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I. Care and Maintenance

Operational Warning: Fleetwood products operate smoothly and special care should be taken by the owner to make sure users are not injured.

This product is factory finished. Please handle with extreme care. Protect all exposed surfaces from contact with caustics, corrosives, solvents, abrasions, impacts, wet packing material etc. **FAILURE TO DO SO WILL NULLIFY THE WARRANTY.** Before **ANY CLEANING**, review the Care & Maintenance Instructions (go to www.fleetwoodusa.com for more information). **Contact the local dealer with any questions or concerns.** Fleetwood strongly recommends that all products be cleaned after installation and totally protected from construction debris and equipment.

II. Tools / Materials, Sealant Requirements, & Anchor Instructions

Tools Required: Tape measure, Level, Shims, Nails, Screws, Drive Bit, #T25 Torx bit, Power Drill, Drill Bits, Sealant, Caulk Gun, Backer Rod, Flat Head Screw Driver, Utility Knife, Soft Mallet, Wood support blocks

Sealant Requirements

- The sealant referred to within this document for seals associated with the assembly of the product should conform to **AAMA 800**. It may be a sealant recommended and approved by the sealant manufacturer that is compatible with the framing, finish, and surrounding materials.
- All sealant bead sizes must conform to the sealant manufacturers' size requirements.
- The Owner / General Contractor is responsible for identifying the need for any additional sealant to be applied by others. Such sealant shall be elastomeric material, with the framing, finish and surrounding materials.

Load / Anchor Instructions (Minimum)[1]

Important: Folding door systems' weight is supported by the Door Header. In the open position, the weight is concentrated at the Pivot Jamb and a counter force is applied to the threshold.

- Live or Dead Loads can affect product functionality, loads shall be designed to withstand the most critical effects of load factors and load combinations as required by building code.
- Fleetwood requires maximum vertical deflection of the header not to exceed Span/720 or 1/8"
- Structural engineer to determine anchor quantity and spacing for design load requirements.
- Proper isolating material must be between dissimilar surfaces (i.e. block/concrete & aluminum).

Anchor Size	Embedment	Jamb O.C.	Head (at Pivot End)	(Concentrated at Hinge or Mtg Stiles) Head / Sill
#10 or 3/16"	1.5" embedment	12"	3 (per panel pair)	3 (per location) / 2 (per location)

[1] Check with local building codes

III. Assembly and Installation

General: The key to any window or door installation is preparation. This extends from storage of the product to the final installation and to all points in between. Careful planning and attention to detail can help ensure proper installation.

It is essential that each Fleetwood product be assembled and glazed in accordance with AAMA standards and factory instructions. It is the installer's responsibility to ensure that each Fleetwood product is assembled, glazed, installed and completely sealed to ensure that the product is leak-free and operates correctly**. Installation of Fleetwood products must be in accordance with the standards set forth in ASTM E 2112**. If there are any questions regarding the installation of a Fleetwood product contact, the factory Customer Service department.

Fleetwood has provided this product with recommended field glazed weather-stripping. If the provided weather-stripping does not ensure an optimum fit of glass to frame, the **Fleetwood Authorized Dealer** should contact Customer Service for expedited **NO CHARG**E shipment of replacement weather-stripping.

IV. Structure Verification

Note: Sillpan Substitution- If the factory provided pan is not desired the product warranty will remain intact if the substitute panning system emulates the essential design of the factory pan. If concerns exist for frost transfer or condensation, it is recommended to take steps to "de-bridge" the pan.

1. Opening Verification

- If sill option chosen is Arche-Duct see Appendix E for instructions.
- Check the measurements of the opening and verify that the door will fit into the opening. Measure all four sides of the opening to make sure it is 1/2" larger than the product in width and 1/4" in height.
- Verify the opening is plumb and level.
- Remove the product from the packaging and lay it in front of the opening. Check width and height dimensions.

2. Pre-Fit and Leveling

- Place sillpan into the opening and determine any leveling that must be done prior to installation (Figure 1).
- Shim as necessary to stabilize the entire depth and length of the sillpan. No unsupported width of more than 8" is allowed. Shim(s) should be load bearing, non-porous, non-absorbent and inorganic.
- If more than 1/8" shim height is required, it is recommended to use a self-leveling product like "Rock Hard" (or equal) to achieve a level and stable surface.

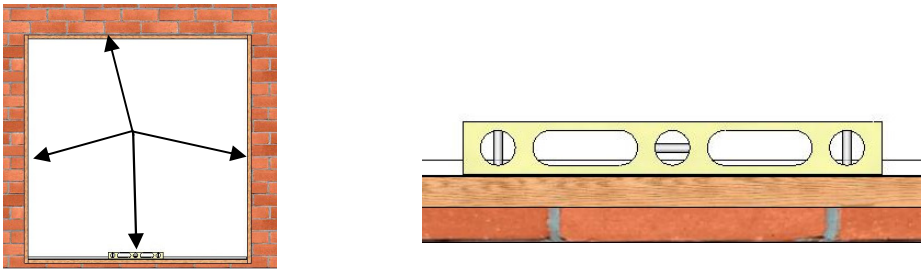


Figure 1:
Use level to determine if the opening is plumb and level

3. Flash the Opening

- Once the opening has been confirmed, flashing of the opening is required prior to Frame installation. Paper and/or liquid flashing methods are acceptable (see AAMA 711/714 for material requirements).
- Check local Building codes for any additional flashing requirements.

Paper Flashing

- At each Jamb the flashing paper should be cut at least 3” past the weep-screed or diado flashing and at least 6” above the head of the door. The flashing must wrap around the jamb and at least 3” back into the opening.
- At the Head run the flashing paper long enough to extend at least 3” past the jamb flashing and wrap around the Header at least 3” into the opening.

Liquid Flashing

- Follow the liquid flashing manufacturer instructions.

4. Sillpan Installation (Standard Sill Only)

- Apply bituminous paint to raw masonry or concrete at the sill to eliminate electrolytic and chemical reactions. It is recommended a PVC liner be placed to ensure separation of the metal frame with the substrate. In balcony situations flash the sill with aluminum or galvanized brake metal (Sillpan is provided).
- In balcony situations flash the sill with aluminum or galvanized break metal (Sillpan is provided).
- Apply sealant in all corners and seams of the sillpan (Figure 3).
- With bottom side of sillpan up, apply a 3/8” bead of compatible sealant 1/2" in from interior leg. Sealant bead to run across the bottom as well as up each vertical leg of the sillpan. Also apply sealant beads near the sides and across the front (Figure 4).
- Secure the sillpan to the floor with glue. Position sillpan as necessary to allow for proper installation of frame assembly (Figure 5).

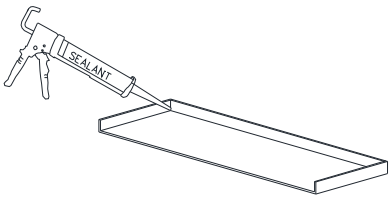


Figure 3:
Seal corners and seams

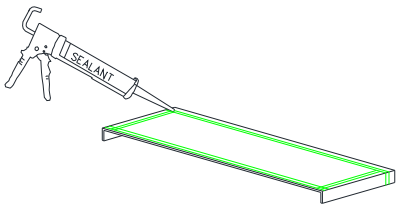


Figure 4:
Seal underside of Sillpan

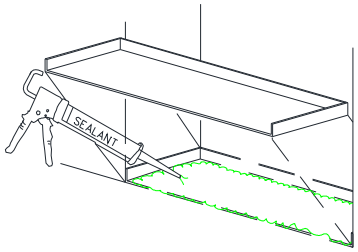


Figure 5:
Set pan in full bed of sealant

V. Frame Assembly

Note: With Net Frame Width greater than 14 feet (168 inches) the head and sill will be multiple pieces. At the end of these joints additional anchoring and sealant is required.

