Budget Round Top European pen



Needed:

Mandrel A, drill 7 mm, bushing 107A

Preparing the blanks

- Cut the blanks 1/4" longer than each brass tube so you can square off the blanks after the tubes have been glued in.
- Drill each blank length wise with the 7 mm drill bit.
- **3.** Scuff the brass tube with sandpaper to clean off the oxidation and give the glue a better adhesion surface.
- Plug the ends of the tube with a material of your choice we recommend base plate wax to keep the glue from getting into the tube. Push the tube ends into a thin section of the material to form a plug. *This is important glue inside the tubes is a common cause of kit failure.*
- Roll one of the tubes in glue and insert it into the blank with a twisting motion until it is equidistant between both ends of the blank. Repeat with the other tube.
- **6.** Set aside until glue is dried. Then, use a hobby knife to remove the plugs from the ends.
- Use a pen mill or disc sander to square off the blanks until you can see bright brass tube.

STOP at this point. *Not having the proper tube length is another popular cause of kit failure.*

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Turning the blanks

- Assemble the bushings and barrels onto the mandrel referring to the image on the last page.
- 2. When turning the upper blank (the short one), turn the blank round to a diameter of 13.08 mm. 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 13.08 mm.
- **3.** Measure from the edge of the blank, from the large end, back 6.09 mm and make a mark.
- 4. Turn a tenon at this end to a diameter of 10.46 mm. 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.
- 5. 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.
- 6. Turn the blanks to the desired shape using

the bushings as a sizing guide.

- 7. Sand the surface in progressive steps until you get to 400 or 600 grit. For a high polish finish, continue sanding with Micro Mesh through 12,000 then apply the finish of your choice.
- **8.** Remove the blanks from the mandrel.

Assembling the pen

- Press the center band onto the tenon you cut on the short blank.
- 2. Unscrew the brass finial bushing from the finial. Press it into the other end of the short blank.

Sizing sleeve for centre band: Fits over shouldered centre bushing after tennon is cut

- **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 20.6 mm remain exposed. It is best to "sneak" up on this, trying the refill in the mechanism until the appropriate amount, about 3 mm, 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.
- Slide the cap over the transmission aligning the grain or pattern as desired.



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