

Berea Hardwoods Co., Inc.
Pen Instructions

Berea Hardwoods Electra Fountain Pen (Berea #1001/F+V-HP-xxx)



Needed: Mandrel A
Bushings 29A
Drill 10.5 mm
Wood Size $\frac{3}{4}$ " x $\frac{3}{4}$ "

Preparing the Material Blanks

1. Only 1 material blank is required for this pen. Cut the material blank slightly longer than the brass tube.
2. Drill the blank through the center, lengthwise, with a 10.5 mm bit.
3. Polish the brass tube with sandpaper. This can be done by hand or on a power machine such as a belt sander. The purpose of the sanding is to clean off the oxidation and roughen the tube so that the glue will have a better adhesion surface.
4. Plug the ends of the tube with the material of your choice. Some use base wax, a dental product, or Play Dough, or even a slice of potato. Just push the ends of the tubes into a thin section of the material. This will form a plug to keep the glue from getting into the tube.
5. Clean the tube, after plugging, with acetone or alcohol on a rag.
6. Prepare your glue. We recommend two-part epoxy glue that is available in all hardware stores. Use a fast drying type, one hour or less. Be sure to mix it thoroughly. (A Post-it Note Pad makes an excellent mixing place. When you are finished just tear it off and throw it away.) Polyurethanes and thick flexible CA's can be used, but they each have their drawbacks.
7. Place some epoxy into the blank using a small piece of dowel or other small stick.
8. Roll the tube in the epoxy.
9. Insert the tube with a twisting motion until it is almost in the material blank. Then use the dowel to push it in until the end is flush with the blank. Use the stick to rake off the excess glue even with the blank and the tube.