# After 20 years, Canplas continues to improve OEE in a complex family-parts environment

## Company Facts

- Location: Barrie, Ontario, Canada
- Industry: Manufacturer of Plastic Plumbing Fittings, Ventilation and Vacuum Fittings
- Web site: www.canplas.com

> "In one mouse-click, Mattec MES allocates the production of a particular part to the machines that most efficiently produce it. The time difference from one machine to the next may only be 2 seconds per cycle, but that 2 seconds can mean a lot, especially when you're looking at 30-second cycle times and 100 hours of run time. That's nearly 7 hours, almost an entire shift, worth of savings."
>
> Sabrina Guyard, Processing | Canplas

## Success Highlights

### Challenges

- Complex family-parts environment
- Monitor productivity and assign cycle times to manual processes
- On-time delivery
- Continuous OEE improvement

### Solution

- Epicor Mattec MES, manufacturing execution and real-time production monitoring system

### Benefits

- 1% increase in OEE over past three years
- Reduced scrap from 5% to less than 2%
- Real-time production traceability for family parts
- Mattec MES assigns parts production to most efficient machine, improving delivery time to customers
- Virtual machine functionality enables cycle tracking for assembly operations

## Canplas Improves Overall Equipment Effectiveness (OEE)

Reaching a point where your solution is taken for granted by its users could be considered the ultimate goal for any solution provider. For the user, it signifies that the solution has become an essential and reliable component of his or her day-to-day responsibilities and is so seamlessly integrated into the company's business processes that operating without it is inconceivable.

Such is the case for Epicor Mattec MES at Canplas Industries, where—for over 20 years—the company has leveraged Mattec MES' production monitoring capabilities for its facilities in Barrie, Ontario. Canplas manufactures injection molded plumbing, ventilation and vacuum fittings for the North American construction and home-improvement markets.

As part of Canplas' processing group for the past 3 years, Sabrina Guyard interacts daily with the Mattec MES solution, essentially monitoring throughput, balancing job schedules as they flow through the company's injection molding or assembly operations and testing new parts against production data gathered by Mattec MES.

**EPICOR**

Business Inspired®

## Managing Complex Family Parts

"The software is so totally integrated I just can't see doing my job without it," she says, referring specifically to Mattec MES' role in scheduling family parts. Canplas' family parts environment is exceptionally complex, at times involving the simultaneous production of as many as 16 discrete part numbers in a single mold. "The time needed to produce a particular part in a mold may be different from another part in that same mold. Or we may have parts that require two cycles, two separate processes. A typical production monitoring system would just show us the number of times a mold opens and closes, but it wouldn't tell us which cavity in the mold has been changed, so we wouldn't know how many pieces we've made of each part. The Mattec MES family mold module tracks and keeps history of each and every cycle of each and every machine for each part. Without it, everything would be guesswork."

Guyard and her group track the differing injection times and speeds required for each part and utilize Mattec MES' real-time machine monitoring capabilities to direct resources to a machine if its performance falls outside predetermined parameters. "If we have a problem with the machine, we'll have problems with the part, so access to current data is critical. Mattec MES provides that." Real-time screens displaying Mattec MES data enable schedulers to visually monitor job progress and completion and instantly queue the next job, eliminating paper processes and enhancing efficiency.

## Enhanced Customer Satisfaction

Canplas' production environment consists of injection-molding machines and a number of assembly stations, producing over 20,000 part numbers. Guyard pulls production schedules from Canplas' ERP system and enters them into Mattec MES. "In one mouse-click, the software allocates the production of a particular part to the machines that most efficiently produce it."

Though Canplas customers can't see it, this capability is critical to their satisfaction, particularly if on-time delivery is important, says Guyard. "The time difference from one machine to the next may only be 2 seconds per cycle, but that 2 seconds can mean a lot,

especially when you're looking at 30-second cycle times and 100 hours of run time. That's nearly 7 hours, almost an entire shift, worth of savings."

