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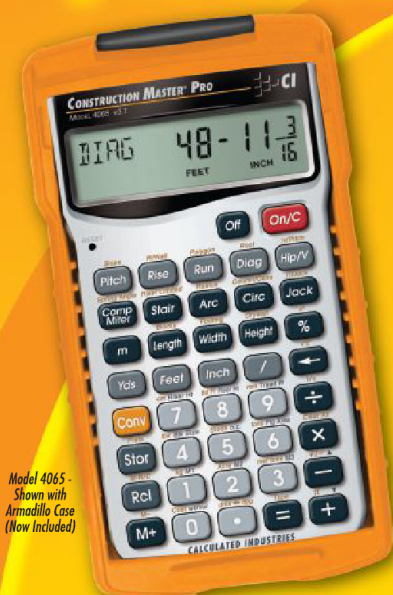


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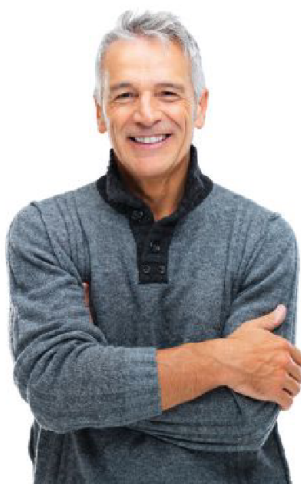
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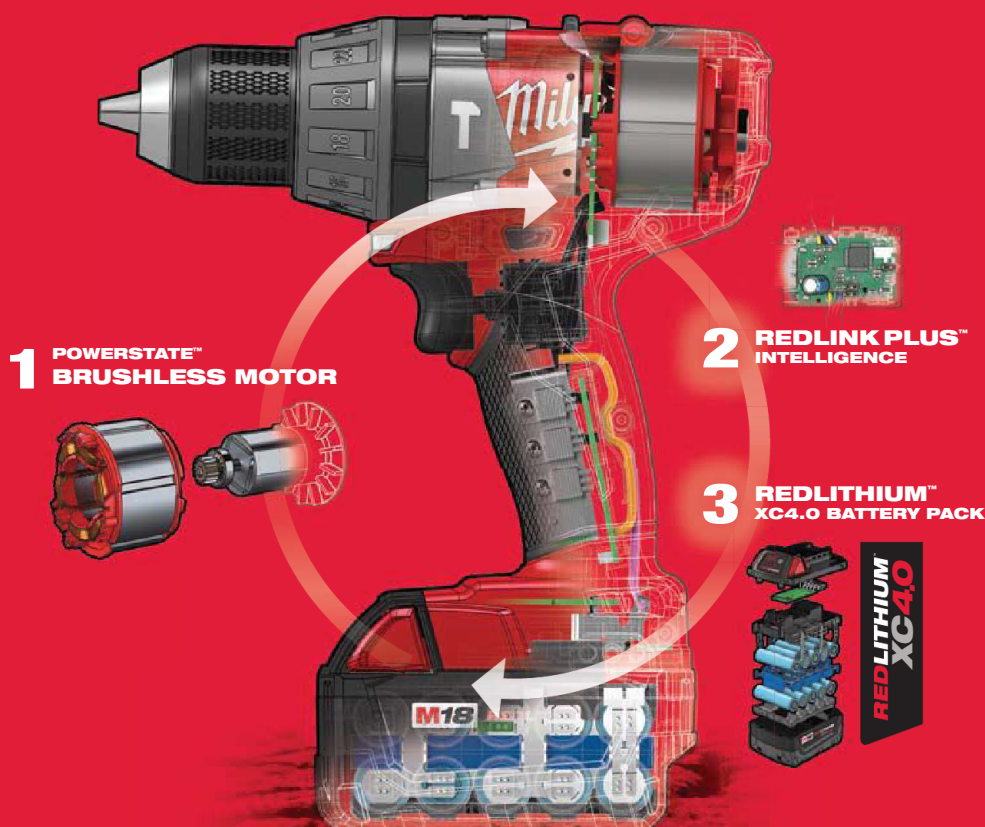


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Tools Up Close

BY TIM UHLER



Skil Mag77LT Saw

This spring Skil released the Mag77LT, an upgraded wormdrive saw that the company says is 4 pounds lighter than the very popular SHD77. *Tools of the Trade* had one sent to me so I could test it. When I pulled the saw out of the box, I could tell it was lighter than other wormdrives — though it's not the lightest inline model around. The Mag77LT is listed at 13.2 pounds, the same weight as Makita's hypoid model (5377MG). It's 2 pounds lighter than the Mag77, the last Skil I owned and the first from that company with magnesium components. The manufacturer shaved weight off this

saw by shortening the motor and using more magnesium and less aluminum than before.

I use inline saws every day and have tested every model now on the market. I'm particularly familiar with Skil because I learned on an SHD77 and switched to the lighter Mag77 when it came out in the late 1990s. My current saw is a DeWalt (DW535), though my crew and I also use other brands.

Though very much a Skil saw, the Mag77LT has a number of features that distinguish it from previous models. Upgrades include a 53-degree bevel capacity (the Mag77 topped

1,2 At 13.2 pounds this saw is one of the lightest inline models around, so it's easier than most to use overhead.

3 The one thing Skil failed to improve when it designed the saw was the depth bracket. If the saw gets banged around, the bracket will no longer slide smoothly and you'll have to tap the base to get it to move.

out at 51.5 degrees), a rubberized grip and top handle, and a storage spot on the baseplate for the blade wrench. The wrench is designed to change blades, adjust the bevel nut, access the brush cap, fit the oil plug, and remove diamond arbor knockouts. The new

saw is very compact, about an inch shorter than my DeWalt.

The saw arrived while we were framing a house, and the first thing we used it for was cutting birdsmouths and rafter tails on about 50 rafters. We immediately noticed how much lighter it felt than most other models. The saw's 15-amp motor has plenty of torque and didn't bog down when we cut LVL.

I like almost everything about this saw, but I do have a complaint about the depth-adjustment mechanism. Once you've dropped the saw (and sooner or later you will), the depth adjustment gets sticky and you have to tap the base with a hammer to get it to move. This has been a problem with every Skil wormdrive I've used. It's a nitpicky concern but one that has annoyed me for 20 years. By way of comparison, our

Skil Mag77LT Saw

Blade: 7¼ inches; diamond arbor

Weight: 13.2 pounds

Motor: 15 amps

Cord length: 8 feet

Maximum bevel: 53 degrees

Shoe: cast magnesium

Depth of cut at 45 degrees: 1¹⁵/₁₆ inches

Depth of cut at 90 degrees: 2³/₈ inches

Country of origin: China

Warranty: 1 year limited

Price: \$219



Skil
877-754-5999
skiltools.com

DeWalt has taken a number of falls, and after three years of use the depth mechanism sticks only slightly.

\$219. That's a bit steep for a wormdrive, but prices usually come down after a tool has been out for a while.

BOTTOM LINE

I like this saw a lot. It does the job, is comfortable to use, and has a nice folding rafter hook. I've seen it online for

Tim Uhler is a lead framer for Pioneer Builders in Port Orchard, Wash., and a Tools of the Trade contributing editor.



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Björnläder Work Pants

BY GREG DIBERNARDO

Several years back I was at the *JLC* Live show and noticed an exhibitor selling Scandinavian-designed work pants that had built-in sleeves for holding kneepads, waist-level nail pouches, and all kinds of specialized pockets. I bought a couple of pairs and before long I stopped wearing my old work pants. Those first pairs were from Blåkläder, but I have since switched to a brand called Björnläder.

I currently own five pairs of Björnläder pants, three from the Jubilee line (\$83 apiece) and two of the Ace Carpenter style (\$95). After wearing European-style pants for so many years, I cringe at the thought of kneeling down on a nonpadded knee. The pads are always there on the pants, but they're not heavy and uncomfortable the way strap-on kneepads are. I have introduced any number of guys to European-style work pants and they all swear by them.

The Ace Carpenter pants are my favorite. They're made from heavy cotton duck with reinforced fabric at the bottom of the legs, at the knees, and above the tool pockets. They have an incredible number of things built into them: hammer loops, pockets on the lower leg, zippered pockets, and pockets designed to hold tools, fasteners, pens, phones, ID, and the like. There are so many pockets and loops that I actually cut some of the smaller ones off.

