

Toolbox

Metal Cutting Goes Cordless

by Gary Godbersen

Working as a carpenter, my medium is generally wood, but like many builders, I often find myself cutting things like threaded rod, metal roofing, steel studs, and rebar. While I typically use a reciprocating saw or a circular saw with an abrasive blade for such materials, the resulting cuts are slow and usually a bit ragged. In search of a better method, I recently tested DeWalt's DW934 Cordless Metal Cutting Circular Saw (DeWalt, 800/433-9258, www.dewalt.com) on a collection of steel tubing, angle iron, rebar, and sheet metal.

Features and Operation

Flying metal particles can be hot and dangerous, so the DW934 has a heavy, all-metal blade guard that's noticeably wider than the guards on wood-cutting cordless saws. The guard keeps most of the flying metal chips under control, but it also reduces visibility of the cut line. To improve visibility, DeWalt has included two small windows in the guard, one on the front and another on the side.

The saw's shoe adjusts easily for depth, and because it's made of non-magnetic stainless steel, metal chips

don't stick to it. But it doesn't tilt, so if you need to make beveled or compound cuts, keep that in mind.

An arbor lock helps with blade changes, and the blade wrench is stored on the saw housing. Aside from spinning a little slower (3,100 vs. 3,700 rpm), the saw is similar in appearance and operation to DeWalt's 18-volt wood-cutting saw (model DW939).

Cutting Sheet Metal

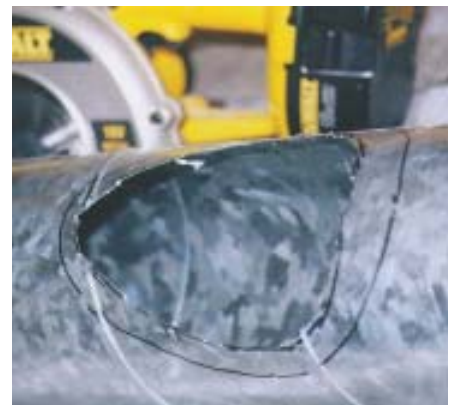
Although I try to keep an open mind regarding new tools, I was a little concerned about cutting heavy-gauge steel with a carbide-tipped blade, so my first test was intentionally easy. I used the saw to cut 24-gauge sheet metal. It does an

excellent job cutting straight lines, but like any circular saw, cutting a slight curve with even the thinnest material causes kickbacks, so I wouldn't recommend it. If you need to make circular or curved cuts, this isn't the right tool.

After cutting the 24-gauge sheet metal, I cut some 26-gauge spiral ductwork for a dust-collection system in my shop. It produced nice clean cuts and



The DW934 metal-cutting saw looks a lot like an ordinary cordless saw, except for a larger all-metal guard. The substantial guard prevents metal slivers from becoming airborne and prevents hang-ups on thin material. Unfortunately, it also hampers visibility, and two little windows meant to make the cut line easier to see don't help enough.



Six-inch spiral ductwork is tough to cut by hand, but by working his way around the duct, the author was able to make smooth cuts in under 30 seconds. Plunge cuts for a wye branch weren't a problem, either.

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worked faster than my previous method, using a pneumatic cutoff tool with an abrasive wheel.

Cutting Real Steel

After the initial testing on sheet metal and easily plowing through some 1/2-inch rebar, I was confident that the saw was up to cutting even heavier materials, so I set out to find its limit. When it was unfazed by my next material, 1/8-inch angle iron and bar stock, I tried high-strength, 3/16-inch-thick, 2-inch-square tubing. Although the saw is listed as having a 2³/₈-inch capacity, it lacked the power to cut all the way through this in one pass. I managed to get through it by cutting halfway through from one side and finishing with a second pass from the other side. While the saw produced a smooth cut, it was pretty slow, proving that it's not a substitute for a metal-cutting chop saw.

