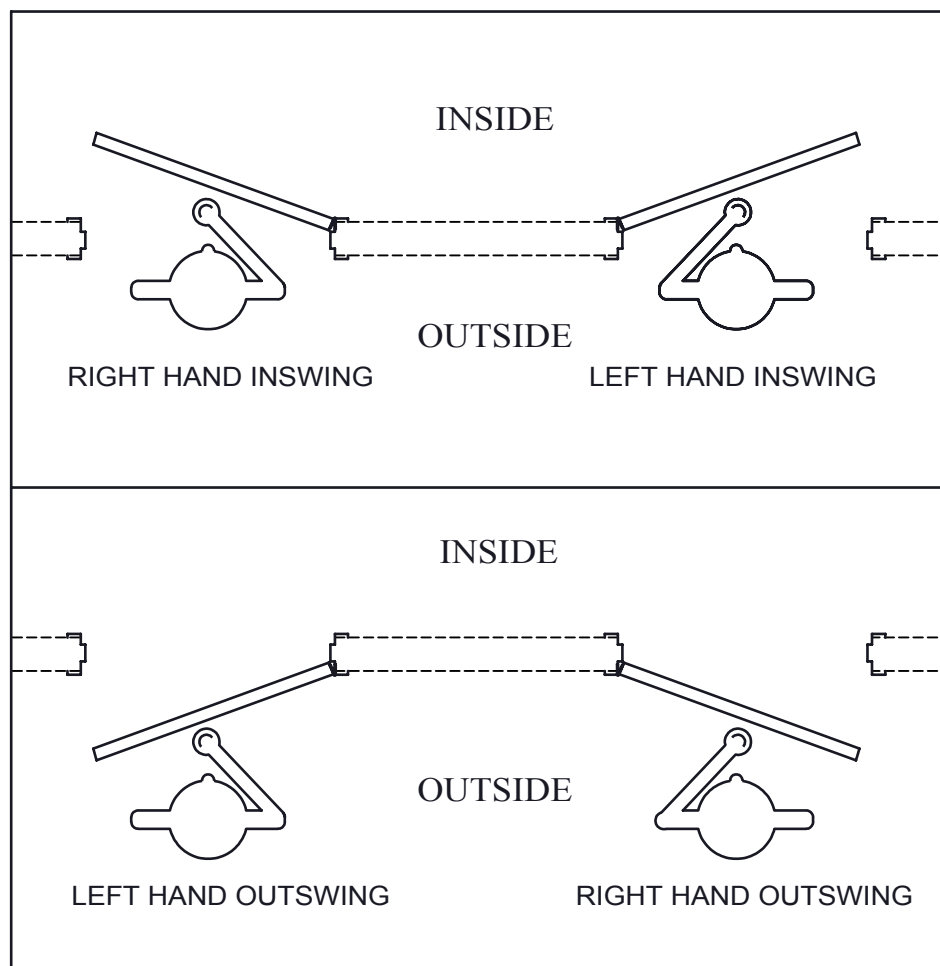


DOOR HANDING CHART



Hand of door indicates the direction of the swing of the door. It is always viewed from outside the room, building and so forth

Left Hand: Door hinges are on the left when facing the door.

Righ Hand: Door hinges are on the right when facing the door.

ARMOR DOOR™

DRAWN BY:

HP

DATE:

SEPTEMBER 11, 2017

PRIOR TO INSTALLATION

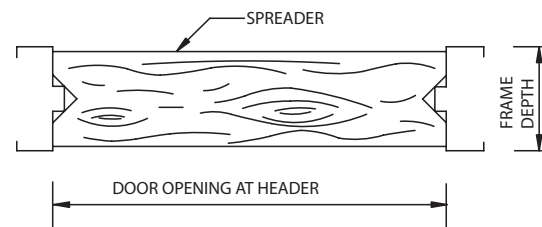
The installer shall perform the following prior to installation:

The area of floor on which the frame is to be installed and the path of the door swing shall be checked for flatness and levelness. Permissible tolerance is $\pm 1/16$ in. (1.5mm). If the floor exceeds this, it is the general contractor's responsibility to correct the area that is out of tolerance before the frame is installed.

Frame shall be checked for correct size, swing, fire rating and opening number.

Remove temporary steel spreaders. Spreaders can typically be removed with cold chisel and hammer. With frame standing on concrete, position cold chisel at weld joint of spreader and jamb and strike chisel with hammer.

