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GENERAL INFORMATION

PRODUCT USE

The **Reliance-TC** curtain wall system is intended for installation by glazing professionals with appropriate experience. Subcontractors without experience should employ a qualified person to provide field instruction and project management.

Vistawall does not control the application or selection of its product configurations, sealant or glazing material and assumes no responsibility thereof. It is the responsibility of the owner, architect and installer to make these selections in strict compliance with applicable laws and building codes.

Consult sealant manufacturer for review and recommendation of sealant application. Follow sealant manufacturer's recommendations and literature for proper installation.

The air and water performance of the **Reliance-TC** curtain wall system is directly related to the completeness and integrity of the installation process. All pressure plates must also be installed properly. To insure top performance for this system, particular attention should be given the following procedures:

- 1. Surfaces to be sealed should be cleaned with isopropyl alcohol or solvent and dried as recommended by sealant manufacturer to remove all dirt and cutting oils. Sealant at shear blocks should be a minimum 3/16" diameter nominal placed completely around the top, face and bottom of the shear block without gaps in the sealant. Exposed surfaces should be cleaned after installing the horizon tal. Inspect joint for complete sealant contact, especially where the horizontal meets the face of the vertical member. Repair joint as required.
- 2. The interior glazing gasket should be installed so as to avoid stretching, buckles or tears. Corners must be cut square, sealed and butted together. To avoid damage to gasket and corner joints during glazing, glass should be level and straight during installation.
- 3. Vertical movement of mullion at intermediate floors requires special expansion joints and glazing materials. See page 12 for details which permit 1/4" movement. For designs and applications that may require greater movement or special considerations please contact your local Vistawall facil ity.

Variations on the details shown are inevitable and are not the responsibility of Vistawall when drawn by others. Vistawall strongly encourages its customers to utilize Vistawall supplied calculations and shop drawings.

For Structural Silicone Glazing applications, the stress on the silicone should not exceed 20 PSI. Consult sealant manufacturer for specific applications to ensure proper loading on silicone joint. Alternate spacer gaskets are available to accommodate larger sealant contact widths. Consult your nearest Vistawall facility for assistance.

Consult glass manufacturer for correct setting block location and length for glass sizes in excess of 40 sq.ft.

PROTECTION AND STORAGE

Handle all material carefully. Do not drop from the truck. Stack with adequate separation so the material will not rub together. Store material off the ground, protecting against the elements and other construction hazards by using a well ventilated covering. Remove material from package if wet or located in a damp area. For further guidelines consult AAMA publication "Care and Handling of Architectural Aluminum From Shop to Site."

GENERAL INFORMATION

CHECK MATERIAL

Check glass dimensions for overall size as well as thickness. Vistawall cannot be held responsible for gaskets that are not water tight due to extreme glass tolerances.

Check all material upon arrival at job site for quality and to determine any shipping damage.

Using the contract documents, completely check the surrounding conditions that will receive your materials. Notify the general contractor by letter of any discrepancies before proceeding with the work. Failure to do so constitutes acceptance of work by other trades.

Check shop drawings, installation instructions, architectural drawings and shipping lists to become familiar with the project. The shop drawings take precedence and include specific details for the project. The installation instructions are of a general nature and cover the most common conditions. Due to varying job conditions all sealant used must be approved by the sealant manufacturer to insure it will perform per the conditions shown on the instructions and shop drawings. The sealant must be compatible with all surfaces in which adhesion is required, including other sealant surfaces. Use primers where directed by sealant manufacturer. Properly store sealant at the recommended temperatures and check sealant for remainder of shelf life before using.

FIELD CONDITIONS

All material to be installed must be plumb, level and true. Aluminum to be placed in direct contact with masonry or incompatible material should be isolated with a heavy coat of zinc chromate, bituminous paint or non-metallic material.

After sealant is set and a representative amount of the wall has been 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.

CLEANING MATERIALS

Cement, plaster terrazzo, alkaline and acid based materials used to clean masonry are very harmful to finishes. Any residue should be removed with water and mild soap immediately or permanent staining will occur. A spot test is recommended before any cleaning agent is used. Refer to the **Architectural Finish Guide** in the Detail Catalog.

EXPANSION JOINTS

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

GENERAL INFORMATION

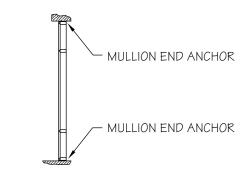
SUGGESTIONS FOR IMPROVING SYSTEM THERMAL PERFORMANCE

To maintain or improve your wall installation the following items should be considered.

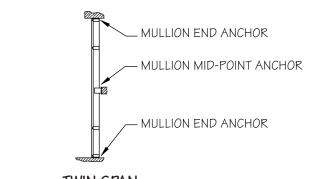
- A. Blinds or drapes prevent warm air from adequately flowing over the window surface.
- B. Warm air ventilators too far from the window will not adequately wash the window with air to prevent condensation.
- C. In extreme conditions the fan of the heating system should not cycle on and off, but should run continuously.
- D. Some heating systems have a water injection feature that can raise humidity levels. The higher the humidity levels the more likely condensation or frost will form. Raising the temperature and reducing humidity will usually solve the problem.
- E. On rare occasions an extremely cold storm may cause frost to appear on the glass framing. A space heater and electric fan blowing along the plane of the window wall can reduce or eliminate this temporary condition.

INSTALLATION TYPES

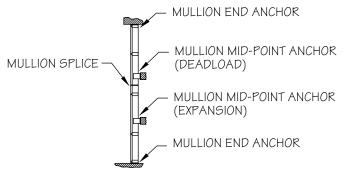
The following wall sections represent common types of installations for this product. Refer to approved shop drawings for specifics regarding splicing and anchoring of frame.



SINGLE SPAN Refer to steps 2.1.1 through 2.1.3



TWIN SPAN
Refer to steps 2.1.4 through 2.1.8



MULTI-SPAN
Refer to steps 2.1.9 through 2.1.16

FRAME FABRICATION

Unless otherwise noted, the details shown in these instructions reflect the 7 1/4" system for 1" glazing. Instructions for other backmember depths are similar.

- 1.1 Measure ROUGH OPENING to determine FRAME WIDTH and FRAME HEIGHT dimensions. Allow 1/2" minimum clearance for shimming and caulking around perimeter of frame.
- 1.2 Cut material to size. **SEE FIGURE 1** for guide. NOTE: Layout vertical mullions so that two shallow pockets will not be adjacent to each other. **SEE MULLION LAYOUT below.**

Frame Members

Verticals FRAME HEIGHT (ROUGH OPENING - top & bottom joints) Intermediate horizontals (tubular) Daylight opening (D.L.O.) Intermediate horizontals (rollover) D.L.O. - 1/16" D.L.O. - 1/16"

Accessories

Vertical gaskets

D.L.O. + 1" + allowance*

Horizontal gaskets

D.L.O. + 1" + allowance*

*Glazing gaskets should be cut 1/4" longer per foot. Set aside and lay flat until ready to glaze.

