



Tool Test: 16-Gauge

November 2002

Finish Nailers



Eight Popular Models go Head to Head



When we set out to evaluate pneumatic finish nailers, we quickly chose 16-gauge nailers as the category to compare. Our belief is that 16-ga. nails are small enough for most wood-working projects, but large enough for installing molding. That makes them the perfect dual-purpose nailer for the woodworker and remodeler.

Also, finish nailers in this size are made by several manufacturers, they're readily available, and very affordable when compared to even the next larger-size nailer. The nails themselves are just as available and also reasonably affordable.

So deciding which nailers to compare was easy. Figuring out how to evaluate the quality and usefulness of each nailer took a bit more time. After all, we expected every one of these nailers would fire a nail into a piece of wood each time we pulled the trigger — and we were right. So what separates the good from the bad? Here's how we found out.

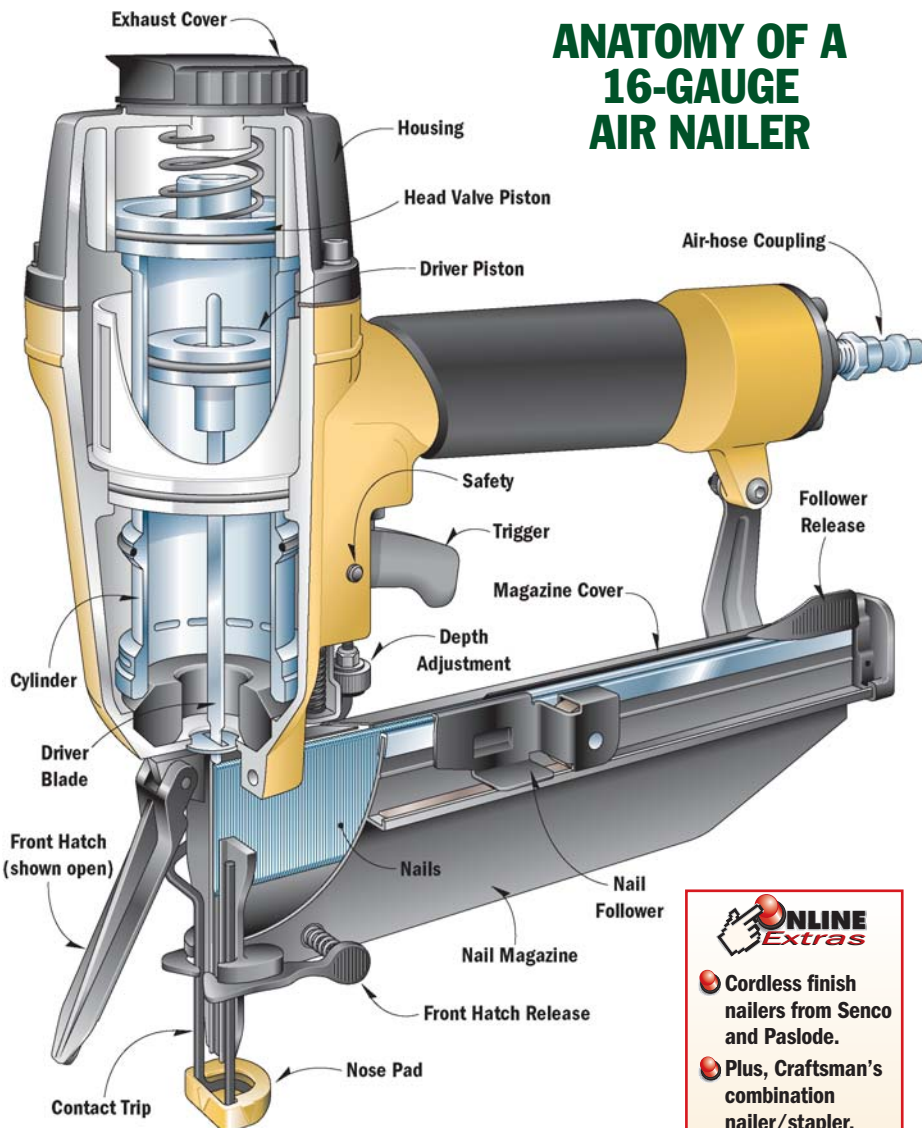
HOW WE TESTED

To guarantee a level playing field, we connected each nailer to the same compressor with the same air hose for all of the performance tests. A pressure regulator was installed just ahead of the tool to maintain exactly 90 psi. Also, the same brand of nail was used in each gun.

