

Round-Top European Pen Hardware Kit

88K77.30+

Requires standard “A” mandrel, European pen bushings (88K78.71), 7mm or letter “J” drill bit, and minimum 3/4” square blank.

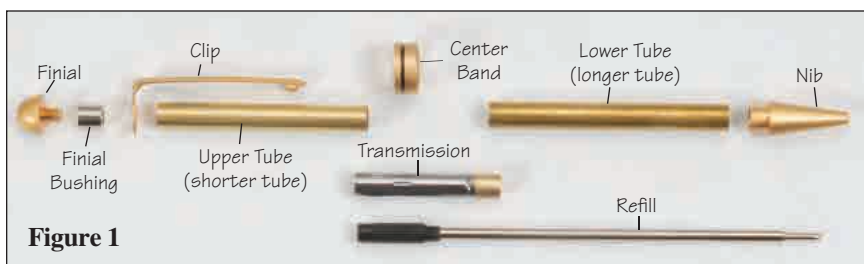


Figure 1

Preparing the Material Blanks

1. Cut the turning blanks 1/32” longer than the brass tubing.
2. Drill each blank with a 7mm or letter “J” drill bit, withdrawing the drill frequently to clear chips from the flutes.
3. Use quick-setting epoxy, polyurethane or cyanoacrylate to glue the brass sleeves into the wood blanks. Spread a small amount of glue onto the outside of the brass sleeve and slide the sleeve into the wood. Rotate the sleeve as you insert it into the drilled blank. **Do not** put the glue into the hole in the wood because you will inevitably end up with glue inside the brass sleeve.
4. Once the glue has cured, square and trim the blanks. You can use a pen mill of the proper size, or trim the blanks with a disc sander and a jig to hold the tube square with the disc.

Turning the Blanks



Figure 2

1. Mount the large-diameter non-stepped bushing on the mandrel, then the short wood blank, the stepped bushing (with the wide center portion closest to the short blank), the long blank, and finally the small-diameter non-stepped bushing.

2. Clamp the wood in place by threading the nut onto the end of the mandrel only finger tight. Slide the tailstock in place and support the mandrel with light pressure of a live center.
3. Turn the blanks with any tool and at any speed you are comfortable with. Use the bushings as guides for the exact diameter that each end of the wood components should be.
4. Turn the short blank to finished size using the center portion of the stepped bushing and the end bushing as references. Turn a 0.240" tenon on the short blank using the shortest portion of the stepped bushing as a guide to tenon size.
5. Turn the long blank to the dimensions of the end bushing and the smaller-diameter portion of the stepped bushing closest to the long blank.
6. Check that the center ring fits on the tenon, and adjust as required.
7. Sand and finish the wood on the lathe.

Assembly

The components press fit together. Once the components are pressed together, it is almost impossible to take them apart. **Do not** try to dry fit the assembly before the wood is completely finished.

Assemble the pen as shown in **Figure 1**.

1. Press the nib into the small-diameter end of the long blank.
2. Press the transmission into the other end of the long blank (the steel barrel should project about $13/16"$).
3. Insert the refill to check the proper projection of pen nib.
4. Press the center band onto the tenon turned on the short blank. If required, use cyanoacrylate glue to secure in place.
5. Press the finial bushing into the other end of the short blank, stepped end first.
6. Place the pen clip onto the stud of the finial and thread into place.



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