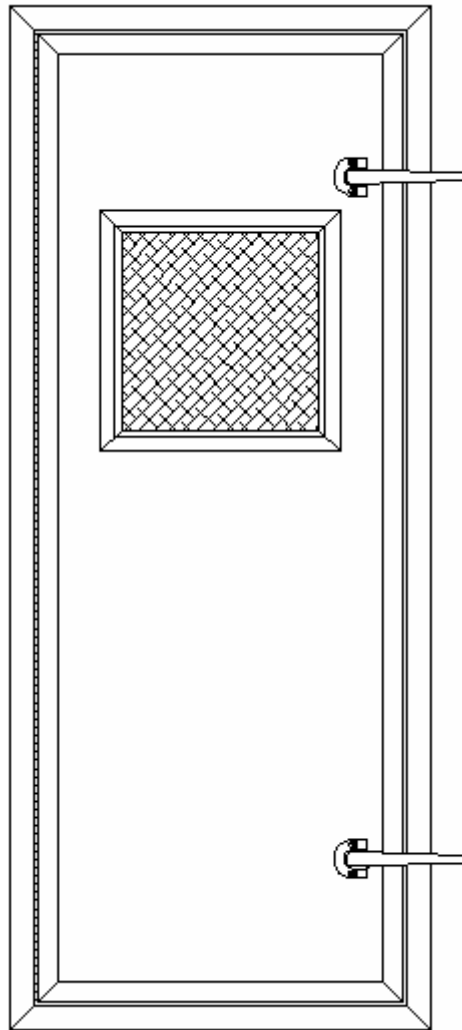


WinTech Access Doors Installation Manual



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General Overview and Information

Window Technologies Inc. (dba WinTech), Access Doors are tested, manufactured, and supplied in accordance with American Society for Testing and Materials International (ASTM) standards, specifications, and requirements; however WinTech can not protect against adverse environmental conditions, extreme or unusual use of the products provided in the field. The information contained in this manual has been compiled for general and typical access door types. WinTech can not warrant or guarantee products that are used in any manner other than normal use and results may differ from those expressed in this manual. Due to custom applications, design, and specifications of this industry some of the information may not apply and should be analyzed, reviewed, and written requests should be submitted before action is taken. Users of material should conduct their own tests to verify that material is applicable for the field application.

1.1 Handling and Storage

Upon delivery, check all doors and materials for damage and accuracy. Any damage or missing material must be reported to WinTech and freight carrier immediately. Safe material handling during offload and distribution must be followed. To prevent damage to doors, materials, and accessories, DO NOT DROP, DRAG, and OR WALK ON BOXED OR CRATED MATERIAL. Place protective spacers between each door, doors and walls, and doors and floors during storage. DO NOT Stack units at more than a 10° angle as to prevent any distortion or create out of angularity issues. Protect doors from other trade damage or manufacturing process with ventilated covering. If packaging becomes wet, DO NOT STORE WET. Remove wet packaging, dry units and material, replace with dry packaging material and store in a dry and safe location off the ground.

1.2 Contact.

In the event that a part or piece has broken or become defective please reference door sticker that is specific to your project / order. Stickers are located on the inside of the door frame or on the outside of the door panel. Find the Job / Index number for order recall information.

Door Panel	Job/Index: # / #
Door Panel: Width x Height	AD Description
Interior Skin: Description	Door Swing
Exterior Skin: Description	
Door Panel Extrusion Painting: Description	
Shot Time: Description	Qty: # of Total

Please have sticker / tag information and send written requests for information or possible replacement to:

Mailing Address:

Window Technologies Inc.
WinTech Field Services Department
P.O. Box 480
Monett, MO 65708

Physical Address:

Window Technologies Inc.
WinTech Field Services Department
201 Industrial Drive
Monett, MO 65708

Or Call

Toll Free: 800-365-4924

Local: 417-235-7821

Fax: 417-737-7140

Email: sales@wintechinc.com

Or Visit www.wintechinc.com

1.3 Terminology

1g system – Single gasket air flow barrier within door system.

2g system – Double gasket air flow barrier within door system.

Debridge – Process of cutting material away from cured thermal barrier to create a true two piece thermally enhanced part or extrusion.

