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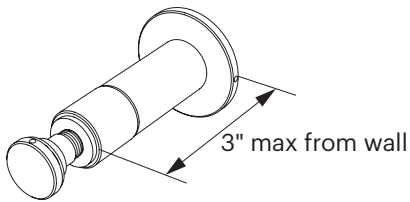
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10 General Specifications

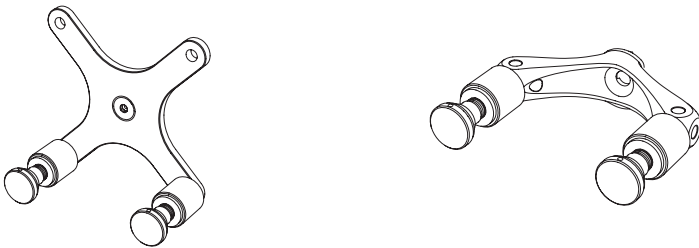
Overview

The laminated glass adapter has been designed specifically to allow the use of 3form Laminated Glass to be used with 3form Versa and Point Support systems. Due to the thick lamination employed by 3form for this product, special hardware is required to prevent failure to the panel.

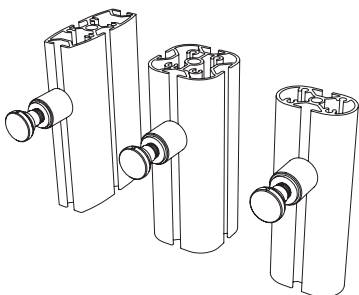
This hardware is designed with an adjustable bushing that provides a mechanical stop in order to prevent excess torque and compression on the face of glass which can result in failure. These adjustable hardware components allow glass to be mounted in a vertical application on a wall or with the Versa system.



Wall Mount Point Support
see page 4



2D and 3D Spiders (can be used with Versa Posts)
see page 6



Versa Posts and Point Support
see page 8

Material Recommendations

Glass hardware is compatible with laminated glass between the gages of $\frac{5}{16}$ "– $\frac{3}{4}$ ". Refer to the Glass Spec Sheet for tempering requirements.

A note about the construction and layup of laminated glass: the thinner the glass lite layer and the thicker the interlayer, the easier it is to break the tempered glass because of compression and torsional forces placed on the glass by the hardware. It is recommended to use 3form glass hardware to provide a mechanical barrier and physical stop to prevent this from happening. Unlike laminated glass, when tempered glass breaks, the entire sheet breaks into small pieces (a function of the tempering process) and the glass is not functional once broken. You must take care when handling the glass and installing the hardware to prevent the glass from breaking.

Glass Layout and Size Restrictions

Laminated Glass

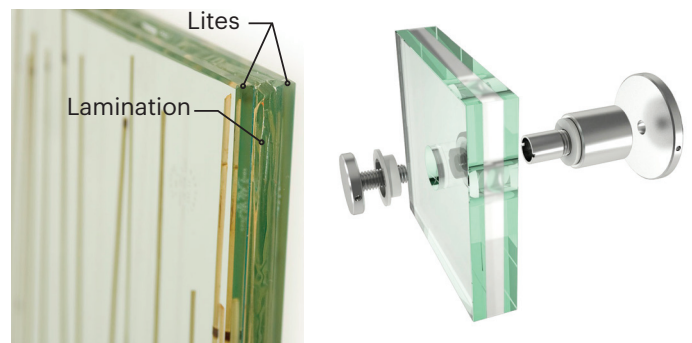
Refer to 3form Laminated Glass Specifications for detailed information, but some standard limitations are described below.

$\frac{1}{8}$ " Glass Lite Layers

Can only produce in a maximum area of 20 sq ft. Any holes must comply with the listed requirements for locations. All $\frac{1}{8}$ " glass lite layup with holes is subject to review.

