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Working to build a brighter future

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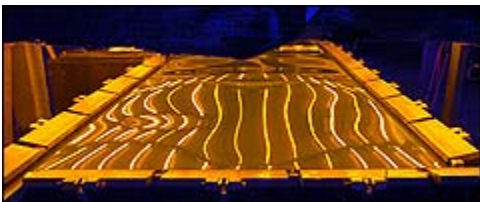
Gordon Chibroski photo

Ron Mucci and Brian Clapp, dome formers for Wasco Products, remove a clear plastic dome from its form. In the last two years, Wasco has refined manufacturing processes in an effort to become more efficient.



Staff photo by Gordon Chibroski

Wasco Products President Chris Magnuson shows Wasco's new prototype of a skylight design. "Our brand hasn't been well managed," he says. "Maybe we've done too much R & D and not enough marketing. Now we're changing the equation a little."



Staff photo by Gordon Chibroski

Heating filaments are reflected in a sheet of clear plastic as it forms into a dome skylight at the Wasco Products plant in Sanford.

SANFORD — The roof of the 84-year-old former Goodall-Sanford textile mill features a sawtooth design, in which one face of each angle is covered with glass. The extensive glazing brings daylight into the 800-foot-long manufacturing space below, and the illumination probably boosted the productivity, if not the outlook, of the era's factory workers. It's fitting, then, that the people at work in the building today are making skylights.

This is the home of Wasco Products Inc., a company that was an innovator of the modern skylight, 50 years ago. Wasco holds more patents on skylight design than any competitor, the company says.

These days, studies are showing the benefits of natural light at home and in the workplace. They suggest that people enjoy better health, workers are more productive and shoppers will buy more when high levels of daylight are introduced into the home and workplace.

That should mean plenty of work for Wasco. But in the past decade, the company has lost market share and reduced its work force in the face of competition and changing market preferences.

American manufacturers have had a tough time in recent years, many losing jobs to a down economy and foreign competitors. Now Wasco is trying to return as a force in the skylight business. The effort highlights the opportunities and challenges faced by a well-established Maine manufacturer that is trying to reinvent itself in the 21st century.

Wasco got its start as a flashing maker in Massachusetts. It created a skylight for schools and other commercial buildings in 1951, and moved to Sanford in 1956.

When the energy crisis came in the 1970s, Wasco developed a skylight with a thermally efficient frame. In 1988, the company introduced its E-Class SkyWindow, with a patented one-piece frame and flashing design to make installation easier.

Wasco was running on all cylinders then. It had 250 employees and a plant in Texas. Home construction was booming, and commercial and architectural work was plentiful.

Today the Texas plant is gone and Wasco has 92 workers in Sanford. Gross sales have hung in the \$15 million range in recent years.

After the recession of the early 1990s, the company lost skylight market share to Denmark-based Velux, which expanded to North America and has become the market leader. Ask a builder or an astute homeowner to name a skylight, and chances are they will recognize Velux. The name Wasco probably won't mean much.

"Our brand hasn't been well managed," said Chris Magnuson, the company's president. "There's confusion in the marketplace. And that's our fault."

Magnuson's father bought the company in 1969. Chris Magnuson became the sole owner in 2000, and is in the midst of a campaign to put Wasco back on a path to growth. For a company that makes a niche product and has distinguished itself through research and development, Magnuson said, Wasco hasn't done a good enough job in earning public recognition for its accomplishments.

"I think maybe we've done too much R & D and not enough marketing," he said. "Now we're changing the equation a little."

Magnuson has prepared a vision statement for his company that outlines some key objectives. One of them is to increase recognition of Wasco "as a solid company with quality products." Other goals include profitability in the 6- to 8-percent range, customer satisfaction levels of 95 to 98 percent, and sales growth of 8 to 10 percent annually.

To achieve that growth, the company plans to increase market share by introducing new products and expanding into new geographic areas, such as the fast-growing Southeast. Most sales now are in the Northeast and mid-Atlantic states. Magnuson also is talking with a national window maker about selling Wasco skylights under a private label.