Door Astragal – Device that is attached to one leaf of a door in a double leaf application to seal off panels in the closed position. Allow for a full clear opening when both doors are open.

Exterior viewed orientation – the action of viewing or based on a relative position from the exterior. All elevations and views are noted and assumed as “viewed from the exterior”.

Hardware – Device used to lock operable portion of door in the closed position.

Hardware options – Installed, prep only, prep and ship loose, or installed. Contact WinTech on standard hardware options for your order.

Hinges – Device used to allow the doors to swing during opening or closing. Access Panel Door hinges consist of multiple 10” lengths or a single continuous device/s.

Level - A horizontal line or plane at right angles to the plumb. An instrument for ascertaining whether a surface is horizontal, vertical, or at a 45° angle, consisting essentially of an encased, liquid-filled tube containing an air bubble that moves to a center window when the instrument is set on an even plane.

Negative / Outswing door – Door that opens to the exterior and is used to resist a negative air handler working pressure.

Positive / Inswing door – Door that opens to the interior of air handler and used to resist a positive working pressure. Door naturally seals to gasket and does not rely on locking hardware to maintain consistent air seal.

Plumb - Perfectly vertical, as determined with a level or a plumb bob. In construction, a plumb object maximizes the force of gravity by transferring a load straight down to the ground. Any deviation from plumb weakens that force.

Removable Mullion – Device that is attached to the frame in a double leaf application to seal panels in the closed position. Mullion becomes a component of the frame and splits available clear opening.

Rough Opening Dimension or R.O.D. – Used to describe a clear opening dimension in width and height dimension in wall.

Secondary Gasket – Santoprene Bulk with PSA backer that is factory or field applied to provide a second continuous weathering gasket on 1g doors.

Square - Approximately rectangular and equilateral in cross section. Head location and sill location are equal in relationship (inside to outside plane) to each other at a 90° vertical plane to a perfectly level floor.

Standard Framing - Non Thermal framing with no pour and debridge thermal enhancement.

Thermal Break or TB - Thermal breaks (also called thermal barriers) made of substantially rigid, low thermal conductive polyurethane which is mechanically locked in aluminum window framing can be more than a thousand times less conductive than aluminum and a hundred times less than steel.

Cleaning and Maintenance

2.1 General Care and Cleaning.

Cleaning of doors must be done and monitored during all stages of installation and construction. Upon arrival to the jobsite / facility and installation, doors and hardware should be wiped down and cleaned. Cleaning during the construction phase of the doors and hardware consists of soaking with clean water, then a mild soap solution to loosen any dirt, dust and or debris. Use a non-abrasive or cloth brush to apply a non-abrasive cleanser to the door skin and material. Before the cleanser becomes dry, use a squeegee or soft absorbent cloth to dry door skin. Make sure not to hit, nick, or penetrate door skin with any metal or sharp object. After drying door and door frame, a blue max or similar protective film may be applied to protect from new construction debris, dust, paint, welding spatter, or contaminates; provided that these must be tested prior to application to avoid damaging the finish.

2.2 Removal of Foreign Debris.

Weld Slag, terrazzo, cement, plasters, and acid based materials used to clean masonry are very harmful to anodized and painted finishes and should be removed as such immediately with mild soap and water. Spot testing is recommended before any cleaning agent is applied to doors.

2.3 Care for Painted Finish Materials

Cleaning of painted aluminum surfaces should be in accordance with American Architectural Manufacturing Association (AAMA) 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally finished Aluminum".

2.4 Care for Anodized Finish Materials.

Cleaning of anodized aluminum surfaces should be in accordance with American Architectural Manufacturing Association (AAMA) 609 & 610-02 "Cleaning and Maintenance Guide for Architecturally finished Aluminum".

2.5 Care for Stainless Finish Materials.

Routine cleaning can be accomplished by using warm water and a cloth. After washing and wiping wet, dry with a towel or soft cloth to prevent water spots. Micro fiber cloths can be used and are a great option to clean stainless steel. If a heavier dirt is going to be removed a more mild detergent or cleaning agent can be used, (dish washing liquid) and cloth. Make sure you thoroughly rinse the surface thoroughly to prevent staining and spotting. Towel dry any wetness with a clean cloth to prevent water spots which can be caused by minerals or "hard water".

