

Turning a Father Sing Desk Pen

Supplies Needed

- 7mm Drill Bit
- 7/8" x 7/8" x 10" Pen Blank
- Pen Mandrel
- Father Sing Bushings
- Glue (Thick CA or Epoxy)
- Sandpaper/Finish
- Drill or Drill Press
- Revolving Center
- Barrel Trimmer/
- Pen Press or Clamp
- Eye and Ear Protection
- Revolving Center

Cutting and Drilling the Pen Blank

1. Cut the blank 7/8" x 7/8" x 10" long. Next make a mark at 2 1/4" up from the writing tip of the pen and cut the blank on the mark.
2. Using a drill press with the blank secured in a vise or clamp, drill a hole through the center of the lower blank.
3. To drill the upper blank secure it in a vise or clamp, drill a hole through the center of the blank stopping at a depth of 2". Note that the depth of the hole is shorter than the tube; this allows the tube to stick out when the tube is glued into place, the excess will be trimmed off later.

Gluing the Brass Tube Into the Blank

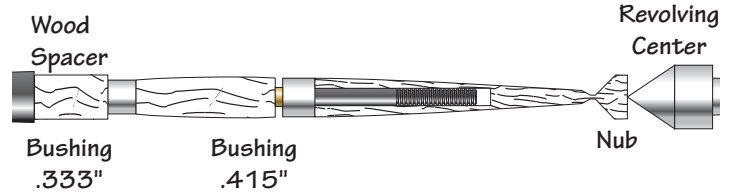
1. Lightly scuff the exterior of the brass tube with 220 grit sand paper to prepare it for gluing.
2. For a fast bond, use thick cyanoacrylate adhesive (super glue) or 5-minute epoxy. For additional working time and more thorough bond, use expanding polyurethane (Gorilla or Sumo Glue). Apply a thin layer 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 lower blank so that the wood extends beyond the tube on both ends to allow for trimming.

Trimming/Truing the Blank

1. Square the ends of the lower blank with the tube using either a barrel trimmer or disc sander. This step is critical for the pen components to fit together properly. Trim the exposed tube of the upper blank until flush and square with the wood.

Mandrel Setup and Turning

1. Place the bushings and blank on the pen mandrel, using a wooden spacer for proper fit.



2. Advance a 60° revolving cone center into the end of the blank and tighten using light pressure. **Do Not** over tighten the tailstock or mandrel nut as this may cause the mandrel to flex resulting in an off-center barrel.
3. Make a 3/32" wide parting cut down to the brass tube of the short blank to accept the center band (see above).
4. Turn the blank to the desired shape leaving the blank slightly larger than the bushings.
5. Turn the top end of the pen as shown in the drawing, this will allow you to sand and finish the pen while it is still on the lathe.
6. Sand the blanks using progressively finer grits of sand paper, and then apply the finish.
7. Remove the finished blank from the lathe and cut off the nub, then sand and finish the top by hand.

Assemble the Parts

Layout the parts as shown. Use a vise or clamp with wood or plastic jaws to prevent damaging parts during assembly.

Note: The cap and clip included with the parts are not used in the assembly of this pen.

1. Press the writing tip into the end of the short tube.
2. Press the center band onto the exposed brass tube of the short tube.
3. Press the twist mechanism, brass end first, into the opposite end of the same tube until the chrome section meets the end of the tube. Install the refill and actuate the twist mechanism to determine how far the refill point extends beyond the writing tip. If necessary, press the twist mechanism slightly further into the brass tube to expose more refill. Be careful not to press the twist mechanism too far into the tube as it cannot be pulled out.
4. Press both halves together to complete the pen.

