INSTALLATION INSTRUCTIONS

ArcticFront™ SERIES 45X
Dual High Performance Thermally Broken Storefront

ARCTICFRONT™
HIGH PERFORMANCE THERMAL

CRL-U.S. ALUMINUM

Phone: (800) 262-5151 • Fax: (866) 262-3299
crlaurence.com • usalum.com • crl-arch.com

11M0244

HANDLING, STORAGE, AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage. Following these precautions will help ensure early acceptance of your products and workmanship.

A. HANDLE CAREFULLY.
All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.

B. CHECK ARRIVING MATERIALS.
Check for quantities and keep records of where various materials are stored.

C. KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.
Prevent cement, plaster or other materials from damaging the finish.

D. PROTECT THE MATERIALS AFTER ERECTION.
Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid based materials used to clean masonry are harmful to the finish. ***If any of these materials come in contact with the aluminum, IMMEDIATELY remove with water and mild soap.***

IMPORTANT: READ THIS MANUAL THOROUGHLY BEFORE BEGINNING INSTALLATION

GENERAL INSTALLATION NOTES

Recommended Guidelines for All Installations:

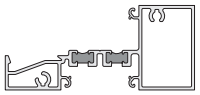
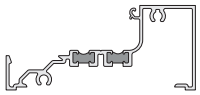
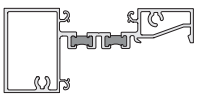
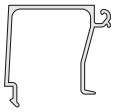
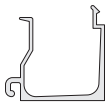
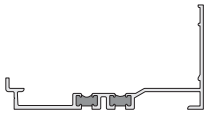
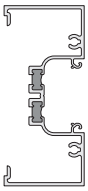
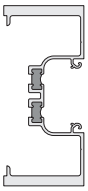
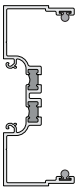
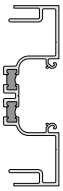
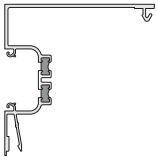
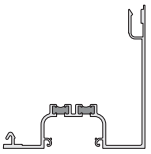
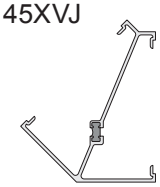
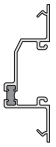
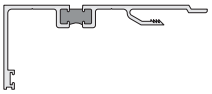
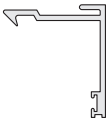
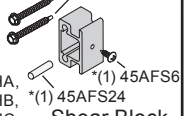
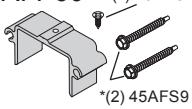
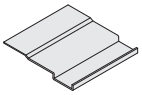
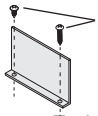
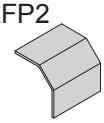
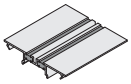
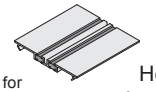
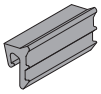
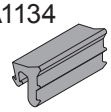
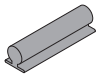
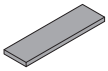
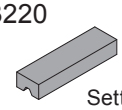
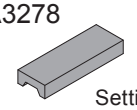
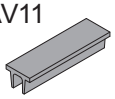
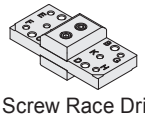
1. **REVIEW CONTRACT DOCUMENTS.** Check shop drawings, installation instructions, architectural drawings, and shipping lists to become thoroughly familiar with the project. The shop drawings take precedence and include specific details for the project. Note any ***field verified*** notes on the shop drawings prior to installing. The installation instructions are of a general nature and cover most conditions.
2. **INSTALLATION.** All materials are to be installed plumb, level, and true.
3. **BENCH MARKS.** All work should start from bench marks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Working from these datum points and lines determine:
   a) The plane of the wall in reference to offset lines provided on each floor.
   b) The finish floor lines in reference to bench marks on the outer building columns.
   c) Mullion spacing from both ends of masonry opening to prevent dimensional build-up of daylight opening.
4. **FIELD WELDING.** All field welding must be adequately shielded to avoid any splatter on glass or aluminum. Results will be unsightly and/or structurally unsound. Advise general contractor and other trades accordingly. All field welds of steel anchors must receive touch-up paint (zinc chromate) to avoid rust.
5. **SURROUNDING CONDITIONS.** 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 work.
6. **ISOLATION OF ALUMINUM.** Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of zinc chromate or bituminous paint.
7. **SEALANTS.** 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, cleaning, priming, tooling, adhesion, etc. It is the responsibility of the ***Glazing Contractor*** to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants, and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. This is required on every project.

GENERAL INSTALLATION NOTES (CONTINUED)

8. **FASTENING.** Within the body of these instructions "fastening" means any method of securing one part to another or to adjacent materials. Only those fasteners used within the system are specified in these instructions. Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions. For perimeter and anchor fasteners refer to the shop drawings or consult the fastener supplier.
9. **BUILDING CODES.** Due to the diversity in state/provincial, local, and federal laws and codes that govern the design and application of architectural products, it is the responsibility of the individual architect, owner, and installer to assure that products selected for use on projects comply with all the applicable building codes and laws. U.S. Aluminum exercises no control over the use or application of its products, glazing materials, and operating hardware, and assumes no responsibility thereof.
10. **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 the time of installation. Gaps between expansion members should be based on temperature at time of installation.
11. **WATER HOSE TEST.** As soon as a representative amount of the wall has been glazed (500 square feet or 46.5 m^2) a water hose test should be conducted in accordance with AAMA 501.2 specifications to check the installation. On all jobs the hose test should be repeated every 500 square feet (46.5 m^2) during the glazing operation.
12. **COORDINATION WITH OTHER TRADES.** Coordinate with the general contractor any sequence with other trades which offset curtain wall installation (i.e. fire proofing, back-up walls, partitions, ceilings, mechanical ducts, converters, etc.)
13. **CARE AND MAINTENANCE.** Final cleaning of exposed aluminum surfaces should be done in accordance with AAMA 609.1 for anodized aluminum and 610.1 for painted aluminum.
14. **SEALANTS.** Check shop drawings, installation instructions, architectural drawings and shipping lists to become thoroughly familiar with all sealants referenced in these instructions, which must be a one part elastomeric acetic or neutral cure silicone and must be applied according to the silicone manufacturer's recommendations.
15. **APPLICATION.** Structural silicone must be applied from the interior, and weather seal from the exterior, after the interior structural silicone has fully cured.
16. **MAXIMUM ALLOWABLE STRESS ON SILICONE.** The maximum allowable size of the glass lite is controlled by the width and depth of the silicone joint combined with the specified design windload (PSF or Pa). The stress on the structural silicone must not exceed 20 PSI (137 KPa) for a 6:1 safety factor. Check Structural Silicone Chart in the Architectural Design Manual for this product series.
17. **ARCHITECT.** It is the responsibility of the architect to secure approval of the system and request from the Glazing Contractor the compatibility and adhesion test reports described below.
18. **GLAZING CONTRACTOR.** It is the responsibility of the glazing contractor to submit a statement from the sealant manufacturer indicating that glass and glazing materials have been tested for compatibility and adhesion with glazing sealants and interpreting test results relative to material performance, including recommendations for primers and substrate preparation required to obtain adhesion. The chemical compatibility of all glazing materials and framing sealants with each other and with like materials used in glass fabrication must be established. This is required on every project.
19. **U.S. ALUMINUM.** It is the responsibility of U.S. Aluminum to supply a system to meet the architect's specifications.

ORDER OF ASSEMBLY AND INSTALLATION

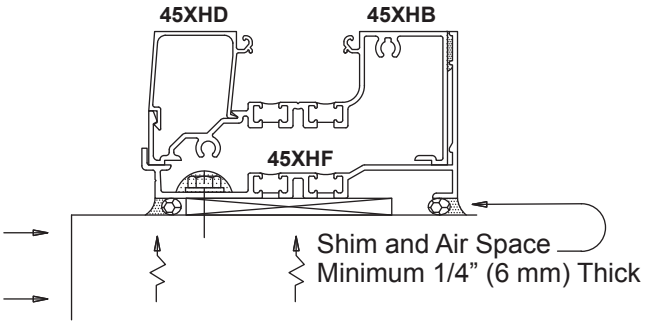
PARTS IDENTIFICATION

45XHA  Outside Glazed Intermediate	45XHB  Outside Glazed Sill / Inside Glazed Head	45XHC  Inside Glazed Intermediate	45XHD  Glass Stop Outside Glaze	45XHE  Heavy Glass Stop Inside Glaze	45XFA  Vinyl Filler Caulk Stop
45XHF  Sub Sill	45XVA  Open Back Head / Jamb Mullion	45XVB  Open Back Heavy Mullion	45XVC  Male Expansion Mullion	45XVD  Female Expansion Mullion	45XVE  Shallow Pocket Filler
45XVG  Center Set 90 Degree (Half Corner)	45XVH  Center Set 90 Degree (Half Corner)	45XVJ  Center Set 135 Degree Corner	45XVK  135 Degree Corner Filler	45XHG  Head Receptor	45XVF  Head Receptor Face
45XFB  Vinyl Pocket Filler	45XVM  1" Aluminum Pocket Filler	45AC119  *(2) 45AFS9 for 45XHA, 45XHB, 45XHC *(1) 45AFS24 *(1) 45AFS6 Shear Block	45AFP60  *(1) 45AFS7 *(2) 45AFS9 for 45XVA Shear Block	45AFP57  Splice Sleeve	45AFP46  (1) ST206 (1) ST087 (Fasteners Not Included) End Dam
45XHH  1/4" Glazing Glazing Adaptor	45XHJ  1/2", 9/16", 5/8", 11/16", 3/4" Glazing Glazing Adaptor	45XHK  5/16", 3/8", and 7/16" Glazing Glazing Adaptor	45AFP2  Water Diverter	45AFP58  for 45XVA Head Anchor	45AFP59  for 45XHB Head Anchor
45XVQ  used with 45XVE 1/4" Pocket Reducer	45XVP  used with 45XVE 5/8" Pocket Reducer	45XVN  used with 45XVE 7/16" Pocket Reducer	45A1133  1" Glazing Gasket	45A1134  3/8" Light Gasket	45A998  for Expansion Mullions Gasket
45A3523  for 45XHC Setting Block	45A3220  for 45XHA, 45XHB Setting Block	45A3278  for 45XVA Setting Block	45A3129  5/8" Glazing Gasket	45AFL66  Heavy Gasket	45AV11  for Head Receptor Gasket
45AFS6  Secure 45AC119 #10 x 3/4" PHP STS	45AFS7  Secure 45AFP60 #10 x 3/4" FHP STS	45AFS8  Spline Assembly #14 x 1" HH STS	45AFS9  Attach Shear Block #14 x 1-1/2" HH STS	ST206  Attach to End Dam #8 x 1/2" PPH SMS	ST087  Attach to End Dam #8 x 7/8" PPH SMS
45AFS24  Use with 45AC119 7/32" x 3/4" Roll Pin	WB452  "W" Edge Block	DJ45XSR  Screw Race Drill Jig	DJ45XSB  Shear Block Drill Jig	*Fasteners Included	

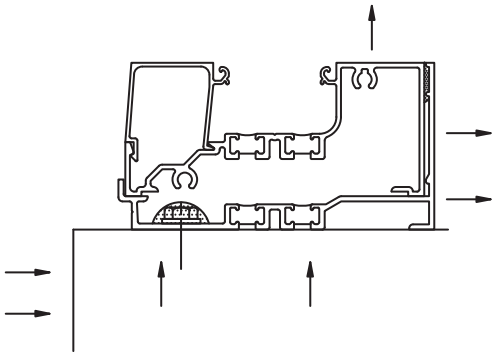
INSTALLATION GUIDELINES FOR THERMAL PERFORMANCE

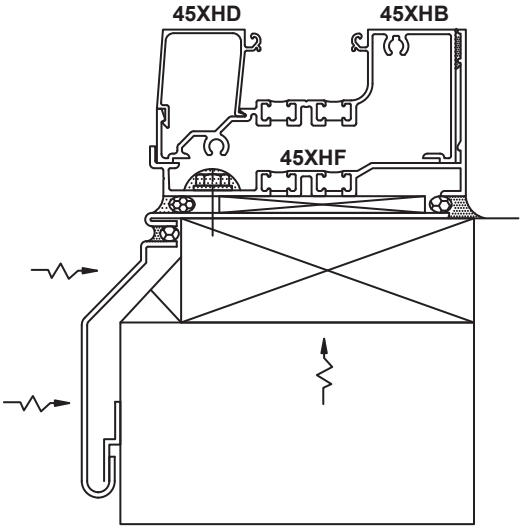
To derive the greatest benefit from your storefront installation, review the following details.

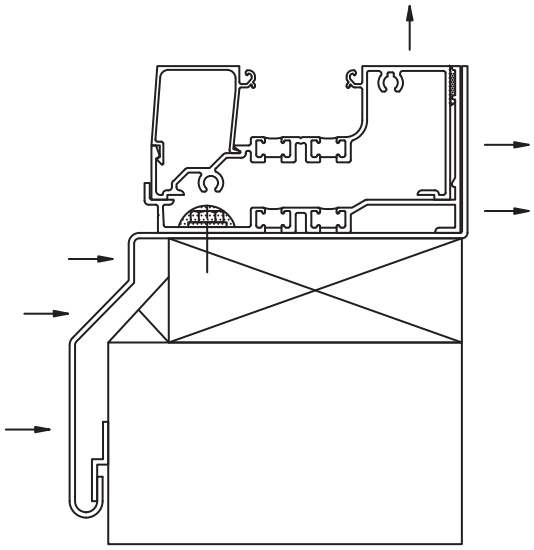
RECOMMENDED

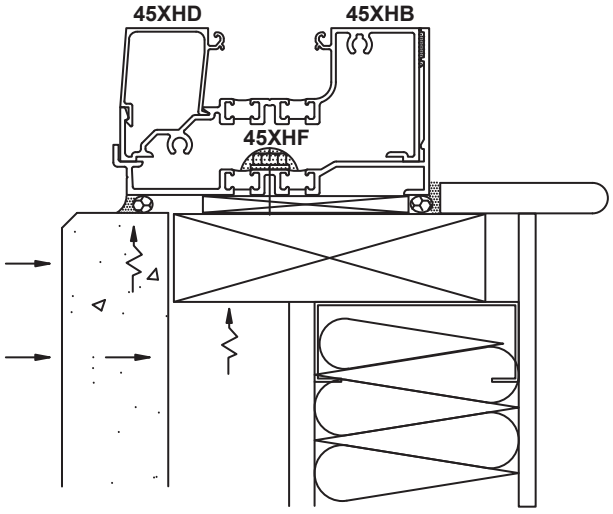


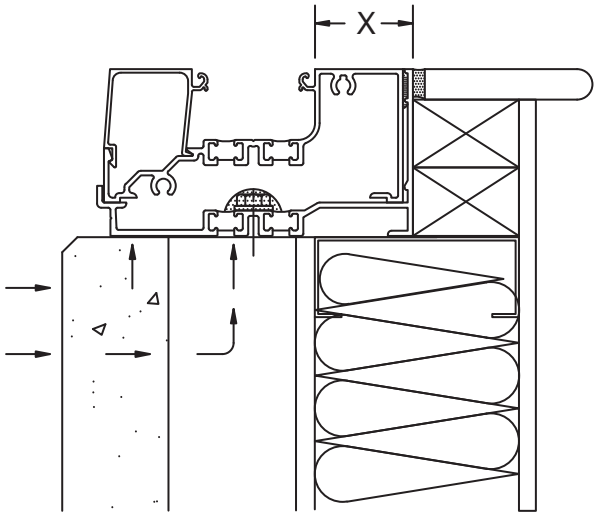
NOT RECOMMENDED











Not Enough Metal Showing at “X”

FRAME FABRICATION

Measure ROUGH OPENING to determine FRAME WIDTH and FRAME HEIGHT dimensions. Allow 1/2" (13 mm) minimum clearance at Head and 1/4" (6 mm) minimum clearance at Jambs and Sill for shimming and caulking around perimeter frame.

Cut material to size per dimensions given below:

Frame Members

Mullions and Mullion Fillers:	Frame Height [Net Frame Dimension minus 1/2" (13 mm)]
Sub Sill:	Frame Width plus 1/4" (6 mm) *
Horizontal, Head and Sill:	Daylight Opening (D.L.O.)
Glass Stops:	D.L.O. minus 1/16" (2 mm)
Head Receptor / Face:	Frame Width plus 1/4" (6 mm) *

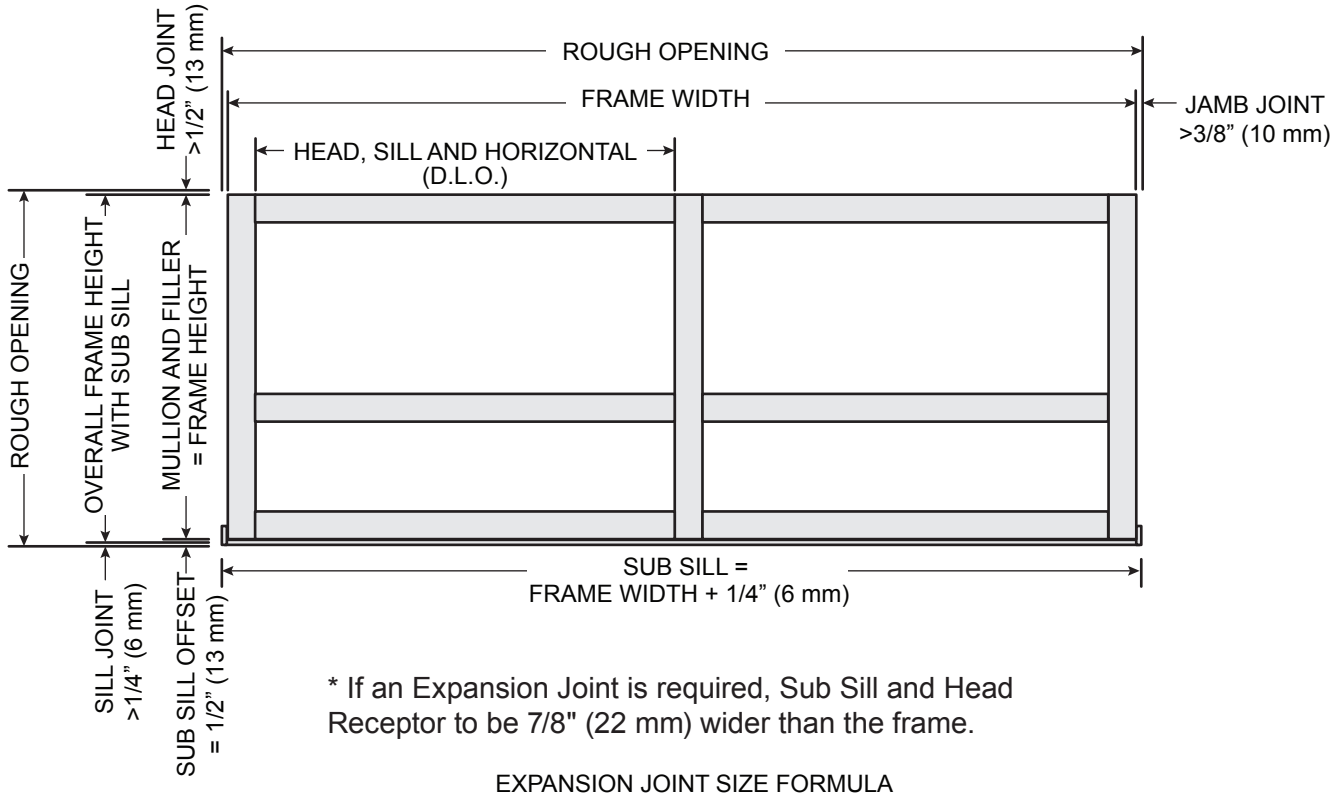
Gaskets

Horizontal Gaskets:	D.L.O. plus an additional 3/8" (10 mm) every Foot
Vertical Gaskets:	D.L.O. plus 1" (25 mm) plus an additional 3/8" (10 mm) every Foot

Accessories

Horizontal Glazing Adaptors:	D.L.O. minus 1/16" (2 mm)
Vertical Glazing Adaptors:	D.L.O. plus 7/8" (22 mm)
Door Jambs:	Rough Opening minus Head Joint

NOTE: If opening exceeds 24' (7.3 m) in width, Splice Sleeves must be used at Splice Joints.



