

Weigh In!

Want to test a new tool or share a tool-related testimonial, gripe, or technique? Contact us at jlc_tools@zondahome.com.



TOOLS

OF THE TRADE

New Tools and Storage at Makita Power On Event

BY MARC FORGET

Would you like to participate in an inaugural two-day event talking to others in the industry along with playing with tools? That was an easy yes for me! The Power On event was held at Makita's new training and distribution facility in Flowery Branch, Ga., this past October and was the first time Makita allowed anyone outside of the company into the space. Makita has always been a little different from other tool manufacturers in its approach: not the flashiest or the trendiest but always focused on engineering.

Watching presentations and talking with product specialists was informative, but what struck me was the constant attention to end-user details. A belt sander wasn't simply made cordless, the battery weight was placed to balance the tool and aid in its use. A new cordless framing nailer had power and runtime improvements but also an enlarged grip and trigger a gloved hand could operate easily. The new battery storage and multiport charging system was thought-out with the intended heavy-equipment user in mind, allowing dozens of batteries to be charged without overtaxing circuits. Tool and battery security was addressed with a simple add-on that will hopefully impede expensive investments from "walking off site."

This attention to the user particularly showed in the unveiling of Makita's brand-new modular storage system, the Maktrak.

Though not the first in a crowded market, it's an entrant that prioritized function from the ground up with user-driven research. The large bins hinge in two directions to allow access from either side—now, reaching over into the truck bed to retrieve a tool won't be such a chore. Handles and latches are oversized for gloved hands. Small-parts cases seal each bin, so no more mixed screws in transport. Instead of deep boxes in which tools become buried at the bottom, long, shallow bins allow longer items like clamps and levels to be stored and accessed. Uniquely, the roller base bin fits a tonneau-covered truck bed, with a pull handle that doubles as a lever for easy lifting off a tailgate; no more Olympic dead lifts of your toolbox out of the truck at the start and, worse yet, end of the day. All of this, in a first for Makita, is fully designed and manufactured in the United States.

These are casual observations of a grateful guest at a well-run event. I'm looking forward to collecting and running objective, real-world reviews of these and other, not-yet-released new (and some unusual) products in upcoming *JLC* issues. Keep an eye out for them in the future.

Marc Forget is an associate editor at JLC.



Photos: Marc Forget

Makita's entire lineup was on display at its training facility in Flowery Branch, Ga., in October (1). Among the newly released products was the Maktrak storage system (2). Look for a review in a future issue.

Milwaukee 18-Volt ½-Inch Router Kit

BY NATHANIEL CARLSEN

I spent last winter pattern-routing through what felt like miles of ¾-inch plywood with a guide bushing on a Makita ¼-inch cordless trim router. Even with a router table available, this little Makita has been a constant and efficient companion, always ready with a roundover or a different dado setting. However, I have been pushing it beyond its recommended use; videos of carpenters running a trim router through actual miles of wall sheathing tell me I'm not alone in this practice. Over the past few years, the cordless router has become a go-to option for many carpenters, though I suspect they've been wishing for a little more "oomph." Now, having spent a good deal of time with a Milwaukee Fuel 18-volt ½-inch router, I can say with confidence that our need has been answered.

I first used the Milwaukee to rout a set of maple housed stringer stairs using a top bearing bit with a plunge base (the kit I reviewed includes a plunge base and a fixed base, router, charger, and one battery). The router had plenty of power, and I never felt like it was holding me back. In fact, it had enough power to snap several ¼-inch collet bits; for demanding uses, ½-inch bits are a must. Depth adjustment was a breeze with the macro and micro adjustments working well. Visibility was excellent, aided by two bright LED lights shining down from the router body. Dust collection was both effective and easy to attach using the included hose adapter.

The only downside to using this router for these stairs was that the battery drained quickly because of the hardwood. If we had a second high-output battery on site, this wouldn't have been a problem. The battery charges quickly, gaining most of its bars in the time it

takes to buy a sandwich and some wood glue up the street, but it's a limitation for those not already on the Milwaukee platform.

There's more to like, too. The router bit can be locked using either one or two wrenches, allowing quick bit changes and tight setups, depending on the circumstances. The router switches on and off easily, and the bit brake is swift. The included sub-base is compatible with guide bushings. The fixed base features a hand strap that I can't believe I haven't seen on a router before. The tool's ability to accept both ¼- and ½-inch bits gives users access to every router bit imaginable.

Not included in this kit was a guide rail adapter, which is an ideal accessory to maximize precision. The router would be perfect for use in a jobsite router table and ideal in a shop as a secondary option.