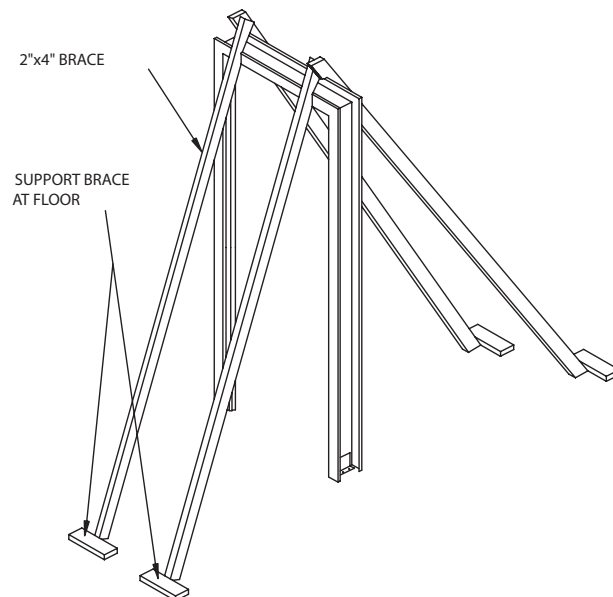
With frame in position, install the temporary wood spreaders. The wood spreader, Figure 2, must be square and no less than 1 in. (25 mm) thick. Correct length is the door opening width between the jambs at the header. Cut clearance notches for frame stops. Spreader must be nearly as wide as frame depth for proper installation. Install a spreader at the bottom of the frame and a second wood spreader at the mid or strike point to maintain a proper door opening and to prevent bowing of the jambs, Figure 3. Clamp or wire spreaders to frame to hold spreaders in place until the frames are set permanently in the wall.



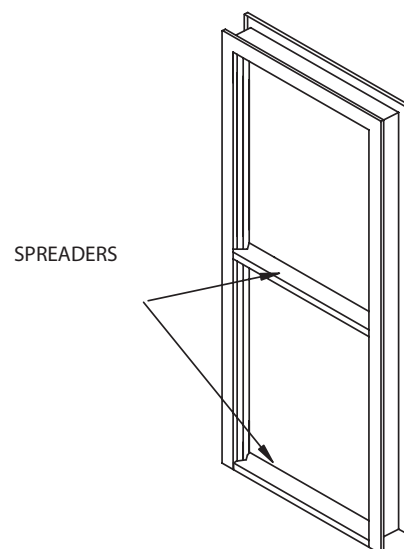
**FIGURE 2
WOOD SPREADER**

TYPICAL INSTALLATION PROCEDURES

Position frame in the correct location. Brace the frame as shown, Figure 1. Do not brace in the direction of intended wall.



**FIGURE 1
FRAME BRACING**



**FIGURE 3
SPREADER LOCATION**

The installation contractor shall have a carpenter level and builder's square. Level the head by positioning the level to the head door rabbet, Figure 4. If necessary, adjust for high spots in floor by shim-ming under the jamb floor anchor, Figure 7. Equalize them through an adjustable floor anchor, if specified, Figure 13b. Note, for labeled openings the maximum floor clearance is 3/4 in. (19mm).

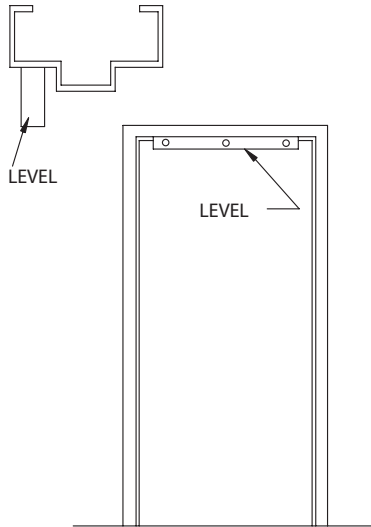


FIGURE 4
LEVELING
THE HEAD

With carpenter level check the frame for plumbness and alignment: For plumbness, position level against both hinge and strike jambs in the rabbet. For alignment; Position level against both hinge and strike jambs on the stop, adjust as required, Figure 5.

