10-Inch Sliding Dual-Bevel Compound Miter Saws

A close look at eight saws to find the best model overall and the best value

BY CHRIS ERMIDES

Sliding miter saws have come a long way since Hitachi created the category in 1988 with its 8 1/2-inch slider. At the time, it was a trim carpenter's dream tool. Today, carpenters can buy a dual-bevel sliding compound miter saw in a variety of blade sizes: 7 1/4-, 7 1/2-, 8 1/2-, 10-, or 12-inch. And now, some of those saws are available in either cordless or corded options (so far, DeWalt offers the only 12-inch model—it can be powered by a cord or by batteries). And while more cordless 10-inch options are likely to be coming to the market (Milwaukee and Makita already offer one), the category is still dominated by corded power.

There are more 10-inch sliding compound miter saws on the market than the ones I tested here. As for the ones I did include, I looked for the highest-end model from each of the manufacturers, and requested them. When I began this test, Hitachi asked if I would include its new C10FSHC, which at the time hadn't hit the market yet (I'd requested the older C10FSHPS), and I agreed. Most of the saws tested run in the $500 to $600 range, with two coming in well under—at $350—and one coming in at triple the price: $1,475. Most, but not all, perform at the expected value.

TESTED AND REVIEWED

Each of the saws was tested in a shop environment over the course of several months. I used new blades provided by Diablo on each saw to keep testing consistent. Tests were performed with a variety of materials, using the proper blade for each material type: 12-inch-wide-by-1 7/8-inch LVLs; 2x10 spruce and 2x8 PT framing; 1x8 poplar, MDF, and finger-jointed pine crown, casing, and baseboard; 1x8 rough-sawn pine; 3/4-inch MDF ripped to various widths; and 4x4, 4x6, and 4x8 Douglas fir, 1x12 cellular PVC, and 5/4 Trex decking.

Photo this page by Meaghan M Golden

BOSCH CM10GD

Motor: 15 amp; belt drive; no soft start; blade brake; 4,800 rpm
Miter angle: 52° left to 60° right; stops at 15°, 22.5°, 31.6°, and 45°; detent override
Bevel angle: 47° left to 47° right; stops at 0°, 33.9°, 45° and 47° (L/R)
Horizontal cut width at ¾ in.: 12 3/8 in. at 90°; 8 ¾ in. at 45°
Horizontal cut depth: 3 5/8 in.
Vertical cut height at ¾ in.: 5 ½-in. through cut at 90°; 5 ½-in. shave cut at 45°
Nested crown capacity: 6 in.
Dust collection: 2 lb. 13 oz.
Weight: 64 lb.
Price: $600
Website: boschtools.com
Comments: There's a lot to like about this saw, especially the slide mechanism and the fact that it can be pushed up tight against the wall. Also, all of the bevel controls are up front, which is a bonus. Adjusting the saw's miter alignment is easy, and it has a heavier detent plate than other saws, which in theory means it will hold up over time. The slide accuracy at 90° was very good at 1/128 inch (.0078 in.) in 12 inches, and the chop accuracy was excellent at 1/256 inch (.0039 in.) over 4 inches. The process for calibrating the bevel, on the other hand, is clunky—the adjustment screws are difficult to access, and because what's being adjusted is hidden, the process is not at all intuitive. On top of that, achieving an accurate bevel in thicker stock was very difficult due to the saw's heavy head; it deflects more than any other saw in this test. The fences were true to the table, and the table was flat out of the box. Blade changes are easy thanks to a blade guard that locks out of the way. Long, straight cuts showed some sway and were not perfect—a function of the slide arm traction, blade wobble, head deflection, or a combination of all the above. The miter gauge has markings for roof pitches, which to me says it all: How can you have a super-accurate trim-level saw that's also designed for rough framing? All in all, while this saw is a workhorse—capable of cutting anything you put under it—it's not the most accurate by a finish carpenter's standards. If you're looking for a high-quality trim saw, you'd do well to avoid this saw. At 64 pounds, it is a total beast, and while the footprint might be relatively compact, it has a significant height when in the up position. It fared worst in dust collection, and sawdust can build up over time, limiting the backward motion of the head. The slide function is smooth and adjustable, which is nice.

