

COLUMN
INSTALLATION
INSTRUCTIONS

TURNCRAFT ARCHITECTURAL





Figure 2-1



Figure 2-2

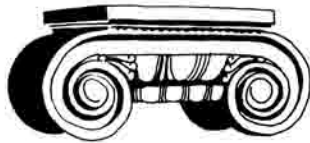


Figure 2-3

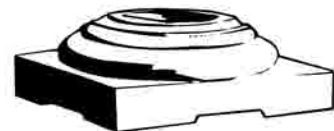


Figure 2-5

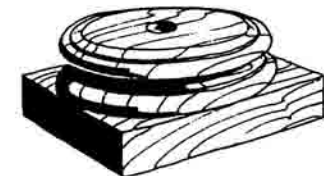


Figure 2-6

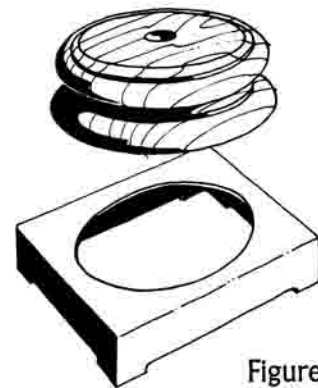


Figure 2-7

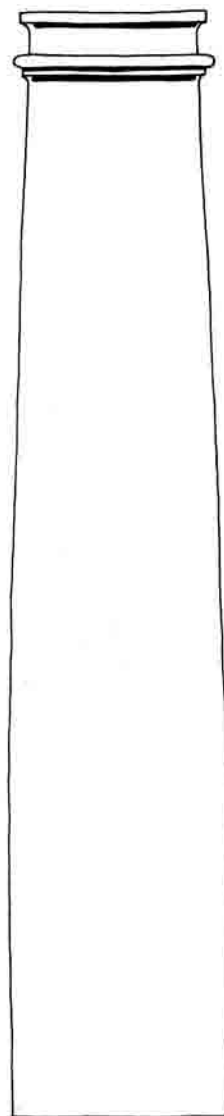


Figure 2-4

What you need for an effective installation

Your selection of standard or special-order capital:

- Fiberglass capitals are standard on all exterior applications except in smaller sizes where polyurethane caps are sometimes used (Fig. 2-1).
- Wood capitals are available for interior applications (Fig. 2-2).
- Composition capitals and plugs are available by special order (Fig. 2-3).

Shaft

Shafts should always be ordered for their specific application—interior or exterior. Remember that split shafts cannot be load bearing (Fig. 2-4).

Your selection of standard or special-order base & plinth set:

- One-piece fiberglass bases with integrated plinths are standard with Turncraft Classic Columns. Polyurethane bases with integrated plinths are sometimes used in smaller sizes (Fig. 2-5).
- Wood bases with wood plinths are standard on Turncraft Classic Interior Columns (Fig. 2-6).
- Wood bases with separate aluminum plinths are available by special order (Fig. 2-7).

Recessed or Vented Soffit

Columns must always have adequate ventilation. This can be supplied in two (2) ways: a ventilated plinth (Fig. 2-8) and soffit (Fig. 2-9), or a ventilated plinth and recessed soffit (Fig. 2-10).

This ventilation must be provided by the installing contractor. Turncraft will warranty only columns that have been installed with a ventilated plinth and recessed or ventilated soffit as shown.

Note: Aluminum plinths, polyurethane bases, or fiberglass bases must be used as a barrier against concrete or brick.

