

Magnetic Zen Pen Kit Assembly Instructions

REQUIRED ACCESSORIES

- 10.5mm Drill Bit
- 3/4" x 3/4" x 4" Pen Blank
- Pen Mandrel (or turn-between-center set-up)
- Zen Pen Bushings
- Glue (Thick CA or Epoxy)
- Sandpaper/Finish
- Drill or Drill Press
- Barrel Trimmer/Disc Sander
- Pen Press or Clamp
- Eye and Ear Protection

CUTTING AND DRILLING THE BLANK

Cut the blank 1/4" longer than the brass tube.

Using a drill press with the blank secured in a vise or clamp, drill a hole through the center of the blank. Drill at 2,000–3,000 rpm backing the drill bit partially out of the hole every 1/2" to clear chips. When using larger bits or drilling plastics drill at 250–500 rpm.

GLUING THE BRASS TUBE INTO THE BLANK

Lightly scuff the exterior of the brass tube with 220 grit sand paper to prepare it for gluing.

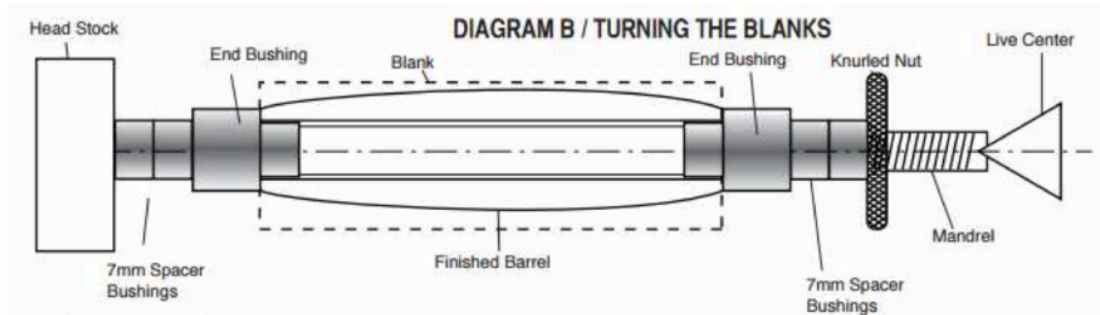
For a fast bond, use thick cyanoacrylate adhesive (super glue) or 5 minute epoxy. For additional working time and more thorough bond, use expanding polyurethane (Gorilla or Sumo Glue). Apply a thin layer of glue to the tube and inside the wood blank. Insert the tube into the blank rotating it as you go to spread the glue evenly. Position the brass tube in the blank so that the wood extends beyond the tube on both ends to allow for trimming.

TRIMMING THE BLANK

Square the ends of your blank with the tube using either a barrel trimmer or disc sander. This step is critical for the pen components to fit together properly. *Do Not* trim the brass tube as this may result in an improper fit when the pen is assembled.

MANDREL SETUP AND TURNING

Place the bushings and blank (not shown) on the pen mandrel as shown in diagram B.



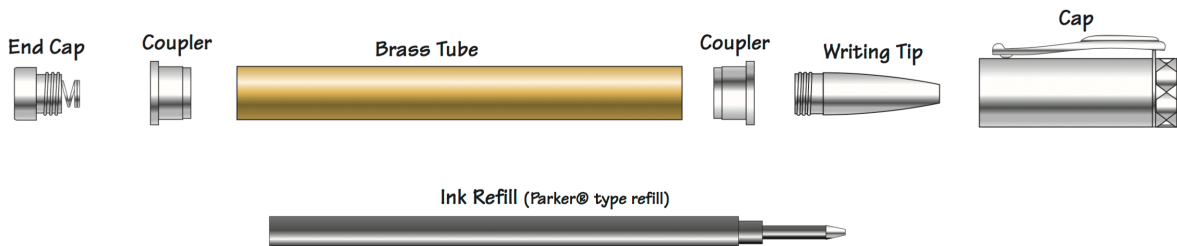
Do Not over tighten the tailstock or mandrel nut as this may cause the mandrel to flex resulting in an off-center barrel.

Turn the blank to the desired shape leaving the blank slightly larger than the bushings.

Sand the blanks using progressively finer grits of sand paper (we recommend Micro-Mesh), then apply your desired finish.

ASSEMBLE THE PARTS

Layout the parts as shown in the diagram.



Press a coupler into each end of the brass tube.

Screw the end cap into the coupler on the end of the pen.

Slide the refill into the brass tube and screw the writing tip into the coupler to complete the pen.