

Pen Making Demonstration

2. This will prevent the mandrel from bending
3. Sources
 1. Penn State Industries
 2. www.penmandrel.com (best)
 1. threads on to headstock
 2. precision made
4. replace the mandrel shaft often, they are inexpensive
 1. keep an extra on hand
 2. do not try to straighten
2. turn between centers
 1. put bushings between two 60 degree centers
3. Turning
 1. Always use the same process
 2. Turn fast, sand slow
 3. Pen needs to have same curve as parts
 4. Bushings are not for precision work
 1. They are to get you close to the right size
 2. subject to manufacturing tolerances
 3. so is the kit you are using
 4. will get bigger and small as you use them
 1. Sanding/finish
 5. Use calipers - they are a transfer mechanism
 6. know if your bushings are bigger/smaller than your kit and by how much
 1. replace when they are not longer good for estimating size
 2. Better bushings are available
 7. under-size the blank to the final diameter
 1. allow for sanding/finish
 8. Trick - See #17, parts 1 & 2 below
4. Sanding
 1. buy sandpaper as a high quality product
 1. Abranet
 2. Mirka
 3. Vincs
 4. Festool padded
 5. Klingspor
 2. This is where the \$\$\$ is made
 3. pay attention when you are sanding
 4. sand as slow as possible
 5. sand through all grits
 6. Micromesh on acrylics (wet)
 7. Sand with the lathe turning
 8. follow up and hand sand the length of the pen
 9. start and stop at the same place
 1. make a mark on the madrel or bushing
 2. use a unique spot on the blank
 10. clean up the sanding between grits using a piece of paper towel and only use it one time
5. Finishes
 1. Wood and alternate materials
 1. use a finish that is durable
 2. clean up blank before you start
 1. denatured alcohol
 2. mineral spirits
 3. get the oil out of an oily exotic wood blank
 3. CA - thin only
 1. medium sometimes
 2. many methods
 1. CA/BLO with paper towel
 2. CA only on paper towel
 3. some people use foam applicator or plastic baggy
 4. pick the one that works for your material
 5. There are a few new CA pen finishing kits out there
 3. When finishing Antler, sand with CA glue to seal
 4. lacquer
 1. spray on or off lathe
 2. dries quick
 5. Other Finishes
 1. Friction polish - shellac and wax - this will patina over time
 2. Poly - spray on
 3. lacquer dipping
 4. Penn State has a lacquer based friction polish system
 2. Acrylic
 1. Micromesh (wet)
 2. Plastic polish
 3. remember to clean up with a new paper towel between coats
 4. Renaissance Wax
 5. apply and buff out with lathe on
 6. Assembly
 1. under-size pen slightly at the edge with calipers
 2. Then hand turn to final diameter with a pen mill
 1. this is all this pen mill head should be used for
 2. should only take off a small thread of material
 3. keep checking with calipers for final diameter
 3. Finish the edge (optional)
 1. Rub the bevel of the blank on the lathe bed at 40 degrees to break the hard corners
 2. alternate is to sand with a very high grit
 3. Sanding mill from Rick Herrell on IAP website
 4. Use a pen press, vise or lathe vise to press together
 1. make sure not to damage the components - use a covering material on the press or vise
 2. do not over press and crack the blank
 5. Throw out the refill that comes with it and replace it with a quality refill
 1. Private Reserve ink and refills, Parker, Schmidt, Montaverde
 2. This way the person can find the refill at their office supply store
 3. It will write better, especially at a show for selling
 4. Refill sources below
 7. Presentation
 1. velvet sleeve
 2. pen box
 8. Other tips
 1. if you make a pattern or segmented blank it must be absolutely perfect or completely random.
 2. if you are going for perfect and it is not, it will show on this size piece
 9. Kit-less pens
 1. 2 types

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1. turned and threaded.
 2. turned with a bic or other insert. Looks like the old feather pen.
2. There is a good article on Kurt Hertzog's website
10. Fixing Mistakes
 1. pen disassembly kit
 2. buy the punch set from Harbor Freight
 3. PSI Gripper
 4. carefully take apart
 5. may need to use spare parts
11. Casting/Making your own blanks
12. Sources
 1. Sandpaper
 1. www.Vinceswoodnwonders.com
 2. www.klingspor.com
 2. blanks
 1. www.exoticblanks.com
 2. www.turntex.com
 3. www.penturners.org
 4. check classified section
 5. ebay
 6. www.woodheadz.com
 7. swamplandtackle.com
 8. www.indy-pen-dance.com
 9. www.penblanks.ca/home.php?cat=160
 10. www.yafaoutlet.com
 11. monteverdepens.com
 12. www.lazerlinez.com
 13. Mutt-Blanks on IAP
 14. www.knbpenblanks.com
 15. www.woodenwonderstx.com
 16. Victor
 3. pen parts
 1. Rio Grande for silver
 2. www.silverpenparts.com
 4. refills
 1. www.exoticblanks.com
 2. www.levenger.com
 5. Multiple Items
 1. www.classicnib.com
 2. www.pennstateind.com
 3. www.beartoothwoods.com
 4. www.arizonasilhouette.com
 5. www.bereahardwoods.com
 6. www.woodpenpro.com
 7. www.penturnersproducts.com
 8. www.smittyspenworks.com
 9. www.pendisplaykits.com
 6. Tools
 1. www.woodchuck-tools.com
 2. www.penmandrel.com
 3. www.eddiecastelin.com
 4. Rick Herrell on IAP website
 7. Videos
 1. Penturning with Rex and Kip - 2 videos and related Book
 2. Barry Gross videos
 3. Captain Eddie on Youtube
 4. Russ Fairfield
 8. Websites
 1. www.penturners.org (IAP)
 2. www.penmakersguild.com
 3. www.kurthertzog.com
 - 4.
 9. Books
 1. Pen Turners Bible - Richard Kleinhenz
 2. Pen Turners Workbook - Barry Gross (Fox Chapel Publishing)
 3. Turning Pens - Mike Cripps