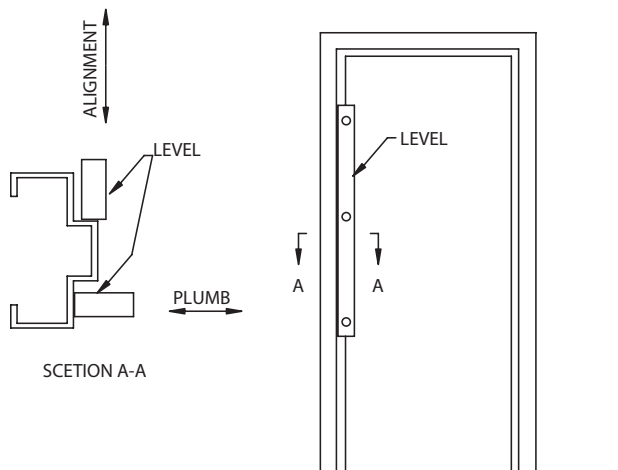


FIGURE 5
PLUMBING AND ALIGNMENT

With builder's square, check frame for squareness. Position square against jamb and head at door rabbet, adjust as required, Figure 6.

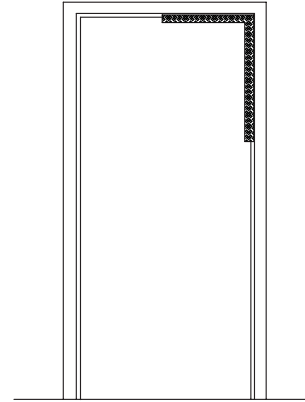


FIGURE 6
SQUARENESS

Once the installer has ensured that the frame is in the correct position, anchor the jamb to the floor.

Floor Anchors: The fixed floor anchor is welded to the base of the jamb, typically secured to the floor by mechanical fasteners, providing solid anchorage for the base of each jamb, Figure 7. Shimming must be used if the floor is not level. This type of anchor is not used in existing masonry, preframed stud walls or slip-on dry-wall frames, but may be provided.

At prepared openings (existing masonry or concrete) an additional expansion anchor reinforcement is provided. With pre-framed stud walls or completed drywall openings an additional base anchor is included. In both instances these anchors are located as close to the bottom of the jamb as is practical.

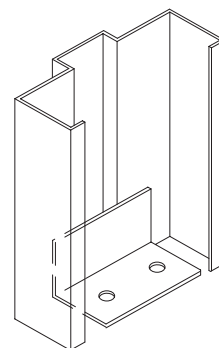


FIGURE 7
FIXED FLOOR ANCHOR

EXISTING MASONRY WALLS

When an opening exists in a wall prior to the frame installation, clearance between existing wall and frame is critical. Size the frame accordingly to allow for 1/4 in. clearance between the returns of the frame and the rough opening. Take into consideration the minimum dimensions and the plumbness and levelness of the entire opening, including the floor.

Installation:

Place the frame in the completed wall opening, Figure 18A. Check for squareness. Mark the wall through the anchor holes provided in the jambs. Drill appropriate holes at the marks.

