

SEA-LECT PLASTICS CORPORATION AUTOMATING ALL FACETS OF INJECTION- MOLDED PART PRODUCTION WITH SOLIDWORKS AND DELMIAWORKS SOLUTIONS

Case Study



By adding the DELMIAWORKS enterprise resource planning (ERP) system to its SOLIDWORKS design and manufacturing implementation, SEA-LECT Plastics automated all facets of injection-molding production, resulting in increased efficiency and improved quality.

Challenge:

Automate all facets of injection-molding production—including estimating, quoting, sales, order processing, planning, scheduling, tooling, design for manufacturing, production, inventory, procurement, and delivery—to increase efficiency and improve quality, as well as to better understand actual costs per job to maintain profit margins while improving the company’s competitive position.

Solution:

Add the integrated DELMIAWORKS enterprise resource planning (ERP) system for manufacturers to the company’s existing SOLIDWORKS design and manufacturing implementation.

Results:

- Increased operational efficiency from 70 percent to 98.5 percent
- Cut reject rate to less than one percent, a third of industry standard
- Improved profit margins
- Attained ISO 9001:2015 certification

SEA-LECT Plastics Corporation is a leading supplier of injection-molding manufacturing, design, product development and tooling services. Based in the Pacific Northwest, the company was established in 1987 to support the injection-molding needs of the Sea-Dog brand of marine products. Originally the SEA-DOG Plastics Division, SEA-LECT Plastics has gradually forged its own identity by taking on additional customers in the marine and defense industries, and growing its injection-molding production business.

According to Vice President/General Manager Matt Poischbeg, SEA-LECT Plastics initially relied on Sea-Dog’s custom-developed enterprise resource planning (ERP) system and Excel spreadsheets to manage its injection-molding operations. However, Poischbeg says the manufacturing services provider needed to find innovative solutions to streamline and improve all functions related to injection-molding production to support growth.

“We implemented the SOLIDWORKS® 3D design-to-manufacturing system to improve our ability to handle customer data and identify design-for-manufacturing issues, and also the integrated CAMWorks™ machining package, both of which helped us achieve productivity gains,” Poischbeg explains. “Yet, we still needed an overarching system that would enable us to automate all functions related to injection-molding production. We needed to boost productivity to better manage our growing volume of business, but we also needed to better understand our actual costs for each job to remain competitive in an increasingly dog-eat-dog market.”

In 2011, the company’s owners made investments in people, computing hardware and technology; and Poischbeg began evaluating available ERP systems that would allow the company to further streamline its operations. SEA-LECT Plastics implemented the DELMIAWORKS® ERP system in 2012 because of its integration with SOLIDWORKS design and manufacturing software, and its ability to be configured to SEA-LECT Plastics’ specific automation requirements.



“In this tight market, there’s no room for error, and we can’t afford to lose, either. With the information and automation provided by DELMIAWORKS, both our pricing and position are more competitive. In short, DELMIAWORKS gives us a competitive edge.”

– Matt Poischbeg, Vice President/General Manager

“DELMIAWORKS does everything that we need,” Poischbeg stresses. “You can tell that it was designed by mold makers because it covers every detail involved with injection molding, giving us real-time access to information and status on everything from costing, bills of materials and mold types to tooling, staffing and scheduling.”

AUTOMATING DESIGN TO MANUFACTURING

Since adding DELMIAWORKS ERP to its SOLIDWORKS implementation, SEA-LECT Plastics has fully automated its design-to-manufacturing processes. Because the DELMIAWORKS system is specifically tailored to the injection molder’s unique environment, it streamlines processes across sales, order processing, finance, human resources, planning, production, inventory, procurement and more, enabling visibility, execution and communication of manufacturing activities and data throughout the organization.

“Before we implemented DELMIAWORKS, we relied on Excel spreadsheets, which hampered our efficiency and required a lot of repetitive data entry,” Poischbeg recounts. “This caused us to ballpark estimates, to learn actual costs and whether we made a profit only after a job was complete, and to be frequently late on delivery. DELMIAWORKS has helped us to turn that completely around, giving us access to any and all job details at any time in the process, including estimating, quoting, sales, order processing, planning, scheduling, staffing, tooling, design for manufacturing, production, inventory, procurement and delivery. This tight management of data and automation of processes—we can see exactly what’s

happening on each of 16 different machines in real time—has allowed us to increase productivity, boost throughput, improve profit margins and consistently achieve on-time delivery.”

INCREASING EFFICIENCY WHILE IMPROVING QUALITY

With the DELMIAWORKS ERP system, SEA-LECT Plastics has substantially increased efficiency—from 70 percent to 98.5 percent—while simultaneously improving injection-molded part quality and related processes, enabling the company to obtain its ISO 9001:2015 certification. “With DELMIAWORKS, we have complete visibility of all of our operations, with information right at our fingertips, because everything is managed and automated within a single system,” Poischbeg explains.

“In addition to improving our injection-molded part quality—we’ve cut our part reject rate from the industry standard of 3 percent to less than 1 percent—we obtained our ISO 9001:2015 certification,” Poischbeg continues. “Our part quality has improved because we’re able to more efficiently tap the power of SOLIDWORKS software to ensure adequate draft and wall thicknesses, and more consistently shoot quality parts.”

PRECISION IN COSTING AND ESTIMATING BOOSTS PROFIT MARGINS

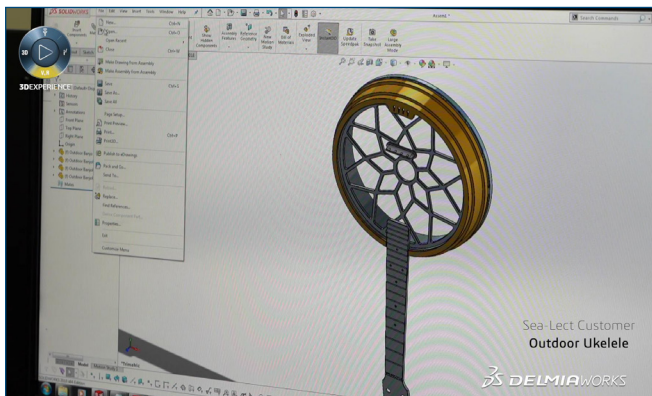
With greater efficiency, improved quality and a better grasp on actual data, SEA-LECT Plastics can generate more accurate estimates and quotes, which helps the company avoid losses, boost profit margins and improve its competitive position. “After using DELMIAWORKS for years, we’re very confident that the information is accurate,” Poischbeg notes.

“If any of our cost estimates are not precise, we’ll lose money or lose the job,” Poischbeg explains. “In this tight market, there’s no room for error and we can’t afford to lose either. With the information and automation provided by DELMIAWORKS, both our pricing and position are more competitive. In short, DELMIAWORKS gives us a competitive edge.”

Focus on SEA-LECT Plastics Corporation

Headquarters: 3420 Smith Avenue
Everett, WA 98201
USA
Phone: +1 425 339 0288

For more information
www.sealectplastics.com



With the automation afforded by the DELMIAWORKS ERP system, SEA-LECT Plastics obtained its ISO 9001:2015 certification, improved its profit margins and enhanced its competitive position.

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