# Instructions for MaxWood Churchill Pen Turning Kit: MW-PKCG



#### What You Need:

Pen Blank: 3/4" x 3/4"

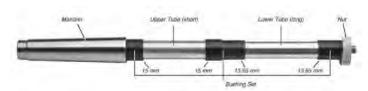
Mandrel: 7 mm MW-5132 or MW-5133

Pen Bushing Set: MW-4982 Drill Bits: 11.7 mm and 13.2 mm Barrel Trimmer: MW-BTK (optional)

Glue: Two-Part Epoxy, Polyurethane or Cyanoacrylate

## **Preparing the Blanks**

- Cut the blanks to size. The Churchill Fountain Pen is a large diameter pen, so take care when drilling the blanks. Cut the blanks to match the lengths of the tubes plus an additional 3/4". This extra space allows you to drill out the blank without splitting it or piercing the bottom. Mark the outside of the blank where the tube ends.
- Drill both blanks with an 11.7 mm drill bit. Then enlarge the hole in the shorter blank with the 13.2 mm bit.
- Trim the blanks off a little longer than the line marked in Step 1.
- Scuff the brass tubes with sandpaper to clean off the oxidation and help the glue stick to the surface.
- To avoid getting glue inside the tubes, plug the ends of the tubes with baseplate wax. Simply push the ends of the tubes into a thin section of the material to form a plug. Glue inside the tubes is a common cause of pen failure.
- Roll each tube in glue. Insert the tubes into the blanks with a twisting motion. Check that they are centred.
- When the glue has cured, use a hobby knife to remove the plugs from the ends.
- Square off the ends of the blanks using a barrel trimmer of the proper size or a jig and a disc sander. Stop as soon as you see the edges of the brass tubes.



### **Turning the Blanks**

- Assemble the blanks and bushings on the mandrel.
- Gently secure the mandrel. Do not overtighten. This can cause the mandrel to bend. If you need more room, install a spacer between the thumbnut and the final bushing.
- Turn the blanks to the desired shape using the bushings as a sizing guide.
- Sand the blanks using progressively finer grits, starting at 220 grit and finishing at 1,000 grit.
- Apply the finish of your choice.
- Remove the blanks from the mandrel.

#### Assembling the Pen

- Press the nib holder into one end of the lower tube (the long tube). Make sure you choose the appropriate end of the tube to properly align the pattern or grain on the blanks. The kit includes two nib holders: one plastic one and one metal. Either can be used.
- Press the receiver holder into the other end of the lower tube.
- Insert refill cartridge or converter pump on the writing nib.
- Place the thin trim ring on the nib and screw it in place. Lay this aside.
- Press the centre band assembly into the upper tube (short tube). Make sure you align the pattern or grain on the blanks.
- Press the brass insert into the other end of the upper tube with the threaded end up. Press it in until the shoulder is flush with the blank. This will leave the threads sticking out.
- Place the clip over the threaded part of the brass clip insert.
- Place the clip ring over the clip with the notch over the clip.
- Screw on the finial.

Clip Ring

Receiver

Nib Holder

Clip

If the clip is not quite tight, you can disassemble the clip and press the threaded insert into the tube just slightly more.

