

TOOLS



The Cordless Framing Site

Power tools have evolved to the point that it no longer makes sense to trip over extension cords

BY TIM UHLER

In 2006, we had five guys framing on my crew. On site, we usually had a power cord rolled out for each guy, as well as three hoses for air guns. When the HVAC subs and plumbers were on site too, as many as 10 power cords plus air hoses could be rolled out all over the job. After the market dropped out in 2008, we dropped down to a two-man crew for framing, siding, and foundation work. Still, we needed two or three power cords and three air hoses—two high-pressure hoses and one regular-pressure hose for guns like our positive-placement nailer.

Then, several years ago, cordless technology reached a critical

point. Battery voltage had been creeping up for many years, but toolmakers started to offer bigger packs, better battery chemistry, and improved electronics in the chargers and the tools, resulting in a significant boost in cordless power on the jobsite.

FRAMING SAWS

We first had an inkling that an all-cordless framing site might be possible when we got a Milwaukee M18 Fuel cordless saw (see photo, above). This is a 6 1/2-inch, blade-left circular saw. It isn't super-powerful, but it does a decent job for many smaller

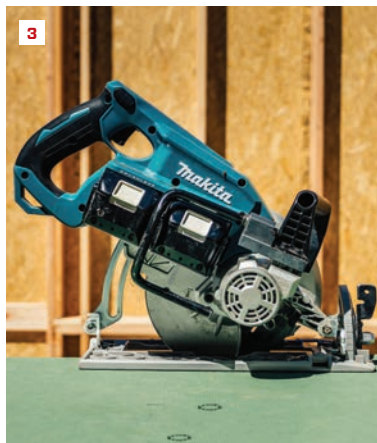
sheathing cuts. Using it meant we needed to drag one less cord around the site during pick-up work.

That was not our first cordless Milwaukee saw. We had already shelved our corded Makita recip saw for an M18 Fuel Sawzall **(1)**. This cordless tool cuts faster and provides better control over the cut than any other recip saw I've ever used. It has all the power I need, without the inconvenience of a cord to drag around. It also has a built-in ladder hook, which is handy when I'm doing work up high. One thing I especially like about this tool is its low vibration, because that translates to less fatigue.

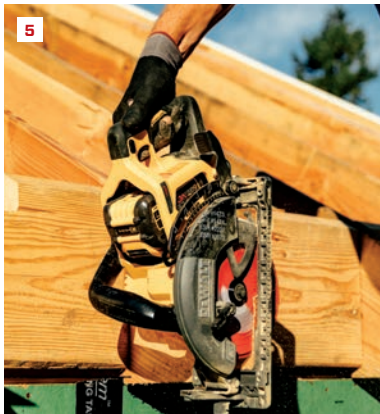
We have also used a DeWalt Flexvolt recip saw **(2)**. This saw doesn't cut as fast as the Milwaukee through everyday 2-by stock, but surprisingly, it does cut faster through thicker, 4-by stock. That isn't enough incentive for me to use it instead of the Milwaukee. If, however, I were already heavily invested in the Flexvolt ecosystem, the DeWalt would work perfectly fine as our only recip saw for framing.

For us, the turning point to an all-cordless framing job came last spring when Makita released its XSR01PT cordless rear-handle circular saw **(3, 4)**. This saw looks a lot like the Skilsaw worm drives many of us in the West grew up using, and it packs as much power. So far, we haven't found any situation in which the Makita made us wish we had a corded saw rolled out. I've ripped 3-foot pieces of 1³/₄-inch LVL to try and overheat it, to no avail. Ripping three layers of 7/16-inch OSB for roof sheathing didn't present any problems either. I can get the saw to stop if the material starts binding, but I can also do that to every corded saw I've ever reviewed.

This Makita saw runs off two 18-volt, 5.0-Ah batteries that are stored directly behind the brushless motor and under the top handle. The batteries are located roughly in the center, keeping the weight right in front of the handle. This layout allows the handle to be placed behind the motor as on the saws we love here in the West. In fact, the layout is nearly identical to that of all the other blade-left in-line and hypoid saws we've reviewed over the years. Its rear-handle design is more comfortable than a top-handle



The Milwaukee M18 recip saw **(1)** performs better than any corded model the author has tried. And the DeWalt Flexvolt **(2)** actually cuts a little faster in thick material, but it's heavier. The Makita XSR01PT is powerful enough to compete with corded in-line saws. It has a large rafter hook, which tucks out of the way **(3)**, and a table that tilts up to 53 degrees **(4)**.



Only recently introduced, DeWalt's in-line saw (5) is well-balanced and cuts faster than, though not as deep as, the Makita. The last surviving corded saw on Uhler's site is the 10-inch Big Foot saw (6). It's only used these days for finish beam cuts. Rough cuts on large beams are easily handled by a cordless chain saw, such as this 36V (dual 18V) Makita (7).

configuration because you push the saw; top-handle saws involve pulling at an odd angle and have less reach when you're cutting rafter tails and sheet goods.

