

# Turning an Offset Bowl

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- My take on an offset bowl turned on two different axes. There are several YouTube versions of this, most use a screw chuck to hold the blank, my version uses stacked tenons.
- One tenon will be at true center, the second one will be stacked on top of the first on the offset.
- Stock selection-I prefer a blank that is no more than 3" thick. I have done these from 4"-10" in diameter. If using a mini lathe, try no larger than 5" diameter and 2" thick with a 1/4" offset, until you see if your lathe can handle something bigger.
- It is easier to layout if you start with a square blank, flat on both faces. Top face must be flat if you mount using the friction mount discussed below. Bottom face must be flat for at least the diameter of the larger tenon.
- First need to calculate tenon sizes. Find smallest tenon your chuck can hold by closing jaws to within 1/8" of each other. This small tenon will be the offset tenon.
- Find the center of the bottom of your blank. Then mark the offset. I use an offset of 1/4—3/8". The bigger the offset, the wider the rim will be on one side, but the bowl portion will be smaller. Using the stacked tenons, there is a maximum offset you can use, e.g., for my chuck the max offset is 1/2". If you want a larger offset than that, you will need to use a screw chuck.
- At the offset center, draw a circle representing your smallest tenon size. If you want to highlight some figure on the wide rim, put the offset center opposite of where the figure is.
- At true center, draw a circle that is at least 3/16" past the outside of the smaller tenon. This gives a shoulder for the chuck to sit on when clamped on the small tenon.



- Once you get the centers marked you can trim the blank round on a bandsaw.
- Mount on lathe—with chuck jaws almost closed, bring the tailstock up on the true center and pin the blank between the tailstock and the chuck—a friction hold. Tighten tailstock quill and lock it so it can't vibrate out!
- Note: you can mount the blank between centers, but you MUST get the centers marked exactly the same on both faces.
- Cut the large tenon—this must be twice the height of the offset tenon as the offset tenon is cut from it. Make it at least 3/8" high, but check your chuck—it cannot be taller than what your chuck jaws will hold, and it should NOT bottom out in your chuck.
- Shape the outside/bottom of the bowl making sure you leave a flat for the tenon. You will be making a foot for the bowl from the large tenon, so shape to that. You just want to get it close, you will have a chance to modify the shape when you form the foot.
- Now change to the offset center and again friction mount the blank against the chuck. Again, remember to tighten the quill and lock it down.
- Cut the offset tenon from the end of first tenon. This tenon can be a little more than half of the total tenon height as it will take the most vibration.
- Reverse the blank and mount on the larger, true center tenon. The size of this tenon is not an optimal size for a strong hold in the chuck, so bring up the tailstock for additional support.
- Shape the rim. I prefer just a slight slope as it accentuates the offset bowl. You don't have to slope all the way to the center. Just about 1.5" should be enough, maybe 2" if your blank is larger. Sand the rim at this point.



- Mount on the smaller, offset tenon. Bring up tailstock for additional support. Draw a circle representing the outside diameter of the bowl. This helps to visualize where to stop the bowl when making the cuts as the blanks spins in its offset position. Leave at least 3/8" of the rim on the smallest edge. Must leave something so the bowl can be reversed and remounted correctly to remove the tenons and make the foot.
- Hollow the bowl as you would a normal bowl. Entrance to the bowl can be distinct to the rim or you may choose to fade/blend the entrance. The distinct entrance is easier to sand and the fade style requires some sanding with the lathe off to blend the two axis. Either way, you must keep some of the rim from the center axis so the bowl can be remounted.



Distinct bowl entrance



Fade/blend style

- Sand the bowl. With the distinct entrance, try to keep the edge clean where the bowl meets the rim, otherwise you may need to mount on true center tenon to crisp up the edge. Where the rim is wider, it is higher too. Stop the lathe to make sure you have sanded all the way up the bowl.
- Remove from chuck and reverse to form foot. The only place that you can remount this is on the outside edge of the rim.
- If you have a vacuum chuck that matches the rim, that is the best choice, but I rarely turn anything to that exact size. You can make custom vacuum chucks for this, but I use a little simpler method using a piece of MDF and a waste block.
- I add a waste block to a 3/4" of MDF. I turn a tenon on the waste block and then turn a bead on the outside edge of the MDF. The diameter of the MDF matches the rim diameter of my bowl. Slightly hollow the MDF to compensate for the irregular top of the bowl.



- Clamp the MDF into the chuck and bring up the tailstock on the true center of the bowl. Friction hold the bowl against the MDF with a piece of 1/8" thick foam between the MDF and bowl. Tighten the quill and lock it down.
- Remove the small tenon and form a foot from the larger tenon. Reshape the outside of the bowl if needed to make it flow to the foot. Sand the outside.
- Trim the small spigot next to the live center and cut off the remainder with a back saw. Use a carving knife or rotary tool to remove any remaining wood and sand flat.
- Apply the finish of your choosing. I use Mahoney's Utility Finish on the majority of my bowls.