Other Members (as required)

Horizontal glazing adaptors D.L.O. - 1/32" Vertical glazing adaptors D.L.O. + 1" Door jamb subframe DOOR OPENING + 3/4" Door header subframe DOOR OPENING - 1/32" Flush door horizontal pressure plate D.L.O. - 1/16" Flush door horizontal face cover D.L.O. - 1/16" D.L.O. - 1/4" PRESSURE PLATE 1/32" 11/2" TYP. 1/4 POINTS 1/4 POINTS Intermediate Jamb Jamb Correct FACTORY D.L.O. - 1/16" PUNCHED ROLL-OVER HORIZ HOLES 5/16" DIA. WEEP HOLE VERTICAL = D.L.O. FRAME HEIGHT TUBULAR HORIZ **/ERTICAL /ERTICAL** D.L.O. - 1/16" TYP. FACE COVER Jamb Intermediate Jamb MIDPOINT 5/16" DIA. WEEP HOLE

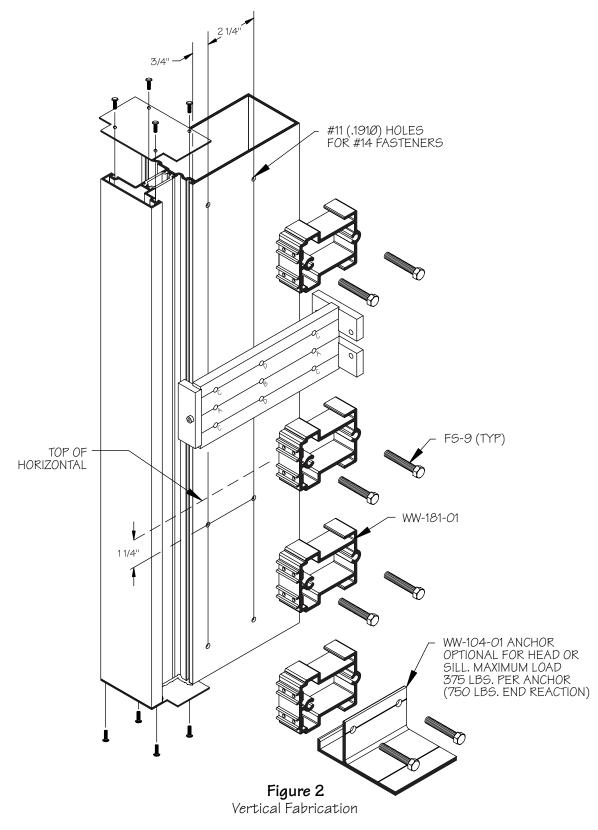
(bottom leg of face cover)

Figure 1Material Fabrication Guide

Incorrect Mullion Layout

FRAME FABRICATION

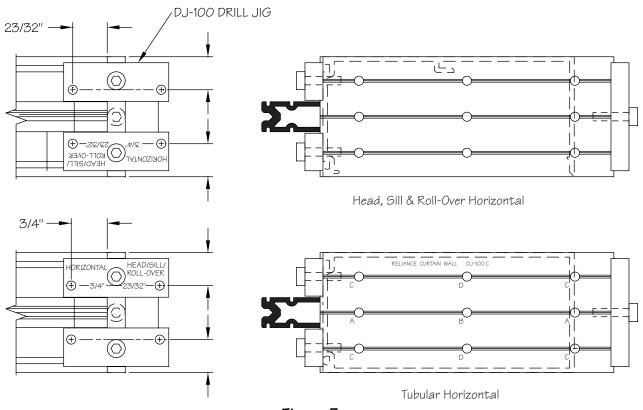
1.3 Fabricate vertical mullions for horizontal members using the DJ-100 drill jig. Drill holes for shear block using holes marked "A" and "B". **SEE FIGURE 2**. When working off horizontal centerlines, use the diamond cut-outs in the center of the drill jig to align the jig with the centerline.



FRAME FABRICATION

- 1.4 Install and seal end caps to top and bottom of all jamb and intermediate vertical mullions with (4) FS-320 #10 \times 1/2" drive screw. **SEE FIGURE 2 page 8**.
- 1.5 Fabricate ends of horizontal members for shear block screws using DJ-100 drill jig. SEE FIGURE 3.

Note: When fabricating tubular (one-piece) horizontals, use the side of the drill jig stamped "Horizontal". When fabricating head, sill and roll-over horizontals, use the side stamped "Head/Sill Rollover".



- **Figure 3**Horizontal Fabrication
- 1.6 Drill 5/16" diameter weep holes at 1/4 points in the horizontal pressure plate. Drill (1) 5/16" diameter weep hole at the bottom of each horizontal face cover at centerline of D.L.O. **SEE FIGURE 4.**
- 1.7 All pressure plates have factory-punched holes for screws at 9" O.C. To ensure proper pressure on the glazing, 7/32" diameter holes may need to be drilled at the ends of each horizontal pressure plate as required. Locate at 1 1/2" maximum from the ends.

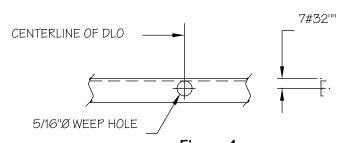


Figure 4Horizontal Face Cover Fabrication

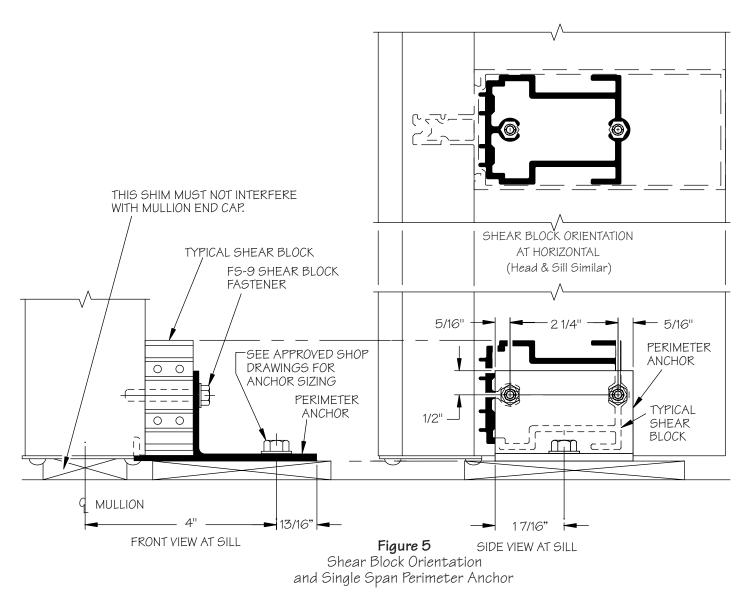
FRAME INSTALLATION

Anchor type and sizes vary per job requirements. Details shown in these instructions are to be used as a guide only. Refer to approved shop drawings for actual conditions.

2.1 Vertical mullion installation:

SINGLE SPAN INSTALLATION:

2.1.1 Attach shear blocks to all vertical members. The integral perimeter anchors are designed for use with standard shear blocks. **SEE FIGURE 5** for proper orientation and installation on mullion.



2.1.2 Install verticals plumb and level. Place shims under vertical mullion and anchor at sill to evenly distribute deadload from wall. Install pipe sleeve anchor at head to allow for thermal movement of the vertical mullions. **SEE FIGURE 6, page 11**.

