Fiberglass Column Installation Instructions

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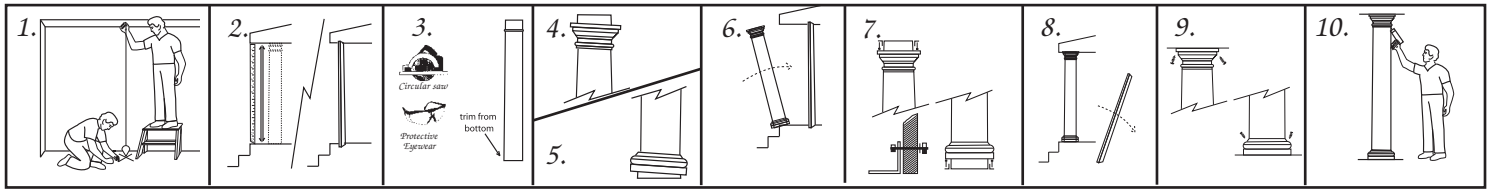
FIBERGLASS COLUMNS INSTALLATION

1. Deter mine the position of the plinth by dropping a plumb line from the center of the soffit Beam to the floor. Mark this point on the floor with a "X". This mark is where you will center The plinth so that the top of the shaft will align with the soffit. (Figure 1)
2. Measure the overall height. Raise the soffit or porch slightly with brace for easy installation of The column. (Figure 2)
3. Trim column shaft on the bottom end only. Trim with an abrasive saw. (Be sure to use personal Protective wear.) Finish both the top and bottom of shaft with a rasp or sander to ensure An even load distribution around the entire circumference. (Figure 3)
4. Slide cap over top of column shaft. Let cap slide down to rest on the neck mold temporarily Until shaft is correctly positioned. (If installing a square column, slide neck mold over top of Shaft to desired location. Fasten neck mold to shaft. Caulk between neck mold and shaft.) (Figure 4)
5. Slide base/plinth onto column shaft from bottom. (Figure 5)
6. Place column in a vertical position with load centered over column shaft with even distribution around bearing surfaces. (Figure 6)
7. If installation requires that column be secured in place prior to bearing load, use small L Brackets . Be careful to ensure L brackets do not interfere with seating of cap and base/plinth. Note: To secure bracket to column, drill hole into shaft and use through bolts. Do not use Screws. Do not over tighten. (Figure 7)
8. Remove brace to allow load to bear on column shaft. (Figure 8)
9. POLYURETHANE Cap and Base/Plinth: Slide cap up to soffit and attach to soffit using Corrosion resistant screws. Attach to floor using appropriate fasteners. (Figure 9)
SYNTHETIC INJECTION MOLDED (SIM) Cap and Base/Plinth: Attach using corrosion Resistant screws in the holes pre-molded in the cap and base/plinth. Fill holes with exterior Caulk or filler .
10. Caulk between cap and soffit, the cap and shaft, and the base and the shaft for a finished Appearance. (Figure 10)



A. SPECIAL NOTES AND EXCEPTIONS

- Be certain the load is evenly distributed over the bearing surface of the shaft.
- If building code requires uplift protection, contact your supplier for recommendations.
- To preserve and protect the column it is necessary to paint with one coat of high quality exterior Primer followed by two coats of an exterior paint.
- 2nd floor balconies should NOT be attached directly to the side of any fiberglass column.
- Water should not be allowed to collect inside fiberglass columns. Flashing may be required to Channel water away from the inside of the column. A drainage hole can be drilled in the bottom Of the shaft and plinth if necessary.
- Concrete should never be used to fill Fiberglass Columns. This will void the warranty.
- Columns should never be sprayed with water prior to installation.
- Columns should never be pressure washed.
- Spray painting is not recommended. Paint should be applied with a brush.
- Do not paint dark colors (dark colors are considered any color that falls within the L values of 56 to 0). L is a measure of the Lightness of an object, and ranges from 0 (black) to 100 (white).

B. FINISHING AND PAINTING INSTRUCTIONS

1. Make sure all surfaces are clean prior to painting. Use mineral spirits if oil or alkyd products Are used. Warm soapy water should be used if latex products are utilized. Synthetic cap and Base/plinth: A non-oil based cleaner should be used to clean the cap/base/plinth. NOTE: Columns should never be sprayed with water prior to installation.
2. It is necessary to sand the column and caps and bases prior to priming and painting. Some surface Filling may be required. Note: The surface on polyurethane caps and base/plinths must be Thoroughly scuff sanded with 120 grit sandpaper and wiped clean prior to priming and painting.
3. Alky d or oil based primer and paint are recommended. Latex products can be used, but additional Sanding is required. Synthetic cap and base/plinth: Use a good high-quality exterior paint. At least one coat of primer and two coats of final paint should be used. Suggested primer for Synthetic Injection Molded (SIM) cap and base/plinth: XIM Primer 400 White, or any primer Made for use on fiberglass or plastics.
4. Use a good, high-quality exterior paint. At least one coat of primer and two coats of a final Paint should be used. NOTE: Spray painting is not recommended. Paint should be Applied with a brush. Do not paint dark colors (dark colors are considered any color That falls within the L values of 56 to 0). L is a measure of the Lightness of an object, And ranges from 0 (black) to 100 (white).
5. Follow paint manufacturer's instructions concerning use within temperature ranges for best results.
6. Do not use paint or solvents containing acetone.