* If an Expansion Joint is required, Sub Sill and Head Receptor to be 7/8" (22 mm) wider than the frame.

EXPANSION JOINT SIZE FORMULA

Linear expansion for aluminum in inches: Length (") X F° difference X .0000129

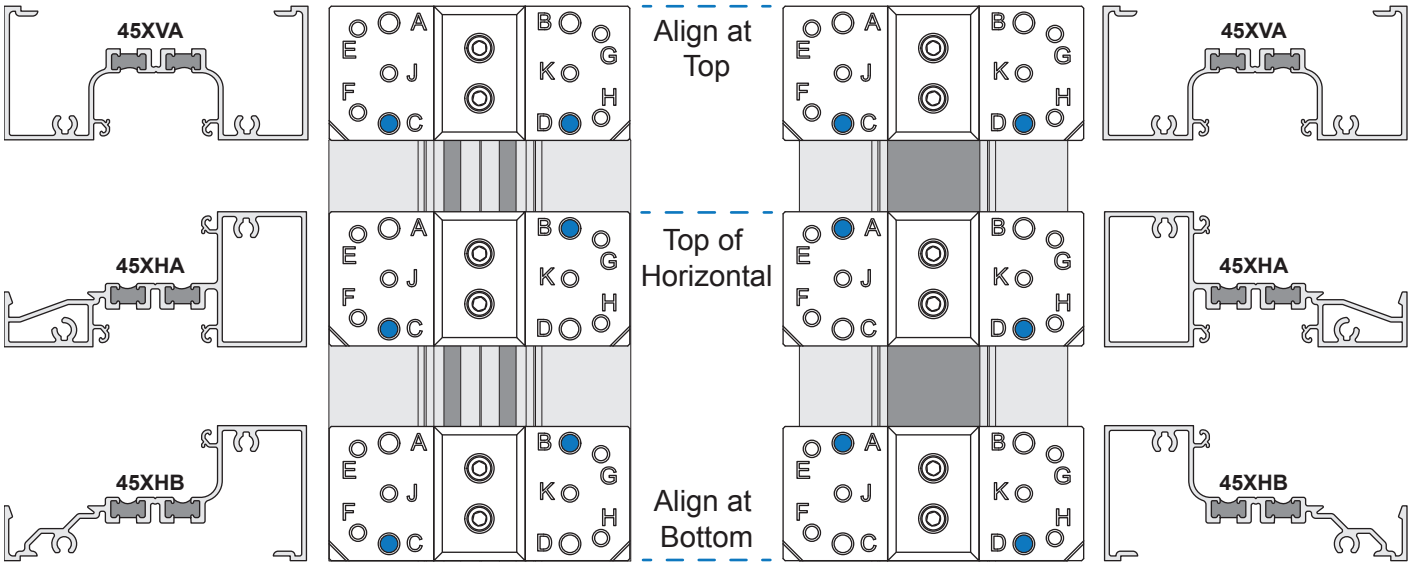
Linear expansion for aluminum in millimeters: Length (mm) X C° difference X .02322

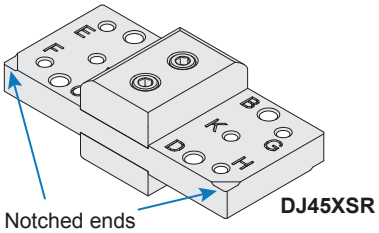
FRAME FABRICATION (CONTINUED)

Screw Spline Assembly

Using Drill Jig DJ45XSR

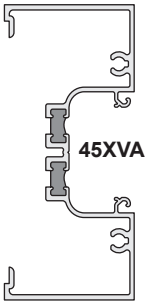
EXTERIOR GLAZED





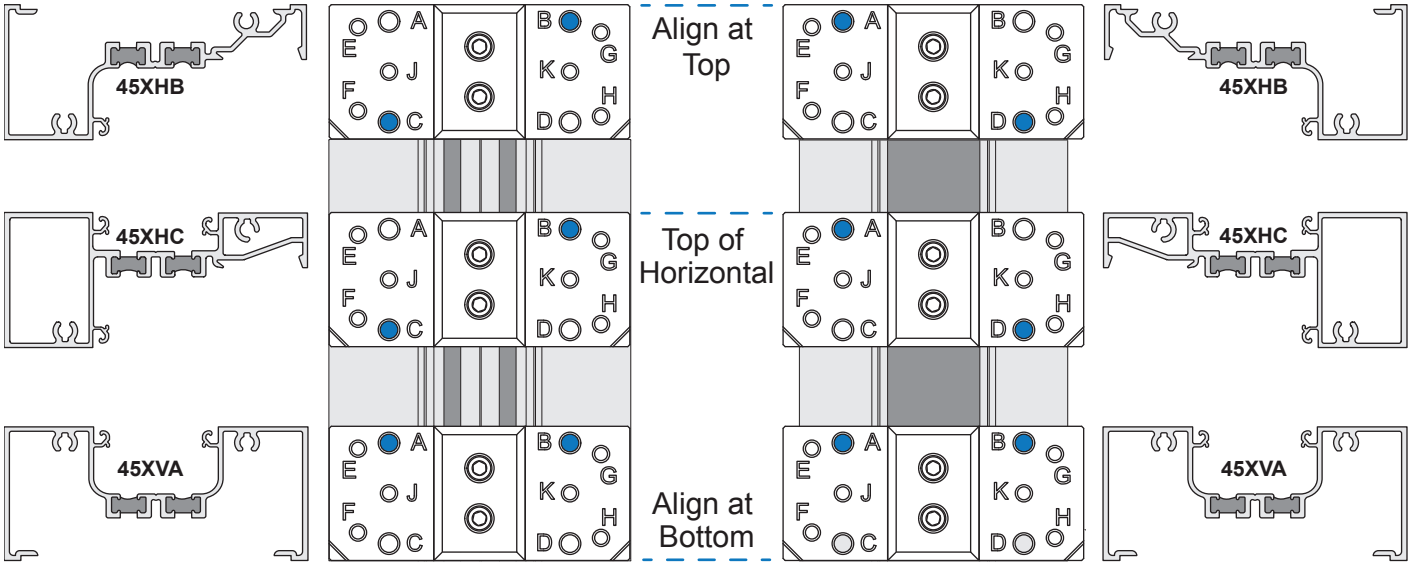
Notched ends are always at the bottom

NOTE: The holes for screw race installation are symetrical.



Screw Race
Drill Size: 1/4”
Decimal: .25”
Metric: 6.35 mm

INTERIOR GLAZED

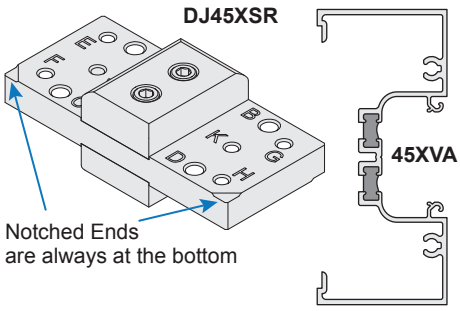


FRAME FABRICATION (CONTINUED)

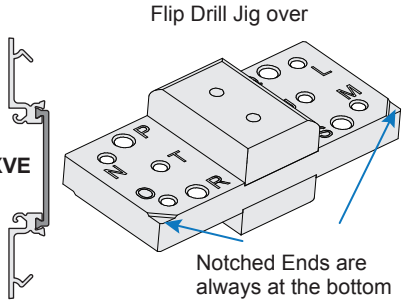
Shear Block Assembly: Exterior Glazed

Vertical Members

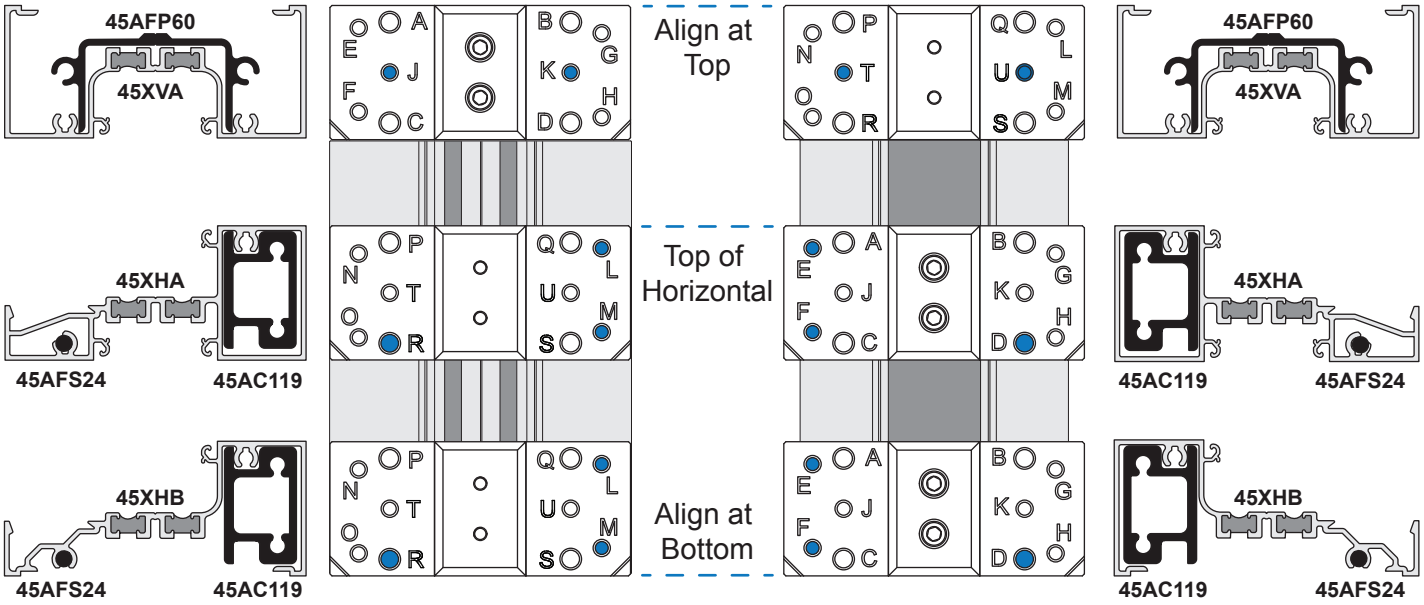
Use Drill Jig DJ45XSR to drill holes for Shear Blocks and Roll Pins.



	Roll Pin	Shear Block
Hole Letter	A,B,D, Q,R,S	E,F,G,H,J,K, L,M,N,O,T,U
Drill Size	1/4”	11
Decimal	.25”	.191”
Metric	6.35 mm	4.85 mm

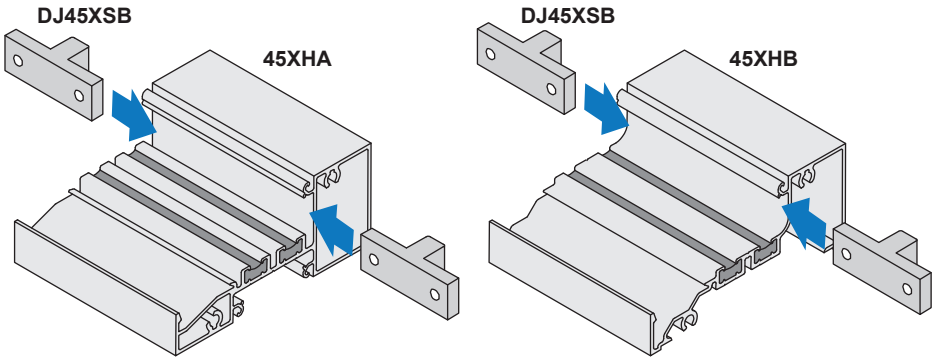


EXTERIOR GLAZED



Horizontal Members

Use Drill Jig DJ45XSB and #10 Drill Bit to drill holes for securing the Shear Blocks.

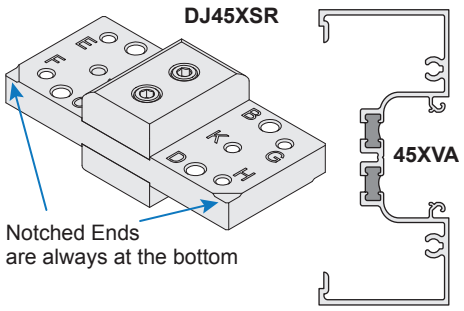


FRAME FABRICATION (CONTINUED)

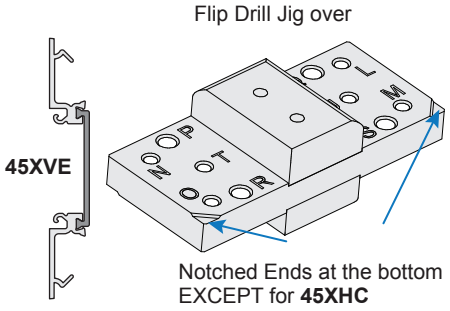
Shear Block Assembly: Interior Glazed

Vertical Members

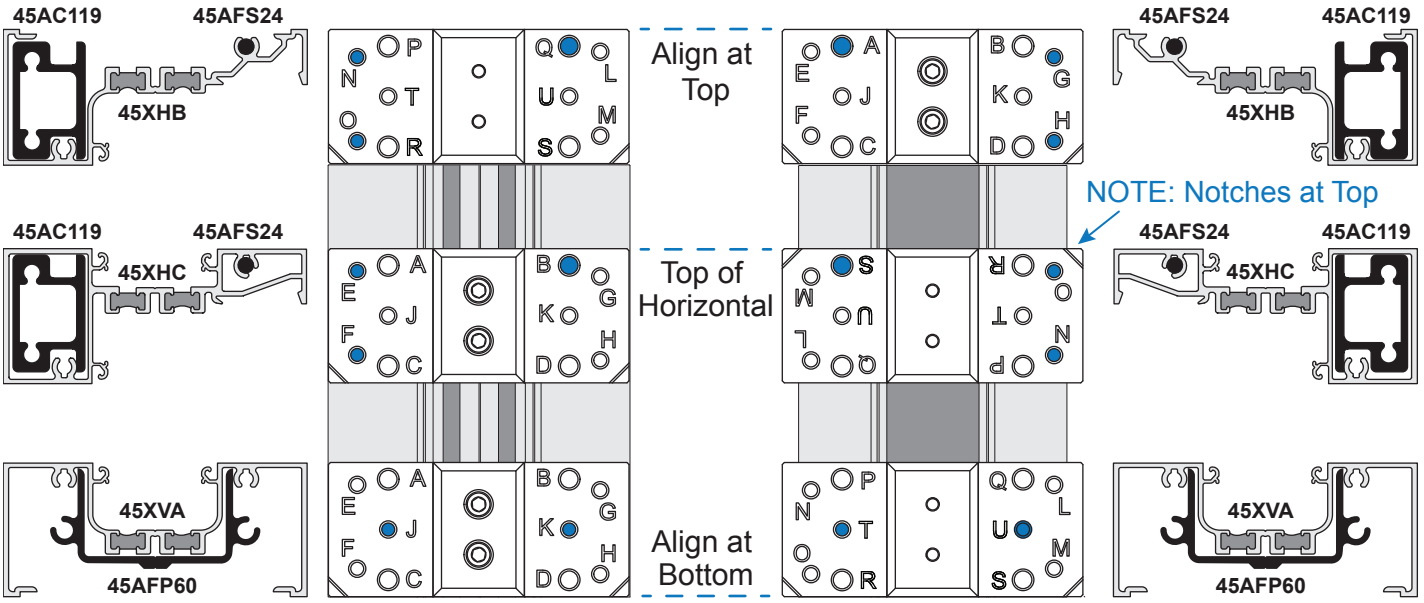
Use Drill Jig DJ45XSR to drill holes for Shear Blocks and Roll Pins.



