

Benchtop



WHAT MATTERS MOST

When it comes to a planer, the most important evaluations are whether it makes smooth cuts with both faces of the board parallel to one another. After that, it's all about features, including dust collection.



FINISH QUALITY

The curly maple challenge. All of the planers we tested handled white oak and white pine without trouble, but only the two DeWalt machines and the Ridgid planer produced usable surfaces on curly maple.

Parallelism and snipe. A planer's job is to make two faces parallel to one another, and any machine that leaves surfaces more than 0.01 in. out of parallel is going to give you headaches. As for snipe on the ends, more than 0.01 in. is too much.



KNIFE CHANGES

Make it fast. Changing knives should be easy so that you can quickly get back to work. DeWalt embedded magnets into the handle of its wrench (above), making it a snap to lift old knives and put new ones in place.

Planers

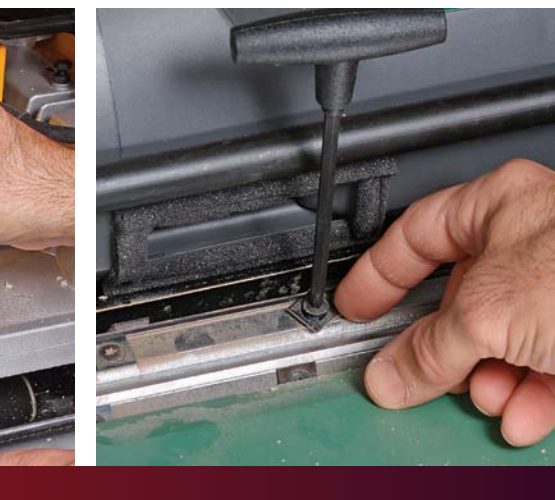


The best machines produce smooth, parallel surfaces on your lumber

BY KELLY J. DUNTON

I've had a benchtop planer in my shop for many years and it's starting to show its age. So when the editors at *Fine Woodworking* asked me to test the current crop of benchtop planers, I saw it as an opportunity to do some comparison shopping. These models handle stock 12½ in. to 13 in. wide (plenty for most furniture making) and 5 in. to 6 in. thick, so you can square up blanks for even the beefiest parts. The planers also run on a 120-volt circuit, so they can be used in any home shop.

There are a lot of benchtop planers on the market, but we limited our selection to the 11 models that have what we consider to be essential features: dust collection and indexed knives. Planers without a dust port will create a huge mess and flood the air with dust. Indexed knives have pins



Give it a twist. The insert cutters on the General International and Rikon segmented cutterheads can be turned to a fresh edge without completely removing the screw that holds them in place.



DEPTH-OF-CUT ADJUSTMENTS

Convenience is king. A depth-of-cut adjustment wheel on the side is easy to reach. Three of the machines have side-mounted wheels, but this convenience doesn't trump surface quality.



Depth stops simplify repeat milling. Stops for common thicknesses make it a snap to mill parts to the same thickness, a handy feature when you need to remake a part. All the stops tested were accurate.



DEWALT 735X

Price: \$649
Warranty: 3 years
Knives: 3
Size: 13 in.
Depth stops: 6
Snipe: 0.003 in.
Out of parallel: 0.000 in.
Dust collection: Excellent
Noise level: 102 db.
Surface quality
 White pine: Excellent
 White oak: Excellent
 Curly maple: Very good

The DeWalt 735X produced two faces perfectly parallel to one another, with surfaces far superior to what the other machines produced, thanks to its two feed speeds. At high speed, the planer works fast and leaves a smooth surface. But the slower, finish speed produces an almost glass-smooth surface. Knife changes are easy, with spacious access to the cutterhead from the top and a gib screw wrench that doubles as a magnetic lift to remove the knives. The 735X also has great dust collection, thanks to an internal blower that helps evacuate chips. The port has a 2½-in.-dia. opening, but has a built-in adapter for 4-in.-dia. hoses. My only complaint is the location of the dust port. It's on the outfeed side of the machine, and exits straight



back. If you don't pull the hose to the side, it interferes with material as it leaves the machine. The top is large and flat, so it's a great place to set material in between passes through the machine.