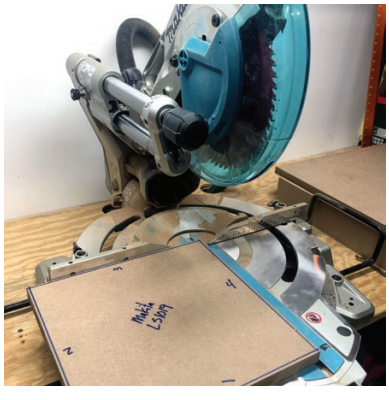
The process was part scientific testing and part user-review based on my experience in the field. I noted ergonomics, ease of using the saw's settings, power, accuracy, quality of cut, and dust collection. I also noted the saw's reported features, including cut capacity, table and fence alignments, and the ease of tuning miter and bevel settings for when the saw needs recalibration. (All saws, especially ones that get hauled from jobsite to jobsite, will eventually need to be recalibrated.) In addition to these features, I tested each saw for blade wobble as well as the accuracy of its bevel detent settings.

NO PERFECT MITER CUT

Because these miter saws can bevel to both sides and the blade can move along an axis, any inaccuracies in any direction will compound. So setting the saw up to cut square to the fence and square to the table is an essential first step in having it perform as designed. Blade alignment to the fence and table at 90° are two relatively easy, quick adjustments (depending on the saw, but more on that later). I used a try square to check the alignment of the blade to the fence and adjusted as needed until the saw blade and the square read true. Then I did the same to check and adjust the squareness of the blade to the table. If you take your time with both of these adjustments and use a high-quality square, you can get excellent results.

But how accurate does the saw cut at its full sliding capacity when the blade is set square? And how well does it do as a traditional "chop" saw?

I tested the accuracy of the chop cut on a 4-inch-square piece of 3/4-inch MDF (the



Once the saws' blades were trued up to the fence and table, the four-cut method was used to test each saw's slide-cutting accuracy. All but two cut well within an acceptable tolerance of .016 inch in 12 inches.

HITACHI C10FSHC

Motor: 15 amp; direct drive; soft start; blade brake; 3,200 rpm
Miter angle: 55° left to 60° right; stops at 15°, 22.5°, 31.62°, 45°; detent override
Bevel angle: 48° left to 48° right; stops at 33.9° and 45°
Horizontal cut width at ¾ in.: 12 ¾ in. at 90°; 9 in. at 45°
Horizontal cut depth: 3 ½ in.
Vertical cut height at ¾ in.: 4 ¼-in. through cut; 4 ¼-in. shave cut at 45° miter
Nested crown capacity: 6 ¼ in.
Dust collection: 3 lb.
Weight: 46 lb.
Price: $350
Website: hitachipowertools.com
Comments: Hitachi released this saw in the fall of last year. It has some nice features, particularly the up-front bevel controls and forward-facing rail system. This design means that it can be pushed up tight against the wall—a good feature for a shop. It's compact and lightweight—a great saw for carrying in and out of jobsites, as well. The unit includes an LED light, which I liked, and a laser, which I found difficult to adjust without removing the blade guard. I also found the accuracy of it to be fair. Chop accuracy on the saw was excellent at 1/256 inch (.0039 in.) over 4 inches, but the saw scored second to last in slide-cutting accuracy, at 7/256 inch (.0273 in.) in 12 inches. The detent plate is cast into the saw's base, which in theory means that its accuracy will hold up well over time. I really liked the bevel release lever up front, though calibrating the bevel was slightly more complex than it seemed it should be. It requires loosening three screws that are tucked way into the rear of the saw; it sounds like a simple maneuver, but in practice, the screws are difficult to access and then once they are loosened, the process is a bit of a juggling act. There was virtually no blade wobble detected, though the head did vibrate a fair amount in various materials—particularly harder woods like mahogany and LVLs. There's a fair amount of movement in the head compared with other saws in this test, which showed in the cut quality for both long miters and long bevels. Sliding functionality was the worst of all tested—the head moves smoothly and requires a fair amount of effort compared with the other saws tested. Dust collection on the saw was very good at 3 lb., though there's no sleeve in the port to hook up a hose. I liked the detent override and ease of tuning-in a miter cut. Overall, this is a decent general carpentry saw but not a workhorse or trim saw.

