Closed End Pen on a Regular Mandrel

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It all started when I made this pretty double closed end blue pen. I put the pen together and knew right away, it did not look right. The top was too big for the bottom.

I tried to grasp the center band and pull it out. I tried hooking it out. But the barrel was so slim there was very little blue left around the tubes and I was afraid to grip it too tightly in my wood vise.

I was really going for a very slim Rollerball. Finally I thought that the only way to "repair" it was to drill a hole through the top and send a thin punch down inside and smack the center band out.

As I was doing that it dawned on me EUREKA. I could turn a closed end on a pen mandrel. I just needed to make sure the hole I drilled fit tightly to the mandrel. No new tools to buy (a cap closed end & a closed end mandrel from Arizona Silhouette are about $50.00) No homemade mandrel to turn & use "o" rings. No turning a metal bolt to size.

The following text & pictures should make it easy to figure out how it can be done.

Picture 1

The first step is to round the blank between centers.

Picture 2

The blank is then cut for the upper and lower barrels. Then drill an appropriate sized hole for your pen kit in the lower barrel. Here it was 25/64” for a depth of 2 7/8”. (Not shown here but you need to drill the appropriate size hole in the upper barrel for the pen kit.)

Picture 3

Still working on the lower barrel, drill a hole whose diameter equals your pen mandrel diameter (this must be snug). Best to measure with good calipers and pick a drill bit to match. This hole is drilled completely through the blank.

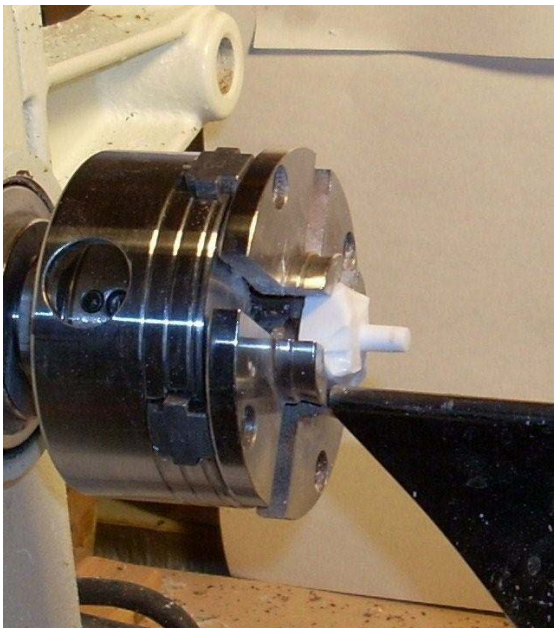
Picture 4

Put on regular pen mandrel as it's usually configured, using the 2 bushing for the upper barrel and only the center band bushing for the lower barrel. At the other end use a piece of wood as a spacer so you don't hit brass locknut with your turning tool.

I'm showing both barrels on the mandrel. If you have an adjustable mandrel, you can turn one barrel at a time.

Picture 5

This image shows the turning in progress. The upper barrel (near the headstock) is turned down to the bushings. The lower barrel is turned down to the bushing at the center band, while on the other end is shaped to form the closed end.



Picture 6

Turn whatever material you choose to "plug" the closed end section of the barrel

Picture 7

The plug is then parted off and glued in the closed end of the lower barrel. The center band end of the lower barrel is then wrapped in tape to protect it and held in the chuck jaws to allow for final finishing of the closed end.