

STORMWALL™ XL CURTAIN WALL

NOTE

THE INSTALLATION DETAILS FOUND IN THIS PACKAGE ARE GENERIC AND ARE FOR REPRESENTATION ONLY WITH THE INTENT OF GIVING THE INSTALLATION TEAM A VISUAL REPRESENTATION AS TO HOW THE ASSEMBLIES TYPICALLY INSTALL. THE SHOP SUBMISSION DRAWINGS AND DETAILS ARE THE GOVERNING DOCUMENTS AND AS SUCH THIS PACKAGE IS TO BE USED ONLY AS A RESOURCE

FOLLOW SEALANT MANUFACTURERS' RECOMMENDATIONS FOR USE AND APPLICATION OF ALL STRUCTURAL SILICONE SEALANT AND WEATHER SEAL SILICONE SEALANT.

CUSTOMER/PROJECT QUALITY ASSURANCE PROCEDURES ARE SEPARATE DOCUMENTS AND ARE TO BE FOLLOWED IN CONJUNCTION WITH THIS MANUAL.

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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:

- 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. INSTALLER QUALIFICATION. The StormWall™ XL curtain wall system is intended for fabrication, assembly, sealing, installation and glazing by professionals with appropriate knowledge and experience of the system(s) and their incorporation into various building conditions.
- 4. **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.
- 5. 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.
- 6. 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.
- 7. ISOLATION OF ALUMINUM. Aluminum to be placed in direct contact with uncured masonry or incompatible materials should be isolated with a heavy coat of bituminous paint. For steel reinforcement primer, use manufacturer's standard corrosion resistant primer, meeting or exceeding Sherwin Williams Kem Kromik® and ASTM D5894, 1008 Corrosion Resistance.
- 8. STRUCTURAL SEALANTS. The fabrication and installation of a structural silicone-glazed (SSG) or wet glazed system requires more technical knowledge and experience than is required for a conventional pressure-glazed or dry glazed system. The glazing contractor should take all steps as outlined and required by the structural silicone sealant manufacturer, glass fabricator, framing manufacturer, and the project professional engineer of record as well as follow local building code requirements and industry best practices to ensure the proper installation and safe performance of the SSG system.

GENERAL INSTALLATION NOTES CONT.

Recommended Guidelines for All Installations:

The glazing contractor for each project needs to ensure compliance with each step, including, but not limited to, design reviews, formal adhesion testing, formal compatibility testing, project specification compliance, validating procedures, field testing, and quality control validation of installed product and surrounding conditions.

Testing of component materials for use in a SSG or wet glazed system is mandatory to fulfill project specifications and warranty requirements and must be submitted by the glazing contractor to the structural silicone manufacturer. All materials that comprise the structural silicone joint, such as the framing system (with the job-specific finish) and job-specific glass must be tested by the structural silicone manufacturer for compatibility and adhesion. All other accessory materials in contact with the structural silicone, such as setting blocks, spacers, gaskets, sweeps, air seals and expansion joints, must also be submitted to the silicone sealant manufacturer for compatibility testing.

To ensure that nothing has changed in formulation or chemistry since the initial tests, subsequent testing during periodic time frames of the project is to be conducted to confirm continued acceptance of the material for use on the project.

To ensure the structural performance and integrity of the insulating glass unit (IGU), the glazing contractor must submit the project shop drawings to the glass fabricator to obtain approval for use of their product(s) in any 2, 3 or 4-sided SSG applications.

Quality control procedures for field glazing are to be increased beyond those required for shop glazing. Job conditions will normally have dust, dirt, and other construction debris on the surfaces where structural silicone is to be applied. Great care should be exercised in cleaning and preparing these surfaces for silicone application. The recommendations of the silicone sealant manufacturer are to be strictly enforced and followed. The fabrication and installation of the SSG system and its components, whether shop or field glazed, should be governed by a quality control program, and all steps, procedures, and test reports should be documented throughout the project.

Prior to installation of any SSG system, refer to industry documents (e.g., AAMA Curtain Wall Design Guide Manual, ASTM C1401-14, and AAMA SSGDG-17) for detailed instructions and recommendations.

THE GLAZING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ENSURING COMPLIANCE WITH THE ABOVE, AND ASSUMES FULL LIABILITY FOR ANY ISSUES ARISING FROM NONCOMPLIANCE.

- 9. APPLICATION. Structural silicone must be applied from the interior, and weather seal from the exterior, after the interior structural silicone has fully cured.
- 10. 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.
- 11. MAXIMUM ALLOWABLE STRESS ON SILICONE. The maximum allowable size of the glass lite is controlled by 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.
- 12. GLAZING PRACTICES. The air and water performance of the StormWall™ XL curtain wall system is directly related to the completeness and integrity of the installation process, including but not limited to the assembly seals of the framing joinery, the installed glazing gaskets, and the alignment of the framing joinery glazing plane. Before glazing, verify the glazing pocket width and glazing infill thickness, as both must be in tolerance to assure adequate edge pressure and to achieve the desired air and water performance levels. (In general, framing systems utilizing 1" insulating glass are designed to accommodate a thickness variance of +/- 1/32"). Note: Excessive pressure can cause glass breakage and/ or IGU failure. Consult the glass manufacturer for their recommended edge pressure per lineal inch.

To achieve the designed and tested air and water performance, best practices include:

- Glazing gaskets should be cut 1/4" longer per foot, and lay flat, preferably for 24 hours
- Gaskets should be cut as single monolithic pieces and "crowded" during their installation to avoid corner gaps caused by post-installation relaxation
- The interior glazing gasket should be installed so as to avoid stretching, buckles, or tears
- Corners must be cut square, and at a slight angle when required to conform to the bevel on the intersecting gasket; sealed and butted together.
- Gasket corner joinery must also be crowded, and sealant applied onto the gasket contact frame surface and into gasket reglet raceway where applicable.
- Gasket corner seals are to be done just prior to installing glass, while the sealant is still wet and uncured, and ensure
 exterior gaskets are installed so as to place the glass into it's final in service condition and allow the sealant to conform to
 optimum configuration. Note: If the sealant cures prior to glazing, the cured sealant could create excessive edge pressure
 onto the glass and has the potential to cause glass breakage.

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GENERAL INSTALLATION NOTES CONT.

Recommended Guidelines for All Installations:

- The glass must be checked for squareness, size dimension, and thickness along the edges paying attention to any variances from center edge to corner edge
- Check the placement of the installed glass and verify there is proper edge bite into the pocket, and proper edge clearance from framing elements

After sealant has set and a representative amount of the wall has been installed and glazed (250 square feet or more) run a water hose test in accordance with AAMA 501.2 specifications to check installation. On large projects the hose test should be repeated during the glazing operation. Consult and follow NGA's GANA Manual and FGMA Glazing Manual for proper glazing technique and procedure.

- **13. 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.
- **14. 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.
- 15. 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.
- **16. 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.)
- 17. 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.
- **18. 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.
- **19. U.S. ALUMINUM.** It is the responsibility of U.S. Aluminum to supply a system to meet the architect's specifications.

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PARTS IDENTIFICATION EXTRUSIONS

	T		,	1			
XL501	XL502	XL532	XL533	XL536	XL240		
		H. H.					
Head Mullion	Sill Mullion	Open Back Horizontal	Open Back Horizontal	Stacked Horizontal	90 Degree Corner Mullion		
XL500	XL504	XL510	XL122	XL237	XL224		
	N. N.			<u>a</u>			
Vertical/Horizontal Mullion	Structural Glazed Vertical	Heavy Vertical Mullion	Pocket Filler	Horizontal Filler	Corner Mullion Cover		
XLBR15	XLBR25	XL162	XLD102	XL132	XL130		
		££	F				
1/2" x 4" x 150" Steel Bar	4-9/16" x 1-1/4" x 120" Steel U Channel	Pressure Plate	Pressure for XL536 Plate	Corner Pressure Plate	9/16" Glazing Adaptor		
XL100	XL110	XL115	XLF64				
for XL536 Face Cap	Face Cap	Corner Face Cap	SSG Corner				
ACCESSORIES							
XLS20001	XLS20101	XLC338	XLC325	XLC358	XLC323		
for XL500 Anchor Sleeve	for XL510 and XL504 Anchor Sleeve	Jamb Mullion Cap	Intermediate Mullion Cap	SSG Mullion Cap	90 Degree Corner Cap		
XLA17401	XLA10301	XLA10302	XLA10501	XLA10502	XLA10503		
for XL500		F.A. has	for XL504	for	for		
XL510 L Anchor	for XL510 F Anchor	for XL500 F Anchor	and XL510 T Anchor	XLD252	XL240 T Anchor		
XLS19101	XLS19401	XLS7401	XLD350 SSG Mullion	XLD352 End Dam	XLC314 90 Degree		
for XL240 Splice Sleeve	for XL500 Splice Sleeve	for XL50 Splice Sleeve	Water Deflector	Captured Mullion	SSG Corner Cap		
XLB18301	XLB18401	XLB18001	XLB18002	XLB18003	XLC312		
Horizontal Shear Block	for XL536 Shear Block	Corner Shear Block	Corner for XL536 Shear Block	for Corner XL536 Shear Block	90 Degree Corner Cap		
XLG117	XLG160	XLG5185	XLG1015	XLG107	XLR33301		
To T							
Exterior Gasket	Exterior Bottom Stacked Gasket	Interior Spacer Gasket	Dry Glazed Gasket	Isolator Gasket	Temporary Glazing Retainer		
XLF325	XLF009	XLF118	XLF259	XLF320	XLF322		
Attach Pressure Plate #12-14 x 1-1/2" HH STS	Attach Shear #14 x 1-1/2" HH Block STS	Secure #10 x 1" FHP XLB18301 STS	1/4-20 Attach Steel PFH Tap Plate Type F	Attach Mullion #10 x 1/2" Cap U-Drive	Attach Jamb #12-14 x 1" HH Filler STS		
XLF119	XLSB2101	XLSB2102	DJ112				
Attach #10 x 1-1/2" FHP							
XL130 STS	4" Setting Block	4" Setting Block	Drill Jig				

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FRAME FABRICATION

Cutting Guide

Unless otherwise noted, the details shown in these instructions reflect the 7-1/2" system for 1-5/16" glazing. NOTE: Structural silicone glazed vertical mullion is referred to as SSG mullion.

