6100 Hinged Door Installation Instructions

This document describes the key steps in assembling the frame and components of a 6100 Hinged Door, and installing the frame and door 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 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 6100 Hinged door.

- 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:

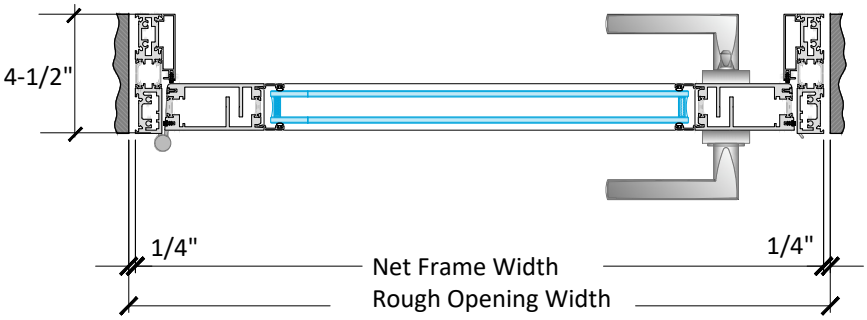
    - Failure to install in accordance with local building codes and appropriate weather-resistant barrier (WRB) system, which allows for excessive moisture within the wall system.
    - Deficient building maintenance.
    - Unanticipated water infiltration.
    - Neglect
- The site-specific suitability 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.

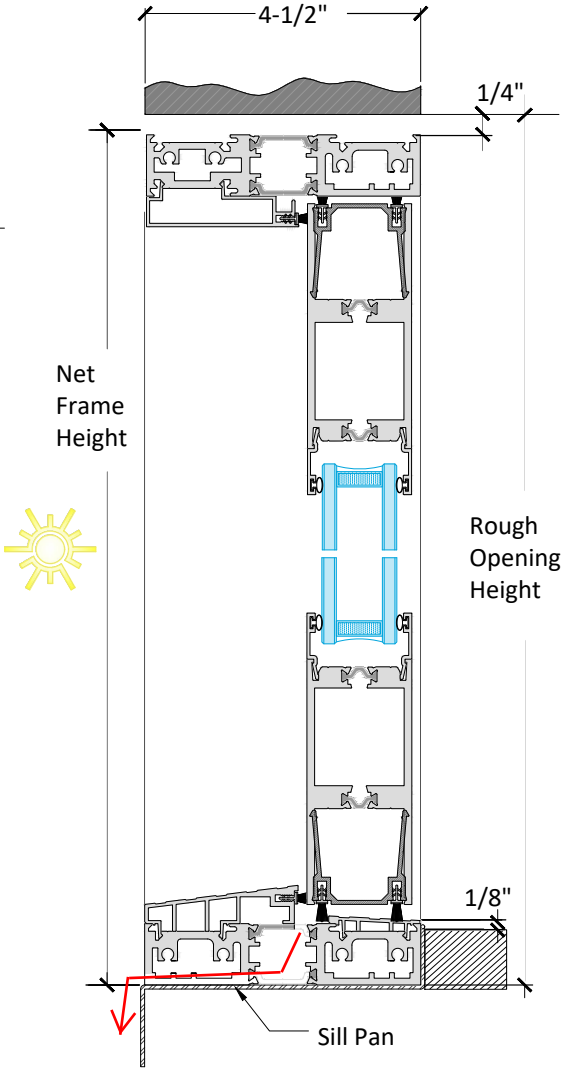
Advance Preparation

Measuring and Sizing

The 6100 Hinged door is designed for installation without a nail-fin, commonly referred to as a “Block” frame installation. A Block frame installation is typically flush with exterior sheathing and the sill does not extend past the slab edge. Rough openings should be plumb and square. The use of a sill pan is appropriate.

Rough openings are best obtained by adding ½” to net frame dimension width & height. Alternately, or if measuring existing openings, deduct ½” from opening dimensions to obtain optimal frame size.





Sill Pans and Drainage Concerns

Special attention should be paid to concerns regarding proper sill pan selection, application, and installation. Front draining sill pans will require allowance for drainage beneath the exterior finish and may 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 6100 Pivot Door sills are able to be installed ***very close to flush*** with finished flooring. Special precautions must be made to allow for door 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, past 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

6100 frames are typically factory assembled. In some cases, as with larger frames, 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 head and sill and attach jambs with screws provided, using wax to reduce friction. Trim excess sealant and verify that joint is air and water-tight.

