5600 Series Pivot Door Installation Instructions

This Document describes the key steps for installing the frame and panel(s) of a 5600 Sublinear pivot assembly into a properly prepared opening. It is intended as an informational guide only and shall not be used as a substitute for proper training and certification.

Precautions & Safety

- Do not work alone. It is recommended that at least two people work together to avoid personal injury or damage when handling glass & frame/sash members.
- Use caution when handling glass – broken or cracked glass can cause serious injury.
- Wear necessary protective gear (shoes, ear, and eye protection, etc.)
- Follow equipment manufacturer's operation instructions, warnings, and cautions when using tools, ladders, scaffolding, lift, and hoisting equipment.

Notice to Installer

- Installer is responsible for site measurements and will ensure that structural and architectural requirements are met before installation of the 5600 pivot door assembly.

- Installation of Monumental Windows & Doors™ products must be in accordance with standards as outlined in ASTM E2112.

- Building design, construction methods, building materials, and site conditions unique to your project may require methods different from those contained in these instructions. It is the responsibility of the installer, architect, and/or design/construction professional to select the appropriate installation method for each project.

- All construction details and wall systems must be designed to manage the possibility of unanticipated infiltration of moisture past the exterior wall cladding. Incidental moisture penetrating past the wall cladding must be prevented from entering moisture sensitive areas through the use of a barrier and/or membrane(s) that divert water to the exterior of the building.

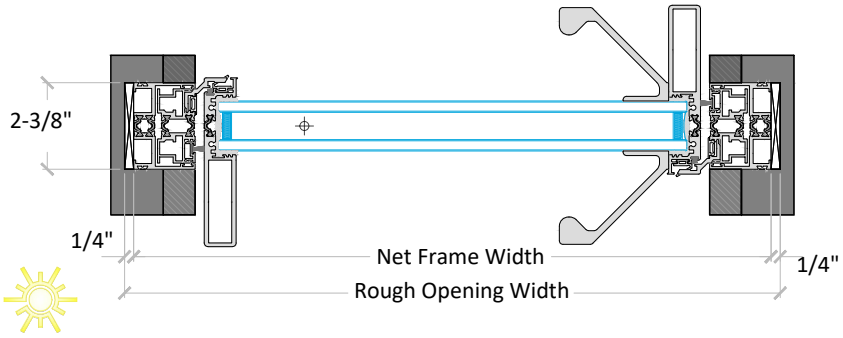
- Monumental Windows & Doors™ is not responsible for claims or damages related to moisture infiltration resulting from:

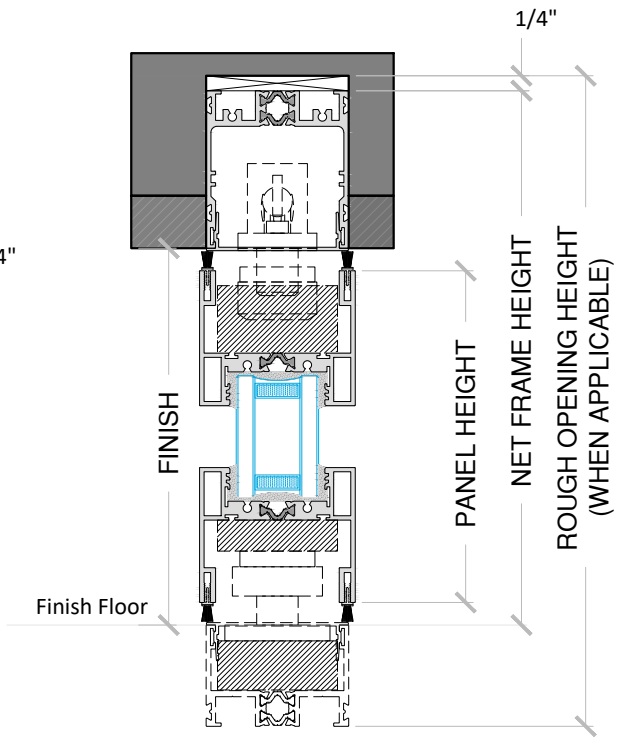
    - Failure to install in accordance with local building codes which, when integrated with the 2100, allows for excessive moisture within the wall system.
    - Deficient building maintenance.
    - Unanticipated water infiltration.
    - Neglect
- The site-specific suitability of all building details, including the appropriate selection of Monumental Windows & Doors™ products, installation details, the means of protection against air, water, and structural forces is the responsibility of the installer, architect, and/or design/construction professional.