The primary virtue of this router shone through once I threw the edge guide on the plunge base and used the router to dado slots in pine plywood for workbench drawers. The router is comfortable to use. The plunge-base handles are perfectly shaped for maximum control. It's well-balanced and heavy enough to sit firmly on the workpiece but light enough to hold one-handed. With an extended edge guide, I could run the dado all the way through the workpiece, flick the power, grab the next piece, and keep going. At that moment, the router felt more like my favorite circular saw than a router ever has.

The Milwaukee 2838-21 18-volt ½-inch router kit sells for \$600. milwaukeetool.com

Nathaniel Carlsen is a carpenter with TDS Custom Construction in Madison, Wis.



With comfortable handles and good balance, the Milwaukee Fuel 18-volt router proved easy to control in demanding hardwood (1). Seen here with the guide attachment, the router is well suited for accurate repeat mortises (2).

Photos: Nathaniel Carlsen

DeWalt ToughSystem 2.0 20-Volt Charger

BY MARC FORGET

For years, my batteries and chargers lived in a toolbag that I carted from job to job. I like having batteries all together because it keeps me organized and up on charging. It also makes it easy to bring them inside when it gets too cold. The problem with the bag was that the charger cords would often get tangled and stretched, and the battery ports would get dusty from being open and battered about. Also, the open bag ended up being a catch-all for items that shouldn't be there. So, when I saw the DeWalt ToughSystem 2.0 DWST08050 dual charger box, I thought I would have a look.

This ToughSystem compact box contains a dual charger and storage for 20-volt and 60-volt batteries. I mix my load-out of batteries to suit my needs, but the capacity is six 60-volt batteries or 12 standard 20-volt batteries. Everything is in one place, neatly lined up and protected from dust while the batteries charge (kept cool with a built-in fan). For charging other items, like a phone or earbuds, it has two built-in USB ports: a USB A on the inside and a USB C in a dust-protected port on the outside. The power cord is neatly stowed on the back of the box on retaining hooks and, at 6 feet long, has plenty of reach.

It's a clean setup that lets me have a range of battery sizes that can all be charged in one spot. The charger is not a fast one, however, and it can take an hour or so to charge a 9-amp, 60-volt battery. Is it much better than what I was running with before? Yes. Batteries are securely stored, easily reached, portable, and checked and charged in one spot. It retails for \$200. [dewalt.com](https://www.dewalt.com) —M.F.



With the DeWalt Tough-System Charger box open, you can see the storage space and the protective lid prop at right.

Photos: bottom left, Marc Forget; top right, James Burgess

Makita Lantern Radio

BY JAMES BURGESS



The Makita GRM04 (MR010G in Canada) 40V Max XGT Cordless Lantern Radio with Bluetooth, and flashlight (see photo, left) packs a lot into a compact design. The radio boasts full sound with good overall reception range thanks to the protective housing around the lantern's lens, which doubles as an antenna. When I ran just the radio starting with a full charge, it played for four work

days. Runtime was shorter when I used the Bluetooth and the light functions, but it still outlasted other cordless radios on the site. On a site full of cordless tools, it's nice not having to worry about replacing the battery on one of them, at least for a while.

The connection range for Bluetooth and sound quality are quite good for the lantern's compact design. According to Makita, the range is 33 feet, which is plenty if you are on the floor above or below where the lantern is. The included strap with hook was convenient for hanging it. For the majority of the time I had the lantern, it was suspended just above my miter saw station, which typically is the most open location in a house when you're cutting trim, lending itself well to the lantern's 360-degree sound and light output. However, the LED bulb doesn't get hot, making it safe to hang or place next to walls. The design and light function lends itself well to camping—since you can change the light to amber or use it as a flashlight or strobe—as well as holding up against its competitors on the jobsite.

The built-in USB charging port saved my day, too. While I was traveling out of town for a job in a remote area, my phone died from constantly searching for service. I was in an older vehicle with no charging port, but the lantern had my back, charging my phone in no time; the battery charge still lasted for the next two days, blasting music.

Overall, I had a positive experience with the lantern. For someone already using the 40V Max XGT line of tools, this is a no-brainer, with a purchase price of \$170 (bare tool)—a small price to pay for this tool's portability, durability, and quality. [makitatools.com](https://www.makitatools.com)

James Burgess is a carpenter and cabinetmaker in Ottawa. Follow him at [@jbcwoodwork](https://twitter.com/jbcwoodwork).

Badger Carpenter Toolbelt

BY TIM UHLER

“Spend good money on a mattress and shoes. If you aren’t in one, you’re in the other.” That adage makes a lot of sense, especially as we get older. As someone who has worn a toolbelt for 30 years, I would argue that the same wisdom applies to toolbelts.

