







Makita's GDTO1 impact driver and GPHO1 hammer driver-drill are both powered by the company's new 40-volt XGT battery platform. The high-torque impact driver has four speeds and multiple modes to fine-tune the tool to the application (top), while the drill-driver has the power to drive large bits through thick stock (bottom).

Makita Max XGT 40-Volt Drill/Driver Combo

BY TOMMIE MULLANEY

Drill/drivers are an essential part of a tool kit for any carpenter, even one who specializes in fine woodworking and trim carpentry, as I do. So when I had the opportunity, I was eager to test drive Makita's new 40-volt XGT drill/driver combo.

XGT IMPACT DRIVER

Cordless tools are rapidly becoming more advanced and powerful, and Makita's new four-speed impact driver (GDT01) is no exception. It has some impressive intuitive features and buttons (in fact, I was slightly overwhelmed by the number of operational modes, which I will get to in a bit). The GDT01 has a brushless motor that transfers 1,950 inch-pounds of max torque at the squeeze of the trigger, the most torque I've seen from a 1/4-inch impact driver. With its multiple speed settings, you can match the torque and speed to specific applications. Another feature is something that Makita calls Extreme Protection Technology (XPT), which it claims provides increased protection against dust and water. In the hand, the GDT01 feels great, a lightweight and compact tool (despite the horsepower) that can fit into some tight spaces. One of my favorite features on this driver is the one-touch four-speed power selector button just above the trigger, which made adjusting modes fast and easy with one hand. In speed 4, for example, it was almost comical how quickly (and powerfully) the driver could set a 2-inch-long screw.

As mentioned above, this impact driver's technology was slightly overwhelming at first. While the driver has four speeds, it also offers eight modes, which Makita refers to as half-modes. I had to refer to the user manual to figure out how to use this feature, and for what applications; even then, it will take some time before the modes and half-modes become intuitive. And the GDT01 is missing one feature I've found to be convenient on other impact drivers I've used: a magnetic bit holder.

XGT HAMMER DRIVER-DRILL

The matching XGT ¹/2-inch hammer driver-drill (GPH01) has three modes, two speeds, and 1,250 inch-pounds of torque. To switch modes, twist the dial just behind the all-metal keyless chuck: Mode 1 is a regular drill mode; mode 2 is hammer mode, suitable for drilling into masonry; and mode 3 is the electronic digital clutch mode. When you switch to mode 3, a small screen lights up at the base of the drill, displaying a number, which allows you to quickly and accurately dial in your exact torque setting—41 settings are available in low speed, and 21 in high speed—as you use the scroll wheel. Again, I had to refer to the user's manual to figure out



The author used Makita's Impact XPS bits during testing, which the company says last much longer than standard bits thanks to the carbon alloy steel used in their construction.

exactly what each number represented in torque settings, though this was easier to understand than the GDT01 impact driver settings. My favorite feature is the drill's Active-Feedback sensing technology, which turns the motor off if rotation of the accessory is suddenly forced to stop.

The GPH01 feels a little heavy in the hand, even with the 2.5-Ah battery, and it's also top heavy, so balancing this drill on an uneven surface is difficult. However, I did appreciate this weight when drilling horizontally, especially when using large-diameter self-feeding bits. With a 2 9/16-inch bit chucked in and the drill in speed setting 1, the GPH01 plunged through 2x4 pine with ease, showing me that it was made with torque in mind.

GT200D KIT

Supplied with this kit was an XGT Rapid Charger, which has dual fans that circulate air through the charger and battery, resulting in faster charging times; it can fully charge a 2.5-Ah battery in 28 minutes or less. Like most tool brands these days, Makita includes a zippered bag with this kit; I'd prefer a hard case, because it makes it easier to stay clean and organized—and won't rip. The GT200D kit includes the two tools, two 2.5-Ah batteries, charger, and bag; it comes with a three-year limited warranty and costs \$450. makitatools.com

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Evolution R255SMS+ Single Bevel Sliding Miter Saw

BY MARK CLEMENT

Evolution Power Tools' R255SMS+ 10-inch single-bevel sliding miter saw took what I call a "pinball path" to my shop, where it's here to stay after a bit of a rocky start. Part of the initial allure of its "multi-material"—steel, soft metals, wood, plastic—cutting claim was my disdain for the cutting skills of some of the plumbers I've worked with. So, I thought, let's give it a try. But I'm a carpenter, not a plumber, so wood was first on the list.

