per sealant manufacturer's recommendations.

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**INSTALL PERIMETER SEALS AT PRESSURE PLATE**

Perimeter weather seals are installed at the pressure plate location as detailed below. (This seal should be installed before covers are applied when covers deeper than 3/4" are used) Exterior cosmetic seals at the cover may be applied at the head and jambs only. Sill covers must remain open to allow water drainage to the exterior.

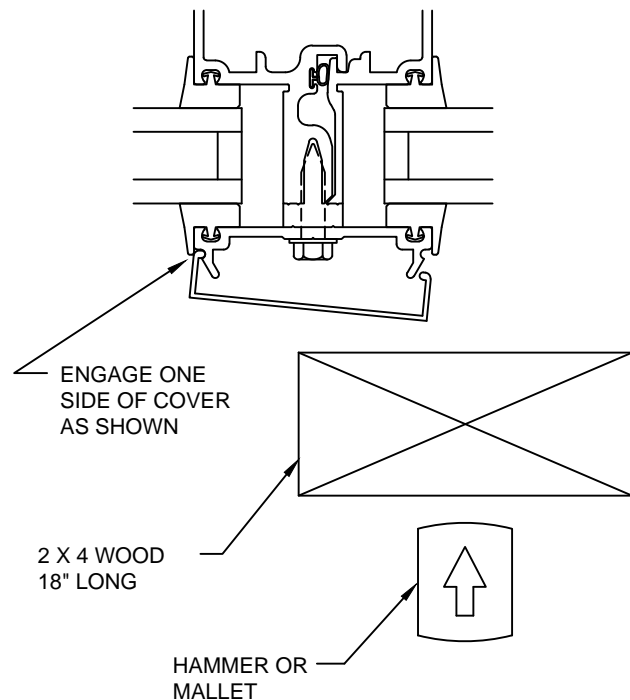


1600 SS  
SSG  
INSTALLATION  
INSTRUCTIONS

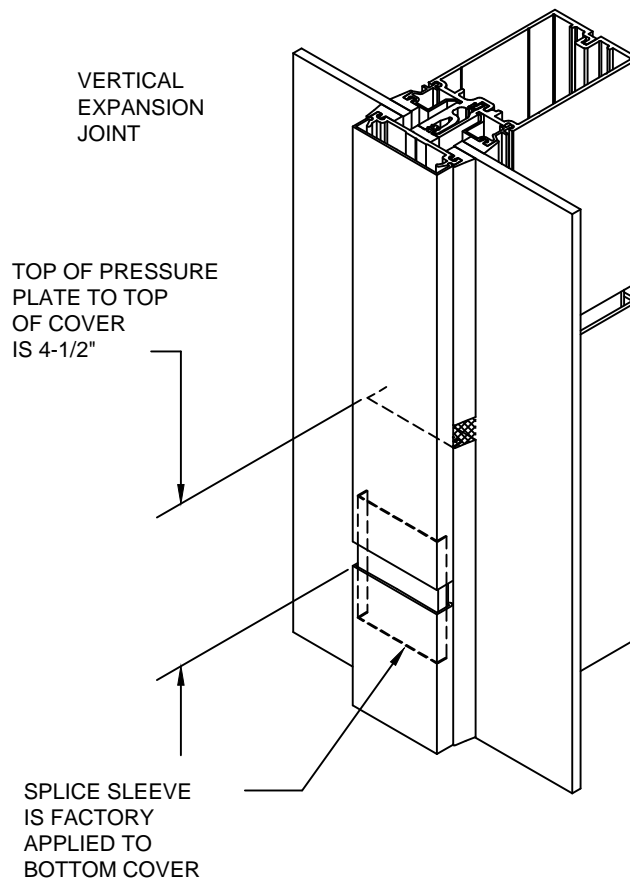
Product Engineering & Development

**INSTALL EXTERIOR COVERS**

Care must be taken to avoid damage to covers during installation. Use a 18" long piece of 2 x 4 wood along with a hammer or mallet to seat the cover.