$\frac{3}{16}$ " Glass Lite Layers

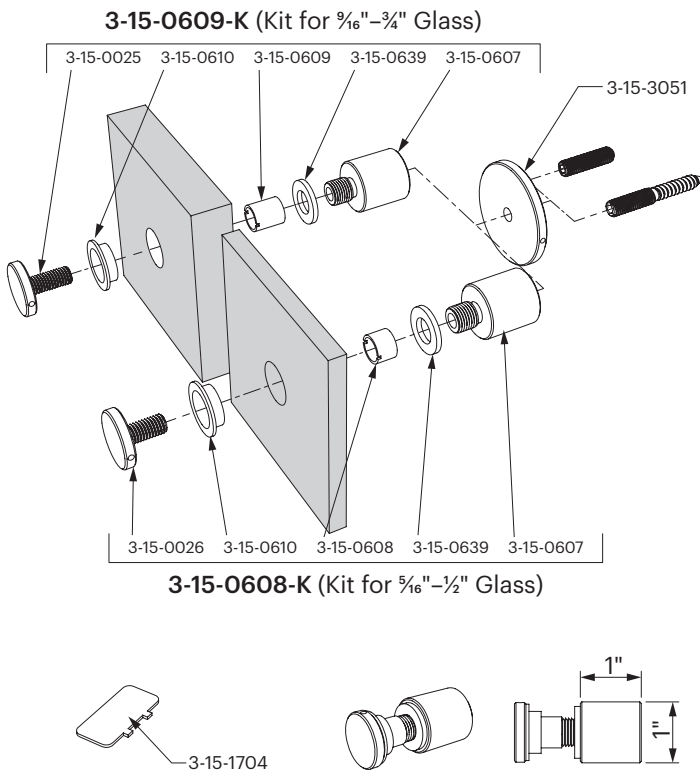
Can be made into sheets of 4' × 8' with hole patterns as specified in this document.



Overview

As can be seen in the exploded view, there are 2 components that make up the structure to this system. The first is a standard barrel with internal and external threads. The internal threads provide a location for both the anchor and the cap to thread into. The external threads on the barrel provide the height adjustability (dependent on glass gage) in combination with the glass insert (3-15-0608/09). The glass gets mounted and the glass insert adjusted to height so that the cap is resting on the top of the glass insert. The shoulder washer (3-15-0610) is designed to protect the surface and interior of the glass hole from any metal on glass contact, and a silicone washer (3-15-0639) provides additional compression to the system.

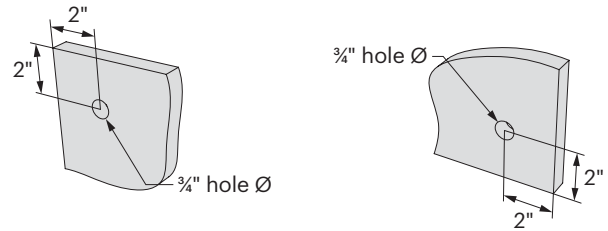
Basic Components



Hole Locations: Point Support

For point supports on a wall surface:

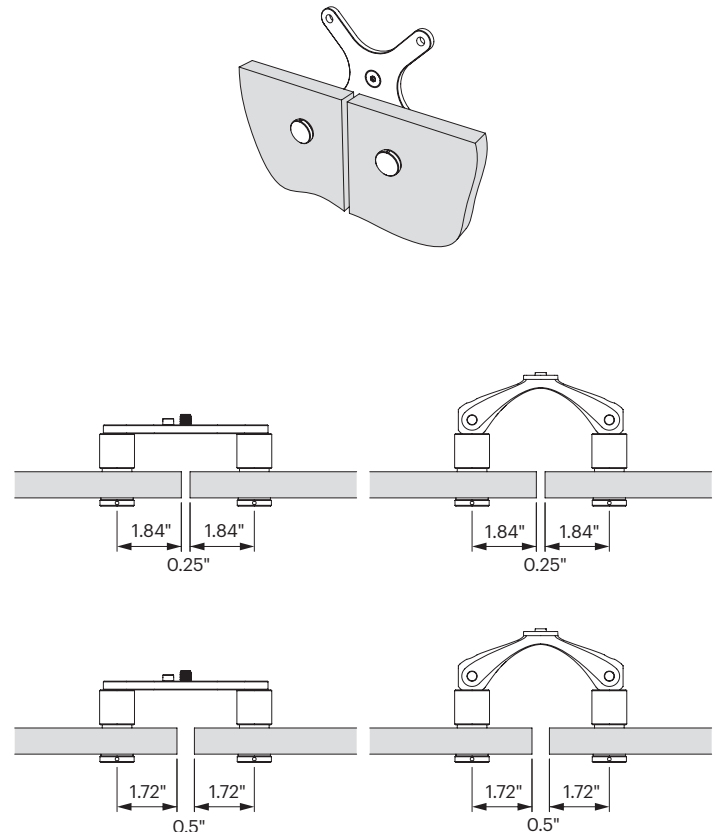
Holes must be a minimum distance of 2" from the edge of the glass (to center of the hole) and 2" from the top and bottom of the panel to the center of the hole



Hole Locations: 2D/3D Spiders

For 2D/3D spiders:

Holes to be at least 1.5" from the edge of a panel (to center of hole) and 3" from the top and bottom glass edge (for a 0.25" gap between panels, this dimension will be 1.825", a 0.5" gap is 1.575").

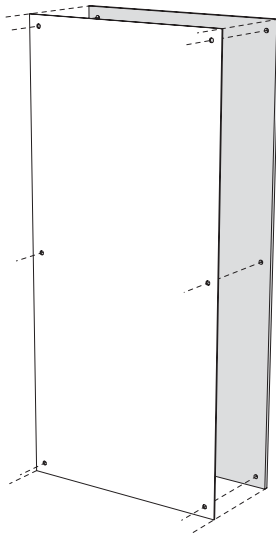


Installation: Wall Mount Point Support

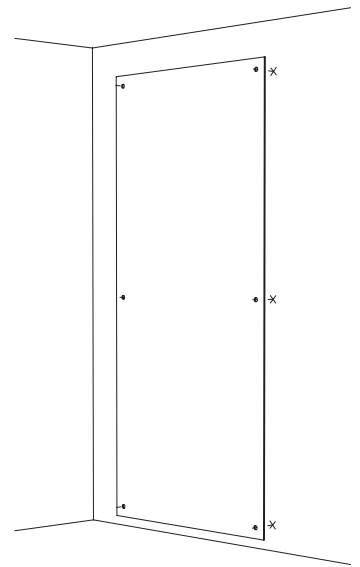
It is recommended to mount glass to wood blocking for a secure connection.

1 Mark Wall Anchoring Locations

- a** Inspect the provided template. It should be the same size as the piece of glass with the template holes centered on the holes of the glass panel. There should be a different template to each unique hole pattern or panel size.

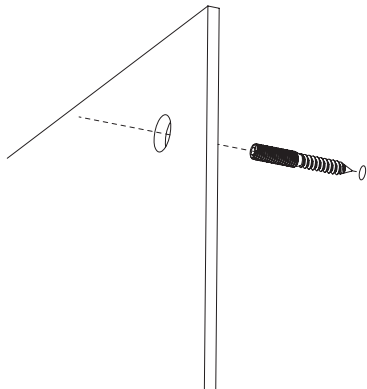


- b** Level the template (both vertically and horizontally) in the location where the glass will be mounted. Mark the location of the holes on the wall to drill a pilot hole.