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

Cut material to size per dimensions given below:

Frame Members

Verticals: Frame Height [Rough Opening minus Top and Bottom Joints]

Vertical Pressure Plates: Frame Height minus 1/4" (6.4)

Vertical Face Covers: Frame Height (Vertical Covers run through)

Intermediate Horizontals (Tubular):
Intermediate Horizontals (Rollover):
D.L.O. minus 1/16" (1.6)
Head and Sill:
D.L.O. minus 1/16" (1.6)
D.L.O. minus 1/4" (6.4)
Horizontal Face Covers:
D.L.O. minus 1/16" (1.6)
D.L.O. minus 1/16" (1.6)
D.L.O. minus 1/16" (1.6)
D.L.O. minus 1/16" (1.6)

Glazing Gaskets

Wet Glazed Exterior Glazing Gasket: Pressure Plate Length plus 1/4" (6.4) longer per foot (304.8)*
Wet Glazed Interior Vertical Glazing Gasket: D.L.O. plus 1" (25.4) plus 1/4" (6.4) longer per foot (304.8)*

Wet Glazed Interior Horizontal Glazing Gasket: D.L.O. plus 1/4" (6.4) longer per foot (304.8)*

Vertical Silicone Spacer Gaskets: D.L.O. plus 1" (25.4) plus 1/4" (6.4) longer per foot (304.8)*

Horizontal Silicone Spacer Gaskets: D.L.O. plus 1/4" (6.4) longer per foot (304.8)*

Dry Glazed Exterior Glazing Gasket: Pressure Plate Length plus 1/4" (6.4) longer per foot (304.8)*

Dry Glazed Interior Vertical Glazing Gasket: D.L.O. plus 1-1/2" (38.1) Dry Glazed Interior Horizontal Glazing Gasket: D.L.O. plus 3/16" (4.8)

Other Members (As Required)

Horizontal Glazing Adaptors: D.L.O. minus 1/32" (.8) Vertical Glazing Adaptors: D.L.O. plus 1" (25.4)

Door Subframe Jamb:

Door Opening plus 1" (25.4)

Door Opening minus 1/32" (.8)

Flush Door Jamb Pressure Plate:

Door Opening minus 1/32" (.8)

Door Opening plus 3/4" (19.1)

Flush Door Header Pressure Plate:

Door Opening minus 1/16" (1.6)

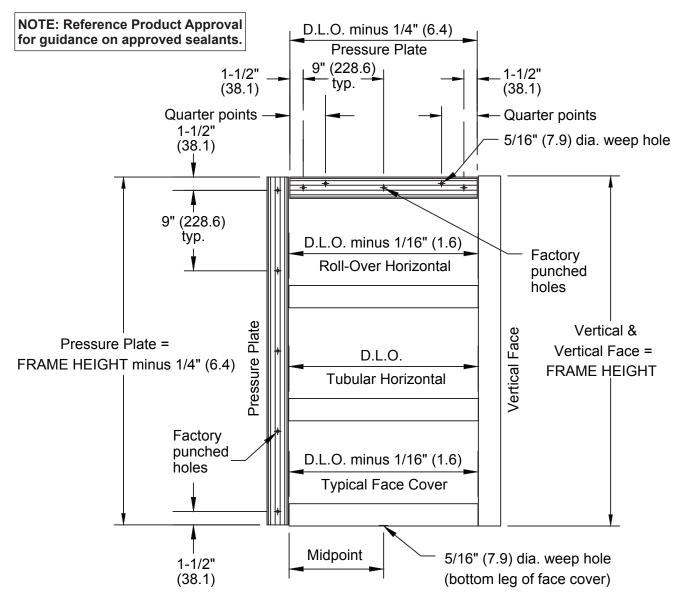
Flush Door Jamb Face Cover:

Door Opening minus 1/16" (1.6)

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^{*}NOTE: Set Gaskets aside and lay flat until ready to glaze.

Material Fabrication Guide



Glass Size Calculation

CAPTURED = D.L.O. PLUS 1-1/2" (38.1) WIDTH AND HEIGHT SSG MULLION = D.L.O. PLUS 2" (50.8) WIDTH ONLY SSG MULLION AND CAPTURED JAMB = D.L.O. PLUS 1-3/4" (44.5) WIDTH ONLY

90 Degree OS Corner Glass Size Calculation

CAPTURED CORNER GLASS = D.L.O. PLUS 1-1/2" (38.1) WIDTH AND HEIGHT SSG CORNER GLASS = D.L.O. PLUS 1-1/2" (38.1) WIDTH AND HEIGHT

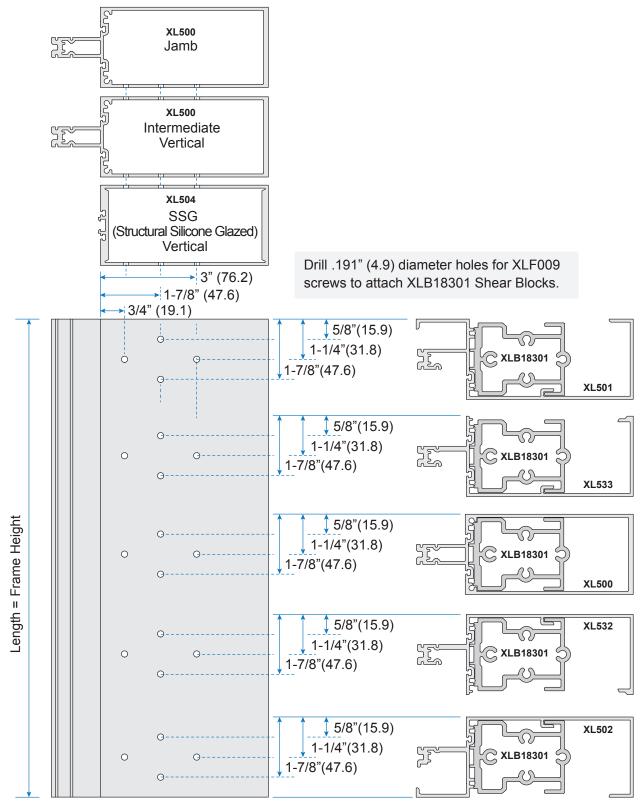
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Shear Block Hole Guide for Vertical Mullions



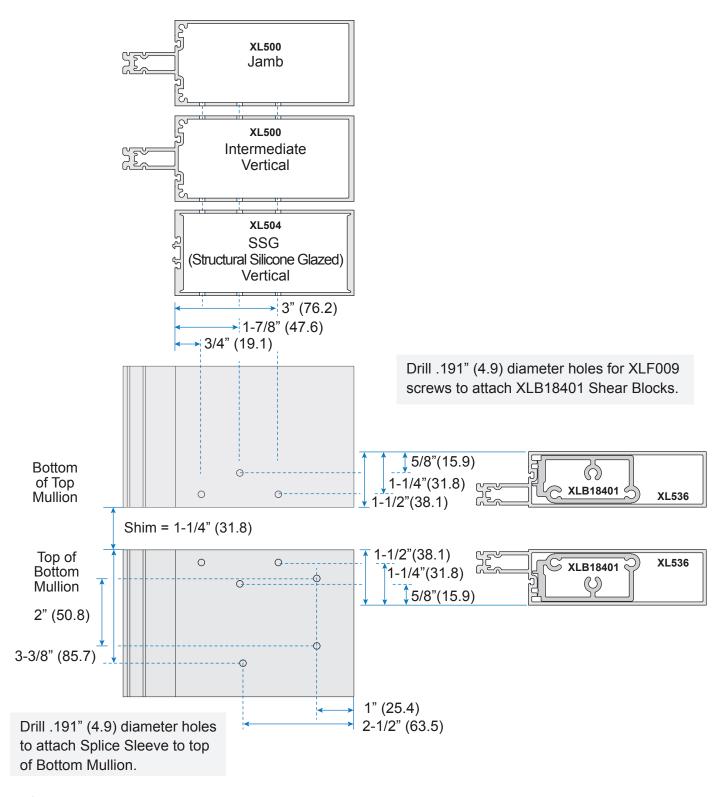
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Stacked Horizontal Shear Block Hole Guide for Vertical Mullions



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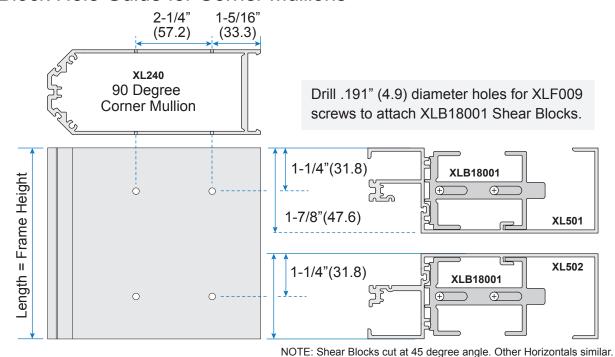
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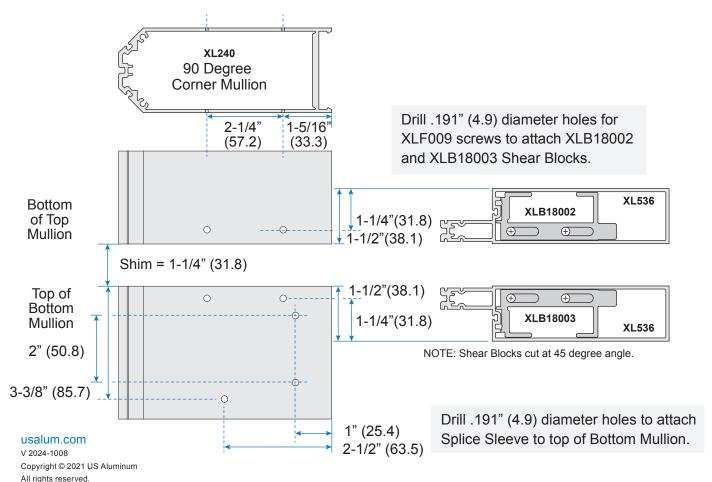
Shear Block Hole Guide for Corner Mullions

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NOTE. Shear blocks cut at 45 degree angle. Other horizontals

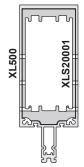
Stacked Horizontal Shear Block Hole Guide for Corner Mullions

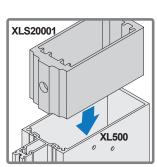


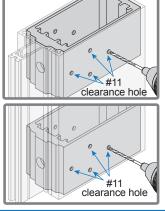
Steel Reinforcement Options

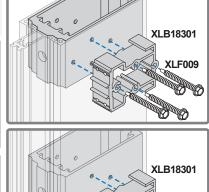
NOTE: Anchor Sleeve required for design pressures above 70 psf. only.

