

by JLC Staff

Innovative Tools & Materials

STRUCTURE

Footer Form/Drain Combo

The *Snap Forms* combination footer form and foundation drain system uses modified plastic drain pipe placed in trenches in two parallel rows. Reusable rebar stakes and adjustable clamps hold the pipe in position, and the inner and outer perimeter drains are connected with crossover pipes. The trench is then backfilled with gravel to retain the concrete. Rebar hooks are available for hanging reinforcement, and the tops of the pipes act as a screed. The cost is about \$1.10 per linear foot of wall.

Contact: Snap Footing Systems, P.O. Box 1810, Fairview Heights, IL 62208; 800/334-4460.



Reusable Debris Chutes

Here's a better way to handle debris from roof tearoffs and second-story gut remodels. The *Plastic Debris Chute* is a complete system of 32-inch-diameter straight chutes, intake hoppers, and protective panels made of injection-molded high-density polyethylene (HDPE). Individual sections are fitted with connecting chains and are tapered for easy storage and assembly. Initial cost may seem high — a basic system suitable for erecting a second-story chute, including mounting hardware for scaffolding and flat or pitched roofs, costs about \$1,000. But compared with custom-built stud-and-plywood chutes, which waste material and require more labor to install, the reusable Plastic Debris Chute will pay for itself after only a few jobs.

Contact: Chutes International, 22 Irongate Dr., Waldorf, MD 20602; 800/882-4883; www.chutesintl.com.

STRUCTURE

Wet Basement Solution

This recycled plastic membrane can be used to control water on both the outside and inside of a foundation. Wrapped around the exterior, the dimpled surface of *Hydro-Guard* promotes the flow of underground water to perimeter drains. As an interior retrofit solution for wet basements, the material captures water leaking through the wall and directs it to sub-slab drain tile. *Hydro-Guard* is available in rolls up to 8 feet wide and 65 feet long, priced between \$80 and \$135 per roll (in full skid quantities). The manufacturer also supplies fasteners, washers, plugs, and trim strips. A sister product, called *Warm-Crete*, comes in 1x3-meter foam-cushioned sheets that can be applied directly to a slab to isolate finish flooring from moisture or to control radon.

Contact: Hydro-Cell Inc., 1588 Stonechurch Rd. East, Unit #4, Hamilton, Ontario L8W 3P9 Canada; 800/289-8314.



Flexible Framing Anchor

A new material called *Millibar* is designed as a tension tie to anchor framing. The 2¹/₂-inch-wide flexible strap is made of Kevlar, which has a tensile strength of 525,000 psi and is impervious to heat, cold, water, and salt air. Installed in an "X" or "V" pattern and securely fastened



along its entire length, the strap adds shear strength to walls and roofs. By creating a kerf in the sheathing where roof and wall meet, *Millibar* can also be used as a super-strong hold-down. The material comes in 230-foot coils and wholesales for \$2.20 per linear foot.

Contact: New Necessities, 5710 Pebblebrook Trail, Gainesville, GA 30506; 770/844-9438; www.millibar.com

Engineered Subflooring

A new structural flooring panel called *Advantech* is designed to be more stable and more water-resistant than plywood. Available in 4-foot-wide tongue-and-groove sheets up to 16 feet long and in thicknesses ranging from 19/32 to 1¹/₈ inches, the four-layer oriented strandboard is bonded with an advanced, non-formaldehyde resin adhesive that the manufacturer guarantees will not need sanding due to moisture absorption. The homogenous material has no voids or knots, will not delaminate, and comes with a 50-year guarantee against defects.

Contact: Huber Engineered Woods, 10925 David Taylor Dr., Suite 300, Charlotte, NC 28262; 800/933-9220; www.huberwood.com.



Steel Stud Insulator

A new insulating system is designed to eliminate thermal shorts through steel studs, joists, and headers. The *Snap-Cap*, which uses Amofoam (Tenneco) or Foamular (Owens-Corning) rigid EPS insulation, is designed to friction fit over the flanges of standard steel studs and joists; a self-adhering *Flat-Cap* is used for headers and doubled members. The components are available in thicknesses from 1/2 to 2 inches, and in 4- and 8-foot lengths, and provide an insulating value of R-5 per inch. Prices range from 10¢ to 16¢ per linear foot.

