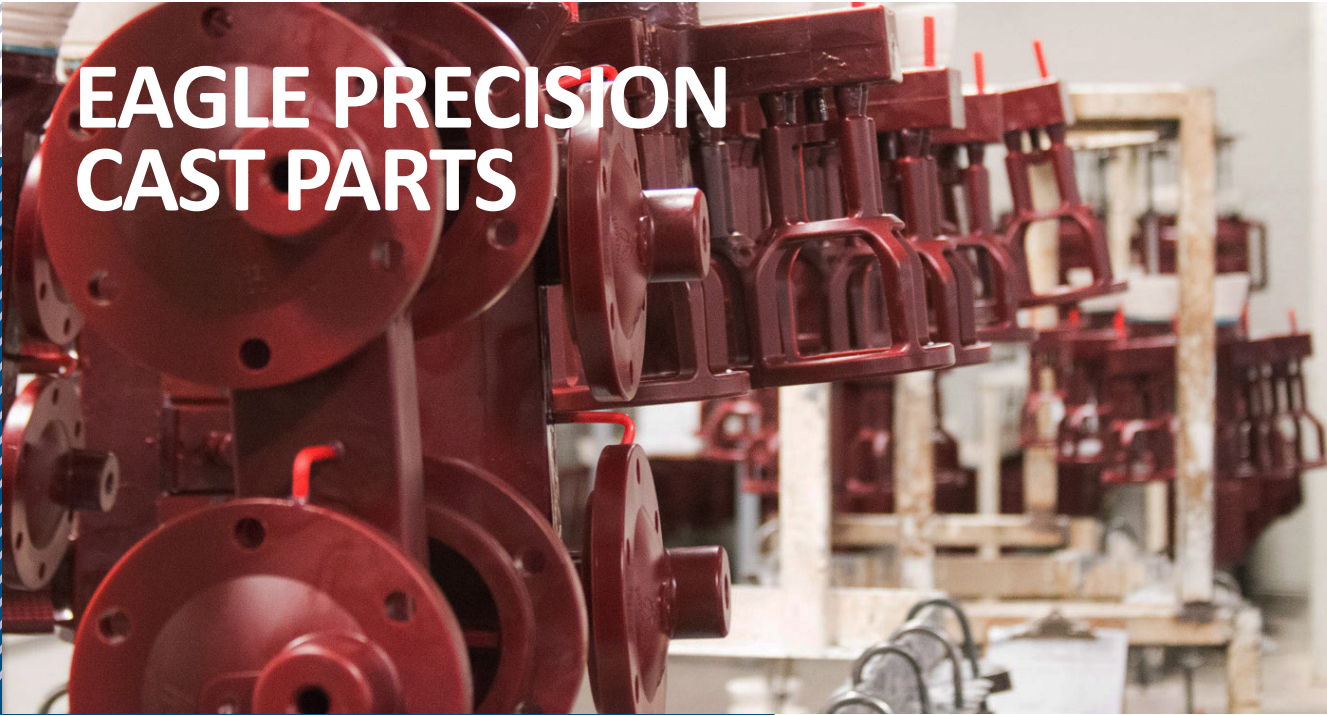




# EAGLE PRECISION CAST PARTS



## Industry

Investment Casting

## Products

Odyssey ERP

## Summary

Eagle Precision relies on the Odyssey enterprise resource planning (ERP) solution from B&L Information Systems to manage every aspect of its operations, from quotation, tooling and construction, to process development, shipping and invoicing.

## Eagle Precision Cast Parts Optimizes Lead Time, On-Time Delivery, Quality, and More with the Fully Integrated Odyssey ERP System

Founded in 1991, Eagle Precision Cast Parts, Inc. is a Michigan investment casting foundry that manufactures castings using ferrous and non-ferrous alloys such as carbon and low alloy steel, stainless steel, nickel-based alloys, aluminum, and bronzes.

Since 2009, Eagle Precision has relied on the Odyssey enterprise resource planning (ERP) solution from B&L Information Systems to manage every aspect of its operations, from quotation, tooling and construction, to process development, shipping and invoicing. Built to meet the unique requirements of the metalcasting industry, Odyssey gives customers a single, integrated solution that maximizes productivity and efficiency, reduces costs, and delivers real-time visibility across all aspects of the investment casting business.

Eagle Precision is part of the Eagle Group, a metalcasting and machining organization comprised of four individual businesses. Odyssey was chosen to replace Eagle Precision's previous DOS-based system, a legacy production system used since Eagle Precision's founding.