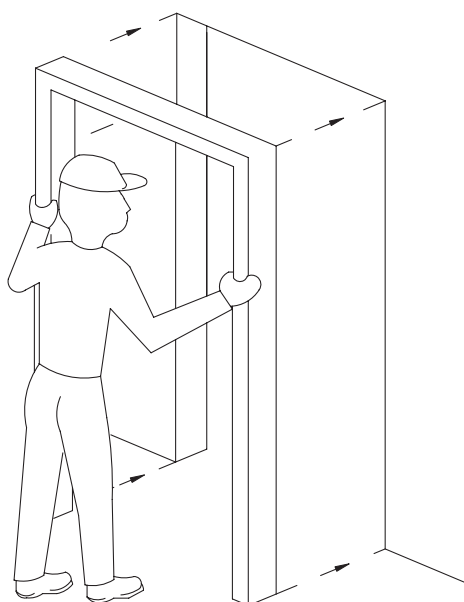


FIGURE 18A
EXISTING MASONRY WALL FRAME
INTSTALLATION

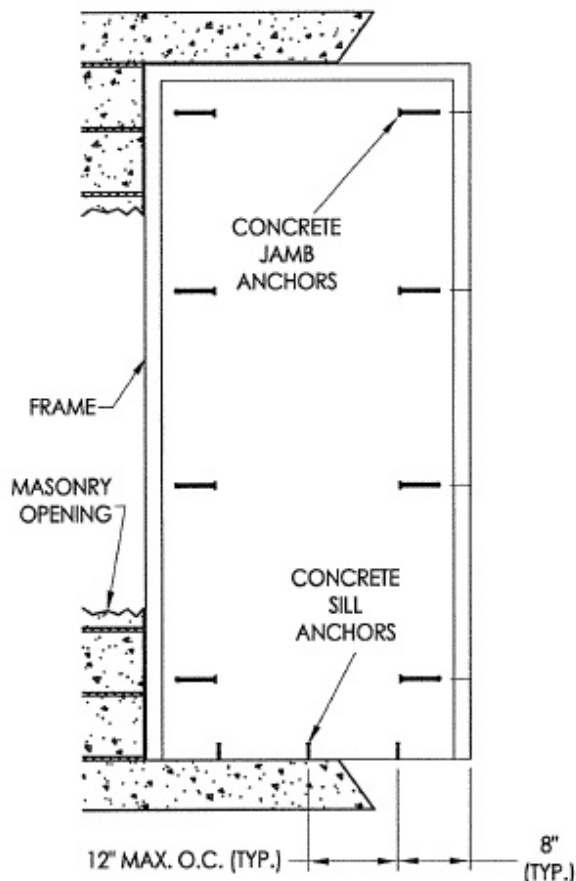
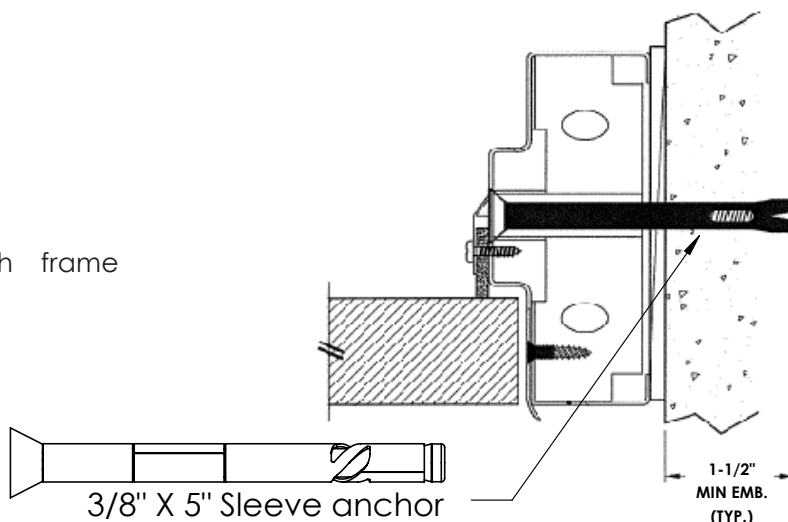


FIGURE 18B
EXPANSION BOLT INSTALLATION

Install frame:

Insert mechanical fasteners through frame soffit into existing wall, Figure 18B.



HORIZONTAL CROSS SECTION
Shown W/ Concrete Jamb Anchor

EXISTING WOOD/STEEL STUDS

When wood/steel studs are up prior to the frame installation, clearance between studs and frame is critical. Size the frame accordingly to allow for 1/4 in. clearance between the returns of the frame and the rough opening. Take into consideration the minimum dimensions and the plumbness and levelness of the entire opening, including the floor.

Installation:

Place the frame in the stud opening opening, Figure 18A. Check for squareness. Mark the studs through the anchor holes provided in the jambs. Drill appropriate holes at the marks.