Contact: United States Building Technology, 701-B Waverly St., Framingham, MA 01702; 508/424-0055; www.usbt.com



Concealed Deck Fastener

The best hidden decking fastener we've seen yet is called the *Eb-Ty*. The plastic connector is fastened to the joists from above with a screw angled at about 20° to the decking. The oval-shaped flanges, which fit into slots cut with a plate joiner at the point where each deck board crosses a joist, hold the deck boards tight to the framing and serve as positive stops to provide consistent spacing between boards. Designed by a custom home builder and remodeler, the *Eb-Ty* sells for about 40¢.

Contact: Eb-Ty, P.O. Box 414, Califon, NJ 07830; 888/438-3289; www.EBTY.com.



Insulated Drywall

A new material called *In-Sulate* combines drywall and foam insulation into one piece. Available in sizes up to 4x16 feet, the 1/2-inch or 5/8-inch standard or fire-rated drywall panels have a 1- to 5-inch-thick layer of urethane foam permanently bonded to the back, and can be screwed to wood or steel framing, or glued to masonry. The layer of foam, which serves as a built-in moisture barrier and provides an insulating value of R-7.2 per inch, is said to reduce sound transmission and eliminate thermal bridging and telegraphing of steel studs. Ideal for achieving insulating values in cathedral ceilings, the panels can span steel or wood framing up to 3 feet on center. The price for a 1-inch foam panel is 65¢ per square foot.

Contact: Agile Building Systems, 30 West Third St., Third Floor, Williamsport, PA 17701; 888/326-5640; agilejkb@aol.com.



Low-E Interior Finish

A new type of wall finish can cut heating costs by up to 30%, according to the manufacturer. Called *Radiance*, the low-e interior coating applies like interior latex paint, but contains microscopic reflective particles in suspension. When used as a top coat, the formulation serves both to block radiant energy from entering a building, which reduces cooling costs, and to reflect radiant energy back into the room, reducing heating costs. The washable, stain-resistant coating is available in flat and eggshell finishes and in 72 colors, plus white.

Contact: ChemRex Inc., 889 Valley Park Dr., Shakopee, MN 55379; 800/766-6776; www.radiancecomfort.com.



Modular Paneling System

A panelized wall and ceiling finishing system called *Natural Impressions* provides a variety of 1/2-inch-thick veneered MDF panels, battens, and moldings. The modular interlocking components can be applied vertically, horizontally, or diagonally to create wainscoting, base cabinet finish panels, and other trim accents in both residential and commercial applications.



Contact: HDM USA, 4200 Northside Pkwy, Building 4, Suite 100, Atlanta, GA 30327; 404/842-0077.

Versatile Hardwood Flooring

Creating a custom hardwood floor just got easier. *Maple Herringbone Planks* are made by alternating the grain in five plies of hardwood laminated into 1/2 x 2 1/2 x 12 1/2-inch planks. The tongue-and-groove planks are specially treated to virtually eliminate expansion due to moisture, according to the manufacturer. Right- and left-handed planks can be arranged into more than a dozen patterns, including parquet and single-, double-, and triple-herringbone. The company supplies a template to promote speed and accuracy during installation.

Contact: Anderson Hardwood Floors, P.O. Box 1155, Clinton, SC 29325; 864/833-6250; www.andersonfloors.com.



Radiant Heat Subfloor Panel

A new radiant heating system combines APA-rated composite subflooring and heat-transfer plates into a single 1 3/32-inch-thick 4x8 tongue-and-groove panel. The *Warmboard* has a conductive aluminum top layer permanently bonded to the substrate, and is manufactured with a regular pattern of 12-inch on-center grooves designed for use with 1/2-inch PEX tubing. Panels with 90° and 180° turns are available for the perimeter, and custom grooves can be cut with a 5/8-inch core box router bit. The PEX is pressed into an adhesive, which aids heat transfer and keeps the tubing from moving.

