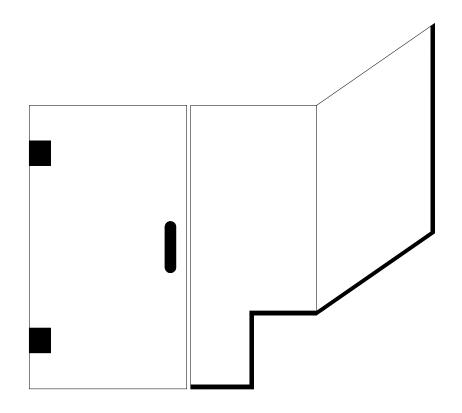


HG-I-90-B-38

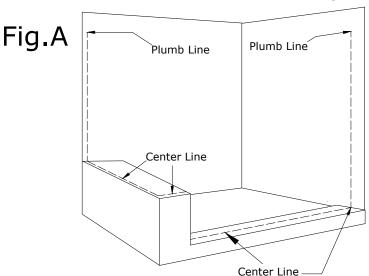


Please read instructions completely before proceeding to get an overview of the installation.

Brief Outline of Installation Procedures

A) Prior measure of opening with centerline dimensions. For necessary accuracy a 2', 4', and 6' level should be used on appropriate surfaces as heavy frameless units are designed to be installed level and plumb.(Fig.A)

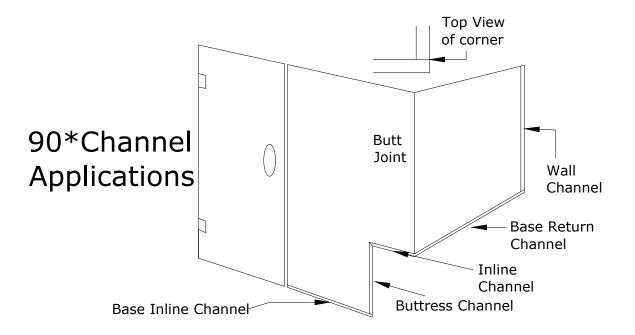
Plumb and Centerline Example



- B) Preparing u-channel for installation i.e. cutting, drilling.
- C) Installing channel.
- D) Setting panels.
- E) Setting door.
- F) Mount door pull.
- G) Clean glass.
- H) Install seals and adjust door if needed.
- I) Apply silicone.

Cutting U-channel

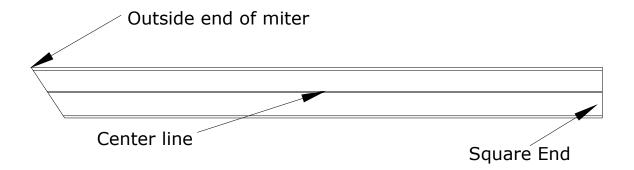
Using the centerline dimensions used to figure glass sizes you can figure u-channel cut sizes.



Use the following formulas to get cut sizes. (Fig.B)

Base Inline Channel: Base of inline glass panel + 5/16" (sq end to sq end)
Buttress channel: Actual buttress height - 3/4" (sq end to short end of miter)
Inline channel: centerline dimension + 1/4" (outside end of miter to short end of miter)

Return channel: centerline + 1/4" (sq end to outside end of miter) Wall channel: actual height of glass - 7/16" (sq end to sq end)

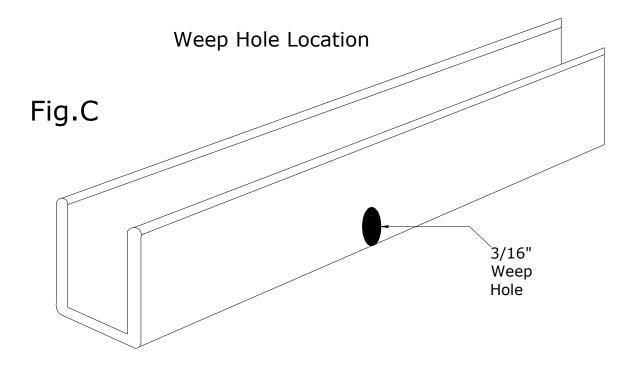


Top view of U Channel

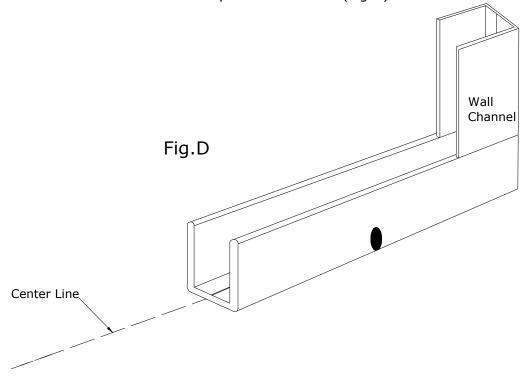
It will be helpful to preserve the marks from the time of the measure to the day of the install so the installer has reference marks.