The Jubilee pants are similar to Ace Carpenters but are made from cotton twill; they're lighter and more breathable so I tend to wear them when it's hot. The twill and duck are both very tough, and after years of hard use I have yet to put a hole in either style of pants — not even in the knees.



The cut of Björnläder men's pants (the company also makes women's) is more European than that of, say, Carhartts, which tend to be baggy. Ace pants are cut for a slimmer fit around the legs, which means the kneepads stay in front of your knees and don't flop around to the sides. The Ace kneepads are slightly longer than the Jubilee kneepads, and I like that.

I avoid wearing a toolbelt, and with these pants I can go without the belt and still have a large number of tools on me. This feels pounds lighter and much more compact than wearing



Ace Carpenter Pants

1 Ace Carpenter pants have an incredible number of loops, pockets, and other storage options. The Jubilee pants are similar but are made from a lighter fabric.

2 Björnläder offers multiple kneepads: thick polythene (left), thin polythene (right), and puncture-resistant rubber (not shown). **3** The pads fit into pockets on the knees of the pants, so they are always available and won't creep or slide like traditional kneepads.

a toolbelt. On those days when I have to use a toolbelt, I wear a pair of Jubilee pants that have had the waist pockets cut off so the belt fits more comfortably. But I still have the kneepads and all those other pockets.

Björnläder gear is not widely distributed in the U.S. I order it from J&R Distributors (www.jr-distributors.us) and you can also get it from Faceline (www.faceline.com).

Greg DiBernardo owns Fine Home Improvements of Waldwick in Waldwick, N.J.

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Max RB397 Rebar Tier

BY TIM UHLER

Back when business was booming, our construction company subbed the foundation work, but these days our framing crew forms and pours footings and stem walls. Late last year we did the foundation for a 4,200-square-foot custom home. It was larger than the homes we normally build and presented the perfect opportunity to try out the RB397, a cordless rebar tier we'd seen at a trade show. I asked the editor of *Tools of the Trade* about the tool and he arranged for the manufacturer to lend us one.

The rebar tier is shaped like a large cordless drill, but with grapple-like jaws on its nose instead of a chuck. To use it, you hold the jaws against the rebar and squeeze the trigger. Faster than you can see it happen, the RB397 wraps wire around the bar three times and twists it off. It takes about a second

Max RB397 Specs

Weight: 5.2 pounds

Motor: brushless

Battery: lithium ion; 14.4 volts; 3.0 Ah

Ties per charge: 2,000

Country of origin: Japan

Includes: battery, charger, plastic case

Web price: \$2,500

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per tie, and there's no way we can match that speed tying by hand. And the ties are amazingly neat; each one is exactly the same.

The tool takes rolls of proprietary 21-gauge wire available in three types of steel: regular, electric-galvanized, and polyester-coated (for epoxy-coated rebar). According to the

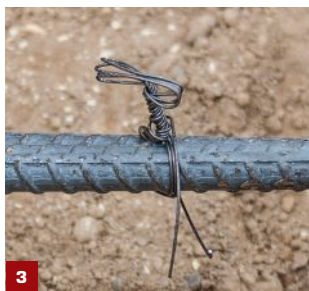
manufacturer, you get about 120 ties per roll. We paid less than \$5 per roll for regular wire at our local supply house. It took about 10 rolls to tie the entire foundation.

I can't overstate how much we preferred using this tool to tying rebar by hand. It took about an hour to scatter and tie all the rebar in the foundation. Tying the same foundation by hand would have taken three hours. And this tool didn't just save us time, either. It was good for our backs — because we spent so much less time bent over — and a lot easier on our wrists than twisting wire with lineman's pliers or one of those wooden-handled rebar tying tools.

The RB397 also makes it easier to tie bar in walls because it can be operated one-handed. You can hold the bar in position with one hand and tie it with the other — there's no need for a helper.

Max's rebar tier is a pricey tool, and we don't do enough concrete work to justify the expense. But if we specialized in foundations, I'd find a way to buy one because it saves labor and does very neat work.

Tim Uhler is a lead framer for Pioneer Builders in Port Orchard, Wash., and a Tools of the Trade contributing editor.



1 The tool's jaws fit around the rebar, and when you squeeze the trigger, the machine ties and cuts the wire. **2** The wire is proprietary and comes in 82- and 312-foot rolls of bright, galvanized, or polyester-coated steel. **3** Each tie is exactly the same — three wraps of wire twisted into what looks like a neat little bow.

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Bosch TC10 10-Inch Wet Tile and Stone Saw

BY ROB ZSCHOCHÉ

My remodeling company specializes in tile work, so when Bosch introduced its first tile saw, *Tools of the Trade* got one for us to try out. We've been using the saw since last fall, and here's what I can tell you about it.

The TC10 falls into a category that didn't exist when I learned to set tile: machines with the capacity to cut 24-inch tile that can also make plunge and bevel cuts and be easily carried by one person. DeWalt pioneered this category with the introduction of the D24000, which fell in between small grinder-based saws and production-oriented machines like my first saw, a Target Tilematic. We've had a D24000 for eight or nine years, and it's the machine to which I compared the TC10. Ridgid and Husqvarna make saws of this type too, but I haven't used them.

SLIDING TABLE

Bosch's tile saw consists of a metal frame that holds a water tray, a

motor, and a sliding table that passes between the blade and tray. Side and rear extensions (spray guards) attach to the frame without the use of tools and direct water thrown by the blade back into the tray. The rear extension curves up and does a good job of collecting water that sprays to the rear. (It's located far enough back not to get in the way when you cut 24-inch tile.) The tray slides into the frame from the side and can be pulled partway out to drain directly into a bucket, so water doesn't splash off the stand below. As with other saws, the tray and extensions are made from plastic, but they feel sturdy enough to last a long time.

The beefy cast-metal table rolls smoothly on four sealed bearings and was square to the blade when the saw arrived. If it hadn't been square, we could have realigned the machine by loosening four bolts and adjusting the position of the motor and blade.

When the rollers and rails become

caked with sludge, it's a simple matter to remove the stop/bumper, pull off the table, and remove the sludge. The pump that feeds water to the blade is equally easy to disassemble and clean. The included universal guide tightens down nicely and is good for setting angled and repetitive cuts.

WATER FEED

Water is pumped from the tray to a nozzle at the rear of the blade and is flung forward as the blade spins. I'd prefer that the water be concentrated at the point of cutting, as is the case with the DeWalt, which has adjustable front-mounted nozzles that put the water right where it needs to be. That said, the Bosch seems to put enough water onto the piece, as our blades have been lasting the normal amount of time. We didn't like that enough spray comes forward to get the front of your shirt wet. I loaned the saw to another contractor, and he fixed this by screwing a piece of shower-pan liner onto the front of the blade housing to act as a spray shield. The flap looks kind of funky, but it works.

POWER

We used the TC10 to cut veneer stone, mosaics, glass, porcelain and ceramic tile, and concrete pavers — and it always had enough power. This would not be the machine for setting tens of thousands of square feet of tile in an airport, but it's fine for tile setters and contractors who do residential work. And it has features not found on traditional industrial saws, like the ability to make plunge cuts and bevels. To make plunge cuts, you turn a release knob and then pull the motor down against a spring, much as you would with a miter saw. Beveling is a matter of loosening a knob and tilting the motor to an angle of 22.5 or 45 degrees.

STAND

The saw we received came with a basic folding stand that the machine drops



TC10 Specs

Blade: 10 inches

Motor: 15 amps

Max size tile: 24-inch rip;
18-inch diagonal

Max depth of cut: 3³/₄ inches

Weight (without stand): 75 pounds

Country of origin: China

Price: \$999 (saw);

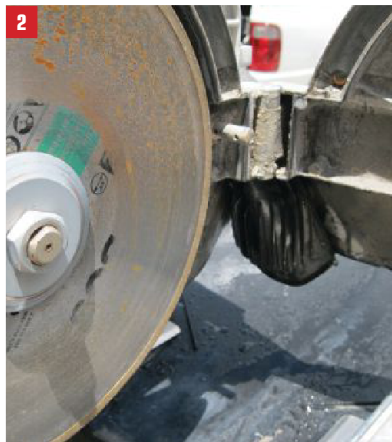
\$119 (folding stand);

\$179 (wheeled stand)

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1 Four sealed bearings on the bottom of the sliding table guide it along the rails. The tile setter has removed the table to clean off the sludge and is spraying silicone lubricant onto the bearings. **2** When the pump is running, water is sprayed onto the blade through a pair of orifices at the rear of the housing. **3** The flap of shower-pan liner material on the front of the saw is not original equipment; the tile setter screwed it onto the blade housing to reduce "overspray" and keep himself dry. It's not pretty, but it does the job. **4** To avoid splashing and mess, the tray can be pulled out from the side of the frame and drained directly into a bucket.

onto. We like the folding stand and figure it will hold up well over time. It's rock solid when open, and plopping the saw onto it is easy. I certainly like it better than the DeWalt stand, which is flimsy and difficult to align with the mounting points on the tray.