"We'd outgrown our old system. To scale our business, we needed to optimize our processes and gain a single, integrated view across the operation. The Eagle Group began using Odyssey in 2003 and was having tremendous success with it, so we were confident Odyssey would be a good fit," explains A.J. Menefee, Technical Director at Eagle Precision.

“Odyssey has given us a competitive advantage, particularly in our ability to keep our lead times down,” says Menefee. “We’ve heard that some investment foundries have lead times between 10-12 weeks. Our lead times are typically from seven to nine weeks.”

## Odyssey Supports the Unique Requirements of Investment Casting

Odyssey provides a roadmap for how products are processed throughout Eagle Precision’s facility. “It is a complete package from beginning to end to supply our customers with a quality product,” says Menefee. “The investment casting process has an intricate nature. Tracking production of wax patterns after injection, assembled trees during shelling, or castings after pouring and through cleaning, Odyssey helps guide this challenging manufacturing process. Managing post-casting operations of parts—including internal and outsourced heat treatment, machining, coating, etc.—is all integrated into the Odyssey ERP system.”

Eagle Precision utilizes numerous systems and processes to provide customers with high-quality investment castings, including: 3-D solidification simulation software, advanced product quality planning, and advanced measurement techniques. The goal is to meet the customer expectations the first time. Eagle Precision uses Odyssey’s integration to provide a single point of visibility into products’ quality status.

Eagle Precision’s team use Odyssey as soon as they are awarded a job. They enter a tooling order and then create the requisition and purchase orders for outside suppliers to build the tooling. Once the tooling arrives, they develop the process instructions, the routing, and other specifications in Odyssey.

For sampling, Eagle Precision is able to input special instructions into the shop order for the shop routing. Those details will alert machine operators that the parts are samples and need to be inspected by management as they proceed through the sampling process. Details regarding any special testing that might be required are also added to the system. Eagle Precision then ships the sample parts out to the customer, using Odyssey to organize the shipping.

When the customer approves the samples and places their order, the process is straightforward and efficient

## Odyssey features specific to investment casting

- Odyssey software stores both the chemical and physical characteristics of each heat by tree. Certifications can be printed either on demand or at time of shipment.
- The Odyssey metal recipe system defines the composition of the metal grade, both alloy cost and requirements. Users can compare standard metal usage against actual metal usage.
- Odyssey offers an integrated tree pattern tracking system. Total impressions are kept on each pattern and review limits can be set. Patterns that exceed review limits are flagged for inspection.
- Odyssey allows for both metal and energy surcharges to be applied at order entry or invoicing for each customer.

because the shop and product routing were already set up during the sample process. “Once we get through the sample approval process, we really know that our system and our process is ironed out enough that we’re able to produce consistent parts,” says Menefee.

## Maintaining Quality

Eagle Precision is able to track almost all of its quality-related metrics within Odyssey, or by pulling reports from Odyssey using Crystal Reports. The company utilizes Odyssey to track scrap, customer returns, on-time delivery, bookings, and more.

“Using Shop Floor Manager, we can display reports and Intelligent Views out on our production floor to help with employee awareness. We post our scrap percentages and return percentages out on the floor so that employees can see how well we’re performing to keep them involved and give them a sense of ownership,” explains Menefee. Since using Odyssey, Eagle Precision has further reduced its scrap rate by 2%.

The company uses Lot Tracking and Heat Tracking to maintain chemical and physical analysis of all the heats they pour. As those heats are being poured, the information is automatically transferred into Odyssey and stored indefinitely. “We’re able to confirm that the chemistry meets our customer requirements or any ASTM requirements that are set on the parts. That level of information and transparency builds customer trust. They know that our data’s good, and that it’s reliable,” states Menefee.

Odyssey is also important for Eagle Precision’s interaction with suppliers. The company can set up its entire bill of materials and routings for outside services within Odyssey. In those bills of material, the company can include specific process instructions; for example, heat treatment instructions and specifications, machining drawing numbers and revisions, and any other special instructions such as packaging and shipping can be included. Doing so reduces the possibility for confusion or miscommunication.

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*— A.J. Menefee, Technical Director, Eagle Precision Cast Parts*

## Managing Process Details and Instructions

There are tremendous amounts of detail and process steps in an investment foundry. “Odyssey really allows us to customize and update our process routings and our steps to account for any of the operations that have to be completed to produce our parts,” explains Menefee. “This capability in Odyssey helps us with employee awareness of what our process and customer requirements are.”

