

**aspire**<sup>™</sup>  
INSULATING GLASS ENTRANCE SYSTEMS

**FHC ASPIRE<sup>®</sup>**  
**INSULATED GLASS ENTRANCE SYSTEM**  
**DOORS AND SIDELITES**



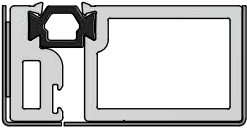

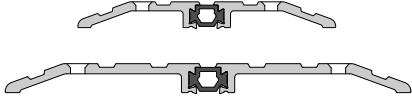
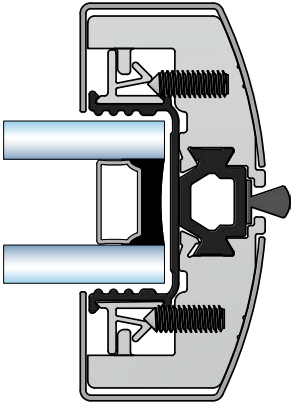
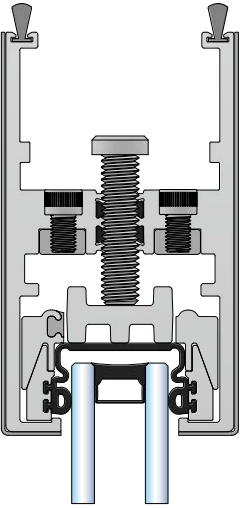
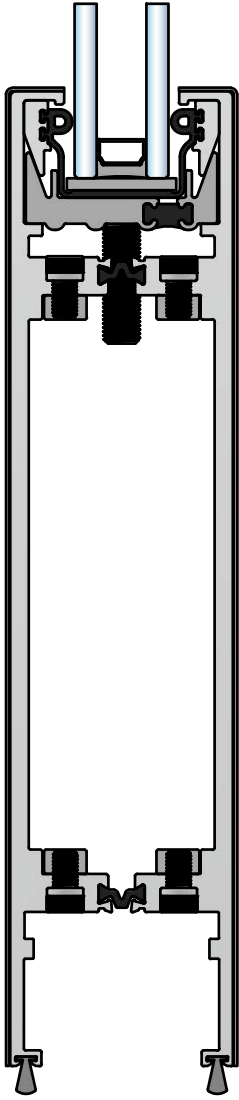
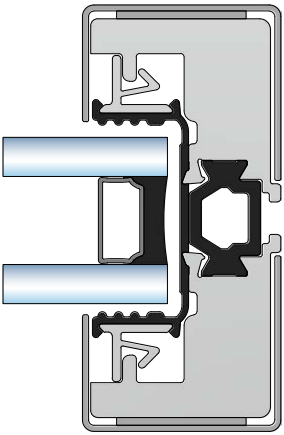
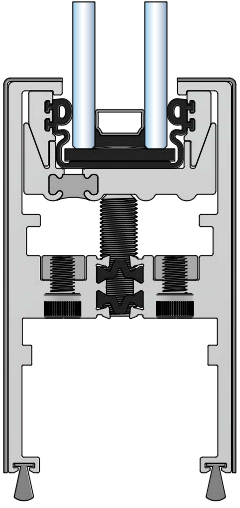
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# PARTS

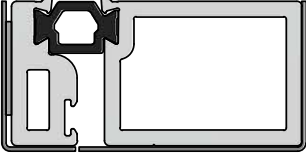
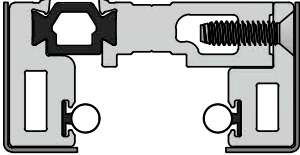
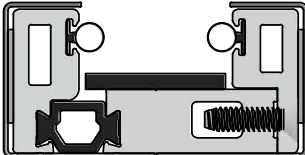
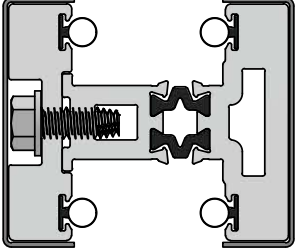


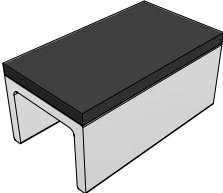
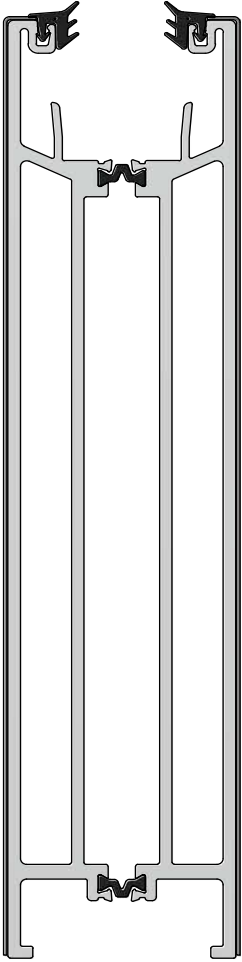
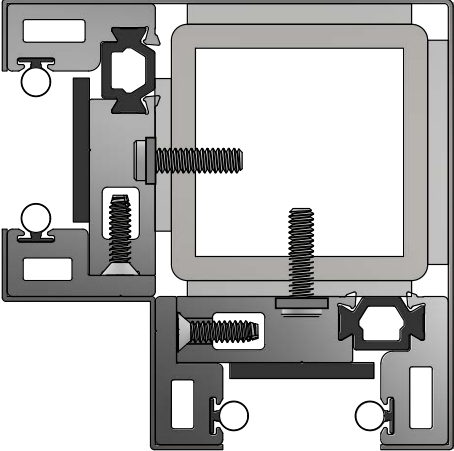
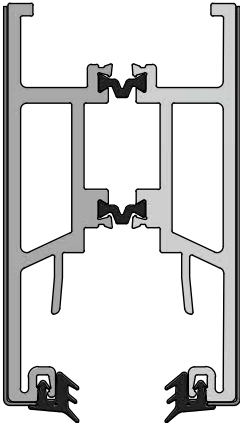
## DOOR PARTS

		
<p>Aspire Wall Jamb</p>	<p>Low Profile Header</p>	<p>5" and 7" Thresholds</p>
		
<p>1" I.G. Door Stile</p>	<p>4" Top Door Rail</p>	
		
<p>1" I.G. Hinge Stile</p>	<p>4" Bottom Door Rail</p>	<p>10" Bottom Door Rail</p>

Illustrations Not To Scale

# PARTS

## SIDELITE PARTS

			
Door Wall Jamb	Sidelite Wall Jamb	Sidelite Door Jamb	Intermediate Mullion
			
Sidelite Header	Sidelite Low Profile Header	Sidelite Setting Block	
			
Sidelite Steel Tube Corner		4" Top/Bottom Sidelite Rail	10" Bottom Sidelite Rail

Illustrations Not To Scale

# ASPIRE® DOOR INSTALLATION

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## NEW DOOR PREPARATION

FHC Aspire® Insulated Glass Entrance Doors are shipped from the factory made-to-order and fully assembled. Prior to installation, a few preparatory steps are required.



### Preparation Steps:

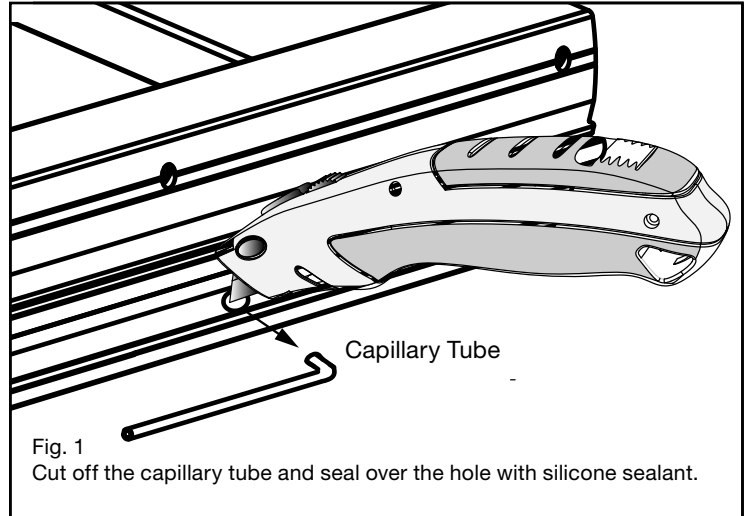
1. Remove all hardware and shipping pads from box. Use (2) people to remove the door.
2. Place the door on a supported table or saw horses that are capable of supporting the weight.
3. Prep the capillary vent tube. Page 6
5. Check the door for squareness. Adjust if necessary. Page 6
6. Attach optional hardware to the door head and rail, if required.
7. Use (2) people to hang the door.

# ASPIRE® DOOR INSTALLATION

## DOOR PREPARATION DETAILS

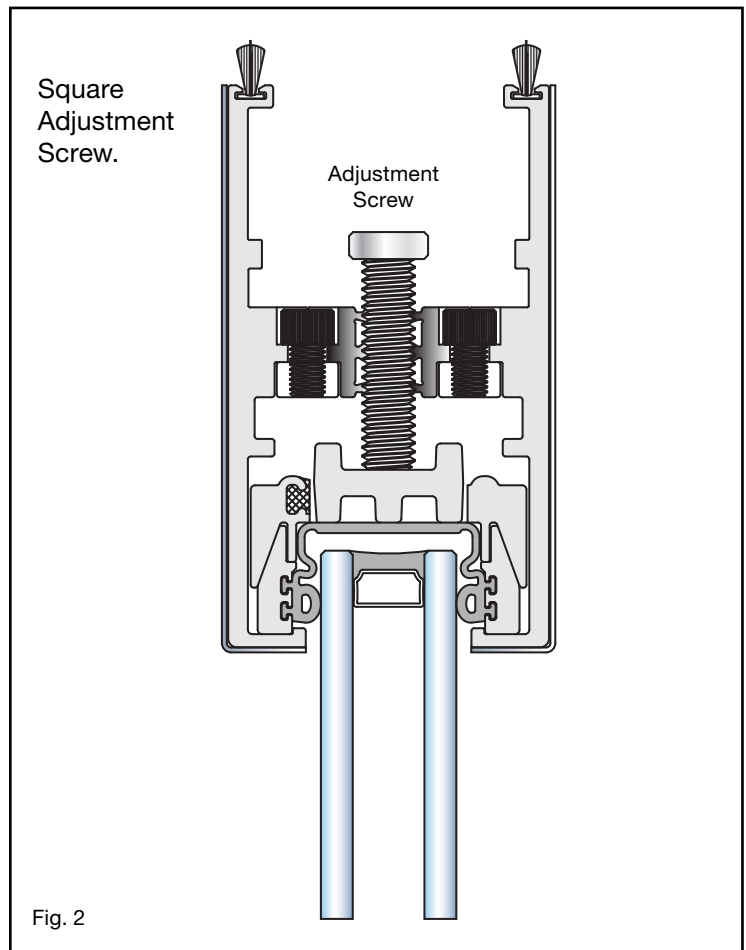
### CAPILLARY TUBE MODIFICATION

FHC Aspire® Insulated Glass Entrance Doors are shipped from the factory with a small capillary tube that allows the insulated glass unit equalize to the outside pressure. **(Figure 1)** This prevents glass distortion that may occur at altitudes that differ from the point of manufacture. The tube must be cut flush and sealed over with a dab of silicone at the installation site.