RIDGID R4331

Price: \$369
Warranty: 3 years
Knives: 3
Size: 13 in.
Depth stops: 8
Snipe: 0.003 in.
Out of parallel: 0.005 in.
Dust collection: Good
Noise level: 100 db.
Surface quality
 White pine: Excellent
 White oak: Excellent
 Curly maple: Good

Priced nearly \$300 less than the DeWalt 735X, the Ridgid R4331 is an excellent value. Its three-knife cutterhead left wonderfully clean surfaces on plainsawn white oak and white pine. It did not perform nearly as well on curly maple as the 735X, but it created less tearout than all but one of the other machines (the DeWalt 734 was its equal). Knife changes were quick and easy with the provided T-handle wrench. Dust collection was good, assisted by an internal fan. The 2½-in.-dia. port on the outfeed side of the machine is directed to the side, so the hose is out of the way. The planer's top is flat and provides a good surface for holding stock between passes.



that guarantee that all of the knives project the same amount and are parallel to the planer's bed. This feature takes the hassle out of knife changes, greatly speeding up the switch from old to new knives.

To test the planers, I looked at what matters most to woodworkers. I ran a wide board through each one to determine if it planed the surface parallel to the one that ran on the bed. I measured for snipe, a planer's tendency to cut a bit deeper at the leading and trailing ends of board than in the middle. I also evaluated the quality of the surface each machine produced.

My tests showed that all of the machines were suitable for woodworking, but the machines with three knives produced the best surfaces. Also, the two machines with segmented cutterheads performed about as well as those with two knives. I think this is because the cutters entered the wood straight on, just like straight knives. All the machines are loud. You'll need hearing protection when using any of them.

However, the planers were not all equal, and three were better machines than the rest. The DeWalt 735X clearly was the Best Overall. With a three-knife cutterhead and

two planing speeds, it produced nearly glass-smooth surfaces, even on curly maple. It left very little snipe and had outstanding dust collection, and the knives were dead-on parallel to the bed. Two other machines did very well, the DeWalt 734 and the Ridgid R4331. Both have three-knife cutterheads and produced very good surfaces, but with some tearout on figured woods. The Ridgid costs \$30 less than the DeWalt 734, so it's my pick for Best Value.

Kelly J. Dunton of Terryville, Conn., has a meticulous eye for all things mechanical.

CRAFTSMAN 21758

Price: \$303

Warranty: 1 year

Knives: 2

Size: 12½ in.

Depth stops: None

Snipe: 0.012 in.

Out of parallel: 0.019 in.

Dust collection: Good

Noise level: 96 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

The knives on this planer were easy to access, and springs underneath the gib lift it up so that you can remove the knife without removing the screws. The 2½-in.-dia. dust port can be oriented to exit on either side of the machine. This planer's cutterhead was significantly out of parallel and the snipe was bad. The top of the machine has a single stock roller, so you can't rest boards there between passes. Because of a little tab molded into the cutterhead's housing, you cannot take off more than ¼ in. with a single pass unless your stock is narrow enough to pass through on either side of the tab. The Craftsman also is one of four planers without a gauge that indicates how much material is about to be removed.



DELTA 22-555

Price: \$339

Warranty: 5 years

Knives: 2

Size: 13 in.

Depth stops: None

Snipe: 0.006 in.

Out of parallel: 0.008 in.

Dust collection: Good

Noise level: 98 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

Knife changes on this planer were easy enough, except that you need an Allen wrench to open the dust cover and gain access to the knives, and it's not the same size as the wrench used to loosen the screws that secure the knives. The 2½-in.-dia. dust port can be reversed for use on either side of the machine. Two material rollers on top of the machine aid with transferring stock from the outfeed side back to the infeed side. Finally, there is no gauge that indicates how much material you're about to remove, a convenience that three other planers also lack.



DEWALT 734

Price: \$399

Warranty: 3 years

Knives: 3

Size: 12½ in.

Depth stops: 4

Snipe: 0.002 in.

Out of parallel: 0.000 in.

Dust collection: Excellent

Noise level: 102 db.

Surface quality

White pine: Excellent

White oak: Excellent

Curly maple: Good

One of only two machines with a cutterhead perfectly parallel to its beds, the DeWalt 734 is a very good planer. Knife changes overall were straightforward, but access is difficult because you must remove a Phillips-head screw from under the dust shroud—not an easy task. The dust port on the back of the machine has a 2½-in.-dia. opening but can be hooked up to a 4-in.-dia. hose. Connected to a dust collector, it did an excellent job gathering chips. And because the port exits to the left of the machine, the hose is never in the way of exiting boards. The top of the machine is flat, making it a good place to stack boards between passes.



GENERAL INTL. 30-060HC

Price: \$700

Warranty: 3 years

Cutters: 26

Size: 13 in.