Skylights fill a small part of what manufacturers call the fenestration industry, a Latin-derived, architectural term dealing with the arrangement of windows, doors and other glazed openings in a building. Skylights are only a small slice of the fenestration market and they've been overshadowed, so to speak, by some modern home building practices.

"There are some overarching competitive trends," said Scott Shober, associate partner at Ducker Research Co. in Bloomfield Hills, Mich.

Shober just finished a survey for two national trade groups. He found that skylight sales grew last year, probably because of the record number of housing starts, but that the near-term outlook is down or flat. One reason is that new homes tend to have higher ceilings and more open space, which permit larger windows and patio doors.

There's increasing demand to bring daylight inside homes, schools and workplaces, as studies find that it can have a range of beneficial effects. A study last year at a utility call center in Sacramento, for instance, showed that office workers with the best window views could process calls 6 to 12 percent faster than those with no views.

These productivity findings also are being embraced by industry, and Wasco is getting some business as a result. Its largest recent job was a \$2 million project to reinstall skylights at a Toyota car factory in Kentucky. Studies that suggest shoppers spend more in daylit space are creating interest in skylights for stores and supermarkets. Wasco is installing skylights at two Stop 'n Shop stores, in Boston and Nova Scotia.

Commercial skylights account for roughly 60 percent of sales, and it's in this area where Wasco makes some striking products. Among them are aluminum-framed pyramids that can be shaped in both square and octagonal openings, and dramatic, spherical-shaped skywindows with acrylic glazing.

Last week, workers were building a series of 4-foot-by-8 foot acrylic-glazed skydomes for a factory in Washington state. They clamped a flat plastic sheet over a rectangular, metal tub. Above the tub hung an infrared heater that brought the sheet to 300 degrees. Once soft, the sheet was drawn down by a vacuum and formed into a dome shape. This process lets Wasco make plastic domes more than 7 feet in diameter.

Recent refinements to this process are part of more efficient manufacturing efforts that Magnuson started two years ago. For Wasco, it's the other side of the marketing equation. The company has been a leader in research and development, but it had fallen behind in efficiency.

For instance, when workers wanted to change the size of a skydome, they had to manually take apart the dome-forming tub, known as a pot. That involved unscrewing the pieces and installing new plates with a hoist. Now, with the help of pneumatic equipment, much of this process is automated and setup time has been cut by 75 percent.

"You can market all you want," Magnuson said, "but if you're not making things more cost-effectively, you're going to be eclipsed by your competition."

Wasco has also bought new machines that cut sheet metal and roll aluminum tubes more efficiently. It has invested in systems and software for computer-aided design equipment used to draw up proposals. Magnuson figures the company spent \$400,000 last year on equipment upgrades. Now it must ramp up production to pay for it.

Maine manufacturers, Magnuson said, have disadvantages to overcome. They pay more for utilities, taxes and energy than many competitors. So to grow, they have to distinguish themselves. For Wasco, growth will mean both efficient manufacturing and greater recognition in the marketplace.

These are issues that all small manufacturers need to focus on, according to Wayne Messer, a project manager with the Maine Manufacturing Extension Partnership. The non-profit service is linked nationally through the Department of Commerce to help manufacturers compete more effectively in the global marketplace. It conducts training on so-called lean manufacturing, production practices that have a minimum of wasteful activities.

"All manufacturers," Messer said, "need to figure out who their customers are and what they want, and produce it at the highest quality, lowest cost and quickest time."

In terms of marketing, Messer said, it's common for established, family-owned businesses to take market share for granted. Over time, though, they need to refocus on changing customer demands.

"It's very hard to re-establish who you are to your customers," he said.

Wasco is making some progress in burnishing its identity.

This winter, Home Magazine picked Wasco's architectural series skywindows as one of 12 best building products for 2004. The magazine said they are "changing the way we think about skylights - offering structures that range from glass pyramids and spherical units to flat planes in standard and custom sizes."

That sort of brand-boosting publicity is just what Wasco needs.

On a basic level, skylights - like windows and doors - are commodity products that can be made anywhere in the world and sold on price. Chinese manufacturers, who are quickly moving into home commodities including refrigerators and air conditioners, are also starting to make windows for export.

Skylight sales are only a fraction of the window market, but Magnuson speculates that Chinese-made skylights are only a matter of time.

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