

TYPE  
CASE  
STUDY

INDUSTRY  
METAL FABRICATION  
(AUTOMOTIVE AND AGRICULTURAL PARTS)

LOCATION  
MANSFIELD,  
OHIO

# JAY INDUSTRIES ACHIEVES MAJOR YEARLY SAVINGS AND INCREASES OVERALL EQUIPMENT EFFECTIVENESS (OEE) WITH PLEX ERP AND PLEX MES A&O

Distrustful of data from their previous system, Jay Industries migrated to Plex ERP and Plex MES A&O



## CHALLENGE

- Existing ERP system provided unreliable production data and failed to support manufacturing operations
- Struggled to make confident business decisions without real-time insights
- Inaccurate data resulted in poor inventory control



## SOLUTION

- Plex Enterprise Resource Planning (ERP)
- Plex Manufacturing Execution System (MES)
- Plex MES Automation and Orchestration (MES A&O)



# RESULTS

- Realized \$152,000 in yearly cost savings
- Increased Overall Equipment Effectiveness (OEE) by 6%
- Minimized inventory variance by 86%
- Increased machine availability by 8%



## A CALL FOR GREATER CONTROL

With inaccurate and unreliable data frustrating the company from front office to plant floor, Jay Industries knew it was time to migrate to an ERP system that would better support the metal fabricator's operations and growth. Inventory control posed the largest challenge and served as a main motivator for an improved system. The company recorded quantities of containers, but did not serialize inventory. This made accurately tracking inventory nearly impossible and caused confusion throughout production.

**"Inaccurate numbers were reported to the production supervisor. It would say we would have quantities on-hand, but in reality, we didn't have those quantities on-hand,"**

