

Turning an O-Ring Bottle Cone

Supplies Needed

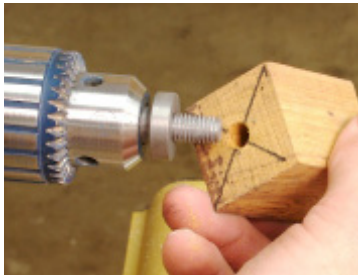
- 11/64" Drill Bit (Hardwood)
- 3/16" Drill Bit (Softwood)
- 1 1/2" x 1 1/2" x 2" Blank
- O-Ring Bottle Cone Mandrel
- Glue (Flexible CA or Epoxy)
- Drill Chuck
- Revolving Center
- Sandpaper/Finish
- Drill or Drill Press
- Eye and Ear Protection

Turning Instructions

1. Select a blank approximately 1 1/2" diameter by 2" long with the grain running the length of the blank. Square the ends of the blank.



2. Center mark and drill a 11/64" (or 3/16") diameter hole about 7/16" deep in the end of the blank. Make sure the drill bit is properly positioned at 90 degrees to the end of the blank prior to drilling so that the blank seats flat against the mandrel face. *Hint: Wrap masking tape around the drill bit to act as a depth gauge.*



3. Mount the stopper mandrel in a drill chuck mounted in the headstock of the lathe. Screw the blank onto the threaded portion of the mandrel until it seats firmly. Secure a revolving center against the opposite end of the blank for support while turning.



4. Turn the blank to shape with the revolving center supporting the work piece. Sand and finish the stopper. Slide the tailstock out of the way to sand and finish the end of the blank. Remove the revolving center and gently turn away the nub on left by the revolving center. Sand and finish.

Adding a Decorative Insert (Optional)



1. Use a set of calipers to measure the diameter of the insert. Scribe the end of the stopper using the sharp points of the caliper to indicate the diameter of the recess required for fitting the insert. *Hint: When scribing the stopper, do so with the lathe turning at a slow speed to prevent a catch.*



2. Turn the recess to the proper diameter and depth. Be sure to check for fit often to avoid turning an oversize recess.



3. Using a flexible instant glue or RTV silicone adhesive, place a small amount of adhesive in the recess and press the insert firmly into place.

Assembly



1. Remove the finished stopper from the mandrel. Place a few drops of Thick CA glue or 5 minute Epoxy into the threaded hole of the finished stopper. Screw the finished stopper onto the threaded stud of the bottle stopper. Make sure the turned stopper seats firmly against the stopper for a proper fit.