5000 Sublinear™ Installation Instructions

This document describes the key steps in assembling the frame and components of a 5000 Sublinear™ system, including installation 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/panel 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 Sublinear™ 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.

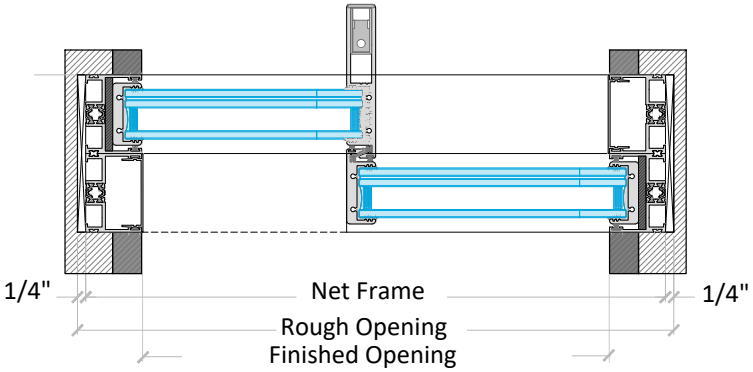
- Monumental Windows & Doors™ is not responsible for claims or damages related to moisture infiltration resulting from:

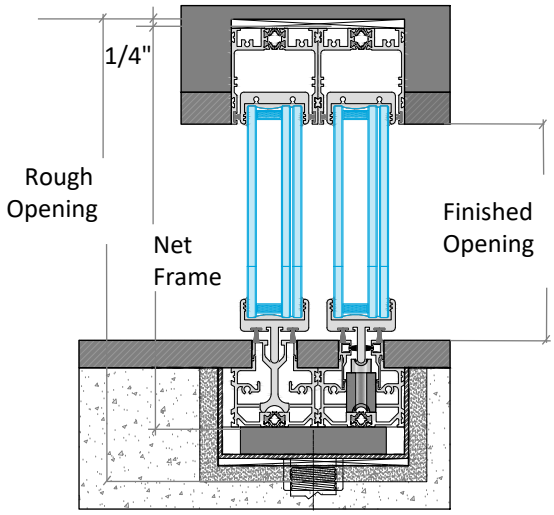
    - Failure to install in accordance with local building codes which, when integrated with the Sublinear™, allows for excessive moisture within the wall system.
    - Deficient building maintenance.
    - Unanticipated water infiltration.
    - Neglect
- The site-specific suitability of all building details, 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 5000 Sublinear sliding assembly was designed to be used in a multitude of configurations and applications, many of which are indicated in the configuration drawings. Job-specific drawings are provided for pocketing and corner configurations for verification of required rough opening and finish dimensions. The Sublinear design suggests a frame that is completely embedded in the surrounding structure, with only the panels 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:

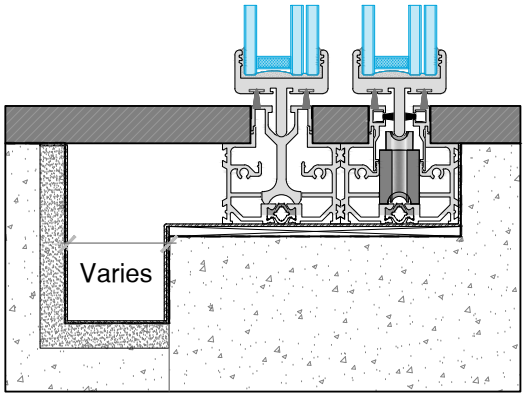




*Alternatively, the frame can be installed into an existing rough opening, with preparations for drainage, and finishes can be adjusted to align with frame edge after installation.

Sill Pans and Drainage Concerns

Special attention should be paid to concerns regarding proper sill pan selection, application, and installation. Bottom and side draining sill pans will require a depressed sill. Front draining sill pans may require allowance for drainage beneath the exterior finish. In any case, coordination with a licensed waterproofing professional is highly recommended for proper fabrication and installation of sill pans and drainage to meet site requirements.



