

TYPE  
**CASE STUDY**

INDUSTRY  
**AUTOMOTIVE**

LOCATION  
**MILAN, MI**

# **ADVANCED VEHICLE ASSEMBLIES UTILIZES PLEX FOR INCREASED PRODUCTION VISIBILITY & CONTROL**

Specializing in roll forming, stamping, laser welding and more, Advanced Vehicle Assemblies, LLC creates efficient products and solutions for the automotive industry. With four locations in both the United States and Mexico, Advanced Vehicle Assemblies is reimagining the production of complex metal assemblies with the use of multiple in-house forming and joining methodologies.

## **RESULTS**



Established real-time  
production reporting



Increased insight into  
inventory tracking



Enhanced visibility  
across production



Before Plex, data was not easily accessible, and functions difficult to learn. Now, real-time data is accessible, and the online learning resources Plex provides are abundant and easy to follow.



**ROB ARROWSMITH**

CIO, Advanced Vehicle Assemblies.

## **THE SEARCH FOR A NEW SYSTEM**

With over 500 employees across four locations, Advanced Vehicle Assemblies, LLC (AVA) is known for its unique, complementary manufacturing processes that enable the production of complex metal assemblies. Founded in 2021, AVA has expanded significantly and now ships approximately 52.2 million parts annually.

AVA split from its former sister company in June 2020 and this transition kicked off an urgent search for a new ERP system. They were temporarily covered under a shared service agreement from their previous affiliation, but the end date was nearing. As a result, the company looked for an ERP solution that minimized hardware maintenance — a stark contrast to their previous experience — and could be implemented within their tight timeline.

Alongside the frequent maintenance required by the old ERP system, AVA also faced the fact that the old system did not include Manufacturing Execution System (MES) integration. The absence of real-time production reporting and inventory tracking led to reliance on manual processes, causing significant delays and a lack of trust in the collected data. As AVA aimed for rapid independence and organizational rebuilding following the split, the selection of a new ERP system became a critical aspect of their strategic focus.

As it navigated the intricate landscape of ERP options during the summer of 2020, AVA conducted surveys, evaluations, and demonstrations to help identify their top priorities with the help of user feedback. Despite the tight timeframe, the culmination of this rigorous process led them to select Plex as their new ERP system in late 2020. This choice marked a pivotal step for Advanced Vehicle Assemblies, LLC as they embraced a new ERP system that promised to streamline operations, enhance efficiency, and support their journey towards becoming a thriving, independent enterprise.