	Roll Pin	Shear Block
Hole Letter	A,B,D, Q,R,S	E,F,G,H,J,K, L,M,N,O,T,U
Drill Size	1/4”	11
Decimal	.25”	.191”
Metric	6.35 mm	4.85 mm

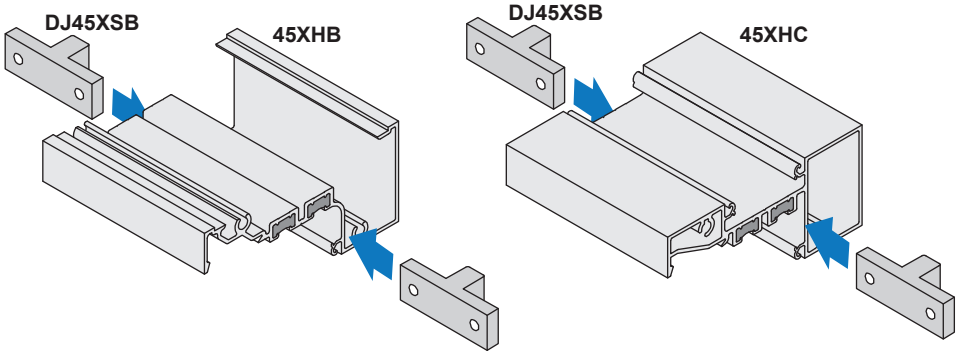


INTERIOR GLAZED



Horizontal Members

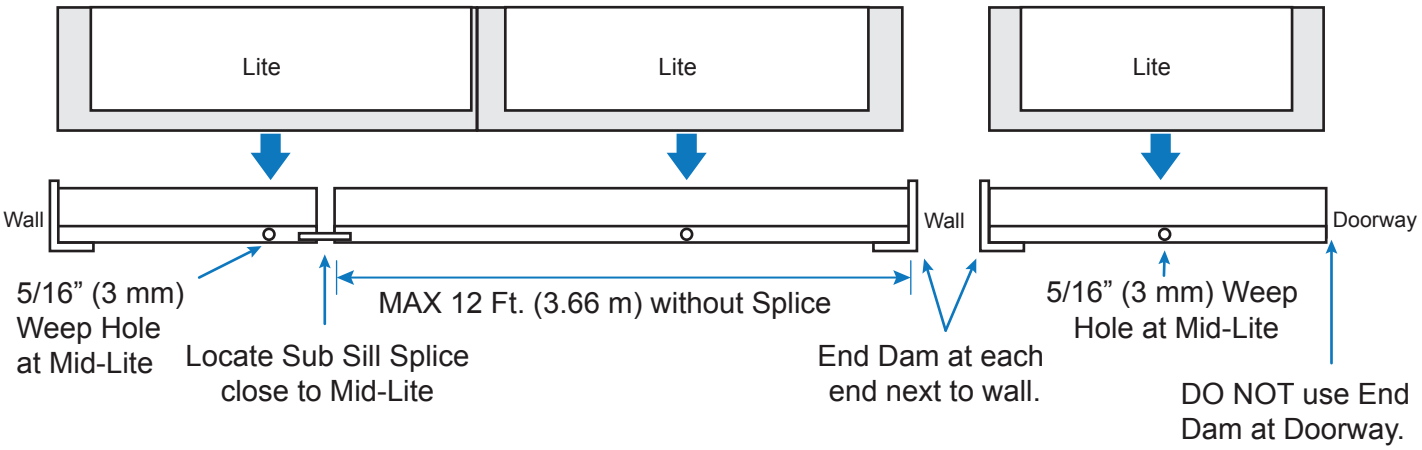
Use Drill Jig DJ45XSB and #10 Drill Bit to drill holes for securing the Shear Blocks.



SUB SILL PREPARATION

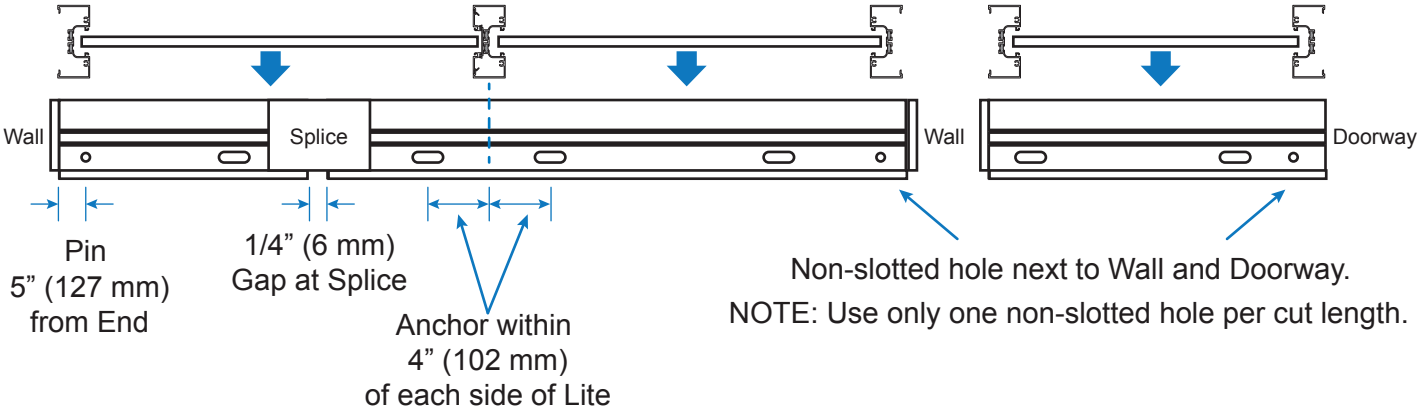
End Dam, Weep Hole, and Splice Placement

SUB SILL SIDE VIEW



Fastener Hole Type and Placement

SUB SILL TOP VIEW

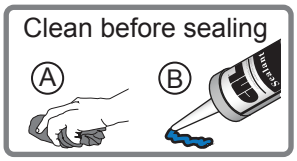


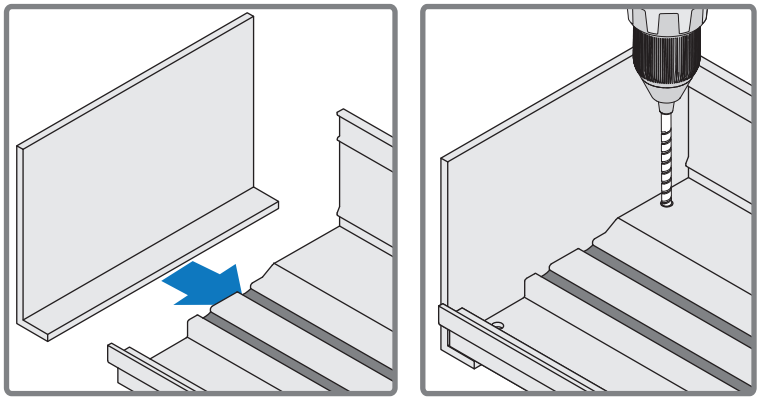
NOTE: Refer to Shop Drawings for Anchor size and frequency.

SUB SILL PREPARATION (CONTINUED)

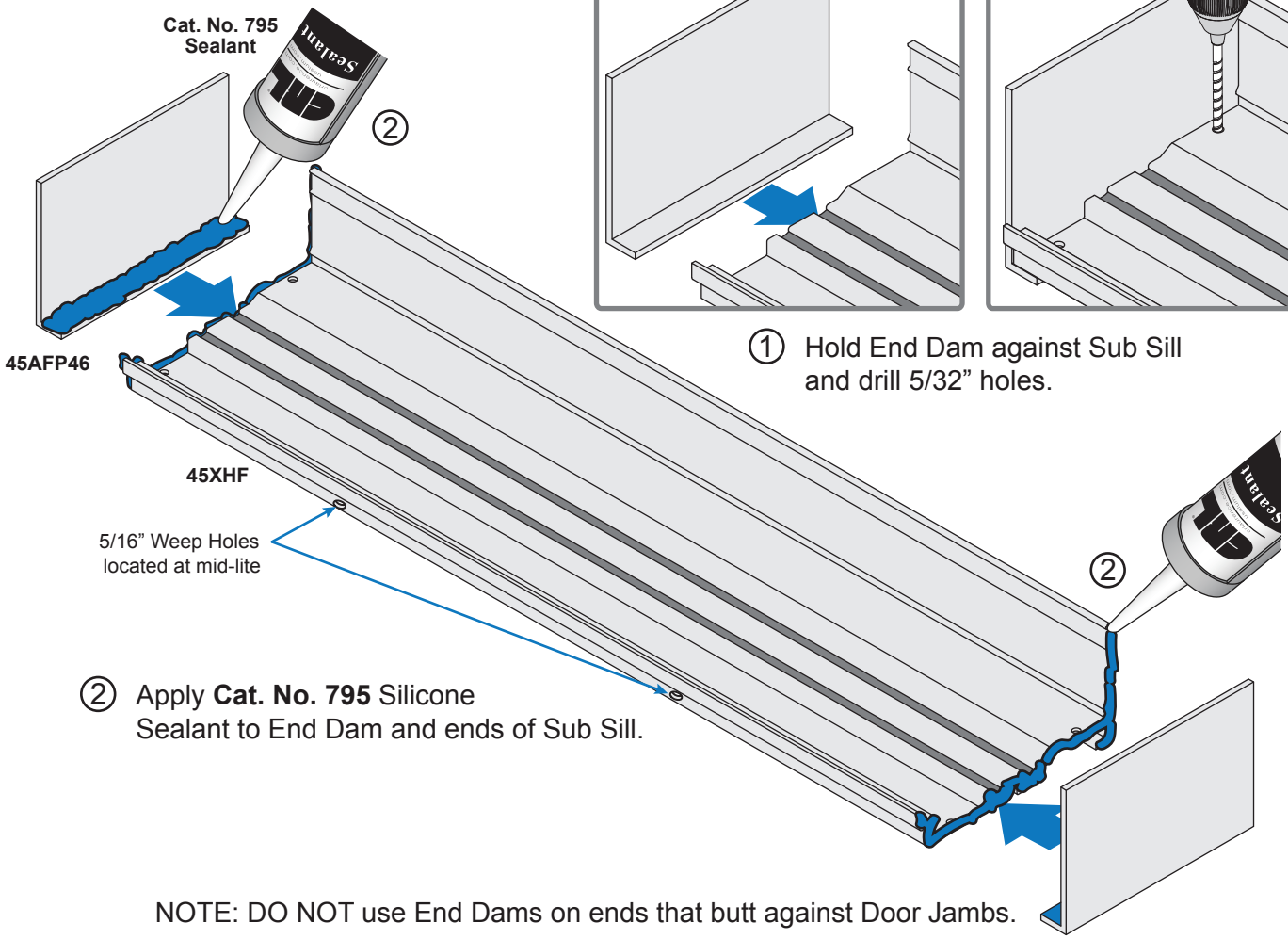
End Dam Installation

NOTE: Clean all surfaces before applying sealants. See Sealant Manufacturer Requirements.



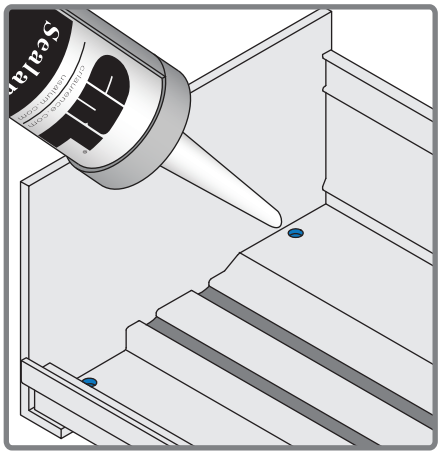


① Hold End Dam against Sub Sill and drill 5/32" holes.

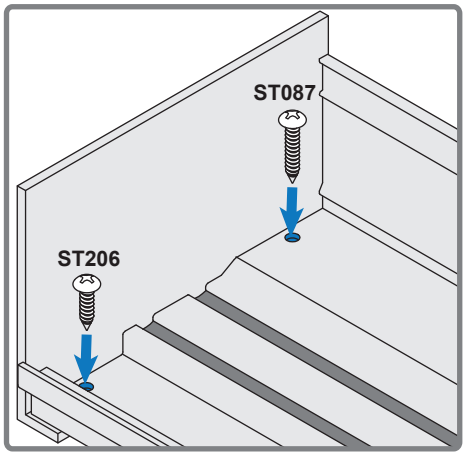


② Apply **Cat. No. 795** Silicone Sealant to End Dam and ends of Sub Sill.

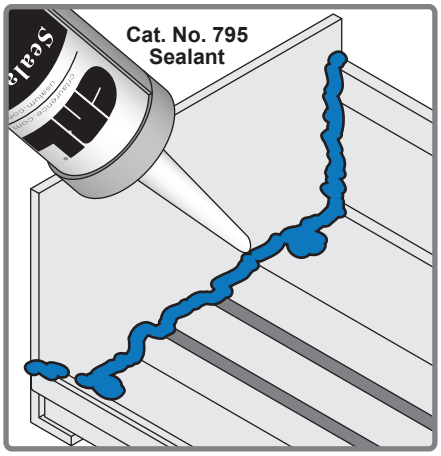
NOTE: DO NOT use End Dams on ends that butt against Door Jambs.



③ Fill screw holes with sealant.



④ Use #8 x 1/2" and #8 x 7/8" PPH SMS screws to secure.



⑤ Seal and tool joint and seal over screw heads.

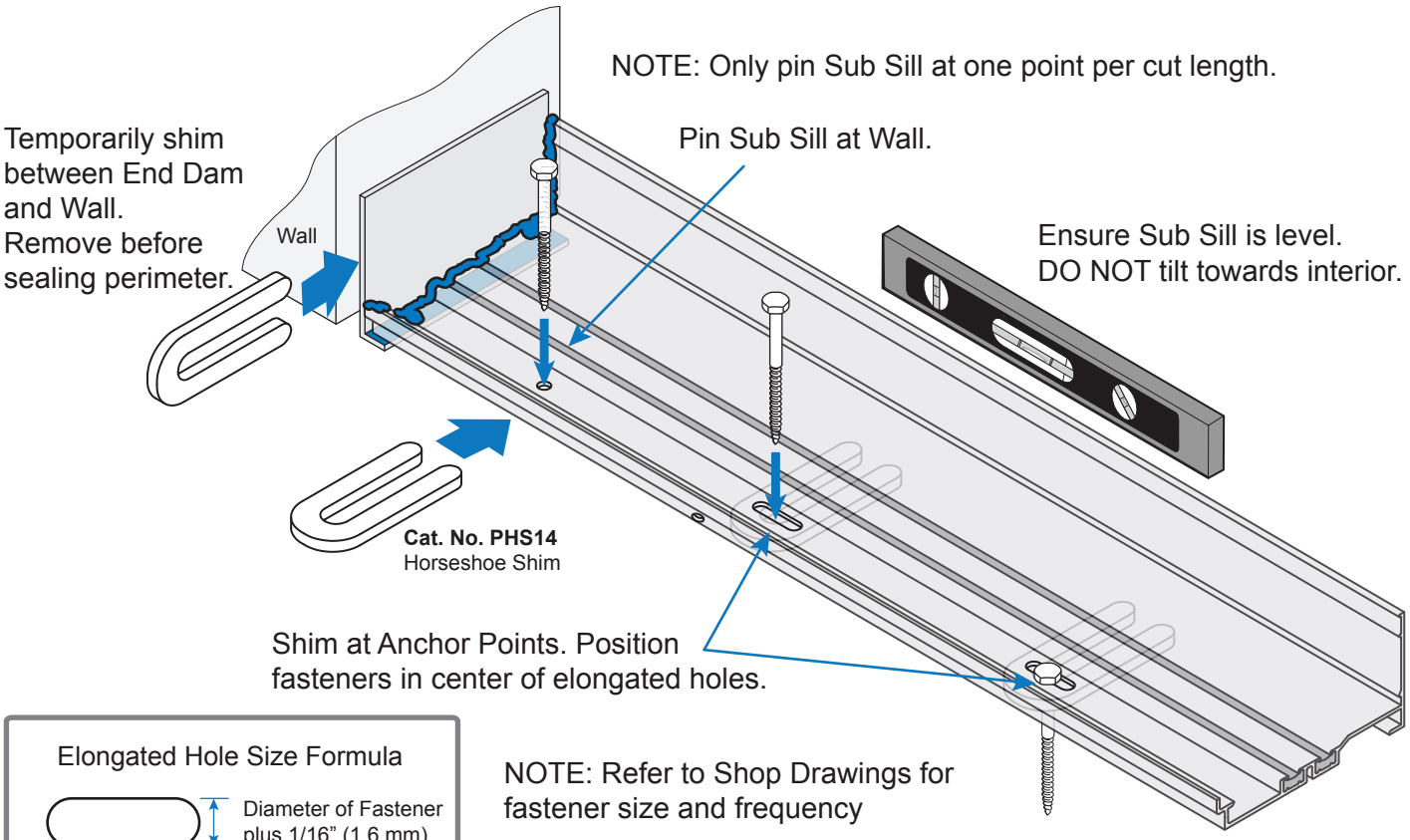
SUB SILL INSTALLATION

Use a temporary shim to keep End Dam tight against Wall Jamb.

NOTE: When entrances occur, install Entrance Frame first. DO NOT use End Dam. Sub Sill butts against Door Jamb.

If a two-piece Head Receptor is not used, allow 1/4" (6 mm) minimum clearance at head condition for frame installation.

Anchor Sub Sill within 4" (102 mm) from either side of Intermediate Mullion and Jamb.

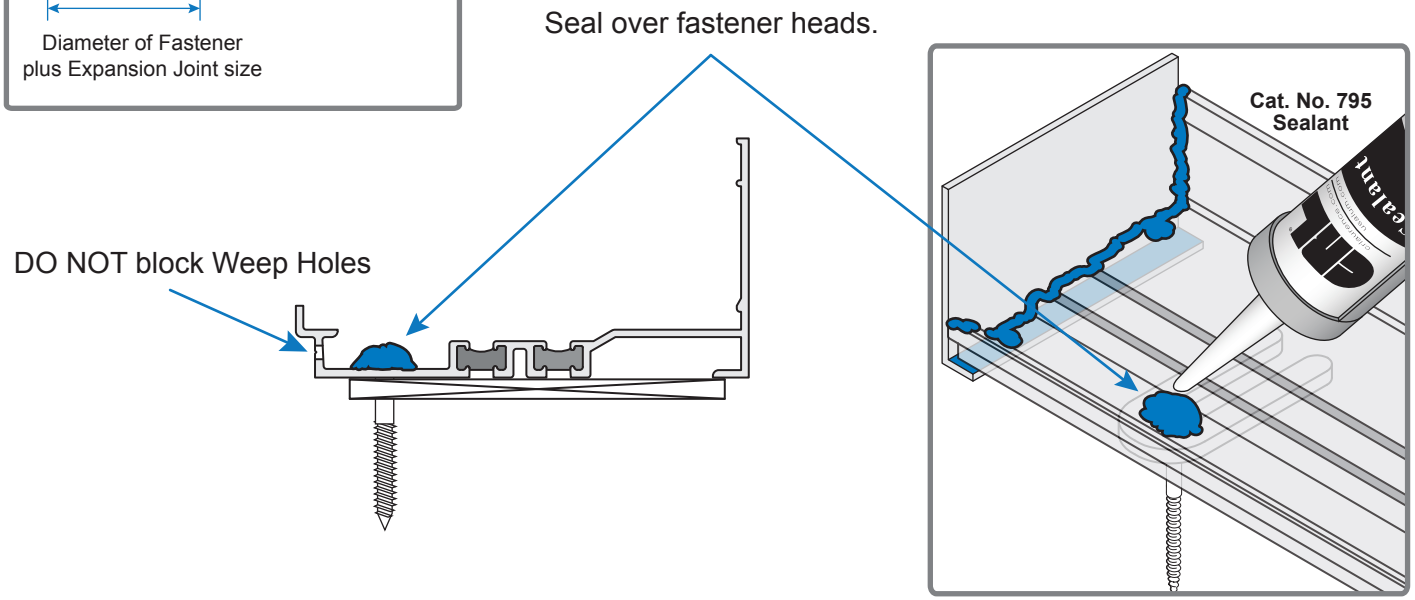


Elongated Hole Size Formula

Diameter of Fastener plus 1/16" (1.6 mm)