### ADJUST DOOR SQUARENESS

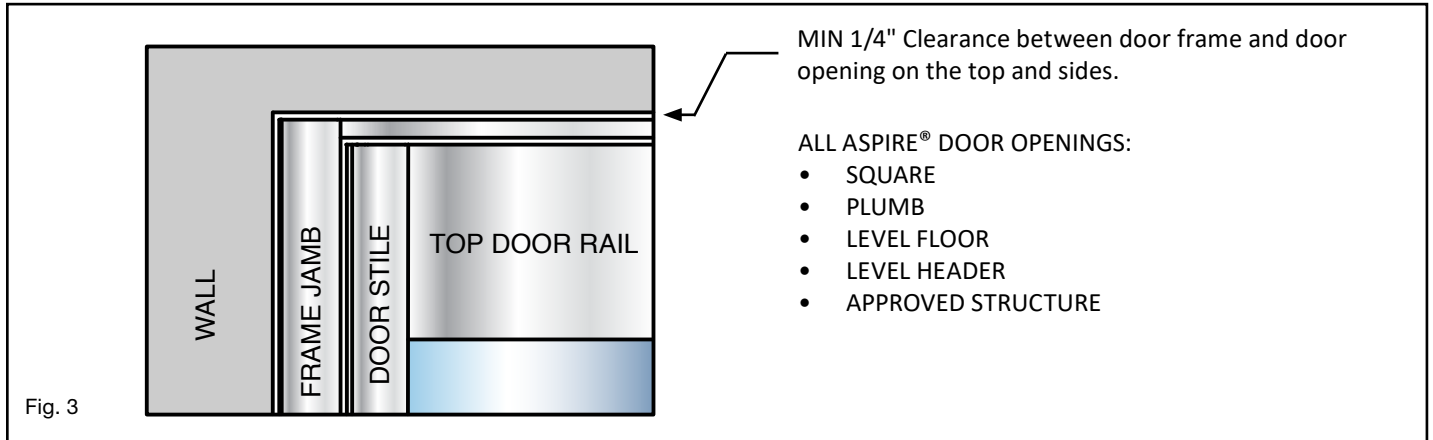
While the door is lying flat on the support table or horses, it is advisable to check the squareness. Although every door is carefully checked at the factory, glass shift can occur during shipping. If adjustment is necessary, loosen the adjustment screw located in the top rail. **(Figure 2)** Back the screw off counterclockwise 8-10 turns so it does not restrict adjustment by hand. Place a square on a corner or measure diagonally at both corners to determine the direction required to correct the out-of-square condition. Using a soft rubber mallet, tap the bottom of the left or right stile until reasonably square. Tighten the adjustment screw just past finger tight. Over tightening the screw will change the frame angles. The final adjustment will be made after the door is in place.



# DOOR AND FRAME DETAILS

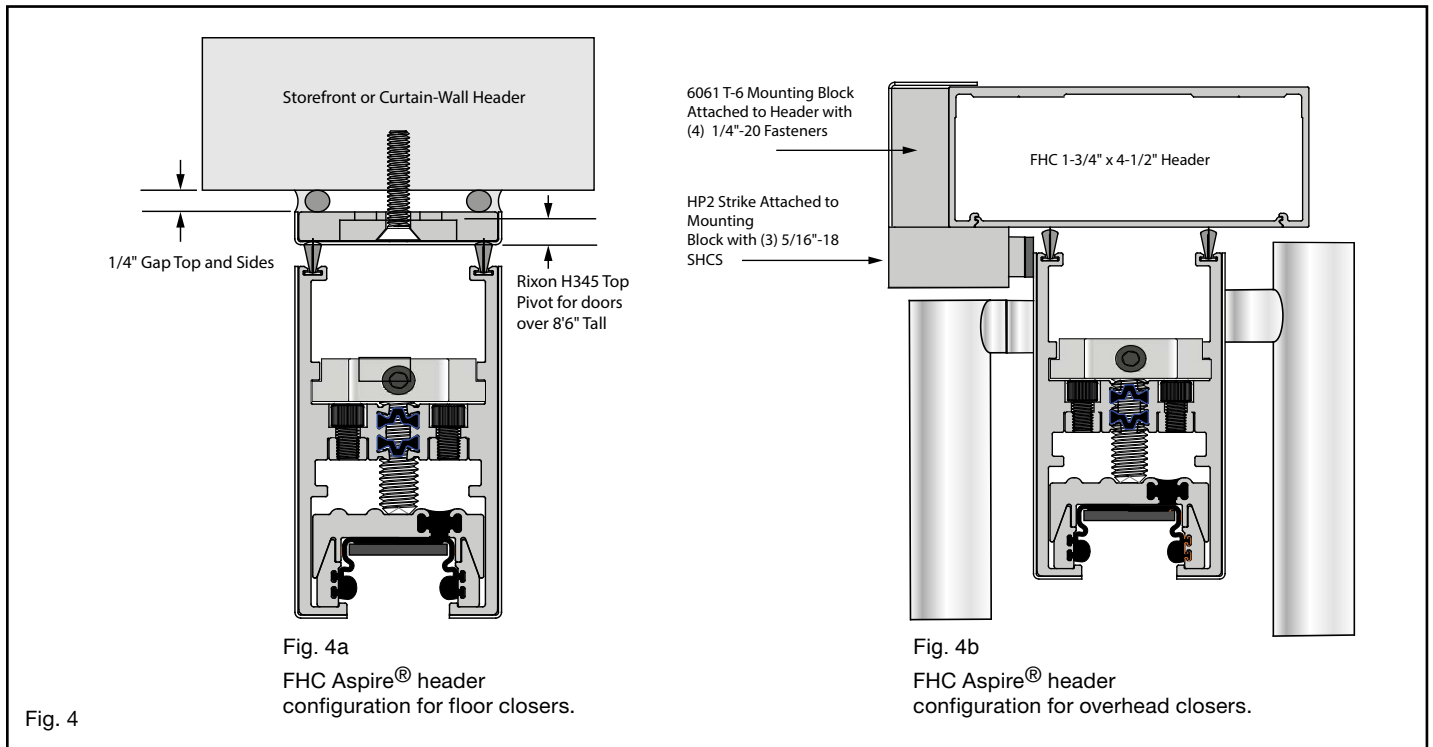
## DOOR WITH FRAME - OPENING REQUIREMENTS

The Aspire® Entrance Door System is precision engineered and built to minimum tolerances. Therefore, it is critical that the receiving doorway opening be finished square, plumb, and level for an optimum installation. Allow a minimum 1/4" frame clearance on the top and sides.



## HEADER CONFIGURATIONS FOR FLOOR AND OVERHEAD CLOSERS

Aspire® Entrance Doors are compatible overhead and floor closers and may be configured to operate as swing-in, swing-out, or both. Figure 4a illustrates a typical dual-swing application and Figure 4b shows a single direction swing and is best suited for a magnetic lock system.

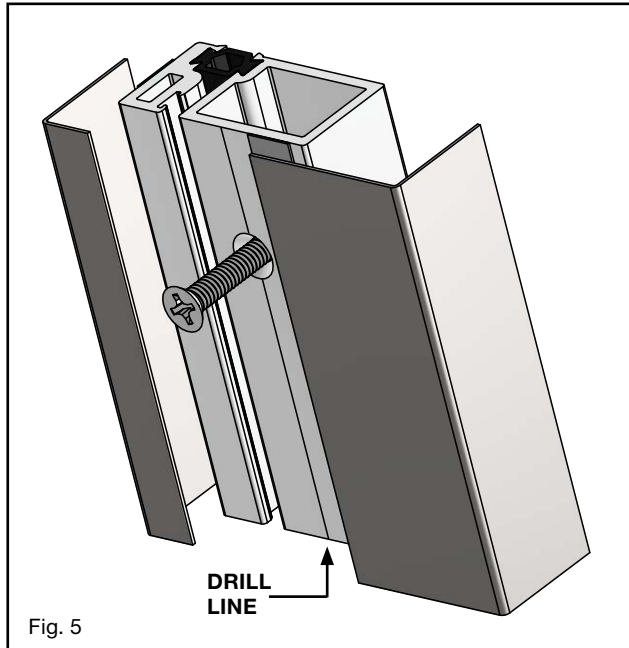


# ASPIRE® DOOR INSTALLATION

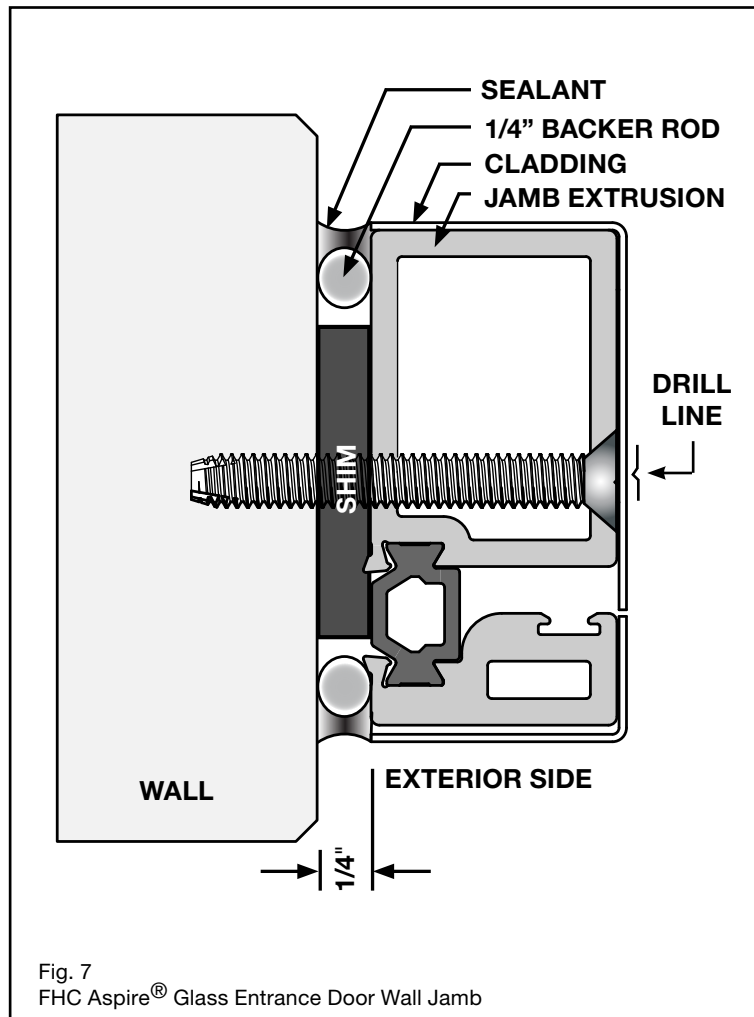
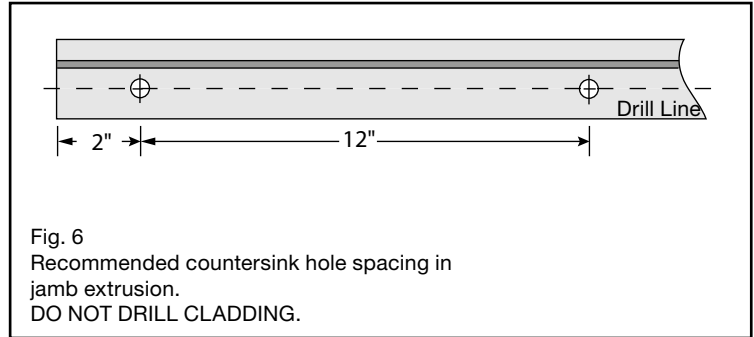
## JAMB INSTALLATION AT WALL

### Installation Steps:

1. Cut the wall jamb to length. Aspire® Wall Jamb runs the full length from floor-to-ceiling.
2. Drill countersink holes in jamb extrusions. Refer to **(Figure 6)** for hole spacing. Holes should penetrate both sides with the countersink on the side with the drill line.
3. Install the wall jamb using 1/4" shims under fasteners to prevent deflection. Ensure that the jamb remains plumb on all sides of the extrusion. **(Figure 7)**



4. Attach the steel cladding using VHB tape after all fasteners have been installed.
5. Fill the 1/4" gap with 1/4" backer rod along the full length and on both sides, interior and exterior.
6. Apply sealant along the edges and tool smooth.



**NOTE:** All fasteners and support structures should be approved by a structural engineer or other qualified professional due to the heavy operational loads produced by the Aspire® Series Doors.



# ASPIRE® DOOR INSTALLATION

## THRESHOLDS

FHC Aspire® Door Systems offer 5" and 7", heavy-duty, thermally broken, thresholds to accommodate doorway depth. The 1/2" low profile and 1:2 slope change makes the Aspire® thresholds ADA compliant in most local codes. **((Figure 8))**

### Installation Steps:

1. FHC factory prepared thresholds are shipped in two pieces for easy installation with mitered notches and drilled for anchors. **(Figure 9)**
2. If a bottom closer is to be installed, refer to the shop drawings to determine the correct location on floor.
3. Install cement box and closer with correct spindle.
4. Install threshold with perimeter sealant and flathead fasteners. **(Figure 10)**

Single door threshold installation with bottom closer in cement box.

