

Survey of Autofeed Screw Guns

A must for high-production, squeak-free floors, these tools help to keep knees and backs pain-free, and the new models don't jam the way the old ones did

BY DEREK MCDONALD

During coffee breaks, the old-timers at my company love to tell us young guys how good we've got it, what with all the newfangled air nailers and power tools we get to use, not like when they were starting out, no sir. Mostly they're full of bull; but when they reminisce about crawling around on their hands and knees nailing down subfloors, I'm grateful to be from generation X.

I work for a company that does high-end production framing, and we've been using autofeed screw guns to anchor subflooring for years. Although we could get the job done a bit faster using air nailers, experience has taught us that used in combination with adhesive, screws are the key to a no-squeak subfloor. Figuring an average cost of 3¢ a piece for the collated (2-in. yellow zinc) fasteners we use for subflooring, we've decided that the autofeed screw guns more than pay for themselves by reducing warranty costs and callbacks.

In principle, an autofeed system is simply a screw gun combined with a mechanism that feeds a continuous supply of screws to the drive bit. A fellow gen-Xer would say subflooring is the tool's "killer app,"

but outdoor decks are another popular application. Autofeed screw guns are also used for drywall, metal framing and tile roofing.

For the past few years, our company has been using a QD200 autofeed system that was sold by Quik Drive but manufactured by Holz-Her of Germany. That system is no longer available; and because our guns are getting more than a bit long in the tooth, I was excited when the editors of *Fine Homebuilding* asked me to evaluate the current crop of autofeed screw guns.

Fastening subfloor to compare these tools

My goal was to assess each tool's suitability for subflooring work and to offer some perspective on strong and weak points of each tool. For this test, I drove a minimum of 300 #8 by 2-in. screws through each tool. Of those 300 screws, at least 200 were used on our job sites to fasten 3/4-in. oriented strand board subflooring to I-joists (photo above). To evaluate each tool's ability to penetrate solid wood, the remaining screws were driven directly into solid wood. To give general



GRABBER SUPERDRIVE 55

The Grabber is a smooth, solidly constructed driver that, like the models from Makita, PAM and Milwaukee, takes 50 screws per load in a floppy-tape collation. During testing, the driver's bit became stuck in the extended position after driving 150 screws, but the jam was easily cleared and did not recur.

With a narrow (1¼ in. to 2 in.) range of fasteners, the SuperDrive 55 is intended to be used for drywall, fence-building and subfloors. Grabber also makes a SuperDrive 75 series that can drive longer (2 in. to 3 in.) fasteners, such as deck screws.

The kit as tested included the SuperDrive 55 autofeed unit, a Grabber Rocker screw gun (basically a DeWalt 251), 22-in. extension with side handle and carrying case.



MAKITA 6834

The Makita jammed twice during testing, but each jam was easily remedied by hand-cycling the autofeed mechanism. The tool is smooth, but the general design seems better-suited to drywall and hand-held operations than flooring. Adding or removing the Makita's extension handle required more effort and time than any other tool tested—and the handle must be removed to fit the tool into the carrying case. Two-handed operation was difficult because the auxiliary hand grip that wraps around the extension tube was tiring to hold for long periods. With a maximum screw length of 2¼ in., this tool isn't for deck builders.