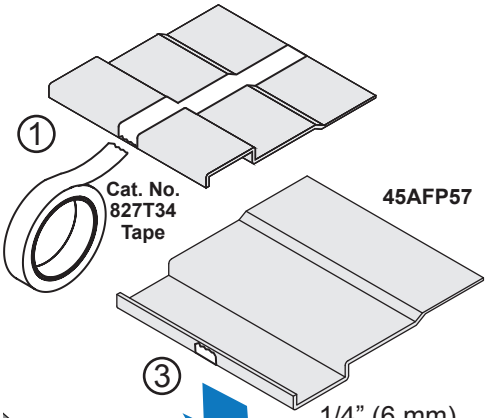
Diameter of Fastener plus Expansion Joint size

NOTE: Refer to Shop Drawings for fastener size and frequency

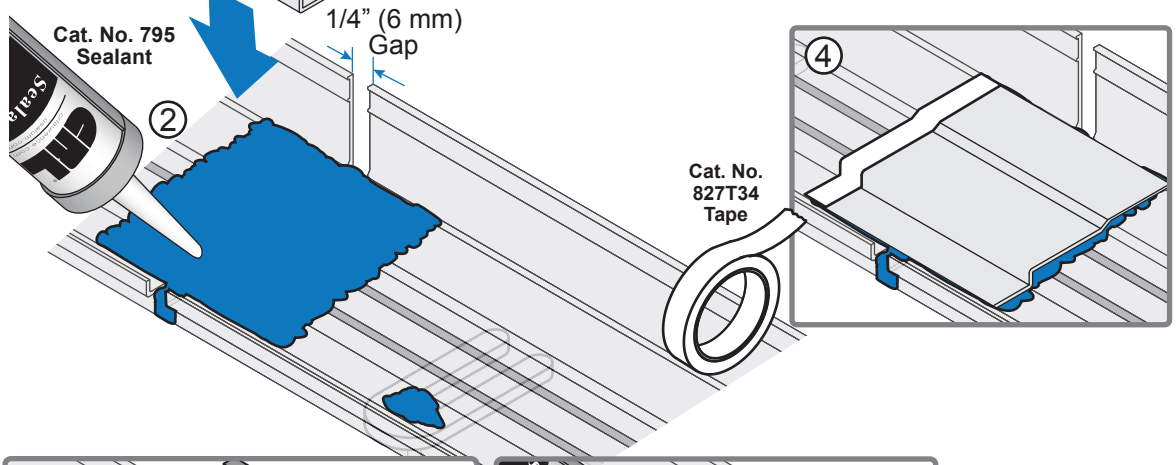


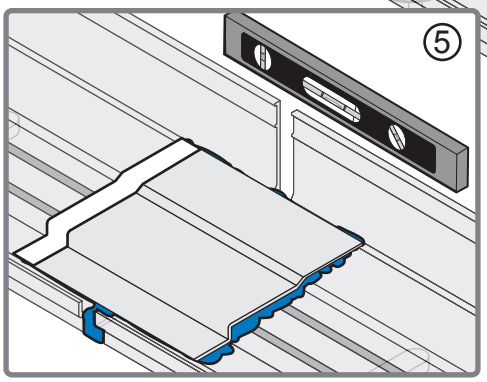
SUB SILL INSTALLATION (CONTINUED)

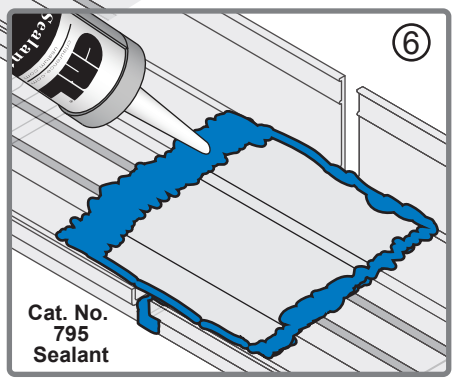
Splice Installation: Extruded Aluminum Splice

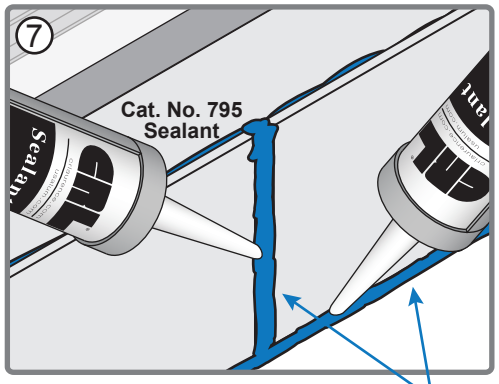


1. Apply 3/4” Bond Breaker Tape to center bottom side of Sleeve.
2. Apply silicone and tool full length of Splice.
3. Place Splice Sleeve.
4. Apply Bond Breaker Tape to other side.
5. Ensure Splice Sleeve is level.
6. Seal over Tape, extending 1/4” (6 mm) on either side. Seal entire perimeter of Sleeve.
7. After Panels are installed, seal and tool Gap. (See Page 31)







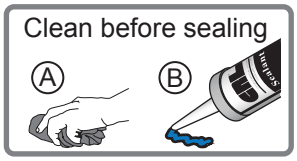


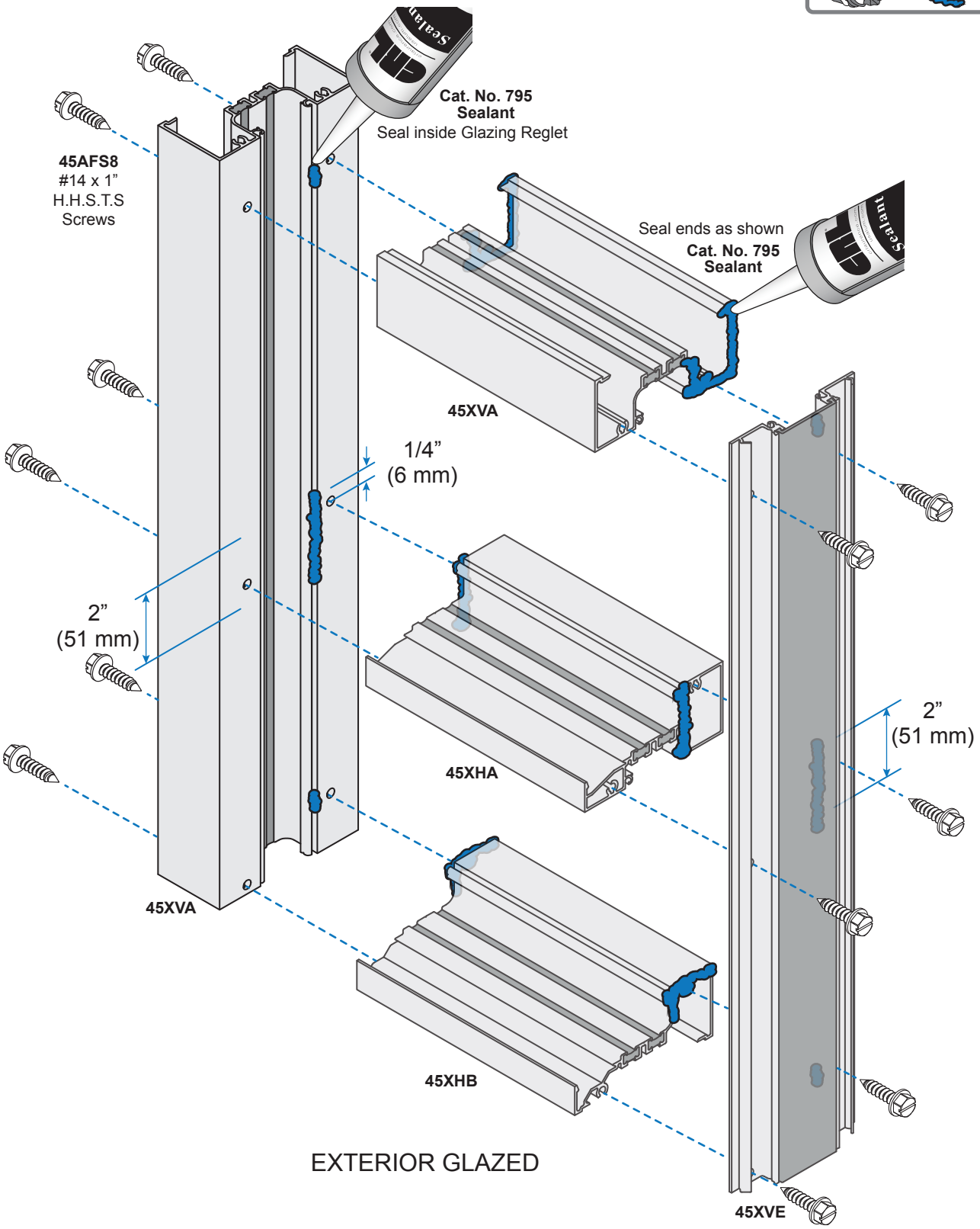
Seal and tool Gap at interior as part of Perimeter Sealing.

FRAME ASSEMBLY: EXTERIOR GLAZED

Screw Spline Assembly

Seal ends of Horizontal Members as shown and inside Glazing Reglets where they will meet Vertical Members.



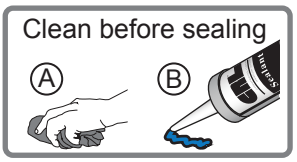


EXTERIOR GLAZED

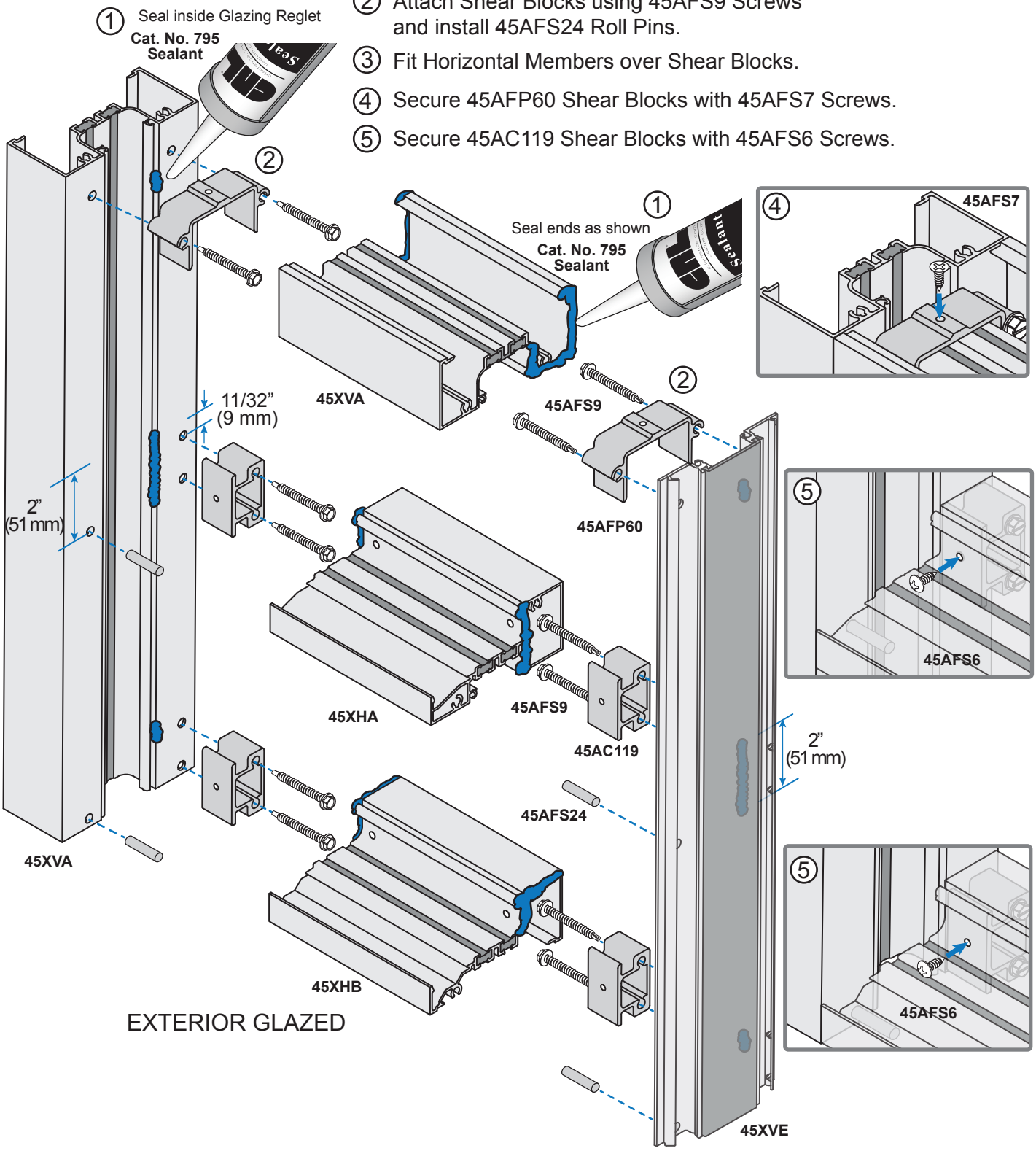
FRAME ASSEMBLY: EXTERIOR GLAZED (CONTINUED)

Shear Block Assembly

NOTE: Screws are included with Shear Blocks. 45AFS24 Roll Pin is packaged separately.



1. Seal ends of Horizontal Members as shown and inside Glazing Reglets where they will meet Vertical Members.
2. Attach Shear Blocks using 45AFS9 Screws and install 45AFS24 Roll Pins.
3. Fit Horizontal Members over Shear Blocks.
4. Secure 45AFP60 Shear Blocks with 45AFS7 Screws.
5. Secure 45AC119 Shear Blocks with 45AFS6 Screws.

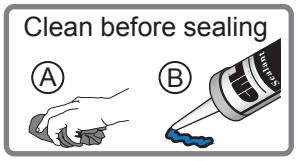


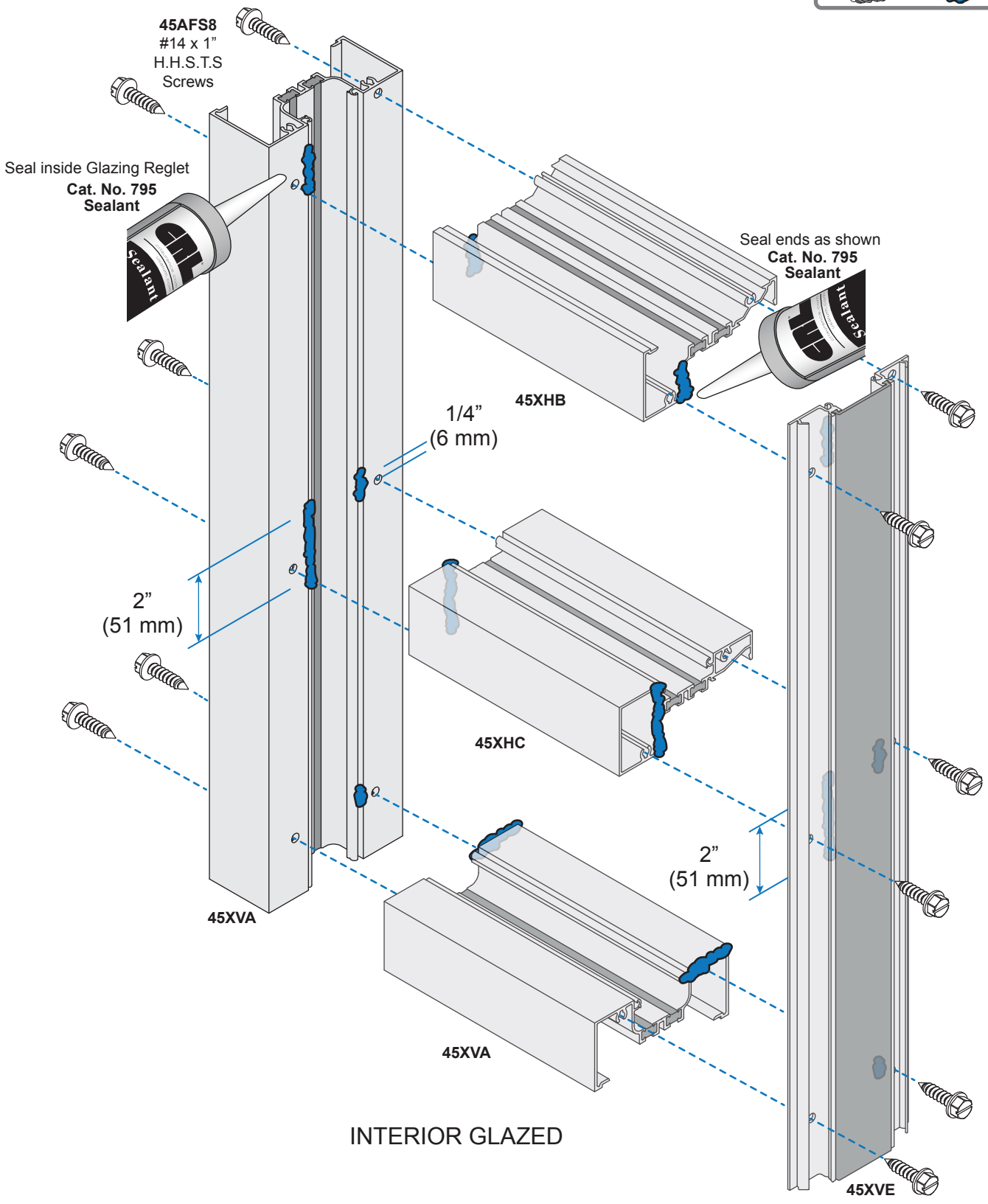
EXTERIOR GLAZED

FRAME ASSEMBLY: INTERIOR GLAZED

Screw Spline Assembly

Seal ends of Horizontal Members as shown and inside Glazing Reglets where they will meet Vertical Members.