1. Remove frame from packaging and lay out on a drop cloth or protected saw horses to prevent damage to the finish during assembly. Verify all top pivots and hangers are inserted in the head track in the correct order and oriented in the correct direction. There is an opening at one or both ends (based on the configuration) of the head track under the top pivot in order to replace and / or install new pivots and hangers after the frame is installed. Verify all weather stripping is intact and installed into the frame correctly.
2. Locate the Nail-fin corner flashing and PVC guide insert for the sill (wrapped with the frame). Set these aside to install after frame installation. The corner flashing attaches to the frame Head/Jamb corners where the mounting flange (nail-fin) meets. The PVC insert will hide the installation screws through the sill. The PVC insert may be in more than 1 piece depending upon frame width.
3. Remove the pre-threaded frame assembly screws from the Head, Jambs and Sill (Figure 2).
4. Seal all frame joints completely with compatible sealant/seam sealer. Sealant must cover the entire joint at each corner of the frame assembly (Figure 3). Assemble the frame using assembly screws provided. Remove any excess sealant that may have migrated out of the frame joints during assembly. Failure to use assembly screws provided may result in misaligned or loose frame joints. Once the frame is assembled, inspect all joints and re-seal any areas as needed (seal over all frame assembly screw heads).
5. Measure assembled frame and confirm size is correct (per the customer order); Confirm that the assembled door will fit into the rough opening before installation.
6. If your door has a Flush Track, the sill is not mechanically fastened to the jambs. See Section VIII, Frame Condition 4 (pg.12) for additional information.

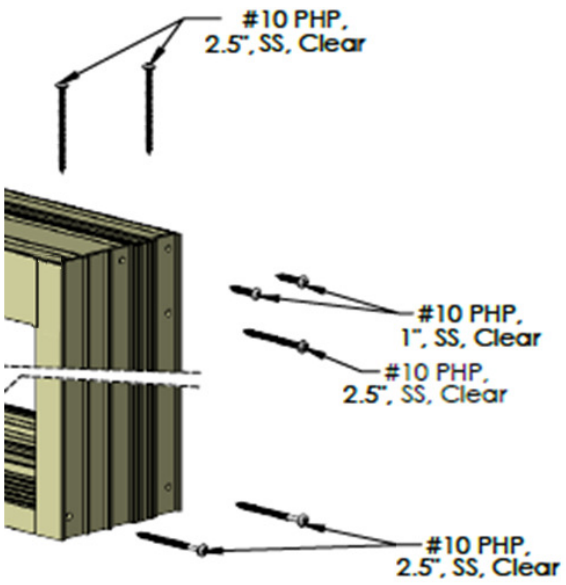


Figure 2:
Frame Assembly Screws

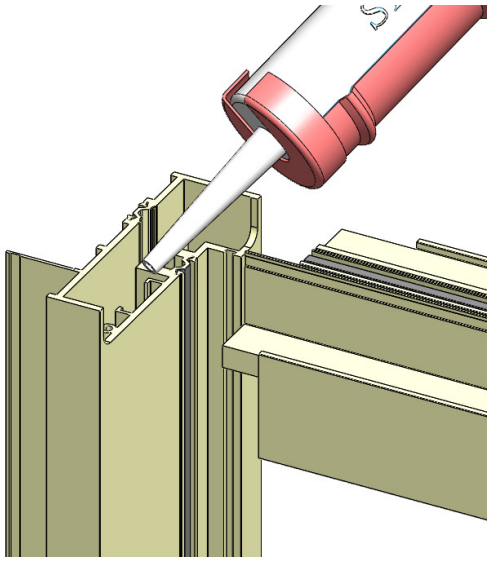


Figure 3:
Seal Frame Joints

VI. Head and Sill Assembly for 90° Corner Doors

1. Remove the "L-Shaped" braces, and Screw #8 FHP-A-UC, 1/2", SS, Clear from the frame pack. There should be 4 screws per brace.
2. Orient sill with the bottom side up or the head with the top side up. Use the braces as guides to pre-drill holes for the screws and install the "L-Shaped" braces as shown (Figures 4 and 5). Make sure to protect the head or sill to prevent damage to finish while installing braces. Keep corners tight while installing braces to prevent a gap at the mitered corner.

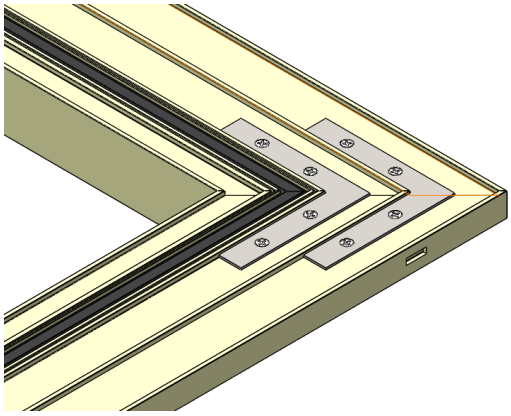


Figure 4:
90° Corner Sill Braces (Bottom of Sill Shown)

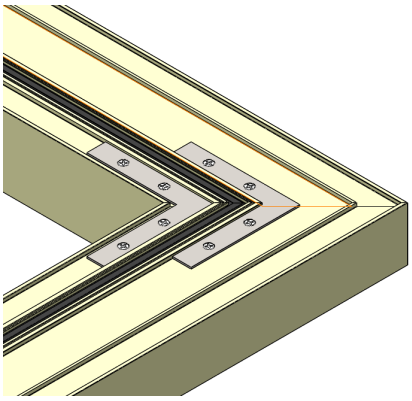


Figure 5:
90° Corner Head Braces (Top of Head Shown)

VII. Anchor Location Determination

- Check and confirm substrate strength is sufficient for required anchor locations.
- Fleetwood recommends all frame anchors be countersunk. Anchors through the sill MUST be countersunk in order for the PVC sill insert to seat properly.
- Refer to the Anchor Schedule Section III and Frame Condition drawings for nail-fin or block installations (Anchor Illustrations pgs. 10-11).
- Typical anchor spacing: 3" on center (O.C.). For multi-piece / corner Head / Sill additional anchors at joints are required.

1. Prior to setting the frame into prepared opening, pre-drill all frame locations based on configuration and type (nail-fin or block frame).

   A. Head at Pivot Jamb: At the end of the Head, where the head carries the Pivot Panel. Install 3 anchors 6" from the end, 3" O.C. (to carry the first 2 panels); Add 3 anchors for each additional pair of panels or 2 anchors for a single swing panel (Figure 6).
   Example: 6 panels stacking to one side requires 9 anchors; 7 panels stacking to one side requires 11 anchors.

   B. Concentrated Head at Stile Area: This is the location at the head where panels hinge together, or meeting stile conditions. These locations require a concentrated anchor pattern to handle the loads applied to this area. Measure the panel widths to determine these locations (Figure 7).

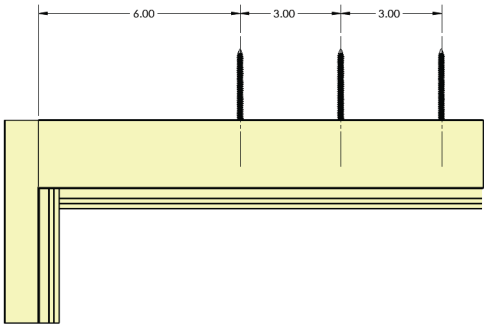


Figure 6:
Installation screws through head at Pivot Jamb location.

C. Sill Shoot Bolt: For each DPL, anchors are to run through the sill underneath the PVC insert 3" to the left and 3" to the right of each shoot bolt hole (Figure 8). Flush Track, see Frame Condition 4 (pg.12).

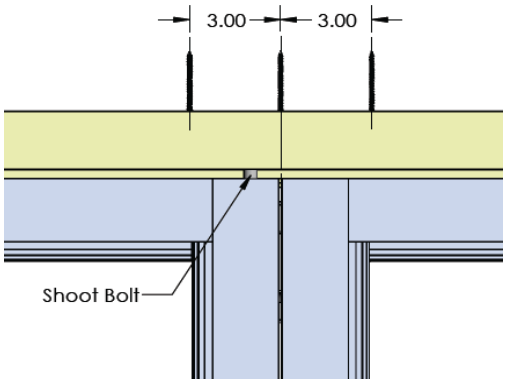


Figure 7:
Installation screws through head at hinge/meeting stile locations.

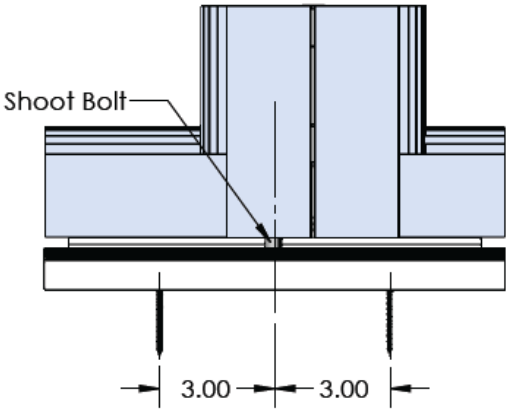


Figure 8:
Installation screws through sill at shoot bolt locations.