Bosch recently introduced a fancier wheeled folding stand that bolts to the machine. I prefer the basic, nonwheeled version because it's easier to lift and carry the saw without a stand bolted onto it.

BOTTOM LINE

This would be a good saw for a remodeler or tile contractor who does residential work. The table is solid and slides smoothly, and the tool's ability to bevel and plunge is very handy. The only negative is the amount of spray that comes toward the operator, which can be easily fixed by adding some kind of flap.

Rob Zschoche is a remodeling contractor in Chantilly, Va.

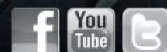
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Makita Cordless Random Orbit Sander

BY DAVID FRANE

Makita has been on a roll, having recently introduced 18-volt cordless versions of tools previously available only with cords: a sliding compound miter saw, a power planer, and now the LXOB01 random orbit sander. When I first heard about this sander, I couldn't help wondering: Why? The cordless sanders I'd seen before were aimed at the DIY market, and it simply hadn't occurred to me that a company would make one for pros.

PERFORMANCE

Though I've had the LXOB01 for only a few weeks, I've used it enough to say that it works surprisingly well. It's slightly slower and about a half-pound heavier than comparable corded models (it's based on the BO5031), but it feels very similar in use. When I put a 100-grit disk on the tool and sanded the face, sides, and edges of rough redwood fence boards, it removed the surface material quickly, and the convenience of not having a cord to deal with partially offset the additional weight.

According to Makita, the tool can sand for 20 minutes at high speed and 40 minutes at low speed on a 3.0-Ah battery. To find out if this was true, I installed a 100-grit disk and timed how long it took to deplete a fully charged battery while sanding redwood at high speed. The tool ran strong for 25 minutes, at which point the motor slowed and made it clear that the battery was just about empty.

When testing cordless tools, I'm in the habit of stopping every so often to let motors and batteries cool. This turned out to be unnecessary with the sander — the battery remained cool and the tool never became more

LXOB01 Specs

Speed: 7,000, 9,500, and 11,000 OPM (oscillations per minute)
Weight w/battery, paper, & bag (by author): 3.9 pounds
Disk diameter: 5 inches
Orbit diameter: 1/8 inch
Country of origin: United Kingdom
Price: \$280 for the kit; \$100 for bare tool
Kit includes: tool, two 3.0-Ah LXT batteries, charger, dust bag, and carry bag

Makita
800-462-5482
makita.com

than slightly warm. Evidently, sanding doesn't strain motors and batteries the way drilling big holes or driving lags does.

A SECONDARY TOOL

One question I can't answer is whether this tool will catch on. I do most of my work in a shop or in rooms where I need to do a really good job collecting the dust. In those places it's easy enough to use a corded model that connects to a dust-collecting vac, so there's no great advantage in going cordless.

However, I could see adding this sander to my kit as a secondary tool for those occasional tasks where I need to be mobile and am not that concerned about collecting dust — jobs like sanding decks and exterior trim, working from ladders and staging, and doing interior work where I have to cover a lot of ground (finishing up a punch list, for instance).

David Frane is the editor of Tools of the Trade. This review originally appeared in JLC.



1 A push-button switch starts the tool and toggles through high, medium, and low speeds (the other button stops the tool). The sander takes 5-inch 8-hole hook-and-loop disks. **2** The dust-collection bag, though not highly efficient, does collect most of the dust. This pile of dust, which I dumped onto the bench after 10 to 15 minutes of sanding, filled the collection bag about halfway.



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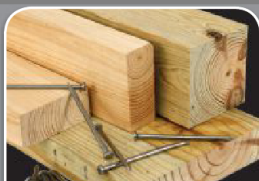
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18-VOLT CORDLESS JIGSAWS

These tools are a viable alternative to corded models for intermittent cutting

BY DAVID FRANE

A jigsaw may not be the first, second, or even third cordless tool most tradesmen buy — and yet it's a handy addition to anyone's tool kit. These saws are typically sold bare, and most people who buy them are adding them to existing systems.

For this article I tested seven pro-grade models to help you decide if the saw for your system is worth having — or, if you're in the market for a new system and care about the jigsaw, which systems are worth considering. Included in the test were tools from Bosch, DeWalt, Hitachi, Makita, Metabo, Milwaukee, and Ridgid.

Festool doesn't currently sell cordless jigsaws in this country but plans to introduce a pair of them late this year.

SPEED AND POWER

Every tool tested has reasonable speed and power — not as much as the better corded models but sufficient for most of the tasks a carpenter or cabinet installer might use a jigsaw for. I tested speed by timing how long it took to rip $\frac{3}{4}$ -inch hardwood plywood in straight (nonorbital) and orbital mode. Each saw was equipped with a new 10 TPI blade (Bosch T101B), and I leaned into the cuts because I didn't want to be there all day.

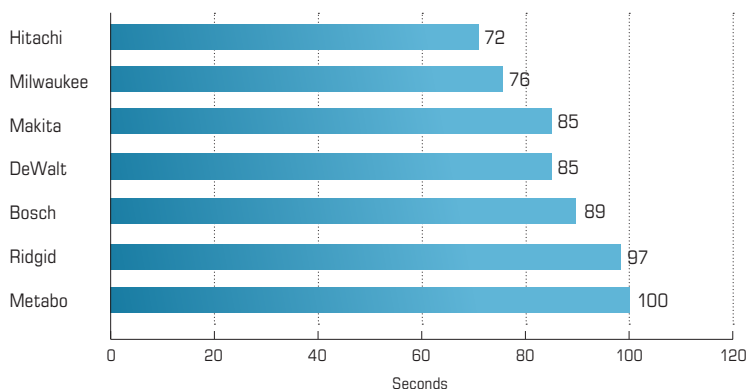
On average, it took about 90 seconds per 8-foot rip in straight mode and 50 seconds in orbital mode (see tables at right). To put those numbers in perspective, I made the same cuts with a corded saw (Festool Trion) and they took about 50 seconds in straight mode and 35 seconds in orbital.

The manufacturers make varying claims about capacity — one says the saw can cut material up to $5\frac{1}{4}$ inches thick. Maybe it can, but the fact is that most of the things carpenters cut with jigsaws are $\frac{3}{4}$ inch or $1\frac{1}{2}$ inches thick. I made a point of using the tools to cut $1\frac{1}{2}$ - and $2\frac{3}{4}$ -inch dry Douglas fir. They cut slowly in nonorbital mode and faster in orbital. It's worth noting that the cuts through thick stock were noticeably out of square if I pushed hard in orbital mode. But the cuts were square if I let the saw dictate the pace.

RUNTIME

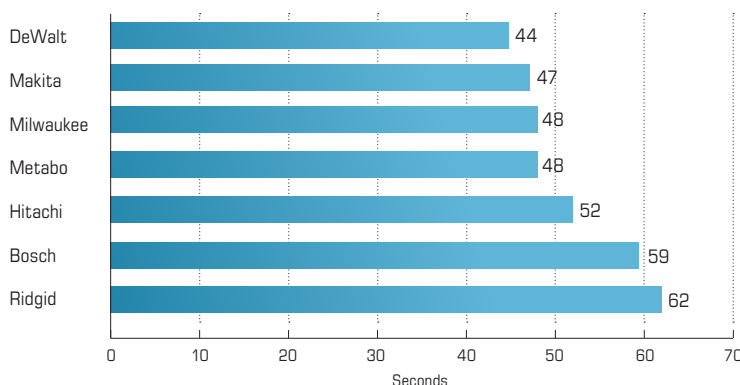
I tested runtime because you have to with cordless tools, though advances in tool design and batteries are making runtime less of an issue than it used to be. This is particularly true of jigsaws, which typically see intermittent use for tasks like notching deck boards and trim, cutting scribes, and making various cutouts. When used in this manner it's hard to deplete one battery before the spare is charged.

