

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.

1600 L · R NOTES

1600 LR IS AVAILABLE WITH 1" FRAMING MEMBERS WHICH ACCEPT BOTH 1" AND 1/4" INFILLS.

THE PERIMETER MULLION FOR THE 5 3/4" AND 7 1/4" SYSTEMS IS NOT INTENDED TO BE USED IN A MULTI-SPAN APPLICATION. USE THE TYPICAL CAPTURED MULLION AT JAMBS WHERE THE APPLICATION OF A SPLICE SLEEVE IS REQUIRED.

THE PERIMETER MULLION FOR THE 5 3/4" AND 7 1/4" SYSTEMS IS TO BE USED FOR ALL HEAD AND SILL HORIZONTAL APPLICATIONS.

GLASS BITE IS 1/2" AT VERTICALS AND HORIZONTALS. GLASS SIZES MUST BE CALCULATED FROM APPROVED SHOP DRAWINGS.

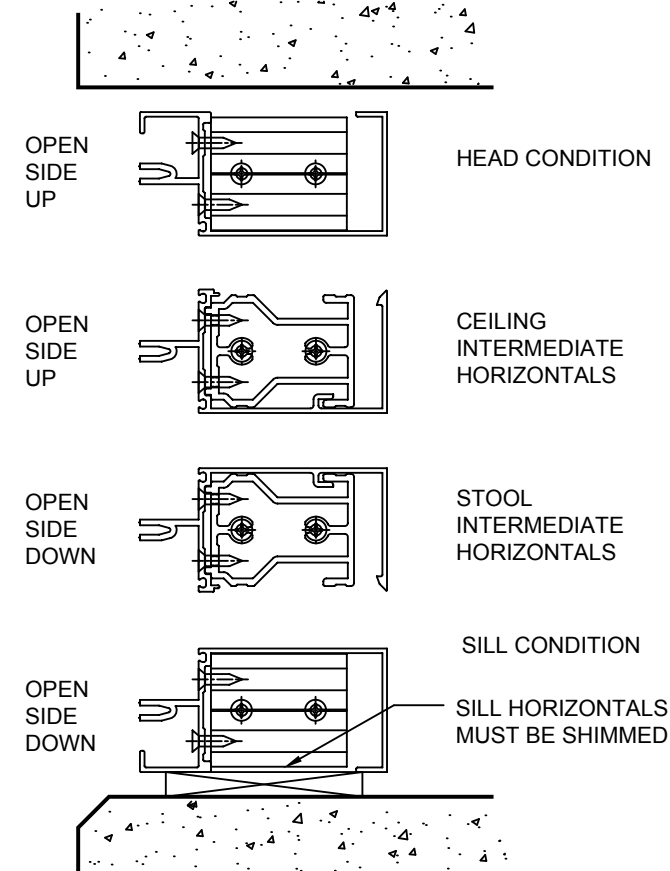
UNLESS OTHERWISE SPECIFIED, IT IS RECOMMENDED THAT SILICONE SEALANT BE USED FOR ALL INTERNAL SEALS.

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.

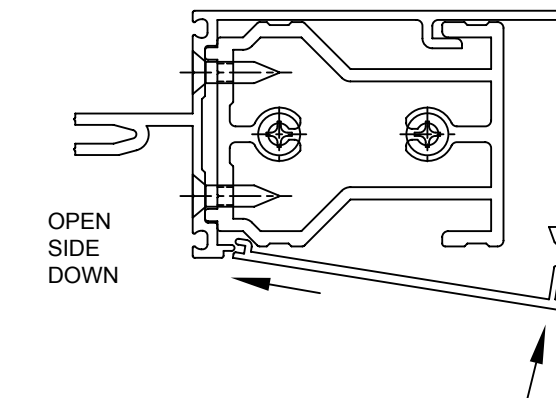
OPEN BACK HORIZONTAL NOTES

THE OPEN BACK HORIZONTAL IS TO BE TYPICALLY USED FOR LAST BAY INTERMEDIATE HORIZONTALS.

THE OPEN BACK HORIZONTAL CAN BE USED AT OTHER INTERMEDIATE CONDITIONS IF IT IS AN ADVANTAGE TO THE JOB DESIGN.



WHEN THE OPEN SIDE OF THE OPEN BACK HORIZONTAL IS EXPOSED AND AT EYE LEVEL A SNAP-IN FILLER IS AVAILABLE.



WHEN THE SNAP-IN FILLER IS NOT USED AND DUE TO STANDARD COMMERCIAL EXTRUDING TOLERANCES, IT MAY BE REQUIRED TO USE A 6" PIECE OF THE FILLER AT EACH END OF A HORIZONTAL.

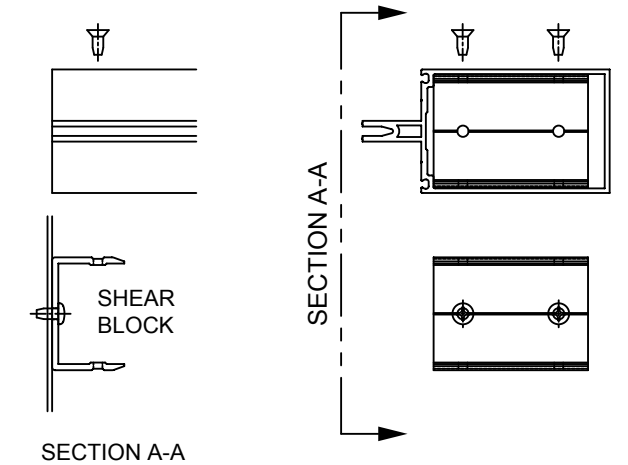
USE PART 162-316 FOR THE 5 3/4" DEEP SYSTEM
USE PART 162-317 FOR THE 7 1/4" DEEP SYSTEM

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HORIZONTALS AT 90° AND 135° CORNERS

OPEN BACK HORIZONTALS CAN NOT BE USED AT INTERMEDIATE LOCATIONS AT 90° & 135° CORNERS. USE 168-001 FOR THE 5 3/4" SYSTEM OR 168-011 FOR THE 7 1/4" SYSTEM. THE SHEAR BLOCK CONNECTION WILL BE AS SHOWN BELOW.

ALSO REFER TO CORNER INSTRUCTIONS 168-962



	1600 L · R
	INSTALLATION INSTRUCTIONS
Product Engineering & Development	
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CHECK OPENINGS

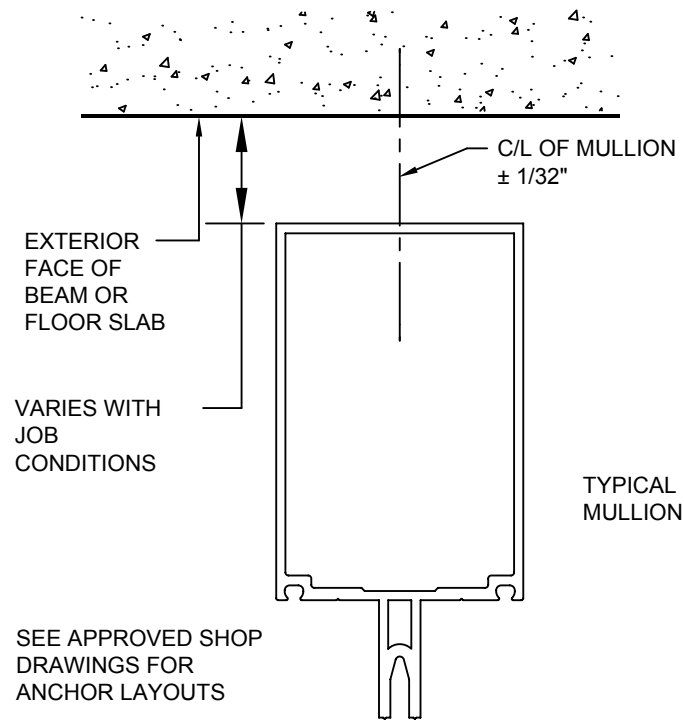
ELEVATIONS AND SLABS MUST BE WITHIN ADJUSTMENT OF ANCHORING SYSTEM. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

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.

LAY OUT ANCHOR AND MULLION 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 LAYOUTS

INSTALL PRE-SET ANCHORS IF APPLICABLE

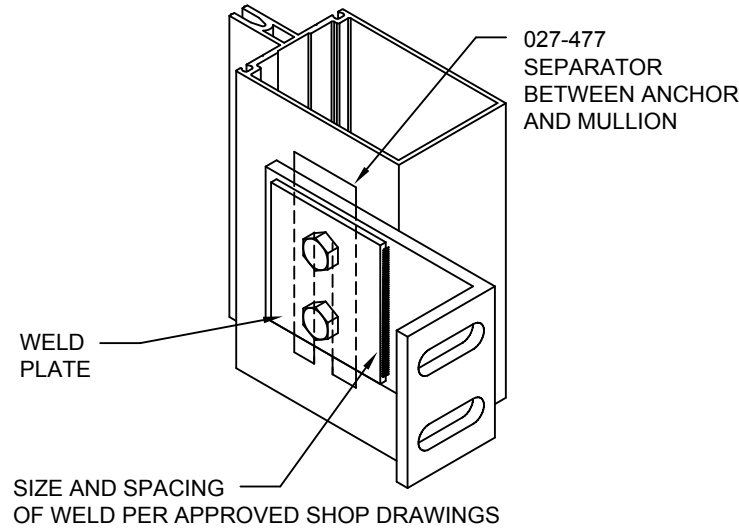
USING LOCATION LINES PREVIOUSLY ESTABLISHED, INSTALL PRE-SET ANCHORS IN PLACE PER APPROVED SHOP DRAWINGS.

FRAME ASSEMBLY

ATTACH ANCHORS TO MULLIONS WHERE APPLICABLE.

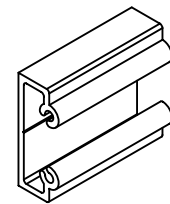
STANDARD ANCHOR PREP IS THRU-BOLTED AT INTERMEDIATE VERTICALS AND TAPPING PLATES ARE USED AT JAMB VERTICALS. REFER TO APPROVED SHOP DRAWINGS FOR CORRECT METHOD.

WHEN WELDING ANCHORS, PROTECT INSTALLED GLASS AND METAL FROM WELD SPLATTER.

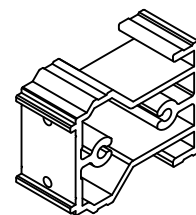


DO NOT OVER TIGHTEN ANCHOR CONNECTIONS. TIGHTEN TO A "SNUG TIGHT" POSITION WITH PARTS BROUGHT INTO GOOD CONTACT. BE SURE ANY SPRING TYPE LOCK WASHERS ARE COMPRESSED. THEN TIGHTEN APPROXIMATELY 1/2 MORE TURN.

ATTACH SHEAR BLOCKS.



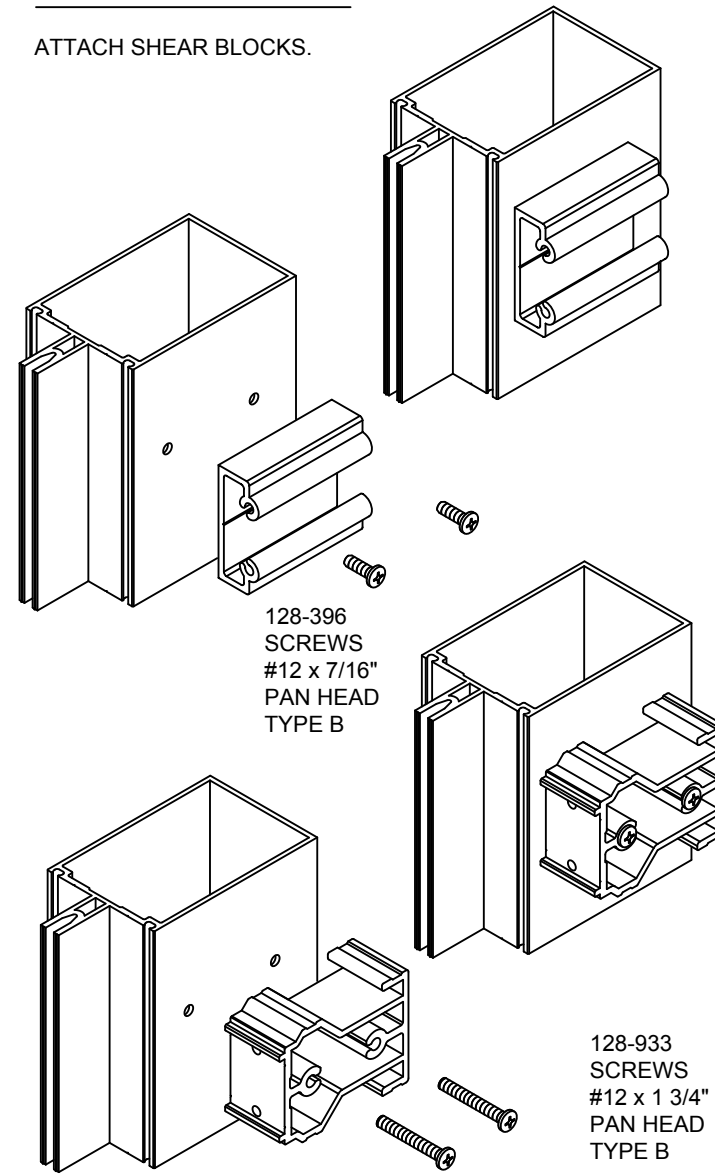
TYPICAL SHEAR BLOCKS
168-260 5 3/4" SYSTEM
168-270 7 1/4" SYSTEM



SHEAR BLOCKS FOR FOR INTERMEDIATE OPEN BACK HORIZONTALS
168-377 5 3/4" SYSTEM
168-378 7 1/4" SYSTEM

FRAME ASSEMBLY

ATTACH SHEAR BLOCKS.

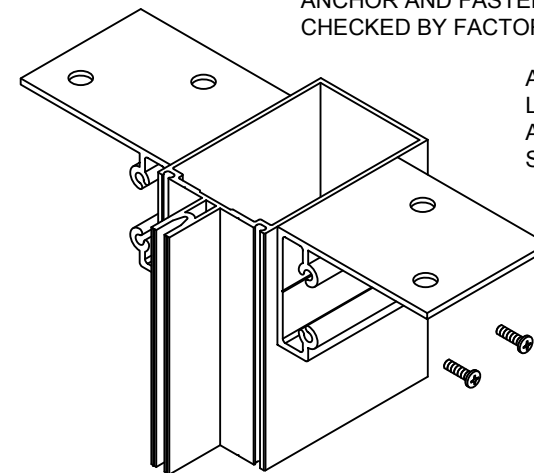


HEAD/SILL SHEAR BLOCK/ANCHOR WHERE APPLICABLE AND SHOWN BELOW.

