

## Dugas Tri-Function Pen Kit

Product: #160811, #160812

7/6/2015



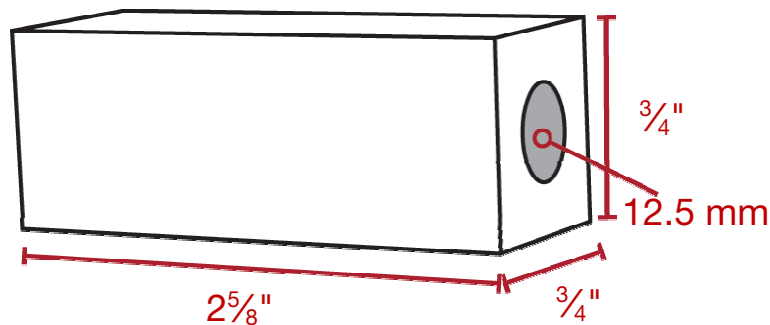
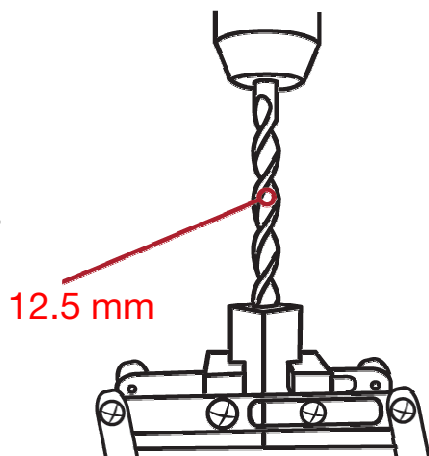
### From Setup To Sanding:

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

- ☐ 12.5 mm Pen Maker's Bit
- ☐  $\frac{3}{4}$ " x  $\frac{3}{4}$ " x  $2\frac{5}{8}$ " Pen Blank
- ☐ Pen Mandrel
- ☐ Dugas Bushings (160814)
- ☐ 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.

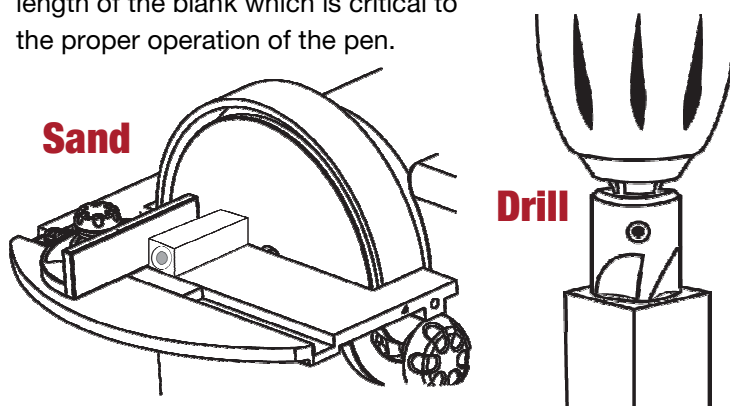


### Gluing Blanks to Tubes:

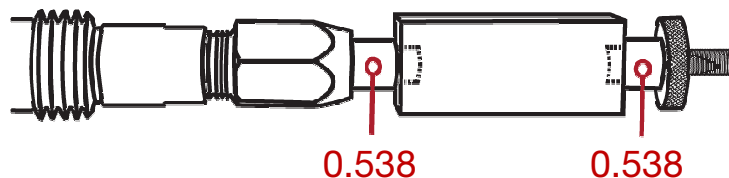
Rough the entire surface of the tube using 180-grit paper. Next, using either a thick CA or 5-Minute Epoxy, apply adhesive to both the tube and the inside of the blank. To secure the brass tube into the inside of the blank make sure to rotate the tube as you insert it into the blank. This will help ensure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



