

Cutting cove molding

You can cut cove molding or curved beveled edges for raised panels on the table saw using a simple adjustable parallelogram jig and a fine-toothed plywood blade. The technique for cutting coves on the table saw involves passing the workpiece over the blade at an angle so the curvature of the blade matches the cove profile you want. In a sense, the table saw blade will act more like a shaping tool than a cutting tool. By varying the angle of approach on the blade, you can machine any number of cove curvatures, from steep recesses with tight radii to gentle, shallow arcs.

Since the saw blade will act as a makeshift shaper and sander when cutting coves, it is important to use a blade with small, rigid teeth. To keep the blade from deflecting due to the lateral forces you'll be applying to the blade, cutting coves will require that you slow down your feed rate when passing workpieces over the blade. In addition, cutting each cove shape involves making multiple passes over the blade, increasing the blade height by not more than 1/16 in. with each pass, from start to finish.

Build a parallelogram jig

You'll need to build an adjustable parallelogram jig from scrapwood to set up cove cuts. Make the long sides of the jig about 4 ft. long, and the short ends about 1 ft. long. Attach the parts with short carriage bolts, nuts and washers. You'll need to be able to swivel the jig so the opening is wider or narrower to accommodate different-sized workpieces.

Setting up a cove cut

Follow the steps outlined in Photos 1 through 3 to determine the proper angle of the parallelogram jig on the saw table. The jig takes the guesswork out of

determining how a workpiece must pass over the blade to cut a specific cove curvature.

Step 4 outlines the procedure for positioning the first fence on the saw table. In addition to matching the bevel gauge angle, the fence must also be aligned so that the front edge of the blade intersects the front edge of the cove profile you've marked on your workpiece. Clamp a second fence to the saw table to keep the workpiece from

shifting away from the first fence when cutting.

Cutting the cove

Lower the blade to a height of about 1/16 in. above the table and make the first cut. Use pushsticks to pass the workpiece over the blade. Raise the blade about 1/16 in. with each pass until you've cut away all the material in the cove area.

How to make cove cuts



1

Draw a curved layout line on the end of your workpiece to mark the cove profile. Raise the blade above the saw table so the teeth at the top of the blade match the highest point of the cove profile.



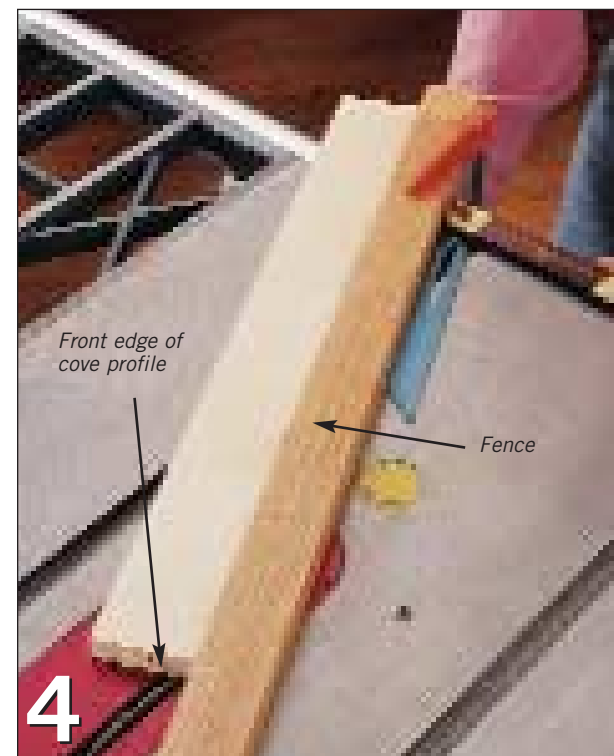
2

Adjust the cove parallelogram jig so that the inside edges of the jig match the width of the cove profile. Set the jig on the saw table and over the blade. Turn the whole jig left or right until the inside edges of the jig touch the front and back edges of the blade (See inset). In this position, the jig sets the angle you'll need for cutting the cove.



3

Set a bevel gauge to match the angle the parallelogram jig forms with the front edge of the saw table. Be careful not to bump the parallelogram jig out of alignment as you set the angle on the tool.



4

Select a length of flat stock about 4 ft. long to serve as a fence for guiding the workpiece when you cut the cove. Set the workpiece and fence on the saw table and against the bevel gauge. Shift the fence until the front blade teeth and the front edge of the cove profile intersect. Clamp the fence in place.



5

Using the workpiece as a spacer, clamp a second fence to the saw table, parallel to the first fence, to create a track for cutting the workpiece. Then cut the cove in a series of shallow passes, increasing the blade height about 1/16 in. with each pass.

PHOTOS BY MARK MACEMON