2 Mount Anchors to the Wall

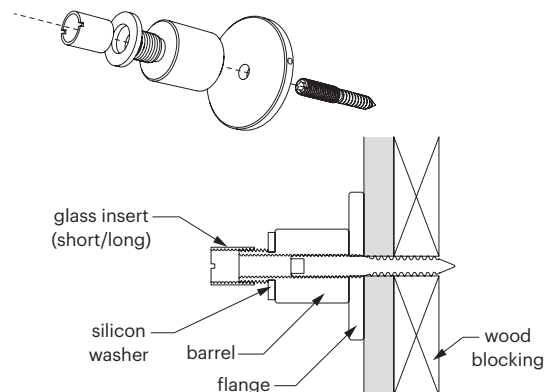
Mount an anchor to the wall so that approximately 1" of threads is protruding from the wall surface. (3-15-3002 wood anchor is recommended).



Check at this point with the template that the anchors and the protruding threads are perpendicular to the wall and in the correct location.

3 Attach Point Support Assembly

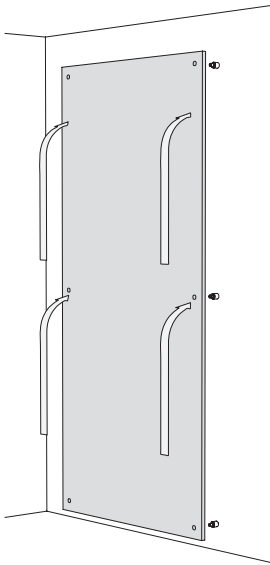
Attach 3-15-3051 Drywall flange to 3-15-0607 (barrel with external threads) with 3-15-0639 (silicone washer) attached to the base. Screw on either 3-15-0608/3-15-0609 to the threads (depending on the thickness of the glass you are using), leaving the assembly longer than the thickness of the glass.



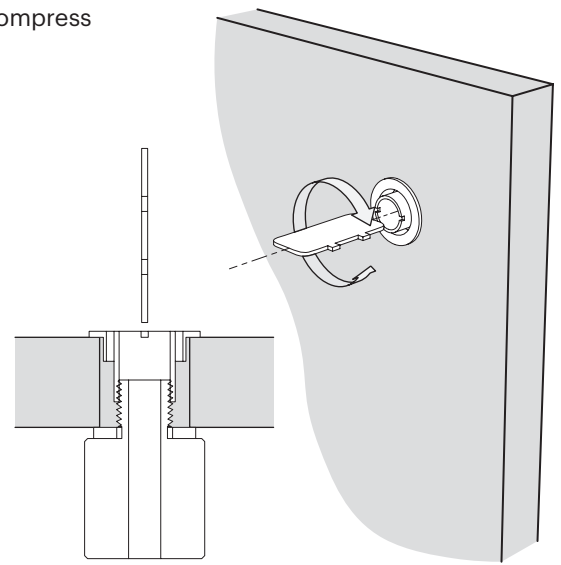
Installation: Wall Mount Point Support

4 Mount Glass Panel

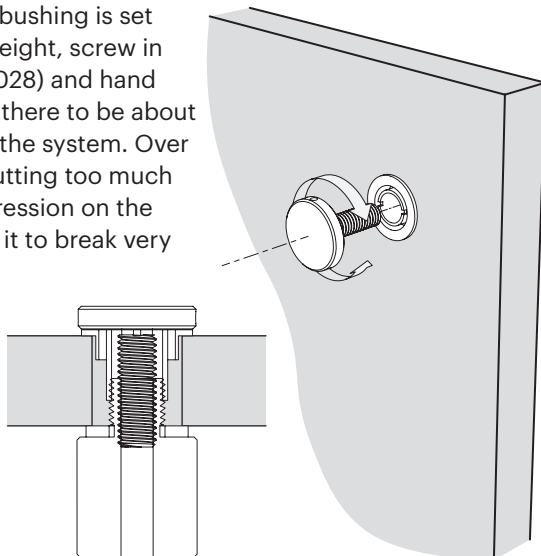
- a** Carefully lift the glass panel (this is a minimum 2 person job) onto the barrels. Make sure that the holes of the glass fit cleanly into the holes. Any excess pressure or exposure to metal threads will cause the entire tempered glass panel to 'pop' and break.