CUTTING SPEED IN STRAIGHT MODE



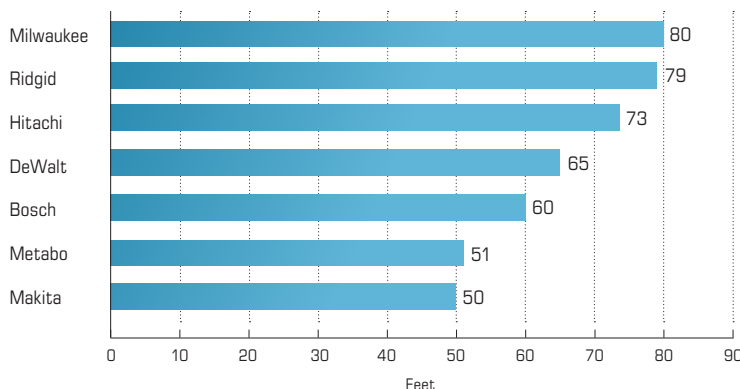
Straight mode cutting speed was tested by timing how long it took to make 8-foot rips in $\frac{3}{4}$ -inch hardwood plywood. Each saw made five cuts, the high and low times were thrown out, and the remaining times were averaged.

CUTTING SPEED IN ORBITAL MODE



Orbital cutting speed was tested by making 8-foot rips in $\frac{3}{4}$ -inch plywood at the maximum orbital setting. The times were so close (within 2 or 3 seconds) after the first two rips that only two rips were made per saw.

RUNTIME



Runtime was tested by putting fresh 3.0-Ah batteries in the saws and recording the number of feet of $\frac{3}{4}$ -inch hardwood plywood each could cut per charge in nonorbital mode.

18-VOLT CORDLESS JIGSAWS

18-Volt Cordless Jigsaw Specs



Model	Bosch JSH180BL	DeWalt DSC331L1	Hitachi CJ18DSL4	
Stroke (length; speed)	1 inch; 0-2,700	1 inch; 0-3,000	1 inch; 0-2,400	
Cutting modes	Straight + 3 orbital	Straight + 3 orbital	Straight + 3 orbital	
Bevel	Takes Allen key; stops at 0 and 45 degrees	Tool-free operation; stops every 15 degrees 0 to 45 degrees	Takes Allen key	
LED light	Yes	No	Yes	
Weight w/battery (by ToTT)	5.42 lbs	6.72 lbs	5.26 lbs	
Web price (bare; kit)	\$127; \$190	\$149; \$269	\$121; n/a	
Kit includes	L-Boxx; tool insert tray (battery and charger not included)	One 3.0-Ah battery; charger; case	Sold bare only	
Country of origin	Switzerland	Czech Republic	China	
Pros	Very compact; significantly lighter than most other models; clamp automatically engages when blade is pushed in; twisting the clamp ejects the blade — no need to handle hot blades	Better-than-average blade clamp; fast in straight mode; fastest tool in orbital mode; tool-free bevel lock with detents every 15 degrees	Very compact; lightest model tested; highly effective dust blower; fastest cutter in nonorbital mode	
Cons	Motor exhausts to the right and blows chips into the face of left-handed users; below-average cutting speed	No LED light; slightly heavier than average	Must be gripped with two hands to prevent vibration during heavy orbital cutting; battery sticks and is hard to remove; clamp partially blocks LED light; base does not include nonmarring cover	

Leaning into the cuts, I cut $\frac{3}{4}$ -inch hardwood plywood in straight mode and counted the number of cuts each saw could make per charge. To keep it fair, each saw was equipped with a 3.0-Ah battery even though some of the brands tested sell 4.0-Ah packs. I'd have gotten about a third more runtime with 4.0-Ah packs.

The least any saw cut was 50 feet, the most was 80 feet, and the average was about 65 feet. Some tools cut more per charge than others, but I would

not let the numbers dissuade me from buying any of these tools, because 50 feet of $\frac{3}{4}$ -inch plywood is lot to cut with a jigsaw. For long bouts of continuous cutting it's still best to use a cord.

BLADE CLAMP

Every tool tested has a keyless blade clamp. The clamp on the Bosch is the best of the bunch. Twisting the ring ejects the blade and “cocks” the mechanism for reloading — which

involves inserting the blade and pushing in until the ring snaps back to its former position. You won't burn your fingers when unloading, because the ring has a plastic cover and you don't have to touch the blade.

The other tools have levers that engage with a locking ring when pulled so you can insert or remove blades. They work fine, but I'm not wild about the plastic levers on two of the tools. Makita's is pretty solid, but you have to pull kind of hard on



	Makita BJV180	Metabo STA18LTX	Milwaukee 2645-22	Ridgid R8831B
	1 inch; 0-2,600	1 inch; 0-2,500	1 inch; 0-2,500	1 inch; 0-2,050
	Straight + 3 orbital	Straight + 3 orbital	Straight + 4 orbital	Straight + 4 orbital
	Takes Allen key	Takes Allen key	Tool-free operation	Tool-free operation
	Yes	Yes	No	No
	6.42 lbs	6.90 lbs	7.68 lbs	7.48 lbs
	\$225; \$410	\$129; n/a	\$129; \$349	\$119; n/a
	Two 3.0-Ah batteries; charger; bag	Sold bare only	Two 3.0-Ah XC batteries; dual voltage charger; case	Sold bare only
	United Kingdom	China	China	China
	Cuts faster than most; large two-finger trigger; LED light provides excellent visibility; battery charges quickly so runtime is less of an issue	LED light provides excellent visibility; barrel-grip version available (not tested)	Excellent runtime; faster-than-average cutting speed; tool-free bevel lock with detents every 15 degrees	Excellent runtime; large two-finger trigger; tool-free bevel lock with stops every 15 degrees; strongly resembles Milwaukee saw; manufactured by AEG, sister company to Milwaukee
	Least-effective dust blower; priced higher than competing models	Blade tends to skew in orbital; slowest tool in straight cutting mode; dust blower less effective than others	One of the bulkier tools; heaviest model tested	Second-heaviest tool; below-average cutting speed; blade must be pushed all the way to the back of the clamp or it will be held skewed to the base; safety must be depressed to operate trigger

Hitachi's and I'm not sure how it will hold up over time. Ridgid's clamp is somewhat finicky; if the blade isn't pushed all the way home, it will be held skewed — or slightly out of parallel — to the shoe.

BEVEL SETTINGS AND BASE

Changing bevel settings has traditionally required the use of an Allen key to loosen the bolt that secures the base. Most jigsaws still work this way, but a few have a lever

between the motor and base that allows you to set bevels without the use of tools. I prefer the tool-free mechanisms because they are faster to operate and there's no concern about losing the key (which stores in the base or housing).

If you're one of those carpenters who cope trim with a jigsaw, and you want to try it with a cordless model, then you'll need one with a traditional base. I had no trouble installing a Collins Coping Foot on tools that

use an Allen key to secure the base. I tried with the other models, but gave up because it required too much disassembly and monkeying around. If you decide to use a coping foot on a cordless tool, you'll need to devise a way to lock the trigger on, because it's easier to cope that way.

LED LIGHT/VISIBILITY

About half of the models tested have built-in LED lights that shine down from above the blade. The

18-VOLT CORDLESS JIGSAWS

LEDs on the Bosch, Makita, and Metabo illuminate the cut line all the way up to the blade. The Hitachi's LED is offset to clear an asymmetrical blade clamp, so the cut line is in shadow until a quarter-inch out from the blade. A light makes it easier to see the cut line, but the lack of this feature would not stop me from buying a saw I otherwise liked.

DUST BLOWER

Every saw tested has a dust blower — which is another way of saying a portion of the exhaust air from the cooling fan is vented out the front. In most cases the blowers cleared chips far enough out for the cut line to be visible 3 to 5 inches ahead of the blade. Makita's blower was the least capable; during heavy cutting it cleared chips about an inch ahead of the blade. I could still see the cut line, but not as much of it as with other saws.

On the DeWalt and Metabo you can turn the blowers off or dial them down. This feature is not a plus for me; I want the blower going full blast all the time. I might feel differently about this if the saw had dust collection — but none of the models tested did.

