

Testing the Best Portable



Power, precision, portability, and 24-in. rip capacity for

BY DANIEL S. MORRISON

More than 20 years have passed since Makita rolled out the first portable table saw; that was just about when I began my carpentry career. As innovative as that benchtop Makita was, it just didn't offer the features or performance that most carpenters needed, so many of us stuck with the current state of the art in portability: contractor's saws (sidebar facing page) or circular saws with rip guides. A lot has changed since then. I'm no longer a builder, and portable table saws are light-years better.

The new breed of portable table saws just may make benchtop and contractor's saws obsolete. They're powerful enough to rip framing lumber and portable enough to move single-handedly, and the fences are

precise enough to rip long miters. Most have tables with extendable side wings to provide support for ripping wide sheet goods, and some have miter gauges on par with those of cabinet saws.

While these saws were developed with pros in mind, their price, performance, and portability make them attractive to do-it-yourselfers like me who store their table saws in the basement but use them in the driveway. For this review, I put seven saws through the paces based on my experience as a framer, remodeler, and cabinetmaker. All the saws are equipped with a 10-in. blade, a folding stand, and extended rip capacity. They're priced from \$200 to more than \$500.

Expensive saws should deliver

A table saw's capability ranges from ripping rough sheathing and framing lumber to cutting furniture-grade plywood and hardwood

stock. While no two people have the same requirements or wish list, most of us would agree on what's most important.

A table saw should be powerful enough to rip heavy wood, whether 5/4 oak or 4x4 pressure-treated posts, without bogging down. And a 15-amp saw shouldn't constantly trip a 20-amp breaker. While most table saws don't have the capacity to rip a 4x4 in half in a single pass, two of these saws could: the Makita and the Ryobi.

A table saw should have an accurate, solid fence that's parallel to the blade out of the box, or is easily adjustable. The fence should slide effortlessly when you want it to, but it should stay put when locked down.

The miter gauge should have adjustable stops at common angles such as 22.5° and 45°. Good miter gauges allow you to bypass these positive stops and to dial in angles precisely. Miter gauges also should have holes

Tablesaws



under \$600

or slots for installing wooden auxiliary fences. Also, a T-slotted tongue can be helpful so that the miter gauge doesn't topple out of its slot when the saw is moved around.

The table should have standard dimensions, allowing use of aftermarket accessories, such as Inkra or Kreg miter gauges (www.inkra.com; www.kregtool.com) and zero-clearance table inserts or throat plates to allow rips and crosscuts without splintering. The table insert's height should be adjustable so that it lies in plane with the table. It's a bonus if you don't need to rummage for a screwdriver to remove the insert.

The blade guard should be functional enough so that it's used rather than thrown away. It should ride up and down with the blade to keep the splitter as close to the blade as possible to reduce kickback effectively. The guard should be easy to remove for

Tablesaw evolution: where portables fit in

Cabinet saw

\$1,200 to \$2,300

At more than 400 lb., the original tablesaw is confined to the shop. Beneath a cast-iron table is a cabinet housing a powerful (3 hp or more) belt-drive motor and a massive trunnion assembly for adjusting the height and tilt of the 10-in. or 12-in. blade.



Contractor's saw

\$325 to \$1,000

This first shot at portability brought shop saws to the job site. But at up to 250 lb., moving one was a two-person job. Hanging out the back is a 1½-hp belt-drive motor powering a 10-in. blade. The main table surface typically is cast iron.



Portable/job-site saw

\$200 to \$570

Truly portable saws deliver the power, precision, and rip capacity of contractor's saws, but with half the weight. The 15-amp motor directly drives a 10-in. blade. The table surface is cast aluminum with extending side support for wide (over 24 in.) ripping. Folding stands with wheels make setup, breakdown, and transport of these saws a one-person task.

Benchtop saw

\$90 to \$300

A plastic base and a small aluminum top make this saw light (60 lb. or less), compact, and ideal for general-purpose cutting that doesn't demand precision or rip capacity. Originally outfitted with a 7¼-in. blade, benchtop saws now handle 8-in. and 10-in. blades.



EACH SAW GETS A REPORT CARD

Ratings explained

Saws were rated in six categories, described below. The 1-to-5 ratings for each saw show individual scores (the large red squares) and also the range of scores for all seven saws (the line between small red squares).

