

Wentworth Mold and Electra Form : Blowing Away the Competition

Niche marketing, a commitment to technology and short leadtimes equal success for these producers of blow molds and PET Preforms-and earn them MoldMaking Technology magazine's 2004 Leadtime Leader award. Sherry L. Baranek



Wentworth Mold Group (Hamilton, ON)—the world's largest independent blow mold manufacturer for the packaging industry with annual sales in excess of \$44 million has experienced an average annual sales growth of 15 percent per year over the past three years as a result of three-to seven-day leadtimes. The company is able to maintain such tight leadtimes using technology it has spent the past eight years developing. Wentworth's Fast to Market (FTM)[®] program combines management, customer interaction, sales, design and engineering, manufacturing and service to shorten leadtimes.



FTM[®] cold prototype molds delivered in three to seven days.

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Wentworth Mold Group has seven plants in the U.S., Canada, the U.K., Poland and a service/sales office in Singapore further establishing themselves as a global presence. According to company president Walter Kuskowski, the company exports more than 85 percent of its sales to more than sixty countries on five continents.

The Winner's Circle

The Wentworth Group of Companies has received many awards, including:

- Canada's Best Managed Companies Award (1998, 1999, 2000)
- Supplier of the Year Award from Global Packaging Company (for fastest deliveries)
- Canada's Export Award
- Global Traders Award for Leadership
- Canada's 100 Fastest Growing Companies Award (1998, 1999, 2000, 2001, 2002, 2003)
- Hall of Fame, Growth Award
- Premium Growth Award
- Walter T. Kuskowski—named Growth Guru
- Environmental Stewardship Award



Patented quick change technologies for hotfill application.

In the Beginning

This 120-employee shop was established in 1947. Initially, Wentworth made molds for glass packaging before becoming one of the pioneers of blow molds also for the packaging industry. Through acquisitions, Wentworth can trace its products to pioneering times of extrusion blow molds, PET blow molds and PET preform molds, Kuskowski notes. By 1995, Wentworth had grown to \$12 million in sales when it was acquired by Kuskowski. In seven years, Wentworth became the largest blow mold manufacturer in the world. Wentworth Mold,

Inc. then became the basis for Wentworth Technologies (a holding company that was later established) that has grown to become the second largest toolmaker in North America and number four in the world. Wentworth Mold Group comprised of Wentworth Mold, Electra Form Industries and Jersey Mold is now a subsidiary of Wentworth Technologies and is managed by majority shareholder Walter Kuskowski.



FTM® preform stack delivered in less than ten days.

Leading in Leadtime

According to Kuskowski, Wentworth's complete business model is based on the FTM® approach embedded in all phases of the company's value chain. The program has resulted in the Wentworth Mold Group consistently delivering PET preform tooling in ten days or less and PET prototype unit molds in three to seven days.



Innovative long stroke extrusion molds up to 2 x 16 cavities.

Wentworth also boasts a twelve to seventy-two hour leadtime on mold repairs. "FTM® is the key component of our business strategy," Kuskowski notes. "Our mission statement says that we will supply molds in the least amount of time, globally." He breaks the FTM® philosophy down into the following areas:

Management: All decisions are based on FTM® principles. Quarterly business reviews focus on continuous reduction of leadtimes through new innovations and productivity improvements.

Interaction with customers: All parties know, streamline and simplify designs, systems and procedures. All parties prepare in advance and work in parallel. Such an

approach reduces interaction leadtime.

Sales: Single contact point with full access 24/7, standard price list and simple web-based ordering assures completeness of the order and information required. Such an approach reduces ordering leadtime.

Design and engineering: A fully automated proprietary design system reduces designing leadtimes for preform and blow mold tooling to one to eight hours versus five to ten days for a nonautomated approach.

Manufacturing: FTM® molds are cut on the automated machines within hours from receipt of the order. FTM® team has a dedicated lead sales manager; designer programmer, three CNC machinists, one benchner, two toolmakers and two CNC lathe operators. Their equipment is state-of-the art fiveaxis with fastest speed (27,000 rpm) and feedrates (1,200 inch/minute).

Service: Includes remote support system to consult with service engineers and travel to customer plant on short notice.



The Keys to Wentworth's Growth Philosophy

- To provide best value PET blow molds and PET preform molds in the fastest time and at the lowest cost.
- Focus on value-added activities.
- Fully operational 24/7.
- Use of high-tech machinery and equipment.
- Manufacturing blow molds for the plastics industry in Europe, Near and Middle East Africa, Asia and Pacific Rim, South America and North America.
- Automated mold design using SolidWorks software.
- Unigraphics/PowerShape used for 3-D modeling.
- PowerMill and EdgeCam for 3-D and 2-D Programming.

A Profit Center Kuskowski points out that Wentworth has grown at much faster rates than industry standards because of its blow mold niche. It also continuously gains market share with a sales volume that is almost three times larger than its closest competitor. “We are the only manufacturer that can supply blow molds of all types, all sizes, using all technologies, for all types of equipment,” he states. “The range of molds we supply is unprecedented in the packaging industry and includes PET blow molds, extrusion blow molds, PET preform molds, PET multilayer preform molds, injection blow molds, PET injection stretch blow molds and others. We are capable of supplying and servicing customers on five continents and delivering programs as large as 2,500 molds globally.