The most important thing we wanted our testing to reveal was how *precise* each of these guns were. For instance, could they be “dialed-in” to set a nail at exactly the depth we wanted — whether flush with the surface or countersunk. Also, how accurately could we position a nail? Could we get into tight corners with the nailers? We also wanted to see what kind of mark the nailers left on the workpiece. And we gave some consideration to the range of nail lengths the tools accepted.

Throughout the testing, we paid attention to see which nailers “jumped” the most, which could result in a double fire or a nasty mark on the workpiece. We also changed nails frequently to see which tools are easy to load and unload. Finally, we deliberately tried to jam the nailers to find out which ones were easy to clear.

As similar as these nail guns appear to be, our tests revealed some very important differences in the way they perform.



ANATOMY OF A 16-GAUGE AIR NAILER

ONLINE Extras

- Cordless finish nailers from Senco and Paslode.
- Plus, Craftsman's combination nailer/stapler.

WorkbenchMagazine.com

WHAT WE TESTED



▲ **ACCURACY & JUMP**
We aimed a nail directly on a cross hair to measure accuracy and how far the nailers “jumped” from the target.



▲ **NOSE PAD CLEARANCE**
This test showed us whether there was any interference when nailing into the contours of crown molding.



▲ **NAIL SETTING**
With the depth setting at neutral, we nailed into pine and maple to see how the nailers handled different material.



▲ **DEPTH ADJUSTMENT**
In this test, we tried to set a nail perfectly flush to determine how adjustable the depth settings are.



4 Details That Make a Difference



DEWALT



PASLODE



SPOTNAILS



PORTER-CABLE



BOSTITCH

1 Nose Pad Sizes and Shapes

Air nailers lead with their nose. And the shape and size of the noses on these tools, as well as the non-mar pads that come standard on all but one of the nailers, is a defining characteristic among this group (see photos). A good design offers a clear line of sight for accurate nail placement. At the same time, it's important that the nose not mark the workpiece, creating a blemish that you'll have to repair later.

The best nose in the bunch is on the DeWalt. The swept-back shape of the contact trip creates a wide-open view of the workpiece underneath. The pad on the nose is a thin, hard plastic that does an excellent job of protecting the wood without blocking the view.

Another good, though very different design, is on the Paslode. What makes this design unique are the beveled edges of the pad. These make it easy to seat the pad at an angle, such as when toe-nailing or working in tight corners.

The only other standout nose is on the SpotNails. The slight profile of this nose made it very easy to place nails precisely. It also allowed the nailer to fit

in tight corners and in spaces where the large nose pads just won't go. On the other hand, this is the only nose in the bunch that didn't have a pad on it (and no visible means of attaching one). As a result, the nose did have a tendency to mark soft materials.

The nose pads on the remaining tools were large, which limited these nailers' ability to fit into tight corners and also obscured visibility. Of these, the Porter-Cable, Craftsman, and Bostitch pads offered a slightly better



HITACHI



SENCO



CRAFTSMAN

view and tighter fit into the corners than the large nose pads found on the Hitachi and Senco nailers.

2 Loading/Unloading

Given the wide range of nail lengths that these nailers can fire, it's important that changing nails is as easy as possible. So while we were interested to see how easy these tools were to *load*, we were just as interested to see how easy they were to *unload*.

The DeWalt was by far the best on both counts. It was the only nailer in the bunch that we could consistently load and unload with one hand.

The Hitachi and Paslode are easy to load, but a bear to unload. The other nailers have their own idiosyncracies that, once learned, are reasonably easy to execute.



3 Nail Depth Adjustment

Since it takes more force to drive a nail into white oak than it does into a piece of pine, a nailer should allow you to change the depth setting to best match the material you're working with.

