Castle 110 Pocket Cutter

BY GARY STRIEGLER

Most cabinet shops I know of rely on some pocket-hole joinery, typically using a high-production machine to quickly make either routed or drilled pocket holes. Until recently, drilled pocket holes have been the only economical option for trim carpenters, one-man shops, and homeowners, but the Castle 110 pocket cutter is a midrange-priced option for routed holes. While it's not a high-production machine, it cuts low-angle pocket holes that offer some benefits over drilled ones. We do a lot of pocket-hole joinery on jobsites using Kreg's Foreman pocket-hole machine, which is comparably priced to the Castle 110 machine. So it made sense to compare these two machines and the joints they make.

Unlike the Foreman, which has a lever-actuated drill equipped with a step bit to make the pocket hole, the Castle 110 has a router and requires a three-step process. First, you lower the clamping arm to lock the workpiece in place. Next, you push a handle that engages the router, which cuts the low-angle pocket with a router bit. Finally, you use a separate drill equipped with a long bit to drill the pilot hole for the screw from the reverse side of the workpiece through a guide built into the machine. The result is a clean, 3-degree pocket hole with minimal tear-out, around either the pocket or the pilot hole.

The Foreman machine is faster, because as you pull the handle down to clamp the workpiece to the table, it activates the drill to make the hole in one quick action. If the machine is set correctly, the pilot point stops right before breaking through. The resulting drilled pocket hole is not as clean as the routed one produced by the Castle 110 and is cut at a steeper, 15-degree angle.

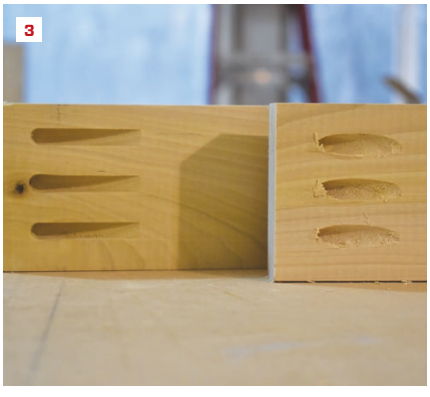
The main advantage of the Castle 110 is that—with some practice—you can put together the joints without clamping, thanks to the clean cuts and the low angle, which minimizes joint creep as the screws pull the two pieces together. The main disadvantage is that it took me over twice as long to produce the pocket hole.

While both machines are light and portable, the Castle 110 has a smaller footprint and weighs less than the Foreman. And with the Castle, you can make pocket holes in large panels by taking the machine to a stationary panel; you can't do that with the Foreman. Designed and assembled in the USA, the Castle 110 is mainly metal, while the Foreman has aluminum and steel components but is largely made of plastic polymer material. That said, the Foreman is plenty rugged; I've never damaged one on a jobsite.

I especially like the Castle's material clamp, which seems sturdier than the Foreman clamp and doesn't need occasional readjustment to keep the workpiece from slipping. Both machines offer a dust collection option, which is essential with the Castle because the small base quickly fills up with sawdust and chips from the router. To be honest, I've never used the dust collection with our Foreman. Drilling just produces chips, and if you disconnect the hose, you can use the tool all day and still not fill up the large base.

One last observation: During the routing operation, the Castle was a lot louder than the Foreman. $660 from Castle USA. castleusa.com

Gary Striegler, a JLC contributing editor, owns Craftsman Builders (craftsmanbuildersnwa.com), in Fayetteville, Ark.



Photos: Gary Striegler

The Castle 110 is fitted with a router that cuts the pocket when the handle is lowered **(1)**. With the workpiece still clamped, a separate drill is used to make the pilot hole **(2)**. Pocket holes made by the Castle 110 are cleaner and cut at a lower angle than those made with the Kreg Foreman **(3)**. Because the Castle 110 produces low-angle pocket holes, a clamp isn't necessary to prevent the joint from slipping when you're joining workpieces together **(4)**.

Makita 40-Volt 10¼-Inch XGT Beam Saw

BY TIM UHLER

Life just keeps getting better on the framing site. Last year, I reviewed Skilsaw's 10¼-inch cordless wormdrive saw, which allowed us to finally unplug the last of our corded tools (see "Skilsaw 10¼-inch Cordless Beam Saw," Feb/21). Now Makita has introduced another entry in the big, battery-powered, rear-handled beam saw category: The GSR02M1 40V Max XGT 10¼-inch circular saw kit, part of the tool maker's XGT line of cordless power tools.

