

# Ditch the Hose

Battery-powered cordless framing nailers are almost good enough to replace pneumatics—for some, they already have

BY MATTHEW MILLHAM

**T**here are two reasons I buy tools that require cords or hoses. Sometimes, that's all there is. More often, it's to save money—and that almost always ends up costing me. The inconvenience of running extension cords or dragging out compressors and hoses often overwhelms the satisfaction of saving a few bucks. And if I find myself using the less-expensive tool more than anticipated, I end up buying the cordless version anyway.

After going through that dumb routine at least a half-dozen times, I developed a credo I apply to every new tool purchase: Never buy a corded tool when a cordless tool will do.

Until recently, I didn't think that really applied to framing nailers. The gas-fired Paslode nailers that have been around seemingly forever are fine for small jobs, but nobody considers them a replacement for pneumatics. But gas-fired framers

aren't the only cordless option these days. There are now a handful of battery-operated framers that, depending on the kind of work you do, could conceivably replace pneumatics entirely without any loss of productivity. For those not already invested in compressors and hoses or those just starting out, these tools could even save you money.

This isn't to say that battery-operated framers are as good as pneumatics across the board. Some models are more adept than others or have quirks that people have learned to work around, which I'll share here. But for those who thought cordless nailers would never be able to keep up with pneumatics, at least one new tool could change your mind. □

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## DeWalt DCN692/DCN21PLB

### SLOW BUT RELIABLE CONVENIENCE

DeWalt was the first manufacturer in the battery-operated framer game with the now discontinued DCN690, but the more versatile 30° DCN692 is largely unchanged since its 2014 U.S. debut. They've since added a 21° version.

The DeWalt nailers use a brushless-motor-driven flywheel to give the pop needed to drive framing nails, and they have two speeds: slow, to conserve power with shorter and thinner nails, and fast for longer and fatter nails. They also have two firing modes, sequential and bump, and a trigger lock to help prevent accidental wind-up or discharge.

The tools are nominally powered by DeWalt's 20v Max batteries, though those who've had a lot of experience with the nailers find the 20v batteries lacking.

"With a fresh 20-volt, you're going to get great pop out of it for a bit," says Glen Payne, owner of Glenwood Carpentry and Renovations in Aurora, Ontario, Canada. "But even if the battery says it has three out of four bars, it seems to slow down." Most find the nailers are more consistent with a DeWalt Flexvolt battery.

Jeffrey Beardsley, owner of Beardsley Building Innovations LLC in Linwood, New York, wished he knew that earlier. He bought the tool in 2014, and "I hated it. I dropped it, and I just left it."

The DeWalt drive system takes a moment to spin up before firing. In sequential mode, this happens when the nosepiece is engaged, and then you have a few seconds to pull the trigger before it winds down. If you haven't taken the shot



#### DEWALT DCN692 (30°) DCN21PLB (21°)

**Power** 20v Max or Flexvolt

**Firing modes** Bump and sequential

**Firing rate, bump** ~1 per second

**Nail diameter**

.113 in. to .131 in. (30°), .113 in. to .148 in. (21°)

**Nail lengths**

2 in. to 3½ in. (30°), 2 in. to 3¼ in. (21°)

**Magazine capacity** 55 (30°), 49 (21°)

**Weight (bare tool)** 7.8 lb. (30°), 8.2 lb. (21°)

**Price (bare tool)** \$320



## WHAT WE LOOKED AT

Battery platform is often the determining factor when it comes to buying new cordless tools; most people stick with what they have. That's why I chose to focus on just three brands of cordless framers: DeWalt, Metabo HPT (formerly Hitachi), and Milwaukee. Coincidentally, when I took to social media and pinged builders I knew to find out what people were using, DeWalt, Metabo, and Milwaukee dominated the conversation.

They aren't the only battery-operated framers, though. Senco and Bostitch are also in the sector, and both have a long history of making high-quality pneumatic nailers. But they don't have a slew of other battery-operated tools.

The framing nailers covered here all have the ability to easily change between firing modes and toolless depth-of-drive adjustments. We bought all of the 30° nailers to test for ourselves. We weighed them as well; the numbers vary slightly from the manufacturers' official stats, but were all taken on the same scale. We did some math to extrapolate weights for the 21° tools.

by then—say, because you're trying to line things up from an awkward position—you have to start the whole sequence over, which Beardsley wasn't thrilled with.

Bump mode gave him the most trouble. In bump, the trigger activates the windup (you can feel the tool lurch), and it won't



**Hidden switches.** When not deployed, the rafter hook conceals DeWalt's speed and mode switches. The switches are a bit stiff, so they should stay in position once set.

fire until the flywheel is up to speed—in theory. When I tested the DCN692, it usually wouldn't fire if the flywheel wasn't up to speed, but did occasionally, leaving nails underdriven. For Beardsley, "It jammed constantly, it wouldn't set nails, it was just very temperamental."