"chop test"). Then I tested the sliding accuracy on a 12-inch-square piece of MDF (the "slide test"). In both instances, I used the four-cut method, which is as follows: I made four cuts around the square and measured the variation of the fourth cutoff from one end of the cut to the other using a digital caliper. I divided the caliper reading by four to find the result.

Chop-test result. The Festool, Hitachi C10FSH, and Makita were the most accurate in the 4-inch chop test, with no measurable variation. All of the other saws cut within 1/256 inch over 4 inches, which equates to .0039 inch over the length of cut and is completely acceptable for a miter saw.

Slide-test result. In the slide test, the Festool and Hitachi C10FSH produced the best slide accuracy with excellent results: off by 1/256 inch (.0039 inch) in 12 inches (in his YouTube video "Four Cut Calibration," Gary Katz notes that 16/1000 or .016 is acceptable accuracy for a slide saw). I found the Bosch, Delta, DeWalt, and Ridgid saws to have very good accuracy—off by 1/128 inch (.0078 inch) in 12 inches—while the Hitachi C10FSHC at 7/256 (.0273 inch) and Makita at 1/32 (.0313 inch) had poor accuracy.

Note that this four-cut method is often used as a means for truing-up a saw in lieu of, or in conjunction with, a square (I prefer a try square, though theoretically, any true square will work). As you can tell, the tolerances on these saws are very good—and you'd be hard-pressed to tune anything beyond 1/128 inch in 12 inches. But in the case of the Hitachi and Makita, because these saws were cutting near-true in chop mode, I can't help but surmise that the inaccuracy is in the slide mechanism and not the

As a matter of course, detents were checked using a digital angle finder with the saws set on a flat, level surface. All saws came in either at exact readings for the respective detent, or within three tenths of it.

MAKITA LS1019L

Motor: 15 amp; direct drive; soft-start; blade brake; 3,200 rpm
Miter angle: 60° left to 60° right; stops at 15°, 22.5°, 31.6°, 45°; detent override
Bevel angle: 47° left to 49° right; stops at 22.5°, 33.9°, 45°; detent override
Horizontal cut width at ¾ in.: 12 3/16 in. at 90°; 8 1/8 in. at 45°
Horizontal cut depth: 3 ¾ in.
Vertical cut height at ¾ in.: 5 1/8-in. through cut at 90° and at 45°
Nested crown capacity: 6 5/8 in.
Dust collection: 2 lb. 15.6 oz.
Weight: 58 lb.
Price: $550
Website: makitatools.com
Comments: I had high hopes for this saw given the overall design. The forward-facing rails and up-front bevel controls are nice, though they limit bevel capacity to the left and line of sight in some configurations. They allow you to push the saw up to a wall, and this means that you don't have to reach behind it to change the bevel setting. The overall footprint is relatively small despite the larger table—a feature Makita fans of old will remember and new users can't help but appreciate (I loved this table). The tall fences are fixed and need to be removed for any bevel cuts, which some will dislike and others, like me, won't mind. I like the tall fence because it provides extra support to tall base and crown, but one side was bent significantly out of square to the table—likely from shipping. Despite an electronic control sensor that maintains rpm under load, the head vibrated a fair amount in slide cuts in denser woods like 8/4 mahogany. And when I first started using this saw, the blade brake did not engage immediately—the blade spun wildly and eventually stopped. After about 15 cuts, though, it did engage properly for the remainder of the test. The laser was difficult to dial in, and I found it fairly useless; it has an on/off switch, which is good. Overall, despite some vibration in denser materials, this saw cut easily and well through all other material in the test and showed no measurable blade wobble. The slide functionality is smooth and effortless. It performed among the best in the chop-cut accuracy test (0 inch in 4-inch cut), and worst overall in slide-cutting accuracy. Given the saw's packaging, I would recommend buying this saw in person instead of having one shipped. At this price point, Makita needs to address the way the saw is packaged, which I speculate accounts for the inconsistent experience users are reporting with the slide-cutting accuracy.

blade's relation to the fence. See the saws' individual write-ups for more on that.

Miter accuracy was tested by making opposing miters in chop-mode on two pieces, then putting them together in relation to a square. Here, I noted the quality of the miter joint as well. Festool and the Hitachi C10FSH came out on top again with equally excellent cuts, while the DeWalt and Ridgid cuts were very good. The Bosch, Delta, Hitachi C10FSHC, and Makita joints were fair in quality, but accurate.

