

# Turned Pill Bottle

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**The following are guidelines for turning a Pill Bottle.**



## **Tools Needed:**

- Forstner bits. Those shown for this particular bottle size are 1 1/2" and 1 3/4"
- Jacobs Chuck
- 4 Jaw Chuck
- Epoxy (cheap stuff will do. 5 Min set time works well)
- Various turning tools of your preference

## **PREP:**

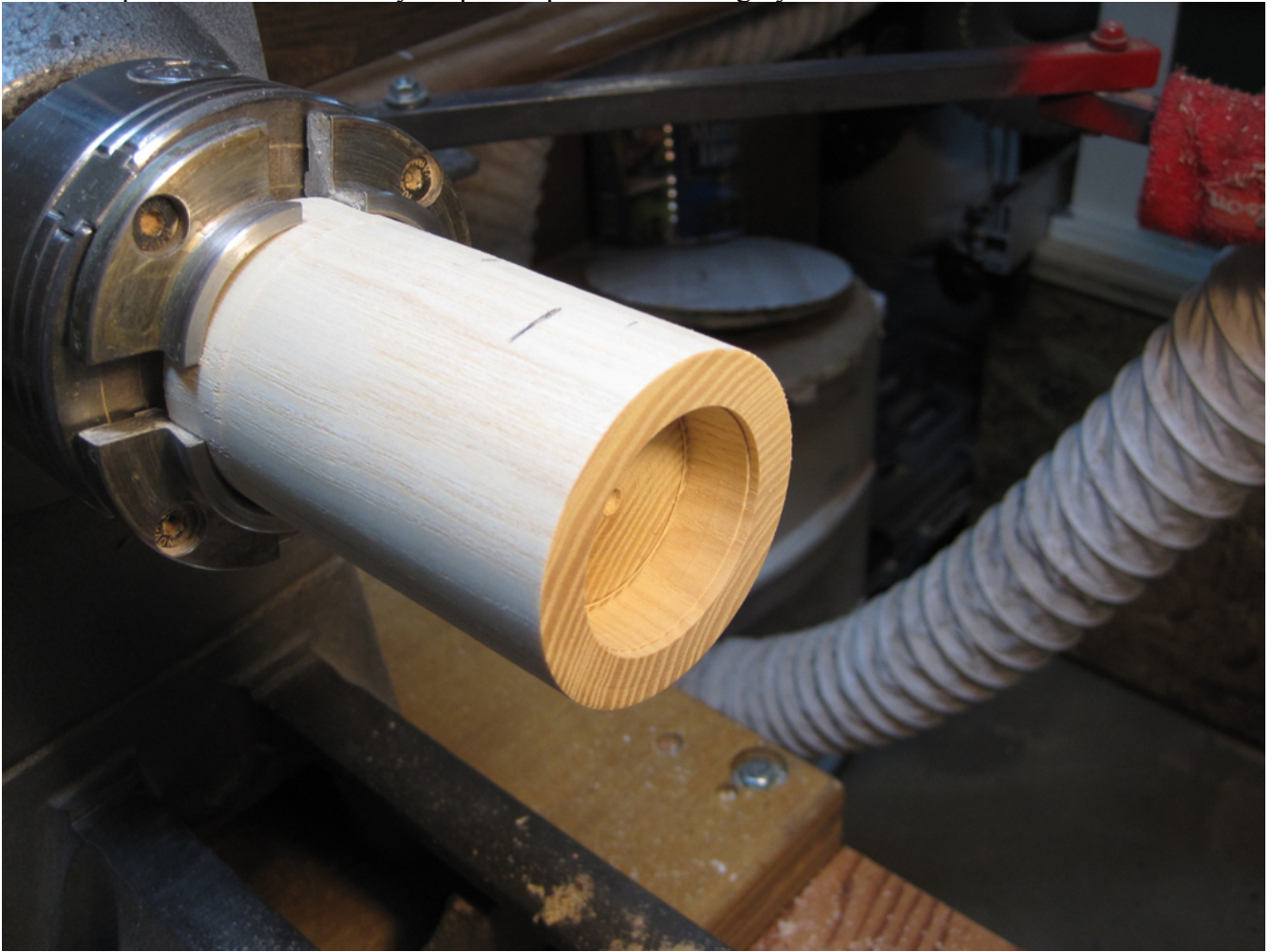
The pill bottle itself is any type that has the ratcheting child-proof lid. Sizes vary so for the purpose of this guide I've left out most dimensions and sizes as they'll be dependent on the bottle being used. Please wash the pill bottle carefully as some medications are hazardous to others who may come into contact with it.

