



**Australian Government**

**Assessment Requirements for MEM05083  
Perform welds to code standards using  
manual metal arc welding process**

**Release: 1**

# Assessment Requirements for MEM05083 Perform welds to code standards using manual metal arc welding process

## Modification History

Release 1. Unit code changed. Changes to prerequisites, elements and performance criteria, performance evidence and knowledge evidence. Supersedes and is not equivalent to MEM05046 Perform welds to code standards using manual 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 welding procedure specifications (WPS), drawings, sketches and verbal or written job instructions for performing welds using manual metal arc welding (MMAW) to code standards on at least two occasions
- clean and prepare materials for welding to specifications
- set up welding equipment, including performing 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 Mechanical Engineers (ASME) IX or equivalent on at least two occasions.
- rectify identified weld discontinuities on at least two occasions
- complete and maintain weld records related to MMAW 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 MMAW
- methods for preparing plate for code standard MMAW welding
- pre-welding and post-welding heating methods and requirements for plate welding to code standard
- causes and control of distortion

- requirements for maintaining weld records to code standard.

## Assessment Conditions

- Assessors must:
  - have vocational competency in performing welds to code standards using MMAW 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.

## Links

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