Sliding miters were tested on 8-inch MDF and yielded similar results, though the Bosch, Delta, and Hitachi C10FSHC showed some minimal sway in the cut's straightness. This could be a function of some head deflection, blade deflection, head vibration, or something to do with the slide mechanism itself.

Bevel accuracy. I tested bevel cutting accuracy in a similar way. I cut opposing 45° bevels, then assembled them and noted the joint for crispness, straightness, and angle accuracy.

The Festool, Hitachi C10FSH, and Ridgid came out ahead here with near-perfect results. The cuts were straight, and the jointed miter was a perfect 90°. The DeWalt cut straight with no gaps (no head deflection) but was a hair proud of 90°, while the Makita was a perfect 90° but the joint was a hair open in the middle. The Bosch, Delta, and Hitachi C10FSHC all had enough head deflection that it was difficult to get better than paint-grade results.

DUST COLLECTION

I tested dust collection by making a series of cuts in a consistent variety of materials

Table and fence straightness was observed using a straightedge. All the saws had fences that could be adjusted for straightness, with varying degrees of difficulty. All the saw tables were acceptably flat.

DELTA "CRUZER" MODEL 26-2240

Motor: 15 amp; belt drive; no soft start; blade brake; 4,000 rpm
Miter angle: 50° left to 60° right; stops at: 12°, 22.5°, 31.6°, 45°; detent override
Bevel angle: 47° left to 48° right; stops at 22.5°, 33.9°, 45°; detent override
Horizontal cut width at ¾ in.: 12 1/8 in. at 90° (15 1/4 in. with special setup), 8 5/8 in. at 45°
Horizontal cut depth: 3 1/2 in.
Vertical cut height at ¾ in.: 5 1/2-in. through cut at 90°; 5 1/2-shave cut at 45°
Nested crown capacity: 6 1/4 in.
Dust collection: 2 lb. 13 oz.
Weight: 55 lb.
Price: $600
Website: deltamachinery.com
Comments: Delta hasn't made a miter saw in many years, so this new model has been a highly anticipated one. In lieu of a rail system, the head of the "Cruzer" rides on robotic-style arms similar to the Axial Glide system Bosch employs, except it's significantly smaller and lighter than the Bosch. It can be pushed up tight to a wall and has a compact footprint, with all controls up front. I have to say right off the bat that I really liked using this saw. The bevel controls were among the most user-friendly. It has detent overrides in both miter and bevel setting, and the slide mechanism is incredibly smooth with a tensioning adjustment on each arm to dial in a resistance you like. It's easy to calibrate, and though the head is stiff when chopping, the action feels stout and efficient. Initially, I had issues with the blade guard sticking in the up position, but that was easily remedied by loosening the nut; I think Delta could do a better job with this, as most other blade guards can't be overtightened. Also, there is the possibility for the blade guard to get hung up on the cord—another potential safety issue. The dust port on the Delta is close to the saw's handle and so it's difficult to make a good connection without jamming the fitting in. I think either the handle or the fitting will break in time in the field. The saw cut effortlessly and well through all of the material in the test and made decent-quality miter cuts in the chop setting. Chop-cutting accuracy at 90° was on par with other saws at 1/256 inch in 4 inches and slide accuracy was good at 1/128 inch in 12 inches. While the 90° straight cuts were good, slide miter cuts were only fair. The blade shows some measurable and visible wobble and the head has some deflection. Overall, this is a decent saw for remodeling and framing, though I wouldn't recommend this as a go-to trim saw; it's just not accurate enough for flawless miters in casing, base, or crown.

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and gathering the sawdust with an extractor. Using a combination of doubled-up 3/4 MDF (x70), 4x6 Doug fir (x12), 1x6 poplar (x12), and 1x8 pine (x12), I made a total of 106 square cuts with each saw, and then weighed the bag for the amount of sawdust captured. I used a Festool CT extractor equipped with a HEPA filter and the new 1 1/16-inch (27mm) flex hose; I installed a new fleece bag for each saw. Once the cuts were complete, I weighed the fleece bags, yielding weights from 2 lb. 13 oz. to 3 lb. 2.2 oz. of dust.

