

Pepper Mills – Revised January, 2011

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Tools & Materials

- 10" pepper mill mechanism
- 3" x 3" x 12" hardwood turning blank
- Drive center
- Live center with cone
- 1-5/8" Forstner bit
- 1-1/16" Forstner bit
- 7/8" Forstner bit
- 17/64" twist drill bit
- Jacobs chuck with #2 Morse taper
- Scroll chuck
- 2" x 2" x 4" poplar blank for mandrel
- Large spindle roughing gouge
- 3/8" bedan tool
- 1/2" spindle gouge with fingernail grind
- 1/16" parting tool
- Sandpaper and finish

Preparation:

- Cut 3" x 3" x 12" blank from most any hardwood. I like cherry, Hard maple, walnut and ash.
- Locate centers on each end and mark with awl or center punch.
- Mount blank between centers.
- Rough turn blank to cylinder using spindle roughing gouge.
- Use 3/8" bedan tool to turn tenon (to fit chuck) on each end of blank.
- Measure 8" from tenon on one end and mark.
- Cut third tenon at mark leaving 8" between tenons
- Use 1/16" parting tool to cut most of the way through blank leaving 3/8" tenon on both ends of 8" portion of blank.
- Remove from lathe and separate
- Remove centers from lathe and attach scroll chuck
- Mount and center 8" blank in chuck with bottom end facing tailstock.
- Use 1-5/8" forstner bit to drill hole 3/8" beyond tenon
- Use 1-1/16" forstner bit to drill hole more than 1/2 way through blank (you may need an extension for the bit)
- Remove the blank from the chuck and remount in the opposite direction
- Center in the chuck and bring up live center for support
- Use 1/16" parting tool to remove tenon from top end of blank
- Use 1/2" spindle gouge to make a finishing cut across end of blank
- Finish drilling 1-1/16" hole through blank
- Remove 8" blank from chuck
- Mount top portion in chuck
- Use 1/2" spindle gouge to make finishing cut across surface

Use 3/8" bedan tool to make 1/8" long x 1-1/16" diameter tenon to fit snugly into hole in larger blank
Make a finishing cut from outside edge to tenon (it should be either flat or slightly concave)
Drill 7/8" diameter hole 1/8" deep in center
Use parting tool to expand opening to fit turnplate
Drill 17/64" hole through top
Remove from chuck and partially assemble to determine over length
Mark the cap, remount in chuck and cut to length
Mount 2" x 2" poplar blank in and turn tenon on mandrel to fit 1-5/8" hole in bottom of base
True up the end and make tenon 1-1/4" long (should fit snugly into bottom of blank)
Join the two parts together and mount between mandrel and live center with cone
Start by removing tenon from of blank at mandrel
Make a finishing cut across bottom of mill with spindle gouge
Use the spindle gouge to shape the interception between the two parts of the mill (make sure the line is clean between the two parts)
Finishing shaping the top
Shape the bottom of the mill
Sand and finish

Sources:

Craft Supply USA
Packard Woodworks
Woodcraft Supply