

FRP Column Installation Instructions

Before you begin your installation you will need to obtain these materials and tools

- **Aluminum or galvanized angle clips:** (Used to attach column shaft, base and capital.)
- **Stainless steel screws and anchors:** (Used for anchoring aluminum clips and columns to your building.) Use fasteners of the appropriate strength for your installation. If your column covers are over 10 ft. in height, make sure to use very strong fasteners and plenty of them. Always use stainless steel or corrosion resistant fasteners. Wedge anchors are used when attaching to masonry.
- **Column bonding putty:** (Used to assemble FRP halves together.) We usually supply this adhesive in the shipment. Follow the instructions for mixing in the hardener. If your working conditions are below 55 degrees F. you will not be able to use our supplied bonding putty, you will have to obtain Hilti HSE-2421 Anchor adhesive. Call your local Hilti Dealer.
- **Bondo or auto body filler:** (Used to fill and fair column joints after assembly.)
- **Acetone:** (Used to clean up of tools and hands, works for bonding adhesive and bondo.)
- **Urethane Caulking:** (Used to finish caulk column capital and base after installation is complete.) For best results use Sikaflex or Vulkum industrial urethane caulking

TOOLS:

- Electric or cordless drill
- Drill bits, regular and masonry
- Carpenter pencils or markers
- Tape measure
- Level
- 4" diamond saw or jig saw. (Used to trim fiberglass.)
- Grinder or electric sander. (Used to finish grind saw cuts.)
- Orbital or dual action sander. (Used to finish sand bondo joints.)
- Countersink bits. (Used to counter sink screw heads.)
- Flexible 4" putty knife. (Used for applying column adhesive and bondo.)
- Buckets and rags. (Used for acetone to clean up.)
- Various grades of sand paper. (Start with 80 grit on joints and finish with 220.)
- Band clamps or hanging wire. (Used to hold column halves in place while putty is setting.)
- Miscellaneous hand tools.

STEP 1:

Be sure the structural columns you are wrapping is coated with corrosive resistant materials and is properly anchored and plumb. It will not be accessible after you install the FRP column cover.

STEP 2:

Lay out the center line of the column. (See below.)

STEP 3:

Using one half of the two piece base, line up the joint with the marked center lines.

STEP 4:

Set the second half of the base in place and mark around it.

STEP 5:

To lay out the column shaft , (it projects through the base to the floor), flip one half of the base at a time and use it to mark the floor. (See below.)

STEP 6:

Anchor attachment clips to your floor, angle clips at 45 degrees from center line. This places the clips in the open corner of the base. (See below)

STEP 7:

Measure your column opening from top to bottom and cut the column shaft to ¼ " less than the opening.

STEP 8:

Place one half of the column in position, use a level to get it plumb, place the level on the column shaft at the lower straight portion. Make sure to level in both directions. You will need to temporarily secure the first column shaft plumb while you place some marks at the capital for your anchor clips. At the top you can screw through the fiberglass on the flat portion of the capital. Use flathead screws and countersink the fiberglass. Drive the screws in slightly below the surface to allow spot filling with bondo later in the finishing stages. (See below)

STEP 9:

After you have tightened all the screws in the first half of the column you are ready to bond the other half to it. Make sure you have set clips for the other half of the column, mark and pre-drill the fiberglass and counter sink for the screws prior to bonding the halves together. Double check to make sure your first half is plumb and true.

STEP 10:

Before you mix the putty and hardener to install the other half, be sure you have your band clamps or wire ready. You should use a clamp every 2 to 3 feet. You should use some wax paper to place between the straps and the joint. This will keep your clamps clean for future use.

Mix the bonding putty according to direction, than immediately apply the wet putty to the column flanges using a putty knife or disposable brush. Apply putty around the alignment biscuits (this will help keep column halves in alignment.)

Working quickly, re-install the second half of the column. (See Below)

After you have clamped the column, clean up any putty that has oozed of the seams. Use excess putty to fill in any voids in the seams. Clean off and let column set untill the putty is completely hard. (24 hours if possible.)

STEP 11:

Install first half of the base around the column shaft. Bond the second half of the base using the same procedures as in step 10. (See below)

STEP 12:

Bondo finish joints. First lightly grind or sand off any excess putty from the joints, (Use 36 grit.) try to keep all sanding within 2 inches of the joint. Apply a thin layer of bondo to the joint, (Use flexible putty knife or bondo spreader.) remember bondo will not harden unless it is mixed with cream hardener. You must apply the bondo quickly and in thin sweeps, (like joint compound). Sand it within an hour while it is fairly soft. Use 80 grit sandpaper on the first sanding. Spot sweep a second layer of bondo to any low spots as needed. Re-sand then finish sanding using 180 grit then 220.

We recommend that you apply a bondo fillet around the base ring where it engages the column shaft, you also could caulk it with the urethane caulk. (A bondo finished joint looks the best, you can sweep the wet bondo with a radius tool).

STEP 13:

(Painting) If the fiberglass has been factory sanded, you can paint directly on it without primer coats. If the surface is slightly glossy, you will need to scuff sand it with 220 grit prior to painting. You can use any type of good grade house paint or automotive type finishes (these must be applied by spray gun). You may want to spray a coat of lacquer primer over the finished bondo joints.

Resist the temptation to fill the columns solid with other materials, it is risky. Other materials could have adverse effect on the fiberglass. It could also cause problems with expansion between the different materials.

If you have any questions or suggestions, please call our plant at 727-725-2057