

How to Justify Capital Investment in Welding Automation

MELTON MACHINE & CONTROL COMPANY HAS HELPED COMPANIES BUILD WELDING AUTOMATION SOLUTIONS FOR MORE THAN 55 YEARS. WE UNDERSTAND THAT AUTOMATING WELDING PROCESSES AND EQUIPMENT TAKES NOT JUST SUBSTANTIAL EXPERTISE, BUT ALSO MEANINGFUL CAPITAL INVESTMENT.

WITH THIS COMES THE CHALLENGES OF STAKEHOLDER BUY-IN, LONG-TERM PLANNING, AND THOUGHTFUL COST CONTROLS. YOU NEED TO BE CERTAIN THAT WELDING AUTOMATION IS A SENSIBLE INVESTMENT FOR YOUR FACILITY, AS WELL AS JUSTIFY THAT INVESTMENT TO A DIVERSE RANGE OF DECISION-MAKERS AT YOUR COMPANY.

THIS GUIDE WILL HELP YOU UNDERSTAND THE KEY CONSIDERATIONS FOR JUSTIFYING LARGE-SCALE INVESTMENT IN WELDING AUTOMATION, HIGHLIGHTING THE BENEFITS TO PRODUCTIVITY, EFFICIENCY, AND SAFETY.

SOLVE SKILLED LABOR SHORTAGES

Experienced and well-trained human welders are in short supply. Worse, a shrinking workforce with low replacement rates means that the pool of qualified welders isn't getting bigger anytime soon.

Without sufficient welding labor resources, your facility's production can grind to a halt. Furthermore, staffing shortages put increased

pressure on your existing welders, leading to a decline in worker satisfaction and morale.

Robotic welding systems offer an effective solution to the shortage of skilled human welders. While not a replacement for humans, automated robotic welders can be customized to perform a range of welding tasks.

Initially, this automation requires capital expenditure. But these first investments in welding automation pay long-term dividends when you aren't constantly worried about hiring, training, and retaining qualified welders. Ultimately, automated welding solutions will save your facility both time and money on staffing without sacrificing accuracy.

INCREASE WORKER SAFETY

Your human workers are your most valuable assets. Keeping them safe is critical not just for regulatory and legal compliance, but also for ensuring your factory is productive. Lost time injuries can cost you substantially, and seriously injured workers can have cascading effects on your facility's ability to meet customer demands. Furthermore, injured workers can harm your company's image and result in costly legal proceedings.

With welding in particular, worker safety can be a significant challenge. Traditionally, welders are exposed to a range of hazards, such as low-oxygen environments, toxic fumes, and electric shocks. While it is possible to mitigate many of these hazards with proper safety procedures, accidents still happen.

When you invest in welding automation, you can eliminate many worker safety risks. Welding robots can work in situations where it's challenging for humans to operate safely, such as confined spaces or toxic atmospheres. By keeping your human welders out of these hazardous situations, you have a greater ability to keep them working productively and safely on tasks that aren't suitable for robots.

Weighing the potential costs of lost time, litigation, and reputational damage, capital investment in welding automation is a prudent and worthwhile financial move.

ENSURE PRECISION

An experienced human welder is invaluable in many situations, but humans can still make

mistakes. And for some welding tasks, there's simply no tolerance for error.

For high-precision applications, welding defects can lead clients to reject your work, costing you time and money. In the worst cases, tiny welding mistakes can cause parts to critically fail, resulting in property damage or injuries. The results are predictable but devastating: lawsuits, lost customers, and harm to your corporate image.

Fortunately, robotic welding systems provide a solution. By integrating robotic welders into your production line, you can consistently perform high-precision manufacturing tasks without the risk of human error. A properly designed and implemented welder will get it right every time.

You can see, then, how spending money on robotic welding solutions upfront is a sound investment in situations where nothing but perfection will cut it.

BOOST SPEED AND PRODUCTIVITY

Increasing production efficiency without sacrificing quality is every engineer's dream. But in a high-paced manufacturing environment with tight deadlines, this is easier said than done.

Even the fastest, best welders still need to take breaks. Incentives such as overtime compensation can increase worker throughput up to a point, but this isn't sustainable long-term since it increases labor costs. And the more tenured a welder is, the more leverage they have for negotiating their hours and time off.

You can also boost worker speed through carefully designed processes and training, but you will run into limits eventually. Humans can only work so fast before they start to make mistakes or get tired, after all.

Robotic welders don't have these issues with motivation, pace, and efficiency. Automated welding machines can work with exceptional speed compared to even the best human welder. And they can do this around the clock, with no need for breaks or vacations. You will have to take a robotic welder offline occasionally for routine maintenance, but this is much easier to plan for compared to human time off.

Therefore, if you feel like your facility has hit a ceiling in terms of productivity and speed, it makes sense to invest in welding automation. The right investments today can pay massive dividends in the long run when they enable you to increase your facility's output and capacity.

Contact **Melton** **Machine & Control** **Company Today**

At Melton Machine & Control Company, we work with you to provide a truly custom automation solution. So if you have a welding task that you wish you could automate but aren't sure how, we'll collaborate with you to find an answer.

The capital investments involved in welding automation aren't trivial, to be sure. But when you consider the long-term reductions in labor costs, improvements in safety, increased productivity, and other benefits, the ROI from automated robotic welders is substantial.

For more information or to start the journey toward your next automation project, reach out to Melton today. Our decades of expertise in welding automation can ensure your project's success.

**901 MELTON DRIVE
WASHINGTON, MO 63090**

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

MELTONMACHINE.COM

Melton
Melton Machine & Control Company
An Employee Owned Company