

## Segmented Domed Bottom



Here is the way I do most of my vessel bottoms. It just consists of a decorative disk glued into the inside bottom of a vessel and then turned to reveal the pattern from below.

The basic structure of the vessel is the normal way of segmenting.

I start with a base-in my case a segmented ring the diameter necessary for the base of the vessel and a decorative disk that is smaller than the inside diameter of the second ring.

First off-the base-which I have glued to a waste block which is in turn screwed to a faceplate.



I used cherry for both rings because it was handy for me, but I would usually have a contrasting color for the base. Notice that the base here has a small inside diameter. That's fine because it will be turned even wider before I'm finished.



After sanding the base (or first ring if you want to call it that) flat, I glue the decorative disk, along with some contrasting veneers, to the base-centering and clamping with the tailstock.

You may want to glue the second ring on first since the disk will fit



(second ring and disk)

inside ,but if you do, be careful of any glue runs inside where you can't see. You will have a hard time cleaning and flattening that area again once you glue the second ring.



Here I have glued the disk in place along with veneers of the same diameter. Be sure to quickly and cleanly wipe away any excess glue so the second ring will fit flat.



I typically will go ahead and turn the top of my disk to a dome shape and cut the edges just thru the veneers and into the base to show off the veneer lines. (see below)

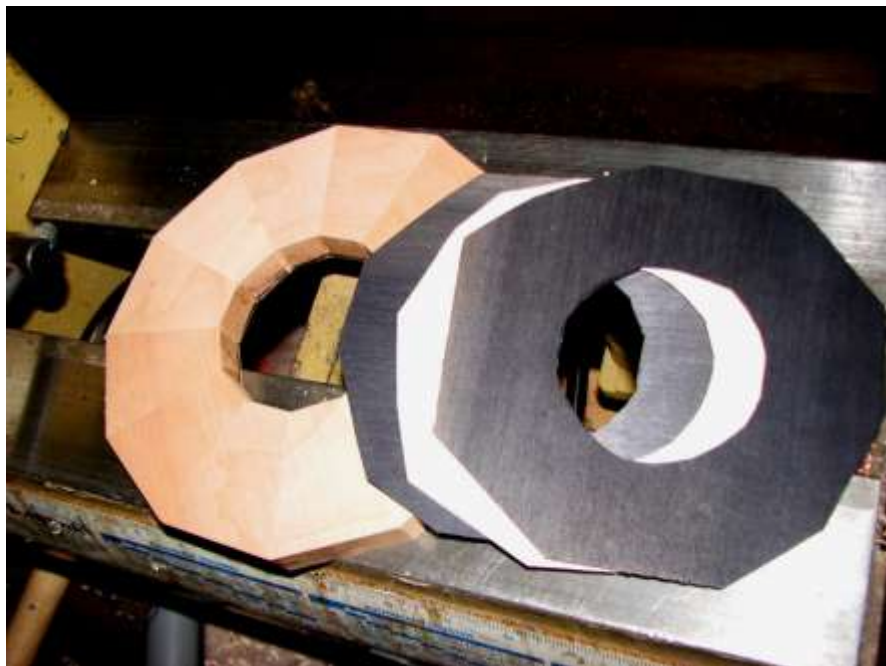


I only take off enough to give a nice smooth curve from the base up to the middle of the dome. This can be tweaked later.



Here's a profile. You can see that I just cut into the base-exposing the veneer edges.

My next step is preparing the second ring. First flattening the ring and cut whatever veneers you wish to use as detail. The veneers don't have to be the same as under the disk if you don't want it to.



Next I glue the second ring to a piece of MDF that I fixed to a faceplate and drew circles in the face with a pencil. I just use hot melt glue for this. Center the ring and glue into place. I have an adapter for my tailstock to except the MDF faceplate so the ring will come up center when I bring the tailstock up. I have to speed up a bit here so the veneers don't curl too much before I get the ring into place- and don't forget to align the ring before clamping down too hard.



Here's the second ring glued on. You can see that when I pulled the MDF away the hot melt glue pulled right off.



Now I usually wait to finish turning the inside bottom till all the rings are in place, but for this demonstration I'm gonna complete the bowl.

When I'm starting to turn the bottom, I will start smoothing out the joint area between the disk and the second ring. Just to get a nice curve and then I can complete a good fit into the wall of the second ring.



