

9 Midsize Tablesaws

How contractor-style saws
and hybrids measure up

BY ROLAND JOHNSON

When setting up a new workshop, the first big purchase for most people is a tablesaw. Priced and sized in between the large cabinet saws and small benchtop saws, a contractor-style saw is the logical choice for many woodworkers. I surveyed several brands on the market and came away from the experience pleasantly surprised.

Seven of the machines I looked at are conventional contractor-style saws: Bridgwood TSC-10CL, Delta 36-426, General 50-185M1, Grizzly 1022ProZ, Jet JWTS-10JF, Powermatic 64A, and Woodtek TSC-B. I also tested two hybrids—the DeWalt DW746 and Jet JWSS-10LFR—which are designed to bridge the gap between contractor's and cabinet saws.

Overall quality has improved

Not too many years ago, reasonably priced woodworking machinery often left a lot to be desired when it came to the quality of materials and machining. When it comes to contractor's saws, that appears to be a thing of the past.

I checked all of the tabletops for flatness. With the exception of the table on the Grizzly, all of the tables were nearly perfectly flat front to back, side to side, and diagonally. The miter slots were within 0.001 in. in width end to end; all of them were within 0.002 to 0.003 in. in width to each other; and all were within 0.004 in. of

being perfectly parallel. The only flaws I found were that some of the table extensions tipped up at the outside edge, which could easily be remedied with a shim and a bit of tinkering.

Bevel and height adjusters worked well, and with all of these saws you can make adjustments in the gears that raise and lower the blade and change the angle setting. A lock knob in the crank handle of each saw secures the arbor's location, although the DeWalt would benefit from bigger crank handles.

I used a Forrest 10-in. testing disc—a sawblade blank that is accurate to within plus or minus 0.001 in.—to test for runout at the rim of the blade. Runout on all of the saws was 0.004 in. or less: an acceptable tolerance.

Except for the Delta, which uses cast-aluminum pulleys, all of the



TESTING EACH MACHINE

Using a Starrett straightedge and feeler gauges, Johnson checked the flatness of each table side to side (near right), front to back, and diagonally. All but the Grizzly were notably flat. He used a Forrest testing disc to check runout (far right), and checked whether the factory settings of the trunnions and motors were parallel to the miter-gauge slots in the tops. Johnson also ripped and crosscut 8/4 white oak and hard maple (left) as a real-world test of the machines under load.



saws use machined iron pulleys. A few of the saws could benefit from higher-quality belts, but most of them ran smoothly with little or no vibration. Only the Grizzly comes equipped with a link belt, which reduces vibration and makes the saw run more quietly.

In short, I was impressed with the overall fit and finish of these machines.

Good fences make good saws

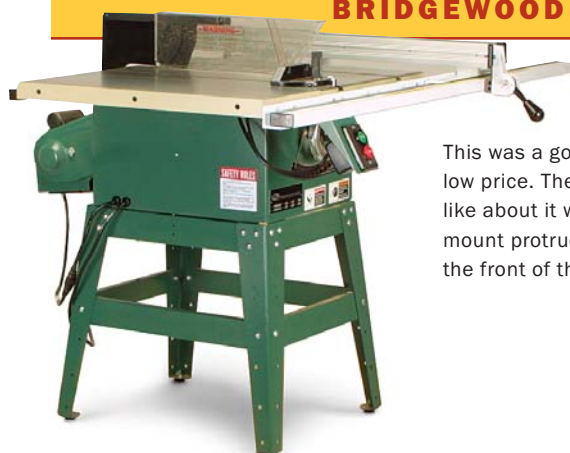
Over the last decade, tablesaw fences have improved. Bill Biesemeyer did the woodworking world a real favor when he designed his simple, effective, beam-style rip fence. The majority of the saws I looked at have a variation on the Biesemeyer-style fence, and the one thing they all have in common is a lack of measurable side de-

flection. The Powermatic and the Jet JWTS-10JF have identical fences, and the General and Grizzly have fences only slightly different from those. The Woodtek and the Bridgewood saws also have fences identical to each other.

