

EDITED BY BRUCE GREENLAW



## Hougen HMD904 Mag Drill

BY SIM AYERS

As residential and commercial builders and remodelers, we install a mind-boggling amount of steel to meet the stringent seismic requirements of the California building code. To make mechanical connections, we drill ½-inch- to 1-inch-diameter holes through steel I-beam flanges up to ¾ inch thick and steel plates up to 1 inch thick. Until 2009, we bored these using standard high-speed-steel twist drills. Each took about an hour, and we could go through hundreds of dollars' worth of drill bits per job. Then, following the lead of local ironworkers, we started using a Hougen HMD904 portable magnetic drill with Hougen Rotabroach annular cutters.

At 27½ pounds, it's one of the lightest magnetic models on the market and can bore holes from 7/16 inch to 1½ inches in diameter, up to 2 inches deep. To use the drill, you position it on the material, press the rocker switch to turn on the magnet, push an adjacent button to turn on the motor, and rotate the feed handle to power the bit through. We squirt cutting fluid on the cutter before drilling each hole.

With the HMD904, we now drill an average hole in about two minutes. The annular cutters

are reasonably priced (an 1½-by-2-inch cutter costs around \$50). They typically drill more than 100 holes before they dull, and they can be resharpened. Like hole saws, the annular bits cut a plug out of the material (photo, above right), which means they convert far less solid steel into chips than standard twist drills do.

When using this tool, we always keep a handhold, in case the tool lets go. If working high up, we strap it to the work with the included chain. We learned that lesson the hard way: A mag drill once fell 20 feet when its power cord unplugged, smashing onto the rocks below.

### HMD904 Specs

Weight (by mfr): 27.5 pounds

Amps: 8

Max. hole size with annular cutter:  
1½-inch diameter by 2 inches deep

Price: about \$925

Warranty: 1 year

[Hougen / hougen.com](http://Hougen.com)

Sim Ayers owns SBE Builders, in Discovery Bay, Calif.

### SPLASH CONTROL

During a recent indoor demo at a drywall yard, I was about to mix a full 5-gallon bucket of joint compound with my power mixer when a store employee handed me a Bucket Splash Guard to snap onto the bucket. He said he wanted my opinion of the product, but I think he also didn't want me to make a mess. Made from recycled plastic, the guard is about 6 inches tall and tapers slightly toward the top, which has an inner lip. The guard popped on and off the bucket easily and did such a good job of containing splatters that I now often use one when mixing buckets of compound and paint where I need to keep the floor or my clothes clean. Cost: \$14.95, plus shipping and handling, at [bucketsplashguard.com](http://bucketsplashguard.com).

Myron Ferguson is a drywall contractor in Middle Grove, N.Y., and presents the Drywall Trade Secrets clinic at JLC Live.



## RUST WARRIORS

It's hard to imagine a more corrosive environment than the northern California coast, where I live. Rust Free and Boeshield T-9, two products manufactured by PMS Products (boeshield.com), have been working well for me to both remove and protect against rust on vulnerable tools and equipment.

To remove light rust, simply spray on Rust Free, allow the acidic solution to penetrate, then wash it off. Remove heavier rust with multiple applications and abrasive pads. T-9 is a solvent and paraffin-wax formula developed by Boeing to lubricate aircraft components while defending against rust and corrosion. It displaces moisture and dries to a thin film.

I've used the two products to remove rust from my thickness planer's cutterhead, for example, and to keep it rust-free—which used to be a chronic headache. And SawStop just told me over the phone that T-9 is a good choice for protecting the cast-iron surface of its contractor table saw. The products shown cost between \$13 and \$16, but other containers and sizes are available. —Bruce Greenlaw is a contributing editor to JLC.



## Hitachi NV50AP3 Cap Nailer

BY JOSH DUNLAP

**Like many builders, we used** to use hammer tackers to staple up housewrap, felt, and other siding and roofing membranes. Hammer tackers are fast, but they can cut through the material, the staple holes can leak, and foot traffic or wind can tear the material off the staples.

Using capped fasteners can eliminate those problems, which is one reason why many major manufacturers of housewrap and synthetic roofing underlayment now recommend or require them. Plastic caps increase a fastener's surface area, thereby increasing its holding power. As a result, the membrane is much less likely to tear out from underneath the fastener, especially when exposed to wind—even a light breeze can pressurize housewrap and underlayment, causing tears around staples and ordinary roofing nails.