FRAME INSTALLATION

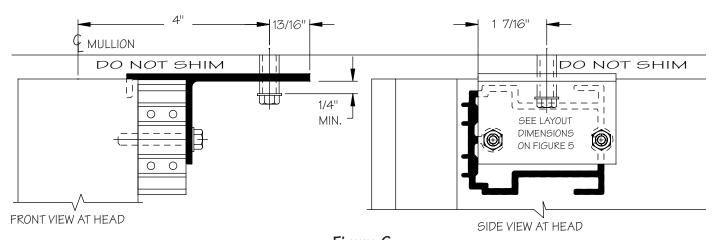
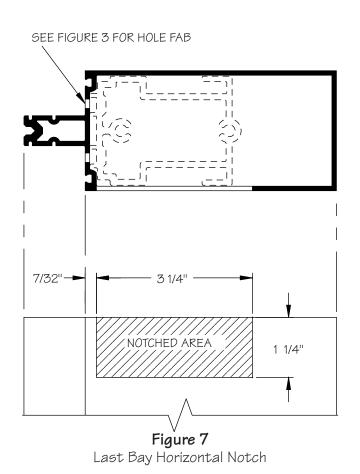


Figure 6Single Span Head Anchorage

NOTE: If open back horizontals are used, all vertical mullions can be installed first. If tubular horizontals are used, the wall must be stick erected. Last bay tubular horizontals must be notched. SEE FIGURE 7.



2.1.3 Check D.L.O. and diagonal dimensions every five bays to ensure correct spacing and frame squareness to prevent dimensional buildup.

TWIN SPAN INSTALLATION:

- 2.1.4 Attach shear blocks to all vertical members. SEE FIGURE 5, page 10 for proper orientation on mullion. For installations using the integral perimeter anchors, attach to head and sill shear block. NOTE: Depending on the end reactions, either the integral perimeter anchor or tee anchors can be used to anchor the wall. For end reactions above 750 pounds, use tee anchors.
- 2.1.5 For installations using tee anchors, slide tee anchors into top and bottom of vertical mullions. The tee anchors are designed to clear the shear block fasteners.
- 2.1.6 Install verticals plumb and level, ensuring proper spacing out from floor slab or beam. Place shims under vertical mullion and anchor at sill to evenly distribute deadload from wall. Anchor top and bottom of mullions to the structure.

NOTE: If open back horizontals are used, all vertical mullions can be installed first. If tubular horizontals are used, the wall must be stick erected. Last bay horizontals must be notched. SEE FIGURE 7.

- 2.1.7 Anchor the mullion to floor slab or beam. Do not overtighten bolt(s). For expansion anchors, back off nut 1/4 turn and stake bolt.
 - 2.1.8 Check D.L.O. every five bays to ensure correct spacing to prevent dimensional buildup.

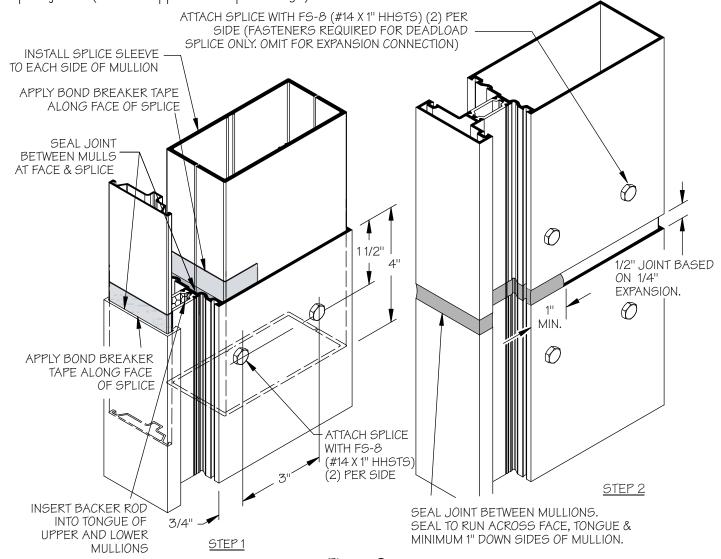
FRAME INSTALLATION

MULTI-SPAN INSTALLATION:

- 2.1.9 Install tee anchors at the sill condition prior to setting mullions. Each tee anchor must be anchored with a minimum of two anchor bolts. See approved shop drawings for bolt size and location.
- 2.1.10 Attach shear blocks to all vertical members. **SEE FIGURE 2, page 8** for proper orientation on mullion.
- 2.1.11 Install lower verticals plumb and level, ensuring proper spacing out from floor slab or beam. Place shims under vertical mullion at sill to evenly distribute deadload from wall.

NOTE: If open back horizontals are used, all vertical mullions can be installed first. If tubular horizontals are used, the wall must be stick erected. Last bay tubular horizontals must be notched. SEE FIGURE 7, page 11.

- 2.1.12 Anchor the mullion to floor slab or beam. Do not overtighten bolt(s).
- 2.1.13 Repeat steps 2.1.11 and 2.1.12 until all lower verticals are in place. Check D.L.O. every five bays to ensure correct spacing to prevent dimensional buildup.
- 2.1.14 Install the next vertical above, temporarily shimming between verticals to maintain proper splice joints (refer to approved shop drawings). **SEE FIGURE 8.**



FRAME INSTALLATION

- 2.1.15 Slide tee anchors into top of upper-most mullions. The tee anchors are designed to clear the shear block fasteners. Attach tee anchor to building condition.
- 2.1.16 When the wall is set, remove shims between vertical mullions at splices. For expansion anchors, back off nut 1/4 turn and stake bolt.

Continue with step 2.2 for remaining installation after all verticals have been erected.

2.2 Seal around shear blocks prior to installing each horizontal mullion. **SEE FIGURE 9**. Install horizontal mullions as shown in **FIGURE 10**, **page 14**. Prior to attaching screws, make sure sealant has been forced out of the holes in horizontal. If not, apply a liberal amount of sealant into each hole. Secure horizontals to shear block with two (2) FS-115 #10 \times 1" Phillips Pan Head screw at each end of horizontal. Check head of screw to insure proper seal.

