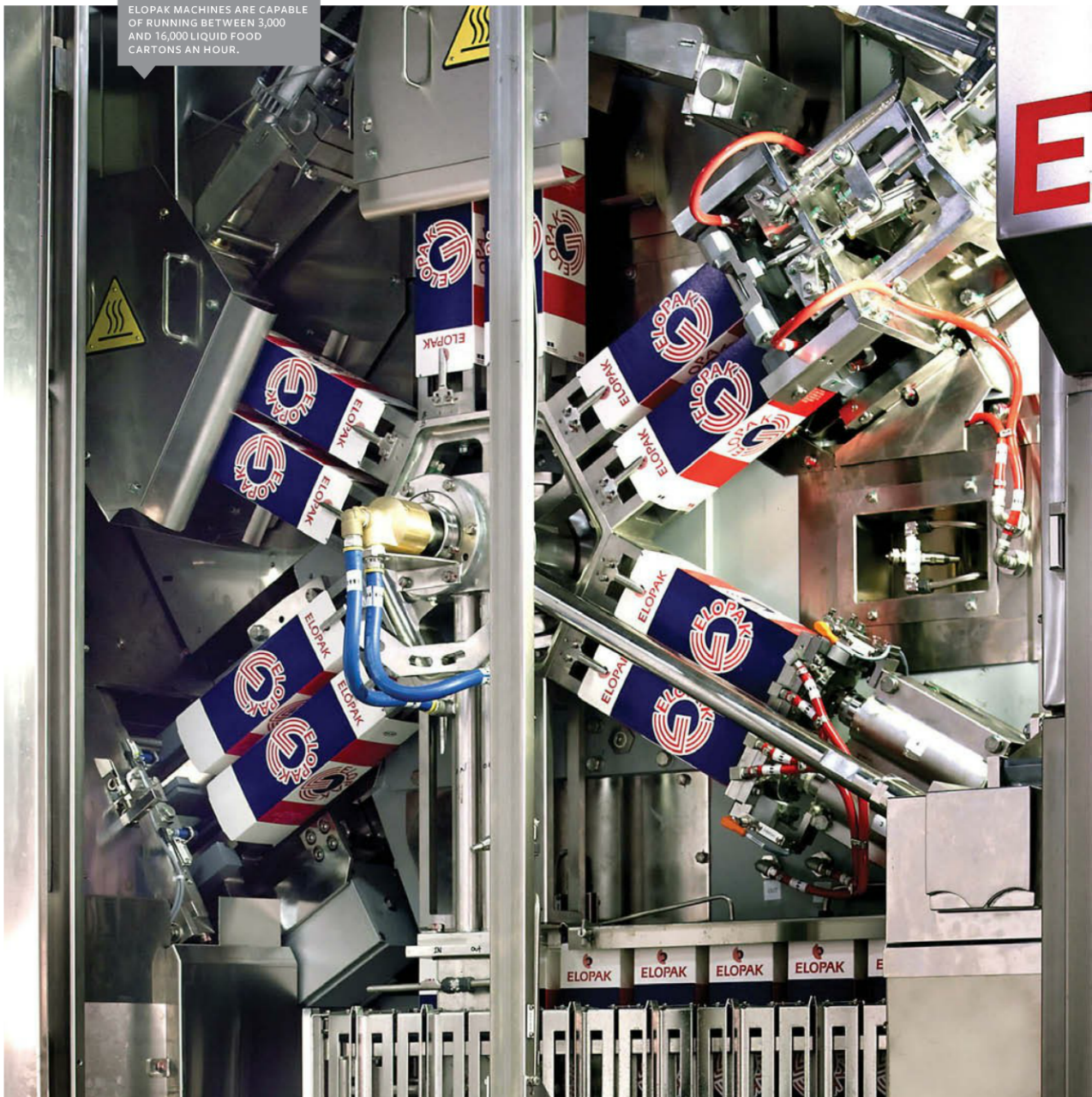


ELOPAK INC.

www.elopak.com / U.S. headquarters: New Hudson, Mich. / Company contact:
Hendrik.Stoltz@elopakus.com / U.S. employees: 120 / Service: Liquid food packaging

A TOTAL SYSTEM

ELOPAK'S LIQUID FOOD PACKAGING MACHINES PROVIDE CUSTOMERS
HIGH EFFICIENCY AND LOW OPERATING COSTS. **BY JIM HARRIS**



ELOPAK MACHINES ARE CAPABLE OF RUNNING BETWEEN 3,000 AND 16,000 LIQUID FOOD CARTONS AN HOUR.