“Our mission is to be number one or number two in selected niches of toolmaking and related processes by delivering the best value in the least amount of time, globally,”

Kuskowski continues. “We continuously execute our plan by being the best value supplier of high-quality, competitively priced molds with the fastest deliveries through our FTM® program. We believe that the key competitive factor that generates our growth is the service we provide to our customers. We service our customers to earn their business for life. All of our actions are focused on delivering the best service in the industry to help our customers contribute to their profit growth. We have implemented a true customer-centered culture and empower our staff to take the necessary decisions to do whatever it takes to meet and exceed industry service standards. We emphasize the importance of quality, which we chart, measure and share with all employees on a monthly basis. The quality control employees are empowered with the authority to stop production based on quality issues and provide means to facilitate an expedient resolution to the quality problem.” Wentworth’s service teams partner with their customers— learning all aspects of their business so they can help optimize their molding systems.

Wentworth fully believes in reinvesting in the company. All profits are reinvested in equipment and R&D. In 2002, the company spent \$3 million (8.4 percent of revenue) on R&D. During the last five years, R&D spending was more than 10 percent of revenue. Wentworth and EFI currently hold thirty-seven patents and three additional are pending. “Since we are a heavy user of technology for design and engineering, manufacturing, communications and information systems, our R&D continuously focuses on innovation of the product, FTM® approach and manufacturing through innovation and intellectual capital,” Kuskowski explains. “Continuous improvement, best value product and change are basic values in Wentworth’s genetic makeup. We are passionate about them and drive them through our organization. We believe that change is continuous and see change as our opportunity.”



Key Highlights of Electra Form Industries (EFI)

- Provides fastest refurbishment and conversion programs for existing preform injection molds.
- Fastest delivery of fully hardened prototype preform stacks in ten days or less.
- Supply PET preform injection molds from one to 144 cavities.
- Leading innovator in preform injection mold technology such as ExStream hot runners, multilayer sequential coinjection, Micropitch molds, etc.
- Offers sampling capabilities in-house.
- Experienced field technicians to support new mold installations and start-ups as well as in-plant mold conversions at the customer.
- Only preform injection mold supplier with ISO 9001 (2000) registration.

Automation Wentworth’s decision to automate was based on the reduction of leadtime, costs

and return on investment. According to Kuskowski, FTM® automation includes order writing, communications, electronic data transfer, fully automated design and the latest five-axis machining centers.

Process-order writing: A web-based, online ordering system where customers are provided username and password protected access. They log on and place their orders online. All electronic files are attached to the order before submission. Upon completion, customer chooses submit, and e-mail notification is immediately sent to the dedicated FTM Manager, which initiates order processing internally. Order confirmations are sent to appropriate customer contacts.

Communications: Personnel are available 24/7. All FTM® orders are handled by the dedicated department, bypassing the traditional channels for order placement.

Electronic data transfer: Customer electronic files are uploaded with order submission via the online ordering system. Upon job completion, the electronic part drawings created by Wentworth engineers are uploaded to a secure .ftp site from which customers may download their files.

Fully automated design: Using Wentworth's proprietary Engineering Design Software for all order submissions, customer information provided at the time of order is used to develop part drawings via this software.

Latest five-axis machining centers: Dedicated departments are equipped with the latest in machine technology.

Industry Immersion

As an industry leader, Wentworth recognizes its responsibility to the industry, its employees, its shareholders and the community. "We pride ourselves on being a fair, open enterprise involved in the promotion of the industry in various international and domestic endeavors," Kuskowski says. "We have successfully acquired and restructured a number of underperforming companies and transformed them into profitable exporters. We also support and develop other moldmaking companies through substantial subcontracting programs."

In addition, Wentworth has presented papers on FTM® and global mold manufacturing to industry forums and organized presentations and training sessions. To give back to the community, the company participates in local highschool co-op programs and—in conjunction with local technical colleges—offers apprenticeships each year. Kuskowski adds that all employees are eligible for internal and external training programs to develop business and personal goals. Every employee participates in profit sharing and key people have significant ownership in the business unit in which they are included. For their customers, Wentworth offers training programs in PET processing and mold assembly and disassembly.



Forward Thinking In addition to its leading position in the blow mold market, Wentworth has formed partnership/strategic relations with a number of the largest global blow molders and is a key supplier to many of the largest packaging companies. Future plans are sure to cement its global status in this niche market.

“North American companies are migrating their manufacturing plants to low-cost locations,” Kuskowski says. “This natural process started a long time ago, but is accelerating and the magnitude of manufacturing in offshore, low-cost countries by American global companies is growing rapidly. Wentworth’s response is simple. We follow our customers to the locations where they want us to be. About eight years ago we started to globalize and now we are a truly global company. Our globalization mantra is ‘think globally, but act locally.’ Such an approach will continue our global expansion. In the immediate future we are planning to extend our presence in Central Europe and Asia.”

While Kuskowski chooses not to reveal the details of Wentworth’s expansion plans, he does admit that the company’s “China” is Poland. “We have expanded the blow mold operations in our Poland facility, which we call our SUPERcell,” he says. “It features automated equipment and milling machines that run as fast as 30,000 rpms. We have created a world class blow mold manufacturing base at the Poniatowa plant, which is our next step in executing Wentworth’s key strategy to continue as the global best value supplier and low cost leader in mold manufacturing. The manufacturing plants in Poland are lowcost satellite operations that use Wentworth’s North American technology. Polish personnel are trained in our plants in the U.S. and Canada. Our Polish operations are able to serve our customers globally.”

In addition to this global expansion, the company looks to continually improve its FTM® program and implement lean manufacturing and Six Sigma Quality Programs. “We are formalizing our lean manufacturing program and upgrading our quality program from ISO 9001 to Six Sigma Quality Program,” Kuskowski notes.

Clearly, Wentworth Mold shows no signs of slowing down. While it has proven itself a leader in innovation and technology, Kuskowski says the true secret to its success lies in its employees. “A very dedicated workforce, experienced management and a commitment to teamwork have made all of our accomplishments possible.”