Installation of Channel

1) Drill all **horizontal** channels for weep holes (Fig.C), as close to the bottom as possible, on the inside wall of the channel with a 3/16" drill bit approximately 6 inches in from each end. Two holes are sufficient. If channel is under 12" only one hole is necessary.



- 2) Drill bottoms of all channels with $3/16^{\prime\prime}$ holes approximately 12" apart for mounting to surface.
- 3) Align all channels based on the centerline marks that were made at the time of measure. Wall channel will set on top of base channel (Fig.D).



Mark the holes to be drilled (have an assistant hold the vertical channels plumb with a level while you mark the holes, or use blue tape to hold them plumb while you mark the holes).

- 4) After holes are marked, drill holes with 3/16" masonry drill bit. Apply silicone in holes on the horizontal surface. Insert 3/16" plug anchors in all holes.
- 5) Secure channel with #8x1 flathead screws and a drill. Remember that vertical channels will sit on horizontal channels where they meet. Apply blob of silicone over screw heads in horizontal channels and in all corners and seams.

Setting Glass Panels

- 1) Place 1/4" setting blocks in channels, one on each end where glass will sit.
- 2) <u>Return Panel:</u> Using a glaziers suction cup, set the 90* return panel over the return channel and into the wall channel then down into return channel and down onto setting blocks being very careful not to set glass on the metal (Fig.E).

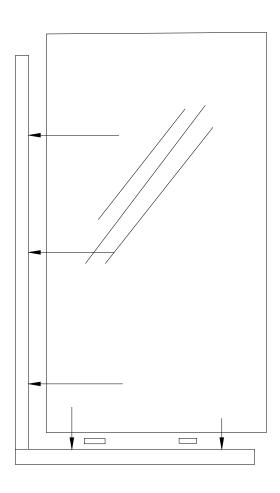


Fig.E

Set panel in wall channel first, then down into bottom channel

Use a level to check plumb and level of panel. If outages were accurately accounted for in the measure, **the panel should be plumb and level**. Clean glass surfaces and exposed edges. Move panel all the way into wall channel to give you room to set

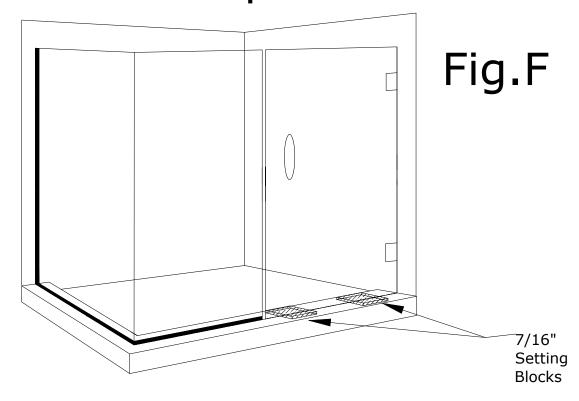
inline panel. You will need to move the return panel back over to meet the backside of the inline panel (to create the butt joint) after you install the inline panel. Use blue tape to wrap and hold the corner tight for in about three places to silicone later.

3) <u>Inline Panel</u>: Using a glaziers suction cup, set inline panel over channel and slowly drop down into the channel. Slide panel over into channel until edge of glass is flush with the open end of the u-channel down on the curb. The glass on top of the buttress should be over against the return channel and overlapping the return panel creating a 90* butt joint. Move the return panel back over to meet the backside of the inline panel (to create the butt joint) after you install the inline panel. Use blue tape to wrap and hold the corner tight for in about three places to silicone later. **The butt joint corner should be plumb**.

Setting Door

- 1) Mounting hinges: The glass and gaskets should be free of grime, grease, oils or anything else that would prevent the hinge and gasket from making good contact with glass. Use glass cleaner to remove these things. Remove the cover plates and screws from the hinges. See the template sheet in the hinge box for the proper gasket to be used with your selected glass thickness. Apply the proper thickness gaskets to both sides of the door around the hinge cutouts. Apply light pressure so they will stay in place. Now put the main body of the hinge in the glass cutout. Align the hinge in the cutout being sure that is centered up and down, and that there is 1/16"-3/32" gap between the back plate and glass edge. After everything is aligned, secure the inside cover plate with the supplied machine screws. Note: Always tighten machine screws by hand! Use a #3 Phillips head screwdriver for this. When tightening the screws alternate from one screw to the other so the pressure is evenly applied to the inside cover plate. Repeat the above process on the additional hinge(s).
- 2) You can now set your door in the opening to mark hinge placement. ASD heavy doors are configured to have a P990WS polycarbonate sweep installed on the bottom. The gap needed for this sweep is 7/16". Therefore, you will need 2) 7/16" shims or setting blocks (wood and hard plastic/rubber are ok. No metal) to set the door on to ensure proper clearance for the sweep. Set the door on your blocks/shims and position it on the curb the same distance in from outside edge of curb as the inline panel. (Fig.F)

