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TOOLS

OF THE TRADE

Benchtop Pocket-Hole Cutter

BY NATHAN RINNE

Pocket-hole joinery has been a staple in cabinet shops for decades, and with good reason. Tests show pocket holes and screws to be superior to traditional joinery in $\frac{3}{4}$ -inch material. For example, a comparable mortise-and-tenon joint fails at about 450 pounds under a shear load, whereas a pocket-hole joint fails at around 700 pounds. With the portable jigs available everywhere these days, pocket-hole joints have become almost universal in the woodworking world.

My first pocket-hole jig was a clamp-on, two-hole style. I soon moved up to the manual benchtop model with which I subsequently cut thousands of pocket holes. As a result, I learned to be pretty proficient. However, I had my eye on an automatic benchtop model. Disappointed with the plastic homeowner-grade machines I was finding plenty of, I looked around for an alternative.

What I found was a company after my own heart. Castle has been making tools in the same Petaluma, Calif., plant since the 1980s, and all of its machines are painted John Deere green “as a nod to American ingenuity.” Sold!

In addition, the machine is all steel and built like a tank. Castle is a company that hasn't succumbed to the temptation to move manufacturing overseas or to join the race to the bottom by cheapening its products to pad its bottom line.

That part is important: This is the kind of company I want to reward with my dollars.

When my TSM-12 Benchtop Pocket-Hole Cutter arrived, it was shipped so well that it took a solid 10 minutes to cut away all the packing foam, shrink wrap, and tape from the individual parts. I mention this because I have received tools so poorly packaged for shipping that the mess of damaged parts that arrived was inevitable from the moment they were put in the box.

As I was putting the machine together, I admired how heavily built everything is. Even the U-bolt that holds the cutting router in place was overly large, which I like. The instructions, warranty info, and other miscellaneous literature came in a three-ring-binder folder, which seemed more personal than the typical mass-produced instructions I'm used to seeing.

A DIFFERENT WAY TO MAKE POCKET HOLES

The Castle pocket-hole cutter uses a unique setup to cut its pocket holes, using two Bosch routers. One cuts the pocket and one drills the pilot hole. You simply push the lever forward to cut the pocket and pull it back to drill the pilot hole. The whole process takes just a few seconds with repeatability that you can't get with a manual jig.

What I like best about this setup is, should a router ever fail, I can easily go to a big box and get a replacement that day. That, to me, is

peace of mind I wouldn't get from a unit with a proprietary motor. In fact, given today's throwaway culture, I'd almost bet it would be cheaper to buy a new machine than to replace a motor on one of the other commercially available units.

If you're only used to the Kreg style of pocket holes, you'll find another feature to love about the Castle: The holes are cut at an angle less than half (6 degrees rather than 15 degrees) that of the Kreg. With that change, you not only are more in plane with your mating piece—lowering the chance of the two slipping apart when you're screwing them together—but you also leave more wood fiber surrounding the screw. This translates to a stronger joint. Castle



The TSM-12 includes a Bosch 1617 Router, Bosch Colt Router, $\frac{9}{64}$ -inch premium drill bit, and $\frac{3}{8}$ -inch three-flute solid carbide router bit. While you can use other brands of pocket-hole screws, Castle also sells them (not included).

Photo: Nathan Rinne

offers several styles of precut plugs for these holes, including an easily removable plastic plug that is actually quite attractive.

DUST COLLECTION

As shipped, the TSM-12 isn't ready for dust collection. The bottom is wide open, allowing access to the internals for setup. However—add a point in the cool column—the company sends a template to cut a base from plywood if you desire to do so. Once you have the bottom in place, there are two knockouts on the back of the machine for connecting either a shop vacuum or a 4-inch collection hose.

I have been pleased with my TSM-12 since it arrived. It increases my efficiency, which in turn increases my bottom line. Given how well it's built, I also enjoy the confidence of knowing I will get a lifetime of service from it, and that isn't something I can say about every tool I own.

The Castle TSM-12 Benchtop Pocket Hole Cutter retails for \$1,170. castleusa.com

Nathan Rinne is the owner of Rinne Trimcraft in central Missouri. He specializes in on-site carpentry with an emphasis on ornamental built-ins. Follow him on Instagram @rinne_trimcraft and on Facebook at [facebook.com/osagebeachcarpenter](https://www.facebook.com/osagebeachcarpenter).



The TSM-12 bores a lower-angle (6 degrees) pocket (bottom, in photo) than other jigs (15 degrees, top, in photo). This enables the screw to bite into the receiver stock with a decreased tendency to shift that stock out of place.

Backpack Vacuum

BY CLIFF WOODMAN

Weighing in at 20 pounds—fully loaded with all the accessories and one M18 battery—the Milwaukee M-18 3-in-1 Backpack Vacuum is light.

It's also versatile: It can be used as a backpack, carried by the top-handle, hooked to a wall block or ladder with the built-in rafter hook, or even suspended by the attached strap. I used it in each configuration on the remodeling projects I do, and it was great.

