

Evaluating Eight Professional-Grade Jigsaws



*The biggest differences are in ergonomics
and blade-changing mechanisms*

by Roland Johnson

Earlier this year, I was hired to build a Victorian-style partition for a foyer in an older home. The design included turned and carved columns, raised panels and a lot of fretwork that required a great deal of intricate cutting. The main panel was too heavy and wide to saw on my bandsaw and too thick to cut with a scroll saw, at least easily. So I reached for my 15-year-old jigsaw.

My saw was a top-of-the-line tool when I bought it, but it lacks modern features that would have saved me time and aggravation. While cutting tight curves, the tool wanted to dance out of my hand. In long, gently curved sections, I wished it would cut faster. It was time to invest in a new jigsaw—one with variable speed for cutting tight curves, adjustable orbital action for setting the aggressiveness of the cut, a top handle and 4 amps or more of power.

I tried out eight saws that met those criteria: the Bosch 1587DVS, DeWalt DW321, Freud FJ85, Hitachi CJ65V2, Makita 4304, Milwaukee 6266-6, Porter-Cable 7549 and Ryobi JS048. Prices you would pay for the tools through mail order or at a discount store ranged from a low of approximately \$90 for the Ryobi to a high of about \$179 for the Bosch.

Using a new blade in each of the saws and cutting through some thick walnut, one thing became clear: All had plenty of power. Most of them come equipped with



A good location for a speed-control switch—Makita's speed-control dial operates smoothly and is easy to reach.



Difficult to get a grip—It takes some maneuvering on Hitachi's jigsaw to move the small, recessed speed dial.

acceptable blade guides. The significant differences are in the way the saws felt in my hand and in how blades are changed,

Speed controls vs. variable speed

Although manufacturers use the terms *variable speed* and *speed control* interchangeably, I think there's a difference between the two. A true variable-speed tool has a rheostatic trigger that changes the motor's speed with a change in finger pressure. The Bosch, DeWalt, Freud, Milwaukee and Ryobi have this kind of trigger. They also have a dial, either on the trigger or on the saw body, that limits the speed.

The Hitachi, Makita and Porter-Cable

saws have speed-control dials separate from their triggers. There is no variation in the speed when you press the trigger. To change speeds with the tool running, you extend your thumb and turn the dial. Some of these dials turn smoothly and are easy to reach, such as Makita's (see the photo at left above). Others are difficult to operate. Hitachi's dial is small and awkward to move with your thumb because it is deeply recessed (see the photo at right above).

If you have to alter your grip to change speeds when you're cutting, your chance of straying off the cutting line is increased. You could use your other hand to adjust a speed dial while in the middle of a cut,



Bosch 1587DVS

A comfortable handle that lets you place your hand far forward, a quick blade-changing mechanism and a variable speed trigger make this a top-quality jigsaw.

Discount price	\$179
Weight	5.5 lbs.
Amperage	5.0
Speed switch	Variable with trigger wheel
Blade type	T-shank
Blade change	No tool required
Foot plate	Tool required
Anti-splinter device	Yes
Dust control	Vacuum hookup



DeWalt DW321

DeWalt added a rubber grip on its handle. This tool shares a similar blade-changing device with the Bosch.

Discount price	\$165
Weight	5.3 lbs.
Amperage	5.8
Speed switch	Variable with trigger wheel
Blade type	Universal and T-shank
Blade change	No tool required
Foot plate	Lever action
Anti-splinter device	Yes
Dust control	No



but that's not always possible.

I prefer a variable-speed tool because I have more control when cutting intricate shapes where many speed changes are necessary. I like being able to adjust the motor's rpms with just my trigger finger. I can keep my grip firm and that means there's less chance of cutting off the line. Freud's saw has the finest variable-speed trigger, allowing for very sensitive adjustments at low rpms.

A good grip provides more controlled cutting

Often I find myself using a jigsaw with one hand because I am either holding the workpiece with my other hand or I'm bracing myself as I reach over a large panel to make the cut. The handle has to be comfortable and sized properly for a good grip. Rounded handles stay comfortable in my hand long after the square-shouldered ones cause discomfort.

There are two ways that handles are positioned on these jigsaws: parallel to the saw body or angled slightly toward the rear. The Bosch, DeWalt, Freud and Hitachi all have angled handles. When you grab one of these, your arm is in a more natural position to push.

I also prefer a handle that places my grip far forward, as close to the blade as possible. The nearer my hand is to the blade, the more responsive the saw and the better I sense how it is tracking. The Bosch handle felt good in my hand. It also seemed to place my hand closer to the blade than the other saws (see the photo at left).

A soft vinyl insert on the DeWalt provides a comfortable, slip-free grip. The only drawback with this handle is that it is a bit far back on the saw and tends to make the saw seem larger than it is. Freud's handle is square-shouldered and too fat for my hand. The handles on the Makita, Milwaukee, Porter-Cable and Ryobi jigsaws are oriented horizontally. When pushing these, your arm is positioned unnaturally, and that tends to lift up the back of the saw.