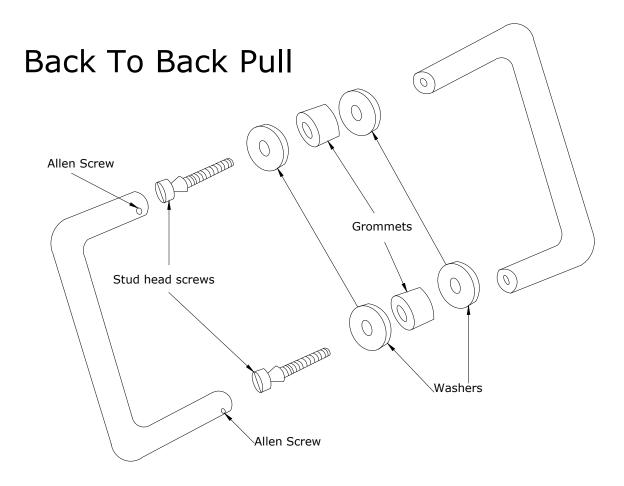
Setting Blocks For Door Example



- 3) Align the door with the inline panel. This should be plumb. Then, mark the outside screw holes of the hinge back plates. You will need an assistant to mark the inside holes or, if one man is installing, you will need an extra back plate of the hinge you are using to use as a template to mark the 2 inside holes after you have removed the door.
- 4) Drill holes in wall using a 3/16" masonry drill bit. After drilling all holes, follow with a 1/4" masonry bit. Insert green 1/4" wall anchors. Cut anchors flush to tile surface if they do not fully insert. (Note: there should **always** be wood backing in the wall to secure screws to).
- 5) Set door back onto setting blocks in the opening and line up door to inline panel. The holes you drilled should match up with back plate holes. With hinges against the wall, use a drill with a 6" #2 Phillips screw bit to secure door to wall. After door is secured, remove setting blocks to check swing of door and make adjustments as necessary.

Door Pull

- 1) Take the two stud head mounting screws and sleeve one clear washer on each screw. Next, insert the clear grommets into the holes in the door. From the outside of the door, push the thread of the screws through the grommets in the holes in the glass. On the inside of the door, sleeve a clear washer onto the screws.
- 2) Take the pull that has the threaded hole in the end and begin to thread the top screw into it and then the bottom screw. Tighten the stud head screws down with a screwdriver (not a drill). This pull will be on the inside of the door.
- 3) Place the remaining pull, with the large holes and set screw, onto the stud heads of the screws. Tighten the set screws with Allen wrench provided.



When Applicable

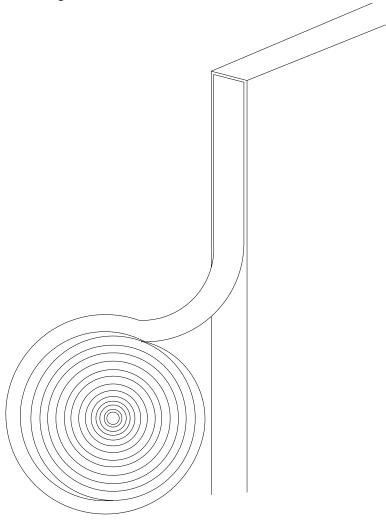
(in some applications there may not be room for seals and or sweeps)

Directions for SDTDF Double Fin, SDTJ-SDTB Bulb Seal, SDDTNL "L" Seal

When installing seals the glass edges should be clean and free from any dirt or hand oil etc... as these will prohibit adhesion. Glass cleaner will do.

Vertical seals will be applied to the edge of the glass using a VHB (very high bond) tape.

Apply VHB tape to edge of glass by adhering it top to bottom, gradually unrolling the tape as you slowly move from top to bottom. Apply the full length of glass. Cut flush to the bottom of door glass.



Then remove protective layer from other side and attach seal to the tape surface. Press on by hand. Cut flush to the bottom of the door using pliers-type cutter, scissors, or razor knife. The VHB tape will gain strength and achieve full bond within 72 hours.

Adjust door accordingly to achieve optimum seal.

Directions for P990WS

- 1) Measure and cut seal to appropriate size using miter saw or hacksaw.
- 2) Place over bottom edge of door. Then, using a plastic covered mallet, gently tap on bottom sweep until it is fully on. Make adjustments as needed.
- 3) Silicone ends and horizontal seams from glass to plastic.

Silicone Application

Once you confirm alignment of glass and everything is set, you need to apply a cap bead of clear 100% silicone around perimeter of u-channel edge where it meets the glass, both inside and out. Apply a small bead where u-channel meets installation surface, both inside and out. Finally apply a small bead in the inside corner of the butt joint.