Features. The saw features a brushless motor that spins a 10¼-inch blade at 4,000 rpm, giving it a 3¾-inch cutting capacity. It has an electric brake to stop the big blade, an important safety feature, especially with large blades that can take a while to wind down without a brake. Makita says to expect up to 150 cuts per 4.0-Ah battery charge in 4x4 SPF lumber, which—based on our experience with the saw—sounds about right. This saw will bevel to 56 degrees, with positive stops at 22.5 and 45 degrees, and it has a rafter hook that's large enough to fit over 2½-inch I-joists.

One of the saw's best features is that it weighed in at only 13.6 pounds—with the battery!—on my scale. This is a lot less than the Skil beam saw that I reviewed last year, which weighed in at 18.6 pounds on the same scale, and even lighter than the corded 7¼-inch Skil wormdrive that I started with in the mid '90s. And not only is it light, but the balance is perfect.

The saw includes Makita's AWS auto-start wireless system, which allows it to communicate using Bluetooth to a dust extractor (we didn't test this feature, as we rarely use dust collection on our jobsites).

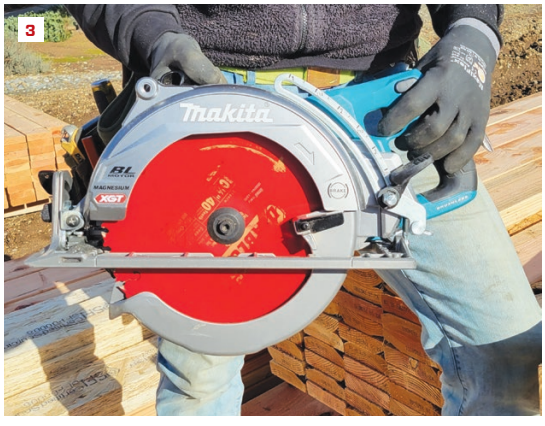
The kit comes with a 4.0-Ah 40-volt battery and a charger with a claimed recharging time of 45 minutes. It also includes a saw blade, wrench, and tool bag.

Power. After using the saw for a few weeks, the only negative that I can think of—at least for now—is that the kit comes with only one battery. I never ran out of juice and didn't have a second battery, but for crews that are cutting a lot of beams, I-joists, or blocking out of 4-by material, two batteries would be a must. Of course, if the crew is already invested in Makita's XGT platform, this wouldn't be a problem.

I also noticed that this saw did seem to lack some power, though maybe that was a function of a feature that the company calls "Automatic Torque Drive," which it says adjusts cutting speed under load to optimize cutting performance. I'll be interested to see if future, higher-Ah batteries will help with this. But it was never a major problem; it just meant that on certain glulams, I had to slow down during cutting.

We also had Makita's smaller, 7¼-inch XGT saw on site during our testing, and we noticed that the bigger saw seems to draw down the battery a little more quickly. That said, I would absolutely recommend this tool. It saves time since you can cut thick stock or double plates in a single pass instead of two, even beveled rake wall plates. It's available online as a kit with charger and 4.0-Ah battery for about $500. makitatools.com

Tim Uhler is a lead carpenter for Pioneer Builders in Port Orchard, Wash., and a contributing editor to JLC.



The Makita 40-volt XGT beam saw can cut through 4-by lumber in a single pass **(1)** and has a large rafter hook that fits over an I-joist **(2)**. The saw has an electric brake to stop the big, 10¼-inch blade **(3)**.

Photos: Tim Uhler

Metabo HPT MultiVolt Cordless Compressor

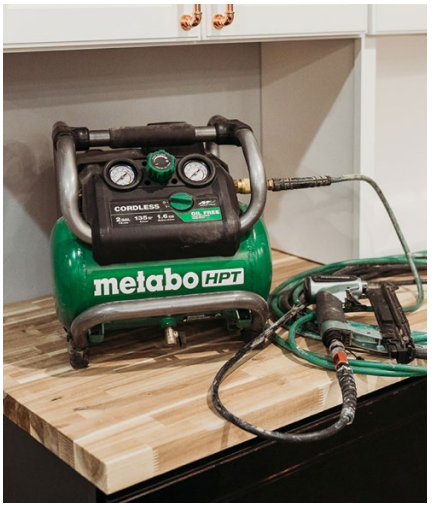
Recently, Metabo HPT sent me its new 36-volt MultiVolt 2-gallon cordless compressor (model EC36DAQ4) to test. Out of the box, this compact unit delivers 135 maximum psi, and Metabo claims that the brushless motor can easily drive more than 1,000 18-gauge brad nails on a single charge. I haven't tested that claim, but whether or not that's true, the compressor can be conventionally plugged into an AC outlet for all-day runtime, thanks to an available AC adapter (model ET36A) that also works with other tools in the company's MultiVolt lineup.

