



Australian Government

MEM05024 Perform welding supervision

Release: 2

MEM05024 Perform welding supervision

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM05024 Perform welding supervision (Release 1).

Release 1. Supersedes and is equivalent to MEM05024B Perform welding supervision.

Application

This unit of competency has been developed for post trade training of advanced engineering fabrication trades people and the recognition of post trade skills instructing and qualifying welders in accordance with weld procedures.

It defines the skills and knowledge required to instruct and qualify welders in accordance with weld procedures, including maintaining quality and safety procedures.

Competencies in this unit are based on wide knowledge of welding science, processes, procedures and technical requirements. Individuals working in this field would hold at least one certificate satisfying the requirements of AS 1796-2001 (R2016) Certification of welders and welding supervisors, Certificate 1-9.

The supervision, training and qualification of welders in welding procedures are defined by recognised codes and standards e.g. AS 2214-2004 (R2016) Certification of welding supervisors - Structural steel welding and AS 1796-2001 (R2016) Certification of welders and welding supervisors, Certificate 10.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: B

Unit Weight: 12

Pre-requisite Unit

MEM05026	Apply welding principles
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities

MEM16006

Organise and communicate information

Competency Field

Fabrication

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Determine and prepare welding procedure	2.1	Instruct welders according to SOPs
		2.2	Determine welding parameters in accordance with weld procedures
		2.3	Plan variables and sequence checks against documentation
		2.4	Prepare documentation for record keeping
3	Qualify welders to required procedures	3.1	Train welders in relevant weld procedures
		3.2	Test welders against relevant weld procedures
		3.3	Maintain welder performance reports against weld procedures
4	Monitor/	4.1	Monitor internal quality assurance plan

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
	maintain quality assurance and safety procedures	4.2	Ensure traceability of materials
		4.3	Ensure welding is supervised to compliance with prescribed specifications and/or documented procedures and/or safety procedures
5	Prepare documents	5.1	Record procedure against pre-qualifying procedures
		5.2	Record findings on internal quality assurance plan
6	Arrange for non-destructive testing and destructive testing	6.1	Arrange weld tests appropriate to the weld procedure
		6.2	Verify non-destructive testing/destructive testing reports against job requirements and specifications

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

No range of conditions provided for this unit.

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM05024 Perform welding supervision (Release 1).

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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>

Assessment Requirements for MEM05024 Perform welding supervision

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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
- instructing welders and determining welding parameters in accordance with procedures
- qualifying welders by training and testing against relevant procedures
- monitoring internal quality assurance plan and safety procedures ensuring materials can be traced to their source
- recording weld procedure and findings on internal quality assurance plan
- arranging for non-destructive/destructive testing appropriate to weld procedure and verifying results against specifications.

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)
- welding science, principles and effects of heat treatment
- welding terms, codes and symbols
- welding processes, parameters and relation to weld quality
- welding procedures defined by code and technical requirements
- non-destructive testing.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing welding supervision 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.

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