

# TOOLS

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# TOOL TEST

## 23-GAUGE PIN NAILERS







By David Getts  
Photos by dotfordot.com

We field-tested 11 versatile 23-gauge pin nailers that will help you in the shop and on the job.

I first discovered 23-gauge pin nailers when I was looking for a way to quickly attach small moldings after I found that 18-gauge brad nails, the standard for attaching small wood trim, would consistently split the material. At the time of my first purchase—about a decade ago—pin nailers shot a maximum 1-inch-length fastener. Back then, I felt this was more than adequate because I only envisioned using the pinner for attaching trim of  $\frac{1}{2}$  inch or less in thickness. What I did not expect, however, was how many other uses I would find for it.

In my shop, pinning has replaced clamping or taping when we glue up miters on delicate plywood- and MDF-core veneers. While both faster and more accurate, pinning also accomplishes this with nearly invisible holes, and the super-fine fasteners won't split MDF or thin wood like an 18-gauge brad will. My trusty pinner also found its way out into the field where it became indispensable for assembling mitered returns on crown and other moldings, and for installing prefinished trim on cabinetry. The only major

# ight and Loaded



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shortcoming was its 1-inch limitation on pin length.

Many of today's pinner have overcome that issue, with some tools capable of shooting up to 2-inch pins. Other positive changes include improved nail magazines and safety triggers.

## TESTING CRITERIA

I tested 11 of these new models: the Bostitch HP118K, Cadex CPB23.50, Duo-Fast Sure Shot 2336, Grex P650L, Grip-Rite GRTPIN23, Max NF235A, Nikle NS2340A, Omer PR.28, Porter-Cable PIN100, Senco Finish Pro 11 4N0001N, and Spotnails SP2340.

Because my work is divided between the shop and the jobsite, I thought it most appropriate to test each pinner side-by-side in both applications. Most manufacturers recommend air pressure between 70 and 100 psi, but both Duo-Fast and Omer note a maximum pressure of 90 psi, so that's what I set the regulators at throughout. In addition, I used the same brand and length of fastener during all of my comparative testing.

## OUT OF THE BOX

The first thing I noticed about these pinners was their body configurations. The Duo-Fast and Omer share the same body style, magazine, and trigger



Senco provides an additional measure of convenient safety with its easy-to-use lock-off switch.

assembly, and the Cadex, Grex, and Max also are close in appearance with a few different feature details. The others all possess a body style unique to their brand. The Omer was the only tool without a rubber surface on its grip.

I rely on a comprehensive owner's manual to correctly operate and maintain my tools. All of these tools came with a detailed parts list, a must for ordering replacements. Most of the instructions adequately show model-specific features; however, the Duo-Fast, Omer, and Spotnails instructions are vague and generic—not specific to the actual tool model.

With the exception of the Duo-Fast and the Omer, the pinners come with a plastic case. Extra credit goes to Cadex, Grex, Max, Porter-Cable, and Senco for providing cases with quality sliding latches, not the flimsier snap latches found on the others. Most manufacturers include a bottle of tool oil that is required for daily lubrication. A warning: Senco's early manuals erroneously claim that its tool is oil-free, but it is not. It requires oil like the rest, and that's why every tool comes with a bottle of oil.

**Pin Lengths.** The pin lengths a

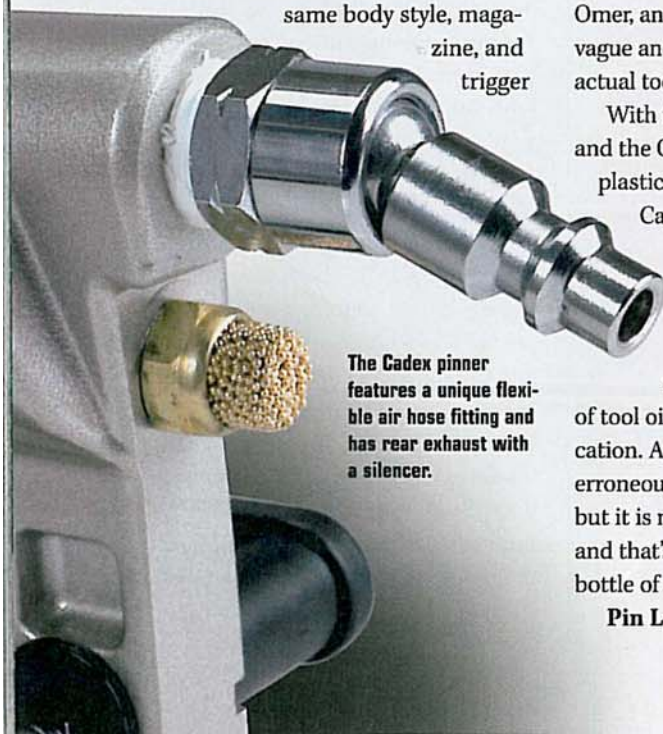
nailer can handle is an important consideration when choosing a pinner; the size you need depends on what you plan to use the tool for. Porter-Cable offers the least versatility, shooting only 1/2- to 1-inch lengths; Duo-Fast's and Omer's capacity is 5/8- to 1 1/8-inch; Bostitch and Grip-Rite shoot 1/2- to 1 3/16-inch; the Max shoots 1/2- to 1 3/8-inch; and Nikle and Spotnails both use 1/2- to 1 9/16-inch pins. The Cadex, Grex, and Senco drive the very longest—2-inch pins. But while the Cadex and Grex shoot down to 5/8- and 1/2-inch pins, respectively, the Senco is less versatile with its minimum of 1-inch pins. In addition to 23-gauge headless pins, the Cadex and Nikle will shoot 23-gauge slight-head brads, which provide somewhat better holding ability and pull-through resistance.