We switched to hand-driven plastic-cap nails a few years ago to comply with the new manufacturer recommendations. The fasteners work well, but only a small number can fit into a nail bag, and hand-nailing is awkward and slow. Hoping to dramatically speed up the work, we bought a pneu-

matic Hitachi NV50AP3 coil cap nailer. That was almost a year ago, and so far, we've been happy with that decision.

### NARROWING THE FIELD

We initially considered buying a pneumatic cap stapler, but quickly switched our focus to cap nailers because nails are more dependable in high winds and are approved by more synthetic-roofing underlayment manufacturers. Also, the most powerful cap-nailer models can drive longer fasteners.

Based on my research, we shortened the list to two options: the Bostitch N66BC and the Hitachi NV50AP3. The Bostitch can drive cap nails up to 2½ inches long, so it can be used to attach 2-inch-thick foam. It holds 300 coiled nails, but only one cylinder of 100 string-collated plastic caps, which means you have to reload the caps three times per nail coil.

The Hitachi, on the other hand, drives cap nails up to only 2 inches long but conveniently holds 350 coiled nails and a matching reel of 350 plastic or metal caps. Also, we've owned more than 20 Hitachi



nailers during the past 13 years with almost no complaints, and the NV50AP3 is a third-generation model that has been on the market since 2005. Although the Hitachi cost about \$180 more than the Bostitch, we bought the Hitachi.

#### THE VERDICT

We've used the NV50AP3 to install Tyvek HomeWrap, ¼-inch fan-fold foam, #30 roofing felt, and RhinoRoof synthetic roofing underlayment—driving more than 30,000 1¼-inch-long plastic-cap nails. Hitachi sells them by the case for about \$52, packing 2,800 caps and nails into a sturdy cardboard box with dividers that keep the rolls from uncoiling.

I'd estimate that using the tool is at least five times faster than hand-nailing. Once we dial in the driving depth, the NV50AP3 consistently sets nails to the desired depth even in foam, which is hard to do when hand-nailing. Although we've used the tool in temperatures down to 15°F, it has misfired only occasionally—when a cap hadn't completely severed from the roll. It was easy to clear the problem and get back to work.

As advertised, the tool is well-balanced and feels lightweight. The cap magazine is bulky but doesn't prevent us from nailing into tight spots. The cap and nail magazines

are both easy to load one-handed while we're working out of a nail apron on a roof or ladder, holding the tool with the other hand. We also appreciate the translucent magazine covers, which let us check the contents at a glance. You can easily adjust the exhaust vent so it doesn't blow air in your face, and a simple switch toggles between bump and sequential firing.

On the downside, the tool doesn't have a rafter or belt hook, and you have to install your own ¾-inch NPT male plug at the air inlet. But overall, Hitachi's cap nailer has been a great tool that's paying its way in labor savings.

#### NV50AP3 SPECS

**Weight (by mfr):** 5.52 pounds

**Nail lengths:** 7/8 inch to 2 inches

**Nail capacity:** 350 (1 coil)

**Cap capacity:** 350 (1 reel)

**Price:** \$500

**Warranty:** 5 years, 30-day satisfaction guarantee

**Hitachi / [hitachipowertools.com](http://hitachipowertools.com)**

*Josh Dunlap is production manager for Consolidated Design & Construction Group, a residential design/build remodeling contractor in St. Louis.*

#### HEAVYWEIGHT CATALOG

The 2013–2014 Grainger catalog just landed in my mailbox with a thump: Its 4,674 pages weigh about 8 pounds and offer more than 570,000 products. There are hand tools, power tools, and accessories, plus loads of safety gear, from eyewear to fall protection. But you'll also find motors and bearings, circuit breakers and thermostats, hand trucks and casters, hoists and winches, thermal imagers and video borescopes, ladders and scaffolding, nuts and bolts, lags and deck screws, pneumatic hoses and couplers, pumps and water heaters, gate valves and check valves, airless sprayers and welding supplies, and so on. There's also useful technical information, such as an LED lighting guide on page 661.

I can't remember if I've ever ordered from Grainger. I've always found lower prices for power tools elsewhere. But I've used the catalog as a problem-solver and idea book for years, even consulting it for terminology. Order the free catalog at [grainger.com](http://grainger.com) or by calling 800.472.4643. You can also view it online. —B.G.