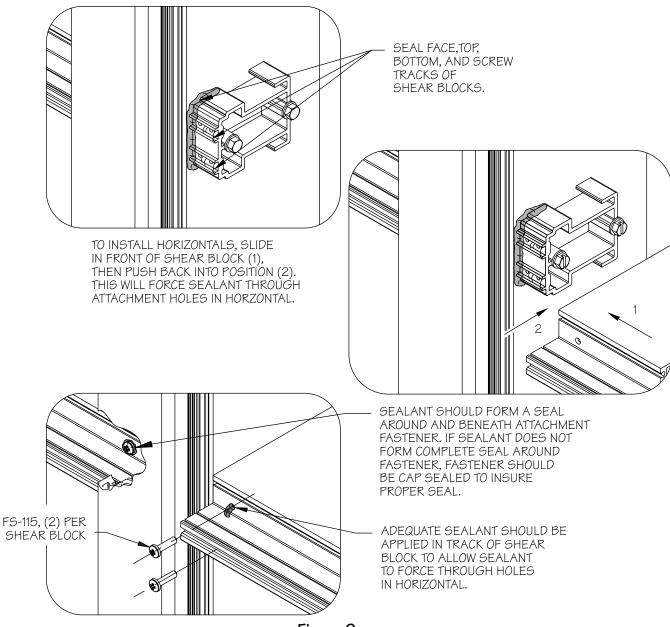
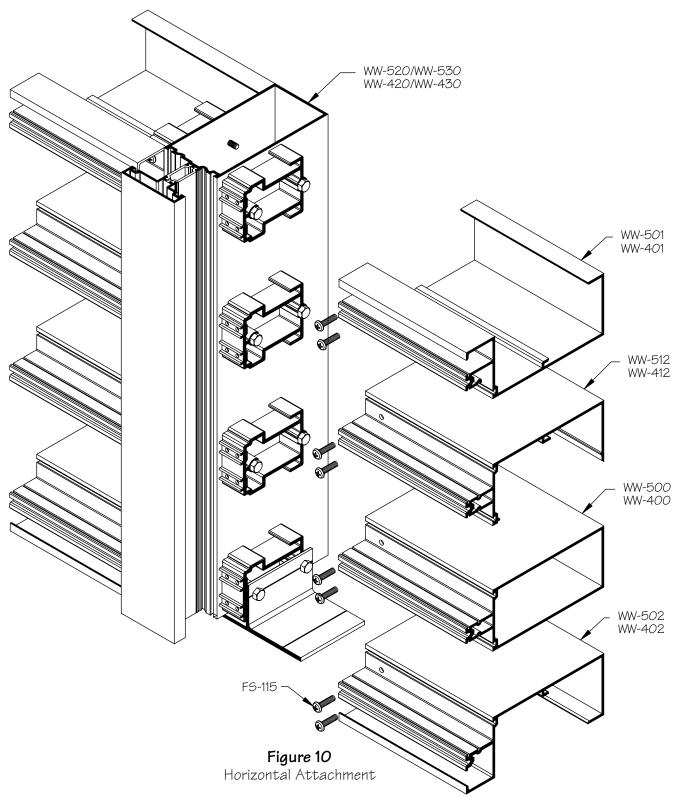


Figure 9Shear Block Sealing

FRAME INSTALLATION

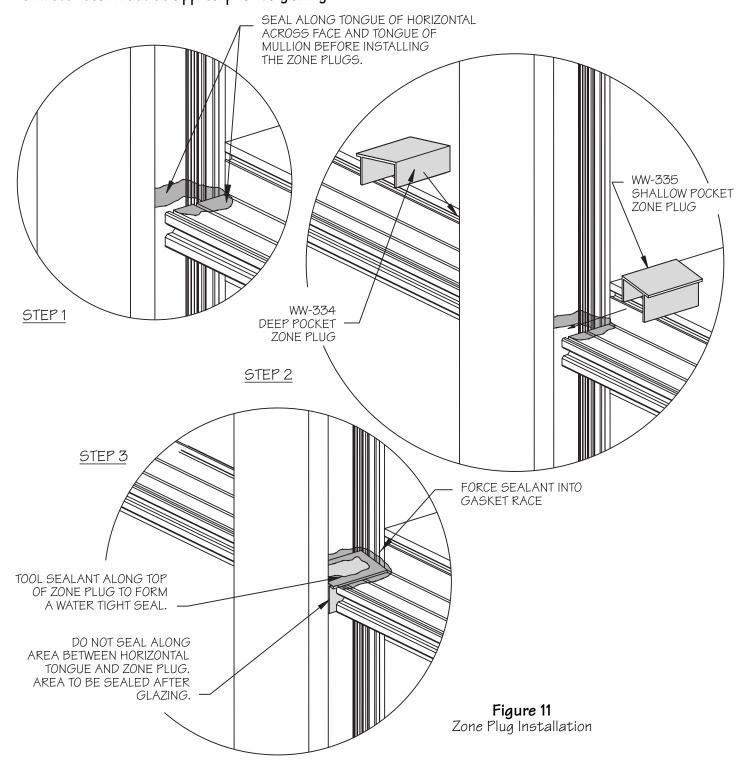


- 2.3 If applicable, install cover plates for open back horizontals.
- 2.4 Wipe excess sealant from exposed areas. Tool sealant into the joint between the horizontal and vertical at the glazing pocket. Avoid a buildup of sealant on the gasket surfaces or in the gasket reglets.

 TIP: Use a short piece of glazing gasket to clean out excess sealant in glazing reglets. Also wipe excess sealant away from the horizontal filler snap areas on rollover horizontals.

FRAME INSTALLATION

- 2.5 Apply sealant to all contact surfaces on vertical and horizontal mullions where zone plugs will be installed. Install at the end of each horizontal mullion by sliding plug down into pocket from above. Tool sealant around all sides of the zone plug in the glazing pocket to ensure a watertight seal. **SEE FIGURE 11**.
- 2.6 When all framing members are installed, apply the perimeter seal. **SEE FIGURE 12, page 16**. The interior perimeter seal is not required for system performance, but can be installed for cosmetic purposes. **Perimeter seal must be applied prior to glazing**.



FRAME INSTALLATION

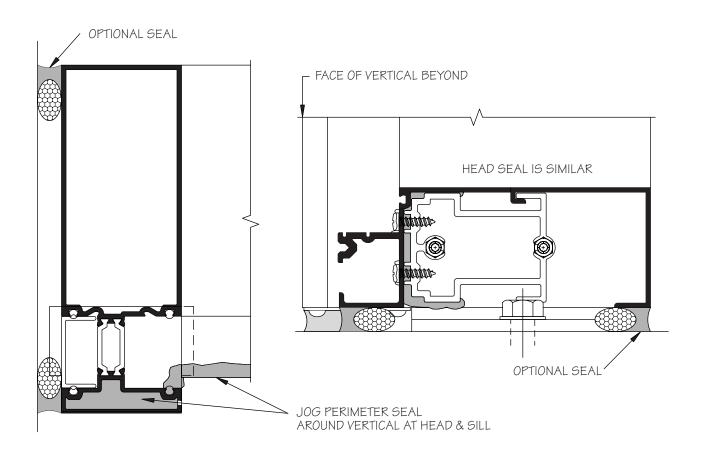


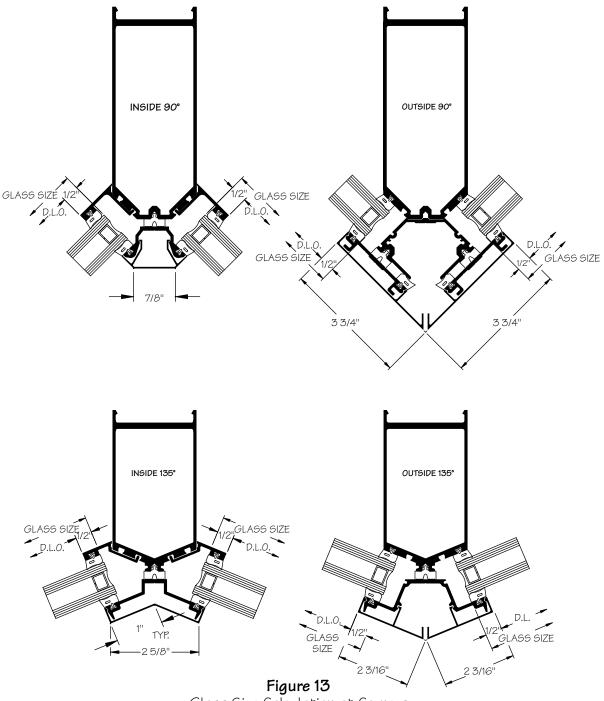
Figure 12Perimeter Seal

GLAZING

Start glazing the frame at the bottom and work up.

