

450

Sliding Door

Sliding Patio Doors Milgard Aluminum Doors

450
SERIES
ALUMINUM



The 450 Series Sliding Door has been specially designed to meet the building practices and climatic conditions in your market. The door features 7/8" insulating glass options for energy efficiency and frame and grid color alternatives for virtually any architectural design. The 450 Series has been specifically designed to accommodate the added thickness and extra weight of 1" insulating glass units. The door is built for durability, easy maintenance and long term weather tight performance.

Milgard's Aluminum windows, doors, and skylights carry a Full Lifetime Warranty to the original single family homeowner covering both materials and labor. The Milgard Full Lifetime Warranty is fully transferrable up to 10 years. For complete warranty details visit milgard.com

Commercial, apartment, multi-family, and co-housing projects are covered by a 10-year warranty from date of manufacture, covering materials and labor, including the glazing unit.

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CONFIGURATIONS

The 450 Series is designed as an inside slider (the sliding panel or "vent" slides inside the stationary panel). For the vent to open completely, there must be at least an equal size adjacent stationary panel. The track system provides for one panel in a two-panel or three-panel door to move, and two panels in a four-panel door to move.

COMPONENTS

FRAME

Frame components are made from 6063-T5 aluminum alloy with a structural wall thickness of .062", and non-structural wall thickness of .050". The frame is available in clear and bronze anodized finishes with a standard .4" mil coating thickness, and white baked enamel finish.

The sliding glass door is constructed from fixed and moving panels mounted in a perimeter frame specifically engineered for insulating glass. Both panels are removable for repair and can be reversed in the field.

A butt-jointed corner is used on the perimeter frame and panel members. Wide screw spacing on the mechanically joined corners ensures a rigid connection with a consistent dimension. With the insertion of the non-moving panel into the perimeter frame, the door squares itself to ensure a rigid connection with an even sight line. It is still necessary to square the frame for installation. The glass in the fixed and sliding panel is equally exposed.

The jamb, sill and all corners are caulked with exterior grade sealant before the fixed panel is installed to maximize weather tight integrity. Standard frame widths is 4 1/2" which will allow for adaptation to most wall conditions.

NAIL-ON FIN

An integral nailing fin extends 1" around the perimeter head and jambs to attach door in opening. The fin is setback 1" from the exterior edge of the frame.

SLIDING PATIO DOOR WEEP SYSTEM

The rectangular weep holes on the interior of the sill section are offset approximately 6" from the holes on the frame exterior to provide a baffling system minimizing "blow back". A hinged weep door to the exterior reduces air infiltration and provides an attractive, uncluttered sill appearance.

GLAZING MATERIAL

Sliding and fixed panels employ a wraparound "U-shaped" vinyl channel designed to effectively seal 1" overall insulating glass units and cushion the glass from the surrounding frame.

GLASS

Glass options are available in 7/8" overall insulating units, clear, tinted, reflective, obscure and low-emissivity glass. Special safety glass options are available upon request. (See Glass Section for types and description).

SLIDING PANEL

Designed specifically for insulating glass the sliding panel is engineered with the glass unit's weight centered over the roller assembly, which rides on a raised monorail track. This track helps keep the sliding operation free from interference by foreign particles that may collect in the sill. An "L-shaped" lip fully interlocks with the fixed panel, adding security and preventing weather penetration. The panel can be easily removed in the open position by lifting up and pulling the bottom inward. Nylon compression strip is used to ensure an even, weather tight seal. A rubberized stop is attached to the perimeter jamb to cushion the panel in a fully open position.

FIXED PANEL

The fixed panel is fastened to the perimeter frame and tightly sealed for maximum performance. The fixed panel has an "L-shaped" lip, that fully interlocks with the sliding panel for added security and a weather tight seal.

WEATHERSTRIPPING

Silicone treated, water repellent polypropylene fin seal weatherstripping provides a durable, weather tight seal. This weatherstripping is installed in an integral, continuous keyway around the exterior edge of the closing stile and on the interlock.

ROLLER ASSEMBLY

A cadmium-coated steel roller assembly with sealed ball bearings rides on a raised monorail track and can be easily adjusted. Two tandem rollers are used on each panel.

