

# Second Section

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## Making green out of being green

Webster resident Bechtold uses environmental innovation to aid Harbec Plastics' bottom line

**By Patrick O'Mahen**

Herald Reporter

Webster native and Harbec Plastics Inc. President Robert Bechtold beams like a little kid with a new toy when he shows off his Ontario Company's recent 10,000 square-foot addition to visitors.

"This is a green building," the environmentally conscious businessman proudly asserts.

It might be more accurate to call Harbec a green enterprise -

in the economic as well as an environmental sense of the word.

Founded in Webster by Bechtold in 1977 Harbec grew from a small machine shop into a cutting-edge producer of customized plastic parts for a wide variety of industrial clients. Today, the company boasts \$10 million in annual sales and a 40,000 square-foot complex in Ontario, and sees a bright future with several expansions under its belt already and the possibility for more in the future.

"We can support an operation about double the size of the one we have now" at the firm's current location, Bechtold said.

But what sets Harbec apart is that it has been a profitable

enterprise while compiling a record as one of the most ecologically sensitive corporations on the planet.

"We like to think we make eco-economic decisions," Bechtold said.

**FAST FACTS:**

**Name:** Harbec Plastics Inc.

**Owner:** Robert Bechtold

**Established:** 1977

**Annual sales:** \$10 million

**Products:** custom plastic components; specializes in rapid, high-quality design and ecologically sound business practices

What that statement translates into are company initiatives designed to avoid waste in both financial and natural resources.

Take Harbec's recent 10,000 square-foot addition, for example.

Many of the changes are simple. Bechtold said

the complex is built to double the building code standards for insulation. Where possible, recycled materials were used in construction, and most of the materials came from within 400 miles to save on the resources used in transport. Finally, Bechtold added that the company managed its construction site in an ecologically responsible way.

Other aspects of the addition involve a combination of high technology and innovative ideas. For example, the high ceiling of the addition has several large skylights, which naturally light the building. Electronic eyes measure the amount of light entering from the skylight, and turn on the room lights only when needed.



Robert Bechtold, the owner and president of Harbec Plastics Inc., displays several of the state-of-the-art Capstone microturbine generators used to power his company. Photo by Patrick O'Mahen

"Unless it's at night or it's really stormy outside, we hardly ever have to use the lights in here," Bechtold said.

What are the results of all this ecological awareness?

Try much greater efficiency and lower energy bills that eventually will more than pay for the increased initial investment.

However, the centerpiece of Harbec's "eco-ecological" thinking is the company's recent installation of twenty-five 30-kilowatt natural gas-fired

generators that currently provide all of the company's internal power.

Bechtold said that the generators produced by the California-based Capstone Turbine Corp. since 1998, discharge less than 10 percent of the emissions that any other similarly rated state-of-the-art generating system produces.

The power system increases efficiency by making use of the heat produced as a by-product during the generation of electricity. Instead of

directly discharging it into the atmosphere or water, like conventional generation systems, the waste heat goes to a heat recovery boiler where it heats water up to 210 degrees Fahrenheit. The water then is piped throughout the building, where it can be used to directly heat the complex through radiant floor heating.

The whole process of using the heat by-product is called Co-Generation

In the summer, the hot water powers a 200-ton absorption chiller, which produces chilled water that air-conditions warehouse and production facilities — at no additional strain on the system or cost to the company.

The beauty of the system is that during times when more air conditioning is needed, the generating system actually

emits less pollution, since it just makes use of more of the heat by-product that would normally be discharged into the atmosphere.

Bechtold said that under extreme conditions — like the hot sticky weather of two weeks ago — the cooling system will use about 50 percent of the waste heat.

Although Harbec still needs to buy natural gas to power the generators, Bechtold estimates that the entire generator project will pay for itself in eight to 10 years. On a monthly basis, the company sees about \$5,000 savings on its utility bills.

Perhaps more important, however, is now that Harbec generates its own power, it is immune to California-style power outages caused by an overloaded power grid. This

immunity is central to the operation, since any outage could severely disrupt the precision machines that produce plastic parts, requiring extensive reprogramming of the equipment and possible damage to the products.

#### **The little things**

Bechtold's efficiency also extends down to the details of the company.

The company auto fleet currently consists of one specialized electrically powered Ford Ranger, with a pair of hybrid gas-electric Toyota Prius cars on order.

The Ford needs to be recharged every 50 miles, while the Priuses get about 50 miles per gallon and never need to be recharged — and emit only 10 percent of the pollutants of a typical automobile.

The electric cars are popular with employees. After buying one of the original Priuses, which was later destroyed in an accident, Bechtold said that "I couldn't get anyone to drive the Saturn" that had been the old company car.

Other efficiency boosters include reusing the plastic scraps from the manufacturing process, then selling them to a Palmyra firm that makes plastic lumber.

And Bechtold, who powers his Webster home with a 30-kilowatt wind generator, said that the innovation will not stop anytime soon.

"We're always trying to think of new ways that we can improve our impact on the environment," he said.