Advance Preparation

Measuring and Sizing

The 5600 pivoting door assembly was designed to be used in a multitude of configurations and applications, several of which are indicated in the configuration drawings. The Sublinear design suggests a frame that is completely embedded in the surrounding structure, with only the panel(s) exposed. Jobsite ***finish*** dimensions must be obtained from the architectural plans in coordination with the project building/design professional for optimal results. *Rough openings are best obtained by adding the frame profile dimension (plus shim space), to the finish dimension, as in the following examples:



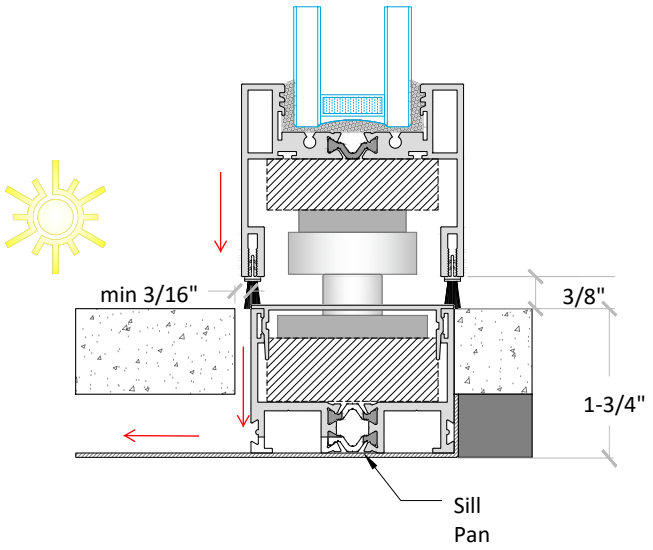


Finish Floor (FF) to Net Frame Height is ***critical*** to establish the Net Panel Height dimension.

*Alternatively, the frame can be installed into the existing rough opening, and finishes can be adjusted to align with frame edge after installation.

Sill Pans and Drainage Concerns

Special attention should be paid to concerns regarding proper sill/threshold selection, application, and installation. Front draining sill pans will require allowance for drainage beneath the exterior finish and will require a depressed sill. Bottom and side draining sill pans are available, but will require special drawings to integrate surrounding conditions.



Jobsite Review and Preparation

Before beginning with the installation, the installer(s) should review and confirm all site dimensions, conditions, and accessibility with product specifications and drawings. Confirm all benchmark dimensions and clearances. The Sublinear system is designed to be installed flush with the finished surfaces. Special precautions must be made to allow for installation clearances and sill drainage.

a. Jambs and head **MUST** be plumb, level, and properly secured against twisting and warping.
b. Typical shim spacing is ¼" at jambs & head, and should not exceed ½"
c. Slab or other sill support **MUST** be level, solid, and smooth - free of lumps and cavities.
d. If a sill pan is provided by others, it must be water-tight and installed so as to direct moisture/precipitation away from assembly and to the exterior of the structure.

- Review and confirm compatibility of selected fasteners and flashing materials with jobsite conditions:
  a. Use only non-organic, non-corrosive shims.
  b. Use only fasteners which are rated for the loads to be imposed on the finished installation.
  c. Use only flashing materials which have been tested and certified for the proposed type of installation.

- Follow flashing manufacturers' directions for preparation of opening at head, jambs, and sill. Ensure that all structure surfaces have been prepared and made water-tight.