If you primarily use the handle or need to fit in tight spaces, the shoulder harness can be removed. When you use it in the backpack configuration, the shoulder straps are wide and padded for a comfy fit.

The unit has a waist strap that keeps the unit centered on your back nicely when you are bending over or climbing ladders. The waist strap also houses locations for the additional attachment heads so you can change them on the fly without having to go find them. The two-position switch is conveniently located on the bottom left side of the unit within easy reach. At less than 75 decibels, it's quiet.

The 1-gallon debris canister is easy to remove with one hand with the push of a single button. Return air is filtered through a HEPA filter mounted in the top of the canister. Emptying the container is just as easy with the bottom door.

That's already a lot to like, and I'm not done.

I tested it with the optional 9-foot hose, though the factory-shipped 6-footer is more than adequate for an average-height person. The

metal wand is easily adjusted to multiple lengths with convenient locking points. A cool feature is the “knuckle” on the hose. This plastic rotating knuckle prevents the hose from kinking up where it attaches to the canister. I used it in a bar remodel after replacing the bar top, and it worked great on heavy sawdust and larger chips. I also tested it with some drywall-dust cleanup; again, it performed well. The filter did require frequent cleaning, but they all do with drywall dust.

Now for the downside. I found that it did have a little trouble with heavier objects like nails and small pieces of plaster. But it is designed to be a portable, lightweight vacuum, and for that, its power-to-weight ratio is awesome. You can not expect the power of a corded floor-mounted vacuum in a small package.

I put it in the back seat of my truck and closed the door, not realizing the hose was against it when it shut. The structural support in the hose was crushed and took some finagling to restore it to a functional shape. This was my fault, but be aware that the hose isn't indestructible.

Bottom line, if you are in the market for a small, portable jobsite vacuum cleaner, I would encourage you to test drive the Milwaukee 0885-20 M18 Fuel 3-in-1. My wife cleans vacation rentals and I'm having trouble keeping the vacuum cleaner in my truck.

I give it 5 out of 5 Hammers. It retails for \$300 (tool only). milwaukeetool.com



Cliff Woodman is a career carpenter and owner of Woodman Builders, in Saint Simon's Island, Ga. With more than 30 years experience in the construction industry, he has built and remodeled businesses and homes.

Photos: top, Nathan Rinne; bottom, Cliff Woodman

Trailer Theft Prevention

BY MARK CLEMENT

You know that feeling you get when you arrive at the jobsite and your tool trailer is gone? That couple of seconds it takes to process that something is really, really wrong.

“Wait. Did I move it to another job?” “Did I park it somewhere else?” “Did one of the guys...” and the pit in your stomach sinks with the rising observation that you’ve just been ripped off.

Fun, right?

There’s a way to prevent—or at the very least, minimize—the risk of that ever happening again. It’s the contractor-invented TDS LockJaw Vault. This is a two-piece, 10-gauge, powder-coated, made-in-the-U.S. housing that isolates your jack handle and trailer tongue from anybody that doesn’t have a key to the lock. One piece goes over the jack stand and one goes over the nose. They interlock and slot together, and once in position, they can be locked in place.

The Vault is designed so that once locked, accessing the lock with a grinder or bolt cutter is nearly impossible, so the weakest link—the lock itself—in most lock-up scenarios is further hardened.

If you look on the tdslockjaw.com installation page to see how this installs—it’s easy—you can also see the serious mental gymnastics it took the inventor—Cliff Woodman of Woodman Builders in Saint Simon’s Island, Ga.—to iron out before putting his design into production. Making complicated things seem simple is no mean feat.

The Vault is designed to work with other theft-deterrent systems (TDS), such as hitch/coupler locks. However, it does not work with all trailers. LockJaw says that the current model is designed for enclosed, cargo-style trailers with the jack stand centered behind the tongue.

The Vault has two holes for two locks. This was kind of a design accident with a plus-side consequence: It accepts a second lock, making it just that much more inconvenient and time consuming for a would-be burglar. (I think, by the way, we all feel that there’s a special place in Hell for people who steal tools—tool thieves don’t only steal stuff that can be replaced; they also steal our ability to feed our families.) You can also require two keys to open it, say, two lead carpenters. Or an owner and a project manager.

Finally, I appreciate how detailed the installation page is and how clearly and simply it shows you how to determine if the Vault will fit your trailer. A website by a carpenter, not a marketing department. Nice.

For approximately \$200, the Vault comes with both pieces and a lock and is shipped to your door (continental U.S.). tdslockjaw.com

Mark Clement is editor of Tools of the Trade. Follow him on Instagram @the_tools_show.



The Vault isolates the tongue and the crank (jackstand handle) from tampering and from the power tools or bolt cutters of would-be thieves.

The Vault doesn’t fit all trailer types. To see if it will fit your trailer, check the installation page at the company’s website.

Photos: Cliff Woodman