THE BOTTOM LINE

Every one of these cordless jigsaws is capable, but some are better than others. The Bosch is my overall favorite; though not the fastest cutter, it has an excellent blade clamp and is significantly lighter than all but one other model. The DeWalt and Milwaukee are solid, fast-cutting tools and would be fine additions to a tradesman's cordless kit. The Makita is equally solid and fast-cutting, but its high price relative to other models complicates the buying decision.

David Frane is the editor of Tools of the Trade.



1 Bosch's blade clamp can be operated one-handed. To install a blade, push it in till the clamp engages. To remove a blade, twist the ring till the clamp ejects it. **2** Half the saws tested require the use of an Allen key (which stores on the tool) to change bevel settings. **3** The Ridgid (shown here), DeWalt, and Milwaukee have levers that allow the operator to change bevel settings quickly and without the use of tools. **4** Every saw tested has a blower, an opening that directs some of the exhaust air forward to blow dust off the cut line ahead.



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EDITORS' CHOICE AWARDS

Honoring innovation and refinements that improve the way we work

BY TOOLS OF THE TRADE EDITORIAL STAFF

Every year, *Tools of the Trade* takes the opportunity to recognize standout tools that caught our attention during the previous year. Some rose to the top during testing, while others impressed us as being a leap forward in technology, design, or features that define the current state of the art among tool manufacturers.

Innovation is a key theme of this year's picks. A few of the tools are new-to-market concepts; others exemplify the latest and greatest within their respective categories. All are worthy of special recognition.

We couldn't include every tool that has made a splash since last year's awards, but here are the 12 top picks we chose to showcase for our audience.

1. BOSCH GSL2 SURFACE LASER

The GSL2 is unlike any other line laser we have seen. Lasers usually project plumb and level lines; the surface laser projects a pair of parallel angled lines onto the floor. The lines overlap to form a single fine line at an elevation set by

the user. If there is a dip or rise in the floor, the lines will diverge, yielding a widened double line at that location. The farther apart the lines, the greater the dip or hump in the floor. An included protractor-like target allows you to measure the height of any variation found.

The GSL2 is self-leveling and rotates its lines in an effective radius of 60 feet with the help of its full-function remote. The tool is powered by either AA batteries or an optional Bosch 12-volt max rechargeable tool battery. This is the type of ingenious but simple tool that makes us wonder why no one thought of it sooner. Price: \$549. 877-267-2499. boschtools.com.

2. DEWALT DCT418S1 RADAR SCANNER

DeWalt's affordable new DCT418 scanner uses radar technology to quickly and easily pinpoint hidden hazards within walls or floors. Simply roll it across the surface for a mapping scan, then roll it back along the same path to identify what was detected

the first time across. The type and location of the components within the wall appear as pictographs on the color LCD display. The pictographs are easy to interpret — a stud looks like a stud, nonferrous metal like a copper pipe, and so on.

The radar scanner is powered by DeWalt's 12-volt max battery and works through drywall, wood, concrete, ceramic tile, and marble, with a sensing depth of up to 3 inches. Materials it can detect include ferrous and nonferrous metal, wood, PVC pipe, and live electrical wiring. A signal-strength meter lets you gauge the unit's confidence in what it detects, so you can decide whether you need to double-check something found behind surfaces difficult to scan. Price: \$299 (kit). 800-433-9258. dewalt.com.

3. MAKITA 18- TO 36-VOLT BATTERY ADAPTER

In an ideal world, cordless-tool batteries would be completely interchangeable — at least within the brand. With the introduction of the X2 adapter, Makita has brought that dream one step closer to reality. The adapter allows the company's growing line of 36-volt tools to be powered by two 18-volt LXT batteries.

The product came about when Makita's U.S. branch pitched the idea to the company's Japanese headquarters as a way to attract its well-established 18-volt customer base to the brand's 36-volt tools. With the X2 adapter, users can add new and larger tools to their arsenals without having to purchase types of batteries and chargers they don't already use.

The adapter (without batteries) is sold with the brand's 36-volt rotary hammer and chainsaw, or it can be purchased separately to retrofit the rotary hammer, which has been available in the U.S. for a while.

It features a fuel gauge for each battery, so you can check your charge status to make sure both batteries are balanced for efficient output.

The X2 snaps on and off either tool's 36-volt battery connection for easier tool storage. Price: BVC02 adapter \$80, HRH01ZX2 rotary hammer with adapter \$359, HCU02ZX2 chainsaw with adapter \$369. 800-462-5482. makitausa.com.

4. MILWAUKEE'S BRUSHLESS M12 TOOL LINE

Although they started small, subcompact tools have come to be big performers on the job site, and no company has taken these 10.8-volt (12-volt max) tools further than Milwaukee. Its M12 Fuel brushless line exemplifies the move toward smaller, lighter tools with the power and runtime to get the job done. The line currently includes a drill/driver and a hammer drill/driver with 1/2-inch chucks, a chuckless drill/driver, an impact driver, 1/4- and 3/8-inch drive impact wrenches, and a 5/8-inch-capacity SDS-plus rotary hammer.

With their surprising power, long-running 2.0 and 4.0 amp-hour batteries, and compact and efficient brushless motors, these tools are poised to replace 18-volt tools for many applications while providing notable savings in size and weight. We predict this type of "right-size" tool will become more popular as subcompact models continue to improve, and will allow pros to go big with smaller tools. Price: Bare tools from \$139 to \$219, kits from \$189 to \$319. 800-729-3878. milwaukeetool.com.

5. POWERMATIC PM1500 BAND SAW

The new PM1500 was originally designed to be Powermatic's flagship 14-inch band saw, but too much power and cutting capability was packed in and it burst at the seams and was released instead as a 15-inch model. We're only partially kidding: With its 3-horsepower motor and capacity for 14-inch-tall and 14 1/2-inch-wide stock, this 400-pound machine outclasses even many of the 18-inch band saws



2013 EDITORS' CHOICE AWARDS



on the market. The real benefit of the 15-inch wheels is that they can run thicker and wider blades than 14-inch wheels can — large blades up to 1 inch wide, in fact, which are best for resawing or milling rough stock into boards.

This machine's other features include massive cast-iron wheels, a rock-solid guide post with rack-and-pinion gear adjustment, dual dust-collection ports, and a large cast-iron table with a T-square fence that features an extra-tall faceplate for stability.

For extra safety, the saw has a removable magnetic lockout key that disables the power switch, an interlock switch on the tensioning lever that won't let the saw start with the blade untensioned, and a foot brake that switches the power off and mechanically stops the blade. Price: \$2,900. 800-274-6848. powermatic.com.

6. CATEGORY AWARD: HIGHER AMP-HOUR BATTERIES

The meteoric rise in cordless tool technology over the past several years has generated fierce competition among tool brands battling to assert dominance in one arena or another.

Manufacturers have focused at various times on torque, battery chemistry, voltage ratings (max vs. nominal ratings), brushless motors, and — for the last year or so — higher amp-hour (Ah) battery ratings.

Putting a higher Ah-rated battery on a tool is like putting a bigger fuel tank in a vehicle: It doesn't go faster, but it does go farther. The battery isn't actually larger, though; its cells have greater energy density, so the pack stores more power in the same amount of space.

For years, most cordless battery packs contained 1.0- or 1.5-Ah rated lithium ion cells. With a single string of these cells, compact packs could achieve a 1.0- or 1.5-Ah rating. Full-size packs contain two strings of cells and could achieve a 2.0- or 3.0-Ah rating.

To be fair, some brands have used cells rated higher than 1.5 Ah, but the practice has only recently become mainstream. The current standard is to assemble packs with 2.0-Ah cells, which yield compact and full-size packs rated at 2.0 and 4.0 Ah respectively.

As of now, Bosch, DeWalt, Metabo, Milwaukee, Ridgid, and Ryobi offer 4.0-Ah battery packs in the U.S. market. Panasonic offers 4.2-Ah batteries. The 4.5-Ah packs from Stihl and 6.0-Ah packs from Hilti use three strings of cells to achieve those higher ratings.

It's unclear which (if any) tool company will win the Ah rating war, but tool users will almost certainly benefit from the longer runtime and proliferation of new types of cordless tools that better batteries will make possible.