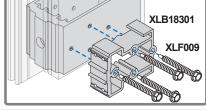
Insert XLS20001 Anchor Sleeve at Mullion ends and match drill with #11 drill bit at Shear Blocks. Secure when installing Shear Blocks.





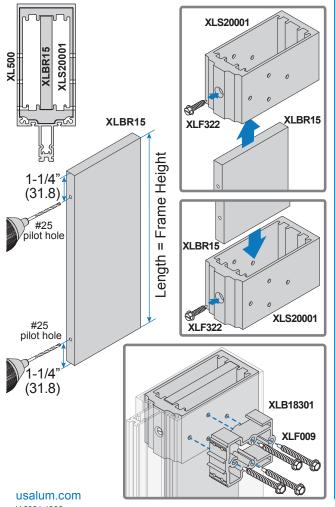


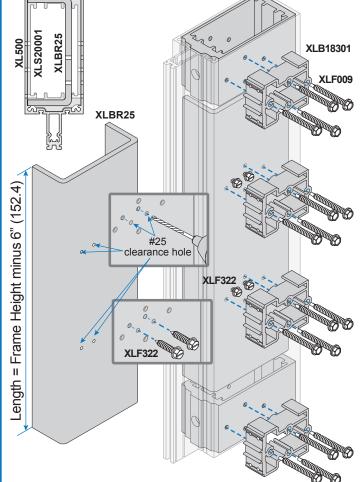




Match drill holes on XLS20001 Anchor Sleeves and attach to ends of XLBR15 Steel Bar. Insert into Mullion and secure when installing Shear Blocks.

Insert XLBR25 Steel U-Channel in Mullion. Drill clearance holes at Shear Blocks and attach. Match drill holes on XLS20001 Anchor Sleeves and install at Mullion ends.





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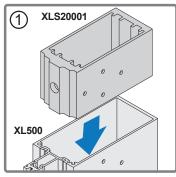
Jamb Fabrication

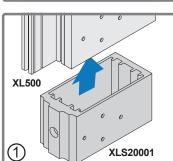
NOTE: Anchor Sleeve required for design pressures above 70 psf. only.

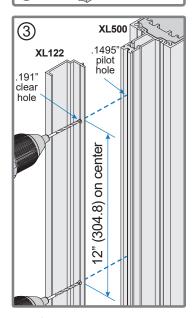
XL500

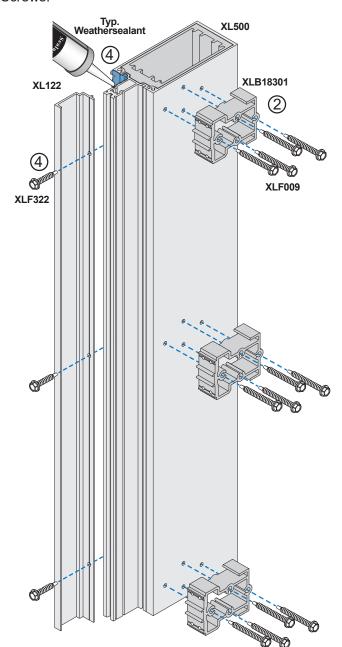
XLS20001

- 1 Insert XLS20001 Anchor Sleeve at Jamb ends and match drill .191" (4.9) diameter holes at Shear Blocks. Secure when installing Shear Blocks.
- 2 Attach XLB18301 Shear Blocks using XLF009 Screws.
- (3) Drill .191" (4.9) clear holes 12" (304.8) on center in XL122 Pocket Filler and match drill .1495" (3.8) pilot holes in Jamb.
- 4 Apply bed of sealant to Jamb and attach Pocket Filler with XLF322 Screws.









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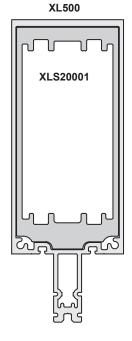
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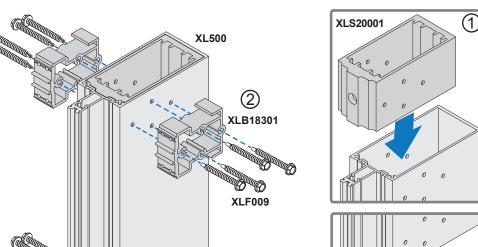
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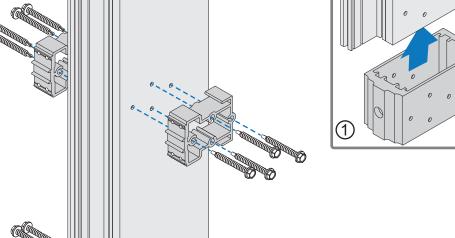
Vertical Mullion Fabrication

- 1 Insert XLS20001 Anchor Sleeve at Mullion ends and match drill .191" (4.9) diameter holes at Shear Blocks. Secure when installing Shear Blocks.
- 2 Attach XLB18301 Shear Blocks using XLF009 Screws.

NOTE: Anchor Sleeve required for design pressures above 70 psf. only.





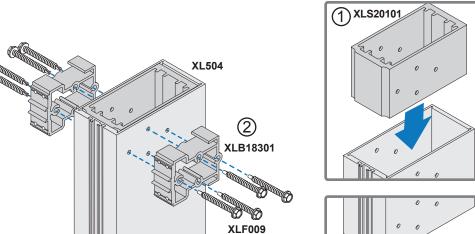


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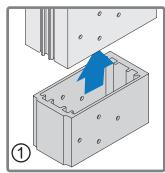
SSG Mullion Fabrication

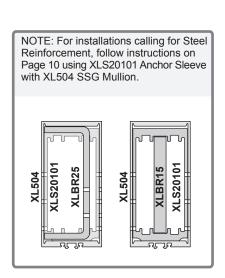
NOTE: Anchor Sleeve required for design pressures above 70 psf. only.

- 1 Insert XLS20101 Anchor Sleeve at Mullion ends and match drill .191" (4.9) diameter holes at Shear Blocks. Secure when installing Shear Blocks.
- 2 Attach XLB18301 Shear Blocks using XLF009 Screws.









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NOTE: Anchor Sleeve required for design pressures above 70 psf. only.

XL224

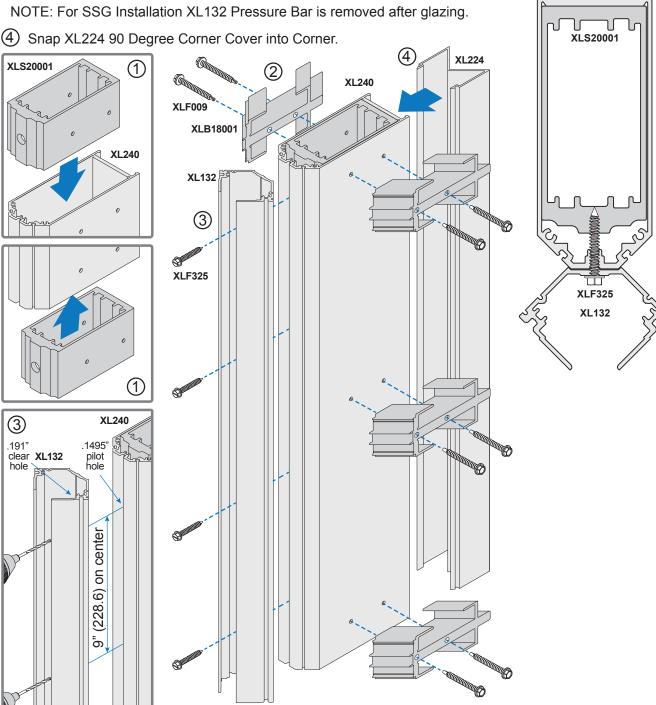
XL240

Corner Mullion Fabrication

1 Insert XLS20001 Anchor Sleeve at Jamb ends and match drill .191" (4.9) diameter holes at Shear Blocks. Secure when installing Shear Blocks.

2 Attach XLB18001 Shear Blocks using XLF009 Screws.

(3) Drill .191" (4.9) clear holes 9" (228.6) on center in XL132 Corner Pressure Bar and match drill .1495" (3.8) pilot holes in Corner. Install with XLF325 screws.



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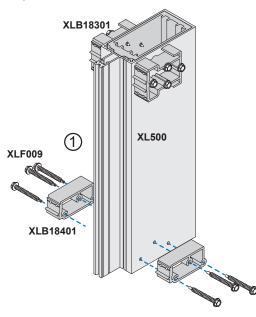
Mullion Fabrication for Stacked Horizontal

Fabricate top of Top Mullion and bottom of Bottom Mullion as shown on previous pages.

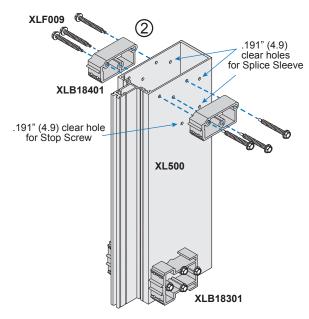
- 1 Install XLB18002, XLB18003 or XLB18401 Shear Block with XLF009 screws at bottom of Top Mullion.
- (2) Install XLB18002, XLB18003 or XLB18401 Shear Block with XLF009 screws at top of Bottom Mullion.

NOTE: Do Not install Anchor Sleeve where XLB18002, XLB18003 or XLB18401 Shear Block are installed.

Top Intermediate Mullion

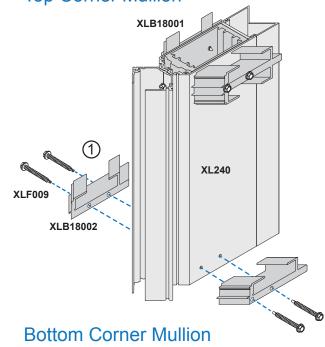


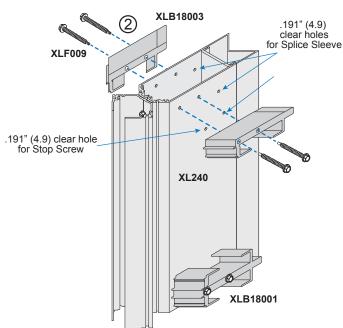
Bottom Intermediate Mullion



Intermediate Mullion shown. Jamb and SSG Mullion similar.

