



European / Designer Pencil Kits - Assembly Instructions

A. Cutting Blanks:

Cut blanks length of the brass plus 1/8" extra on each side to allow for trimming. Starting with a solid 3/4" square blank free of checks or other defects will help ensure good results and enhance safety.

B. Drilling:

Drill the blanks using a drill press and clamp or other suitable device suitable for securing the blank in an upright position to ensure stability throughout the drilling process. Ensure the blank is a true 90 degrees to the drill press table. Drill an 11/32" hole through the center of each blank.

C. Glue the Blanks:

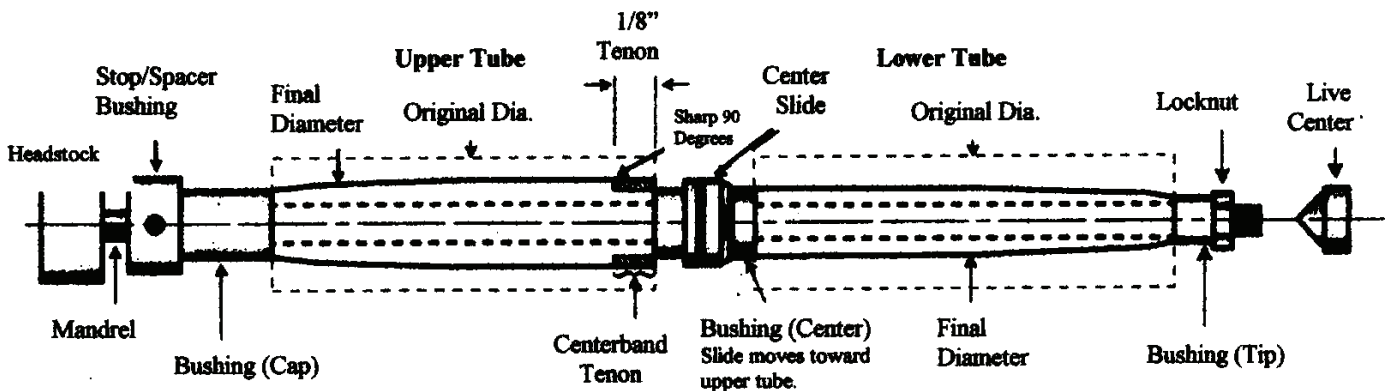
Lightly sand the exterior of each brass tube with fine sandpaper to ensure adhesion. Using a small cork or potato slice will help keep glue out of the inside of each tube during the process which will improve the ease at which components fit together. Using a good quality wood glue, polyurethane glue or Cyanoacrylate glue, coat the inside of the blank and then the brass tube with your glue of choice. Insert the tube fully into the blank, cork end first. Expel the cork and clean up any remain excess glue. Wait the required wait time for the selected glue as determined by the manufacturer.

D. Dress the Ends:

Using a belt sander or barrel trimmer true the ends to an accurate 90 degrees and remove any excess wood until the brass is just revealed. Removing too much brass may hinder future assembly.

E. Turning the Blanks:

Slide the bushing and the pen blanks onto the mandrel in the order required, use the diagram to help line up the blanks and bushings. Ensure the center slide bushing can move toward the upper tube assembly.



After aligning the bushings and blanks thread the lock nut and hand tighten. The turning unit should now be secure on the mandrel. Slide the tail stock over and set in place next to the mandrel ensuring there is enough pressure to secure the mandrel (do not over tighten or the mandrel and live center could be damaged). Turn the blank down to the approximate diameter of the bushings and then sand the desired diameter. Use a parting tool to make a 1/8" to 3/16" tenon for the center band.

Caution: The center band bushing should fit snugly over the tenon or else the center band will not fit well during final assembly. The upper end of the lower tube is a critical dimension and if it is too large the two halves will not rotate smoothly when assembled.

F. Sanding:

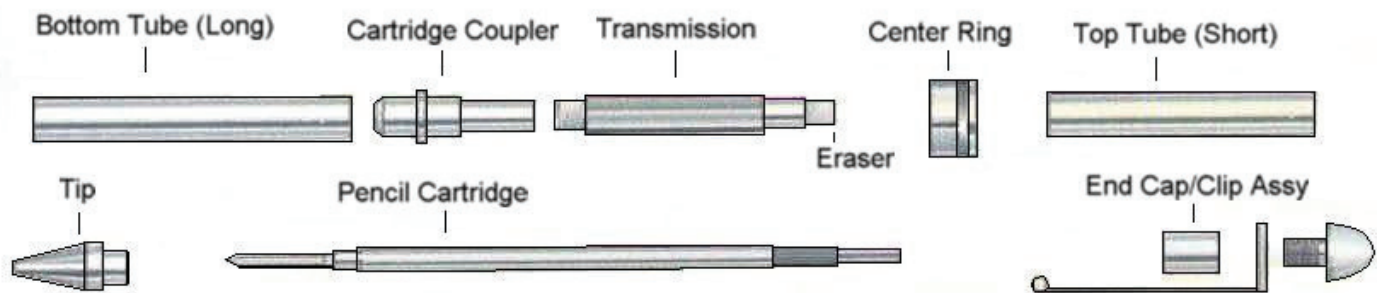
Once the pen is turned to approximately 1/16" of the final diameter (more if wood is brittle or hard to turn) switch to sand paper and sand to the diameter of the bushings. Start with course 150 to 220 grit and work consecutively to finer diameter sandpaper, 400 to 600 grit or finer.

G. Finishing:

Finish with your desired wax or friction polish. If using a polyurethane finish ensure not to weld the bushings to the blanks.

H. Assembly:

Use a clamp or vice with wooden jaws to prevent damage to the pen components. A pen press is especially useful for pen assembly.



1. Press the tip into the tapered end of the long blank.
2. Press the Cartridge Coupler into the opposite end of the long blank, ensure the tapered end is inserted and not the threaded section. Sometimes it is best to drill a hole into a piece of wood so that assembly pressure is exerted on the cartridge coupler ring or the larger diameter section just below the threaded stem and not on the long threaded stem. Excess pressure on the threaded stem could cause damage.
3. Insert the pencil mechanism into the lower tube assembly and secure with the transmission.



4. Use a drop or two of CA glue to secure the center band onto the tenon of the short blank. Use CA glue remover to remove any accidental CA excess being careful not to damage the pens finish.
5. Press the clip retaining plug into the opposite end of the short tube and then screw on the clip using the end cap.
6. Press the two halves together and you have completed the European/Designer Pencil.

Congratulations!

If you have any problems, feel free to contact me at your convenience.