

Xiamen Rizheng Industry Co.,Ltd

St.Charles Pen Kits Assembly Instructions

REQUIRED ACCESSORIES

- 7mm Long Mandrel.
- 3 Piece Bushing Set. RZ-BP38#-BU
- 7mm Drill Bit. RZ-DB007
- 7mm Barrel Trimmer RZ-PM011
- 2 Part Epoxy Glue or Insta-Cure (cyanoacrylate).



PREPARING THE BLANKS

Step 1 - Cut Wood Blanks

From 1/2" to 5/8" square stock, cut blanks to the length of the tube plus 1/16". Grain should run lengthwise.

Step 2 - Drill the Wood Blanks

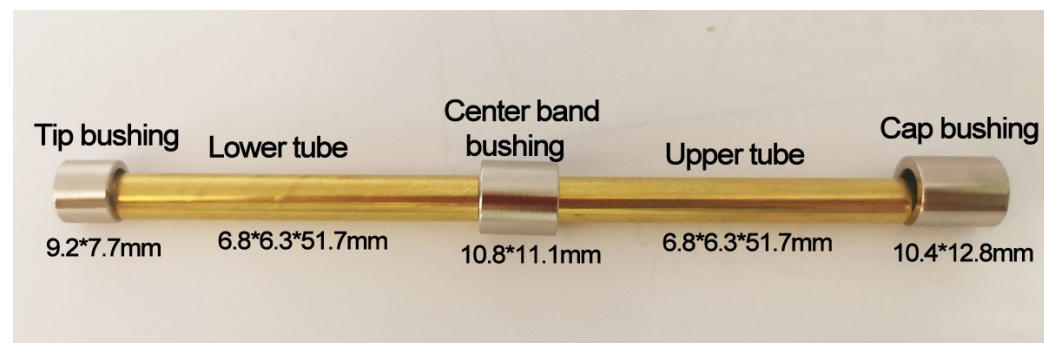
Drill a 7mm centered hole lengthwise through each blank. Excessive pressure will cause the drill bit to wander and/or split the blank. Slow the feed rate and back the bit out repeatedly for chip removal.

Step 3 - Glue the Tubes into The Blanks

Use epoxy or a gap filling cyanoacrylate. Spread the glue on the tube. Insert into the blank with a twisting motion to spread the glue evenly inside. Center each tube lengthwise in the blank. Allow it to dry.

Step 4 - Square the ends

With a 7mm barrel trimmer or other sanding device, square the ends of the blanks 90 degrees flush to the ends of the brass tubes



Step 5 - Turning the blanks

Place spacer bushings on the mandrel. Next, place one of the pen bushings onto the mandrel. Next, slide on either blank, then another pen bushing.

Follow with the second blank then the last pen bushing.

Thread on the lock nut hand tight. Bring the tail stock snug with the mandrel (do not over tighten, it could damage the mandrel). Excessive pressure may also crack the wood or acrylic blanks if it is too tight.

Turn the blanks down to a diameter slightly larger than the bushings (about 11/32" O.D.). As you approach the final size be careful since the wood is only about 1/32" thick.

Step 6 - Sanding the blanks.

As with any sanding, progress through a range of lower to higher grits of sand paper. Sand with blank spinning. Progress from 150 through to 600 grit paper. Different woods and acrylics require different methods to achieve better results.

Step 7 - Finish

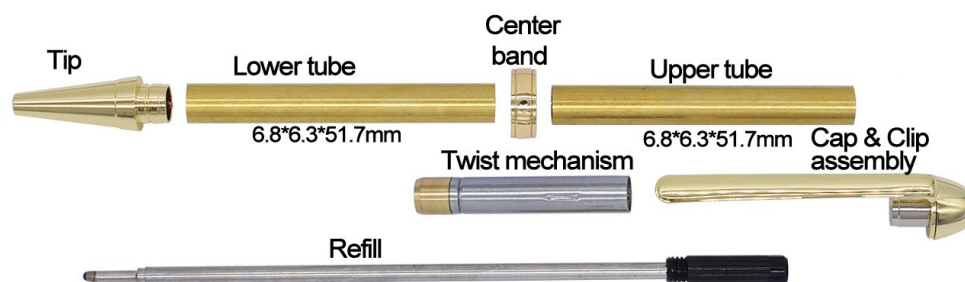
Try a finish of your choice but be careful if brushing on a polyurethane, etc. You can stick the tube, bushings, and mandrel together.

Shake before using. Apply with a rag to the spinning barrel. Apply at least two coats. A variety of finishes and polishes are available.

Step 8 - Touch Up

With tubes off mandrel, lay them end to end to decide which sets will look best when assembled. Remember, they will be 5/32" apart (due to center ring) so minor differences won't show. If necessary, a light sanding of the ends on a block will square the ends and improve the fit during assembly. Then repeat step 7.

Assembly



- A. Press the pen tip into the lower tube.
- B. Press the twist mechanism into opposite end of the same tube. Don't press too far in.
- C. Slide the center band over the exposed mechanism.
- D. Press cap&clip assembly onto the upper tube.
- E. Push the two halves together aligning grain as desired. Pen is operated by twisting the halves in opposite directions to extend or retract point. Test the extension with the refill inserted. Uses Cross type refills.