Top Corner Mullion





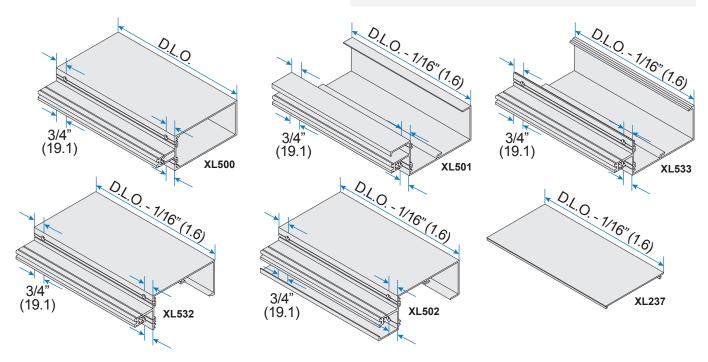
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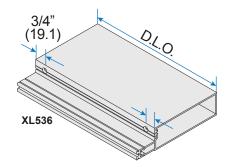
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Horizontal Member Fabrication

Drill and counter sink (2) .191" (4.9) diameter holes 3/4" (19.1) from each end at V-Grooves for XLF118 Fasteners to secure XLB18003 Shear Blocks.

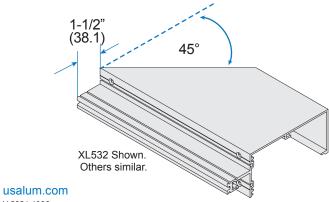


Stacked Horizontal Fabrication



Drill and counter sink (1) .191" (4.9) diameter holes 3/4" (19.1) from each end at V-Grooves for XLF118 Fasteners to secure XLB18401 Shear Blocks.

Corner Horizontal Fabrication



Fabricate as shown above and then miter cut end at 1-1/2" (38.1) for corner.

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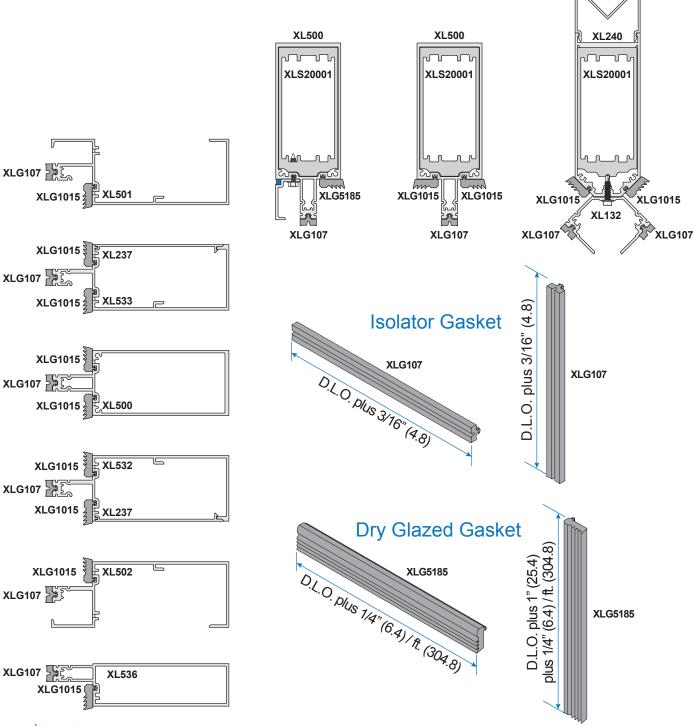
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Gasket Fabrication for Dry Glaze

Dry Glaze

Cut XLG107 Isolator Gasket: Vertical to D.L.O. plus 1-1/2" (38.1) and Horizontal to D.L.O. plus 3/16" (4.8).

Cut XLG1015 Dry Glazed Gasket: Vertical to D.L.O. plus 1-1/2" (38.1) and Horizontal to D.L.O. plus 3/16" (4.8).



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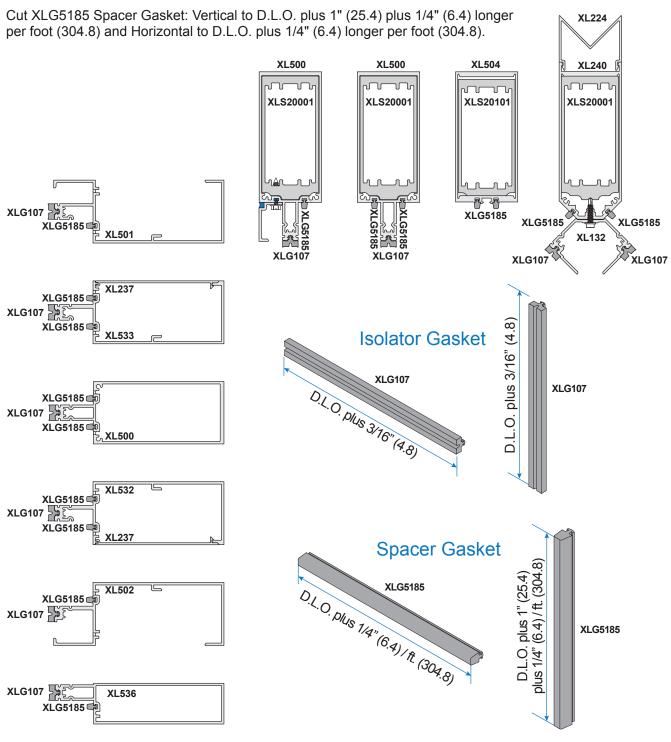
XL224

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Gasket Fabrication for Wet Glaze and SSG

Wet Glaze and SSG

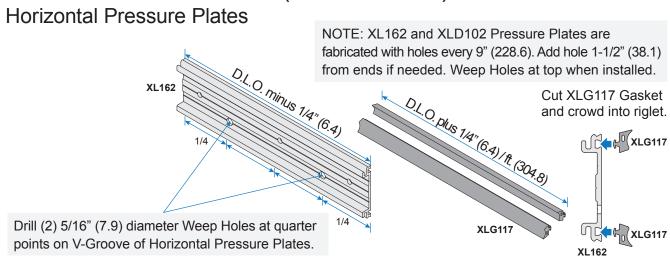
Cut XLG107 Isolator Gasket: Vertical to D.L.O. plus 1-1/2" (38.1) and Horizontal to D.L.O. plus 3/16" (4.8). NOTE: SSG Vertical Mullion does not use Isolator Gasket.



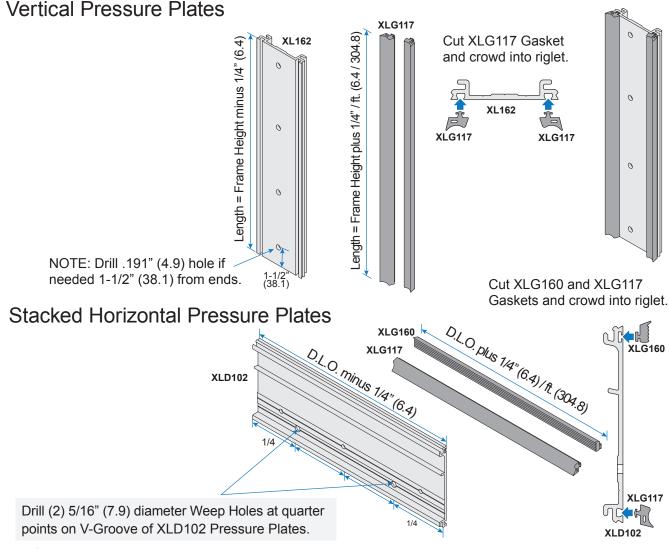
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NOTE: For SSG Installations, run Horizontal Pressure Plate continuous to Vertical Jambs not to exceed three lites. Vertical Pressure Plates are not used on SSG Intermediate Mullions.

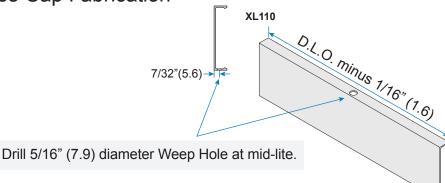


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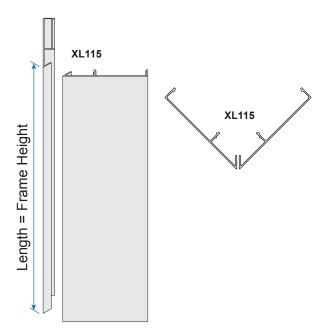
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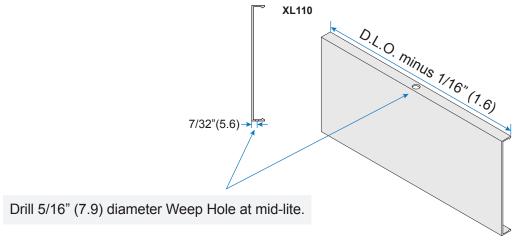
Face Cap Fabrication



Corner Face Cap Fabrication



Stacked Horizontal Face Cap Fabrication



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XL110

Length = Frame Height

FRAME FABRICATION (CONTINUED) Wet Glaze and SSG 9/16" Optional Glazing Adaptor Fabrication Horizontal Length minus 1/32"(8) Dry Glaze XLG5185 불 XL501 XL130 .196" counter sink hole XL237 XLG5185 "(304.8) on center XLG1015 [‡] XL501 XLG5185 XL130 XL533 XL162 XLG1015 ₹XL237 XL130 (25.4)XLG5185 € XLG1015 XL533 XLG5185 XL130 XL500 XLG1015 XL130 XL532 XLG5185 XLG1015 XL500 XLG5185 (L130 XL237 XL532 XLG1015 XL130 XL502 XLG5185 XLG1015 XL237 XL130 XLG1015 L502 XL130 (304.8) on center Wet Glaze Dry Glaze SSG (41.3)Length = D.L.O. plus 1-5/8" .196" counter sink hole XLG5185 XLG101 NOTE: Anchor Sleeve required for NOTE: Anchor Sleeve required for

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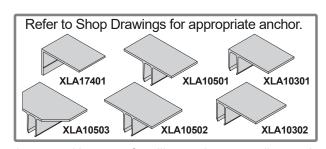
design pressures above 70 psf. only.

design pressures above 70 psf. only.

