Virage rollerball/fountain pen





Needed:

Mandrel A, drills 15/32 and 25/64, bushing 38A

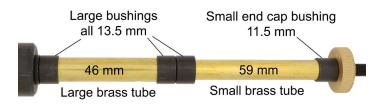
Preparing the blanks

- 1. Cut the blanks 1/4" longer than the length of each brass tube, giving a little extra length for squaring the ends off after the tubes have been glued in.
- 2. Drill the upper blank the shorter one with the 15/32-drill bit (larger bit).
- 3. Drill the lower blank the longer one with the 25/64-drill bit (smaller bit).
- **4.** Scuff the brass tubes with sandpaper to clean off the oxidation and give the glue a better adhesion surface.
- 5. Plug the tube ends with a material of your choice we recommend 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 kit failure.
- **6.** Roll one of the tubes in glue and insert it into the blank with a twisting motion until the tube is equidistant between both ends

of the blank. Repeat with the other tube.

- **7.** Set aside until the glue has had time to reach its maximum strength.
- **8.** 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



- **1.** Put the bushings and barrels onto the mandrel referring to the image above.
- 2. Lightly tighten the mandrel and secure. Do not over-tighten the brass thumbnut as this can bend the mandrel and cause your pen to come out oval.

- **3.** Turn the pen blanks to the desired shape using the bushings as a sizing guide.
- **4.** After turning the blanks, sand the surface in progressive steps until you get to 400 or 600 grit. For a smooth finish, continue sanding with Micro Mesh through to 12,000 grit.
- **5.** Apply a finish of your choice and remove the blanks from the mandrel.

Assembling the pen

- 1. Assemble the two-piece centre band by sliding the black threaded insert into the small end of the metal center band.
- **2.** Press the centre band assembly into one end of the cap blank.
- 3. Assemble the clip and finial by sliding the clip over the small end of the finial. Press the finial/clip into the other end of the cap blank. Lay the cap aside for the moment.

- **4.** Press the nib adaptor/decorative ring into one end of the barrel blank.
- **5.** Press the barrel end cap into the other end of the barrel blank.
- **6.** For the rollerball:
 - a. Drop the spring into the barrel with the small end facing up or towards the refill.
 - b. Insert the refill.
 - c. Screw on the nib.
- **7.** For the fountain pen:
 - a. Choose the pump or cartridge and install it on the nib.
 - b. Screw on the nib.
- **8.** Screw on the cap your pen is finished.