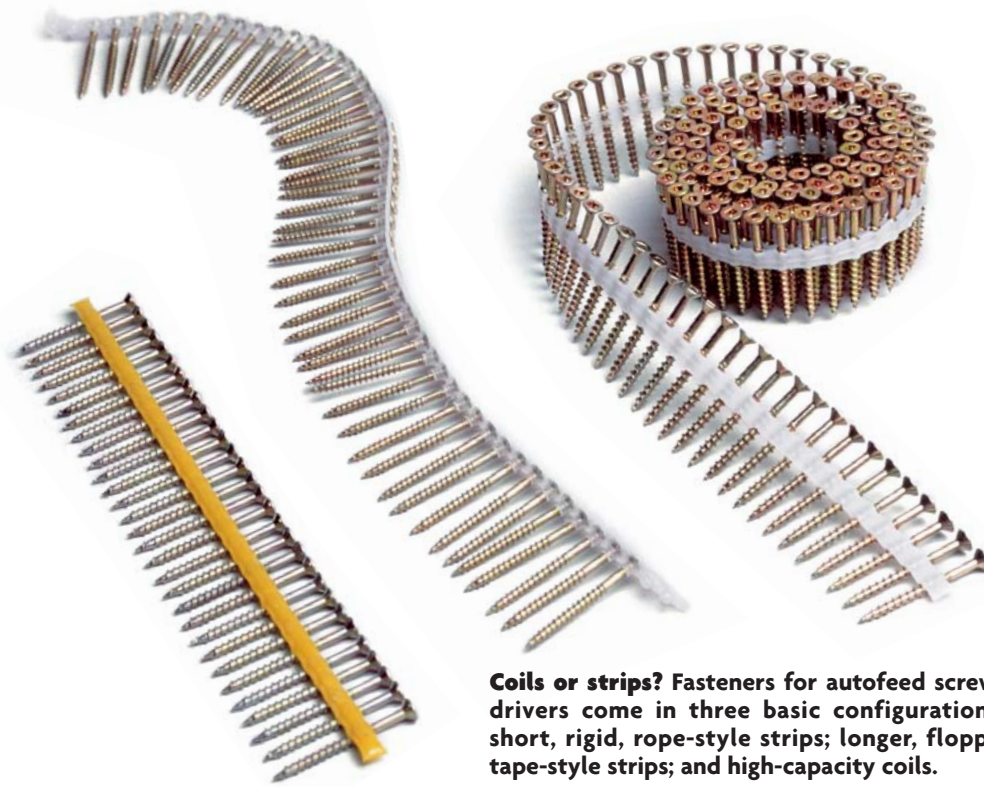
The kit as tested included the Makita 6834 autofeed unit with three #2 Phillips drive bits, extension handle and hard plastic case.



MURO FDVL41

This solidly built, drum-fed operator handles a wide range of fasteners (1 in. to 3 in.). The adjustable-length extension handle attaches with the turn of a screw, but the handle has no trigger, which means the operator still has to bend over (at least occasionally) to screw off flooring. The location of the drum magazine behind the autofeed mechanism allows the tool to stand upright when set aside, but it also means the operator has to straddle the magazine during operation, making it awkward to walk.

The kit as tested included the FDVL41, extension handle, two double-ended drive bits and soft-shell carrying case. Note: Since our test, Muro has increased the speed of this tool from 2400 rpm to 2900 rpm. The improved tool is the Speed Driver FDVL.



Coils or strips? Fasteners for autofeed screwdrivers come in three basic configurations: short, rigid, rope-style strips; longer, floppy, tape-style strips; and high-capacity coils.

contractors and deck builders more to go on, I also used each tool to drive a bunch of 2½-in. deck screws into pressure-treated lumber.

I admit that this limited test didn't tell me much about the long-term reliability of a tool. It was enough, however, to draw some conclusions about out-of-the-box quality, ergonomics, reliability and ease of use. My favorite tool might not be the best choice for you, however. Autofeed fastening systems are similar to air nailers and powder-actuated fasteners, in the sense that the fasteners are almost as important as the tools themselves. Whichever tool you choose, you'll want to make sure that fasteners, parts and service are readily available in your area.

All-in-one unit vs. attachment

With the exception of the Muro and Makita tools, both of which feature an inseparable drive motor and autofeed unit, all the tools tested are basically attachments that use standard, drywall-type screw guns as their drive motors. In most cases, this arrangement allows users, who already have a bunch of screw guns sitting in a pail, the option of saving a few bucks by purchasing the autofeed unit by itself. In the event of tool failure or breakage, an attachment-style tool also allows users to repair or replace specific parts much more easily.

All the tools I tried include some type of an extension feature that allows operators to stand upright while fastening floorboards. For most tools, this extension fits between the drill motor and the screw-feed unit. The all-in-one units from Makita and Muro provide an extension handle that leaves the entire unit on the ground, making for a somewhat awkward, bottom-heavy tool.