Sill Pans

If a draining sill pan is supplied by Monumental:

a. Dry set the pan in the opening and confirm leveling and shimming requirements, as well as clearances for drain connections. Remove the pan for flashing.

b. Use a liquid membrane (or other approved waterproofing method) to completely waterproof the sill. Waterproofing should extend a minimum of 6" up both jambs. Follow manufacturers' instructions for application.
   - Liquid membrane may also be used to seal the opening jambs and head, following manufacturers' instructions. See **Typical Flashing Application** on page 4.
   - Alternatively, a self-adhesive membrane may be applied at the jambs and head, which extends into the opening, pas the jambs, and at least 6" onto the exterior vertical surface.

c. Set sill pan in a bed of sealant, centered in opening, and level. The use of screws or mechanical fasteners through the sill pan is discouraged. If mechanical attachment is required, seal all heads with compatible sealant.

d. Use dry pack, or other non-shrink adhesive to secure the pan in place.

e. Connect drains to fittings and block outlets. Fill pan with water. Inspect pan, drains, and connections after 12 hours for signs of leakage, and if assembly is water-tight, proceed with installation.

Frame Assembly – Jobsite

5600 series frames may be factory assembled. In some cases, as with larger frames, or door frames with sidelites, the frames may need to be field assembled.

1. Assemble frame in clean, dry, and dust-free environment, free of debris and obstructions. Protect frame from abrasion, impact, or other jobsite damage. Before assembling frame, confirm dimensions and orientation with customer order.

2. Apply compatible sealant to ends of frame and attach jambs to head and sill with screws provided, using wax to reduce friction.

Typical Flashing Application

3. Flash, wrap, or otherwise prepare structure as required to provide a completely water-tight seal (*See Fig. 1*).

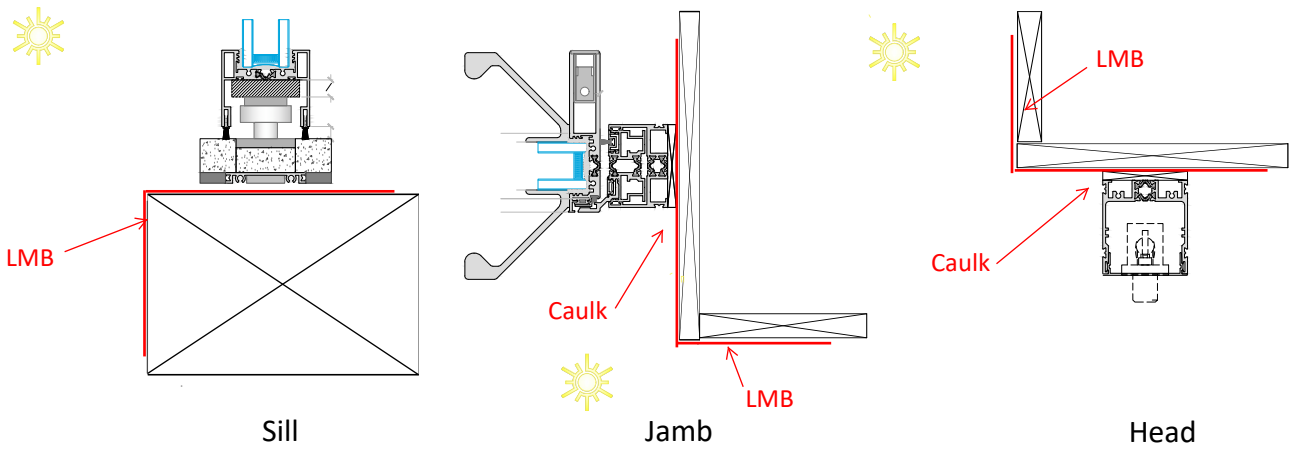


Fig. 1

Apply liquid membrane barrier (LMB) at sill, jambs and head. Extend over sheathing a minimum of 6". integrate with Weather Resisant Barrier according to manufacturers instructions. Caulk frame to membrane or barrier.

