INSTALLATION INSTRUCTIONS

ENTICE SERIES CLEAR FIN ENTRANCE SYSTEM EXTERIOR GLAZE





Phone: (800) 421-6144 • Fax: (800) 582-7501 crlaurence.com • usalum.com • crl-arch.com

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.

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.

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. Install operable windows preglazed only.
- 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.
- 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. 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.)
- 12. 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.



ENTICE SERIES CLEAR FIN ENTRANCE SYSTEMS EXTERIOR GLAZE

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FABRICATION CALCULATIONS

FABRICATION DEDUCTIONS:

Wall Jamb

Intermediate Vertical Mullion

Doorway Jamb

Sub Sill

Top Anchor Track and Sidelite Rail (Wall to Doorway)

Top Anchor Track and Sidelite Rail (Wall to Wall)

R.O. Height Minus 1-3/32" (27.8 mm)

R.O. Height Minus 9-13/32" (238.9 mm)

R.O. Height Minus 1/2" (12.7 mm)

R.O. Width Minus 1/2" (12.7 mm)

Minus 2-5/8" (66.7 mm)

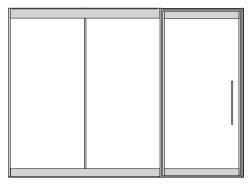
Minus 3" (76.2 mm)

DOOR SIZE:

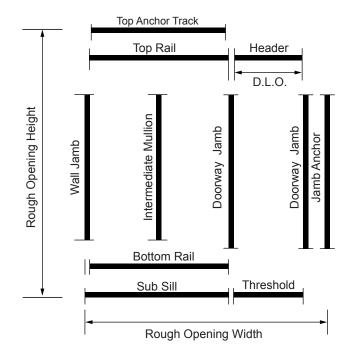
Door Height with Standard Header and Threshold Door Height with Recessed Flush Header (for Overhead Closer) and Threshold Door Width R.O. Height Minus 1-5/16" (33.3 mm)

R.O. Height Minus 27/32" (21.4 mm)

D.L.O. Minus 1/4" (6.4 mm)



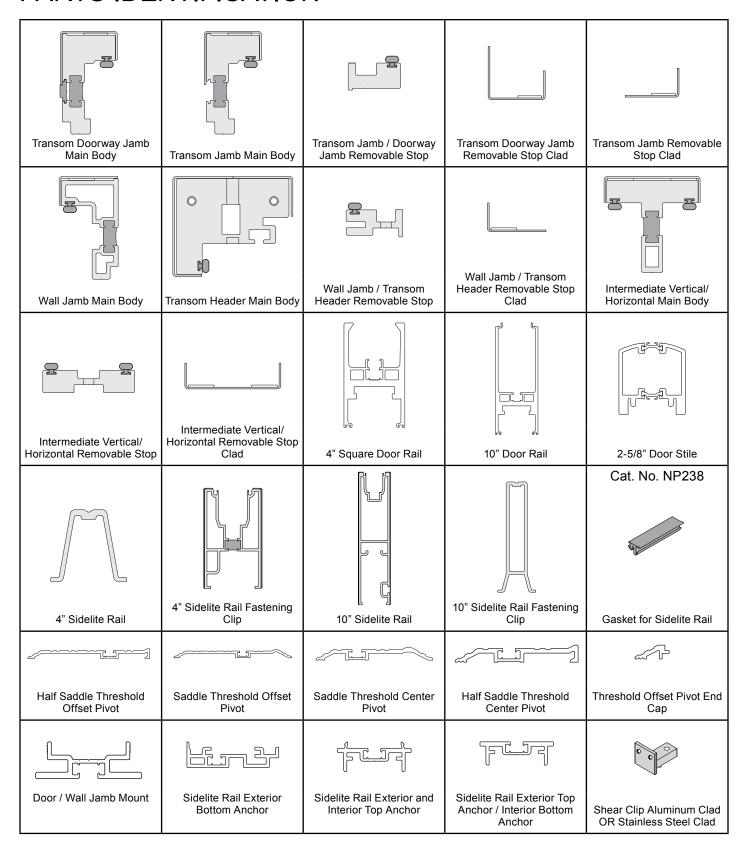
Door with Sidelite and Fixed Lite



NOTE: R.O. = Rough Opening

D.L.O. = Daylight Opening

PARTS IDENTIFICATION



For replacement parts, please contact Technical Sales at (800) 582-7501.

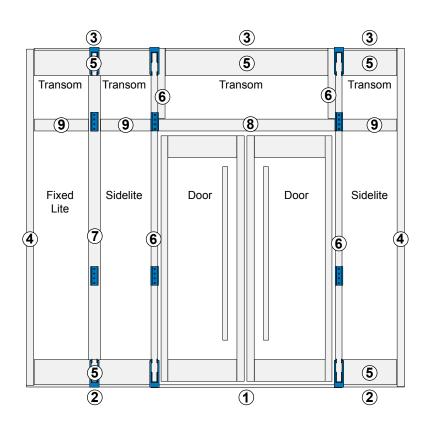


PARTS IDENTIFICATION (CONTINUED)

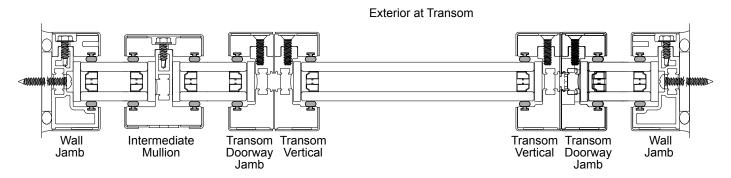


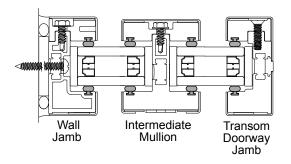
For replacement parts, please contact Technical Sales at (800) 582-7501.

CLEAR FIN TRANSOM DOOR INSTALLATION

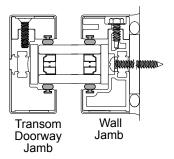


Clear Fin Transom Door			
	Installation Order		
1	Threshold	Page 10	
2	Subsill	Page 11	
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4	Wall Jambs	Page 13	
5	Top and Bottom Rails	Page 14	
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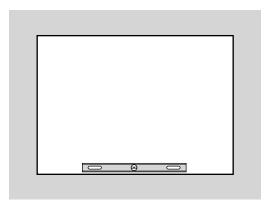


Exterior at Door

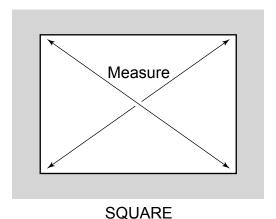


SITE PREPARATION

- 1. Review and measure the opening.
- 2. Verify rough window opening size 1/2" (12.7) clearance in both width and height to the window. Verify framing is plumb, straight, and true around window opening. Measure opening at each end and at center vertically and horizontally. Make corrections to openings as required. Measure opening diagonally to check squareness. Chip concrete high points to flush and rounded corners to square.