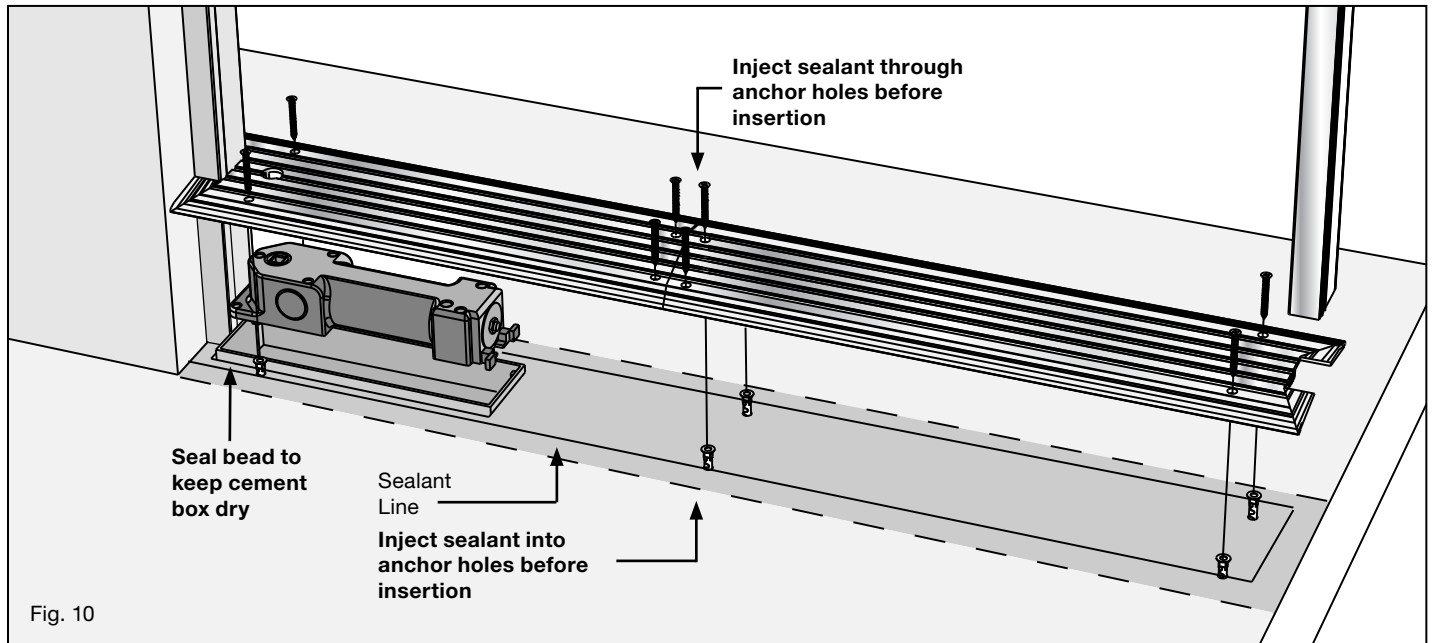


Fig. 10

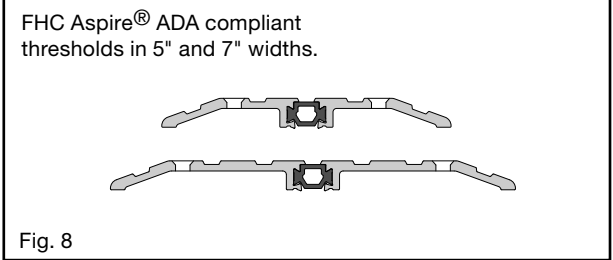


Fig. 8

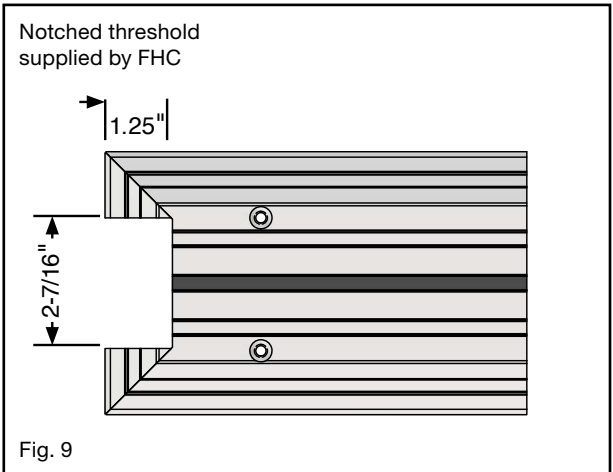


Fig. 9

# DOOR AND FRAME DETAILS

## CENTER-HUNG DOORS

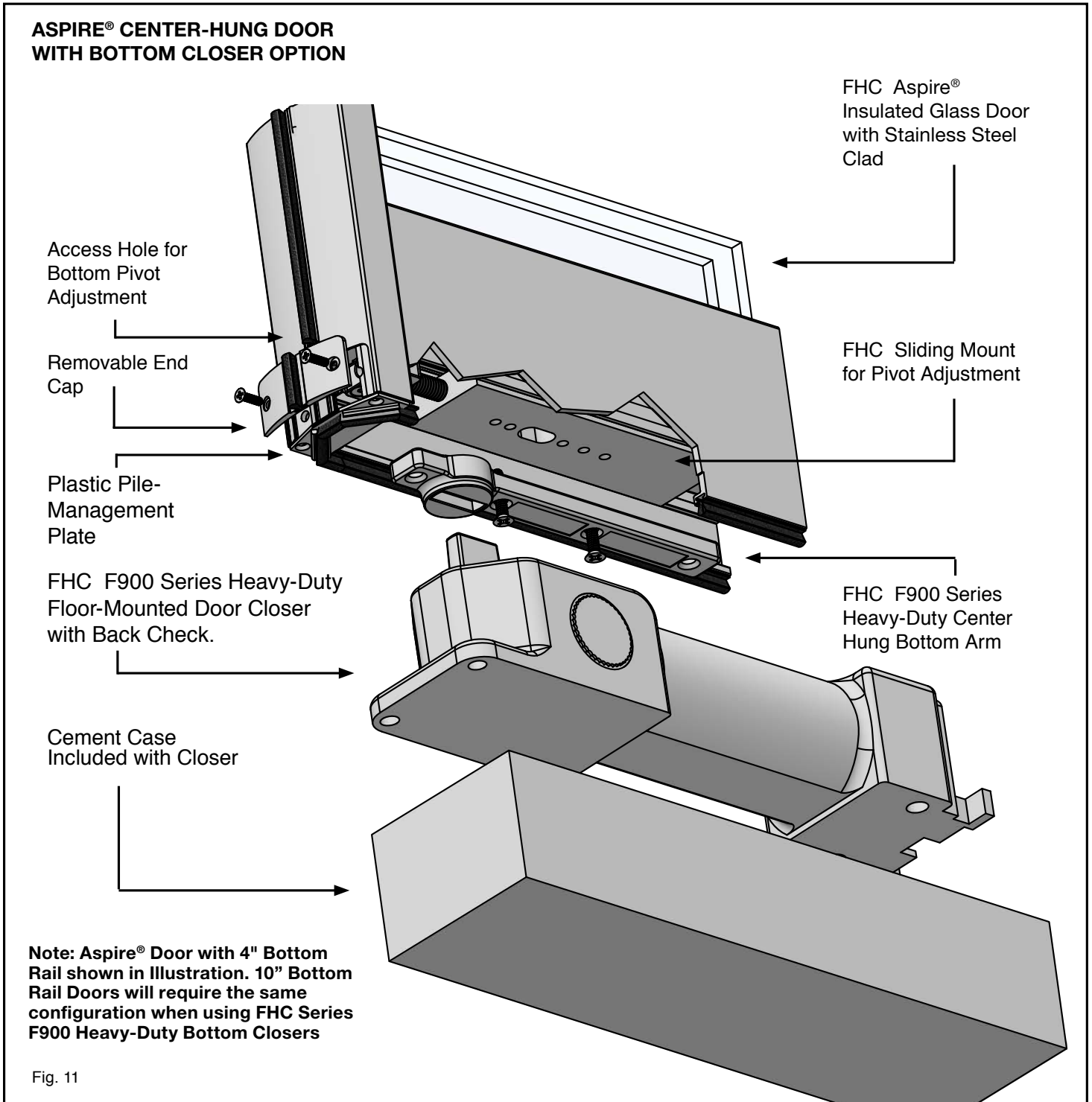


Fig. 11

# ASPIRE® HEADER WITH OFFSET HUNG DOOR

## LOW-PROFILE HEADER

FHC Aspire® Low Profile Header may be attached directly to the building's ceiling structure as shown in **(Figure 12)**. Use this method when offset pivots or gear hinge hardware is used. A surface-mount closer is recommended here. If the low-profile header is mounted to a storefront "head can" then a concealed overhead closer with an offset arm is an option.

**The maximum height for offset hardware is 102". Aspire® systems that exceed the maximum height should use center hung hardware only.**

### Installation Steps:

1. Pre-drill countersink holes in header member. **(Figure 13)**

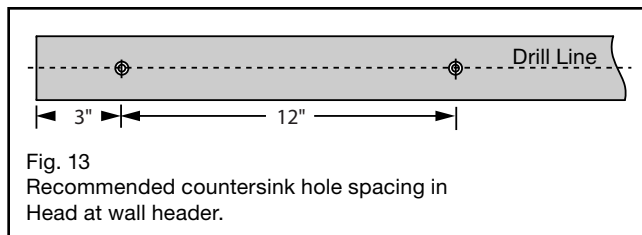


Fig. 13  
Recommended countersink hole spacing in Head at wall header.

2. Use 1/4" shims between header and wall to plumb frame and maintain a 1/4" gap. Shims should be placed so that they straddle each fastener to avoid dips in the header from over tightening. **(Figure 14)**
3. Insert 1/4"-3/8" backer rod between wall and header, front and back sides.
4. Apply the cladding to header using VHB PSA tape.
5. Seal and tool the gap with sealant on the exterior and interior sides.

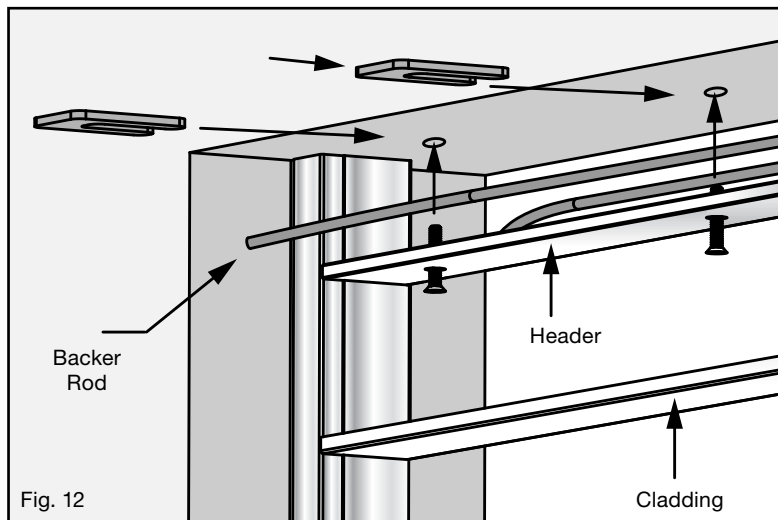


Fig. 12

Aspire® Low-Profile Header following the installation of the frame jambs. Make sure that the header is level, jambs are plumb, and the finished opening is square.