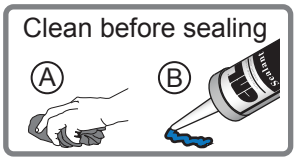


INTERIOR GLAZED

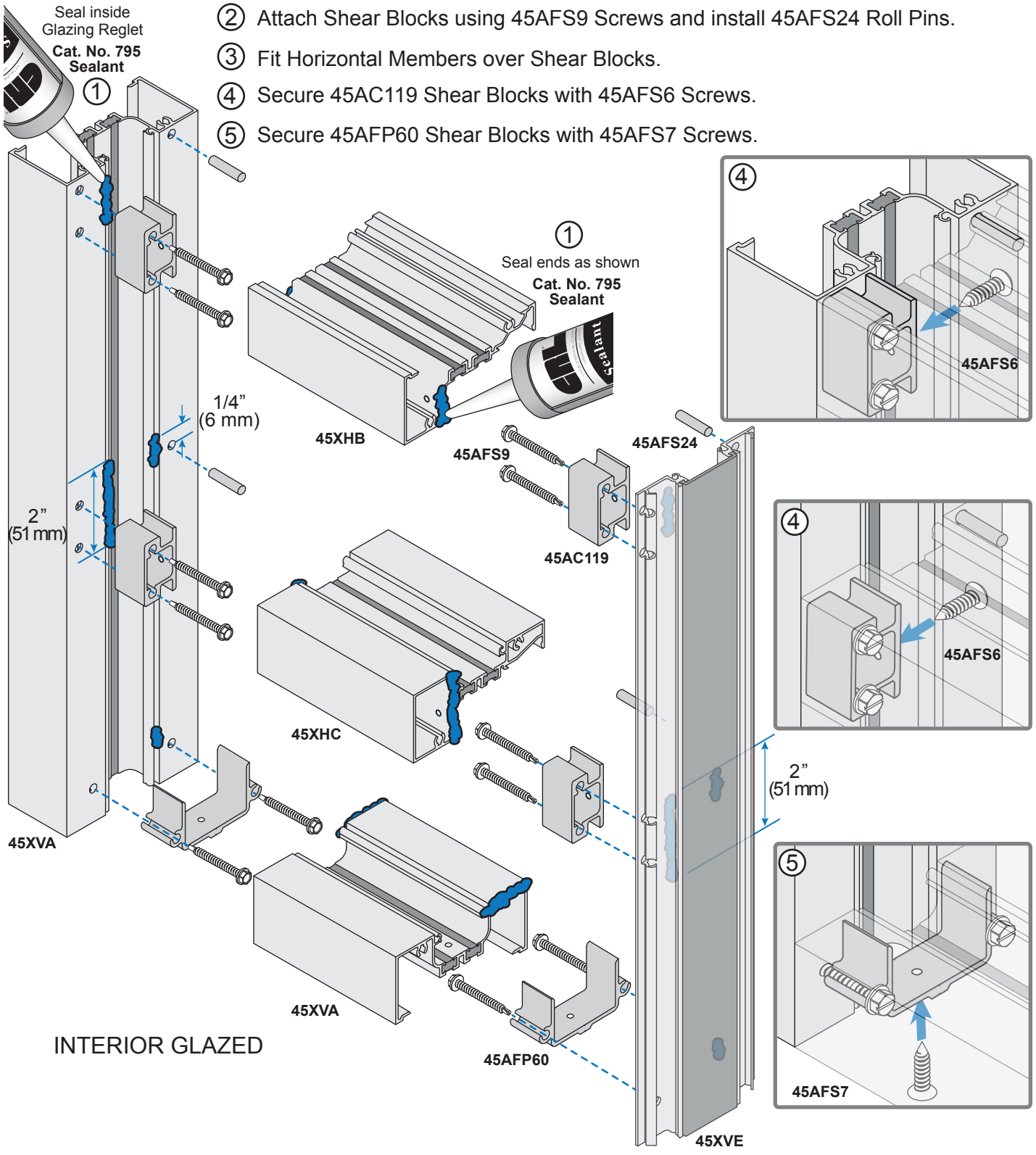
FRAME ASSEMBLY: INTERIOR GLAZED (CONTINUED)

Shear Block Assembly

NOTE: Screws are included with Shear Blocks.
45AFS24 Roll Pin is packaged separately.



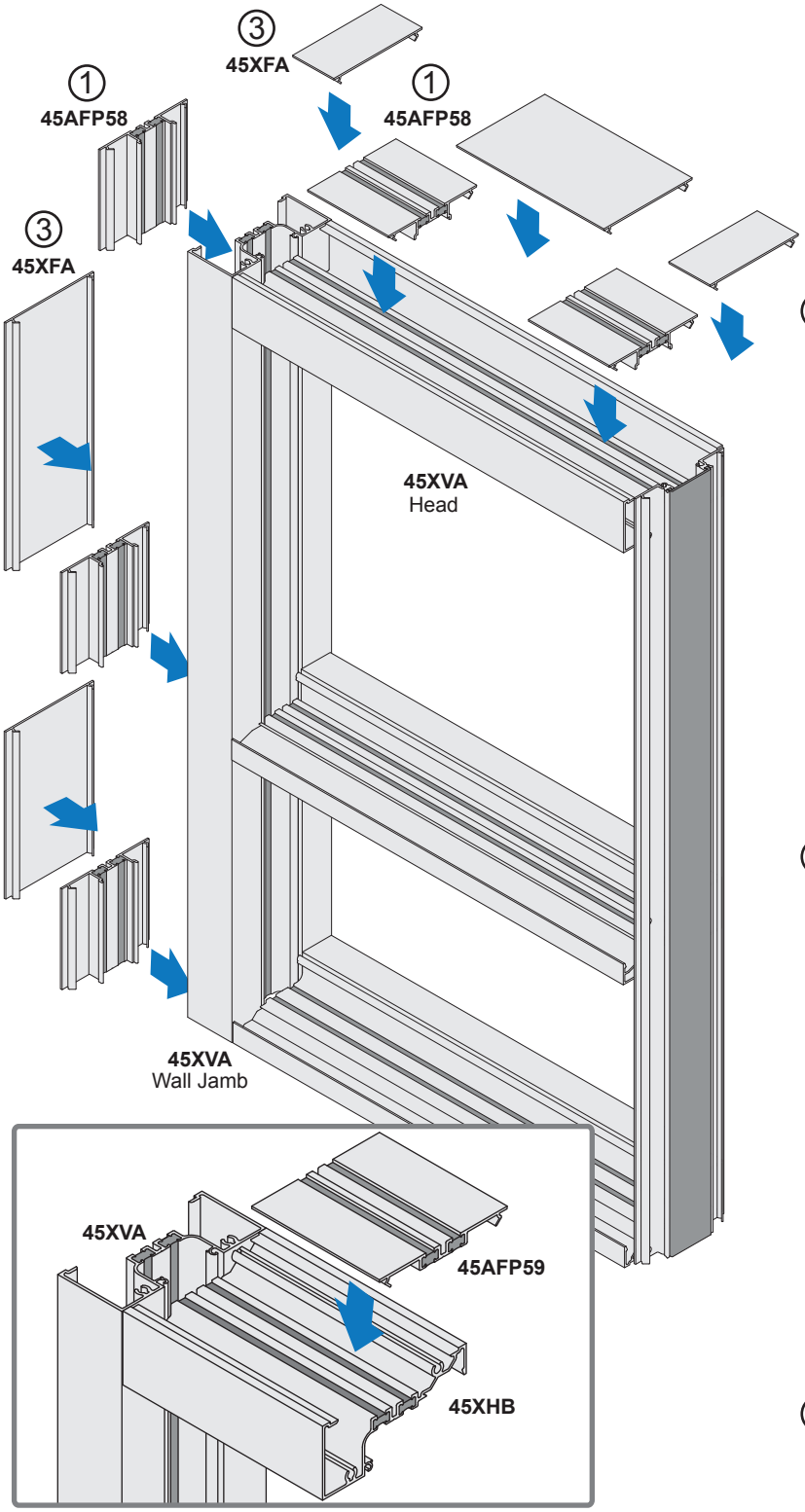
1. Seal ends of Horizontal Members as shown and inside Glazing Reglets where they will meet Vertical Members.
2. Attach Shear Blocks using 45AFS9 Screws and install 45AFS24 Roll Pins.
3. Fit Horizontal Members over Shear Blocks.
4. Secure 45AC119 Shear Blocks with 45AFS6 Screws.
5. Secure 45AFP60 Shear Blocks with 45AFS7 Screws.



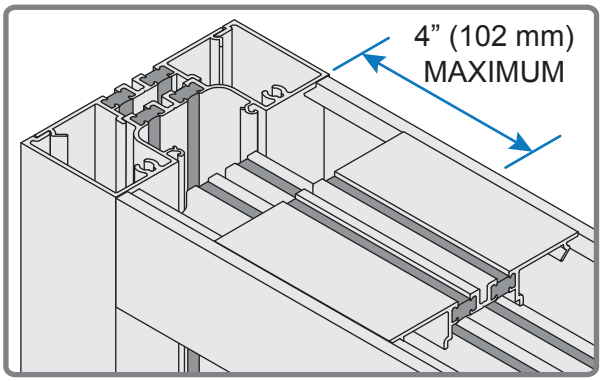
INTERIOR GLAZED

FRAME INSTALLATION

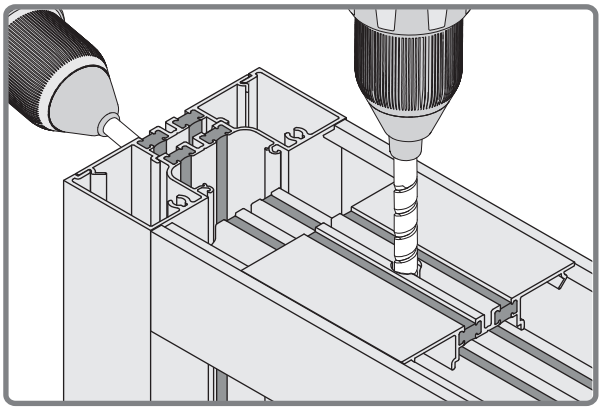
Frame Preparation



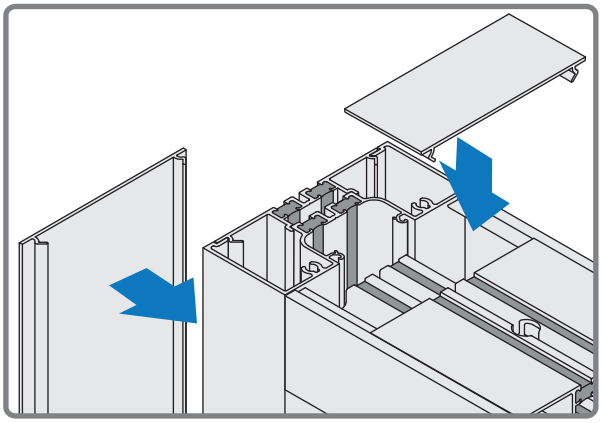
NOTE: Use 45AFP59 with 45XHB at Head for Interior Glaze and 45AFP58 with 45XVA Head for Exterior Glaze and at all 45XVA Jambs.



① Install 45AFP58 Head Anchors on each end of Head, 4” away from each Mullion and at all Anchor Points on Jamb.



② Drill through Anchors, Head and Jamb at all Anchor Points. Refer to Shop Drawings for Anchor size and frequency.



③ Install 45XFA PVC Filler between Anchors at Head (required) and at Jamb (optional) to improve perimeter seals.

FRAME INSTALLATION (CONTINUED)

Sub Sill Preparation

Apply Cat. No. 795 Silicone Sealant just prior to installation. Only apply sealant to areas being installed so sealant does not cure. If there are no entrances start installation at wall.

① Butter End Dam.

② Apply continous sealant along front and back legs of Sub Sill.

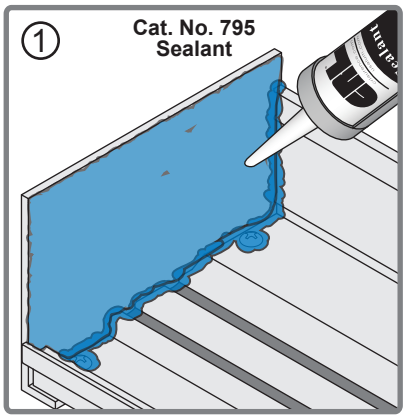
③ Set front of frame in Sub Sill.

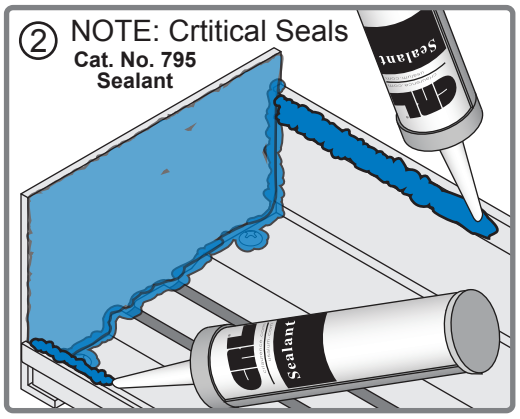
④ Tilt frame back into place.

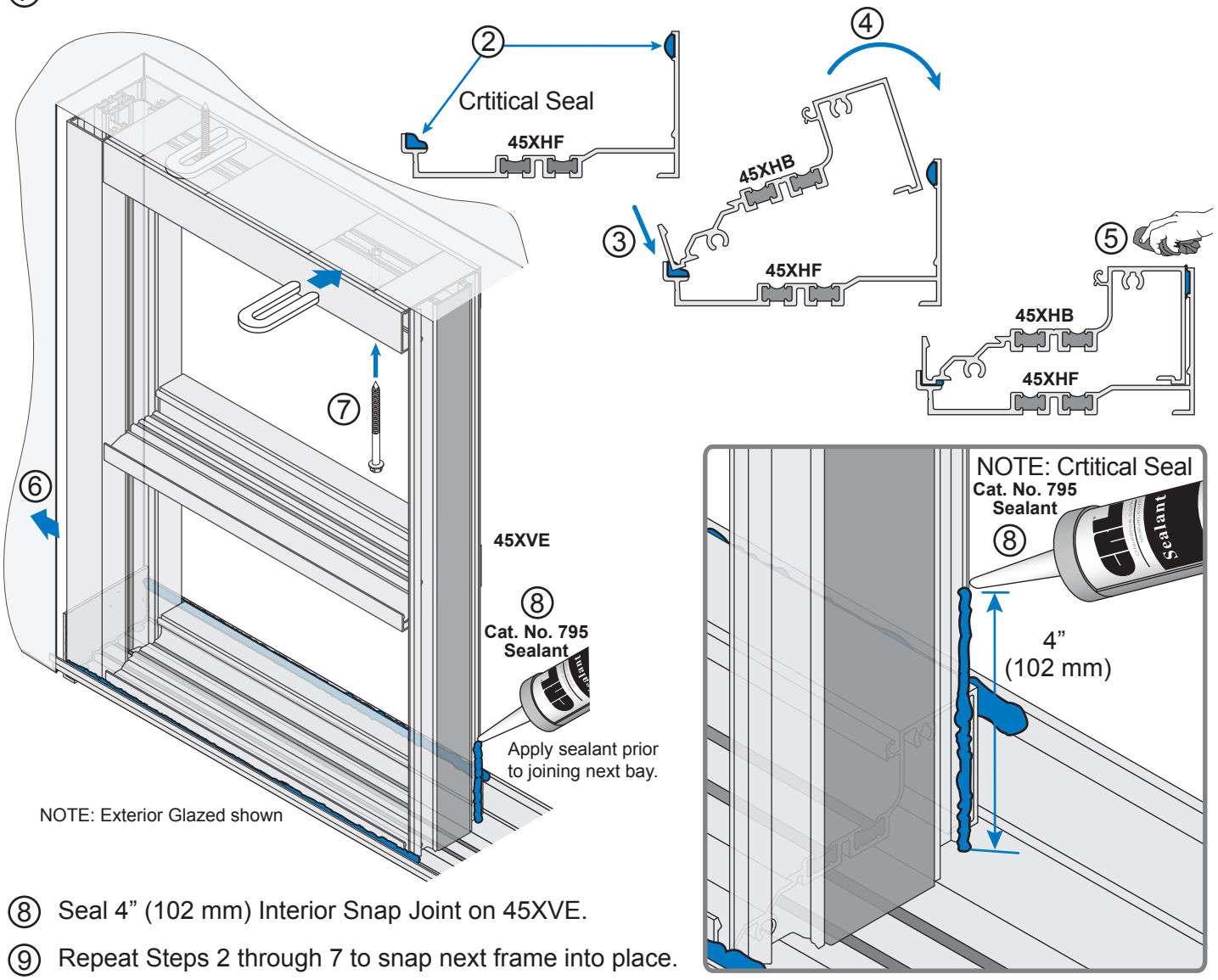
⑤ Clean excess sealant.

⑥ Push frame against wall. Shim where necessary.

⑦ Shim and fasten Head at Head Anchors.







⑧ Seal 4” (102 mm) Interior Snap Joint on 45XVE.

⑨ Repeat Steps 2 through 7 to snap next frame into place.

DOOR FRAME INSTALLATION

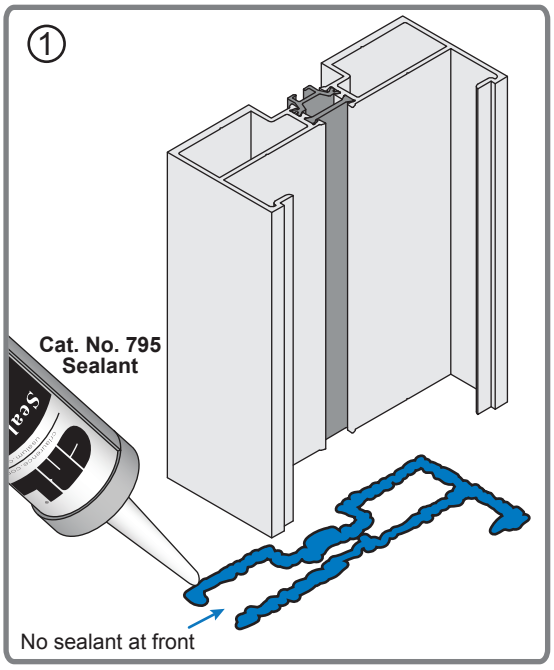
Sub Sill Preparation

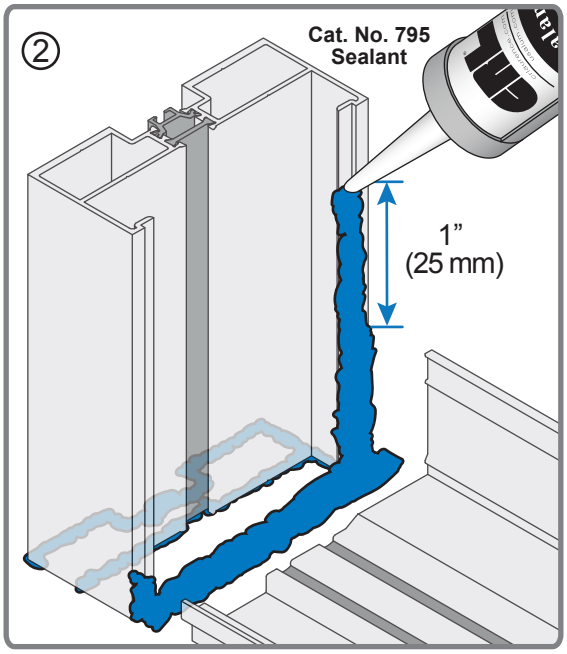
① Leave front of Door Jamb clear of sealant for drainage.

