



Australian Government

Assessment Requirements for MEM05080 Perform welds to code standards using gas metal arc welding process

Release: 1

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Modification History

Release 1. Unit code changed. Changes to prerequisites, performance evidence and knowledge evidence. Supersedes and is not equivalent to MEM05043 Perform welds to code standards using gas metal arc welding process.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to:

- follow work instructions, standard operating procedures (SOPs) and safe work practices
- identify and interpret job specifications and weld parameters from weld procedure specifications, drawings, sketches and verbal or written job instructions for performing welds using gas metal arc welding (GMAW) to code standards on at least two occasions
- clean and prepare materials to specifications
- set up welding equipment and perform routine maintenance
- produce butt and fillet welds in the flat, horizontal, vertical and overhead positions to meet customer specifications and the requirements of AS 1210 Pressure vessels, AS 4041 Pressure piping, and American Society of Engineers (ASME) IX or equivalent national or international standards on at least two occasions
- rectify identified weld discontinuities on at least two occasions
- complete and maintain weld records related to GMAW to code standards onto standard workplace forms.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe welding practices and procedures and use of personal protective equipment (PPE)
- requirements to produce welds to quality of AS 1210 Pressure vessels, AS 4041 Pressure piping, and ASME IX or equivalent
- AS 1796 Certification of welders and welding supervisors or equivalent national and international standards relevant to GMAW
- standards or codes relevant to GMAW to code standards
- causes and control of distortion when welding to code standards
- methods for preparing plate and pipe for code standard welding
- pre-welding and post-welding heating methods and requirements for plate and pipe welding to code standard

- welding cracks or defects relevant to GMAW pipe welding to code standards
- requirements for maintaining weld records to code standard.
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Assessment Conditions

- Assessors must:
- have vocational competency in performing welds to code standards using gas metal arc welding process at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
 - Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge assessment may be either verbal or written but must adequately reflect the knowledge requirements of the unit in a functioning workplace.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>