



The Manufacturers Association

JOB QUALIFICATION STANDARD (JQS)

Occupation: WELDER

Work Process: Inspection and Quality Control

Practical Hours: 1000 hrs.

DOL Standard: Inspection and Quality Control: Apply a working knowledge in carrying out post-weld quality control by inspecting welds in accordance with the weld inspection requirements of the applicable fabrication standards.

Performance Objective: Demonstrate the ability to carry out quality control, while welding by complying with quality control and other standards; ensuring ongoing weld quality and bench marking weld quality so that the weld meets the acceptance criteria of the applicable standard.

Performance Indicator	Qualification Date/Initial
Demonstrate the ability to comply with company quality control standards, customer standards and code requirements by reading and following identified company quality assurance procedures and specific code requirements so that the weld meets the acceptance criteria of the applicable standard.	
Demonstrate the ability to ensure ongoing weld quality by maintaining correct travel speed, size and contour of weld deposit, arc length or wire stick out, electrode angle (both travel and work), maintaining pre-heat and inter pass temperature and monitoring weld joint cleanliness so that the weld meets the quality standards identified.	
Demonstrate the ability to ensure benchmark weld quality by examining joint configurations, tacks and weld passes for defects and inconsistencies, taking the appropriate corrective action or actions so that the weld meets the quality standards identified.	

Performance Objective: Demonstrate the ability to carry out post-weld quality control by visually inspecting welds; performing post-weld product control of weldment temperature; correcting excessive welding distortion; performing non-destructive checks and preparing weld samples and performing destructive tests so that post-weld inspection and tests are carried out in accordance with the weld inspection requirements of the applicable fabrication standards.

Performance Indicator	Qualification Date/Initial
Demonstrate the ability to visually inspect welds by identifying common welding discontinuities such as cracks, inadequate penetration, incomplete fusion, porosity, unfilled craters, slag inclusions, incorrect weld size, undercut, arc strikes and distortion and detecting them using appropriate inspection tools and methods so that discontinuities are detected without error in accordance with the weld inspection requirements of the applicable fabrication standards..	



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Demonstrate the ability to perform post-weld product control of weldment temperature by use of temperature indicating devices in accordance with the applicable weld procedure or manufacturer's guidelines.	
Demonstrate the ability to correct excessive welding distortion by use of the correct combination of thermal or mechanical methods to restore the weldment to meet design requirements.	
Demonstrate the ability to perform any non-destructive check such as magnetic particle, dye-penetrant, radiography or ultrasonic to identify weld discontinuities in accordance with industry standards.	
Demonstrate the ability to prepare weld samples and perform destructive tests such as fracture test and welder performance bend test to verify that the sample meets the acceptance criteria of the applicable standard.	

Apprentice Signature:	Completed: MM/DD/YY
Mentor Signature:	Completed: MM/DD/YY
Supervisor Signature:	Completed: MM/DD/YY
Comments:	