168-261 5 3/4" SYSTEM
168-271 7 1/4" SYSTEM

STRUCTURAL INTEGRITY OF ANCHOR AND FASTENERS MUST BE CHECKED BY FACTORY ENGINEERS.

ANCHOR FASTENER LOCATIONS PER APPROVED SHOP DRAWINGS



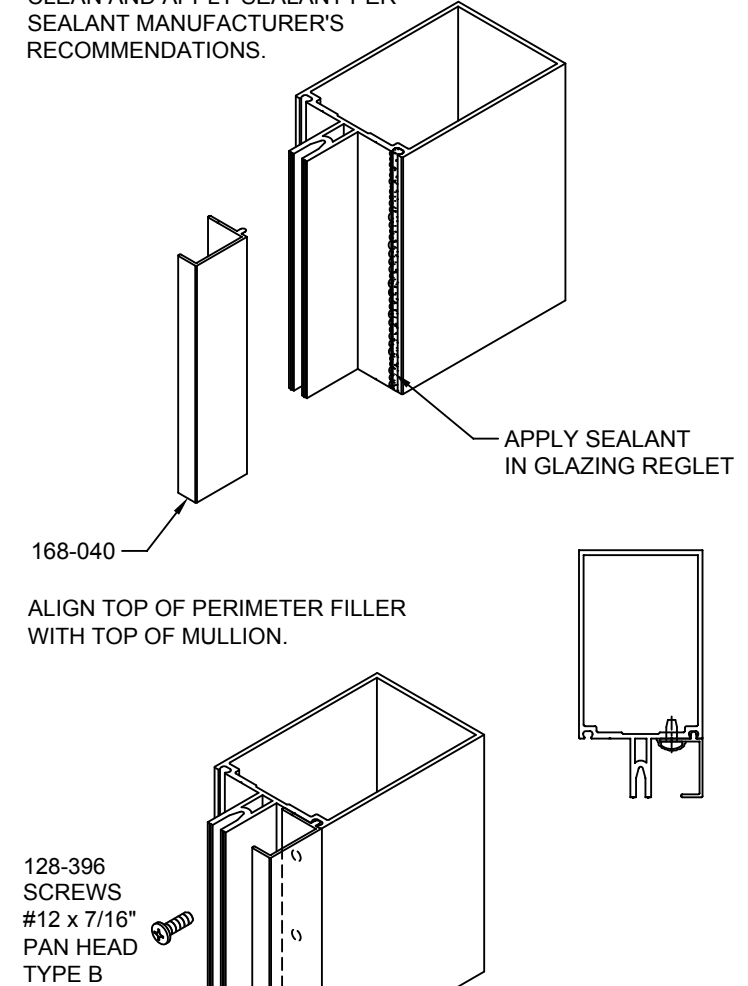
128-396 SCREWS #12 x 7/16" PAN HEAD TYPE B

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FRAME ASSEMBLY

ATTACH 168-040 PERIMETER FILLER. CLEAN AND APPLY SEALANT PER SEALANT MANUFACTURER'S RECOMMENDATIONS.



MATCH DRILL .185 DIA. (#13 DRILL) HOLES IN JAMB MULLION. APPLY SEALANT IN HOLES AND FASTEN WITH 128-396 SCREWS. SEAL OVER FASTENER HEADS.



1600 L · R

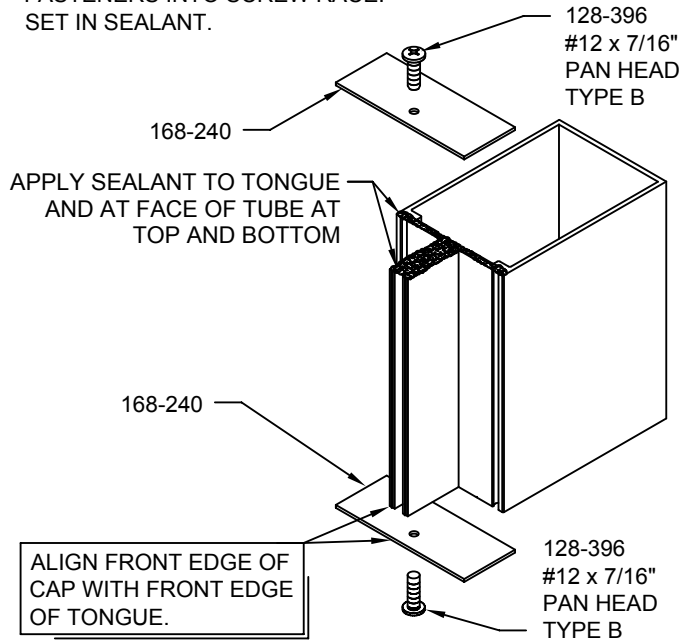
Product Engineering & Development

INSTALLATION INSTRUCTIONS

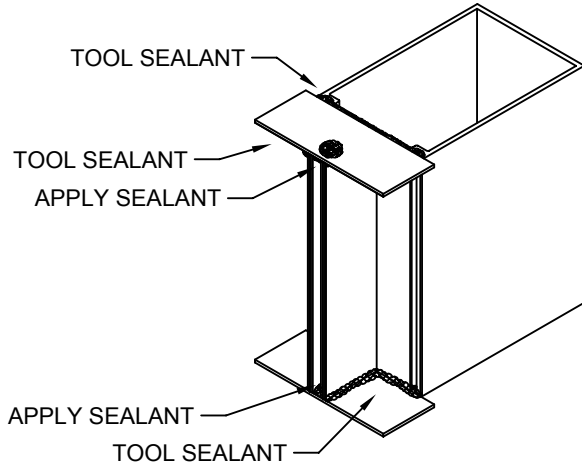
95503-07
12/07/07

FRAME ASSEMBLY

INSTALL HEAD AND SILL END CAPS WITH 128-396 FASTENERS INTO SCREW RACE. SET IN SEALANT.

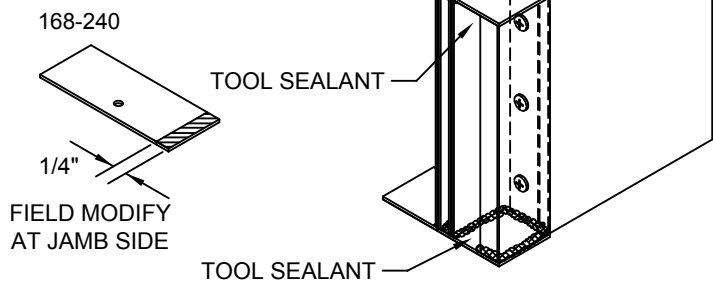


APPLY SEALANT INTO SCREW RACE TO SEAL END OF FASTENER AT TOP AND BOTTOM. TOOL SEALANT AROUND ALL EDGES. SEAL OVER FASTENER HEAD.



AT JAMB MULLIONS

IN ADDITION TO APPLICATION ABOVE, APPLY SEALANT TO END OF PERIMETER FILLER PRIOR TO APPLYING CAP. TOOL SEALANT AROUND INSIDE OF GLAZING POCKET.



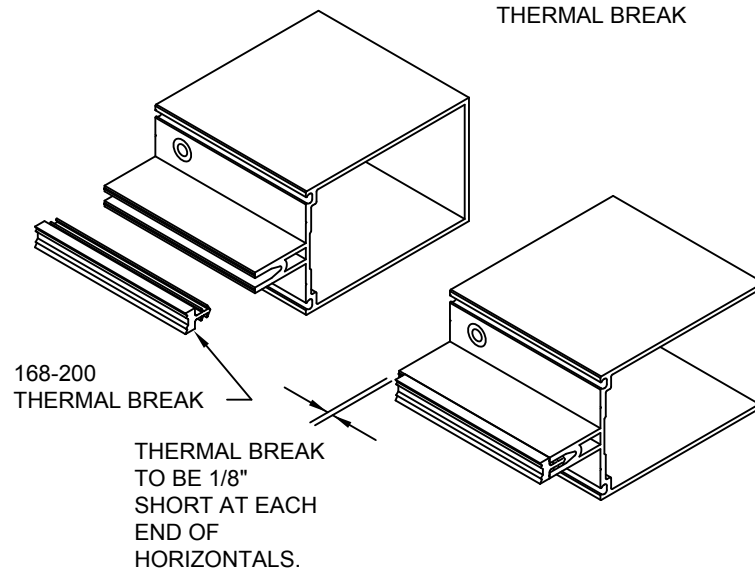
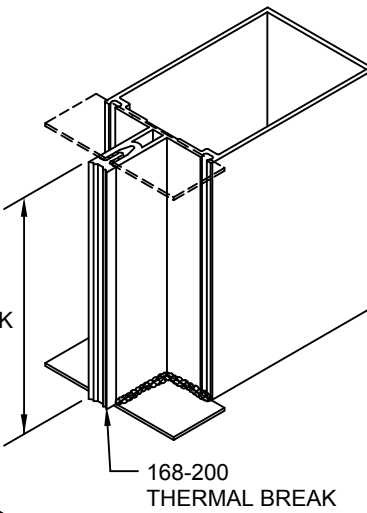
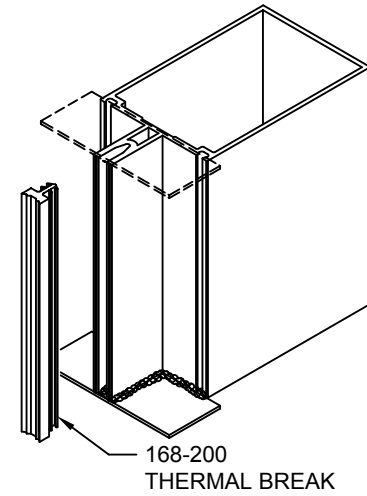
INSTALL 168-200 THERMAL BREAK



DO NOT STRETCH WHEN REMOVING FROM COIL AND CARTON

DO NOT STRETCH DURING INSTALLATION

OPTION TO INSTALL THERMAL BREAK AFTER HORIZONTALS ARE INSTALLED



INSTALL VERTICAL MULLIONS

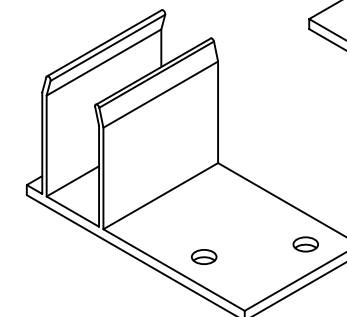
"F" OR "T" ANCHORS WHERE APPLICABLE

"F" AND "T" ANCHOR FASTENER LOCATIONS PER APPROVED SHOP DRAWINGS

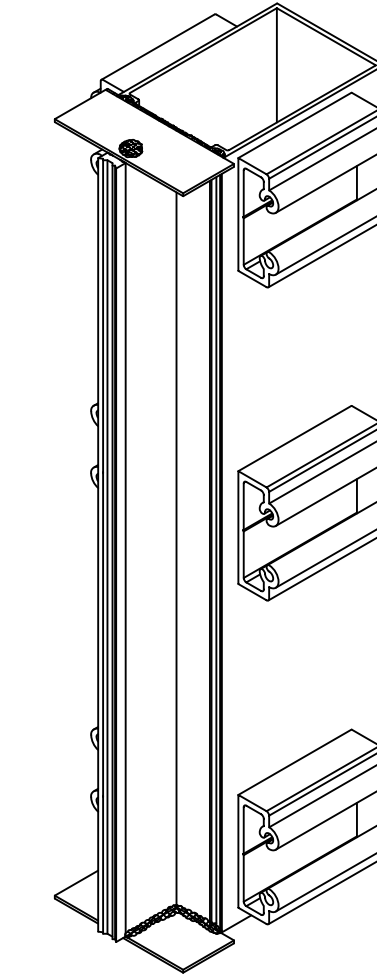
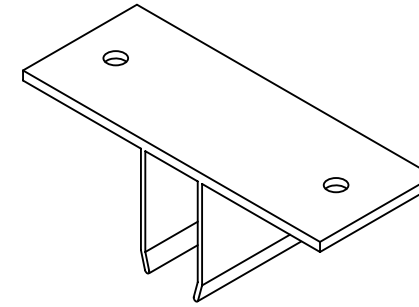
THESE SHEAR BLOCKS MAY NEED TO BE REMOVED TO INSTALL AN ANCHOR FASTENER THAT MIGHT BE LOCATED CLOSE TO THE MULLION

