

# Lathe Attachment for Drill Press

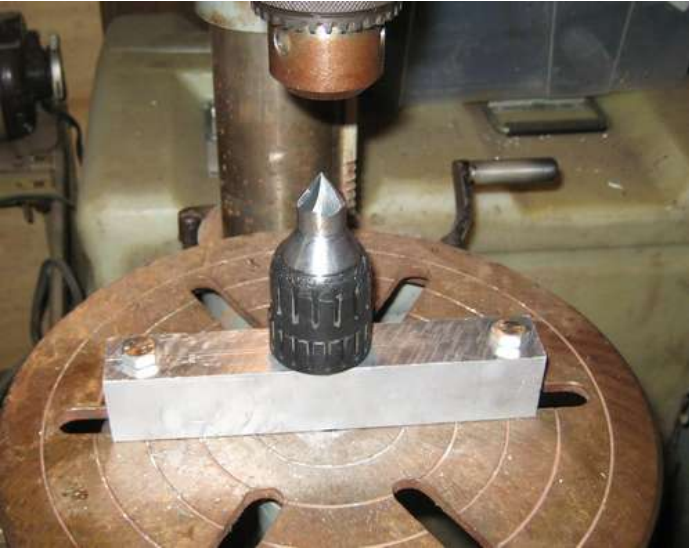
by [MarshW](#) on January 25, 2009

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## intro: Lathe Attachment for Drill Press

A drill press is a great power source for all kinds of things. Here we offer a lathe attachment for a drill press that can be used to turn wood, plastic and even metals.



## step 1: Collecting up parts

Here's where it starts. Take an old junk drill. This one died after only 6 months. Just out of warranty. I was glad to destroy it! It had Torx head screws, but came apart easily enough. All that was worth saving was the gearhead, the motor and the rheostat speed control. First, disassemble the transmission. Next remove the chuck and the clutch. There's a left hand thread set screw inside the chuck, then the chuck unscrews off the spindle. For this project, all we need is the bushing, spindle, thrust bearing, set screw and the chuck. Toss the rest.





## step 2: Build a base

Next we're going to mount the spindle bearing assembly into a sturdy base. This block of aluminum should work fine.

Mark and center-punch your holes. Two to secure the block to the table and one to hold the bearing assembly.

Start with a pilot hole.

Then drill the pilot holes out to the size of your clamping bolts. In this case 3/8".

Install the bolts permanently into the block with nuts. Use fender washers and wing nuts to clamp it down to the drill press table from beneath.



### step 3: Align block and drill for spindle.

We didn't drill the pilot hole for the bearing assembly until the clamping bolts were in place. This insures that the block is in the exact place it will be when the live center is installed. That's the technical term for this thing. A "Live Center"

Enlarge the hole progressively.

This bushing is 5/8" for 1/3 of its length then 11/16" for the rest. So we drill 5/8" all the way through, then 11/16" just deep enough to accomodate the wide part of the bushing plus the ball bearings and races. Be sure to measure yours as each drill may be different, even if you have two from the same manufacture. Notice the stepped nature of the bushing.



#### step 4: Install the bushing

Next, press the bushing into the block. A vice works well if you drilled your holes the right size. I learned the hard way that bushing is made of something soft (like babbet) and my vice jaws marred the edge.

Next, drop the race (nothing more than a hardened steel washer) into the hole and fill it up with bearings.

Here it is complete. I cut a groove into the end of the spindle by spinning it in my drillpress while cutting with a hacksaw and installed a snap ring to hold it all together



#### step 5: Try it out!

Finally, install a tapered reamer into the chuck and clamp it to the drill press table.

Install another in the drillpress chuck and you're ready to roll...or turn. When you reduce the size of something or shape it in a lathe, that's called "Turning."

Mark the ends of your workpiece and countersink them slightly.

Install the workpiece in between the centers and make sure the reamers gouge the wood deeply so they grab instead of cutting tapers in the ends.

Make sure to spin the workpiece by hand before turning on the drillpress, then if everything looks good...let'er rip! There's no tool rest so you'll have to be satisfied with rasps and files, but it will work! Even on metal!