7. FESTOOL PLANEX DRYWALL SANDING SYSTEM

The Planex LHS225 drywall sanding tool by Festool has redefined what a dust-collecting drywall sander should be. Yes, it sands — but what really stands out about the tool is how effectively it collects dust.

The sander has two dust-collection settings: the standard setting that picks up dust around the perimeter of the sanding head, just inside the surrounding dust brush; and a setting that pulls dust through holes in the center of the 8½-inch sanding pad. This through-the-pad setting is designed to help support the weight of the sander when used overhead on ceilings. The unit will indeed hold itself up against a smooth ceiling with the vacuum turned on and the sander turned off.

To help you reach all the way into corners, a section of the surrounding dust brush lifts off. And to keep the sanding head from sticking to the work surface, the sander features an adjustable vacuum bypass valve. The tool is powered by an efficient brushless motor that can be adjusted

to rotate the head at speeds from 310 to 920 rpm.

The sander comes with one extension, which should allow a person of average height to sand 8-foot ceilings. With an additional (optional) extension, that same person can sand 11-foot ceilings. An optional harness is available to support the weight of the sander and hose for lengthy bouts of overhead use.

For maximum performance, Festool recommends pairing the sander with its CT36 Auto Clean vac, which collects fine dust and comes with a special lightweight hose. Price: Sander alone \$1,050, sander and vac \$1,748. 888-337-8600. festoolusa.com.

8. HILTI TE 30-A36 CORDLESS ROTARY HAMMER

Hilti is so confident in the power and performance of its latest 36-volt cordless SDS-plus 1-inch rotary hammer, it's promoting the tool by running it against similar-sized corded tools. And not just the competition's corded tools — against Hilti's own corded models, too. According to the company, the TE30-A36 can drill and chip up to 40% faster than the largest corded SDS Plus hammers available and handily beats even SDS-max hammers of the same weight class. This standout tool is seen as an important step on the path to the cordless job sites Hilti envisions for the future.

In addition to power and speed, the tool has superior runtime. The maker claims it can drill 35 holes ¾ inch by 8 inches deep in concrete on a single charge, a feat made possible by the combination of a brushless motor and a 36-volt, 6.0 amp-hour battery — the highest Ah rating we've seen to date. This three-mode combination hammer has Hilti's active torque-control and vibration-reduction systems to protect users from injuries due to bit binding and vibration. Price: \$1,599. 800-879-8000. us.hilti.com.

9. BOSTITCH LOW-PROFILE FRAMING NAILERS

The concept of going smaller and lighter is gaining in pneumatic framing guns. We've recognized compact models in the past, but this year Bostitch turned heads with new low-profile framing nailers in all three collation angles. Whether you shoot plastic-collated, paper-tape, or wire-weld nails, Bostitch has you covered with the 21-degree LPF21PL, 33-degree LPF33PT, and 28-degree LPF28WW.

As their name implies, these nailers are characterized by heads short enough to easily fit between 16-inch framing members, and all weigh in at less than 8 pounds — the cutoff manufacturers currently strive to beat. Bostitch still offers larger, heavier guns, as these compact tools max out at ¾-inch fasteners and won't shoot the thickest-gauge nails available. The low-profile line allows carpenters to use smaller, lighter guns for the common tasks that account for most of their time framing.

Premium features include a tool-free switchable trigger and depth-of-drive mechanism, a rotating rafter hook, an internal air filter, a protective nose pad, and a magnet in the nose that holds the last few nails straight. Price: \$239 each. 800-556-6696. bostitch.com.

10. PANASONIC DUAL-VOLTAGE TOOLS

Panasonic's latest cordless tools are flexible-fuel models that accept the brand's 14.4- or 18-volt batteries rated 3.1 amp-hours (Ah) or higher. Not only can buyers use their existing batteries of either voltage in a new tool, but they can use 14.4-volt packs in place of compact packs (which Panasonic doesn't offer).

In our testing, the dual-voltage 18-volt impact driver was equally powerful with new 4.2-Ah 14.4-volt and 18-volt packs — but it was lighter and easier to handle with the smaller battery. And speaking of amp-hours,

2013 EDITORS' CHOICE AWARDS

the individual cells in these packs are rated at 2.1 Ah, the highest number we have seen in a power tool.

The dual-voltage line includes the EY74A1 drill/driver, EY75A1 impact driver, EY75A2 impact wrench, and EY45A1 reciprocating saw. The impact tools feature brushless motors with three speed/power settings, and all of the tools have an IP rating of 56 — a measure of how well they resist dust and water. When sold in kit form, the tools come with 18-volt batteries, which suggests they are intended to help existing 14.4-volt users transition up. Price: Bare tools from \$180 to \$243, kits from \$460 to \$470. 800-211-7262. panasonic.com.

11. HUSQVARNA TS-60 TILE SAW

The TS-60 wet saw for tile and stone has a 10-inch blade and the high-end features you'd expect from Husqvarna's latest saw — including a patented water-delivery system unlike any other.

To better control the mess created by water and slurry, this manufacturer directs a stream of water through the blade channel in the rolling table beneath the tile being cut. As the table travels toward the blade, the blade is immersed in the water stream just before and during the cut. Because the blade contacts the water under the tile, there is virtually no airborne spray.

For bevel and plunge cuts, or if you simply need a wetter cut, an onboard water valve can be opened to direct a stream of water onto the blade from above, as with a typical wet saw.

Other well-thought-out features include a radically elevated rear splash tray, a built-in bull's-eye level to make sure surfaces drain effectively, and useful wheels built onto the folding stand and the saw itself for easy one-man portability.

For increased service life, the motor features electronic soft start and a protective circuit with an LED that first flashes red, then stays red, and

finally shuts off the motor if it becomes overloaded. Price: \$1,199. 800-288-5040. husqvarna.com.

12. KEEN UTILITY LINE

After entering the work-boot market a few years back with mostly hiker-inspired styles, Keen now offers more than 50 models. Like the company's casual and sporting footwear, boots in the Keen Utility line are recognizable by their trademark asymmetrical rubber toe caps, which follow the shape of a human foot. Besides a roomy toe box, Keen boots and shoes feature all the high-tech materials and

construction details workers want and need for durability and comfort.

Footwear options include waterproof, insulated, electrostatic-dissipative, puncture-resistant, and slip-resistant materials, as well as metatarsal guards and steel, aluminum, or plastic composite protective toecaps. Styles range from lightweight work sneakers to tall, heavy-duty leather lace-ups and wellingtons. Women's sizes are available too. The boots come with a 90-day comfort warranty. Price: Varies by style; men's Pittsburgh (pictured) \$180. 866-676-5336. keenutility.com.



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2 Simple, solid **extension system** lets you add or remove extensions, so you can work in tight hallways one minute and on your highest ceiling the next.

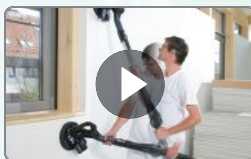
3 **Variable-speed** controls at your fingertips allow you to adjust the machine to the needs of the surface for both rapid material removal and fine finishes.

4 **Adjustable suction** controls decrease the perceived weight of the machine, so you'll work more comfortably over the course of a long day.

5 When paired with the **CT 36 AC Dust Extractor**, the Planex greatly reduces airborne dust, leading not only to the perfect finished surface, but to less cleanup time and more satisfied customers.

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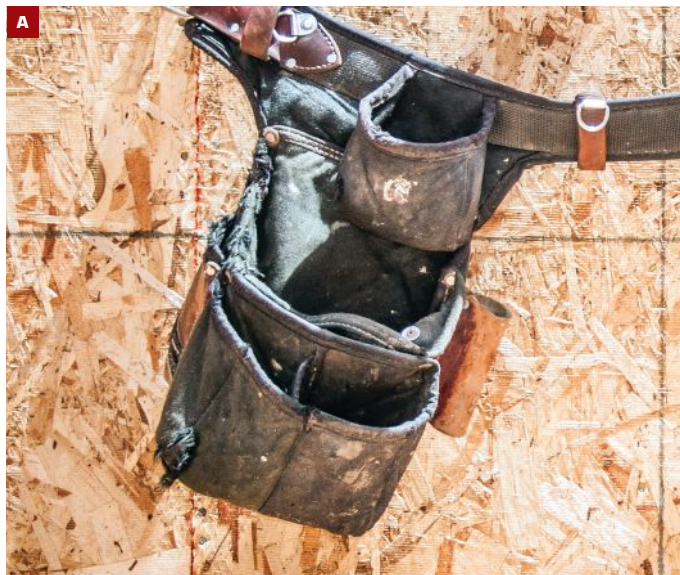
Two extensions – Approx. 83"

One extension – Approx. 63 1/4"

No extensions – 43 1/2"

FESTOOL

Tools for the toughest demands



Framer's Everyday Carry

It's not easy to earn a place in my tool bags. Here are the tools that make the cut

BY TIM UHLER

As a framer, I use certain tools every day, and they have to be with me all the time. I'm picky about what they are because I don't want to carry more weight in my bags than necessary or waste any space. Here are a few of the tools that have earned a place in my bags. There is nothing exotic about them; they're tools any framer might own. But they're special to me because they help me earn a living at the trade I love.