The General uses melamine for the faces of its fence, while the Grizzly, the Jets, and the Powermatic use UHMW (ultrahigh molecular weight) material for reduced friction. The Woodtek and the Bridgewood have a milled face on the aluminum extrusion that makes up the fence on each machine.

The General's fence is a closer copy of the original Biesemeyer fence in that the cam lever that locks it in place and the rail pad on which the fence glides are simpler than the others. Also, a rubber grommet on the cam lever allows the lever to be locked in the up

BRIDGEWOOD TSC-10CL



This was a good, solid saw at a low price. The only thing I didn't like about it was that the switch mount protruded too far out at the front of the saw.

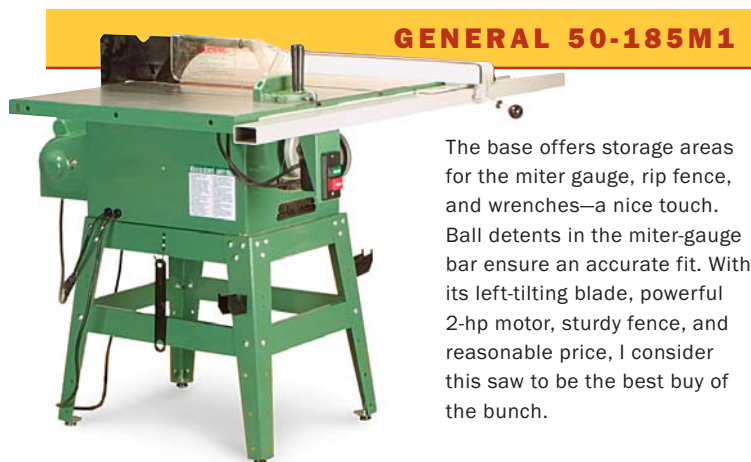
Street price	\$549
Motor	1½ hp/18 amps at 120v
Blade tilt	Left
Maximum rip capacity	32 in.
Runout at rim of 10-in. testing disc	0.004 in.
Blade alignment	0.005 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet

DELTA 36-426



The Delta was a well-made and appointed machine. The Delta Unifence was versatile, accurate, and easy to operate. However, the machine could use a better dust-collection system.

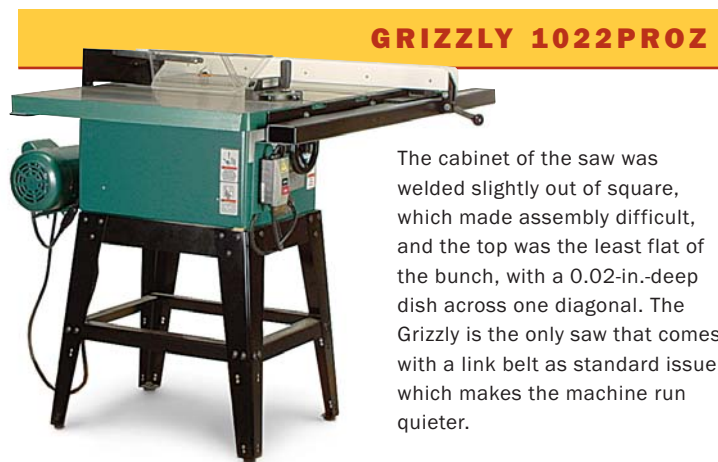
Street price	\$849
Motor	1½ hp/12.8 amps at 120v
Blade tilt	Right
Maximum rip capacity	32 in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.002 in. out of parallel
Dust collection	Slanted, open tray between legs of stand



GENERAL 50-185M1

The base offers storage areas for the miter gauge, rip fence, and wrenches—a nice touch. Ball detents in the miter-gauge bar ensure an accurate fit. With its left-tilting blade, powerful 2-hp motor, sturdy fence, and reasonable price, I consider this saw to be the best buy of the bunch.

Street price	\$649
Motor	2 hp/15 amps at 120v
Blade tilt	Left
Maximum rip capacity	30 $\frac{1}{2}$ in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.000 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet



GRIZZLY 1022PROZ

The cabinet of the saw was welded slightly out of square, which made assembly difficult, and the top was the least flat of the bunch, with a 0.02-in.-deep dish across one diagonal. The Grizzly is the only saw that comes with a link belt as standard issue, which makes the machine run quieter.

