3-1/2” EZ MINI SALT AND PEPPER MILL

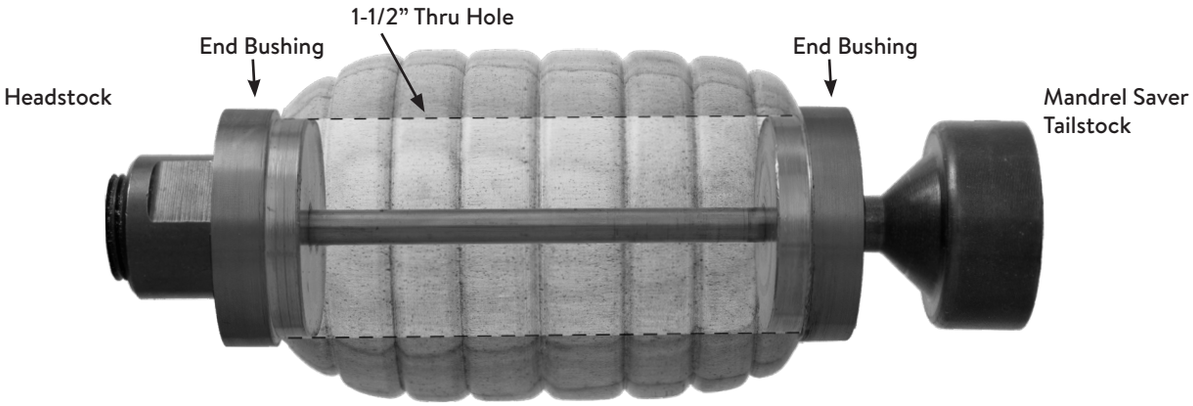
Kit Features
- Easy to Turn with Only 1 Drilled Hole Needed
- Minimal Parts—easy to assemble
- Available in multiple finishes
- Overall Length: 4-1/4” (if using 3-1/2” blank)

Required Accessories
- 7mm Pen Mandrel
- Drill Bit: #FB150, #FEX Bit Extender (recommended)
- Bushing Set(2pc): #PKGRINDXBU
- Live Tailstock or Mandrel Saver
- 2 part Epoxy
- Pen Blank Minimum Size: 2” x 2” x 3-1/2”L.

Preparing the Blank:

- Note that, while 2” is the minimum width of a blank, there will be very little tolerance if the drill goes off center. If unsure that drill will stay centered, use a thicker blank.
- Cut blank to a minimum length of 3-1/2 inch.
- Mark center of both ends by drawing straight lines from corner to corner.
- Drill 1-1/2” hole through the center. A Forstner Bit Extender (#FEX) will be necessary if you want to drill straight through the blank. Hole can be drilled by going in from from each end until the holes meet. Note that drilling from both ends will mean that the holes likely will not meet perfectly. It is nearly impossible to perfectly match the holes together when doing this method. Do not worry too much about it, as it will not have too much effect on the final product.

DIAGRAM B / TURNING THE BLANK



Turn Blank to a profile of your choice

Turning the Blank:

- Mount the bushings and blank according to diagram B.
- When using Mandrel Saver, there is no need for extra spacer bushings or the knurled nut. Slide and lock tailstock directly against bushings and tighten quill until blank and bushings are secure.
- To use Knurled Nut Setup (right):
  - Add spacer bushings until past the threads on the end of the Mandrel Shaft. Because the blank and bushing are very large and weighted, do not add spacers in between the bushings and the headstock to avoid flexing the mandrel shaft.
  - Thread on the Knurled Nut and hand tighten to hold all components in place.
  - Slide the Tailstock up snugly against the Mandrel shaft, inserting the live center point into the Mandrel dimple.
  - Lock Tailstock and hand tighten the quill adjustment with wheel to steady the mandrel. Do not over-tighten, it could damage mandrel shaft.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel straight or to a profile of your choice.
- Sand the blank down to be flush with the bushings, gradually increasing sandpaper grits.
- Finish the barrel using your choice of polish. Allow sufficient time for the polish to cure—refer to polish manufacturer’s instructions.