	1	2	3	4	5
FENCE					
MITER GAUGE					
POWER					
PORTABILITY					
ADJUSTMENTS					
ACCESSORIES					

● FENCE/OUTFEED SYSTEM

Based on out-of-the-box accuracy, adjustability, field-test features, and feel.

● MITER GAUGE

Based on size, stability, accuracy, adjustability, and the ability to mount an auxiliary fence.

● POWER

How well the saw repeatedly ripped through:

- Pressure-treated 4x4s
- Framing lumber ripped full depth at a 45° bevel.

Saws were penalized for tripping a 20-amp breaker and were rewarded for a 3½-in. cutting depth.

● PORTABILITY

Based on an obstacle course that included a stairway, two doors, a muddy yard, and a pickup truck loaded with plywood.

● ADJUSTMENTS

How easy it is to raise and lower the blade, adjust bevel settings, flip the on/off switch, extend side support, and install/remove the blade guard.

● ACCESSORIES

Blade guard, dust-collection effectiveness, cord quality, onboard storage, tools, table insert, and blade.



Sophisticated and accurate fence. But the rack-and-pinion mechanism is hard to adjust if it's whacked out of alignment.

DEWALT DW744S

A solid stand that locks into the saw. The stand has slots for tabs on the saw to slip into. However, setting the saw into the stand takes some practice because it's hard to see the stand while holding the saw. Despite the elegant side-support system, full-size panel cutting is awkward to get started because, compared to a sliding-table extension, the support arm attached to the fence is a smaller target for the corner of a large plywood sheet. 800-433-9258; www.dewalt.com

Table size - - - - - 26½ in. by 19¼ in.
 Weight - - - - - 53 lb.
 Stand - - - - - 13½ lb.
 Noise level - - - - - 91 db.
 Street price - - - - - \$500

	1	2	3	4	5
FENCE					
MITER GAUGE					
POWER					
PORTABILITY					
ADJUSTMENTS					
ACCESSORIES					

HITACHI C10FR

The quietest saw. Hitachi is also one of the most affordable, but it needs a better stand. The side and outfeed extensions operated smoothly, but the stand wanted to tip over when I began ripping a full sheet of plywood. This was also the only saw that repeatedly slid back while I ripped framing lumber. Strangely enough, portability is its strongest suit (for its onboard tool storage and light weight). This saw has rear outfeed support (as does the Ryobi), but the support on either one isn't sufficient for full-panel ripping. 800-706-7337; www.hitachipowertools.com

Table size - - - - - 31¾ in. by 21¾ in.
 Weight - - - - - 62½ lb.
 Noise level - - - - - 86 db.
 Street price - - - - - \$200

	1	2	3	4	5
FENCE					
MITER GAUGE					
POWER					
PORTABILITY					
ADJUSTMENTS					
ACCESSORIES					



A low handle forces you to stoop when rolling the saw, and the small plastic wheels are a poor substitute for the large rubber wheels found on other saws. Onboard storage is good.



MAKITA 2703 with stand

The best stand without wheels. The stand (made by Rousseau) converts the benchtop saw into the heart of a portable woodworking shop. Makita has the most-solid system for cutting full sheets of plywood on the best tabletop worksurface with the longest rip fence. It's also the most expensive. On the downside, the miter gauge and blade guard are disappointing. The miter-gauge slots are too small for an aftermarket miter gauge, and the miter gauge that comes with the saw feels more like a toy than a tool—tiny, plastic, and inaccurate. Even though a lot of thought seems to have gone into designing the three-piece blade guard (each side flips forward), the guard won't flip back out of the way, and it's cumbersome to install and remove. Onboard tool storage could be better; all you get is a slot to hold the miter gauge. 800-462-5482; www.makitatools.com

Table size - - - - - 27 in. by 21 in.
 Weight - - - - - 42 lb.
 Stand - - - - - 47 lb.
 Noise level - - - - - 90 db.
 Street price - - \$570 with stand; \$300 without

