Top 5 Questions to Ask Before Investing in a Welding Cell

FOR OVER 55 YEARS, MELTON MACHINE & CONTROL COMPANY HAS PARTNERED WITH COMPANIES TO DESIGN AND IMPLEMENT CUSTOM ROBOTIC WELDERS. WHETHER YOU'RE LOOKING TO REDUCE HAZARDS TO WORKERS IN YOUR FACILITY, INCREASE YOUR PRODUCTION EFFICIENCY, OR PERFORM HIGH-PRECISION WELDING, A ROBOTIC WELDING CELL IS A POWERFUL AUTOMATION SOLUTION.

THAT BEING SAID, ADDING ROBOTIC WELDING CELLS TO YOUR PRODUCTION LINE REQUIRES UPFRONT INVESTMENT. HOW DO YOU KNOW IF YOU'RE MAKING THE RIGHT CHOICE?

TO BRING CLARITY TO YOUR DECISION-MAKING PROCESS, WE'VE CREATED THIS GUIDE. BELOW, WE DRAW ON OUR DECADES OF EXPERIENCE ENGINEERING AND IMPLEMENTING WELDING AUTOMATION TO HELP YOU DECIDE IF A ROBOTIC WELDING CELL MAKES SENSE FOR YOUR NEEDS. USING THESE QUESTIONS, YOU CAN START AND GUIDE THE CONVERSATION WITH YOUR COMPANY'S KEY STAKEHOLDERS.

1. Why Do You Want to Invest in a Welding Cell?

Any sound investment decision starts by asking why, and a robotic welding cell is no different. We know that each client's needs and motivations are unique. Yet at the same time, the desire to automate welding generally comes down to three factors:

- **Safety** - Robotic welding cells can be engineered to perform welding tasks in situations that are unsafe or high-risk for human operators, such as tight spaces or low-oxygen atmospheres.
- **Productivity** - Automated welding systems execute repetitive tasks faster than human welders, while also working around the clock without breaks.
- **Consistency** - When even the tiniest errors are unacceptable, robotic welding cells will do the job perfectly every time without sacrificing speed.

For most clients, a combination of the above factors drives the interest in welding automation. The right robotic welder can deliver gains in all three areas.

2. What Welding Tasks Do You Want to Automate?

At Melton, each of our solutions is customized to the client's goals and specifications. Well-defined tasks make it easier and more efficient to build the best robotic welding cell for your factory.

To start, identify what kind of welding process you want to automate. We can build both custom TIG and MIG welding robots.

Once you've decided on the process, it's time to get more specific. Document every step involved in the weld, no matter how small it may seem. Consider factors such as the weld direction, number of welds, and whether the part will be manually or automatically loaded into the fixture tooling.

Don't hesitate to propose a welding task for automation, even if you aren't sure it can be automated. Melton brings the needed expertise and experience to offer nearly endless welding automation possibilities.

3. Where Will the Welding Cell Be Installed in Your Facility?

Context is everything when it comes to designing, building, and installing a robotic welding cell. The placement of the cell will affect its required dimensions, safety features, and overall design. Therefore, it's important to carefully consider where the welding cell will be located before you make an investment.

If you have limited floor space, Melton can create a robot with an optimized footprint. If the welding cell needs to operate near a high-traffic area, we can add extra safety features to make sure workers are aware of it. Or if your facility uses highly flammable materials that a welder could ignite, we can recommend the best location to install it to minimize hazards.

4. How Will You Integrate the Welding Cell Into Your Existing Processes and Workflow?

When robotic welding cells are working at their best, they don't operate in isolation. Rather, they're part of a carefully orchestrated symphony of production.

You know how your facility works better than anyone, and the last thing you want is a welder that slows your employees down. That's why it's important to think carefully about how the welding cell will fit into your production line.

Automating the welding on a specific part, for instance, is a much different undertaking than automating a complex series of welds across an entire build. Depending on your needs, Melton can design a custom robotic welding cell (or cells) that enhances efficiency without disrupting the manufacturing processes your company has so carefully designed.

5. How Will You Maintain and Service the Welding Cell?

A broken robotic welding cell can quickly turn a sound investment into a significant liability. For many customers, it's enough to keep them from investing in welding cells to begin with.

But with the right plan in place, you and your team can keep your welding robot operating at full capacity.

This is where a partnership with Melton gives you an edge. Our robotics experts can help you implement a range of maintenance and service solutions for your robot cell.

We can provide training for your existing technicians or assist you in creating a technician training program. Melton also offers maintenance support for all our robotics solutions, and we can even send robot experts directly to your facility to tackle issues alongside your team.

If the hurdles of finding and retaining a qualified, in-house robotics technician are holding you back from automating your welding, Melton will find you a solution.

Contact Melton Machine & Control Company Today

At Melton Machine & Control Company, we understand that investing in a welding cell raises many questions.

Our team of robotics experts is here to answer all your questions and collaborate with you through every stage of the process, from initial blueprints to final installation and beyond.

To learn more about building and implementing a robotic welding cell for your facility, contact Melton today.

901 MELTON DRIVE
WASHINGTON, MO 63090

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