C. ALTEARING COLUMNS

1) CUTTING TO OVERALL LENGTH

Columns can be field trimmed to a specified length. When trimming a round fiberglass column Shaft to length, make sure to always trim from the bottom end only. A circular saw with an abrasive Blade can be used to make this cut. (Make sure to always wear personal protective equipment.) It is important to never trim more than the bottom 1/3 of any round fiberglass column Shaft. The round fiberglass column has a true architectural taper. (The bottom 1/3 is none tapered, the top 2/3 is tapered.) If more than the bottom 1/3 is trimmed, the base will not fit Properly. Square Fiberglass Columns can be trimmed to any length because they are non-tapered.

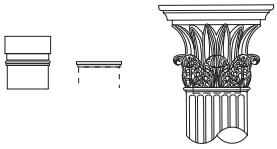
2) ALTERING FLUTES

Flutes can be altered only on the adjustable fluted columns if ordered as a special order from the Factory. Flutes normally need to be altered if the column will be trimmed in order to avoid cutting Into the flutes. Or, it may be desired to stop the flutes closer to the top of the base. Standard Stock adjustable fluted columns have a 10 3/4" space from the bottom of the flute to the top of The Tuscan base/plinth.

3) CUTTING COLUMN AT BEAD

All fiberglass columns used with decorative capitals should be trimmed flush above the Bead/astragal. The capital should rest on top of the bead/astragal and will allow for a proper fit. Columns can be ordered from the factory cut at the bead, or this can be trimmed in the field. A Circular saw with an abrasive blade can be used to trim a column at the bead/astragal. (Make Sure to use personal protective equipment.) There are several considerations to be made when Ordering fiberglass columns used with decorative capitals. The cut at bead loss and the decorative Capital height must always be taken into consideration. In addition, a fiberglass column used With a short decorative capital may require that a longer shaft be ordered.

D. JOINING SPLIT COLUMNS



The Split Kit includes everything needed to install a split Column. Columns that are split to surround structural supports Should be installed similarly to un-split columns. However, the following procedures should be followed When putting the split halves back together:
1. Split columns are shipped from the factory with matching Halves wrapped together. Keep the column halves together as packaged and Mark the column halves by set numbers so that they cannot be mismatched. It is important to reassemble split halves as soon as possible after shipping. We do not recommend storing for an extended amount of time. Make sure column halves match before applying bonding adhesive. Level and check your measurements, and then install split halves around The structural support.
2. Rejoin the shaft using a high quality, exterior, water proof construction adhesive suitable for fiber glass columns. Surfaces must be Clean and dry prior to applying adhesive. Follow adhesive manufacturer's instructions concerning use within temperature ranges and Working time for best results.
3. Align halves around the post or structural support and join together. Clamp and tighten uniformly until adhesive sets. (Alter natively, nylon Reinforced tape wrapped very tightly around the column can be used.) The compression should be applied approximately every 12" along The length of the shaft.
4. Place aluminum plates across split at top and bottom of shaft. Mark and pre-drill holes using a 7/64" bit.
5. Screw down one side of aluminum plate and then the other side of the plate. The aluminum plates will bend around the shaft. This step Should be done for all plates.
6. After adhesive cures, remove the clamps, straps or tape. Rough sand with 80 grit and finish sand with 120 grit or finer sandpaper.
7. Rejoin and attach the caps and base/plinths with the same adhesive.
8. A fiberglass boat repair kit or "Bondo" may be used as filler. Follow the instructions on the package. Suggested Adhesives: CX-948, OSI Quick bond Multi-Purpose Adhesive, Macklandburg-Duncan Contractor's Choice Multi-Purpose Adhesive, 3M-5200 Adhesive, PL-400, Titebond, Maxbond or Akemi APF7

E. HOW TO SPLIT FIBERGLASS/ WOOD COLUMNS

1. Secure column to sawhorse or table using scotches. Scotches should be wrapped with cloth Material to provide cushion and to avoid scratching column.
2. Place the scotches snugly against the column ensuring that the column will remain in place While being cut.
3. After column is secured, a chalk line should be applied to the column. To lay the chalk line, Place a string over the base end diameter of the column to the center of the string ensuring that The string is centered. Mark the column on the top where the string is centered. Run the chalk Line from the mark on the top end of the column to the mark on the base end and snap the chalk Line.
4. To make the bottom line, use a circumference measuring tape and measure the circumference Distance from the top mark and place a mark on the bottom of the column.
5. Once both chalk lines have been applied to the column, set the saw blade at the appropriate Depth ensuring that it will pass cleanly through the bead/astragal.
6. Use a circular saw with an abrasive blade. (Make sure to use personal protective equipment.) Begin sawing from the base end moving to the bead/astragal end. Rotate column and repeat Sawing on the bottom.

