

## Milwaukee M12 Band Saw

by David Frane

Earlier this year Milwaukee added a tool to its M12 line that I never expected to see: a cordless portable band saw. Many tool companies make 18-volt band saws, but this is the first subcompact (10.8-volt/12-volt max) model. At 6.75 pounds and 12 inches long, it's small enough to be used one-handed.

The M12 saw is aimed at electricians, plumbers, and other trades that need to cut pipe, electrical conduit,

threaded rod, angle-iron, and the like. It's not supposed to do the job of larger corded and cordless (18-volt) band saws, though it can occasionally fill in for those machines. According to Milwaukee, the tool is best for someone who currently cuts metal with a hack saw or recip saw and wants to do the work faster and with less effort.

When the saw was announced, I asked the manufacturer to send me one — not because I was excited about there being another cordless band saw but because I couldn't believe one this small

could do anything useful. I quickly learned that it could. I also discovered that you find yourself cutting a lot more metal when you have a saw that does it so easily. Tasks I used to avoid because they were slow or unpleasant to do with a recip saw or grinder have moved up on my to-do list. I tried the tool out on scrap material, and used it to cut rebar for a patio project and bolts and angle-iron for various repairs.

### Speed and Capacity

The saw cuts faster than a recip saw and is easier to control. It has a variable-speed trigger and the blade goes 0-250 feet per minute (fpm). By way of comparison, Milwaukee's 18-volt band saw tops out at 480 fpm, which is in line with what corded models can do. The manufacturer claims this saw can cut  $\frac{3}{4}$ -inch EMT (electrical conduit) in as little as three seconds. I timed a few cuts and it took me about five seconds per cut.

The throat of the saw will accept material up to  $1\frac{5}{8}$  inches wide and deep — though the tool works best on smaller material. I tried it on  $1\frac{5}{8}$ -inch Unistrut; it worked, but if I had to cut a lot of this material I'd prefer to have a bigger saw.

### Runtime

One question always comes up with new cordless tools: How much work can it do before you need to change batteries? According to Milwaukee, the M12 band saw can make up to 150 cuts per charge in  $\frac{3}{4}$ -inch electrical conduit with the supplied six-cell XC battery. Runtime is less with standard three-cell batteries.

I tested runtime by putting a new blade and a fresh XC battery in the machine and making short cuts in  $\frac{3}{4}$ -inch conduit. To avoid overheating, I rested the tool for five or 10 minutes after every 24 cuts. The battery lasted for 128 cuts. Although the blade was still sharp, I replaced it for the second round of testing. To make sure I hadn't received a bad battery, I performed Round 2 with an M12 battery from a different tool. This time I got 127 cuts. I originally planned to perform the test three or more times, but the results were close enough to each other and to the manufacturer's claims that I decided to quit and call it good.



The included XC battery provides an impressive amount of runtime. The author was able to make about 130 cuts per charge in  $\frac{3}{4}$ -inch EMT and 33 cuts in  $\frac{5}{8}$ -inch rebar.

### 2429-21XC Specs

**Weight:** 6.75 pounds

**Length:** 12 inches

**Capacity:**  $1\frac{5}{8}$  inches  
(width and depth)

**Blade speed:** 0-280  
feet per minute

**Web price:** \$200 (kit);  
\$140 (bare tool); \$16  
(3-pack of blades)

**Kit includes:** Tool,  
charger, blow-molded  
plastic carry case,  
one 6-cell XC M12  
lithium-ion battery,  
and one 18 TPI blade.



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## Toolbox | Milwaukee M12 Band Saw

While I am not an electrician, I think this tool could get the average residential electrician through a full day's work on a single battery.

Since not every material is as easy to cut as conduit, I also performed a runtime test on  $\frac{5}{8}$ -inch rebar, which is hard to cut with a recip saw. This time I got 33 cuts per charge. As with the conduit, the machine cut steadily and the motor did not slow down until the battery was nearly depleted.

### Blade Life

I didn't change the blade before the rebar test because it didn't seem to have been dulled by the conduit. In fact, it wasn't even noticeably dulled by the rebar. I can't tell you how many cuts you'll get per blade, but I can tell you that cutting metal with a band saw is cheaper than doing it with a recip saw.

Unlike a recip saw — which uses only an inch of teeth — a band saw makes equal use of all the teeth on a very long blade. Heat is the great destroyer of cutting edges, and band-saw blades run cooler because only a fraction of their teeth are against the work at any one time.

It could be that a grinder with an abrasive wheel would be equally economical, but I prefer using a band saw. With an abrasive wheel, there's all that grit to clean up, and sparks could start a fire — a constant concern when sawdust is present or when you're working outdoors in dry western states.

### Features

Features include a variable-speed trigger and a built-in light that shines on the cutting area. LEDs on the side of the housing indicate the level of charge. The blade tracked correctly out of the box, but if you need to adjust tracking, there's an adjustment screw on the back of the blade housing.

Changing blades is easy: You pop the latches, open the cover, release the blade tensioning lever, and swap out the blades. After that, it's a matter of engaging the tensioner and closing the cover.



An LED lights the throat of the saw, which is large enough to cut  $1\frac{5}{8}$ -inch material.



The blade rides between two pairs of guide bearings and can be accessed by popping the latches and opening the cover.

### The Bottom Line

If you do commercial or industrial plumbing, electrical, or sprinkler work, this is not the tool for you; you'd be better off with a corded machine or one of the bigger 18-volt models.

But if you do residential electrical or plumbing work — or remodeling, maintenance, or anything else that requires intermittent cutting of small pieces of metal — the M12 band saw is worth a look. Yes, it's an extra tool to buy and carry, but it does a good job cutting metal and it's easier and more pleasant to use than a recip saw or a grinder.

*David Frane is editor of Tools of the Trade, which is where this article first appeared.*