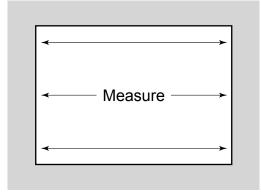


LEVEL



Measure

VERTICAL DIMENSION



HORIZONTAL DIMENSION

THRESHOLD INSTALLATION

- 1. Determine the perimeter centerline of the opening and location of the bottom door spindle from the shop drawings.
- 2. Install the cement box and closer if applicable.
- 3. Apply a continuous bead of **Cat. No. 33S** Sealant to the floor substrate around the perimeter line below the threshold. Leave two weep gaps for water drainage and set threshold while sealant is wet.
- 4. Fasten the threshold to the floor with the appropriate fasteners as specified in the engineering requirements. Cover fastener heads with **Cat. No. 33S** Sealant.

NOTE: For installations with doors, the threshold must be installed first to determine the location of the other components.

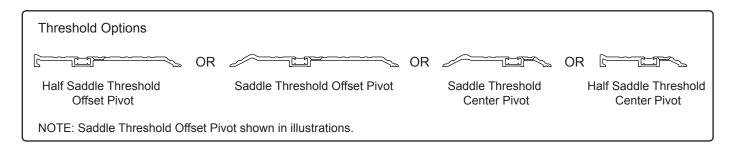
Threshold is notched on each end for Doorway Jambs that run through.

Centerline

Closer

Drainage gaps in sealant

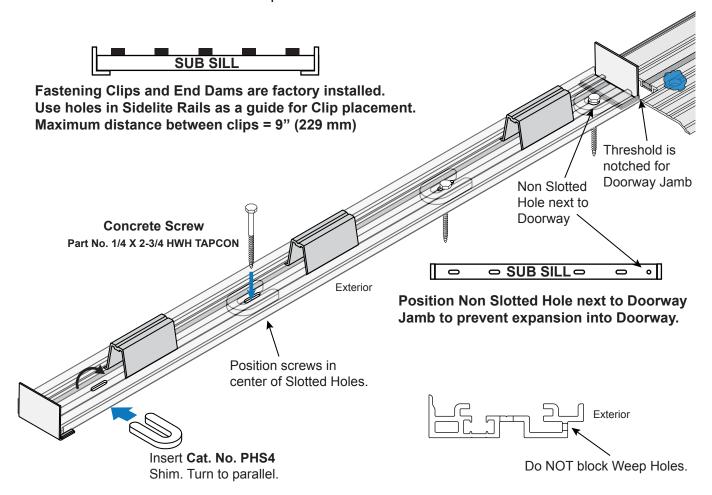
Exterior



SUB SILL TRACK INSTALLATION

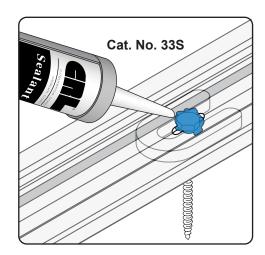
NOTE: Sub Sills are shipped with Fastening Clips installed in the track and End Dams sealed at each end.

1. Shim at each screw with Cat. No. PHS4 Horseshoe Shims turned parallel to Sub Sill. Position screws in center of slotted hole to allow for expansion.



2. Seal over screw heads with Cat. No. 33S Sealant.

NOTE: Do NOT block Weep Holes in Sub Sill.

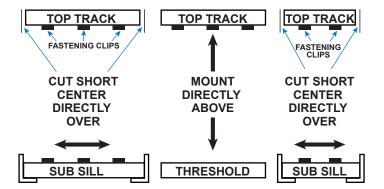




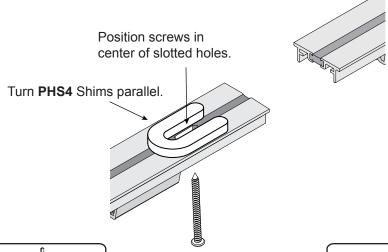
TOP TRACK INSTALLATION

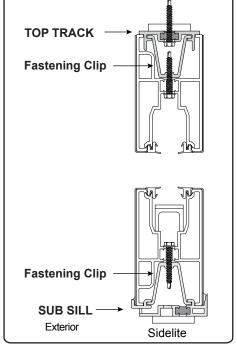


Fastening Clips must be installed before Sidelite Rails. Use holes in Sidelite Rails as a guide for placement. Maximum distance between clips = 9" (229 mm)

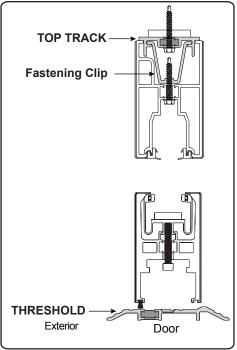


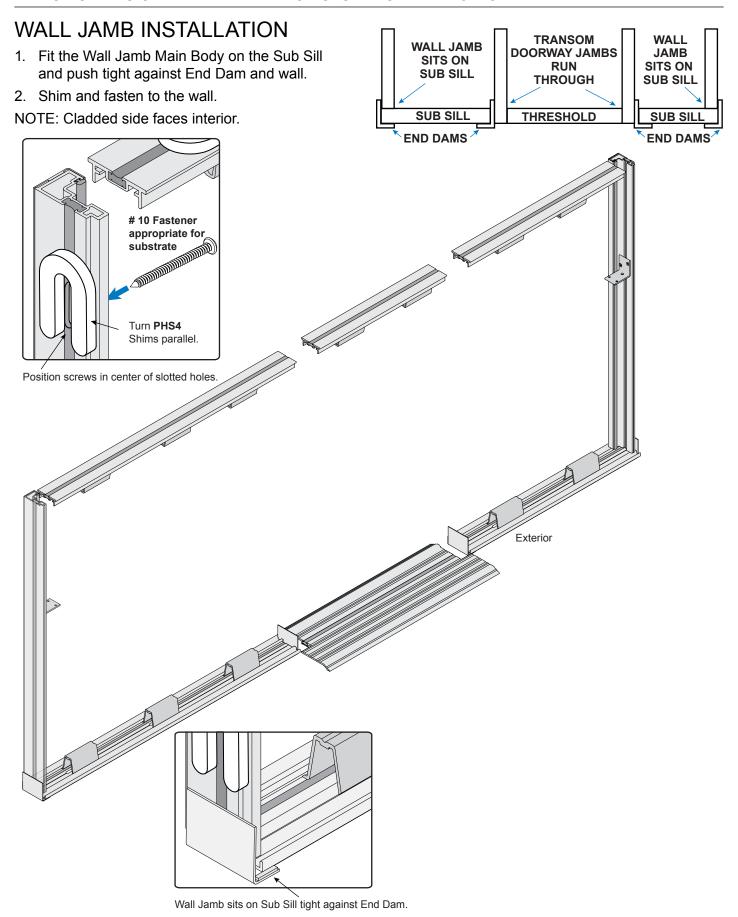
- 1. Level and mount Header directly above Threshold.
- 2. Slide Fastening Clips into each top track. Mount track directly above Sub Sill. Secure with screws centered in slots.

