

Native Pens

Guardian Pen Instructions

Required:

1/4" Mandrel

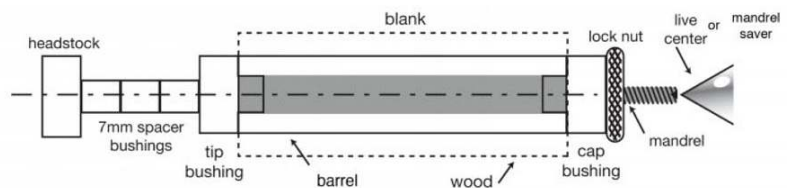
8mm Drill Bit

Pen Mill

Guardian Bushings

Turning the Pen Barrels.

1. Cut a pen blanks slightly longer than the brass tube.
2. Drill the blank through the centre, lengthwise, with an 8mm bit.
3. Sand the surface of the brass tube. This can be done by hand or mounted in the bushes on the lathe. This will clean off any oxidation and roughen the surface for a better glue bond.
4. Bond the tubes into the timber blank. This can be done with CA or two-part epoxy glue. Insert the tube with a twisting motion then push it in until slightly under flush. About equal distance in from each end of the timber blank.
5. Allow glue to cure as required by glue manufacturer.
6. Clean all the dried glue from inside the brass tube. Not cleaning out all the glue from the tube is the most common cause of pen failure.
7. Using a Pen Mill, face off the ends of the blanks until you can just see the bright brass end of the tube. STOP facing at this point. Another method to square the ends is sanding on a disc sander against a square fence or using a jig to hold the tube square to the disc then lightly touching the end with the Pen Mill to finish them.
8. Once the blanks are square and you can see the ends of the tube brighten you can mount the blanks to the mandrel and finish the turning until the desired shape is reached.
9. Finish the pen to your specifications. Remove the barrels from the mandrel and it is ready for assembly.



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Assembly of the pen.



1. Lay out the parts as shown.
2. Assemble the 3-part click mechanism as shown.

Step 1



Step 2



Step 3



3. Press the Clip Assembly into the top of the barrel.
4. Insert the 3-part click mechanism into the bottom of the barrel, threaded end first.
5. Insert the support tube into the bottom of the barrel also.
6. Press the Front End into the barrel.
7. Remove the Tip and insert the refill and spring then replace the Tip.
8. Insert the plunger and thread onto the 3-part mechanism end.
9. Press the plunger to operate the pen.
10. You pen is finished.