



**Australian Government**

# **Assessment Requirements for MEM05017 Weld using gas metal arc welding process**

**Release: 2**

# Assessment Requirements for MEM05017 Weld using gas metal arc welding process

## Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM05017 Weld using gas metal arc welding process (Release 1).

Release 1. Supersedes and is equivalent to MEM05017D Weld 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 on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting specifications from drawings, sketches and verbal or written job instructions for welding using gas metal arc welding process (GMAW) to the specified standard
- selecting appropriate weld and joint preparation methods
- consistently weld materials to the specified standard or equivalent using AC or DC welding machines and electrodes while preventing distortion
- rectifying any defects
- completing weld records related to GMAW onto standard workplace forms.

## 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)
- types of gases and their uses
- relationships between amperage/wire feed, voltage, gas flow, electrode and material
- application of weld metal transfer (short arc and spray)
- correct welding machine, leads, hand pieces and electrodes
- material preparation
- weld joint preparations
- filler wire classification
- causes of distortion for materials when welded
- causes of weld defects and methods of rectification
- standards for GMA welding, including Australian Standard 1554 General Purpose and any other equivalent standards.

## Assessment Conditions

- Assessors must:
  - have vocational competency in welding using GMAW 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.
- 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>