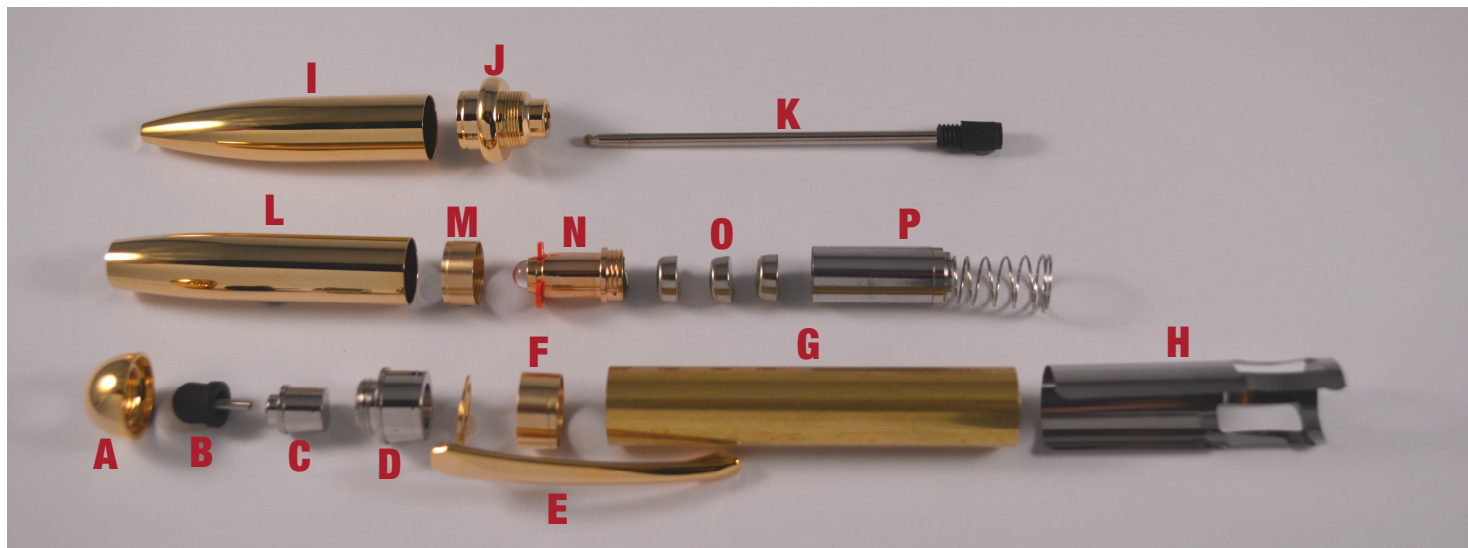
### Turning & Finishing the Blanks:

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, progressing through the finer grits finishing at 320-grit. Once finished with sanding, apply a finish of your choice.

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### Assembly:

#### Sub Assembly Body:

- ☐ Press the Stylus Keeper (C) into the threaded end of the Stylus Bushing (D). Slide the Clip (E) on the other end of the Stylus Bushing (D). Next press the Stylus Tube Bushing (F) lip end facing away from the Stylus onto the Stylus Bushing (D) capturing Clip (E). Press the entire assembly lip end of the bushing first into one end of the finished Blank (G).
- ☐ Insert the spring end of the Rubber Stylus (B) into the end of the Stylus Keeper (C) until it seats firmly. Next thread the Stylus End Cap (A) onto the end of the Stylus Keeper (C), ensure that the Stylus Tip remains centered in the Cap as you thread it on.
- ☐ Slide the Cap Keeper Spring (H) into the open end of the finished Blank (G), orient the spring as shown above. **NOTE: To prevent scratches on your finished pen you will need to check that there are no sharp edges/burs on the inside of the Keeper Spring. If any are found use a very fine grit paper to remove them.**

#### Sub Assembly Pen:

- ☐ Press the Pen Refill Bushing (J) into the Pen Nib (I) leaving the threads exposed.
- ☐ Next thread the Ink Refill (K) into the end of the Pen Refill Bushing (J). **NOTE: When changing Ink Refills it will be necessary to retain the black threaded adaptor.**

#### Sub Assembly LED:

- ☐ Press the LED Nib Bushing lip end first into the open end of the LED Nib (L).
- ☐ Place the three Batteries (O) writing side up into the LED Switch Assembly (P). Remove the Red or Yellow shipping keeper from the LED Assembly (N). Thread the LED Assembly (N) onto the LED Switch Assembly (P).
- ☐ Next, take something small and depress the White switch at the end of the LED Assembly to test the light. If it does not light up check to ensure that the batteries are installed correctly. Press the switch again to turn the light off.
- ☐ Slide the LED Assembly bulb end first into the LED Nib Bushing (M). Screw the Pen Assembly into the end of the LED Assembly. Slide the Cap/Body over one end of Pen or LED assembly.