

Native Pens

Calligraphy Pen Instructions

Required Accessories.

1 x 7mm Brass Tube.

1 x 1/4" Calligraphy Nib holder insert.

1 x 20mm x 20mm x 200mm Timber Pen Blank.

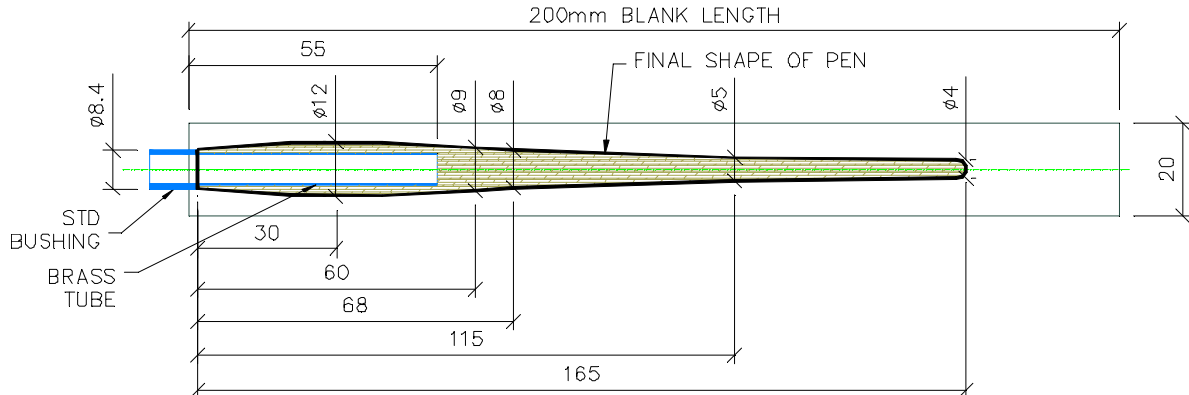
1 x 1/4" Pin Mandrel.

1 x Slimline Bush.

1 x 7mm Brad Point drill bit.

1 x 7mm Barrel Trimmer (Optional).

Native Pens Calligraphy Pen Design.



Preparing the Blank.

1. Cut the timber blank to 20mm x 20mm x 200mm. Straight grain timbers are generally best.



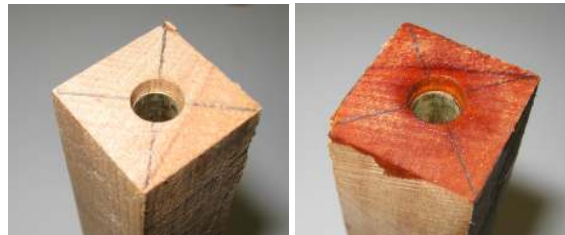
2. Mark the end of the blank to drill, then mount in a drill press or similar. Ensure the blank is held square to the drill then bore out the blank to 55mm deep, or 3-4mm deeper than the brass tube length.



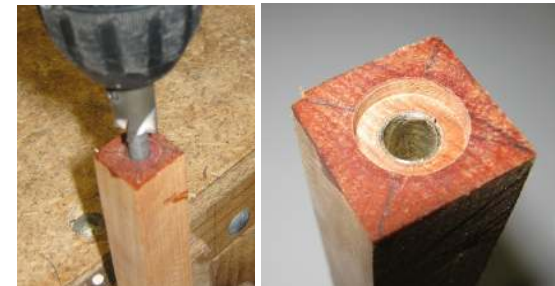
3. Prepare the brass tube by mounting it on a standard mandrel and sanding with 120 or 150 grit to key the gluing surface.



4. Dry fit the brass tube into the pen blank; ensure it drops to about 2-3mm below the blank end. Use CA glue or other suitable adhesive bond in the tube. Best results are obtained but applying adhesive to both the blank and the tube.



5. Once the adhesive is cured trim the blank end either with a barrel trimmer or sand the face on a disc sander.



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Setting up the Mandrel

1. Remove the standard mandrel shaft from the Morse taper. Take the Morse taper and insert it into the lathe head shaft. Using a soft face hammer, LIGHTLY tap the taper to seat it in.

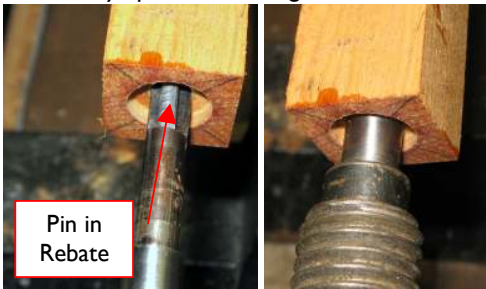


2. Thread in the Pin Mandrel then LIGHTLY tighten with a small spanner at the pin rebate.



Turning the Pen.

1. Slide a standard 8.4mm pen bushing onto the mandrel up to the Morse taper then slide the pen blank onto the mandrel while holding the Pin in the pin rebate. Slide the blank all the way up to the bushing.



2. Bring up the tailstock to support the blank.



3. Firstly, turn the blank into a cylinder.



4. Then, turn a taper onto the nib end (headstock end) of the pen until the excess blank is cut away above the bushing.



5. Next, mark out the diameter positions on the pen with a pencil to the Native Pens design shown. Rotate the pen by hand against the pencil to draw a ring around the pen at each point.



6. Using a small parting tool cut rebates into the blank at the marked points. Measure the diameters at each point with vernier callipers or a micrometer. Then remove the bulk timber between the rebates. This should be completed in stages, as the pen gets very flexible as the timber is removed. Work from the nib end of the pen, leaving the tail of the pen thicker until most of the timber is removed.

a. First Rebate Cuts.



b. Check rebate depths.



c. Remove bulk timber.



d. Cut rebates deeper and check depths. Good practice is to write the depths on the pen as you measure them. These can then be compared to the design. Note the nib end rebates are kept about 1mm off the design diameters while the tail end has been left thicker.



7. Continue this process until the basic shape is reached. Then using very fine cuts finish the shaping of the pen until about 0.5mm over the design diameters. Pen is now ready for the first stage of sanding.



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Sanding the Pen.

1. Start from a grit suitable for the timber, use a soft foam block to help finish the shaping of the pen if required. Continue sanding through all the grits to your desired surface level.



2. When sanding is finished remove the tailstock and remove the pen from the mandrel. Be careful to catch the pin as you remove the pen! Remove the bushing from the mandrel.



3. Using a bandsaw or fine handsaw, remove the waste timber at the tail end of the pen. Hold the pen on a timber block while cutting.



4. Place the Pen back on the mandrel with the pin in place in the pin rebate. Slide the pen onto the mandrel until approximately 10mm from the Morse taper. **PREPARE YOURSELF FOR SOME FLEXING.**



5. Next step is to finish the shape of the tail end of the pen. Start the lathe then, while supporting the pen in the fingers of one hand, sand the tail point with the other. Start at your coarse grit, then work your way through the grits until your desired surface is reached.



6. Finally, sand the shoulder off the nib end. Use a soft sanding block to round off the shoulder then work through the grits until your desired surface is reached.



7. The pen is now ready for final finishing.



Finishing the Pen.

1. While on the mandrel, apply your desired finishing system.



2. Remove the pen from the mandrel; again take care to catch the pin as the pen slides off.

3. Press the Nib holder into the brass tube; this can be done by hand. Your calligraphy pen is now ready to receive its writing nib.