Typical Flashing Application

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

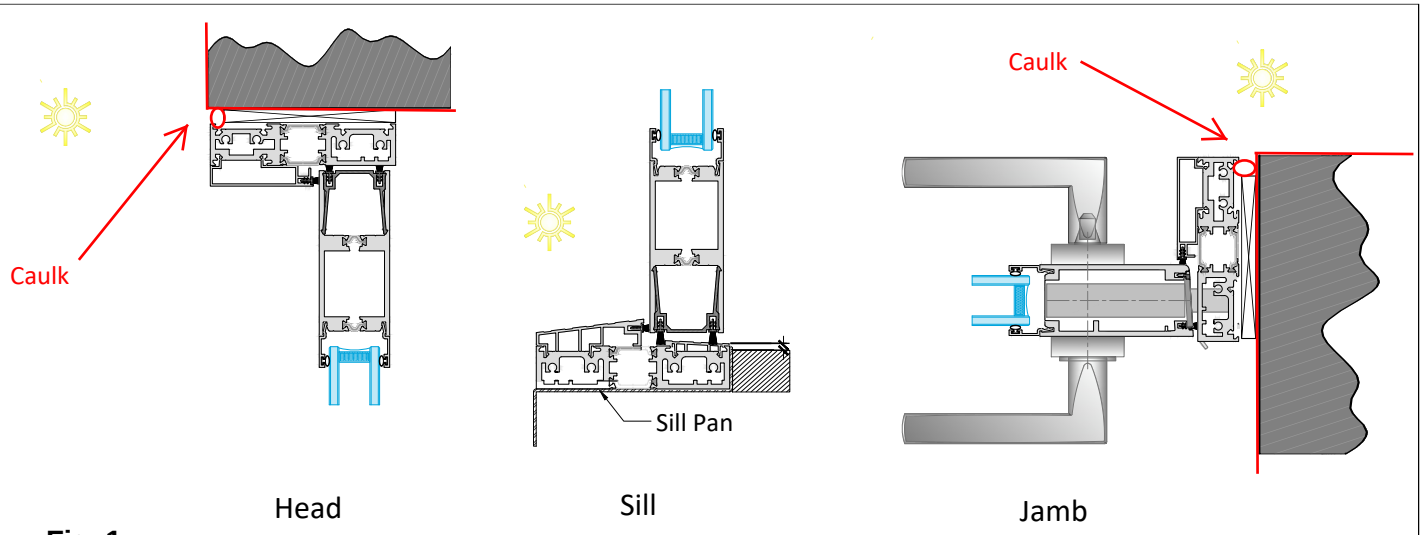


Fig. 1

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. Sill/floor should be level to within 1/8". Any shims used should support the full depth and length of sill as necessary, and should be set in sealant.

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 removal caps at attachment points. The caps must be removed for attachment to structure.

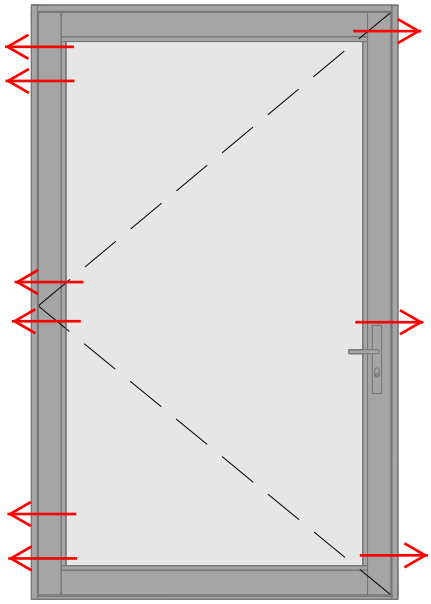
1. Set assembled frame into opening and align jamb bottoms with finished floor level. Using temporary fasteners, secure the frame and make any necessary adjustments to ensure correct and level placement. **Align top of sill (at shoulders) with finished flooring**.

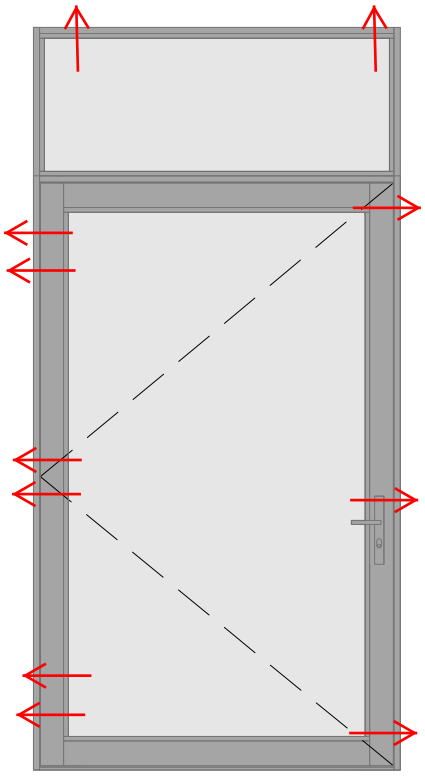
Frame – No Transom

2. Locate structural attachment holes above and below hinges, using appropriate fasteners and shims, attach hinge jamb securely to structure. Fasteners should be rated for attachment and loads imposed by door operation. Secure locking jamb through pre-drilled holes as indicated. Ensure that frame is secured against twisting and warping, and that all members are plumb, square, and level.

Frame – With Transom

3. Remove glass stops at transom to locate structural attachment holes. Secure transom jambs and head to structure with appropriate fasteners and backing. Fasteners should be rated for attachment and loads imposed by door operation. Secure jambs through pre-drilled holes as indicated. Ensure that frame is secured against twisting and warping, and that all members are plumb, square, and level.





Hanging Door

Prior to installing door, re-confirm sill alignment with finished floor. Using a laser levelling tool, verify that pivots align, and that jambs are plumb and securely fastened.

4. Lift door (in closed position) to frame opening and place onto pivot spindle. Carefully pivot door into open position, align top pivot, and lower spindle into place using pivot adjustment screw. Be sure pivots are firmly set.

5. Test door operation and locking. Make lateral adjustments at top pivot, or adjust lead-stile height via adjustment screw in top rail, as necessary. Adjust closer speed, power, and hold-open as required.

6. Replace jamb and head caps, stops, and hole covers. Apply backer rod at gaps and caulk exterior jambs & head to structure. Apply sealant heel bead at frame jambs (interior), to a minimum of 6” up from bottom.

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