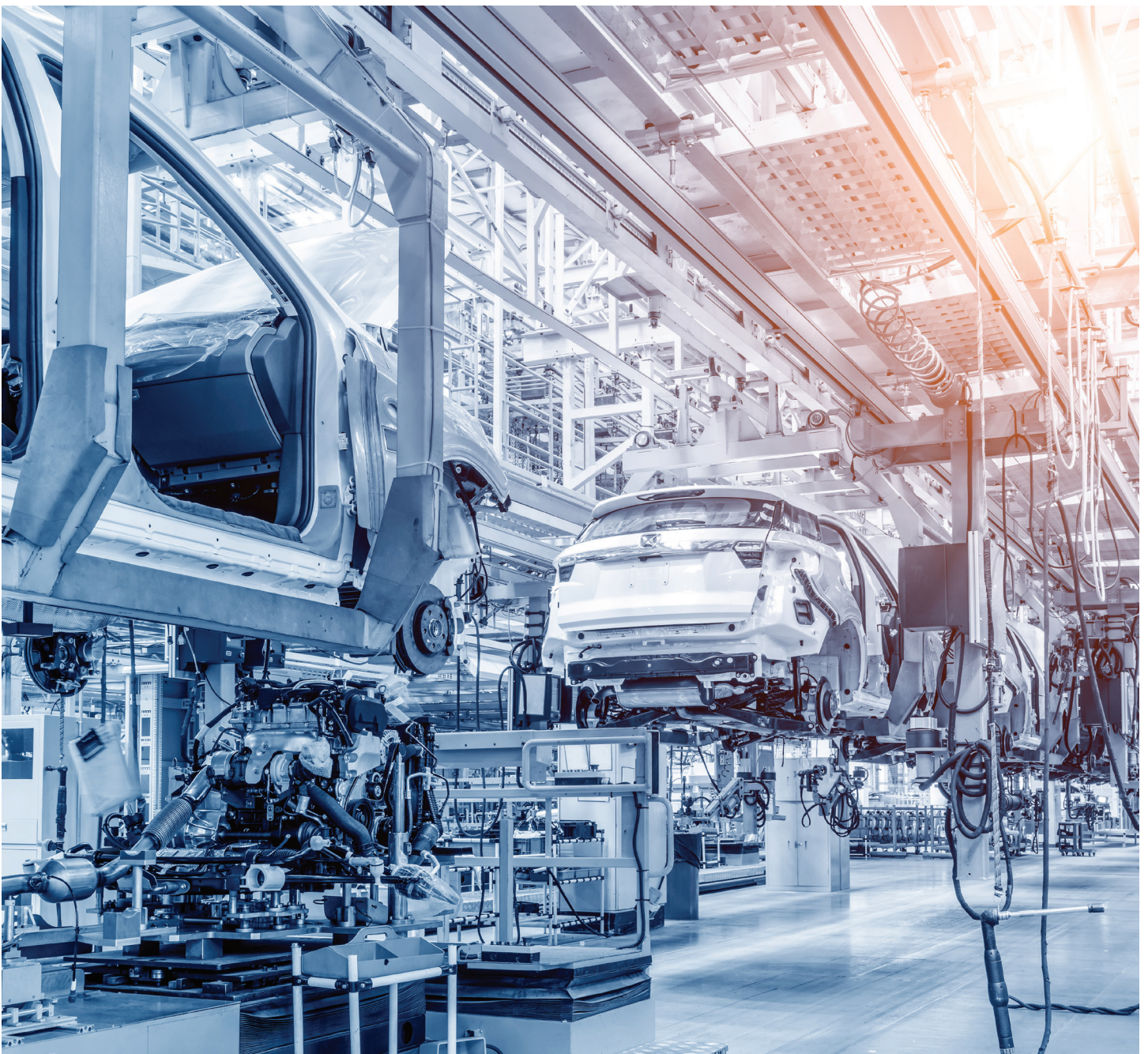

CASE STUDY



Suspension Module Handling



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Suspension Module Handling



A Tier 2 automotive supplier specializing in drivetrain subassemblies needed a solution to handle the unloading of 750 lb. front and rear suspension modules from the production line into shipping dunnage containers. Their existing lift device was outdated and not compatible with new module designs. Working with a trusted Channel Partner, who they had an established relationship with, the end user identified this material handling need and approached Unified Industries to explore a custom-engineered option.

The project adhered to a formal bid specification, which guided the design and build process, and Unified collaborated closely with the end user's engineering and operations teams to develop this custom solution. The resulting floor-mounted articulating arm offered improved ergonomics, reliability, and performance. The end user traveled to Unified's Brighton, MI, facility to inspect and approve the equipment prior to shipment. This ensured alignment with expectations and a smooth transition to production use.

The new articulating arm features a pneumatic clamp capable of securely lifting 750 lb. front and rear suspension modules and placing them precisely into shipping dunnage containers. Compared to the previous equipment, the updated solution offered better pneumatics, improved design, and a more user-friendly experience. Plus, the system is designed for ease of use, requiring minimal plant assistance for operation and maintenance. This solution also requires virtually no downtime. These enhancements have translated into cost savings, increased safety, and improved quality for the end user's operations.

PRODUCTS

- Unified Industries Custom Floor-Mounted Articulating Arm

CHALLENGES

- Replace outdated lift devices with a modern, reliable solution
- Improve ergonomics and ease of use for operators
- Ensure compatibility with new suspension module designs
- Minimize downtime and maintenance requirements

SOLUTIONS

- Unified Industries provided a custom-designed and built articulating arm system tailored to the specific handling needs
- Enhanced pneumatic design and updated engineering practices improved performance and reliability
- Expert guidance and support ensured seamless integration into the production environment
- Increased cost savings and operational efficiency

Unified's articulating arms are engineered for high torque offset loads and heavy lifting. They allow operators to precisely and effortlessly position tools or materials, enhancing control and reducing fatigue.

Key features include:

- Ergonomic and Modular Design: Zero-G up/down movement, adjustable rotation stops, and multiple mounting options (column or carriage) for flexible workspace integration.
- Durable Construction: Welded steel with powder-coated finish ensures long-term reliability in demanding environments.
- Versatile Configurations: Available in top cylinder, side cylinder, and extension/banjo styles, with capacities up to 500 lbs. and reach up to 10 feet.
- Intelligent Options: Upgradeable with position tracking, brake systems, and compatibility with motion control systems.



ADVANTAGES OF WORKING WITH UNIFIED INDUSTRIES

- Experts in delivering custom-engineered, cost-effective solutions for complex material handling challenges
- Tailored systems that meet specific application requirements, reducing internal engineering time and accelerating time to market
- Proven track record of reliable performance and customer satisfaction
- Comprehensive development, design services, and support

CONTACT OUR INDUSTRY EXPERTS

Carrying the load since 1953, Unified Industries continues to be a global leader in the overhead material handling market. Combining expertise in material handling systems with motion control technology, our team of engineers will help you design the high-production movement system ideal for your application. From the steel header down to the hook, Unified systems are designed with safety, productivity and ergonomics in mind, featuring unique aluminum rails and industry-leading technology systems installers have come to depend on.



LIFTING SOLUTIONS



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