D. Head and Sill at Corners: For corner doors sills, 4 anchors screws are to be located 3" from the short side of the miter with 3" spacing (Figure 9). For corner door heads, 8 anchor screws are located 3" from the short side of the miter with 3" spacing (Figure 10).

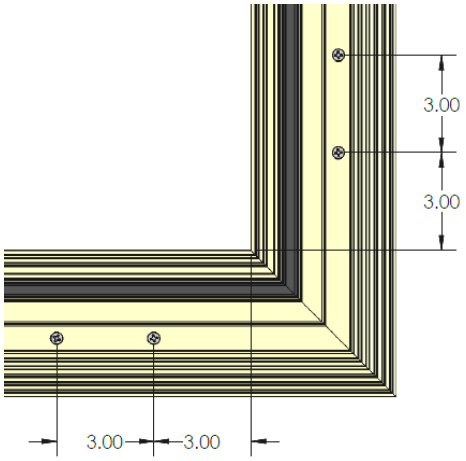


Figure 9:
Installation screws through corner mitered sill.

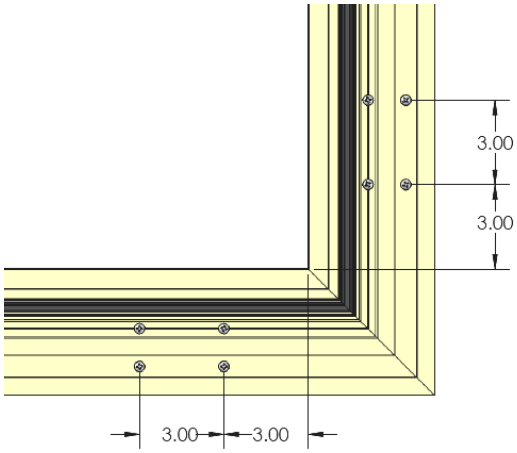


Figure 10:
Installation screws through corner mitered head.

Note: In areas requiring a higher design pressure (DP), consult with a Structural Engineer prior to installation.

VIII. Frame Installation

IMPORTANT: Due to the weight and counter weight of a Folding Door System, Nail-fin Frames must be anchored through the frame, similar to Block Frame. Jamb anchors are not offset as with a Block frame; they will run in line with each other. Frame installation anchors furnished by installer, not by Fleetwood. Stainless steel screws are recommended.

1. Prepare the opening to accept the frame, ensuring that the weep-screed or diado flashing at the sill is adjusted to maintain a weatherboard style flashing (Section X).
2. Pre-fit the door frame into the opening (ensure orientation and swing direction is correct). Confirm that the frame is centered and square, sill is level, and jambs are plumb. Once confirmed, temporarily tack the head track in place in order to proceed safely.

Frame Condition 1 – Sillpan (pg. 9)
Frame Condition 2 – Block frames (pg. 10)
Frame Condition 3 – Nail-fin frames (pg. 11)
Frame Condition 4 – Flush Track frames (pg. 12)

3. Using a drill, mark the pre-drilled anchor locations (at one or both ends of the sill) and pivot locations onto the sillpan. The pivot anchors require a #10 x 1.5” FHP screw (furnished by installer).
4. Remove the frame and sillpan; then using the appropriate size drill bit (based on anchor size and type) drill through previously marked holes.
5. Fit the sillpan back into the opening. Using the anchor holes, mark the anchor locations onto the sill substrate. Then remove the sillpan and pre-drill the sill anchor holes. Use a masonry bit when anchoring into concrete. Ensure holes are drilled to the appropriate depth to accommodate anchors.
6. Set sillpan into the opening. See Frame Condition 1 – Sillpan (pg. 9) for more details.
7. Apply a ¼” bead of sealant along the sides and back of the sillpan. Continue to add equivalent beads of sealant along the pan spaced about 1” apart until pan is evenly covered. Fleetwood recommends the use of a structural sealant such as DOW 995 or equivalent for sealant at sill (Figure 11).
8. Insert the frame into the opening, cross-measure and adjust as necessary to achieve a plumb square and level condition, as well as an even reveal around the framed opening. Shim with non-porous, non-absorbent, inorganic shims where needed. Fill the installation holes through the sill with compatible sealant prior to inserting fasteners. Anchor frame into place based on structural anchor requirements. Confirm the frame maintains a level, plumb, and square fit during the anchoring process.

Block Frame:

- Add additional anchors through the Head Track at the Carrier track location, 12” O.C. Anchor holes must be countersunk and fasteners must be Flat Head so as to not interfere with the panel Hangers/Carriers.
- Jamb anchor spacing to be 12” and staggered from inner edge to outer edge.
- To complete the installation, apply backer rod and a complete bed of sealant to the entire exterior and interior joint between the frame and the building structure. Tool the sealant to eliminate bubbles, voids and / or breaks and ensure a completely watertight seal.

9. Once the frame is completely anchored, locate the PVC insert and install it into the sill. Ensure the 2 pre-drilled holes in the insert are orientated correctly into the frame. The pre-drilled holes are located at the jamb side and will match up with the pre-drilled holes in the sill. There may be holes at each end of the sill depending on configuration. The holes are not on center so correct orientation is critical. Using a rubber or plastic mallet and a block of wood, (1”x4”x12” recommended) place the block of wood into the PVC insert and hammer it into place starting at one end working it in toward the other end.

Note: The installer is responsible for the integrity of all framing joints after installation and must therefore water test all joints to guarantee a completely sealed product. Apply joint sealer and/or sealant as necessary to ensure watertight joints. Retest as necessary.

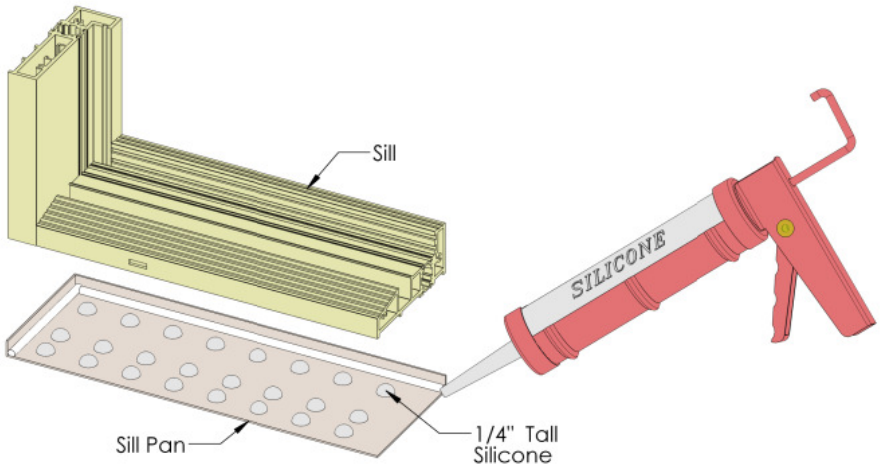


Figure 11:
Sealant in sillpan.

Frame Condition 1 - Sillpan (Not provided on flush track systems)

1. Apply bituminous paint to raw masonry or concrete at the sill to eliminate electrolytic and chemical reactions. It is recommended a PVC liner be placed to ensure separation of the metal frame with the substrate. In balcony situations, flash the sill with aluminum or galvanized brake metal (sillpan is provided).
2. Apply sealant in all corners and seams of the sillpan (Figure 12).
3. With bottom side of sillpan up, apply a 3/8" bead of compatible sealant 1/2" in from interior leg. Sealant bead to run across the bottom as well as up each vertical leg of the sillpan. Also apply sealant beads near the sides and across the front (Figure 13).
4. Secure the sillpan to the floor with glue. Position sillpan as necessary to allow for proper installation of frame assembly (Figure 14).

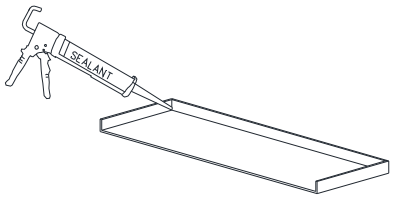


Figure 12:
Seal corners and seams

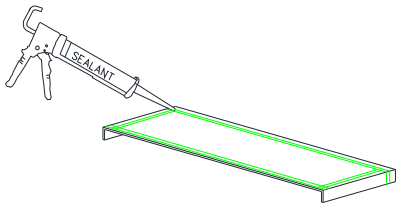


Figure 13:
Seal underside of Sillpan

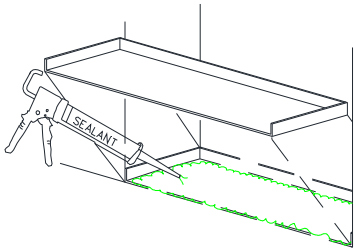


Figure 14:
Set pan in full bed of sealant

5. Follow the instructions below for joining multiple piece sillpans. Multiple piece sillpans are required on products with net frame widths greater than 14 feet (168 inches).