A. OXYLIGHTS FRAMER BAGS

My first tool bags as a teenager were the Occidental leather bags, and those



lasted a long time. Eventually I had a cobbler re-rivet them. My next bags were Diamondbacks, but they were huge and it wasn't long before I got tired of them. For the last seven years, I've been wearing these Occidental OxyLights Framers bags. I chose them because I knew Occidental was a good brand, and because the bags looked lighter than leather and had the configuration I like to use. The bags are very comfortable, in part because the pouches stay put on the belt and don't slide around like my leather pouches always did. I wouldn't change

a thing about these bags (except maybe make them new again).

B. STILETTO TIBONE II

The first time I saw a TiBone I scoffed at the idea of spending \$200 for a titanium hammer. But after trying the hammer out at *JLC Live* in 2002, I changed my mind and bought one. At the time, I was using a 24-ounce Dalluge axe-handle model, and the Stiletto was significantly lighter. In 2005, I replaced it with a TiBone II because I wanted a side nail puller — and I use that feature all the time. Framing with such a light hammer felt

odd at first, but I got used to it. The tool does not conduct vibration, so I've had no elbow or shoulder problems even though I beat on a cat's paw every day. The one thing it can't do that a heavier hammer can is act as a persuader. (For that I use a light maul or 24-ounce hammer.) The tool has held up very well; I haven't even had to replace the face. If my TiBone disappeared today, I'd order another one tonight.

C. CONSTRUCTION MASTER PRO TRIG & ARMADILLO CASE

I have been using Construction Master trig calculators for 13 years, and — through



no fault of the calculators — I seem to replace them yearly. It rains a lot in this part of the country and we work outside, so sooner or later the calculator gets soaked and then it's time to buy a new one. I store the calculator in an Armadillo-brand case and have only broken one while it was in the case — and that was because it fell out of my bag and I ran over it with a forklift.

D. KEEL

I carry a Keel, a holder for a lumber crayon, so I can write on wet wood. When we're detailing plates, I use the crayon to mark doors, windows, and their sizes on the plates so that everything is easy to see when we stock the wall. The holder keeps my hands from getting all marked up when the crayon is wet.

E. UTILITY KNIFE

I like the Stanley InstaChange retractable knife for one simple reason: You can change blades very quickly. The only time I replace a knife is when I lose one, which rarely happens. I've had this knife forever, and it does its job very well.

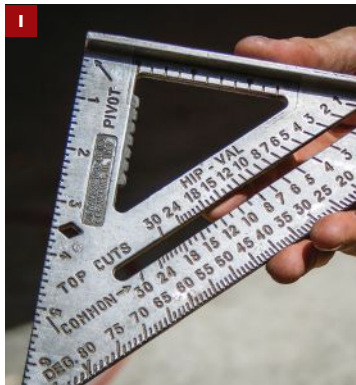
F. TAJIMA CHALK LINE

I started using Tajima chalk lines six or seven years ago. The Chalk-Rite model is my favorite; it weighs very little and will survive months of daily use provided the line doesn't get really wet. (When the line does get wet, you shouldn't roll it up, because wet chalk will gum up the gears.) We recently bought some cheaper boxes to snap lines in wet

weather and went through three of them on the first day. The Chalk-Rite has thin stretchy synthetic line that produces very good snapped lines when saturated with black chalk. The material is great; you don't have to re-chalk as often as with cotton line. In my opinion, no other chalk line is worth having.

G. SHARKGRIP NAIL PULLER

I use Japanese-style nail pullers because the claws are really sharp and their shape makes it easy to get under nails. There's really no reason to own a traditional "round-headed" puller. A number of companies make Japanese-style pullers; I happen to use SharkGrip. The pullers come in a variety of lengths. The 12-inch model I keep in my bags is



big enough to do the job but not so long it hits my leg when I walk.

H. SHARPIE MARKER

I bought this extra-large Sharpie at a big-box store. It's supposed to work on wet wood, but it doesn't do that very well. However, it works fine on dry surfaces, and I use it to detail plates and write on wood or housewrap. I frequently use it to write measurements on the wall where they can be seen from the cut station.

I. SPEED SQUARE

I use a 7-inch Swanson Speed Square. The markings are easy to read, and you can use the notches for scribing. I have tried other brands of squares, but there is always something not to like:

They're thin, they don't have scribing notches, or they're dark and hard to read. The Swanson has no downside.

J. BLOW GUN

I keep a compressed air blow gun in my bags. I don't use it that often, but when I do, I prefer not to have to hunt for it.

K. BEATER CHISEL

I rarely need a sharp chisel, so I carry an inexpensive $\frac{3}{4}$ -inch model and don't ever sharpen it. This happens to be a Marples model, but I also have a Stanley. I keep my good (sharp) chisels in the truck. The beater chisel lives in my bags, and I use it for all the things chisels are not designed to do: hacking, prying, and digging chunks of wood

out of a saw guard. It's an all-purpose tool — a framer's screwdriver.

L. FATMAX TAPE

I use a 25-foot FatMax tape. It has a long standout and — unlike the 35-foot model — is not too large to fit in my bags. Framing is hard on tapes, and this one is pretty durable. In the dry part of the year (summer), I'll get six or seven months out of a FatMax. When it's wet (winter), the same tape won't last more than a month or so. Once enough mud and grit are pulled into the case, that's it for the tape.

Tim Uhler is a lead framer for Pioneer Builders in Port Orchard, Wash., and a Tools of the Trade contributing editor.



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Product Watch

BY DOUG MAHONEY

HILTI HOLLOW DRILL BITS

Hilti has come up with a solution to the problem of cleaning dust out of holes prior to setting anchors — a hollow drill bit that allows you to collect dust from holes as they are being drilled. A 1½-inch vac port encircles the shaft near the back of the bit so that air can be pulled through holes at the tip. This speeds drilling and eliminates the need to use bottle brushes and compressed air to clean the hole. Available in both SDS Plus (model TE-CD) and SDS Max (model TE-YD) in sizes ranging from ½ inch to 1⅝ inches. ■ Price: Starting at \$80. COO: Hungary. 617-268-8235. us.hilti.com.



SENCO SNS200XP STAPLER

This new medium crown stapler is designed for fastening shingles, panels, and sheathing. It can fire 16- and 17-gauge 7/16-inch staples from 1 to 2 inches in length. It weighs just over 5 pounds and has a narrow nose for getting into tight corners. According to the manufacturer, the gun can drive up to 10 staples per second in bump-fire mode. The metal magazine holds up to 160 staples. ■ Price: \$239. COO: Taiwan. 800-543-4596. senco.com.

RIDGID POWER INVERTER

With the mobile office an essential part of a contractor's life, Ridgid's new Power Inverter makes a lot of sense. This one-stop clean-power source stores in the glove box and provides up to 100 watts to items like laptops, tablets, cell-phones, and battery chargers. It connects to the power port in a car, van, or truck and brings juice to a standard 120-volt outlet and two USB ports. ■ Price: \$25. COO: China. 800-474-3443. ridgid.com.



RICHELIEU TRANSROLLER

The Richelieu Roller Handling Trolley makes it possible to quickly and easily move heavy and awkward objects like sheet goods and I-beams. Before the tool is loaded, the trolley's wheels stand vertically and there is a space between the jaws. Once weight is added, the center drops down and the sides tip inward to clamp the load. The unit's low center of gravity adds to its stability. The trolley turns on a dime and has a capacity of 1,000 pounds. ■ Price: \$139. COO: Canada. 800-619-5446. richelieu.com.





