Two Essential Saw Stands for Finish Carpentry

Build them yourself for optimal portability and function

BY GARY STRIEGLER

The two tools our crew uses the most for finish work are a miter saw and a table saw. To make the best use of them, we built a couple of custom stands. Both are made primarily from 3/4-inch plywood and incorporate clamping and measuring products from Kreg Tool Co. The Kreg products help maximize the efficiency and accuracy of the tools, and the plywood construction makes the stands sturdy enough for everyday use, either in the shop or on the jobsite. And both stands are light enough for two crew members to carry easily.

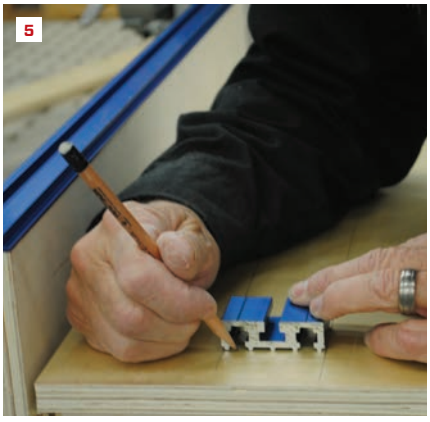
MITER-SAW STAND

The miter-saw stand sits on a pair of mini-sawhorses and has three basic parts: a platform for the saw to sit on, left and right wings for supporting the workpiece, and a fence for the work to sit against **(1)**. I'm able to rip everything out of a sheet and a half of plywood; I can usually round up a few plywood scraps from the shop or on the jobsite, so I buy just one sheet to build a stand.

Platform. To build the platform, I first make a 23 7/8-inch-wide rip for the top and then rip two sides 5 7/8 inches wide. The top and sides are the full length of the plywood sheet. For the crossmembers, or gussets, I cut five 5 7/8-inch-by-22 3/8-inch rectangular pieces out of my scraps.

I drill three pocket-screw holes in the ends of each crossmember, along with holes every 6 to 8 inches along the edges of the 8-foot sides. The crossmembers screw to the sides at 2 feet on-center to make a frame that forms the backbone of the platform. To complete

Photos by Bud Walker



After building the platform and adding the support wings **(1–3, previous page)**, lay out for the clamping track on top of the wing **(4)**. Using a small section of track, mark out the bolt positions **(5)**. After slipping the bolts through drilled holes **(6)**, flip the top over and tighten the locknuts **(7)**. Add strips on either side of the track for the final, flat wing surface **(8)**.

the platform, I pocket-screw the sides of the frame to the top.

Support wings. The stand you build has to be customized to fit the particular brand and model of saw that you own. For it to work for your saw, the most critical part of making the support wings is taking a dead-accurate measurement of your miter saw's bed height and then building the support wings to a matching height. For the wings, I make two frames similar to the platform. The sides and gussets for the wings are the height of the miter-saw base minus two thicknesses of plywood.

To figure the length of the support wings, I place the miter saw squarely on the platform and rotate the saw table to the maximum cutting angle on both sides. This gives me how much clearance I'll need—and I make sure to add plenty of room for my fingers.

For the depth of the wings, I measure from the front of the platform to about ½ inch behind the saw fence (I'll explain why I measure to this point later, when I describe the fences). I nail the wing frames together with 1½-inch 18-gauge brads and then pocket-screw the wings to the platform flush with the ends and the front edge **(2)**.

Fences and tracks. I make the fences out of the same ¾-inch plywood, about 6 inches tall and the same length as the wing frames. To attach the fences, I pocket-screw them to the platform, as well as screwing them to the backs of the wings **(3)**.

I install two different tracks on the saw stand. The first is Kreg's top track, which simply mounts on top of the fence. This track holds a metal stop that I position and clamp in place for making repetitive cuts. To use the Kreg Production Stop, the track has to be 2½ inches above the finished height of the support wing.

The second track is Kreg's Universal Clamp Trak, which lets me insert a variety of Kreg clamps to hold work perfectly still. To install this track, I set the bottom plywood layer of the support-wing tops on the installed frames. I rip lengths of plywood at the correct

Using a straightedge, adjust the saw fence perfectly parallel with the wing fences **(9)**. Extra space can be left to help with cutting crooked boards. Drive screws through each saw foot to hold it in place **(10)**. Bolts and wing nuts replace the screws at a later time. Nail blocks around the saw feet to ensure perfect placement in the stand each time the saw is set up **(11)**.

width to center the track off the fence. With the rip in place, I scribe along one edge **(4)**, and then set the track in place and scribe along its edge.