	POOR	1	2	3	4	5	EXCELLENT
FENCE							
MITER GAUGE							
POWER							
PORTABILITY							
ADJUSTMENTS							
ACCESSORIES							



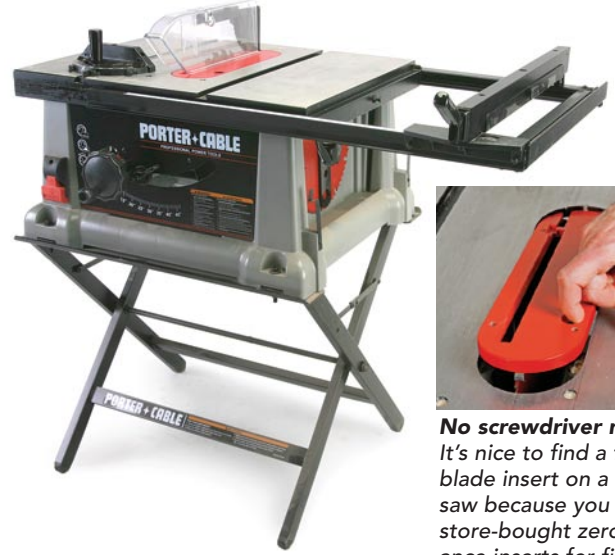
High marks for power and capacity. This lightweight saw not only can cut through a 4x4 in a single pass, but it also can be carried in one hand with the folded stand in the other.

PORTER-CABLE 3812

A powerful saw with a good miter gauge. The soft-start feature eases into the amp load, and the electronic brake is a great safety feature. On the downside, cranking the knob to adjust the blade swings the stand unacceptably from side to side. This wobbly stand makes ripping sheets of plywood awkward. Discounting the stand, this saw is solid overall with decent accessories and lots of power. However, the blade guard doesn't flip out of the way or ride up and down with the blade, and it feels flimsy. While the guard is easiest to remove (no screws, bolts, or nuts), it feels like a throwaway and probably will be used only once. 800-321-9443; www.porter-cable.com

Table size - - - - - 25¼ in. by 20 in.
 Weight - - - - - 63½ lb.
 Stand - - - - - 17 lb.
 Noise level - - - - - 89 db.
 Street price - - - - - \$400

	POOR	1	2	3	4	5	EXCELLENT
FENCE							
MITER GAUGE							
POWER							
PORTABILITY							
ADJUSTMENTS							
ACCESSORIES							



No screwdriver needed. It's nice to find a full-size blade insert on a portable saw because you can use store-bought zero-clearance inserts for fine, splinter-free cuts. It's especially nice to be able to remove the insert with your finger.

cuts that don't go all the way through, and it should flip out of the way for measurements or blade changes.

Controls and adjustments ought to be safe, simple, and smooth. Two of these saws use wheels for both bevel and height adjustments (the Hitachi and the Ryobi). The others use a wheel for height adjustments but a lever with gravity-powered slide action for

bevel adjustments. The slide is much faster than the wheel, but dialing in precise angles is harder with a slide adjustment. The on/off switch should be easy to see and operate.

Hearing protection is essential. All of these saws are noisy. You can blame the high decibel levels on universal motors, the same power plants that are used on circular saws. Saws generate most of their noise as

the spinning blade cuts the wood, and dull blades are louder than sharp ones. Still, the motor's noise level is a baseline for comparison. Hearing protection is the best deterrent to hearing loss.

Portable means easy to move

A portable tablesaw ought to be portable by one person. Stairs, mud, narrow doors, and

RIDGID TS2400-1

A solid all-around saw. This saw gave the Bosch a real run for its money. It has the best fence adjustment, very good blade adjustment, an excellent miter gauge, and a good stand. The onboard storage also is top-notch. The blade guard is easy to remove and install by turning a knob at the back of the saw. But the guard doesn't ride up and down with the blade, so it may be less effective at reducing kickback. Also, the table extends over the on/off switch, putting it out of view and hard to get to in a hurry. Because the sliding side-support lever lifts up, it's convenient, but unless you remember to slide the fence onto the extension table first, you'll smack the lever with the fence. The measuring scale is an unrolling tape measure that seems likely to break. 800-474-3443; www.ridgid.com

Table size - - - - - 30¼ in. by 21 in.
 Weight - - - - - 124½ lb.
 Noise level - - - - - 95 db.
 Street price - - - - - \$500

	POOR —————▶ EXCELLENT				
	1	2	3	4	5
FENCE			■	■	■
MITER GAUGE			■	■	■
POWER			■	■	■
PORTABILITY		■	■	■	■
ADJUSTMENTS			■	■	■
ACCESSORIES			■	■	■



A sturdy stand that folds and unfolds with two motions. The Ridgid is a little tough to slide in and out of a truck bed due to friction from rubber feet on the stand. Outweighing the Bosch by 15 lb., this saw is harder to balance on a tailgate and lift onto a stack of plywood.



This stand folds up easily, and the wheels are large enough to handle muddy yards. The Ryobi rides up and down stairs with ease and is a breeze to load and unload from a truck because the saw is light and compact.