   A. Install sillpans per product installation instructions. Apply a compatible sealant to the underside of the sillpan at the seam joint.
   B. Cut a piece of adhesive backed waterproof material to fit the joint as specified in Figure 15.

   Caution: Select waterproofing material that is compatible for your application. Waterproofing material must have an adhesive backing and be capable of withstanding the temperature ranges for your region.

   C. Remove excess sealant at joint on top of the sillpan that may have migrated in during installation.
   D. Remove the adhesive backing from the waterproof material and apply to the sillpan.

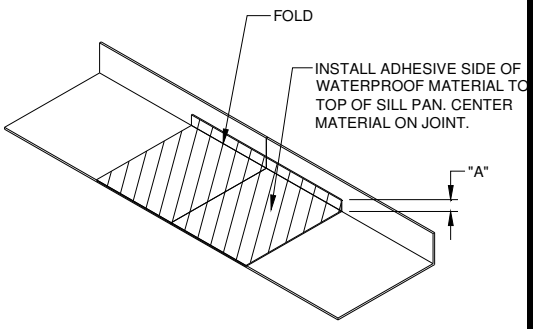
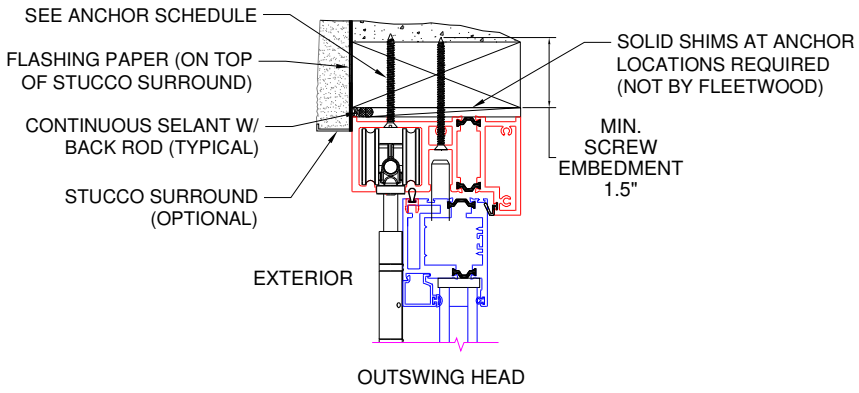
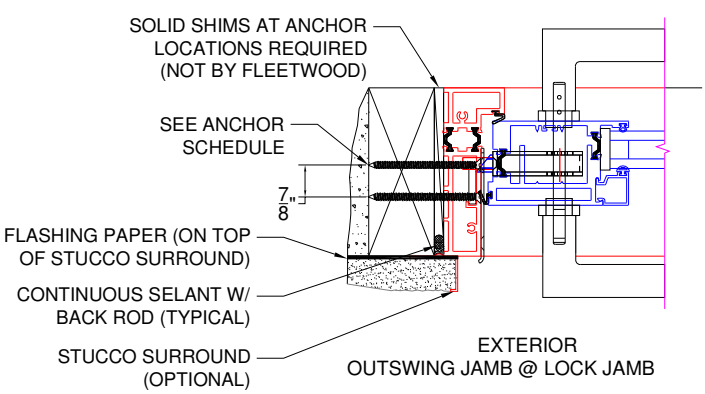


