

Cactus Routed Bowl



MLCS Items Needed:

Cactus Bowl and Tray Template #9188
Top Mounted Bearing Dish Cutter Router Bit #7817
1/2" Router Collet Extension and Wrenches #9465
45* Degree Chamfer Bit #7676
1-3/8" Forstner Bit #9219

Additional Accessories and Tools Used:

Table Saw
Band Saw
Drill press
Woodworking Clamps
Wood Glue
Sand Paper
Poplar 7' x 11" x 3/4" -1 pc.
Behlen's Salad Bowl Finish or other suitable food safe finish

Making the Layers:

1. The first step is to prep the wood that will make up the layers of our laminated blank. Start by crosscutting the 7' x 11" x 3/4" board into four, 21" long pieces. Then rip two of the four boards to 7-1/2". Glue the 7-1/2" pieces together to make the 15" wide top layer (see Figure A). Using the remaining 3-1/2" cut offs left over from the two pieces that were just ripped, glue one of them to each 11" wide piece to make two pieces 14-1/2". After all the glue dries, scrape and sand the three boards smooth. Then stack all three boards, gluing between each layer and clamp together.



Figure A

2. After the glue has dried, use a belt sander or thickness planer to flatten both sides.

Preparing the Lamination Layers and Gluing up the Bowl Blank :

1. There are a few ways to cut the bowl and tray depressions. You can use the router to remove all of material but that is very time consuming. We will use a 1-3/8" Forstner bit (#9219) to remove the bulk of the material and just use the router to finish the cutting operation. To start we will mark area that will be removed by following the inside of the template, which will be the layout line (see Figure B). Also remember to mark the all cut outs on the template which will be the inside corners of the outside of the bowl.



Figure B

2. Next, trace a line about a 1/4" inside of the layout line in the area to be removed from the outer most line. This line will show you where to safely drill out the bulk of the material. Make sure to drill only 1-1/2" deep and so you can leave roughly 3/4" of thickness for the bottom of the bowl. (see Figure C).

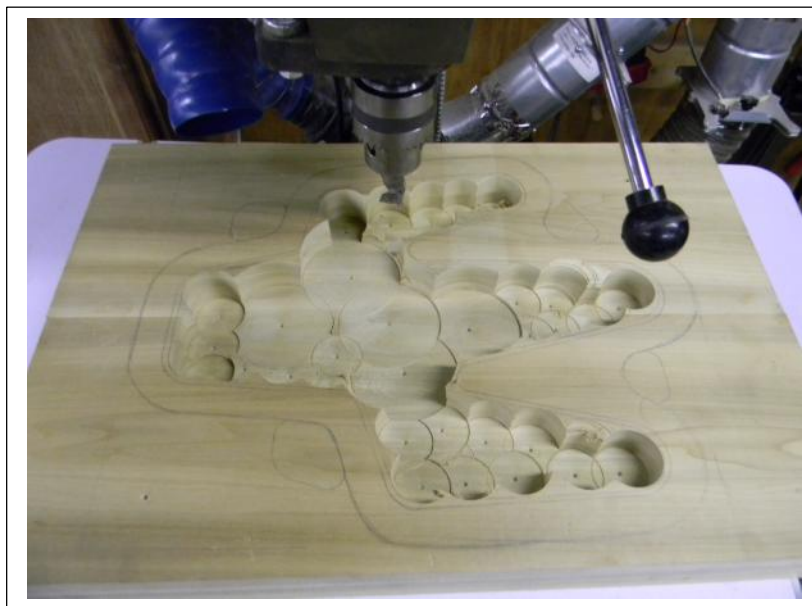


Figure C

Routing the Laminated Bowl Blank:

1. Attach the bowl and tray template to the laminated blank using wood screws inserted through the countersunk holes in the bowl and tray template. Drilling pilot holes will make inserting the screws easier (see Figure D).