The process instructions can be entered in Odyssey for each routing step or each operation. Using Shop Floor Manager, the company can link documents, pictures, and details for special inspection requirements for each operation. The system will alert operators while on the job to look at



images, for example, or an instruction guide. “This capability saves us all a lot of time and improves the quality of our product,” states Menefee.

## Accurate Scheduling, On-time Delivery

The ability to accurately schedule production and delivery dates ensures a high level of customer satisfaction and loyalty. “Our on-time delivery rate improved greatly by using Odyssey’s scheduling module. It allows us to identify jobs that don’t have accurate production rates or lead times associated with certain operations, and to adjust these variables to generate a more realistic shipment date/lead time for our customers,” says Menefee.

When scheduling production in the wax department, the Odyssey ERP system is able to calculate the shop order completion date based on multiple factors, including the different capacities at each operation step, any additional days that may have been added in for buffers between operations, any outsource operations, and more. Based on Odyssey’s calculations, Eagle Precision can then confirm an accurate delivery date for clients so they can update the delivery date in their system, and have greater confidence their order will be delivered at that time.

Odyssey also allows Eagle Precision to identify where production may be slowing down, and if there are specific orders that are falling behind schedule. “We’re able to see which orders have been sitting the longest, so we can work on those first. That helps us keep our lead times down and minimize late orders,” says Menefee.

Odyssey’s “Make To Stock” feature is used by Eagle Precision to automatically generate shop orders to ensure 30-40 pre-determined parts

never drop below a certain inventory level. This allows customers to place Kanban orders at pre-determined release quantities, reducing the amount of inventory the customer needs to keep on the shelf.

## Real-Time Visibility on KPIs

Odyssey gives Eagle Precision an integrated, real-time view across all of the company's data. "We know exactly what is going on with our business at all times," says Menefee. "We look at on-time delivery metrics, customer returns, and in-house scrap. We're always monitoring pouring and shipping dollars, and our bookings. We have reports throughout the plant for each department that monitor and track how much of a backlog we have or how much work is due to be processed through the department by a certain date, so lead people and supervisors know what needs to be prioritized."

The front office uses Odyssey to analyze bookings so they can determine how many employees are required, and if they need to add overtime or more employees to satisfy orders.

On the production floor, the company highlights which orders are expedited or are samples so that operators are aware of high-priority jobs. Employees are able to review quality metrics on displays throughout the plant to see how they can impact those numbers.

The company can track dollars in inventory throughout the plant, know where product is, and then understand how many dollars they have wrapped up in work-in-process vs. in finished goods.

With visibility across the entire manufacturing process, the company can also answer customer inquiries in real time. "If a client calls and wants to know where their order is in the process, if

it will be on time, or if we can possibly get it to them earlier, we can look at the system and give them a definitive answer. There is no guesswork," says Menefee.

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— A.J. Menefee, Technical Director, Eagle Precision Cast Parts

## An Ongoing Competitive Edge

"Odyssey lets foundries customize their production process and gives a lot of detail into the production process so that they're able to produce parts consistently and of consistent quality for their customers. B&L Information Systems caters specifically to foundries. Because they have people that have worked in the foundry industry, they have a better understanding of what our needs are," notes Menefee. "That combination of technology and expertise has made a huge difference."

B&L's interaction with the Odyssey user base and their willingness to embrace and react to feedback is another quality Menefee appreciates. "That's been a real benefit, as well as the customer support side of things. If we ever have a question, we always get a prompt response from everybody we interact with."

Menefee says he would absolutely recommend Odyssey to other investment casting foundries. "Our business is complicated. Odyssey was built for our industry by people who know metalcasting. It has made a tremendous difference for Eagle Precision."

### About B&L Information Systems

B&L Information Systems is a global leader in providing integrated enterprise resource planning (ERP) for metalcasters. Since 1976, B&L has used their deep understanding of the specific challenges and problems of foundries and die casters to create an ERP solution which matches the way metalcasters operate, making it easier to learn and use. With Odyssey, metalcasters will maximize their resources, minimize costs, and make better decisions faster. [www.BLInfo.com](http://www.BLInfo.com)

### About Progress Software Corporation

Odyssey SaaS is based on the Progress Software Corporation's OpenEdge application development platform, an unbreakable technology, platform that has been powering over 47,000 businesses for more than 30 years. By focusing on factors such as performance, cost, reliability, scalability and ease of maintenance, Progress Software enables B&L to focus its efforts on functionality, trends, and metalcasting industry best practices. [www.progress.com](http://www.progress.com)

