

Inflatable Zone Dampers

by Sal Alfano



A new system of inflatable dampers makes it possible to retrofit forced hot air heating into multiple zones without disassembling and reassembling the ductwork. The control panel of the *Arzel Comfort Control Zoning System* houses the vacuum and pressure pumps that inflate and deflate balloon-like dampers, which fit most common sizes of round, rectangular, and flexible ducts. The dampers are inserted through a hand-sized hole in the duct, which is then sealed with a magnetic vinyl patch (similar to magnetic vehicle signs). The air lines attach to a nipple, which pokes through a smaller hole and holds the damper in place. The cost to the trade for a typical two-zone system — including 12 dampers and the control panel — is from \$450 to \$600. Several versions are available to accommodate both heating and cooling systems. To find a distributor, contact Arzel Technology, 26210 Emery Rd., Cleveland, OH 44128; 216/831-6068.

Dump Bed for Pickups



Few small builders can afford to purchase and maintain a dump truck, but that doesn't mean they don't need one. The *Maxi-Dump* is a steel dump bed that can turn a vehicle almost every builder owns — a full-size pickup truck — into a small (2½ to 3 cubic yards) but versatile dump truck. Model MD58 has a payload capacity of 5,000 pounds and a 12-volt DC pump to drive a piston with 26 tons of lift; Model MD108 has two pistons to lift its 10,000-pound payload. The *Maxi-Dump* is relatively easy to install and remove because it mounts on

four brackets bolted through the pickup bed onto the frame. The biggest problem is wrestling the empty weight of almost 800 pounds off the ground, although the company claims that drive-under trailer jacks (like the ones used for camper bodies) work well. Standard features include a window guard to protect the truck cab, stake pockets on the sides of the box that can be used to increase its volume, and spring-loaded latches on the tailgate that allow for easy removal and three positions: locked down horizontally, top-hinged, and bottom-hinged. Prices range from \$2,160 to \$2,400 (without freight charges). The *Maxi-Dump* can be purchased through equipment dealers or directly from Maxi Products Company, 2536 Center Ave., Janesville, WI 53546; 800/833-3740.

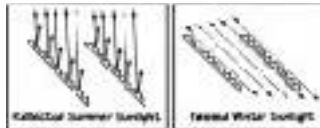
Airtight Bath Fan



The two biggest complaints I receive about most bathroom fans is that they're noisy and they let too much cold air into the room. The *Preventilator* solves both problems by locating the fan motor on the outside of the building and by covering the opening with a motorized insulated housing. A 13 x 13 flashing plate mounts on the exterior sheathing (or on trim in a retrofit) and covers the 7 x 7 hole required for the fan and motor. The 110-volt motor that operates the movable cover can be wired to a single-pole-double-throw switch or a humidistat, as long as power is provided to both open and close the housing. In the closed position, a neoprene gasket on the insulated housing seals the opening tightly against outside air. Both the through-the-wall version (model S) and the ducted version (model D), which adapts to 4- or 5-inch round

duct, include a finish grill for the interior finish wall or ceiling. The company claims the fan will move air at a rate of 75 cfm through .15 inches of static pressure (the equivalent of about 40 linear feet of flexible duct) with virtually no noise. The *Preventilator* costs about \$95 from Weather Energy Systems, 15 Kendrick Rd., West Wareham, MA 02576; 800/222-5032.

Cool Skylights



Skylights brighten room interiors, but they can also cause overheating and put an extra load on air conditioners. The *SEALight Panel* uses a series of angled slats that, when retrofit into a skylight well, reflect the direct rays from the summer sun away from the interior. The slats are made from recycled polycarbonate and are smooth on the interior side; on the sunward side, they have a series of reflective facets. During installation, the slats are arranged in special racks which can be adjusted, using charts provided with the instructions, to match solar orientation, roof pitch, and geographic latitude. Steeply-angled summer sunlight reflects off the facets, significantly reducing the amount of thermal energy reaching the room below, but enough indirect light passes through the panel to keep the room bright. The more flatly angled winter sunlight passes between slats to warm the room. Standard sizes range from 28 x 28 (13 slats) to 52 x 52 (29 slats); custom sizes are also available. The panel costs about \$4/s.f. and can be purchased directly from Solar Engineering Applications (SEA) Corp., 305 No. Mathilda, Sunnyvale, CA 94086; 408/720-1804. ■