LOCKING ASSEMBLY

The primary locking assembly is a component of the handle set. The door may be locked or unlocked easily from the inside by the flip-latch mechanism. An antilift device is installed in the handle to prevent sliding panel removal when the door is closed.

SCREEN

Screen frames are engineered for rigid strength, finished with three coats of color matched baked polyester for long term durability. Four nylon rollers contained in fully adjustable plated steel housings ride on a raised monorail track for easy operation.

OPTIONS

KEY LOCK

A cylinder lock for keyed exterior is available.

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GRIDS

Available in 5/8" standard or 1-1/16" sculptured aluminum profiles sealed between panes.

GLASS

Refer to Glass Section

STUCCO FIN

1 3/8" fin setback. Check with local branch for availability.

COLORS

Check with local branch for color options and availability.

TEST STANDARDS

See Test Data Section

INSTALLATION

All 450 Series Doors are factory sized to fit into a framed opening, whether new or created by removing an existing door. Doors will be 1/2" smaller than the framed (rough) opening to allow 1/2" clearance on header and 1/4" clearance on jambs. Built to rough opening size with 1/2" deductions automatically made, no complex calculations are required for ordering. Opening panels must be closed and locked during installation. Doors must be installed level, plumb and square with 1/4" clearance on the sides with weep holes at the bottom.

HEADERS MUST NOT BE NAILED

Nail through fin into framing along sides. At the head, casing nails may be placed 1/2" above fin and bent down over fin, to allow for header deflection. Wood Sill: Caulk entire sill length before setting door.

