



Tools of the Decade

by Clayton DeKorne

They say change comes slowly in the building trades. But consider recent changes in building tools. Ten years ago power miter saws and pneumatic nailers were relatively new to the trade, the Speed Square was only just beginning to gain widespread acceptance, and cordless tools were nothing more than consumer novelties. In this column I'll take a quick retrospective look at some of the tools that have proven indispensable to the trade in the last decade.

Speed Square Takes Over

Charleton Swanson first manufactured the Speed Square in the late 1920s. Word spread slowly, but today almost every contractor has at least one, if not a dozen, and most are familiar with its companion, the *Little Blue Book*, which is still one of the best rafter and stair cutting guides around. On the latest version of the Speed Square, the measured grooves along each leg have been backfilled in black for easy reading.

The Cordless Drill Revolution

Cordless drills have taken the industry by storm. In the last decade, cordless screwdrivers have evolved from low-power drills to high-torque drivers.

The workhorse in most trades has long been the 9.6-volt drill, most

notably the Makita 6093D. But just as this drill was gaining ground, Porter-Cable introduced the Magnaquench 12-volt cordless drill. This powerful drill relies on battery technology developed by the Delco-Remy division of General Motors for use in electric cars. In bench tests, the Magnaquench outlasted all other drills, (see "Bench Test: 12-volt Drills," 2/91), but with a no-load motor speed of 400 rpms, it was slow. Porter-Cable recently improved the battery and motor of the Magnaquench and added a two-speed gear box. In addition to the slow, dependable force of the original Magnaquench, the redesigned drill has a high-speed motor range (0 to 1000 rpms) for faster drilling and driving.

Today, every major power tool manufacturer has introduced a 12-volt drill. The most recent additions are from DeWalt, Hitachi, and Makita. All these drills have two features every drill should have — a keyless chuck and an electric brake.

Hammer drills and rotary hammers. With the advent of 12-volt cordless technology has come the 12-volt cordless hammer drill. The latest additions are from AEG, DeWalt, Makita, and Ryobi. An extra battery pack is a must with these tools for any extended hammer drilling, but the cord-free operation makes them ideal for drilling and driving concrete fasteners. The AEG hammer drill includes a convenient clip-on light that is useful for working in dark basements and crawlspaces.

Hitachi and Makita have both introduced cordless rotary hammers. Whether these have enough power for extensive drilling in concrete remains to be seen. We'll keep you posted.

Angle drill. A discussion of cordless drills would be incomplete without mentioning the Makita angle drill. This versatile drill is as powerful as other 9.6-volt Makita drills and proves invaluable for working in tight spaces. The latest version includes a keyless chuck.

Other Cordless Tools

Few other cordless tools have made such an impact on the trades, but their presence suggests what the future may hold for cordless tools.

Big power. In particular, the 24-volt Black & Decker Thundervolt line is testimony to the success of improved lead-acid battery technology. Ten

Thundervolt tools are available, including several 3/8-inch and 1/2-inch drills and screwdrivers, a 1/2-inch hammer drill, a 5/8-inch rotary hammer, and an 18-gauge metal shear. The Thundervolt tools are not absolutely cord free. A short cord hitches you to a five-pound battery pack, which hangs on your belt or over one shoulder. If you have to set the tool down frequently, this could be as cumbersome as dragging a cord. However, the system proves ideal for the metal building trades, at least, where workers must spend long hours working with many of these tools on scaffolding.

Circular saws have met with mixed success. Hitachi has discontinued production of its 10.2-volt saw with a 6 1/4-inch blade, while Makita continues to produce one. Some builders find this saw useful for cutting plywood on scaffolding and roofs where cords would otherwise get in the way.

Makita's smaller 9.6-volt 3 1/2-inch cordless circular saw lacks the power for extended soffit trimming and sheathing cutting, but it gets good reviews nevertheless. Siding contractors welcome this saw for trimming clapboards and shingles while working on scaffolding. And at least one remodeling contractor, Neil Momb of Issaquah, Wash., uses the small Makita saw with a diamond blade and water bottle as an indispensable tile saw (see *Toolbox*, 7/91).

Skil just introduced a 12-volt 3 1/2-inch circular saw, which might prove to have enough staying power for soffit work. Skil also sells this saw with a diamond blade and water bottle for tile work.



Skil recently introduced a 12-volt, 3 1/2-inch circular saw. The manufacturer claims it has the power to trim soffits and roof sheathing in place.

Recip saw. Makita makes a cordless reciprocating saw that is used widely among electricians for cutting in outlets and by remodelers for making plunge cuts in hard to reach places.

