

Two-in-One Worktable

BY EMANUEL SILVA

One of my most useful jobsite tools is the easy-to-build worktable shown in this article. I've made several variations on the basic design over the years as I've fine-tuned its features. For example, my first worktables were simple frames, some with plywood tops and some without; a top skin provides a useful work surface, but it's easier to make rips and cross-cuts on an open frame without damaging it. My current model incorporates both features and can be flipped to either side depending on the task at hand.

When I built this latest version, I used a track saw to rip a sheet of 1/2-inch MDO in half, making it possible to assemble two 24-inch-wide tables at the same time (1). At around \$80 per sheet, primed MDO isn't the least expensive table-top option, but it's rugged and

stands up well to weather. I usually cut a few inches off the ends of the ripped panels to make the tables a little shorter than 8 feet so that they will fit more easily in the back of my box truck.

Frame. I made the frames out of three 16-foot lengths of primed 5/4x4 stock, cutting all of the pieces for both tables to length at the same time. Before assembling the frames, I clamped the four long stiles (two for each table) and eight shorter rails (two end rails and two intermediate rails per table) together (2) and laid out the locations for approximately 1 1/2-inch-wide slots in the edges of the stiles and rails. By simply aligning my cut line with the slots, I can make cuts either along or across the frame without making saw kerfs in it. Of course, eventually the edges of the frame will be riddled with



Photos by Emanuel Silva

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saw kerfs, but as long as they aren't too deep, they won't affect the frame's integrity.

I used a router with a straight bit to make the slots $\frac{1}{2}$ inch deep, first scoring the layout lines with a utility knife to prevent blowing out the edges of the $\frac{5}{4}$ stock (3).

You could fasten the frame together with toe screws, but I prefer to use exterior-grade pocket screws because I think they make a stronger connection. Probably a pair of screws at each joint is adequate, but I added a third one for a little extra strength. I didn't bother using glue, but you could. I used a Kreg portable pocket-hole jig to make the holes, for both the stile-to-rail connections and the connections between the frame and the MDO top skin (4, 5).

Top skin. After I assembled the frame with $1\frac{1}{2}$ -inch-long, exterior-grade, coarse-thread Kreg screws (6, 7), I placed it on top of the MDO skin so that the edges were aligned. I used shorter, $\frac{3}{4}$ -inch-long pan-head screws to fasten the frame and top skin together (8).

The shorter screws are needed to avoid penetrating through the $\frac{1}{2}$ -inch-thick sheet stock, and require a Kreg Micro-Pocket drill guide for drilling the pocket holes.

Then I flipped the table over and marked layout lines on the top skin with a Sharpie permanent marker every 6 inches on-center. On the 1-foot intervals, I extended the lines the full height of my layout square; in between, I drew the lines only 6 inches long. I also extended the lines onto the sides of the table, making it possible to read them even when the table is covered (9, 10).

For about \$200 in materials and a couple of hours of labor, I built two tables that will stand up for years to daily use and abuse on the jobsite—a pretty good investment (11, 12).

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Georgia Boot Carbo-Tec LT Work Boots

BY MARK CLEMENT

It has taken the lion's share of my career as a deck builder and remodeling contractor to land on a boot style—and price point—that works for me. The combination of features I like is simple: full-grain-leather uppers, rugged sole, 8-inch height, and an unreinforced toe box. (I get the importance of the reinforcement, but a toe that doesn't flex creates as many problems for me as it solves.)

Because I am equally likely to be using a finish nailer as I am a shovel, chain saw, or tractor, I need boots that can go everywhere and support my skeleton along the way. After months of wearing Georgia Boot's Carbo-Tec LT waterproof lacer farm and ranch boots, I can say they are super-comfortable. Unlike the soles on some other leather boots, these have a give to them without being lame. Tough thread binds the outsoles to the uppers, and as much as I like a knobby tire tread, this tread is more two-dimensional and doesn't hold mud like other boots (1, 2).

