

MAC CLOSURES INVESTS IN THE FUTURE

**As an innovative closure designer and technology leader,
MAC Closures delivers cost-effective creative solutions.**

For several decades, MAC Closures has quietly served the U.S. and Canadian plastic closures market—offering stock and custom solutions for foods, pharmaceuticals, beverages, personal care products, automotive fluids, household cleaners and more.

The acquisition of a Canadian competitor in the fall of 1999

allowed the company to specialize and increase capacity. This, along with inventive leadership, has helped MAC Closures earn its current status as an expert injection molder serving the global market.

Today, MAC Closures is...

- Committed to its employees, customers and, finally, to its shareholders.
- Creative in the products, solutions and financing it presents to customers.
- Energetic and able to move fast, offering free engineering services.
- Diligent in making sure each customer is satisfied and proud to be an irritant-free supplier.

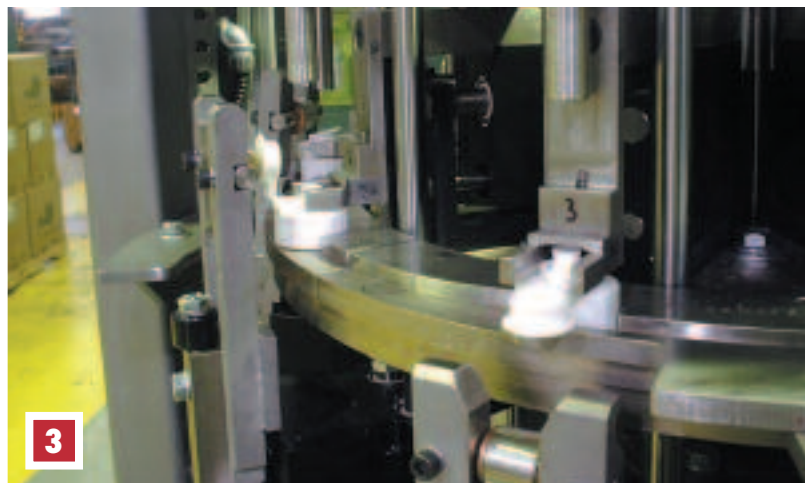


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State-of-the-art equipment ensures high-speed, high-performing closure production. Clockwise: 1. Engel 300 ton Tiebarless injection molder features stainless steel molds. 2. High-speed vision inspection ensures closure quality. 3. Automated assembly systems prepare closures for customer delivery.



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MAC Closures invests in ideas...

How does anyone measure creativity? It's problem-solving and ingenuity. It's new ways of doing the same old thing or leading the way with bold ideas.

At MAC Closures, creativity is how the company has built its reputation and earned the respect of customers.

With an emphasis on practical R&D, MAC Closures is focusing its product development efforts into three strategic markets: pharmaceutical, personal care and household/industrial products. From the micro view, this niche marketing allows the company to concentrate its resources and knowledge. From the macro view, working with a diverse group of customers within these industries helps expand the company's range of experience...which it can tap into for the next closure design project.

Louis Boulerice, vice president of sales and marketing, explains, "We have knowledge in child-resistant closures from the pharmaceuticals market. We can bring this technology to the chemicals business and make a good C-R cap that is elderly-friendly and isn't too expensive for them."

Armed with insight into the needs of these markets, MAC Closures is now developing products with performance and functionality

features that customers might not realize they need.

A recent example of this proactive approach is the FTCR 19000 flip-top child-resistant closure, an innovation that was triggered by the recent regulation by the U.S. Consumer Product Safety Commission (CPSC) regarding hydrocarbons. This senior-friendly closure just passed protocol tests required by the CPSC, testing well above average in keeping children out while giving seniors easy access.

In addition to senior friendly child resistance, the closure's unique design addresses other consumer convenience needs, such as one-hand opening/dispensing and intuitive functionality. The FTCR 19000 is suitable for a variety of products that need child-resistant packaging, such as baby oil, cough syrup, suntan lotion or other liquids that may contain hydrocarbons.

MAC Closures invests in technology...

As MAC Closures continues to build its knowledge of C-R and closure technology, it is able to offer customers creative solutions that are relatively inexpensive—mainly because closure production is highly automated.

According to Boulerice, "The winners in [the closure] business are going to be the ones who are highly automated, with high-performing molding machines and auxiliary equipment—for lining, assembling, closing or whatever. We are investing a lot into automation. For example, we use automated vision for 100% inspection."

Privately owned, MAC Closures is able to reinvest profits back into the company, unlike many publicly held competitors who must placate stockholders by cutting expenditures. MAC Closures has been upgrading its injection molding machines—it currently owns 78—so that the average age of the equipment is seven years. By buying state-of-the-art automated equipment, the company can ensure high-quality, cost-effective closure production.

Making a good closure is more than just molding, though. MAC Closures also pays attention to its auxiliary equipment. For example, the company:

- Designed and built its own lining equipment to work at the speeds and quality it needed.
- Chose offline closing and assembly operations so it can, overall, run at higher-than-normal speeds to keep pace with production demands.
- Is currently updating its printing press and is evaluating the marketing possibilities of four-color printing technology from Europe.
- Performs visual inspection at multiple stages throughout production and uses high-speed machine vision technology for orders that require 100% inspection or zero defects.
- Is planning to offer in-house induction sealing to secure inner seals on the orifice of a snap-cap so all the customer has to do is apply it.

MAC Closures invests in people...

Just having the latest technology is not enough. You've got to know how to use it. And for that you need a highly trained, educated staff. The company actively develops local talent:

- Gilles Decelles, president of MAC Closures, created and



Recent closure innovations include the company's FTCR 19000 patented senior-friendly child-resistant flip-top for liquid and dry products, and a new flip-top dispensing closure for dish detergent that's displacing the tired traditional push-pull.

helped fund a program in plastics engineering at the University of Laval in Quebec city. As a participating company, MAC Closures gets first pick of the graduates. So far, the company has hired three engineers, with plans to add another two. Boulerice says, "This way we're going to have technically sound, younger people. Right now our experienced people are showing them the ropes. They're walking...they're falling down. They're making mistakes...they're getting back up. That's the way you learn in this business."

• Five years ago, MAC Closures started a student design competition at the University of Montreal. Third- and fourth-year students are given a closure design project. The company pays for materials and prototypes, and awards prizes in several categories. In exchange, it keeps all rights to the ideas developed. Again, the company capitalizes on available talent: MAC Closures has hired four designers involved in this school's program.

MAC Closures continues to enable its workforce. Where most companies may spend 1% of their total annual salary for training, MAC Closures allocates between 3% and 4%.

This is one example of how the family-oriented company values and nurtures its employees. Sure, motivated workers produce more and better—happy employees foster a positive, can-do attitude. But what's equally important to MAC Closures is the pleasant working atmosphere and the employees' quality of life. MAC Closures provides personnel with on-site child care; an exercise room and classes; a golf tournament; and breakfasts cooked and served by the staff.

As MAC Closures plans its future, the path to success is

clear. The company serves its customers and employees—for today and tomorrow—by investing in technical resources and creative ideas.

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