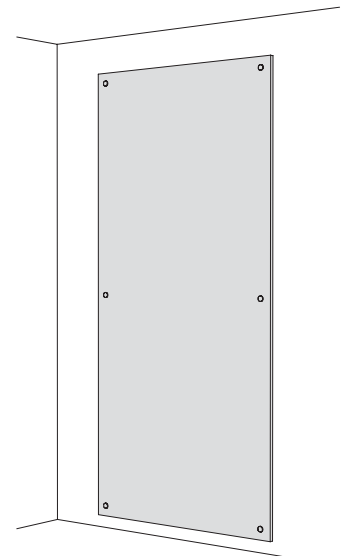
- b** With the glass panel resting on the smooth side of the adjustable spacers, slide in the shoulder washer into the hole (3-15-0610), use the flat edge of the tool provided. The bushing should be at the same height as the shoulder washer. This is a crucial step to the installation of the system. Placing this bushing at the correct height relative to the gage of the glass will provide a mechanical stop in the system in order not to over tighten and compress the brittle glass.



- c** Once the inner bushing is set to the correct height, screw in the cap (3-15-0028) and hand tighten. Expect there to be about 0.05" of play in the system. Over tightening or putting too much pressure/compression on the glass will cause it to break very easily.



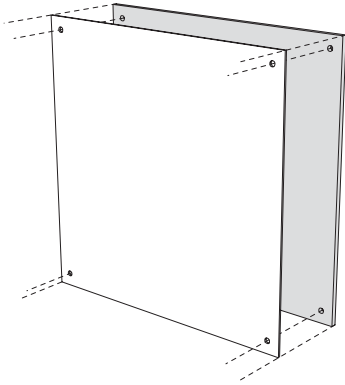
- d** Repeat Steps 4a-c for every point on the panel. Go back over the entire system and make sure the caps are hand tight and panel is secure.



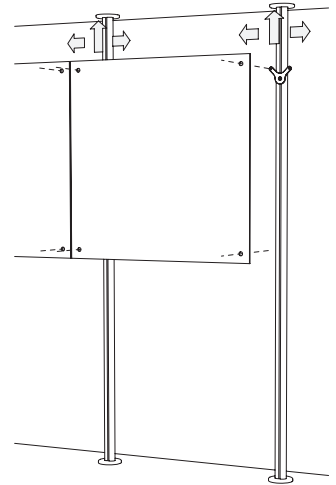
Installation: Versa with 2D/3D Spiders

1 Use Template to Locate Versa Posts and Spiders

- a** Inspect the provided template to the glass.

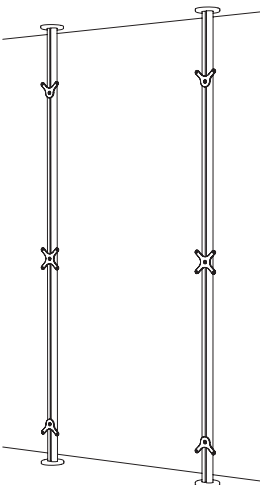


- b** Use the template provided to locate the versa posts and spiders. The posts should be leveled at this point once the horizontal spacing of the holes between panels is determined. Securely fasten both the top and bottom of the Versa post. There must be physical mounting (not just an unfastened pressure fit system) into both the floor and ceiling substrate due to the weight of the glass panel.

