



Dick Hynes remembers when the subject first came up. It was 2003, and Hobart had segmented its sales force to target specific industries. In the foodservices arena, customers began repeating the same words: "sustainability" and "green."

"It became apparent that those words were not going to go away," recalls Hynes, director of consultant services for Hobart, based in Troy, Ohio. "It wasn't a flash in the pan like other trends in our industry. It was becoming such a common discussion point that we couldn't wait 10 years to see what happened."

In December 2006, Hobart became the first full-line commercial food equipment manufacturer to join the U.S. Green Building Council, a coalition of building industry leaders that promote environmentally responsible buildings.

Fueled primarily by student demand, university foodservice programs have been among the first to embrace

Eco-Tools

You don't have to do it alone. There are several tools on the market that make operating an eco-friendly restaurant easier. BY PAM GEORGE

Hobart's environmentally friendly and energy-saving products, Hynes says. While quick-service restaurants were not on the movement's cutting edge, the industry is now beginning to take note, he adds.

In part, credit the cost savings. Hobart's newer energy-saving models use less water and heat. And because there is less water, there is less waste.

But there is another reason why restaurants are increasingly going green. "The market is being pulled by the consumer," says Bret "Buzz" Chandler, president and CEO of Asean Corporation, the maker of StalkMarket, a fast-decomposing line that replaces traditional paper and plastic products like plates and cups.

Legislation is also playing a part. This year,

San Francisco and Oakland will enact a ban on using Styrofoam in food establishments.

As a result, suppliers like Hobart and StalkMarket are stepping up to offer green, energy-saving alternatives.

Equipment

Saving water and energy—and providing a more efficient service—is the goal of Hobart's ware washers with Opti-Rinse™ technology.

Unlike standard rinse nozzles that spray in a fan pattern, Hobart's ware washer nozzles create a stream of large drops that oscillate in an S-pattern, resulting in uniform coverage and a more forceful stream. Because the droplets are larger, they provide a better heat transfer than smaller drops,

which lose heat to the surrounding air.

"It saves energy all the way around," Hynes says. Depending on the size of the unit, Hobart claims its ware washers can reduce water and energy usage up to 57 percent. In fact, one of the largest conveyor units uses under 100 gallons, a significant reduction from the previous 400 gallons it previously consumed.

The WastePro™ system, meanwhile, can reduce foodservice waste volume up to 88 percent, representing a potential annual savings of \$22,000 including waste-removal services, Hobart estimates.

In addition, most of the company's Traulsen refrigerators, freezers, and heated cabinets are Energy Star-rated by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

Master-Bilt, which also makes refrigeration systems, recently received patent approval for its reverse-cycle process, which can reduce a walk-in freezer's energy use by more than 20 percent. A tool called the Master Controller is required for the reverse-cycle to work.

The Master Controller activates the defrost process when needed, versus traditional systems that defrost at regular intervals, even when the process isn't needed. The controller activates a valve on the condensing unit that reverses the high-temperature refrigerant flow.

"Traditional electronic systems just use heaters, which tend to not get all the frost buildup all the time—which weakens the coil's performance," says Lynn Burge, advertising and promotion manager for Master-Bilt, which is headquartered in New Albany, Mississippi.

Because Master Controller uses less energy than electronic defrost heaters, operators can see an 80-percent reduction in defrost-energy usage, according to Master-Bilt. Moreover, defrost time is reduced from 20 to 30 minutes to just three to five minutes.

In addition, Master-Bilt recently began using an environmentally friendly blowing agent for polyurethane foam, which is used as an insulator in its products.

Reducing energy is a matter of reusing waste for Georgetown, Texas-based Maximicer, which affixes to ice and soda machines. "It's a few hundred bucks and easy to install," says J.L. Love, president of Maximicer.

Ice machines regularly purge unused water. Instead of letting the cold water just slide down the drain, the Maximicer first uses it to cool the fresh water flowing into the machine. Once

cooled, the fresh water freezes much faster.

The device offers 10 to 30 percent savings, depending on the size of the ice machine and its location. Air-cooled ice machines in hot kitchens must work harder, Love notes.

Maximicer takes a similar approach to drink dispensers. By recycling energy from the melted ice water, the model pre-cools incoming water and lowers the dispenser's cooling load. "It melts less ice, and you have a better carbonated beverage," Love says.

A device made by Las Vegas-based Purafilter 2000 can make the water and ice that comes out of machines cleaner while increasing the appliances' longevity.

PureDemand, a reverse-osmosis water-filtration system, passes tap water through a series of filters and membranes, reducing up to 98 percent of the water's chemicals and minerals, including arsenic, lead and radium.

"The ice coming out of the machine is crystal clear when before it was cloudy," says Mike Paice, director of business development for Red Rock Sales, the Purafilter division that oversees air and water products for commercial use.

Soda machines can also benefit from PureDemand. And by installing the product in all the units, quick-service restaurants can ensure a consistent beverage, regardless of whether one store has hard water and another store has soft water, Paice says. Without the system, sodas in some areas might require more syrup than others.

"Syrup covers up the flavor of minerals in the water," Paice explains. "Not only will the water taste better [with PureDemand], but restaurants can save about 20 percent a month on syrup."

