



Oldcastle BuildingEnvelope®

Reliance Curtain Wall
INSTALLATION & GLAZING MANUAL
FRP PRESSURE PLATE

Note: Installation and Glazing Manuals are product specific.

RELIANCE™ CURTAIN WALL INSTALLATION MANUAL
FRP PRESSURE PLATE

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RELIANCE™ CURTAIN WALL INSTALLATION MANUAL

FRP PRESSURE PLATE

PRODUCT USE

The FRP pressure plate may be installed on Reliance or the Reliance-TC curtain wall system using 1" glazing. Please reference the curtain wall installation manual for the appropriate product for fabrication, assembly and installation of the wall system. This manual is to be used in conjunction with the curtain wall manual to provide specific instructions as it relates to the fiberglass pressure plate and its usage. If the FRP pressure plate is to be used for glass sizes larger than 40 sq. ft., glazing thickness greater than 1" or for special applications please contact Oldcastle BuildingEnvelope® for review of the application and recommendations.

The FRP pressure plate 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.

Oldcastle BuildingEnvelope® 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 FRP pressure plate when used in conjunction with any of Oldcastle BuildingEnvelope® Reliance™ curtain wall systems is directly related to the completeness and integrity of the installation process. 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 horizontal. 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.

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

RELIANCE™ CURTAIN WALL INSTALLATION MANUAL

FRP PRESSURE PLATE

PROTECTION AND STORAGE

Handle all material carefully. Do not drop from the truck. Do not stack heavy material on top of the FRP pressure plate to prevent damage to materials. 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.

CHECK MATERIAL

Check glass dimensions for overall size as well as thickness. Oldcastle BuildingEnvelope® cannot be held responsible for gaskets that are not water tight due to extreme glass tolerances. Oldcastle BuildingEnvelope® recommends a tolerance of plus or minus 1/32" for the glazing in its curtain wall systems.

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.

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. A spot test is recommended before any cleaning agent is used.

SAFETY GUIDELINES

When cutting and fabricating fiberglass some safety guidelines should be followed to help prevent fiberglass dust from causing irritation of eyes, skin or being inhaled. It is recommended that protective glasses, gloves and sleeves be worn. A 3M S-6779 dust respirator is recommended to be worn to help prevent inhaling of dust. A dust collection system on saw will also help control dust and clean up.

FRP PRESSURE PLATE

PRESSURE PLATE FABRICATION

1.1 Pressure plate is pre-fabricated with 7/32" holes at 3" on center. Fasteners will be installed at 9" on center and should be located at maximum 1-1/2" from ends. Additional fasteners may be required based on project specifications. If additional holes are required use a 7/32" (.219) drill. (See notes below for drill bit recommendations) See FIGURE 1 Cut length of pressure plate will be mullion height for verticals and D.L.O. minus 1/4" for horizontals.

1.2 Weep holes are to be located at 1/4 points of horizontal pressure plates unless shop drawings designate different locations. Weep holes are 5/16" diameter (See notes below for drill bit recommendations.) See FIGURE 2