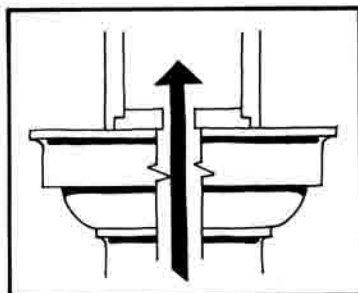


Figure 2-8

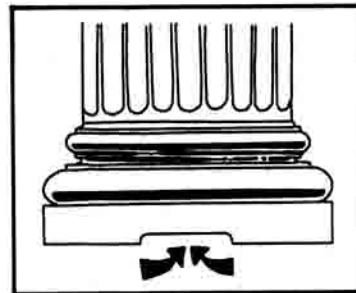


Figure 2-9

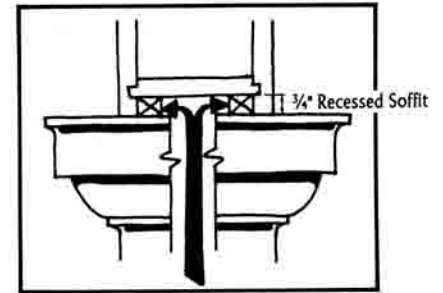


Figure 2-10

Assembly Materials:

[Fig. 2-11]

- 2-1/2" corrosion-resistant drywall screws or finishing nails made of monel, silicon bronze, or stainless steel
- 6" noncorrosive dowels or masonry plugs & screws
- Highest-quality silicone caulk
- Resourcinal wood adhesive (for split columns only)
- Shellac
- Flashing
- Multiple cabinetmaker's band clamps (for split columns only)

Prefinishing Materials:

[Fig. 2-12]

- 100-grit sandpaper
- Oil-base primer
- Asphalt wood sealer

Finishing Materials:

[Fig. 2-13]

- 220-grit sandpaper
- Patching plaster
- Wood putty
- Wood filler
- Liquid aluminum
- Oil-base exterior paint

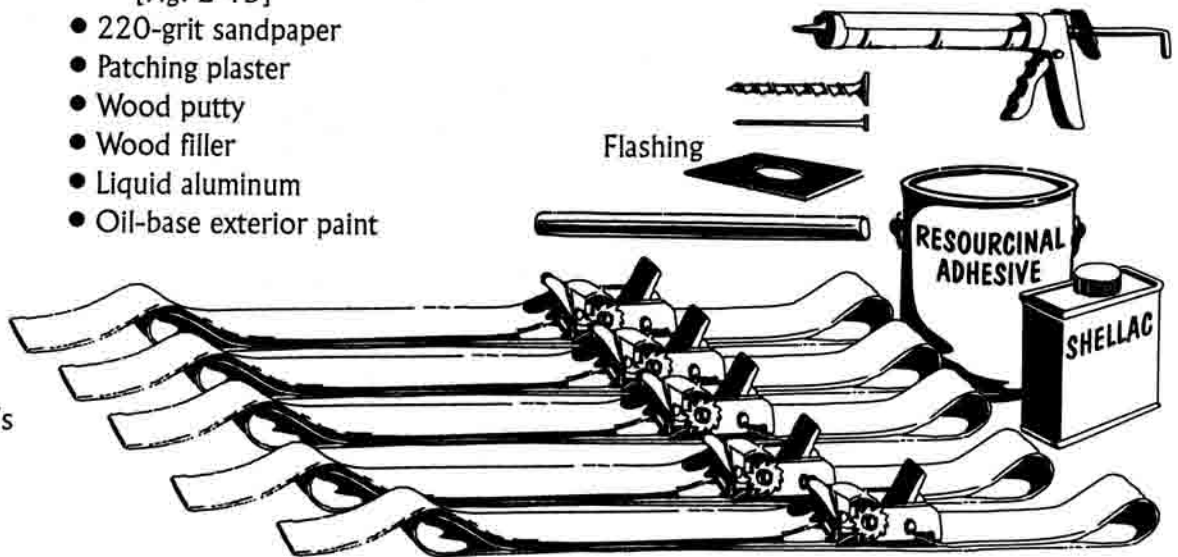


Figure 2-11

Storage & prefinishing

- Column shafts, capitals, and bases must be stored in a dry, well-ventilated area in moderate temperatures. Extreme wet or dry temperature variance must be avoided. Before exposure to weather, all wooden parts must be primed with a minimum of two (2) coats of a quality oil-base or acrylic-latex primer and one (1) coat of paint. Do not use alcohol-base sealers
- Additionally, asphaltum should be applied a minimum of three (3) feet up the inside of the column shaft and the inside wall of a wooden base.
- Before installing or before storing outside, apply at least two (2) coats of a quality oil-base primer to inside and outside of ornamental capitals.
- If you are using split bases, shafts, and capitals, be sure to mark each set so that you can keep the matching halves together later on during assembly.
- When assembling split columns, always follow glue manufacturer's instructions. We recommend Weldwood Resourcinal by Dap or Elmer's Water-proof Resourcinal. Proper application includes preheating wood and workspace to 70° F and maintaining for 10 hours to avoid joint failure.

