

DIFFERENT APPROACHES TO WELDING TRAINING AND CERTIFICATION

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Some confusion in the terminology concerning the weld quality and its assurance seems caused by the different practises currently in use around the world. Qualified welding personnel are not automatically certified personnel. Education and training are the tools to obtain qualification. Flexibility in training and education seems logical and the most cost effective way to obtain qualified personnel. A third party seems essential for issuing recognised Certificates.

Manufacturers of welded products continue to face increased demands and concerns regarding weld quality. The following are the main conditions influencing weld quality:

- Establishing reliable production procedures and tests that meet the requirements of established codes and standards.
- Finding qualified welding personnel capable of reliably carrying out established welding procedures.

The issue of hiring and keeping skilled welding personnel has been a crucial consideration for manufacturers worldwide for the past few decades. It will continue to be a concern for decades to come.

Business and/or Idealism

As the focus on weld quality no any longer is as a necessary evil, the wishful thinking is rather to find the golden mean between:

-Not enough care with the weld quality results in expensive and time consuming repair, may be in a rejection of the whole welded product. The nightmare and worst case is a subsequent damage which reasons may fall under the welding performance.

And:

-Too high costs spent for personnel qualification/certification, testing and other quality assurance arrangements which make it difficult to maintain the marketshare simply because of too high product-costs.

In the following it seems useful and illustrative to present the situation with the welding personnel as experienced through the last four decades in Europe. The intention is to utilise many years advisable as well as less happy experience, just to help finding the golden mean. The European experience can easily be transferred to any other part of the world.

At this stage I would like to thank the Korean Welding Society for inviting me to express my personal thoughts and experience at the International Korean Welding/Joining Conference.

Qualification and Certification: different approaches!

Over the years, colleagues have asked whether the American Welding Society's certification programs are needed in Europe. After all, welding is a mature technology in Europe's well developed countries, so wouldn't AWS's contribution to certification of welding personnel be superfluous?

The American Welding Society already has a good relationship with the European welding-related organizations. They are in agreement on many issues, including research, process development, and welding's impact on the environment. With few exceptions, there is little difference between the welding terminology used by AWS and its European counterparts.

Yet, I believe there is still a need in Europe (and elsewhere in the world) for AWS's certification programs such as the Certified Welding Engineer and Certified Welding Inspector.

The AWS Approach to Certification of Personnel

For more than 80 years—since literally the childhood of arc welding—the American Welding Society has demonstrated its support of industry through the efforts of thousands of volunteers willing to share their welding knowledge. It also serves the welding industry through certification of welding personnel who have passed a tough examination. AWS acts as a third party and has no interest (commercial or other) in conducting training courses for welding personnel.

The AWS approach acknowledges that training methods and how workers obtain knowledge differ from one industrial site to another, from one country to another and even from one individual to another, but maintains competency can be demonstrated through testing. In addition, AWS can help individuals and companies by suggesting relevant written materials such as codes, standards, and books, or places where appropriate training can be obtained.

The European Approach to Training and Certification

In Europe today, the approach is slightly different. Before the European Union was created, each European country had its own way to train and qualify welding personnel. Even within the same country, it was normal to have different means by which workers obtain knowledge. However, a dramatic change occurred after the creation of the European Welding Federation (EWF), a private organization whose members are drawn from European welding training centers.

Supported in the early 1980s by the European Community, the EWF succeeded in introducing a few fixed educational packages based primarily on the German model from the early 1940s. These relatively high cost and lengthy welding training programs are conducted by EWF member organizations.

The European welding training market has been divided among members of the EWF. Only one EWF member organization is permitted to offer welding courses in each region. The same member group is also responsible for setting training costs for that region. Courses end with an examination, which also is conducted by the EWF-related organization.

Not only is this approach quite different from that of AWS, it also is different from what Europe had before the European Welding Federation was established. I believe offering the EWF system as it is today only results in higher costs for industry because the system eliminates competition. I also believe the rigidity of the EWF system effectively inhibits change in the educational system. The lack of a dynamic developmental process for course content and teaching methods leads to welding education programs that will soon become obsolete. It seems for me there is an obvious need for the AWS approach in Europe and elsewhere in the world.

What's next?

It is true the European Welding Federation is very protective of its position. It is also true that European companies are unfamiliar with AWS programs. It is furthermore true, that EWF thanks to its international political strong position persuaded the IIW to adapt the EWF approach as an IIW own one. However, offering only one approach to welding training and certification leads to higher costs for European and other industry and taxpayers. History has borne out the danger of barriers to trade. It would therefore, be beneficial to all parties to have the AWS approach and its programs available as a real option in Europe and elsewhere for welding personnel. Individuals and companies should be able to make decisions about training and certification.

One positive development currently under way in Europe: an increasing interest in, and respect for, the fundamental rules of competition. In the last five years, relatively high fines have been imposed by the authorities of the European Union on groups that have established cartels. This development seems highly appreciated by most Europeans, who see it as a step toward the eventual success of the European Union.

We need to look out for the interests of personnel in need of welding training, the companies who employ those workers, and the consumers who buy welded products. This can be achieved by offering alternative programs for welding training, qualification and certification.