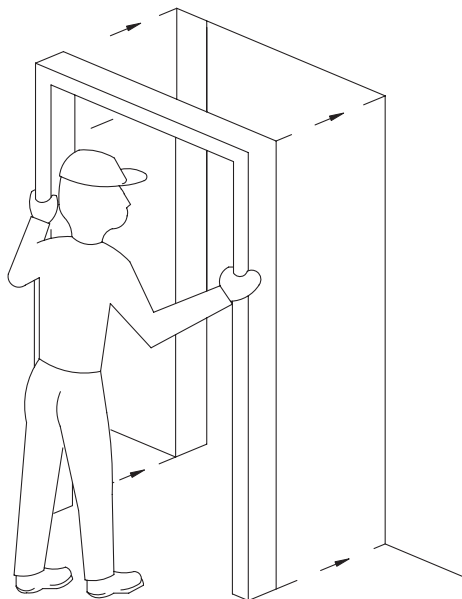


FIGURE 18A
EXISTING WOOD/STEEL STUD
FRAME INTSTALLATION

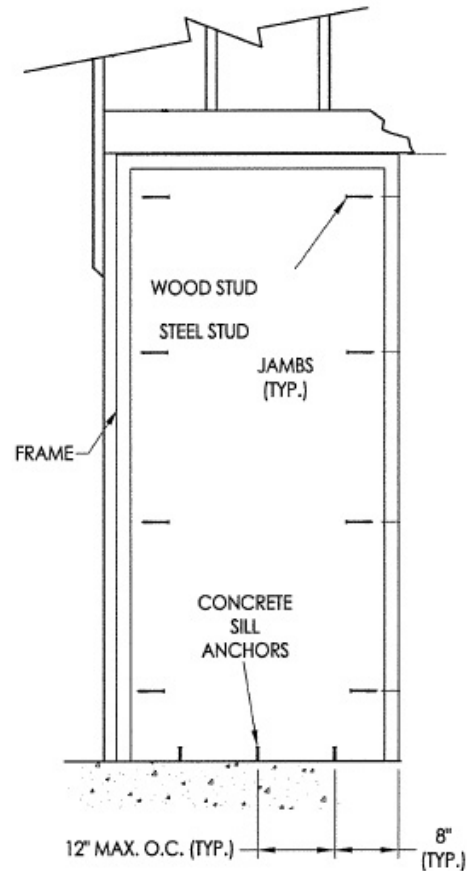
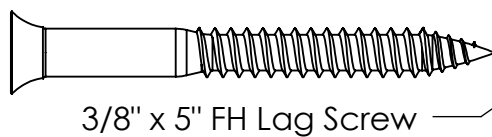


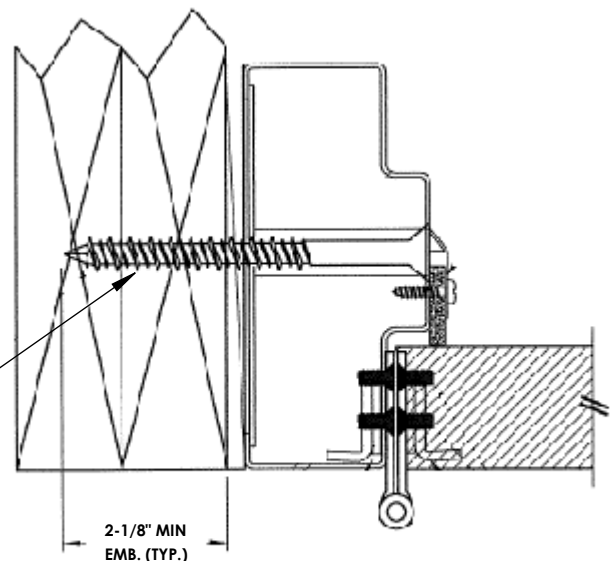
FIGURE 18B
LAG SCREW INSTALLATION

Install frame:

Insert mechanical fasteners through frame soffit into existing wall, Figure 18B.



3/8" x 5" FH Lag Screw



HORIZONTAL CROSS SECTION

Shown W/ Wood Stud Anchor

Hollow Metal doors, frames, and related products are fabricated from hot-rolled, cold-rolled, zinc-coated, or stainless steel. Stainless is typically not painted and therefore not referred to in this tech note. Hot and cold-rolled steel are supplied either dry or oiled and require treatment prior to painting. Zinc coated steel is either galvanized or galvanized. Galvanized steel is manufactured suitable for immediate painting without further treatment other than normal cleaning. Galvanized steel requires treatment prior to painting. Refer to HMMA-802 "Manufacturing of Hollow Metal Doors and Frames" for more information.

Hollow Metal products must be stored in a manner to prevent exposure to adverse environmental elements. Refer to HMMA-840, "Guide Specification for Installation and Storage of Hollow Metal Doors and Frames" for more information. Primer protects the uncoated base metal and provides the bonding agent required for the finished paint. It is very important that the primer is protected and cleaned prior to the application of the finish coat of paint. Primer manufacturers advise that the primer receive a finish coat within 30 days of delivery.

