## **Ghost Pen Kits Assembly Instructions**

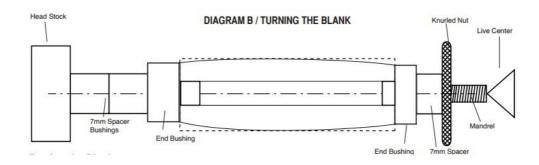
#### **Required Accessories:**

- 7mm Pen Mandrel
- Drill Bit 10mm
- Bushing set (2 pc) Ghost Bushings
- 10mm Barrel Trimming set
- 2 Part Epoxy Glue or CA (Cyanoacrylate) Glue
- Pen Blank: Minimum Size- 5/8 x 2-14" L



### **Preparing the Blank:**

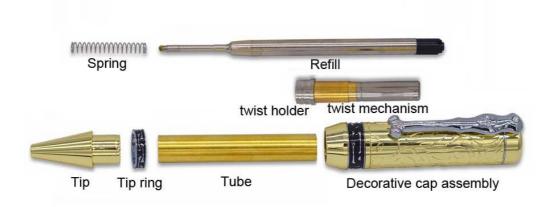
- Cut min 5/8" sq blank to length of tube(s) and add 1/16" for squaring off.
- Drill a 10 mm hole lengthwise through the blank.
- Spread glue over the tube, insert into the blank with a twisting motion to spread the glue evenly inside.
- Center the tubes lengthwise inside the blanks.
- When the glue is dry, square the ends of the blanks. Use a 10mm barrel trimmer shaft, or a universal pen blank squaring jig with a power disc sander. Take the excess material down flush with the ends of the brass tube. (Do not trim beyond the length of the tube since this may interfere with operation of the mechanism and assembly. Use a barrel trimmer to clean the inside of the tube.



# **Turning the Blank**

- Mount the bushings and blanks according to diagram B.
- Thread on the knurled nut and hand tighten to hold all components in place.
- Slide the tailstock up snugly against the mandrel shaft inserting the live center point into the mandrel

- dimple, lock in place.
  - Hand tighten the quill adjustment to firm up the mandrel. (DO NOT overtighten, it could damage the mandrel.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel (straight or to a profile of your choice)
- Sand the blank down to be flush with the bushings gradually increasing the sandpaper grits.
- Finish the barrel with your choice of polish. Allow sufficient time for the polish to cure. refer to polish instructions.



## **Pen Assembly**

NOTE: Layout Finished parts according to Diagram above

- Slide tip ring onto tip and press into one end of tube.
- Make sure to unscrew the center coupler from the twist mechanism! The twist mechanism and the center coupler come assembled and you need unscrew it before pressing the center coupler into the lower barrel. Failure to do this may damage the pen.
- Press the twist holder into the other end of this tube. Note –use a block of wood with a hole drilled into the center of the wood to protect the couplers threads when pressing these together. Do not press directly on the threads of the center coupler!
- Insert refill. Make sure the spring is in place on the tip end of the refill.
- Screw the twist mechanism onto the twist holder. Check for proper operation. Set this aside.
- Push the decorative cap assembly together and check the operation of your new pen.