

william wood-write

7 mm Round Top European pen instructions



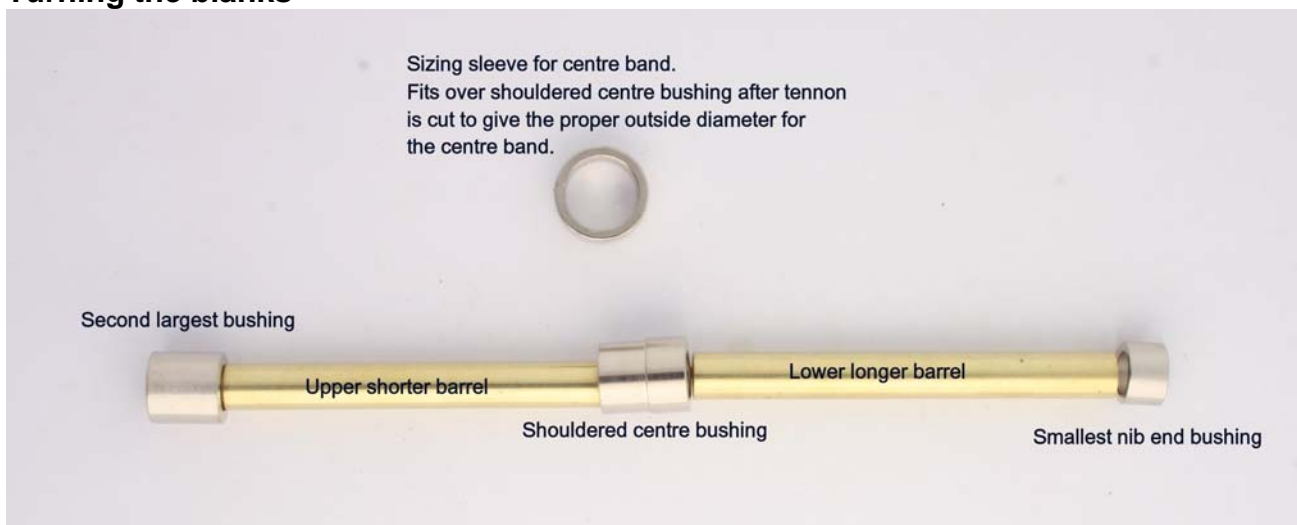
Needed:

Mandrel A, drill J/7 mm, bushing 10A, wood size 5/8" x 5/8"

Preparing the blanks

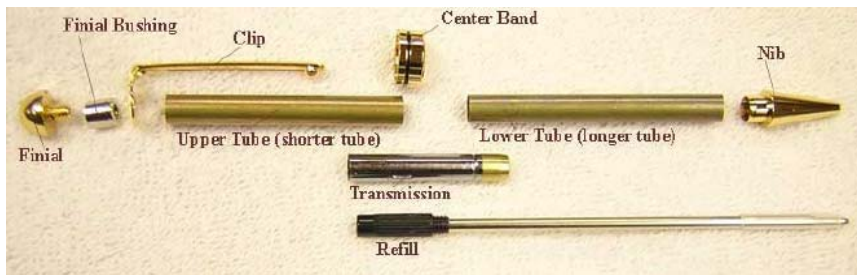
1. Cut the blanks the length of each brass tube, giving a little extra length for the facing of the blank after the tubes have been glued in.
2. Drill each blank length wise with the J/7 mm drill bit.
3. Scuff the brass tubes with sandpaper to clean off the oxidation and give the glue a better adhesion surface.
4. Plug the ends of the tubes with a material of your choice – we recommend base plate 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.*
5. Prepare your glue. We recommend two part epoxy glue – use a fast drying type, one hour or less. Be sure to mix it thoroughly. Wax or baking paper or even a Post-it notepad all make excellent mixing surfaces. You can also use thick flexible CA glue, but you have to work quickly to get the tube all the way into the blank before the glue dries.
6. Roll one of the tubes in the epoxy.
7. Insert the tube with a twisting motion until it is almost entirely inside the blank. Then use a dowel or small stick to push it until the tube is equidistant between both ends of the blank. Repeat with the other tube.
8. Set aside until the epoxy has had time to reach its maximum strength.
9. When the glue has cured, use a hobby knife to remove the plugs from the ends.
10. 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



1. Assemble the blanks on the mandrel following the diagram above. Place the second largest bushing on the mandrel first.
2. Place the short blank on the mandrel, followed by the largest shouldered bushing, then the long blank. Place the smallest bushing on the end. Add spacers as appropriate then the washer and nut.
3. Tighten the tailstock before tightening the blanks on the mandrel. This will centre the mandrel first. Then lightly tighten the nut that holds the blanks. Do not over-tighten the brass thumbnut or apply excessive force as this can bend your mandrel and cause your pen to come out oval. You may use a spacer to give you more room between the thumbnut and the last bushing.
4. When turning the cap blank (the short one), turn the blank round to a diameter of 0.515". Now taper it to the diameter of the second largest bushing using the classic European contour. DO NOT turn the other end of the short blank to the diameter of the bushing – leave it at 0.515".
5. Measure from the edge of the blank, from the large end, back 0.240" and make a mark.
6. Turn a tenon at this end to a diameter of 0.412". Take this cut a little at a time. You don't want to undercut the tenon as this should fit the centre band of the pen.
7. Place the sizing sleeve on the shouldered centre bushing. By sliding it forward onto the tenon you have made, it will provide a test fit for the proper diameter for the tenon, as well as a guide for the diameter of the centre band, which will match up to the upper barrel.
8. Turn the blanks to the desired shape using the bushings as a sizing guide.
9. Sand the surface in progressive steps until you get to 400 or 500 grit.
10. Continue sanding with Micro Mesh through 12,000 grit for a high polish finish. Apply the finish of your choice and polish.
11. Remove the blanks from the mandrel.

Assembling the pen



Another common cause of pen failure is the misalignment of parts when pressing them into place. We recommend using a pen press or small arbor press, but you can also use a good "C" clamp and much care. Be sure that parts are straight and in line with the blanks when pressing in the various parts – if not,

you'll end up with a poor-fitting pen or one that doesn't work at all.

1. Press the center band onto the tenon you cut on the short blank.
2. Unscrew the chrome finial bushing from the finial. Press it into the other end of the short blank.
3. Attach the clip to this end by threading the finial stud through the hole in the clip and into the bushing.
4. Press the nib into the small end of the long barrel.
5. Press the transmission into the other end until about 13/16" remain exposed. It is best to "sneak" up on this, trying the refill in the mechanism until the appropriate amount, about 1/8", of the tip is showing when the transmission is twisted and when the tip is fully covered when the transmission is closed.
6. Install the refill.
7. Slide the cap over the transmission aligning the grain or pattern as desired.