Street price	\$595
Motor	2 hp/16 amps at 120v
Blade tilt	Right
Maximum rip capacity	25 in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.004 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet

FENCE SHOULD BE EASY TO READ AND ADJUST

READABILITY

Some fences are easier to read than others. The Align A Rip fence on the Woodtek and Bridgewood machines has a plastic magnifying lens that makes it easy to read the tape (below). The lens and the printed rule on the Jet SuperSaw (right) can be difficult to read from some angles.



ADJUSTABILITY

Three screws for the DeWalt. The same three screws in the top of the DeWalt fence are used to set the fence square to the tabletop and parallel to the sawblade.



The Delta Unifence is unique. To adjust the Unifence square to the sawblade, you use the same wrench supplied with the saw for changing blades. The extruded-aluminum fence can be located in either a high or a low profile, to adjust for different ripping operations. Extruded flanges wrap around a flat metal bar that holds the fence tightly to either side of the main carriage to which it's attached.



JET JWTS-10JF

The Jet was a good-quality machine with a reliable fence. There's a lot of attention to detail, but the machine is more expensive than most of the other saws.

Street price	\$899
Motor	1½ hp/18 amps at 120v
Blade tilt	Right
Maximum rip capacity	30 in.
Runout at rim of 10-in. testing disc	0.002 in.
Blade alignment	0.004 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet

position, which makes it easier to remove the fence and put it back on the rail.

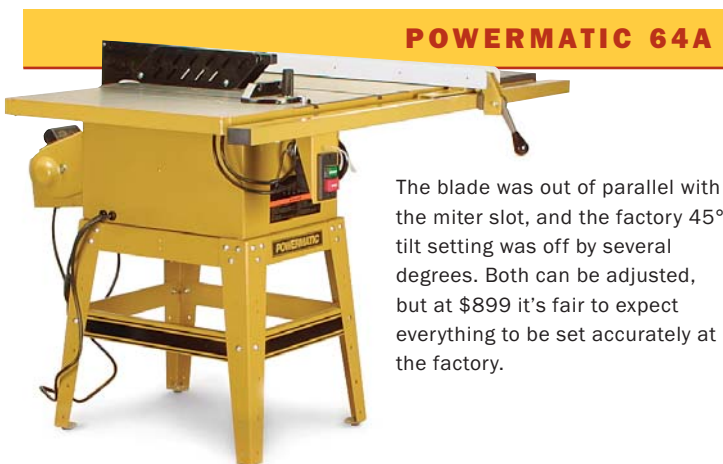
Most of the fences can be adjusted to be brought parallel with the blade and square with the tabletop. The Delta Unifence is a real gem to adjust: The parallel adjustments on the front of the fence are made with nuts that are the same size as the arbor nut, so the right wrench is always handy. Adjustments to square the face to the table are made with a screwdriver. The Unifence is by far the most user-friendly for setup, and there is no need for a rail at the back of the saw because the fence rides smoothly on a nylon glide. The Unifence is also very versatile because you can configure it for a low profile to perform different ripping operations.

The fence on the Jet SuperSaw (JWSS-10LFR) contains elements of the Biesemeyer style with a few twists, such as a rubber thumb-wheel that operates on the front rail for finely tuning the fence setting. The rear support for the fence has a slot that fits over the edge of the back rail, eliminating any tip-up when locking the fence in place. The plastic sight for the tape measure has a small magnifying lens cast into it that made it difficult for me to read the tape.

The DeWalt fence utilizes a three-point clamping system at the front rail and a support rail at the back of the saw, which results in reliably parallel travel to the blade as the fence is moved. Setting the fence square to the table and parallel to the blade (and miter-gauge slots) requires loosening the same three screws, and it took several tries before I got it square and parallel; however, once set, the fence was stout and had no side deflection. The aluminum extrusion that makes up the face of the fence can be removed and switched to the opposite side of the main fence beam, much like the Delta Unifence. Overall, I liked the Unifence for its versatility and the General fence for its bricks-and-mortar simplicity.