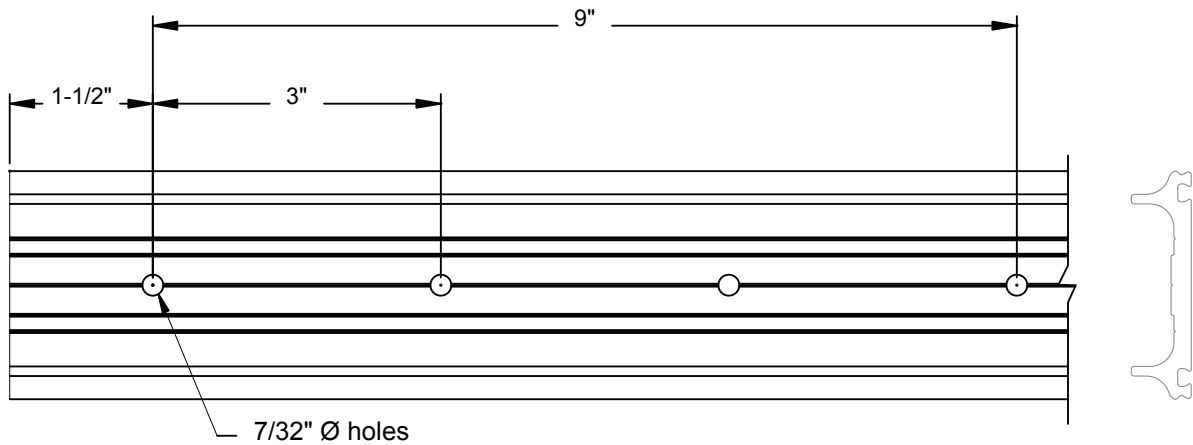


FIGURE 1
Attachment Holes

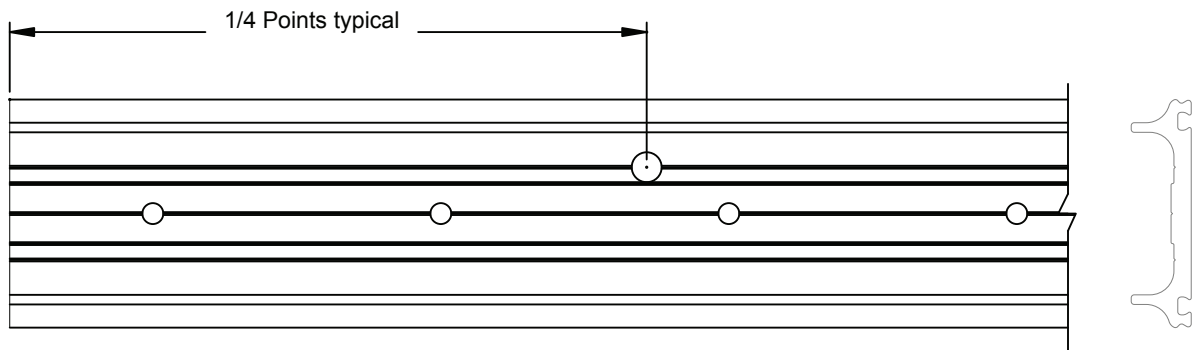


FIGURE 2
Weep Holes

Fabrication Notes:

- 1) Standard drill bits may be used to drill fiberglass, but life of bit will be reduced. It is recommended that a masonry drill bit be used.
- 2) The pressure plate may be cut using a carbide blade but due to the high content of fiberglass in the pressure plate, blade-life will be significantly shortened. It is recommended that a diamond tipped blade be used.

FRP PRESSURE PLATE

GLAZING

2.1 When installing AW-162 FRP pressure plate follow all standard installation steps as noted in appropriate Reliance™ system installation and glazing manual. Install fasteners located at 1-1/2" from each end first, then end fasteners in pressure plates last, be sure to hold firm pressure on pressure plate while installing the FS-325 fasteners to prevent pressure plate from pulling away from face of system and disengage the thermal isolator. Torque fasteners to 80 in/lbs. Fasteners will be located at a maximum of 9" on center. Fastener location may vary based on project specifications, so consult shop drawings for additional information. Additional fasteners should be added where needed to insure a fastener is located above and below each horizontal. See FIGURE 3

2.2 All unused holes in vertical and horizontal pressure plates must be sealed. See FIGURE 3

2.3 Seal horizontal pressure plate to verticals and install face caps. Reference system installation manuals for more information. See FIGURE 4, page 6.

2.4 Horizontal face caps are to be cut D.L.O. minus 1/16". Drill 5/16" weep hole on bottom of cap at centerline. See FIGURE 5, page 6.