It's important to note here that while the results seem close to one another, they really aren't. Here's why: An ounce of MDF sawdust is about two handfuls. That's a fair amount of dust. I've seen some folks test the amount of dust captured and the amount of dust not captured. While I think that's a fair and very accurate test, it was beyond the scope of this review. My goal was to find out how the saws fared in comparison to one another.

None of the saws captured all of the sawdust—but a few did stand out. While my test methods were consistent, it is possible to achieve some variation of the results given different setups. For example, cutting nested crown or cutting long miters may yield some variation in these results, but I believe they would be relatively consistent with my findings when comparing one saw with another.

In my testing, the DeWalt collected 1.7 ounces more dust than the runner-up, the Kapex. The shrouds on the Kapex and the Makita got hung up on taller material like 4-by, and I didn't have this problem as much with the DeWalt, which has a thinner

The dust-collection test was conducted using a new 60-tooth Diablo blade in each saw. Consistent numbers of cuts were made in the same material types. Dust was captured in a bag and then weighed.

FESTOOL KAPEX

Motor: 13 amp; direct drive; soft start; blade brake; variable speed: 1,400–3,400 rpm
Miter angle: 50° left to 60° right; stops at 15°, 22.5°, 30°, 45°; no detent override
Bevel angle: 47° left to 47° right; no detents; counterbalanced micro-adjustment knob
Horizontal cut width at ¾ in.: 12 3/16 in. at 90°; 8 ¾ in. at 45°
Horizontal cut depth: 3 5/8 in.
Vertical cut height at ¾ in.: 4 5/8-in. through cut at 90° and at 45° (specs say 4 ¾ in.)
Nested crown capacity: 6 5/8 in.
Dust collection: 3 lb. 0.5 oz.
Weight: 47 lb.
Price: $1,475
Website: festoolusa.com
Comments: At first glance, it is impressive—and after using it for a long while, I can attest that it is built as you'd expect a Festool would be. Everything is precise—from the table, to the fences, to the lasers (it has two lasers, one for each side of the blade; they're accurate and you can adjust them both independently). The Kapex has a unique arbor nut that is fitted with a carbon material that allows it to act like a brake pad. Should the blade bind, the pad will allow it to spin slowly—significantly minimizing the potential for kickback. It utilizes a special-sized blade (10 ¼ inches) that has a larger-than-common arbor hole (30mm). According to the manufacturer, this large arbor virtually eliminates any blade deflection because it supports more of the blade's plate. It's a nice feature, but one you pay a premium for, especially with respect to blades; a 60-tooth 2.5mm kerf blade will set you back $155. Cuts were virtually flawless, the head has no perceived deflection, and there is no blade wobble. It excels at dialing in a bevel angle, and at bevel accuracy. On the other hand, micro-adjusting a miter angle is not easy, and if you are looking for a half-angle near a detent, it'll take you several tries to get there. Festool gives you an angle finder for fine-tuning the miter using its onboard laser, but it doesn't give you any way to micro-adjust the miter setting. You can't lower the head without partially depressing the trigger, and of all the saws tested, I had more issues with small offcuts catching (or, in one instance, jamming) the blade guard. I found the blade guard on this saw extremely annoying—particularly when cutting taller stock. If you're going to pay three times more money for a miter saw, it should be outstanding in every way. Make it possible to micro-adjust the miter angle (or at least add a detent override), increase the vertical cutting capacity, fix the blade-guard issues, and improve the ramp-up time, and then it would be a worthy investment.

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shroud. The Kapex does have a removable shroud, which is nice because it gets hung up on nested crown and other taller material.

All of the saws with the exception of Ridgid and the two Hitachis have 1 1/16-inch-diameter vacuum ports. The hose was slightly sloppy on the Ridgid, which accepts 1 1/4-inch wet/dry vac adapters. The Hitachis both have a 2 1/2-inch-diameter port, which is huge for a miter saw. While the larger port may account for the decent dust extraction results of both saws, it's cumbersome to use a hose that size on a miter saw. I used the same 1 1/16-inch-diameter hose with reducing couplings to maintain consistent results.