Motors rated 1½ hp to 2 hp are sufficient

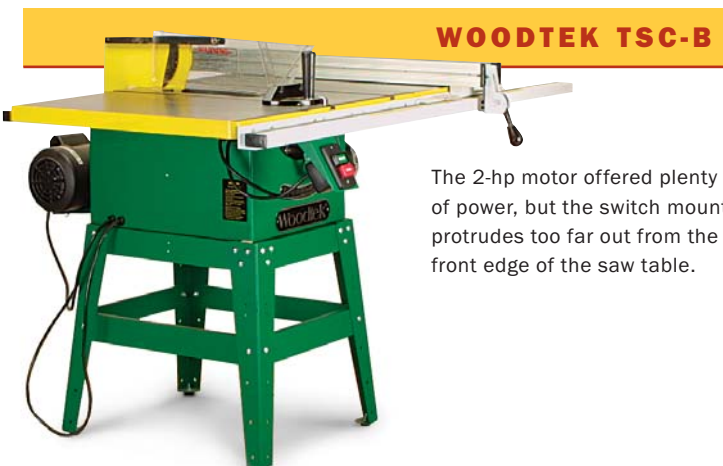
I made test cuts with all of these saws using 3-ft. and 4-ft. lengths of 8¼ white oak and hard maple, and none of the saws disappointed



POWERMATIC 64A

The blade was out of parallel with the miter slot, and the factory 45° tilt setting was off by several degrees. Both can be adjusted, but at \$899 it's fair to expect everything to be set accurately at the factory.

Street price	\$899
Motor	1½ hp/15 amps at 120v
Blade tilt	Left
Maximum rip capacity	30¾ in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.004 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet



WOODTEK TSC-B

The 2-hp motor offered plenty of power, but the switch mount protrudes too far out from the front edge of the saw table.

Street price	\$599
Motor	2 hp/24 amps at 120v
Blade tilt	Right (left also available)
Maximum rip capacity	32 in. actual (30 in. stated)
Runout at rim of 10-in. testing disc	0.004 in.
Blade alignment	0.035 in. out of parallel
Dust collection	Tray in base of saw cabinet with 4-in.-dia. outlet

me. Four of them—the Bridgewood, Delta, Jet JWTS-10JF, and Powermatic—are powered by 1½-hp motors and cut through the hardwood with relative ease. With each machine, however, the feed rate was fairly slow. The Jet SuperSaw and the DeWalt have 1¾-hp motors, and I could feel the difference in power when compared with the 1½-hp machines. I was able to use a slightly faster feed rate, and the motors didn't bog down quite as quickly under load. The General, Grizzly, and Woodtek saws have 2-hp motors, and the increased power was even more obvious.

Keeping a sawblade spinning at full speed is critical to the oper-

FEATURES TO CONSIDER

SWITCHES



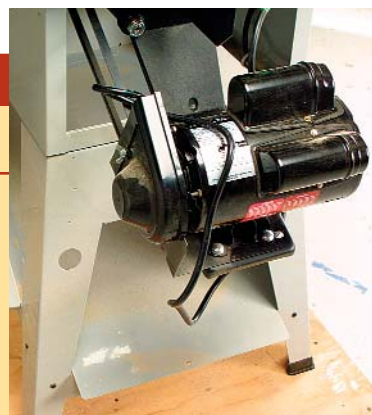
This big switch is easy to find. The DeWalt switch is conveniently located and easy to turn off with your knee if your hands are busy elsewhere.



This switch gets in the way. Switches on the Bridgewood and Woodtek saws project past the plane of the front rail of the fence, so they're easy to bump into.

DUST COLLECTION

A chute for directing sawdust. The Delta saw has an angled pan that sends sawdust out the back of the machine, which, unfortunately, allows fine dust to escape and become airborne.



