

Horse Rollerball/Fountain Pen Kits Assembly Instructions

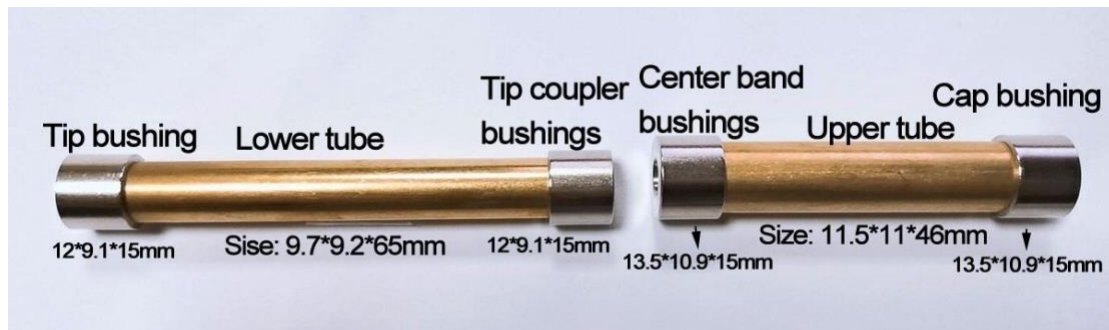
Required Accessories

- 7mm pen mandrel
- 4-piece Horse Bushing Set
- 11.7mm & 25/64" (9.9mm) Drill Bits
- Live Tailstock Center
- Glue (Thick CA or Epoxy)



Preparing the Blank

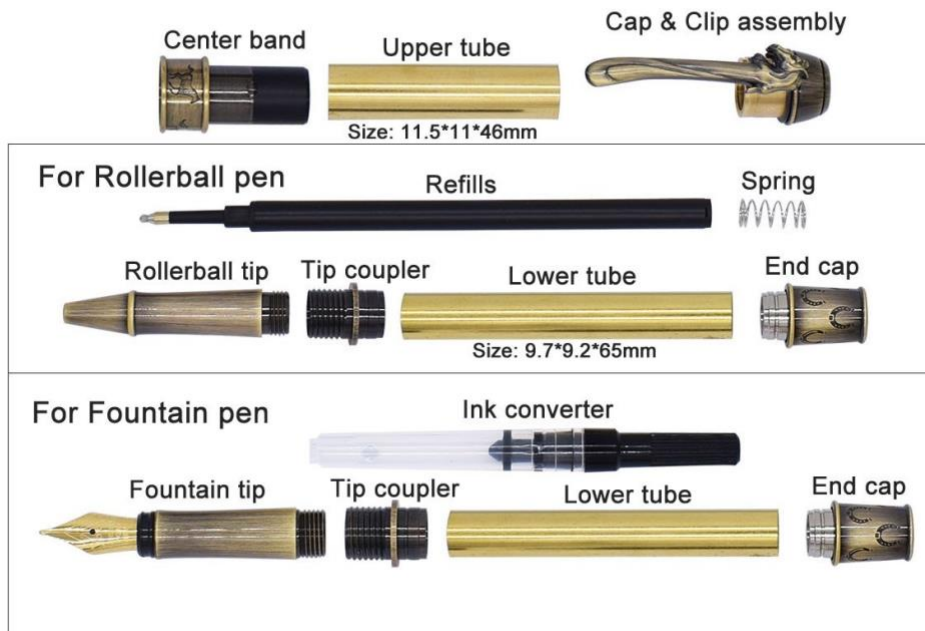
- Cut 2 blanks to the length of the tube and add 1/16" for squaring off.
- Drill a 11.7mm hole (upper blank--shorter tube) and a 9.9mm hole(lower blank--longer tube) lengthwise through the blank.
- Spread glue over the tube, insert the blank with a twisting motion to spread the glue evenly inside.
- Center the tube lengthwise inside the blank.
- When the glue is dry, square the ends of the blank. Use a barrel trimmer, 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 blank according the diagram above.
- 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.

Diagram A



Assembly

Layout parts according to diagram A

- Press the Cap/Clip assembly into one end of the Upper tube (shorter).
- Press the Center band into the opposite end of the Upper tube (shorter).
- Press the End cap into one end of the lower tube (longer).
- Press the Tip coupler into the opposite end of the Lower tube (longer).
- Rollerball ----- Insert the Spring and the Refill into the lower tube(longer). Thread the Rollerball tip into the tip coupler.
- Fountain ----- Attach the Ink converter to the back of the Fountain tip, then thread the Fountain tip into the tip coupler.