Figure 15:
Two Sillpans Joined

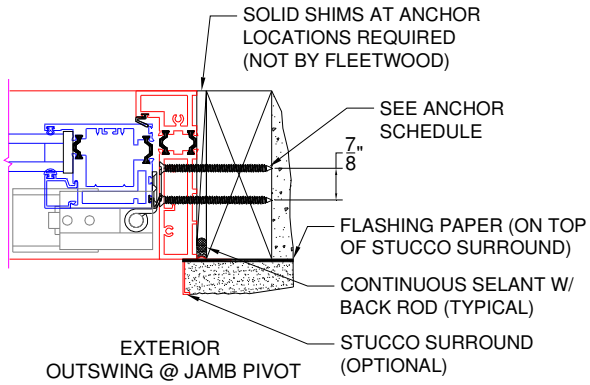
Frame Condition 2 – Block Frame



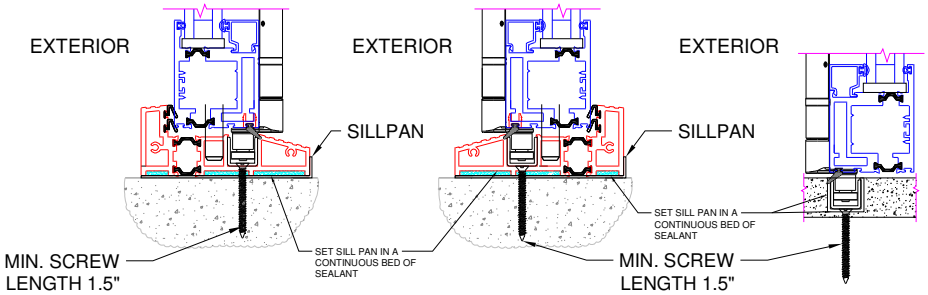
OUTSWING HEAD



OUTSWING JAMB @ LOCK JAMB

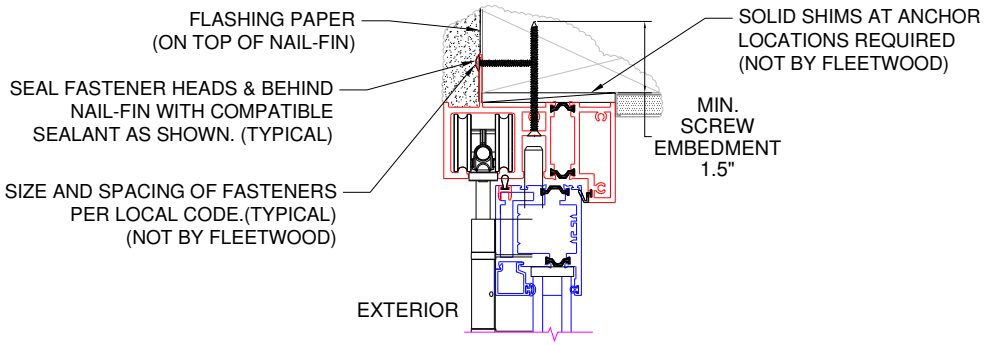


OUTSWING @ JAMB PIVOT

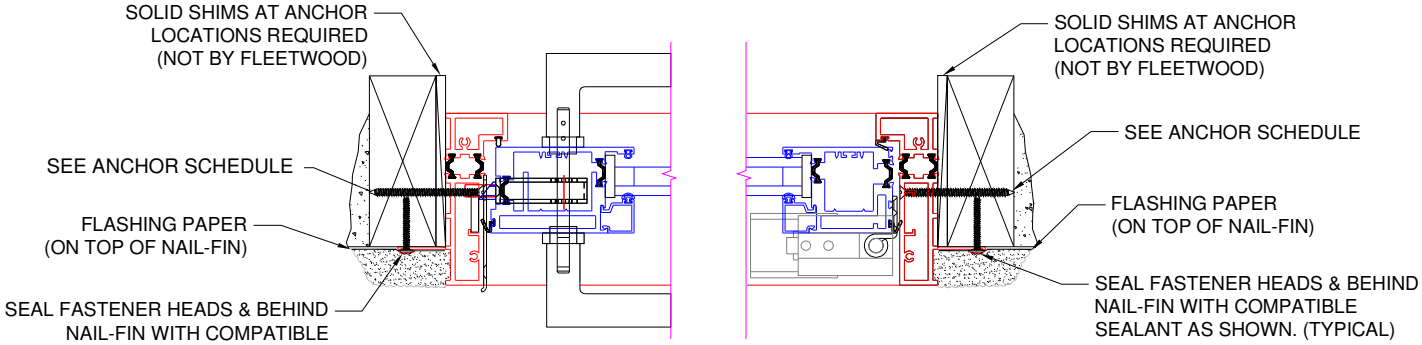


INSWING SILL | OUTSWING SILL | FLUSH TRACK

Frame Condition 3 – Nail-fin Frame

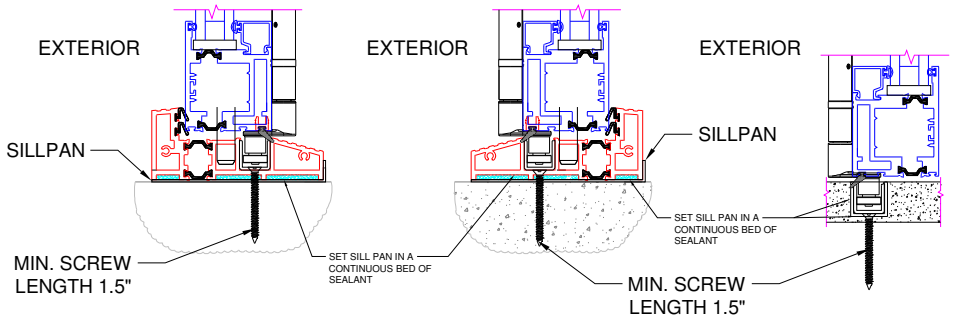


OUTSWING HEAD



EXTERIOR
OUTSWING JAMB @ LOCK JAMB

EXTERIOR
OUTSWING @ JAMB PIVOT



INSWING SILL

OUTSWING SILL

FLUSH TRACK

Frame Condition 4 – Flush Track

Important: Flush Track doors are designed with limited weather performance; Fleetwood recommends doors with this option be installed with an overhang and interior finished flooring designed for this application (tile or stone for example). The top of the Flush Track sits directly below the bottom of the jambs and flush to the finished floor. The installer must keep this in mind when installing the frame to ensure there is enough room for the finished floor and install/shim up the jambs to the finished floor height. This shim will sit below the finished floor and will need to be watertight.

1. The Flush Track can be installed after the jamb and head are installed as it is not attached to the jambs but sits below the jambs.
2. Pre-drill anchor holes in the Flush Track (18" on center) and counter sink as to not interfere with the PVC insert. Keep in mind the door's configuration and orientation (inswing / outswing) when pre-drilling anchor locations. Flush Track will have pre-drilled holes for the Bottom Pivot that are off-set.
3. Set Flush Track on the sub-floor correctly, in relation to the head and jambs of the frame (Figure 16). The pre-drilled Bottom Pivot anchor holes are not on center so Flush Track orientation is crucial (the pivot anchor holes are offset closest to the weather-stripped side of the jamb). If you are cutting a channel in the subfloor to insert the Flush Track, keep in mind it must sit level to the Head Track and a self leveling compound such as "Rock Hard" may be required to maintain a stable level base for the Flush Track to rest on. Once the sub-floor has been adequately prepared for the Flush Track, mark the anchor location and the Bottom Pivot location(s) on the sub-floor. Remove the Flush Track and pre-drill the marked locations to accept required anchor sizes. Bottom Pivot requires #10 x min.1.5" flat head anchors.

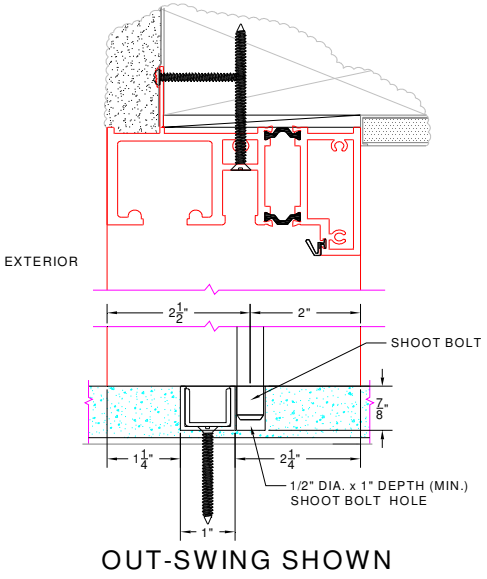


Figure 16:
Flush Track

4. Before Installing the Flush Track in your prepared location, run a bead of substrate sealant, applicable to your subfloor under the Flush Track. Set the Flush Track in place, fill the anchor locations with substrate sealant, and then install the anchors. After the Flush Track has been anchored into place, re-confirm it is level and positioned correctly and adjust if needed. Once placement has been confirmed, seal the ends of the Flush Track to the jamb shims or sub-floor with appropriate sealant. Locate the PVC track insert and install into Flush Track..

Flush Track Shoot Bolt

Since the Flush Track consists of only the guide track, there is no location for the shoot bolt(s) to engage so these locations must be marked and drilled out by the installer. Fleetwood recommends drilling these locations as soon as the finished floor is completed as to avoid any damage to the finished floor.

A. Before marking the shoot bolt locations, the panel operation must be satisfactory. See Appendix for hardware adjustment.
B. Once the panels have been adjusted, with the door in the closed position, engage the shoot bolt(s) so that it will leave a mark in the finished floor. You may need to apply some compound such as paint to the shoot bolt in order for it to leave a mark.
C. Once you have marked the locations, slide the panels to the open position. Using a ½ inch drill bit, appropriate to the material you are drilling into, drill each marked location to a depth of no less than 1 inch.
D. Return the door to the closed position and confirm the location of the holes. modify if necessary. Holes may be opened wider with a rotary tool.

IX. Panel Assembly (when panels received unassembled)

Note: Make sure to keep individual panel components together. Match door configuration and panel orientation with customer order and/or dealer drawings. Configuration and orientation of panels shown in assembly instructions is for illustration purposes only.

- Check the red (documents enclosed) bag for keys, nuts, washers, and back-up plate (Figure 17).
- Remove glass stops from panel components. Must be field cut to fit once panel is assembled covered in Section VII for panel mounting and glazing instructions.
- On the top and bottom rails cut the bulb vinyl a 1/4" long on both ends. Cut the bulb vinyl on the vertical stiles to length where they will make contact with the inner edge of the top and bottom rails.
- Remove nut, washer, and back-up plate from the red bag.
- Apply sealant to the top and bottom rail where they make contact with the vertical stiles (Figure 18).
- Align the vertical stiles to the top and bottom rail. Place the threaded rod into the pre-drilled holes of the vertical stiles.
- Apply a small amount of high strength threadlocker to the end of the threaded rod.
- Slide the back-up plate over the threaded rod. Followed by the washer and nut (Figure 19).
- Tighten down the nut until all components are securely making contact.
- See Appendix C for panel squaring.
- Place the weather seals into the seal clips and tap the clips into place.



Figure 17:
Red Bag

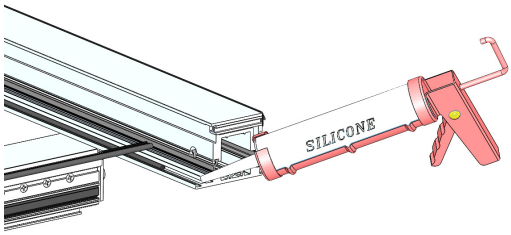


Figure 18:
Silicone Location

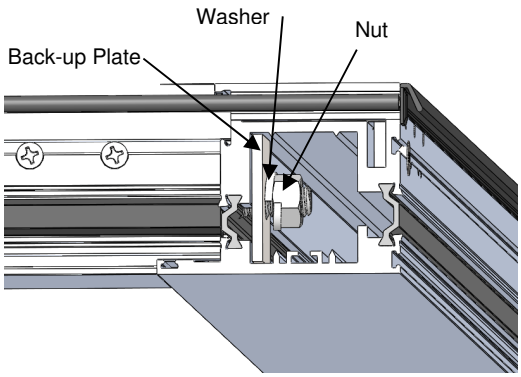


Figure 19:
Panel Assembly

X. Panel Installation

Confirm all Panels are square before installing; refer to *Appendix C* for panel squaring instruction. **Panels must be installed starting with the pivot panel attached to the Jamb side in order to support any additional panels**. Example: If the door configuration is a 3L3R, install panel 1L first, then attach panel 2L next, followed by 3L. Next install panel 3R, followed by 2R and finally 1R. Fleetwood recommends the installer lay out all panels (in order) in front of the frame to confirm configuration and panel labeling. Fleetwood offers Collector Magnets and Hinged Door Holders refer to Appendix D for hardware installation instructions.

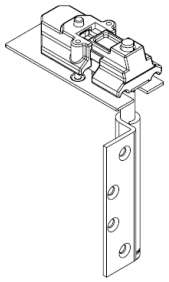


Figure 20: Top Pivot

Flush Track Door Panels are installed in the same manner as standard sill doors; however, there is no place for the bottom shoot bolts to engage until the finished floor is installed. Once the finished floor is installed, it is recommended drilling the holes to accept the shoot bolt(s) as soon as possible as to not cause damage to the finished floor (Frame Condition 4 - Flush Track).