An access door and a perforated tray. The Jet SuperSaw has a fairly airtight base, accessed through a hinged door. Johnson thinks the tray with holes in it on the Jet SuperSaw will work well with fine sawdust, but he found that some dadoing and ripping operations will cause it to clog up.

ation of most sawblades. As the blade slows due to lack of power or a feed rate that's too fast, the teeth do not cut as efficiently, and excessive heat builds up at the rim of the blade. The heat causes the rim to expand slightly, forcing the blade to wobble, which can burn the wood and even damage the motor. Remedies for this problem are more horsepower, a blade with a thinner kerf, or simply raising the blade to increase the cutting angle.

Switches should be easily accessible

I used to have an older version of the Delta contractor's saw that had a toggle switch located low on the front of the saw—placed there to prevent the user from turning it on unintentionally—but it was difficult to turn off the saw in a hurry. Manufacturers now make switches that are easy to use and logically placed—not only great for convenience but also for safety.

DeWalt's switch is large and well placed and can be shut down with your knee when both hands are needed elsewhere. The Jet SuperSaw has a push-button switch with an oversize off button and a location that makes it easy to use your knee to deactivate the saw. Delta's switch is well placed and can be pressed by hand or knee. The Jet JWTS-10JF, Powermatic, and General use identical push-button switches that are logically placed and easy to reach.

The Woodtek and Bridgewood use the same push-button switch as the Jet, Powermatic, General, and Grizzly, but it extends far enough out from the front rail that you can shut off the saw accidentally by leaning against the switch at the end of a ripcut.

Left-tilting trunnions make most miter rips safer

Ripping miters on a tablesaw is the safest when performed with the sawblade tilted away from the fence. To make a miter ripcut on right-tilting saws, such as the Delta, the Grizzly, the Jet JWTS-10JF, and the Woodtek (which also offers a left-tilt version), the fence must be moved to the left of the sawblade, limiting the width of cut. A blade that tilts to the left eliminates this problem.

Stops for the tilt mechanism are adjustable on all of these saws. The stops positively locate 90° and 45° blade settings. Allen-head screws located in the tabletop make it easy to set the stops on the Delta and the DeWalt. Delta locates the screws in the tabletop, while DeWalt locates them in the miter-gauge slots.

Dust collection is limited

Containing the dust on any contractor-style saw is difficult because the back of the saw cabinet is open to allow the drive belt and the tilt mechanism to function.

The Delta has a metal pan—part of the base support—that angles down toward the back of the saw, directing most of the sawdust into a pile behind the stand. This design makes it easier to sweep up the sawdust pile, but it does nothing to trap fine, airborne dust.

The Bridgewood, General, Grizzly, Jet JWTS-10JF, Powermatic, and Woodtek saws each has a plastic tray with a 4-in.-dia. outlet in the middle that covers the bottom of the saw cabinet. This system allows easy hookup to a dust-collection system, but because the back of the saw is still wide open, the dust collection is marginal.

Jet's SuperSaw has a steel tray in the bottom of the cabinet that is perforated to allow dust to be extracted from the cabinet through a 4-in.-dia. outlet. A plastic tray below the perforated tray acts as a catch-all and seals the system for dust extraction.

The blade shroud (below the table) on the DeWalt was effective at containing the dust around the blade, but the outlet has only a 2¼-in.-dia. opening and is immediately routed into a 90° elbow, which reduces the dust-collection efficiency. Also, the combination of a small outlet and a quick turn in the pipe can result in small offcuts plugging up the opening. The back and the bottom of the saw cabinet are open, so the blade shroud is responsible for all of the dust collection. The system probably would be more effective with a larger collection port.

Guards and splitters could use some improvement

All of these saws come equipped with a splitter with anti-kickback pawls combined with a blade guard. These devices are mounted in one of two locations: on a bar off the back of the saw or onto a fitting right behind the blade, under the table insert. With most of these assemblies, you can fold the guard out of the way when you need to change the blade. The design of the Delta guard is slightly different. It has a notched section on the back of the clear plastic guard that is supposed to hook onto the metal splitter, but I couldn't get it to stay upright (useful if you wish to measure the blade height) without removing the table insert. The Powermatic has a design in which there are two independently pivoting guards on both sides of the blade. Those guards are held by a frame that sits above the splitter, and that frame is riveted to the splitter, so you cannot move the guards out of the way without removing the entire splitter assembly. The DeWalt has the most workable design of them all—a smaller assembly that mounts only to one location, into the trunnion right behind the sawblade. In the case of the DeWalt, smaller and simpler made it better.