**Special Features.** Unique details for some models include Bostitch's minimum/maximum power-setting switch, which controls the depth-of-drive, Senco's lock-off switch, and Nikle's especially long and narrow driving tip. The Cadex comes equipped with a pivoting air inlet and a built-in blowgun, and, along with the Grex, Max, and Senco, has a lockout mechanism that prevents dry-firing when no pins are in the magazine.

## IN THE SHOP

Most of our woodwork is prefabricated in the shop before being installed on site, and many of our smaller wood-to-wood connections are made with a pin nailer. To get a feel for the tools in the shop, I started out by using them for tacking assemblies being glued up, one of the pinner's greatest uses. Since this was my first exposure to this new generation, a few notable features stood out right away.

**Safety.** All but one of the pinners have a secondary safety trigger that must be depressed in conjunction with the main trigger before the driver will actuate and fire a pin; these safety triggers reset themselves when released.



The Cadex pinner features a unique flexible air hose fitting and has rear exhaust with a silencer.



The Grip-Rite alone employs a simple on/off trigger-blocking lever that doesn't reset itself and can be easily left in "fire" mode. Bostitch and Spotnails share the dubious distinction of being the only guns that cannot be picked up or carried in the "safe" position; the secondary trigger is too large to be reliably avoided when you're holding the grip. The Senco also has the additional safety feature of a lock-off dial switch.

But despite any safety devices, it is important to remember that all the guns are designed to "free-fire" pins without being in contact with a nailing surface; there is no contact-safety like on most nailers.

**Dry-Fire Lockout.** One nice additional feature on the Cadex, Grex, Max, and Senco tools is their dry-fire lockout that disables the trigger when the magazine is low on pins. Dry-firing requires you to re-shoot the areas where no pins were fired, which can double the number and width of surface holes and can result in much wider holes left by the driver blade itself being overdriven. The first three tools have a bypass lever that requires a third finger to hold but will allow you to override the lockout



The Max pinner has spring-loaded guide pins typical of side-loading magazines and a large reload indicator window.

function and fire the last several pins. This lever also releases the tension on the loaded pins, making it easier to remove partial sticks.

#### Loading Pins.

Pinner have either side-loading or bottom-loading magazines. The Duo-Fast, Omer, and Porter-Cable load from the bottom. On the Duo-Fast and Omer, you set the pin length with a special sliding switch prior to dropping the pins in. This is a nice feature when you want to check the loaded fastener length at a glance. However, loading the Porter-Cable was much easier because its magazine automatically adjusts to the pin size.

The other eight pinners load from the side, a magazine style I found to be far superior. They were easier to load and won't dump all their pins if accidentally opened during use.

Cadex, Grex, and Max had the smoothest-operating magazines. All of the guns except the Omer have a window in their magazine for viewing the load status of the pins, but the windows in the Bostitch, Duo-Fast, Grip-Rite, Porter-Cable, Nikle, and Spotnails are so small they don't really give enough advance notice of when pins need to be reloaded. Twenty-three-gauge pins come in sticks of 100, and only the Bostitch, Duo-Fast, Omer, Nikle, and Spotnails have a magazine large enough to hold two full sticks of pins.

**Tips.** My work in the shop also revealed what the nailing tips were like. Four of the pinners—the Cadex, Grex, Max, and Senco—come equipped with a removable, soft, anti-marring cap and a spare stored on board, but I find caps pretty much unnecessary. When using a pinner, I need to see exactly where I am aiming the pin, and the soft cap simply gets in the way.