Contact: Warmboard, 5508 SW Kruse Ridge Dr., Portland, OR 97219; 503/977-1011; www.warmboard.com.



INTERIORS

Self-Leveling Topping

A self-leveling topping compound called *Firm-Fill 2010* is specifically formulated for use over wood subflooring. Available through licensed installers, the gypsum-based material is poured to a recommended thickness of $\frac{3}{4}$ inch, but can take a feather edge and is walkable within 90 minutes of pouring. The company's line of products also includes sound-barrier matting and topping compounds for concrete and radiant heating.

Contact: Hacker Industries, Inc., 610 Newport Center Drive, Suite 100, Newport Beach, CA 92660; 800/642-3455; www.afsonl.com.



KITCHEN & BATH

Solid Surface Shower Pan

A new 42x42-inch stock size shower floor is now available in either fiberglass or solid-surfacing material. The non-porous *Swanstone Shower Floor*, which resists staining and the growth of mold and mildew, is available in five solid colors and thirteen aggregate colors.

Fiberglass units are built with a "no give" ribbed-bottom design and slip-resistant surface, and are available in white and bone.

Contact: Swan Corp., One City Centre, St. Louis, MO 63101; 314/231-8148; www.theswancorp.com.



Roomy Medicine Cabinet

Next time you replace a client's stud-bay medicine cabinet, give them two cabinets in one with the *CLR Cabinet*. The 14x18-inch central storage area is an extra-deep $5\frac{1}{2}$ inches, and fits in a standard 2x4 bay; the surrounding compartment (2 inches on the sides, 3 inches on top and bottom) stands proud of the wall surface and is equipped with built-in organizers for storing smaller items. Part of the company's CabFit series, the CLR Cabinet costs about \$99 and is available with an optional incandescent vanity light fixture.

Contact: Robern Inc., 7 Wood Avenue, P.O. Box 2145, Bristol, PA 19007; 215/826-9800; www.robern.com.



Lightweight Tub

The new *Naples NXC* bathtub is made using DuraCore, a lightweight but durable material that resists impact damage, dampens noise, and provides superior heat retention, according to the manufacturer. Designed with integral footings that eliminate the need



for leveling, the bathtub is available in standard sizes and in 2 colors. White costs about \$331, natural \$397.

Contact: Eljer Plumbingware, 14801 Quorum Dr., Dallas, TX 75240; 800/435-5372.

Corner Toilet Frame

Where bathroom space is at a premium, the corner-mounted *Missel Compact Toilet Cistern* occupies just $8\frac{5}{16}$ inches in depth. Designed to accept a wall-mounted bowl, the outlet can be swiveled for easy connection to the roughed-in drain line; the water supply can be connected to either side of the 6-liter tank, which features a flush-stop button. The insulated mounting frame ensures a quiet flush, and accepts drywall or backerboard.

Contact: E. Missel GmbH & Co., Bettina Albers, Postfach 50 07 64, D-70337 Stuttgart, Germany; +49 (0711) 5308-106; www.Missel.de.



DOORS & WINDOWS

Easy-Wind Torsion Spring

A new spring winding system for garage doors transfers the torsion load to the jambs, so there's no need for an accurately mounted loadbearing center bracket. The *EZ-Set Torsion Spring System* can be wound using a $\frac{3}{8}$ -inch drill instead of manual winding with steel bars, making installation and adjustment faster and safer, according to the manufacturer.



Contact: Clopay Building Products Co., 312 Walnut St., Suite 1600, Cincinnati, OH 45202; 800/282-2260; www.clopaydoor.com.

Egress Skylight

A new side-hinged skylight called the *Roof Door* has two open positions for ventilation and a third fully-open position that meets emergency egress requirements. Available with right- or left-hand hinges, the unit requires a rough opening of 30x 47 $\frac{1}{4}$ inches and is intended to be installed within reach of room occupants.