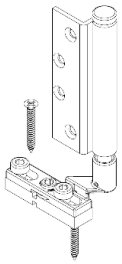


Figure 21: Bottom Pivot

1. **Pivot Panel:** The pivot panel is the panel installed at the jamb and has fixed anchor points attached at the Head (Figure 20), Sill (Figure 21) and Jamb (Figure 22). Before installing the Pivot Panel, remove the Jamb Pivot Bolt from the center hinge and set aside (Figure 22).

   A. **With assistance** (Fleetwood recommends a minimum of 3 Persons when installing panels), hold the Pivot Panel 90 degrees (or in the open position), set the Bottom Pivot into the sill, lining up the pre-drilled holes in the sill with the holes in the pivot base. Using a screw gun, anchor the pivot base down to the sill using qty. 2 stainless steel #10 x 1-1/2" flat head Phillips screws.
   B. Remove the Top Pivot attachment screws from the panel. Line up the holes in the pivot to the holes in the panel and attach the pivot to the panel. If the holes do not line up, depress the button in the Top Pivot and using a 5mm Allen wrench, wind the bolt in the direction required to line up the holes in the panel to the Pivot. Once the panel is attached, adjust the Top Pivot up with the 5mm Allen wrench until the panel lifts off the sill, creating even reveals top and bottom. Refer to Appendix "A" for hardware adjustments.
   C. Rotate the Pivot panel to the closed position; insert the Jamb Pivot Bolt into the mounting plate installed in the jamb. Adjust until it aligns with the Pivot Bolt in the hinge. The Jamb Pivot Bolt can be adjusted in or out to create even reveals. Refer to Appendix "A" for hardware adjustments.
   D. Adjust the panel so all reveals are even (refer to Appendix "A" for hardware adjustment) before Installing intermediate panels.

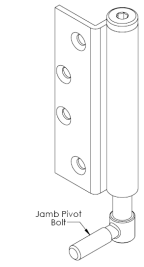


Figure 22: Jamb Pivot

2. **Installing the Intermediate Panels:** The intermediate panels are the panels that attach between the Pivot and End panels.

   A. Verify that the previous panel (receiving panel) has been adjusted.
   B. Swing / position the 'receiving' panel to a 45 degree open angle and place a block of wood and/or shim under the outside bottom corner to support the panel weight (Figures 23 and 28).

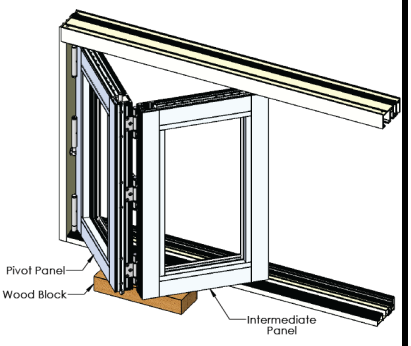


Figure 23: 1st Intermediate panel installation

C. To install the 'next' panel: To prevent damage - Place a 1/4" shim on the Sill where the 'next' panel will sit at a 45 degree angle.
D. Install / Set the panel in the 'open' position at a 45 degree angle so the hinge side rests on the block with the receiving panel and the pivot side to recess the intermediate guide into the PVC track in the sill (on the 1/4" shim) (Figure 24).

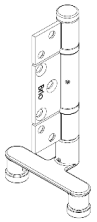


Figure 24: Intermediate Guide

Note: Start all hanger attachment and hinge screws by hand. Once started use a T25 bit for fastening.

E. Locate the Intermediate Hanger in the head track, remove the hanger attachment screws from the panel, line up the holes in the panel and the hanger, then attach the hanger to the panel. If the holes do not align, depress the button in the hanger and use a 5mm Allen wrench to wind the hanger bolt in the required direction to allow the holes to line up (Figure 25).
F. Once the hanger is attached, continue to adjust the bolt to lift the panel off the sill and create an even reveal top and bottom. Slide the hanger side of the intermediate panel to the receiving panel so the hinge side of the panels line up with each other.
G. Remove the hinge screws from the panel, line up the hinges and attach the panel(s) to the Receiving panel.
H. Adjust Panel for an even reveal and operation.
I. For additional Intermediate Panels, repeat step A.

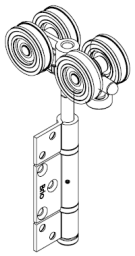


Figure 25: Intermediate Hanger

4. **Installing the End Panel:** The End Panel is the last panel in a line of panels that locks into another End Panel, Pivot Panel or Jamb.

A. Locate the End Panel. If End Panel is active, set the outside corner of the panel on the wood support block (Figure 28). Set the End Guide (Figure 26) into the PVC track in the sill. Remove the hanger attachment screws from the panel, locate the End Hanger (Figure 27) and line it up with the top corner of the End Panel and attach. If the holes do not align, depress the button in the End Hanger and use a 5mm Allen wrench to wind the bolt in the required direction to line up the holes (refer to Appendix "A" for hardware adjustments).
B. Once the hanger is attached, continue to adjust the bolt to lift the panel off the sill and create even reveals top and bottom. Now line up the Hinge side of the Intermediate panel and the End Panel. Remove the hinge screws from the panel and attach the panels together.

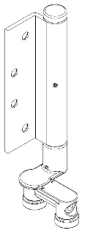


Figure 26: End Guide

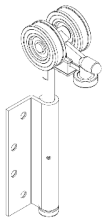


Figure 27: End Hanger

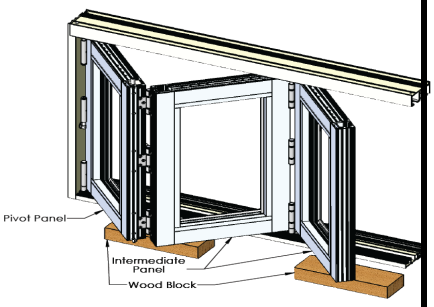


Figure 28: 2nd Intermediate panel installation

XI. Flashing after Installation

The flashing paper referred to in this document is Moistop or other code compliant flashing material that conforms to **Federal Specification UU-B-790a, Type 1, Grade A, Style 4**. The strips of flashing paper are to be no less than 9 inches wide (or wider as required by local codes). Flashing paper must be applied with galvanized nails or corrosion resistant staples. Flashing paper shall be applied in a weatherboard fashion around the full perimeter of the framed opening.

1. Once satisfied that the frame is watertight, and immediately prior to application of the flashing paper at the head and jambs, apply a continuous bead of sealant to the exposed mounting flange (nail-fin) at the top (head) and sides (jambs) of the installed frame. Also, apply sealant at corners of the frame, the full length of the seams where the nail-fin flashing is mounted.
2. At each jamb, embed the flashing paper into the sealant onto the mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend at least 3 in. past the weep-screed or diado flashing and at least 6 inches above the head of the window (Figure 29).
3. Finally, at the head, embed the flashing into the sealant on the mounting flange and fasten into place. The flashing paper should be cut sufficiently long enough to extend past the flashing paper at each jamb by at least 3 in. (Figure 30).
4. Weather resistant building paper should be applied in a weatherboard fashion to complete the installation (Figure 31).

Note: Where weather resistant building paper, insulating board, or other materials by other trades may constitute the primary weather barrier behind the exterior wall finish (i.e., stucco, masonry, siding, etc.), the owner / General Contractor are responsible to ensure that the weather barrier is continuous by effectively sealing the material to the window frame.

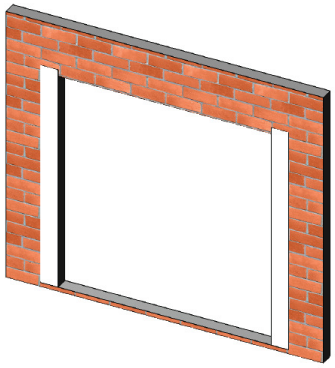


Figure 29:
Jamb flashing

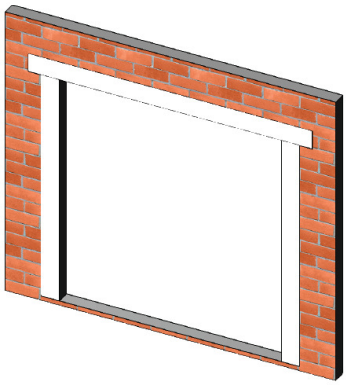


Figure 30:
Head flashing

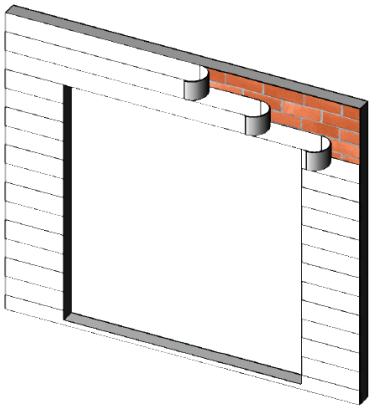


Figure 31:
Building paper

XII. Glazing Instructions

Note: If field glazing, glaze panels vertical after panels are installed and adjusted.

