# Churchill pen



#### Needed:

Mandrel A; drills 31/64 and 33/64; bushing 48A

#### Preparing the blanks

- Cut the blanks the length of each brass tube plus 1/4".
- 2. Drill the short blank with the 33/64 bit.
- **3.** Drill the longer blank with the 31/64 bit.
- Scuff the brass tubes with sandpaper to clean off the oxidation and give the glue a better adhesion surface.
- 5. Plug the ends of the tubes with baseplate wax to keep the glue from getting into the tube. Just push the ends of the tubes into a thin section of the material to form a plug. This is important: glue inside the tubes is a common cause of pen failure.
- 6. Roll one of the tubes in the glue. Insert the tube with a twisting motion until it is equidistant between both ends of the blank. Repeat with the other tube.
- Set aside until the glue has had time to reach its maximum strength.
- When the glue has cured, use a hobby knife to remove the plugs from the ends.



**9.** Using a barrel trimmer of the proper size, square off the ends of the blanks until you can see bright brass tube. STOP at this point. This can also be done with the proper jig and a disk sander. *Not having the proper tube length is another common cause of pen failure.* 

### **Turning the blanks**



- Assemble the bushings and barrels onto the mandrel referring to the image above.
- Lightly tighten the mandrel and secure. Do not over-tighten as this can cause the mandrel to bend, causing your pen to come out oval. A spacer may be installed to give you more room between the thumbnut and the last bushing.
- **3.** Turn the pen blanks to the desired shape using the bushings as a sizing guide.
- **4.** Sand the surface in progressive steps until you get to 400 or 600 grit.
- **5.** For a smooth finish, sand with Micro Mesh to 12,000 grit and apply finish of your

choice.

6. Remove the blanks from the mandrel.

## Assembling the pen

- Press the nib holder into one end of the lower tube (the longest tube). Make sure you choose the appropriate end of the tube to preserve the pattern or grain match on your pen.
- 2. Press the receiver holder into the other end of the lower tube.
- 3. Rollerball kit:

a. Drop the spring, small end up, into the receiver. Screw the receiver onto the receiver holder.

b. Remove cap from refill and drop it in with the point sticking out of the tube.

4. Fountain kit:

a. Insert refill cartridge or converter pump on the writing nib.

- Place the thin trim ring on the nib and screw it onto the nib holder.
- 6. Press the center band assembly into the upper tube (short tube).
- 7. Press the finial bushing into the other end of the same tube with the threaded end up. Press it in until the shoulder is flush with the blank. This will leave the threads sticking out.
- **8.** Place the clip over the threaded part of the finial bushing.
- **9.** Place the clip over the clip ring and align the notch.
- **10.**Place this assembly over the threads of the finial bushing.
- **11.**Screw on the finial.
- 12.If the clip is not quite tight, you can disassemble the clip and press the threaded insert into the tube just slightly more.



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