

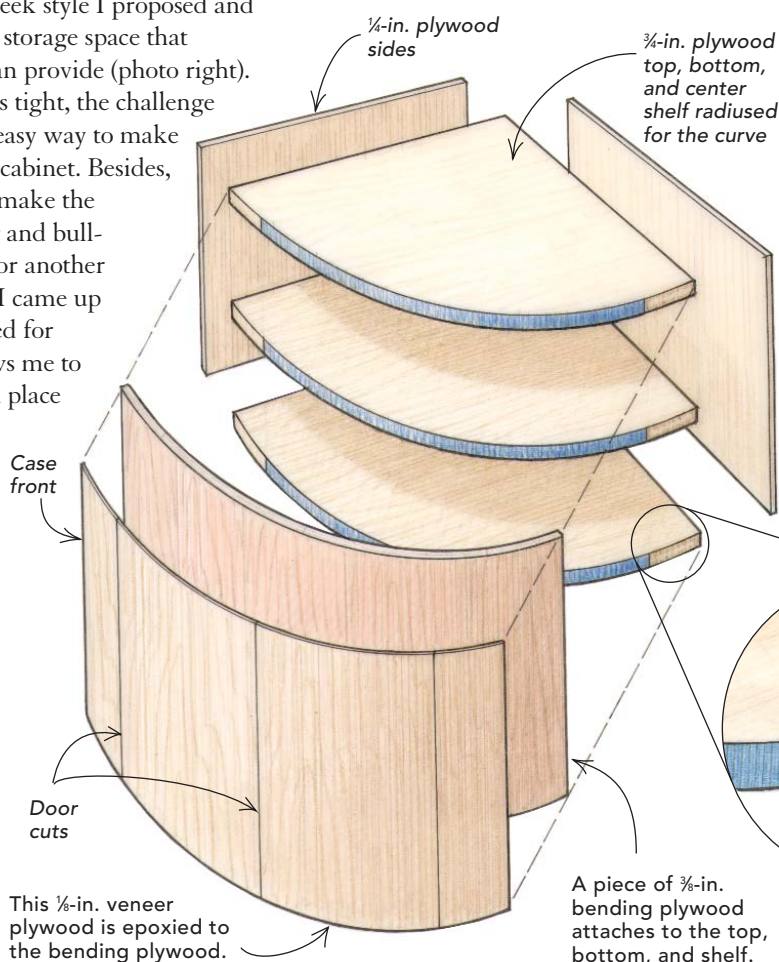
A curved face for a corner cabinet

I recently built a pair of curved corner cabinets as part of a kitchen remodel. My clients liked the sleek style I proposed and also the accessible storage space that curved cabinets can provide (photo right).

Because the budget was tight, the challenge was to devise a quick, easy way to make the curved faces of the cabinet. Besides, I needed extra time to make the curved crown molding and bull-nose, which is a topic for another article. The technique I came up with eliminates the need for special forms and allows me to cut the curved doors in place.

Curved front and cabinet in one shot

Instead of a bending jig, the cabinet itself becomes the mold for laminating the curved plywood front. After the glue sets, the doors are cut from the curved surface.



This 1/8-in. veneer plywood is epoxied to the bending plywood.



A graceful solution. Curved corner cabinets offer ample storage space, easy access, and sleek style.

Masking tape keeps the glue from sticking to the doors. The tape stops short to allow a glue bond with the case front pieces. When the doors are cut free, the fronts remain in place.

CASE ASSEMBLY

After the top, bottom, and shelf are cut, cover the curved edges with iron-on edgebanding (photo left); then use painter's tape to mask the edges where curved doors will fit (photo center). A spacer positions the shelf when you assemble the case (photo right).



GLUE UP THE CURVED FACE

Two layers of flexible plywood are glued together to make the curved doors and case fronts. Apply glue only to the 6-in.-long curved edges not masked by tape (photo bottom left). Secure the $\frac{3}{8}$ -in. bending plywood first (photo bottom right), driving screws in glued edges.

Two-part epoxy spread on both the bending plywood and on the veneer plywood bonds the two layers together (photo right).

Starting in the middle of the cabinet, ratcheting strap clamps pull the veneer layer tight against the curved plywood below (photos upper right), maintaining even pressure over the curved surface.



after laminating the entire front of the cabinet from two layers of flexible plywood.