ANCHOR FASTENER LOCATIONS PER APPROVED SHOP DRAWINGS

"F" ANCHORS WHERE APPLICABLE



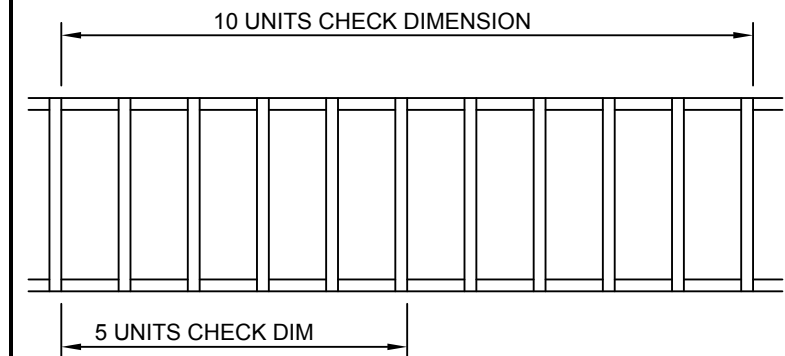
"T" ANCHORS WHERE APPLICABLE



INSTALL VERTICAL MULLIONS

DIMENSION BUILD-UP CHECK

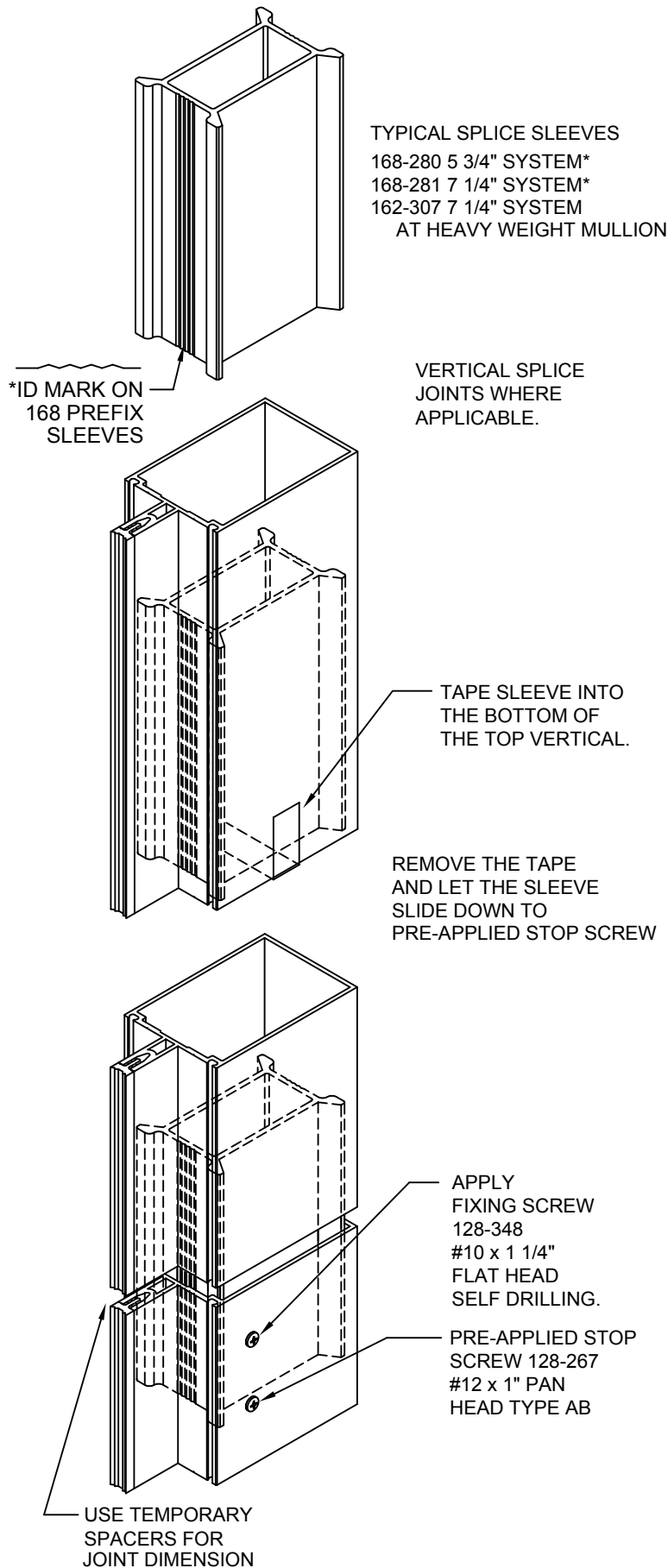
CHECK OVERALL FRAME DIMENSIONS ABOUT EVERY FIVE MULLIONS ON LONG RUNS. THIS IS TO AVOID DIMENSION BUILD-UP.



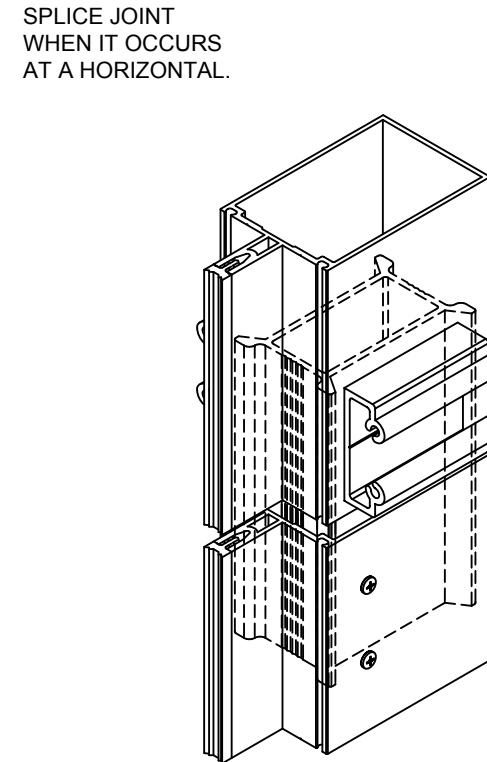
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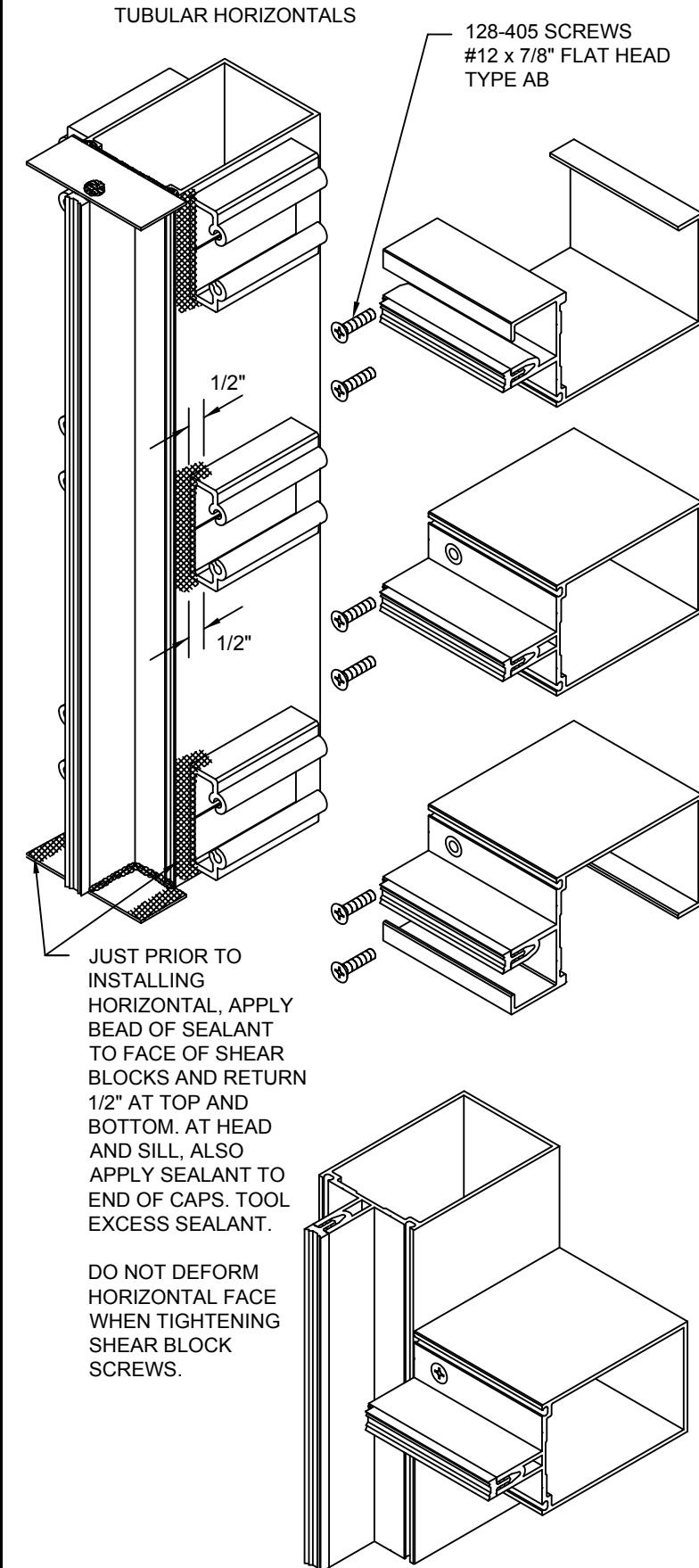
INSTALL VERTICAL MULLIONS



INSTALL VERTICAL MULLIONS



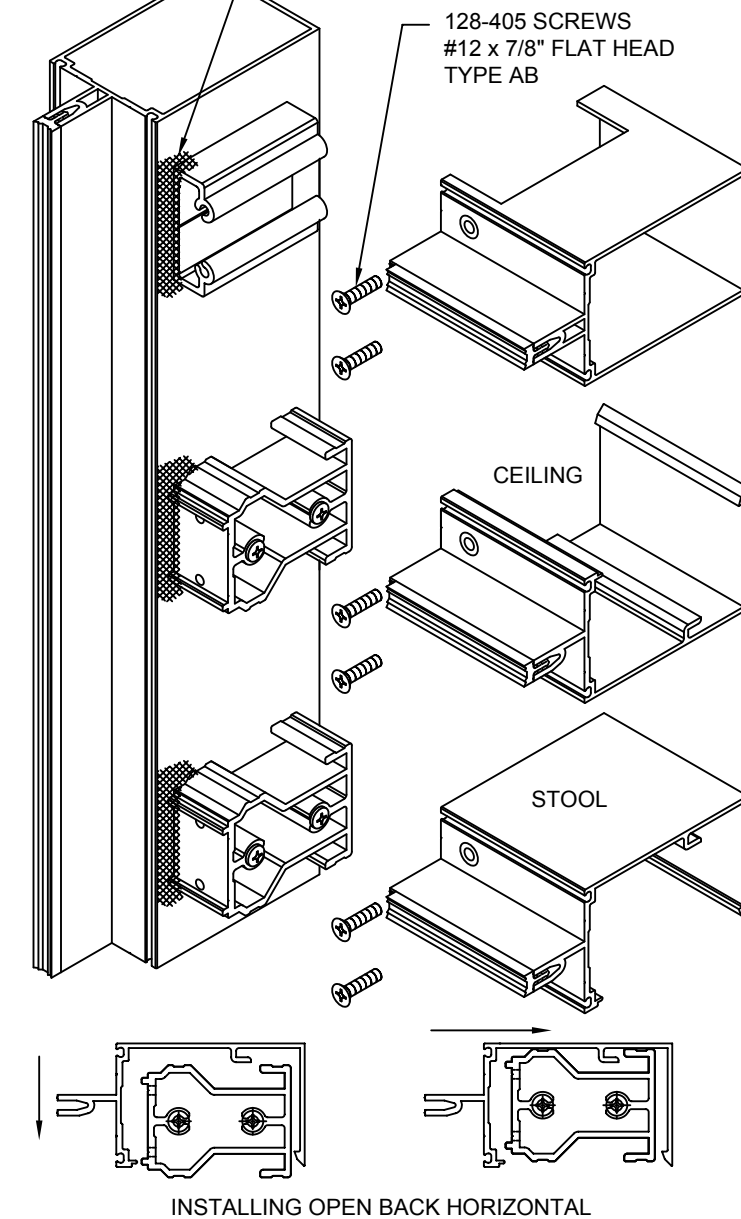
INSTALL HEAD/SILL AND INTERMEDIATE HORIZONTALS



INSTALL INTERMEDIATE HORIZONTALS

OPEN BACK HORIZONTALS AND LAST BAY HORIZONTALS. FILLER AVAILABLE WHEN OPEN BACK IS EXPOSED AND AT EYE LEVEL. NOTE LOCATION OF FLAT SIDE OF TONGUE.

JUST PRIOR TO INSTALLING HORIZONTALS, APPLY A BEAD OF SEALANT TO FACE OF SHEAR BLOCKS. TOOL EXCESS SEALANT.



1600 L · R

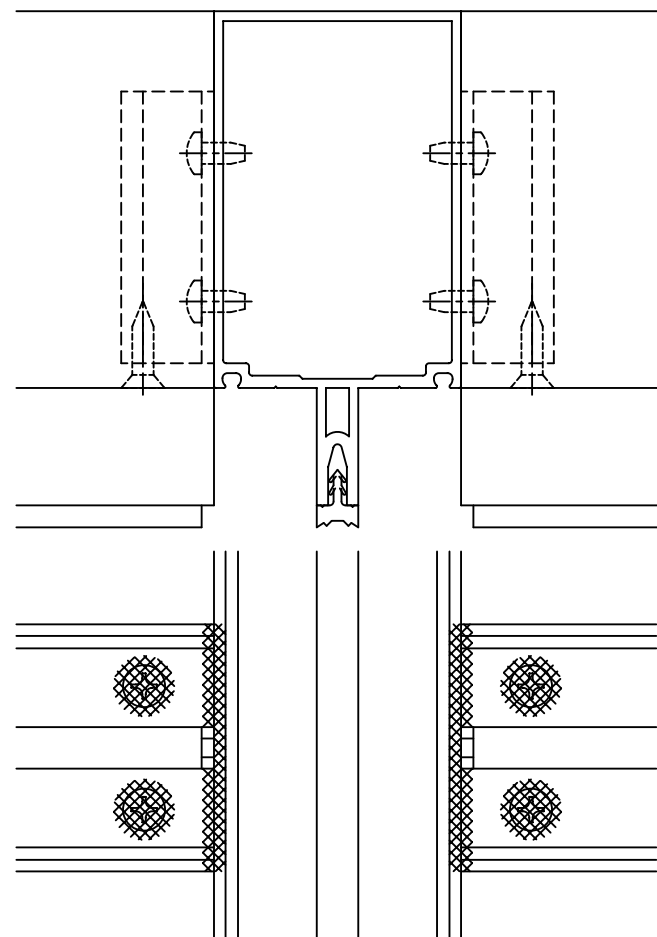
Product Engineering & Development

INSTALLATION INSTRUCTIONS

INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

JUST BEFORE INSTALLING SPANDREL ADAPTERS, FACE SEAL JOINTS AT ALL 4 CORNERS AND SEAL SCREW HEADS.