Handles are either sloped or flat. Bosch (above) has a handle that slopes toward the rear of the tool, which puts your hand in a more natural position for pushing the saw. Handles that are flat to the tool body, such as on the Porter-Cable (right), are less comfortable to operate for extended periods.



Blade changing made easier

The small Allen wrenches or screwdrivers required to change blades on jigsaws have a way of getting misplaced in a workshop. Many tools now come with tool holders, either on the cord or in the tool body, and that helps, as long as you use them. A better solution is to do away with the tools altogether. Three jigsaw manufacturers—Bosch, DeWalt and Milwaukee—have done so.

Milwaukee's blade-changing system, which consists of a spring-loaded toggle switch on the front of the saw, is the most efficient. By swinging the toggle to one side, the collar on the plunger rotates and releases the blade (see the bottom photo at right). A blade change takes seconds. The locking mechanism holds the T-shanked blade very securely.

Bosch uses a twist-lock blade holder. To change a blade, a knob at the top of the saw is pulled upward and rotated to loosen the collet. It's not as fast as the Milwaukee, but it does hold the blade very securely.

DeWalt's system is similar to Bosch's (see the photo at right). It is a little fussier to get the blade well seated, but it still does a good job of firmly holding the blade. The other saws require a tool, either a straight-bladed screwdriver or an Allen wrench, to change blades.

Good guides keep saw on track

All of these jigsaws come with what the manufacturers call blade guides. I think they ought to be called followers. With the exception of the Porter-Cable tool, the saws use a grooved wheel to support the back of the blade. Tolerances vary, and some have a fair amount of side play, which reduces their effectiveness.

The Porter-Cable jigsaw (see the bottom right photo on p. 56) has the most elaborate and precise guide system, something



Two good ideas—DeWalt and Bosch (above) have very similar blade-releasing knobs located at the top of the tool. No tools are required.



Tool-less blade-change—Pushing a spring-loaded lever at the front of Milwaukee's jigsaw (left) releases the blade.



Freud FJ85

The handle on this saw is very large and square-shouldered. A hex wrench is required to change blades.

Discount price	\$130
Weight	5.4 lbs.
Amperage	4.8
Speed switch	Variable with trigger wheel
Blade type	Universal and T-shank
Blade change	Tool required
Foot plate	Tool required
Anti-splinter device	No
Dust control	Yes



Hitachi CJ65V2

An angled handle makes this saw comfortable to use. The tool would benefit from a larger speed-control dial.

Discount price	\$175
Weight	5.3 lbs.
Amperage	5.2
Speed switch	Speed control with thumb wheel
Blade type	T-shank
Blade change	Tool required
Foot plate	Tool required
Anti-splinter device	Yes
Dust control	No



Makita 4304

The speed-control dial on this machine is well-placed and easy to adjust while operating the tool.

Discount price	\$170
Weight	5.1 lbs.
Amperage	5.5
Speed switch	Speed control with thumb wheel
Blade type	Universal
Blade change	Tool required
Foot plate	Tool required
Anti-splinter device	Yes
Dust control	Optional vacuum port available



Milwaukee 6266-6

With its self-locking toggle lever, Milwaukee offers the quickest blade-changing system for jigsaws.

Discount price	\$170
Weight	5.3 lbs.
Amperage	5.7
Speed switch	Variable with thumb wheel
Blade type	T-shank
Blade change	No tool required
Foot plate	Tool required
Anti-splinter device	Yes
Dust control	Yes

akin to a bandsaw's guides. The blade is supported from behind with a smooth roller and is trapped on the sides by a set of adjustable, solid-steel guides. I was able to stay on line with this saw in the tightest curves because the guides reduce blade deflection. The drawback to this saw is that its base is fixed and will not tilt.

Freud's saw has a big guide wheel with deep shoulders for the blade and very little side play in the bearing surface or the guide holder. The guide wheels on the Makita, Milwaukee and Ryobi also have deep shoulders, but all have some side play. Bosch and DeWalt installed small

guide wheels on their saws and these have nominal side play. Nonetheless, these five saws all performed equally well when cutting curves. Hitachi's guide wheel had the most play, and I found I had to be vigilant when cutting curves to keep the blade from deflecting and wandering.

Rate of cut determined by orbital-action setting

The saws I tested all have three orbital-action settings plus a non-orbital mode (straight up and down cutting action). In orbital mode, the blade, as viewed from the side, travels in an elliptical path. There

were no noticeable differences in performance among the saws in this area.

The non-orbital mode is best for tight-radius cuts or fine cutting in delicate materials such as thin plywoods or laminates. The cutting action is slower, but tearout is minimized (see the top left photo on the facing page).