When he switched to a Flexvolt, "It did seem to at least be more consistent with sinking the nails flush," Beardsley says. But that's also dependent on the material.

Try nailing into engineered lumber like LVLs—"They don't set," Payne says. "You have to hammer them in." Most builders I talked with keep it locked on the higher speed setting regardless of nail type or material they're nailing.

Sam Shafer, a carpenter with Simple Integrity LLC in Cooperstown, New York, hasn't had that issue with his newer 21° DeWalt, which he uses mostly for pickup work. For that, it's "nice using a nailer without having to attach it to anything," Shafer says, but he wouldn't sheathe a

whole house with it. The DeWalts are the slowest shooters of the brands covered here. That, coupled with their limited magazine capacity, takes them out of the running for serious production framing.

Another annoyance: The plastic rafter hook on the DeWalt nailers fits almost perfectly on 2x material, so it can be hard to get it to catch when you try to hang it, and difficult to remove unless you're right over the top of it. The design can leave the tool so tight to a joist that there's little hope of slipping a gloved hand between the handle and the lumber. Payne finds himself pulling it up by the battery instead. "Those are things that a lot of people don't see until they buy it," he says.

Despite the minor flaws, "It's served its purpose over the years, and I haven't had to send it in for repair," Payne says. The day we spoke, he'd used it to sheathe an entire floor without a single jam and just one double-feed. That's pretty impressive for a seven-year-old framing nailer.

# Metabo HPT NR1890DCS/NR1890DRS

## POWERFUL, BUT CAPACITY CRAMPS SPEED

Metabo's 30° and 21° cordless framers came out a few years ago, and use the company's Air Spring Drive system to blast nails into wood. These are essentially sealed cylinders of gas that push a piston and rod to provide the force to drive nails, similar to a pneumatic nailer. The battery's job here isn't to drive the nail, but to reset the piston, which creates 125 psi of force. There's no waiting for the nailer to ramp-up; the reset happens almost instantaneously after a nail is fired.

"The tool has gobs of power," says Jeremy Kassel, owner of Kassel Construction in Glenmont, New York. He says it easily sinks 3½-in. nails and toe-nails like a dream. "The big rafter hook is a nice feature," he adds.

The Metabo rafter hook is big enough to fit over a three-ply 2x beam while leaving plenty of room to grab the handle. Some say it can get in the way, but deck builders may find it useful.

The tools' electronic on/off and selector buttons are located on a panel below your knuckles when holding it, which puts them out of the way of getting accidentally knocked. If you're a righty, though, you may have to switch hands to power it on and change firing modes; lefty users won't have the same issue. Kassel notes that the LED indicators can be tough to read, which I found as well, especially in full sun.

As for speed, Metabo's framers are capable of driving two nails per second in bump mode, which is plenty fast. But the fact that they hold just a stick of nails hampers them. The 37-nail capacity of the 21° framer, for example, isn't enough to nail off an entire 4x8 sheet of sheathing on 16-in. centers without reloading. The 30° nailer's 47-nail capacity just pulls it off.

Michael Farnham, who has Metabo's 21° cordless framer, recently used it to sheathe a 256-sq.-ft. floor, and says "it's almost unbearable" how often you have to reload for that task.

Still, Farnham, owner of Farnham and Sons Contracting in Sutton, Massachusetts, likes the tool. It drives nails like a pneumatic, including in engineered lumber, he says, and with the Multivolt battery he bought to go with it, "I get plenty of runtime. A full day of working if not more." Thanks in part to the tool's reliability, "I gave up on the air compressor a long time ago."

Beardsley, who was an early adopter of the DeWalt, was also early to buy a 21° Metabo. He'd had it a month when the firing pin stuck out and wouldn't reset. He sent it in for service and it came back in good shape, but two months later it didn't seem to want to set ring-shank galvanized nails in PT. Turns out it wasn't exactly the nailer's fault.



### METABO HPT NR1890DCS (30°) NR1890DRS (21°)

**Power** 18v Lithium Ion or Multivolt

**Firing modes** Bump and sequential

**Firing rate, bump** 2 per second

**Nail diameter** .113 in. to .131 in. (both)

**Nail lengths** 2 in. to 3½ in. (both)

**Magazine capacity** 47 (30°), 37 (21°)

**Weight (bare tool)** 9.6 lb. (30°), 9.8 lb. (21°)

**Price (bare tool)** \$360

"I found that it likes different manufacturers' nails than some others," Beardsley says. Kassel noted the same issue. "I was using 'wholesale' nails with it when I first bought it, and I'm fairly certain it was more prone to jamming. I switched to brand-name nails ... and it almost never jams."

Beardsley took issue with his Metabo's battery life, though that wasn't a universal complaint. In addition to the brand's 18v batteries, the tools also work with Metabo's Multivolt platform, which can roughly triple the nails you'll be able to shoot per charge. Beardsley took another route and got an adapter that allows him to use Milwaukee's M18 batteries on his Metabo framer.