CONCRETE/MORTAR

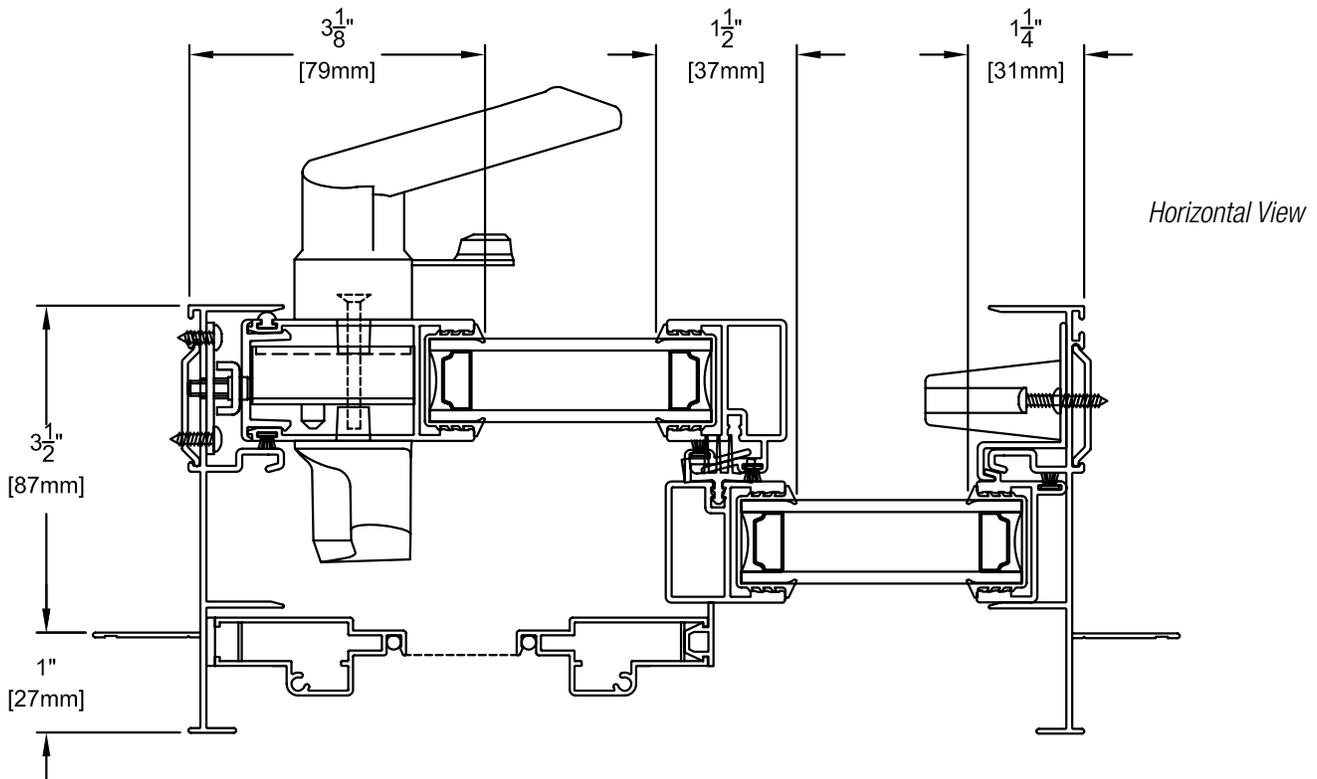
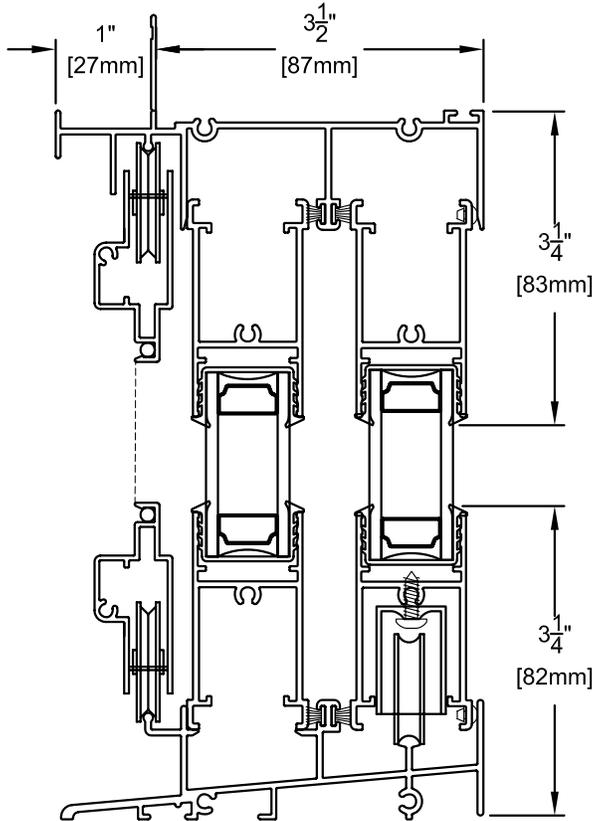
Install as with wood sill, except use heavy building paper or redwood barrier between door frame and concrete to prevent corrosion. Caulk both sides of barrier for weather tight performance.

CAUTION: The use of petroleum based fuels or solvents as release agents in stucco wall installations or glass cleaning will chemically attack materials used in seals and other components, and voids the Milgard Full Lifetime Warranty. The use of wax based release agents is recommended.

Expanding foam for insulation purposes should not be used. Non-expanding foam or loose packed batt insulation is recommended.

450 Aluminum Assembly Drawing

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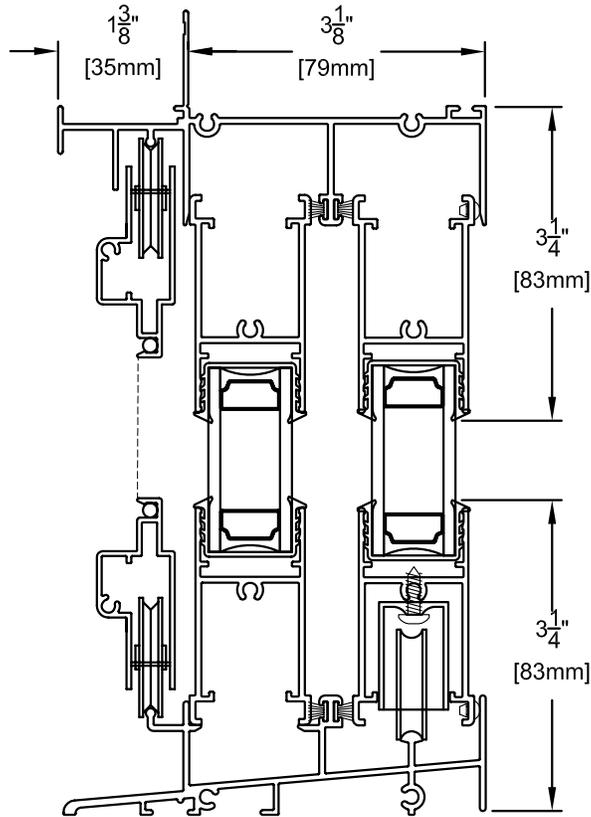
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Scale: 6" = 1' (1/2 scale)