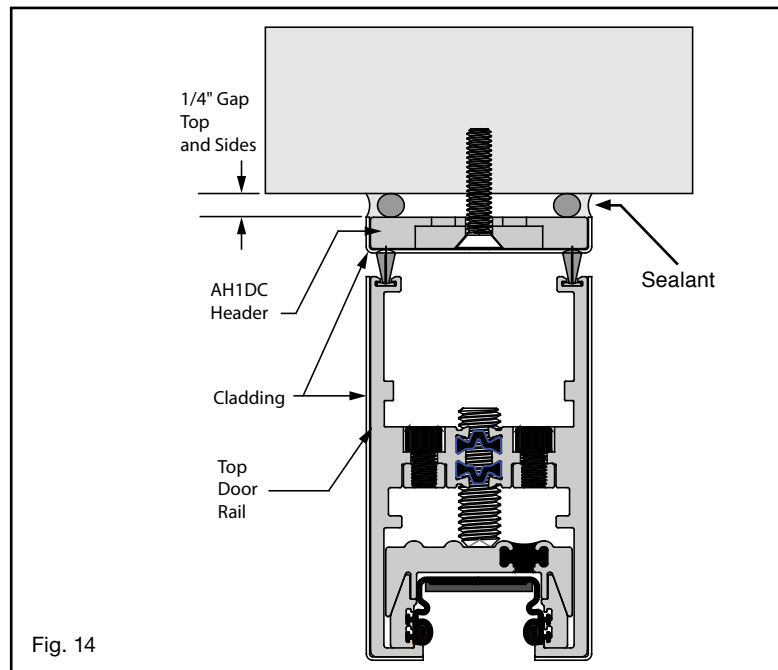


Fig. 14

### Offset Options

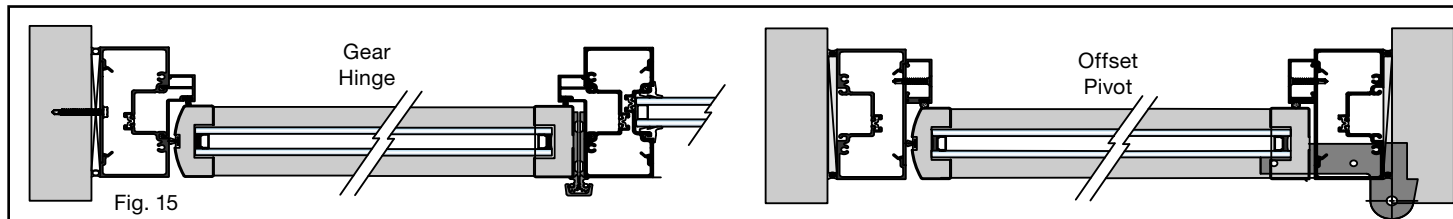
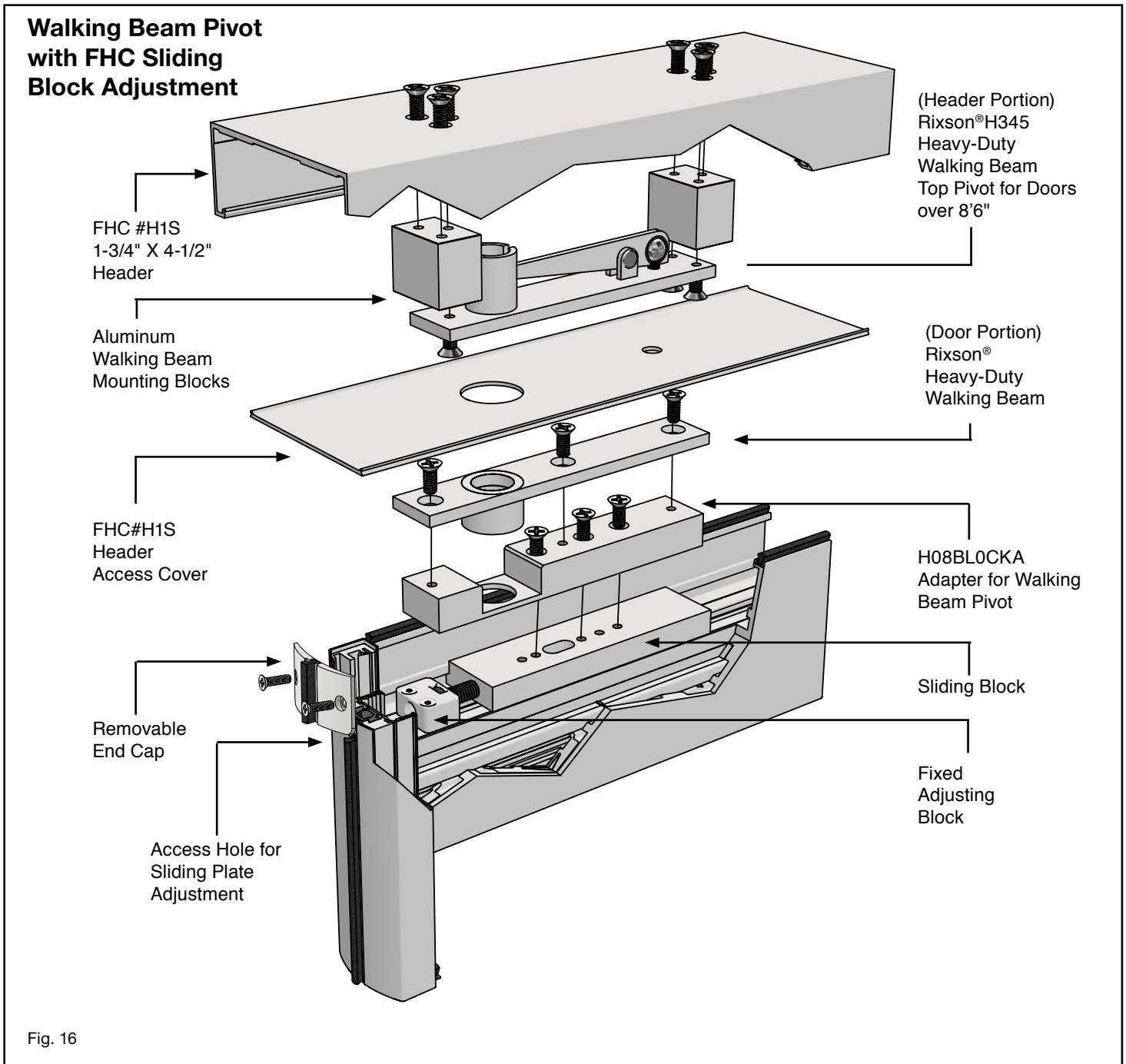


Fig. 15



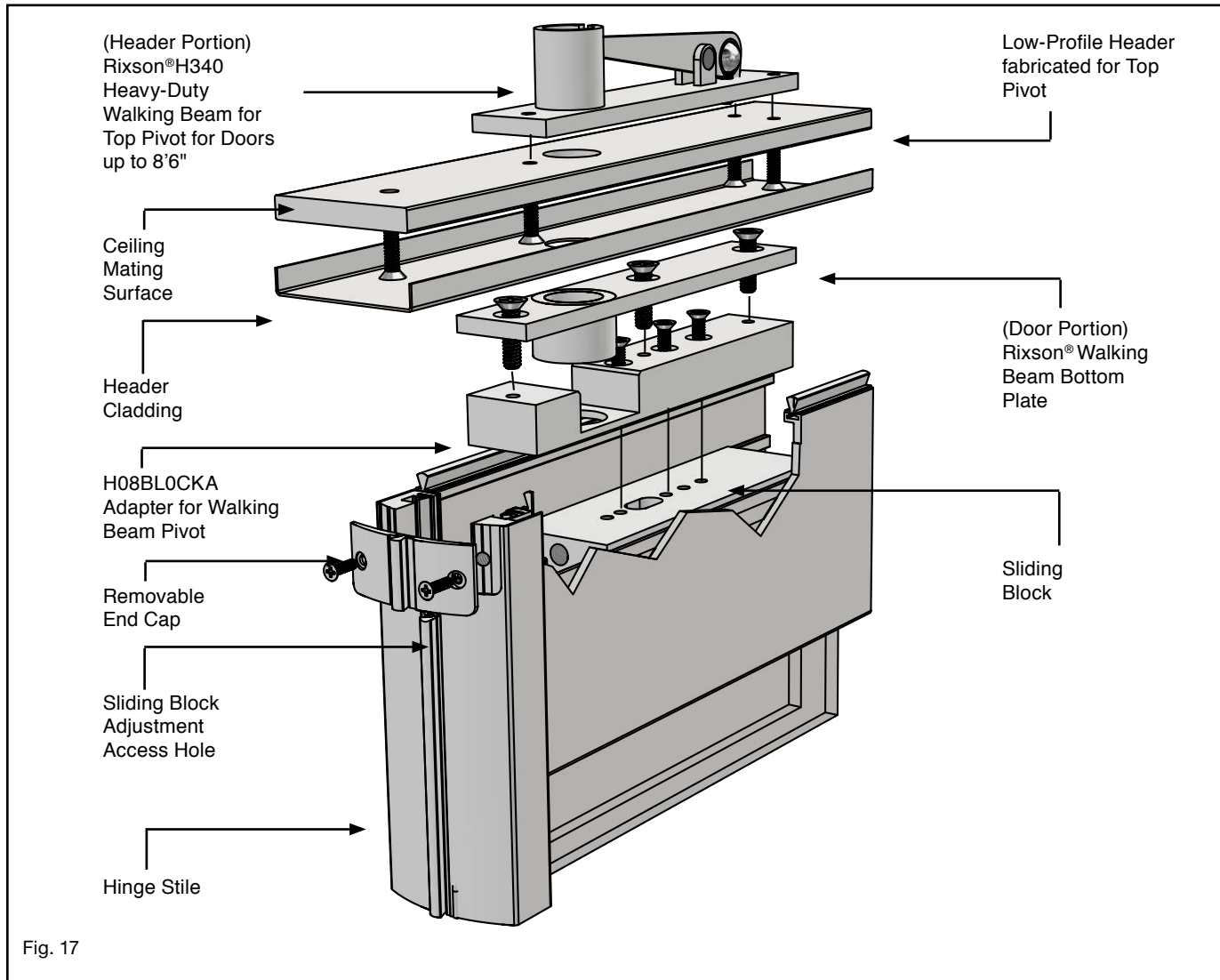
# ASPIRE® CENTER HUNG DOOR WITH BOTTOM CLOSER

## STANDARD ALUMINUM STOREFRONT HEADER

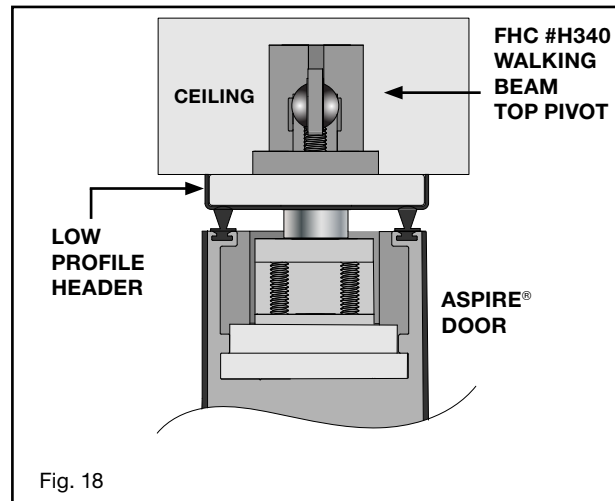


# ASPIRE® CENTER HUNG DOOR WITH BOTTOM CLOSER

## LOW PROFILE HEADER WITH WALKING BEAM



FHC Aspire® Low Profile header can be used with walking beam top pivots when mounting directly to a finished ceiling or soffit. A recessed clearance must be provided for the header portion of the walking beam assembly. The Rixson® #H340 is the recommended top pivot device due to its long service life and high load capacity.



# ASPIRE® DOOR GLASS REPLACEMENT

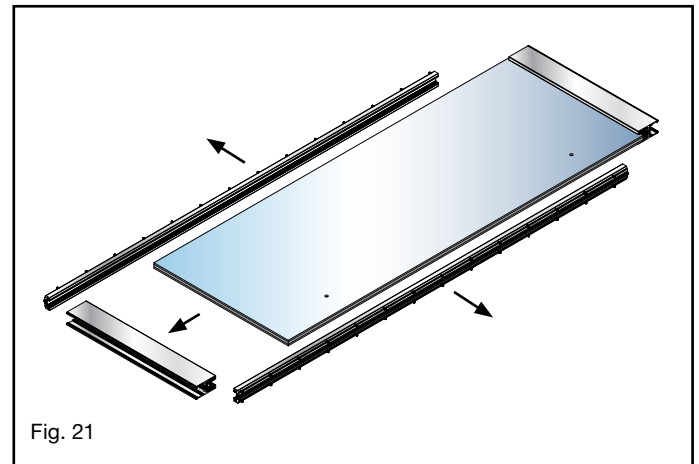
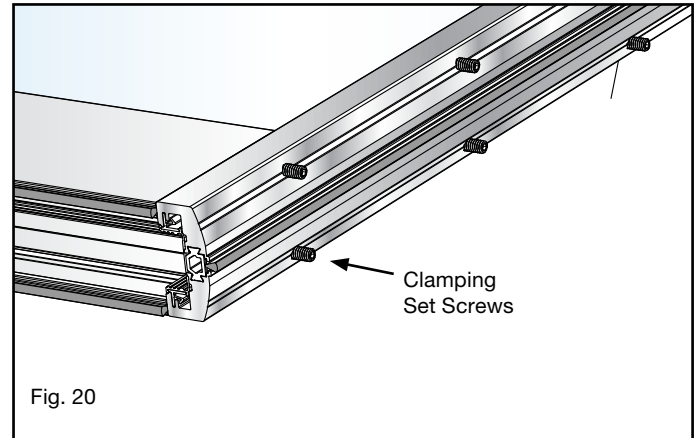
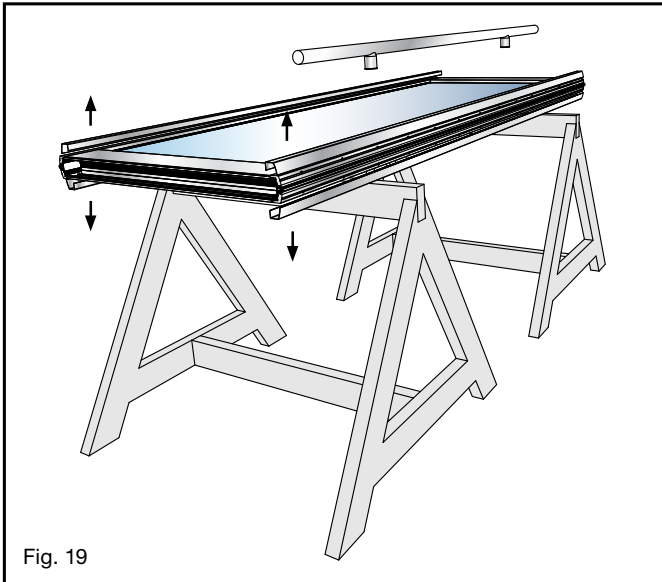
## DOOR GLASS REPLACEMENT

Replacement I.G. units can be ordered from FHC anytime after installation. Make sure to keep the FHC Order Number for reference.