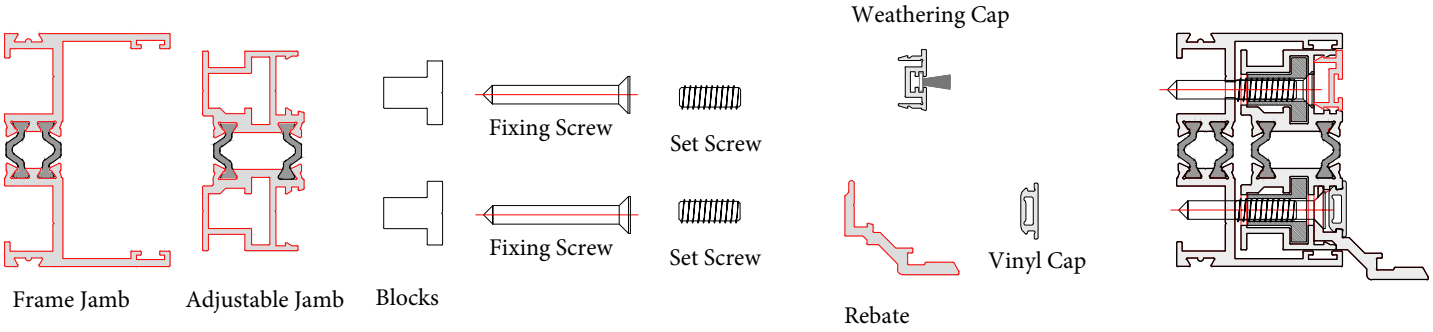
4. The slab should be level to 1/8". Any shims used should support the full depth and length of the sill Pan as necessary, and should be set in sealant. (see Sliding Glass Door instructions).

5. Use liquid membrane or other compatible barrier if necessary to ensure that no contact will be made with concrete (slab) and aluminum. Apply full bedding of compatible sealant to slab at location where sill pan will be placed. Sealant should run along slab intersection with jambs and vertically 6" minimum. If a drop (nosing) is used, apply sealant to face of slab as well. Marry all joints.

Typical Frame Installation

The frame is provided with Adjustable Jambs set into the frame jambs. The adjustable jambs must be removed for jamb attachment to structure.

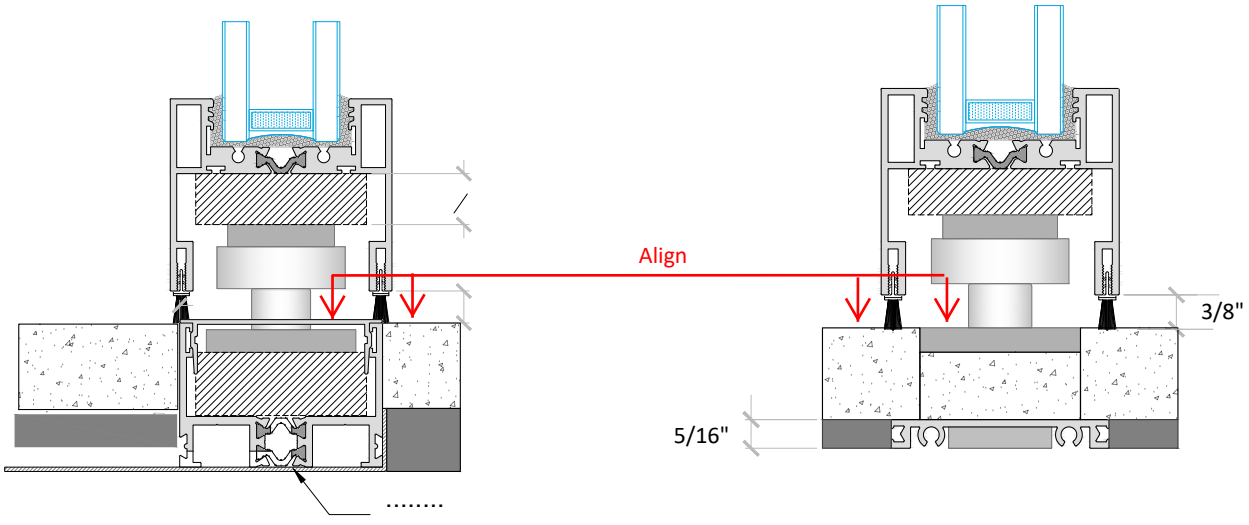
1. Remove weathering and vinyl caps attached to adjustable jamb and set aside.
2. Loosen Fixing Screws from frame jamb and set aside. Remove adjustable jamb.