The Verdict

Seeing your cut line with this tool is a challenge. The viewing window in front of the blade guard is almost completely useless, and the side window isn't much better. Instead, I relied on the shoe's guide slot for directing cuts. While the slot is effective for 3-inch or longer cuts, it doesn't help with narrow pieces like bar stock and threaded rod. Trying to make it easier to see my cut lines, I used a number of different markers and crayons. Yellow marking crayons show up best in the viewing window, and a lot of light helps, too. This is one tool that would truly benefit from on-board lighting.

Visibility issues aside, the saw is an efficient, well-designed tool for light to medium metal-cutting applications. It cuts faster than an abrasive blade and is easier to handle than a recip saw, especially with the light-gauge steel and

aluminum that I typically cut. While it's not a replacement for a metal cutoff saw, it can cut steel angle and pipe pretty well, and it works great for long straight cuts in sheet metal.

I'm still on the fence about buying one. Even though it came in handy more than I thought it would, I don't think I'd use it enough to justify the cost. However, I'm sure the DW934 would be great for hvac installers, electricians, plumbers, and anyone else who cuts metal regularly.

The DeWalt 934 sells for about \$370 and comes with two 18-volt XR NiCad batteries, a 40-tooth carbide-tipped blade, and a blow-molded case.

Gary Godbersen is a carpenter and woodworker in northern Vermont.

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TOOLS THAT MEASURE UP

Time-Saving Siding Gauge. Malco's *Panel Gauges* not only give your siding the correct 1¹/₄-inch overlap without measuring, they temporarily support both ends of the siding panel for easier installation, even when you're working solo. The stainless-steel gauges are made for 5/16-inch-thick siding and will support the entire weight of a 12-foot panel. According to the manufacturer, the gauges require no adjustments and will last a lifetime.

Malco Products, 800/328-3530, www.malcotools.com.



McGyver's Layout Tool. The manufacturer calls it the Swiss Army Knife of layout tools. It has almost as many functions but, sadly, no bottle opener. The *Precision T* is a 48-inch, aluminum straightedge with fold-out tabs for laying out plates. The 1¹/₂-inch-wide tabs give the correct layout for both 16- and 24-inch on-center spacing. When the 24-inch removable leg is secured to the straightedge, the tool can be converted into a 4-foot, L-shaped framing square or a T-shaped drywall square. The removable leg can even transfer anchor bolt locations to mud sills. Finally, a removable vial insert changes the straightedge into a 4-foot spirit level.

Frame E-Z, 505/536-9411, www.frameez.com.



Even Spacing for Your Casing. Made specifically to speed the installation of door and window casing, the *Trim-Loc* practically guarantees consistent reveals, and it's small enough to fit inside your toolbelt. Tape-measure slots hold your tape at a proper 3/16-inch reveal for accurate one-step measurements, and 45-degree guides assure tight miters at corners. But the coolest feature is that the tool allows the use of short-side measurements without a second pair of hands.

Bench Dog Inc., 800/786-8902,
www.benchdog.com.



Magnetic Personality.

Klein's new magnetic-tipped tape measures have a rare-earth magnet on the tip for easier solo measurements. The new tapes range in length from 16 to 30 feet and have a sturdy rubber-covered housing for increased grip and impact resistance. The tapes also feature a high-visibility orange case and multiriveted end hooks.

Although most of us frame in wood, it's still a good idea.

Klein Tools, 800/553-4676,
www.kleintools.com.



LABOR-SAVING PAINTING TOOLS

Scraping By. Scraping paint is about as exciting as watching it dry, so anything that promises to make the tedious process go faster deserves some serious consideration. Warner's *Carbide 100X Paint Scrapers* are a definite improvement over traditional hardened-steel blades, and the manufacturer claims that they stay sharp 100 times longer. Cushioned handles are



threaded for extension poles and provide a secure and comfortable grip. The scrapers are available in 5/8-inch round, 1-inch triangle, and 2- and 2 1/2-inch straight profiles. Straight versions have a front-mounted knob for additional scraping pressure.

Warner, 877/927-6378, www.warnertool.com.

Peel-and-Stick Protection. Masking door hinges can really slow the otherwise rapid progress of paint spraying. But *Door Hinge Protectors* from Paint and Peel cover radius-corner 3 1/2-inch butt hinges in a single step without masking tape. According to the maker, the precut vinyl covers protect both sides and remove easily when the job is done.



