AVS COLUMN INSTALLATION INSTRUCTIONS

Materials:

Adhesives:
Stacked Tuscan Columns – Omega "Dry Bond" or Merlex "Polyprep" (Allow for approx. 1 - 50lb. bag per column.)
Split/Whole Columns – Minimal Expanding Liquid Foam (one 16 oz. can per column).
Split Columns - Polyurethane Construction Adhesive

Grout:
The following grout applies to all column styles: (See Grouting section for specific instructions).
Custom Building Products "*Polyblend Sanded Tile Grout"* (available from Hi-Tech Foam Products or Home Depot)
(See Color Chart Appendix B for grout color guidelines.)

Sealant:
Wood sealant or waterproof membrane for protecting structural wood posts when using water-based cement adhesive.

Other Installation Materials:
One or more of the following may be needed depending on the type and scope of project:

- Rubber Gloves
- Bucket
- Sponge
- Sand Paper (60-120 grit)
- Angle Grinder w/ 4" Diamond Blade
- Wood Shims
- Grout Bag
- Dust Mask
- Square
- Safety Glasses
- Level
- Drill Mixer
- Caulking Gun
- Paint Brush
- Wood Handsaw – 18" min.
- Trowel
- Tie Straps– standard load tie downs are recommended to hold column pieces together while adhesive cures (3 each for Split Columns; 1 for each section of a Stacked Tuscan Stacked Column)

Column Preparation (general):

Check all products for measurements and/or delivery damage and store in acceptable storage area prior to installation. Acceptable storage is a dry secure area.

Check Measurements:
- Finished floor to ceiling
- Interior structural member size and shape
- Wood blocks or shims may be necessary to raise column to finished floor height
- If stacking Tuscan style, factor in the size of the horizontal grout joints in overall height calculations

Site Preparation (general):
- Seal or wrap structural wood posts using a Bithuthane wrap, starting from the bottom, working your way up to the top, ensuring that each successive layer overlaps the previous layer – (when using water-based cement adhesive, moisture may swell posts and crack columns. Wrapping as described, ensures that if any moisture is present, it will not come into contact with post)
- Protect work area around column

**Please see note below*

Installation:

Whole Columns (Whole columns are designed to be slipped over structural posts.)

Preparation:
1. Prior to installation ensure that the overall height measurements are accurate.
2. Compare dimensions of interior column cut out to that of the structural post. Allow for a minimum clearance of ¼" on each side to allow for adhesive.
3. Inspect installation area to ensure that there will be no encumbrances to installation.

Installation:
1. Slide column over structural post, dry fitting column.
2. Slide column 60% of the way back up the post. Using nozzle attachment begin applying Minimal Expanding Foam to inside of column in the area between the post and the inside edge of the column. Gradually lower column down the post while continuing to fill inside of column with Foam until the column is lowered to the floor.
3. Once the column is lowered into place, fill remaining interior space of column from the top with Foam, leaving Foam approx. 2" below top of column inside edge.

4. Plumb columns and shim to correct height.
5. For exterior columns with exposed tops, mound grout to form a tapered cap. This allows water to run off the outside of the column, as opposed to the interior. Caulking is required at the seam adjoining column cap to structural post. Exterior columns should also be sealed as described in note below (*)
6. Avoid getting Foam Adhesive on exterior surface of column. If this occurs, allow Liquid Foam to dry prior to cleaning. Use sandpaper to sand Liquid Foam off column, being careful not to damage column exterior finish.

Split columns

Preparation: (Tuscan Stacked Columns *and* Split Columns)
1. Prior to installation ensure that the overall height measurements are accurate. For Tuscan stacked columns, be sure to factor in the size of the horizontal grout joints in overall height calculations
2. Compare dimensions of interior column cut out to that of the structural post. Allow for a minimum clearance of ¼" on each side to allow for adhesive.
3. For Tuscan Stacked columns, which require cutting, organize your workspace allowing room for several stacks of cut pieces. (To ensure a correct fit it is critical that adjoining pieces be kept together right side up after cutting)
4. Inspect installation area to ensure that there will be no encumbrances to installation.

Installation:
1. Dry fit column by bringing the two halves of the column together around structural post. Vertical joints should not exceed ¼". For whole columns, dry fit by sliding entire column over structural post.
2. Lay the two column halves open side up on a flat surface. Using Minimal Expanding Foam, lay a continuous bead along the interior 90-degree corners of each half. Lay a total of 4 bead lines per column.
3. Using a caulking gun, lay a 3/8" bead of Polyurethane Construction Adhesive on each interior cut edge of the column. To avoid overspill when column halves are placed together, do not place Adhesive within 2" of outside edge of column.
4. Immediately place two column halves in place around the structural post, securing them with tie straps. Using three straps per column, secure the bottom, center and top of each column pulling the straps snug, adding grout shims. Over tightening straps may damage columns.
5. Plumb columns and shim to correct height.
6. For exterior columns with exposed tops, mound grout to form a tapered cap. This allows water to run off the outside of the column, as opposed to the interior. Caulking is required at the seam adjoining column cap to structural post. Exterior columns should also be sealed as described in note below (*)
7. Avoid getting Foam Adhesive on exterior surface of column. If this occurs, allow Liquid Foam to dry prior to cleaning. Use sandpaper to sand Liquid Foam off column, being careful not to damage column exterior finish.

Tuscan Stacked Columns

Preparation:
(see Split Column preparation instructions above)

Installation:
1. Using an angle grinder with 4" diamond blade, cut along horizontal factory scored joints through the outer coating.
2. Using a wood handsaw, finish the horizontal cuts through the foam. It is not necessary to cut vertical joints as they arrive pre-cut from the factory.
3. Mix cement adhesive according to manufacturers instructions. Approximately one 50# bag per column per 8-foot column.
4. Starting at the bottom, apply adhesive to inside cut edges (those edges that will meet up with one another when placed together) of the column.
5. Set sections in place around structural post and use tie straps to snug together. Gently shim column halves until plumb, and the joint spacing is equal on each side.
6. To prevent staining, wipe off any excess adhesive immediately with a damp sponge.
7. Using a margin trowel fill center space of column with adhesive.
8. Apply adhesive, ¼" thick, to top edge of first installed pieces. Also apply adhesive to inside cut edges of the next two pieces.
9. Using tie straps, secure next two pieces around the structural pole. Check that vertical grout joints of second section are offset 90-degree from grout joints of bottom set.
10. Continue steps 4-9 until column is complete.
11. For exterior columns with exposed tops, mound grout to form a tapered cap. This allows water to run off the outside of the column, as opposed to the interior. Caulking is required at the seam adjoining column cap to structural post. Exterior columns should also be sealed as described in note below (*)

* **Note – For *all* columns with exposed tops, it is essential that the top of the column is sealed with a siliconized or polyurethane sealant, in order to prevent moisture from seeping or leaking into interior of column.**