

Short Training Sessions Bring Profit to Job Shops

By JOHN KARPUS



Using a gas blender to combine shielding gases on site alleviates the need for operations to maintain multiple high-pressure cylinders.

For operators of gas and welding facilities, knowledge is power. Knowing the fundamentals, applications, processes, and safety of your operation improves performance. But, knowledge is a two-way street, too. Many people you meet have valuable information to offer, but they need to be informed about your area of expertise. In effect, people are both resources and opportunities.

When it comes to gas systems and equipment training, what often comes to mind is a group watching intently from the shop floor as an industry veteran demonstrates “how to.” For others it is a classroom setting, in which an expert talks through a formal presentation.

These established training methods are being transformed into electronic, Web-based media presentations that can be viewed at multiple sites and at different times, where and when it’s feasible. Major advantages are reduced travel costs and maximized workplace productivity.

Mini-training sessions

Today, training often consists of “out of the box,” one-on-one mini sessions via telephone or teleconference. There are several advantages of this. Fitting the individual needs of the caller, these sessions may cover subjects that include process/system basics, compatibility issues, safety and efficiency, materials of construction, and more.

In this industry, a complete understanding of basic safety and function of the gas and equipment products is requisite. A practical solution is to have a manufacturer’s representative or a distributor as a resource partner who can help to educate and train your team as to what must be done, in specific applications, to keep personnel safe and systems running correctly. Typically, the rep sets up training for the

distributor who then analyzes the system and recommends appropriate corrective action.

Training 101

Training should provide an understanding of the process and safety requirements. Understanding basics is vital for operation and assists with decision-making in other areas, such as when to make a gas mode change.

The following are key training points to consider for understanding systems, processes, and safety requirements:

► *Gas handling and operational efficiency*

The first objective is efficiency. Begin by considering, “How can I maximize ROI?”

To be successful, first research and understand the requirements of the process. A well-planned solution uses multiple sources, like an experienced co-worker, the operator, purchasing, engineering, and vendors.

High-pressure gas cylinders offer lower productivity because of the downtime associated with changing an empty cylinder. A central gas supply system will eliminate the cylinder in each weld location and the associated individual cylinder handling. Up-front costs include the gas manifold equipment, piping systems, fencing, and possible concrete. Many gas suppliers offer free cylinder replacement, which reduces the chances for personnel injury while maintaining productivity.

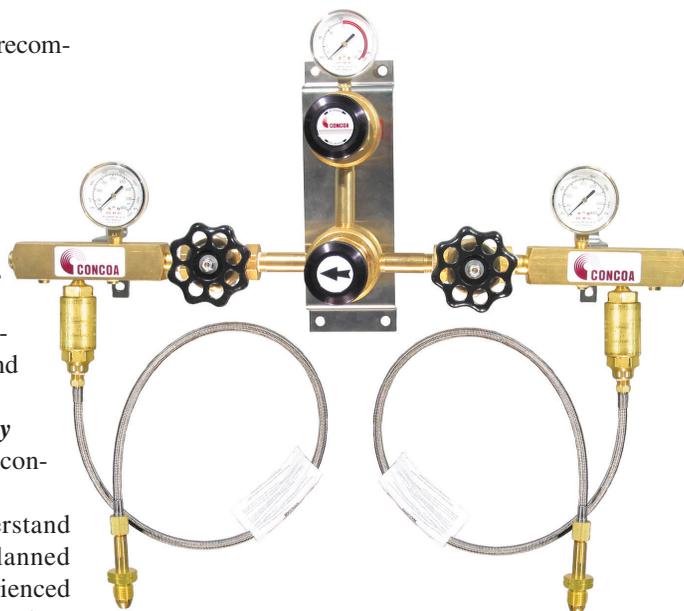
► **Gas mode change:** Typically a mode change is defined as transitioning from one gas source to another because of higher on-site capacity, less handling, and lower product costs. When making a gas mode change, the user also should evaluate new technologies, for example, plasma, water jet, or laser cutting in place of traditional oxygen-acetylene cutting.

In the current economic climate, with limited available capital, ROI may be diminished if minimal research and planning is done to understand new technologies’ impact on productivity. Unfortunately, analysis can be cumbersome, but it is time well spent.

► **Selecting equipment:** Your customer has welcomed you into his facility and asked you to help him get his shop to run “lean and mean,” and safe, too. A safety and performance audit (SPA), is a highly effective analysis tool. These are the key aspects of SPA.

1. Understanding how the job shop currently does things by looking around and taking notes;

2. Looking for safety issues that could cause injury and addressing them immediately;



Fuel-gas changeover equipment is part of the manifolding system that does away with individual cylinders in the work area.

3. Evaluating processes currently used and looking for opportunities to upgrade to a more efficient process/supply mode.

If you don’t have an existing SPA format, create one based on input from co-workers who are your company’s specialists and the manufacturers/vendors of the equipment you sell. The SPA will allow you to evaluate current equipment assets, gases, and processes. Key economic variables include cylinder inventory, rental charges, and compliance and delivery fees.

The SPA also should identify potential safety deficiencies and recommend upgrades to ensure the application complies with state and federal requirements. Using the SPA as an outline, the user can set up periodic equipment maintenance schedules, a safety checklist, step-by-step procedures, and instructions for operations and functions.

Now is the time to refine your manufacturing practices. A safety and performance audit will turn any company into a lean, revenue-producing machine. Your company will be positioned to weather troubled times and yield higher margins when the economy comes roaring back.

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