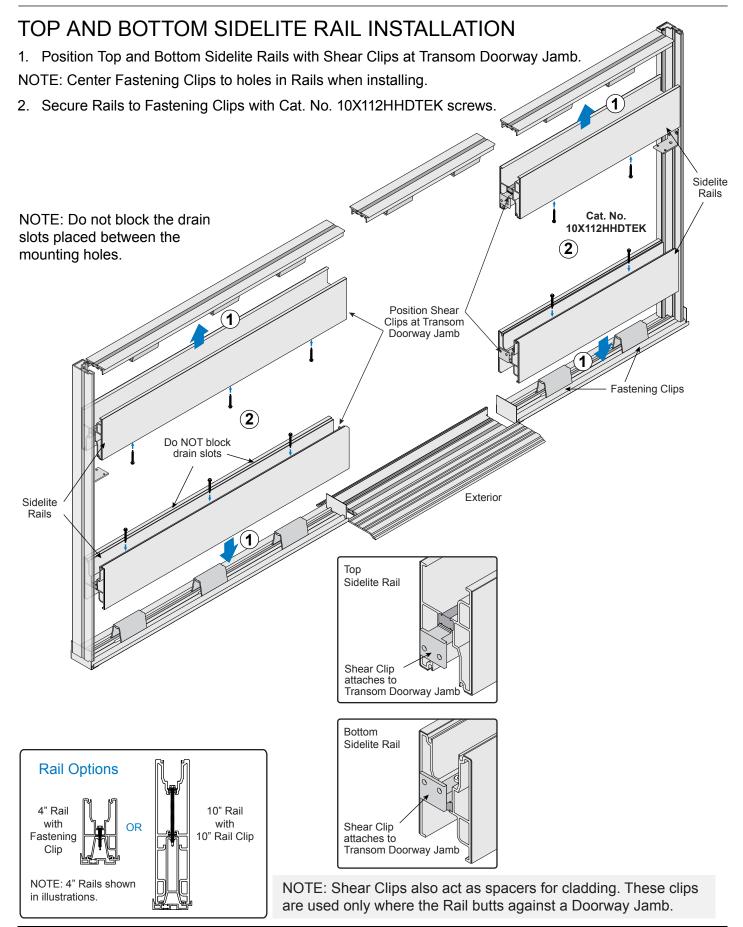


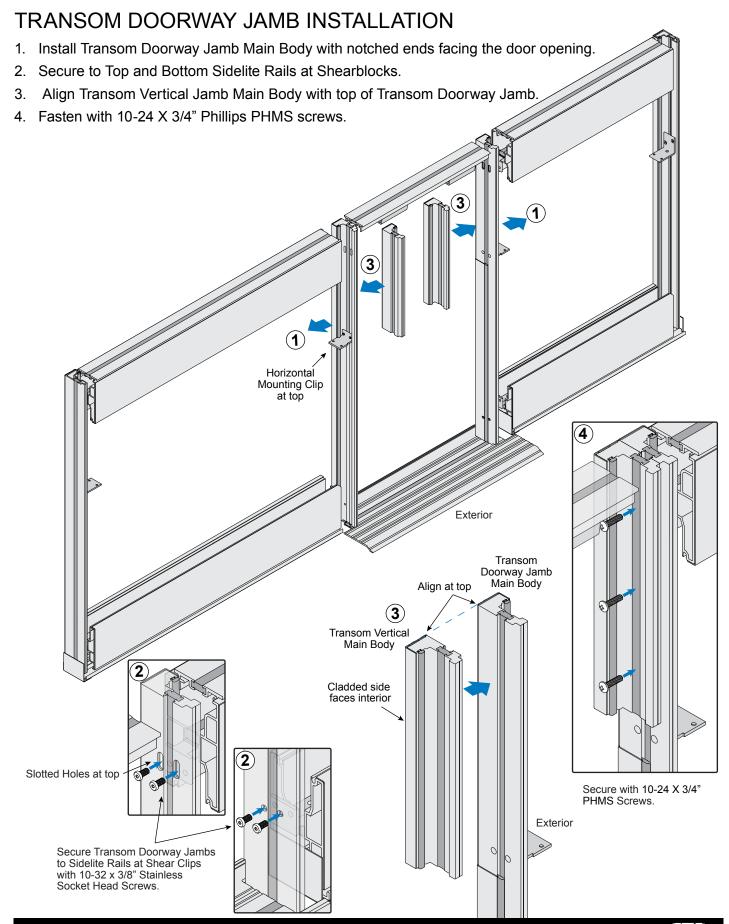


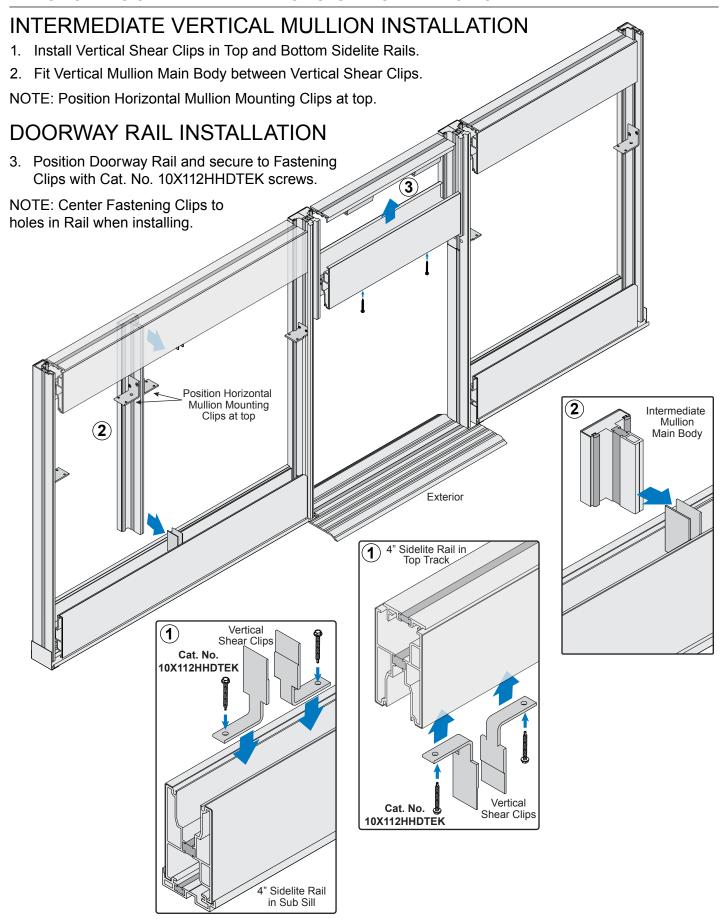
10 Fastener appropriate for substrate







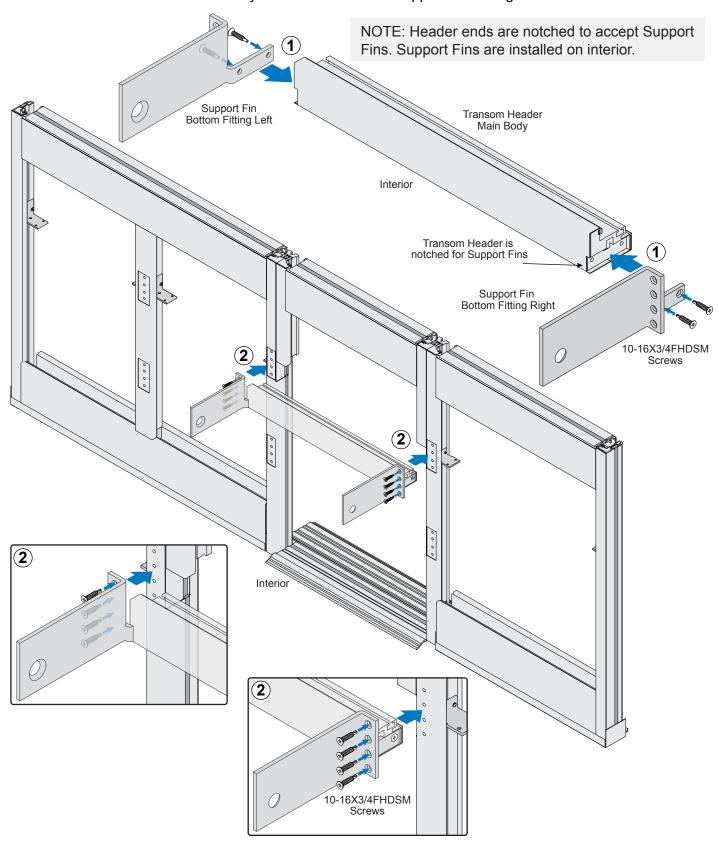


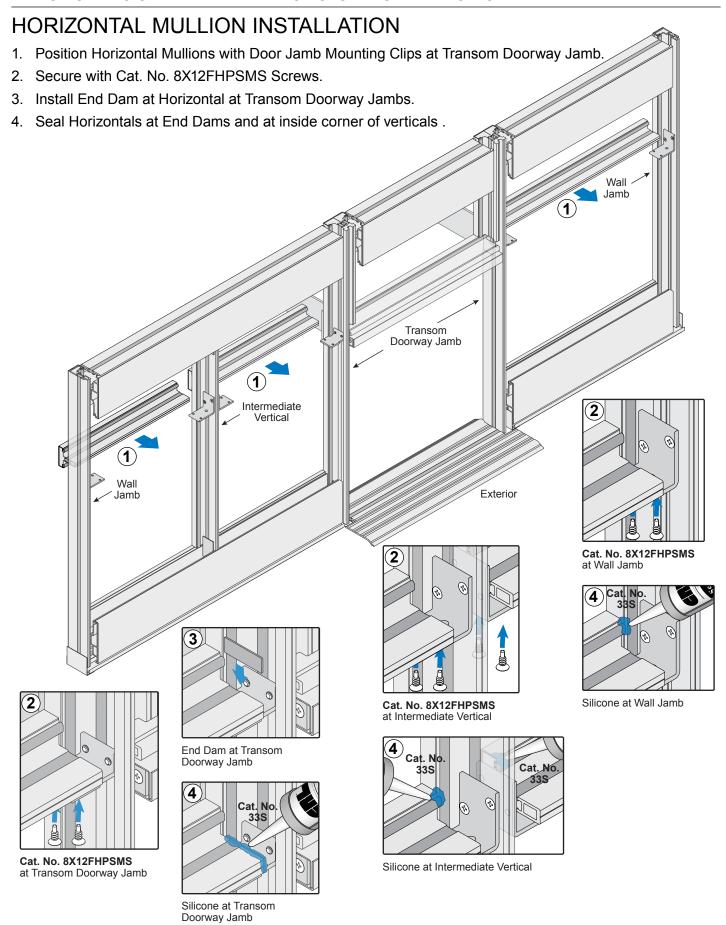


LEFALUMINUM

TRANSOM HEADER INSTALLATION

- 1. Attach Left and Right Support Fin Bottom Fittings to each end of Transom Header Main Body.
- 2. Match holes on Transom Doorway Jambs with holes of Support Fin Fitting and secure with screws.

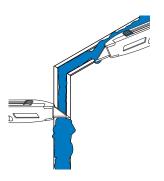




USALUMINUM

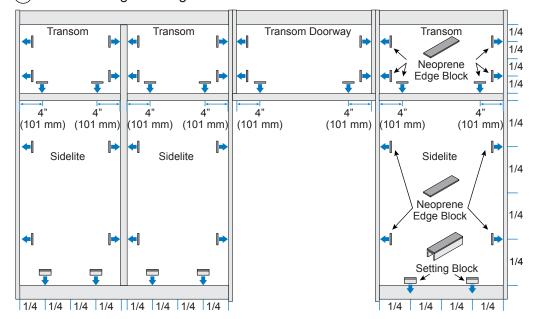
SIDELITE AND TRANSOM GLASS INSTALLATION

1 Prepare Glass Panels.

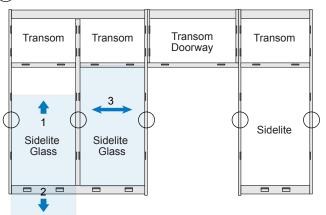


Trim edges of the glass at face and sides with a sharp utility knife to remove any excess Silicone Sealant.

(2) Install Setting and Edge Blocks.



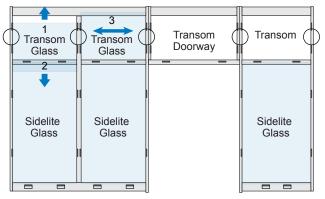
(3) Install Sidelite Glass.



1/2" (5 mm) Minimum Glass Bite CRITICAL

Lift and set each Sidelite Glass panel into Bottom Rail. Center between verticals with at least 1/2" (5 mm) Glass Bite on each side.

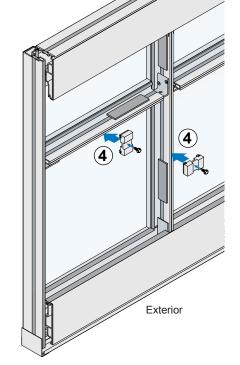
(5) Install Transom Glass.



1/2" (5 mm) Minimum Glass Bite CRITICAL

(4) Install Temporary Glass Stops.

Cut Horizontal Mullion Removeable Glass Stop into 1" (25 mm) sections to use as Temporary Glass Stops. Attach as needed with Cat. No. 20092003 screws.