The Muro's handle was by far the easiest to put on or remove, but powering the unit meant bending over the drill motor, squeezing the trigger switch and pushing the lock-on button. The Makita gets around the trigger problem by using a cable and trigger arrangement to connect the extension-handle trigger to the tool trigger; this setup worked well enough in the test, but attaching and removing the extension handle was no day at the beach.

I have to say that handle extensions in general are frowned on at our company. Maybe they're just being macho, but our foremen believe

that bending down to the work surface is faster and more accurate than standing straight. After a brief head-to-head competition between myself and a coworker, I have to report that my bosses are probably correct, but the difference is marginal. More important, even if an upright operator is not quite as fast as one who spends the day bent over, the prevention of pain and lower-back problems makes using an extension handle a good investment.

Collation variation

Although there is a lot of similarity among tools, the differences in screws are more obvious. Collated screws are available either in large coils or in small strips (photo left). For big fastening jobs, such as large spans of subflooring, I've generally preferred coils: Instead of making me stop every 30 to 50 screws to reload, the larger coils, which hold 150 or more screws, allowed me to stay in the zone and maintain an efficient rhythm. For smaller jobs or for piecework such as screwing off stair treads, I've always appreciated the light weight, convenience and compact

nature of strip-feeding systems. Ultimately, the choice should be based on what tasks you intend to use the tool for; you might wish to choose a system such as the Pan-American Sure Driver or Quik Drive 2000XL that allows for both coils and strips.

Besides coils or strips, another factor to consider is type of collation. With tape-style collation, screws are loaded into a flexible plastic tape with the bottom of the screw head snug to the flat of the tape. Models—such as those from Grabber, Makita and PAM—with tape collations use some form of a track to guide the tape into the autofeed mechanism. The flexible tape-style collations are prone to flopping and always seem to be point up when I reach in my bag to reload.

Rope-style collations use a nylon-reinforced plastic rope to hold screws near the middle of the screw shaft. Although they hold fewer screws than most of the tape systems, the stiffer rope-style strips, which are similar in concept and rigidity to strips of air nails, are easier to carry in a nail pouch. Units using the rope style—such as Quik Drive and Pan-American—allow the strips of screws to hang perpendicular to the tools, attached only to the autofeed mechanism. This arrangement looks awkward but has proved effective and easy to reload. The only downside is that the strip of screws can get in the way when you're working in confined spaces.

How often do you have to change bits?

Screwing off subflooring is a high-torque application; the fact that the bit should be rotating at full speed before being pushed down to engage the screw makes positive bit-to-screw engagement crucial. Square-drive bits clearly last longer and allow for less slippage than Phillips bits. Some of the tools, such as Quik Drive, have a small, relatively inexpensive single-ended bit. Muro and Stanley/Bostitch both use a longer, more substantial two-ended bit, which can be flipped over when one end wears out. Pan-American produces its own bits, claiming a better fit and a longer bit life. With a square-drive bit lasting for about 1,000 engagements, bit cost and availability should be a comparison factor if you foresee high-volume applications.

If, like me, you waste a lot of time hunting for misplaced keys and lost parts, you will appreciate that all the models tested, with the ex-



PAM STRAIGHT-SHOOTER III MILWAUKEE SHARP-FIRE

Milwaukee's Sharp-Fire is the same tool as the PAM Straight-Shooter III. The fit and finish of this German-made unit are excellent. The screw-advancement mechanism is smooth and sensitive. The PAM also had the easiest tool-free bit-change procedure of any unit tested. The tool's only drawback: The flexible tape collations eat up more reloading time than either coils or rigid rope collations.

The PAM tool was easy to put to work out of the box, and the 1 $\frac{3}{4}$ -in. to 3-in. range of fasteners makes it useful for decks and subfloors. The kit as tested included the PAM autofeed unit with extra nosepiece, spare drive bit, Allen wrench set, 20 $\frac{1}{2}$ -in. extension with side handle, Milwaukee screw gun and hard plastic case.