Every one of these nailers has such a device. Again, they are quite different (see photos at right).

Interestingly enough, these depth setting devices do not change the force applied to the nail, but rather change how far the contact trip stands off the end of the nose. By adjusting the setting so that the contact trip is at its furthest point from the nose, the nail should not be driven as deep into the workpiece. Or, at least that's the theory.

The one nailer that showed exceptional depth adjustment was the Senco. This gun uses a wheel type adjustment with several detents. Each detent set the nail at a different height. We were able to leave nails standing $\frac{3}{4}$ " proud of the surface or drive them as deep as $\frac{1}{4}$ " and all points in between.

Another excellent depth adjustment can be found on the Paslode.

While not having quite the range of settings that the Senco does, the Paslode could be set for several different heights. One particularly nice feature of this system is the directional arrows that make it easy to figure out which way to turn the wheel to adjust the depth.

The most unique depth setting system is on the DeWalt. Rather than the wheel that's common on the other tools, the DeWalt has a sliding lever with five detents. The system is easy enough to work. To change the setting, there's a button on the side of the tool that unlocks the slide. Set the slide in one of the detents and release the button to lock it. The slide doesn't offer the same wide range of settings that the wheel type adjustments do, but in our trials it proved to have all the adjustability we needed. And it was simple to operate.

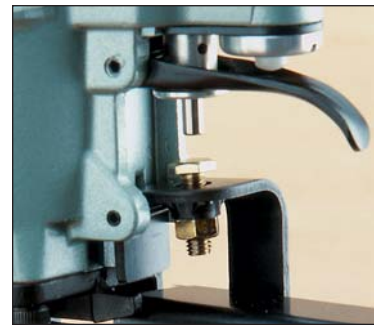
Our least favorite adjustment is the Hitachi. This one required a wrench to loosen a bolt just forward of the trigger. Although effective, this system was the most troublesome to adjust and fine tune.



◀ The Paslode nailer has directional arrows next to the depth adjustment wheel, so there's no guessing at which way is which.



◀ DeWalt's depth stop isn't as adjustable as other systems, but it has all the range you'll need. And it's easy to use.



◀ Hitachi's depth adjustment required a wrench to make any changes. We prefer the tool-less variety.

4 Nail Jams

A jammed finish nailer isn't a common occurrence, but when it happens, you need to be able to clear the jam without disassembling the entire tool.

We fired nails into the head of a screw with the goal of intentionally jamming the nailers. We were only able to cause jams in two of the nailers this way: the Paslode and the Porter-Cable. Some of the other tools we were able to jam by purposely *misloading* nails.

The Porter-Cable cleared easily. That's due to the way the front hatch on the tool swings open to allow access to the area where jams occur. The Craftsman, Senco, SpotNails, and Bostitch, though never actually jamming, all opened in the same manner as the Porter-Cable.

The Paslode was a bit trickier to clear as the front hatch only opens about 45 degrees.

The DeWalt suffers the same trouble as the Paslode in this area, though it should be noted we had to go to great lengths to get the DeWalt to jam in the first place.

The Hitachi never did jam, though we noted that the nose opened only slightly beyond 45 degrees.



▲ Porter-Cable's nailer offers easy access for removing nail jams with a front hatch that swings well out of the way of the nail channel.



▲ The Paslode would be easier to clear if the front hatch opened up further. Also, the driver blade had to be pushed in to reset the tool.

PASLODE T250-F16



By all accounts, Paslode builds a superb finish nailer. Our testers found this gun to have several superior qualities that earned it our *Editor's Choice* award.

First, this tool is among the most compact designs — only the SpotNails was smaller. That makes

this nailer easy to fit into the tight spaces you're likely to be faced with whether building cabinets or installing trim. It also means you won't get tired of lugging it around as quickly as some of the bulkier tools in the test.

In addition to its compact size, this nailer was the smoothest operating tool we tested. It fired relatively quietly, didn't jump at all, and set nails flawlessly every time.

The depth adjustment on this nailer was also better than most, allowing us to fine-tune it to set the nail at just the depth we wanted.