1. Remove the pre-cut glass stop from the door panels, making sure to note the location from which each has been removed, Figure 32 illustrates the correct glazing order. Each stop is hand cut for a specific location of the panel and must be returned to that same location.

Note: Prior to glazing, the installer must inspect the sealant at all panel corners and re-seal as necessary. Fleetwood recommends the use of two (2) or more people when installing glass.

2. Apply a 3" bead of compatible sealant from each corner on the inner flange of the panel.

Alternate Glazing Procedure

Note: Applies to inside glazed or outside glazed product(s) where additional water protection is required. Including areas where snow accumulation and subsequent melting/freezing may cause thermal bridging.

a) Before glazing, apply a continuous bead of sealant to the entire inner frame (Figure 33).
b) After glazing, apply a continuous bead of sealant to the exterior frame and glass along the sill and a minimum of 18 inches up the sides (Figure 34).

3. Install the glass setting blocks (total of 4 per panel) at opposite corners, 2" in from the corner each direction. Always place the bottom setting blocks in the corner where the panel is attached to either a Bottom Pivot or Bottom Guide. This will ensure the panel(s) stay square.
4. Install the glass into the panel, making sure all glass setting blocks fit tight between the glass and panel. Additional setting blocks may be required to ensure a tight fit. To properly support insulated glass panes, stagger the setting blocks at the bottom.
5. While one person is holding the glass in place, install the glass stops to the correct locations, start with top and bottom stops.

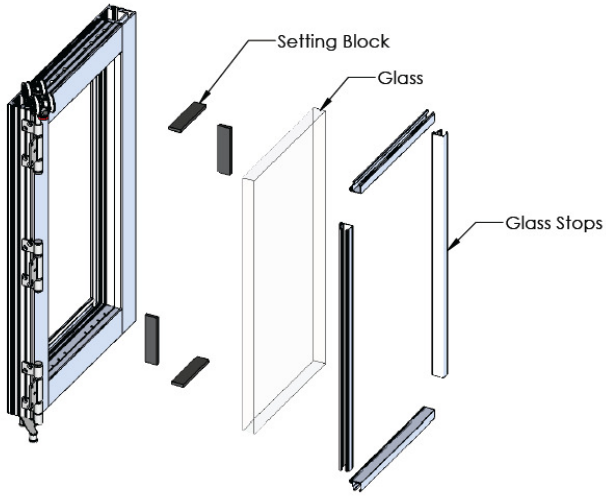


Figure 32:
Panel Glazing
(Intermediate Hanger shown)

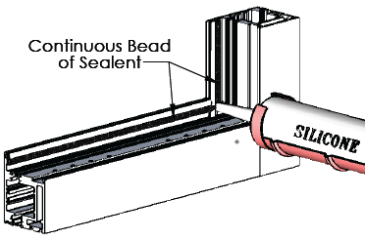


Figure 33:
Inside glazed continuous bead

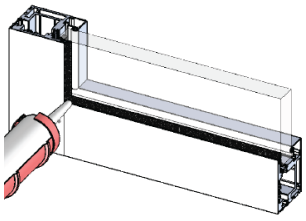


Figure 34:
Inside glazed cap bead

Appendix A: Hardware Adjustment

Tools Required: Requires a 5mm Hex-L wrench, Phillips screw driver and flat head screw driver

Top Pivot: Raise and lower the panels as well as shift left to right.

- To raise or lower the panels, depress the button in the Pivot. While holding it in, use the 5mm Hex-L Wrench and turn the Pivot Pin in the desired direction, clockwise to raise the panel, counterclockwise to lower the panel.
- To shift the top of the panels horizontally, remove the cover plate, then loosen the Cap Screw in the Top Pivot housing using the 5mm Wrench. Using the same 5mm wrench, turn the adjustment Cam (recessed in the housing next to the cap screw) clockwise/counterclockwise depending on desired direction. Once the panel is in the desired location, tighten the Cap Screw to lock the horizontal Pivot location (Figure A1).

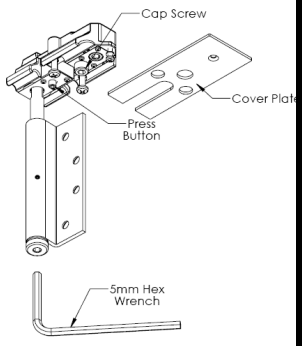


Figure A1:
Top Pivot Adjustment

Bottom Pivot: Adjusts the bottom of the panel left and right.

- To shift the bottom of the panels to the left or right, loosen the 2 Cap Screws in the Pivot Arm using the 5mm wrench. Using the same 5mm wrench turn the Cam located between the 2 Cap Screws clockwise/counterclockwise depending on desired direction.
  Once the panel is set in the desired location, tighten the 2 Cap Screws to lock the horizontal location (Figure A2).

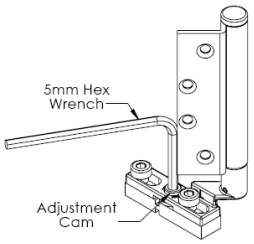


Figure A2:
Bottom Pivot Adjustment

Jamb Pivot: Adjusts the center jamb side of a Pivot Panel, allowing you to adjust the reveal at the jamb.

- Using the 5mm wrench, remove the Jamb Pivot Pin from the Jamb Pivot Bolt (turn counter clockwise). With a Flat Head Screwdriver; turn the Pivot Bolt clockwise/counterclockwise depending on the direction the panel needs to go. Insert the Pivot Pin back into the Bolt and tighten down completely (Figure A3).

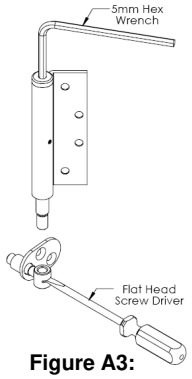


Figure A3:
Jamb Pivot Adjustment

End Hanger: Adjusts the panels up and down.

- Depress and hold the button on the Hanger housing. Using the 5mm wrench, turn the Hanger Pin in the desired direction, clockwise to raise, counterclockwise to lower. Once you have reached the desired Panel height, release the button and continue to turn the pin until the button resets to the locked position (Figure A4).

Intermediate Hanger: Adjusts the same as the End Hanger (Figure A5).

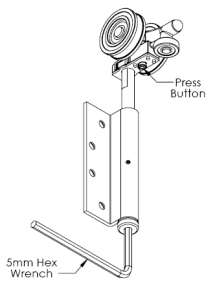


Figure A4:
End Hanger Adjustment



Figure A5:
Intermediate Hanger Adjustment

Appendix B: Stucco Surround Application (Optional)

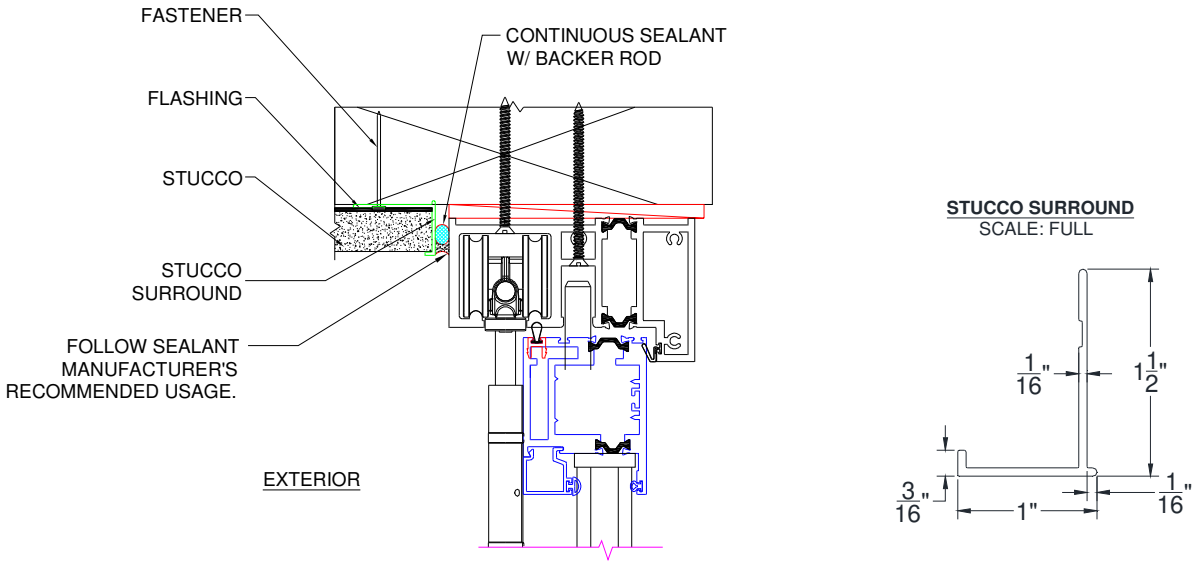


Figure B1:
Stucco Surround application and specifications

Appendix C: Panel Squaring

Tools Required: Saw horses, 9/16" wrench, Phillips screwdriver, tape measure, shim(s), plate glass lifter.