Note: If a composite ornamental capital has absorbed too much moisture or has become wet before painting, the primer coats will peel. In that event, the capital will resist further attempts to paint and will deteriorate.



Figure 2-12



Figure 2-13

Installation of base with separate or integrated plinth

1. Mark the column location desired in the side-to-side center of the soffit. Then drop a plumb line from that mark to the deck for shaft centerline (Fig. 4-1).

2. It is recommended that you install non-corroding steel dowels in the deck to prevent the column from moving laterally. These should be positioned to set just inside opposite (diagonal) corners of the plinth and should protrude from the deck 1-1/2" (Fig. 4-2).

3. Position base over dowels and check for level. Most decks are pitched to ensure runoff of moisture. If necessary, scribe and trim the plinth to level (using a fine-toothed hacksaw if plinth is aluminum, or a fine-toothed wood saw if plinth is wood, polyurethane, or fiberglass). Make sure that you maintain the same amount of ventilation as supplied (Fig. 4-3).

If you are using an aluminum plinth with a wood base:

4. Predrill a minimum of four (4) holes in the plinth for attaching to the base. Then turn the base over and caulk the area where base and plinth meet. Attach plinth to base using 2-1/2" drywall screws (Fig. 4-4).

5. Reset assembly over dowels and recheck level.

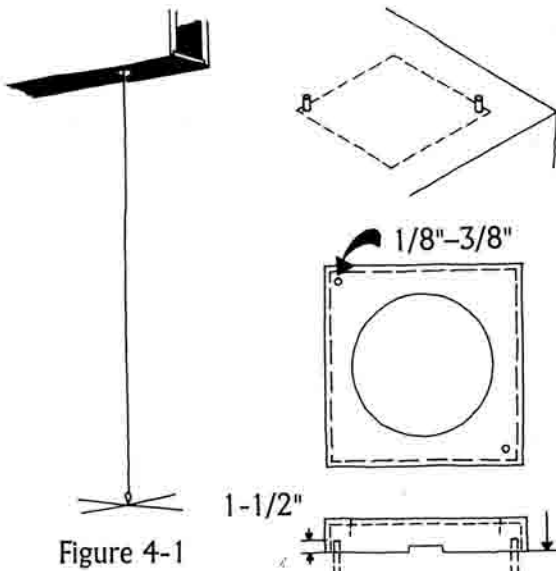


Figure 4-1

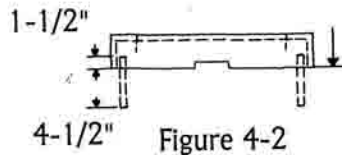


Figure 4-2

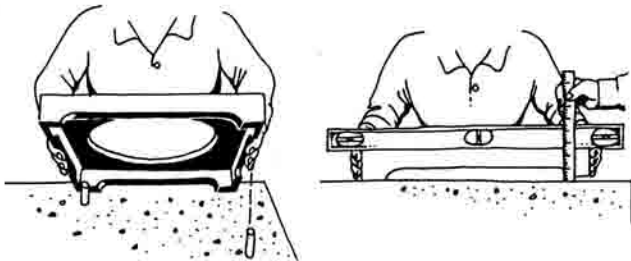


Figure 4-3

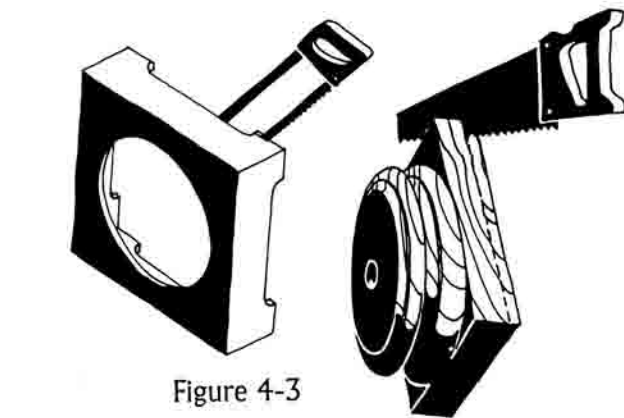
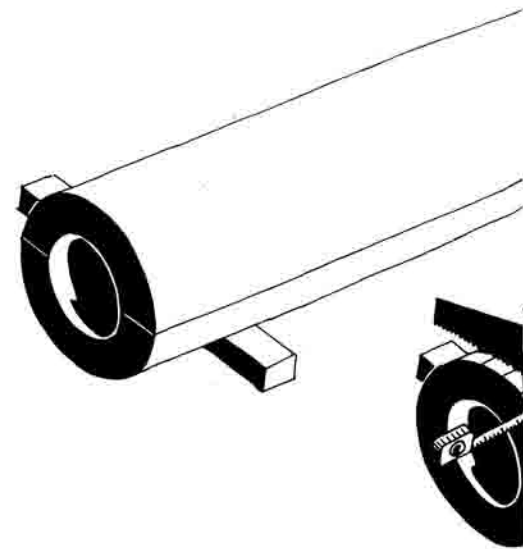
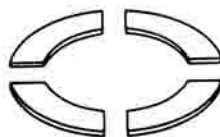


