

Beginning Hollow Form Turning

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Turning hollow form vessels is, for many woodturners, the next step up from turning open bowls. I've put together a few suggestions and tips on hollow form turning that I think will help a beginner get started.

There are many kinds of tools for hollow turning. A simple shop-made boring bar can be very effective. There is an increasing number of hook-tools, captive tools, and others on the market today. I suggest that the beginner contact one or more experienced hollow-form turner(s) for help and suggestions on what tool to use.

Many turners will start by rough-turning the outside of a blank between centers, especially if it's a deep one. Other options include using a faceplate or screw center to mount the piece on the lathe to prepare the bottom for using a glue block, or for direct mounting using a faceplate, or for cutting a tenon for use with a chuck. After reversing and remounting the blank, rough turn the profile using a bowl gouge. To provide support when hollowing, leave thicker wood in the area around the foot.

After forming the outside, rough-turn the inside, even if the wood is dry. If it is dry, leave the walls at least 1/2-inch thick in the upper portion and a little thicker in the lower portion. If the wood is wet, it should be a bit thicker to allow for warping. Start by boring a hole down the center, to just a bit short of the final depth. This will aid in hollowing and will serve as a guide for how deep to hollow.

I start the hollowing with a 1/4-inch bowl gouge. This is followed by a shop-made boring bar, using a 1/4-inch cutter. This is used by cutting from the center-hole out toward the side walls. After enough wood has been removed to allow the hollowing tool inside the vessel, alternate using the boring bar and the hollowing tool. Cut to final roughed-out thickness an inch or two at a time as you work your way down the inside of the vessel.

To complete the vessel after rough-turning inside and out, finish turning the outside, except for an area around the base. There you should leave thicker wood for more solid turning. Shear-scrape and sand the outside completely. Hollowing to final thickness should be done a couple of inches at a time. This will allow you to always be turning against thicker wood, providing more stable turning. The base or foot is formed after final hollowing is done.

I suggest that your venture into hollow form turning start by using your hollowing tool to hollow an open or nearly open bowl. This will allow you to familiarize yourself with the cutting action of the tool by actually watching it perform as you turn. That would be difficult, or often impossible to do when cutting the inside of a hollow form.

There is, of course a lot more to hollow form turning, but these are the basics. Just remember, the ultimate success of a vessel is determined by it's form.

Some Tips on Hollowing:

Measure wall thickness frequently. That's especially true when you're deep inside the vessel. Calipers, such as double-ended calipers are a must.

When using a glue block on an end-grain piece, you'll get a stronger glue joint if you cut a small tenon, about 1 inch wide and 1/4-inch deep, on the blank. Cut a matching opening in the glue block. I don't recommend using a glue block on deep end-grain pieces.

Set the tool-rest height so that the cutter on your hollowing tool is cutting on the centerline, or better yet, a little above center. Cutting below center invites a catch.

Never allow the hollowing tool to touch the rim when cutting. A sure way to break the vessel if a catch occurs.

When rough-turning wet wood keep the wall thickness fairly constant to avoid cracking.

Do final hollowing a section at a time, working your way down, so that you're always cutting against thicker wood. Leave a distinct shoulder where the last cut ends so you know where to start again.

If you plan to apply some sort of turned adornment, such as beads or grooves, do it before final hollowing of the rough-turned vessel. The vessel may distort a little as you turn the walls thin.

Because the vessel may distort as you turn the walls thin, you should complete all turning and sanding of the area around the rim before proceeding on to final hollowing further down the inside.

Some turners completely turn and finish hollow vessels while the wood is still wet, and that's okay. I prefer to allow the rough-turned vessel to dry before completing it. When adding a collar or other rim treatment, I don't want any later distortion of the wood as it dries.

For deeper pieces, a steadyrest is really a necessity. One can be shop-built using plywood and in-line skate wheels.