Jobsite Review & 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 sill, 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.
f. Inspect pan, drains, and connections after 12 hours for signs of leakage, and if assembly is water-tight, proceed with installation

Frame Assembly

5000 Sublinear frames are shipped unassembled, or “knocked down” (KD) – for assembly at the jobsite prior to installation.

1. Assemble the 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 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 (for pocketing doors, there will be no jamb supplied for the pocket).

Typical Flashing Application

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

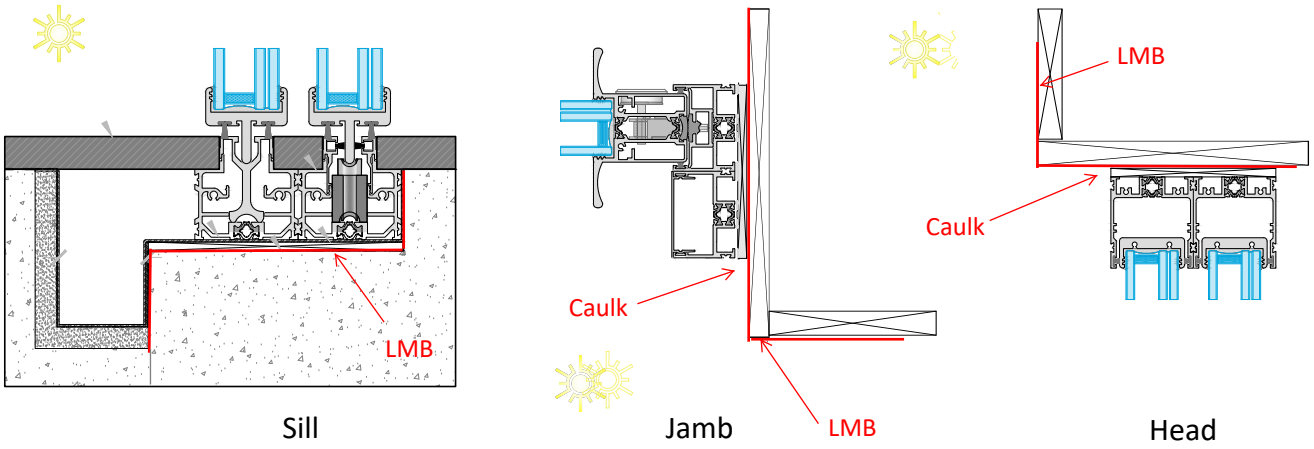


Fig. 1

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

4. The slab should be level to within 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

1. Set shims in sealant, careful not to block drainage path and slots. Apply bead of sealant to back and side legs of sill-pan. Dow Corning 995 structural silicone is recommended for bedding of frame at pan.

2. Place frame in sill-pan and align frame with structure jambs as necessary. Ensure that frame is fully seated, centered, snug in opening, and level. Ensure a water-tight seal is made along interior of frame sill to sill pan.

3. Securely attach frame at jambs first, then head. Use appropriate fasteners and anchoring for attachment to structure. Ensure that frame is secured against twisting and warping, and that all members are plumb and level.

Panels Installation

4. Set fixed panel rail (if applicable) into frame first, fully seated in sill.

5. Place rollers in frame sill, at designated spacing as indicated.

6. Set lead rolling panel(s) first, by lifting into head channel, and lowering onto rollers in sill cavity. Panel installation should sequence from interior to exterior, with fixed panels installed last. Adjust lock strike as necessary and ensure that door locks properly.

7. For pocketing doors, install wall interlocks at this time, shimming as necessary to align with panels and panel interlocks. Confirm operation and flush alignment of panels in open position.

8. Install jamb caps first, then head and sill caps, trimming as necessary for a snug fit.

9. Apply backer rod at gaps and caulk exterior jambs & head to structure. Apply sealant heel bead at frame sill (interior) to sill pan and turn up at jambs approx 6". Apply minimally expanding foam at interior jambs and head to reduce drafts Clean & trim any excess sealant.

Final Adjustments

10. Water test assembly for drainage and/or 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.

11. Cut brush holders so as to conceal joints under panels, and snap into place. Access to rollers should be possible by sliding panel to one side, and removing brush holder.

12. Install and adjust screen(s) if applicable – see separate instruction.