LARGE BIT BOWL AND TRAY KIT

#073

Additional Tools Required:

- 1³/₄ HP or larger plunge router with variable speed control 1¹/₄″ diameter bowl & tray bit (Eagle #144-2005B or Price Cutter #P13-2504B)
- Forstner bit 1¹/₂" (Eagle #310-2410) is suggested. (Note: The inside of the bowl/tray can be bored out using just the router but it takes longer and adds to the wear/tear on the router bit.)
- Drill Press
- Bandsaw, jigsaw, or scroll saw to cut outside profile
- Compass
- Roundover Bit for routing edges if desired
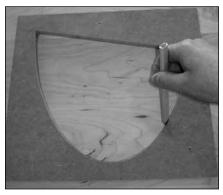- Sander and sandpaper

Step 1:

Choose your lumber and make sure it is properly conditioned and acclimated to your environment to prevent twisting and warping.
2" thick stock works the best but you can laminate several layers for your desired look. Prepare your lumber by joining and planing ensuring all four sides are flat and square.

Glue up your bowl/tray blank, alternating the end grains to prevent future warping, twisting and cracking.
Note: 2³/₄" is approximately the maximum depth for most routers. You will need to consider your own routers maximum depth when deciding your stock thickness.

Step 2:

After your blank has cured, remove any glue residue and sand both sides. Choose your template and center it on your blank.
Option: Use double face tape to fix your template to your workpiece.

Trace the inside of the template pattern onto your material. For the templates with multiple compartments, flip or position your template and trace again. Make sure your partition walls are at least 1/2″ when you lay out your pattern. On some patterns a larger partition wall could distort the look of your finished product as you finish the outside wall. For this reason you will need to take that into consideration as you trace your pattern.

Step 3:

Use a 1¹/₂" Forstner bit in a drill press to bore out the material inside your pattern. Drill the holes within ³/₁₆" of the pattern.
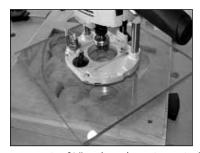
Note: Due to the centering point on the Forstner bit, you will need to set your depth of cut to stop just short of bottom. The final depth of cut and clean-out will be made with the router bit. We recommend leaving at least ¹/₂" of material thickness on the bottom of your bowl/tray for strength.

Step 4:

After all interior portions of your bowl/tray have been bored out, move your work piece to a flat surface where it can be secured to prevent movement.
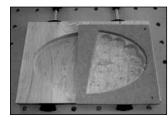
Step 5:

Attach an oversized router base plate to your router which will enlarge the surface area of your router base. This base plate should be large enough to span the opening inside your pattern. You can use ¹/₂" sheet stock but we suggest a ³/₈" polycarbonate material which is clear and allows you to see your work piece as you are cutting. The center hole in your oversized base will need to be approximately 2".
(Eagle plate # 415-0502 was used for this application)

Step 6:

Assemble the collet extension and router bit, making sure the router bit shank is not fully seated into the collet extension.
Warning: Never fully seat your router bit and collet extension into the receiving collet(s), always back them off ¹/₁₆" to prevent injury.

Step 7:

Place the template back on your work piece. Drill and counter sink at least two screws though the template and into the waste material of your work piece. It is important that the screw heads do not interfere with the movement of your router base plate as it moves across the template.

Step 8:
Set the final depth of cut on your router by adjusting the depth stop on your router. This can be done by placing your router over the bored out section of your work piece, plunging your router until it bottoms out, then adjusting your depth stop to the desired finish depth. Remember to leave at least ½" of material on the bottom of your bowl/tray for strength.
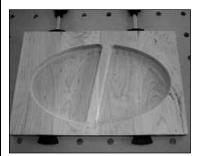
Step 9:
Bring your routers plunge mechanism back to its top position. Adjust the height of the plunge so that the bearing of the router bits rides along the edge of your template. Once you are comfortable with the height of your first pass, plug your router in. Make sure to adjust the variable speed setting to its lowest level. Note: Things such as depth of cut, feed rate and material type should all be considered to find the proper speed setting for your router.

Step 10:
Connect your routers dust collection. Starting from the center portion of your work piece where the bit is not in contact with any wood, turn your router on and begin routing in a clockwise rotation to avoid climb cutting. Move toward the edge. Once the bearing of the router bit meets the edge of your template, cut along the perimeter then hollow out any high spots in the center by sweeping across the entire bottom. Repeat this process, lowering the router bit approximately ⅜" or less until you reach your final depth of cut.

Step 11:
Turn the router off, making sure the bit comes to a complete stop before removing the router. Reposition your template, securing it with the two screws and repeat step 10 until all partitions are complete.

Step 12:
Use a compass to set the desired width of your bowl/tray rim and trace around the outside edges.

Step 13:
Using a bandsaw, jigsaw or scroll saw, cut along the outside perimeter line. Remember to stay on the outside of the line, sanding will finish the edge.

Step 14:
Sand the edges of your bowl/tray smooth.

Step 15:
Finish your bowl/tray as you desire. You can soften the edges with sandpaper or use a roundover bit to finish the edges depending on your design. Sand thoroughly, at least up to 220 Grit. Finish with Preserve Oil (Eagle # 443-1000) or any food safe product commonly used for butcher blocks. This includes salad bowl oil or mineral oil.

Thanks
We at Eagle America would like to thank you for purchasing our Bowl and Tray Kit. Here are just a few more examples of various designs that can be created.

To see more of our Bowl & Tray Templates visit our website at...

www.EagleAmerica.com