My first rig was an Occidental leather belt in the ’90s that I inherited when my dad bought new belts for his crew. I wore that for years, then had, successively, an Occidental 9515, a Diamondback Raptor, a Diamondback Denali, and a Diamondback Grande. They all had features I liked or disliked; mostly, I want something lightweight, with no unnecessary pockets but with large open pockets for easy access.

This brings me to Badger toolbelts. Full disclosure: I am now friends with Joel Thomas, the designer and maker of the Badger toolbelts. I had reached out to him in 2015, when he owned Diamondback and I reviewed the Raptor rig. Some time later, I saw on Instagram that he had started Badger and a friend of mine, Joe (@CanadianCarpenter), was wearing the bags. I talked to Joel about making an “Awesome Framers” version of the bags, but he was so busy making the bags himself and filling orders that it took three years for us to get a rig together. I didn’t know at the time

that he had previously made Diamondback bags, and that he was the guy who sewed the Badger bags.

I wanted something minimalist, without extra pockets for tools I don’t need to carry, and I wanted access to fasteners. I had Joel make a few modifications to the Carpenter toolbelt. I went with a 4-inch belt (I’ve never liked the feel of a 6-inch belt). I raised the hammer sleeve to make it easy to pull my Martinez M1 when I’m bent over, and I shortened it, so the hammer never gets hung up. I also asked for a cat’s-paw sleeve on my left. I use it a lot, and in this location, it never gouges the back of my leg. This is a perfect setup for me for framing, foundations, and siding. There is not one thing I would change. It was obvious to me that Joel took what didn’t work at his previous company and fixed it, and then improved the bags. Four years later and my bags look like they have many more years left. The Carpenter setup starts at \$400 at badgertoolbelts.com, with many options both in style and layout.

Tim Uhler works for the family business, Pioneer Builders, in Port Orchard, Wash. Watch his many reviews and instructions on YouTube under AwesomeFramers.



The pouches on Badger’s toolbelt stay open and are large for easy access but not so deep that items become buried (1). The padded belt helps keep the wearer comfortable while working (2).

Photos: Tim Uhler

Jag Masonry Clamps

BY JOHN CARROLL

One of the fascinating things about our profession is that, along with laser levels, cameras that scan inside sewer lines, and other 21st century marvels, we work with simple tools that have been around for centuries. The humble string guideline, used by ancient Egyptian, Greek, and Roman builders, is an example. Carpenters routinely use one to straighten walls, and masons follow a string line for just about every course of bricks or blocks they lay.

Before they can follow a string line, however, these craftsmen must set it up. This typically entails anchoring one end of the string, stretching it tight, then anchoring the other end. In addition, they must set it in exactly the right position, and they need to do it quickly.

Carpenters use nails or screws as anchors, learning how to drive them in the right spot and angle. Masons don't have it so easy. In addition to the difficulty of driving a fastener into masonry, there's the problem of marring and chipping the surface. To avoid these problems, masons usually use line blocks. These hook either on the outside of a "corner lead" they've built using a level or on a square story pole they've set up. The line blocks at each end are held in place by tension created when the masons pull the line tight.

While line blocks are precise and easy to use, they don't work for pulling a line from an inside corner, where there's nothing to hook them to. I've acquired numerous line-holding accessories and come up with a variety of makeshift solutions. One of the best

has been to attach a line to a block of wood and clamp the block in place. It worked but was clumsy and took too much time.

The Bon Tool Jag Clamp employs the same principle, but it works a lot better. It clamps to the face shell of cored blocks or the width of a brick. The clamping mechanism is a strong spring clamp, so it sets up quickly. Attaching a string line to the clamp is easy; you simply wrap a couple of turns around a tapered rivet that serves as a cleat. When set, the string lines up precisely with the edge of the brick or block. This is a special-purpose tool, but one that one that masons working from inside corners will use repeatedly as they work up a wall. They won't use it every day, but when they do, it will be handy.

Bon Tools makes two Jag Clamps: the 21-290 and the 21-291. The 21-290 is limited to clamping to surfaces that are 1½ to 2 inches in width, which is great for most CMUs (concrete blocks) but doesn't work for bricks. The 21-291 is adjustable and can clamp over surfaces ⅝ inch to 5½ inches wide, including the face shell of standard CMUs or the width of bricks.

A pair of 21-290 Jag Clamps costs \$26. A pair of the 21-291 adjustable Jag Clamps costs \$39. I've found that the extra money for the more versatile 21-291 is well-spent. Although it's primarily a masonry tool, carpenters might put it to use for tasks like straightening floor joists or rafters. bontool.com

John Carroll, author of Working Alone, is a builder who lives and works in Durham, N.C.



Photos: Matt Navey



With its spring grip, the Jag Clamp is easy and quick to set up and reset (1). The adjustable model is at right (2).