GLASS SIZE CALCULATION = D.L.O. + 1" for Width and Height SEE FIGURE 13 for calculation at corner mullions

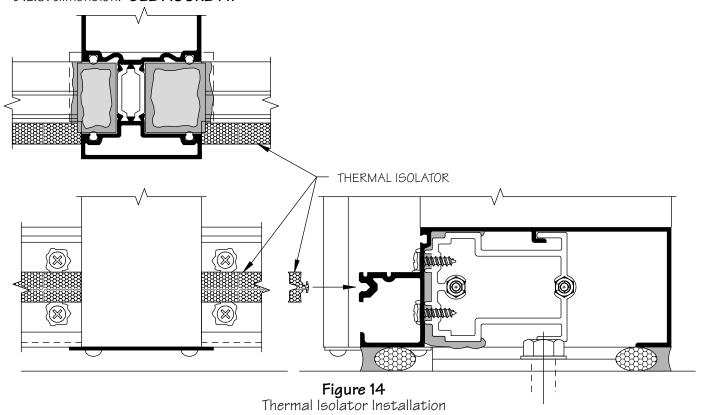
Note: Steps 3.1 through 3.13 refer to standard glazing of 1" infill. For openings requiring transition glazing with adaptors, refer to "TRANSITION GLAZING", page 21.



Glass Size Calculation at Corners
SOME PARTS NOT SHOWN FOR CLARITY

GLAZING

- 3.1 Install face gaskets into all horizontal pressure plates. Crowd all gaskets into members to avoid relaxation of material.
- 3.2 Install thermal isolator into groove on face of horizontal mullion tongues. These are cut to the D.L.O. dimension. **SEE FIGURE 14.**

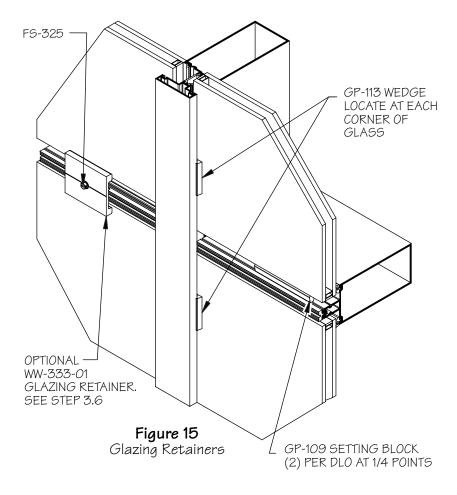


- 3.3 Note: To avoid silicone curing before glass is set in place and contamination from job-site debris, glazing prep must be done as each opening is glazed. Do not pre-seal the gaskets in the entire frame; install and seal gaskets as you are ready to set glass in each opening. Install interior gaskets into backmembers, both horizontal and vertical, installing vertical gaskets first. If the vertical mullion is spliced, run gasket through the splice joint, setting gasket in fresh silicone at splice joint, trimming the gasket dart as necessary to form an airtight seal. Glazing gaskets at verticals run through; horizontal gaskets butt into vertical gaskets. Crowd the gaskets into corners, cutting the horizontal gaskets at an angle to match bevel on vertical gaskets. Pulling the horizontal gasket back, seal joint between the corners of the gaskets just prior to setting the glass. Release the gasket back to its original position, making sure sealant fills the entire joint. Tool corner joints after glass is set and temporary glazing retainers are installed.
- 3.4 Position setting blocks at correct location (two per lite). Refer to approved shop drawings or deadload charts. Lubricating the top of the setting block will help insure proper setting of glass.

 Note: Consult glass manufacturer for correct setting block location and length for glass sizes in excess of 40 sq. ft.
- 3.5 Set glass in opening from the exterior. Place one edge of the glass into the deep pocket of the vertical. Swing the glass into the adjacent vertical pocket, ensuring that the glass bite is equal on all sides.

CAUTION: Be certain that glass is placed firmly against interior gasket to ensure a proper seal and to avoid binding of the glass on the setting block.

GLAZING



- Temporarily hold glass in place at each corner of the glass with 4" long exterior wedge gaskets at the vertical. Locate at the corners for proper sealing of the gasket joint. Retainers may be required at the center of each horizontal if glass edges are greater than 4' in length but less than 8'. In these cases, use WW-333-01 temporary glazing retainers fastened with (1) FS-325 screw. Torque to 60 in-lbs. Temporary retainers are intended for short-term use only. Additional retainers may be required to withstand full design wind load pressures. If severe weather or high wind loads are anticipated, full length pressure plates must be installed. SEE FIGURE 15.
- 3.7 If required, install GP-114 and GP-115 side blocks at centerline of each lite along vertical edges. Hold GP-114 in place with a dollop of silicone. For framing that may be subjected to seismic events, consult glass manufacturer for preferred location.
- 3.8 Repeat steps 3.3 through 3.7 until all glass is set, working row by row up the elevation.

For elevations requiring vertical mullion splices, refer to the **VERTICAL SPLICING section, page 22**, before continuing the installation.

3.9 Prior to installing horizontal pressure plates, apply sealant to front edge of the zone plug. **SEE FIGURE 16**.

Pressure plate fasteners must be located 11/2" from each end to maintain proper compression. Drill 7/32" diameter holes as required.

3.10 After removing any temporary retainers at the horizontals, center horizontal pressure plates in opening, leaving a 1/8" gap on each end. Make sure the weep holes are on the top side.

Attach pressure plates with FS-325 screw.

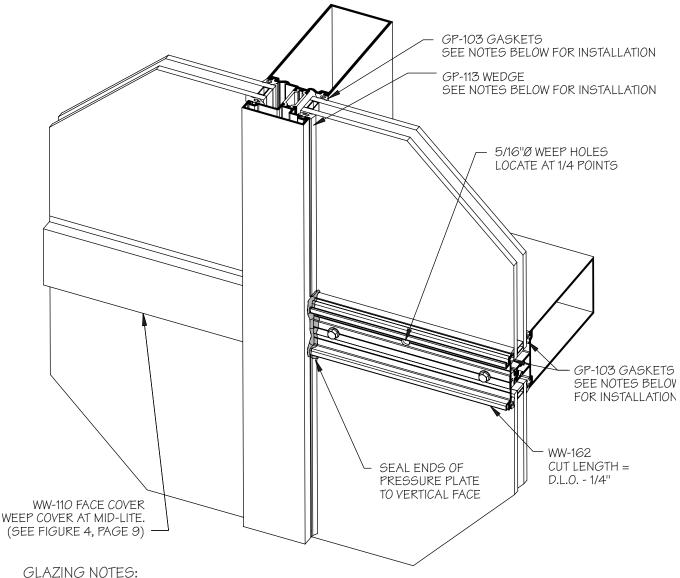
EA OF LLING PLATE Figure 16

SEAL THE FRONT AREA OF ZONE PLUG BEFORE INSTALLING THE PRESSURE PLATE

Sealing Zone Plugs Prior to Installing Pressure Plates

GLAZING

- 3.11 After all pressure plates are installed on the frame, torque fasteners to 90 in-lbs. The use of either a drill motor with a torque limiter or a torque wrench can be used. If using a cordless drill, check torque periodically since battery usage will affect the torque setting.
- 3.12 Seal ends of horizontal pressure plates to the verticals. Tool sealant into the joint. **SEE FIGURE 17.**



- 1) INTERIOR GASKETS: GP-103 DENSE EPDM PUSH-IN GASKET. EXTERIOR GASKETS: GP-103 AT HORIZONTALS, GP-113 WEDGE GASKET AT VERTICALS.
- 2) REMOVE GASKETS FROM REELS AND ALLOW TO RELAX OVERNIGHT BEFORE INSTALLING. 3) CUT GASKETS 1/4" LONGER PER FOOT TO ALLOW FOR RELAXATION.