A trammel-mounted router cuts the first curves

The cabinet's case consists of a top, a bottom, a fixed shelf, and two sides (drawing p. 138). Because the sides meet in the corner, no back is necessary. The top, bottom, and shelf are identical in size, and I cut each piece the same way, using a plunge router mounted on a simple trammel made of plywood ("Trick of the Trade," p. 142).

To start, I cut $\frac{3}{4}$ -in. birch plywood into three square pieces that measure 30 in. on a

side. I removed the plastic base from my router, screwed a length of $\frac{1}{4}$ -in. plywood to the subbase, and chucked a $\frac{3}{8}$ -in., single-flute spiral bit in the collet. Then I measured the radius of the curve (in this case, 29 $\frac{1}{4}$ in.), marking the location of the pivot point, an 8d coated sinker nail. Once the nail was tacked into the corner of the plywood, I used three or four passes with the router to cut all the way through each piece.

Next, I ironed on preglued birch edging (photos p. 138). Then I joined the top and bottom to the sides with glue and narrow-crown staples. Installing the shelf completed the case. A spacer block kept the shelf posi-

tioned while I fastened it to the sides. The last parts to be attached were two temporary strips that helped me to clamp the front. Each $\frac{3}{8}$ -in. by 1-in. strip was screwed along a side's front edge. After the front was glued on, these strips guided a flush-trim router bit to trim the front of the case.

The case becomes a bending mold

Years ago, my first instinct would have been to build a bending jig to laminate the curved face of a cabinet like this. But with careful preparation, I was able to glue up the curved face directly on the cabinet case, then cut out the curved doors. The curved



DOORS ARE CUT FREE

A circular saw guided by a shopmade fence cuts along the door lines (photo above). Blade depth is set to cut all but the last $\frac{1}{16}$ in. A utility knife makes the final cut; then the doors are lifted free (photo right).



face consists of two plywood layers: a substrate of $\frac{3}{8}$ -in. bending plywood and a finished layer of $\frac{1}{8}$ -in. Finnish-birch plywood.

To prep for gluing on the curved front, I used painter's masking tape to cover the front edges of the case top, bottom, and shelf where the cabinet's doors open. I also masked off the temporary strips so that they wouldn't bond to the face, allowing me to remove them easily. I applied yellow glue to the exposed 6-in. edges on the top, bottom, and shelf pieces (photos p. 140). C-clamps held the bending plywood to the edge strips while I aligned the plywood and drove drywall screws to hold it along one edge. After pulling the opposite edge tight, I glued and screwed it in place.

To laminate the $\frac{1}{8}$ -in. birch plywood to the bending plywood, I used West System Epoxy (www.westsystem.com; 989-684-7286) applied to both surfaces with a foam roller. While holding one end with spring clamps, I positioned the plywood, then stretched strap clamps over the face and around the cabinet. I slowly tightened the clamps while going over the surface with a rubber J-roller to ensure even contact between the veneer plywood and the bending plywood. The strap clamps maintained even pressure while the epoxy set.

Cut the doors in place

After the epoxy cured, I evened the edges with a flush-trim router bit, and I removed the clamping strips. Then I cut the doors with a cordless circular saw (photo top left). The slower speed of this saw lets it cut with minimal tearout. I set the saw depth so that the saw cut through all but the last $\frac{1}{16}$ in. of the face. A shop-built fence attached to the top and bottom of the cabinet kept the saw running straight.

I made the final cut with a utility knife to keep from damaging the curved faces of the top, bottom, and shelf. After I made the three sawcuts, I cut away the hinge edges first, then cut apart the two doors (photo top right). A block plane cleaned up the edges, which I then veneered with preglued edging. I mounted the doors with piano hinges; magnetic catches hold the doors in place.

Cabinetmaker Rex Alexander lives in Brethren, Mich. Photos by Roe A. Osborn.

A router becomes a circle cutter

A trammel can make quick work of scribing large radii, but the same concept can be applied to cut curved cabinet pieces. This trammel is a length of $\frac{1}{4}$ -in. plywood attached to my plunge router in place of the base. A $\frac{3}{8}$ -in. single-flute spiral bit does the cutting. An 8d nail driven through a drilled hole provides the pivot point.



EASY FAIR CURVES