

## Basic Segmented Turning – Peanut Bowl

2/10/22

### Tools:

SS Hose Clamps – 6” Amazon \$5.95/2

Face Plate – 3.5” dia x 1.25 x 8tpi – Amazon – EZ wood tools \$29.71 ea

Or 4” SS Woodworkers Specialties \$24.99/ea - Amazon

Miter Saw or Sled for cutting Segments on table saw.

Lathe and chisels – bull nose scraper, parting tool, flat scraper

Waste Block

### Design:

There are many UTube videos on segmented turning and also plans for projects.

Decide the diameter of the base. If you want a bowl that has a 6” diameter base, you will need a board that is 3.25” wide for the base. I make my rings which will be glued onto the base from 1” wide stock. For a 6” diameter bowl the wide end of each segment will be roughly 1.5”. If you want the bowl to balloon out, you make the rings gradually bigger – probably no more than ¼” if you use the 1” wide stock.

### Sled:

Segments will be cut using the lower inside fence(sandpaper side). Determine the # of segments per ring, then loosen the plastic wing nut and pull the wooden ball and align to the correct number of segments. Then re-tighten thumb screws – DO NOT FORCE! The sled has been set up to be used on the rip saw with a 60-80 tooth blade. Always use the tilt box meter to make sure the blade is 90\* from the table top. Make your first cut. Then align the stop block on the cutoff table so that the distance between the stop block and the right side of the blade matches the outside tip to tip measurement of one piece of the ring you want to make for your bowl. Make a test segment with a scrap piece of wood to ensure your measurement is correct. Make your cuts by flipping the board each time you cut so each piece resembles a wedge. If you are making a 12 piece ring, you need 12 segments, an 18 piece ring you will need 18 segments, etc. If your stock is too wide to use the lower rail, you can also use the top of the upper rail (side w/ sand paper).

### Glue Up:

Using small baggies, keep the different length segments separate.

Before gluing up, set the pieces together in a circle in the pattern you want before you start gluing. I always put glue on both the mating edges to ensure good adhesion. Use the hose clamp to tighten the circle. Before the final tightening, press down on all pieces to ensure that they are as level as possible. After tightening, wipe both sides down with a wet rag to remove excess glue. I usually let my rings set up overnight before moving to the next step.

One side of the ring needs to be perfectly flat, this can be done using the Vertical/Disk Sander, the horizontal sander or the panel sander.

### Waste Block:

The face plate needs to be attached to a waste block that you will glue the bottom of the bowl to. Eventually you will cut the bowl off this waste block. Based on the size of your base, get a piece of scrap wood/plywood a little smaller than the base. Cut the base round on the band saw, then screw it to the face plate. Note: make sure the face plate is thick enough that you do not damage the cutting tools with the screw tips. I normally make a mark on my waste blocks where I need to either add on or replace the waste blocks. I usually use a double thickness of ¾" ply wood for my waste block or a chunk of 2x4 or 2x6. Put the waste block on the lathe and make it round. On the flat face, make sure the face is flat and true. Also cut in a recess in the center of the flat face to aid in cutting off the waste block when the project is complete.

### Turning the bowl:

*Never wear loose clothing/sleeves, etc around the lathe at 200+ rpm if you get tangled up, I guarantee you will have a bad day!*

After the base is glued to the waste block, mount the base and begin turning from the outside edge. I normally use the round scraper at about 250 rpm. Go slow from the edge, slowly working through the outside of the ring until it is smooth. The tool rest should be as close to the wood as possible without touching. Then move the tool rest 90\* to flatten the face of the ring. If necessary, drill out the middle and place a plug in the center.

Only glue up and turn one ring at a time. This may seem like a slow way to go but cleaning up the inside of the bowl is much harder than the outside as the tip of the cutter is further away from the tool rest.

To summarize:

1. make the outside round
2. make the inside round
3. make the face flat and true to accept the next ring.

Repeat this process up to a maximum of 5 rings including the base. If you want a larger bowl or vase, continue the project on a new faceplate/waste block but without the base. Eventually you will cut off this piece of the bowl and glue it to the original base structure.

### Finishing:

Once you are done turning, sand the project with 80, 150, 220 & 400 grit sandpaper both in forward and reverse. NOTE: make sure you tighten the hex screw on the faceplate before using the lathe in reverse!!

Once the project is sanded, I wet it down with water, both inside and out to raise the grain. When dry, I go back and re-sand with 220 and 400 grit paper both in forward and reverse.

At this point there are many ways to apply a final finish, this is the method I usually use. I apply 1 coat of polyurethane then let it dry. Then I put it back on the lathe and re-sand with 400 grit paper. Next I apply a coat of paste wax (there are yellow cans of this in the yellow HAZMAT locker that you can use) Let it dry for 5 min then buff off with a clean cotton rag – do this several times until you are satisfied with the finish.

Now you are ready to cut the project off the waste block. Mount the project on the lathe then using the parting tool at about 200 rpm or less, slowly cut into the waste block as close to the base of your project as possible. I normally move the tail stock up close to the center of the project to help catch it if you cut it off clean.

The bottom can be cleaned up with one of the sanders, a hand sander or you can mount it in the big silver jig, or one of the chucks and clean it up on the lathe with a scraper.

### Summary

There are many ways to do each of these steps, this is a summary of my way. I strongly suggest asking questions of Don, Roger, Darrell or any of the other experienced turners in the shop.