
TYPE
CASE STUDY

INDUSTRY
METAL STAMPING

LOCATION
FINDLAY, OH

SUPERIOR TRIM DRIVES PROCESS INNOVATION WITH PLEX

Truck market supplier transforms operations and improves financials by automating equipment and processes with Plex Smart Manufacturing Platform

Superior Trim is a prominent provider of high-quality interior trim products for the heavy-truck and recreational-vehicle industry.

CHALLENGE

- Improve complex, low volume processes
 - Achieve innovation investment ROI
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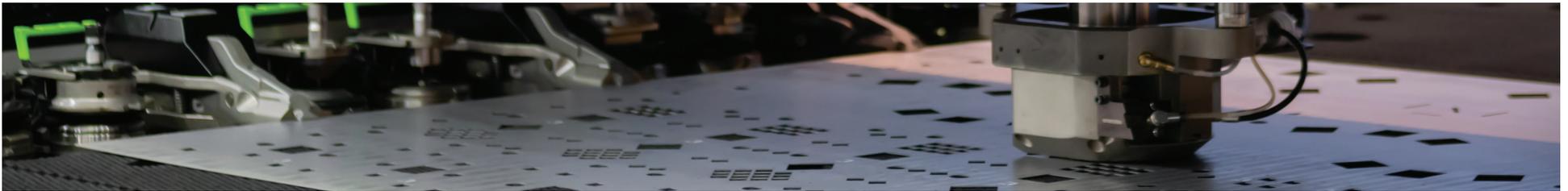
SOLUTION

- Automate and integrate equipment and processes
- Plex Smart Manufacturing Platform™



RESULTS

- Increased product quality
- Improved inventory
- Reduced scrap
- Reduced manual entry
- Reduced employee training time
- Reduced direct labor costs



Tyler Johnson is President and Tammy Cooper is IT Systems Manager for Superior Trim, a leading supplier of high-quality interior trim products for the heavy-truck and recreational-vehicle markets. Known for its innovation, quality and service, Superior Trim has won numerous customer and industry awards.

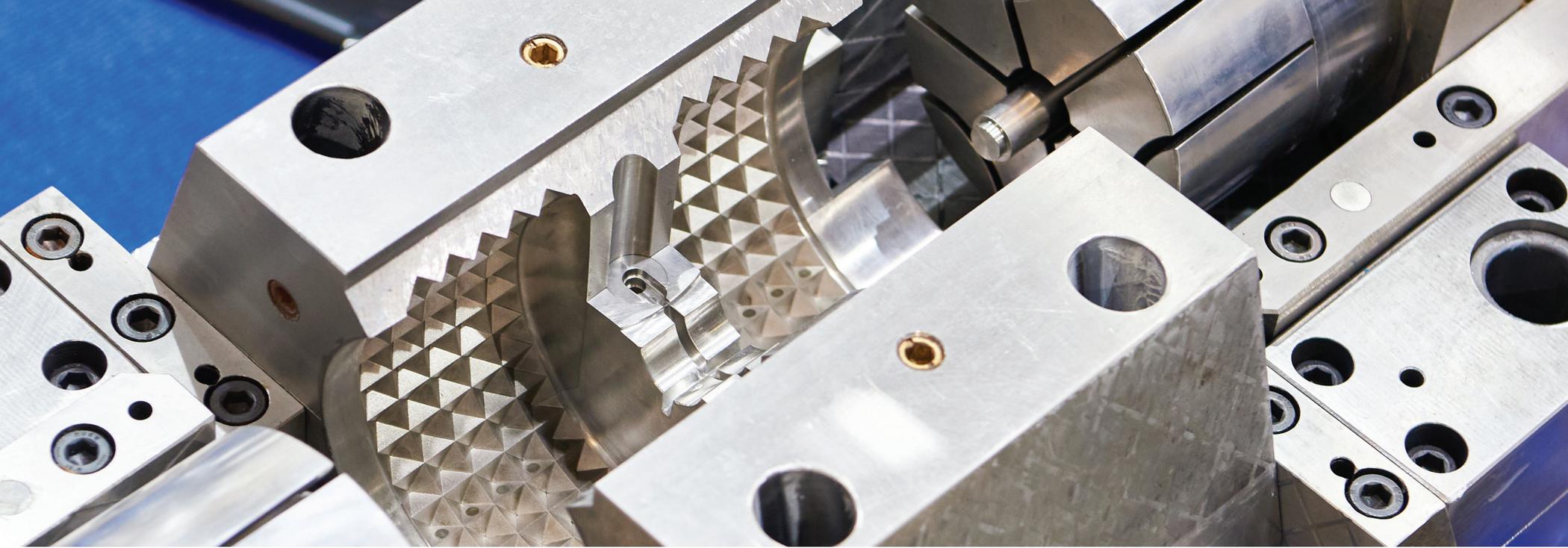
The company uses more than a dozen processes, including injection molding, thermoforming, 3D compression molding, and water jet cutting at its seven manufacturing plants in Ohio, Tennessee, and Mexico.