Contact: Roto Roof Windows, Division of Roto Frank of America, Research Park, P.O. Box 599, Chester, CT 06412-0599; 800/243-0893.



Aluminum Patio Door

The M-7000 and M-7500 *Classic Swinging Patio Door Systems* are made with an MDF core and a rugged, maintenance-free aluminum frame and exterior. The interior face is a pine or oak veneer. The weather-resistant design of the M-7500 series includes thermal breaks at the door panels and foam-filled hinge stiles. Both door systems are available in one-, two-, and three-panel options with or without sidelites. The doors will accommodate 1-inch glazing and can be painted or stained.

Contact: Wells Aluminum Corp., 809 Gleneagles Court, Suite 300, Baltimore, MD 21286; 410/494-4500; www.wells-aluminum.com.



Electronic Lockset

An electronic deadbolt called the *Powerbolt 3000* operates by remote control or by means of an entry code keyed into its touchpad. Powered by four AA batteries, the lock includes an alarm system that is activated after three consecutive invalid entries; a thumb latch unlocks the deadbolt from the inside, and a conventional key will override the system from the outside. Designed to fit standard bores and backsets, the lock's remote may also be compatible with some garage door openers.

Contact: Weiser Lock, 6700 Weiser Lock Drive, Tucson, AZ 85746; 800/343-9652; www.powerbolt.com.



Smart Rain Sensor

This motorized accessory automatically closes skylights in bad weather, but is "smart" enough to distinguish between humidity and rain. Velux's *Heated Rain Sensor*, which attaches to the roof or to the outside of skylight, works by activating a heating element whenever the sensor detects moisture on the glazing. If the source is morning dew or indoor humidity (from a bathroom, for instance), the moisture evaporates; if the moisture persists, the motor automatically closes the skylight. The system is part of the KES-310 Electric Control System, which also operates shading accessories for up to three skylights.

Contact: Velux-America, Dept. M, P.O. Box 5001, Greenwood, SC 29648; 800/283-2831; www.velux.com.



DOORS & WINDOWS

Adjustable Steel Door Frame

This 90-minute steel door frame is suitable for residential interior and exterior applications. The *Kerf Rediflex* is adjustable for walls from 4 to 10¹/₂ inches thick, and for openings up to 4x8 feet. The pre-formed kerf accepts weatherstripping when the frame is used in exterior locations. The 22-gauge jambs, which are stamped to accept 4-inch butt hinges, are available in a smooth or wood-grain texture and can be ordered prefinished or primed (stain kits are also available). The frame can be cased in wood, steel, aluminum, or vinyl.

Contact: Rediframe Products, P.O. Box 6416, Dothan, AL 36302-6416; 800/633-7553; www.dunbarton.com



ELECTRICAL & MECHANICAL

Flexible Gas Line

A new flexible gas piping system called *GasTite* is premarked to eliminate measuring, and reduces the number of fittings required by up to 75%, according to the manufacturer. The corrugated stainless steel tubing, which comes in diameters of ³/₈, ¹/₂, ³/₄, and 1 inch, is wrapped in a flame-retardant polyethylene jacket, and is part of a complete system that includes fittings, manifolds, shutoffs, regulators, and termination outlets.

Contact: Titeflex Corporation, 603 Hendee St., Springfield, MA 01104; 800/662-0208; www.titeflex.com



Halogen Puck Lights

Low-voltage halogen puck lights are now available in two- or three-light kits. The *Maxi-Light II* comes complete with a 6-foot quick-connect lead, a 60-watt 12-volt transformer (hard-wired or plug-in), and 20-watt, dimmable halogen bulbs. The low-profile fixtures can be recessed into the underside of a ³/₄-inch-thick shelf, or surface-mounted with the supplied hardware.

Contact: Outwater Plastics Industries Inc., 4 Passaic St., Wood-Ridge, NJ 07075; 800/631-8375; www.outwater.com.

