

Shop-Built Extension Tables

Side and outfeed tables fold down to save space

BY DWAYNE J. INTVELD

When using a tablesaw to cut a large workpiece or a full sheet of plywood, it's important to provide extra support surfaces for the stock. But like many woodworkers, I don't have enough room in my shop to have extension tables permanently fixed in place. So after I recently added a new fence system to expand the ripping capacity of my tablesaw, I built a side table that readily folds down out of the way when not needed. This foldable table allows easy access to my grinding wheel, which is located adjacent to the tablesaw.

And while I was at it, I replaced my somewhat flimsy portable outfeed roller with a sturdy outfeed table that folds down behind the saw. I have the option of opening

it in two stages, depending on my needs at the time. The first stage provides a 36-in. main outfeed table; the next stage produces a secondary outfeed table that adds about another 30 in. to the main table, handy for extralong stock.

Although the side and outfeed tables enhance the versatility of my tablesaw, the impact on shop space has been minimal. With both tables open, a 4x8 sheet of plywood remains supported throughout the entire cut. Yet, when folded, the tables add little to the footprint of the saw.

A few caveats to consider

Remember that the drawing dimensions are based on building the tables to fit my 10-in. Powermatic 66 tablesaw, which sits on a 2-in.-tall wood frame. The extra couple of inches raises the top of the table to 36 in., a height better suited to my 6-ft. 4-in. frame.

Also, the rip-fence system on my tablesaw is made by Biesemeyer. If you use a different type, unless it's a Biesemeyer clone, you'll likely need to modify the way the tables connect to the saw, especially at the outfeed end.

Finally, because the outfeed table sits just behind the saw when folded up, the table

won't work with a saw that has a motor or any other obstruction sticking out the back. The side table, however, should be adaptable to any saw.

Side table

The side table consists of a tabletop, a connector that joins the tabletop to the saw and a side leg frame that supports the tabletop when it's open.

The table and the connector are made of a maple frame rabbeted to accept $\frac{3}{4}$ -in.-thick particleboard. To create a smoother surface with extra durability, I added plastic laminate to the top face.

To make the leg frame, I cut grooves in $1\frac{1}{4}$ -in.-thick maple rails and stiles to accept a $\frac{1}{4}$ -in.-thick maple plywood panel. For added strength, I glued the panel into the grooves.

Once the leg frame was assembled, I joined it to the outboard end of the tabletop with a piano hinge. When folded, the leg frame ends up neatly housed in the



Foldable outfeed table. Intveld used torsion-box construction to build the outfeed tables, a technique that makes them both light and strong.



tabletop frame, held in place by a pair of double-ball catches.

Although not shown here, I added a 1½-in. square leg between my shop floor and the right end of the Biesemeyer front rail. The leg provides additional support for the rail when the side table is opened. To allow for length adjustment of the leg, I installed a threaded insert in the bottom end of the leg, then I added a carriage bolt with a locking nut into the insert. The length of the leg can be fine-tuned to an uneven floor simply by threading the carriage bolt in or out.

Outfeed table

I built the main and secondary outfeed tables using torsion-box construction, a technique that sandwiches strips of gridwork between thin outer skins. The resulting structure is strong and stiff—