If the panel is out of square before installation.

1. Lay the panel on protected saw horses, being careful to not damage the finish.
2. Measure the panel diagonally to confirm in which direction the panel must shift.
3. Remove the glass stops from the panel, paying attention to their orientation as they are custom cut to fit.
4. Where the panel stiles contain a Shoot Bolt, the Shoot Bolt Guide will need to be removed to access the Corner Key Nut. Using a Phillips screwdriver remove the 2 guide screws then remove the guide (Figure C1).

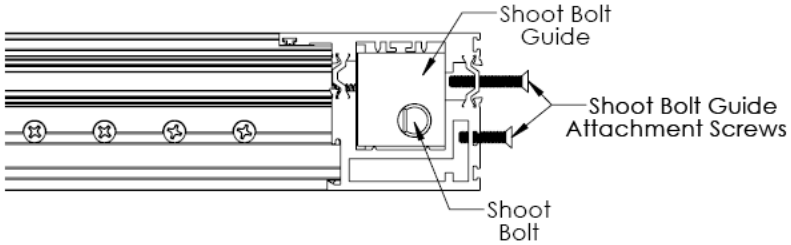


Figure C1:
Top/Bottom of panel at corner key location with Shoot Bolt guide.

5. Using a 9/16" wrench, loosen the Corner Key Nut at each of the four corners approximately 2 full turns (Figure C2).

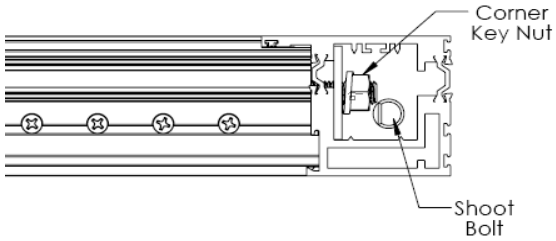


Figure C2:
Corner Key Nut location

6. With the plate glass lifter (Figure C3), lift the panel away from the glass at the top outside corner and either add or remove/replace with a thinner shim (depending on which direction the panel needs to be squared). Measure the panel diagonally to confirm it is square, and then tighten all 4 corners. Re-install all glass stops.

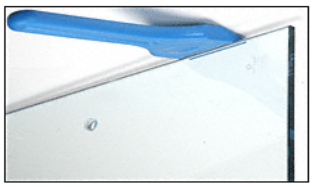


Figure C3:
Plate Glass Lifter

Appendix D: Collector Magnets and Hinged Door Holder

Tools Required: Phillips screwdriver, marker / pencil, 1/16" drill bit, drill, tape measure, tape.

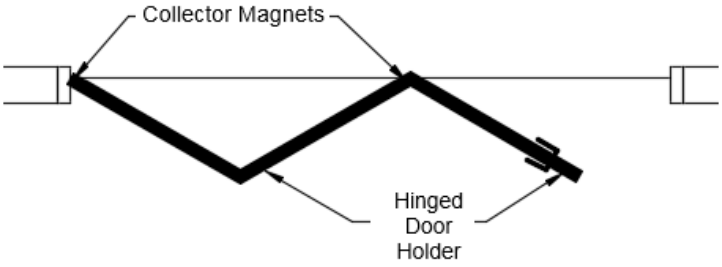


Figure D1:
Swinging Panels with Handles

Collector Magnets: Allows for panels **without** handles to remain in the open position.

Hinged Door Holder: Protects panels **with** handle hardware, to keep end panels in the open position.

1. Before placing Collector Magnets or Door Holder, open panels fully and check alignment of edges. If adjustment is needed, see Appendix A for hardware adjustments and Appendix C for instructions on squaring panel(s).
2. Place fully assembled magnets in desired location (upper or lower corners) of panels. If handles are present ensure there is clearance between the handles and the next panel.
3. Using a marker / pencil, mark the location(s).
4. Unscrew the magnet from the backing plate, align to the marked location and drill pilot hole(s) using 1/16" drill bit.
5. Use the provided screws to fix the catch to the panel.
6. Ensure the position of the anti-rotation screw is pointed toward the hinge of the panel.
7. Secure the 3mm anti-rotation screw.
8. Screw the magnet back onto the backing plate.
9. Repeat steps 2→8 for adjacent panel.

NOTE: Ensure the Collector Magnets align when doors are in the fully open position.



Figure D3:
Collector Magnet (S.S. Shown)



Figure D4:
Hinged Door Holder (S.S. Shown)

Appendix E: Sill Option- Arche-Duct

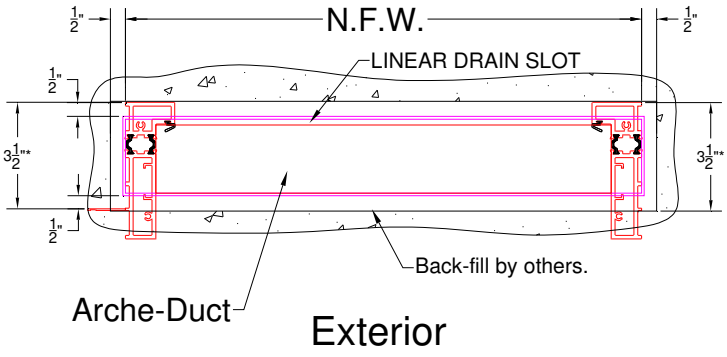
Flooring Material: The sill for this product was designed to incorporate the finished flooring as a key component to the bottom rail sealing and the linear slot drain. The material chosen to surround the extruded sill should be such that water will not damage it.

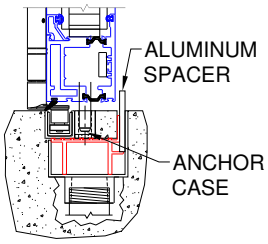
Linear Slot drain: The sill comes with an aluminum spacer to ensure the linear slot drain spacing is correct. This spacer is to be removed after the flooring is installed.

Note: Do not leave the Arche-Duct system exposed for more than 3 months. Prolonged exposure will damage the powder coated finish.

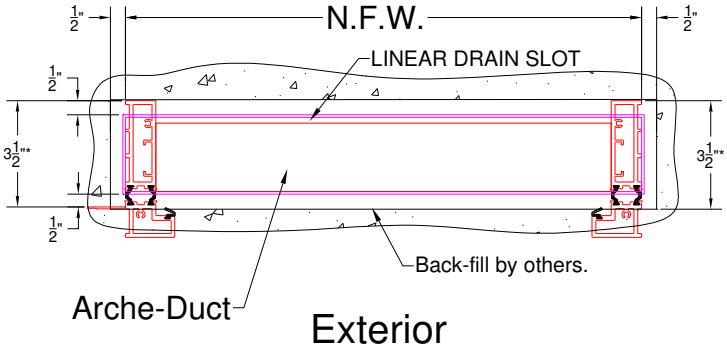
1. The Arche-Duct sill option requires a flooring block out (Figure E1).
2. Follow all steps of a regular 3600-T installation except steps pertaining to a sillpan installation, assemble the sill to the frame with the provided screws (red bag).
3. If shoot bolts are present, align strike with shoot bolts (Figure E1/E2), mark location, drill holes using #25 drill bit, fasten in place with 1 inch #10 screws provided.
4. Back-fill Arche-Duct system after panel and glazing installation / adjustments are performed.

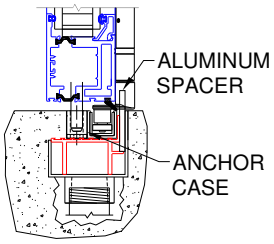
OUTSWING





INSWING





*= Arche-Duct Tabs, Add 1-1/2" to Int. / Ext.

Figure E1:
Arche-Duct Block Out

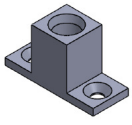


Figure E2:
Shoot Bolt Strike