# Bullseye Turning Supply Apollo 180 Fountain & Rollerball Kits

Supplies Required:

Drill Bits: 3/8, 29/64, 23/64, 5/16, 1/4" Collet Chuck with 3/8" Collet

5 Min Epoxy

180 Mandrel Set

Live Center

Personal Protective Equipment

3/4" x 3/4" x >6" Blank (Resin, Hybrid, or Stabilized Wood)

#### Recommended:

Calipers

Pen Jaws Or Collets To Drill On The Lathe

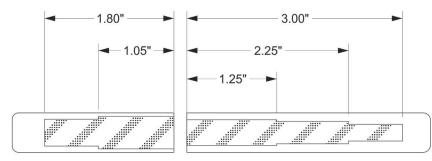


## Getting Started

- 1. Make a mark on the blank at 2.5" from the edge. This side will be the cap, and should leave 3.5" for the body of the pen.
- 2. Cut the blank on your line with your tool of choice.

## Drilling the Body Blank:

- 1. Hold your blank in a vice on the drill press or in pen jaws on the lathe.
- 2. Start with the 1/4" drill bit, and drill 3 inches into the blank. DO NOT DRILL ALL THE WAY THROUGH
- 3. Using the 5/16 drill bit, drill 2.25" into the blank.
  4. Using the 23/64 drill bit, drill 1.25" into the blank.
- 5. Check the fit of your body assembly in the blank. Set aside.



# Drilling the Cap Blank:

- 1. Hold your blank in a vice on the drill press or in pen jaws on the
- 2. Start with the 3/8 drill bit, and drill 1.8" into the blank. DO NOT DRILL ALL THE WAY THROUGH 3. Using the 29/64" drill bit, drill 1.05" into the blank.
- 4. Check the fit of the cap sleeve in the cap blank. Set aside.

#### Gluing The Components:

- 1. Before gluing in your components, you may need to square the ends of your blanks. The easiest way to do this is on the lathe, but can also be done with some sandpaper. Make sure your ends are not concave, as this will cause a gap between the blanks allowing the hardware to show
- 2. Mix up some 5 min epoxy & lightly coat the outside of the body & cap sleeves. If you can, it helps to also lightly coat the inside of the cap blank with epoxy.
- 3. Press the body sleeve into the body blank. Wipe off any epoxy squeeze out.
- 4. Thread the cap insert onto the body hardware. Press the cap sleeve into the cap blank, and line up your two blanks. Wipe off any epoxy squeeze out

#### Turning:

- 1. Set up your collet chuck with 3/8" collet on your headstock. Insert the body mandrel into the collet and tighten snugly.
- 2. Once the epoxy is cured, thread the body of your pen onto the mandrel and put a small amount of pressure on the blank with the live center in the tailstock.
- 3. Turn the blank to the desired shape & part off the bit where the tailstock will leave a dimple.
- 4. Sand & polish. Repeat for the cap blank.

Assemble the pen section onto the body blank & enjoy the fruits of your labor!

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