

Turned Vase – by Steve Mittleman



Box Elder



Cedar

- 1. Make two halves either by re-sawing a 1.5-2 inch thick block or using two 2 standard boards.** Two halves should be exactly the same size and of uniform thickness. I used a standard 1x 8-inch board that turns to approx 7 inches diameter.
In the first case, you can match the grain at the intersection. In the second case, you can put a contrasting color veneer or piece in between the two halves or leave the slight grain mismatch. If the vase is vertical (as above), you will not see the intersection. If you make it horizontal, the junction will be more obvious and the veneer may be a better choice.
- 2. Prepare two waste blocks.** One waste block should be at least 1.5" thick, as from a scrap piece of 2x4. This will make it easier to finish most of the headstock side. The face of the waste block should be flat and parallel to the dovetail ridge.
- 3. Glue each waste block to the center of each half.** Be as accurate as practical but slight misalignment from center will be easily corrected in step #6. Round the corners of each half to make it easier to turn on the lathe.

I use a compass to mark a circle. This allows me more accuracy in sawing the corners. Put orientation marks in the center of each edge so you can align the grain of each half (see step #5 below). Use the rounded half #1 as a template for half #2.

4. **Mount half #1 in chuck and put on the lathe.**

The face of the board should be perpendicular to the lathe axis if the waste blocks have parallel sides and the thickness of the board is uniform.

5. **Align the two halves** and set the live center on the tailstock of the lathe to apply pressure against half #1.

You can check that the two faces are perpendicular by turning on the lathe (slowly at first) and observing the junction. It should not appear to wobble. If it does, it can be trued but you will not be able to match the grain as accurately. (see step 9)

6. **Re-true the second waste block**
(Make sure it will fit in your 4-jaw chuck)

7. **Turn the edge (junction of each half) of the vase round**
and approximate the outside shape

You will refine the shape at a later step, but it is important to turn the vase round at the junction of the two halves now.

8. **Hollow half #1.** Make a mark on the face of half #1 about $\frac{1}{2}$ " from the edge. Hollow the inside up to this mark. You do not have to hollow very deep or make the surface too smooth. A depth of $\frac{3}{8}$ " is usually sufficient. This will all be hidden in the final form.

9. **Square the $\frac{1}{2}$ " lip.** You can use a parting tool and check the square with a straight edge but I find this is best to sand with a large piece of sandpaper on a flat board. I glue a 120 grit piece on a $\frac{3}{4}$ " MDF board. It is essential that the lip is square because it will be glued to the other half.

10. **Hollow half #2** - same as for half #1

The inside diameter of the lip should be exactly the same on each half. The depth of the hollow and the profile of the hollow at the lip should be the same on each half.

11. **Glue the two halves together** using the live center to apply pressure to the joint.

If you are matching the grain, rotate the two halves with respect to each other until the grain pattern matches. If you want a contrasting veneer at the junction, first glue this to half #2, which is mounted on the lathe, and trim to the inside and outside diameters of the half. If you have removed too much of the material such that the grain doesn't align, then the veneer may be a good option. At this point, the outside and inside diameters should align perfectly. If there is a slight misalignment, we may be able to compensate at a later step.

12. **Shape the vase.**

Part off the waste block from half #1 (tailstock side) and shape the vase to your wishes. Sand the outside to the desired smoothness. You can seal/finish with your choice of finishes now or do it off-lathe later. Wipe-on poly, Tung oil, or a friction wax polish would be reasonable choices.

Minimize the diameter of the waste block on the chuck side but be careful not to make it too small. This allows you to shape and finish most of the vase at the same time, leaving only a small area to touch up later.

13. **Part off and finish.**

Sand the small nib left from parting off the waste block by hand. Sand and finish to blend with the rest of the vase. You now have a closed hollow vessel.

14. **Grind the opening and the base.**

On a cylindrical sander (Belt/disk sander, drum sander, or spindle sander), sand out the opening. Note the depth. Finish to desired opening. Touch up profile of opening if necessary.

Sand the bottom flat (less than opening)

15. **Finish as desired.**

Inspiration came from the YOUTUBE video below but I have made several significant improvements to make it easier and better.

<http://www.youtube.com/watch?v=EK5es1c7M98>