Paint and Peel, 877/416-7246, www.paintnpeel.com.

Get a Handle on Vandals. Graffiti is a problem for many homeowners and builders in urban areas. Anything stationary for more than a minute is a potential easel for an urban artiste. Dumond Chemicals, the makers of Peel Away stripper, recently introduced two new products for removing graffiti from buildings and equipment. The appropriately named



Graffiti Remover is a citrus-based solvent that removes stains and most types of graffiti from masonry, glass, concrete, terrazzo, and metal. The product usually works within 15 minutes, according to the manufacturer. *Lift Away Graffiti Towels* remove graffiti from almost any hard, smooth surface with a convenient, slightly abrasive, premoistened cloth.

Dumond Chemicals, 212/869-6350, www.dumondchemicals.com.

A Quick Shave. Promising to strip siding at the rate of 4 square feet per minute, the Paint Shaver uses a three-wing carbide cutter to quickly remove paint from flat surfaces. An acrylic shield with a profile-conforming base controls airborne particles and connects to your shop vacuum with a 1 1/4-inch port. According to the manufacturer, the tool removes paint at twice the rate of conventional sanders, and the carbide cutters will last for 5,000 square feet before needing replacement.

American International Tool, 800/932-5872, aittool.com.



Wet-Paint Blues. If your nearsighted painter or helper is leaving the ceiling of your projects a little blotchy, you might suggest Ace's *Simply Magic Ceiling Paint*. The flat white ceiling paint includes a blue colorant that's added to the can just before application. The colorant practically guarantees

proper coverage, and, magically, the paint turns white again in about 24 hours. Just be sure to tell your customers about the product first or expect a call from a frantic homeowner around suppertime.

Ace Paint, 708/720-0600, www.acehardware.com.



TIME-SAVING SAW BLADES

Rip It Up. Promising straight, smooth rips without jointing or sanding, Freud recently introduced the *Glue Line Ripping Blade*. The carbide-tipped, 30-tooth blade comes in Teflon-coated (LM74R) and polished (LM74M) versions. The 10-inch blades have a 12-degree hook angle and a triple-chip tooth design. The maker claims that a thicker kerf and laser-cut expansion slots eliminate vibration and deflection, producing cuts that can go right to the assembly table without additional prep.

Freud, 800/334-4107, www.freudtools.com.



Pull Out the Grout. Regrouting or replacing a tile can go a lot smoother and faster with a *Grout Grabber* grout removal tool. According to the manufacturer, the offset, carbide-abrasive blade fits most common reciprocating saws. The 1/16-inch-thick blades can be stacked on the holder to accommodate grout lines up to 1/2 inch thick.

Grout Grabber, 888/447-2248, www.groutgrabber.com.



Terra Cutter. If you've ever had to cut terra cotta (clay) waste pipe as part of a remodeling project, you know the brittle material is hard to get through without damaging it. Probably the best way for non-plumbers to cut the material is with an abrasive reciprocating saw blade like Lenox's *Master-Grit 600RC* (plumbers use a special \$300 tool called a snapper). These blades use a tungsten carbide abrasive bonded to the blade shank instead of teeth. The manufacturer claims that the blades also work well on fiberglass, cast iron, tile, marble, stone, and brick.

American Saw & Mfg., 877/886-2876, www.lenoxsaw.com.

Metal-Cutting Converter. Many carbide-tipped metal-cutting blades are meant only for slower-turning cutoff saws, but Tenryu's *Steel-Pro PRF-18548DS Ferrous Metal-Cutting Blade*

is made for faster-spinning 7 1/4-inch circular saws. The PRF-18548DS blade's 48 teeth have almost no rake and can safely spin up to 5,800 rpm. Although the blade does get some metal particles flying, it's no worse than an abrasive blade. The PRF-18548DS can cut ferrous metals up to 1/4 inch thick, and it makes a clean cut without burning.



Tenryu America, Inc., 800/951-7297, www.tenryu.com.