Another hack for those who aren't afraid of maybe voiding the warranty: It's possible, with a bit of modification, to retrofit longer pneumatic magazines onto Metabo's cordless nailers. There are videos online that show how, and, while I can't vouch for them, they do seem to work. This modification takes care of what seems to be, in most users' minds, the Metabo framers' greatest limitation.

"I've liked that framer better than I like the DeWalt one," Beardsley says. "We've beaten the crap out of it and it still works."



**Out of the way.** Metabo's electronic controls are in a protected location between the handle and tool body. Lefties will find them easy to reach; righties less so.



**Beefy hanger.** Metabo's rafter hook is big enough to fit over a triple 2x beam, which can come in handy, though some users find it can get caught up or get in the way.

# Milwaukee 2745/2744

## THE FULL PACKAGE, FOR A PREMIUM

Milwaukee's cordless framers rely on a powerful nitrogen-gas spring to drive nails. The tools are part of the brand's 18v Fuel lineup, and run on the same M18 Red Lithium batteries as the rest of its 18v tools. The Milwaukee nailers are the heaviest of the brands we looked at, but that didn't stop them from being the crowd favorite. Unlike the others, these tools give the option of swapping out the single-stick magazine that comes with the nailers for an extended mag that holds twice the nails—93 in the 30° nailer and 78 in the 21°. This solves one of the biggest complaints about other brands' cordless framers: nail capacity.

"It was a long time coming," says Beardsley, who is a self-professed Milwaukee fan. "I guess I'm glad it took as long as it did," he says, recognizing that Milwaukee saw what other companies developed and came out with something even better. He bought two Milwaukee 21° framers as soon as they came out, and, "I haven't had any problems with them," he says. "They are definitely noticeably heavier" than either the DeWalt or Metabo nailers. But that's not enough of a downside to go back to a pneumatic, he says. "The Milwaukees now, you put it on bump, and it's sinking everything. I'm not going back nailing everything. And then the advantage of the extended

magazine—that's huge." He only wishes it were available to purchase on the tool, not just as a \$70 add-on.

Some of the Milwaukees' extra weight may come from their aluminum magazines (most of the competitors' nailers use plastic), and the inclusion of a steel belt hook (neither Metabo nor DeWalt have this feature) in addition to a 2¼-in.-wide steel rafter hook. Another improvement over the competition is the location of the control panel, which sits above the battery port and below the handle where it can be reached easily by either a righty or a lefty. To avoid accidental mode switches or power-offs, the electronic buttons have to be held down for a one-count to activate.

Ryan Smith, a framer in Buffalo, New York, says his crew has been using one of Milwaukee's cordless nailers since mid-2020, and he's had no complaints. They've used it with both LVL and LSL, and had no problems sinking nails flush in either. "I think Milwaukee hit a home run," Smith says.

The Milwaukee shoots up to three nails per second, which is about as fast as any framer is likely to go for any task. Despite the speed and capacity, Tim Uhler, a full-time framer, isn't sold. "I don't think they are ready to frame a house, but plenty of people disagree with me," he says. "It is fast and a good



**Easy access.** Milwaukee's electronic power and mode buttons are easy to access with either hand, and the LED indicators are bright enough to see in full sun.



**Just right.** If the DeWalt rafter hook is too small, and the Metabo's is too large, Milwaukee's feels just right. These also include a belt loop, which the others omit.



### MILWAUKEE 2745 (30°) 2744 (21°)

**Power** 18v M18 Red Lithium

**Firing modes** Bump and sequential

**Firing rate, bump** 3 per second

**Nail diameter** .113 in. to .131 in. (30°),  
.113 in. to .148 in. (21°)

**Nail lengths** 2 in. to 3½ in. (both)

**Magazine capacity** 47 (30°), 37 (21°)

**Weight (bare tool)** 10 lb. (30°),  
10.4 lb. (21°)

**Price (bare tool)** \$350

tool, but killer heavy." Both the Metabo and Milwaukee are fast enough and do a great job toe-nailing, he says, but both need to lighten up before they can go prime-time for production framing.

One last thing about the Milwaukee nailers is a bit of a tip as well as a warning. The tools' molding makes it appear as if you could fit a 21° magazine on a 30° tool, and vice versa. I'd seen chatter about this online, but nothing that said it could or couldn't be done. Against my better judgment, I ordered an extended 21° magazine to try out on the 30° nailer I'd bought just days earlier. I put it on, filled it with 3½-in. brights, and tried it out. To my delight, it worked. I immediately shot off an email to Milwaukee to ask what's up.

They get the question a lot. "The only reason they physically can fit on the tools, in regards to the mounting location on the handles ... is because those components are [a] shared part between the tools. When it comes to nail feeding, nail guiding, and the driver/striker design, the tools vary quite a bit in design," Liz Muller, Milwaukee's assistant brand manager for media relations, replied. The long and short of it is, don't be like me. You will, as I probably did, void the warranty of both the nailer and the magazine if it all goes awry.