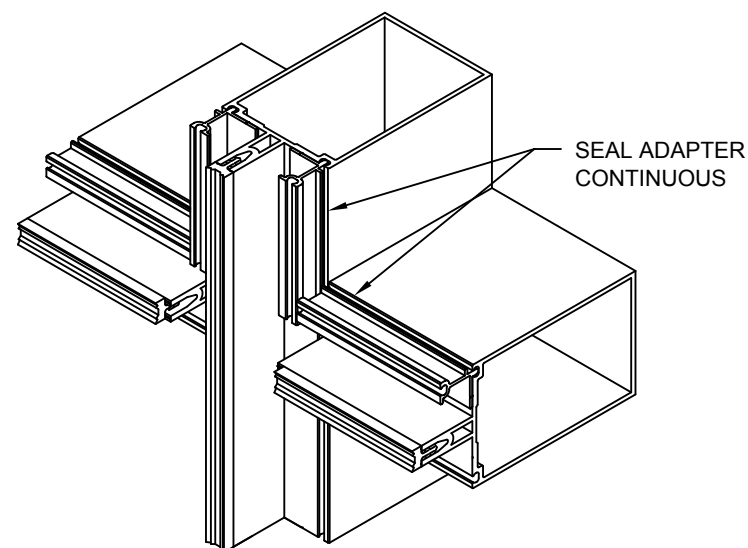
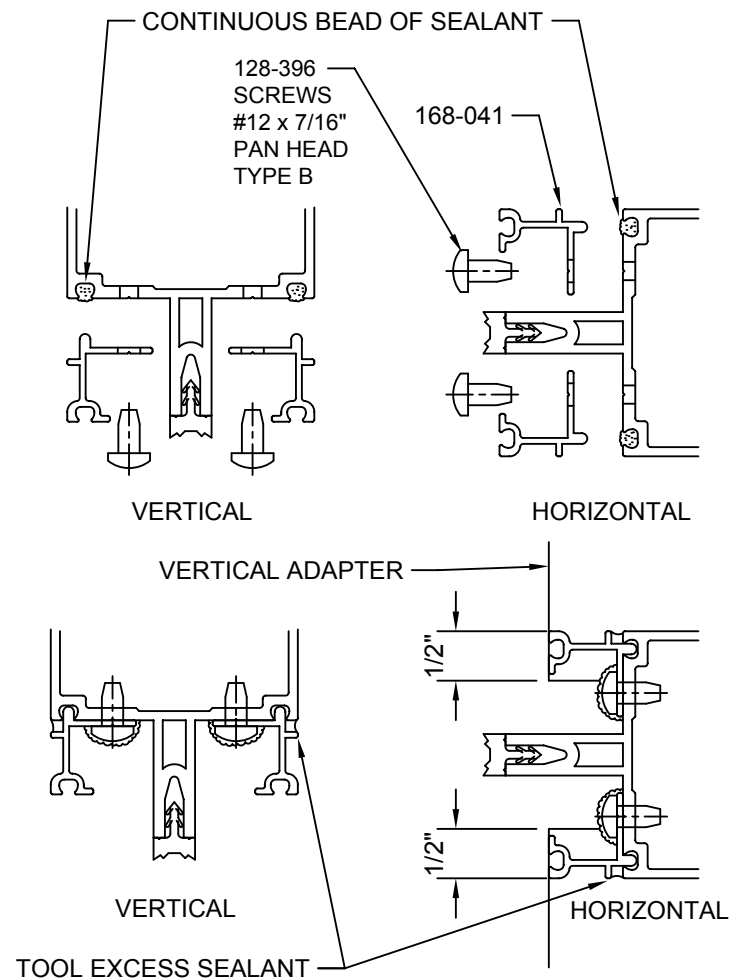
ALL SURFACES AND GROOVES MUST BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.



INSTALL SPANDREL ADAPTERS WHERE APPLICABLE

APPLY A CONTINUOUS LINE OF SEALANT AT VERTICAL AND HORIZONTAL GLAZING REGLETS ON ALL SIDES OF LITE.

ATTACH 168-041 SPANDREL ADAPTERS. MATCH DRILL .185 DIA. (#13 DRILL) HOLES. APPLY SEALANT IN HOLES AND FASTEN WITH 128-396 SCREWS. TOOL EXCESS SEALANT AND SEAL OVER FASTENER HEADS.

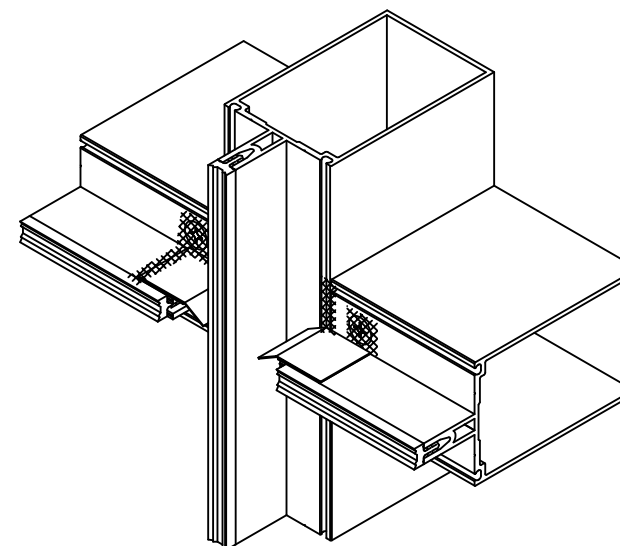
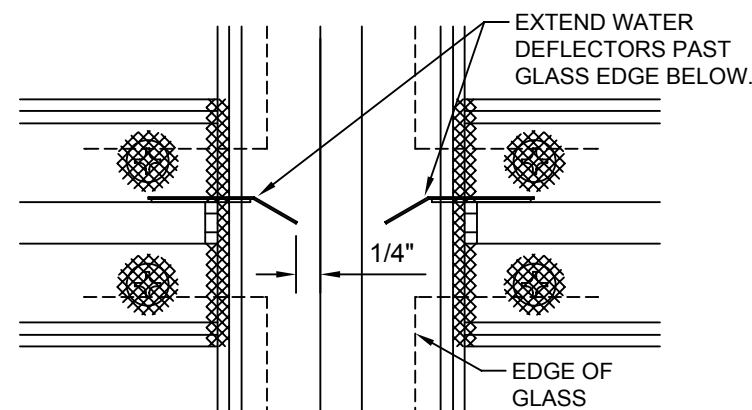
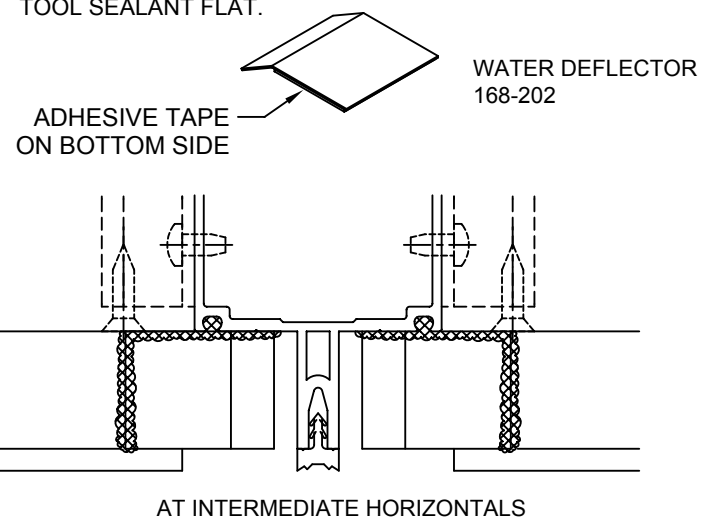


INSTALL WATER DEFLECTORS

NOTE: WATER DEFLECTORS ARE NOT REQUIRED AT HORIZONTAL JOINTS ABOVE A SPLICE OR AT SILL HORIZONTALS.

REMOVE LINER ON 168-202 WATER DEFLECTOR AND APPLY TO TOP OF TONGUE ABOVE ALL INSULATED LITES OF GLASS. LOCATE END OF WATER DEFLECTOR APPROXIMATELY 1/4" FROM VERTICAL TONGUE. BACK EDGE OF WATER DEFLECTOR IS LOCATED AGAINST FACE OF HORIZONTAL TUBE.

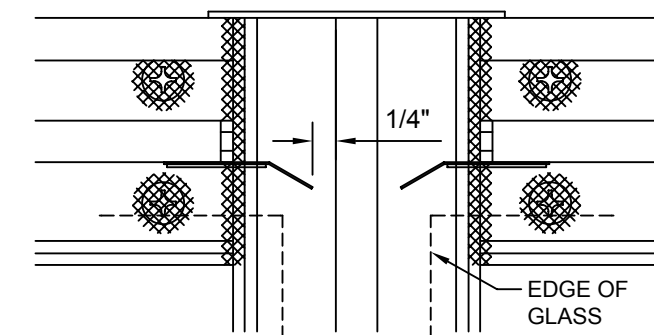
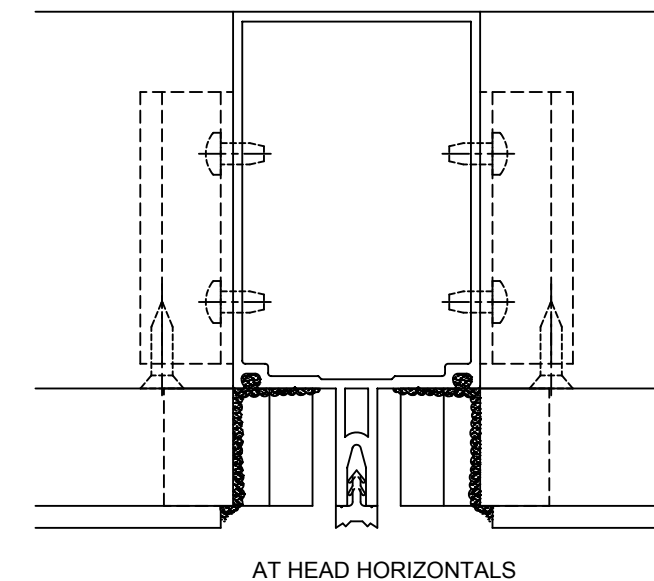
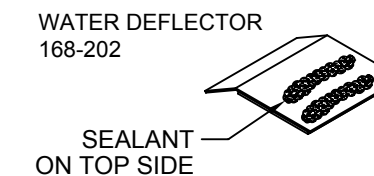
SEAL ALONG EDGE OF WATER DEFLECTOR AND TOOL SEALANT FLAT.



INSTALL WATER DEFLECTORS

AT HEAD HORIZONTAL, APPLY SEALANT TO WATER DEFLECTOR ON TOP SIDE AND APPLY TO THE UNDER SIDE OF THE HORIZONTAL TONGUE.

SEAL ALONG BACK EDGE OF WATER DEFLECTOR AND ON TOP ALONG HORIZONTAL TONGUE. TOOL SEALANT.

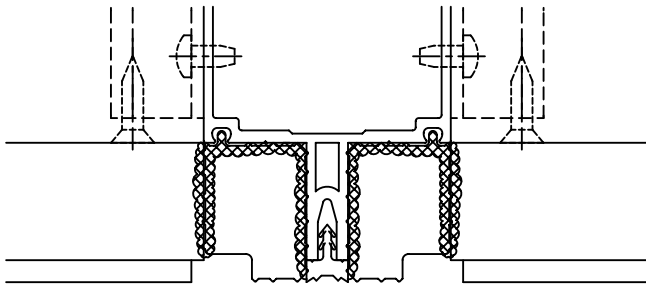
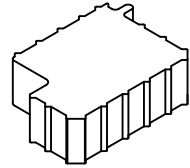


**INSTALL JOINT PLUGS
WHERE APPLICABLE**

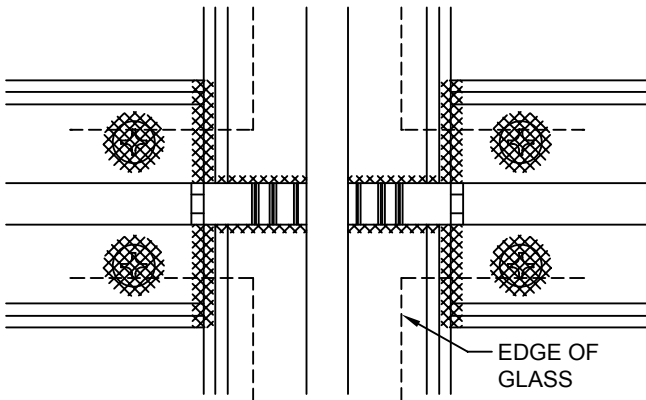
JOINT PLUGS ARE REQUIRED AT HORIZONTAL JOINTS ABOVE A SPLICE ONLY.

CLEAN JOINT PER SEALANT MANUFACTURER'S RECOMMENDATIONS. APPLY SEALANT AROUND SIDES AND BACK OF JOINT PLUG AND AROUND JOINT IN FRAME. JOINT PLUG IS OVERSIZED FOR COMPRESSION FIT. APPLY TOP OF JOINT PLUG LEVEL WITH THE TOP OF THE TONGUE. TOOL EXCESS SEALANT FLAT.