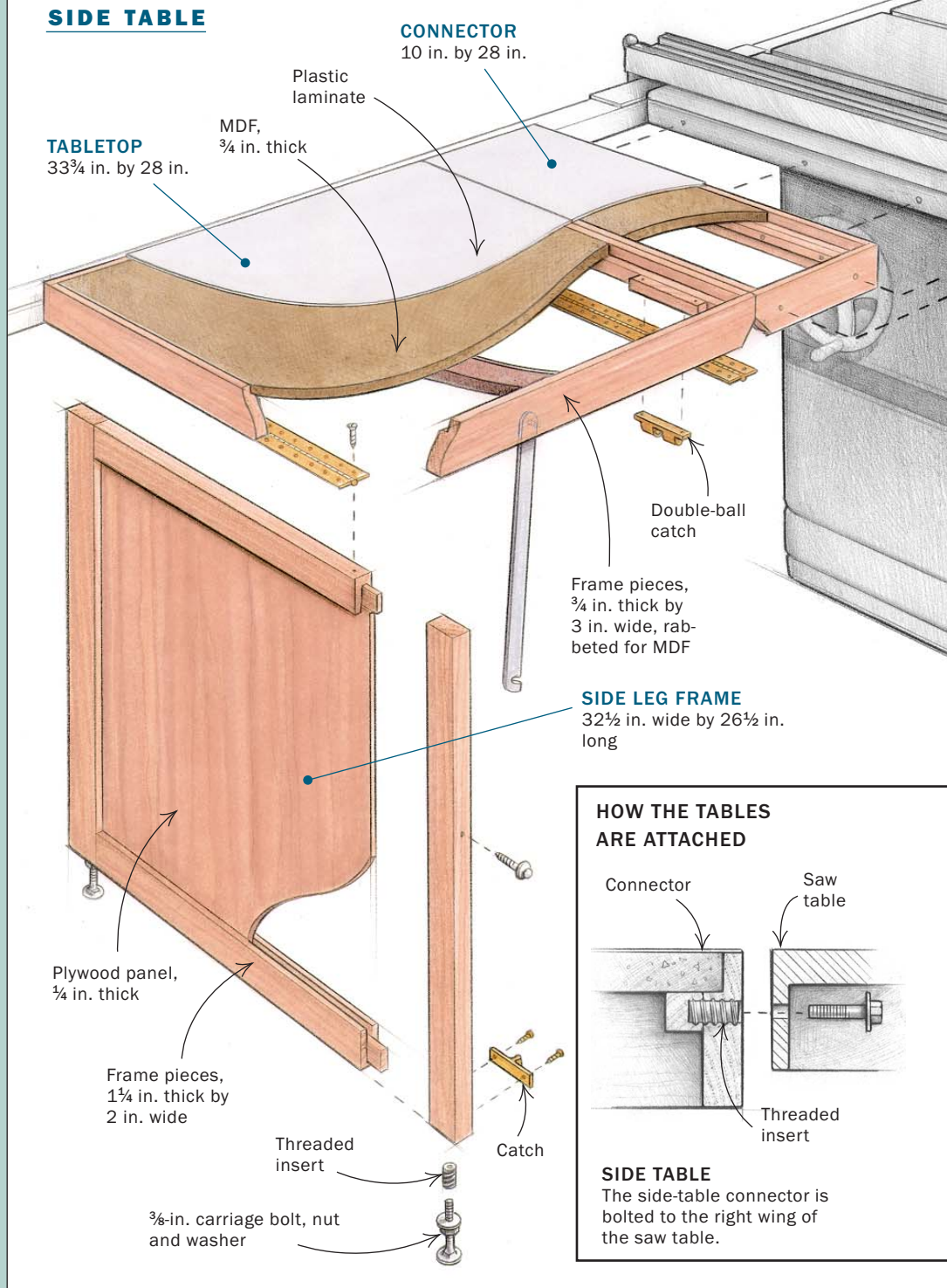


The tables almost disappear. Shop space grows considerably when the extension tables fold down.

much like a honeycomb—yet it's relatively lightweight.

First I made the four-sided maple frames of the torsion boxes, then I glued one of the ¼-in.-thick medium-density fiberboard (MDF) skins to each frame. I then filled these shallow boxes with strips of ¾-in. by ¾-in. pine, half-lapped and glued to the MDF. On the main tabletop, the grid includes two wider strips. These wide strips align with the two miter-gauge slots on the table saw when the tabletop is mounted to the saw. The wider stock allowed me to rout a pair of grooves in the top to provide clearance for the miter-gauge bar.

Once the gridwork was in place, I was ready to add the second skin to the top of the boxes. First, a coat of glue was applied