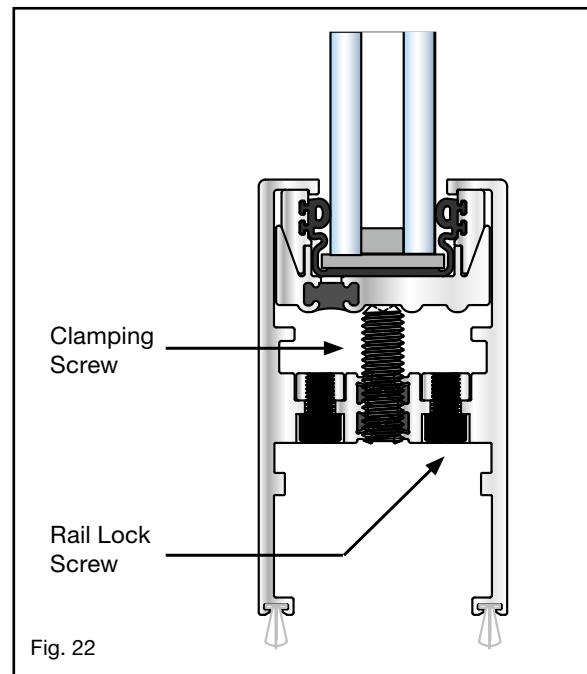
FHC maintains careful records so your replacement can be ordered immediately over the phone without delay.

## GLASS REMOVAL

1. With the door on a secure table or saw horse, remove all peripheral hardware: pivots, floor locks, handles, pulls, etc. (**Figure 19**)
2. Remove the cladding from the stiles to expose the clamping set screws.



3. Remove clamping set screws on each stile. (Figure 20)
4. Loosen the large clamping screws in both the top and bottom rails to release the glass.
5. Remove the rail locking screws to release the top and bottom rails from the stiles.
6. Gently tap the stiles out and away from the top and bottom rails using a soft mallet. (**Figure 21**)
7. Install the replacement I.G. units by reversing the procedure.

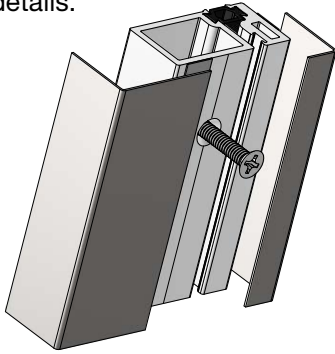


# ASPIRE® SIDELITE SYSTEM

## SYSTEM LAYOUT

### The Aspire® Sidelite System

Door installation should be complete before installing sidelite system. See previous section for door installation details.



**NOTE: Do not attach cladding to:**

1. Sidelite Door Jambs
  2. Sidelite Wall Jambs
  3. Intermediate Mullions
- Until Glazing is complete

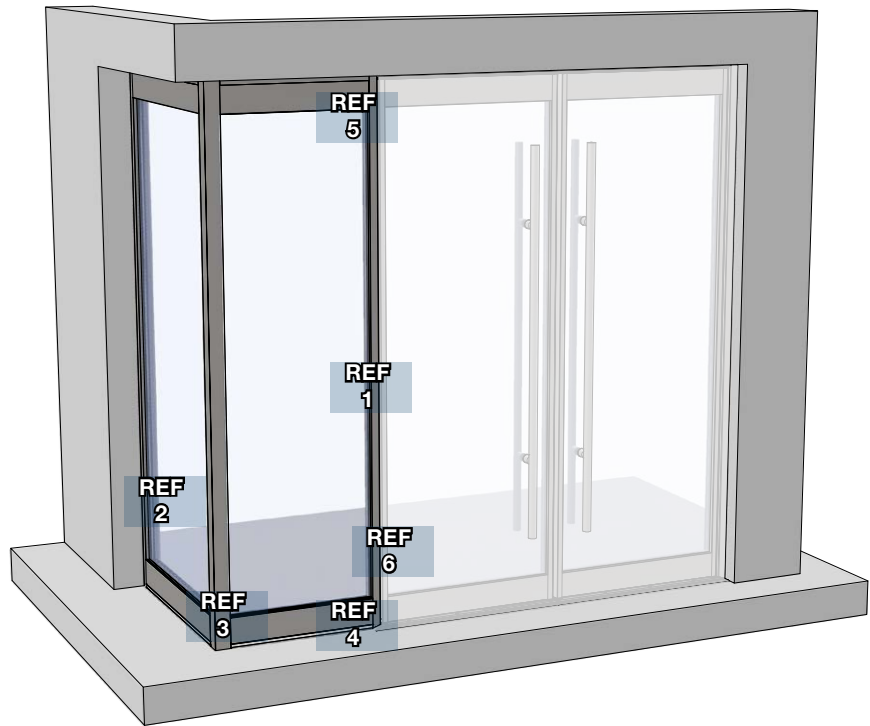


Fig. 23

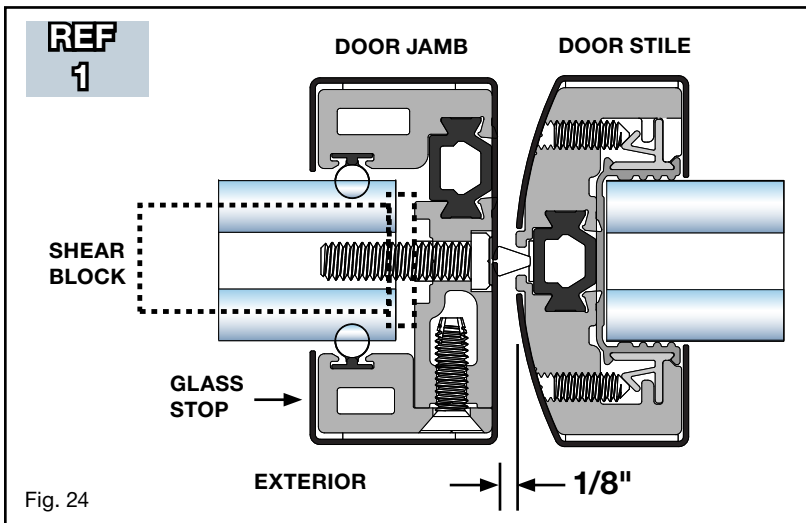


Fig. 24

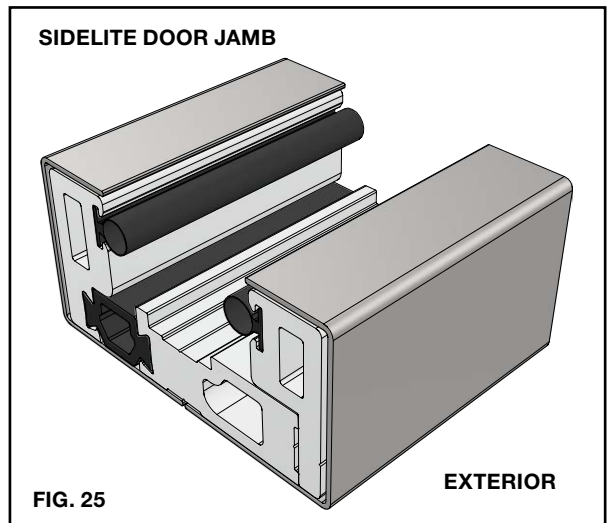


FIG. 25

When using a floor closer or concealed overhead closer, the Aspire® Sidelite Door Jamb is not anchored at this point but instead it is dry-fitted in place and its foot and head prints are marked on the floor and ceiling. Place-holder marks are required in order to correctly position and anchor the top and bottom setting base profiles. When marking the door jamb allow 1/8" gap at door stile and make sure it is plumb. After marking remove the jamb and proceed to the next page.



# ASPIRE® SIDELITE SYSTEM

## VERTICAL WALL MULLION

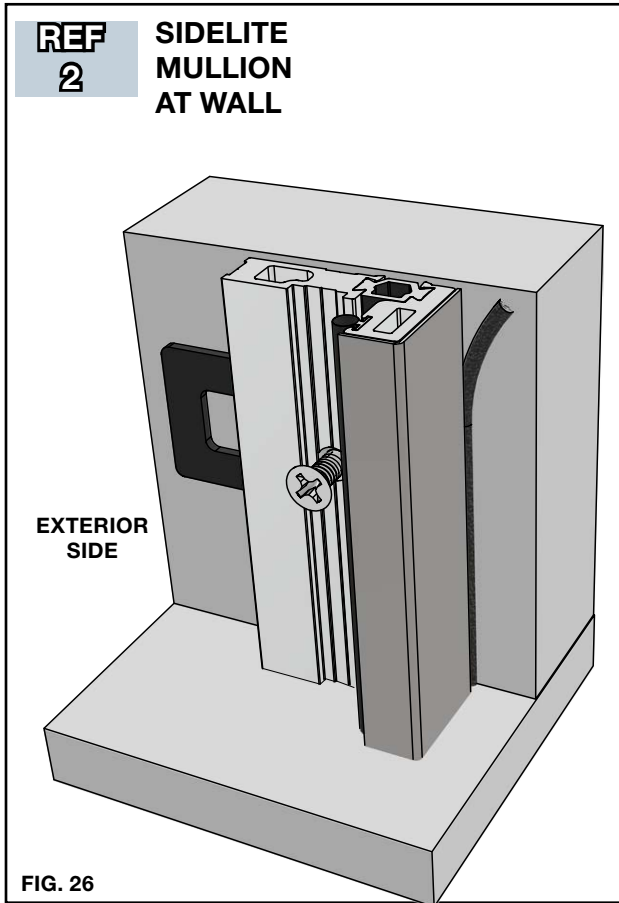


FIG. 26

### Vertical Wall Mullion Installation

The Aspire® Vertical Wall Mullions are the first components to be installed in the sidelite system. They are attached directly to the opening walls on both sides using flathead anchoring fasteners. (Fasteners may vary based on wall substrate.)

(Figure 26) shows the mullion as it would be installed to a finished wall with shims to achieve a plumb condition with a 1/4" gap for perimeter sealant.

Note that the glass stop is not yet attached in order to allow glazing at a later point. Cladding that covers clamping fasteners should only be applied after glass installation.

(Figure 27) illustrates a typical completed wall mounting method with a sealant bead on both exterior and interior perimeter.

(Figure 28) shows the component breakdown of the Aspire® Sidelite Wall Mullion.