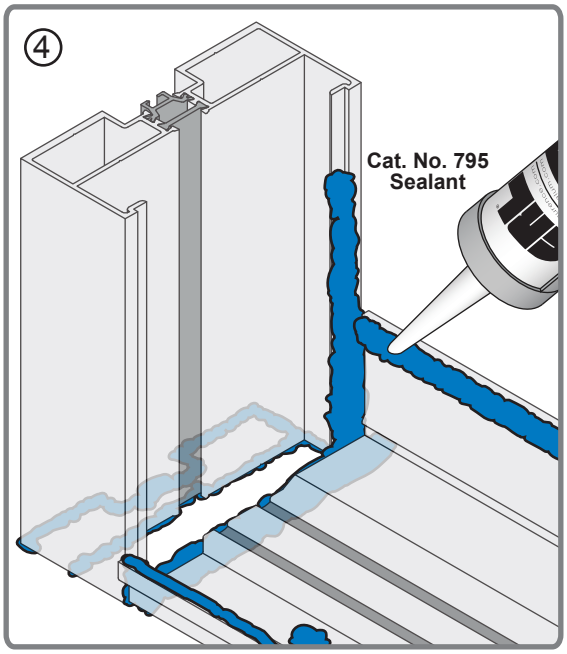
② Create bed of sealant for Sub Sill. Seal minimum of 1” above back leg of Sub Sill.

③ Refer to Page 12 to install Sub Sill.

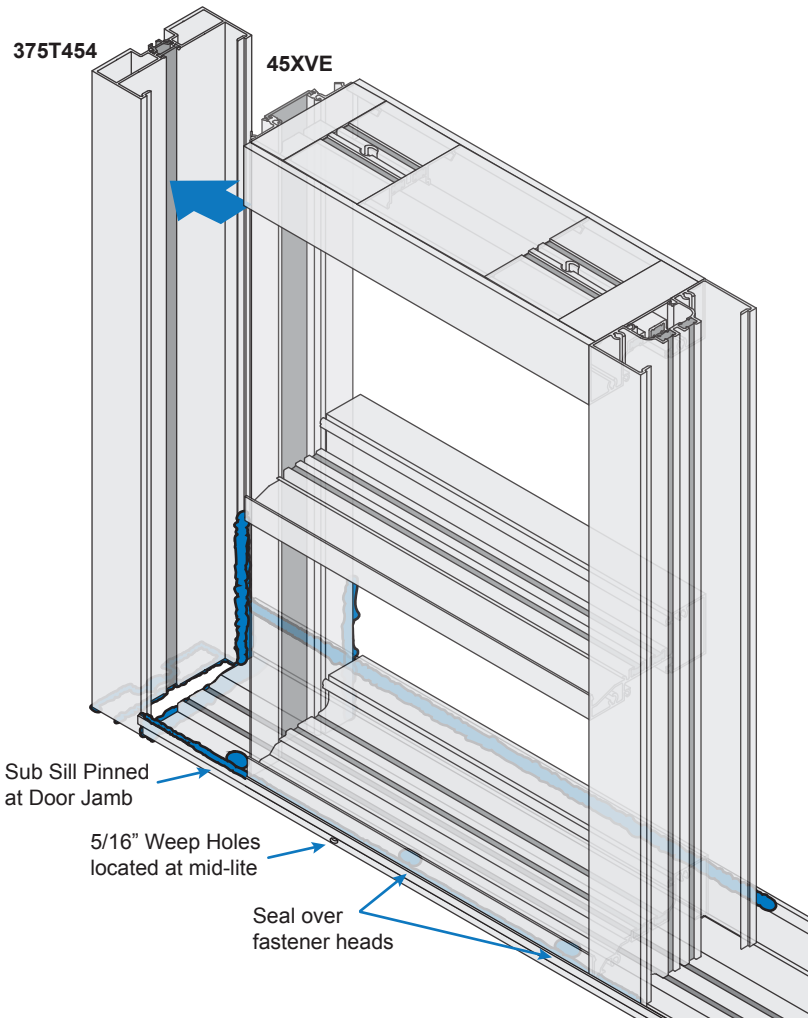
④ Apply continous sealant along Sub Sill front and back legs.







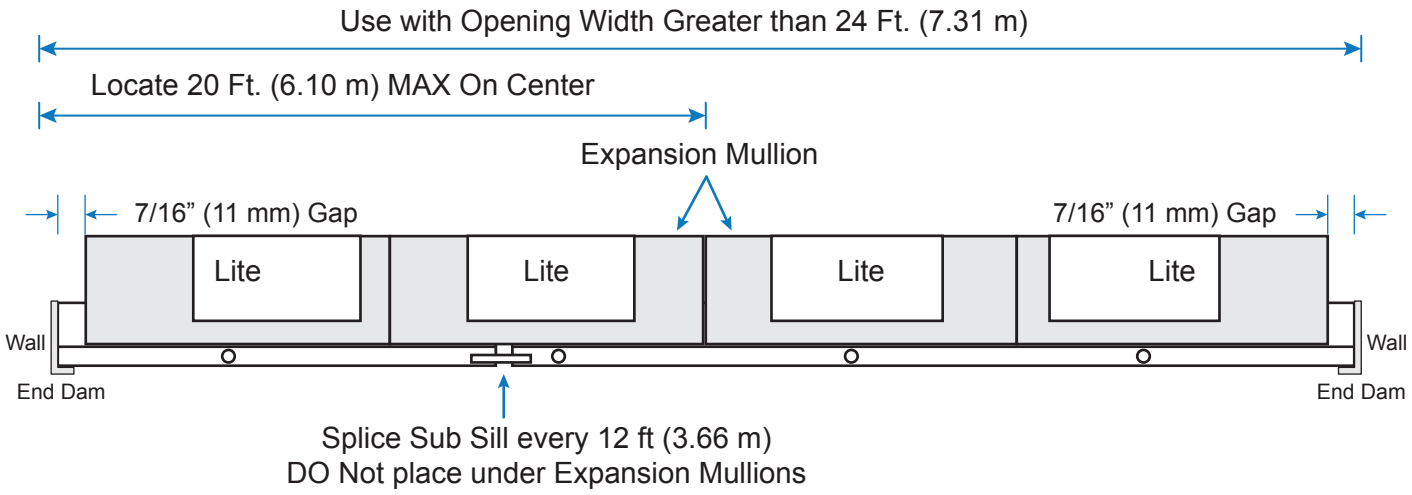
⑤ Continue with Steps 3 - 7 on Page 20 to install frame.



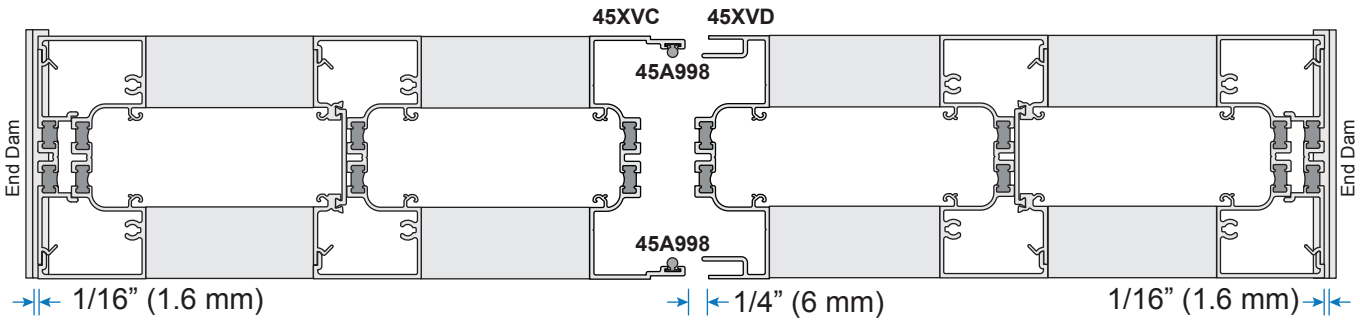
EXPANSION MULLION INSTALLATION

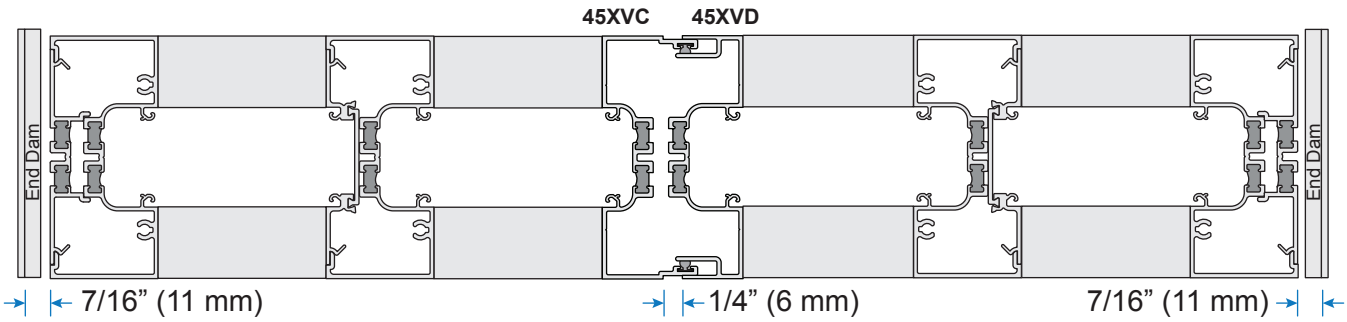
Multiple units may require the use of an Expansion Mullion if the total width of the opening exceeds 24 feet (7.31 m). In these cases, locate Expansion Mullions no greater than 20 feet (6.10 m) on center.

A minimum of 7/16" (11 mm) clearance between the Jamb and the Sub Sill End Dam must be provided to allow for frame installation when using Expansion Mullions. This will allow the minimum 3/8" (10 mm) clearance needed for the next Frame Assembly to be rotated into position and interlocked with the Frame Assembly already installed. Once in position, units should be centered into the opening to provide equal clearance at the Jambs.



NOTE: 7/16” (11 mm) gap between Jamb and End Dam is required for installation.



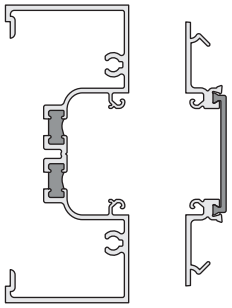


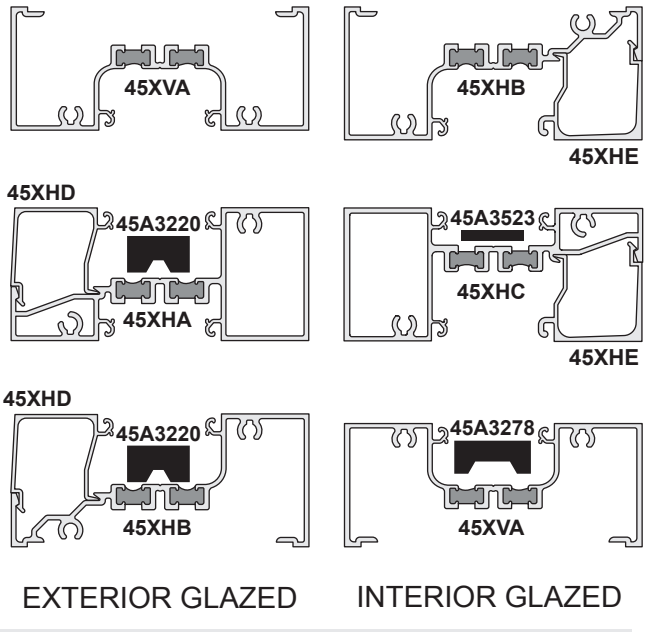
GLAZING GUIDELINES

Refer to illustrations to determine the correct combination of Gaskets and Glazing Adaptors for each glass thickness.

NOTE: 45XHA, 45XHB, 45XHC and 45XVA use Adaptors listed on the left of each glass thickness, while 45XVE Shallow Pocket use Adaptors listed on the right.

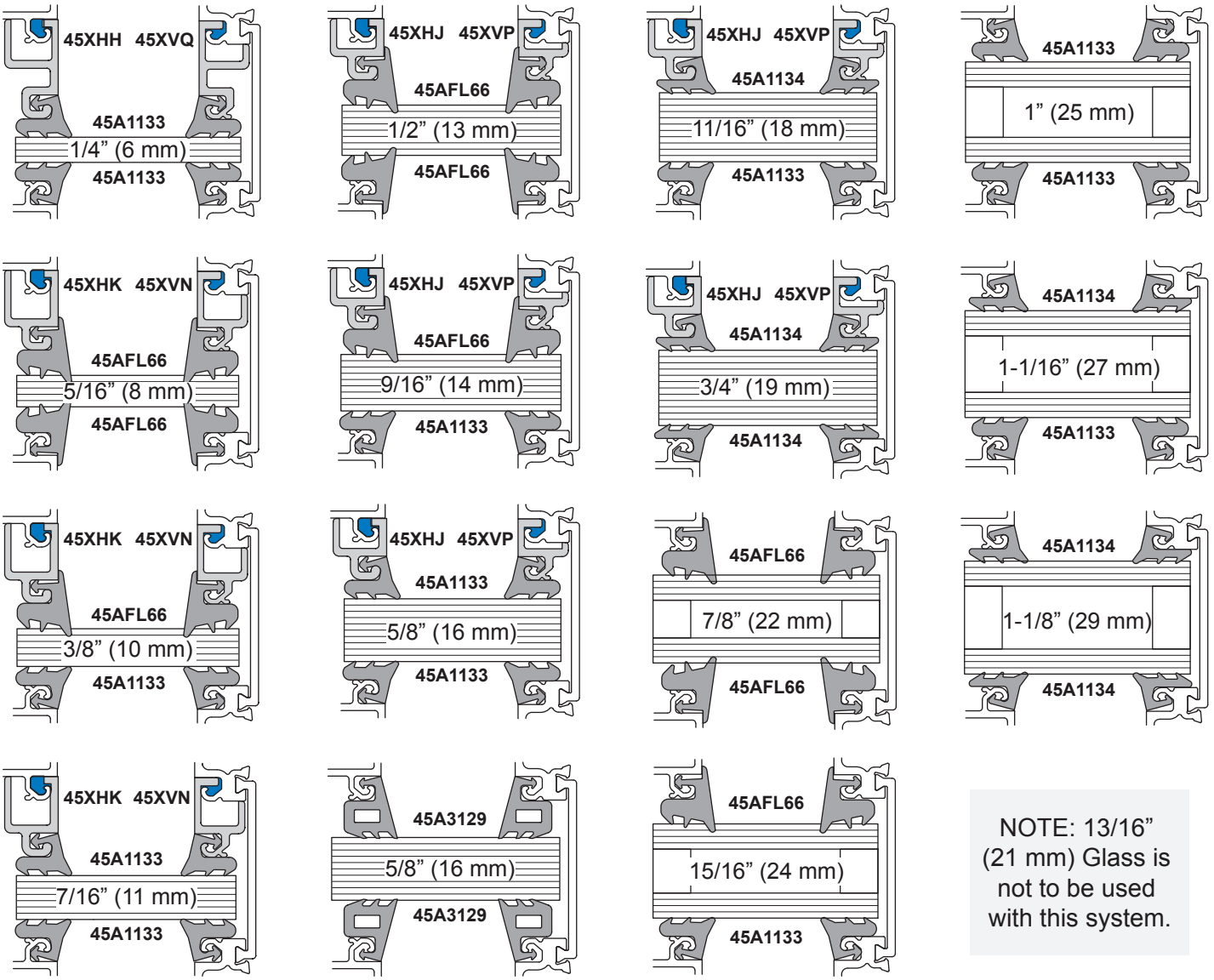
Glass Size = Daylight Opening plus 7/8" (22 mm).





EXTERIOR GLAZED

INTERIOR GLAZED



NOTE: 13/16" (21 mm) Glass is not to be used with this system.

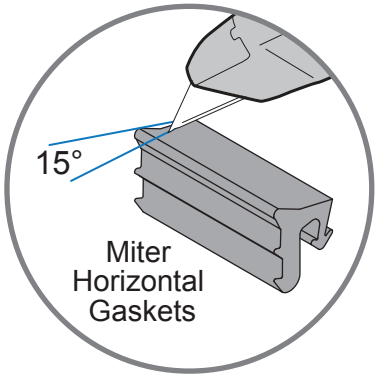
GLAZING GUIDELINES (CONTINUED)

Prepare Glazing Adaptors and Gaskets

Glazing Adaptors are installed on interior side for Exterior Glazed and on the exterior side for Interior Glazed.

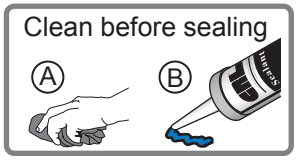
Remove Gaskets from roll and allow to relax overnight.

Prepare Gaskets:
Cut Vertical Gaskets D.L.O. plus 1” (25 mm) plus an additional 3/8" (10 mm) every Foot.
Vertical Gaskets run through.
Cut Horizontal Gaskets D.L.O. plus an additional 3/8" (10 mm) every Foot.
Horizontal Gaskets are mitered at corners and sealed to Vertical Gaskets during installation.



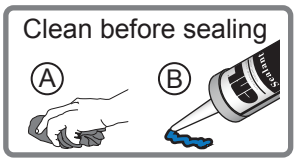
Prepare Glazing Adaptors:
Cut Vertical Adaptors D.L.O. plus 7/8” (22 mm).
Vertical Adaptors run through.
Cut Horizontal Adaptors D.L.O. minus 1/16” (2 mm).
Horizontal Adaptors are sealed to Vertical Adaptors during installation.

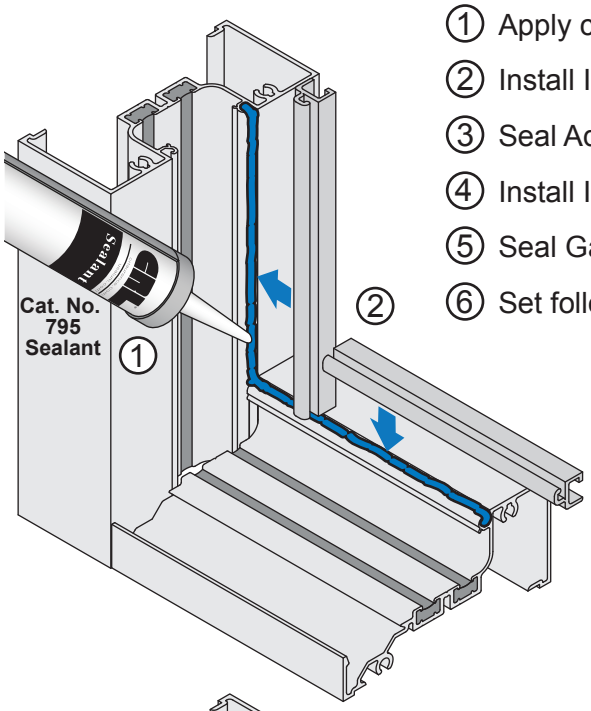
NOTE: Clean glazing reglets of debris before glazing to prevent blockage of weeps or drains.