And because cleaner water discourages scale and lime buildup, the machines will require less servicing and therefore last longer. Prices range from \$800 to \$10,000, depending on system requirements.

Food Safety and Sanitation

Customers not only want food and beverages that taste better, they also want food that is safe yet free of chemicals.

Enter the Stay Clean USA unit, which pumps ozonated water through a restaurant's water system to disinfect on contact. Ozone, which is considered organic, kills bacteria faster and more efficiently than chlorine, says Michael Elliot, president and CEO of Los Angeles-based Eco-Safe Systems, which makes the unit.

"It solves the problem of vegetables that are not cooked and need washing at the final stage," Elliot says. "It also helps with clean up." Staff needn't use harsh chemicals to wipe tables, for instance. (The water will stay ozonated for about 30 minutes, after which it reverts to plain water.)

Unit prices range from \$30,000 to \$150,000 depending on the operation's size. Currently the company is exploring open-ended rentals for quick-serve customers.

"The return-on-investment is realized in liability alone," Elliot says. "We train people so that they are using hot water only when necessary. Usually, clients save a third of their heating bill."

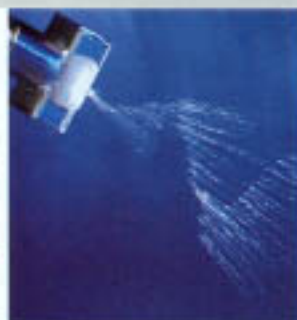
Infrastructure

While water—both getting it and getting rid of it—is certainly a large part of operating expenses, heating and air conditioning

TOOLS OF THE GREEN TRADE

**Hobart**

Depending on the size of the unit, Hobart's ware washers with Opti-Rinse™ can reduce water and energy usage up to 57 percent.

**PureDemand**

With Pure Demand's reverse-osmosis water-filtration system, quick-service restaurants can save about 20 percent a month on syrup.

**Eco-Safe Systems**

Ozonated water is considered organic and kills bacteria faster and more efficiently than chlorine.

**StalkMaster**

StalkMaster's paper-like packaging decomposes in six weeks when composted.

devour the lion's share of an operator's budget.

The sun is brutal on quick-service restaurants. The standard store design boasts plenty of see-and-be-seen windows. Incoming heat can send the air-conditioning unit into overdrive. For security reasons, tinting is not an option. Moreover, it can make the dining room appear drab.

Sarasota-based Winsulator sells clear, acrylic attachments custom-measured to fit inside window openings. Once installed, there is a space between the glass pane and the acrylic sheet, held in place with a magnetic and vinyl gasket.

"We're trapping actual air between the glass and plastic," explains Edward VerVane, CEO of Winsulator. "It's just like double-pane glass, only glass is a conductor. Plastic is an insulator that pushes the heat back out through the glass."

VerVane says Winsulator will cut out about 70 percent of the energy that would enter through windows and cause air-conditioning hikes. Not only does the product reduce window-related heating and air-conditioning loads, but it also reduces noise levels up to 60 percent. VerVane says the product, which is a fraction of the cost of replacement windows, offers a ROI in between 2½ and 4½ years.

Packaging

Outside the restaurant's walls, quick-serves are still a source of environmental hazards. One Styrofoam cup can take up to 500 years or more to break down and is un-recyclable. Paper bags, soda cups, and wrappers from quick-serve

restaurants are frequent roadside eyesores.

StalkMaster is a line of molded, paper-type products that when composted can decompose in six weeks. Left on the ground by a litterbug, the items will take longer, but they are "still going away," says Buzz Chan-

"We're reducing the dependence on cutting trees but still providing a product that performs like a traditional paper product."

dler, founder of Portland, Oregon-based Asean, the maker of StalkMaster. Time frames depend on water, heat, light, and the ground itself.

The StalkMaster, originally created for a natural foods supermarket, is made from a 100-percent biodegradable sugar cane fiber, called bagasse, a byproduct of the sugar-refining process.

"We're reducing the dependence on cutting trees but still providing a product that performs like a traditional paper product," Chandler says.

StalkMaster, which now has nationwide distribution, makes everything from pizza boxes to plates to hamburger clamshells. Created without chlorine, the products have a slightly beige hue and bottom that feels rougher than traditional products.

Products are about the same price as

paper products. However, StalkMaster costs about 20 percent more than Styrofoam. The difference in price might change as the cost of Styrofoam, a petroleum product, continues to soar.

Cereplast resins, another alternative to petroleum-based plastic materials, are made from a biopolymer produced from cornstarch, which is blended with other plant-based and natural minerals. Manufacturers can use the product to make plates, cups, forks, and hamburger clamshells. When commercially composted, Cereplast breaks down in 60 to 180 days. The process requires no special equipment.

"On a local level, it can reduce the amount of material placed in landfills," says Robert Dobbs, vice president of quick-service sales for Hawthorne, California-based Cereplast. "On the [manufacturing] side, it takes less energy to convert products made from our resins."

The price of Cereplast's resins is competitive with petroleum-based materials, although the final price to quick-serve operators might depend on the manufacturer and the product.

Dobbs is seeing increasing interest from quick-serve restaurants in the material. "[Operators] understand. They want to be good environmental stewards by developing and implementing sustainable plans," he says. "The additional goals are to drive sales and reduce overhead costs, which benefit the bottom line." □

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