

Kitchen Workstation Wine Rack

Keep a few bottles of your favorite vintage within reach while you're busy cooking.

There's a lot of open space underneath the kitchen workstation. The wine rack shown in the photo above is a good way to take advantage of that space. In addition to holding nine bottles of wine, it provides some extra storage space on the back side. Best of all, it's a simple and straightforward project to build.

The case of the wine rack is plywood, with shop-made hardwood edging. The space is divided into front and back compartments. Each compartment features adjustable shelves. Because of the tight fit, you'll need to build and install the wine rack before adding the front piece of molding on the bottom cabinet.



Adjustable shelves on back of wine rack provide additional storage



▲ Building a wine rack for the kitchen workstation is an easy way to add even more handy storage right where you need it most.

TOP & BOTTOM. As you can see in the main drawing on the next page, the top and bottom panels have dados, grooves, and rabbets that hold the case sides and the divider. After cutting the top and bottom to final size, use a regular blade in the table saw to cut a groove to match the thickness of the $\frac{1}{4}$ " plywood divider.

Now set a dado stack to equal the thicker $\frac{1}{2}$ " plywood used for the sides and cut the dados that will house the sides in the top piece. I installed an auxiliary rip fence to cut the rabbets in the bottom. Then you can drill countersunk screw holes in both pieces for attaching the sides.

Materials & Supplies

A	Top (1)	$\frac{1}{2}$ ply. - 17 x 16 $\frac{3}{4}$
B	Bottom (1)	$\frac{1}{2}$ ply. - 13 $\frac{3}{4}$ x 17
C	Sides (2)	$\frac{1}{2}$ ply. - 16 $\frac{1}{2}$ x 17 $\frac{1}{4}$
D	Case Divider (1)	$\frac{1}{4}$ ply. - 13 x 17 $\frac{1}{4}$
E	Top/Bottom Edge Molding (1)	$\frac{1}{2}$ x $\frac{1}{2}$ - 140 rgh.
F	Edging (1)	$\frac{1}{4}$ x $\frac{1}{2}$ - 80 rgh.
G	Wine Shelf (3)	$\frac{1}{2}$ ply. - 7 $\frac{3}{8}$ x 12 $\frac{1}{2}$
H	Wine Shelf Front (3)	$\frac{1}{2}$ x 2 $\frac{1}{8}$ - 12 $\frac{1}{2}$
I	Wine Shelf Back (3)	$\frac{1}{2}$ x 2 $\frac{1}{8}$ - 12 $\frac{1}{2}$
J	Shelf (2)	$\frac{1}{2}$ ply. - 5 $\frac{1}{4}$ x 12 $\frac{1}{2}$
K	Shelf Front (2)	$\frac{1}{2}$ x 3 - 12 $\frac{1}{2}$
L	Shelf Back Edge (2)	$\frac{1}{2}$ x $\frac{5}{8}$ - 12 $\frac{1}{2}$

- (16) L-Shaped Shelf Supports
- (4) $\frac{1}{4}$ "-20 Inserts
- (4) $\frac{1}{4}$ "-20 x 30mm Shoulder Bolts
- (12) #8 x $\frac{1}{4}$ Fh Woodscrews

SIDES. Next, cut the sides to final size and cut a groove on the inside face of both pieces for the ¼" divider. (It's a good idea to check the fence setting with the top and bottom before making the cuts to make sure they'll line up properly.) Then, lay out the locations for the shelf supports and drill them at the drill press.

MOLDING. To cover the plywood edges, I made a simple hardwood molding. Starting with an extra-wide ½"-thick blank, I routed a roundover profile on both edges. Then move to the table saw and rip the strips of molding free. Now miter the molding around the base and top, and attach it with glue.

EDGING. You can make the edging for the sides by simply ripping ¼"-thick strips from the remainder of the molding blank. They also attach to the case sides with glue.

DIVIDER. The last thing to do before assembling the case is to cut the ¼" plywood divider to final size. After that, you can assemble the case with glue in the grooves and a few screws. Use just a drop of glue in the center of the grooves that hold the divider. Since it's trapped on all four sides, it can't go anywhere.

WINE SHELVES. Now you're ready to move on to the wine shelves. The three wine shelves are all the same. Each is simply a plywood shelf with a hardwood back and front shaped to cradle the bottles. You can get started by cutting the plywood shelves to final size.

FRONTS & BACKS. To make the shelf fronts and backs, I cut six hardwood blanks to the same size. Then I cut a groove on the inside face of each blank to fit over the plywood (detail 'b'). For the fronts, cutting the arc to hold the necks of the wine bottles was a simple matter. I just used a 1½"-dia. Forstner bit in the drill press. It's a good idea to use a piece of scrap to fine-tune the position of a fence on the drill press to make sure you get the profile shown in detail 'a'.

The larger-diameter arc on the wine shelf back is a little bit trickier. I used a template to lay out and cut the profiles. The template allows you to mark the arcs on each workpiece for cutting at the band saw. Then you can use the template and a flush trim bit in the router to clean up the saw marks. The end result is a series of smooth arcs to hold the wide, bottom ends of the bottles.

You can make a hardboard template by using a wing cutter in the drill press, set to cut a 2" radius. Mark the centerpoint and use a square to also mark the centerline on the template. After cutting out the circle, trim the template to register on the edge of the blanks to trim the outer arcs. The centerline mark makes it easy to align the middle arc.

Use double-sided tape to attach the template to the workpiece when routing. Now you just add a little glue in the grooves of the shelf backs and fronts and attach them to the shelves with clamps.

BACK SHELVES. The back shelves are pretty straightforward. They feature a tall front to give the look of individual "bins." The edging creates a lip that prevents the shelves from sliding (details 'd' and 'e').

Start by cutting the shelves to final size. Then cut out the hardwood fronts and backs. I used the dado blade to cut grooves in the fronts and rabbets in the backs. After attaching the fronts and backs with glue, you're done.

All that remains now is to add a finish and install the shelf supports and shelves. Then load the rack with a few of your favorite bottles. **W**