I begin by cutting the outer child-proof lid off of the inner cap with a pair of diagonal cutters. Once the cap is free, measure it's diameter and select a Forstner bit of the appropriate size. This cap should fit **SNUGLY** inside the bored hole so it's best to go slightly undersized and enlarge the bore to fit the lid. A loose fit is very undesirable.

## **LID AND BODY:**

I take my wooden blank and turn a cylinder that measures roughly the height of the pill bottle + 1" for the cap. This total height will also allow enough extra to fit into the jaws of your chuck. The diameter

will be dependent on the size of your plastic pill bottle + roughly 3/8".

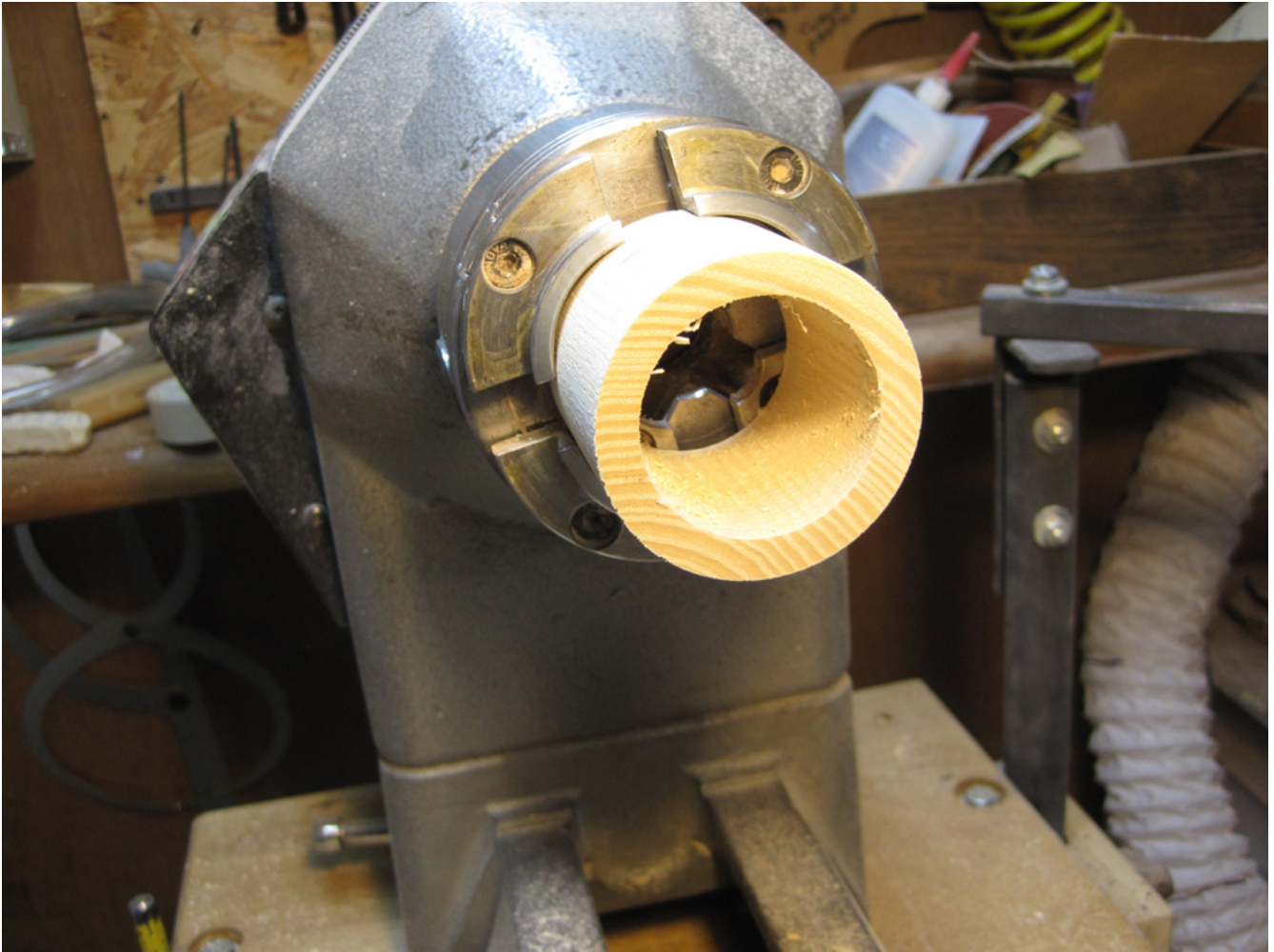


True the end of your blank making sure it's flat across (no convexity or concavity) and, using the proper sized Forstner bit, bore a hole in the end of the blank the same depth as the cap + roughly 1/16 of an inch. Enlarge as necessary to ensure a snug (but not necessarily forced) fit.

Measure about 1" from the end, mark and part off the blank. Set this wooden lid aside for now.

Again, true the end of the blank still in your chuck making sure it's flat across. (We'll be needing all flat cut surfaces to glue and fit the lid, ring and base of the bottle so get used to getting these accurate.)

Using a Forstner bit as close (or slightly undersized) to the body of your pill bottle. Bore a hole into the remaining part of the blank equal in depth to the body of the bottle (up to but not including where it rounds over for the shoulder near the threads) + roughly 1/4".



Part this section off to give you a hollow wooden tube. (I find it's more useful to part it NEARLY off then finish with a saw to reduce the splintering that parting into a hollow can yield.)

Set this aside with your wooden lid.

### **RING AND BASE:**

Prepare a blank that will be at least equal in diameter to your wooden pill bottle body and lid and roughly 2" deep and mount using your 4 jaw chuck as you did the body and lid. (I like to use a contrasting color wood for this.) Flatten the end carefully.