Figure 4-4

For Greek Doric Columns, 1/2" Hi-Moly Polymer Plates are used to attach to bottom of column shaft for proper ventilation and moisture protection.





Trimming shaft to exact height

1. Measure the entire height of the overhang opening from the soffit to the deck. Subtract the space taken up by the base & plinth assembly and the capital assembly. A good technique is to set the cap and base on the deck (Fig. 5-1) and then measure up to the soffit or beam (Fig. 5-2). Be especially careful to account for the height of ornamental capitals with their wooden plugs.

2. Trim top of shaft for the type of capital you will be installing. For fiberglass or poly caps, trim to 1/4" above the fillet (top molding) (Fig 5-3). For Temple of Winds and Roman Corinthian Capitals, trim column at the top of the neck ring molding (Fig. 5-4). For Ionic type capitals, trim column immediately below neck ring (fig 5-5).

3. Then measure carefully from the top of the trimmed shaft, along with the edge of at least three staves, around the circumference of the shaft to determine the bottom trim line (Fig. 5-6). Using cardboard or other flexible material, draw a trim line completely around the shaft. By carefully following this procedure, you will ensure that the shaft top and bottom cuts remain square to the centerline of the shaft.



Figure 5-1
Stack cap & base

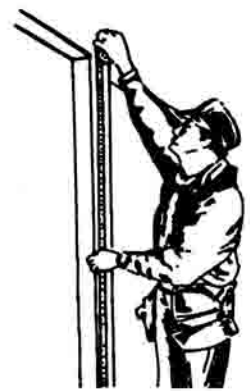


Figure 5-2
Measure to soffit

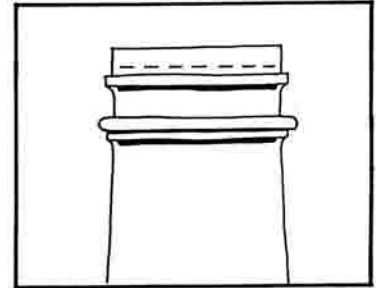


Figure 5-3
Trim to 1/4" above fillet molding for fiberglass caps to fit slotted pin.

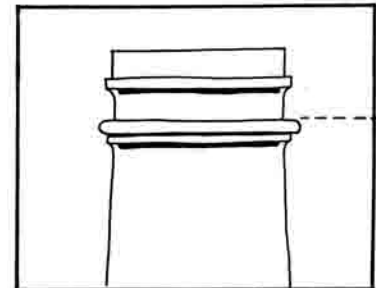


Figure 5-4
Trim to top of neck ring for Temple of Winds or Roman Corinthian caps.

