TOOL TEST

8-in. Jointers

Equipped with spiral cutterheads, the latest models promise smoother surfaces

BY ELLEN KASPERN

Online Extra

A new jointer isn't in the cards? Watch Roland Johnson show how to outfit your old one with a spiral cutterhead. **FineWoodworking.com/273.**

Photos: staff

Spiral cutterheads

Spiral is superior. *The test was limited to jointers with spiral cutterheads. Each insert on the cutterhead has four carbide cutting edges. For a fresh edge, just rotate the cutter.*

Smooth results. *Spiral cutterheads leave smoother surfaces than straight knives, even on curly maple. In our tests, when there was tearout, it was minimal and localized.*

Beds

Beds must be flat. *When setting up each jointer, Kaspern used a long straightedge and paper shims to ensure the infeed and outfeed tables were coplanar.*

Wheels over levers. *Some jointers rely on a wheel to adjust the height of the infeed table; others use a lever. Kaspern prefers the wheel because it lets you make finer adjustments with more precision.*

A jointer might not be your first big tool purchase, but when you do buy one, it will make milling so much smoother. Tuned up right, jointers let you easily get a flat face and a square edge, two critical reference points for nearly every step in a build.

While jointers come in a wide range of sizes, the 8-in. jointer hits the sweet spot for price, footprint, and capability in the small shop. Jointers of this size handle wider boards than smaller models, and their typically longer beds provide more infeed and outfeed support.

The models I looked at all have spiral cutterheads. While jointers have traditionally had cutterheads with straight knives oriented perpendicular to the feed direction, that approach is being supplanted by spiral cutterheads, which have a series of small, square cutters running in a spiral pattern. This design reduces tearout, leaving smoother surfaces, especially on figured stock. Because the advantage in surface quality is so clear, we left jointers with straight cutterheads out of the test.

The inserts on spiral cutterheads can be oriented straight, making them square to the feed direction, or angled, for a shearing cut. I didn't notice a difference in performance between the two.

Changing all these square cutters might seem daunting,

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MODEL	PRICE/ WARRANTY*	CUTTERHEAD			BEDS			
		Number of cutters	Orientation of cutters	Surface quality	Total length	Type	Type of adjuster	Ease of adjustment
Grizzly G0495X (AUTHOR'S BEST VALUE CHOICE; AUTHOR'S BEST OVERALL CHOICE)	$2,495/ 1 year	36	Straight	Excellent	82½ in.	Parallelogram	Wheel	Very good
Jet JWJ-8HH	$2,100/ 5 years	36	Angled	Very good	72 in.	Dovetail	Wheel	Excellent
Laguna MJOIN8012 -0130	$2,000/ 2 years	54	Angled	Very good	75 in.	Dovetail	Wheel	Very good
Laguna MJOIN8020 -0130	$3,000/ 2 years	54	Angled	Very good	83 in.	Parallelogram	Wheel	Very good
Oliver 4230	$2,880/ 2 years	54	Angled	Very good	74⅞ in.	Dovetail	Wheel	Very good
Powermatic PJ-882HH	$3,200/ 5 years	54	Angled	Excellent	82 in.	Parallelogram	Lever	Good
Rikon 20-108H	$2,300/ 5 years	40	Angled	Excellent	73½ in.	Dovetail	Lever	Good

* Check with manufacturers for limitations.

GRIZZLY G0495X

Regardless of the board's grain, this jointer produced excellent results. Its fence was totally flat, worked smoothly, and locked well, staying in place even after jointing multiple edges. Getting the fence to 90° was very easy, but the 90° stop was a little tricky to set and the fence did not go back to square when using it. For those who would use it, there is also a digital depth-of-cut scale.

JET JWJ-8HH

This machine joints a very good surface, with a fence that is flat and smooth-moving. The fence is easy to set to 90°, and it stayed that way. The 90° stop was also easy to set and reliable. The start and stop buttons can be installed above or below the infeed table.