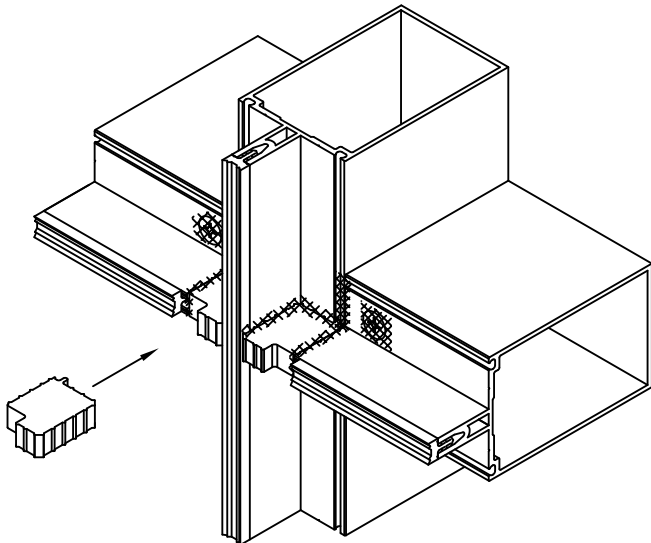
JOINT PLUG
168-201



AT INTERMEDIATE HORIZONTALS



EDGE OF GLASS

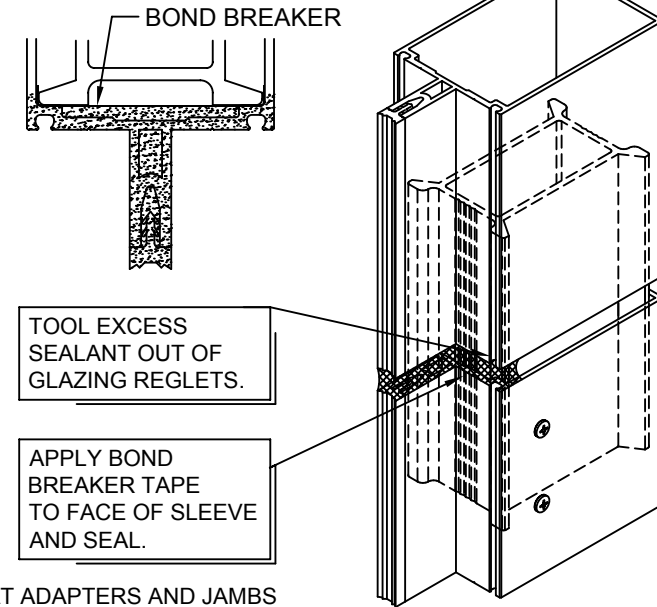


**SEAL INTERIOR OF
VERTICAL SPLICE
JOINTS**

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

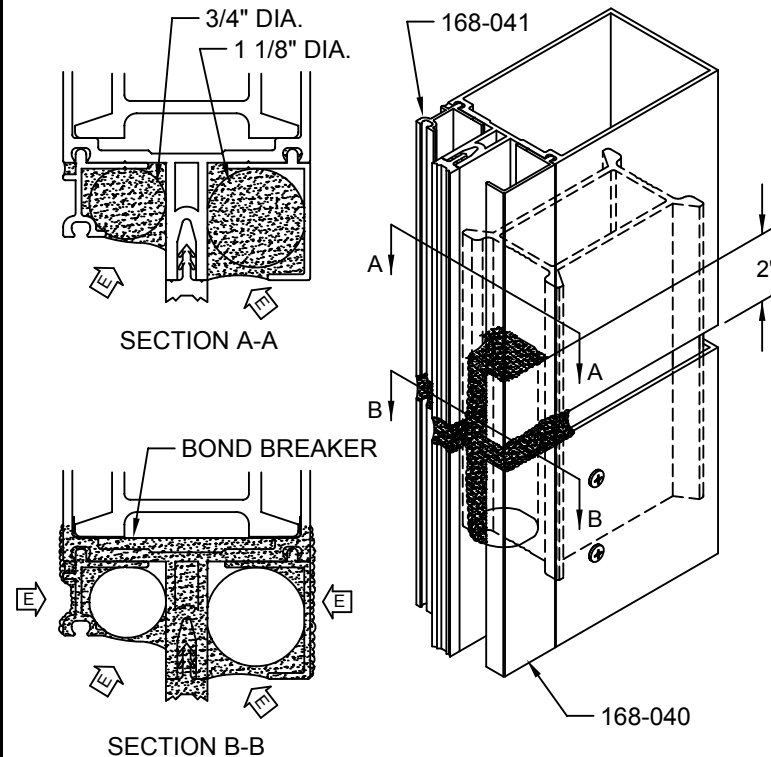
TYPICAL AT ALL SPLICE JOINTS

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



AT ADAPTERS AND JAMBS

IN ADDITION TO THE TYPICAL SEAL, APPLY A 4" LONG PIECE OF OPEN CELL BACKER ROD IN GLAZING POCKET. COMPLETELY SEAL GLAZING POCKET AT TOP OF BACKER ROD. CONTINUE SEAL DOWN FACE OF BACKER ROD BETWEEN PERIMETER FILLER OR ADAPTER AND MULLION TONGUE. ALSO SEAL BETWEEN PERIMETER FILLERS AND BETWEEN ADAPTERS AND MARRY SEALANT TO MULLION JOINT SEAL.

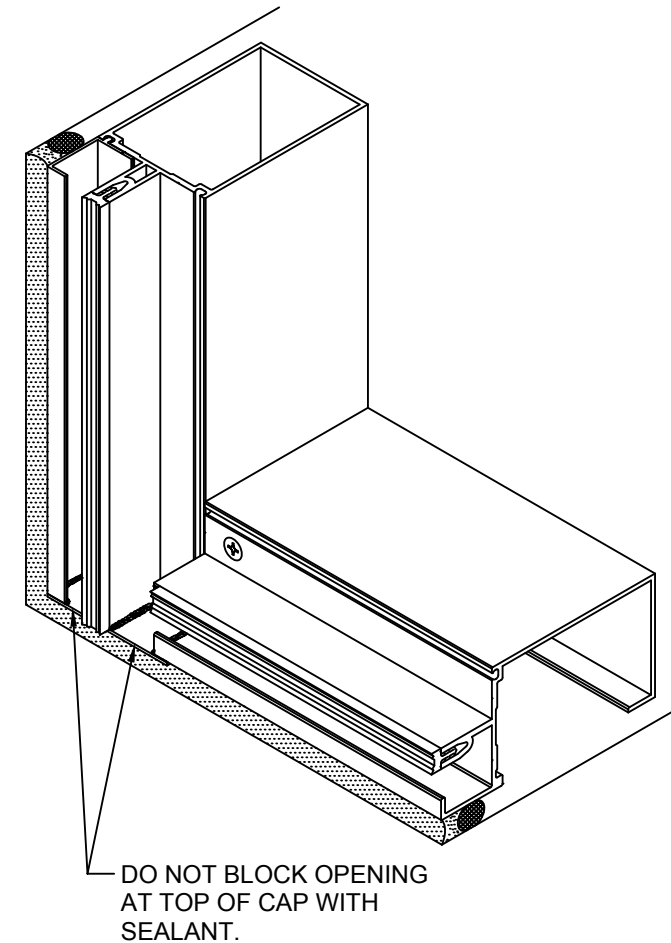


INSTALL PERIMETER SEAL

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

APPLY BACKER ROD AND SEAL. TOOL SEALANT.

PRIOR TO GLAZING, INSPECT ALL SEALS AND REPAIR ANY THAT MAY BE SUSPECT.



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**INSTALL INTERIOR
GLAZING GASKETS**

GASKETS SHOULD BE INSTALLED JUST PRIOR TO AVOID CONTAMINATION BY JOB SITE DEBRIS. GASKET GROOVES AND POCKETS SHOULD BE CLEAN.

IN TEMPERATURES COLDER THAN 50° F ARRANGEMENTS SHOULD BE MADE TO WARM GASKETS BEFORE INSTALLATION. THIS WILL PREVENT EXCESSIVE GLAZING PRESSURE ON THE GLASS DUE TO COLD, STIFF RUBBER GASKETS.

GASKETS CAN BECOME DEFORMED DURING STORAGE IN CARTONS. THEY SHOULD BE REMOVED FROM CARTONS SEVERAL HOURS PRIOR TO GLAZING AND LAID FLAT OR HUNG TO ALLOW RECOVERY OF CORRECT SHAPE. TEMPERATURES SHOULD BE AT LEAST 50° F TO ALLOW THIS.

VERTICAL GASKET INSTALLED LENGTH TO BE DAYLITE OPENING PLUS 1". HORIZONTAL GASKET INSTALLED LENGTH TO BE DAYLITE OPENING AND CUT LONG FOR SOME "CROWD-IN". GASKETS SHOULD NEVER BE "STRETCHED TO FIT".

HORIZONTAL GASKET "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".

GROOVES HAVE BEEN ADDED TO THE GASKET TO DISTINGUISH IT FROM THE EXTERIOR GASKET. THE INTERIOR GASKET DART IS LOCATED IN A DIFFERENT POSITION THAN ON THE EXTERIOR GASKET. DO NOT USE EXTERIOR GASKET AT INTERIOR.



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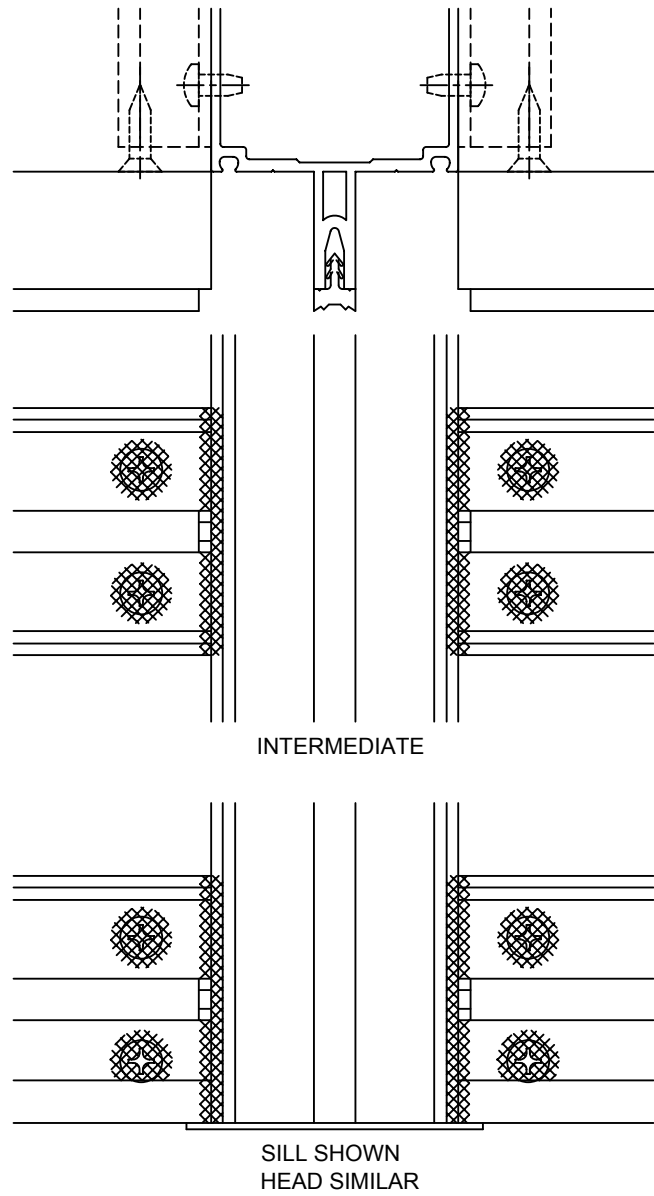
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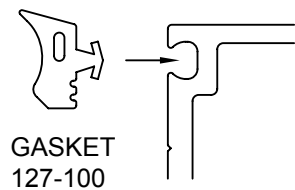
INSTALL INTERIOR GLAZING GASKETS

JUST BEFORE INSTALLING INTERIOR GASKETS, FACE SEAL JOINTS AT ALL 4 CORNERS AND SEAL SCREW HEADS.

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



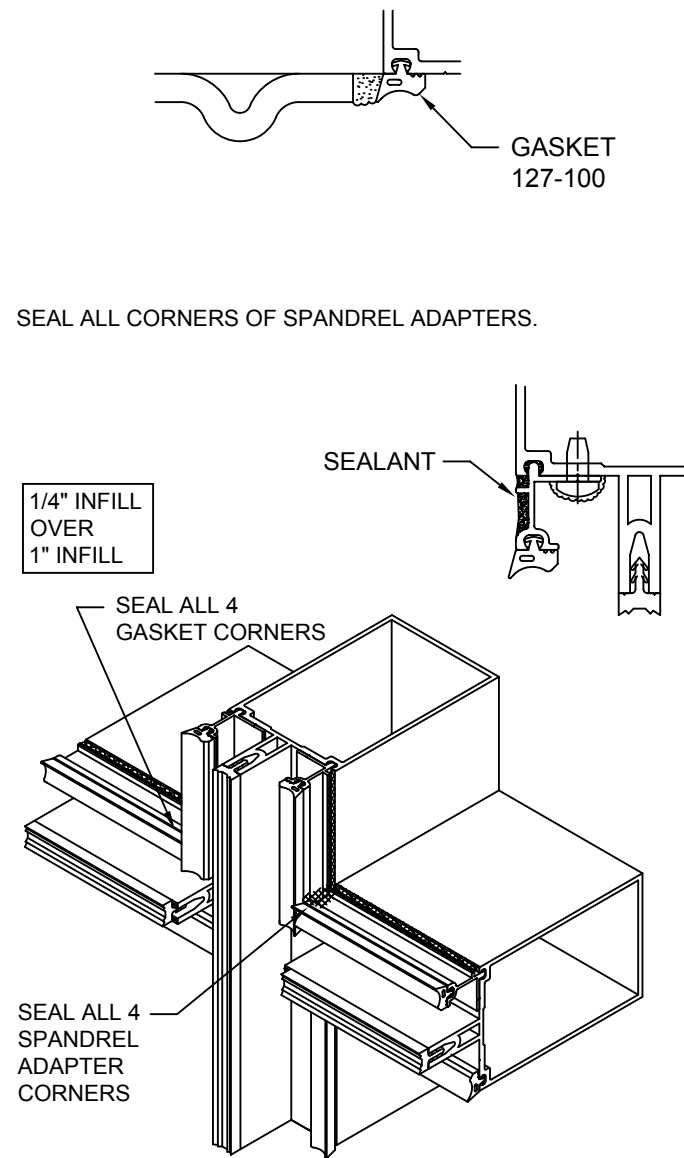
PUSH IN GASKET AS SHOWN. DO NOT USE EXTERIOR GASKET AT INTERIOR.



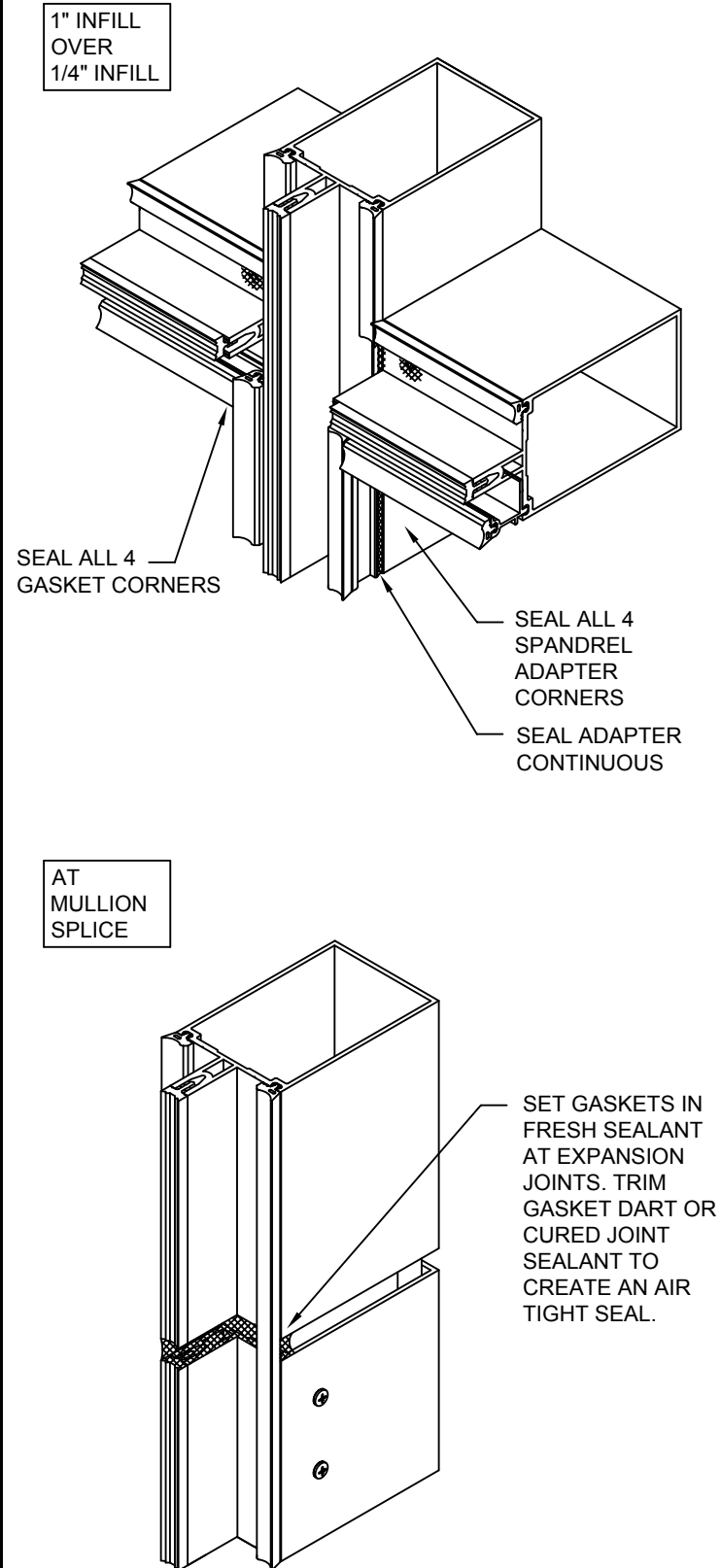
INSTALL INTERIOR GLAZING GASKETS

SEAL ALL GASKET CORNERS COMPLETELY. SLIDE HORIZONTAL GASKET BACK AS SHOWN BELOW AND APPLY SEALANT. TOOL EXCESS SEALANT.

