Instruction Sheet

Small Bit Bowl and Tray Kit

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#072

Here are some examples of designs that were created using the smaller bit.

Finished ghost piece

Finished witch piece

Finished bells piece

***NOTE**: The two 1" holes on our bell template is for placement only. Use a 1" forstner bit (Eagle #310-1610) to drill through wood completely if so desired.*

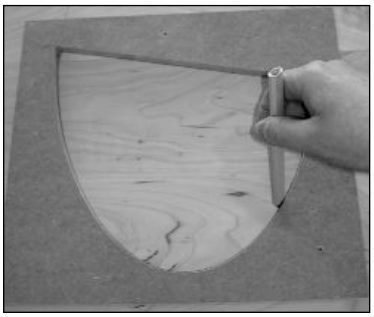
Additional Tools Required:

- 1¾ HP or larger plunge router with variable speed control
- ¾" diameter bowl & tray bit (Eagle #144-1205B or Price Cutter #P13-2503)
- Forstner bit 1" (Eagle #310-1610) 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: 2¾" 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:

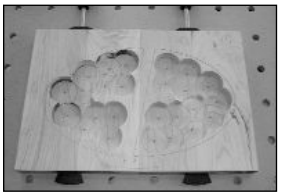
After your blank has cured, remove any glue residue and sand both sides. Choose your template and center it on your blank. Option: Use double face tape to fix your template to your workpiece.

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:

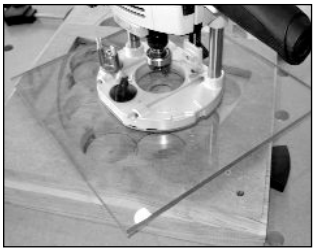
Use a 1" Forstner bit in a drill press to bore out the material inside your pattern. Drill the holes within 3/16" of the pattern.

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 ½" of material thickness on the bottom of your bowl/tray for strength.



Step 4:

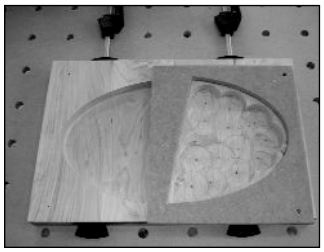
After all interior portions of your bowl/tray have been bored out, move your work piece to a flat surface where it can be secured to prevent movement.



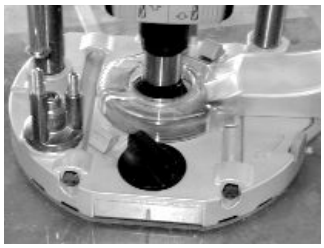
Step 5:

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 ½" 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)

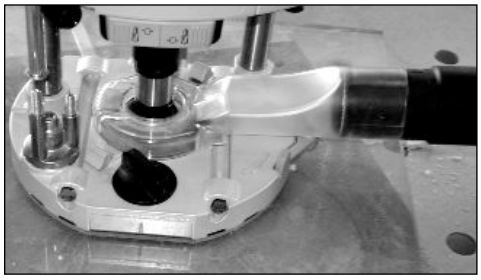


Step 6:
Place the template back on your work piece. Drill and counter sink at least two screws though the template and into the waste material of your work piece. It is important that the screw heads do not interfere with the movement of your router base plate as it moves across the template.



Step 7:
Insert the ¾" bit into your router collet. Note: Using this bit allowed us to accomplish a unique smaller detail. However, because the diameter of the collet extension is greater than the ¾" diameter bit, you will **not** use the collet extension for this application. Set the height of the router bit so the top of the bearing riding is flush to the top of the template surface. 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.

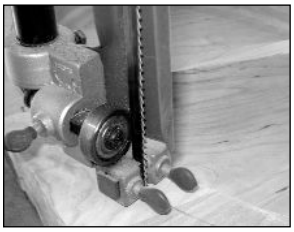
Note: Things such as depth of cut, feed rate and material type should all be considered to find the proper speed setting for your router.



Step 8:
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. Make one pass around the edge of the template.

Step 9:
Turn the router off, making sure the bit comes to a complete stop before removing the router. Set the height of the router bit so the bottom of the bearing is riding flush to the bottom of the template surface Make a second pass around the edge of the template. You can now remove the template. You will proceed to route without a template with the bearing riding against the wood side wall that you just completed. Route to your desired depth assuring at least ½" bottom thickness is maintained.

Step 10:
Use a compass to set the desired width of your bowl/tray rim and trace around the outside edges.



Step 11:
Using a bandsaw or jigsaw, cut along the outside perimeter line. Remember to stay on the outside of the line, sanding will finish the edge.

Step 12:
Sand the edges of your bowl/tray smooth.

Step 13:
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.

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