Out of the box, the saw comes in four pieces, but assembly was easy, resulting in a sublimely accurate setup. My first project was a deck resurfacing job involving toothing in multiple new 5/4x6 pressure treated boards. The cuts were clean, there was plenty of power, and the tool operated as it should. However, my love affair with this delightfully light, mobile, easy-to-use saw started to ebb. The only place dust didn't collect was in the bag. The piles of sawdust got so big around the fence and table that it actually got onto the rail stops, and the blade couldn't travel all the way through a cut. On a trim job, I couldn't cut 5¹/2-inch ogee base nested, so there was beveling to be done, and I rued the day I let my old 12-inch SCMS go. Still, cuts were accurate, and with a smaller volume of dust from the thinner material to manage, it was easier to use. And it has a soft start—really soft, like, is the thing ever going to hit full rpm? For dialing in miters, cheating the saw up to the cut line, or doing any other on-off activity, this feature became annoying enough that when a new saw came along, I stowed the Evolution in a corner, thinking somebody would like it.

Then I had a project installing powder-coated aluminum track and balusters for deck rails. Without changing the multi-material cutting blade that comes with the saw, I found that cuts were clean and the chips were much better contained in the Evolution's continuous blade guard than with other saws I've used to cut aluminum. I subsequently used the Evolution on a variety of remodeling

projects and became re-enamored with this versatile saw, because it is extremely light and easy to move—both to the site and around in the truck. Also, unlike other blades I've used cutting metals, the included Evolution blade is still running strong. This is a unique and interesting saw that is a bargain at \$250 direct from the manufacturer and, at the very least, is a great backup to a main frame miter saw. store.evolutionpowertools.com.

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The Evolution R255SMS+ single bevel sliding miter saw has a maximum crosscutting capacity of $11^3/4$ by $3^9/16$ inches and weighs less than 34 pounds. The 14-amp motor has a soft-start feature and turns at 2,500 rpm.

Photo by Mark Clem

Bosch Second-Gen Blaze Laser Distance Measurer

BY MARY SALMONSEN

Bosch second-generation Blaze Models GLM165-25G and GLM165-27CG laser measures feature a green-beam laser, which Bosch says creates a dot up to four times brighter than red beams. With a range of up to 165 feet, the laser measures are equipped with new and improved features, including an inclinometer that shows the tilt angle up to 360 degrees for easy angle and indirect measurements, Bluetooth functionality (on the GLM165-27CG), and full rubber-overmold casings to protect impact points on the IP65-rated body. Users can select between 11 different measuring functions, including tape measure mode, length, area, volume, and addition/subtraction capability. The dual-power device is able to run on either two standard AA batteries or a GLM-BAT lithium-ion battery pack.

Each measure features an easy-to-read backlit color display user interface, as well as a belt clip. New settings include a haptic feedback feature for successful or failed measurements, where the tool vibrates for measuring confirmation on loud jobsites; a battery save





mode that reduces the brightness of the user interface and deactivates audio and haptic feedback; and an option to clear all saved measurements. The animation function creates graphics to convey how measuring functions are used, and the storage usage data function saves progress even if the tool is switched off. Prices range from \$130 to \$170. boschtools.com

Mary Salmonsen is an associate editor for Builder magazine.

Viking Arm Handheld Jack

BY CHRIS LAND

Working in construction for more than 20 years, I've seen a number of tools, but rarely have I come across one that is a game-changer like the Viking Arm. Made in Norway from hardened stainless steel and aluminum, this compact but strong handheld jack has a lifting capacity of 330 pounds and a range of motion from $^{1}/_{4}$ inch to $8^{1}/_{2}$ inches. Weighing only 3 pounds per device, a pair of Viking Arms and several bundles of shims fit inside a milk crate.

Lifting or spreading action is achieved by squeezing the all-metal handle, but where this tool really shines is in its precision lowering capability. Push the right trigger and the tool drops for a full release; for precision lowering, depress the left trigger. You will not get this control with a typical squeeze clamp tool. The Viking Arm can also be used as a clamp by removing a set screw and swapping the ratcheting mechanism around on the shaft.

Much of my work lately involves kitchens and baths, and I use a Viking Arm daily to level base cabinets prior to granite countertop installation. I just place the device under the face frame of the cabinet toe kick, and with precision, I can raise or lower a cabinet to match my laser level. It works on upper cabinets, too, with scrap-wood spacer blocks. I also use the Viking Arm to raise heavy cast-iron double sinks out of countertops. This is normally a two-person job, but with a Viking Arm, one person can safely raise the sink without throwing out their back. For lifting, pressing, tightening, and leveling, this is a quality tool that is worth its \$200 price tag—but buy two. I got mine at masscaproducts.com.

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The Viking Arm can be used to both raise and lower heavy items such as cast iron sinks and cabinets with control and precision (above). The right trigger fully releases the tool; use the left trigger for controlled lowering action (left).

Photos of Viking Arm by Chris Land