Installation

3.1 Clearance holes and Screws

WinTech typically preps 9/32 Ø (Diameter) for ¼ Ø (Diameter) self drilling / self tapping attachment holes @ 5-3/4" on center. Below is a list of standard attachment anchor screw sizes, drill bit information, clearance dimensions which are one step smaller and larger then the standard attachment hole diameter.

Screw Numbers and Diameter					Clearance Hole Drills			
Size of Screw			Tap Drill		Close Fit		Free Fit	
No. or Diameter	Decimal (inch)	Threads Per Inch	Drill Size	Decimal (inch)	Drill Size	Decimal (inch)	Drill Size	Decimal (inch)
1/4	.2500	20	7	.2010	F	.2570	H	.2660
1/4	.2500	28	3	.2130	F	.2570	H	.2660

3.2 Installation Process

Door Frame Dimension is always less than Rough Opening Dimension provided. Door Frame Dimension is typically Rough Opening Dimension less 1/8" all around for a total of R.O.D. - 1/4". Adjustments can be made on customer basis, but written notification is needed to deviate from standard.

WinTech Product Family AD1500 1g Negative outswing head detail used for reference purposes. All other door series are similar in regards to door sizing.

See Figure 1 for clarification on dimension points regarding door sizing.

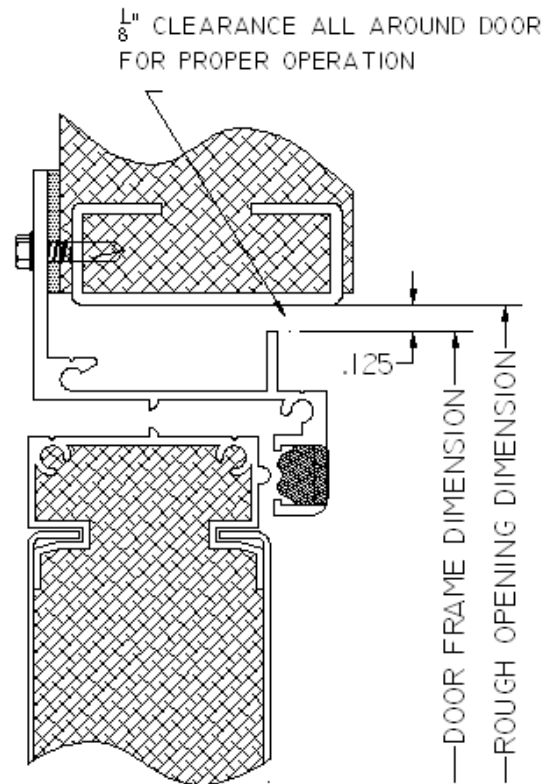


Figure 1

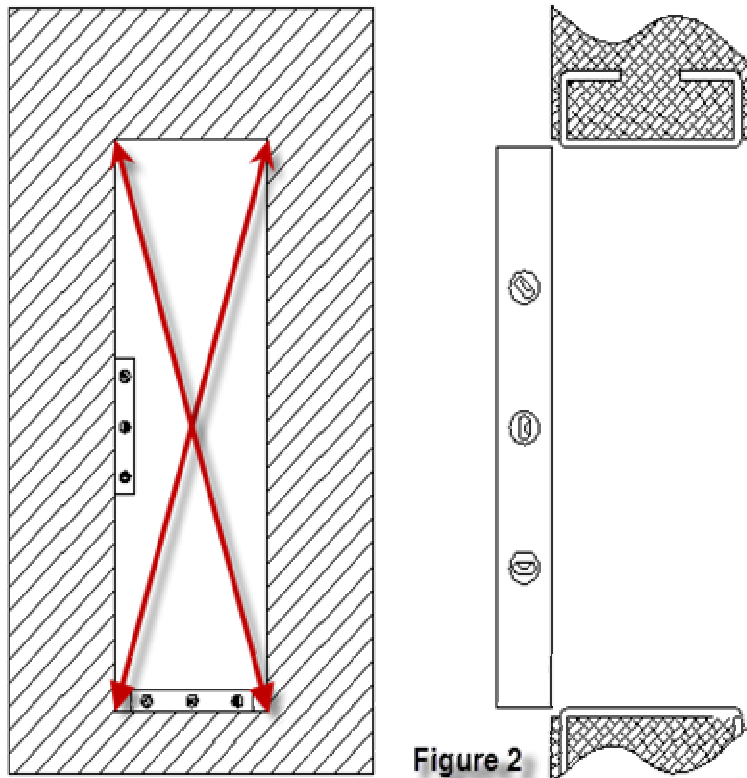


Figure 2

Door Rough Opening Verification:

For proper door swing, operation, and performance; verification of opening readiness is needed. Verify that rough opening is square, level, plumb and has proper clearance for designated door.

See Figure 2 to for clarification of opening verification.

Validate that appropriate door fits in its designated opening. Verify that door is square, level, plumb and has proper clearance for designated opening. Before installing door attach a closed cell foam tape or caulk sealant between frame flange and air handler rough opening wall. Block or shim sill of door in appropriate opening location and begin mounting sequence (next page).

DO NOT REMOVE EDGE BLOCKS in door system. These are used to space door and framing during installation. Edge Blocks are also used to lift and space door leaf when closing.

Closed cell foam or caulk sealant

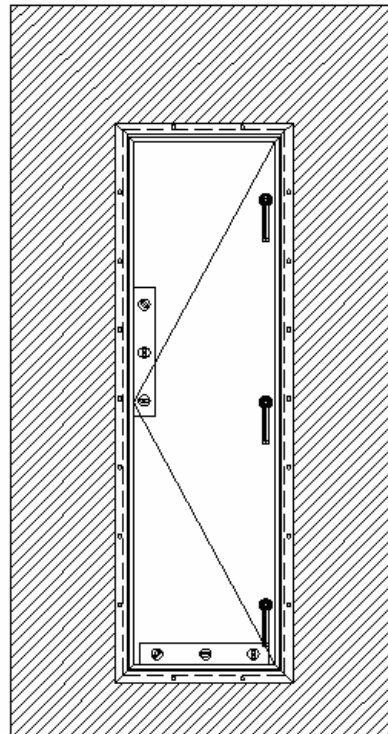
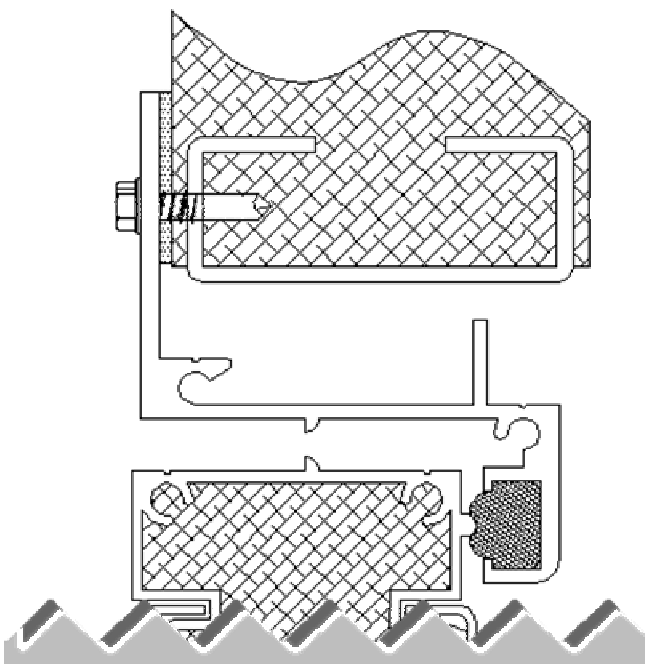
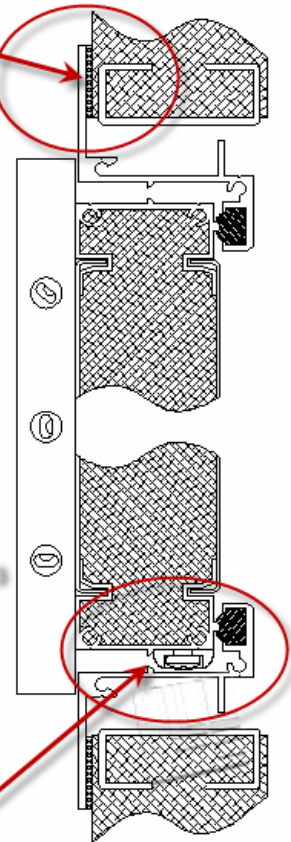