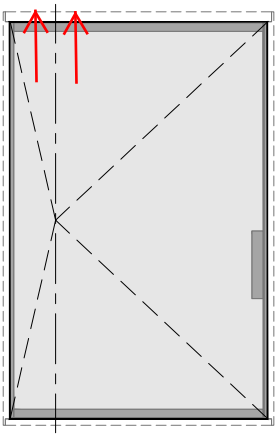
3. If a **threshold sill** over front-draining sill pan is to be used:
   a. Set the frame in the sill pan, and use temporary fasteners on both sides of head to secure the frame in the opening. Make necessary adjustments to level head and plumb jambs.

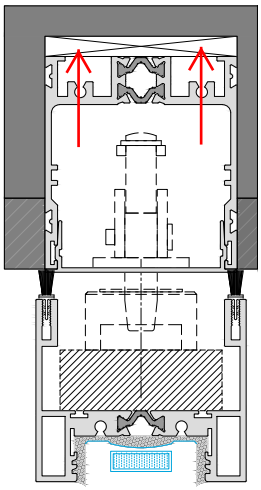
4. If a **tile or stone threshold** is used:
   a. Set the frame on the waterproofed slab, and use temporary fasteners on both sides of head to secure the frame in the opening. Make necessary adjustments to level head and plumb jambs.

5. Confirm **FINISH** height opening before securing head. This is a critical dimension and must be observed for proper clearances. **Align top of pivot platform with finish floor.**



6. Remove caps and secure head with appropriate fasteners, attaching through (2) screw races, on each end of pivot. Head must be securely attached, level and square. Replace caps.



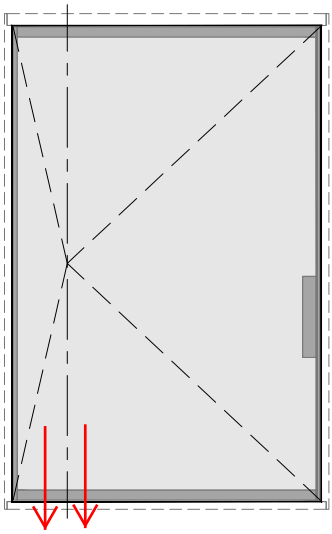


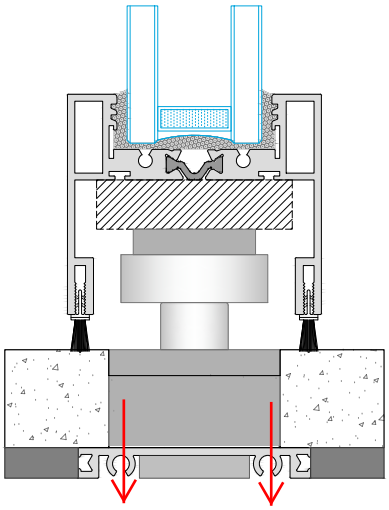
7. Secure jambs with appropriate fasteners, attaching on each side of thermal-break, not to exceed 24" spacing.
    a. Fasteners must be countersunk, and flush in jamb.
    b. Jambs must be securely attached, plumb, and squared with each other.

8. Re-attach Adjustable Jamb (AJ);
    a. Fit the AJ fully into frame jamb. AJ must not extend below finish floor height.
    b. Secure AJ in frame jamb with Fixing Screws.
    c. Loosen set screws and snug Fixing Screws to increase opening, flush with frame jambs.

Securing The Pivot

Confirm that the floor pivot is plumb and in alignment with the head pivot spindle. The floor pivot should be securely attached to the slab. If mechanical fasteners are used, attach to slab through the frame sill using (2) fasteners at each end of pivot. Inject waterproofing sealant into the drilled holes prior to inserting fastener, and cap the head with silicone. Remove and replace caps as required for a secure attachment.