One of the world's leading manufacturers of liquid food packaging systems is increasing its presence in the United States.

Elopak Inc. develops, manufactures and sells gable top Pure-Pak cartons and screw caps for non-carbonated liquid products such as juice and milk, as well as the filling machines used in their production. The Norway-based company operates globally, producing both machinery and packaging products. Its New Hudson, Mich., plant produces several of the high speed filling machines and post applied, as well as in-machine screw cap applicators in Elopak's portfolio.

"The company prides itself on being a total system supplier for liquid food packaging products, offering not only cartons, closures and filling machines, but also a high level of service and support to customers," says Hendrik Stoltz, vice-president of manufacturing and operations.

ENVIRONMENTAL PRINCIPLES

Elopak is an environmentally conscious company that is committed to the principles of sustainability. In 2009, Elopak received an official endorsement as a World Wide Fund for Nature (WWF) 'Climate Saver' at the Climate Savers Briefing in Washington D.C. Climate Savers mobilize the world's major corporations to cut carbon dioxide. Leading organizations are partnered with WWF to establish ambitious targets to voluntarily reduce their greenhouse gas emissions.

The company says it has an ambitious companywide directive of a 15 percent reduction in carbon emission by 2011. "By cutting carbon emissions by 15 percent, we are experiencing positive development on net profits," CEO Niels Petter Wright says.

Thanks to systematic development and improvement programs, Elopak today uses less material and less ener-

gy in its packaging systems, and is still able to provide a greater choice of packs than ever before. Pure-Pak cartons have many environmental benefits including a carbon footprint that is approximately three times smaller than polyethylene terephthalate (PET). The liquid carton board is 16 percent lighter than it was a decade ago, the aluminum foil layer for aseptic cartons is 30 percent thinner than 30 years ago and the stiffness of the board is 20 percent greater.

Good packaging means lower prices for foods, because it reduces the cost of transport, distribution, storage and retailing and reduces the costs associated with waste.

"WE PROVIDE INFRASTRUCTURE THAT ALLOWS A 'CHANGE-ANYWHERE, UPDATE-EVERYWHERE' PRINCIPLE."

-Hendrik Stoltz

All Elopak's packaging can be disposed of safely in modern controlled waste management systems, the company says.

"We want to be respected for our environmental responsibility as well as our innovation," it adds.

RELIABLE MACHINES

Elopak's range of state-of-the-art filling machines are designed to fill fresh, extended shelf life (ESL) and aseptic liquid food products. The machines are suitable for filling a variety of food/non-food products and can run various package sizes of the company's Pure-Pak®, Diamond® and Slim® carton products.

While Elopak filling machines are designed to run a dedicated cross-section (pint, quart, half gallon), the fill volumes can be varied to run up to four different volumes within a specific cross-section or footprint.

