



**Australian Government**

# **MEM05014 Monitor quality of production welding/fabrications**

**Release: 2**

# MEM05014 Monitor quality of production welding/fabrications

## Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM05014 Monitor quality of production welding/fabrications (Release 1).

Release 1. Supersedes and is equivalent to MEM05014C Monitor quality of production welding/fabrications.

## Application

This unit of competency defines the skills and knowledge required to perform basic inspection of completed or partly completed welded fabrications produced by others in a production environment.

It is used to monitor the quality of production fabrication work where knowledge of the welding techniques and testing procedures is required. Duties are carried out in consultation with an appropriately qualified supervisor or engineer.

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

**Band: A**

**Unit Weight: 2**

## Pre-requisite Unit

|          |                                                              |
|----------|--------------------------------------------------------------|
| 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                         |
| MEM18001 | Use hand tools                                               |
| MEM18002 | Use power tools/hand held operations                         |

**Plus, one or more of the following including prerequisites**

|          |                                      |
|----------|--------------------------------------|
| MEM05004 | Perform routine oxy fuel gas welding |
|----------|--------------------------------------|

|          |                                          |
|----------|------------------------------------------|
| MEM05012 | Perform routine manual metal arc welding |
| MEM05049 | Perform routine gas tungsten arc welding |
| MEM05050 | Perform routine gas metal arc welding    |
| MEM05056 | Perform routine flux core arc welding    |
| MEM05057 | Perform routine submerged arc welding    |

## 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 | <b>Determine job requirements</b>         | 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     |
|   |                                           | 1.5 | Confirm requirements through consultation with a suitably qualified supervisor or engineer   |
| 2 | <b>Monitor quality of welded products</b> | 2.1 | Carry out inspection procedures in accordance with SOPs                                      |
|   |                                           | 2.2 | Report non-conforming welds and initiate corrective action according to SOPs                 |
|   |                                           | 2.3 | Use pre-set gauges to monitor quality of product                                             |
| 3 | <b>Initiate testing when required</b>     | 3.1 | Implement test requirements according to SOPs and any legislative or regulatory requirements |

Elements describe the essential outcomes.

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

- |   |                                           |     |                                                |
|---|-------------------------------------------|-----|------------------------------------------------|
| 4 | <b>Undertake procedures for reporting</b> | 4.1 | Collect weld test data in accordance with SOPs |
|   |                                           | 4.2 | Prepare reports as required                    |

## 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

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Inspection procedures include one (1) or more of the following:**

- visual
- gauges inspections

## Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM05014 Monitor quality of production welding/fabrications (Release 1).

Release 1. Supersedes and is equivalent to MEM05014C Monitor quality of production welding/fabrications.

## 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 MEM05014 Monitor quality of production welding/fabrications

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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
- monitoring the quality of completed or partly completed welded fabrications produced by others in a production environment using inspection procedures to specifications
- reporting non-conforming welds and initiating remedial action
- initiating test requirements according to procedures and legislative requirements
- collecting weld test data and preparing reports as required.

## 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)
- function of pre-set gauges
- test requirements appropriate to the welded product
- legislative and/or regulatory requirements of the welded product
- reporting and corrective action procedures.

## Assessment Conditions

- Assessors must:
  - have vocational competency in monitoring the quality of production welding/fabrications 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

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