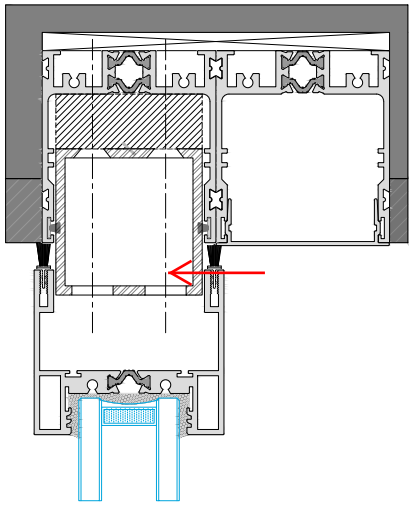


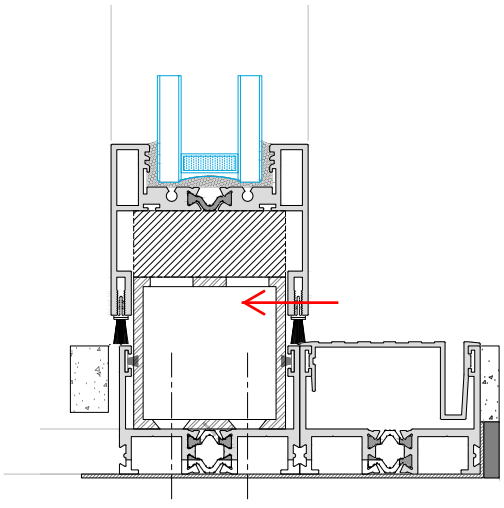
Installing Fixed Sidelite Panels

It may be preferable to install the fixed panel(s) before hanging the door, depending on the assembly orientation. If the fixed panel(s) is installed first, proceed thus:

1. Apply DC795 sealant at the fixed panel support tube/jamb connection, to prevent water intrusion.
2. Position the fixed panel in the opening, aligning with the panel support tubes at head & sill, and slide into position until firmly seated against the fixed jamb. Repeat the process with additional panels.
3. Hang door as described below.
4. Adjust panels and door as required before securing fixed panels to support tubes with screws.

Note: If a fixed panel width exceeds 50% of the assembly opening, please consult factory for special instructions.





Hanging The Door

Once the frame and pivot points are securely attached and adjustable jambs are placed, the door is ready to be hung in the opening.

1. Confirm that the head-pivot spindle is retracted and flush with the frame, and mark the location of the floor-pivot receiver on the bottom rail of the door panel.

2. Position the door perpendicular in the frame, and tilt slightly to lift over and onto the floor-pivot, raising the door to vertical and aligning the top pivot with the receiver. Turn the adjustment screw for the head spindle, lowering it into the receiver in the top rail of the door panel.

3. Test the door operation and clearances;
    a. Spacing at head and finish floor gaps should not exceed 3/8”
    b. Spacing at jambs (gaps) should not exceed ¼”

4. If necessary, reduce gaps at adjustable jams as follows:
    a. Loosen all of the fixing screws which are securing the adjustable jamb.
    b. Snug the set screws against the jamb.
    c. Repeat steps a. and b. until the desired spacing is achieved.
    d. The top pivot provides ½” lateral adjustment.

5. Replace weathering and rebate profiles to adjustable jambs.

Sealing Frame to Structure

1. Apply backer rod at gaps and caulk exterior jambs & head to self-adhesive membrane. Apply sealant heel bead
    a. at frame sill (interior) and turn up at jambs approximately 6”. Apply minimally expanding foam at interior jambs and head to reduce drafts Clean & trim any excess sealant.

2. Water test assembly for leaks as soon as practical after installation, prior to placement of drywall, if
    a. applicable, to avoid damage in the event of water intrusion. Make corrections as necessary.

3. Exterior trim moulding (stucco J-mould, etc.) should be set in sealant and overlap window frame by 1/8”–1/4”

Placing Twin-Point Lock Strikes

5. With the door in the closed position, extend the vertical rods and mark the locations at the head and sill.

6. Using a tube drill, make ¾” holes in the ceiling and floor to accommodate the (2) dust-proof strikes supplied.

7. Insert the strikes flush with the finish surface and secure with an appropriate adhesive.