Low-Voltage Dimming Ballast

The new *Eco-10* 10-volt Option dimming ballast is designed for direct connection to 10-volt building automation systems, daylight sensors, or dimming controls. The ballasts operate with T4, T5, and T8 fluorescents, as well as 120-volt, 32-watt, 4-pin compact fluorescents. Suitable for 1-, 2-, or 3-lamp fixtures, the dimming range is from 10% to fully lit.

Contact: Lutron Electronics Co., 7200 Suter Rd., Coopersburg, PA 18036; 800/523-9466; www.lutron.com.



Low-Profile Heating Mat

A ¹/₈-inch-thick electric heating mat called *Suntouch* can be installed under thinset tile, stone, or marble. Available in 12- or 24-inch widths in lengths up to 80 feet, the low-profile mat connects to a control that contains a circuit interrupter, high temperature limit sensor, and a transformer for use with programmable timers. The side-by-side configuration of the heating elements reduces EMF by 80% over single-wire elements, according to the manufacturer, who also claims that a 12-inch by 20-foot mat in an average-size bathroom will use the same amount of energy as three 100-watt light bulbs.

Contact: Bask Technologies, 3131 W. Chestnut Expressway, Springfield, MO 65802; 888/432-8932.



TOOLS & EQUIPMENT

Simple Staging

Here's one of the easiest work platforms to erect, move, and store that we've seen. The *Monojack* consists of two telescoping legs with folding supports on one end and a spade point on the other. One of the supports rests against the wall; the other supports a plank. The leg extends at a 45° angle from the building, and is held fast in the earth by the spade point. Perfect for single-story siding, exterior trim, and painting jobs.

Contact: Reechcraft, P.O. Box 2426, Fargo, ND 58108; 888/600-6160; www.reechcraft.com.



Cordless Technology

In a pioneering effort to push beyond Ni-Cad batteries, Makita has teamed up with the Energizer bunny to produce a *Ni-MH* (nickel metal hydride) battery for cordless tools. Sporting a 2.2 amp-hour rating, these batteries have the highest capacity of any cordless batteries currently available, delivering almost 20% longer run times. The new batteries were launched with the latest Makita 14.4- and 12-volt drill kits, which include a one-hour universal charger that will charge both the new Ni-MHs and the Makita Ni-Cads. Individual replacement batteries, including the 9.6-volt "stick" style, are also available for other Makita tools.

Contact: Makita USA, 14930 Northam St., La Mirada, CA 90638; 714/522-8088.



Sensible Saw Guide

The *Prazi SawMate* attaches to the shoe of any 6-, 7¹/₄-, or 8¹/₄-inch circular saw (including worm drives), allowing you to rip from a fat 1/16 inch up to 24 inches. The guide's base plate mounts permanently on the saw shoe, but does not rock or otherwise affect the saw. The ripping setup involves simply inserting a 21-inch solid-steel rod; a second rod sets a stop for chopping.

Contact: Prazi USA, 118 Long Pond Rd., #G, Plymouth, MA 02360; 800/262-0211; www.praziusa.com.



Better Bits

At \$20 each, you'd expect these drill bits to be something special — and they are. The new *3D Zip Bits* cut as clean as, but considerably faster than, most Forstner, spade, or twist drill bits. The crown resembles the end of a Forstner, but the side cutters have been ground to allow faster chip removal. The back of the crown is also sharpened, allowing it to back cut when the bit is angled. Combined with a narrow tapered shank, these features enable you to bore curved holes — around a knot, for example, or when roughing in a tight mechanical feed. Its fast, clean cuts make this bit an excellent choice for most finish boring — from floor plugs to lock mortises. Available in eight sizes from 1/4 to 1 inch.

Contact: RotoZip Tool Corp. 1861 Ludden Drive, Cross Plains, WI 53528; 800/521-1817.



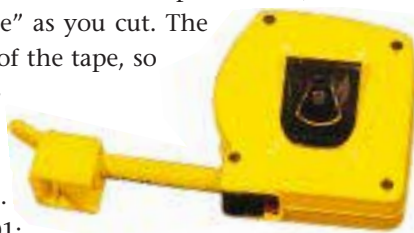
Wolfcraft offers a new line of *Pro Cutter* utility knives that feature the quickest blade change we've seen. With the blade fully closed, you slip off the black insert on front, extend the blade, lift it out, and insert a fresh one. Extra blades can be stored in the other end of the handle. A cast metal housing and smooth retractor make this one of the better knives available for the pro.