BOSTITCH LIGHT-GAUGE STEEL SHEATHING GUN

Screwing plywood and gypsum sheathing to metal studs is time-consuming and tedious. The SF150C pneumatic coil nailer is designed to speed up that work. It drives 1- to 1½-inch ballistic-point helix-shank fasteners that penetrate and hold in 16- to 20-gauge metal studs. The large bugle heads won't cut into gypsum sheathing. The tool has adjustable depth-of-drive, dry-fire lockout, and a rafter hook. ■ Price: \$399. COO: Taiwan. 800-343-9329. bostitch.com.

GENERAL TOOLS' IBOREScope

The iBorescope (DCiS1) has no screen, so it's more compact and less breakable than standard inspection cameras. It creates its own Wi-Fi hotspot and uses a free app to transmit images to any Apple or Android smartphone or tablet. Because the images display on your tablet or phone, they're easy to manipulate and send to a subcontractor or client. The tool has two LED lights and three tip accessories: a pickup hook, a 45-degree mirror, and a magnetic pickup tool. The on-board battery charges with a USB cable. ■ Price: \$299. COO: Taiwan. 800-697-8665. generaltools.com.



BOSCH 18-VOLT OMT

Bosch's MXH180 is the first oscillating multi-tool with a brushless motor, which the maker says will provide greater runtime and a longer life. The tool weighs less than 4½ pounds and is compatible with Bosch's 18-volt lithium ion batteries. A variable-speed control allows it to be operated between 8,000 and 20,000 rpm, while on-board electronics maintain constant speed under heavy loads. A tool-free clamping system makes for quick blade changes. The tool comes in a Bosch L-Boxx case (with no battery or charger). ■ Price: \$229. COO: Malaysia. 877-267-2499. boschtools.com.



KLEIN ROLLING TOOL BAG

The Klein Rolling Tool Bag offers plenty of storage and easy transport for heavy loads. According to the manufacturer, it can hold up to 100 pounds inside and another 100 pounds on top. A telescoping handle allows you to roll it around like a piece of luggage. The 6-inch wheels can handle uneven terrain, and the molded kickplate protects the bag while it's being dragged up a set of stairs. The largest of its 24 pockets can accommodate large tools like drills and circular saws. ■ Price: \$210. COO: China. 800-553-4676. kleintools.com.



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■ Price: \$90–\$145, depending on lens. COO: Taiwan. 800-776-7842. wileyx.com.



MUCK CHORE COOL BOOTS

Mud is a reality in excavation work, formwork, and landscaping. Muck's waterproof Chore Cool Boots will protect your feet on even the hottest days. The lining — made of the company's XpressCool fabric — absorbs moisture and creates a cooling effect as it dries. The lining also makes it easy to slip the boots on, while a nub at the heel helps with "toe-ing" them off. The boots come with a Vibram sole and a steel shank in mid and high lengths, with or without a safety toe. ■ Price: \$135–\$160. COO: China. 800-777-9021. muckbootcompany.com.



MILWAUKEE M12 LED STICK LIGHT

The latest addition to Milwaukee's ever-growing 12-volt line is the M12 Stick Light. The small work light houses three LEDs capable of emitting 220 lumens. The diodes are protected by a replaceable impact-resistant lens. A retractable hook extends from the top of the light; you can slide this hook around to the back and hang the light horizontally with the beam directed straight down. A fresh battery can power the light for four hours, says the maker. ■ Price: \$79. COO: China. 800-729-3878. milwaukeeetool.com.

MAKITA CORDLESS PLATE JOINER

Makita says its new LXJP02 18-Volt Cordless Plate Joiner makes installing trim easier. The tool is portable and maneuverable, yet still has the power to do the job. According to Makita, it can make up to 300 #0 biscuit cuts on a single charge, which translates into 150 joints. It has six depth settings, a rack-and-pinion vertical fence system, and nonmarring rubber inserts on the shoe for "stick." A thin body and large top handle maximize ease-of-use. The kit has two batteries, a charger, and a bag. ■ Price: \$429 (tool only, \$219). COO: UK. 714-522-8088. makitausa.com.



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MAX 15-GAUGE FINISH GUN

Max's new 15-gauge finish gun, the NF665/15, weighs just under 4 pounds and has adjustable exhaust, a belt hook, and adjustable depth-of-drive. It's sleek and slim, so there's a good line of sight and you can reach into tight areas. A toggle near the trigger controls the firing mode, and the nose of the tool can be popped open to easily clear jams. The gun fires angled finish nails from 1¼ to 2½ inches in length. ■ Price: \$208. COO: Thailand. 800-223-4293. maxusacorp.com.



DEWALT DCF680 GYROSCOPIC DRIVER

The GyroDrive cordless screwdriver has no trigger. Gyroscopic sensors detect the motion of the operator's wrist and activate the motor accordingly. Grip the tool firmly to turn it on and then rotate your wrist in the direction you want the bit to go. The farther you rotate, the faster it spins. The 8-volt-max tool goes 0–430 rpm, making it perfect for light-duty tasks, though it can also drive the occasional 3-inch screw. It has an LED light, a charge indicator, and a pivoting handle that can be used in-line or pistol-grip. ■ Price: \$100. COO: China. 800-433-9258. dewalt.com.



BIHLERFLEX ADJUST-A-STRAP 6-IN-1 ADJUSTABLE BUNGEE

Bungees are good for securing items in the back of a truck or van, but you need just the right length or they don't work. The new Bihlerflex Adjust-A-Strap Adjustable Bungee is different. The 36-inch cord has six holes along its length, so you can change its length by hooking it back on itself. Since it's made from polyurethane, it's unaffected by UV and won't split or crack like rubber, and the molded nylon hooks won't rust or scratch your vehicle. It comes in a variety of colors. ■ Price: \$8. COO: USA. 908-329-9136. justduckyprompts.com.

BJORNKLADER JUBILEE TOOL POCKET VEST

Even the most committed toolbelt-wearer might be tempted by Bjornklader's Jubilee Tool Vest. Made of reinforced cotton, the vest is designed to maximize both comfort and storage. The shoulder areas have a soft lining, and the upper front and rear areas are mesh for ventilation on hot days. A waist belt can be tightened to shift the load from the shoulders to the hips. The vest has four tool pockets, a zippered bit pocket, and a cellphone pocket that's angled for easy access. ■ Price: \$93. COO: Pakistan. 877-234-9511. facelineinc.com.





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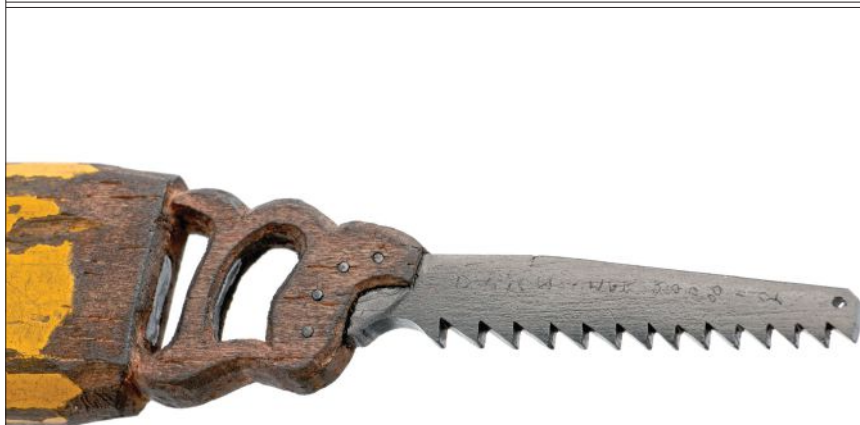
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Toolhounds

BY JON VARA



Pencil Sculpture

For more than 25 years, Bridgeport, Conn., carpenter Dalton Ghetti has been carving pencil lead into miniature sculptures, working mostly with razor blades and sewing needles, which he sometimes modifies on a sharpening stone to form tiny chisels or gouges. The work demands a light touch, a sharp eye, and lots of patience. The one-piece chain pictured here, for example, took Ghetti about two years to complete. "I don't work every day, and I can't carve for more than an hour or an hour and a half at a time," he says. "If I have a little bit of dust on the table at the end of that time and didn't break anything, that was a good day."

*Jon Vara is a writer in Cabot, Vt.
This article first appeared in JLC.*



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