

What You Need to Know When Implementing an Automated Welding System

FOR MORE THAN 55 YEARS, MELTON MACHINE & CONTROL COMPANY HAS WORKED WITH COMPANIES TO BUILD AUTOMATED SOLUTIONS THAT MAKE THE IMPOSSIBLE POSSIBLE.

WHILE WE'RE PROUD TO CRAFT A VARIETY OF AUTOMATION SOLUTIONS, AUTOMATED WELDING SYSTEMS REMAIN OUR FLAGSHIP OFFERING. SO WE'VE LEARNED A THING OR TWO ABOUT WHAT WORKS AND WHAT DOESN'T WHEN YOU WANT TO AUTOMATE WELDING PROCESSES FOR YOUR COMPANY.

PROPERLY DESIGNED, IMPLEMENTED, AND SUPPORTED, AN AUTOMATED WELDING SYSTEM CAN SKYROCKET YOUR FACILITY'S PRODUCTIVITY WHILE ENHANCING SAFETY. BUT WITHOUT THE RIGHT PLAN IN PLACE, YOU RISK YOUR OPERATIONS GRINDING TO A HALT.

TO HELP YOUR AUTOMATED WELDING IMPLEMENTATION GO AS SMOOTHLY AS POSSIBLE, HERE ARE SOME CRITICAL THINGS TO KNOW AS YOU EMBARK ON YOUR AUTOMATION JOURNEY.

YOU'RE INVESTING IN A SYSTEM, NOT JUST A MACHINE

It's easy to think of welding automation as swapping in a robotic arm for a human welder's arm. But the reality is a lot more nuanced.

To reap the full productivity benefits of welding automation, it's important to understand that automated welding is a complex, integrated system. And the robotic arm is just one part of that. Besides the robot, your welding automation solution includes a:

- Welding power supply
- Torch
- Safety gear
- Robotic controls

Depending on your specific production needs, the system can be further customized with additional parts and controls to harmonize with your existing workflow. An experienced automation solutions provider like Melton can help you build the right system to achieve your goals.

SAFETY AND COMPLIANCE BECOME MORE CRITICAL THAN EVER

Safety is non-negotiable in any industrial facility, but automated welding systems add a whole new layer of safety and compliance considerations.

To be clear, welding automation can boost overall safety by keeping human welders away from hazardous situations and materials.

But at the same time, integrating robots into your facility requires you to think carefully about how you'll keep human workers safe. A well-designed robotic welding cell, for instance, will include safety features like:

- Arc shield curtains
- Area scanners
- Safety light curtains
- Robot-defined safe zones

Safety features are just one part of the equation, however. You also need to train and educate your workers and supervisors about how to stay safe around your automated welding system. This includes not just staying clear of moving robotic arms but also being aware of any electrical or chemical hazards posed by welding automation.

The automation professionals at Melton can collaborate with you to create and implement a safety plan to go with your new robotic welding system.

CONSIDER HOW YOU'LL ASSURE QUALITY

One of the primary motivators for implementing an automated welding system is to reduce costly human errors. But while robots can increase welding consistency and quality, you still need a plan in place for quality assurance.

The specifics here will depend on your industry, the process involved, and the level of quality you require.

Often, you can implement automated quality assurance systems in tandem with robotic welding solutions. For instance, an automated weld inspection system will use advanced imaging and sensing technologies to check for issues like porosity, cracks, or improper fusion.

A comprehensive automation provider like Melton can help you design and build a system that delivers high-precision welds while automatically detecting errors.

PLAN FOR TRAINING AND MAINTENANCE FROM THE START

An automated welding system doesn't remove the need for skilled human labor. To succeed with welding automation, you'll need to train your staff to maintain the robots and their associated equipment. That way, you won't have to stop your entire production line because one of your welding robots needs repairs or calibration.

While training in-house staff has the benefits of speed and expertise, you can also choose to work with an outside maintenance or repair partner. Both options are valid, but the best one depends on factors like your existing staff's expertise, the resources you have to invest in automation, and the types of robotic welders in your facility.

When you partner with Melton, you can rest assured that you'll receive help with initial installation and ongoing technical support. Our expert engineers can help you create a training program for your team, troubleshoot problems over the phone, or visit your facility in person to diagnose needed repairs.

Contact Melton Machine & Control Company Today

At Melton Machine & Control Company, we know that every welding automation project is different.

That's why we have a team of robotics experts standing by to answer your questions, find solutions, and work with you to implement the best automated welding system for your production needs.

To learn more about how automated welding can transform the way your facility operates, contact Melton today.

**901 MELTON DRIVE
WASHINGTON, MO 63090**

636-239-7765 | FAX: 636-239-2524

MELTONMACHINE.COM