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



INSTALL INTERIOR GLAZING GASKETS

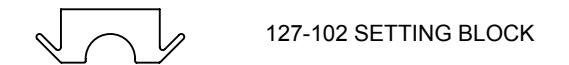


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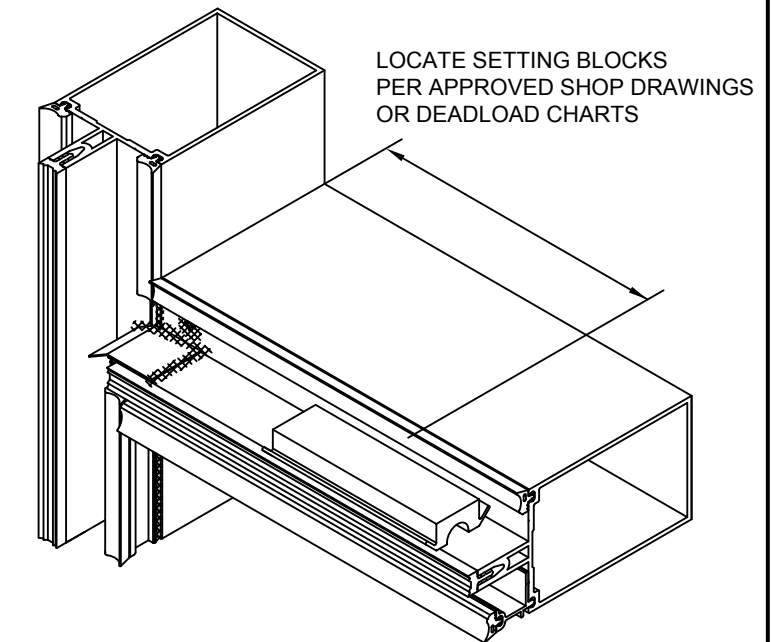
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INSTALL SETTING BLOCKS



1" INFILL OVER 1/4" INFILL

1" INFILL SHOWN
1/4" INFILL SIMILAR



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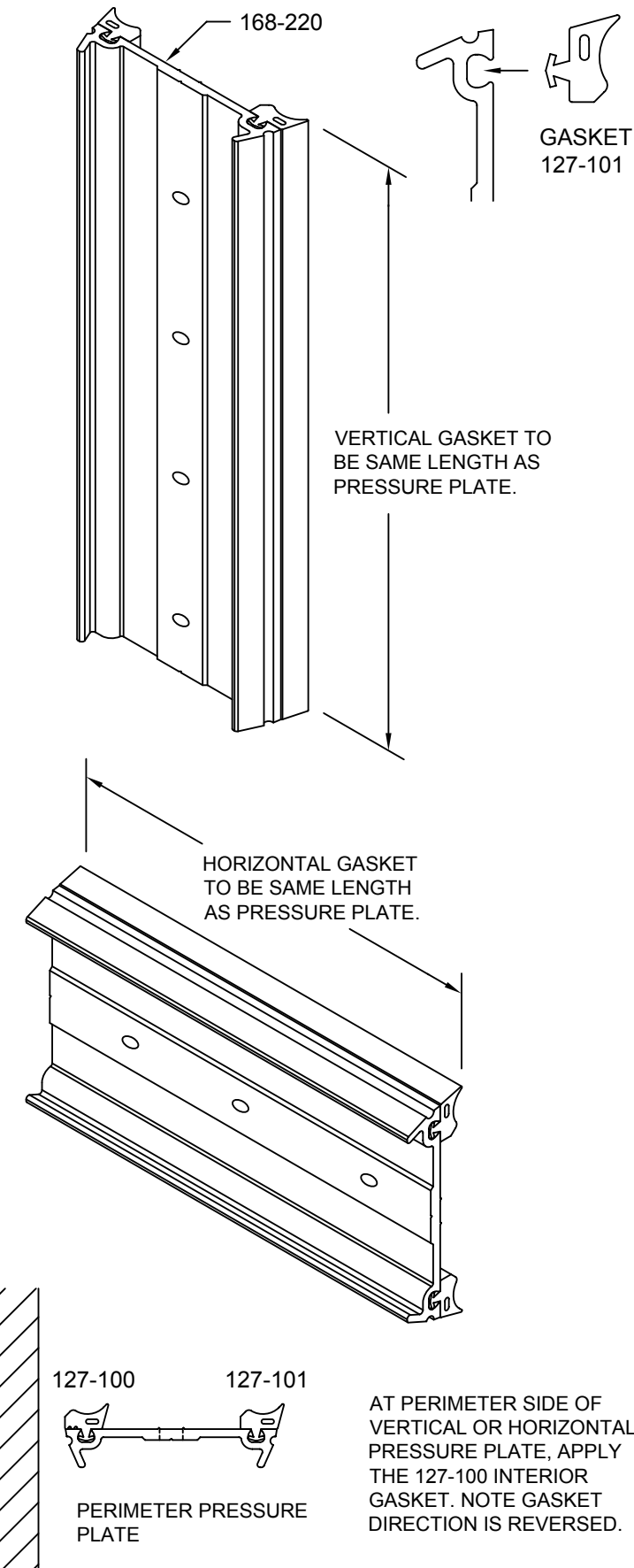
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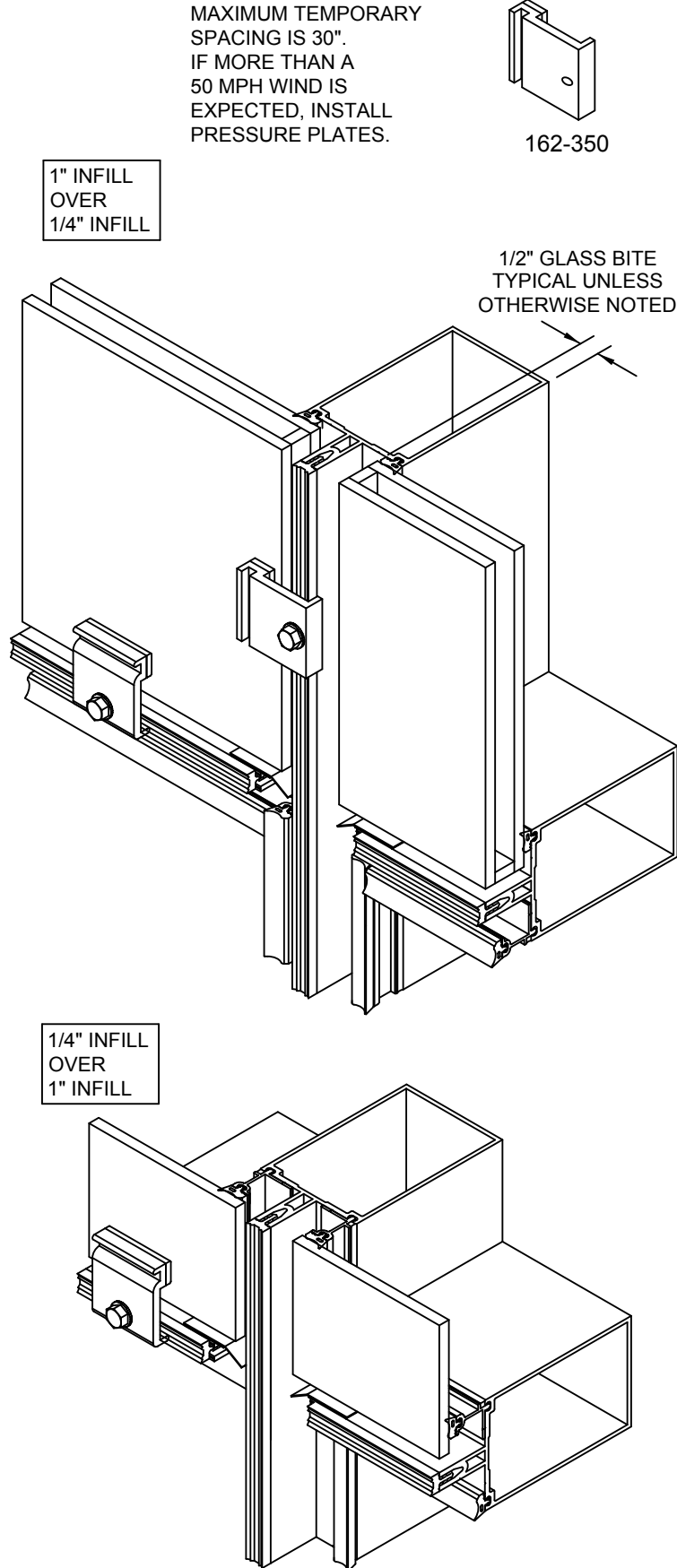
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INSTALL EXTERIOR GASKETS INTO PRESSURE PLATES



INSTALL GLASS

USE 162-350 GLAZING TEMPORARIES AS REQUIRED. APPLY WITH 128-520 SCREWS.

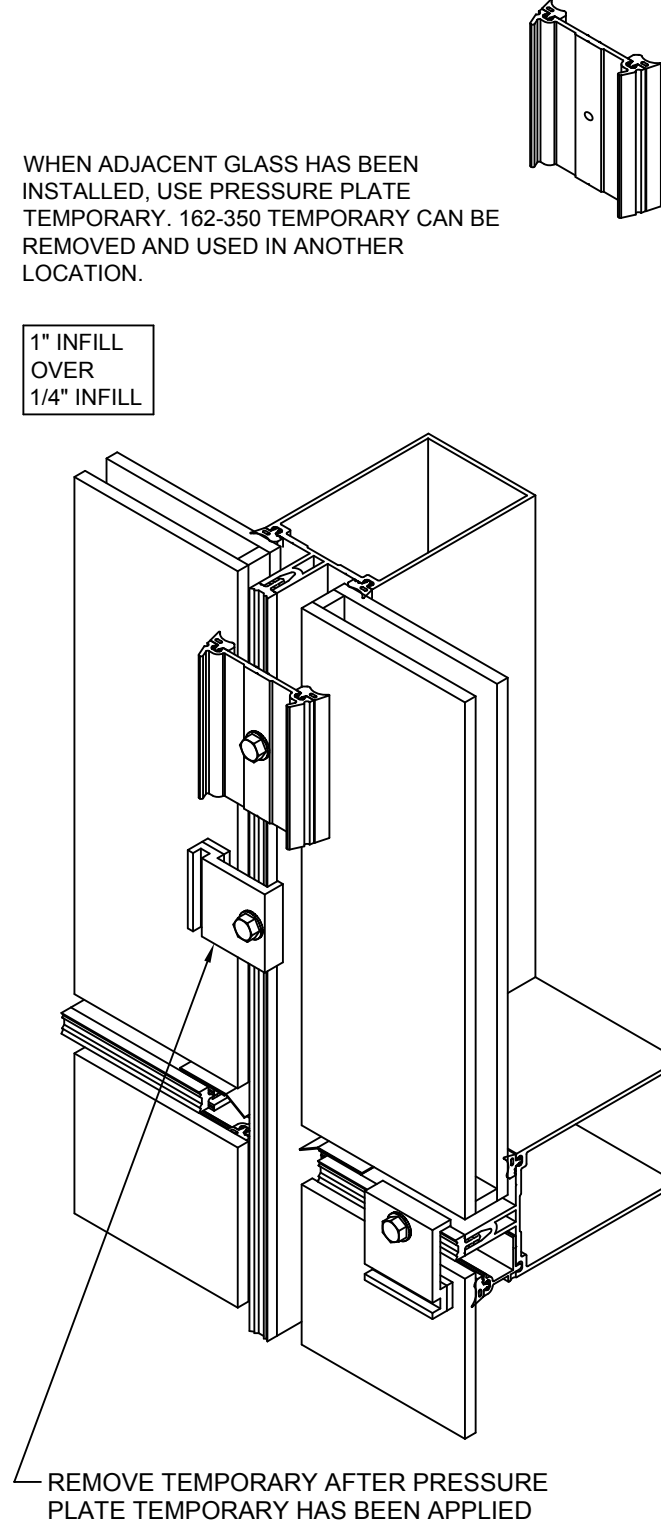


INSTALL GLASS

MAKE VERTICAL TEMPORARIES FROM 168-220 PRESSURE PLATE 4 INCHES LONG AND 127-101 GASKET AS SHOWN BELOW.

WHEN ADJACENT GLASS HAS BEEN INSTALLED, USE PRESSURE PLATE TEMPORARY. 162-350 TEMPORARY CAN BE REMOVED AND USED IN ANOTHER LOCATION.