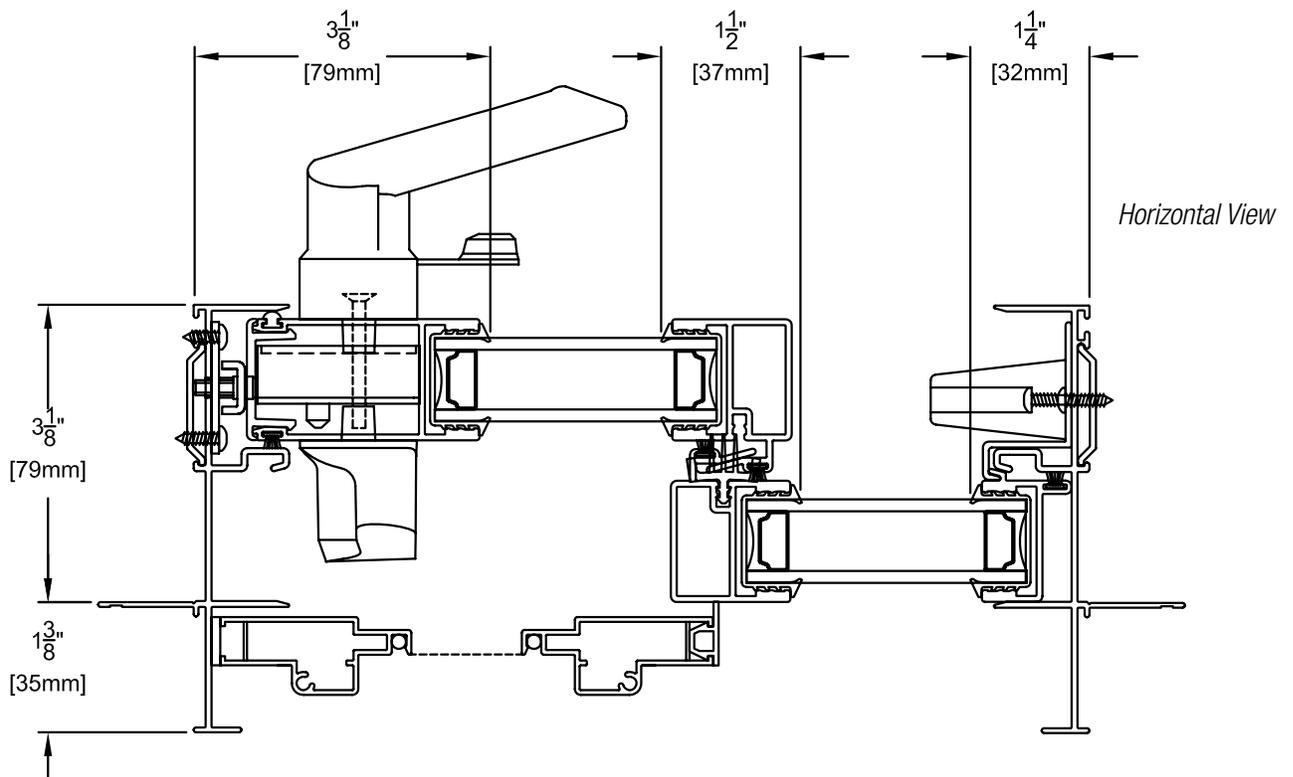
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450S Aluminum Assembly Drawing

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Vertical View



Horizontal View

Scale: 6" = 1' (1/2 scale)

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