

05 CASE STUDY

Major Tool Manufacturer



Wes-Tech's breadth of experience meets customer needs with outside-the-box thinking.

Dedicated equipment can seem like a great idea, but may end up being an inflexible nightmare when the organization needs to make a change. However, when you only have legacy experience in a single industry it may seem like there is no alternative. A client we recently partnered with discovered that our larger breadth of experience in factory automation across a variety of industries helped us to come up with new solutions to old problems. This was a case when the Wes-Tech team went beyond what a customer asked for and provided what they actually needed, creating a transformational improvement.



Challenge

A major tool manufacturer was developing a new family of products that couldn't be made with their existing equipment. They approached Wes-Tech with a request for a dedicated welding machine for the new line that was similar to the one they already used. During the collaborative discovery process, Wes-Tech learned that there were a number of problems with the current machine.

Their machine had been developed with custom weld guns, which required that they keep a lot of exacting spares on-hand that could only be obtained from the original manufacturer. When the equipment broke down, there were a number of difficult fixes to make, and there was a high risk of downtime due to customization, which was exacerbated by the way the equipment was used.

The welding tips should have been dressed multiple times a day, but that process took so long that the operators were running the tips longer than they were viable. This resulted in reduction of weld quality throughout the day.



Solution

Working closely with the customer to ensure their pain points were addressed, the Wes-Tech team developed a concept and worked through our internal review process. We were able to draw on our cross-industry experience to apply state-of-the-art processes and equipment from other industries to the new manufacturing line.

By integrating standard welding equipment, our customer was able to keep their spare parts to a minimum because

Part changeover took 1-2 hours at minimum, and switching of welding tips would take hours, or possibly even a half day. Because the tips were allowed to degrade so far, the equipment needed frequent repairs, which required hours of downtime.

In addition, due to the equipment design, someone would have to climb into the machine to perform a changeover and complete maintenance. This led to the risk of health and safety hazards, and also sometimes resulted in further damage, causing even more downtime. They also wanted flexibility to run a wide range of product sizes on the same equipment, but none of their current machines had that capability.

The Wes-Tech team was not comfortable trying to replicate a bad design. Instead, we knew the right thing to do would be to come up with a completely new concept that would help solve these problems for the customer, with the goal to **improve operations and save the customer money in the long run.**

standard parts are easily available for ordering. In addition, the machine design incorporated automatic tip dressing, and allowed welding tips to be changed through a window instead of by climbing into the equipment. The solution also allows for automatic part changeover—what used to take one to two hours of downtime now takes a minute and a half—**allowing exponentially more flexibility from a single piece of equipment.**

RESULTS / RETURN ON INVESTMENT

Going above and beyond client expectations is just a part of the way Wes-Tech does business. By drawing on their cross-industry experience and increasing the machine's flexibility, the Wes-Tech team was able to solve a number of client problems that the client had thought of as unsolvable. This resulted in:



Exponential reduction in risk due to reduced downtime and increased safety with the improved equipment design



Increased capacity and flexibility to expand with business needs as the new line can handle a much wider variety of pieces than existing lines



Reduced time-to-market for new products because the equipment can weld more than one design without lengthy changeovers



Cost savings and reduced maintenance issues with the use of standard parts



Reduced scrap, reduced power consumption, and increased reliability

With decades of expertise solving complex manufacturing challenges, we will leverage more than 4,200 custom-engineered automation solutions to design the perfect one just for you. Experience the Wes-Tech difference.

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