Another outstanding feature of the Paslode is its unique nose pad. It's not one of the smallest, but still offers a clear line of sight for accurate nail placement.

The best thing about this nose pad, though, is the beveled shape. We noticed that the bevels made it much easier to operate the nailer at an odd angle, such as when installing crown

molding in a corner or toe-nailing into a tight space.

Complaints about the Paslode included difficulty unloading nails from the magazine and the otherwise excellent nose pad was large enough to interfere with placing nails tightly into a corner.

At a Glance:

Price:	\$180
Nail Size:	3/4" to 2 1/2"
Nail Capacity:	100
Fire Modes:	Sequential, Bump
Weight:	4.2 lbs.
Operating PSI:	80 - 120
Warranty:	1 year

Virtues: Smooth operation.

Compact size. Beveled nose pad. Reasonable price.

Vices: Unloading nails is difficult. Nose pad is large. Small opening for clearing nail jams.

Verdict: A superior tool with all the best traits for pro or DIY'er alike.



BOSTITCH SB1664



Bostitch put all the right features on this nailer at just the right price to get our nod as a *Top Value*.

Although one of the least expensive tools in the test, this nailer is solidly built and performs well beyond its bargain price.

For instance, the depth-setting system on this nailer was fully adjustable and responsive to each small change in the setting. We were able to set nails well above the surface of the wood (though I can't imagine why you'd want to), as well as countersink nails 1/4" deep.

Once adjusted, the depth stop provided nearly identical results in a variety of soft and hardwoods. This means you won't have to mess with the settings when going from one project to another.

Firing the nailer was smooth and jump-free. A clear sight line and alignment marks on the nose pad made it easy to predict exactly where the nail was going. Loading nails was simple; unloading nails was passable. However, this gun has one of the most accessible jam clearing hatches in the group.

Our only complaint is that the nose pad is a bit oversized, which

limits the tool's usefulness in close quarters. The flat shape of the pad also kept it from fitting well into the elaborate profile of crown molding. Nonetheless, this nailer is a smart buy because of its overall quality and outstanding price.

At a Glance:

Price:	\$160
Nail Size:	1" to 2 1/2"
Nail Capacity:	100
Fire Modes:	Sequential, Bump
Weight:	4 lbs.
Operating PSI:	70 to 120
Warranty:	1 year

Virtues: Passable sight line.

Highly adjustable depth settings. Excellent price.

Vices: Nose pad is large and didn't fit into crown molding well.

Verdict: A capable tool for home or professional use at a price that can't be beat.



PORTER-CABLE FN250A



This affordable nailer from Porter-Cable makes a strong case for paying a little and getting a lot. Only two other tools in this test matched the bargain price of this nailer, and few others could equal its user-friendly demeanor.

First off, the Porter-Cable is well sized. It's not the smallest tool in the bunch, but it tucked nicely into most



of the tight confines we tested it in.

We also found this tool to be extremely well built, with the best fit and finish of all the nailers we tested.

The depth setting wheel was easy to operate and very effective. This allowed us to adjust the nail setting across a wide range of depths, from sitting well proud of the surface to about 1/4" countersunk.

The medium-sized nose pad on this tool offers an excellent line of sight, and alignment marks on the pad aid in accurate nail placement. In our test to determine how well the nailers could squeeze into corners, the nose pad on this tool put it right in the middle of the pack.

For loading and unloading nails, the Porter-Cable ranked second in the group. This is a valuable trait if you undertake a variety of projects requiring various lengths of nails.

We were able to intentionally jam this nailer during our tests, but found that the front hatch of the tool opens

up to allow plenty of space for easy jam clearing.

Overall, the Porter-Cable is a well-balanced nailer that performed commendably without drawing any significant complaints from the testers.

At a Glance:

Price:	\$160
Nail Size:	3/4" to 2 1/2"
Nail Capacity:	100
Fire Modes:	Sequential, Bump
Weight:	4.25 lbs.
Operating PSI:	70 to 120
Warranty:	1 year

Virtues: Effective depth adjustments. Medium-sized nose pad. Decent sight line. Front hatch accommodates easy jam clearing. Outstanding price.

Vices: No significant complaints.

