



## Two Oval (Elliptical) Dishes

by Nico Oosthoek

To turn an oval dish, you typically need a special machine, like a rose engine, or a lathe accessory, like an oval turning attachment. Both options are rather expensive.

In this tutorial I use a method to easily turn an oval (actually two of them) without the help of a special machine or attachment. The oval shape only applies to the outside of the dish; the inside of the dish becomes round.

For this project I start with two pieces of wood. I have chosen walnut and maple. I glue them together with wood glue (PVA) and separate them with an intermediate layer of paper. I use paper from my computer printer which is very easy to split apart later.

The dimensions of the wood blanks that I used were approximately 6 3/4" x 3 3/8" x 1.75" (170 mm x 85 mm x 43mm). Of course, you could decide to use different-sized wood blanks.



Photo 1

When the glue has hardened, the ends are trimmed flat and I glue a piece of beech on

both ends. These pieces prevent the wood from splitting on the paper seam when it is tensioned between the centers.



*Photo 2*

Next, I mark the center of the workpiece onto the beech blocks.

The "A" marking in the photo is the adhesive seam and the "B" marking is the center line of the two glued pieces.

Next, I cut off the corners of the block with the band saw. This makes it easier to make the blank round on the lathe.



*Photo 3 (click on any photo to enlarge)*

On the computer, I drew an oval of 6 3/4" x 3 3/8" (170 mm x 85 mm) and stuck it on a piece of sturdy cardboard. I cut the oval out and it serves as my template.

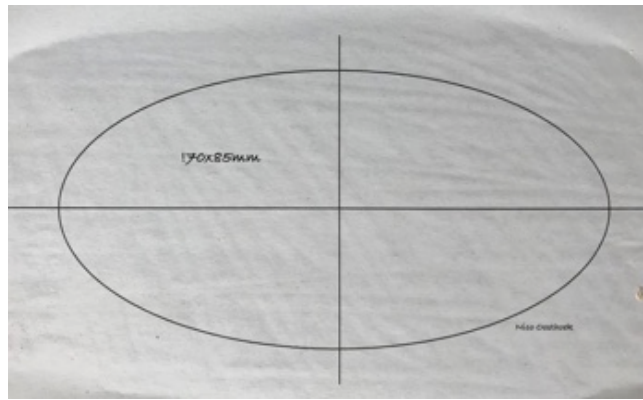


Photo 4

The wood blank is now mounted onto the lathe between centers. I then turn the blank round and reduce its size to 3 ¾" (85 mm).

In Photo 5, you can see that the template lines up perfectly with the top of the wood blank and the glue lines. Now we are ready to turn our oval.



Photo 5

The oval is turned into the correct shape with the help of the template. I also turn the pieces of beech so that the glue line and paper becomes visible.



Photo 6

Using a sharp knife, I split the two glued blanks in half. The clamp serves as an aid to ensure that the two parts of the oval do not fall over during splitting, damaging them.



Photo 7

Once I have split the two ovals, the ends are sanded away by hand or with the help of a sanding disc.



Photo 8

Now comes the most difficult or most important part of the project. I drill a hole exactly in the middle of the oval. This must be done very accurately, otherwise the hollow in the oval will not be in the middle. I measure from both ends and from both sides to arrive at the center point.

I clamped the oval with a large wood clamp. I drilled the hole using my drill press (column drill) and a 9/64" bit (ø3.5mm).

An adhesive tape flag on my drill bit indicates the depth to be drilled. The depth of the hole is determined by the length of the screw in my screw plate which you can see in Photo 10.



Photo 9

I mount the wood blank onto the lathe using a self-made screw plate.



Photo 10

The wood blank is now clamped onto the screw plate.