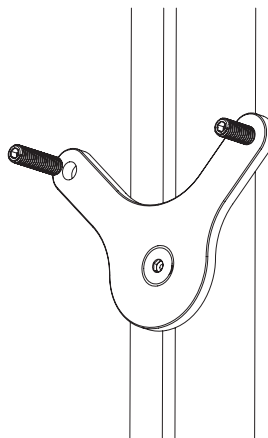


2 Mount Spiders on Versa Posts

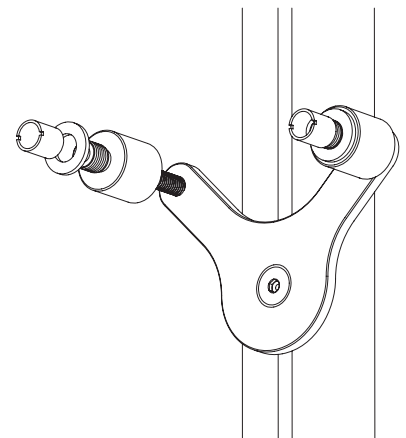
- a** Insert the t-nuts into the extrusion, and then mount the spiders to the t-nuts and tighten down using the template as a guide for vertical spacing.



- b** Mount 3-15-3032 to the spider leaving about 0.5–0.75" protruding from the surface of the spider.



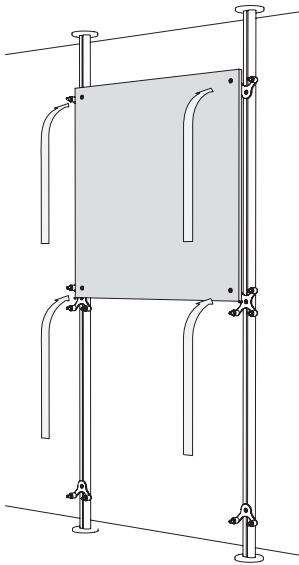
- c** Attach 3-15-0607 (barrel with external threads) with 3-15-0639 (silicone washer) attached to the base. Screw on either 3-15-0608/3-15-0609 to the threads, leaving the assembly longer than the thickness of the glass.



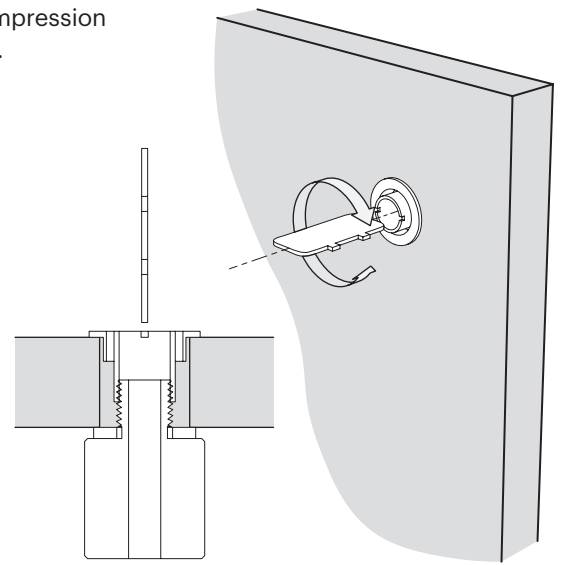
Installation: Versa with 2D/3D Spiders

3 Mount Glass Panel

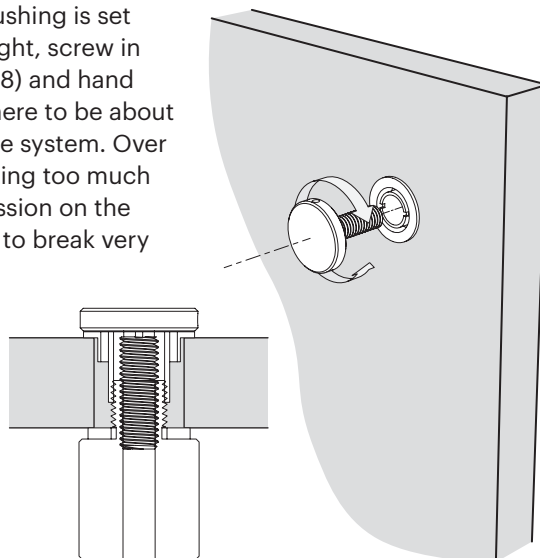
- a** Carefully lift the glass panel (this is a minimum 2 person job) onto the barrels. Make sure that the holes of the glass fit cleanly into the holes. Any excess pressure or exposure to metal threads will cause the entire tempered glass panel to 'pop' and shatter.