PAN-AMERICAN SURE DRIVER 347

The Sure Driver's motor is ergonomically designed for use as an autofeed screwdriver. The placing of the handle midway on the screw-gun body made the unit the most comfortable to operate for long periods. In addition, the screw gun sports an unusual trigger that runs the full length of the handle, making it easier to keep the trigger depressed for long periods if you choose not to lock the tool to full on.

Setting up and loading the Sure Driver was more complicated than most of the other tools I tested, but its operation was flawless. The kit as tested included Robertson Holz-Her screw gun #2798, autofeed unit #3345, 24 $\frac{1}{2}$ -in. extension with side handle and coil magazine. One disappointment: This tool was the only one that did not include a carrying case.



QUIK DRIVE QD2000XL

The QD2000XL is the most versatile tool I tested. Simply swapping nosepieces enables the user to fasten drywall, decks or subfloors. Assembly and disassembly take just seconds, and the kit packs easily into a compact, hard plastic carrying case. The uncomplicated drive mechanism combined with the handy screw quiver makes both Quik Drive units the quickest reloaders in the test. My only disappointment was that the side handle—or knob—was too small for my large hands.

The kit as tested included the QD2000XL autofeed unit with DeWalt screw gun, three plastic nosepieces, 20-in. extension, 500-screw capacity nylon belt quiver and carrying case. A drum magazine for coil screws is available as an option.



Keeping refills close at hand. The short, rigid strips from Quik Drive fit neatly within the screw quiver, which is standard equipment with each tool (photo left). Users of floppy, tape-style systems might consider hanging them over the Monster Hook from Prazi USA (800-262-0211) (photo right).

ception of those from Quik Drive and Pan-American, allow for tool-free bit changes. On another note, all the tools tested have slightly different depth-adjustment mechanisms that require some trial and error, but I'm happy to report that once I dialed them in, none of them required further attention.

Which one did I choose?

Autofeed screwdrivers of even a few years ago were problematic, but I'm happy to report that all the tools in this test were capable performers. The choice comes down to the type and variety of the work you do. For subfloor work, the Quik Drive Pro250 stood out as my favorite. In addition to featuring flawless operation, it drives screws from 1¾ in. to 2½ in. without adjustments. The strip-fed Quik Drive was also the easiest tool to reload, and with the handy screw quiver hanging from my belt (photo left), I spent little time reloading.

I'm an all-around framer, but if all I did from sunup to sundown was fasten subfloors, my choice would be the Pan-American Sure Driver 347. This tool's autofeed mechanism is more complicated than most of the others, but it was a flawless performer and the most ergonomically comfortable of all the tools in the test.

If I were a small builder who wasn't as production-oriented or if I needed a driver that could fasten decks as well as subfloors, I'd choose the PAM Straight-Shooter III. The floppy-tape collation takes more time to reload, but the PAM tool is a reliable workhorse and can drive 3-in. deck screws with ease. □

When Derek McDonald is not working for HnR Framing Systems, he can often be found on Swami's Beach in Encinitas, California. Photos by Tom O'Brien.