The Makita saw bevels to 53 degrees with positive stops at 22.5, 45, and 53 degrees. With a 7¼-inch blade, it has a cutting depth of 2⁹/₁₆ inches (3/16 inch more than my Skilsaw 77). That means we can use the Makita to cut 2½-inch flanged I-joists, instead of our Big Foot, which is harder on the arm. On some jobs, the engineer requires us to use 3-by mudsill or 3-by blocking for straps; with the Makita, we don't need to roll out another tool to make the cuts.

One feature we've come to love is the electronic brake and the relatively soft start, for safety. Unlike a wormdrive saw that will twist when the trigger is pulled, this saw doesn't move. I've gotten used to the "kick" on my Skilsaw. The lack of kick, though, on the Makita means I can use it one-handed when I need to trim a rafter tail or even a wall plate. The electric brake and lack of kick on startup also make this a safe saw to train new framers with.

We loved this saw so much that we immediately bought a second kit. We have six batteries (we had two more for a drill/driver kit) and we have not yet had both saws down charging. The dual-port chargers claim to charge 5.0-Ah batteries in 45 minutes or less, and that seems about right; we charge these saws at lunch whether they need it or not. There is nothing about this saw that makes me want to reach for a corded saw. It has all the power and runtime we need.

DeWalt recently introduced its own in-line saw (5), which we've used for about a month. The jury is still out for me, but I'm leaning slightly towards the DeWalt over the Makita, though both are great saws. The DeWalt is much more powerful and is faster. It doesn't get bogged down but powers through LVL, and it has a great sight line when I'm making cheek cuts. Granted, the balance isn't as good as the Makita's, it takes longer to charge, and I don't think the runtime is quite as good. But the DeWalt is a beast of a saw and because we cut so much 2x12, I think that gives it an edge for us. Still, the Makita can cut 2½-inch I-joists in one pass, so I'm fortunate to have both on site.

There is one corded saw we occasionally use that I think should be in every framer's kit—the Big Foot saw (6). We don't use this 10-inch beast as much as we used to, because we are often able to cut large beams with a cordless chain saw (7), but we do still use the Big Foot occasionally for finish cuts on exposed beams.

DRILLS AND DRIVERS

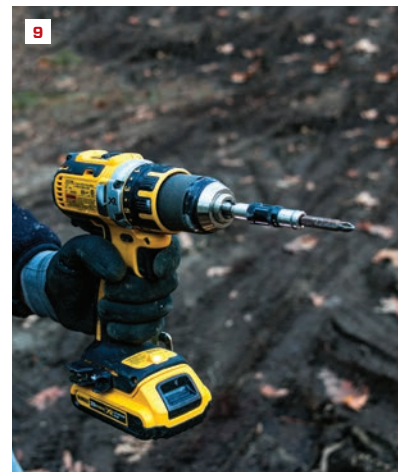
We used to use a heavy-duty, corded 1/2-inch DeWalt drill, but we've started using a cordless Makita 18V XPH07T instead (8). This is a hammer drill, though we don't often use the hammer mode. The main advantage is power (both torque and runtime). This was the first cordless drill/driver we used that packed enough power to let us put the corded DeWalt away.

For a lot of smaller (5/8 inch or less) drilling work and for hanging doors, we use a DeWalt 20V Max drill/driver (9). With this tool, we typically use DeWalt's smaller, compact battery packs. Whenever we can, we strive to reduce weight.

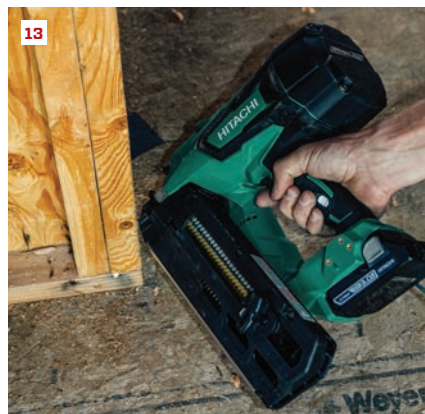
The last few years, we've increased our use of structural screws. We have used FastenMaster LedgerLoks and TimberLoks for more than a decade and also use Simpson SDWS Timber screws. I like to use the screws to pull walls tight to the floor and to fasten deck ledgers, stair stringers to walls, and headers. The quality of wood we now get has gone down, but with these fasteners we are able to get the framing tight. Additionally, I like to fasten temporary bracing with screws because they are easy to adjust and remove. It wasn't long before we decided we needed a heavier-duty impact wrench.

Because at the time we had Milwaukee batteries, I bought an M18 High Torque Impact Wrench (10). We were using the small Milwaukee saw, so I bought the bare tool. I was looking for something with a lot of torque to easily drive screws. I didn't care about weight at the time. This is a big tool, but it has loads of power. I do wish it had a belt hook, though.

