

# CHADSWORTH'S 1.800.COLUMN<sup>®</sup>

## CLASSIC STOCK COLUMNS



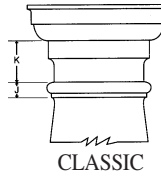
### General Information

- A. Storage of columns must be in a dry and well ventilated area.
- B. Before installation, sand then paint shafts, capitals and bases with 2 coats of oil-based primer, followed by 2 coats of oil-based exterior paint. Columns may need finish work prior to application of oil-based exterior primer and paint. We do not recommend storing columns. If they must be stored, however, they must be painted first and stored in a dry, well-ventilated area to protect against moisture. **DO NOT USE LATEX PAINT**
- Columns must be completely protected from moisture before and after installation. Priming of the column does not protect the column from moisture.
- C. Both ends of the column shaft should be sanded, primed and painted. It is extremely important to completely protect the column from moisture before and after installation.
- D. On exterior columns, we recommend the application of one coat of asphaltum or a good quality oil-based paint on the inside of the shaft four feet up from the bottom & four feet down from the top.
- E. If a furniture finish is required—extensive sanding & priming is necessary.
- F. Ventilation must be provided at the top of the column by a recessed soffit. Polyurethane capitals are vented. Ventilation is provided at the bottom of the column by the polyurethane or wooden base or aluminum plinth. **This ventilation must be maintained at all times for exterior columns.**

VENTILATION IS IMPERATIVE FOR THE LONGEVITY OF YOUR COLUMN. IF COLUMN IS NOT PROPERLY VENTED, THE PAINT MAY PEEL AND THE COLUMN MAY CRACK AND YOUR WARRANTY WOULD BE VOIDED.

A

### Shaft Assembly



CLASSIC

- A. If you are using a plain wooden or polyurethane capital, trim the top of the column shaft (top of section "K" on diagram) so that staves are of equal length.

If shaft is trimmed to length, the ends should be sealed with a wood preservative or water sealer followed by two coats of exterior oil-based primer and then exterior oil-based paint. This will help prevent moisture related cracks and premature decay or rot.

- B. If you are using a decorative plaster capital which will be mounted on the column astragal - section "J", then first cut off all of section "K" and adjust the length unless done in factory.



COLONIAL

- C. Cut at the bottom of the shaft to produce the proper length for your installation unless done in factory.

- D. Apply caulking compound between base and shaft.

- E. Nail or screw shaft to base.

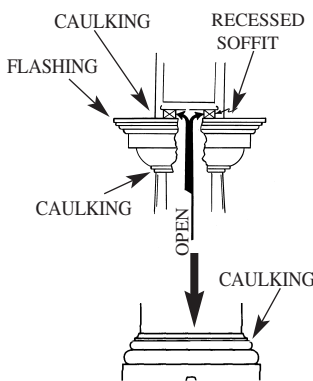
### Joining Split Columns, Capitals & Bases/Plinths - See page 6.

B

### Polyurethane Base/Plinth

- A. On stock columns with 20" diameters or smaller, install two corrosion resistant dowels into the floor. Use a template to mark the location of the dowel placement in the bottom of the polyurethane base/plinth and the flooring. Place the polyurethane plinth/base into the proper position on the floor to make sure that dowels are aligned. This will prevent the base/plinth from moving laterally.
- B. Level the plinth, if necessary, by scribing it to the floor. It is very important that the plinth is dead level before proceeding to the next step.
- C. On stock columns with 12" diameters or smaller, drill holes into the plinth and screw from the bottom of the plinth up into the bottom of the shaft. On stock columns with 14" diameters or larger, drill holes through shaft into base. Attach with drywall screws at an angle.

- D. Place the base and shaft assembly over the corrosion resistant dowels.



C

### Polyurethane or Plain Wooden Capital

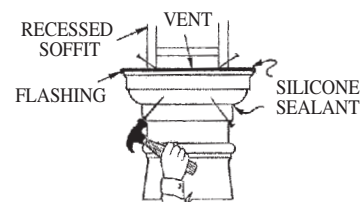
- A. Nail or screw capital to column shaft. Nail or screw to soffit. Polyurethane capitals do not need flashing.

To prevent water from damaging exterior wooden capitals, install flashing over capital by bending the metal over the edges of the capital leaving space for ventilation.

- B. Use shims to lock the capital in place where the overhead structure cannot be raised.

- C. Use caulking compound to seal the joint between soffit and flashing (wooden capitals) and between shaft and capital.

- D. After installation, paint entire column assembly with one final coat of oil-based exterior paint.



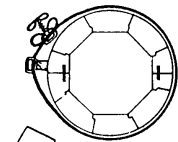
### Decorative Composition Capitals

Use same procedure as Authentic Replication Columns.