Figure 17

Sealing Pressure Plates

3.13 Install horizontal face covers, leaving an

equal gap at each end. Make sure the weep hole is on the bottom. Install covers using a wood block to protect the cover and a dead blow soft face hammer.

TRANSITION GLAZING

- A.1 Install vertical adaptors first, leaving an equal overlap into each pocket. **SEE FIGURE 18**. Refer to **VERTICAL SPLICING**, **page 22** if vertical mullion is spliced within a spandrel lite. Transition adaptors must be installed after mullion splice is sealed.
- A.2 Install horizontal adaptors maintaining an equal gap at each end. Once all adaptors have been installed in the opening, seal all corner joints. Run a bead of sealant in the groove formed between the adaptor and mullions. This seal must be continuous around the opening and must marry with the seal at the corner joints. SEE FIGURE 19.

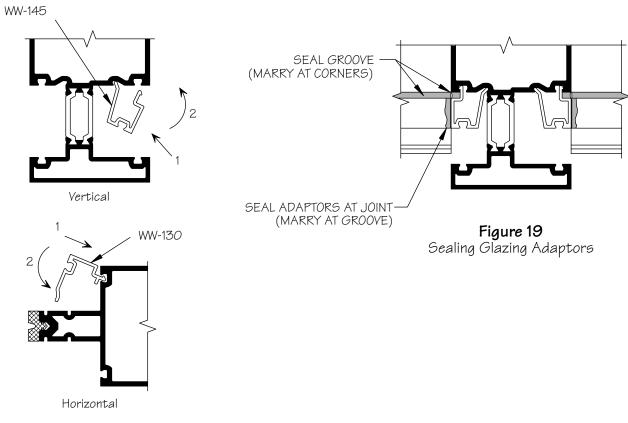


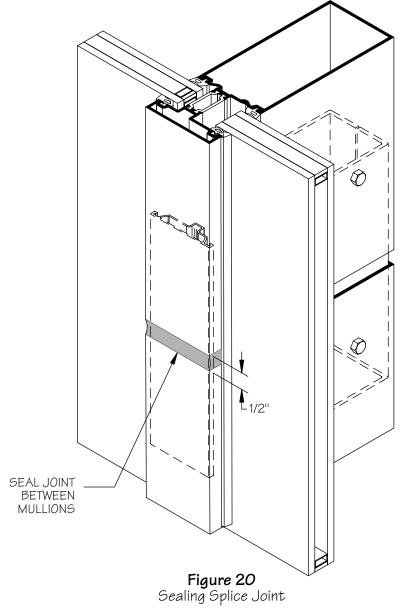
Figure 18Installing Glazing Adaptors

VERTICAL SPLICING

Refer to MULTI-SPAN INSTALLATION, page 12 for splice sleeve installation.

Follow sealant manufacturer's guidelines for proper joint width based on anticipated movement. A minimum 1/2" joint is recommended. **Note: Standard splice sleeves are engineered to accommodate thermal expansion only. They do not allow for movement in floor levels.** Refer to approved shop drawings for special circumstances, or contact your nearest Vistawall facility.

- B.1 Apply bond breaker tape to the face of backmember splice sleeve, returning back on the sides 1" minimum. Apply bond breaker tape around entire perimeter of face splice sleeve. Insert backer rod into the hollow section at the struts. Seal all around splice joint from the face to the 1" return on the backmember. Tool sealant to follow the contour of the glazing reglets to insure a good seal when gaskets are installed. SEE FIGURE 8, page 12.
- B.2 Discontinue glazing adaptors at splice joints. Install backer rod into cavity and seal between adaptors. Marry this seal with the main seal at the mullion. Refer to step B.1 above for sealing notes at the glazing reglets. **SEE FIGURE 20.**



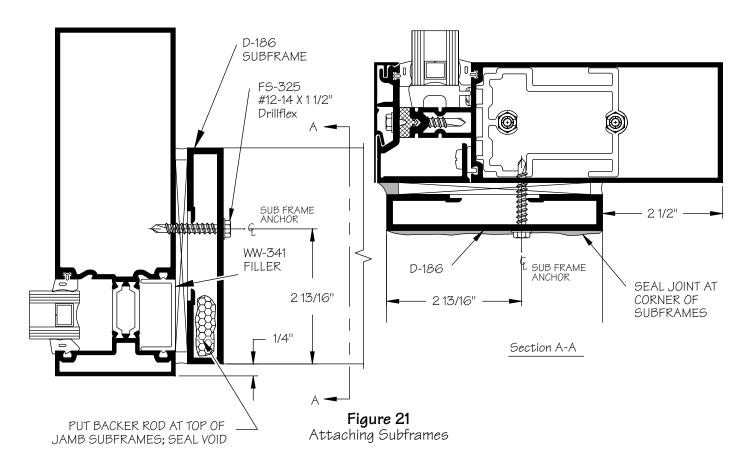
ENTRANCE FRAMES

All door framing components are shipped fabricated from the factory. The main curtain wall framing can be erected prior to installing the doors. Refer to FIGURES 23 & 24 on page 24 for door header fabrication and installation instructions.

C.1 Curtain wall verticals and door subframes run through to finish floor. Bed adjacent curtain wall verticals in sealant and anchor to floor per approved shop drawings.

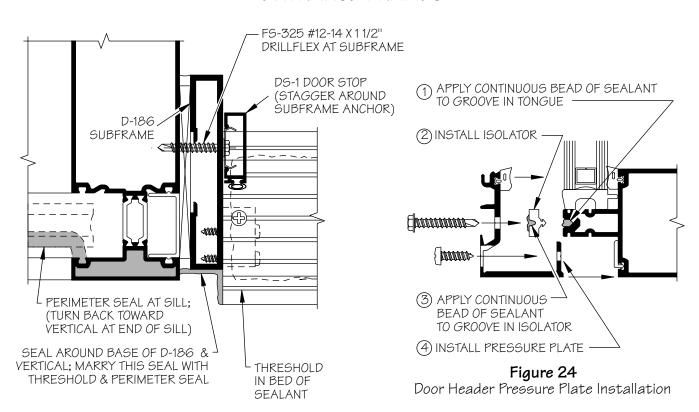
C.2 SUBFRAME INSTALLATION:

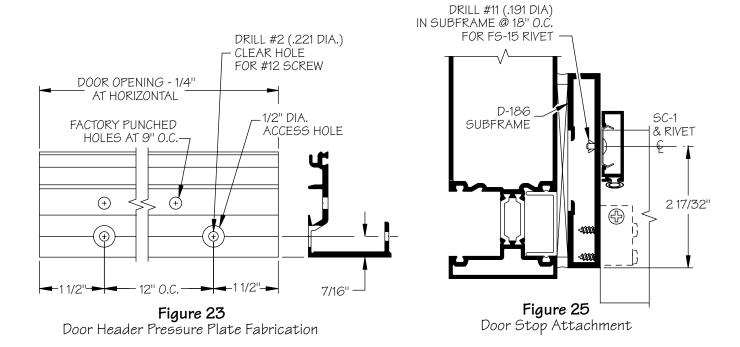
- C.2.1 Attach TH-44 threshold clip to bottom of each jamb subframe with two (2) FS-256 $\#8 \times 1$ 1/2" Phillips Round Head Screws.
 - C.2.2 Install WW-341 pocket filler into pocket of vertical facing the door opening.
- C.2.3 Bed subframes in sealant and anchor to curtain wall framing members with FS-325 #12-14 x 1 1/2" Drillflex at 18" O.C. Seal joint between jamb and header subframes. Seal also the tops of the jamb subframes. SEE FIGURE 21.