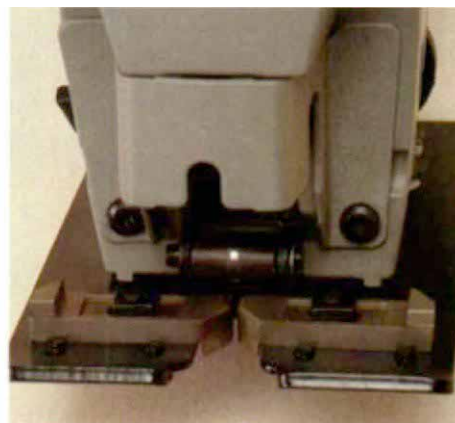
The other three positions set the blade in increasingly aggressive orbits for faster cutting. When in the orbiting mode, the blade is pushed out into the work on the up, or cutting stroke, for a more aggressive cut. On the down stroke, the blade is retracted toward the saw, reducing friction and allowing for more efficient sawdust removal.

I prefer using the second position (smallest orbit) when cutting all but the tightest curves in solid hardwood. In this setting, the saws cut cleanly, with minimal binding, even better than in the non-orbital mode. A slight orbital action helps clear sawdust from the kerf. The maximum orbital setting is great for fast, rough work. But don't try it on plywood unless you don't care that the edges of the kerf will become badly torn.

One way to reduce tearout in plywood is to use an anti-splinter insert and operate the saw in the straight-cutting mode. Inserts are provided with the Bosch, DeWalt, Hitachi, Makita and Milwaukee saws. The small plastic devices, much like close-tolerance table saw throat plates, fit into the



Typical blade guide—Most jigsaws come with a single, free-spinning guide located directly behind the blade. Some have quite a bit of play in them, which may allow the blade to deflect.



Precision blade guides—The three blade guides on Porter-Cable's jigsaw help reduce blade deflection. They are positioned at the left, right and rear of the blade.

baseplates. Ryobi addressed this problem in a different way: The baseplate has two openings, a wide and narrow slot, and can be shifted by loosening the baseplate pivot screws. The Freud and Porter-Cable saws have no anti-splinter features.

Dust control and chip blowers are built into some saws

More and more, the words *sawdust* and *carcinogen* are being used together—a sobering thought for those of us who spend many hours a day engulfed in a cloud of the stuff. Bosch, Freud and Milwaukee saws are equipped with fittings for a shop vacuum or dust-collection system. Makita offers an optional attachment for a vacuum hookup. The rest of the saws do not have dust-collection capabilities.

There is one big drawback to all the dust-collection setups: To increase the effectiveness of the vacuum, a detachable plastic chip guard comes attached to the front of the saw. During use, these chip guards get coated with sawdust and eventually obliterate your view of the cutting line. Although I admire the manufacturers for addressing this issue, it's awkward to drag a vacuum hose across the work when cutting intricate shapes.

More than once, I've found myself hyperventilating from blowing sawdust off the line when using a jigsaw. The Bosch, DeWalt, Milwaukee and Porter-Cable saws



Orbital action—A switch sets the amount of orbital action (right). In non-orbital mode, the tool cuts slowly but leaves a clean kerf. In orbital mode, the saw cuts faster but creates tearout.



take care of this by channeling some air from the tool's fan toward the blade. They do an admirable job of keeping sawdust away from the cutting line.

Personal needs should determine your choice of saw

If I were to design the perfect jigsaw, I'd start with Bosch's body, add DeWalt's soft grip, steal Milwaukee's blade-changing mechanism, take Freud's sensitive trigger, borrow Makita's smooth speed dial, install Porter-Cable's blade guides and make it light and compact like the Ryobi.

But forced to choose one of these eight

saws, I'd pick the Bosch, not because it excels hands above all the other tools, but because it doesn't have any drawbacks. It has a comfortable feel and solid adjustments. The DeWalt is very much in the same league. If you change blades often, the Milwaukee would be a smart choice. Though the Ryobi weighed in a pound lighter (and almost an amp shorter) than the rest of the pack, for \$90 it's a good value. □

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Porter-Cable 7549

Porter-Cable's precision blade-guide system helps prevent the blade from deflecting. But the system doesn't allow the base to be tilted.

Discount price	\$140
Weight	6.5 lbs.
Amperage	4.8
Speed switch	Speed control with thumb wheel
Blade type	Universal or hook shank
Blade change	Tool required
Foot plate	Fixed
Anti-splinter device	None
Dust control	No



Ryobi JS048

This is a basic jigsaw without any bells and whistles, but it has plenty of power and a low price.

Discount price	\$90
Weight	4.5 lbs.
Amperage	4.0
Speed switch	Variable with trigger wheel
Blade type	Universal
Blade change	Tool required
Foot plate	Tool required
Anti-splinter device	Yes
Dust control	No