Working hand-in-hand with this ERP integration, Mattec MES' communication with Canplas' sales/forecasting system is equally critical to enhancing customer satisfaction. "With the click of a button, our planning and scheduling group can import data that tells the salespeople exactly when their orders can be fulfilled." says Guyard.

From her production-oriented perspective, Guyard heavily utilizes Mattec MES' Downtime Reasons, Packed Pieces and Virtual Machine capabilities. With Downtime Reasons, every time an operator shuts down a machine - to change out a mold or tool or any other reason - they are required to enter a code on the Machine Interface Unit (MIU). Such data has wide implications, from tracking usage and scheduling maintenance to monitoring changeover times and increasing efficiency.

Canplas uses the Virtual Machine module to monitor the productivity of, and assign cycle times to manual processes, such as the assembly of sub-components and components.

The company also uses the real-time reports generated by the Packed Pieces module to monitor the difference between the number of good parts produced and boxed at each machine and the number of parts shipped out of the warehouse. It can also be used to measure machine cycles vs. the number of good parts produced.

## Two Decades of Continuous Improvement

Guyard says Canplas uses OEE as a measure of Mattec MES' impact on its business, but views OEE in two ways. The first view looks at set run hours for only the machines in use, measuring run time, good pieces/scrap pieces and cycle efficiency. The second takes the same measures, but weighs them against the assumed full utilization of all machines.

"With the click of a button, our planning and scheduling group can import Mattec MES data that tells the salespeople exactly when their orders can be fulfilled."

Sabrina Guyard, Processing

"We set goals every year on decreasing our scrap and downtime. In the three years since I took on my present responsibilities with Mattec MES, we've decreased our overall downtime by 1% per year and increased our overall OEE by 1% per year. We're averaging 99% efficiency against our cycle time, and where we used to be 5% scrap, we're now at 2% or lower."

To add context, Guyard points out that this incremental OEE improvement follows 20 years worth of continuous improvements also attributable to Mattec MES.

"Truth is, even after 20 years, the software has many options we still don't utilize," says Guyard, though the company has recently launched recent initiatives to utilize more SPC (Statistical Process Control) and introduce SQC (Statistical Quality Control). "Both our customers and we just kind of take [the capabilities of Mattec MES] for granted, but there's no questioning its role in our success."

## About Epicor

Epicor Software Corporation is a global leader delivering business software solutions to the manufacturing, distribution, retail, and service industries. With more than 40 years of experience, Epicor has more than 20,000 customers in over 150 countries. Epicor solutions enable companies to drive increased efficiency and improve profitability. With a history of innovation, industry expertise and passion for excellence, Epicor inspires customers to build lasting competitive advantage. Epicor provides the single point of accountability that local, regional, and global businesses demand. For more information, visit www.epicor.com.

**EPICOR**®

### Contact us for more information on Epicor Products and Services

📠 +1.888.544.6315 ✉ info@epicor.com 🌐 www.epicor.com

| Corporate Office | Latin America and Caribbean | Europe, Middle East and Africa | Asia | Australia and New Zealand |
|---|---|---|---|---|
| 804 Las Cimas Parkway | Blvd. Antonio L. Rodriguez #1882 Int. 104 | No. 1 The Arena | 238A Thomson Road #23-06 | Suite 2 Level 8, |
| Austin, TX 78746 | Plaza Central, Col. Santa Maria | Downshire Way | Novena Square Tower A | 100 Pacific Highway |
| USA | Monterrey, Nuevo Leon, CP 64650 | Bracknell, Berkshire RG12 1PU | Singapore 307684 | North Sydney, NSW 2060 |
| Toll Free: +1.888.448.2636 | Mexico | United Kingdom | Singapore | Australia |
| Direct: +1.512.328.2300 | Phone: +52.81.1551.7100 | Phone: +44.1344.468468 | Phone: +65.6333.8121 | Phone: +61.2.9927.6200 |
| Fax: +1.512.278.5590 | Fax: +52.81.1551.7117 | Fax: +44.1344.468010 | Fax: +65.6333.8131 | Fax: +61.2.9927.6298 |