D

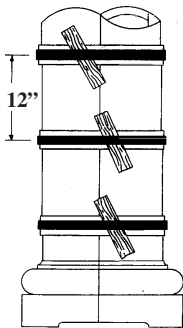
# SPECIAL INSTALLATIONS

## Split Columns



Columns that are split to surround a structural steel beam should be installed similarly to unsplit columns. However, the following procedures should be followed in putting the split parts back together.

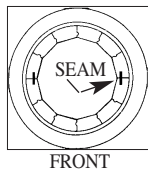
Keep all seams at 90 degree to front view. Halves will arrive marked. Be careful to keep proper halves together.



2. The shaft should be glued using exterior waterproof glue. Follow glue manufacturer's instructions for applying glue. Do a trial fit before applying glue to the wood.

3. Place nylon clamps or steel strapping not less than one foot apart along the length of the shaft. To prevent damage to the shaft, use protective material beneath the clamps before tightening.

4. Adjust clamps and use blocking where necessary to pull column into round. It may also be necessary to tap along seam with a rubber mallet. Check and be certain there is complete contact all along the joint, then remove excess glue.



5. Fill any gaps and all seams with wood filler and sand smooth with 100 grit sandpaper. Immediately reprime and paint with an exterior oil-based primer and paint.

A

## Using as Pilasters

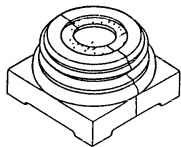
Columns which are split for pilasters must be caulked around all edges to prevent moisture from entering the shaft.

1. Apply a furring strip as a nailer the entire length of the pilaster and capital from floor to ceiling.
2. Drill pilot holes for screws on each side of the seam and angle to attach to the shaft.
3. Counter sink screws into the strips of wood.
4. Fill all seams and caulk the areas of the capital that attach to shaft.

B

## Fiberglass Base/Plinth

The two-piece wood plug should be joined with wood screws. The fiberglass base halves should be joined with epoxy cement.



## Cast Marble Base/Aluminum Plinth

1. Fill aluminum plinth joints with liquid aluminum.
2. Fill joints in marble parts with an automobile body filler.
3. Glue wood caps and bases using exterior waterproof glue.

## Joining Fiberglass Capitals

Refer to capital installation. The two-piece wood plug should be joined with wood screws. The fiberglass halves should be joined with epoxy cement.



## Joining Wood Capitals & Bases

Refer to capital installation. The wood halves should be joined using exterior waterproof glue.

C

## Joining Split Decorative Composition Capitals

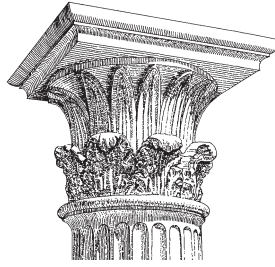
1. Follow general instructions for capital installation.
3. Drill pilot holes for screws on each side of the seam and angle to attach to the shaft.
3. Caulk the areas of the capital that attach to shaft.
4. Clean cut surfaces of capital with shellac. Use a bead of construction adhesive along the seams.
5. Press the two halves together and allow to dry completely.
6. Using galvanized or stainless steel screws, attach the capital to the shaft or plug.
7. Caulk around all edges making certain that no parts are exposed.
8. Put patching plaster along the seam and sand to make it smooth.

## Decorative Capital Repairs

**Cracks** - If a capital should get a very small crack, then make the crack slightly larger and apply a coat of shellac and let dry. The thin edge of a small putty knife or any similar object inserted into the crack will enlarge it slightly. Then put a plaster or molding compound over the crack and allow to dry.

**Broken Pieces** - Shellac both pieces and then glue them together with any high quality wood bonding agent.

D



## **INHERENT CHARACTERISTICS OF WOOD**

This advisory concerns prevention of dimensional problems in architectural woodwork products as the result of uncontrolled relative humidity. It is further intended as a reminder of the natural dimensional properties of wood and wood-based products and of the routine and necessary care and responsibilities which must be assumed by those involved.

For centuries, wood has served as a successful material for architectural woodwork, and as history has shown wood products perform with complete satisfaction when correctly designed and used. Problems directly or indirectly attributed to dimensional change of the wood are usually, in fact, the result of faulty design, or improper humidity conditions during site storage, installation, or use.

Wood is a hygroscopic material, and under normal use conditions all wood products contain some moisture. Wood readily exchanges this molecular moisture with the water vapor in the surrounding atmosphere according to the existing relative humidity. In high humidity, wood picks up moisture and swells; in low humidity wood releases moisture and shrinks. As normal minor fluctuations in humidity occur, the resulting dimensional response in properly designed construction will be insignificant. To avoid problems, it is recommended that relative humidity be maintained with the range of 25%-55%. Uncontrolled extremes (below 20% or above 80% relative humidity) can likely cause problems.

Together with proper design, fabrication, and installation, humidity control is obviously the important factor in preventing dimensional change problems.

