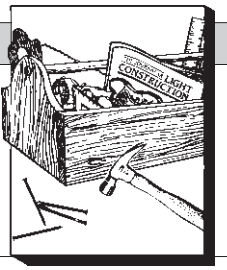
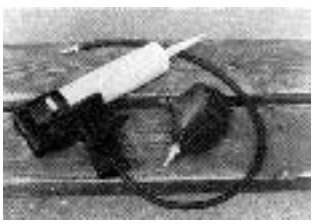


Specialty Air Tools

by Sanford Wilk and Clayton DeKorne

Pneumatic nailers have become so commonplace with both framing and finish crews that one builder I know calls the standard hammer "one of those things you hit things with." Even the the little bit of usefulness the hammer retains—for "making adjustments" and getting into tight spots—is now being challenged by technology in the form of the Danair air hammer. And it may not be long before other common tools, such as the caulk gun, fall by the wayside as well.



A pneumatic caulk gun, such as this one by Roeann Industries (left), pressurizes the end of the caulk tube and the pressure in the tube forces the caulk out. The Danair RN 16-20 Air Nailer (right) drives single nails one at a time.

Close Quarters Nailgun

At first glance, the Danair RN 16-20 (Danair Inc., P.O. Box 3898, Visalia, CA 93278; 209/734-1961) looks like a palm sander, except in place of a pad it has a snout that bangs nails. It's easily held with one hand and weighs in at a feathery two pounds. Unlike coil and strip-nailers, the Danair uses *common nails* (yes, the loose variety). But, unlike these other air nailers, you have to feed the Danair one nail at a time. You wouldn't want to use the Danair to nail off sheathing. But this palm-sized nailer can handle specialty jobs that a larger air nailer can't, and it can handle them a lot faster than a hammer.

The Danair can be operated wherever your hand will fit. It's simple enough to use but takes a little practice to come up to speed. You position a nail with your left thumb and forefinger, just as you would to start a nail with a hammer. By placing the nose of the Danair over the nail, and pressing the tool lightly towards the nailing surface, the Danair's driving piston sends the fastener home. It drives the nail with a quick staccato of short bursts: it's more like a jack hammer than a conventional air nailer that drives the nail in one blow. It took me two hours of use to get the feel of the Danair. After that point, however, I could drive 41 eight-penny commons in one minute.

Because the Danair fits easily into a joist bay, it's an ideal tool for nailing off joist hangers. The Danair accepts the chunky little nails intended for the hangers. But be forewarned. This tool is noisy, especially when you have your head up in between two joists. I strongly advise using hearing protectors.

The Danair nailer also works well to drive hardened nails into concrete. It will drive the nails without chipping fully-cured concrete.

No matter how hard I tried, the Danair didn't want to bend a nail. This makes it valuable when you're up against low-quality, imported nails, and the long hours that will cause even a seasoned carpenter to bend an occasional nail…or beat an occasional thumb. I drove everything from 6d commons to 50d pole barn nails with the same ease and regularity.

When my attempts at nail-bending failed, I tried to make the Danair split hardwood. Nails driven near the ends of an old, dry piece of quarter-sawn oak went in easily and set well. And, the Danair didn't split the grain, perhaps because of the staccato action of the nail as it is driven.

Accessories include spacers that can be added (or removed), so that the final depth of the nail can be adjusted. And since the tool does give your hand a strong case of the 'tremors,' a leather glove that fits around the tool is available.

Like most air nailers, the tool is sold without a male coupling, so I screwed a nipple into the back of the tool. This proved to be dangerous. My hand vibrated the sleeve of the female connector down, the hose disconnected, and the coupling, under pressure, flew back and narrowly missed my head. I solved the problem by permanently attaching an 18-inch hose to the tool with a nipple on the far end.

Danair makes a conversion kit that allows the tool to drive finish nails. The conversion requires dismantling the front end of the tool and replacing the piston and nose piece. This takes about 20 minutes. I don't recommend the kit, only because there are so many light and maneuverable finish strip-nailers on the market that don't require hand feeding. The Danair is valuable for specialty jobs. When it competes with conventional pneumatic nailers, it fails.

A sister to the Danair RN-16, the AH-15 is a little more worthwhile. This unit has a blunt nosepiece for "tapping" things into place. Rubber, plastic, aluminum, or steel tips are available but to interchange the tips, you have to dismantle the tool, as with the finish conversion kit. The rubber and plastic tips seemed useful for nudging things into place, such as tongue and groove flooring, plate-joined pieces, or, for renovation work, headers, posts, and anything requiring a little "adjustment." The steel tip made the tool a good substitute for a concrete vibrator. Beating the outside of the formwork during a pour eliminated honeycombing. While this tool saves you the fatigue from slinging a sledgehammer, I strongly recommend the use of the glove with this tool. The vibration is very strong.