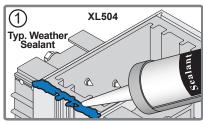
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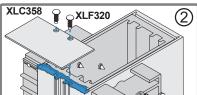
JAMB AND MULLION INSTALLATION

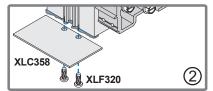
- 1 Apply bed of sealant to top and bottom Mullion. Reference Product Approval for guidance on sealants.
- 2 Attach Mullion Caps with XLF320 screws. NOTE: Use Mullion Cap designed for each Mullion.
- 3 Refer to Shop Drawings for location and appropriate anchor and fastener for Jamb and Vertical Mullions.



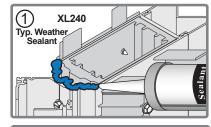
SSG Mullion

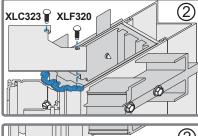


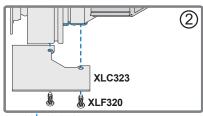




Corner Mullion







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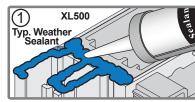
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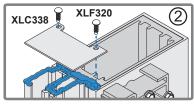
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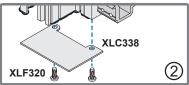
Field drill anchors insert in top and bottom of mullion and temporarily attach to structure. Ensure mullions are plumb and true.

(5) Shim and anchor into opening.

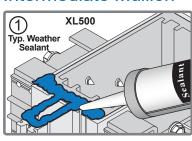
Jamb

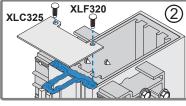


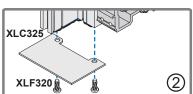


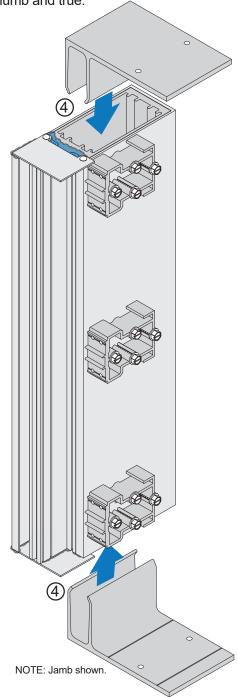


Intermediate Mullion



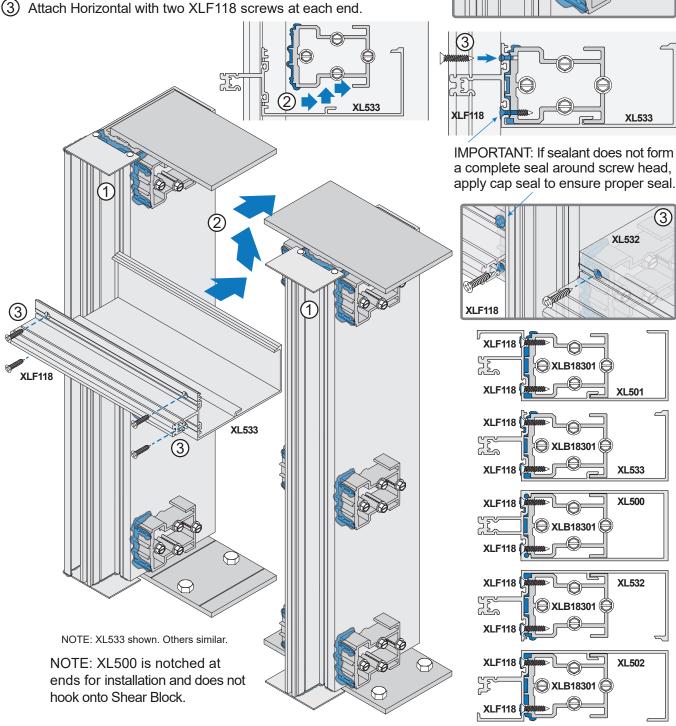






HORIZONTAL MEMBER INSTALLATION

- 1 Apply sealant to shear blocks as shown. NOTE: Adequate sealant should be applied in track to allow sealant to force through holes in horizontal.
- (2) Slide Horizontal Member into opening from back to front and against Shear Block. Ensure it hooks onto Shear Block and slide into place. Sealant is forced through attachment holes.



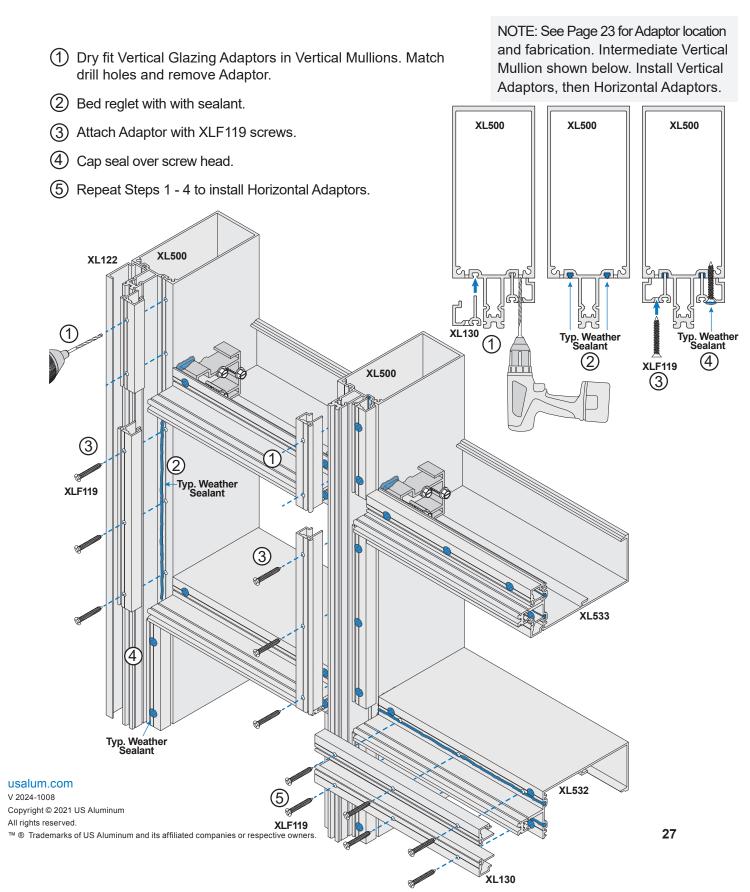
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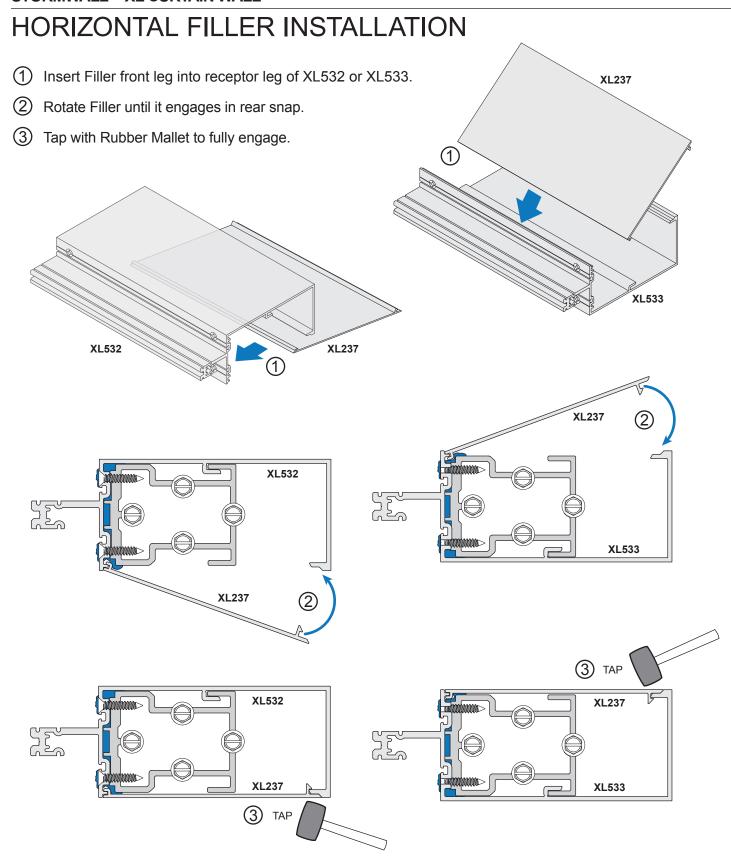
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Typ. Weather Sealant

9/16" GLAZING ADAPTOR INSTALLATION





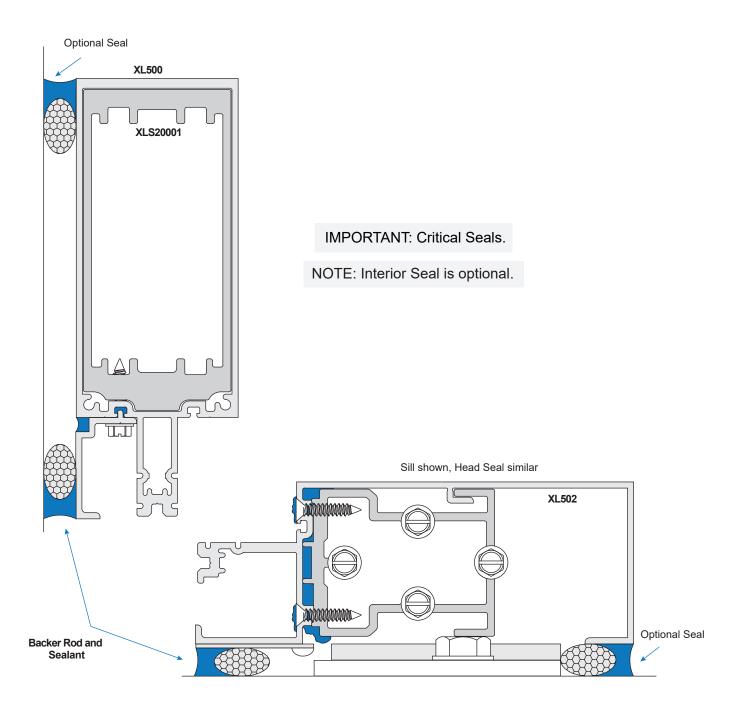
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PERIMETER SEALING

- 1 Position Backer Rod around the perimeter of the frame.
- ② Clean gap area on frames with 50% Isopropyl Alcohol.
- 3 Apply and tool sealant to the perimeter of the frame.