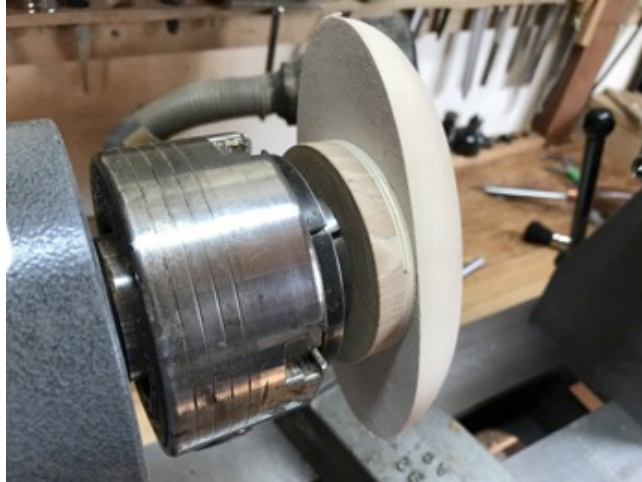


Photo 11

The bottom is turned to create the bottom of the oval dish. First I turn the bottom flat and then I turn a recess so that the blank can later be remounted onto the jaws of my chuck. I turn the recess to approximately 1 ¼" wide by ¼" deep (ø30mm x 4mm).



Photo 12

The wood blank is now clamped in the chuck. Make sure that the blank sits against all the jaws of the chuck.

The photos show turning of both the maple and walnut blanks.



Photo 13

I now turn  $\frac{1}{4}$ " (5mm) of the wood off the top. I do this from the outside edge of the blank to a location just past where the top becomes round. My goal is to create a lip for the bowl. This makes the bowl stand proud of the oval shape of the dish.



Photo 14

Now you can start to turn the bowl in the center of the blank. Make sure to leave the lip on the bowl.



Photo 15

Frequently check the depth of the bowl to prevent going through the bottom. Make sure to take into account the recess that was turned for the jaws of your chuck.



Photo 16

I sand the top edge bowl using a sanding block until all the turning marks are gone. I sand the wood with the grain (in the longitudinal direction of the wood) in order not to introduce any scratches from the grit in the sandpaper. I use the following grits, in order, one after another: 180, 240, 320 and 400.



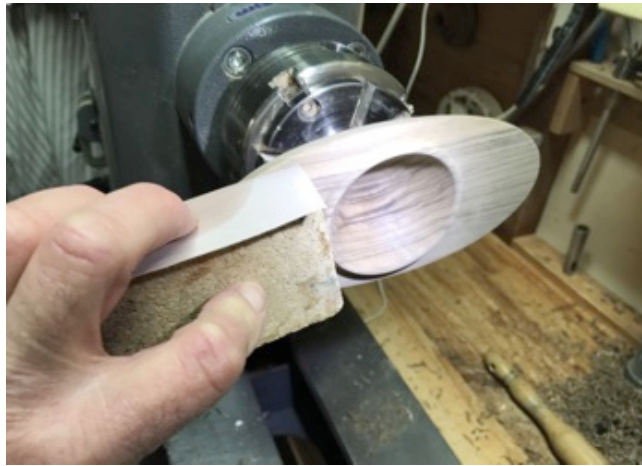


Photo 17

The sanded dish is now ready for finish.

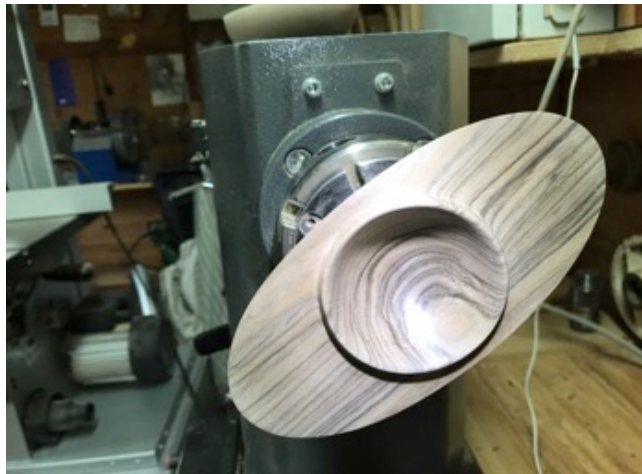


Photo 18

I am now starting to turn the second wood blank. It is clamped and turned as described in the previous photos.



Photo 19

The two dishes are finished with sanding sealer (primer), multiple coats of Danish oil, and finally a coat of micro-crystalline wax.



Photo 20

Here are two more dishes that I made in a different size and subsequently a different oval shape: 6" x 4" (155 mm x 105mm). I finished them both in the same way as the ones in this tutorial.



Photo 21

Here is a photo of another oval dish with lid. I turned this one from apple wood.