The Danair RN-16 sells for $250. The AH-15 goes for $208.45 and the tips range in price from $9.95 to $25.25. I recently heard that the patent on the Danair expired. Another company has copied the deisgn of this nailer and sells it for $99. But even at the cost of the original, the time saved on the installation of joist-hangers alone could pay for the nailer in just a few jobs.—*Sanford Wilk*

Pneumatic Caulk Gun

Roean Industries (12970 Branford Street, Suite C, Pacoima, CA 91331; 800/447-6326) has been making pneumatic caulk guns for 25 years. The guns are as lightweight as any conventional caulk gun but they allow for better control over the size of the bead and make the application of stiff caulks and adhesives much easier. Also, because there is no plunger, you never have to worry about a tube getting stuck in this tool.

These air guns work by pressurizing the end of the caulk tube and the pressure in the tube forces the caulk out. When you buy caulk for these tools, avoid damaged tubes, otherwise you won't get a good seal on the end. Plastic tubes work especially well.

Only 10 to 15 psi of line pressure is needed, so you must have a regulator on your compressor. Depressing the trigger only a little lets just a small amount of the air in the line into the tube, which lays down a narrow bead. The remaining air in the line escapes out the back of the gun. Depressing the trigger all the way allows all of the line air into the tube which forces out a wider bead. Releasing the trigger automatically releases all of the air in the tube, so there is no run-on.

The released air escapes through a port that's directed down, in line with the handle, and away from the user. Even when I used the gun above my head, the exhaust never got in my face, since the end of the handle was always directed away.

Fifteen psi is more than enough pressure to squeeze out ordinary latex, acrylic, or silicone caulk and most construction adhesives. If you have more pressure than this in the line, however, even the slightest squeeze of the trigger will squirt out most of the tube in one place. For stiff polyurethane and butyl caulks, acoustic sealants and asphalt roofing cements, I had to go up to about 20 psi. At this pressure, it was surprisingly easy to lay down a bead of these otherwise ornery sealants.

Roean pneumatic caulk guns accept either conventional quart-size tubes or the smaller 12-ounce variety. The quart-sized gun costs about $45 and the smaller size sells for $30. The price is a bit higher than a high quality skeleton gun but the convenience is worth the price.—*Clayton DeKorne*

Sanford Wilk is a builder and architect in Springfield, Mass. Clayton DeKorne is an associate editor with JLC.

TOOL BITS

by Clayton DeKorne

The first generation of high-tech levels could become obsolete sooner than we think. *Toshiba* has recently developed a tiny, durable microchip-driven laser that is ideally suited to construction work. The laser beam is generated by a visible-light "laser diode," which is smaller than a quarter and only costs a few Yen to produce. Laser transits currently on the market use a helium-neon laser that is relatively big, extremely fragile unless protected by a lot of armor, and requires a good deal of engineering to power on site with batteries. Consequently, laser transits are enormously expensive. The new diode doesn't need the armor since it uses a computer chip in place of a gas tube. And it consumes as little power as 0.1 watts at 3 volts. Rumor has it this may drop the price of laser transits, and pave the way for cheap and accurate high-tech levels.

Meanwhile, spirit levels remain in the running, but keeping them true is still an issue. So what do you do besides note any discrepancies in a reading and compensate for them? I ran into some craftsmen in Milwaukee (*The Wood Level Repair Co.*, 521 W. Mineral St., Milwaukee, WI 53204; 414/383-1111) who offer another option, at least for wood levels. They still true wood rails by eye. They run the rail (brass edges and all) through a sander but they caution that thin brass might get sanded through if the rail is very warped. They also refinish the rail with linseed oil, and reset the vials. The cost of this delicate overhaul is only $15 or $20, depending on the size of the rail. New vials, if needed, cost an additional $2 each.

Responding to the need for a tougher level, *Plumb-It, Inc.* (3045 N. Dodge Blvd., Tuscon, AZ 85716; 602/881-5777) is using a new vial in its "extendable levels." It is made of solid acrylic plastic. The bubble looks like a fly cast in amber, but I was told the vial is actually milled, not cast, into the 3/4-inch-thick round of clear plastic. The round is chemically welded into the rail. Paul Semler, the contractor who makes the extendable levels, is betting this new construction will keep his level from getting knocked out of whack. He guarantees his levels will remain accurate to within .05 inch (less than 1/16) over 4 feet. Semler is also thinking of using the new vials in standard 2- and 4-foot rails which don't extend.

On a framing note, I recently discovered a cleverly designed tool that can save a lot of time on layout. The device was invented in the 1950s and has just been rediscovered by a California framer who now markets it. The device, called the *Mark 16* (Mark 16, Inc., 1185 Park Center Drive, Suite E, Vista, CA 92083; 800/752-7494, or 619/598-0960 in Calif.), marks out 16- and 24-inch centers on plates and band joists. It uses a wheel with little rubber stamps and a built-in ink pad to print lines as you roll it down the plate. The wheel can be lined up to lay down the first mark at 15 1/4 inches (for a 16-inch layout) so the plywood break is correct. The number 16 falls to the stud side of the line in lieu of an X. For 24-inch layouts, another rubber stamp is inserted at the 8-inch mark, and you use every third line. And I was pleased to discover that the Mark 16 can accommodate different framing styles. If you lay out the edges of your plates, the line is 2 1/4 inches long so it's wide enough to span across the edges of the top and bottom at once. A guide keeps the marks square to the edge of the board so it also works if you lay out on the face of the plates. ■