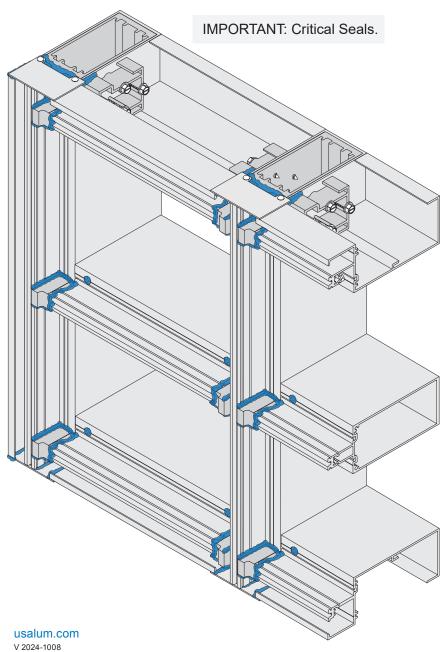


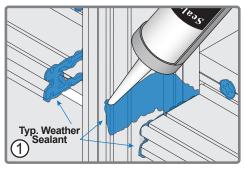
END DAM INSTALLATION

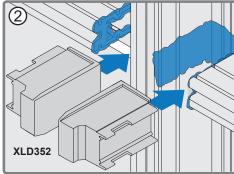
- (1) Apply bed sealant along tongue of Horizontal and across face and tongue of Vertical Mullion.
- (2) Insert XLD352 End Dam into sealant.
- (3) Seal and tool along top and bottom of End Dam to form water tight seal.

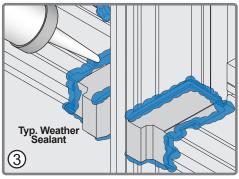
NOTE: Critical Seal. Force sealant into Gasket Race.

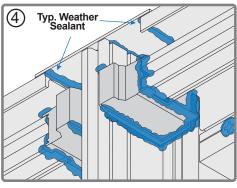
- (4) Seal Head at Mullion Cap.
- (5) Seal Sill at Mullion Cap.

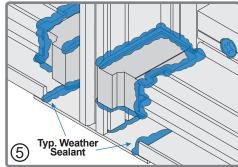












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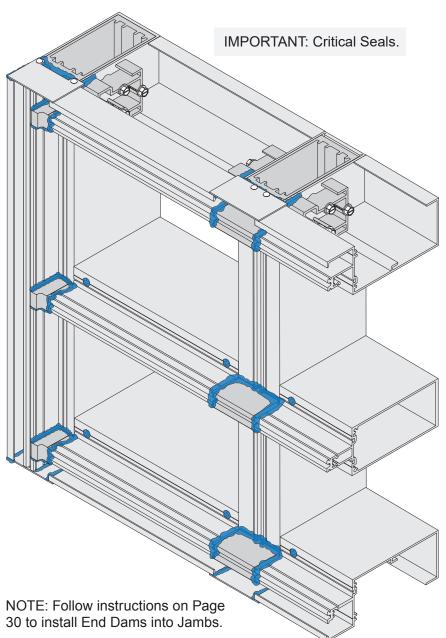
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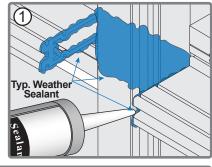
WATER DEFLECTOR FOR SSG INSTALLATION

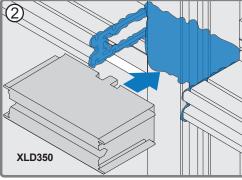
- 1 Apply bed of sealant along tongue of Horizontal and across face and tongue of Vertical Mullion.
- (2) Insert XLD350 Water Deflector into sealant.
- Seal and tool along top and bottom of Water Deflector to form water tight seal.

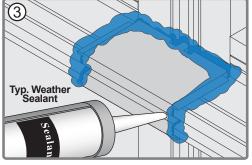
NOTE: Critical Seal. Force sealant into Gasket Race.

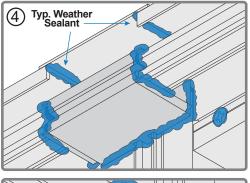
- (4) Seal Head at SSG Mullion Cap.
- (5) Seal Sill at SSG Mullion Cap.

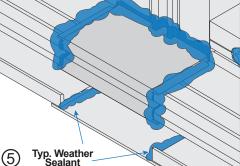












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GLAZING GASKET INSTALLATION

Dry Glaze

Install Vertical Gaskets, then Horizontal Gaskets.

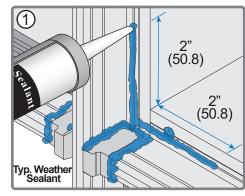
(1) Apply sealant to reglets at mullion intersections 2" (50.8)

in both directions.

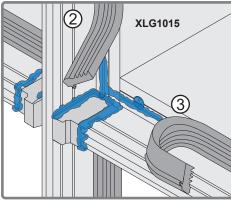
② Install Vertical XLG1015 Dry Glazed Gasket with Vinyl Roller. Begin at center and work to ends.

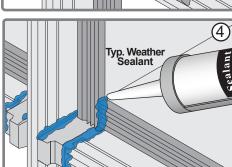
(3) Install Horizontal XLG1015 Dry Glazed Gasket with Vinyl Roller.

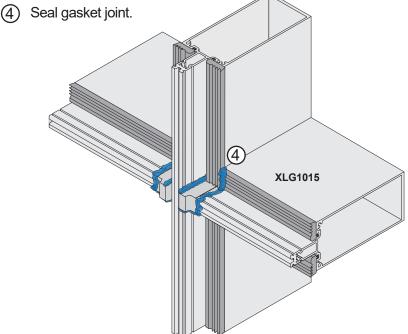
Begin at center and work to ends.



NOTE: See Page 19 for Gasket fabrication and location. See Page 23 for use with Glazing Adaptor.

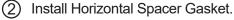


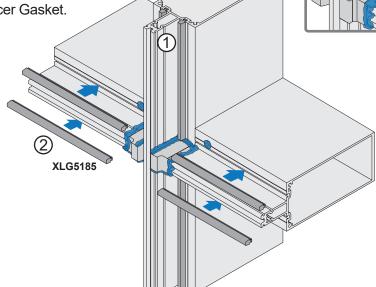




Wet Glaze and SSG

Insert Vertical XLG5185 Spacer Gasket into reglet. NOTE: Vertical Gaskets are cut short.





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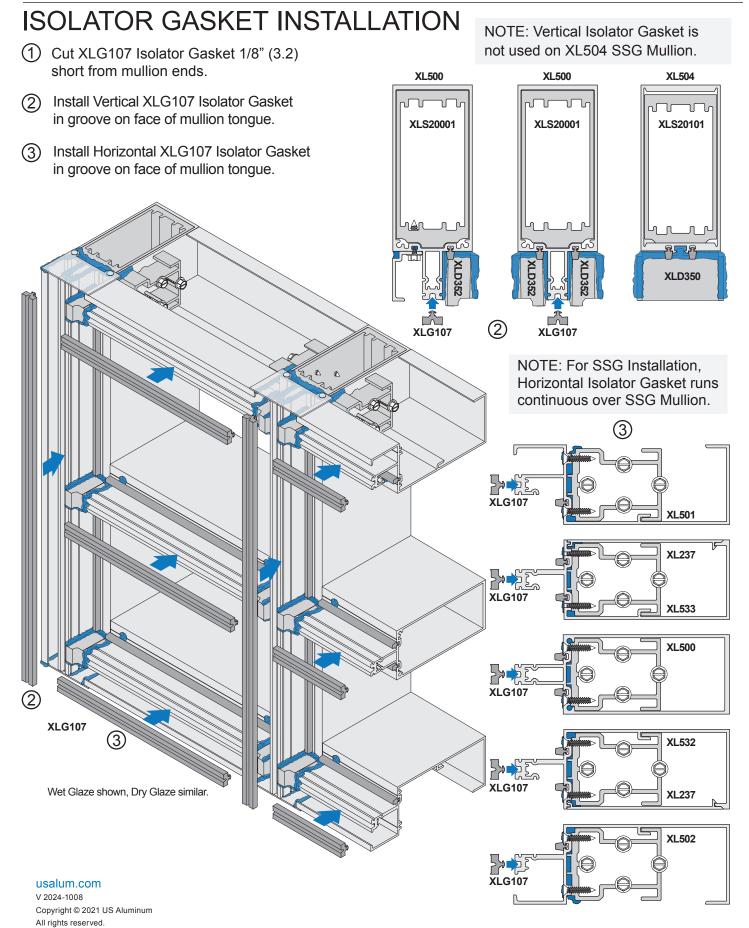
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GLASS INSTALLATION

1 Position Setting Blocks and lubricate top of blocks to ensure proper setting of glass.

NOTE: Refer to approved Shop Drawings and consult Glass Manufacturer for correct Setting Block location for glass sizes.

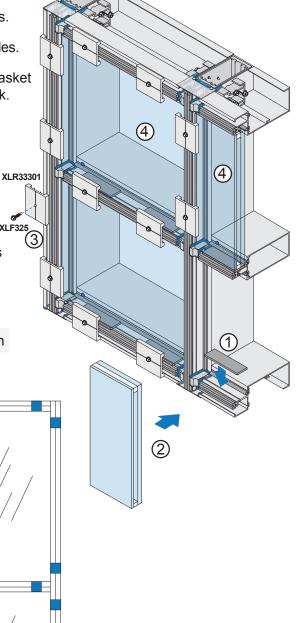
(2) Set glass in opening and ensure glass bite is equal on all sides.

IMPORTANT: Ensure glass is placed firmly against interior gasket to ensure proper seal. Avoid binding of glass on Setting Block.

(3) Temporarily hold glass in opening with XLR33301 Glazing Retainer. Torque XLF325 screw to 90 in-lbs.

NOTE: Glazing Retainers must be applied at each glass edge 3" (76.2) from the corner (minimum of 8 per lite).
Glass edges greater than 48" (1219) in length but less than 96" (2438) require an additional retainer at the glass mid-span.
Retainers are intended for short term use only. Additional retainers may be required to withstand full design wind load pressures.
Full length pressure plates must be installed if severe weather or high wind loads are anticipated.