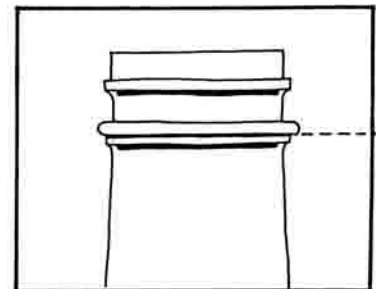


Figure 5-5
Trim just below neck ring for Ionic Type Caps.

Note: Always trim split column halves together.

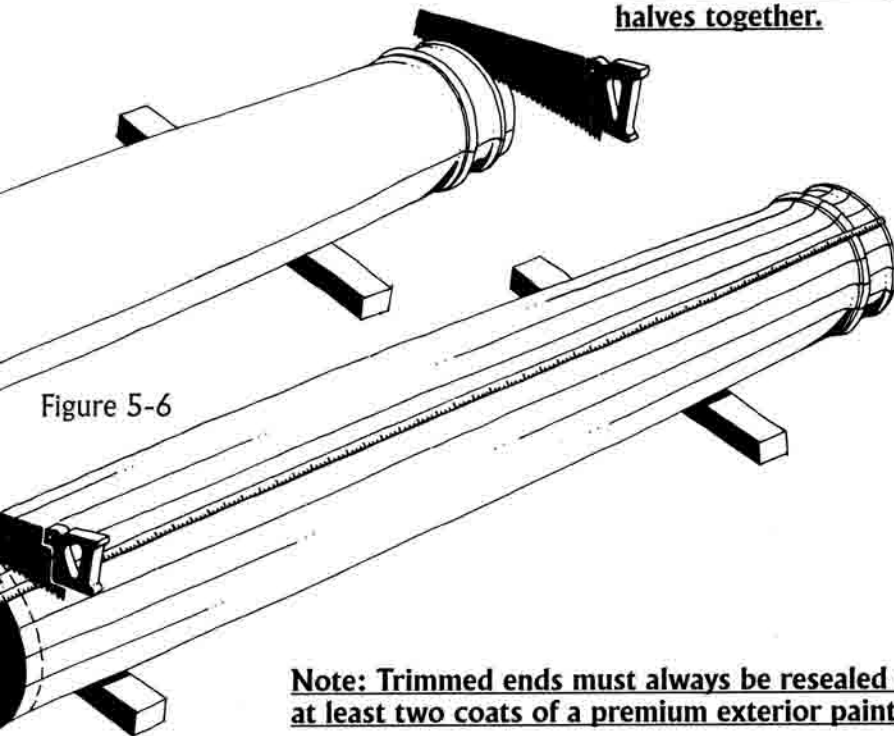


Figure 5-6

Note: Trimmed ends must always be resealed with at least two coats of a premium exterior paint.