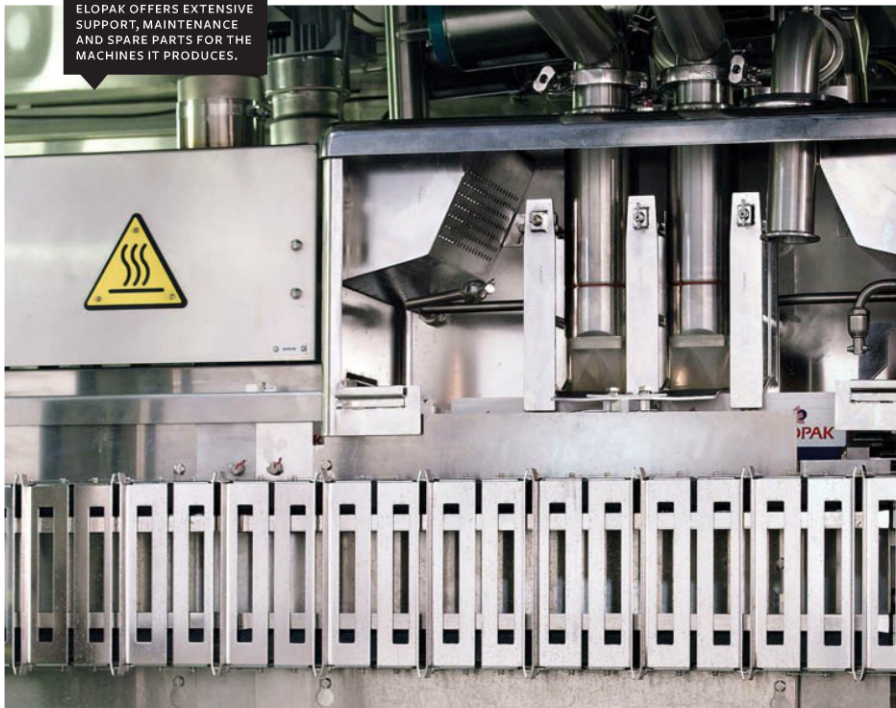
Although machines can only run one size at a time, the size-changeover process is automated and can be done within minutes with minimum operator intervention. Elopak's portfolio contains machines that run capacities from 3,000 to 16,000 cartons per hour. The machines can be highly customized with a variety of market-tested options.

Elopak's fresh and ESL packaging machines provide safe packaging for fresh dairy, juice and liquid food products with a shelf life between 28 to 90 days chilled depending on product processing parameters as well as barrier properties used in the carton. "Consumers and retailers increasingly become more demanding of quality and convenience of products, and in turn, food producers demand more days of shelf life for their standard and added-value products," the company says. To meet this demand, Elopak is developing technology and packaging solutions to ensure shelf life extension of dairy products even further.

Aseptic machines allow for the ambient storage and distribution of food products without the need for preservatives or product cooling. Elopak guarantees product integrity for up to 12 months on high acid products. The machines feature advanced control functions that monitor all critical process parameters during carton sterilization and the filling-sealing processes, this ensures customer product integrity.

All of Elopak's machines are designed to have a low total cost of ownership to customers. This is achieved through high uptime and machine efficiency, a low usage of spare parts, low utility consumption, high fill accuracy and overall reduced operational costs, according to the company.

"We have filling equipment that far outperforms that of our competition, in speed, reduced waste and filler accuracy," Stoltz says. »



ELOPAK OFFERS EXTENSIVE SUPPORT, MAINTENANCE AND SPARE PARTS FOR THE MACHINES IT PRODUCES.

» NEW TECHNOLOGIES

Elopak continually invests in new technologies and tools that will improve performance and bring products to market more efficiently. “We have just finished a project that linked our fully integrated solid modeling CAD system to a new enterprise resource planning [ERP] system. The complete system is managed through a product life cycle management tool [PTC’s Windchill] with full traceability,” Stoltz says.

Windchill, through its integration with the ERP system, will allow the company to maintain serialized equipment data and associated maintenance information on all machines.

“This means, in essence, we provide infrastructure that allows a ‘change-anywhere, update-everywhere’ principle,” he adds. “This allows us to effectively manage changes or upgrades on both new and legacy machines and will allow us to better anticipate the customer’s needs for spare parts and support the

management of their preventative maintenance schedules. From a customer perspective, this means we can easily support parts and engineering on all equipment throughout the product’s lifecycle. This will also be expanded to support third-party supplied or competitor equipment supported by Elopak,” Stoltz says.

These investments are expected to optimize the company’s operation and reduce overall costs, he adds. “One benefit of the CAD/PLM system is we can create different configurations and solutions that serve customer-specific needs,” Stoltz adds.