- b** With the glass panel resting on the smooth side of the adjustable spacers, slide in the shoulder washer into the hole (3-15-0610), use the flat edge of the tool provided. The bushing should be at the same height as the shoulder washer. This is a crucial step to the installation of the system. Placing this bushing at the correct height relative to the gage of the glass will provide a mechanical stop in the system to prevent over tightening and compression of the fragile glass.



- c** Once the inner bushing is set to the correct height, screw in the cap (3-15-0028) and hand tighten. Expect there to be about 0.05" of play in the system. Over tightening or putting too much pressure/compression on the glass will cause it to break very easily.

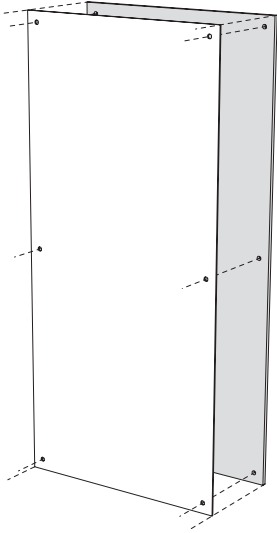


- d** Repeat Steps 3a-c for every point on the panel. Go back over the entire system and make sure the caps are hand tight and panel is secure.

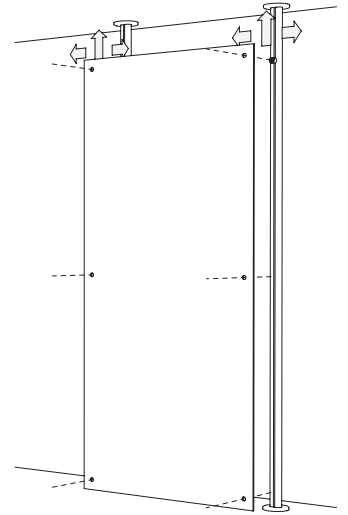
Installation: Versa with Point Support

1 Use Template to Locate Versa Posts and Spiders

- a** Inspect the provided template to the glass.

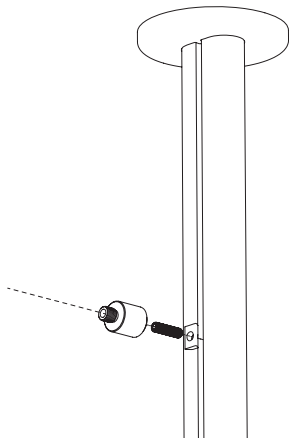


- b** Use the template provided to locate the versa posts and spiders. The posts should be leveled at this point once the horizontal spacing of the holes between panels is determined. Securely fasten both the top and bottom of the versa post. There must be physical mounting (not an unfastened pressure fit system) into both the floor and ceiling substrate due to the weight of the glass panel.

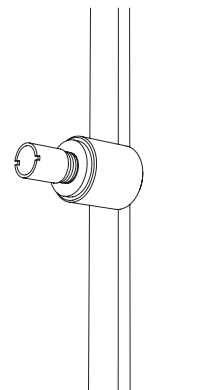


2 Mount Spiders on Versa Posts

- a** Insert the t-nuts into the extrusion, and then using 3-15-3032 threaded rod, mount 3-15-0607 (barrel with external threads) with 3-15-0639 (silicone washer) attached to the base.