Using a short section of track, I mark out the holes for the securing bolts **(5)**, making sure that they don't line up with any of the support-wing gussets. I position the bolts every 6 to 8 inches, alternating from side to side. I drill slightly oversize holes for the bolts to provide a little latitude for positioning the track.

The hex heads of the bolts slide into slots in the track, and with a little patience, I position all of the bolts and guide them into the holes I just drilled **(6)**. After carefully flipping over the top, I start a washer and locknut on each bolt. Then I flip the top back, line up the track on my lines, and tighten one bolt on each end to hold the track in position. After checking one more time to make sure the track is lined up properly, I snug all the other nuts **(7)**.

With the track secured, I nail the first layer of the support-wing tops to the frames. The strips of plywood that I'd ripped earlier nail in beside the track to complete the surface of the support wings **(8)**.

Position the saw. The next step is to center the saw on the stand and to align its fence exactly parallel to the stand fence. The centering part is easy, but aligning the fences takes a bit more work. I place a straightedge against the saw fence and then tweak the saw position until its fence is perfectly parallel but ½ inch forward of the stand fences **(9)**. Many carpenters put the fences in the same plane, but I like to put the saw ½ inch in front of the stand fence so that when I have a crooked piece of trim to cut, I can still hold it tight against the saw fence and make a good cut.

When the saw is positioned just right, I screw it to the platform with a couple of truss-head screws **(10)** (like I use for pocket joinery). This position is exactly where I want the saw to sit every time I set it up. To make this placement repeatable and foolproof, I nail small blocks around the back feet of the saw **(11)**. Later I'll replace

The stop system doubles as a measuring system for cutting on the miter-saw stand. To position the adhesive-backed measuring tape, slide the stop up to a board with a known length and mark the track **(12)**. Place the tape with the length aligned with the mark **(13)**, and then adjust the pointer on the stop until it's perfectly positioned **(14)**.

the screws with more-permanent hex-head bolts and wing nuts.

Accurate measuring system. On most of my projects, I need to make a lot of repetitive cuts, often with tolerances as little as 1/32 inch. Kreg's Top Trak and Production Stop work well for this task, but I also apply an adhesive-back tape measure on top of each track so I don't have to pull out my tape measure every time I need to cut a different length.

To position the tape correctly, I cut a block of wood at a specific length (31 inches in this case). I set the block against the blade and then slide the stop over to the block. I make a pencil mark on the track in line with the pointer on the stop **(12)**. I get only one shot at placing the tape, so after making sure the track is clean and free of dust, I place the 31-inch measurement on the tape as close to my pencil mark as possible **(13)**. I press the remaining tape onto the track and carefully trim the excess tape with a utility knife. As a final calibration, I slide the stop back against the 31-inch piece (still in contact with the blade) and micro-adjust the pointer exactly to the 31-inch measurement **(14)**.

Because the track stop ends several inches from the saw blade, cutting short pieces repetitively can be problematic. So I keep a 10-inch block of wood with the stand that acts as a stop extension. Then to cut, say, a 2-inch length, I just set the stop at 12 inches with the 10-inch block of wood against it, and the saw is ready to cut as many 2-inch lengths as I need.

It has been four years since I built the first one of these saw stands, and that first one still works fine. Over time, it has developed a slight sag in the middle, but I'm guessing that flipping it over for a weekend with a little weight on it would reverse the sag. Increasing the platform height by a couple of inches or adding a layer of plywood to the bottom side would probably help, but that would also add weight. And for most of the cuts I make with casing trim and panel moldings, that slight sag doesn't matter much. I've thought of

The table-saw stand and worktable starts with a 2-by frame pocket-screwed together **(15)**. Backer blocks at each end will support the clamp track **(16)**. Center the frame on the top and attach it with pocket screws **(17)**. The overhang helps with clamping work to the table. Lay out the track the same as with the miter-saw stand, and attach it with nuts and bolts **(18)**.

many modifications that I could make to the stand, such as adding storage or work lights (I did add an old-fashioned pencil sharpener), but for me, this design hits the sweet spot between portability, cutting accuracy, and durability.

TABLE-SAW STAND

Go into most cabinet shops, and you're likely to find a table saw surrounded by outfeed tables. Several years ago, we started building stands for our jobsite table saws that have integral outfeed tables. We soon realized that with all the sanding, routing, and assembly we do, the outfeed tables doubled as great work stations.

I've built several versions of this outfeed table-saw stand over the years, but after purchasing one of DeWalt's smaller table saws recently, I built a newer version that has greater versatility as a work station and is much lighter and more portable than previous models. I equipped this stand with clamping capabilities and added a lower shelf that serves as a central storage area, so anyone looking for more nails, glue, sandpaper, light bulbs, or even another pencil knows where to look first.

