



## **CERTIFICATION SCHEME FOR PERSONNEL**

### **DOCUMENT NO. CSWIP-PER-1-99-W** **(formerly CSWIP-PED-1-99-W)**

## **Requirements for the Qualification of Welders, Welding Operators and Brazers**

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Issued under the authority of the Governing Board for Certification

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CSWIP is administered by TWI Certification Ltd

The use of the UKAS Accreditation Mark indicates accreditation in respect of those activities covered by  
Accreditation Certificate No 25

## Foreword

The Certification Scheme for Personnel (CSWIP) is a comprehensive scheme which provides for the examination and certification of individuals seeking to demonstrate their knowledge and/or competence in their field of operation. The scope of CSWIP includes Welding Inspectors, Welding Supervisors, Welding Instructors, Cathodic Protection Personnel, Bolting Technicians, Plant Inspectors, Plastics Welders, Drill Stem Inspectors, Heat Treatment Operatives, Brazing Examiners, Underwater Inspection personnel, NDT personnel, Plant Inspectors, Welders, Welding Operators and Brazers.

CSWIP is managed by the Certification Management Board, which acts as the Governing Board for Certification, in keeping with the requirements of the industries served by the scheme. The Certification Management Board, in turn, appoints specialist Management Committees to oversee specific parts of the scheme. All CSWIP Boards and Committees comprise member representatives of relevant industrial and other interests. TWI Certification Ltd (TWI CL) is accredited by UKAS to ISO/IEC 17024 for certification of personnel.

TWI CL understands the importance of impartiality in carrying out its certification activities, managing conflict of interest and ensuring the objectivity of all its certification activities, in accordance with ISO/IEC 17024.

## Access to certification

Access to certification is not improperly restricted. The sole criteria for certification are given in the document (and any subsequent amendments) and no other criteria will be applied. Certification is not conditional on the candidate applying for other services or membership from TWI CL, its parent, or any other groups or associations.

### 1 General

#### 1.1 Scope

This document prescribes the requirements for the qualification of welders, welding operators and brazers for manufacturers seeking to comply with the Pressure Equipment (Safety) Regulations 2016 (as amended) <sup>(1)</sup> or with any other relevant standard or client specification that require such approval e.g. EU Pressure equipment Directive (2014/68/EU).

#### 1.2 Mutual Recognition Agreement

TWI CL has entered into a mutual recognition agreement with EU Recognised Third Party Organisations to provide those manufacturers who require compliance with the EU Pressure Equipment Directive (PED) access to the appropriate conformity testing and qualification. Manufacturers who wish to obtain EU compliant qualification testing should identify this requirement on their application form.

#### 1.3 Responsibilities

TWI CL is a Recognised Third Party Organisation (RTPO) for the qualification of welder, welding operators and brazers, within the meaning set out in Regulation 52, Pressure Equipment (Safety) Regulations 2016. TWI Certification Ltd is not authorised or notified to assess or establish conformity with the whole of the Regulation.

TWI CL acts as the Examining and Certifying Body in respect of permanent joints produced by welders, welding operators and brazers. It is responsible for ensuring that the requirements for qualification testing are satisfied and that appropriate qualification certificates are issued following successful qualification tests.

The individual requirements for qualification testing are specified in the appropriate standard(s). It is the manufacturer's responsibility to select the standard(s). Examples are given in section 2. Qualification testing and the issue of certificates can only be carried out to recognised standards and it should be noted that the rules covering testing and the validity of qualification certificates varies between the different standards.

It is the manufacturer's responsibility to ensure that the recognition and acceptance of qualification certificates is appropriate to their requirements. For example, some standards state that the Examiner must be acceptable to the contracting parties. Whilst TWI CL makes every effort to ensure that its qualification certificates carry appropriate accreditation and that testing and certification activities are carried out in accordance with best practice, it cannot guarantee acceptance by any particular customer or client.

Individuals engaged as CSWIP Examiners to carry out assessments in connection with the requirements of this scheme document must be approved by TWI CL.

Testing of individual candidates is arranged between the manufacturer and TWI CL. The CSWIP Welding/Brazing Examiner will check that any pre-test requirements, as applicable, are fulfilled by the manufacturer or candidate(s) beforehand. CSWIP Examiners are responsible for organising the witnessing of the practical test, and/or testing as required by the selected standard and for informing TWI CL of the test results.

Where mechanical testing is required in relation to a welding or brazing qualification test the manufacturer must employ a test house with the appropriate scope of approval that is accredited to ISO/IEC 17025 by UKAS or an organisation that is a signatory to the Multilateral Agreement or Arrangement schemes administered by European Co-operation for Accreditation (EA), the International Accreditation Forum (IAF) or the International Laboratory Accreditation Co-operation (ILAC). NDT testing shall be conducted by suitably qualified ISO 9712 personnel.

## 2 Standards

Qualification testing and certification is available in accordance with the current issues of the standards listed below:

### 2.1 Welders, Welding Operators and Brazing qualification testing

ISO 9606-1:	Qualification testing of Welders – Fusing Welding – Part 1: Steels
ISO 9606-2:	Qualification Testing of Welders – Fusion Welding – Part 2: Aluminium and Aluminium Alloys
AWS D1.1:	Structural Welding Code – Steel
AWS D3.6M:	Specification for Underwater Welding
ASME:	Boiler and Pressure Vessel Code. Section IX. Welding and brazing qualifications
ISO 14732:	Qualification of welding operators and also weld setters for mechanized and automatic welding
BS EN 13133:	Brazing - Brazer approval
BS EN 14276:	Pressure equipment for refrigerating systems and heat pumps
ISO 13585:	Brazing – Qualification test of brazers and brazing operators

The above lists are not intended to be exhaustive and other appropriate standards may be used.

### **3 Qualification Testing**

#### **3.1 Welders, Welding Operators and Brazers**

The CSWIP Examiner is responsible for ensuring that the requirements of the standard selected by the manufacturer are fulfilled. The standards are prescriptive and require no additional criteria.

### **4 Qualification certificates**

Qualification certificates are issued in accordance with the standard being applied, see Section 2.

Certificates are issued to the sponsoring organisation, usually the manufacturer.

Duplicate certificates may be issued to the sponsoring organisation to replace any that have been lost or destroyed. This will only be done after extensive enquiries by TWI CL.

Photocopies are unauthorised by CSWIP and should only be used for internal administrative purposes.

### **5 Complaints and Appeals**

An aggrieved party, which considers itself to have reasonable grounds for questioning the competency of a CSWIP qualified person, may petition the Governing Board for non-renewal of the certificate. Such a petition must be accompanied by all relevant facts and if in the opinion of the Board, an adequate case has been presented, a full investigation of the circumstances under dispute will be initiated. If the petition is substantiated to the satisfaction of the Board, the certificate will not be renewed without further test.

### **6 Records**

TWI CL maintains a record of all examinations and tests. Complete records are only held for a period of eight months from the date of the test, thereafter only outline details of the test and the results are maintained on file.

### **7 Application for Testing and Fees**

Manufacturers will be required to submit completed application forms to the Certification Body. These forms are issued by the Examiner and all the required information must be on these forms. In the event of a false statement being discovered in the information provided by the manufacturer, any testing undertaken will be declared null and void. Approval certificates are automatically invalidated if there are any outstanding fees.

### **8 Addresses**

For further general information about the approval schemes covered in this document contact:

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## 9      **References**

- 1      The Pressure Equipment (Safety) Regulations
- 2      Pressure Equipment Directive (2014/68/EU)