According to the specs, the compressor produces 1.6 cfm at 90 psi, and 2.3 cfm at 40 psi. That's not enough to power a framing or roofing crew running multiple guns, of course, but it's plenty for trim work, occasional light framing, filling tires, and all the other tasks you might use a small compressor for. Weighing only 27.3 pounds, this compressor is light and compact, with a form factor and rubber carrying handle that make it easy to schlep around.

The compressor has an all-metal roll-cage design to protect the integrated control panel, which has gauges for tank pressure and regulator pressure. It is easy to adjust the pressure by twisting the large green knob and then pushing it in to lock the pressure at the desired setting.

The refill time is about 17 seconds with a full battery charge. As the 4.0-Ah battery drew down, each refill seemed to take a little longer. But that didn't bother me, because the noise level while the compressor is running is noticeably less than my 6-gallon pancake compressor, which rocks my whole house. The tool's shock-absorbing feet did a good job of reducing vibration.

The EC36DAQ4 comes as a bare tool, with a factory-installed 1/4-inch brass coupler. It costs $300. metabo-hpt.com —*Andrew Wormer*



Metabo HPT's MultiVolt cordless compressor has a compact footprint, a roll-cage design with a built-in carrying handle, and shock-absorbing feet.

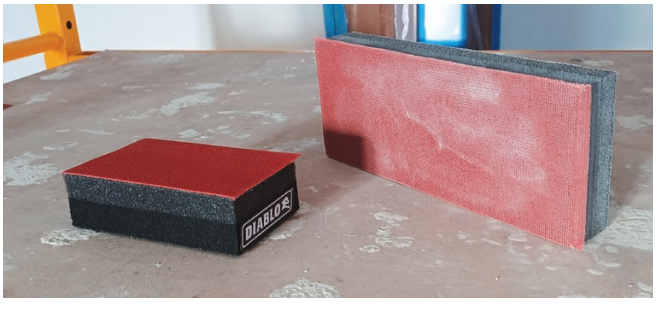
SandNet Abrasives

My first experience with Diablo's SandNet came at the end of taping out drywall ceilings and repairing plaster walls in two rooms with 11-foot ceilings. I had jumped into this job looking forward to the end when I could test out a fancy new power drywall sander. Suffice to say that I beat myself up using that fancy sander (a topic for another review); it was a heavy beast, but I kept at it and managed to finish both ceilings. I was determined to take advantage of the vacuum on it and not face that unique hell of staring upward into a rain of drywall dust.

After the ceilings, I still had the skim-coated wall area to sand out and looked for an alternative. On a whim, I had picked up a pack of 220-grit SandNet and a foam block by Diablo. What a dream this turned out to be, especially after wrestling that beast. Sanding walls is easier than doing ceilings; the dust falls harmlessly down the wall to pile up along the baseboard. Best of all, I ended up using just one sheet of SandNet for over 1,110 square feet of wall area.

SandNet is an open-weave nylon mesh with abrasives along the nylon fibers. Impressively, it does not clog. The abrasive sheet will eventually dull, but drywall dust falls away and does not clump on the surface. An occasional shake was all that was needed.

Enthusiastic to use SandNet again, I tackled sanding out epoxy repairs on old wood floors with a 5-inch random-orbit sander. (SandNet comes in a wide range of configurations for most hand and small power sanders, excluding belt sanders.) Epoxy is challenging for any abrasive, as the sticky dust gums up quickly. I can't say that SandNet is any better than any other abrasive, and at $2.50 to $3 a disc (versus about 60 cents for a paper disc), it's quite a bit pricier. On the open floor areas (a mix of unpainted and painted wood), SandNet did much better, but not nearly the "lasts 10x longer" that is printed on the package. A vacuum hose on the sander easily pulled dust through the net and clogging wasn't a factor. But the abrasive did dull and the edges frayed. Curiously, 80-grit discs seemed to fare worse than 120-grit discs, which did as well but lasted longer. I would venture they last two to three times longer than paper. But at their price, that doesn't net out to a savings. For any hand sanding, I'd choose SandNet; for power sanding, I'll stick with paper. diablotools.com —*Clayton DeKorne*



One sheet of 220-grit SandNet (on long foam block at right) sanded more than 1,110 square feet of skim-coated plaster.

Photos: top, courtesy Metabo HPT; bottom, Clayton DeKorne