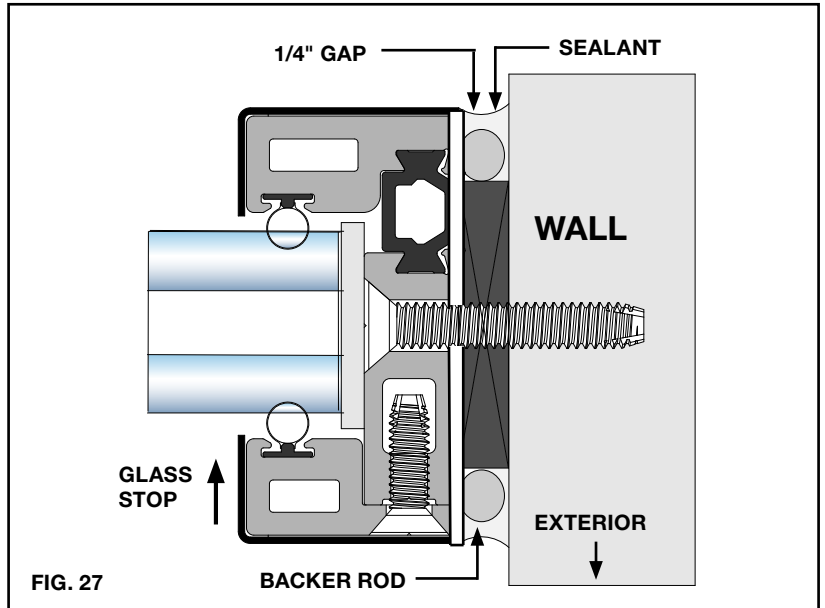


FIG. 27

### Vertical Wall Mullion Component Parts

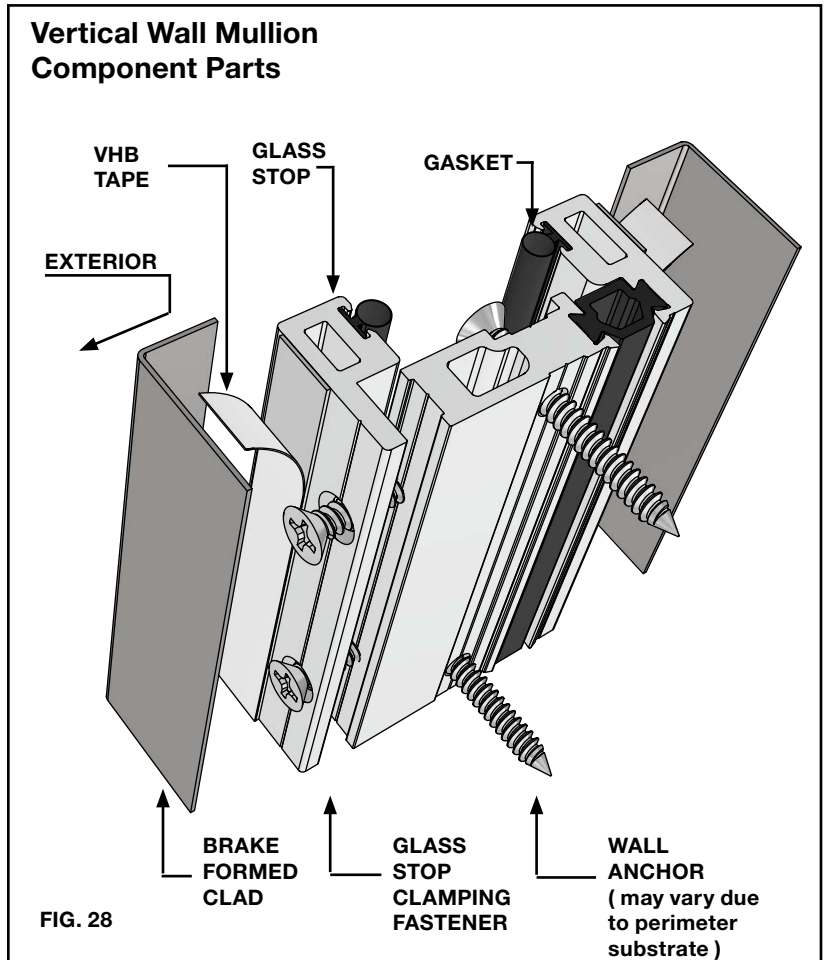
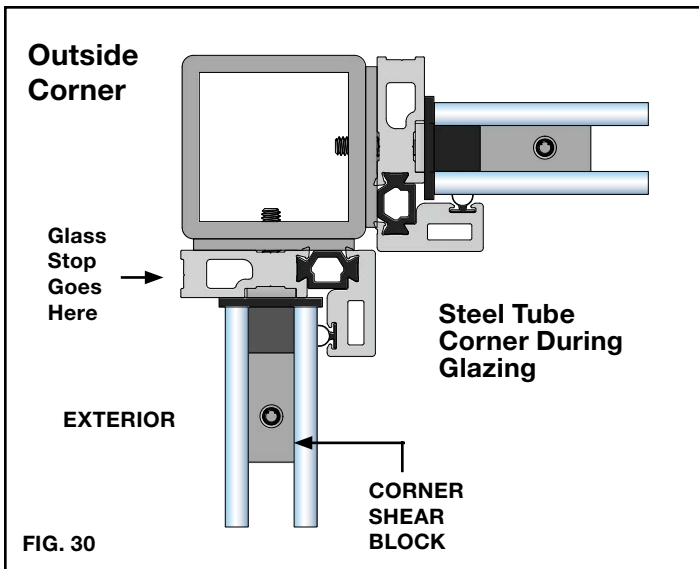
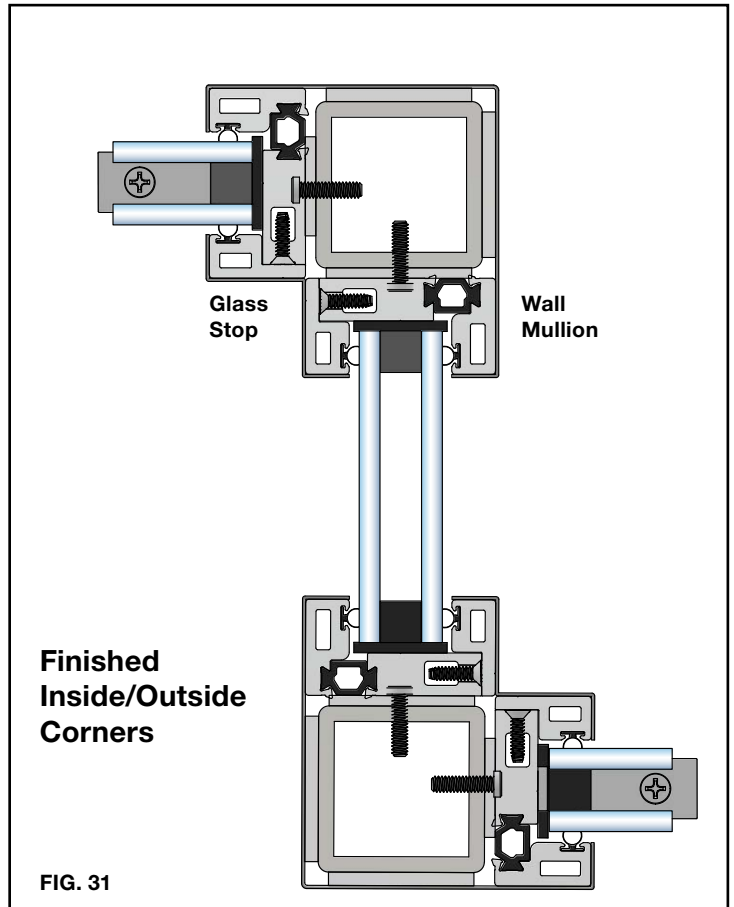
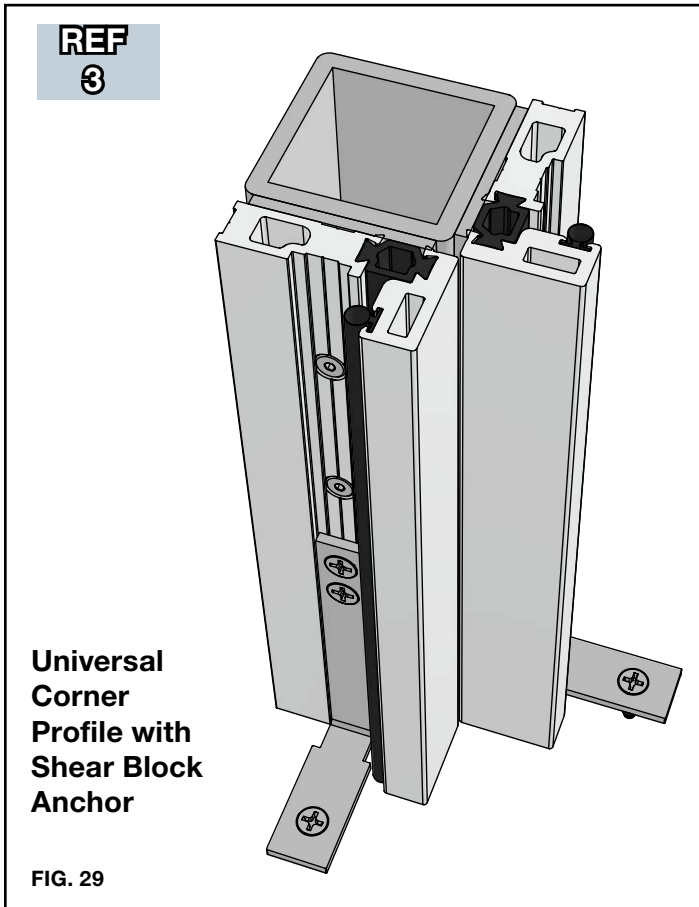


FIG. 28



# ASPIRE® SIDELITE SYSTEM

## CORNER INSTALLATION



### Corner Mullion Installation

Optional corner installation requires sidelite wall mullions fastened to a 2" X 2" X 1/4" steel tube with 1/4"- 20 X 1" SHCS. **(Figure 29)** Aspire® corner shear blocks anchor the assembly to the floor and ceiling.

**(Figure 30)** shows an outside corner anchored in place and ready for glazing. (2) corner shear blocks are used for high-load installations. Note the glass stops and cladding are not applied until after the glazing process.

**(Figure 31)** depicts a complete inside and outside corner configuration. Glass pocket access is easily changed simply by inverting the wall mullion mounting direction. Complete the vertical member installation before installing the floor and ceiling setting bases.

### Important Note

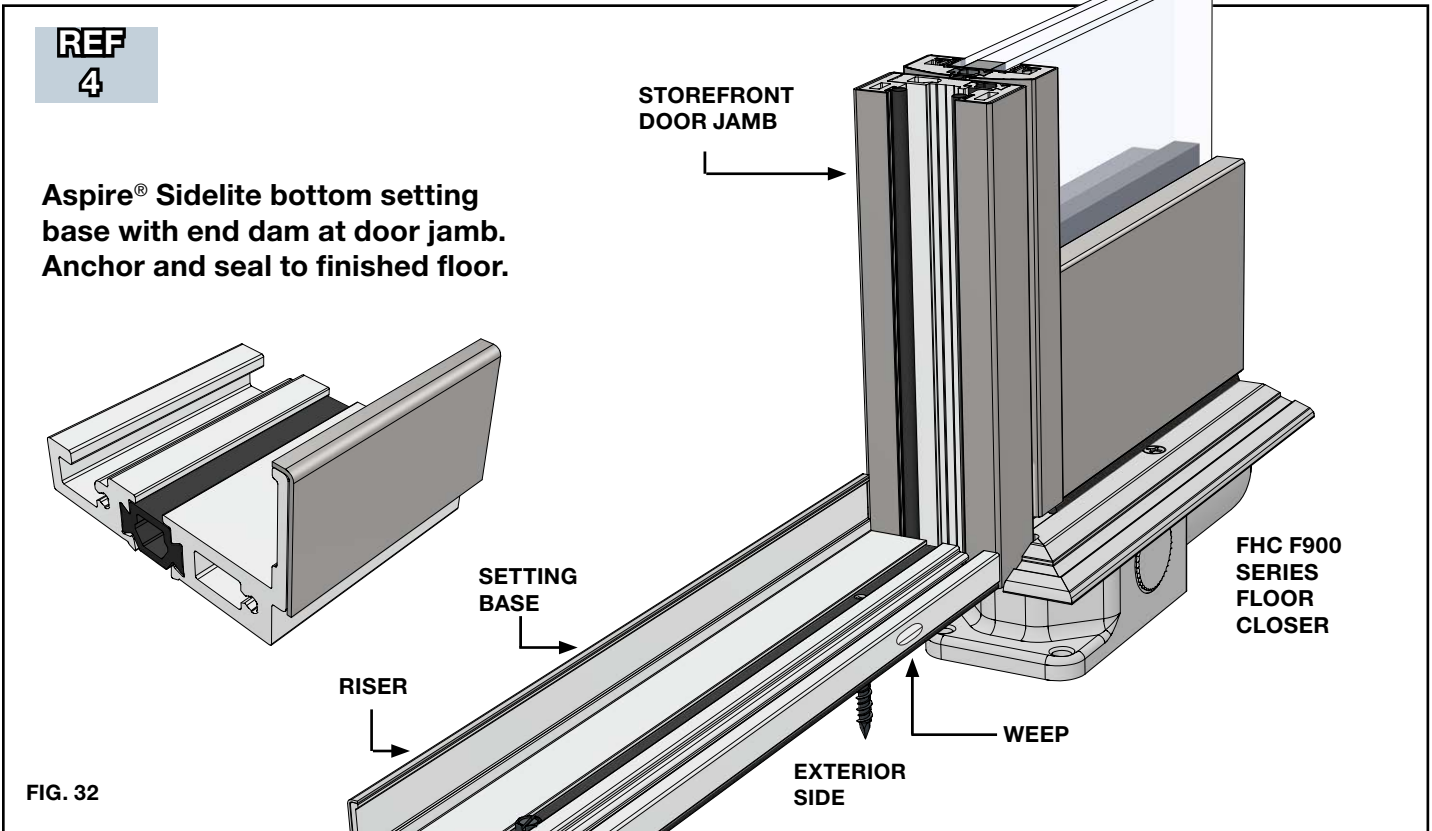
Glass stops are only attached to VERTICAL mullions and should not be installed until the glazing is complete.

