

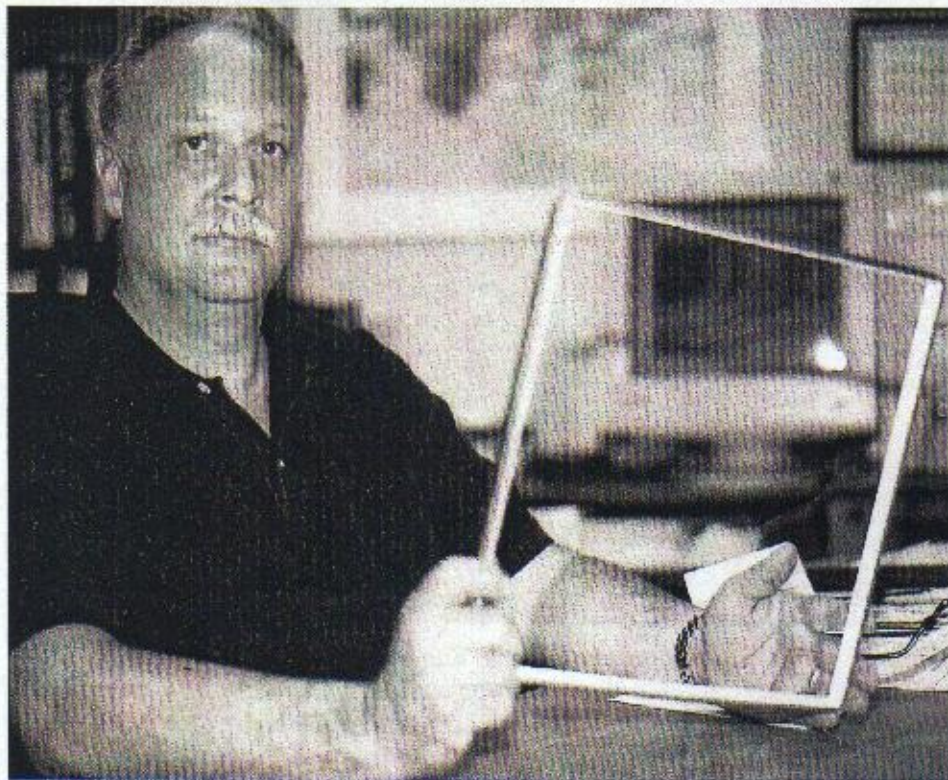
A hard act to follow

by Chris Skalkos

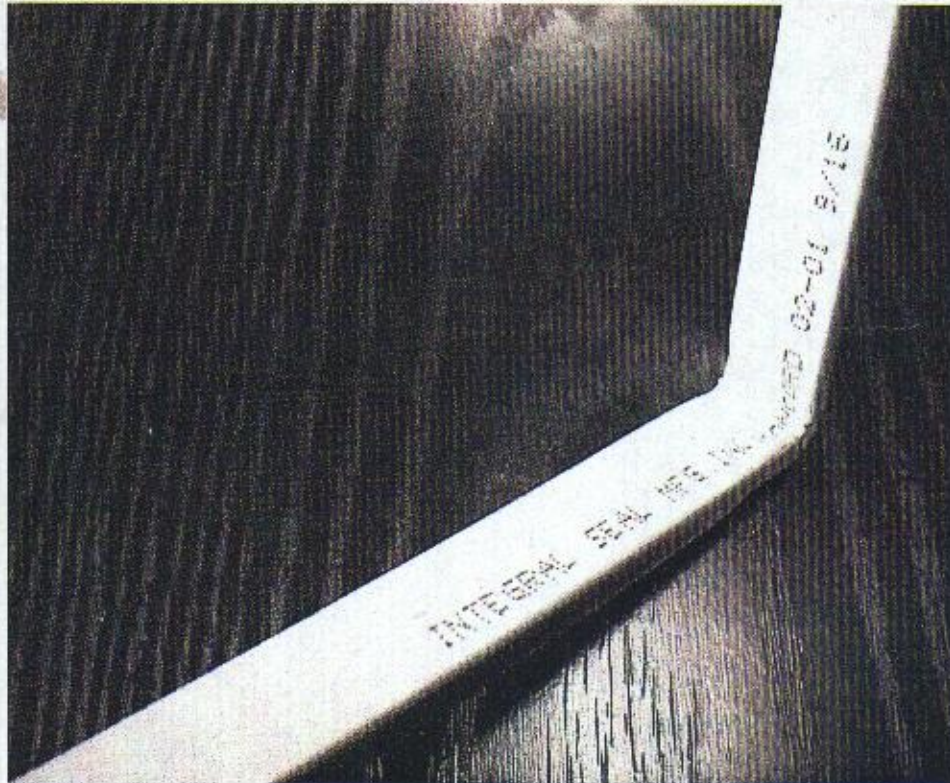
The desire for perfection was the motivation behind a unique customized fabrication process.

