

# Start A Revolution

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**Technology, training, and a change in perception may be what it takes to bring welders back to the field.**

As far as day-to-day burdens go, this one has blossomed from a regular headache into a migraine: many plant managers will tell you that it's finding and retaining qualified welders that is keeping them up at night. Luckily, industry experts and manufacturers are busy identifying the root of the shortage, and applying efforts to help save this trade from being torched.

### A People Approach

Organizations like the American Welding Society (AWS) have been busy taking proactive steps to address the welder shortage issue, starting at a grassroots level. One of the biggest hurdles, according to a recent AWS press release on the topic, may have to do with the tarnished image of the welding trade. "Many people still associate welding with black and white photos of tired welders covered in scuff marks and dressed in soiled clothing," AWS Education Committee Chairman Dennis Klingman said recently. "The welding industry has undergone dramatic changes... despite this, the image problem continues to exist, and parents, instructors and counselors have been hesitant to introduce students to the industry."

The image problem is compounded by the fact that, according to manufacturer of arc welding and cutting equipment, Miller Electric, the current average age of a welder is 54 years, making them likely approaching retirement within a decade. AWS estimates a shortage in North America of 200,000 welders by the year 2010.

In an effort to target a younger demographic to bridge this gap, AWS's Local District 10 (covering parts of Ohio and Pennsylvania) has recently joined forces with local area businesses, unions and high schools to propose a Welding Advisory Council. As a recruiting strategy, the council plans to help implement and provide support to advisory committees within high school and vocational welding programs.

### Changing Face

Another option has been in manufacturers taking the reigns in terms of training. "Increasingly, we're seeing companies training welders in-house," says Miller Electric Product Manager, Chris Roehl. "Companies are hiring employees based on their work ethic, and then teaching them the welding techniques they need to be successful. The choice of equipment is important, because today's technology can make it easier for a less-skilled welder to make a high quality weld." In addressing the equipment side of things, companies like Miller Electric have begun to make some changes in the design phase of their product lines as well. "We're designing machines to run better right out of the box," says Dave Stanzel, director of

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Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

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engineering and quality, Miller Electric. “Not only are the processes more robust, they provide a simpler operator interface, so an operator can become productive more quickly and easily than before.”

“We’re making all the processes— GMAW, Stick, GTAW, FCAW— more robust, which makes it easier for less skilled operators to use,” says Stanzel. “With today’s current technology, arc quality is more responsive so that changes in stickout or travel speed don’t impact weld quality.”

Adds Roehl: “Our engineers spend a lot of time examining how to create positive arc starts, which improves weld quality and eliminates the preparation and clean-up time associated with spatter. A good arc start also eliminates burnback, which would force the operator to stop welding and clear the gun.”

In short, what seems critical to new growth in this old trade is the cooperation between industry organization and employers in implementing recruiting and training programs, as well as in technological advancements from the welding equipment design side. Says Roehl, “Because of the shortage of qualified welders, we’ve learned to make it easier for the operator to take a machine, set it up, and pull the trigger.”

**Source URL (retrieved on 01/27/2015 - 5:33pm):**

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