The nailer tips have some variations in shape. The Duo-Fast, Omer, and



Nikle has the narrowest nose; its front key-holed plate allows for jam clearing without having to remove its bolts.

Senco have what I call a blunt or flat tip, the Nikle has the sharpest, and the remaining seven all share a medium profile tip. The best was the Nikle; I really appreciated its longer, sharper point, which made it the choice for those tight corners and delicate reveals.

**Driving Power.** Every one of the pinners I reviewed worked well enough for most general tasks I put them through, so I tested them on a variety of materials to determine performance differences. With 90 pounds of pressure, they all could sink 1-inch pins into softwoods; the Bostitch was the only one that struggled with driving pins into MDF crown molding, leaving the pins flush to the surface rather than countersunk.

Shooting into hardwood molding, I found that the Cadex, Duo-Fast, Grex, Max, Nikle, Omer, and Spotnails had no problems countersinking the pins. The Grip-Rite, Porter-Cable, and Senco left many pins flush rather than countersinking them all consistently. The Bostitch was the sole poor performer (even with the power switch set to "high"), consistently leaving pins above the surface of the wood.

We go through quite a variety of hardwoods every year, and exotic woods are becoming increasingly popular for a wide variety of custom woodworking. Many of these exotic species I regularly work with are very dense and hard and demand a lot out of any nailer. Testing the pinners on ipe really revealed which guns performed well in tough applications. After driving several thousand



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pins, the Cadex, Grex, Max, and Nikle came out on top by sinking their pins below the surface. All the rest just couldn't set theirs deep enough.

### ON THE JOB

Varying jobsite conditions often conspire to identify the strengths or weaknesses of tools in ways not seen in the shop. So we brought the test group to a remodeling project I was working on where we were installing prefinished custom millwork, a perfect application for using pinners. Installing trim means using nails that leave holes that have to be filled, and even filled holes often remain visible. Twenty-three-gauge pinners usually leave such small holes they don't even need to be filled.

I used the pinners for a number of fastening jobs, including using 1½-inch pins to fasten 7/8-inch-thick molding to cabinetry. By themselves, pins aren't strong enough to hold large moldings like this permanently, so we couple them with glue; the pins are enough to hold the pieces in place while the adhesive sets. I also used shorter pins to temporarily hold panels in place while they were being scribed or positioned for installing decorative screws. During these common scenarios, I discovered a few more things about the tools.

**Jams.** Removing the inevitable jammed fastener shouldn't slow you down on the job. While I didn't experience any jams during my test, all of the pinners reviewed have a removable cover plate over the front driver housing to remove jams if they occur. To make the removal process easier, the Bostitch, Cadex, Grex, Grip-Rite, Max, and Nikle have keyhole slots that allow you to remove the plate without taking the screws completely out. Of these, the Cadex, Grex, and Max provide an onboard hex wrench, eliminating the need to search the case, toolbox, or truck for that tiny elusive wrench.

**Exhaust and Extras.** In a dusty corner, a blast of exhaust air out the front of the tool can be quite a nuisance,



Onboard accessory storage like on the Grex keeps the tip cap and front-plate wrench handy.

especially because the air discharged could deposit oil and condensation onto your wood. Luckily, exhaust direction and diffusion have become design considerations on newer nailers. The best form of exhaust is rear-venting, found on most of the pinners. The Cadex, Grex, Max, Duo-Fast, and Omer models also feature a replaceable silencer, and Senco has a rotating rear diffuser cap. The two that do not have rear exhaust are the Nikle, which employs a rotating top diffuser cap, and the Spotnails, with its fixed top discharge.

Belt hooks really proved their worth in the field, and were especially handy to have when working on a ladder. Cadex, Grex, and Max have a fixed hook on the left; Senco's rotates to either side.

**Size Wise.** I found that I preferred using smaller pinners on the jobsite; their ease of handling in awkward positions made them the choice over the larger guns. The smaller bodies of the Bostitch, Duo-Fast, Grip-Rite, Omer, and Porter-Cable made them the most

comfortable to work with, but limited me to shorter fastener lengths. The shared body style of the Cadex, Grex, and Max, although slightly larger, was very comfortable and well balanced, as were the Nikle and Spotnails tools. Only the Senco had a large body, which felt very clumsy, especially when firing pins into delicate work.