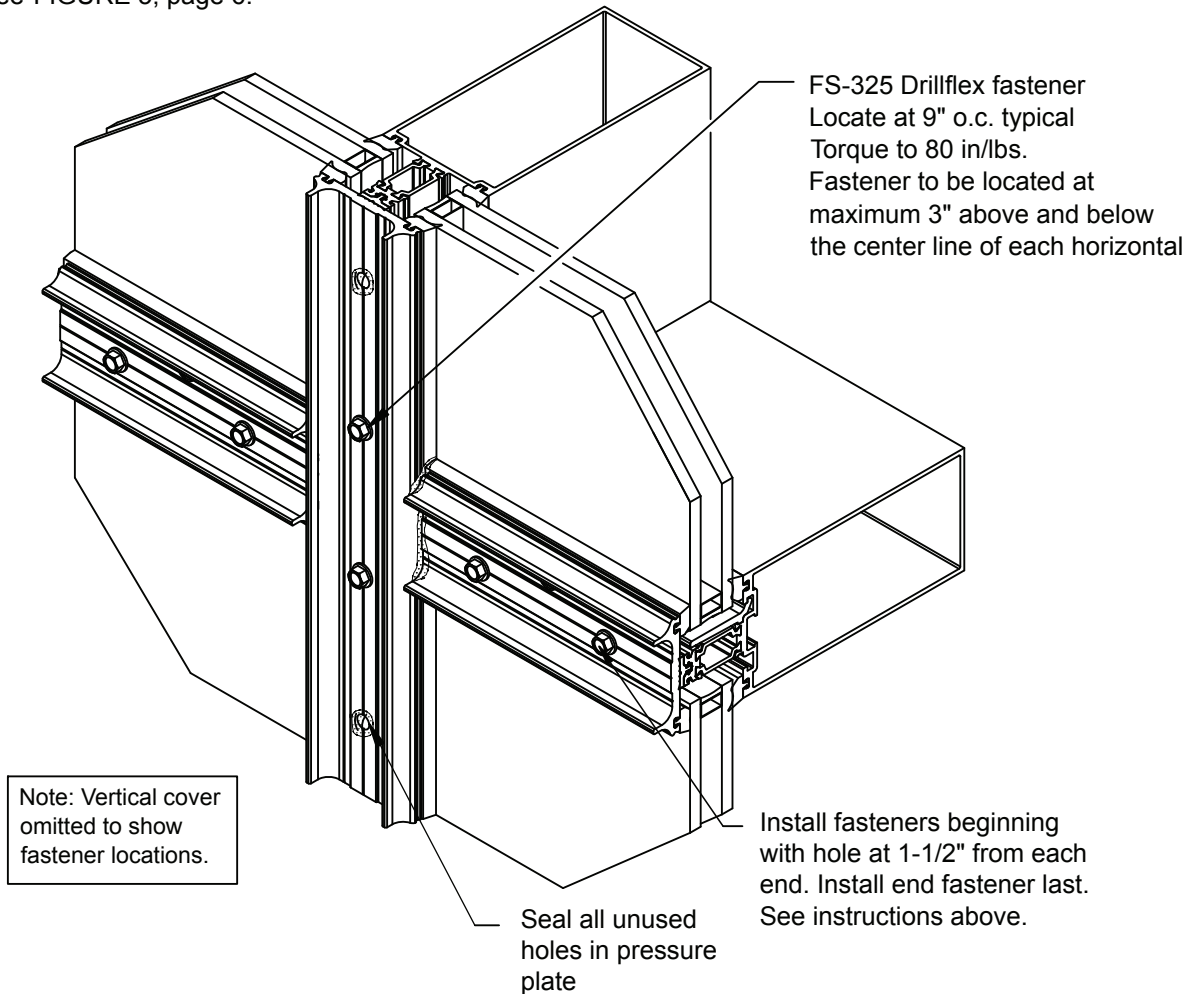


FIGURE 3
Sealant and Fastener Locations

FRP PRESSURE PLATE
ASSEMBLY

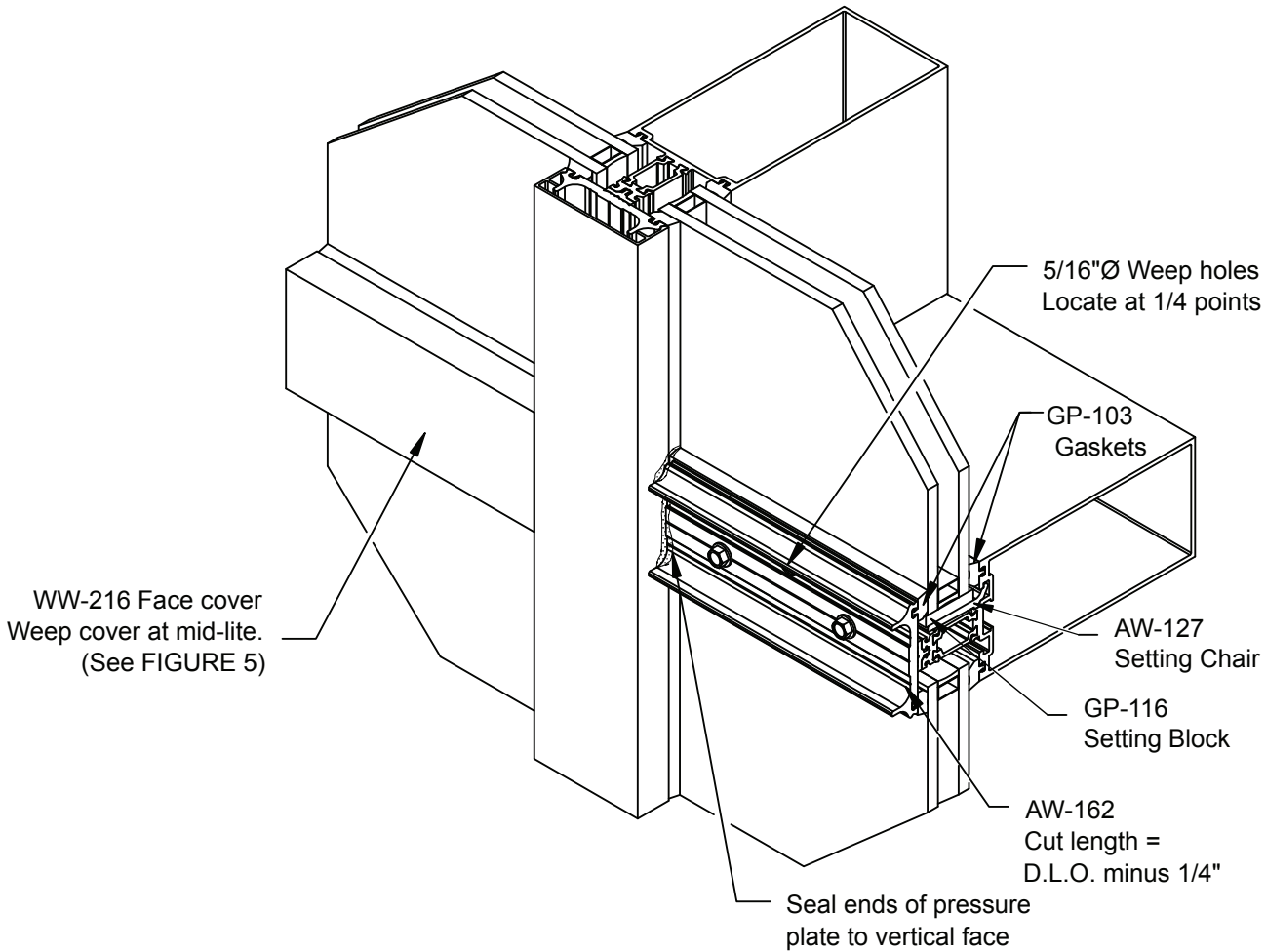


FIGURE 4
Installation

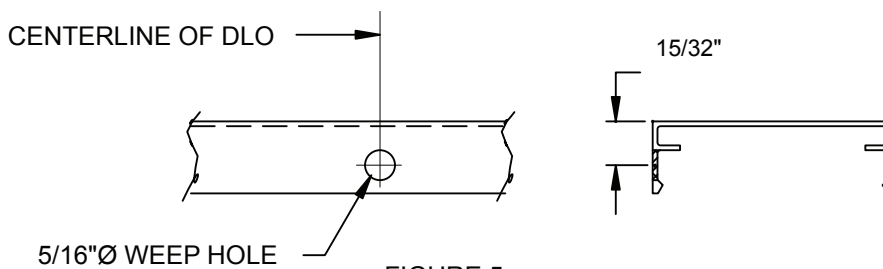


FIGURE 5
Horizontal Face Cover Fabrication

FRP PRESSURE PLATE

PRESSURE PLATE FABRICATION

2.7 Pressure plate reinforcement AW-310 must be installed at each horizontal to vertical intersection for deep face caps as noted in 2.8. Reinforcement will be held in place with FS-325 pressure plate fastener. Face cap, pressure plate and reinforcement will be fabricated with .125" hole on each side at center of face cap. A FS-317, 1/8" x 3/4" lg dowel pin (part # 35821) must be inserted at each side of face cap to secure the cap to the reinforcement. See FIGURE 6.

