Byron Rollerball pen





Needed:

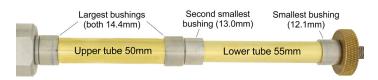
Mandrel A; Byron pen bushings BYR-BU; Drill 10.5mm, Drill 12.5mm

Preparing the blanks

- **1.** Cut the blanks about 1/4" longer than the length of each brass tube.
- **2.** Drill the shorter blank through the center, lengthwise, with a 12.5mm drill bit.
- **3.** Drill the longer blank through the center, lengthwise, with a 10.5mm drill bit.
- **4.** Scuff the brass tubes with sandpaper to clean off the oxidation and give the glue a better adhesion surface.
- 5. 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. 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.
- **6.** Roll the tubes in glue. We recommend thick CA glue.
- **7.** Insert the tubes into the blanks with a twisting motion.
- **8.** When the glue has cured, use a hobby knife to remove the plugs from the ends. 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 using the BYR-BU bushings following the diagram above.
- **2.** Lightly tighten the mandrel and secure. Do not over-tighten the brass nut this can bend the mandrel which will result in an oval pen.
- **3.** Turn the pen blanks to the desired shape using the bushings as a sizing guide.
- **4.** After turning, sand the surface in progressive steps until you get to 400 or 600 grit. For a smooth finish, continue sanding with Micro Mesh from 1,500 to 12,000 grit.
- **5.** Apply a finish of your choice and remove the blanks from the mandrel.

Assembling the pen

- **1.** Press the nib assembly into the larger end of the lower (longer) barrel.
- **2.** Press the bottom finial assembly into the smaller end of the lower (longer) barrel.
- **3.** Unscrew the nib and install the rollerball refill, then screw the nib back over the refill.
- **4.** Press the centre band assembly, black end first, into either end of the upper (shorter) barrel.
- **5.** Press the top finial assembly into the other end of the upper (shorter) barrel.