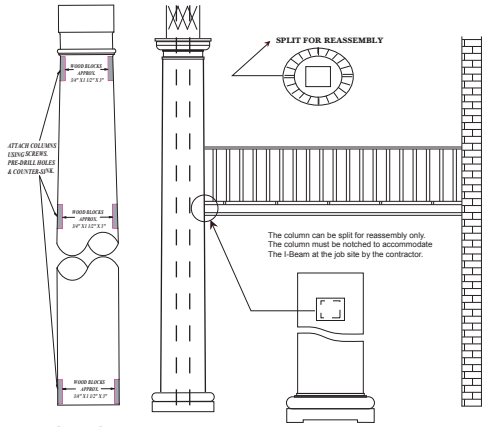
F. HOW TO ATTACH A SPLIT FIBERGLASS/WOOD COLUMN TO A WALL AS A PILASTER

(If you are installing Decorative Capitals, see 'Decorative Capital' section for a detailed drawing Of the capital attachment.)
1. Select desired location and trace short lines at the top, midpoint, and bottom on both sides of The split column.
2. Gage the thickness of the column wall and trace lines to show where the inside wall will be at

Fiberglass Column Installation Instructions (cont.)

FIBERGLASS COLUMNS INSTALLATION continued

The top, midpoint, and bottom. Note: Wall thickness on fiberglass columns at the top is widest Because of the flare just above the bead.
3. Attach six wood blocks (two screws per block) to the building wall just inside the traced lines You marked in step two. The block dimensions should be approximately 3/4" x 1 1/2" x 3". Make sure that the top and bottom blocks are placed within the heights of the cap and base so That finishing will not be required with the countersunk holes.
4. Drill six holes in the column wall at the points where the screws will line up with the blocks Installed in step three. Holes should be countersunk so that the head of the screw will be slightly Below the surface of the column wall.
5. Place the split column in position and fasten it to the wood blocks. Screws should be snug. Do Not over tighten because the column wall can be damaged.
6. Attach split cap and base/plinths using dry wall Screws. Make sure to pre-drill Holes. Fasten cap and base/plinth to wall, ceiling or Floor.
7. Caulk joints and seam Where the column edge meets The wall.
8. Patch over the countersunk Screws at the midpoint of the Column using a two-part filler (i.e. "Bondo", Fiberglass Boat Repair Kit). The cap and base/plinth will cover the Counter screws at the bottom And the top.



G. 2ND STORY BALCONY SUGGESTIONS

It is not recommended that the floor joist for a second story porch or balcony be connected to a Wood or fiberglass column. The recommended technique involves the use of a structural column Or support column (sometimes referred to as a "lolly" column).
A joist hanger is attached to the lolly column at the appropriate height above ground. The floor Joist is supported by the lolly column. The column itself should be split and the contractor can Notch the column on the job site at the appropriate height to allow the floor joist to pass through The column. The weight supported by the floor joist, however, does not rest on the bottom of the Notch. Instead, the weight rests on the lolly column. The split column is reassembled around the Lolly column.
Note: This is a suggested installation technique. Please contact a structural engineer to certify Your particular application.

H. SQUARE RECESSED PANEL INSTALLATION INSTRUCTIONS

ATTACHING PANEL INSERT KITS and/or PANEL DIVIDER KITS:

1. Before installation, apply the panel insert pieces to the top and bottom of each side of the column Shaft. Each column will include (4) top panel insert pieces and (4) bottom panel insert pieces. The pieces can be attached to the shaft using a construction adhesive. Follow the instructions on The package.
2. If using panel divider pieces to achieve a two-panel or three-panel column, they are attached In the same manner as the panel insert pieces. First measure and determine the placement of each Of the panel divider pieces and attach to each side of the column shaft using a construction adhesive. Follow the instructions on the package.
3. Fill the seams where the panel insert pieces and/or panel divider pieces meet the shaft with a Fiberglass boat repair kit or “Bondo”. Follow the instructions on the package.
4. Proceed to Column Installation Steps 1 through 10.