Depth stops: 8

Snipe: 0.002

Out of parallel: 0.008

Dust collection: Good

Noise level: 101 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

The General International is one of two planers in the test with a segmented cutterhead (the Rikon 25-130H is the other). The 26 cutters, arranged in six rows, enter the wood straight on. Each cutter has two cutting edges, and can be rotated to get a fresh edge. However, rotating and changing out the cutters is a bit tricky because there is no cutterhead lock, so it tends to move as you loosen and tighten the screw for a cutter. A dust chute on the outfeed side of the machine has both a 2½-in. and 4-in.-dia. port, one exiting to each side. The top of the machine is large and flat, a great place to rest boards between passes.



GRIZZLY G0790

Price: \$285

Warranty: 1 year

Knives: 2

Size: 12½ in.

Depth stops: None

Snipe: 0.004 in.

Out of parallel: 0.013 in.

Dust collection: Fair

Noise level: 99 db

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

Knife changes on the Grizzly planer were tricky, because access was tight, the screws were small, and the Allen wrench provided was hard to use. The machine has a single dust port that's not a standard size, and I needed tape to connect a hose to it. Two rollers on the top of the machine make returning material to the infeed side easy, and they're stable enough that you can stack boards on them, too. The Grizzly is one of four planers that do not have a gauge indicating how much material is about to be removed on the next pass through the machine.



MAKITA 2012NB

Price: \$546

Warranty: 1 year

Knives: 2

Size: 12 in.

Depth stops:

One, but it's adjustable

Snipe: 0.003 in.

Out of parallel: 0.002 in.

Dust collection: Fair

Noise level: 98 db.

Surface quality

White pine: Very good

White oak: Very good

Curly maple: Fair

Of the planers with two-knife cutterheads, the Makita produced the best surface quality. The knives are very narrow and a bit tricky to change, but Makita provides two magnets for lifting them off the cutterhead, and these make it easier. The machine's dust port is an odd size, with an outside diameter of approximately 2⅞ in. I used an adapter to connect it to a 4-in.-dia. hose, but dust collection was only fair. Finally, a full revolution of the height-adjustment wheel moves the cutterhead ⅜ in. The other machines move ½ in. with a complete revolution of the handle, a dimension that's much easier to work with because the most common thicknesses for furniture are in multiples of ¼ in.



RIKON 25-130H

Price: \$650

Warranty: 5 years

Cutters: 26

Size: 13 in.

Depth stops: 8

Snipe: 0.003 in.

Out of parallel: 0.001 in.

Dust collection: Good

Noise level: 99 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

The Rikon 25-130H, like the General International 30-060HC, has a segmented cutterhead with 26 cutters arranged in six straight rows, that enter the wood straight on. Rotating and changing the cutters was easier on the Rikon than on the General International, because it has an automatic cutterhead lock. There is a flat top that is a good staging area for boards between runs through the machine. There are two dust ports on the back of the machine (2½ in. and 4 in. dia.), with one exiting on either side of the planer. Dust collection was good with the planer connected to a 4-in.-dia. hose and dust collector.



RIKON 25-131

Price: \$450

Warranty: 5 years

Knives: 2

Size: 13 in.

Depth stops: None

Snipe: 0.002 in.

Out of parallel: 0.008 in.

Dust collection: Good

Noise level: 98 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

The Rikon 25-131 has an open top, but two material rollers make it easy to pass boards back to the infeed side, and they're stable enough for stacking. Access to the knives was difficult, requiring you to remove the dust shroud and a metal hood beneath it and making knife changes tedious. However, once you get to the knives, you don't need to pull the screws all the way out. After loosening them, the gib is pushed up by springs and the knife can be pulled out. Dust collection was good, with a port that exits to the right of the machine. You can hook up either a 4-in. or 2½-in.-dia. hose to the port. Connected to a 4-in.-dia. hose and dust collector, chip collection was good.



TRITON TPT125

Price: \$426

Warranty: 1 year

Knives: 2

Size: 12½ in.

Depth stops: None

Snipe: 0.101 in.

Out of parallel: 0.01 in.

Dust collection: Good

Noise level: 102 db.

Surface quality

White pine: Good

White oak: Good

Curly maple: Poor

Accessing the knives on the Triton for changes was not difficult, but getting the knives out was tricky, because no magnetized handles were provided to lift the knives off the cutterhead. There is a 2½-in.-dia. dust port, and chip collection was good when hooked up to a shop vacuum. The housing has an open top and just one return roller on top, making it impossible to stack boards there in between passes through the machine. Also, there is no gauge that indicates how much material you are removing in a pass, making it one of four planers that don't offer this feature.