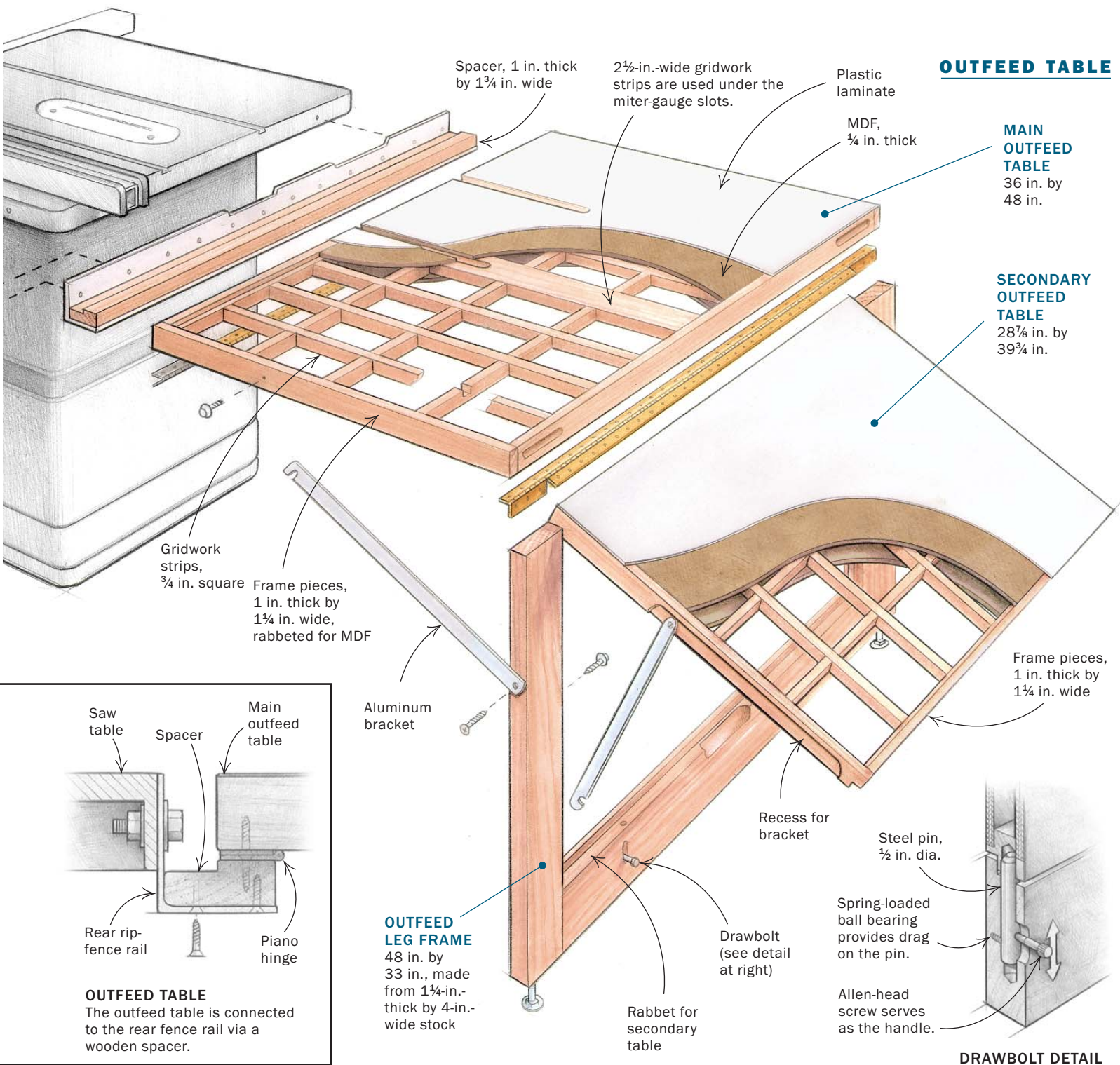


to all box and gridwork surfaces that would mate with the skin. I put the skin on top, then added a few bricks, which provided all the clamping pressure I needed. After that, I applied plastic laminate to both faces of each tabletop.

Outfeed leg frame adds support—The outfeed leg frame is made up of a single rail mortised into a pair of stiles. A piano hinge serves as the remaining side of the

frame, and it provides a means to mount the leg frame to the main outfeed table.

The secondary outfeed table nests inside the leg frame, mounted to the same hinge. But to allow the top to pivot independently of the leg frame, I cut one leaf of the hinge in two places, with the cuts made just inside the edges of the stiles. By the way, two ½-in. rabbets—one on the rail and one on the secondary table—work together to create a simple stop.



A pair of drawbolts keeps the leg frame and secondary table together as a single unit while swinging to an opened or closed position. I couldn't find drawbolts that suited my needs, so I ended up making my own.

Fill gap with a spacer—The outfeed table is supported by the rear rail of the Biesemeyer fence. I shortened the rear rail's length to 45 in. so that it attached only to the table of the saw and the connector

piece for the side table. Also, I enlarged the holes used to mount the rail to the saw. The larger holes gave me wiggle room to fine-tune the height of the table.

A spacer, made from maple, was added to the rear rail to elevate the outfeed table so that it ends up flush with the saw table. The lengthwise rabbet in the spacer provides clearance for the bolts that secure the rail to the saw. To attach the spacer, I bored 3/16-in.-dia. holes, spaced 8 in. apart, through

the rail. Then I screwed the spacer to the rail with #12 roundhead wood screws.

At this point, I applied varnish to all exposed maple surfaces. Then I adjusted the carriage-bolt feet to get everything level. After that, and probably for the first time ever, I actually looked forward to cutting a full sheet of plywood. □

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