SQUARE RECESSED PANEL FIGURES:

Figure A
Top/Bottom Panel Insert Iece

Figure B
Panel Divider Piece

Figure C
Recessed Panel Shaft Only - No Top/Bottom Panel Insert Pieces Attached

Figure D
Recessed Panel Shaft With Top/Bottom Panel Insert Piece Being Slipped Into Place

Figure E
Top/Bottom Panel Insert Piece Attached to Shaft

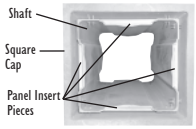


Figure F
Top Overview of Column Shaft With Top Panel Insert Pieces Attached and Capital Slipped Over the Shaft

Figure G
Finished Column with Top/Bottom Panel Insert Pieces and Cap, Bead and Base/Plinth Set

DECORATIVE CAPITALS INSTALLATION

A. PAINTING AND FINISHING INSTRUCTIONS

1. Make sure all surfaces are clean prior to painting. Use mineral spirits if oil or alkyd products Are used. Warm soapy water should be used if latex products are utilized. It may be necessary To sand Decorative Capitals prior to priming and painting. Some cosmetic filling may be Required.
2. Alkyd or oil based primer and paint are recommended. Latex products may be used, but Additional sanding may be required.
3. Use a good high-quality exterior paint. At least one coat of primer and two coats of final Paint are recommended.
4. Follow paint manufacturer’s instructions concerning use within temperature ranges for best Results.
5. Do not use paint or solvents containing acetone.

B. WEIGHT NOTE

Due to the weight of Decorative Capitals, equipment may be required to lift the Decorative Capitals in position. The job site contractor and engineer should be consulted in each application.

C. FIBERGLASS COLUMN INSTALLATION INSTRUCTIONS WITH DECORATIVE CAPITALS

1. Determine the position of the base/plinth by dropping a plumb line from the center of the Soffit beam to the floor. Mark this point on the floor with an “X”. This mark is where you will Center the base/plinth so that the top of the shaft and capital will align with the soffit.
2. Measure the overall height. Raise the soffit slightly with a brace for easy installation of the Column.
3. Trim column shaft on the bottom end only. Trim with an abrasive saw. (Be sure to use personal Protective wear.) Finish the bottom of the shaft with a rasp or sander to ensure an even Load distribution around the entire circumference.
4. All Fiberglass Columns used with Decorative Capitals should be trimmed flush above the Bead/astragal. The capital should rest on top of the bead/astragal and will allow for a proper Fit. Columns can be ordered from the factory cut at the bead, or this can be trimmed in the Field. A circular saw with an abrasive blade can be used to trim a column at the bead/astragal. (Make sure to use personal protective equipment.) There are several considerations to be made When ordering Fiberglass Columns used with Decorative Capitals: (a) The cut at bead loss and The decorative capital height must always be taken into consideration. (b) In addition, any column Used with a short decorative capital may require that a longer shaft be ordered.
5. Slide base/plinth onto column shaft from bottom.
6. Place column in a vertical position.
7. When installing a Fiberglass Column with a Decorative Capital, the column shaft should be Lifted into place first, then the Decorative Capital should be lifted into position and centered on Top of the shaft.
8. Decorative Capitals should be anchored to the soffit by pre-drilling and using a toenailing Attachment. Use stainless steel screws and seal with waterproof silicon caulk. See Figure 1.
9. Attach the Decorative Capital to the shaft by drilling pilot holes through the shaft and into The base of the capital and secure with a toe nailing attachment.
10. If installation requires that column be secured in place at the bottom prior to bearing load, Use small “L” brackets. Be careful to ensure “L” brackets do not interfere with the seating of The base/plinth. Note: To secure bracket to column, drill hole into shaft and use through bolts. Do not use screws. Do not over tighten.
11. Remove brace to allow load to bear on column shaft.
12. Attach base/plinth to floor using appropriate fasteners.
13. Caulk between the cap and soffit, the cap and shaft, and the base and the shaft for a finished Appearance.

D. JOINING SPLIT DECORATIVE CAPITALS

1. A Apply at wo-part e epoxy and join the two halves together.
2. Use strapping to hold the capitals together while epoxy is curing.

E. HOW TO ATTACH DECORATIVE CAPITALS TO A WALL AS A PILASTER.

See Figure 2. Refer to Section F for more details.

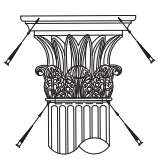


Figure 1

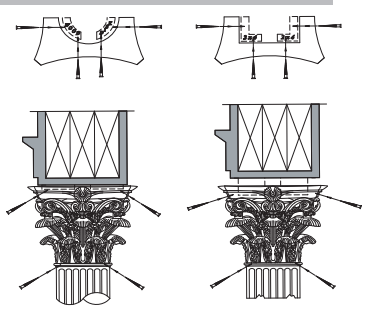


Figure 2