Model	Street price	Feed style	Collation	Screws per strip/coil	Screw capacity	Weight (inc. ext. handle)	Amps/rpms	Notes
Grabber SuperDrive 55 (800) 522-7355 www.grabberman.com	\$278	Strip	Tape	50	1¼ in. to 2 in.	6 lb., 14 oz.	6.3/0-4000	SuperDrive 75 series is available for 2-in. to 3-in. screws.
Makita 6834 (714) 522-8088 www.makitatools.com	\$269	Strip	Tape	50	1 in. to 2¼ in.	6 lb., 3 oz.	4.3/2800	Difficult to add or remove extension handle.
Milwaukee Sharp-Fire (800) 729-3878 www.mil-electric-tool.com	\$439	Strip	Tape	50	1¾ in. to 3 in.	7 lb., 8 oz.	5/0-2500	Same tool as PAM Straight-Shooter III.
Muro FDVL41 (800) 665-6876 www.muro.com	\$379	Coil	Rope	150 (coil)	1 in. to 3 in.	8 lb., 6 oz.	5/2400	Improved model now available (see tool review).
PAM Straight-Shooter III (800) 699-2674 www.pamfast.com	\$349	Strip	Tape	50	1¾ in. to 3 in.	7 lb., 8 oz.	5/0-2500	Changing screw lengths requires simple nosepiece adjustment.
Pan-American Sure Driver (800) 951-2222	\$325	Coil/strip	Rope	167 (coil) 35 (strip)	1¼ in. to 2½ in.	9 lb., 14 oz.	6/3000	Coil option to be available in spring 2001.
Quik Drive QD2000XL (888) 487-7845 www.quikdrive.com	\$285	Strip (optional coil)	Rope	167 (coil) 31 (strip)	1¼ in. to 3 in.	6 lb.	6/0-3100	Changing screw lengths requires changing nosepieces.
Quik Drive Pro250 (888) 487-7845 www.quikdrive.com	\$329	Strip	Rope	31	1¾ in. to 2½ in.	8.8 lb.	6/0-3100	No adjustments necessary to change screw lengths.
Stanley-Bostitch CST2 (860) 225-5111 www.stanleyworks.com	\$189	Coil	Rope	167 (coil)	1½ in. to 2 in.	8 lb., 8 oz.	N/A	Screw gun not included.



QUIK DRIVE PRO250

The Quik Drive Pro series is designed for rigorous use. The screw gun and extension are the same as the QD2000XL, but the drive assembly is heavy-duty steel and cast iron. With a limited range of fasteners (1¼ in. to 2½ in.), this tool is specifically for subfloors. (The Quik Drive Pro300, which is scheduled to be available in early spring, is designed to drive 3-in. deck screws.) Between jobs, the Quik Drive Pro packs away fully assembled in a padded nylon rifle-style carrying case. A dimpled nonskid nose for precise screw placement and ease of toenailing is another feature that sets this unit apart. The kit as tested included the Quik Drive Pro250 autofeed unit, 24-in. extension with side handle, DeWalt screw gun, screw quiver and case.



STANLEY-BOSTITCH CST2

Unlike the other tools I tested, this coil-feed model is available only as an accessory, so the user has to furnish the screw gun. The kit includes mounting collars for a wide range of screw guns, but the carrying case does not provide room for the screw gun. This tool is easy to assemble, is easy to operate and includes a handy built-in blade for cutting away the spent collation rope that accumulates after a lot of screws have been driven.

With a fastener range of 1½ in. to 2 in., the CST2 is intended only for subfloor work. The kit I tested included the Bostitch CST2 autofeed unit, three adapter collars, four double-ended drive bits and hard plastic carrying case. The \$249 CST3 (2½-in. to 3-in. fastener range), which I didn't test, is intended for deck-building.

New player joins the game

Senco, a longtime leader in pneumatic fastening systems, recently entered the autofeed screw-gun market with its Duraspin Screw Fastening System (too late to be reviewed for this article). The first tool Senco released was a cordless screwdriver (DS200-14v) that's primarily intended for dry-wallers. By March, however, the company planned to have a complete line of corded autofeed tools and fasteners available to Senco dealers throughout North America.

Similar to the tools made by PAM and Grabber, the Duraspin corded models are attachment-style tools that use a floppy-tape collation. In addition to a dedicated 4000-rpm drywall tool, the Duraspin line includes two 2500-rpm tools for wood-screw applications: The DS200-D2 drives 1-in. to 2-in. screws, while the DS300-D2 drives 2-in. to 3-in. screws. Both models

come in a complete kit that includes a DeWalt screw gun, a flooring extension with side handle, two extra bits and a carrying case. Senco communication manager Jim Taylor estimates the street price will be \$249 for the DS200 and \$299 for the DS300. Duraspin also claims their collated fasteners are compatible with tools made by PAM, Grabber and Makita. For more information, call Senco at (800) 543-4596, or visit the Duraspin Web site (www.duraspin.com).

—D. M.