Verdict: A reliable, no-nonsense tool that's value priced.

DEWALT D51256K



The DeWalt nailer is clearly a professional-grade tool. It's priced a bit higher because of that, but it has several features that justify the extra cost, depending on your needs.

First of all, this tool has the best nose design, hands down. The swept-back contact trip offers a wide-open view of the workpiece underneath.



And the no-mar pad, which is virtually invisible from the operator's perspective, grips the workpiece well, even when toenailing. This slim design also allowed the nailer to fit into corners better than the other nailers.

Additionally, the DeWalt boasts enormous nail capacity — 160 nails compared to the 100 that's typical of this group. All that capacity does require a long magazine, though. And our testers were split as to whether having to reload less frequently is worth the extra length.

The magazine itself is nylon instead of the metal magazines on the other tools. The advantages of the nylon are less overall weight and a magazine that flexes instead of bending if it gets stepped on or dropped (and yes, those happen enough to be important).

Depth setting on this nailer was also unique. It uses a vertical slide

with five indexed positions. It's an easy system to operate, but the slide doesn't offer as much adjustability as some wheel-type systems.

Ultimately, the high price kept this tool from earning a top spot.

At a Glance:

Price:	\$200
Nail Size:	1 1/4" to 2 1/2"
Nail Capacity:	160
Fire Modes:	Sequential, Bump*
Weight:	3.9 lbs.
Operating PSI:	70 to 120
Warranty:	1 year

Virtues: Superior nose design. Loads/unloads effortlessly. Easy depth adjustment. Lightweight.

Vices: Limited range of depth adjustment. High-priced. Large size.

Verdict: Pro-grade tool that may be worth the high price to some.

*Firing modes are changed by changing triggers. Both triggers are included.

SENCO FINISH PRO 32



The Senco nailer had several features that impressed us during our performance testing. For instance, it demonstrated the widest range of adjustment in depth setting among this group of nailers. It operated smoothly and quietly, and it set nails cleanly.

Unfortunately, it also had a few shortcomings that caused us to move it down the list.

First of all, the depth adjustment had to be changed between hardwood and softwood — the only nailer in the bunch that required this. The nose pad on this tool is also quite bulky, which created a poor line of sight and made precise setting of nails a bit challenging. Additionally, the padded grip on this tool was tearing by the time our test concluded.

At a Glance:

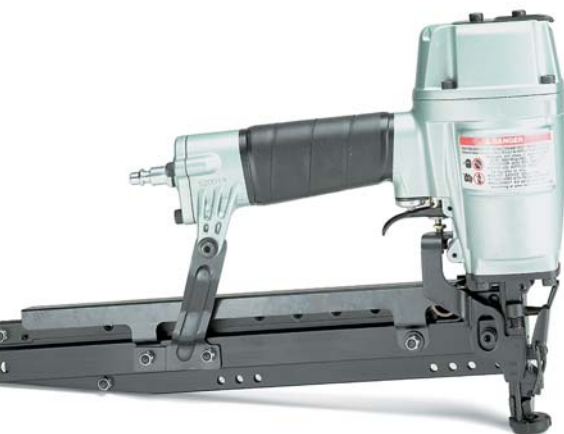
Price:	\$160
Nail Size:	1¹/₄" to 2¹/₂"
Nail Capacity:	110
Fire Modes:	Sequential, Bump
Weight:	4 lbs.
Operating PSI:	70 to 120
Warranty:	1 year

Virtues: Smooth operation. Wide range of depth adjustment.

Vices: Required frequent depth setting adjustments. Large nose pad restricts sight line.

Verdict: A middle-of-the-road nailer at a reasonable price.

HITACHI NT65A2



Hitachi's nailer is a rugged, high-capacity tool with a disposition for mass production.

The heaviest tool of the bunch, this nailer holds a lot of fasteners and is capable of firing them much faster than most DIY'ers would care to. The tradeoff is that it takes a firm grip to control the jump when the gun is fired.

Considering how large and heavy this tool is, we can't recommend it for hauling around the job site. It seems best suited to a "set-it-and-forget-it" environment, such as a production cabinet shop. This is especially true when you consider that changing the depth setting requires a wrench.