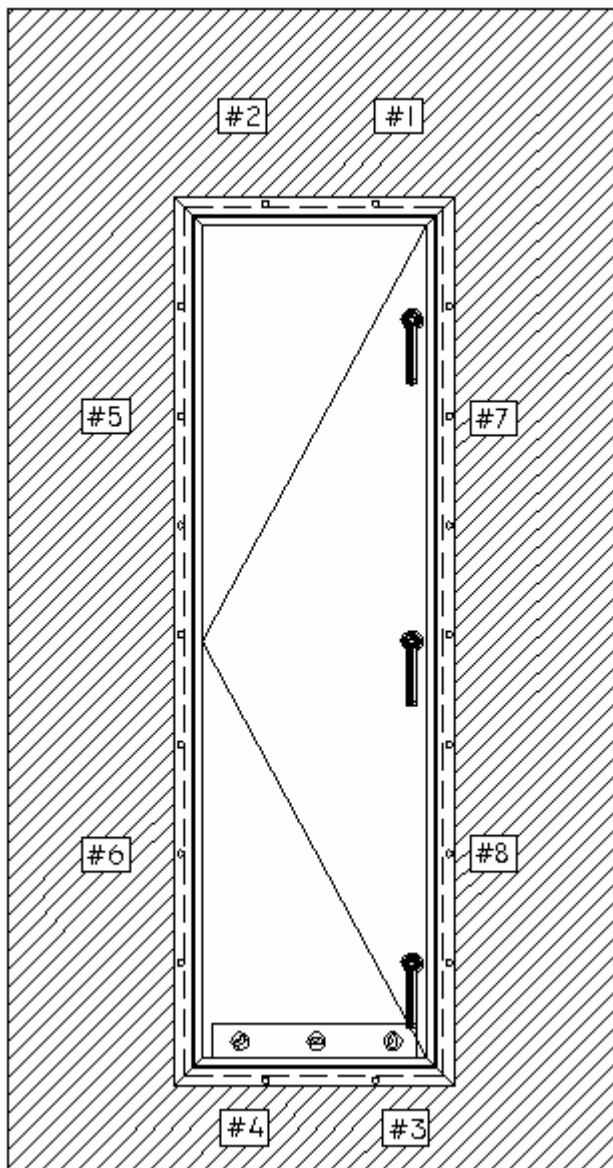
Figure 3

Permanent Edge Blocks located at sill and on lock rail side.



Obtain typical 1/4 Ø (Diameter) self drilling / self tapping anchor and proceed to installation sequence on the following page.

Door Installation Sequence



WinTech typically preps 9/32" Ø (diameter) mounting holes at 5-3/4" on center. Customers can request different or specific mounting hole locations based on design criteria or other needs. If you have questions or would like to request other mounting locations, please contact your design professional or contact WinTech with written mounting locations.

Why an installation sequence?

Similar to replacing a spare tire when you have a flat, there is a sequence to tightening lug bolts; there is a sequence to anchoring an Access Door. If you do not follow this sequence for door installation, proper uniform pressure and alignment can not be achieved.

The first anchor location is as noted #1 (Lock rail side head). After the first anchor is installed level door unit and install #2 anchor. Double check plumb and level and install anchor at location #3 and then #4. Double check door unit for square and anchor hinge side at locations #5 and #6. Open door to 90° and anchor all remaining locations on hinge side.

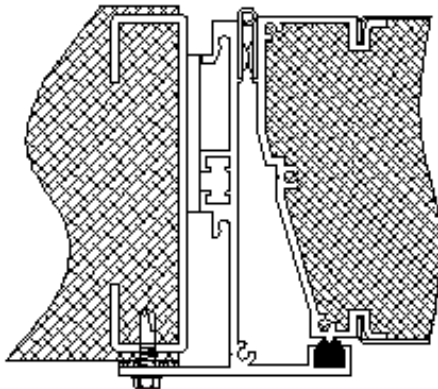
Why do I open the door?