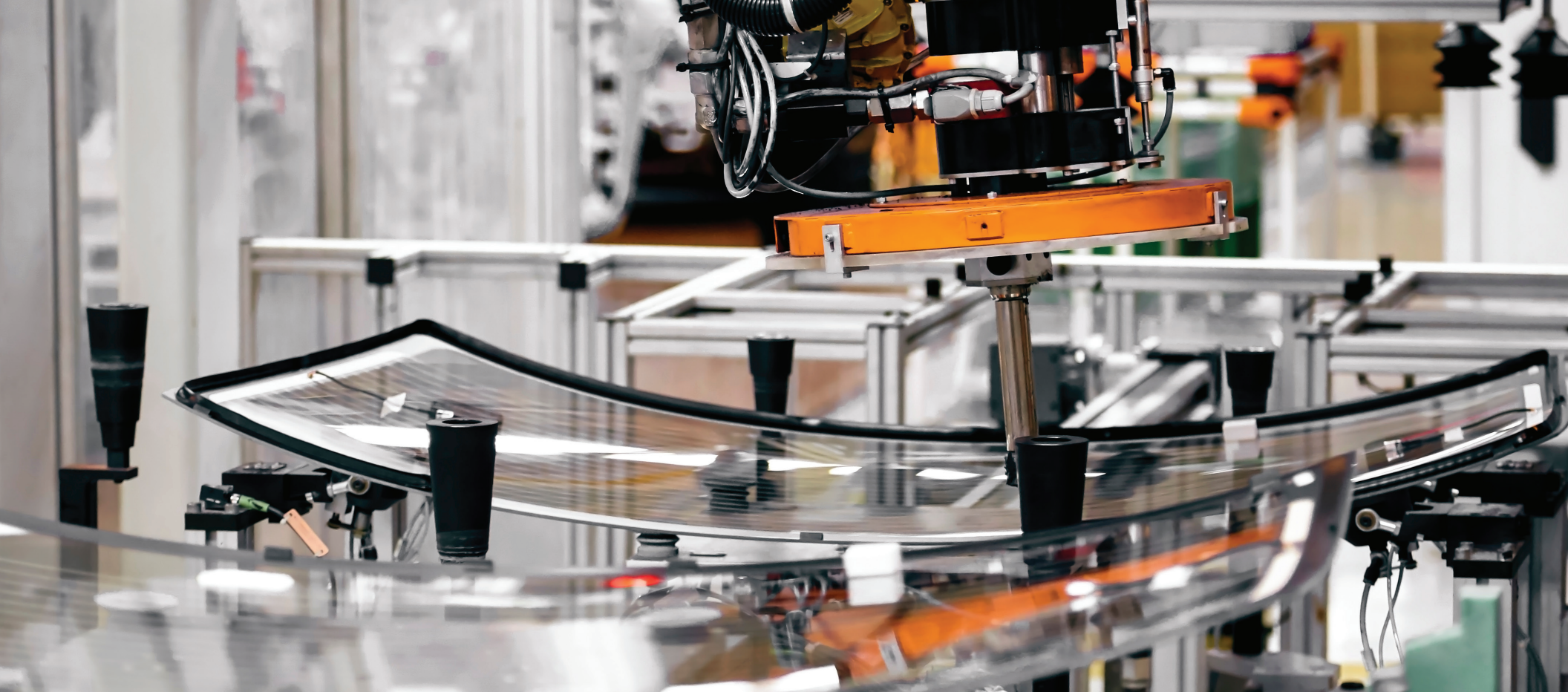
**ERNIE SMITH**

Director of Business Operations, Jay Industries

**"Our information was all over the place. Some people stopped using it on a regular basis. Now you can't make decisions based around, you know, where your production is, where your efficiencies are. We just didn't have [what] we needed to run our business."**

**PAUL BOGGS**

President and CEO, Jay Industries



## INSTANT PRODUCTION VISIBILITY

With inventory top of mind and a desire for increased visibility across the entire production process, Jay Industries turned to Plex ERP. The smart manufacturing solution offered the company exactly what they required—real-time production data, tighter inventory control, and customer demand forecasting. The Plex solution would also build a culture of trust within the facility, as employees began to feel reassured that they could trust the numbers on the screen.

Following the initial implementation of Plex ERP, Jay Industries also deployed Plex MES A&O. The company desired the detailed plant floor insights Plex MES A&O provided, allowing for key metrics like Overall Equipment Effectiveness (OEE) to be measured and improved. The technology would also allow Jay Industries to automate certain processes and ensure accurate work center statuses.





## **FACILITY-WIDE OPERATIONAL IMPROVEMENTS**

The impact of Plex's live data was felt across production at Jay Industries immediately. As the company settled into using the new ERP system, they continued to build out reports and leverage insights to better understand areas of operation that could be improved. Prior to Plex, there was a 15% inventory loss at the end of the year. Since implementing, there's been no more than a 2% variance of the physical inventory and what's reflected digitally.

The Plex impact has extended beyond inventory. As plant floor visibility has increased, so has plant floor control. Work center status is far more accurate—supervisors now know what machines

are active, which machines are down, and what specific issues need to be addressed. Empowered with new data on unplanned downtime, Jay Industries increased machine availability by 8%.

**"Having the visibility of your sales, having the visibility of your manufacturing process, your production efficiencies, and what you have on-hand is crucial to any business that's going to be operating in today's environment. The data itself, and Plex's ability to report that out, really changed how we run our business from a strategic standpoint."**

**PAUL BOGGS**

President and CEO, Jay Industries



## **DATA-DRIVEN DECISION MAKING WITH PLEX MES A&O**

The deployment of Plex MES A&O has given Jay Industries and its machine operators a greater sense of efficiency awareness. Operators can visually track performance and adjust in real-time instead of retroactively. The performance board that's presented through Plex MES A&O encourages operators to achieve certain milestones and has resulted in both increased productivity and output.

**"The biggest improvement with [Plex MES] A&O is probably the awareness. When you can measure [performance], and you can**

**give them that direct feedback, instant feedback, it changes the dynamics of how an operator approaches the work center," shares Boggs.**

Jay Industries is now able to accurately measure OEE due to automatic status updates that Plex MES A&O provides. Overall, the company has witnessed a 6% OEE increase. This OEE increase translates to an impressive \$152,000 yearly cost savings, partially due to machines no longer running overtime. With Plex MES A&O, Jay Industries has successfully leveraged production data and improved various parts of the production process.

## **ABOUT PLEX**

Plex, by Rockwell Automation, is a leader in cloud-delivered smart manufacturing solutions, empowering the world's manufacturers to make awesome products. Our platform gives manufacturers the ability to connect, automate, track, and analyze every aspect of their business to drive transformation. The Plex Smart Manufacturing Platform™ includes solutions for manufacturing execution (MES), ERP, quality, supply

chain planning and management, asset performance management, production monitoring, process automation and analytics to connect people, systems, machines and supply chains, enabling them to lead with precision, efficiency and agility. To learn more, visit [www.plex.com](http://www.plex.com)