

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-05
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welder certification in accordance with ASME IX and AWS D1.1			Page	
					Effective Date	15 th September 2025

1.0 CONDUCT OF EXAMINATION

- 1.1 WQT shall be conducted at locations designated by the Examination Department and scheduled in advance by the Certification Department. The test site may be a laboratory or workshop approved by RSA, provided it is supervised by an Examiner authorized by the Certification Department.
- 1.2 At the examination, welders must present valid identification along with the official examination notification to the examiner.
- 1.3 A WQT may be terminated at any stage if the Examiner determines that the welder lacks the required skills to produce acceptable results.
- 1.4 RSA expects the following conduct from welder candidates:
- Aggressive or threatening behaviour towards an examiner will not be tolerated.
 - Any candidate exhibiting such behaviour will have their test terminated, with no refund of fees.
 - Cheating, attempting to cheat, or misleading the examiner, including removal of confidential test materials for copying or sharing, will not be tolerated. Offenders will have their test terminated, with no refund of fees.
 - Candidates must observe health and safety requirements, including instructions provided by the examiner, to protect themselves and others.
- 1.5 Any welder who fails to comply with examination rules or engages in fraudulent conduct, directly or indirectly, shall be barred from further WQT participation for at least one (1) year.

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-05
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welder certification in accordance with ASME IX and AWS D1.1			Page	
					Effective Date	15 th September 2025

1.6 Examiners are responsible for:

- a. Conducting and witnessing WQT.
- b. Performing visual inspections before, during, and after welding.
- c. Interpreting NDT and destructive test results.
- d. Evaluating welder test coupons in accordance with the applicable standard.

1.7 NDT weld testers are responsible for:

- a. Performing NDT (radiographic or ultrasonic testing).
- b. Interpreting NDT results, including radiographs.

1.8 DT weld testers are responsible for:

- a. Performing destructive tests (bend test, fracture test, or macroscopic examination).
- b. Interpreting destructive test results.

1.9 Before the examiner/examination department undertakes the examination WQT process, a WQT checklist must be completed.

1.10 The welding instructor and other welding training coordinators are not permitted within the WQT bays during the examination.

1.11 Each candidate must be given access to welding accessory equipment and tools such as grinder.

2.0 WELDER QUALIFICATIONSTEST

2.1 Requirements

2.1.1 The welder shall complete a full weld joint on a test coupon in accordance with an approved WPS or SWPS. The welding process must be witnessed by an Examiner, the finished weld tested by a Weld Tester, and the results verified by the Examiner.

2.1.2 All welder test coupons for butt welds and for fillet welds are to be prepared in accordance with the selected standard.

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-05
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welder certification in accordance with ASME IX and AWS D1.1			Page	
					Effective Date	15 th September 2025

2.1.3 The WQT must be completed within four (4) hours, including setup and welding time, but excluding grinding. Test coupons not finished within this timeframe shall be rejected.

2.1.4 Weld test coupons shall undergo the following examinations and tests:

a. For butt welds:

- i. Visual examination
- ii. Bend test
- iii. Radiographic test may be carried out in lieu of bend

b. For fillet welds:

- i. Visual examination
- ii. Fracture test
- iii. Two macro sections may be taken in lieu of the fracture test.

2.2 Visual Examination

2.2.1 The welds shall be visually examined prior to the cutting of the test specimen for the bend test and fracture test. The result of the WQT is to show the absence of cracks or other serious imperfections.

2.2.2 Imperfections detected are to be assessed in accordance with the selected standard.

2.3 Bend Test

2.3.1 Transverse bend test specimens are to be in accordance with the selected standard.

2.3.2 For the initial qualification test, two face bend and two root bend test specimens shall be tested. For extension of approval, one face and one root bend test specimen shall be tested. For weld thicknesses of 12 mm or greater, four side bend specimens (or two side specimens for extension of approval), each 10 mm thick, may be tested as an alternative.

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-05
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welder certification in accordance with ASME IX and AWS D1.1			Page	
					Effective Date	15 th September 2025

2.3.3 At least one bend test specimen must include a stop-and-restart in the bend area, either in the root run or in the cap run.

2.3.4 Test specimens shall be bent through 180 degrees. After testing, no open defect exceeding 3 mm in any direction shall be visible. Defects occurring at the specimen corners during bending shall be assessed on a case-by-case basis.

2.4 Radiographic Test

When radiographic testing is used for butt welds, imperfections detected shall be assessed in accordance with selected code standard.

2.5 Fracture Test (Fillet Weld)

The fracture test is to be performed by folding the upright plate onto the through plate. Evaluation shall concentrate on cracks, porosity and pores, inclusions, lack of fusion and incomplete penetration. Imperfections that are detected shall be assessed in accordance with selected standard.

2.6 Macro Examination

2.6.1 When macro examination is applied to fillet welds, two test specimens shall be prepared from different cutting positions. At least one specimen must include a stop-and-restart location in either the root run or the cap run. The specimens shall be etched on one side to clearly display the weld metal, fusion line, root penetration, and heat-affected zone.

2.6.2 Each macro section shall include at least 10 mm of unaffected base metal.

2.6.3 The examination shall confirm a uniform weld profile, adequate fusion between adjacent weld layers and the base metal, sufficient root penetration, and the absence of defects such as cracks, lack of fusion, or similar imperfections.

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-05
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welder certification in accordance with ASME IX and AWS D1.1			Page	
					Effective Date	15 th September 2025

3.0 RE-TEST

3.1 When a welder fails a WQT, the following shall apply.

- a. In cases where the welder fails to meet the requirements in part of the tests, a retest may be welded immediately, consisting of another test assembly of each type of welded joint and position that the welder failed. In this case, the test is to be done for duplicate test specimens of each failed test. All retest specimens shall meet all the specified requirements.
- b. In cases where the welder fails to meet the requirements in all parts of the required tests or in the retest prescribed in Section 3.1a above, the welder shall undertake further training and practice.
- c. When there is specific reason to question the welder's ability or the period of effectiveness has lapsed, the welder shall be re-qualified in accordance with the tests specified in Section 2.0.

3.2 Where any test specimen does not comply with dimensional specifications due to poor machining, a replacement test assembly shall be welded and tested.