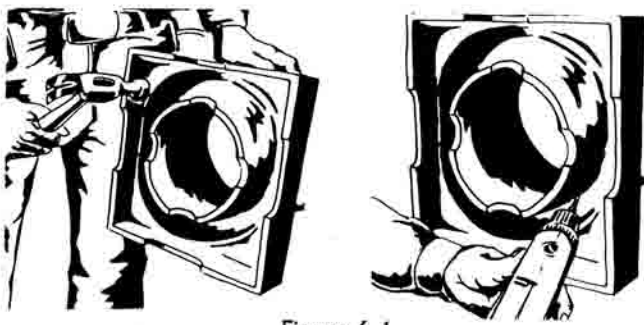


Figure 6-1



Figure 6-2



Figure 6-3

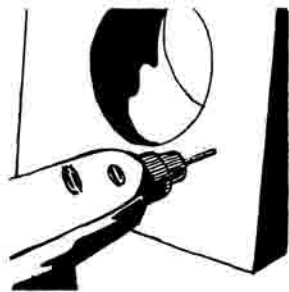


Figure 6-4



Figure 6-5

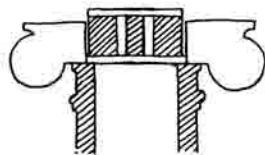


Figure 6-6

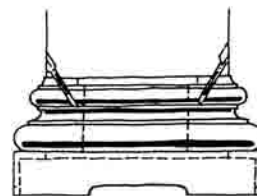
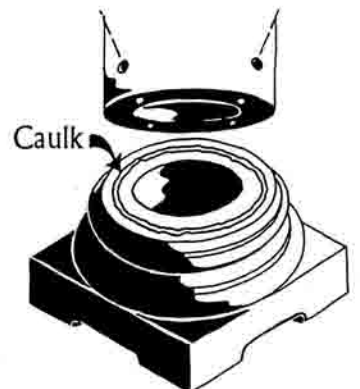


Figure 6-7



Attaching the capital and the base

If you are using a fiberglass capital:

Pre-drill holes through the capital (Fig. 6-1). Attach with drywall screws to shaft (Fig. 6-2). Before attaching, caulk the area where capital and shaft meet.

If you are using a one-piece polyurethane or wooden capital:

Pre-drill holes for drywall screws that will attach shaft to capital. This can be accomplished in two ways. Holes can be drilled from through the shaft for a toenailing-type attachment (Fig. 6-3). Or, holes may be drilled through the capital for attachment with long screws to shaft (Fig. 6-4). Before attaching, caulk the area where capital and shaft meet.

If you are using a decorative ornamental capital:

Remember that ornamental capitals are not load bearing. Use the enclosed plug when installing. The plug bears the weight of the structure—not the capital.

1. Center plug on shaft top with the small end up (Fig. 6-5). Attach to top of shaft with screws. Caulk between plug and shaft before attachment. (Pre-drilling of holes should not be required.)

2. Caulk the area where the capital, plug, and shaft meet and then position the capital over the plug, centered on the shaft (Fig. 6-6).

If you are using a fiberglass base:

Use the same procedure as for attaching the capital (Figs. 6-1 & 6-2).

If you are using a one-piece polyurethane or wooden base:

As with the polyurethane or wooden capital, this can be accomplished in two ways. Holes can be drilled from through the shaft for a toenailing-type attachment (Fig. 6-7). Or, holes may be drilled through the base for attachment with long screws to shaft (Fig. 6-4). Before attaching, caulk the area where capital and shaft meet.

Installing the assembly & finishing

If the soffit can be raised:

1. Score a line from inside the cap, or the center hole of the plug, on a small piece of scrap lumber—a 1x4 with smaller caps or a 1x6 with larger caps (Fig. 7-1 & 7-2). Then roughly cut out the plug (Fig. 7-3) and attach to the soffit where you want the capital secured (Fig. 7-4).

2. Raise up the soffit sufficiently to allow the assembly to slide in and over the pins on the deck and under the plug on the soffit (Fig. 7-5).

3. Flash the capital and crimp edges of flashing down. Caulk before positioning it under the soffit (Fig. 7-6).

If the soffit cannot be raised:

Do not attach base to column before positioning assembly. Position base, then wedge assembly under and onto soffit plug. Secure shaft to base with toenail-type screws (Fig. 6-7).

If the soffit cannot be raised and you are using polyurethane or wood capitals or ornamental capitals with plugs:

1. Drill holes through soffit at an angle that will direct screw into capital (or plug, in the case of ornamental capitals). Attach (Fig. 7-7).

2. Use shims to lock the capital in place before securing with screws (Fig. 7-8).

Finishing:

- Seal screw and/or nail holes with silicone caulk.
- Repair all seams, scratches, and nicks with wood putty and sand smooth.
- Immediately after installation, and before exposure to the weather, apply two (2) coats of premium-quality acrylic-latex paint to all exterior surfaces. **Priming of column only is NOT sufficient protection from the elements.**
- Use patching plaster to fill and repair any scratches and/or nicks in composition ornamental capitals.