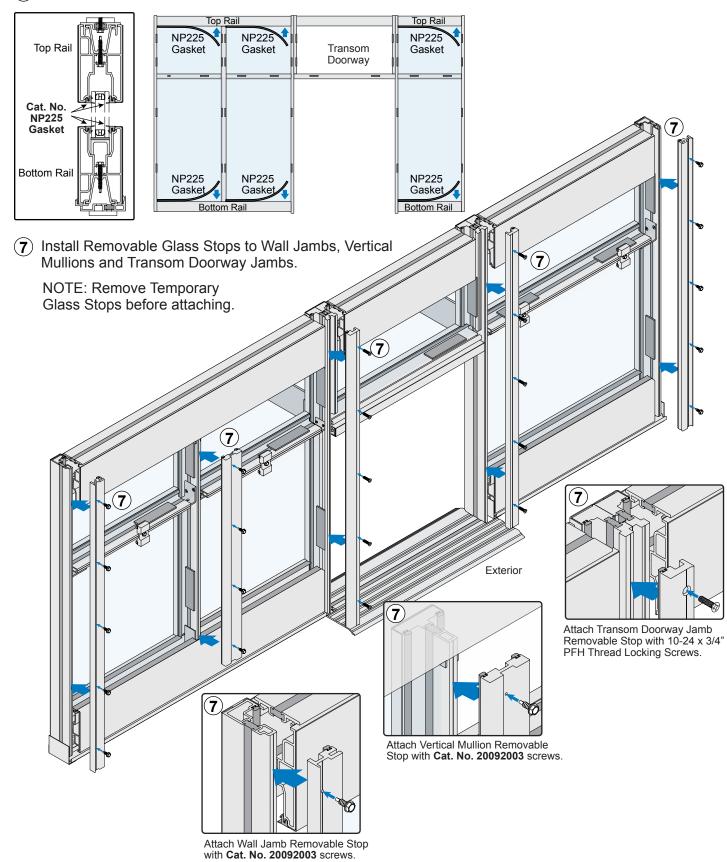


Lift Transom Glass panel into Top Rail and set on Horizontal Mullion. Center between verticals with at least 1/2" (5 mm) Glass Bite on each side.

19 SIL

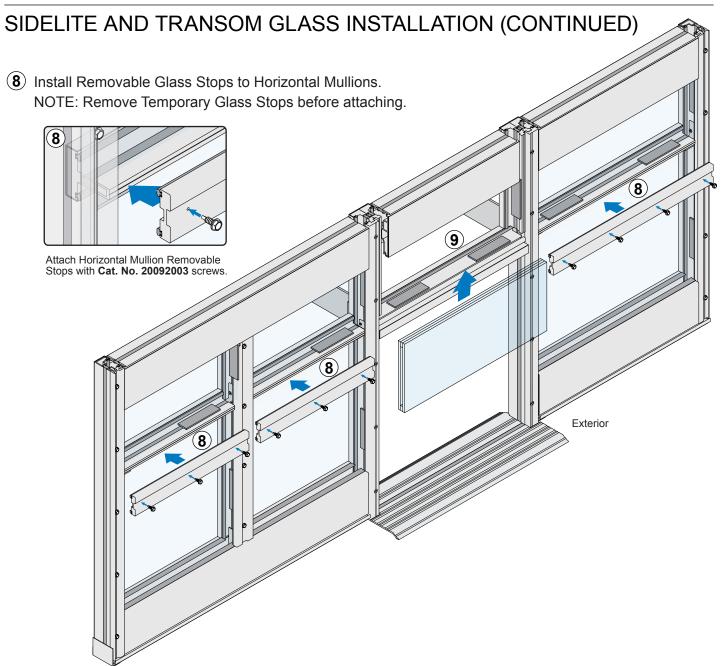
SIDELITE AND TRANSOM GLASS INSTALLATION (CONTINUED)

6 Role NP225 Gaskets in both sides of Top and Bottom Rails.



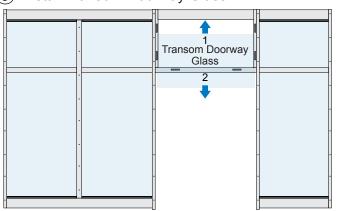
GRL

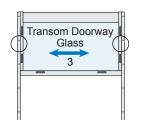
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TRANSOM DOORWAY GLASS INSTALLATION

(9) Install Transom Doorway Glass.

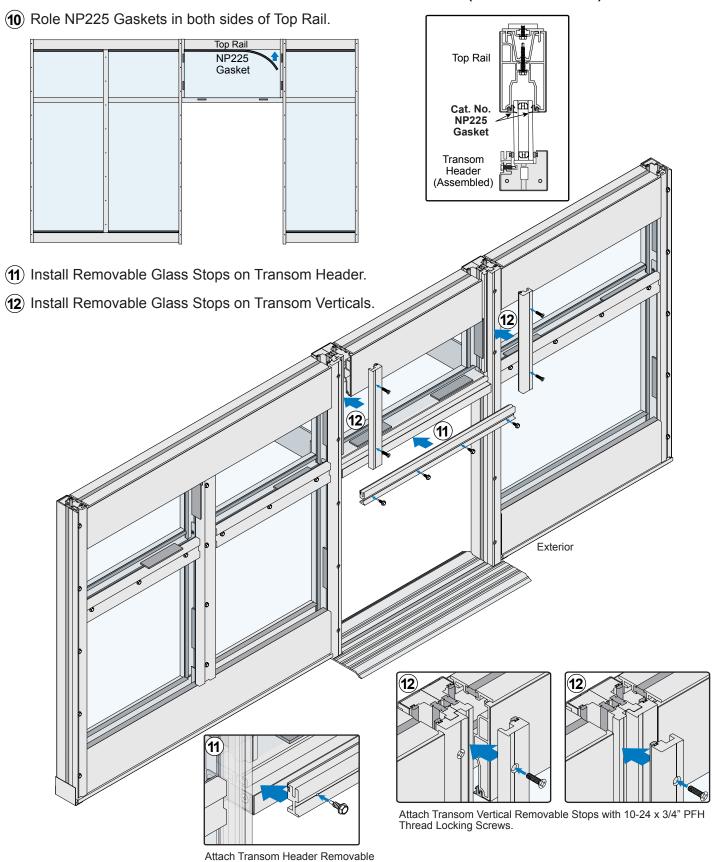






Lift Transom Doorway Glass into Top Rail and set on Transom Header. Center between verticals with at least 1/2" (5 mm) Glass Bite on each side.