Makita has devised a newer extraction setup that pulls dust from behind the workpiece and at the blade as well. In theory, when you look at it, you think it's an ingenious design and should capture everything. It didn't, though it did OK compared with the others. But of all the saws, this was hands-down the loudest when running with an extractor; the configuration of this port creates a whirring sound that's so loud it sounds like a jet engine.

BLADE WOBBLE

I tested each saw's blade runout just above the gullet, noting the highest reading. For this to have been a purely scientific test, I would have needed to use a machined plate on each of the saws. But I didn't have one available, and I also wanted to get real-world results that matter to carpenters. I tested blade wobble after the dust extraction test—when each saw was equipped with a 60-tooth Diablo blade. It can be argued that any given blade could have some variation in it. But the results were all so close and completely corroborated by visual observation that my method felt justified as a comparison.

All in all, they did quite well—with a couple of them not doing so well. Both Hitachis, the Kapex, and the Makita had no measurable wobble. This was confirmed in test cuts and in kerf cuts that I measured. The DeWalt had slight (.006 at the gullet) wobble but produced clean, perfect cuts. The Bosch and Delta had measurable and visible wobble, which showed in most test cuts.

TOP PICKS

Choosing the best saw was not easy. While all of the saws performed as expected, a few rose to the top.

Best overall. To pick the winner, I factored in the saw's performance in testing,

HITACHI C10FSHPS

Motor: 12 amp; belt-drive; soft start; blade brake; 3,800 rpm
Miter angle: 45° left to 62° right; stops at 15°, 22.5°, 31.62°, 45°; no detent override
Bevel angle: 45° left to 45° right; stops at 33.9°, 45 °(L), 45°(R)
Horizontal cut width at ¾ in.: 12 5/16 in. at 90°; 8 3/8 in. at 45°
Horizontal cut depth: 3 5/8 in.
Vertical cut height at ¾ in.: 3 5/8-in. through cut at 90°; 4 5/8-in. shave cut at 45°
Dust collection: 3 lb. 0.3 oz
Nested crown capacity: 6 5/8 in.; requires optional auxiliary fence
Weight: 43 lb.
Price: $510
Website: hitachipowertools.com
Comments: This saw really surprised me because it is the most basic of all the models, including Hitachi's newer C10FSHC. There are no bells and whistles on this saw and all of its levers and settings are very simple. In fact, all of the tuning adjustment settings on it are hex-head bolts, which require a separate tool. There's no onboard tool storage and no auxiliary fence on the right side (it's an optional accessory), and the auxiliary fence on the left side flips out of the way—this I liked because it extends the length of the fence on the left side of the blade while keeping the fence attached so you don't have to completely remove it. While everything about the levers and controls on this saw says "basic" to me, this saw is incredibly accurate. The table is perfectly flat and the fence was straight and square to the table. In fact, it tied with the Kapex on the slide-accuracy as well as the chop-accuracy tests. It produced absolutely flawless bevel cuts. There's little deflection in the head when making long bevel cuts, and the accuracy on miter cuts was spot-on. The soft-start motor ramps up very quickly. This saw showed no blade wobble and made consistently accurate cuts in both miter and bevel positions. The miter scale is a little off—it reads properly to the left but is about a degree off to the right of the blade. This discrepancy is a function of the gauge sticker not being applied properly (you can't adjust this without pulling the sticker off, which would likely ruin it). I found the laser useful and accurate when making miter cuts with no bevel, and I like that you can switch it to either side of the blade at the turn of a dial. Unfortunately, the laser comes from behind the stock and so can be obscured by taller moldings. When cutting 8/4 mahogany, the saw fared well—it didn't struggle, but it didn't cut it easy-breezy either. It's the lightest saw of the bunch. For a trim carpenter who likes to add his or her own auxiliary fences, this saw is a good fit.

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its overall features, ergonomics, and ease of use, as well as the saw's price: Does the saw provide good value? With those factors in mind, the DeWalt DW717 (see page 52) won top honors. It was a solid performer, was consistent and easy to adjust and maintain, was built with professional remodeling contractors and trim carpenters in mind, and at $500, is fairly priced. A close second was the Makita LS1019L. Had it performed better on the slide accuracy and not been banged up due to poor packaging, it would have tied with the DeWalt.

Best value goes to the new Ridgid R4210 (see page 52). At $350, it's packed with features and performed very well. While it's 4 pounds lighter than the DeWalt, its footprint is large, so it's not a great option for a small shop. But it's a strong performer for the money.