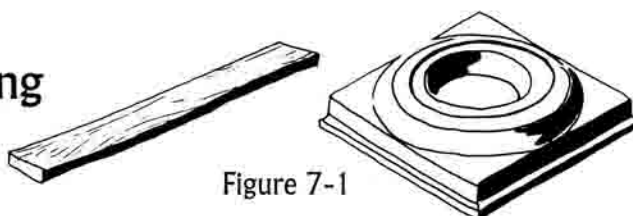


Figure 7-1

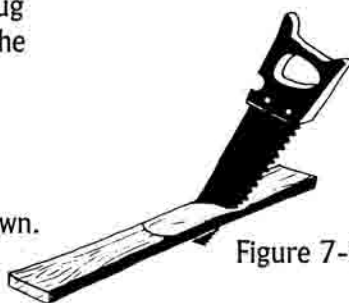


Figure 7-3

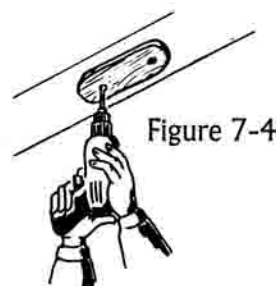


Figure 7-4



Figure 7-2

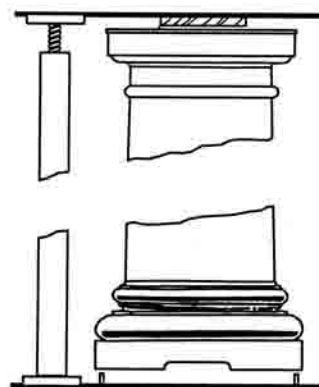


Figure 7-5

Cut Ventilation Hole in Flashing

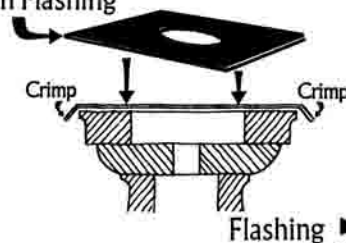


Figure 7-6



Note: Always use flashing on top of the capital and below the soffit so that moisture cannot channel into the interior of the shaft.

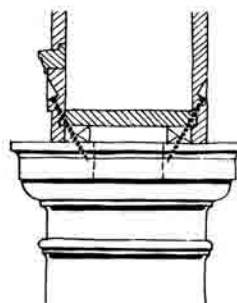


Figure 7-7

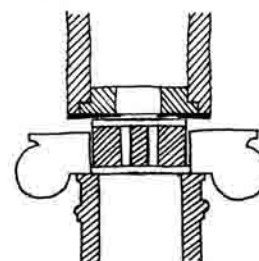


Figure 7-8

Assembling split parts

General:

- Materials must be stored in a dry place of even and moderate temperature until wood and composites are sealed with oil or acrylic-latex primer. Don't use alcohol-base sealers or primers. **Sealing endgrain is a must.**
- Keep surfaces to be glued clean, or clean with lacquer thinner before gluing. Follow glue manufacturer's directions. Use Dap's Weldwood or Elmer's Waterproof resourcinal glue. Preheat wood and workspace to 70° F and maintain for at least 10 hours to avoid joint failure.

- Notch caps and bases to wrap around load-bearing post without making contact that could cause cracking during expansion and contraction. Seal cut surfaces to prevent checking and cracking.
- Top and bottom venting is critical. If necessary, drill a 1" vent hole in the column neck above the neck ring on a nonvisible side.
- Do not attach column shaft to anything except caps and bases. Fastening to interior blocking will cause cracking with expansion and contraction.

Bases:

1. Assemble halves using screws and resorcinal glue on wood or polyurethane parts. Use quality liquid aluminum with aluminum plinths. Use a web/band clamp for a minimum of 24 hours (Fig. 8-1).
2. If the plinth is aluminum, fill crack with liquid aluminum. Fill wood, fiberglass, or polyurethane bases with putty and sand smooth.