TRANSOM DOORWAY GLASS INSTALLATION (CONTINUED)

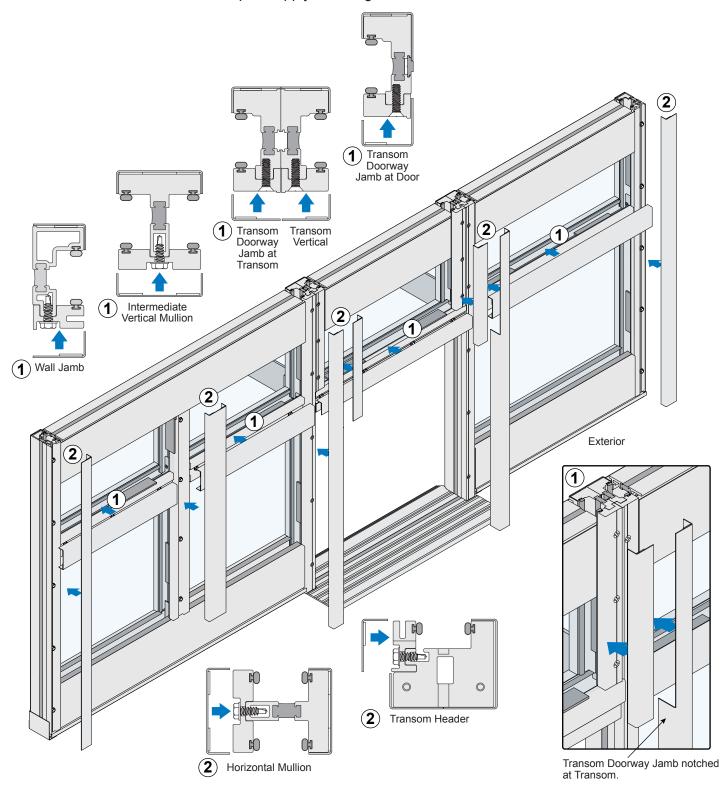


Stop with Cat. No. 20092003 screws.

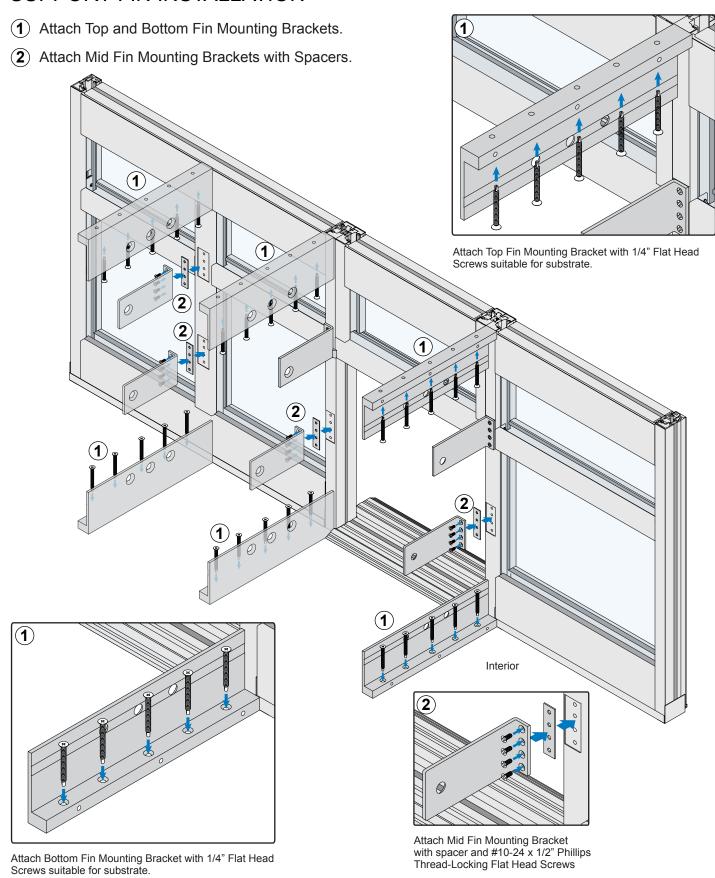
CLADDING INSTALLATION

- 1 Install Horizontal Clad.
- (2) Install Vertical Clad.

NOTE: Remove liner from VHB Tape to apply Cladding. Roll On Pressure = 15 Pounds Per Linear Inch.

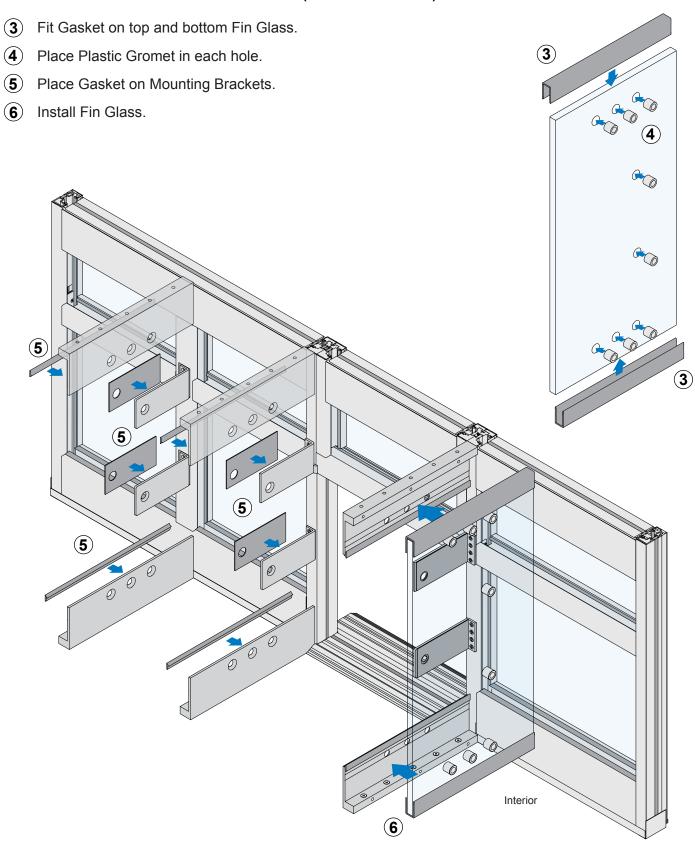


SUPPORT FIN INSTALLATION



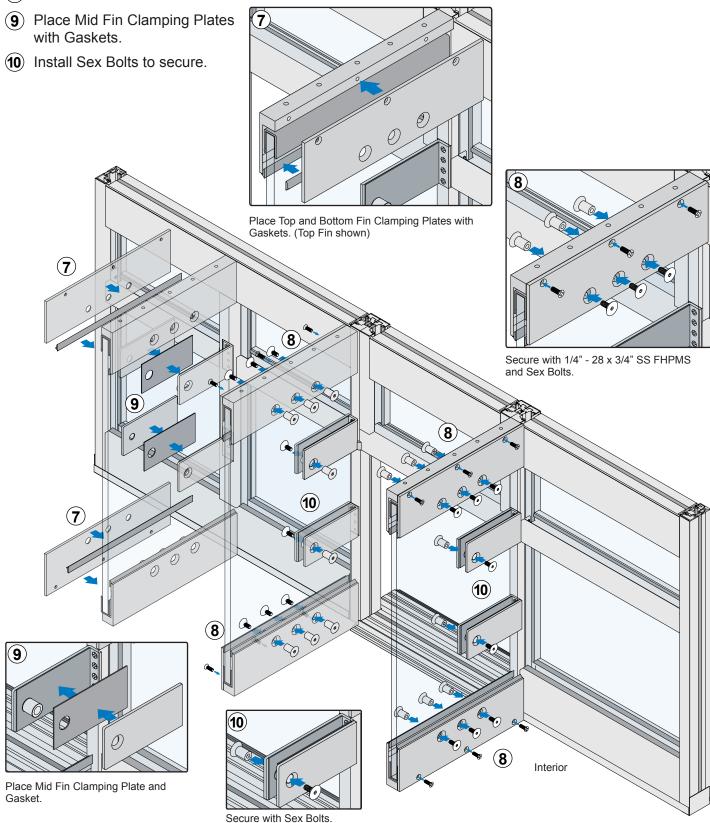
4 CRL

SUPPORT FIN INSTALLATION (CONTINUED)



SUPPORT FIN INSTALLATION (CONTINUED)

- 7 Place Top and Bottom Fin Clamping Plates with Gaskets.
- (8) Secure with screws and Sex Bolts.