C.2.4 Bed threshold in sealant, attaching to TH-44 clips with FS-42, $\#12 \times 1/2$ " Phillips Flat Head screws. Marry threshold seal with subframe and main system seal. **SEE FIGURE 22, page 24.**

ENTRANCE FRAMES

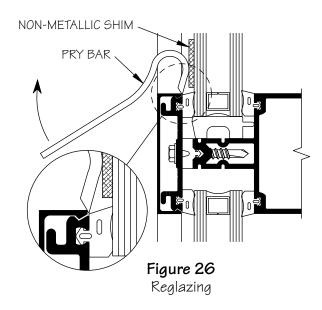




- C.2.7 Drill #11, .191 diameter holes in D-186 subframe for FS-15 rivets. Install door stops onto subframe with SC-1 clips at 18" O.C. Locate clips around the subframe anchor screws. **SEE FIGURE 25**. Vertical stops run through.
 - C.2.8 Install face covers onto door header pressure plate.
 - C.2.9 Install door per DOOR AND FRAME INSTALLATION AND GLAZING MANUAL.

REGLAZING PROCEDURES

D.1 REGLAZING MUST BE DONE FROM THE EXTERIOR. Carefully remove horizontal face covers surrounding the lite of glass to be deglazed. **SEE FIGURE 26**.



- D.2 Remove horizontal pressure plates at the lite to be replaced, along with exterior wedge gaskets at the vertical mullions.
- D.3 Remove lite of glass and existing interior gaskets from the opening Clean debris and sealant from the framing members and horizontal pressure plates.
- D.4 Install new gaskets into framing. Set new lite of glass, centered in opening. Refer to the GLAZING section of this manual for proper procedure.
- D.5 Reinstall pressure plates and seals per GLAZING section of this manual.

PARTS LIST

Corner Mullion 135° Inside & Outside

Corner Mullion 90° Inside & Outside

Face Cover 135° Inside Corner

Face Cover 90° Inside Corner

Face Cover 135° Outside Corner

Face Cover 90° Outside Corner

Face Cover 90° Inside Corner

Face Cover 90° Outside Corner

Face Cover 135° Inside Corner

Face Cover 135° Outside Corner

Mullion Adaptor 90° Outside Corner

Pressure Plate 90° Inside Corner

Glazing Bead 135° Inside Corner

Glazing Adaptor 135° Inside Corner 1" to 1/4" Infill

Glazing Bead

90° Inside Corner

4" BACKMEMBERS 1" INFILL. 6" SYSTEM DEPTH

CORNER MULLIONS & ACCESSORIES 6" and 7 1/4" System Depth

I IINI ILL,	0 SISIEWIDEFIN		
WW-4	Typical Vertical & Jamb		WW-230
WW-4	Typical Vertical & Jamb		WW-240
æ[WW-4	Intermediate Horizontal	✓	WW-111
₩W-4	Head	_\	WW-112
ww-4	Sill		WW-113
æ-[WW-4	Open Back Horizontal		WW-115
		↓	WW-118
5 1/4" BAC	MEMBERS		WW-119
1" INFILL, 7	1/4" SYSTEM DEPTH		
	Typical Vertical & Jamb		WW-120
WW-5		لـــا	WW-121
WW-5	Heavy Vertical & Jamb	\bigcirc	WW-132
#EC. WW-5	Intermediate Horizontal	1	WW-132
€	Head	" "\	WW-137
۶	Sill D2	~~	WW-138
1		1	

Open Back Horizontal

WW-512

Эy	/stem Dep	/u i	
			Glazing Adaptor 90° Inside Corner
L		WW-140	1" to 1/4" Infill
			Pressure Plate
	√ ,		135° Inside Corner
	, ,	WW-163	include Connec
Γ			Pressure Plate
	M		135° Outside Corner
		WW-164	Too Guidiao Gomor
Ī			Pressure Plate
	\$ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		90° Outside Corner
		WW-165	ou catolad como
H			Snap-In Back Trim
			Use with WW-230
	T		Corner Mullion
		CW-823	(5 1/4" & 6" System Depths)
r			Snap-In Back Trim
			Use with WW-240
	Ĺ		Corner Mullion
	(F	WW-220	(6 1/2" & 7 1/4" System Depths)
r			Snap-In Back Trim
			Use with WW-230
	ļ		Corner Mullions
		WW-221	(6 1/2" & 7 1/4" System Depths
Ī			"T" Anchor
			Use with WW-240
	()	/W-102-05	Corner Mullion
+		744-102-03	"T" Anchor
			Use with WW-230
	l l		Corner Mullion
L	· W	/W-102-06	Corner Maillori
			Shear Block
			Use with WW-240
	<u> </u>	/W-180-01	90° Corner Mullion
ſ	<u>1</u> 7		Shear Block
			Use with WW-230
	<u> </u>	/W-180-02	135° Corner Mullion
r			Splice Sleeve
			Use with WW-230
	٧ / _٧	/W-190-01	135° Corner Mullion
f	7		Splice Sleeve
			Use with WW-240
	Jw	/W-191-01	90° Corner Mullion
\mid	Y		Mullion Con
	000		Mullion Cap 135° Inside Corner
			1" Infill, Captured
1		WW-317	i iiiiii, Gaptarea

26 December 2005

WW-139

PARTS LIST

CORNER MULLIONS & ACCESSORIES 6" and 7 1/4" System Depth

Mullion Cap 90° Inside Corner 1" Infill, Captured WW-319 Mullion Cap 135° Outside Corner 1" Infill, Captured WW-321 Mullion Cap 90° Outside Corner 1" Infill, Captured WW-323 Foam Zone Plug 135° Inside Corner 1" Infill, Captured WW-304 Foam Zone Plug 90° Inside Corner 1" Infill, Captured WW-306 Foam Zone Plug 135° Outside Corner 1" Infill, Captured WW-308

COMMON EXTRUSIONS All System Depths and Infills

All System Depths and mills		
L1 WW-110	Standard Face Cover	
_ WW-117	Face Cover for Flush Door Adaptor	
WW-122	Horizontal Pocket Filler (use with exterior gasket)	
WW-123	Horizontal Pocket Filler (full pocket closure)	
•t WW-126	Open Back Horizontal Filler for WW-412 & WW-462	
- L WW-127	Open Back Horizontal Filler for WW-512 & WW-562	
لت WW-130	Transition Glazing Adaptor 1" to 1/4" Infill Horizontals Only	
්∫ WW-145	Transition Glazing Adaptor 1" to 1/4" Infill Verticals Only	
WW-160	Flush Door Pressure Plate	
<u>ਮੁਦ</u> WW-162	Standard Pressure Plate	
DS-1	Door Stop Use with SC-1 Clip	
ecember 2005		