Shafts:

1. Because shaft halves may become slightly out of round as they absorb or lose moisture, it is important to preassemble before gluing. The seams should join together smoothly when clamped, with no more than a 1/32" variance (Fig. 8-2).
2. Cut blocks to use under band clamp opposite any areas that have expanded out of round (Fig. 8-3).
3. Caulk the area where the shaft and base meet. Then position halves of shaft on the base so that seams are oriented at a 90-degree angle to the primary view (Fig. 8-4), leaving a gap between them for gluing.
4. Thoroughly coat all four joining surfaces of the shaft with resorcinal adhesive (Fig. 8-5).
5. Position band clamps 12"-16" apart along the full height of the shaft. Use carpet strips under clamps to prevent damage, and use blocks opposite areas of expansion to pull shaft into round (Fig. 8-6). Tighten clamps to 80 pounds per square inch (psi). Use a rubber mallet where necessary to get the two sides of the seam to line up.
6. Make sure there is full contact from top to bottom in both seams. Then remove the excess glue. Let stand for a minimum of 24 hours.

Capitals:

1. Predrill holes for screws on opposing sides of the seams and at an angle for attachment to shaft. Caulk the area where the capital and the shaft meet. Then position capital atop the shaft, leaving a gap.
2. Clean cut surfaces of capital with shellac. Then thoroughly coat all four joining surfaces of the capital with resorcinal adhesive. Push the halves together and clamp with a rope clamp. Then secure the joined halves with screws and attach to shaft (Fig. 8-7).

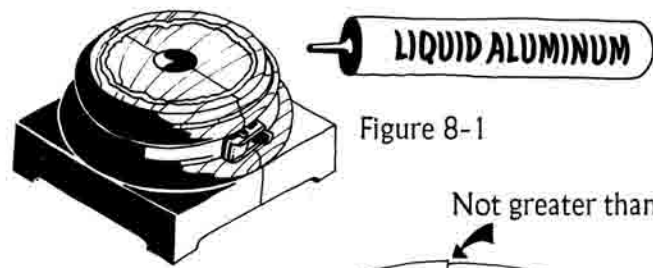


Figure 8-1

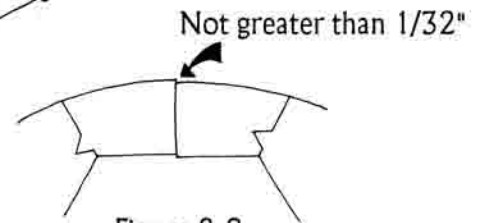


Figure 8-2

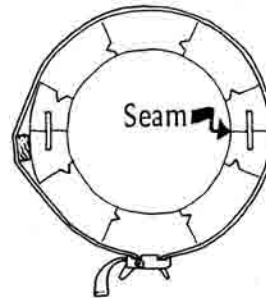


Figure 8-3

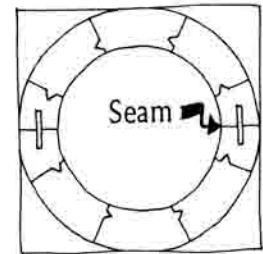


Figure 8-4

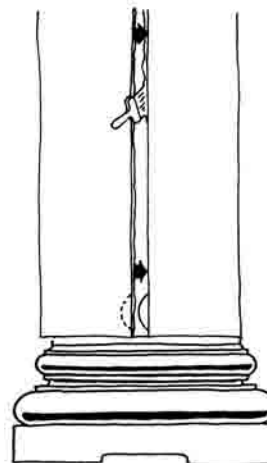


Figure 8-5

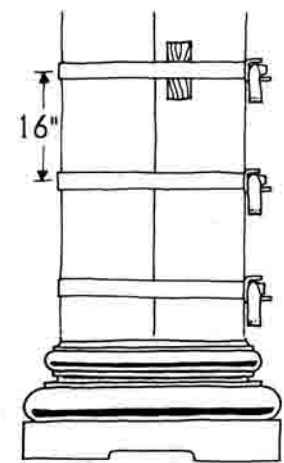


Figure 8-6



Figure 8-7