

# PRODUCTS

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## Pipe Dream

**BREAK THROUGH**

With an invention that boosts water heater capacity as it recycles heat from drain water, Carmine Vasile can tell you all about the payoff in kilowatts, BTUs or dollars. Instead, he emphasizes comfort. "People like to save energy," says Vasile. "But the more important thing is they don't like to run out of hot water in the shower."

Not that the potential savings are small. Vasile's company, Water Film Energy, Oakdale, N.Y., calculates that its GFX system can save \$340 a year in a house with an electric water heater and an electric rate of 8.6 cents per

kilowatt-hour.

The GFX heat exchanger looks like a thickened drain line, but it's really two copper pipes. The standard unit is a 5-foot long, 3-inch diameter pipe tightly wrapped with 100 feet of 1/2-inch tubing for fresh water. As drain water enters the central pipe, it coats the pipe's inner wall as a thin film. When the drain water is hot—say, during a shower—the fresh water flowing through the outer coil picks up much of the drain water's heat. The preheated fresh water then flows to the shower's mixing valve, the water heater or both, depending on the system installed.

During a typical 105-degree shower, Vasile says, the GFX can heat fresh water from 55 to 80 degrees. In



other words, the drain pipe does half the water heater's work—giving it more capacity and faster recovery while saving on fuel.

The key is the dynamics of water film. "It's a natural phenomenon," Vasile explains. "My patent is on the configuration that puts it to use." Because the water film stays as thin as 12 mils and sticks to the pipe wall, heat escapes easily. And the film moves fast enough to prevent fouling, a stumbling

block in other kinds of wastewater heat exchangers.

Vasile has UL approval for the GFX—no small feat with supply and wastewater so close to each other. A GFX system is being installed in one of the four research houses in the NAHB Research Center's "21st Century Townhouse" project currently under construction in Bowie, Md.

Vasile is working through Eureka Solutions International, Monroeville, Pa., to set up licensees and distribution. He plans to set prices and begin producing GFX heat exchangers in large quantities before the end of this year. In the meantime, GFX is available through Eureka on a custom basis.

Circle no. 133.

## Woodn't You Know

With 25,000 kinds of trees on Earth, there is no reason to use an endangered species for wood. Somewhere, there's a non-threatened alternative that's, say, as hard as Indian rosewood. The hardest part, however, is finding it.

That's the idea behind *Woods of the World*, a database published by Tree Talk, Inc., Burlington, Vt. By helping remodelers, architects,

manufacturers—anyone who specifies wood—learn about the appearance and properties of plentiful, but lesser known, species, Tree Talk hopes to save endangered trees.

With high-quality, full-color images of more than 900 species of wood plus 50 wood-based composites, the database can help you find that rosewood substitute. Also, *Woods of the World* includes information on workability, the various strength properties, physical characteristics such as color, texture and durability, plus common uses and available sizes.

Tree Talk, a nonprofit organization, offers its database on CD-ROM or diskette for PCs or Macs. The main edition, *Woods of the World Pro*, is \$249 for CD or \$269 on floppies. *WoodMatch*, a scaled-down version with educational video plus information on 350 species, sells for \$39. Circle no. 134.



## Kitchen Musts

Kitchen colors come and go (everyone loves to hate avocado) but kitchen basics are pretty static. In a 1985 REMODELING survey, remodelers said their projects almost always included wood cabinetry, a double-bowl sink and laminate countertops. Sound familiar?

### Top Kitchen Products, 1985

(percent of remodelers who always or usually used the product)

Wood-finish cabinetry	82%
Double-bowl sink	79
Laminate countertop	75
Range hood	74
Dishwasher	65
Stainless steel sink	62
Microwave oven	47
Refrigerator	38
Single oven	35
Double oven	29
Porcelain sink	28