This is not a bad tool by any means. But it's specialized and expensive.

At a Glance:

Price:	\$210
Nail Size:	1" to 2¹/₂"
Nail Capacity:	150
Fire Modes:	Sequential, Bump
Weight:	4.6 lbs.
Operating PSI:	70 to 120
Warranty:	1 year

Virtues: Large nail capacity. Rugged construction. Rapid cycling.

Vices: Expensive. Heavy. Wrench required for depth adjustments.

Verdict: Perfect for production shops. Look elsewhere for a DIY finish nailer.

SPOTNAILS WB1650



The unusual look of this nailer appealed to some testers more than others. But on the points that truly matter, most agreed that this is a decent tool — with a few weaknesses.

What we can't forgive about this nailer is its exorbitant price. Although the nailer fired flawlessly, loaded and unloaded easily, and is the most compact, lightweight tool we tested, the price tag is just too high.

Also working against this tool is an inflated nail capacity claim (SpotNails lists nail capacity as 150, we could only squeeze in 104). Another downfall was this tool's lack of a nose pad. The nose marked nearly every workpiece we nailed.

At a Glance:

Price:	\$235
Nail Size:	1" to 2"
Nail Capacity:	150*
Fire Modes:	Sequential
Weight:	3.5 lbs.
Operating PSI:	80 to 100
Warranty:	1 year

Virtues: Small. Lightweight. Easy loading/unloading.

Vices: Expensive. Nose marks.

Verdict: Not a bad tool, but nowhere near worth the price.

*We were only able to load 104 nails.

CRAFTSMAN 18441



At a Glance:

Price: \$180
Nail Size: 1 1/4" to 2 1/2"
Nail Capacity: 160
Fire Modes: Sequential, Bump
Weight: 7 lbs.
Operating PSI: 70 to 110
Warranty: 1 year

Virtues: Large nail capacity.
Vices: Between two nailers, we were unable to find one that performed well enough to even consider purchasing this tool.
Verdict: Cannot recommend this nailer at any price.

Although nearly a twin to the Bostitch on the outside, there is something quite different going on *inside* the Craftsman.

We tested two Craftsman nailers for this review. The first one worked relatively well with the exception that the depth adjustment wheel had no impact on how the nail was set. We were curious if that was a fluke or a common characteristic, so we purchased a second nailer.

The second was worse than the first. Besides no depth setting control, it had the unpleasant habit of firing two or three nails at a time. In between clearing jams, we also noticed that nails had a tendency to fall out of the gun. Stay away from this one.



Final Recommendations

Editor's Choice: Paslode's T250-F16 "nailed" the top spot with a tool that is compact, fires smoothly and quietly, and is easy to use.

The unique nose design and outstanding depth setting characteristics give this tool just enough advantage to pay the extra \$20 over the next two contenders.

Top Value: The Porter-Cable FN250A and Bostitch SB1664 finish nailers parallel each other in both price and performance.

Both operate trouble-free, have easy, effective depth adjustment features, and do a better than average job of getting into the spaces where finish nailers need to go. Either tool is money well spent.

If we had to choose one over the other, the slight advantage would have to go to the Bostitch for its better sight line, lesser tendency to mark a workpiece, and the fact that we weren't able to make the nailer jam.



FINISH NAILER REPORT CARD

Model	Ergonomics	Nose Pad		Sight Line	Depth Setting	Accuracy/Jump	Marking	Loading	Unloading	Jam Clearing
		Size	Shape							
Paslode	B+	A	A	B+	A	A	A-	B	C	B
Bostitch	B+	B	B	A	B	B+	A	B	B-	A
Porter-Cable	B+	A	B	A-	B	A-	B	B	C	A
DeWalt	B	A+	A+	A	C	B-	A	A	A	A-
Senco	A+	C	A	C	A+	B	A	A	B-	A
Hitachi	B	B-	C	A-	D	C	A	B	B	A
SpotNails	B	N/A	N/A	B	B-	A	D	B	B	A
Craftsman	B	B	B	C-	F	C	C	A	B-	A