Opening the door helps roll the door frame towards the rough opening to help secure attachment location.

Continue to anchorage locations #7 & 8 while checking square of unit again. Double check square by measuring horizontally across door and diagonally for equal dimensions. Visually check reveal on opposite side of door, between door frame and rough opening. Gapping should be equal and consistent all around door frame, if not, adjust for proper operation. Fill in remaining anchor locations by opening door unit and attaching anchors at open locations.

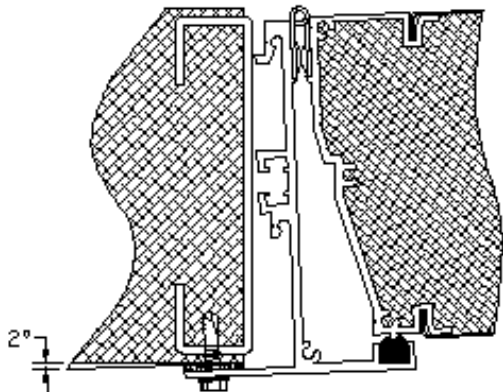
For twin leaf doors, start at head and anchor at hinge side. Follow anchorage at #5 & #6 on either side of hinge side. Follow sequence for filling in anchor locations along jambs and then fill in at head and sill. Verify in double doors that the Astragal and removable mullion are flush, plumb, and square with in the opening.

Upon completion of all anchor locations close door and check for proper swing, clearance, and operation of hardware. **DO NOT REMOVE EDGE BLOCKS** at sill and lock rail side. Edge Blocks are installed to provide proper spacing between door leaf and door frame and to ensure proper spacing when door leaf is in its closed position.



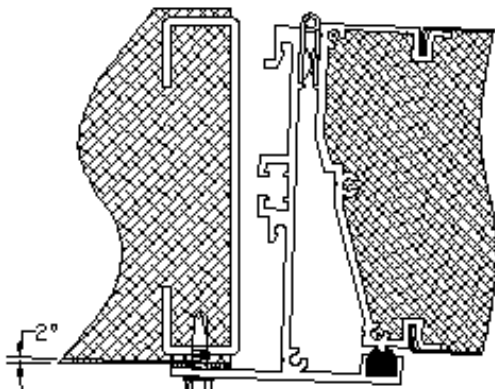
@ 90° Wall Condition

WinTech recommends that a continuous hinge be used on a 4" positive inswing door. WinTech also recommends that a true 90° wall be verified around the opening of the door.