Contact: Wolfcraft, 1222 W. Ardmore Ave., Itasca, IL 60143; 630/773-4777; www.wolfcraft.com.

Innovative Knives

When contractor Jay Beard wanted a safer and faster way to measure and cut drywall, he invented the *Rockut*. This simple tool attaches a small knife blade to the end of a tape measure, making it easier to "glide and guide" as you cut. The Rockut adds 1/4 inch to the length of the tape, so you have to adjust your measurement accordingly. The attachment plus two blades sells for \$5.

Contact: Rockut Tools, 413 E. Poplar Ave., San Mateo, CA 94401; 650/347-6227; www.rockuttools.com.



TOOLS & EQUIPMENT

Short Shooter

The unique body design of the Festo *CDD 12 ES* drill makes it perhaps the best balanced 12-volt tool available. Both the motor and the battery reside in the handle, creating an exceptionally low center of gravity. The top housing, which holds only the clutch and planetary gears, measures about 8 inches long and fits easily into tight spaces. An optional charger accepts most current battery configurations and charges them within about 15 minutes.

Contact: ToolGuide Corp., 2533 N. Carson St., Carson City, NV 89706; 888/337-8600.



Stronger Blade

A new line of carbide saw blades promises to handle the most grueling cutting and ripping jobs. A distinctive pattern of impressions called *Dimple Technology* is pressed into the plate to help tension it, making the blade stiffer and less likely to distort under stress. Magna claims the dimples also reduce surface area, which decreases binding and heat buildup.

Contact: Magna Industrial Tool Co., National City Tower, Ste. 2300, 101 S. 5th St., Louisville, KY 40202, 502/583-8003.



Portable Power

Tired of hauling a noisy, full-size generator around for small jobs and pickup work? Try one of several DC-to-AC *TrippLite Inverters*.

With outputs from 125 watts to 3,500 watts (shown), the power units can be set up on the tailgate of a truck, with leads running to the truck's battery. According to the manufacturer, the AC output of these inverters is clean enough to run sensitive electronic equipment, including battery chargers and mobile office equipment.



Contact: TrippLite Power Protection, 1111 W. 35th St., Chicago, IL 60609; 773/869-1111; www.triplite.com.



Another way to get power without the noise and hassle of four-cycle gas engines is to mount an *AuraGen* 5-kilowatt generator under the hood of your truck. This system comes with one 240-volt and two 120-volt AC circuits. A starter switch and a power-output gauge mount on a control panel in the cab. The manufacturer claims the AuraGen supplies clean, 50- to 60-Hz power at any engine rpm.

Contact: Aura Automotive, 2335 Alaska Ave., El Segundo, CA 90245; 800/909-2872; www.aurasystems.com.

Baby Belt Sander

Bosch recently introduced the *1278VSK*, a small but aggressive detail belt sander. The 1/4-inch radius at the front of the 1 1/2-inch-wide belt fits into corners and other hard-to-reach areas. The belt also rotates 180 degrees for added maneuverability, and is easy to change. Faster than a corner detail sander for rough sanding, paint removal, and shaping, this compact sander includes a dust port.



Contact: S-B Power Tool Co., 4300 W. Peterson Ave., Chicago, IL 60646; 773/286-7330; www.boschtools.com.

Quick Layout

Next to your Speed Square, the *A-Square* may be the most useful layout tool in the trades. Made of aluminum flat stock, this folding 3-4-5-foot triangle snaps open, giving you an accurate right angle more quickly and reliably than you can get with a tape measure or framing square. Excellent for checking or establishing nearly any layout from foundation to finish, the A-Square collapses into a single 5-foot stick. It sells for about \$50.

Contact: Ercon, P.O. Box 369, Ramsey, NJ 07446; 201/327-1919.

