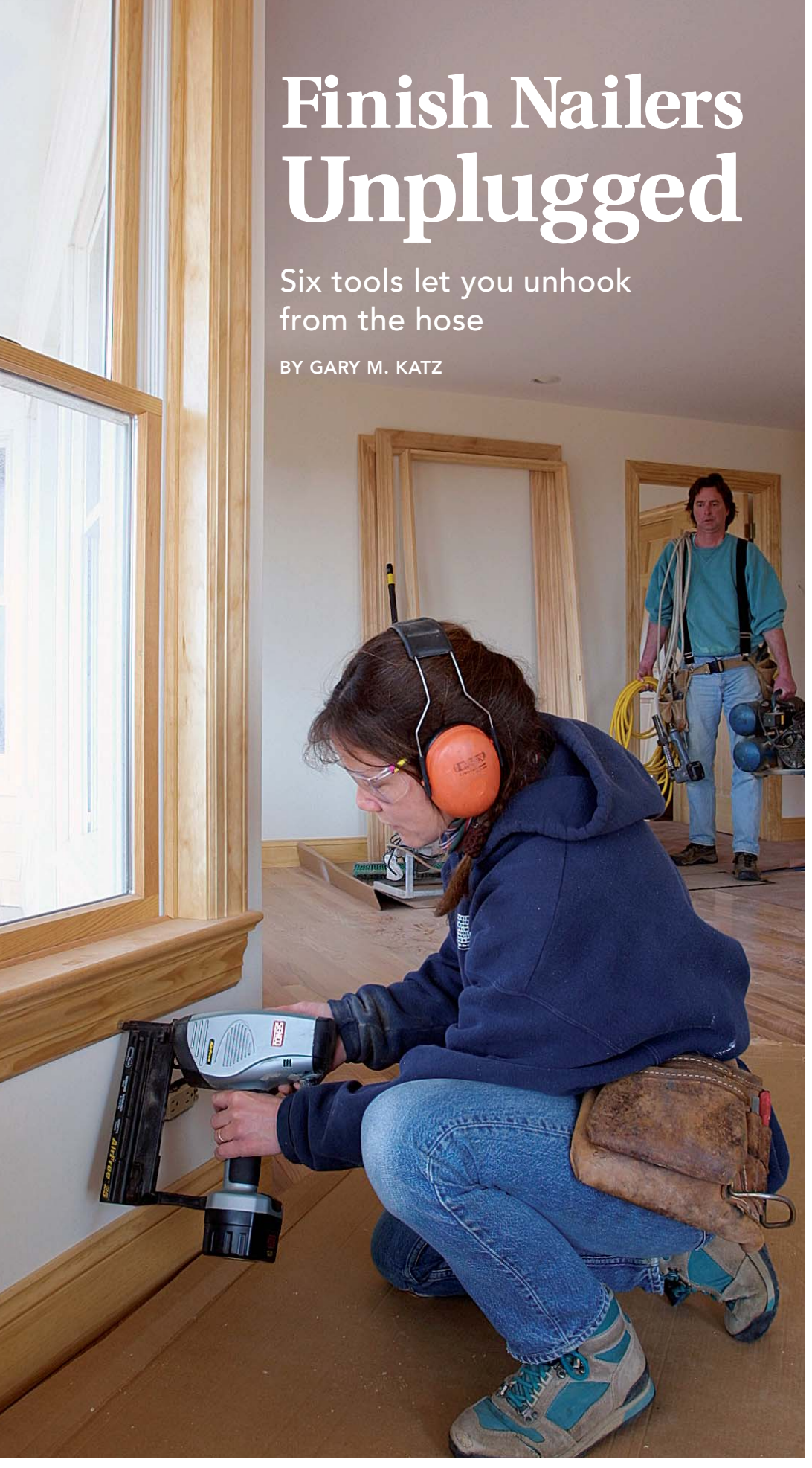
Finish Nailers Unplugged

Six tools let you unhook from the hose

BY GARY M. KATZ



First it was drills, then cell phones. With the birth of new technologies, carpenters continue to cut the cord. Or the compressor hose, as the case may be with the six finish-nail guns made by Paslode, Porter-Cable and Senco—all of which have self-contained, onboard power supplies. The benefits are many: Heavy compressors and tangly hoses and extension cords can be left in the truck; or if you're buying your first nail gun, one of these tools will save you the expense of a hose and compressor.

While all three manufacturers arrive at the same hose-and-compressor-free solution to finish work, their power supplies are different. Paslode's guns are powered by a battery that sparks gas from a fuel cartridge; Porter-Cable's tool uses a battery to run a small onboard compressor; and Senco's tools rely on a battery-activated flywheel.