+90° Wall Condition

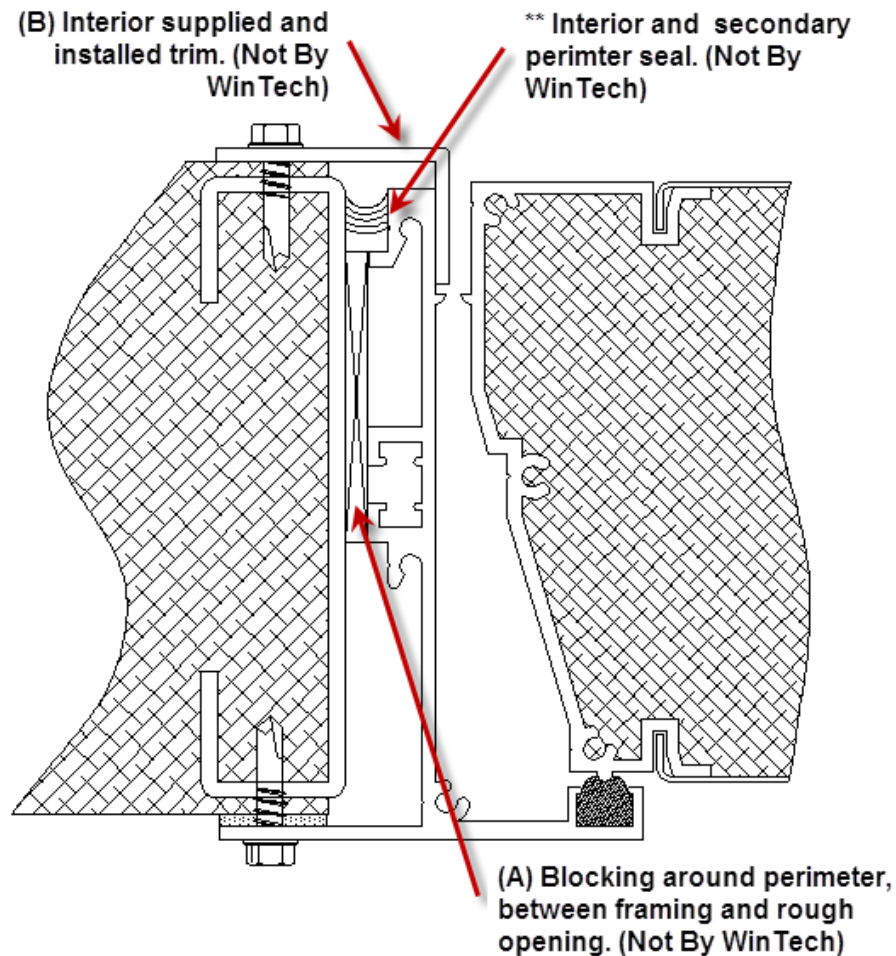
Floating walls, +/- outside of a true 90° can cause frame rotation. This frame rotation is a primary cause of poor air seals and door performance. It will also result in swing, clearance, and interference issues that can result in performance problems.



-90° Wall Condition

Even a Rough opening wall that is +/- 2° off 90 will cause frame rotation, thus resulting in bad gasket isolation, air leakages, and swing interferences.

Not all situations require additional materials or parts, but in the event a rough opening wall is out of square (90°), there are ways to rectify. One way is to provide blocking (A) between the door frame and rough opening wall. This blocking/shimming holds the framing true and prevents frame rotation.



Sometimes an interior finishing trim (B) may be applied to help prevent frame rotation due to out of square wall. If this application is chosen, make sure there is no interference with edge blocks, hinges, or hardware.

** An interior or secondary seal can and should be utilized after installation. Using this secondary seal can promote performance and prevent negative issues by:

- 1) Creating an aesthetically pleasing installation with no voids between door and rough opening.
- 2) Provide additional air barrier between inside and outside pressures.
- 3) Prevent water migration to interior of Air Handler and with in wall cavity.
- 4) Promotion and full utilization of thermal break frame potential.
- 5) Help prevent condensation on frame material by preventing loose airflow behind door and wall system.

Maintenance Schedule for Doors

4.1 Frequently

- Visually check exterior perimeter caulking and interior seals and repair as needed.
- Check hardware to ensure proper engagement, operation, and performance.
- Open and close doors for proper swing and clearance operation.
- Visually inspect finish and remove any debris.
- Visually inspect internal door gaskets for any damage.

4.2 Quarterly

- Blow or vacuum out dust, dirt, and all debris from within the door framing and view ports.
- Remove any debris within door system, attached to gaskets, or stuck to door sash as it may cause deficiency in hardware operation, performance, and finish.
- Clean sand or debris from all working mechanisms; hinges, latches, rollers, view ports and any specialty parts.
- Polish external hardware to protect finish. Non-abrasive products can be purchased at most local retailers
- Check exterior perimeter caulking and interior seals and repair as needed.
- Adjust hardware to ensure proper engagement, operation, and performance.

4.3 Annually

- Blow or vacuum out dust, dirt, and all debris from within the door framing and view ports.
- Remove any debris within door system, attached to gaskets, or stuck to door sash as it may cause deficiency in hardware operation, performance, and finish.
- Clean sand or debris from all working mechanisms; hinges, latches, rollers, view ports and any specialty parts.
- Polish external hardware to protect finish. Non-abrasive products can be purchased at most local retailers
- Check anchors for any movement or detachment due to normal expansion and contraction of materials.
- Check exterior perimeter caulking and interior seals and repair as needed.
- Adjust hardware to ensure proper engagement, operation, and performance.
- Check internal door gaskets for cuts, cracking, or damage.