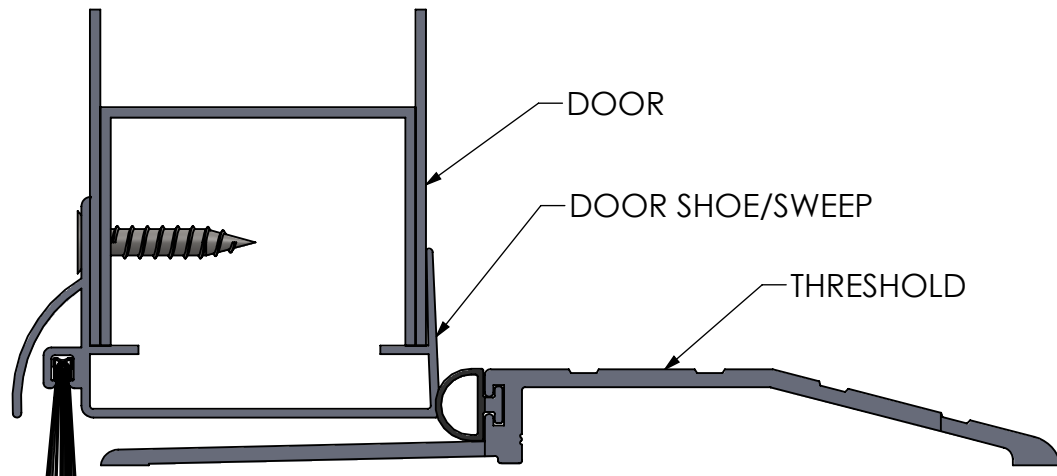
Exposure to elements, such as high humidity, salt air, snow, rain, damp wrappings, etc..., without proper protection and air circulation, allows moisture to be absorbed by the primer. Once this occurs, with the presence of oxygen, an electrolytic action follows. Moisture travels between primer and the metal surfaces in a capillary action, deteriorating primer adhesion. Eventually this can result in water stains, rusting, flaking, lifting, or peeling. When paint flakes, lifts, or peels, rusting is not always evident. Typically these areas have not been in constant contact with the elements, but moisture has traveled under the primer.

Breakdown of the primer adhesion can be caused by incompatibility with the finish coat of paint resulting in the same conditions as listed above. Care must be taken to ensure compatibility of primer and any top coat. A small area test is always recommended to verify compatibility and adhesion. In some instances, a barrier coat between primer and top coat is necessary. Consult finish paint manufacturer's instructions.

Different paint problems have different solutions. Depending on the severity of the problems, sanding, sanding to bare metal, cleaning to remove contaminants, and re-priming can be necessary.

The selection of paint is also a consideration. Manufacturing marks are not always visible with a flat low gloss primer but can appear after a gloss finish coat is applied. The use of high gloss paint will increase the show through tendencies and is not recommended. A maximum paint gloss rating of 20% reflectance, measured using a 60 degree gloss meter, would be the standard recommended. Select a commercial direct to metal, (DTM) quality paint.

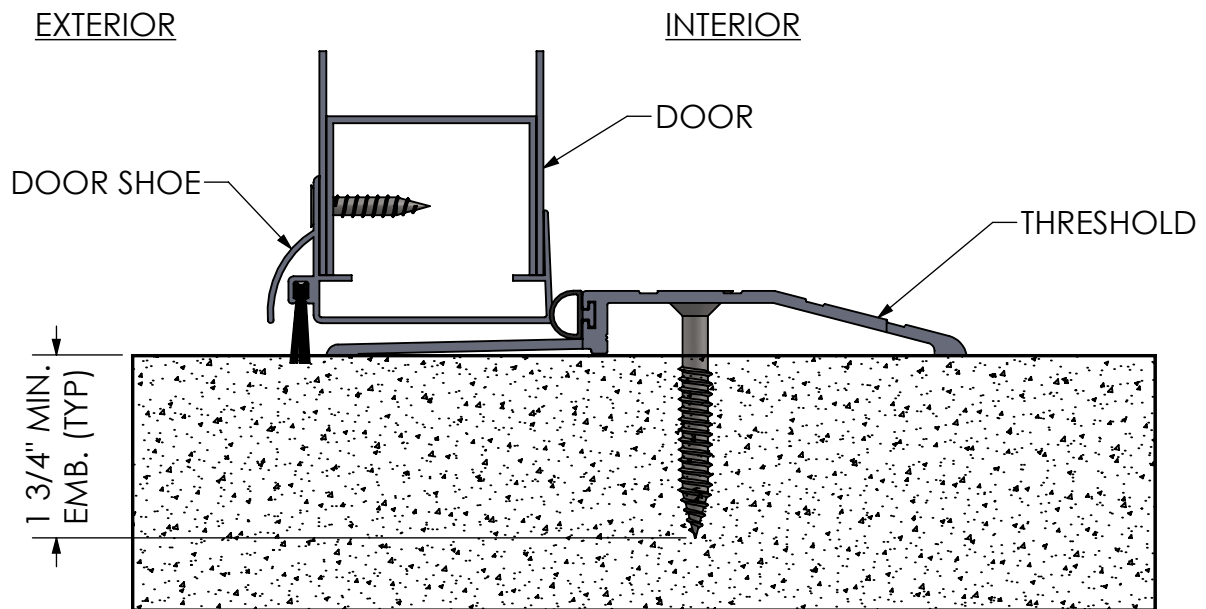
It is extremely important to follow the finish paint manufacturer's instructions. It is important to avoid painting in extremely hot, cold, or damp weather. Ensure material being painted is clean and dry. Prior to finish painting lightly sand primed surfaces with fine grit sand paper or emery cloth.