CONTINUOUSLY IMPROVE AND INNOVATE COMPLEX, LOW VOLUME PROCESSES

“The bulk of what we do is high complexity, low volume type of items, such as headliners, floor mats, bunks and curtains. Most of our parts have many options that customers can order,”

Johnson says. “We try to find ways to innovate and integrate our equipment – automate without having a ton of cost, which is what led us to digital transformation.”

TYLER JOHNSON
President



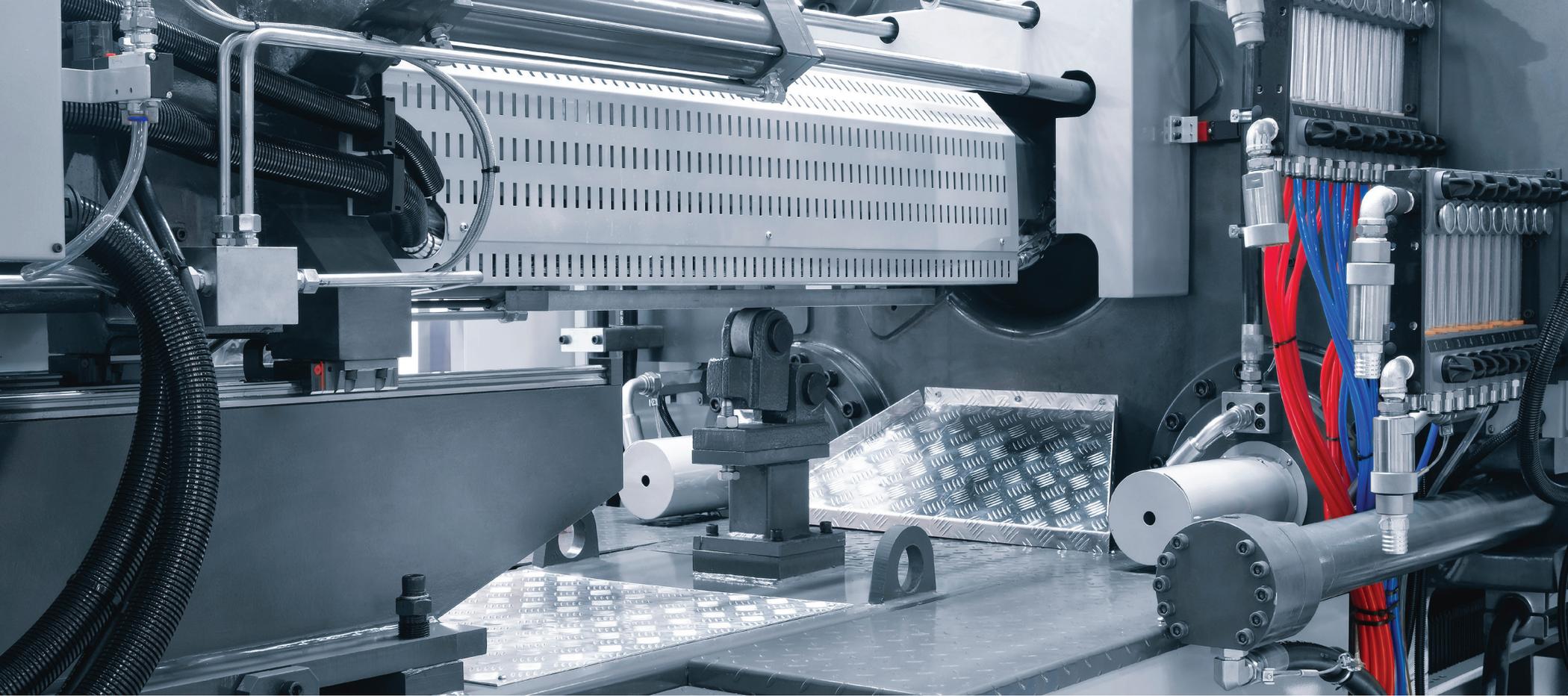
AUTOMATE AND INTEGRATE EQUIPMENT AND PROCESSES

Superior Trim has used the Plex Smart Manufacturing Platform™ from Rockwell Automation since 2007 to drive innovation and transformation in their operations and processes. Recently, they used Plex to resolve a floor mat issue.

