

## Metro Rollerball & Fountain Pen Kits

Product : #154679, #154680, #154681, #154682

8/10/2015



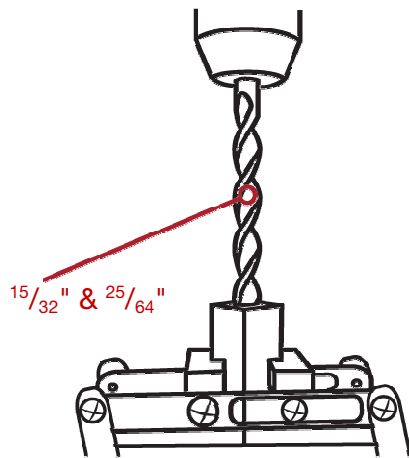
### From Setup To Sanding:

These are the supplies we suggest you have on hand to complete this pen kit:

- $15/32$ " Pen Maker's Bit Cap Blank
- $25/64$ " Pen Maker's Bit Body Blank
- 1 -  $3/4$ " x  $3/4$ " x 2" Cap Blank
- 1 -  $3/4$ " x  $3/4$ " x  $2\frac{1}{2}$ " Body Blank
- Pen Mandrel
- Metro Bushings (154684)
- Thick CA or 5 Minute Epoxy
- Drill or Drill Press
- Sandpaper/Micro-Mesh
- Barrel Trimmer
- Pen Press
- Eye & Ear Protection
- Dust Mask

### Cutting & Drilling Blanks:

Note: Additional length has been added to the overall length of the blank to accommodate for squaring the ends of the blank.

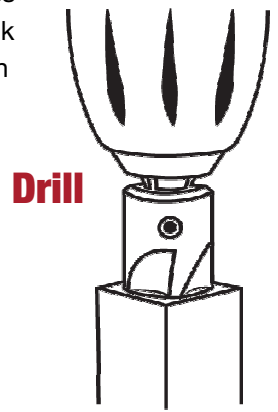
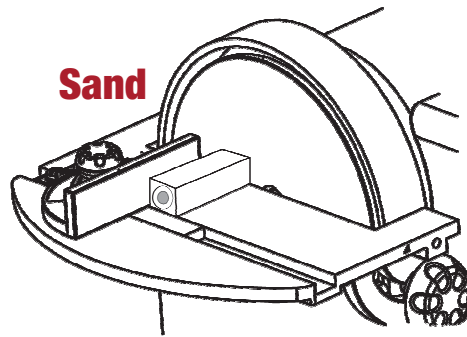


### Gluing Blanks to Tubes:

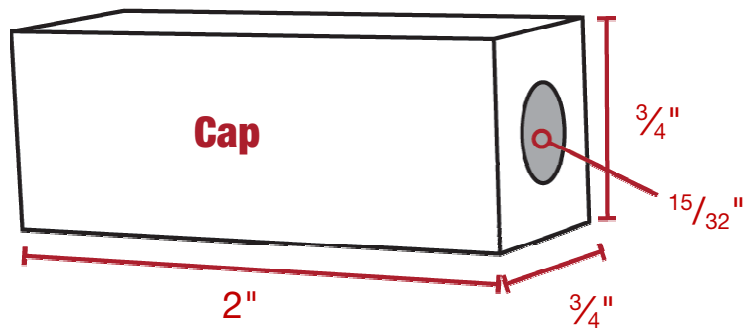
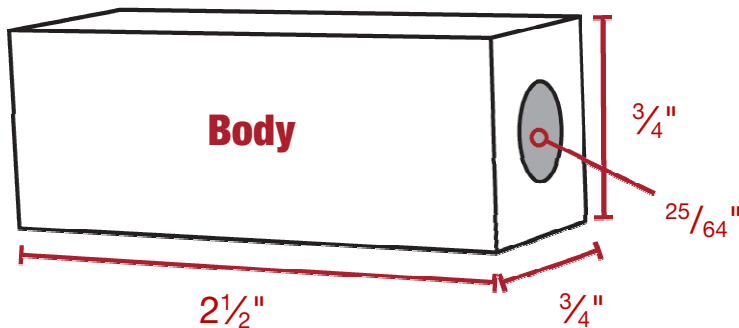
Rough the entire surface of the tube using 180-grit paper. Next, using either a thick CA or 5-Minute Epoxy, apply adhesive to both the tube and the inside of the blank. To secure the brass tube into the inside of the blank make sure to rotate the tube as you insert it into the blank. This will help ensure even coverage of the adhesive and a much more secure bond.

### Squaring the Blank to Length:

When squaring the blanks to length work only to the brass. Removing brass will affect the overall length of the blank which is critical to the proper operation of the pen.



### Mandrel Preparation:



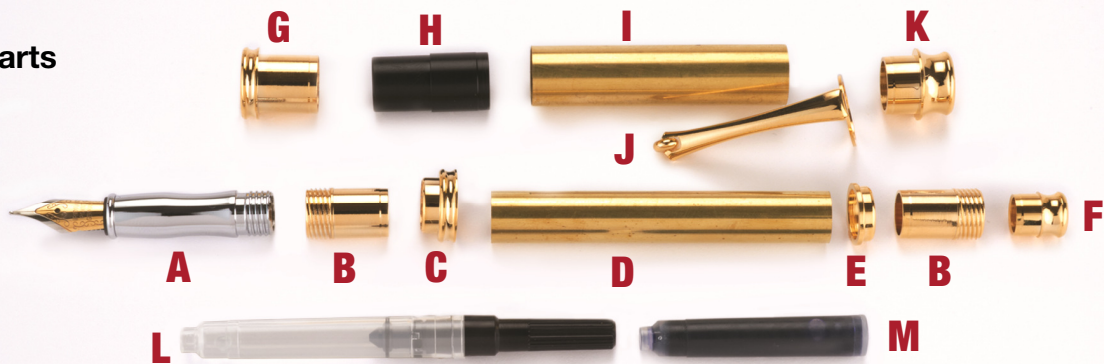
## Metro Rollerball & Fountain Pen

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### Rollerball Pen Parts



### Fountain Pen Parts



### Turning & Finishing the Blanks:

Turn the blank to your desired profile, leaving the blank slightly proud of the bushings. With the lathe spinning, begin sanding with 120-grit paper, and progress through the finer grits finishing at 320-grit. Once finished with sanding, apply a finish of your choice.

### Assembly:

#### Roller Ball Body:

- ❑ Slide Decorative Ring (C) lip end first onto one of the two Nib Adapters (B) and press into the larger diameter end of Finished Body (D).
- ❑ Press End Cap (F) into the threaded end of remaining Nib Adapter (B). Slide Trim Ring (E) lip end first onto the other end of the Nib Adapter and press into the open end of the Finished Body (D).
- ❑ Slide the Spring, large end first into the open end of the Finished Body (D) followed by the Ink Refill (L). Finish the assembly by threading Nib (A) onto the end of the Nib Adapter (B).

#### Fountain Pen Body:

- ❑ Follow the same steps for the assembly of the Rollerball Body, the below step is for the Fountain Pen Assembly.

- ❑ Plug Pump (L) or Ink Cartridge (M) into the Fountain Pen Nib (A), thread assembly (A, L or M) into the Threaded Body Connector (B).

#### Cap:

- ❑ Slide the smaller diameter end of the Cap Thread Tube (H) into the Center Band Assembly (G) and press into one end of the Finished Cap (I).
- ❑ Next slide Clip (J) over the lip of Finial (K) and press into the open end of the Finished Cap (I).