COMMON EXTRUSIONS All System Depths and Infills

CW-66 CW-66 CW-66 Splice Sleeve Use with WW-420 (Backmember) Splice Sleeve Use with WW-530 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face Door Subframe T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-430	Г	Splice Sleeve
Splice Sleeve Use with WW-420 (Backmember) Splice Sleeve Use with WW-530 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face Door Subframe T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430		
Splice Sleeve Use with WW-420 (Backmember) Splice Sleeve Use with WW-530 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520 WW-420, WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face Door Subframe "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430	CW-66	(Backmember)
CW-90 CW-90 CW-90 Splice Sleeve Use with WW-530 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face Door Subframe "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430	_	Splice Sleeve
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CW-1496 CW-1496 CW-1496 Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-430 at Face Door Subframe T" Anchor Use with WW-520 "T" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430	CVV-90	0 11 01
CW-1496 CW-1496 Splice Sleeve Use with WW-430 (Backmember) Splice Sleeve Use with WW-520, WW-203-01 WW-203-01 Door Subframe Door Subframe T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430	Γ	
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CW-542 Use with WW-430 (Backmember)	└ CW-1496	,
Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-420, WW-430 at Face	_	
Splice Sleeve Use with WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face Door Subframe "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430		
Use with WW-520, WW-420, WW-530 & WW-420, WW-530 & WW-420, WW-530 & WW-430 at Face	CW-542	(backmember)
WW-420, WW-530 & WW-420 at Face		
WW-203-01 WW-430 at Face Door Subframe "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430		
Door Subframe "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430	WW-203-01	
D-186 "T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-420 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430	П	
"T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-420 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530	'	Door Subframe
"T" Anchor Use with WW-520 "T" Anchor Use with WW-420 "T" Anchor Use with WW-420 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530	D-186	
Use with WW-520	D-100	
### WW-102-08 ### WW-102-09 ### ### Anchor Use with WW-420 ### WW-102-10 ### ### ### WW-530 ### ### ### ### ### ### ### ### ### #		
"T" Anchor Use with WW-420 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430	[]	Use with WW-520
WW-102-09 "T" Anchor Use with WW-530 "T" Anchor Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-430	WW-102-08	
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Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430	`WW-102-09	
Use with WW-530 "T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430		"T" Anchor
"T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-530		
"T" Anchor Use with WW-430 Jamb "F" Anchor Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-530	WW-102-10	
Use with WW-430 WW-102-11 Jamb "F" Anchor Use with WW-520 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-530		"T" Anchor
WW-102-11 Jamb "F" Anchor Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-530		
Jamb "F" Anchor Use with WW-520 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-530	WW-102-11	333 1111 100
Use with WW-520 WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430		Level HET A. J.
WW-103-05 Jamb "F" Anchor Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430		
Jamb "F" Anchor Use with WW-420 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-430	WW-103-05	036 WILLI VVVV-020
Use with WW-420 WW-103-06 Jamb "F" Anchor Use with WW-530 Jamb "F" Anchor Use with WW-430	100 00	
WW-103-06 Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430		
Jamb "F" Anchor Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430		Use with WW-420
Use with WW-530 WW-103-07 Jamb "F" Anchor Use with WW-430	VVVV-103-06	
Jamb "F" Anchor Use with WW-430		Jamb "F" Anchor
Jamb "F" Anchor Use with WW-430	[Use with WW-530
Use with WW-430	WW-103-07	
Use with WW-430		Jamb "F" Anchor
l` '	[]	
WW-103-08	WW-103-08	
·	-	

STANDARD ACCESSORIES All System Depths and Infills

	Drill Jig
	Vertical Mullions
	4" & 5 1/4"
DJ-100	Backmembers
	Optional Weep Baffle
	Optional Woop Bamo
HP-1004	

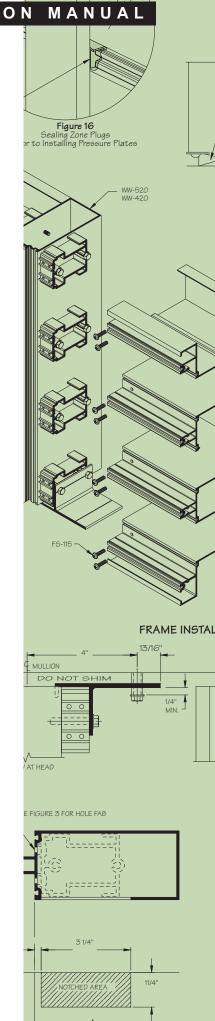
STANDARD ACCESSORIES All System Depths and Infills

GP-103	Standard Dense Gasket Interior & Exterior (Interior Only at Vertical)
GP-104	Optional Sponge Gasket Interior Only
T GP-113	Standard Wedge Gasket Exterior Only at Vertical
GP-107	Thermal Isolator
GP-109	Setting Block 1" Infill
GP-110	Setting Block 1/4" Infill
GP-114	Side Block Shallow Pocket
GP-115	Side Block Deep Pocket
WW-181-01	Standard Shear Block 4" & 5 1/4" Backmembers
WW-104-01	Shear Block Anchor 4" & 5 1/4" Backmembers (for Head & Sill)
\\ WW-128	Pocket Filler for WW-520, WW-420, WW-530 & WW-430 at Vents
] WW-341	Pocket Filler for WW-520, WW-420, WW-530 & WW-430 Verticals
WW-333-01	Temporary Glazing Retainer All Horizontals
WW-334	Zone Plug Deep Pocket
WW-335	Zone Plug Shallow Pocket
WW-342	Zone Plug Head Members
ww-343	Mullion Cap WW-420, WW-520, WW-430 & WW-530

PARTS LIST

STANDARD ACCESSORIES All System Depths and Infills

FS-8	#14 x 1" Phillips Hex Head Splice Sleeve to Vertical
FS-9	#14 x 1 1/2" Hex Head Shear Block to Vertical
FS-15	3/6" x 7/16" Drive Rivet SC-1 Door Stop Clip to Mullion
FS-43	#12 x 3/4" Phillips Pan Head Flush Door Pressure Plate to Mullion
FS-115	#10 x 1" Phillips Pan Head Horizontal to Shear Block
FS-319	1/4-20 x 3" Hex Head Bolt Through Bolt at Steel Stiffeners
FSN-37	1/4-20 Hex Nut Use at FS-319
FSW-65	1/4" Lockwasher Use at FS-319
FS-320	#10 x 1/2" U-Drive All Mullion Caps
FS-325	#12-14 x 1 1/2" Hex Washer Head Drillflex @ Press. Plate to Vertical & Door Subframe
FS-327	#12-14 x 7/8" HWH Drillflex Corner Glazing Beads
FS-2	#8 x 1/2" Phillips Flat Head Face Splice Sleeve at Vertical
	FS-9 FS-15 FS-43 FS-319 FSN-37 FSW-65 FS-320 FS-325



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