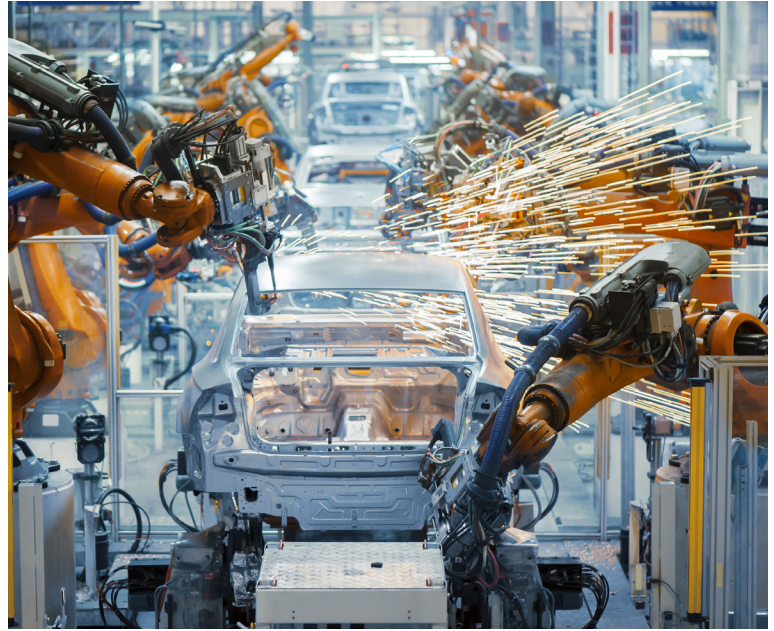


Reduce Costs and Advance Sustainability with EWI's Spot Welding Technology



Client: Confidential Global Automotive OEM*

EWI recently partnered with a leading global automotive OEM to develop a new spot welding technology for aluminum body-in-white manufacturing, leading to substantial energy and cost savings.

Challenge: Automotive manufacturing relies heavily on resistance spot welding, with each vehicle requiring up to 6,000 welds. Traditional resistance welding systems often suffer from energy loss due to internal impedance, induction, and thermal factors, increasing production costs and the amount of energy used during the manufacturing process.

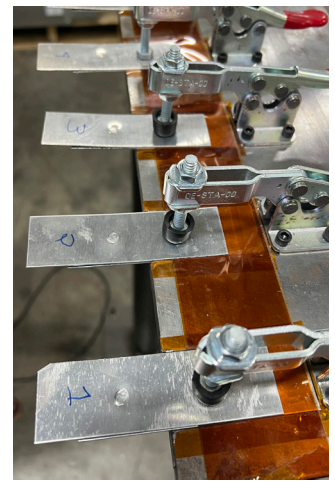
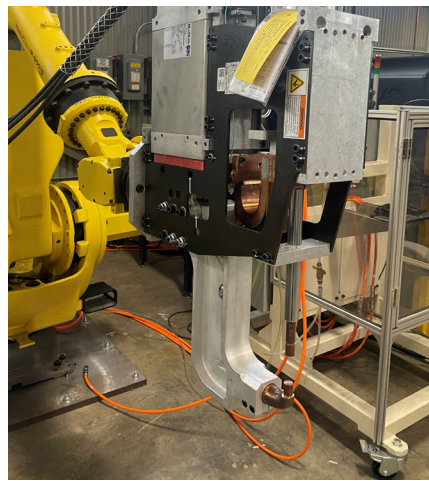
The EWI Solution: EWI developed a new generation of power supply known as medium frequency-frequency converter (MF-FC) spot welding. This technology leverages modern inverter technology to deliver short, high-intensity current pulses to the workpiece.

Impact: The **MF-FC spot welding system reduces energy usage by 85-90%** on aluminum and steel sheets during production. Initial studies (EWI internal testing, 2024) have also shown that the need for cooling water can be eliminated without any negative impact on the welding process. For aluminum alloys, this technology significantly enhances electrode life, contributing to its sustainability benefits and reduction of overall production costs.

➤ **Your Benefit:** EWI now offers a robotic-based MF-FC spot welding system for customer applications, allowing other manufacturers to evaluate the benefits of this technology for their specific needs.

Disclaimer: Results may vary based on specific applications. Contact EWI for detailed assessments.

* In accordance with client confidentiality agreements, the identity of the company cannot be disclosed.



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We Manufacture Innovation

Your Advisory Team

Unlock your company's potential with EWI's expert advisory services.

Our dedicated team of engineers, specialists, and project managers, backed by over \$50 million in cutting-edge capital equipment across our two laboratory locations, are ready to help you solve your advanced manufacturing challenges. We offer consulting, R&D, testing, lab services, and more to support new processes and technologies, helping your company stay competitive now and in the future.

Contact us today to get started!

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