MACHINE PRODUCTION

Elopak’s Michigan based operations employs a highly skilled staff specializing in mechanical and electrical engineering, software development, manufacturing production in addition to food science, documentation, procurement, accounting and customer service departments, Stoltz says. The plant is the center of the

TIMELINE

- 1908**
Paper-based milk containers first appear on the market.
- 1915**
John Van Wormer granted a patent for a new milk bottle.
- 1934**
Detroit-based American Paper Bottle Co. sells the rights to the Pure-Pak carton packaging technology to Ex-Cell-O.
- 1957**
Elopak founded in Norway; agreement signed with Ex-Cell-O to produce Pure-Pak cartons.
- 1987**
Elopak purchases the Ex-Cell-O packaging systems division and the Pure-Pak license.
- 1998**
Elopak establishes joint ventures in Saudi Arabia and Mexico.
- 2000**
The company buys a carton converting facility in Montreal, strengthening its position in the North American market.
- 2001**
Elopak upgrades its 90 series of filling machines and signs an order for this machinery with juice producer Tropicana.
- 2002**
New production and printing equipment and a new series of cap applicators introduced; Pure-Pak P-S120 filling machine series launched, providing the highest hygiene standards in the non-aseptic liquid packaging industry.
- 2003**
Elopak acquires U.K.-based plastic bottle producer Auspac.
- 2007**
Elopak marks 50th anniversary; announces Niels Petter Wright as new CEO.
- 2008**
Company launches ‘Green Challenge’ challenging all market units, partners and suppliers to reduce carbon footprint.
- 2009**
The first Slim® carton in Eastern Europe launched by Coca-Cola; Elopak receives official endorsement as a World Wide Fund for Nature ‘Climate Saver.’
- 2010**
The environmentally friendly Eco Carton is developed for fresh milk.

company's U.S. manufacturing and support operations and is closely linked to its European market activities, the company says.

Elopak's production staff is highly skilled in assembling all components of the machines, including electrical systems and servos. Machines are assembled by hand from the ground up using components that are produced by sub-suppliers "One of our core competencies is the integration and final assembly of the machine and our ability to put complex, high-tech machines together," Stoltz says

"The key thing in assembly is quality assurance," he adds. "We have many steps of quality checks from sub-assembly through the final commissioning, and our checkout procedures are rigorous." All machines go through extensive trial runs before shipping. "When a customer accepts a machine with us, it's been through at least a six-hour production run without failure using our customers' actual packaging material," Stoltz says.

EMPLOYEE DEVELOPMENT

The company's manufacturing employees learn most of their job skills while performing their duties alongside experienced staff. Elopak expects their employees to possess basic skills and mechanical aptitude before hire, but teaches them the specifics of filling machine assembly on the job.

"Our employees learn by doing, because our machines are so specialized, it's not possible to have a formal training curriculum," Stoltz says. Machine assembly is broken down into different teams. New hires are initially placed on sub-assembly teams with more experienced teammates before moving on to final product assembly.

"We're fortunate in that our workforce is experienced and we don't have a high staff turnover," he adds.

Elopak has a lean organizational

structure with all departments within the company -- from engineering to production -- working together closely. An engineering council led by Stoltz serves as a management team overseeing the plant's activities and keeping its priorities aligned with customer demands and commercial commitments, he says.

TECHNICAL SERVICE

One area where Elopak seeks to set itself apart from competitors is the level of service it provides to customers, including technical training and project management services.

Elopak offers technical training courses that provide customers and their staff the skills needed to operate and maintain filling machines efficiently and safely. Courses can be conducted either in house _ in the US or in Europe _ or at the customer's facility depending on machine availability.

The company also works extensively with customers on helping them set up and maintain their filling machine operations. "We are able to provide turn-key project management for new installations," Stoltz says. "The scope of this can include third party downstream equipment in addition to our own filling equip-

ment. Staff can recommend appropriate filling equipment and assist in creating plant layouts. Elopak can provide engineering solutions to guarantee high-line efficiency."

Elopak offers extensive research and development support, after-sales services, and maintenance, including a large inventory of spare parts, he adds. The company's warehouse stocks a wide range of spare parts for all Elopak machines and critical parts of competitor equipment with the benefit of convenient, local time zone support.

The company has a number of key technical service initiatives including maintenance contracts and the ability to service and re-engineer competitor equipment.

Elopak staff is also able to provide line monitoring and efficiency measuring services, and can manage third party suppliers.

"We have a strong partnership approach," Stoltz says. "We like to work together with customers to identify problems and resolve them."

"We want to be the preferred beverage carton system partner, we are serious about growing our business in the Americas, and we are here to stay," Stoltz adds. **mt**