Nail-gun nails are classified by their wire gauge. Contrary to intuition, the larger the gauge number, the thinner the nail: An 18-ga. nail is smaller in diameter than a 16-ga. nail. In terms of their uses, thinner 18-ga. brads are suitable for smaller moldings and trim, while 15-ga. or 16-ga. nails work great for casework, baseboards and the like.

All the guns come with a carrying case, a charger and two batteries (except the Porter-Cable model, which comes with a single battery). And all carry a one-year limited warranty, which excepts O-rings, the internal rubber gaskets. And get this, if you buy a Senco tool, there's a real incentive to fill out the registration card: Senco's warranty has an addendum that says the company will replace any tool destroyed by an "act of God" provided they have your card on file and that you can document said flood, earthquake or hurricane. Try that with your cell phone.

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Cuts setup time, too. *Because there is no compressor, extension cords and hoses to hook up, you can get right to work when you have a cordless nailer.*

PASLODE

800-682-3428; www.paslode.com



Trim Master 18

Weight: 5.25 lb. with battery and fuel cartridge
Nail type: Straight 18 ga.
Nail sizes: ⅝ in. to 2 in.
Street price: $370



Trim Master 16

Weight: 4.9 lb. with battery and fuel cartridge
Nail type: Angled 16 ga.
Nail sizes: 1¼ in. to 2½ in.
Street price: $370



IM250II

Weight: 5.25 lb. with battery and fuel cartridge
Nail type: Straight 16 ga.
Nail sizes: ¾ in. to 2½ in.
Street price: $370

Paslode's cordless finish nailers have come a long way since their introduction in 1991. Early models required cleaning daily after use, and they were plagued by misfires and expensive leaking fuel cartridges. The new models I used, however, have been trouble-free, with only an occasional misfire from any of the three cordless tools.

Along with igniting the fuel charge, the battery runs a fan to clear the small amount of carbon-monoxide exhaust gas from the piston's cylinder. The company recommends opening a window or otherwise ventilating the work area. A green light near the trigger indicates a charged battery, and if power is too low, it glows red.

All three guns have belt hangers and an easy-to-use nail-depth control dial on the back of the gun case. The guns are rated to shoot about two to three nails per second, though I found the rate was closer to two.

The cost of the fuel cells—about $5 each—ups the operating costs of the Paslode guns. The company says that each cell is good for about 2,400 shots for the IM250II. The Trim Master 18 and the Trim Master 16 use smaller cartridges, which are good for about 1,200 nails. In the long run, the cost of the cells isn't a great expense. Dated cartridges have an 18-month shelf life—fine for every day but something the occasional user should be aware of.

Because the fuel mixes with ambient air, using a Paslode gun above the 4000-ft. elevation mark requires a special "Blue Valve" high-altitude adapter. One last word of advice: Wear hearing protection. The combustion noise is loud, and shooting one of these guns all day can be deafening.



Cleaning required. *Buildup of sooty fuel-cartridge exhaust can cause jamming and shorten the life of Paslode's cordless tools. After partial disassembly, aerosol degreaser and liquid oil are used to clean and lubricate the guns. Paslode provides literature and a video showing the process.*

HOW IT WORKS

The Paslode guns are powered by a rechargeable 6v battery that sparks a charge of Mapp gas—a high-tech combination of liquefied petroleum gas and methylacetylene-propadiene—contained in a fuel cartridge. The exploded gas drives a piston into the head of the nail.





Dual fuel. *Paslode's cordless nailers use a battery and a gas cartridge to shoot nails. Gas cartridges cost about $5 each.*

"Even with the added expense of fuel cartridges, the Paslode's ability to shoot 2 to 3 nails per second makes it the best choice for all-day, every-day use."

Photos left this page: Scott Phillips

PORTER-CABLE

800-321-9443; www.porter-cable.com



Porter-Cable BN200V12

Weight: 7.75 lb. with battery
Nail type: Straight 18 ga.
Nail sizes: ¼ in. to 2 in.
Street price: $200

"To lighten the Porter-Cable, you can remove the battery and hook it up to a compressor, self-defeating as that may seem."

What's unique about Porter-Cable's cordless finish nailer is that it can be powered either by a 12v battery or by a conventional hose-and-compressor setup.

In cordless mode, the Porter-Cable nailer could shoot brads almost as fast as the Paslode gun, but after two or three shots, the onboard compressor empties and has to recharge, which takes a second or two. The Porter-Cable doesn't have an auto-off feature when the brad magazine empties, which results in empty nail holes.