All of the saws performed acceptably

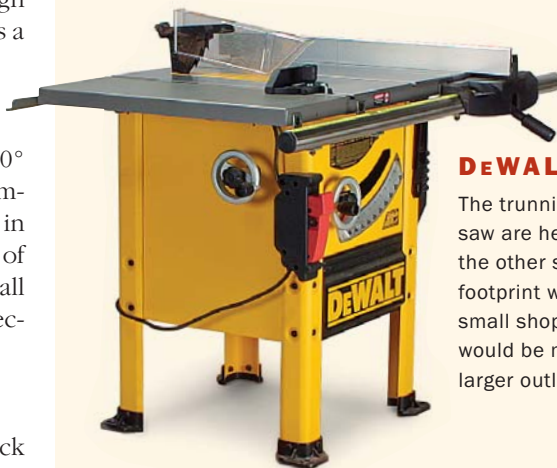
Any one of these saws would be welcome in my shop. But if I had to choose just one from this batch, it would be the General for a variety of reasons. It has plenty of power (with that 2-hp motor), a simple and reliable fence, and little things (such as the mounted hangers for the rip and crosscut fences) that suggest an attention to detail. And though it's not the least expensive, the price is well below that of many of the other machines.

As a second choice, I would pick the DeWalt because I really liked its heavier trunnions and arbor casting. If the dust collection were modified a bit, I could easily find a spot in my shop for that big yellow saw. □

Roland Johnson builds custom cabinetry and architectural millwork in a shop near St. Cloud, Minn.

HYBRID SAWS

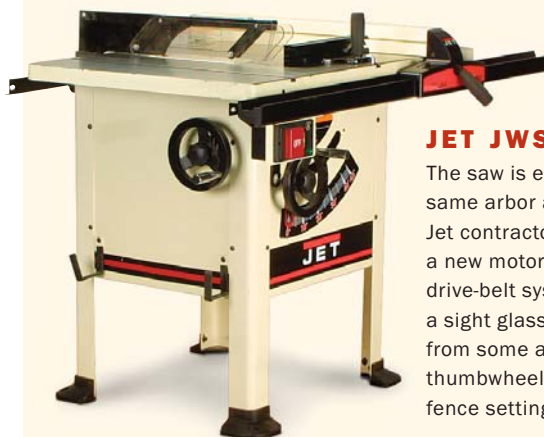
Hybrid saws are a cross between the older style contractor's saws and the heavier-duty standard cabinet saws. Design features on these two saws vary somewhat (see details below). For both the DeWalt and the Jet hybrid saws, you also can purchase sliding-table assemblies as optional accessories. Hybrids may represent the future direction of contractor-style saws.



DEWALT DW746

The trunnions and arbor on this saw are heavier than those on the other saws. Its compact footprint would be nice for the small shop. Dust collection would be more effective with a larger outlet.

Street price	\$849
Motor	1¾ hp/15 amps at 120v
Blade tilt	Left
Maximum rip capacity	30¾ in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.000 in. out of parallel
Dust collection	Blade shroud in base of saw cabinet with attachment for 2¼-in.-dia. vacuum hose



JET JWSS-10LFR

The saw is equipped with the same arbor and trunnions as the Jet contractor-style saw but with a new motor location and a great drive-belt system. The fence has a sight glass that is hard to read from some angles and a rubber thumbwheel for fine-tuning the fence setting.

Street price	\$849
Motor	1¾ hp/12 amps at 120v
Blade tilt	Left
Maximum rip capacity	33 in.
Runout at rim of 10-in. testing disc	0.003 in.
Blade alignment	0.035 in. out of parallel
Dust collection	Collection tray in cabinet base with 4-in.-dia. outlet