A note on runtime: When I evaluate a cordless saw or drill, my concern is not how many 2x4s I can cut, or how many holes I can drill or fasteners I can drive on a single charge. For me, those numbers are useless



The high torque and long runtime of the Makita XPH07T (8) have allowed it to replace all the author's corded drills for all drilling and hole-cutting tasks. For driving many fasteners, DeWalt's 20V Max drill/driver (9) serves well, but for long structural fasteners, the author needs the extra power of an impact driver, such as the Milwaukee M18 (10).



The Paslode XP (11), the DeWalt DCN690 (12), and the Hitachi NR1890DR (13) all work well for pick-up and roof framing—work where dragging a hose is a liability. But for the production nailing work of most wall and floor framing, cordless guns can't compete with the author's Max high-pressure coil nailers and compressor (14).

because they depend on the blade or bit, the temperature outside, the material we're working with, and other variables; one test with one set of variables doesn't tell the whole story—every job is different.

Instead, I judge a tool on how it performs in the course of a job. I listen to the guys on my crew and pay attention to how the tool feels, what features prove useful, and how well it gets the job done. If I don't hear complaints about performance, I know the runtime is good enough. We are careful not to outwork a battery, changing it out before it dies. Swapping out batteries on a regular basis just becomes part of the work flow with a cordless tool. Going completely cordless, however, meant learning one new habit: Now I always put every battery on a charger during lunch, regardless of charge.

NAIL GUNS

I've been working with fuel-power framing nailers for a while, hoping they would eventually work for production framing. The early attempts from Paslode and Bostitch were not convincing.

Then we reviewed the Paslode XP (11), the DeWalt DCN690 (12), and most recently, Hitachi's battery-powered, brushless nailer (13). We like all three of these guns. None of them are suited to production work, because they carry only one clip of nails at a time, but we use them regularly for pick-up work and even for roof framing. While I can't yet give up my Max high-pressure coil framing nailers (14) (they carry around 300 nails per coil), the new-generation cordless guns are impressive enough that we find ourselves reaching for them more and more often. They are the go-to guns for punch-list work or for any work up high where maneuverability is an asset.

GOING COMPLETELY CORDLESS

Last June, we decided to try going cordless to frame an entire floor system. It was a 1,800-square-foot floor framed out of 2x10 Doug fir on 4x10 girders to 4x4 posts over a 24-inch-deep crawlspace. We had just received a DeWalt Flexvolt chain saw (15) to review, and we used that for cutting the girders, gang-cutting the joists, and even cutting the posts. We did all the drilling



with the Makita cordless drill and all the nailing with the Paslode and DeWalt guns. We did not roll out any cords except from the power pole to the Sprinter van where we keep our chargers (16). For lighting our pick-up work, we used Milwaukee's cordless tower light (17).

In our experience, the jobsite is safer without cords and hoses around. While I wouldn't recommend that a production framing crew go completely cordless, I would recommend that they invest in cordless tools because of convenience and safety. These tools now directly compete against corded models, and battery runtime is no longer a factor. One other important advantage is that with less load on the temporary power pole, we're not having to walk out to the pole to flip breakers back on. This is especially nice when it gets wet—when we had cords out in the mud, we would frequently trip circuits; now we never do.

If you're a remodeling contractor, I see no reason to invest in cords, compressors, and hoses. The electrical contractor and plumber we use have gone completely cordless, as well. When we are all on site, we have one cord for the chargers, one of which is also a radio. Of course, we still have two Max high-pressure hoses to run our coil nailers, and we run a router to cut out sheathing in window openings off that one extension cord. But that's it.

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As the author began running entire framing jobs without corded power tools, he relied more and more on the fast-cutting Flexvolt chain saw for gang-cutting joists and cutting posts (15). Typically, only one power cord is rolled out to the author's Sprinter van for all the chargers (16). Even interior lighting is cordless, with a Milwaukee M18 Rocket (17).

FRAMING TOOLS

Here are the power tools that we roll out almost every day:

- 2 Max HN90 high-pressure framing guns
- 1 Milwaukee high-torque impact wrench
- 1 Milwaukee M18 Fuel recip saw
- 1 Milwaukee radio/charger
- 2 Makita XSR01PT saws (beginning to use the DeWalt)
- 1 Makita 36-volt cordless blower
- 1 Makita 3 1/4-hp router (corded)
- 1 cordless chain saw (Makita or DeWalt)

And as needed, we roll out these other cordless models:

- 1 Makita cordless drill/driver
- 1 cordless framing gun for pick-up work (Paslode, DeWalt, or Hitachi)
- 1 DeWalt 15-gauge cordless finish gun
- 1 Milwaukee M18 Rocket LED tower light/charger