NOTE: Work row by row up the elevation.



4 Repeat steps 1 through 3 on the next row up. Continue repeating until all glass is set.

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PRESSURE PLATE INSTALLATION

Seal face of XLD352 End Dam and gap between End Dam and Isolator. NOTE: See Page 21 for Pressure Plate and Gasket fabrication. Ensure Pressure Plates are pinned 1-1/2" (38.1) from ends. Orient Weep Holes at top.

NOTE: Isolator continuous over XLD350 Water Deflector at SSG Mullion so no additional sealing required.

- Remove Vertical Glazing Retainers. Install Vertical Pressure Plates leaving 1/8" (3.2) gap at ends.
- (3) Remove Horizontal Glazing Retainers. Install Horizontal Pressure Plates with Weep Holes at top leaving 1/8" (3.2) gap at ends.

Weep Holes at top

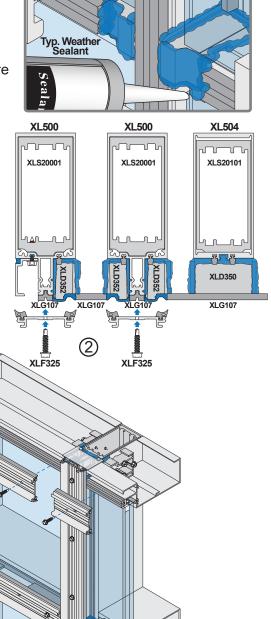
XLF325

4)
Torque to
90 in-lbs

Leave 1/8" (3.2) gap and pin 1-1/2" (38.1) from end.

NOTE: Horizontal Pressure Plates continuous over SSG Mullion.

(4) Torque all XLF325 screws to 90 in-lbs.
NOTE: The use of either a drill motor with a torque limiter or torque wrench can be used. If using a cordless drill, check torque periodically since battery usage will affect the torque setting.



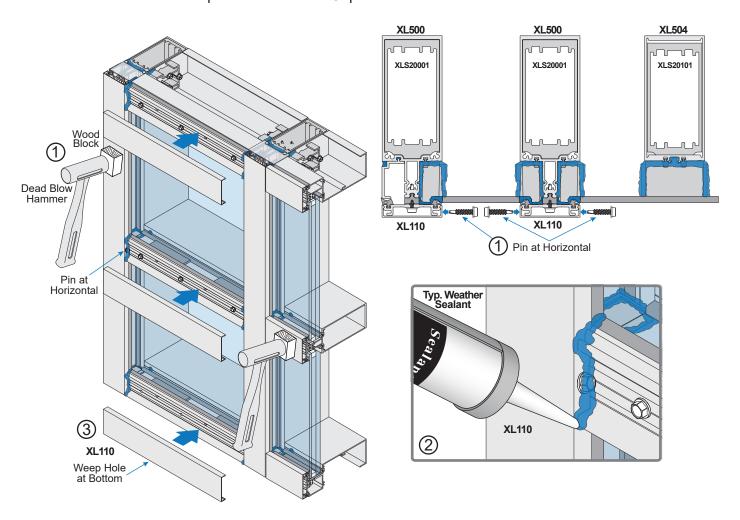


XLF325

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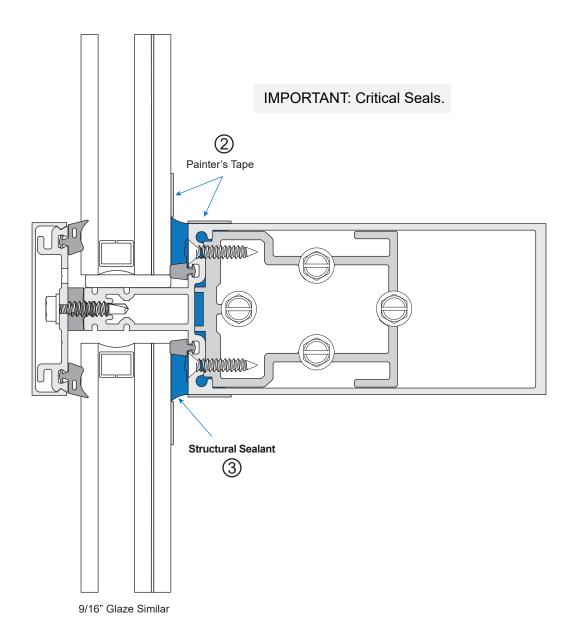
FACE CAP INSTALLATION

- Install XL110 Vertical Face Cap.
 Using a wood block to protect the cap,
 apply with Dead Blow Soft Face Hammer.
 Pin once per length, concealing pin at a horizontal location.
- NOTE: See Page 22 for Face Cap fabrication. Install Vertical Face Caps and pin once at Horizontal, then install Horizontals. Orient Weep Holes at bottom.
- ② Seal Horizontal Pressure Plates against the Vertical Face Caps. Tool sealant into the joint.
- (3) Install Horizontal Face Caps, leaving an equal gap at each end. Make sure that the Weep Hole in the Face Cap is on the bottom.



INTERIOR SEALING FOR WET GLAZED

- (1) Clean all silicone surfaces and joints with 50% Isopropyl Alcohol and wipe dry.
- ② Apply Painter's Tape to the mullion and glass as shown.
- 3 Apply Structural Silicone Sealant into pocket between the mullion and the glass starting from the bottom and work towards the top. Be sure to use positive pressure to completely fill pocket and prevent voids in sealant.
- 4 Tool the Structural Sealant smooth immediately after running the bead. Remove Painter's Tape after tooling and before Structural Sealant skins over.



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90 DEGREE OS CORNER GLASS INSTALLATION

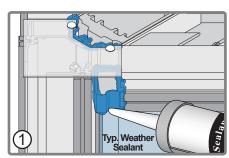
Captured Corner

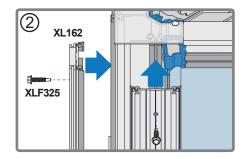
NOTE: Follow instructions on Page 33 for Glass Installation. See approved Shop Drawings for actual conditions. Details shown to be used as a guide only.

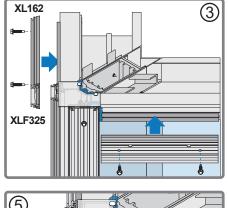
- Seal face of XLD352 End Dam and fill gap between End Dam and Isolator.
- (2) Remove Vertical Glazing Retainers. Install Vertical Pressure Plates with 1/8" (3.2) gap at ends. Attach with XLF325 screws 9" (228.6) on center.
- (3) Remove Horizontal Glazing Retainers. Install Horizontal Pressure Plates with Weep Holes at top leaving 1/8" (3.2) gap at ends.
- 4 Torque all XLF325 screws to 90 in-lbs.

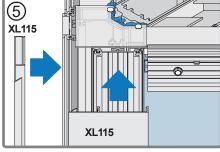
NOTE: See Page 29 for Pressure Plate Installation and Page 30 for Face Cap Installation. Orient Weep Holes at top.

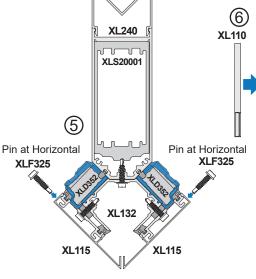
- (5) Install XL115 Corner Face Cap and pin at Horizontal.
- 6 Seal and tool Horizontal Pressure Plate against XL115 Corner Face Caps and install XL110 Horizontal Face Caps.



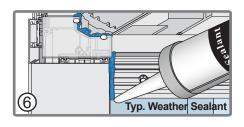


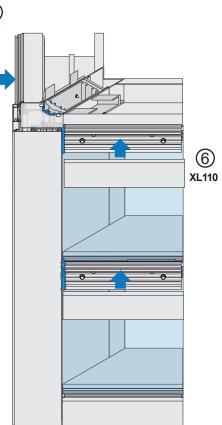






XL224





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90 DEGREE OS CORNER GLASS INSTALLATION (CONTINUED)

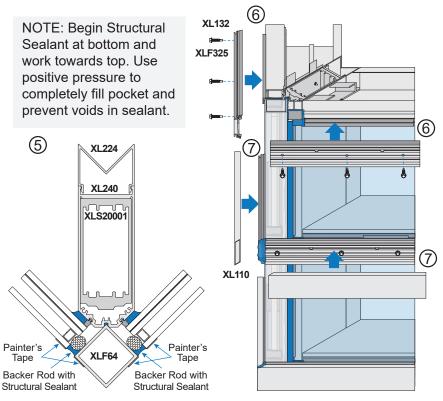
SSG Corner

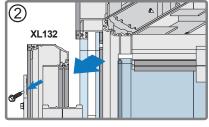
NOTE: XL132 Pressure Plate is removed after glazing. XLC324 SSG Corner End Dams are installed after that. Follow instructions on Page 33 for Glass Installation.

- 1 Apply bead of Structural Silicone Sealant along interior glazing pocket.

 IMPORTANT: Allow for a full cure of Structural Silicone before removing Retainers.
- (2) Remove Vertical Glazing Retainers and Pressure Bar.
- Apply Weather Sealant in vertical race and install XLF64 SSG Corner Tube.
- (4) Install and seal XLC324 SSG Corner End Dams at horizontal members.
- (5) Mask off edge of glass and Tube with Painter's Tape and then clean and seal. Tool Structural Sealant smooth immediately after running bead. Remove Tape after tooling and before Structural Sealant skins over.
- 6 Remove Horizontal Glazing Retainers. Install Horizontal Pressure Plates with Weep Holes at top leaving 1/8" (3.2) gap at ends. Seal joint with Weather Sealant.
- 7 Install Horizontal Face Caps with Weep Holes at bottom and mitered end at corner. Seal and tool joint with Cat. No. 795 Silicone Sealant.

NOTE: See approved Shop Drawings for actual conditions and Pressure Plate and Face Cap dimensions. Details shown to be used as a guide only.





XL240 XLS20001

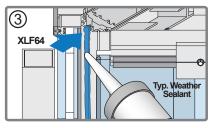
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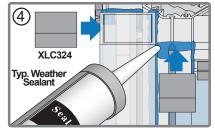
Structural Sealant

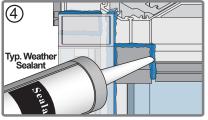
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Structural

Sealant







IMPORTANT: Critical Seals.