Technological advancements by Canadian glass professionals often set trends that are adopted by the industry, however, one trend setter will be a hard act to follow.

Ben Nayot, president of Integral Seal, an insulated glass manufacturer in Concord, Ontario, recently developed the technology to manufacture a four-corner bent thermal edge spacer. The only catch is... the technology is not for sale.



Ben Nayot, president of Integral Seal in Concord, Ontario, recently developed the technology to manufacture a four-corner bent thermal edge spacer.



After working as a plant manager for a vinyl window manufacturer, Nayot left to start his own company six years ago; a company that embodied his vision of what high quality production standards should be. Nayot is an avid perfectionist and his desire for perfection was the motivation behind his unique customized fabrication process.

"I wanted a bender that can run without unqualified personnel and that did not need to be re-tooled to change sizes," he says, adding, he worked with a company in Mississauga to custom build the bender he envisioned. "The corner on the spacer bar is the weakest

◀ *A four-corner bent thermal edge spacer avoids corner mechanical fastening which is the weakest link in IG unit spacer bars for thermal windows.*

INDUSTRY INNOVATION

link and I needed to control the width of the corner. By using four-corner bends, I can avoid mechanical fastening of the corner. The bender also has a learning mode in case there is a different batch of alloy spacer to ensure consistency."

The company manufactures IG units using thermal edge spacers from BayForm, which is a warm edge spacer with a 'U' channel and an engineered polymer bridge, but other substrates are available, including a full complement of low-E glass.

His quest for a better IG unit led him to also design a unique computer order entry system which links the company to its customers who can then send their orders electronically. When they are received they are automatically invoiced by the computer program, and pertinent manufacturing information is transmitted through a direct link to the company's fully computerized glass cutting and metal forming machines, eliminating human error in the inputting or data entry process.

"I wanted a computer program that takes all the information from customers and sends it automatically to my system without any mistakes in the exchange of information," he says. A confirmation is automatically sent to the customer only seconds after the initial transmission.

Nayot links his system directly to his customers through a computer modem installed by his programmer and provides the necessary training on how to use the program to create work orders. "All of my customers' computers are on a



The company uses a unique computer order entry system which links it to customers who can send their orders electronically. The manufacturing information is transmitted to the company's fully computerized glass cutting and metal forming machines, eliminating human error in the inputting or data entry process.

network that is linked to a mainframe, so there is no need to relay that information from the customer to the CNC cutting machine and the bending machine. Therefore, I don't have to train employees or hire qualified operators because all the machine operator needs to do is feed in the right material and press a button."

This is a highly efficient system for a small company that manufactures high volume thermal glass primarily for window distributors and it has generated some interest among

other IG unit fabricators. Surprisingly, Nayot is eager to give other companies a tour of his facility revealing in full detail how the whole thing works; however, he is not concerned about his competitors trying to mimic his system.

"They would have to change their entire manufacturing system which is not feasible and way too costly," he explains. "I don't want to sell this system. I just wanted to help my plant build a better IG unit, even if I have to develop the technology myself." ■