# ASPIRE® SIDELITE SYSTEM

## BOTTOM SETTING BASE

**REF**  
**4**

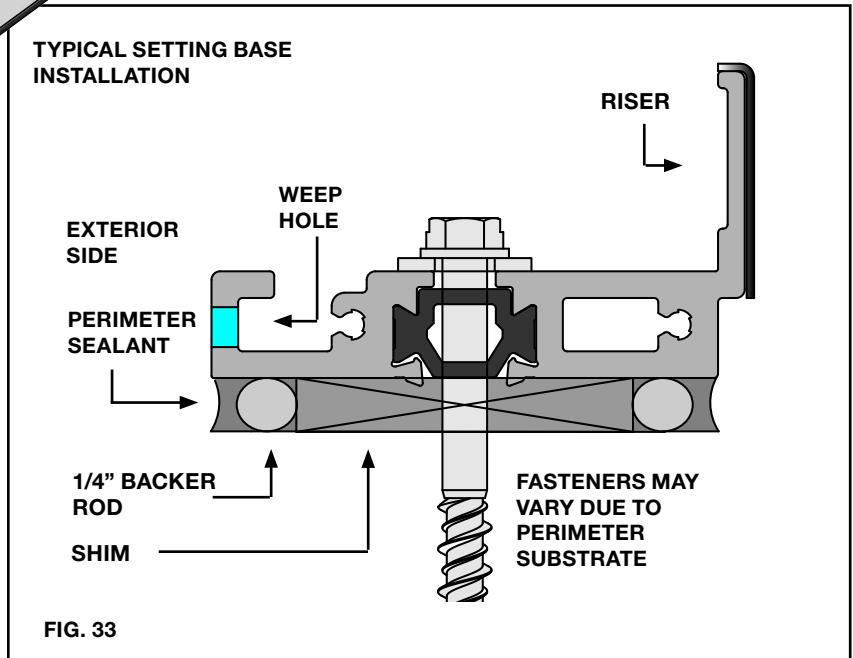
**Aspire® Sidelite bottom setting base with end dam at door jamb. Anchor and seal to finished floor.**



### Bottom Setting Base

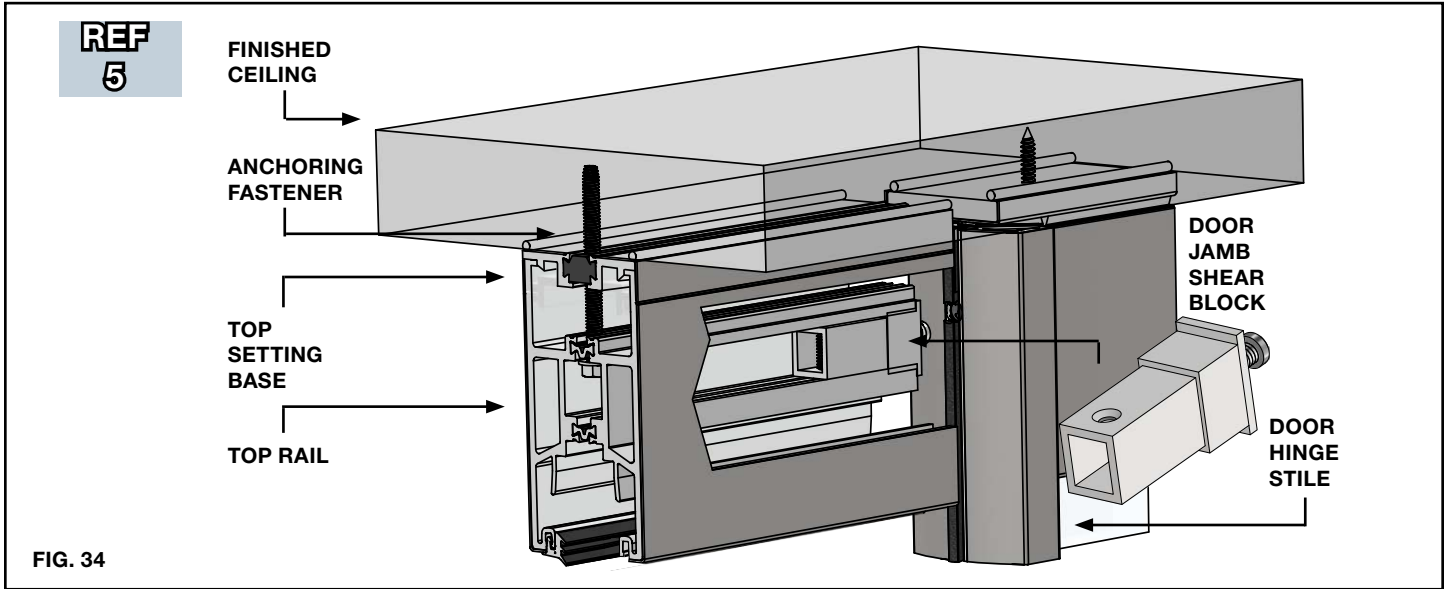
The Sidelite Setting Base is the “sub sill” component of the Aspire® Storefront System. Installation requires leveling and the use of shims at fastener locations for uneven surfaces. (2) weep holes are required between vertical mullions. Install setting bases between all vertical members. All vertical components run floor-to-ceiling. Ensure that the setting base riser is on the interior side of the enclosure. **(Figure 32)** **(Figure 33)** shows the use of sealant and shims used during setting base installation. Shims should be below all fasteners to avoid deflection of setting base.

### TYPICAL SETTING BASE INSTALLATION



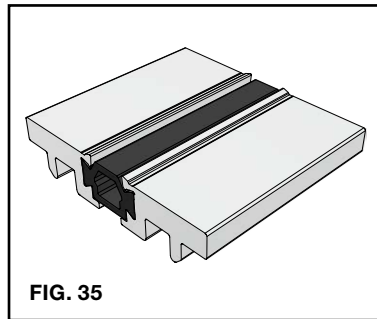
# ASPIRE® SIDELITE SYSTEM

## TOP SETTING BASE AND RAIL

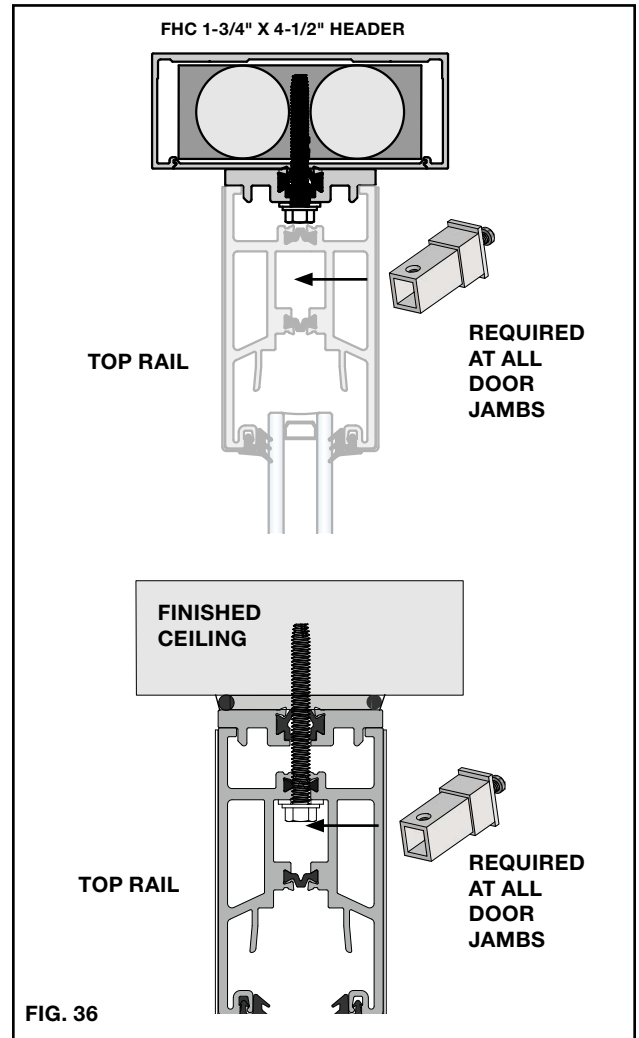


### Head Setting Base

The Aspire® Head Setting Base and Top Rail can be mounted simultaneously with the same anchoring fasteners. Insert a Door Jamb Shear Block into the top rail next to the hinge stile side of the door. **(Figure 34)**



Using shims at fasteners locations, maintain a 1/4" gap between ceiling and the top setting base surface. Drive 3"- 4" X 1/4" anchoring screws through the thermal plastic strip on both components. When secured, insert backer rod and seal both sides to the ceiling surface. Shims and backer rod are not required when attaching to storefront headers. **(Figure 36)**



# ASPIRE® SIDELITE SYSTEM

## DOOR JAMB

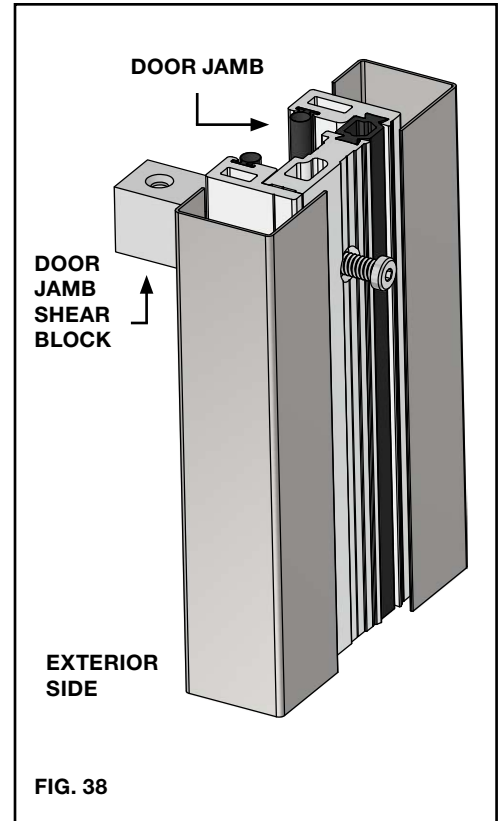
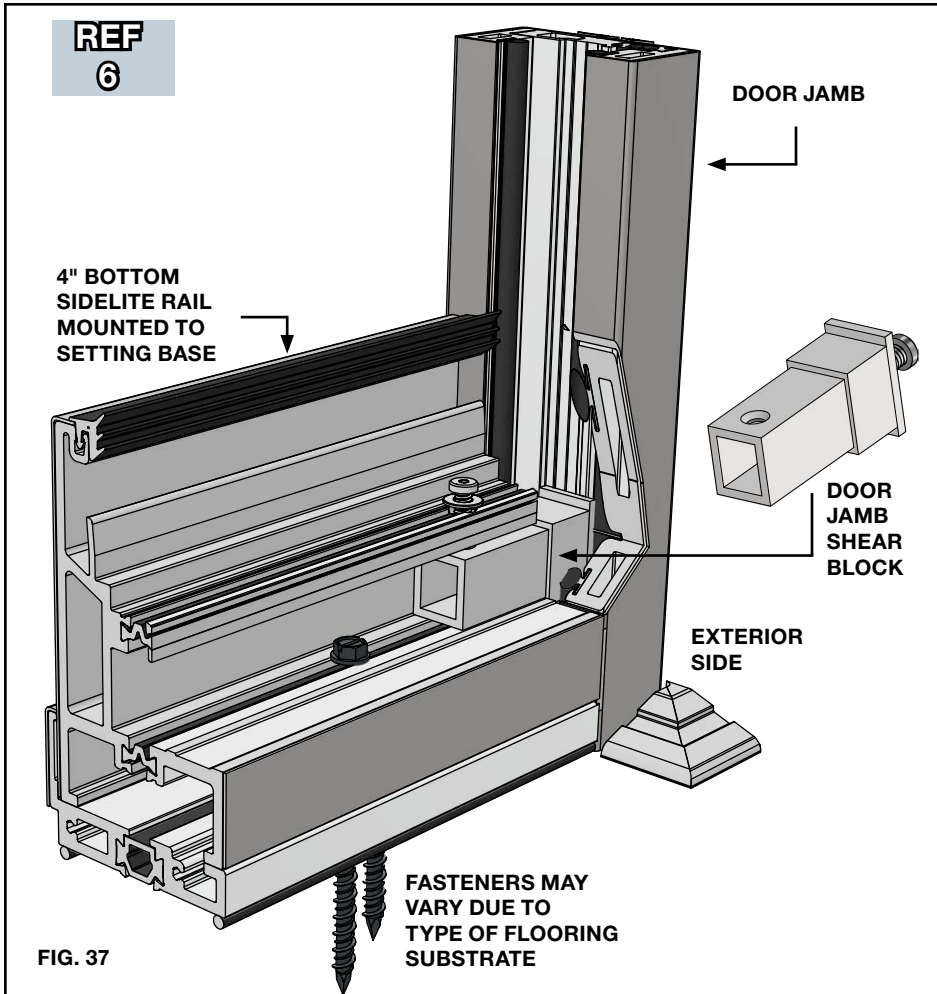