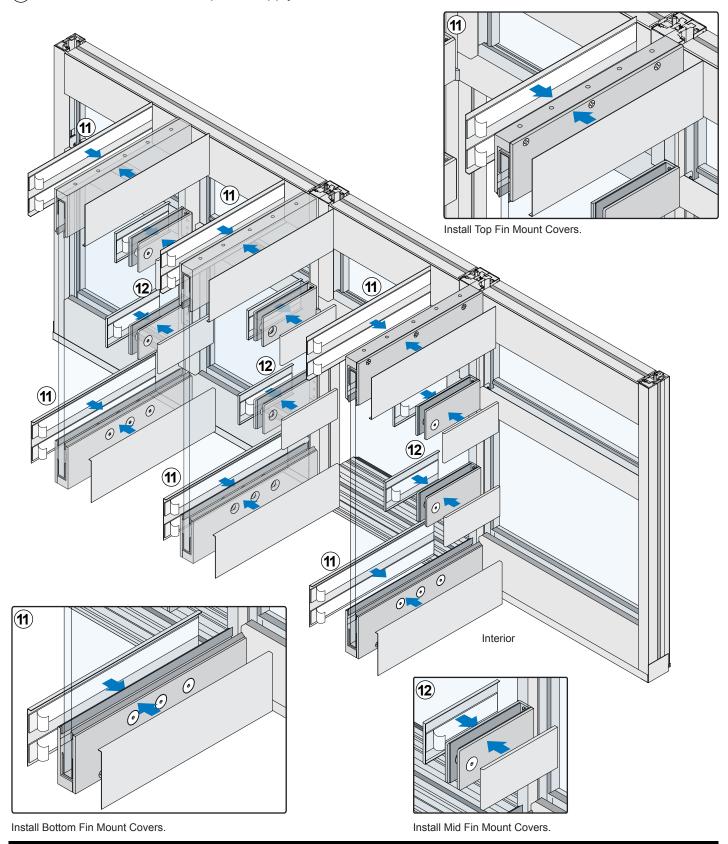


USALUMINUM

26

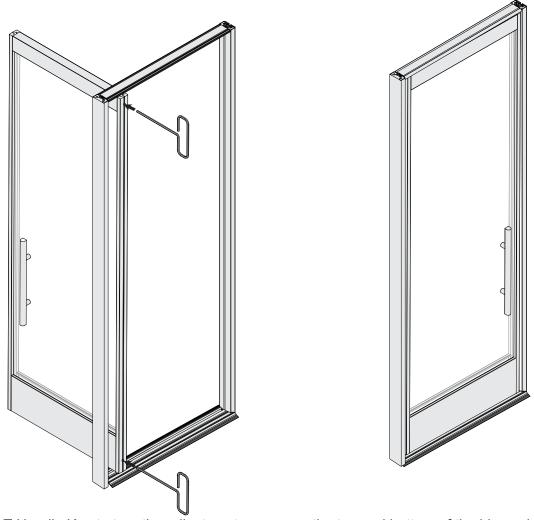
SUPPORT FIN COVER INSTALLATION

- (11) Remove liner from VHB Tape and apply Covers for Top and Bottom Fin Mounts.
- (12) Remove liner from VHB Tape and apply Covers for Mid Fin Mounts.



DOOR INSTALLATION

The doors for the Entice System are shipped fully assembled. Because of the weight of both the aluminum and the glass, it is advisable that two individuals are involved in moving and installing this door. NOTE: Installation varies with hardware selection. Consult Installation Instructions in hardware packages.



Use included T-Handle Key to turn the adjustment screws on the top and bottom of the hinge side of the door.

With the door open, turn clockwise to adjust the Door Rail away from the jamb and counter-clockwise to adjust the Door Rail towards the jamb. Make sure the gaps are parallel and the correct size.

NOTE: A slight clicking noise may be heard. This sound is caused by our friction retention mechanism that will help prevent the screw from loosening out of alignment.

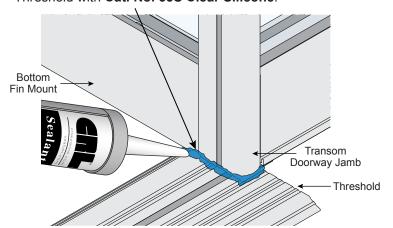


CENTER PIVOT DOORS:

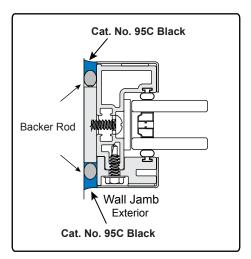
To center the door, loosen the two Pan Head Phillips Screws holding the arm to the block, then adjust the two hex bolts at the end of each arm to slightly change the angle of the arm as it mounts in the Door Rail. Make sure that both hex bolts are tightened against the inside face of the Door Rail, and the two Pan Head Phillips Screws are tightened to the block when adjustment is complete to secure the adjustments into place.

PERIMETER SEALING

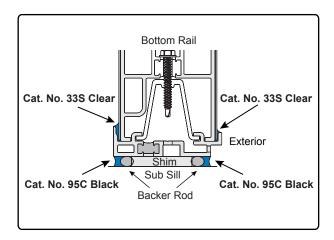
Seal around Transom Doorway Jamb at Threshold.
 Seal around Transom Doorway Jamb at notched
 Threshold with Cat. No. 33S Clear Silicone.



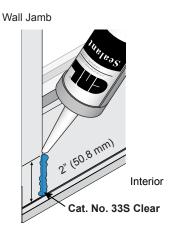
 Install Backer Rod and seal perimeter with Cat. No. 95C Silicone Sealant at all shimmed areas inside and outside.



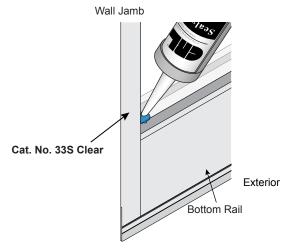
2. Seal joints between Bottom Rail and Sub Sill inside and outside.

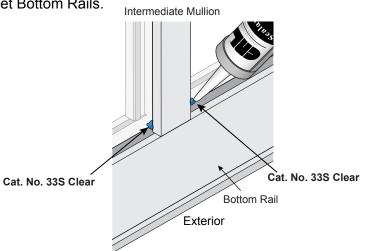


 Seal interior perimeter at all verticals 2" (203 mm) up from ground where they meet Bottom Rails.