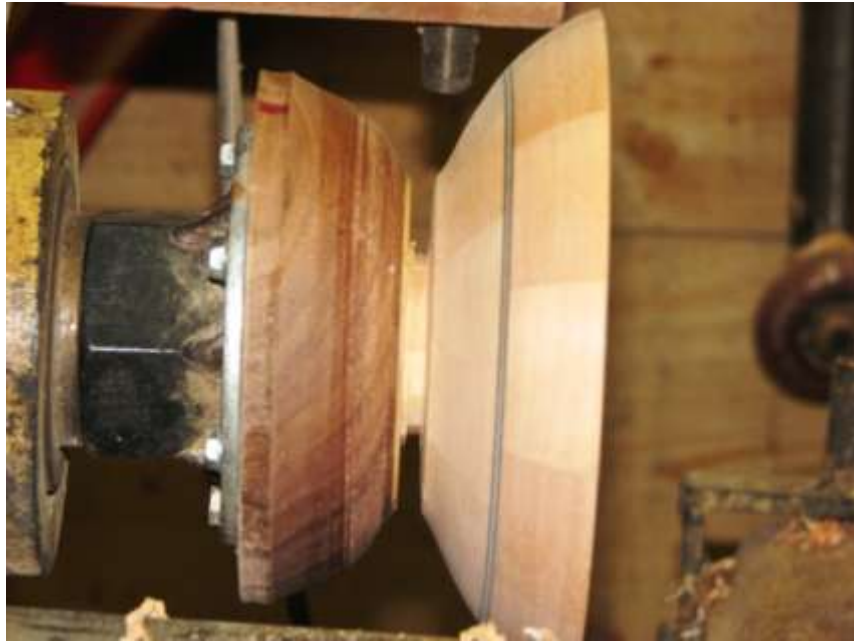


Here's a close up of the second ring and the curved cut into the base and then back to the domed disk-exposing all the veneers I have used. It may be hard to tell from the photo. From the center outward- we have the decorative disk and then a dark/light/dark veneer. Below that is the top of the base ring (just cut enough to show the ring). And then another dark/light/dark veneer layer and back up to the second ring.



This photo shows the final wall thickness and the bottom curvature.

Next, I part the piece (see blow) off the lathe and somehow affix it to finish the bottom (vacuum chuck, cole jaws, expanding jaws, or whatever trick you usually use). I use a vacuum chuck for just about everything.



However you mount the piece, the next step for me is to turn just enough away to expose the design in the bottom. This allows me to recenter the design so it will come out even looking when I finish turning.



With a vacuum chuck I can just tap it to one side or the other, using the tail stock live center for reference, to center the design before taking off any more material. This may need to be done several times in order to get a symmetrical look, so take it slow and easy till you are satisfied that you are right on center. Then you can proceed to turn the rest of the bottom. I only expose enough of the design to give me a good looking bottom-but be careful-on a full vessel it's hard to get an accurate thickness. I would rather it be a bit thick than have an accident.



I take light cuts and sanding to blend in the bottom to the sides. It seems that mine never come out perfectly centered and when I center the design, it's off a bit from the rest of the vessel. No biggie. I just sand it smooth and no one will ever notice. They'll be too busy lookin at the cool design.

Below is a look at the inside bottom.



I sure hope this helps answer some questions. Again-this is only the way I do things and only the way I do it today. Tomorrow I may change it around, but you can use this as a guide to steer your own project and techniques. Good Luck!

## OTHER STUFF

### Vacuum chucks



Here is a large homemade vacuum chuck made from a piece of maple and a 6" PVC pipe coupling. I've tapped the threads in the maple and screwed it on the lathe. Then cut a groove the same diameter as the coupling and sealed the coupling to the wood with clear POLYSEAMSEAL- an adhesive caulk (Home Depot, Lowes, etc). It's probably a good idea to set the coupling as deep as practical (an inch or more is a good idea), this will give plenty of surface area for a strong bond. You can even drill a few screws thru the wood and into the coupling to keep things tight.

Below I've center a vessel on my vacuum chuck to finish the bottom. With a vacuum chuck I can tap the vessel a little bit to align the bottom design.

You might not want to make real big cuts here, but it will hold strong for finishing if you have a good vacuum system.





Here are a couple of chucks and a sheet of packaging material that I use for a seal between the chuck and vessel. You can see the threads that a cut in the maple. I like to use maple because it's fairly strong and holds the threads well. I finish the threads with thin CA glue after tapping.

You might be able to find a used tap on Ebay or find a machine shop with a used one with a chipped tooth that they would give you for a handmade pen or something. Or some of the turning catalogs sell them for woodturning.



On this piece, I set the design disk on the second ring, instead of the base. Then I cut thru both the base and second ring to open up the design. Just another option.



## MDF faceplate



I usually use a turned cone for centering and clamping rings, but on big rings I use a piece of 1" MDF. I turn this fairly flat and then draw my circles to center my rings. This is an old method but still works for me.

You can tell that in spots, the circles are incomplete. This is where the hot melt glue peeled off. I only have to true it up again and draw new circles after I've used it so much that the lines are no longer apparent.