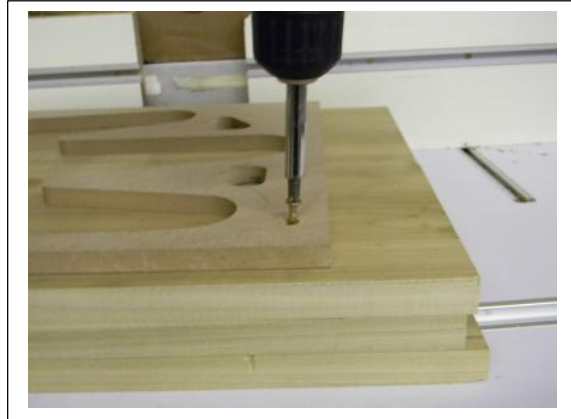


Figure D

2. You will need to attach a large auxiliary base to the router to keep it from tipping into the recess while you are making the interior cuts on the bowl (see Figure E). Before routing secure the work piece by nailing or screwing it to your bench, so it is held safely while routing. Make sure to that the nails or screws will not affect the finished cut. Make the cuts, using the Top Mounted Bearing Dish Cutter Router Bit (#7817) and the 1/2" Router Collet Extension (#9465), remove the remaining material from each of the lamination layers using shallow passes, 3/8" per pass until you get close to the bottom layer. As you cut deeper, the guide bearing will transition from following the template to start following the inside of the bowl blank that has already been cut.

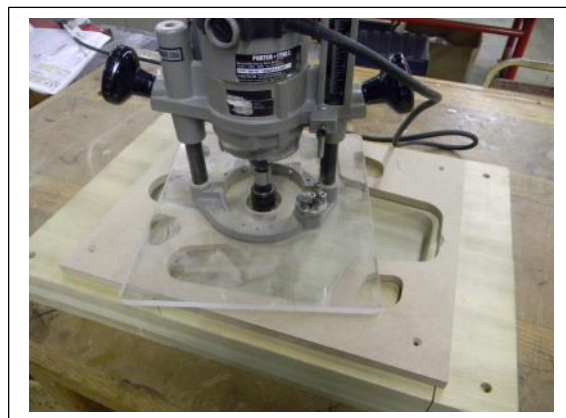


Figure E

3. When making the final pass, you will be cutting only 1/8" deep into the bottom layer (see Figure F). When you have completed the routing of the interior recess, the interior will need to be sanded to remove any routing marks that are left behind. A sanding disc mounted in a drill or drill press will make this step much easier than hand sanding.



Figure F

Completing the Outside of the Bowl:

1. To mark the layout line for the exterior of the bowl, scribe a line 3/4" from the interior cut out, and connect these with the four cut outs that were traced from the bowl template. Use a band saw to cut out the exterior shape of the bowl use a band saw (see Figure G).



Figure G

2. Use a drum, orbital or belt sander to finish sanding the exterior smooth (see Figure H) and sand the rest by hand.



Figure H

3. Use a 45 degree Chamfer bit (#7676), to cut a chamfer on the bottom, and both the inside and outside of the top of the bowl (see Figure I).

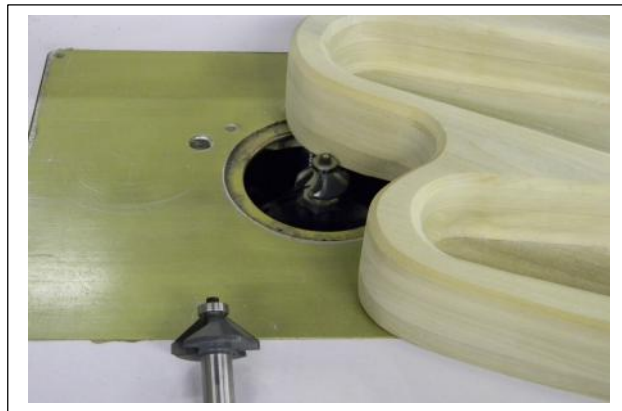


Figure I

4. After sanding to 220, apply a few coats of Behlen's Salad Bowl Finish or other suitable food safe finish before using your bowl.