1" INFILL OVER 1/4" INFILL

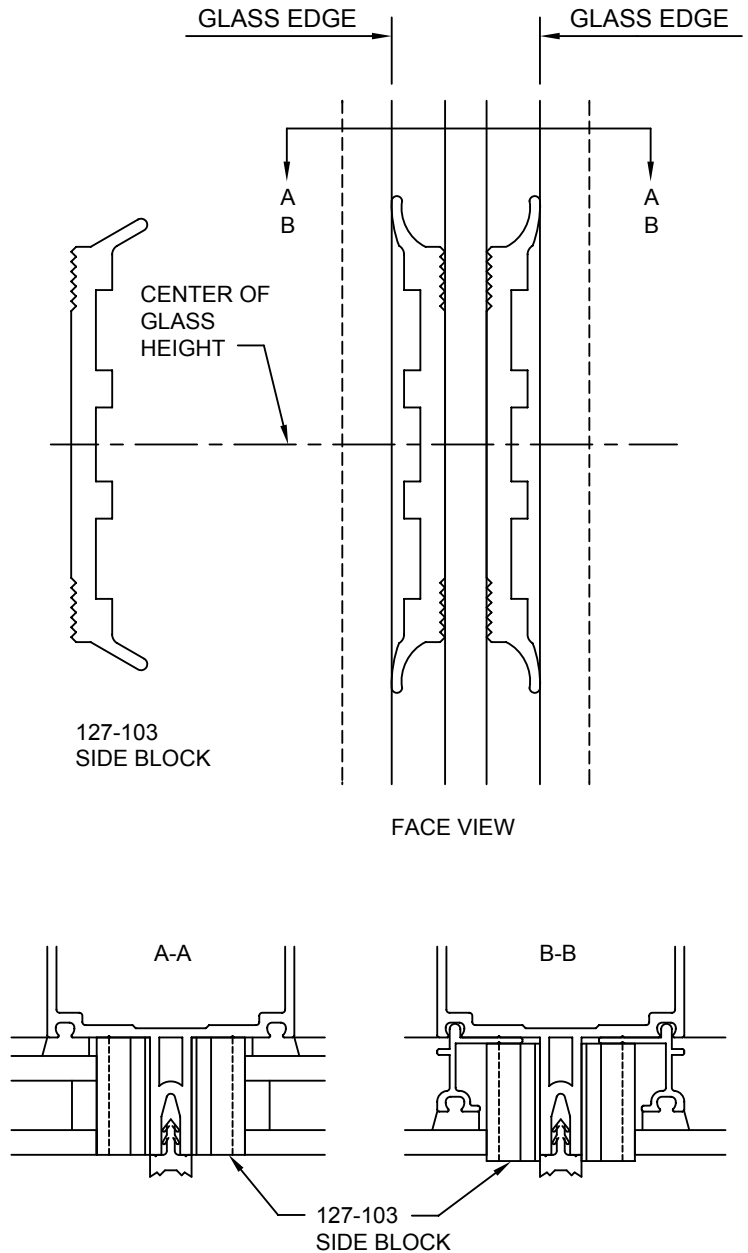


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INSTALL GLASS SIDE BLOCKS

INSTALL SIDE BLOCKS COMPRESSING AS SHOWN



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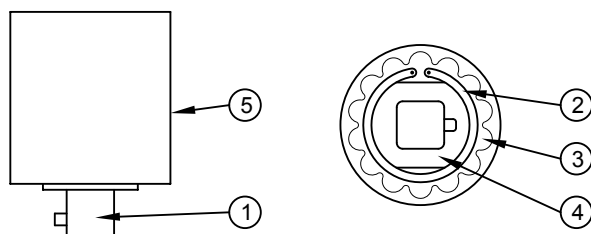
INSTALL EXTERIOR PRESSURE PLATES



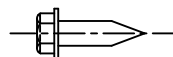
RECOMMEND USING TORQUE LIMIT TOOL 162-399 SEE NOTE.

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 128-520
1/4 x 7/8" HEX WASHER HEAD THREAD FORMING 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 WEEP HOLES TOWARDS TOP OF HORIZONTAL.

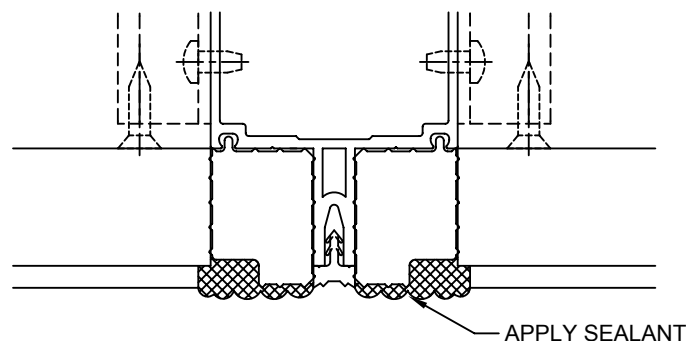
AT EACH HORIZONTAL AND VERTICAL PRESSURE PLATE INSTALL TWO SCREWS PART WAY, THEN INSTALL THE THIRD SCREW ALL THE WAY, AND THEN TIGHTEN THE FIRST TWO SCREWS. THIS ELIMINATES LATERAL WALKING OF THE PRESSURE PLATE POSITION.

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.

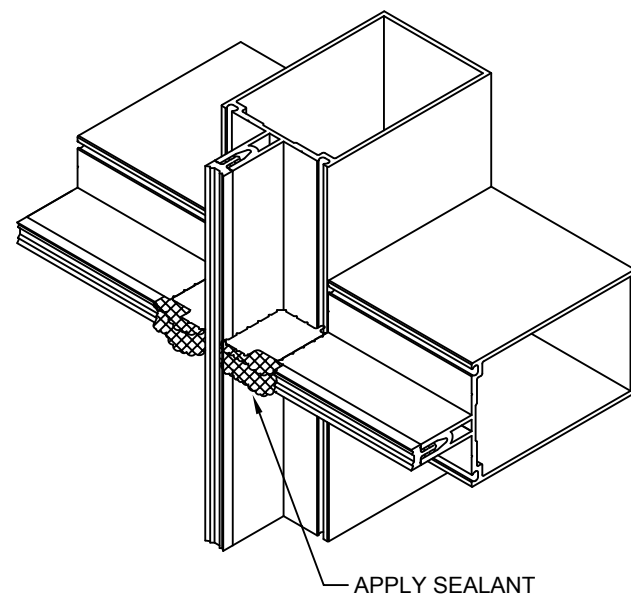
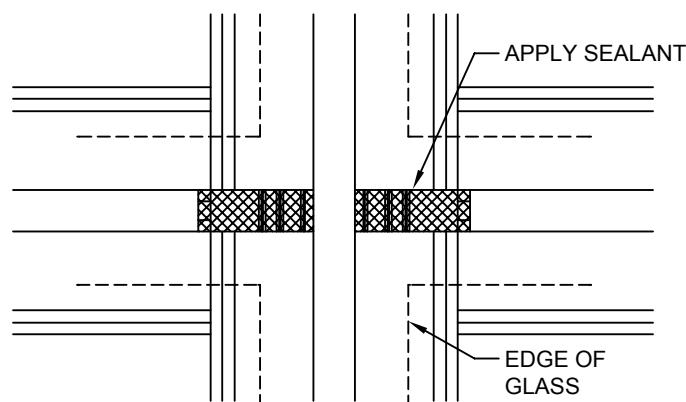
INSTALL EXTERIOR PRESSURE PLATES

CLEAN FACE OF JOINT PLUG PER SEALANT MANUFACTURER'S RECOMMENDATIONS.

JUST BEFORE INSTALLING VERTICAL PRESSURE PLATES, APPLY A GENEROUS AMOUNT OF SEALANT TO THE JOINT PLUG FACE FILLING JOINT AS SHOWN.



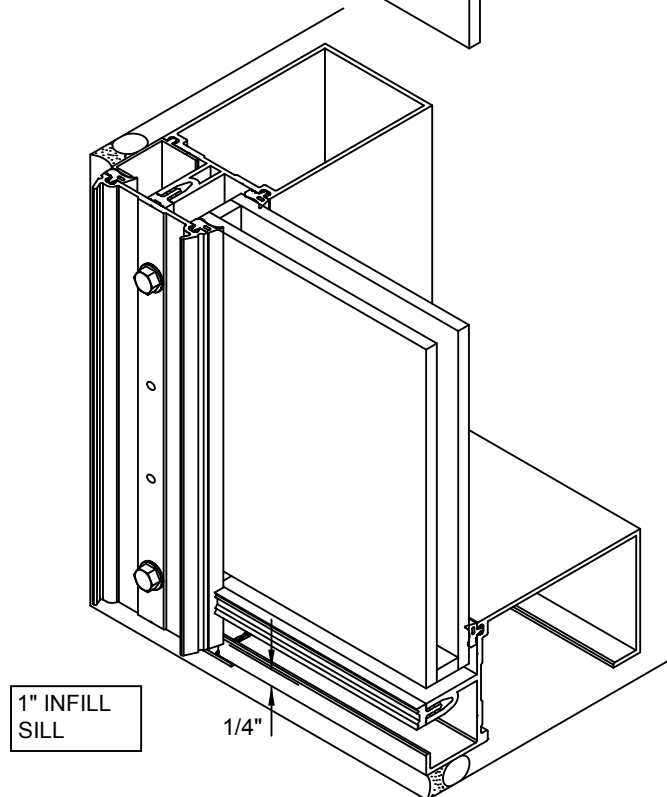
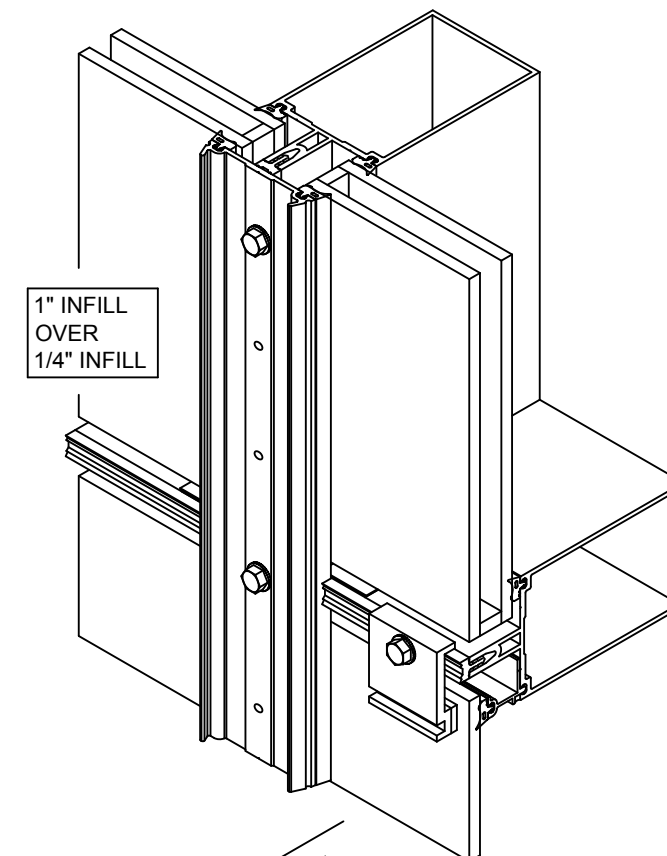
AT INTERMEDIATE HORIZONTALS



INSTALL EXTERIOR PRESSURE PLATES

INSTALL VERTICAL PRESSURE PLATE 1/4" SHORT OF FRAME HEIGHT AT SILL. VERTICAL PRESSURE PLATE IS FLUSH WITH FRAME HEIGHT AT HEAD.

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.



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INSTALL EXTERIOR PRESSURE PLATES

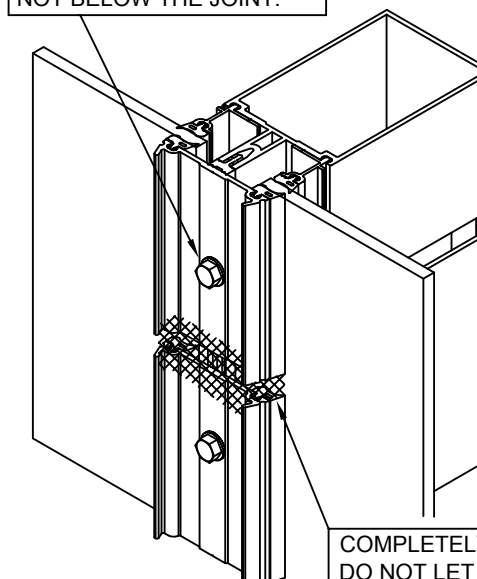
ALL SURFACES AND GROOVES MUST BE CLEANED PER THE SEALANT MANUFACTURER'S RECOMMENDATIONS.

TYPICAL AT ALL SPLICE JOINTS

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

TOP OF VERTICAL MULLION TO TOP PRESSURE PLATE IS 1 1/2".

AT TOP PRESSURE PLATE, LOCATE SCREW CLOSE TO THE MULLION JOINT BUT NOT BELOW THE JOINT.



COMPLETELY SEAL JOINT. DO NOT LET SEALANT INTERFERE WITH COVER SNAP. OVERLAP PRESSURE PLATE FACE WITH SEALANT.



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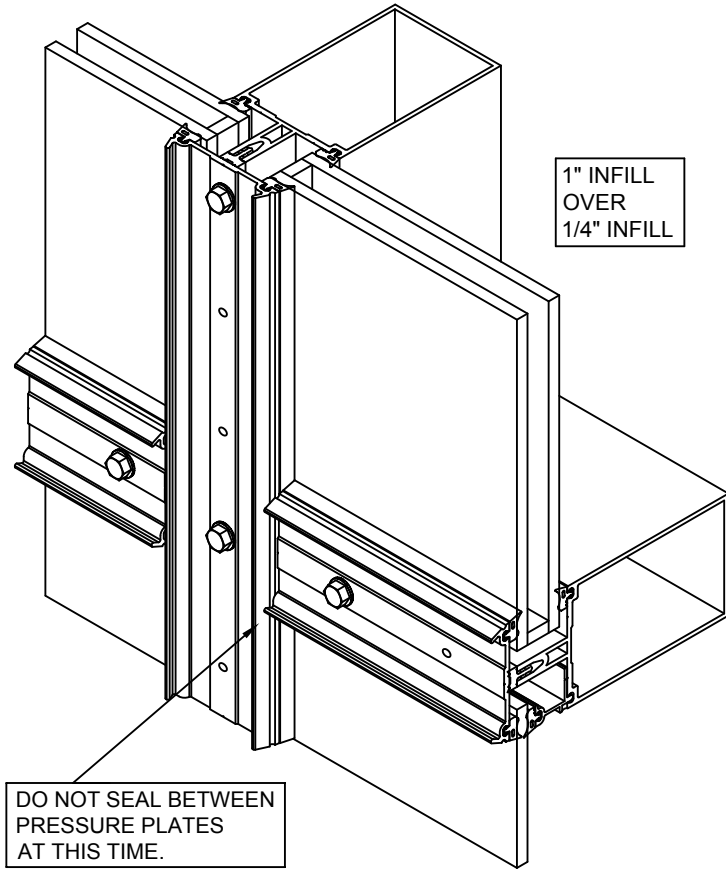
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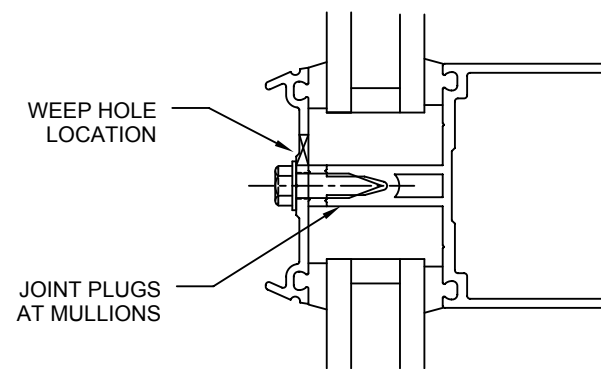
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INSTALL EXTERIOR PRESSURE PLATES

INSTALL HORIZONTAL PRESSURE PLATES. CENTER HORIZONTAL PRESSURE PLATES SO END GAPS ARE EQUAL.

