

“Grinding It Out”

Making a Pepper Mill

By Hal Simmons

There are probably as many ways to make a pepper mill as there are techniques to turn a bowl. What I want to demonstrate is a method that works for me. My methodology will probably be modified over time, and I encourage you to make whatever modifications seem to suit your own turning.

The basic turning blank should be 2” longer than the mill mechanism. For a 10” mill, use a 3 x 3 x 12” blank, e.g., turning blank stock. A good wood to use is maple. It turns and finishes well. The finished pepper mill is divided into two (2) sections, e.g., bottom and cap. The two ends of the bottom can be thought of as ‘X’ and ‘Y’, with ‘X’ being the part that actually sits on a table. The cap of the mill can be thought of as ‘Z’.

- 1) With the blank between centers and roughed down to approximately 2 3/4” dia., create a 2 1/4” diameter tenon on the ‘X’ and the ‘Z’ ends with a 3/8” bedan or beading tool
- 2) Measure 8 3/4” from ‘X’ and make a mark on the cylinder
- 3) Create a 2 1/4” diameter tenon to the left of the mark, e.g., ‘Y’; use 3/8” bedan or beading tool
- 4) Part off the bottom, at the top part of ‘Y’ tenon that was created in step 3
- 5) Mount ‘Y’ end in chuck
- 6) Bore 1 5/8” hole with Forstner bit to depth of 3/4” in the ‘X’ end
- 7) Bore 1 1/16” hole with Forstner bit to depth of 5/8” beyond first boring
- 8) Using a 1” bit, bore the remainder of the blank to midpoint or as far as the bit will allow
- 9) Remove ‘Y’ from chuck and place ‘X’ in chuck
- 10) Make finish cut to remove “Y” tenon
- 11) Bore 1” hole to meet other hole from step 9
- 12) Sand and finish surface of ‘Y’; using the skew is probably the best tool for this procedure
- 13) Remove ‘X’ from chuck
- 14) Dry fit the mechanism and measure from ‘Y’ to top thread of mechanism
- 15) Decrease total length by another 1/8” and mark line on cap
- 16) Mount cap in chuck using tenon created at ‘Z’
- 17) Create a 1” dia x 3/8” long tenon; this will fit into “Y”
- 18) Bore 7/8” hole with Forstner bit to depth of 1/8” for turn plate in end of tenon; this will probably require enlarging a bit; the long point or toe of the skew is probably the best tool for doing this
- 19) Bore 17/64” hole through cap
- 20) Create a jam chuck (1 1/2” long by 1 5/8” dia) to hold ‘X’
- 21) Mount ‘X’ using jam chuck and ‘Y’ with cone center
- 22) Make “V” cut on “Y” end; typically, this is about 1/4” to 3/8” long
- 23) Use cone center and jam chuck to hold cap and bottom; turn to desired shape
- 24) Sand and apply clear DEFT spray finish, followed by Briwax or whatever you prefer
- 25) Apply all hardware

This all appears to be fairly tedious, but it does work! Good luck.

Material's List for 10" Pepper Grinder

Wood:

10" Peppermill Mechanism
3 x 3 x 12" blank (maple, ash, oak, walnut, etc.)
Jam chuck (1 1/2" L; 1 5/8" D; dense wood)
Jacob's chuck w/ #2 morse taper

Turning Tools:

1/8" parting tool
1/16" parting tool
3/8" bedan or beading tool
Skew
Roughing gouge
Spindle gouge

Measuring / Boring Tools:

Pencil
Calipers
1 5/8" Forstner bit
1 1/16" Forstner bit
1" boring bit
7/8" Forstner bit
17/64" spiral bit

Finish:

Deft spray lacquer
Briwax or Floor wax