FIG. 38

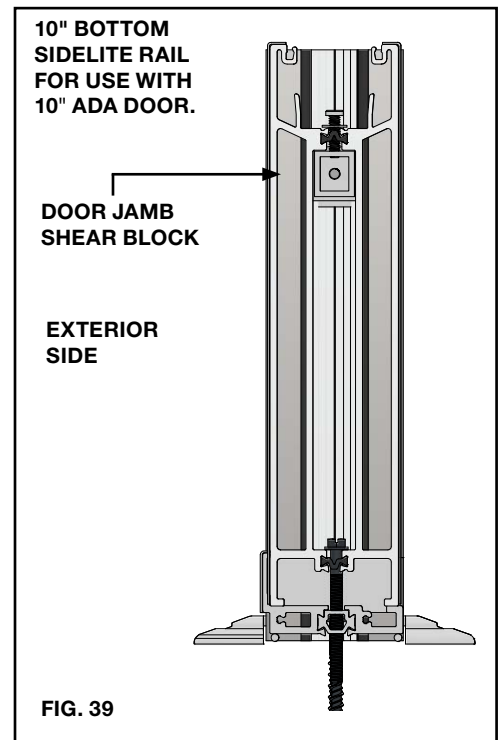


FIG. 39

### Bottom Sidelite Rail Installation

Insert a door jamb shear block into the bottom rail at door hinge jamb. Hold in place with a low-profile hex-head screw and washer as shown. **(Figure 37)** Set bottom sidelite rail into bottom setting base and anchor to floor through the thermal plastic strips. **(Figure 37)**

Insert Door Jamb between door and the top and bottom sidelite rails. Door may need to be open in order to insert the jamb. Jamb should be inside the threshold notch at floor and standing vertically to the ceiling of storefront header. When in position, a 1/8" gap should be observed between door stile and door jamb.

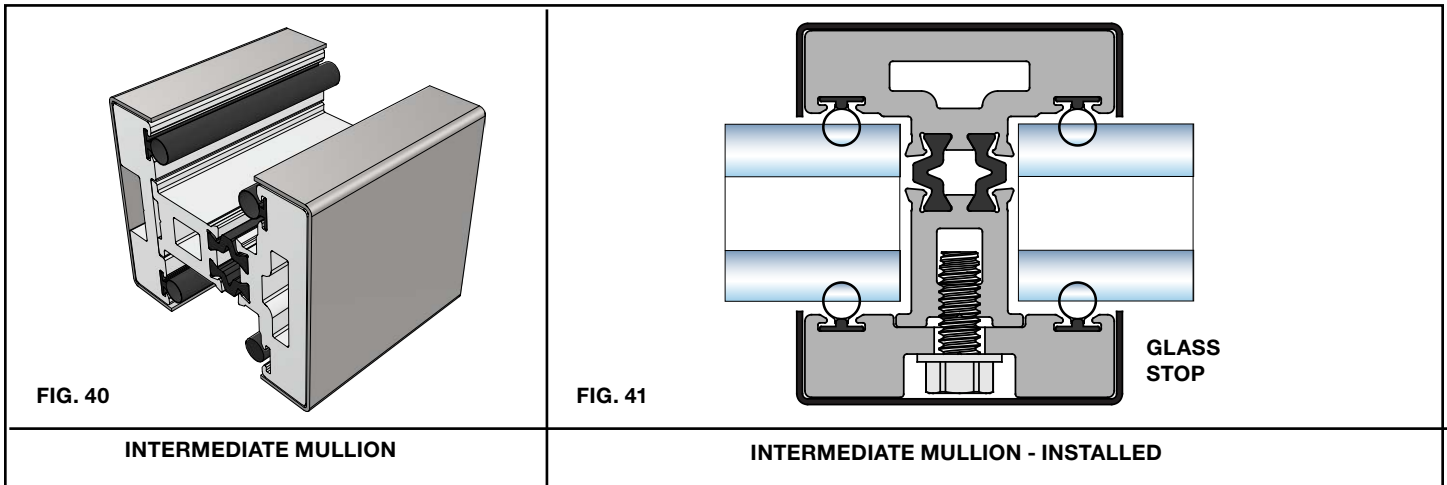
Align shear block holes in the jamb with top and bottom shear blocks inserted in the rails earlier. Insert low profile hex screws into the top and bottom shear block and tighten. **(Figure 38)** Mullion shear blocks are required on the top and bottom of jambs with transoms. Refer to the shop drawings for details.

**(Figure 39)** shows the location of the shear block on a 10" bottom rail.



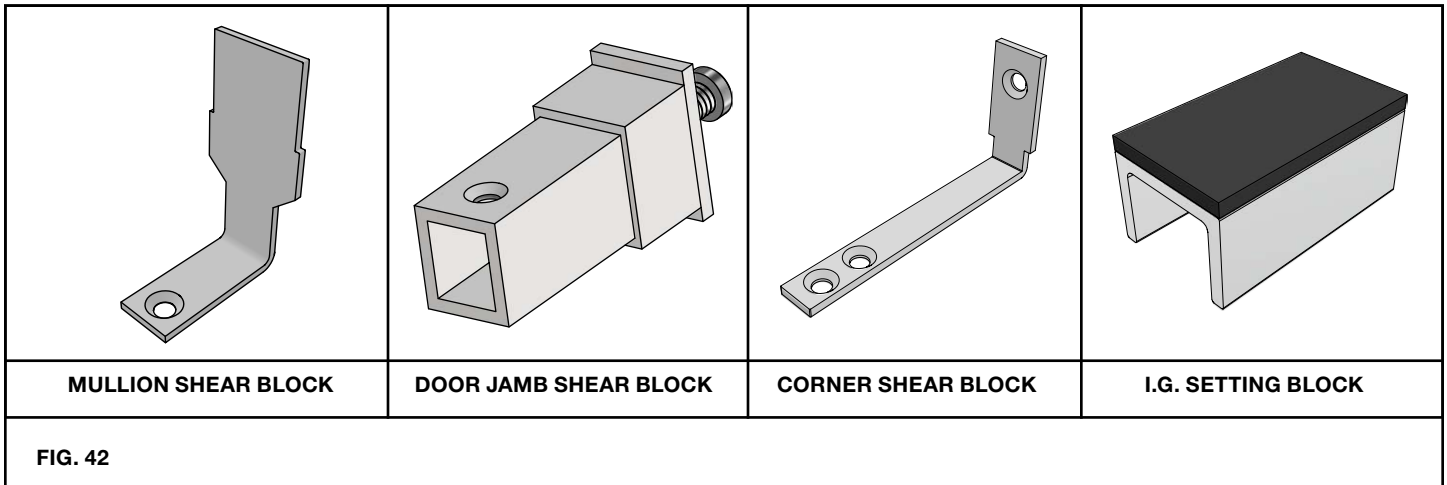
# ASPIRE® SIDELITE SYSTEM

## INTERMEDIATE MULLION



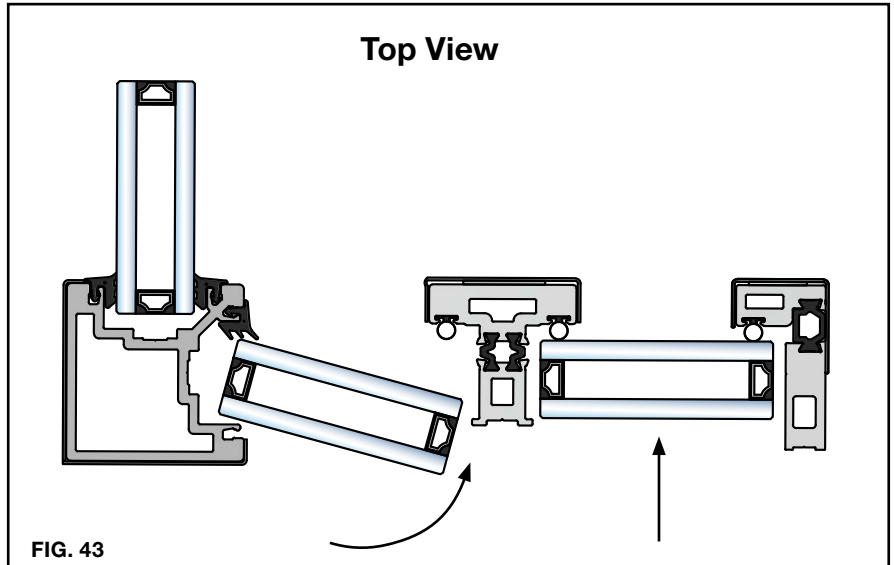
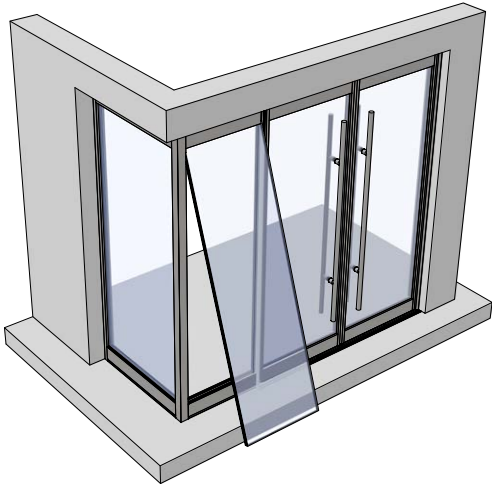
Although not referenced in the illustration, the Aspire® Intermediate Mullion is a key component for larger sidelite installations. The opposing infill design and the removable glass stops allow glazing to be inserted with minimal manipulation. Once the glass is set in place the glass stops are installed with the hex-head fasteners and cladding is applied.

## HARDWARE



# ASPIRE® SIDELITE SYSTEM

## GLAZING



### Sidelite Glazing

The Aspire® Sidelite framing system is designed to glaze easily once fully assembled. It is important to note that all vertical components should have front glass stops and gaskets removed for glazing access.

(Figure 43) is a top view of two types of vertical mullions. Mullions with removable glass stops glaze straight in and gasket members require a tilt-in method.

(Figure 44) shows the method of inserting an I.G. panel into the top and bottom rails. Note the setting block must be in place prior to step 1. Follow the order of inserting the glazing panels for all sections. Gaskets and glass stops are installed after completion of the glazing. Cladding will be attached to vertical mullions/jamb and as the final step.

This concludes the installation guide for the FHC Aspire® Insulated Door and Sidelite System.