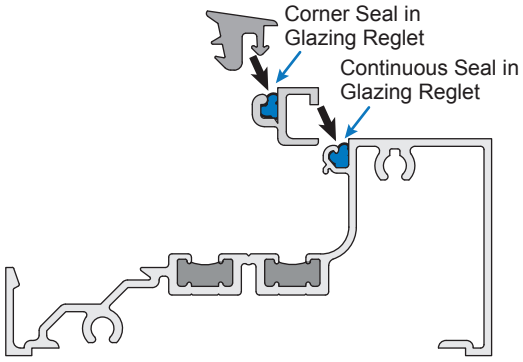
GLAZING ADAPTOR INSTALLATION

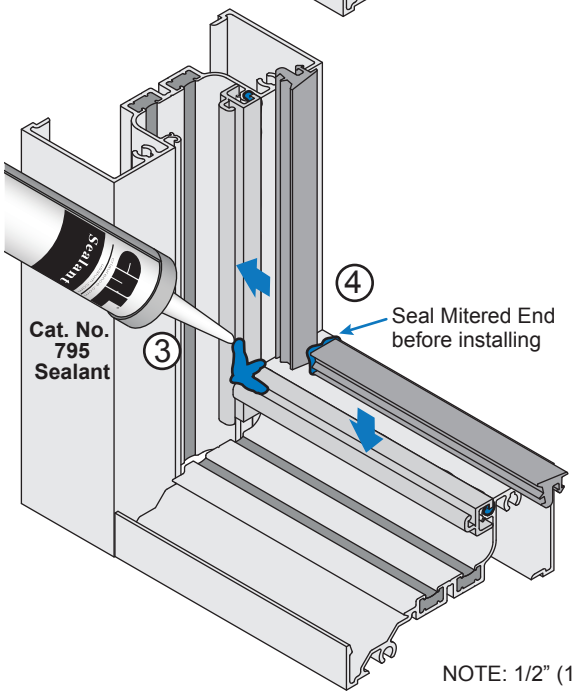
NOTE: Clean glazing reglets of debris before glazing to prevent blockage of weeps or drains.

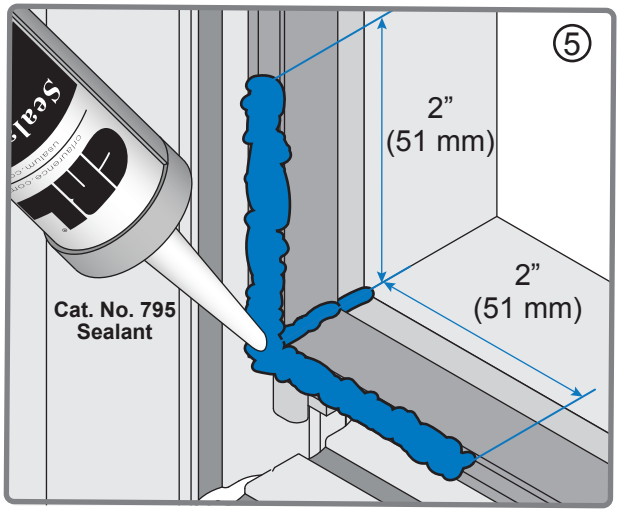




1. Apply continuous bead of sealant in Interior Glazing Reglets.
2. Install Interior Vertical Adaptor and then Interior Horizontal Adaptor.
3. Seal Adaptor Glazing Reglets at corner.
4. Install Interior Vertical Gasket and then Interior Horizontal Gasket.
5. Seal Gaskets at corner, 2” (51 mm) in each direction.
6. Set follow Steps 4 - 12 on Page 26 to set Glass.





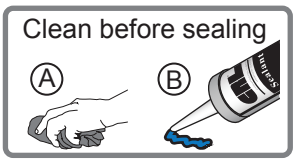


NOTE: 1/2” (13 mm) Glass with 45AFL66 Gaskets and 45XVP Adaptor Exterior Installation shown.

NOTE: Glazing Adaptors are installed on the Exterior Side for Interior Glazing.

EXTERIOR GLAZING

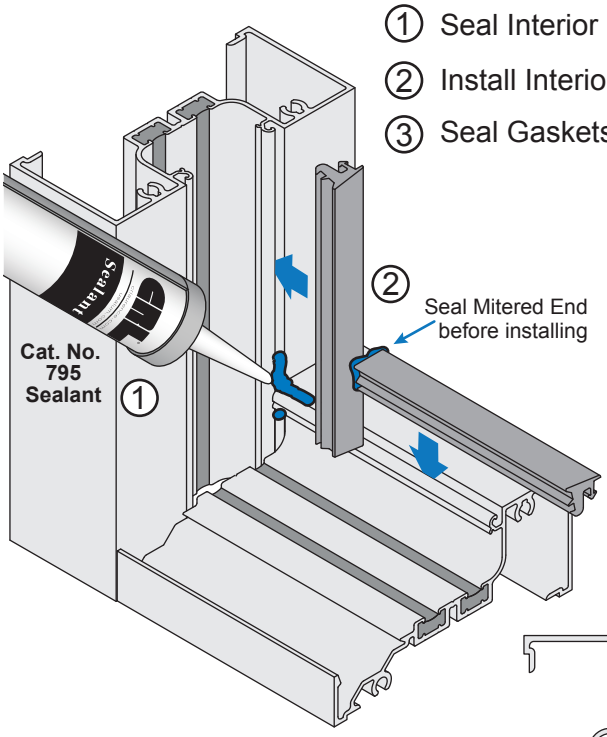
NOTE: Clean glazing pockets of debris before glazing to prevent blockage of weeps or drains.

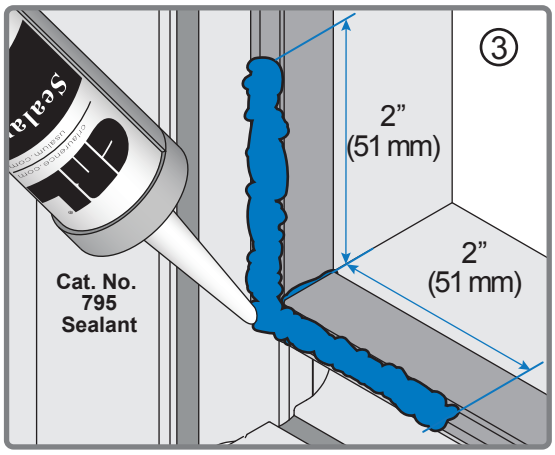


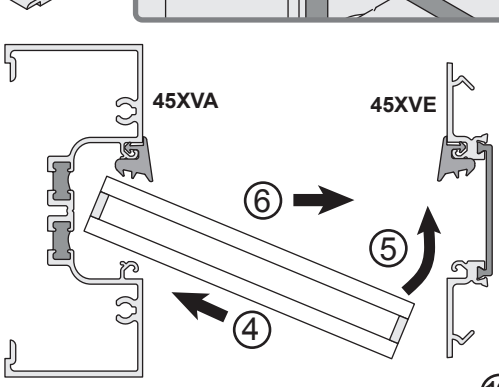
① Seal Interior Glazing Reglets at corner.

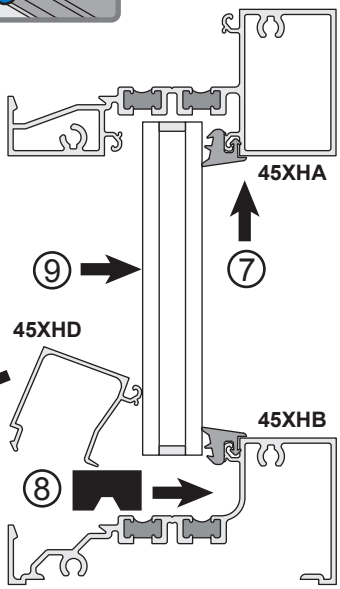
② Install Interior Vertical Gasket and then Interior Horizontal Gasket.

③ Seal Gaskets at corner, 2” (51 mm) in each direction.









④ Set Glass into Deep Pocket.

⑤ Swing Glass to plane.

⑥ Slide Glass into Shallow Pocket.

⑦ Push Glass up into Upper Glazing Pocket.

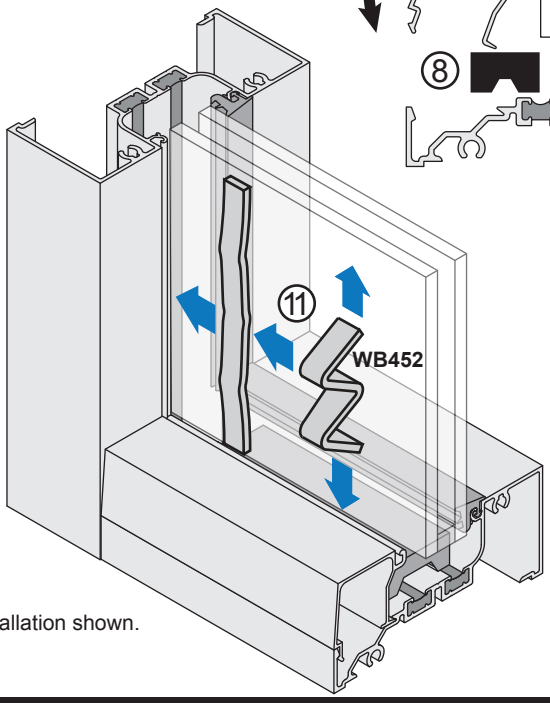
⑧ Wet top of two Setting Blocks with soapy water and install. NOTE: Check Shop Drawings for correct location.

⑨ Push Glass tight against Interior Gaskets.

⑩ Snap in Glass Stop.

⑪ Install “W” Edge Block in Deep Pocket.

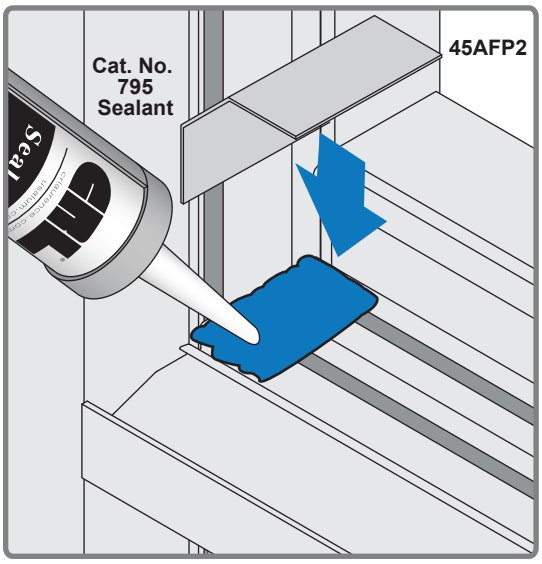
⑫ Install Exterior Gaskets using the same procedure as Step 2 above.

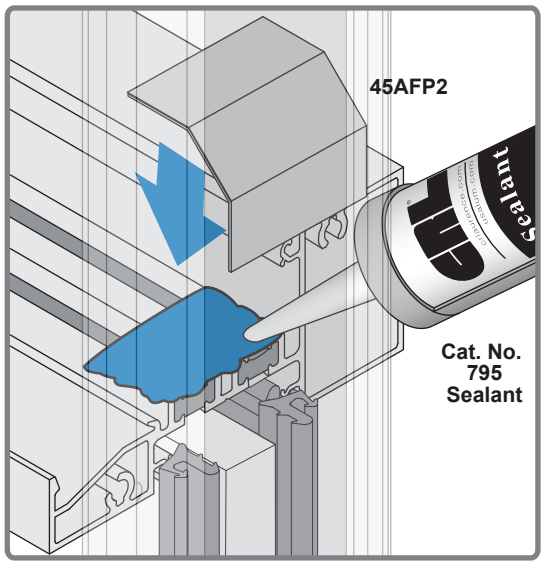


NOTE: 7/8” (22 mm) Glass with 45AFL66 Gaskets Exterior Installation shown.

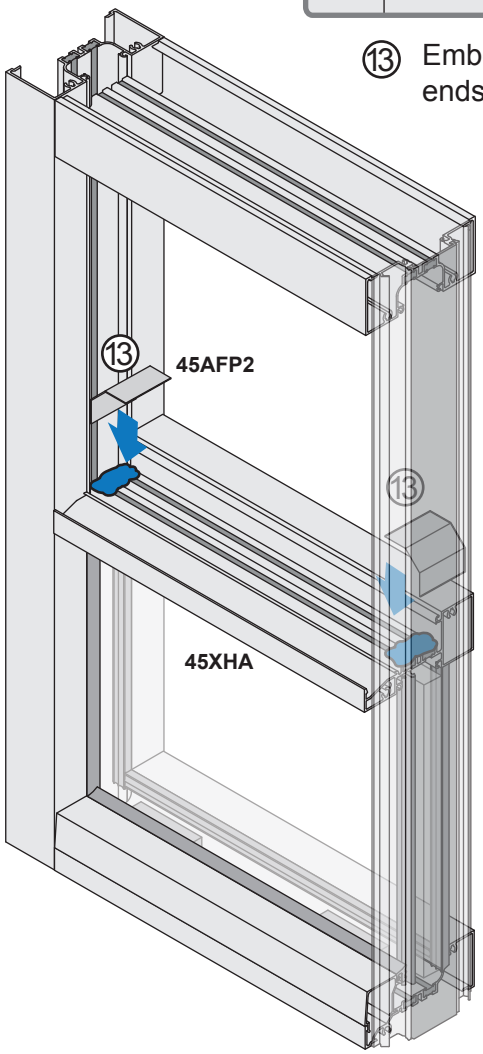
EXTERIOR GLAZING (CONTINUED)

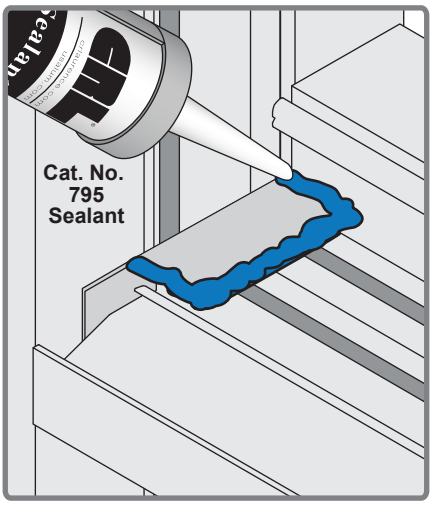
Water Deflector Placement

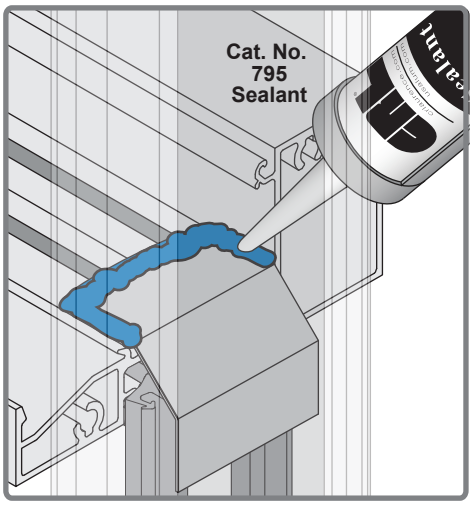




⑬ Embed 45AFP2 Water Diverter in Cat. No. 795 Silicone Sealant on both ends of 45XHA Intermediate Horizontal.







⑭ Seal around edges of Water Diverter.

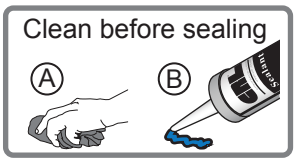
⑮ Repeat Steps 1 through 12 to install Top Lite.

EXTERIOR GLAZED

INTERIOR GLAZING

See Page 25 to prepare Gaskets. If Glazing Adaptors are required install first on exterior side. Follow instructions on Page 26.

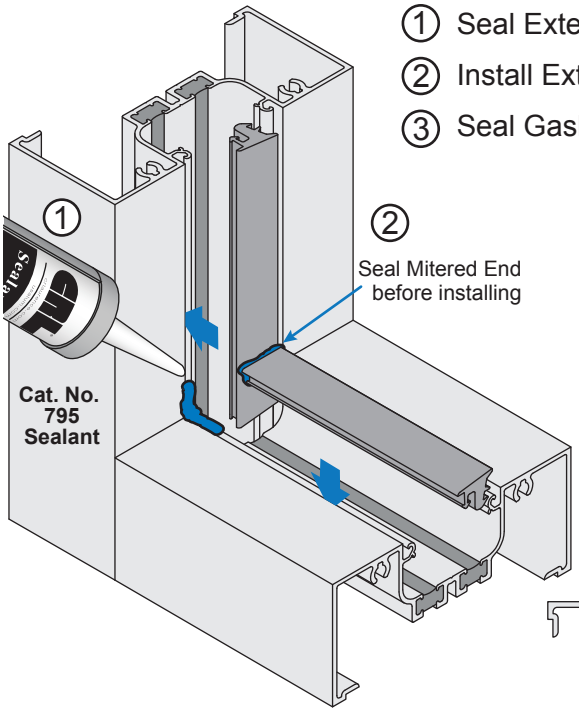
NOTE: Clean glazing pockets of debris before glazing to prevent blockage of weeps or drains.

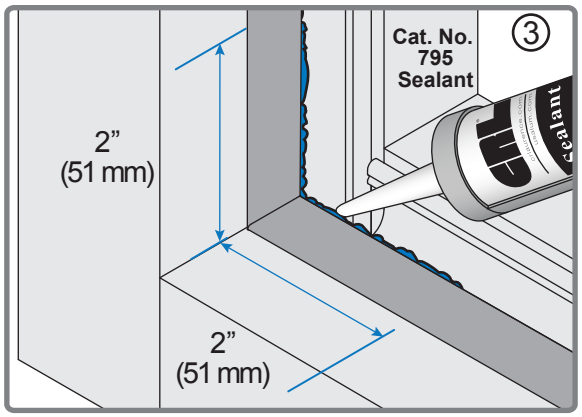


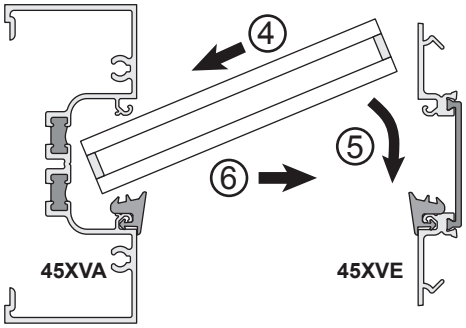
① Seal Exterior Glazing Reglets at corner.