2.8 Use AW-310 reinforcement at all face caps deeper than 1-1/2" with maximum cap depth of 4".

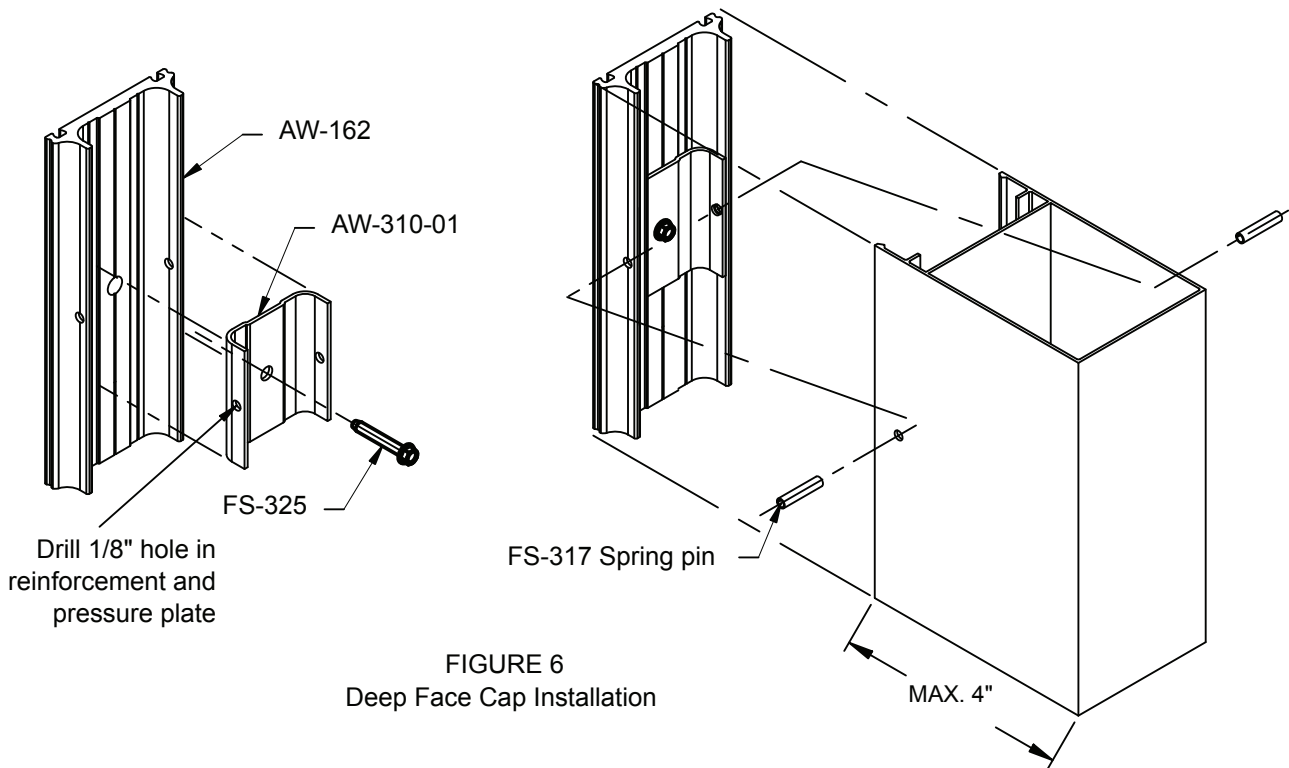






FIGURE 6
Deep Face Cap Installation

PARTS LIST

 AW-162	FRP Pressure Plate
 AW-310-01	Deep Cap Reinforcement
 FS-317	Spring Pin for AW-310-01
 FS-325	#12-24 X 1-1/2 HWH Drill Flex (Typ. Pressure Plate)