RYOBI BTS20

This saw has it all: power, portability, good peripheral equipment, great onboard storage, and an excellent price. However, the side-support wing is tightened with knobs under the table (inconvenient), rather than with a lever, as on most of the others. Another downside: The height and bevel adjustments are inconvenient; they require the most revolutions and have small-diameter knobs. 800-525-2579; www.ryobitools.com

Table size - - - - - 34 in. by 17½ in.
 Weight - - - - - 86½ lb.
 Noise level - - - - - 93 db.
 Street price - - - - - \$200

	POOR —————▶ EXCELLENT				
	1	2	3	4	5
FENCE			■	■	■
MITER GAUGE			■	■	■
POWER			■	■	■
PORTABILITY		■	■	■	■
ADJUSTMENTS			■	■	■
ACCESSORIES			■	■	■

pickup trucks should not be obstacles to setting up shop. The most-portable saws are light and on wheels. The Ryobi is both, and it's the most portable of the bunch. While the big saws with wheels do well on stairs and in mud, and go into the back of an empty pickup truck, they're tough to wrestle into a pickup loaded with plywood.

Portability also means that the saw's accessories should pack up and stay put dur-

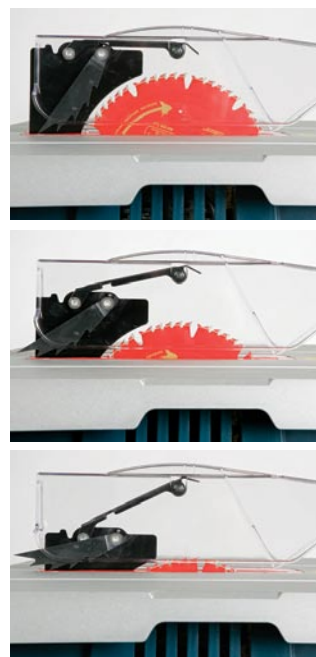
ing transport. Onboard storage among these saws ranges from disappointing (Makita) to terrific (Ridgid, Ryobi).

To make a compact saw that can cut large sheet goods, most manufacturers use extension tables with front and back rails that extend sideways from the saw body. Because the extension-table surface isn't continuous all the way to the side, the systems need to incorporate some sort of support for the

BOSCH 4000-09

A great saw. Soft start reduces circuit-breaker trips, and the electronic brake is a first-rate safety feature. The fence and side-extension support are smooth and solid. The stand is solid and ingeniously designed, requiring only one motion to fold and unfold. Slipping the saw into the back of an empty pickup is easy, but you'll need help lifting it up onto a pile of plywood. Also, while going up and down stairs, the stand can ride on the stair treads, possibly damaging finished treads if you're not careful. 877-267-2499; www.boschtools.com

The best blade guard of the bunch. It is sturdy, rides up and down with the blade, flips back out of the way for blade changes or measurements, and doesn't interfere when cutting long miters.



**AUTHOR'S
BEST OVERALL
CHOICE**



Table size - - - - - 29 in. by 21½ in.
Weight - - - - - 109½ lb.
Noise level - - - - - 88 db.
Street price - - - - - \$550

	POOR —————> EXCELLENT				
	1	2	3	4	5
FENCE				■	■
MITER GAUGE			■	■	■
POWER				■	■
PORTABILITY		■	■	■	■
ADJUSTMENTS			■	■	■
ACCESSORIES			■	■	■

stock. DeWalt and Porter-Cable use a fence-mounted support arm, but there's a better way: The other saws have a 6-in. to 8-in. table mounted between the sliding rails that provides a bigger target when ripping plywood.

Makita took a different approach for its saw, offering a folding stand into which the benchtop saw drops. This folding stand has a solid lever-lock fence and a continuous side support. Rousseau, the company that

manufactures the folding stand for Makita, also offers folding stands for most of the other saws featured in this review (www.rousseauco.com).

Three standouts

Almost all of these portable tablesaws are winners, and the ratings are based on my personal experience. In my opinion, the Bosch barely edged out the Ridgid because of

the Bosch's exceptional stand and top-rated blade guard. Ridgid has a better fence, but I don't like the side-support system or the saw's awkward on/off switch. The Ryobi was a pleasant surprise, and because of its price, I graded it as the best value. □

Daniel S. Morrison is an associate editor at *Fine Homebuilding*. Photos by the author, except where noted.