



**Australian Government**

**Assessment Requirements for MEM05045  
Perform pipe welds to code standards using  
manual metal arc welding process**

**Release: 1**

# Assessment Requirements for MEM05045 Perform pipe welds to code standards using manual metal arc welding process

## Modification History

Release 1. Supersedes and is equivalent to MEM05045B Perform pipe 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 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 performing pipes welds using manual metal arc welding (MMAW) to code standards
- cleaning and preparing materials for welding to specifications
- setting up welding equipment, including performing routine maintenance
- consistently weld materials to specifications
- rectifying any discontinuities
- completing and maintaining weld records related to MMAW to code standards 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)
- requirements to produce welds to quality of AS 1210-2010 Pressure vessels, AS 4041-2006 (R2016) Pressure piping, and American Society of Mechanical Engineers (ASME) IX or equivalent
- relevant standards or codes
- methods for preparing pipe for code standard welding
- pre-welding and post-welding heating methods and requirements for pipe welding to code standard
- requirements for maintaining weld records to code standard.

## Assessment Conditions

- Assessors must:

- have vocational competency in performing pipe 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 include evidence of 240 hours of workplace practice associated with the skills of this unit in a functioning workplace.
- All aspects of competent application of the unit must be addressed including prerequisite competency units and associated workplace performance, including environment, 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 and its prerequisites 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>