The labor shortage has become a popular topic of conversation in the pandemic era; but it’s not a new phenomenon. In industrial settings, one existed well before the COVID-19 pandemic.

Baby boomers make up a large portion of the manufacturing workforce. Now, they’re retiring, leaving gaps in the skilled workforce that aren’t easy to fill. Combine that with a pandemic, and you’re facing an even bigger hurdle.

All sectors are struggling to find not just qualified workers, but ones wanting to work. The longtime skills gap that affected manufacturing and other related industries has only been exacerbated in the past two years, leaving employers scrambling to fill positions and keep production moving on schedule.

Welding shops are among those facing one of the biggest challenges in finding, skilled reliable workers. As some shop owners are learning, automation can provide an efficient, quality solution to hiring and production struggles.

Others, however, view robotic solutions as something daunting and impossible, citing cost, the learning curve and the need for shop mobility as barriers to adoption. This particularly holds true for high-mix job shops that need to remain nimble and efficient. These concerns are valid when it comes to traditional automation. However, new mobile robotic welding systems featuring collaborative robots (cobots) are changing these mindsets.
COBOTS ADDRESS HIRING CHALLENGES

What are Cobots?

Unlike traditional robotic cells, cobots are designed to work alongside human beings without the need for traditional, protective fencing. Small, lightweight and easy to assemble, cobots are safer than traditional robots and mobile. They can be used throughout a shop for various parts lines, as opposed to larger, static, traditional automated cell that are programmed for one specific function.

This affordable solution for manufacturing automation opens up new opportunities for optimizing welding processes, filling employment gaps and increasing overall production efficiency, even in smaller shops where space is at a premium.

Easy to Learn—You don’t need to be a welder or a programmer to use a Cooper Cobot.

When it comes to a learning curve, manufacturers do not need to worry; cobot welding technology is easy to program and intuitive to use. It’s designed for an operator with any level of robotics experience and allows for teaching at the torch. Workers can quickly learn how to run a cobot welding unit using tablet-based teaching pendants.

The tablet pendants feature icon-based, timeline programming. Users simply swipe icons in or out of the timeline to adjust programming. They also can tap the icons to modify them. Less-experienced, touchscreen-savy workers will have no problem adapting to this interface, while more seasoned welders will be able to pick it up easily thanks to how user friendly and familiar it is.

Lead-through teaching at the torch allows users to fluidly guide the cobot arm to the correct location by hand, using a torch-mounted enabling device. The torch handle manipulate the finishing push and weld angles when in the joint.

Push buttons designed directly into the torch reduce cumbersome programming and record points directly into the timeline, allowing operators to quickly create welding programs without line by line code. Record approach points with one button and weld start/end ones with the other. The buttons illuminate to indicate that points have been recorded.

EMPLOYMENT EXPECTATIONS FOR WELDING

DOORS OPENING
30,000 new welders must enter the workforce each year to keep up with demand and offset retirements.

372K
Approximately 372,000 welding jobs will be needed over the next 10 years.

42%
of current working welders are OVER forty-five years of age.

Data provided by National Association of Manufacturers and American Welding Society
COBOTS ADDRESS HIRING CHALLENGES

Flexible Work Zones

Once a mobile cobot system is programmed, and workers understand how to run it, they’ll also appreciate its design from a work-flow aspect.

Flexible cobot systems feature modular tooling tables and components that allow you to easily move them around the space, bringing the cobot to every part. The lightweight design and intrinsic safety allows for multiple mounting options, while a small footprint means less of a capital investment and also less floor space, making it ideal for shops of all sizes to explore the possibility of automation.

Conclusion

For more information on Cooper cobots visit our website lincolnelectric.com/cobot or call +1-888-935-3878.