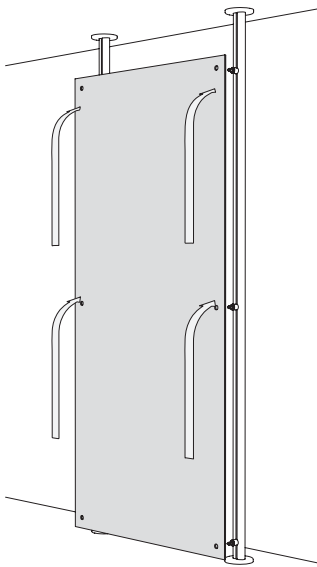
- b** Screw on either 3-15-0608/3-15-0609 to the threads, leaving the assembly longer than the thickness of the glass.



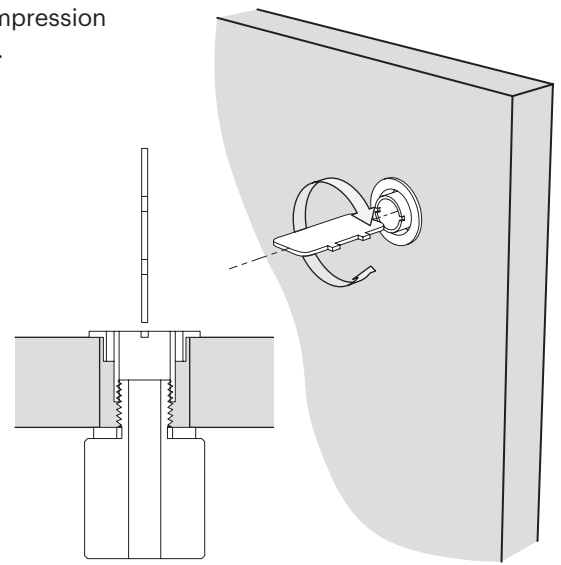
Installation: Versa with Point Support

3 Mount Glass Panel

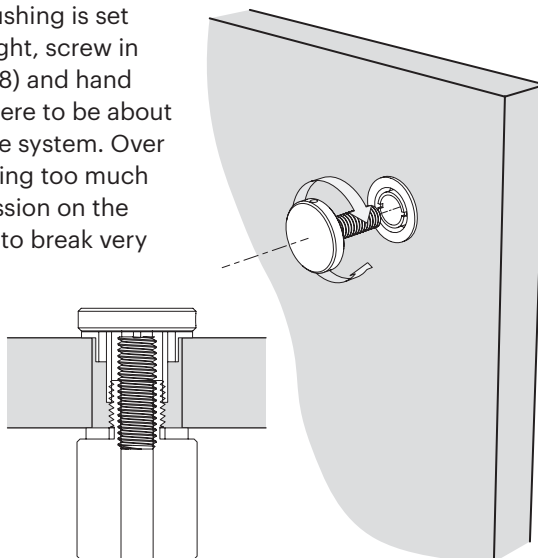
- a** Carefully lift the glass panel (this is a minimum 2 person job) onto the barrels. Make sure that the holes of the glass fit cleanly into the holes. Any excess pressure or exposure to metal threads will cause the entire tempered glass panel to 'pop' and shatter.



- b** With the glass panel resting on the smooth side of the adjustable spacers, slide in the shoulder washer into the hole (3-15-0610), use the flat edge of the tool provided. The bushing should be at the same height as the shoulder washer. This is a crucial step to the installation of the system. Placing this bushing at the correct height relative to the gage of the glass will provide a mechanical stop in the system to prevent over tightening and compression of the fragile glass.



- c** Once the inner bushing is set to the correct height, screw in the cap (3-15-0028) and hand tighten. Expect there to be about 0.05" of play in the system. Over tightening or putting too much pressure/compression on the glass will cause it to break very easily.



- d** Repeat Steps 3a-c for every point on the panel. Go back over the entire system and make sure the caps are hand tight and panel is secure.

General Specifications

	Part Numbers	Material	Finish	Recommended Use	MSDS Information
Milled Stainless Steel	3-15-0608-K 3-15-0609-K	304 Stainless Steel	Mill Finish Powdercoating Available <i>(may not be feasible for all parts)</i>	Interior Only	N/A