A single switch offers four settings to control nail-driving depth, and from battery/mini-compressor to conventional compressor power. Switching between the settings requires a deft touch, and turning on the tool usually throws it into high. High power was needed only when nailing hardwoods or MDF to MDF. Otherwise, I tried to shoot at normal power. Normal is the preferred setting because the compressor doesn't run after nearly every other shot. A ready-to-fire light and a battery-display light are easily visible, but be sure to rotate the ¼-in. fitting to cordless mode, or the compressor will keep running. The gun is equipped with a directional exhaust port, which you can adjust to keep exhausted compressor gas from blowing in your face.

The compact Porter-Cable tool is heavy, weighing as much as some framing-nail guns. Adding to the tool's ungainliness is its lack of balance; the onboard compressor and battery, slung below the handle, make the tool tiring to use. Any of the Senco or Paslode cordless nailers is a better choice.

HOW IT WORKS

The gun uses a battery to power a small onboard compressor. An added plus—what Porter-Cable calls its "Twin Power Source"—is that the battery can be removed; the tool then can be hooked to a regular compressor via a ¼-in. male quick-plug hose fitting.



Air port. *Adjustable port lets users direct exhaust air away from the face.*



Multiposition switch. *One slide switch controls four functions: onboard or hosed compressor and high or low power (for setting longer nails into harder materials).*

Different nails for different guns

Cordless nail guns can be grouped into two configurations: straight and angled. Because the magazine on angled nailers slants upward, it's possible to shoot fasteners into tighter inside corners. The advantage of a straight nailer is that, generally, the nails are about $1.50 less per box of 2,000. Nails for an angled gun won't fit into a straight gun and vice versa.

With the exception of the Senco AF 41, all the guns shoot nails that are square in cross section. Only the Senco AF 41 fires round nails, similar to standard wire finish nails.

All three manufacturers make nails to be used with their guns, and all suggest that their nails be used in their guns. Paslode will void a warranty if nails that don't meet their specifications are fired in their guns.

That said, many off-brand nails are available for all guns. Know the model number of your gun, and make sure it is listed on the packaging of any nails you buy. And where nonrusting nails are needed, check out www.stainless-nails-brads-staples.com.

—*G. M. K.*



Nails will fit other brands of guns. *Many companies' nails will fit in competitors' tools.*

Photos top left and bottom this page: Scott Phillips

SENCO

800-543-4596; www.senco.com



Senco AF 25

Weight: 6 lb. with battery
Nail type: Straight 18 ga.
Nail sizes: ⅝ in. to 2⅛ in.
Street price: $300



Senco AF 41

Weight: 7.5 lb. with battery
Nail type: Angled 15 ga.
Nail sizes: 1¼ in. to 2½ in.
Street price: $350

In 1951 Senco came out with the first nail gun. Over the years, I've grown fond of their reliable, easy-to-rebuild air-powered nailers, so I was thrilled to try out their cordless, flywheel-powered trim guns. (Senco also has plans to release a 16-ga. nailer, the AF 32, later in 2003.) Unlike other nail guns that fire immediately when the trigger is pulled, the Sencos have a spilt-second delay, a result of the time it takes to energize the flywheel. And once the safety is depressed against the workpiece, you only have three seconds to pull the trigger before the gun de-energizes. Pull the trigger sooner, and the gun fires with an odd, unique sound: sssssshhhhhkkkkpew!

As for the individual guns themselves, I found that the 15-ga. AF 41 is just too big and heavy; it feels more like my old Senco framing gun. Although it will shoot 200 to 500 nails per battery charge (depending on depth setting: More depth requires more power), this tool can't countersink a 2½-in. length nail in MDF or hardwood.

The AF 25, at 6 lb., is the lightest Senco gun, and it fires 18-ga. brads ⅝ in. to 2⅛ in. long. I like this gun the most because it weighs only 6 lb. and drives up to 1,000 nails on a single charge. I also like the 18-ga. nailer because it fires any brand of straight nail, so it's easy to pick up a box of nails when you're out.

HOW IT WORKS

The Senco guns are powered by a rechargeable battery that drives a small electric motor to spin a flywheel. When the flywheel gets up to speed, a solenoid kicks in, pushing a clutch into the spinning flywheel. The clutch yanks on a cable attached to a driver that fires the nail.



Nail-set depth. *A large knob at the back of the Senco nailers controls how deeply nails are set.*



Hangers on. *Senco guns have belt hooks. While the 6-lb. AF 25 (shown in photo) isn't too much of a burden, hanging the 7.5-lb. AF 41 from a tool belt can be quite a drag.*



Cleaning a jammed head. *The Senco AF 25 requires the removal of three Allen screws to clear a jammed fastener. Clearing jams on the AF 41 is simply a matter of flipping up a spring-loaded lever and removing the errant nail.*

"No fuel cartridges or cleaning required: The Senco guns are perfect for punch-list work or for the weekend warrior."

Photos left this page: Scott Phillips