GUARD	FENCE		DUST COLLECTION
	Rack and pinion	Quality	
Excellent	Yes	Excellent	Excellent
Very good	No	Excellent	Very good
Good	No	Very good	Fair
Very good	Yes	Good	Very good
Excellent	Yes	Poor	Fair
Poor	No	Good	Excellent
Excellent	No	Fair	Poor

On/off location

Easy access. *A power button closer to the cutter means it's easier to turn off a machine midcut if something goes wrong.*

but on the jointers I tested, the task is simply a matter of loosening the set screw that holds down each insert, turning or removing the insert, and then retightening.

To see how each jointer performed, I assessed the surface quality it left behind. All the models performed well on both pine and curly maple. With these results being so similar, the real test came down to how user-friendly the jointers were. First, and most important, the fence should be easily set and locked at 90° to the tables. Additionally, the fence shouldn't interfere when feeding a board. And it needs to adjust smoothly, which is why I prefer jointers that use a rack-and-pinion mechanism to move the fence to those that have you just pushing or pulling it. Setting the infeed table, which determines

LAGUNA MJOIN8012-0130

This machine left very good surfaces. However, just beyond the cutterhead was a slightly recessed plastic insert on the fence that allowed thin stock to catch when flattening faces. The fence was slightly bowed, but it caused no problems during use. The fence adjusted smoothly. The 90° stop was very easy to set and worked well.

LAGUNA MJOIN8020-0130

The larger Laguna jointer left very good surfaces. However, like on the smaller model, the slightly recessed plastic insert in the fence allowed thin stock to catch when flattening faces. All moving parts on the jointer worked smoothly, which made getting the tables coplanar and the fence set to 90° easy. The fence had a bow that affected setup but not the cut, and the fence stayed at 90° without any play during cuts. The 90° stop, though, proved awkward to set and unreliable.

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OLIVER 4230

The Oliver jointer left very good surfaces. Its fence, however, while perfectly flat, suffered from several problems. It had a lot of play, even when locked, and I wasn't able to get it square to the table. Also, the 90° stop, while easy to adjust, wouldn't keep its setting.

POWERMATIC PJ-882HH

The Powermatic smoothed boards excellently. It has a plastic insert that sits shallow of the fence, where thin boards tended to catch when flattening faces. The Powermatic was the only model that uses a knob to adjust the angle of the fence—a nice feature—except that locking it caused the fence to move slightly, which made it tricky to square the fence. But when locked, the fence did not move. The 90° stop was easy to set but wasn't reliable. The guard was finicky to install and would often not snap back fully after a board passed by.

RIKON 20-108H

This machine produced excellent surface quality. It has levers to adjust the table height. The fence is rack-and-pinion with a solid knob. The fence was flat, but it has a large cutout for clearance for the cutterhead, allowing thin stock to catch when flattening faces. It was easy to set the fence at 90°, and although it rocked slightly when locked, cuts weren't off square. The fence's stop for 90° was unreliable.

your depth of cut, should also be easy. For these jointers, that means turning a wheel or using a lever. I prefer the wheel for its more precise control. Last, there's the guard, the spring-loaded cover over the knives. It should push out of the way as you feed a board but snap back in place when the board has passed. If this doesn't work well, it's not just a hassle; it's dangerous.