Staplers. A couple years ago, Arrow introduced a 7.2-volt cordless staple gun. This stapler accepts conventional 1/4-inch to 9/16-inch

T-50 staples, and competes with a hammer tacker for speed but beats it for accuracy. Makita just introduced a 9.6-volt version, which will reportedly drive up to 750 staples

on a single charge, and can handle 7/8-inch staples.

Sanders. Cordless quarter-sheet and half-sheet sanders have yet to prove themselves. Sanders need to be able to run continuously for long periods, and the models currently on the market still lack the battery power to last more than a short while.

Power nailers. Paslode has entered the "cordless" market with a framing and a finish Impulse nailer that compete with conventional pneumatic power nailers. The Impulse nailers rely on a linear combustion engine powered by MAPP gas (similar to propane) and a 6-volt battery. The Impulse nailers eliminate time and effort in maintaining a compressor and untangling hoses. On roofs and in stair passages, this extra convenience adds a margin of safety.

Charger Update

A few years ago Panasonic took a giant step forward in cordless technology by introducing a circuit-based charger that charges a 12-volt battery in just 15 minutes. Until then, all chargers were transformer-based machines that required at least an hour to completely charge even low-volt batteries.

The latest innovation in chargers has come from Black & Decker and AEG. Both companies have produced a universal charger that can charge most manufacturer's battery packs in only 13 minutes.

Universal chargers are expensive — close to \$250 — but if you have a slew of different cordless tools, each with a slow one-hour "fast charger," a universal charger could be worthwhile.

Compound Miter Saws

Not so long ago, the only way to make an accurate compound angle cut was with a radial arm saw or a handsaw. Then Delta introduced the Sawbuck, which made it possible to get an accurate cut with a more portable saw. But even this was bulky and it required wheels for lugging it around site.

In the mid '80s, Hitachi issued the first sliding compound miter saw. The motor and 8 1/2-inch blade are supported by two parallel bars that slide back and forth. Unlike a radial arm saw, the slide compound saw cuts on the push, so it is less likely to kick back. This very portable saw can crosscut a 2x12



Two of the latest 12-volt cordless drills — the Hitachi DS 10DVA (top) and the Makita 6211D (above) — both have keyless chucks and electric brakes.



Delta's 6 1/2-inch Frame and Trim Saw is a lightweight version of the old SawBuck. This new saw can crosscut a 2x12 and cut a compound 45 degree angle on a 2x10.

and put a compound cheek cut on a 2x8 rafter. Soon after Hitachi's introduction, Ryobi introduced a similar compound miter saw. The only drawback of these saws is you can't cut a 4x4.

Makita upped the ante by introducing a 10-inch version that can bevel 3 1/2-inch-thick stock. AEG has also introduced a 10-inch compound saw, but the depth of cut on this is still limited to about 2 inches. However, the AEG SKS 330 features an industrial-type single-phase induction motor (the type of motor that powers up slowly to a powerful, low-pitched hum) and a vacuum exhaust system that draws sawdust out through the table and the back of the saw.

Finally, just to even the score, Delta recently introduced a much smaller version of the SawBuck — the 33-060 Sidekick Frame and Trim Saw. This portable, 42-pound saw has a full 12-inch crosscutting capacity and a 9 1/2-inch (2x10) miter capacity — the widest yet.

What the Future Holds

Innovations in electronics are slowly finding their way into

building tools. One of the most eye-catching out there is the SmartLevel, which uses electronic sensors to read true level (Wedge Innovations, 2040 Fortune Dr. #102, San Jose, CA 95131). If the level gets dropped, as it inevitably will, it can be recalibrated to read true again. The SmartLevel is also a very useful angle measuring device. For those who don't like numbers but want a level that can be recalibrated, Zircon Corporation (1580 Dell Ave., Campbell, CA 95008; 408/866-8600) is on the verge of introducing a 4-foot electronic level, which has a simple analog display that almost matches the ease of reading a bubble.

A few years ago Toshiba invented the visible-light laser diode, a small electronic part that makes inexpensive laser levels more possible. The latest versions from Laser Tools Company (12221 Arch St. Pike, Little Rock, AR 72206; 501/888-8831) are priced at \$300 and \$200. How accurate they are remains to be seen. Look for lasers to show up soon on other measuring and layout tools.

Not all of the latest innovations are electronic, however. Self-feeding screwguns, such as those from QuickDrive (7528 Hickory Hills Ct., Whites Creek, TN 37189; 615/876-7278) and Grabber (205 Mason Circle, Concord, CA 94520; 800/477-8876) use old-fashioned mechanics to speed up the process of screwing off drywall and decking. As more builders come to realize that screwing and gluing subfloor is the best way to eliminate floor squeaks, these tools should join the league of indispensable tools. ■