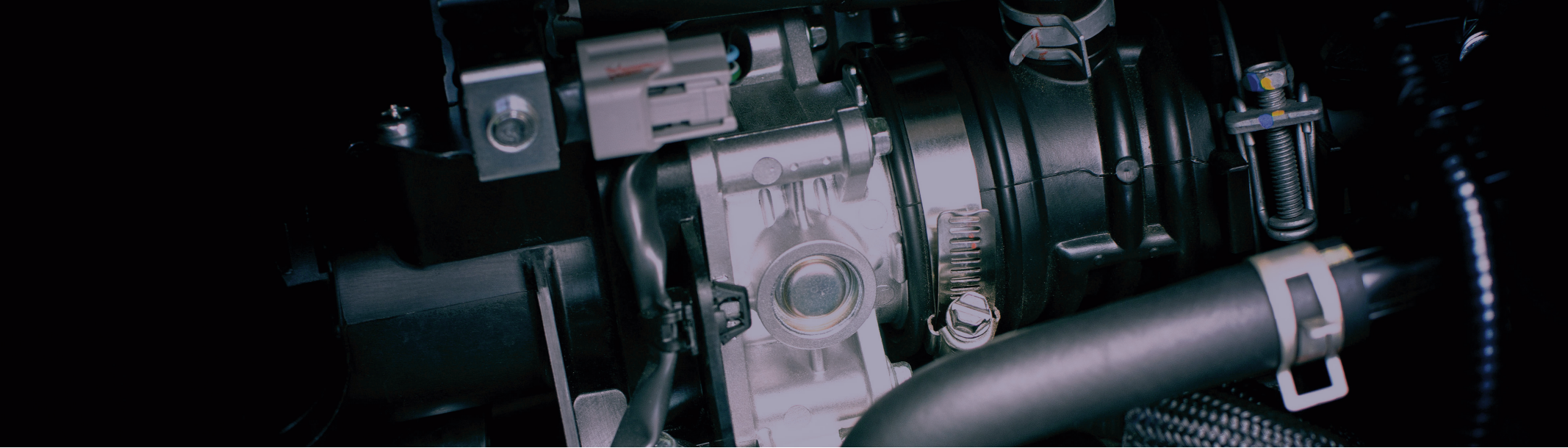
## AN ACCELERATED TIMELINE

Embarking on their ERP system revamp journey, AVA utilized the Milan, Michigan facility as their first Plex implementation site in December 2020. This location shared the outdated ERP system with AVA's sister company, adding an extra layer of complexity to the transition. Knowing time was of the essence, Milan aimed to go live on Plex within an ambitious 60 days.

To ensure a successful transition, AVA enlisted the support of Plex implementation services, who assigned a project manager to the Milan site. This project manager brought a deep understanding of the project's parameters and the urgency of a rapid go-live timeframe. To bolster their efforts, the Plex team tapped on outside consultants to assist with the critical data cleansing

phase as it was loaded into Plex. Employee training sessions and workshops were also prioritized, acknowledging the importance of preparing users for the impending changes.

As the go-live date loomed, an impressive collaboration unfolded, with up to seven Plex team members present at the Milan location during each shift. This emphasis on teamwork from all sides underscored the collective commitment to a successful implementation. Despite the challenge of a 60-day timeline, the Milan site successfully implemented Plex within the desired timeframe. Employees showcased resilience and adaptability as they mastered the main Plex functions, navigating the natural learning curve that comes with migrating to a new manufacturing solution.



## NEWFOUND INSIGHT & DATA

The Plex implementation brought about a transformative wave of improvements for AVA, revolutionizing their operational landscape. One of the most notable enhancements was the establishment of real-time production reporting and inventory tracking. The newfound ability to access data in real time instilled a heightened sense of awareness of inventory for AVA, enabling employees to address issues promptly, fostering agility in their responses and elevating overall operational efficiency.

Furthermore, the implementation of Plex significantly augmented visibility across production. With operators more engaged and proactive on the shop floor, AVA witnessed quicker problem resolution. The benefits of Plex extended beyond the shop floor as it empowered AVA to successfully grow its business while maintaining a lean operational structure,

minimizing the need for additional personnel to manage the Plex ERP system. Additionally, key Performance Indicators (KPIs) became more visible and dynamic, seamlessly integrating into Plex as native components rather than being extracted from external Excel sheets.

Plex also eliminated the necessity for financial consolidation software, streamlining processes and making contextual data easily available. The intuitiveness of the Plex system unlocked this accessibility, making it easy for users to navigate and find the information they need. The cloud-based nature of Plex, coupled with its highly configurable background settings, provided a foundation of flexibility that empowered AVA to continue to test and implement improvements. This adaptability positioned Plex as a transformative tool that not only met AVA's original expectations for their ERP system but exceeds them into the present and future.



We implemented the rest of the plants with minimal Plex involvement, avoiding major costs. Subsequent go-lives were very smooth.



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## LOOKING AHEAD WITH PLEX

After the Plex implementation, Advanced Vehicle Assemblies, LLC has gone on a revolutionary journey marked by significant improvements across various facets of their operations. The shift from an outdated ERP system to Plex resulted not only in material improvements but also newfound capabilities and efficiencies. Perspectives have also evolved across departments, emphasizing the importance of collaboration and data utilization.

For AVA, the most significant achievement with Plex has been the ability to attain complete independence. Upon completion

of the implementation, internal surveys affirmed the success of Plex as it earned high marks for reliability, speed, and ease of use. The adoption and integration of the software extends beyond that of the Milan, Michigan location, with AVA employees able to take on the remaining Plex implementations internally with little to no Plex support required on site.

As AVA looks towards the future, the success of the Plex implementation stands as a testament to the company's resilience and adaptability, setting the stage for continued growth and operational excellence for years to come.

## 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)