“We were producing between 150 to 180 floor mats each day, and the operator had to manually key-in the program to use for each floor mat. Many of the floor mats look essentially the same. They might have just one single cut that’s different,” Cooper explains. Relying solely on a visual inspection could result in errors.

“We decided to review the process and look for areas we could improve,” Said Cooper. “Can we integrate? Can we send a signal to this piece of machinery and get confirmation that we produced the part – that it met quality standards, and is ready to label and ship out the door?”

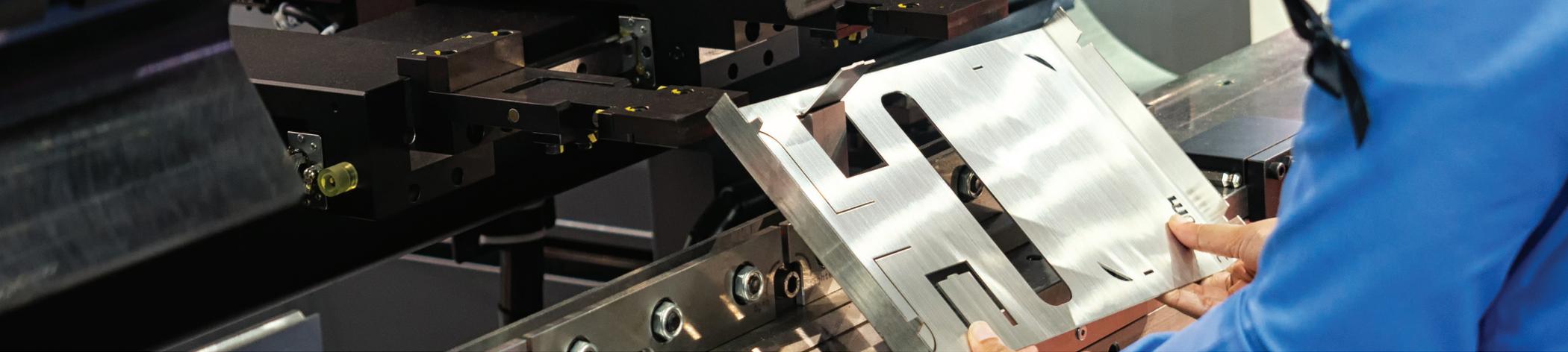
The solution was to create a system that automatically keyed-in the program for the water jet to cut, in a specified sequence. The water jet now pulls from more than 9,000 files automatically using EDI accessed through Plex, ensuring the file is cut properly every time. By integrating the water jet cutting and sequencing processes, Superior Trim was able to eliminate the manual entry of cut-file numbers.



Following the success of the water jet initiative, Super Trim continued to identify other pieces of equipment and processes that would benefit from automation. One opportunity was to use Plex to implement a fully integrated Lightguide system as part of trim panel assembly.

“The Lightguide is an augmented reality training tool that lights up the next assembly component an operator should grab, shows them where it goes, and then checks to see that everything’s there,”

Johnson says. “Once the system confirms that the part meets the specifications, the operator ‘earns’ a printed label for that part.” Because the system is integrated with Plex and reports bin-for-bin production, it automatically holds any parts that don’t pass the work-instruction inspection.



DRAMATIC IMPROVEMENTS IN QUALITY AND EMPLOYEE SATISFACTION

“On the lines where we’ve successfully integrated, the ROI is there without a doubt. Scrap, quality and labor have all improved dramatically,” Johnson says. “And it makes operators happier and helps retention, which is huge.”

With its automated production recording and inspection capabilities, Superior Trim has reduced employee training times and has increased efficiencies, improved inventory and reduced scrap. Further, annual direct labor costs dropped from 9.0% to 7.8%. All of which have helped position Superior Trim for significant growth.

Cooper’s advice for other companies looking to improve processes through digital transformation is to start small and include the whole team.

“What worked for us is we started at three locations and picked one machine in each plant,” Cooper explains. “Don’t think it can’t be done. You can do it, but you have to have the team of people to help you out.”

Learn more about how Superior Trim used smart manufacturing solutions to improve processes and become the [2023 Plex Transformer Impact Award Winner](#).

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)