



**Australian Government**

**Assessment Requirements for MEM05073  
Perform advanced welding using gas metal  
arc welding process**

**Release: 1**

# Assessment Requirements for MEM05073 Perform advanced welding using gas metal arc welding process

## Modification History

Release 1. Unit code changed. Changes to prerequisites, performance evidence and knowledge evidence. Supersedes and is not equivalent to MEM05018 Perform advanced welding 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 specifications from drawings, sketches and verbal or written job instructions for performing advanced welding using gas metal arc welding (GMAW) process to AS 1554 Structural Purpose (SP) or equivalent on at least two occasions
- select appropriate weld and joint preparation methods
- clean and prepare materials for welding
- weld materials to AS 1554 SP or equivalent using welding machines and electrodes on at least two occasions
- apply distortion prevention techniques
- rectify identified cracks or defects.

*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)
- properties and characteristics of materials used in GMAW
- requirements to conform to AS 1554 SP or equivalent
- purpose of pre-welding and/or post-welding heating and the methods of application
- instructions, symbols, specifications, including bead size, bead placement, reinforcement and weld procedure sheet
- weld specifications and requirements
- different welder identification systems, including numbering, bar coding, paint coding and letter stamps
- causes of weld cracks and defects and methods of rectification.
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## Assessment Conditions

- Assessors must:
- have vocational competency in performing advanced 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.
- 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>