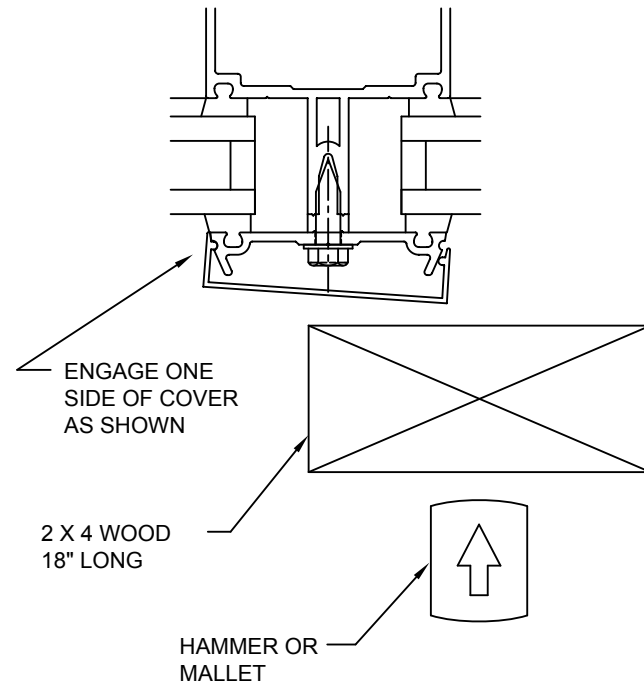


WHERE APPLICABLE, INSTALL HORIZONTAL PRESSURE PLATES WITH WEEP HOLES AT HORIZONTAL LOCATIONS ABOVE A VERTICAL MULLION SPLICE.

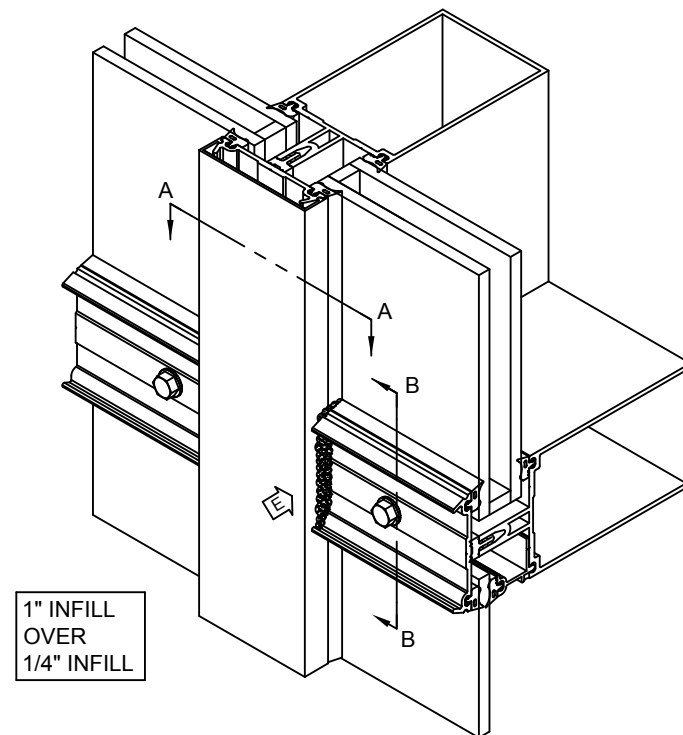


INSTALL EXTERIOR COVERS

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.

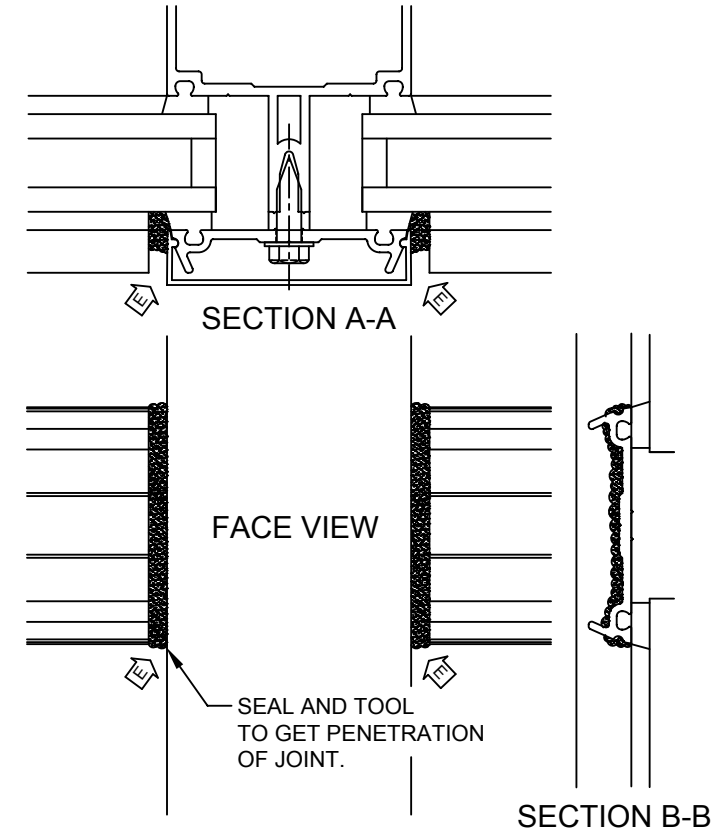


INSTALL VERTICAL COVERS FIRST.

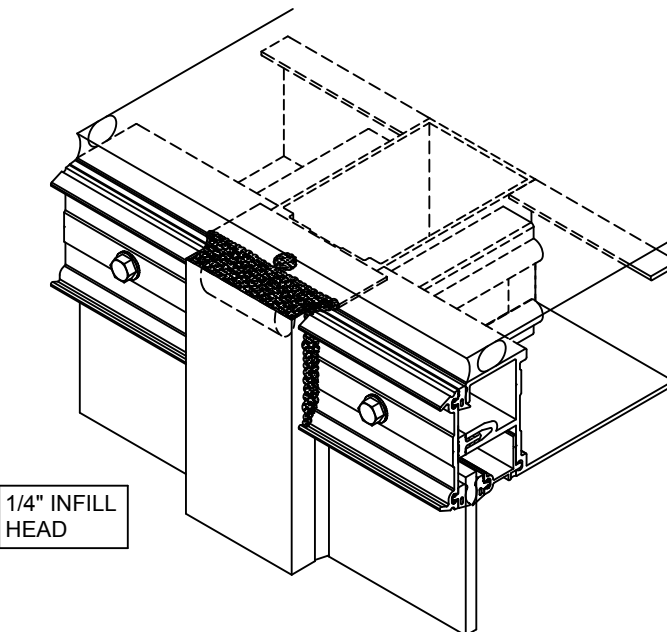


INSTALL EXTERIOR COVERS

SEAL BETWEEN VERTICAL COVER AND END OF HORIZONTAL PRESSURE PLATES COMPLETELY. TOOL SEALANT. KEEP COVER SNAP AREA FREE OF SEALANT ON HORIZONTAL PRESSURE PLATE. TYPICAL AT ALL JOINTS.



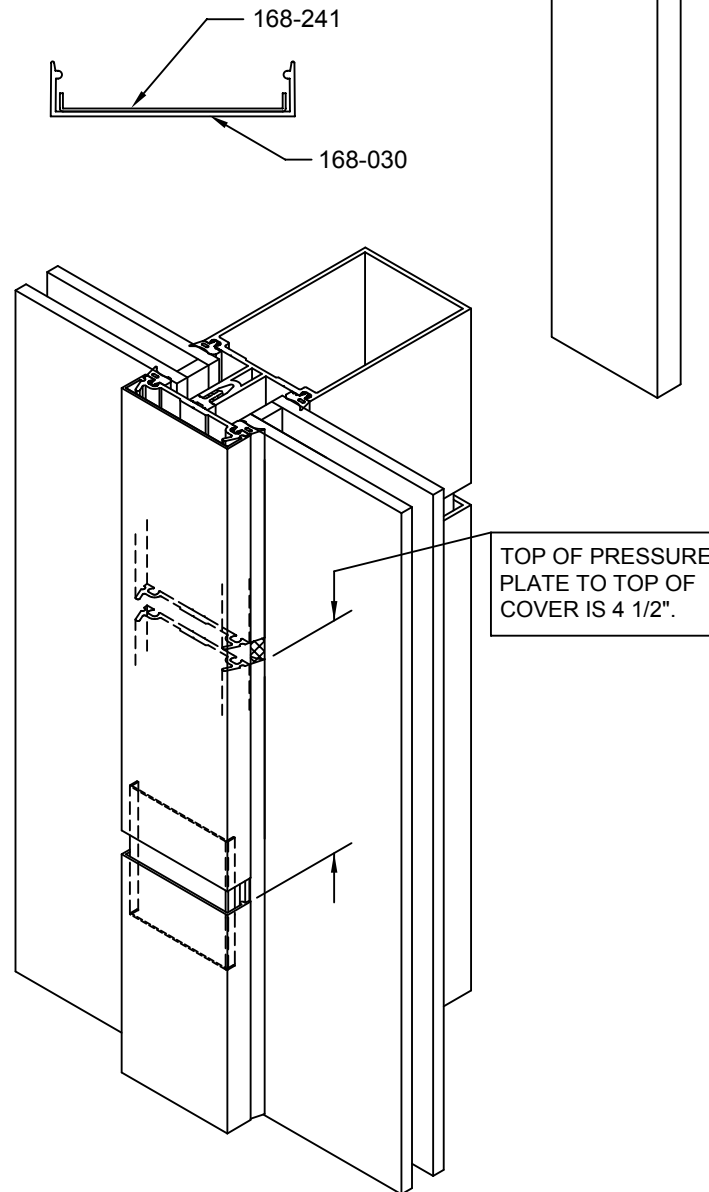
AT HEAD, IN ADDITION TO THE SEAL SHOWN ABOVE, APPLY BACKER ROD IN TOP OF COVER. SEAL TOP OF VERTICAL COVER COMPLETELY. EXTEND SEAL BACK AND MARRY TO PERIMETER SEAL. TOOL SEALANT. KEEP COVER SNAP AREA FREE OF SEALANT ON HORIZONTAL PRESSURE PLATE. TYPICAL AT ALL JOINTS AT HEAD.



INSTALL EXTERIOR COVERS

AT VERTICAL EXPANSION JOINT

APPLY 168-241 SPLICE SLEEVE IN THE TOP OF THE BOTTOM COVER WITH SEALANT.



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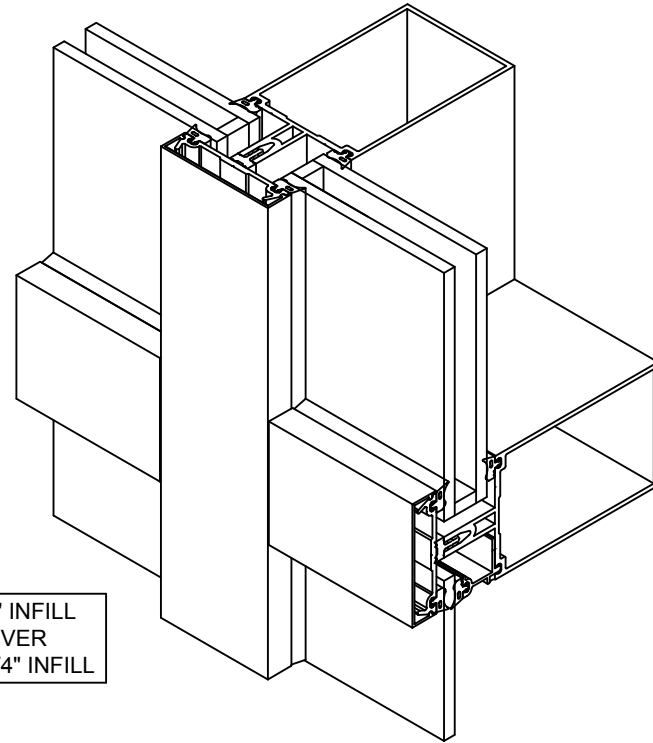
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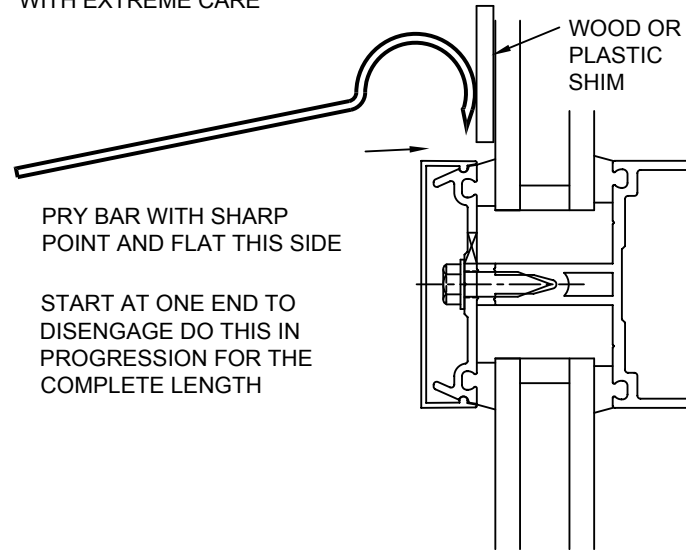
**INSTALL EXTERIOR
COVERS**

INSTALL HORIZONTAL COVERS. CENTER ON DLO.



REMOVING COVERS

COVERS CAN BE SAVED IF TOLERANCES ARE NOT TOO TIGHT AND THE COVER IS REMOVED WITH EXTREME CARE



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