Using the same Forstner bit you used to bore the cap hole, bore a hole of similar depth into this new blank. Make a small bevel on the inside edge of that hole that will fit over the shoulder of the plastic pill bottle. Test with your pill bottle by putting it into the hole threads first and making sure that the threads and the ring below them pass through the bored hole. (This doesn't have to be tight, just a close but loose fit.)

Part this section off leaving you with a wooden ring. Set this aside with the body and lid.

True the end of the remaining blank and turn a tenon to fit snugly into the hole of the body of the wooden pill bottle body. This doesn't have to be tight, just a good fit like a lid on a turned box.

Using a sharp point like the end of a utility knife, scratch up the surface of the plastic bottle and cap to give something for the epoxy to grip. Mix enough epoxy to coat the inside of the wooden body about halfway down plus enough to adhere the cap to the inside of the wooden lid. Insert the plastic bottle parts into their respective wooden sleeves. Put some epoxy on the top of the wooden bottle body and slip the ring down over the threads to seat against the wooden body. Clamp if necessary and let cure fully.



When fully cured, screw the cap assembly onto the body/ring assembly. Place the open end of the bottle body end over the tenon of your base (that's still in the chuck) and snug up with your tailstock.

Turn the outside of your pill bottle to finished shape. (Go gently, it's only on there with friction and plastic threads so resist the temptation to lean into it.) When the outside is done, work the end of the cap as close to the live center as possible. (Depending on the size of your bottle and your available chuck jaws you may be able to mount the body of the bottle (without the base) in the chuck (in compression or expansion mode) and turn the top of the lid without tailstock.

Flip the base around, gently chuck the small tenon up and turn away the working tenon for a finished bottom to your base. Glue this onto the bottom of the wooden pill bottle body and finish as desired.



Hope this helps

Jim