There are two types of jointer beds—those that adjust on dovetailed ways, and those with parallelogram adjusters. I checked that all the beds were coplanar. But gravity always wins, so in time a jointer bed may sag. With sliding dovetails, you have to shim the bed to make changes. But with the parallelogram type, you can make adjustments on the jointer itself thanks to a series of built-in cams, no shims necessary. That's a nice feature. But keep in mind that you'll likely pay more for a jointer with parallelogram beds. □

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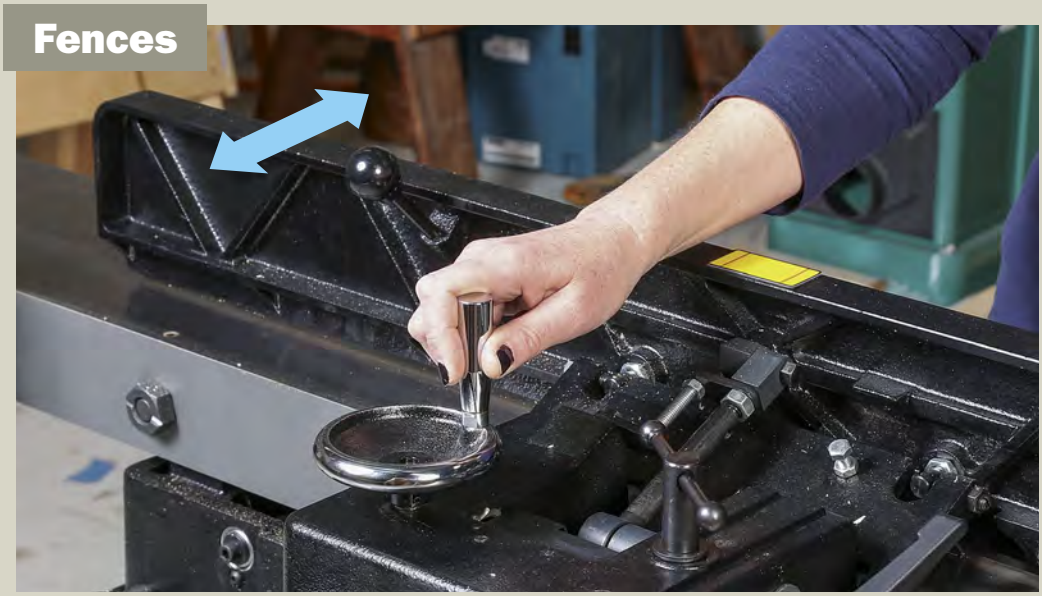
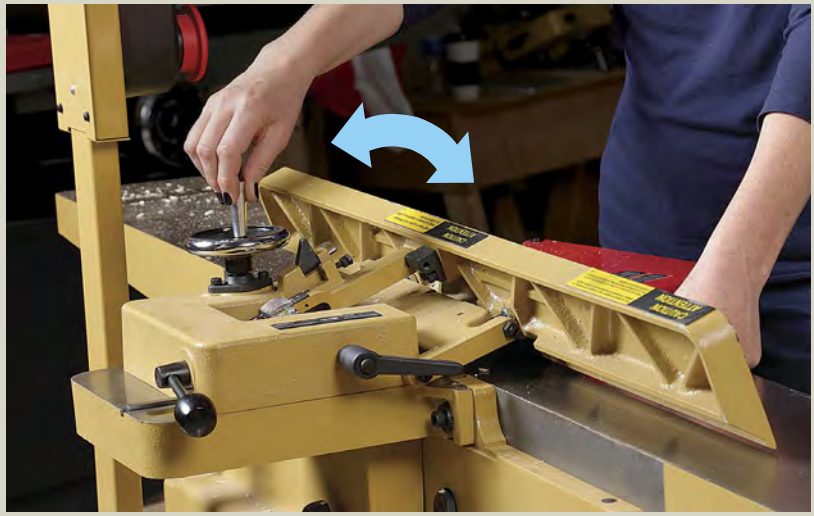
Fences





Rack-and-pinion adjustment preferable. *Whether it's to move the fence back and forth over the cutterhead (above) or change its angle (left), Kaspern prefers rack-and-pinion mechanisms because they allow finer, surer adjustments.*

Fence should be simple to set and lock tight. *A jointer's fence needs to be easy to square (left) and should stay there when locked. While every jointer had a 90° stop for the fence (right), not all were reliable, and would lose their setting.*