EXTERIORINTERIOR**HORIZONTAL CROSS SECTION**

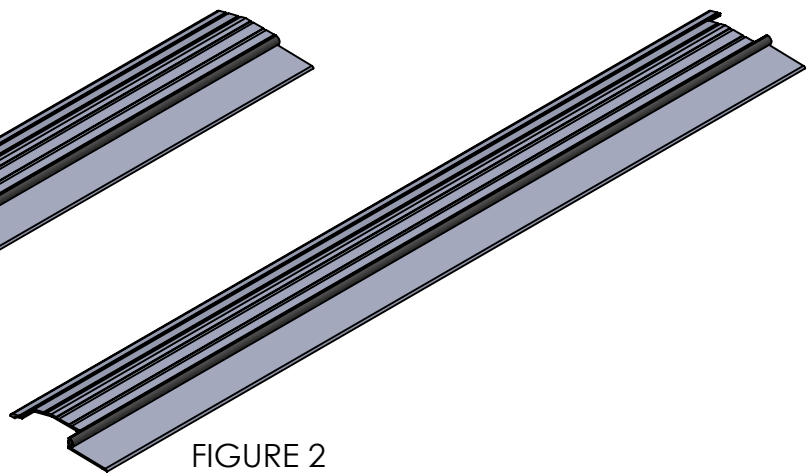
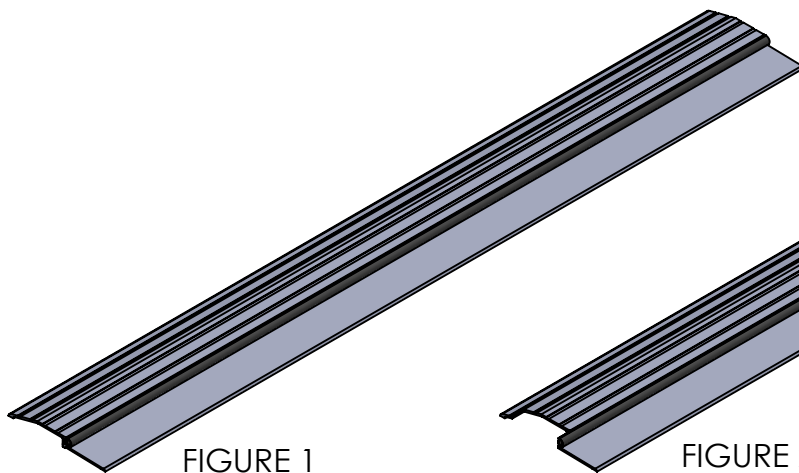
DOOR SHOE

Installation Instructions

1. Measure and cut door shoe to fit.
2. Items with drip cap should be notched to clear stops on jambs before installation.
3. Position seal on door with gasket compressed 1/16" against sill.
4. Mark screw holes.
5. Drill pilot holes with a 7/64" bit.
6. Install with screws provided.
7. Adjust position so that gasket does not impede proper closing and latching of door.



HORIZONTAL CROSS SECTION
THRESHOLD



Installation Instructions

1. Cut threshold to the required size. (FIGURE 1)
2. Notch around door frame, if desired. (FIGURE 2)
3. Attach threshold with fasteners provided.
4. For moisture control, caulk around base of threshold. (OPTIONAL)

Note:

Threshold to be notched on site prior to installation by customer.

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