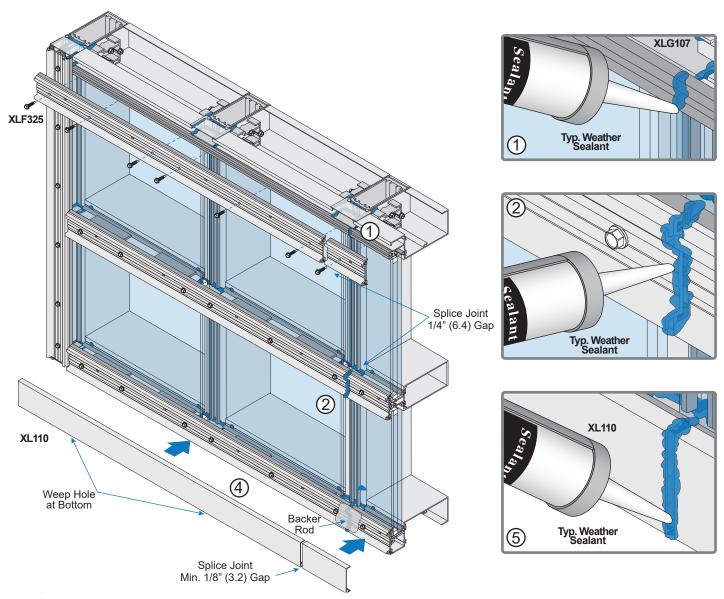
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PRESSURE PLATE AND FACE COVER SPLICING (OPTIONAL)

NOTE: Horizontal Pressure Plate runs continuous over SSG Mullions not to exceed 3 Lites in length. Splice at center of SSG Mullion when needed and pin 1-1/2" (38.1) from ends.

- 1 Butt-splice Isolator as required and seal joint.
- 2 Install Horizontal Pressure Plates with Weep Holes at top leaving 1/4" (6.4) gap for splice joint at center of SSG Mullion and 1/8" (3.2) gap at ends. Seal joint.
- (3) Torque all XLF325 screws to 90 in-lbs and follow Steps 1-2 on Page 35 to install Vertical Face Caps.
- Install Backer Rod at Pressure Plate splice joint. Install Horizontal Face Caps, leaving a 1/8" (3.2) minimum gap at splice joint and equal gaps at each end. Orient Weep Hole at top.
- (5) Seal and tool Face Cap splice joint.



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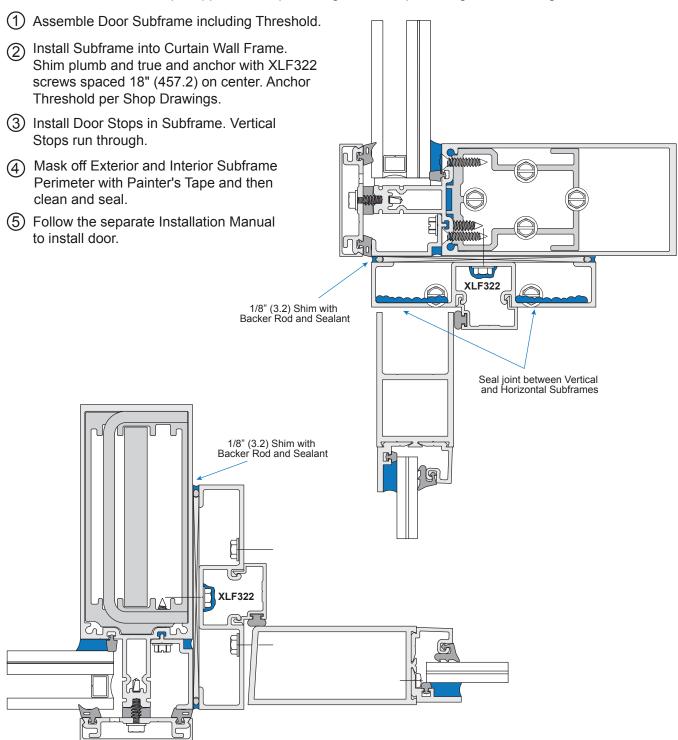
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ENTRANCE DOOR SUBFRAME INSTALLATION

NOTE: All Door Subframe Components are shipped fabricated from the factory. The main curtain wall framing can be erected prior to installing the doors.

Curtain Wall Verticals and Door Subframes run through to finished floor. Bed adjacent Curtain Wall Verticals in sealant and anchor to floor per approved Shop Drawings. See Shop Drawings for anchoring Door Jamb Mullion.



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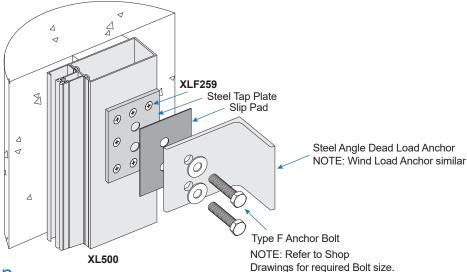
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MID POINT ANCHOR INSTALLATION

NOTE: Details shown are to used as a guide only. See approved Shop Drawings for actual conditions.

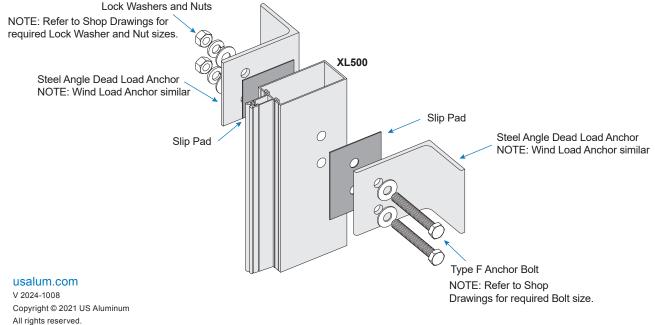
Jamb

- (1) Attach Steel Tap Plate to Jamb Mullion with XLF259 screw.
- (2) Install plumb and align Vertical Jamb Mullion. Drill appropriate sized holes for Anchor Bolts as shown on approved Shop Drawings.
- Place 1/16" (1.6) minimum Slip Pad on Tap Plate and install Anchor. Secure with Type F Anchor Bolts.



Intermediate Mullion

- Install plumb and align Vertical Mullion. Drill appropriate sized holes for Anchor Bolts as shown on approved Shop Drawings.
- ② Place 1/16" (1.6) minimum Slip Pad and install Anchors on each side of Mullion.
- ③ Secure with Type F Anchor Bolts, Lock Washers and Nuts as required by Shop Drawings.



JAMB AND MULLION SPLICE INSTALLATION XL500 (1) Attach End Caps and install Bottom Mullion as shown on Page 24. **Jamb** NOTE: The top of Bottom Mullion is fabricated with XLB18002, XLB18003 or XLB18401 Shear Block and holes to attach Splice Sleeve. Anchor at bottom. (2) Apply Bond Breaker Tape to Splice Sleeve. (3) Insert XLF009 Stop Screw into Mullion. (4) Slide Splice Sleeve into top of Mullion and secure with two XLF009 screws on each side. (5) Attach End Caps to Top Mullion and slide over top of Splice Sleeve. (6) Shim to leave 1-1/4" (31.8) gap between Mullions. NOTE: Bottom of Top Mullion is fabricated with XLB18002, XLB18003 or XLB18401 Shear Block. Anchor at top. 6 XLS18401 2" Bond Breaker Tape XLS19401 SSG Mullion **Corner Mullion** Intermediate Mullion 2 2 2 XLS19101 XLS19401 XLS7401 XLS7401 XLS19101 XLS19401 XL240 XL504 XL500 XLC325 XLC358 **XLC323** XLF009 XLF009 NOTE: Use XLS19401 Splice Sleeve with Jamb. XLF009 XLF009 XLF009

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STACKED HORIZONTAL INSTALLATION

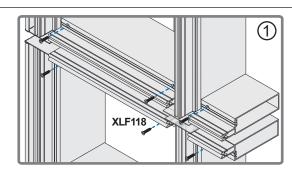
(1) Note orientation of XL536 Stacked Horizontals and attach to XLB18401 Shear Blocks with XLF118 screw at each end. Install other Horizontals as shown on Page 25 and continue until Page 32 with Isolator Installation.

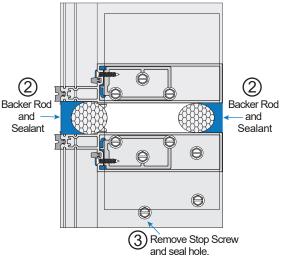
NOTE: Remove Shims at Splice Sleeve after Mid Point Anchor is installed. See Page 41.

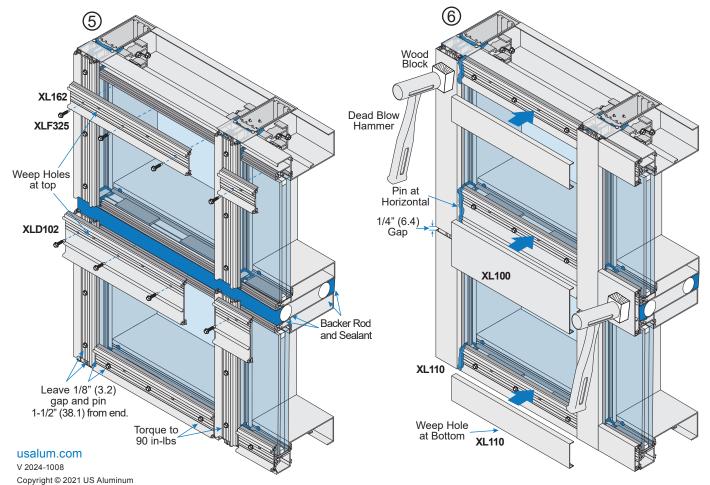
- (2) Install backer rod and sealant at Splice Sleeve on interior and exterior. Marry sealant with perimeter seal
- (3) Remove Stop Screw and seal hole.
- (4) Install glass as shown on Page 33.
- (5) Install Vertical and then install Horizontal Pressure Plates as shown on Page 34.

NOTE: At Stack Horizontal use XLD102 Pressure Plate with XLG117 Gasket at top and XLG160 Gasket at bottom.

6 Install Vertical and then Horizontal Face Caps as shown on Page 35. Leave 1/4" (6.4) expansion gap at verticals below Stacked Horizontals. Install XL100 Face Cap on XLD102 Pressure Plate.







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