Worktable top. The design of this stand was simple: two ladder frames that support the worktable top and the lower shelf; 2x4 legs; and a platform for the saw that cantilevers off one end. To cut down on the weight, I made the work top and the shelf out of 3/4-inch plywood instead of MDF, and I built the frame for the lower shelf out of plywood instead of 2x4s. Earlier models had six legs, and I cut that number back to four.

After cutting the 2x4 pieces for the worktable frame, I assembled them using long-length pocket screws **(15)**. I also drilled pocket holes in the frame for attaching the table top. The frame is 96 inches long by 21 inches wide, but the plywood for the worktable is a full 24 inches wide and only 88 inches long. The extra width allows the crew to use the edges for clamping, and the shorter

A lightweight storage shelf adds to the usefulness of the worktable. Pocket-screw the plywood frame together **(19)**. Next screw the 2-by legs to the frame, using a framing square to keep them perpendicular **(20)**. Position the shelf frame on spacers and screw it to the legs **(21)**. Build the cantilevered saw platform out of 1/2-inch plywood **(22)**.

length let me attach clamp track at both ends of the worktable. To support and attach the clamp track, I attached plywood backers at both ends of the frame **(16)**. After perfectly centering the frame on the top, I screwed the two together using the pocket-screw holes I'd drilled earlier, driving screws through the plywood backers, as well **(17)**.

The clamp track attached in a similar fashion as with the miter-saw stand. I set the track in place and marked the positions of bolt slots. I drilled three pairs of holes for the bolts, and after slipping the bolt heads onto the track, I fed the bolts through the holes. Again I used washers and lock nuts to secure the track in place **(18)**, and a strip of plywood filled in to the edge of the frame.

Shelf and legs. To save weight, I made the frame for the lower shelf out of 6-inch-wide rips of 3/4-inch plywood. The crossmembers pocket-screwed to the sides on 24-inch centers **(19)**.

For the next step, I added the legs. Using a framing square to keep the legs perpendicular to the top, I mounted the legs behind the clamp track to keep the ends of track free for sliding the clamp into it **(20)**. I drove five screws to attach each leg to the worktable frame.

With the stand still upside down, I put a 2x4 spacer against each leg to hold the lower frame in place while I screwed it in place **(21)**. After cutting 3/4 inch off each of the spacers, I used them to hold the lower shelf up against the frame while I screwed them together.

Saw platform. So far, this table was just like any other worktable I'd made, except perhaps for the lighter weight. To turn it into an actual outfeed table as well, I needed to add a platform for the table saw (which I bought without a stand). I chose this saw because of its combination of power and portability. Adding the platform behind the table would turn my portable saw into a stationary workhorse saw that would still be easy to move around.

With the cantilever design, the weight of the saw would be offset by the mass of the worktable. To create the cantilevered platform,

Screw 2x4 braces to the table frame to hold the saw platform **(23)**, and screw the platform to the legs and braces with single screws **(24)**. Put the saw on the platform and use a straightedge to align it with the table before attaching the platform permanently **(25)**. A clamping plate added to the top increases the stand's usefulness **(26)**.

I ripped two sides out of ½-inch plywood. Cleats attached to the sides at one end to support another piece of ½-inch plywood nailed between the two sides **(22)**. To determine where to attach the platform, I first measured the exact height of the saw to the table top. Adding the thickness of the cleat and plywood platform gave me the distance from the worktable top to the bottom of the cantilever. I measured down that distance less the thickness of the top on two of the table legs and then cut two additional 2x4 braces at that length. The braces screwed to the table frame to support the end of the platform opposite the saw **(23)**.

After nailing the saw platform to the sides, I set the assembly in place and attached it to the legs and the braces with single screws **(24)**. I then set the saw on the platform and placed a straight edge on the worktable and saw to make sure they were in the same plane **(25)**. I adjusted the height as needed before permanently attaching the platform with additional screws. I screwed a stop strip to the platform to keep the saw in place, and I reinforced the back edge of the platform with blocking.

Clamps. Being able to clamp work to the outfeed table greatly increases its usefulness, so I centered a Kreg bench-clamp plate along one edge of the table. To rout the mortise for the plate, I tacked guide boards in place and used a router bit equipped with a guide bushing. After screwing the plate into place **(26)**, I attached plywood blocking to the underside of the worktable below the clamp plate to reinforce the area around the plate once it is mounted.

When both the table-saw stand and miter-saw stand are set up on a jobsite, I'm amazed at how much work we can get done in such a compact space. It's the next best thing to working in my shop.

Gary Striegler owns Craftsman Builders, in Fayetteville, Ark., and teaches workshops at the Marc Adams School of Woodworking. His website is craftsmanbuildersnwa.com.