5. Seal outside bottom corners where all verticals meet Bottom Rails.

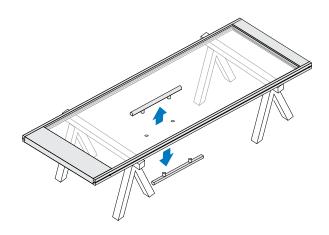




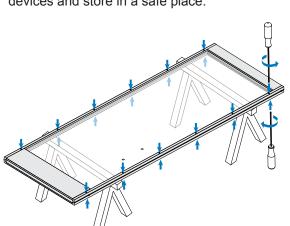
GLASS REPLACEMENT FOR DOORS

REMOVE DAMAGED GLASS

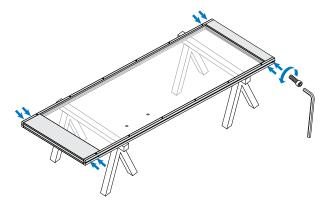
Support door on sturdy sawhorses.



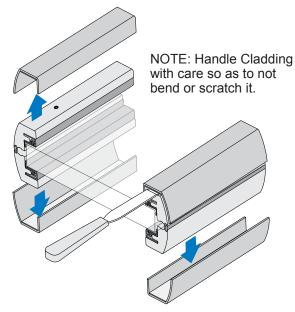
Remove door handles and panic or exit devices and store in a safe place.



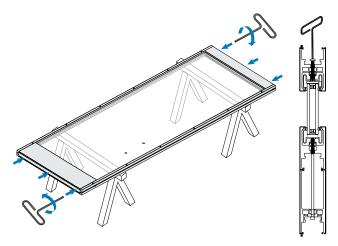
Loosen Set Screws on both sides of Vertical Stiles.



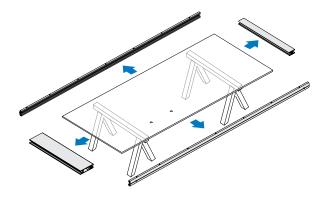
Remove Socket Head Cap Screws from each corner.



Remove Cladding from both sides of Vertical Stiles.

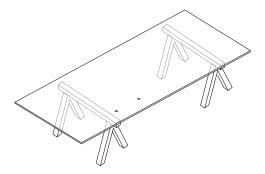


Back out Clamping Screws on Top and Bottom Rails.

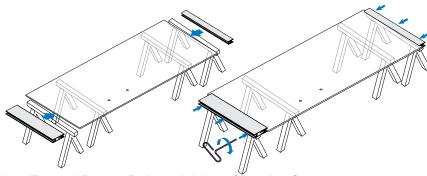


Remove Vertical Stiles and Top and Bottom Rails. If Gaskets are not in good condition, remove them. If replacing Top and Bottom Rail Cladding, do so now.

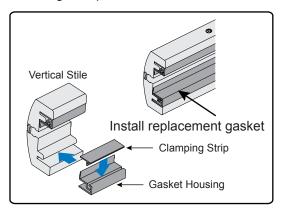
INSTALL REPLACEMENT GLASS



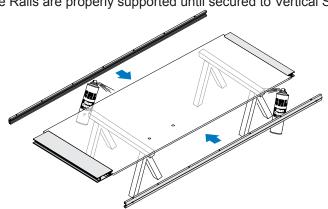
Verify replacement glass size and mounting hole placement for handles.



Place Top and Bottom Rails and tighten Clamping Screws. NOTE: Ensure Rails are properly supported until secured to Vertical Stiles.

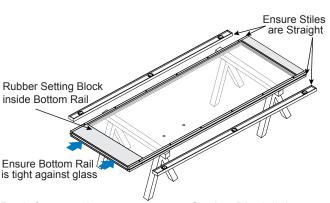


Replace Gaskets in Vertical Stiles if needed.

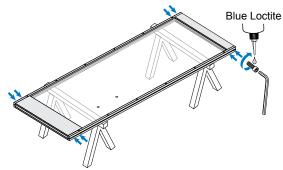


Spray glass edges with **Cat. No. 1973** to prevent Gaskets from binding and install Vertical Stiles.

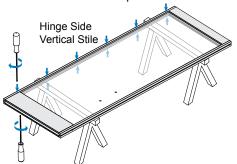
NOTE: The Vertical Stiles may be installed as three separate pieces. First apply the Clamping Strip to the glass, then fit the Gasket Housing over it and finally slide the Vertical Stile over it. This works well with oversized glass thickness.



Push frame at bottom to ensure Setting Block is in contact with glass. Ensure Bottom Rail is tight against glass and Vertical Stiles are straight.

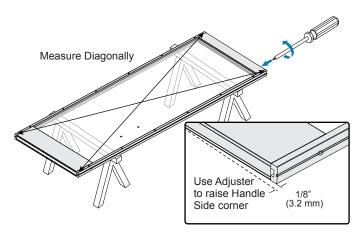


Apply Blue Loctite to Socket Head Cap Screws and fasten Vertical Stiles to Top and Bottom Rails.

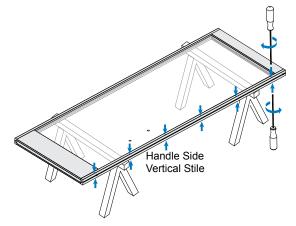


Tighten Set Screws evenly on Hinge Side of the Vertical Stiles. Torque 1/8 turn past tight.

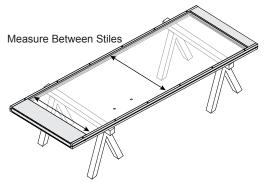
INSTALL REPLACEMENT GLASS (CONTINUED)



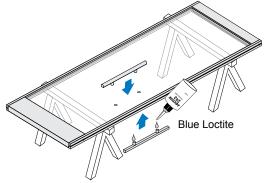
Turn Adjuster in Top Rail on Handle Side clockwise until it contacts glass. Measure diagonally to corners. If needed, turn Adjuster again to raise corner a maximum of 1/8" (3.2 mm) until door is square.



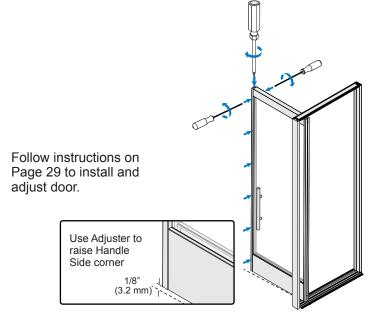
Tighten Set Screws evenly on Handle Side of the Vertical Stiles. Torque 1/8 turn past tight.



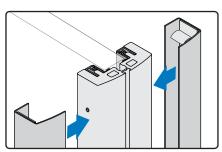
Measure between Vertical Stiles near Bottom Rail and again at middle to ensure Stiles are straight.



Apply Blue Loctite on all attachment fasteners and install door handles.



NOTE: If Handle Side sags, loosen Set Screws and turn Adjuster to raise. Then tighten Set Screws.



Remove liner from VHS Tape and apply Cladding to Vertical Stiles.

Roll On Pressure = 15 Pounds Per Linear Inch