The saw that seemed least accurate in terms of quality cuts and head deflection was the Bosch CM10GD, which was a disappointment to me. I also think the Delta Cruzer needs a bit more internal refinement for it to be a go-to trim saw, but it is a solid performer overall.

In summary, professional carpenters will get good results with any of these saws. If your main line of work is trim, then the DeWalt DW717, Hitachi C10FSH, and Ridgid R4210 would all be money well-spent. Decking, framing, siding, and general contractors would do well with almost all of the saws in this test, although the Kapex, which has so many bells and whistles, might be overkill for a lot of rough work.

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Blade-wobble results were verified by recording the running saw blade in slow motion, and then visually observing if the pin jumped around. Kerf cuts were made in 4-by material and measured with a caliper.

BEST VALUE

RIDGID R4210

Motor: 15 amp; direct drive; no soft start; blade brake; 4,000 rpm
Miter angle: 70° left to 70° right; stops at 15°, 22.5°, 31.62°, 45°, 60°, 67.5°; detent override
Bevel angle: 48° left to 48° right; stops at 15°, 22.5°, 33.9°, 45°
Horizontal cut width at ¾ in.: 12 ¾ in. at 90°; 9 in. at 45°
Horizontal cut depth: 3 ½ in.
Vertical cut height at ¾ in.: 6-in. through cut at 90°; 6-in. shave cut at 45°
Nested crown capacity: 6 5/8 in.
Dust collection: 2 lb. 15.9 oz.
Weight: 47 lb.
Price: $350
Website: ridgid.com
Comments: This saw has a unique miter-angle adjustment that allows you to cut 70° on both sides—useful for cutting siding, stair parts, and other steep angles (cut capacity at 70° is about 5 inches). It is well-balanced and easy to carry, and has a 6-foot cord. Another nice feature is the quick-release bevel adjustment that allows for quickly setting bevels at various detents. You can most easily access the safety switch with your forefinger on the right hand, but if you're left-handed, you'll be able to use it. The LED shadow light can be turned on or off and is accurate, but it could be brighter; I found that the blade needs to be so close to the material that it was essentially like using the blade. The blade ramps up quickly, but stops slowly. There's no blade wobble in this saw and it made very good cuts in trim material. It had plenty of power for framing material and didn't struggle through anything I put in front of it. It's got a large footprint, so it's not the best option for a small shop. The weight and balance make it fairly portable, especially when mounted to a stand. This saw would do any contractor or carpenter well—especially for the price.

BEST OVERALL

DEWALT DW717

Motor: 15 amp; belt drive; no soft start; blade brake; 4,000 rpm
Miter angle: 60° left to 50° right; stops at 15°, 22.5°, 31.62°, 45°; detent override
Bevel angle: 50° left to 49° right; 22.5°, 33.9°, 45°; detent override
Horizontal cut width at ¾ in.: 12 ¾ in. at 90° (16 in. with special setup), 8 7/8 in. at 45°
Horizontal cut depth: 3 ¾ in.
Vertical cut height at ¾ in.: 6-in. through cut at 90°; 6-in. shave cut at 45°
Nested crown capacity: 6 ¼ in.
Dust collection: 3 lb. 2.2 oz.
Weight: 51 lb.
Price: $500
Website: dewalt.com
Comments: This saw was a solid performer in every manner of testing—from framing to making precise, crisp trim cuts, it was reliable and accurate. Calibrating the miter and bevel settings was easy to do. The saw has impressive cutting capacities, making it extremely versatile, and with the detent override, you can dial-in a miter angle with ease. Though the bevel controls are located toward the back of the saw, you don't have to reach completely around to access them. You can disengage the bevel detents with the flip of a lever that's easy to reach. The only thing I didn't like was the bevel-locking lever mounted toward the back (below the bag in the photo above); it can be awkward to access at times. There's minimal perceived head deflection in the slide function, though of all the saws tested, this one didn't slide as easily. Slide functionality is perfectly smooth; it's just not as effortless as most of the others. The miter table dipped about 1/32 inch on the right side, though that didn't impact any of my cuts. The fence and auxiliary fences were perfectly square to the table. All in all, this saw performed very well, and for the money, I think it's the best saw overall.