Pin length is a purchasing consideration with these tools as they have a fairly limited range of uses. Bigger isn't necessarily better, so choose a pinner based on your intended use. Although I absolutely loved the idea of being able to shoot a 2-inch-long pin, its application is very limited. When shooting perpendicular to the grain or into soft materials, the pins worked fine, but results were mixed when shooting at an angle to the grain or into harder woods. The tests I conducted with the longest pins in hardwood made me rethink their usefulness in that application. I had several pins curve back out through the face of the material, requiring some careful mending work and reminding me of the importance of keeping my free hand well away from the pinning site. A wayward pin curling through the face of painted millwork or cabinetry can cause

The Cadex pinner has a thumb-operated blower valve for clearing dust off finish work before pinning to it.





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quite a bit of extra re-work. And don't think that you can use the longer lengths for attaching trim through dry-wall; a 23-gauge pin is simply not strong enough for that application.

Keep in mind that pinners that shoot only shorter pins are smaller and easier to handle, especially during long periods of use. This is an important consideration when working on delicate prefinished woodwork because the smaller body is less likely to damage adjacent work.

## WINNER

The clear winner for performance and versatility is the Cadex CPB23.50. It embodies the best features available: 2-inch pin capability, a smooth side-loading magazine, enough power to consistently countersink pins in any material, dry-fire lockout, onboard tool storage, a built-in dust blower, and even the ability to shoot brad-head pins.

I also liked the Nikle NS2340A; its narrow tip made it easier to get pins where I wanted them, and the 1<sup>9</sup>/<sub>16</sub>-inch capacity is enough for most projects. Among the smaller-bodied tools, the Duo-Fast Sure Shot 2336 performed well

and simply felt comfortable in my hands. Both the Grex P650L and the Max NF235A had many of the versatile features that I preferred along with great power.

The Omer PR.28 was very similar to the Duo-Fast, but it just didn't feel comfortable without the rubber on the handle. The Spotnails SP2340 was a solid performer with a rugged feel and no frills. Porter-Cable's PIN100 was very comfortable to work with but also the most limited in pin length. The Bostitch HP118K was comfortable but suffered from power and trigger deficiencies. Senco's Finish Pro 11 4N0001N is a very well-made tool with nice features, but its body size is just much too big for a 23-gauge pinner. And the Grip-Rite GRTPIN23 performed well in general, but the on/off safety lever (rather than a dual trigger system) seemed antiquated for this new generation of pin nailers.

*David Getts is an architectural woodworker, remodeler, and author. He owns David Getts Design in Seattle.*

FOR MORE HANDS-ON TOOL TESTS, GO TO [WWW.TOOLSOFTHE TRADE.NET](http://WWW.TOOLSOFTHE TRADE.NET).



Smaller pinners like the Duo-Fast offer a definite maneuverability advantage, but won't shoot the longest pins like the Senco model does.

## SOURCES OF SUPPLY

### Bostitch

HP118K: \$145  
800-556-6696  
[www.bostitch.com](http://www.bostitch.com)  
**Circle #240**

### Direct Sales

Cadex CPB23.50: \$329  
604-876-9909  
[www.cadextools.com](http://www.cadextools.com)  
**Circle #241**

### Direct Sales

Nikle NS2340A: \$209  
604-876-9909  
[www.nikletools.com](http://www.nikletools.com)  
**Circle #242**

### Direct Sales

Omer PR.28: \$279  
604-876-9909  
[www.omertools.com](http://www.omertools.com)  
**Circle #243**

### Duo-Fast

Sure Shot 2336: \$239  
847-783-5500  
[www.duo-fast.com](http://www.duo-fast.com)  
**Circle #244**

### Grex Power Tools

P650L: \$319  
888-447-3926  
[www.grexusa.com](http://www.grexusa.com)  
**Circle #245**

### Grip-Rite

GRTPIN23: \$129  
800-676-7777  
[www.grip-rite.com](http://www.grip-rite.com)  
**Circle #246**

### Max USA Corp.

NF235A: \$224  
800-223-4293  
[www.maxusacorp.com](http://www.maxusacorp.com)  
**Circle #247**

### Porter-Cable

PIN100: \$130  
888-848-5175  
[www.porter-cable.com](http://www.porter-cable.com)  
**Circle #248**

### Senco Products

Finish Pro 11 4N0001N: \$259  
800-543-4596  
[www.senco.com](http://www.senco.com)  
**Circle #249**

### Spotnails

SP2340: \$109  
800-873-2239  
[www.spotnails.com](http://www.spotnails.com)  
**Circle #250**

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**Cadex, Nikle** and **Omer** Tools available from:

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