I found these boots to be fully supportive—something I can feel (and appreciate) during and at the end of the day. As an amateur doctor, I lay the blame for lots of aches and pains not on age (yet) but on boots that have outstayed their welcome; boots don't need to be torn up to be used up. And the manufacturer's waterproof/breathable claim is legit. I plod through a lot of puddles and wet grass, and my feet stay dry, the boots don't smell, and my feet aren't wrinkled at the end of the day.

The Carbo-Tec has a hard rubber heel, part of the boot's heel-stabilizing feature. After a hundred miles or more of work, this intersection of materials is where my boots are beginning to show signs of failure (3). That said, all boots wear out, whether developing holes or becoming less supportive (while leather boots don't delaminate like hikers, they do stretch over time and the foot can slosh around a little in there; a problem for the way my body works, possibly not for others). Even so, I'm happy to give Georgia Boot Carbo-Tecs a high grade. They come in medium and wide versions and in pull-on and steel-toe variations too. They have done all the things I need my boots to do, at a price point (\$190) that is pretty awesome for the amount of boot you get. georgiaboot.com

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Georgia Boot's Carbo-Tec LT soft-toe, 8-inch work boots are waterproof with full-grain-leather uppers, dual-density, slip-resistant outsoles, and removable polyurethane foam insoles (1, 2). After a few months of hard wear, the author discovered that the rubber heel counter was starting to separate from the leather upper on one of the boots (3).



Photos: Mark Clement

Milwaukee M18 Transfer Pump

BY JAKE LEWANDOWSKI

It's not every day that I need to drain the water from a hole or two, but it definitely happens more times than I am prepared for and lately seems to be a more regular occurrence than usual. In the past, we have used full-blown, heavy-duty electric trash pumps that are hooked up to large-diameter hoses, similar to fire hoses. And for minor water events, a shop vacuum with the air filter removed has generally been fine. Both options worked, but what I really wanted was something small, portable, and—preferably—cordless to add to our core tools.

What I landed on was the Milwaukee M18 (model 2771-20) transfer pump. It isn't a new tool; in fact, I think it's one of the first cordless transfer pumps to come to market. It weighs just under 8 pounds without a battery and has a small footprint, measuring about 13 inches long, so it doesn't take up much space in our job box. Milwaukee states that the nonsubmersible pump's maximum flow rate is 8 gallons per minute and, with an XC5.0 battery, you can expect to pump as much as 240 gallons of water at a rate of 480 gallons per hour on a single battery charge, which seems to be just about right based on our experience. According to Milwaukee, the pump is not designed to be used with flammable fluids such as fuel oil or gasoline; in fact, using it to pump anything other than clear water—think water tanks and hot water heaters—will void the warranty.

One thing I didn't know about and wasn't expecting was a recommendation in the product manual calling

for a 6-foot length of heavy-duty, $\frac{3}{4}$ -inch-diameter hose on the inlet side, while the vast majority of garden-type hoses are considered medium duty and $\frac{5}{8}$ inch in diameter. The concern about using a lighter-duty and more-restrictive hose is the possibility that the pump's suction will cause the hose to collapse. The pump's outlet is also a $\frac{3}{4}$ -inch-diameter brass fitting **(1)**.

To use this pump on our jobsites, we upfit the inlet hose with a filter made from a length of drilled-out PVC pipe with a cap and a PVC hose fitting. We covered the pipe with a laundry lint-trap filter purchased at a big box store **(2)** and wrapped the assembly in filter fabric to prevent stones and debris from clogging up and possibly damaging the pump's replaceable impeller.

We paid full price for this tool, and because it has proven to be so useful, we would buy it again if ours somehow disappeared from the jobsite. With 18 feet of lift (the ability to pull up water that is below the pump) and 75 feet of head height (the ability to raise water vertically above the pump), this self-priming unit has plenty of power to pump water up from a basement footing and away from a building to an alley or ditch. And for its size and weight, it does this much more quickly than I would have expected. \$230 (tool only). milwaukee tool.com

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Milwaukee's cordless M18 transfer pump can move as much as 240 gallons of water on a single charge **(1)**. To protect the pump's impeller, the author assembled an in-line filter out of a length of PVC pipe covered with a laundry lint-trap filter **(2)** and wrapped with filter fabric.

Photos: Jake Lewandowski