

# Making a Tropical Fish Box

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## FISH BOX: MAKING THE BASIC BOX

**B**efore you start cutting, make sure all of the wood is as flat as possible, and sand both sides of each piece with 120-grit sandpaper. Test to make sure the blanks fit tightly together face to face. You will be using thin wood to make the project, and over time, thin blanks can cup or warp. If you have to step away from the project for any length of time, apply weight to the blanks to keep them flat.

Use double-sided tape to stack together the lid backer and the box bottom. Align the grain direction arrows on the pattern with the grain and use spray adhesive to attach the pattern to the stack and to the box sides blanks. Cover the patterns with clear packaging tape to lubricate the blade. Check that the blade is perpendicular to the saw table.

### TIP

#### USING A BOWL PRESS

*For this project, I use a bowl press, which is a system that uses pieces of wood, threaded rods, and wing nuts instead of clamps to hold the sides together while the glue sets. If you decide to make more boxes and want to make a press, you can find a variety of plans on the internet.*



Photo courtesy of Carole Rothman

**Step 1: Cut the pieces.** Drill  $\frac{1}{16}$ " (2mm)-diameter blade-entry holes and cut the insides of the box rings with a #7 reverse-tooth blade. Then, cut the perimeters of all of the pieces with a #5 reverse-tooth blade. Remove the patterns and separate the stacks using a putty knife. Preserve the lid backer pattern to use when installing the pins. Rub the rings against 120-grit sandpaper attached to a flat surface to remove any fuzzies. Remove any dust and then use mineral spirits to remove any adhesive residue.

**Step 2: Assemble the sides.** Dry-assemble the rings and make any necessary adjustments. Apply a thin, uniform coat of wood glue to one ring. Place the next ring on top and rub the two rings back and forth until the glue gets tacky. Align the edges. Clamp the stack together for five minutes, and then release the clamps and remove any glue squeeze-out. Use slightly damp cotton swabs to remove the glue from the tight areas. Re-clamp the sides and allow the glue to dry. To increase the depth of the box, add more rings.

**Step 3: Sand the inside of the box.** Use an oscillating spindle sander with a  $\frac{1}{2}$ " (13mm)-diameter drum to sand the inside of the box. Use progressively finer grits of sandpaper to remove any remaining marks from the blade-entry holes and any scorch marks. Make sure the inside edges of the box sides are smooth to the touch. Rub the assembled rings back and forth against a piece of 120-grit sandpaper attached to a flat surface to remove any fuzzies from the top and bottom.

**Step 4: Attach the bottom.** Sand the bottom piece with progressively higher grits of sandpaper up to 220 grit. Do not round the edges. Remove any sanding dust and apply wood glue to the bottom of the box sides. Clamp the bottom in position for five minutes. Remove the clamps and any glue squeeze-out, and then reclamp the pieces until the glue dries. For a bottom with multiple layers of wood, glue the layers together with a uniform coat of wood glue. Rub the layers together until the glue gets tacky. Then, align the edges, clamp them together, and allow the glue to dry.