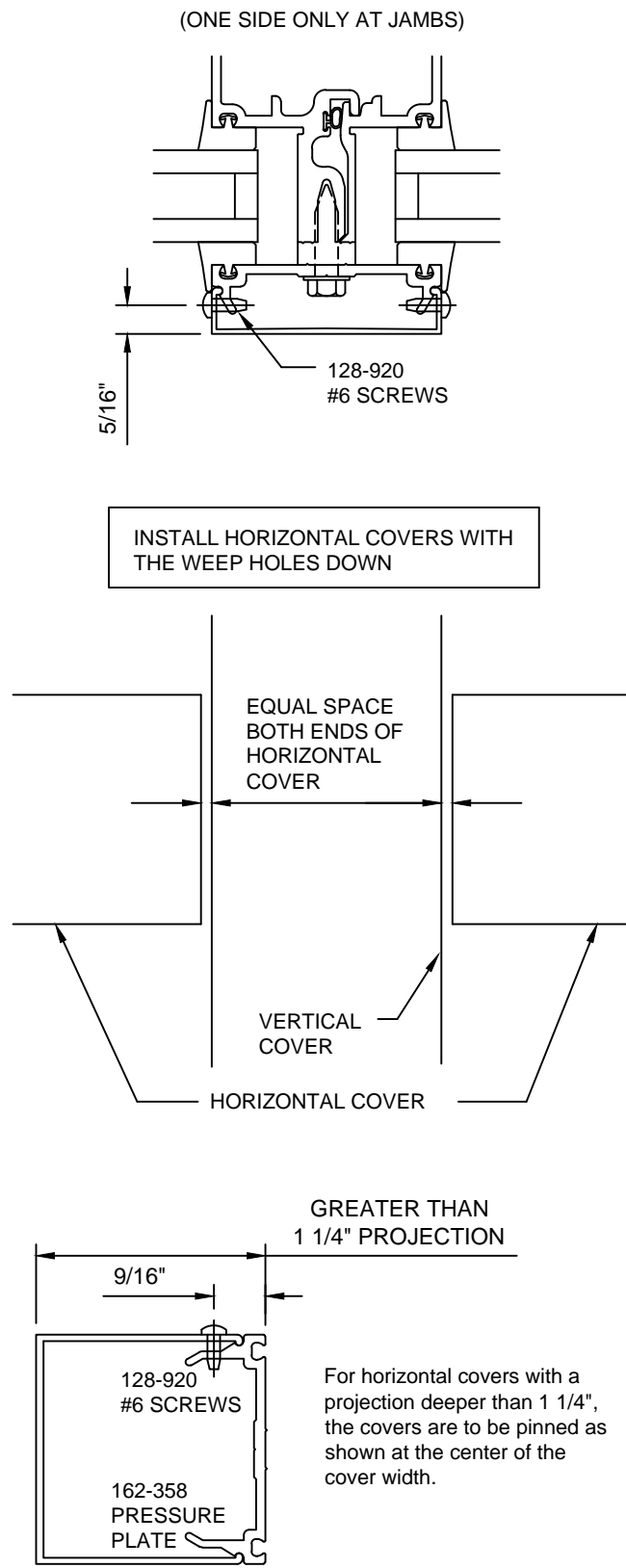


Care must be taken to avoid damage to covers during installation. Use a 18" long piece of 2 x 4 wood along with a hammer or mallet to seat the cover.



**INSTALL EXTERIOR COVERS**

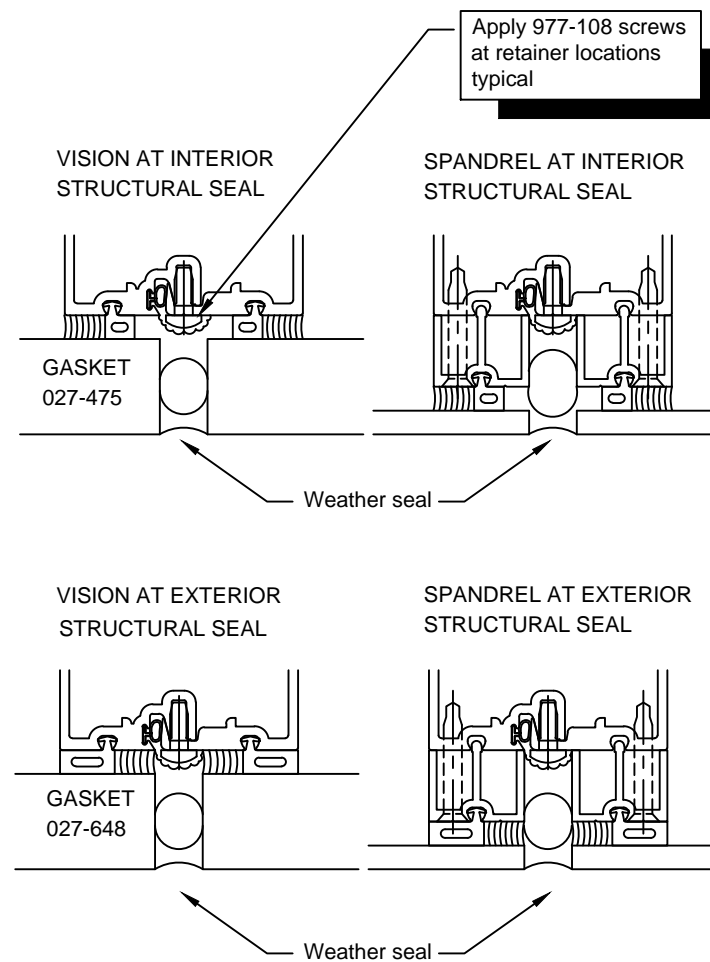
Pinning of all vertical covers is required for both sides. Drill a .106 dia. hole (#36 drill) and install 128-920 screws #6 x 3/8" pan head type b locate pinning at a horizontal closest to the cover height center.



**INSTALL STRUCTURAL AND WEATHER SEALS**

Kawneer does not supply sealant. Sealant to be silicone as recommended by the sealant manufacturer. Infill and metal to be cleaned per the sealant manufacturer's recommendations. Sealant backup rod to be per the sealant manufacturer's recommendations.

Fill space between insulated units and behind single glazed units with recommended backup rod. Apply structural seal and weather seal as shown. Allow structural seal to cure per sealant manufacturer's recommendations. Then remove temporary retainers, apply 977-108 screws at retainer locations (reference sheet 7 column 4), seal over fastener heads and fill weather seal holes.



EXTERIOR STRUCTURAL SEAL MUST BE APPLIED IN THREE STEPS. EACH SIDE SEPARATELY THEN THE WEATHER SEAL

For Versoleil Outrigger Application refer to Approved Shop Drawings and Versoleil Outrigger Installation Instructions, 494974, for correct Gaskets and Structural Seals.

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**REMOVING COVERS**

Covers can be saved if tolerances are not too tight and the cover is removed with extreme care

