



Coming soon...

Friction Stir Welding (FSW) Operator - Aluminium

Suitable for Part 3
ISO 25239-3:2011
Qualification of Welding Operators

ISO 25239-3:2011 was published in December 2011, establishing an international standard for the friction stir welding of aluminium. Part 3 of the standard covers the qualification of welding operators.

TWI is introducing a Friction Stir Welding training and qualification programme for Friction Stir Operators which will provide both the fundamental technical background knowledge and the practical skills necessary to meet the Operator Qualification requirements of ISO 25239-3:2011.

The training programme will comprise:

- Classroom based training that will cover the fundamental knowledge underpinning friction stir welding
- A practical training session on a friction stir welding machine to make weld test pieces that will be assessed against the requirements of the ISO standard

It is intended that the programme will be TWICL approved so that FSW Operators successfully completing both elements mentioned above are awarded CSWIP certification that will fully satisfy the competence requirements of the ISO standard.

The individual elements of the course will be available separately so that managers and designers can also gain an appreciation of the benefits of friction stir welding.

For those wishing to become FSW Machine Operators, the programme will lead to different levels of CSWIP certification recognising industry roles and providing career progression - for instance, it will enable operators to progress to Senior FSW Operator by ensuring that they are competent to develop welding procedures and undertake more advanced friction stir welding process variants.

Companies will also be able to submit their FSW procedures and processes to a further assessment in order to gain total process approval for ISO 25239-3:2011.

Successful candidates will demonstrate:

- Knowledge of the fundamental science of friction stir welding
- Understanding the importance of weld preparation
- Understanding the techniques of friction stir welding
- Understanding weld inspection methods
- The ability to interpret requirements of standards
- The ability to apply effectively the friction stir welding process

Typical course content

- Aluminium metallurgy
- Basic welding techniques and defects
- Fundamental knowledge of friction stir welding
- Workpiece preparation for friction stir welding
- Force and position control in friction stir welding
- Friction stir welding parameter determination
- Identification of defects and their remediation
- Friction stir weld quality assessment
- Safety procedures
- Friction Stir Welding (Aluminium) Operator examination

Interested?

To find out more about this training programme or subsequent process approvals to ISO 25239-3:2011, please contact:

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