Architectural woodwork products are manufactured as designed from wood that has been kiln dried to an appropriate average moisture content and maintained at this condition up to the time of delivery. Subsequent dimensional change in wood is and always has been an inherent natural property of wood. These changes cannot be the responsibility of the manufacturer or products made from it. Specifically:

- Responsibility for dimensional change problems in wood products resulting from improper design rests with the designer/architect/specifier.
- Responsibility for dimensional change problems in wood products resulting from improper relative humidity exposure during site storage and installation rests with the contractor.
- Responsibility for dimensional change problems in wood products resulting from humidity extremes after occupancy rests with engineering and maintenance.

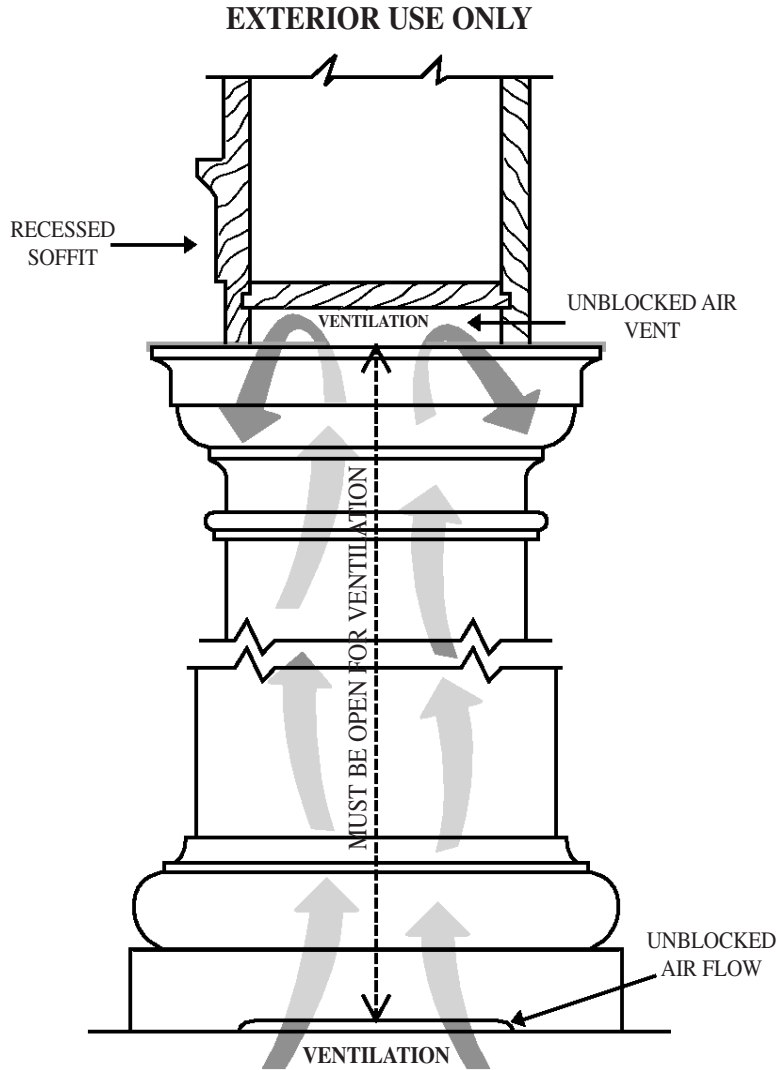
It is normal for wood to expand or contract with changes in atmospheric conditions. Wood will adjust to climate. Checking may occur.

## **VARIATIONS IN NATURAL WOOD PRODUCTS**

Wood is a natural material, with variations in color, texture and figure. These variations are influenced by the natural growing process and are uncontrollable by the woodworker. The color of wood within a tree varies between the “sapwood” (the outer layers of the tree which continue to transport sap), which is usually lighter in color than the “heartwood” (the inner layers in which the cells have become filled with natural deposits). Various species produce different grain patterns (figures), which will influence the selection process. There will be variations of grain patterns with any selected species. The architectural woodworker cannot select solid lumber cuttings within a species by grain and color in the same manner in which the veneers may be selected. Color, texture, and grain variations will occur in the finest architectural woodworking.

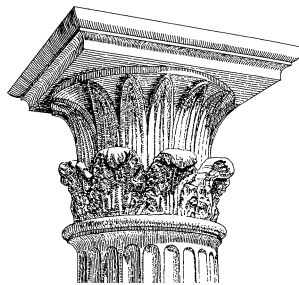
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# VENTILATION INSTRUCTIONS



*Ventilation must be provided at the top and bottom of the columns. Air flow must move through the center of the column, capital and flashing into a recessed soffit and through the base and plinth.*

*The installing contractor must provide this ventilation with a recessed soffit and open plinth for the warranty of the column.*



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**www.columns.com**

**1.800.486.2118**

HISTORIC WILMINGTON, NORTH CAROLINA  
910.763.7600 • FACSIMILE 910.763.3191  
ATLANTA • LONDON