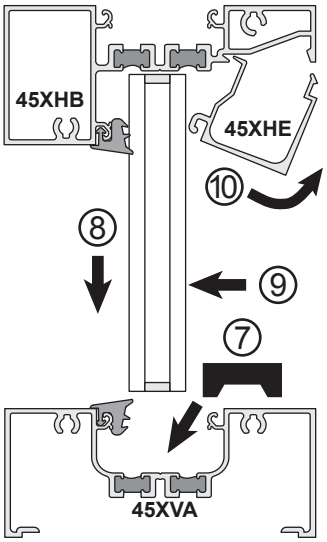
② Install Exterior Vertical Gasket and then Exterior Horizontal Gasket.

③ Seal Gaskets at corner, 2” (51 mm) in each direction.









④ Set Glass into Deep Pocket.

⑤ Swing Glass to plane.

⑥ Slide Glass into Shallow Pocket.

⑦ Wet top of two Setting Blocks with soapy water and install. NOTE: Check Shop Drawings for correct location.

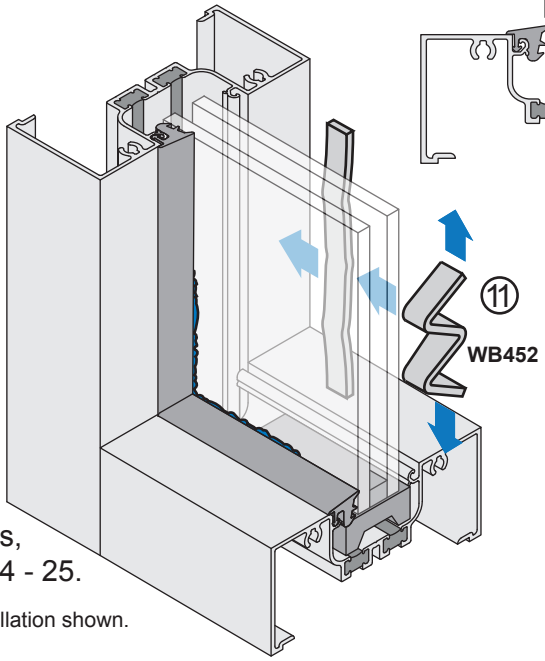
⑧ Lower Glass onto Setting Blocks.

⑨ Push Glass tight against Exterior Gaskets.

⑩ Snap in Glass Stop.

⑪ Install “W” Edge Block in Deep Pocket.

⑫ Install Interior Gaskets using the same procedure as Step 2 above.

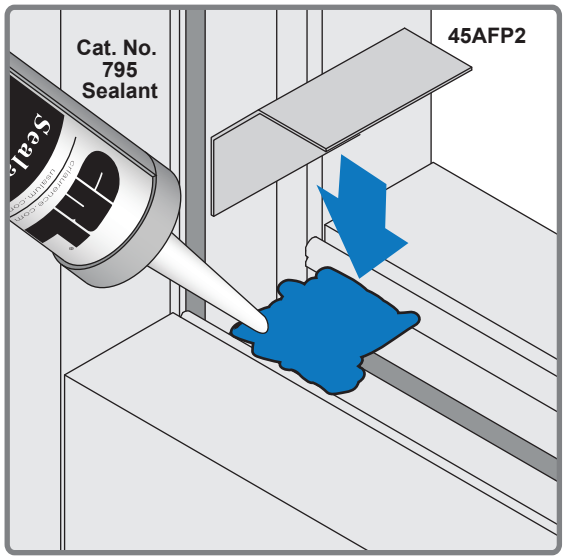


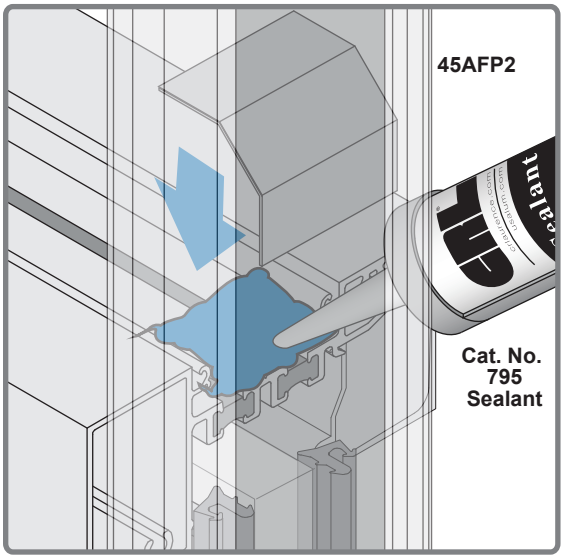
NOTE: If Glass thickness calls for Glazing Adaptors, install them on the Exterior Side first. See Pages 24 - 25.

NOTE: 7/8” (22 mm) Glass with 45AFL66 Gaskets Interior Installation shown.

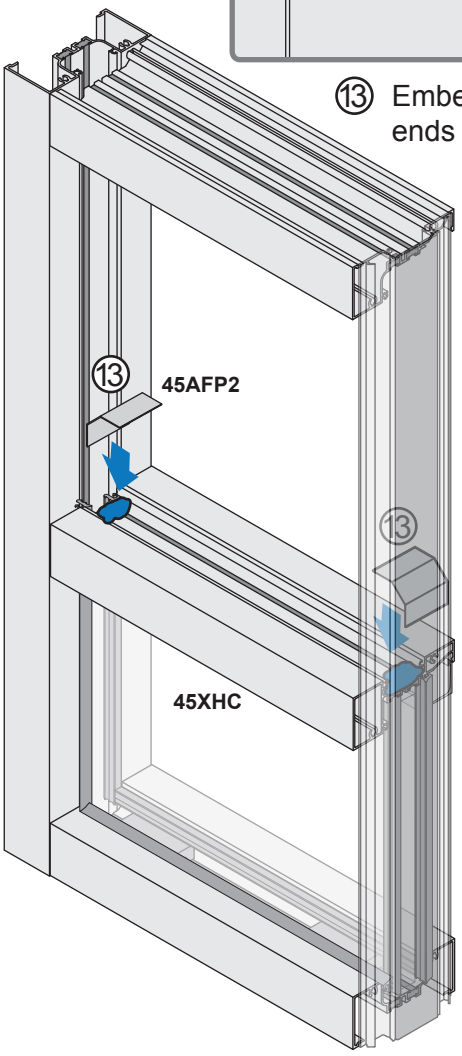
INTERIOR GLAZING (CONTINUED)

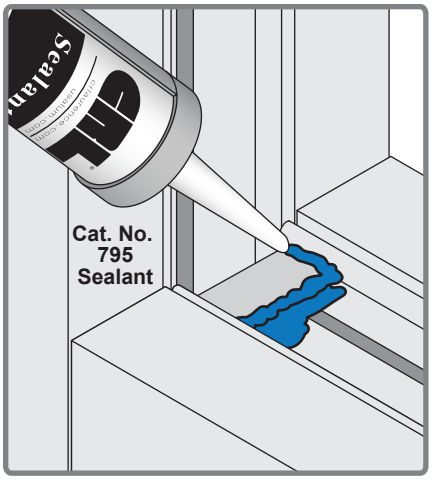
Water Deflector Placement

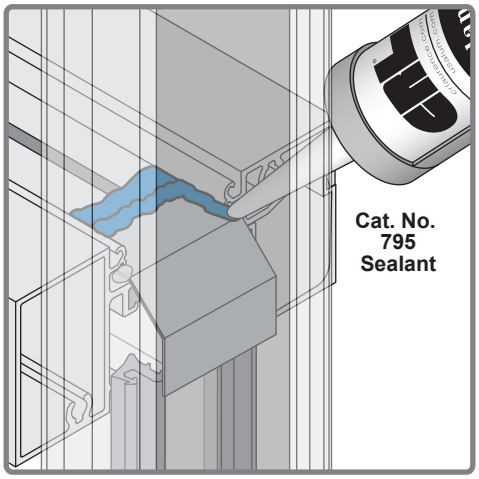




⑬ Embed 45AFP2 Water Diverter in Cat. No. 795 Silicone Sealant on both ends of 45XHC Intermediate Horizontal.







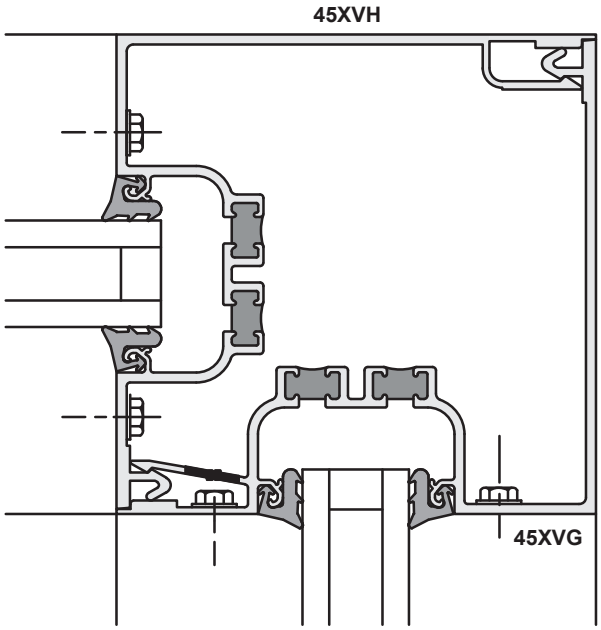
⑭ Seal around edges of Water Diverter.

⑮ Repeat Steps 1 through 12 to install Top Lite.

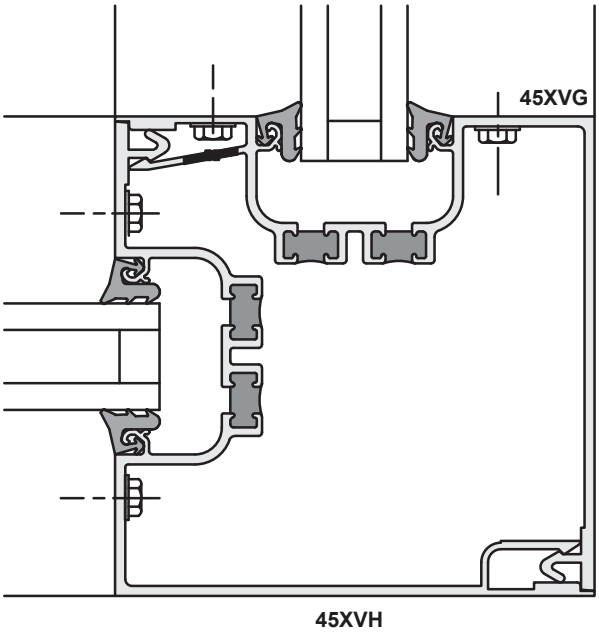
INTERIOR GLAZED

CORNER OPTIONS

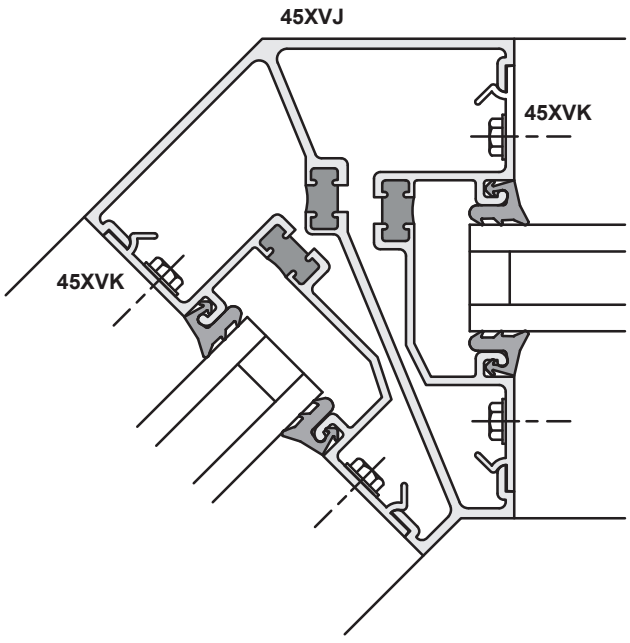
Head Channel and Sub Sill to be mitered as required and pinned at each side of corner.



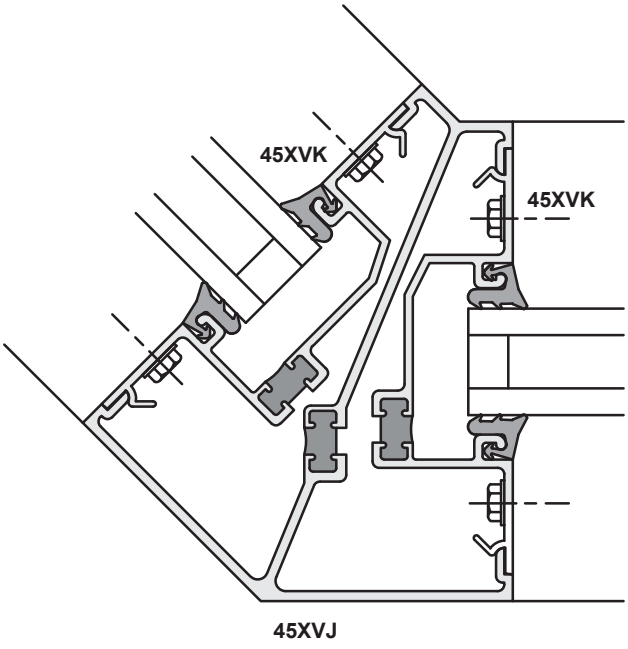
INSIDE 90 DEGREE CORNER



OUTSIDE 90 DEGREE CORNER



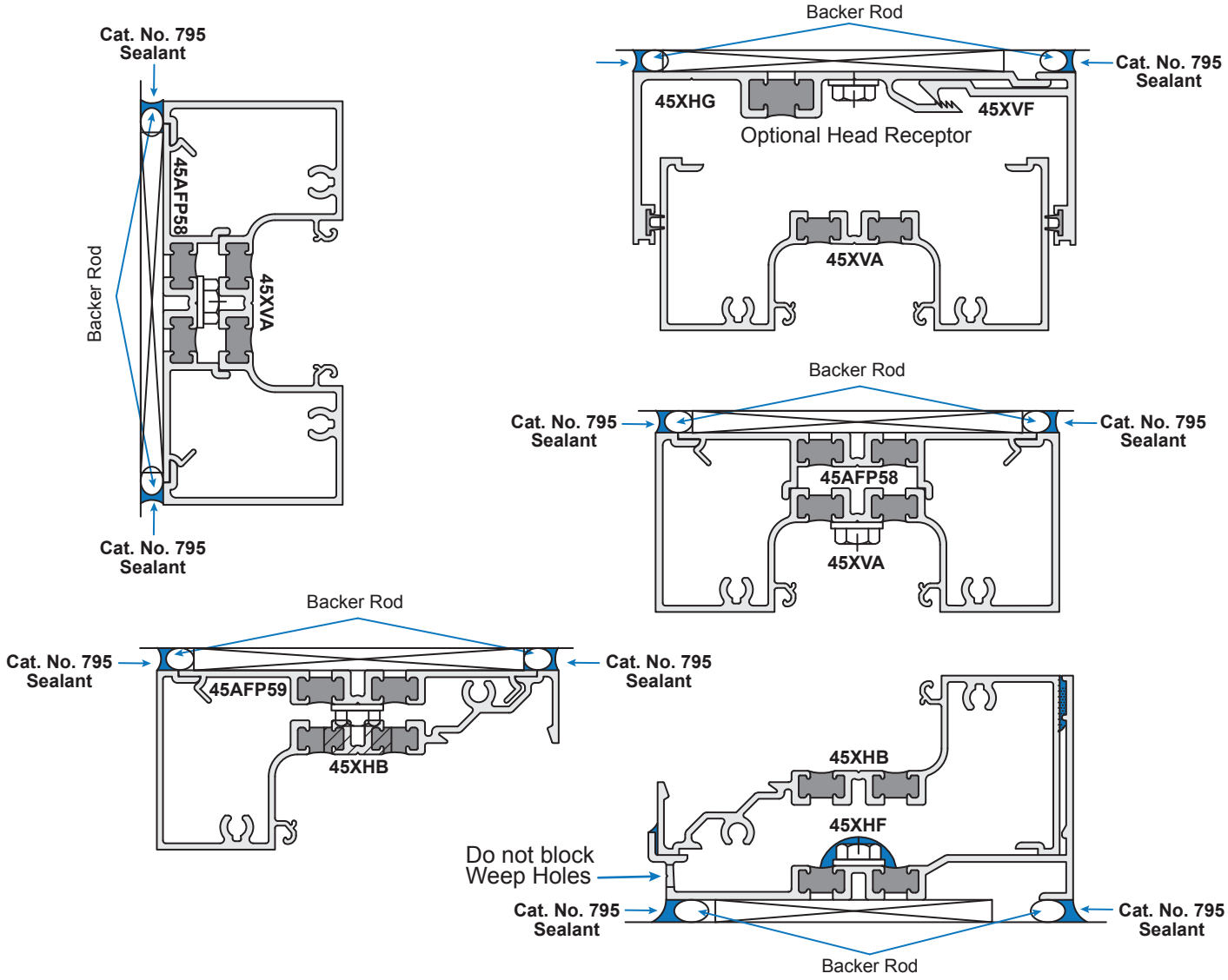
INSIDE 135 DEGREE CORNER



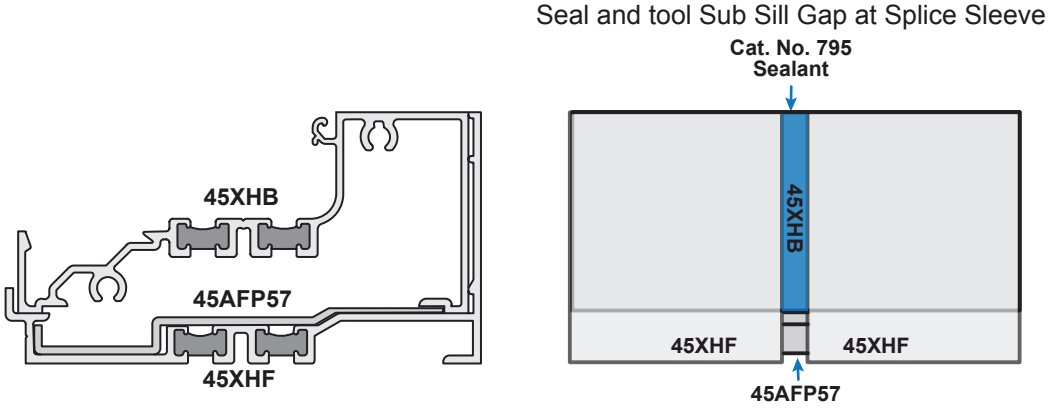
OUTSIDE 135 DEGREE CORNER

PERIMETER SEALING

Install Backer Rod and seal perimeter with Cat. No. 795 Silicone Sealant.



Seal and tool Sub Sill Gap at Splice Sleeve with Cat. No. 795 Silicone Sealant.



NOTE: The quality of Perimeter Seals may be improved by using 45XFA PVC Filler Plate between 45AFP58 and 45AFP59 Anchor Plates.