Knurled Nut Setup

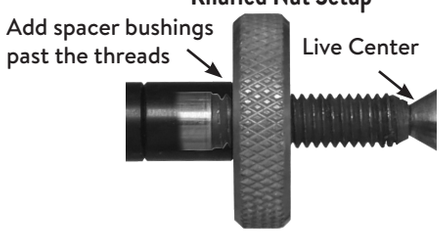


Diagram C / Bushing #PKGRINDXBU

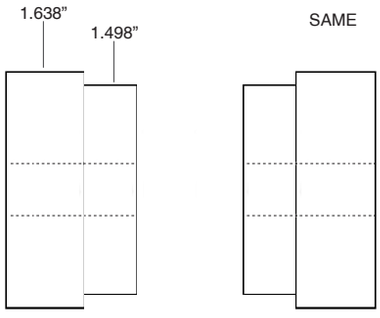
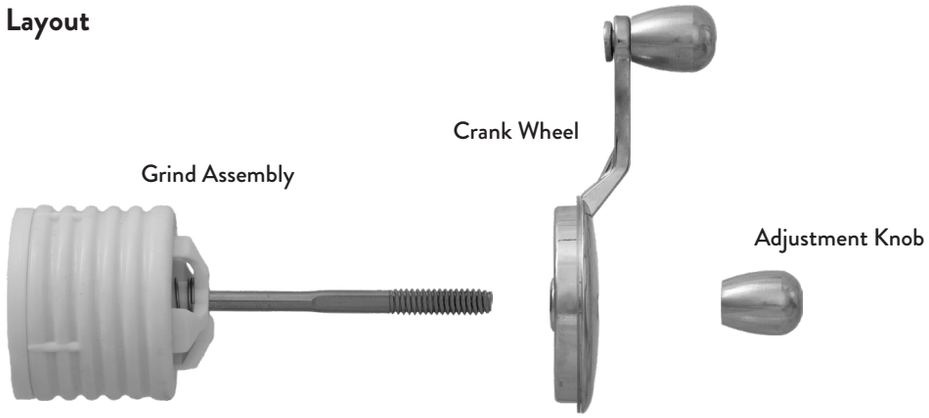
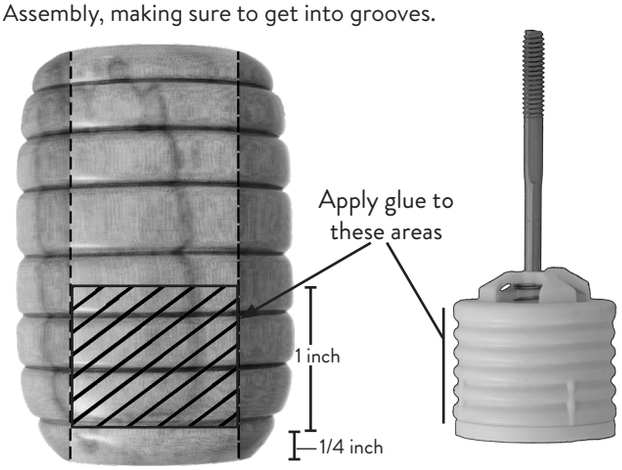


Diagram D / Parts Layout



Assembly:

1. Mix a moderate amount of epoxy. Apply to the inside hole of the barrel starting 1/4 in. from the bottom end and covering about the next 1 inch. Apply epoxy to the exterior of the Grind Assembly, making sure to get into grooves.



2. Insert Grind Assembly into the bottom. Place Crank Wheel over the other end. Insert until only a few threads of the shaft are stick through the crank wheel (about 5/32in.)

3. Thread Adjustment Knob, but only over the first two or three visible threads. This will allow the mechanism to sit at a proper height while the glue cures.

4. Carefully Wipe off excess epoxy under the Grind Assembly. Push down on Adjustment Knob so it is resting directly on top of the Crank Wheel. Allow epoxy to fully cure before use.

To Fill: Unthread Adjustment Knob and remove Crank Wheel. Add peppercorns to opening. Do not overfill or peppercorns can get stuck.

To Adjust Grind: Tighten Adjustment Knob more for a fine grind; loosen Knob for a coarse grind.

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