



Australian Government

MEM05012 Perform routine manual metal arc welding

Release: 1

MEM05012 Perform routine manual metal arc welding

Modification History

Release 1. Supersedes and is equivalent to MEM05012C Perform routine manual metal arc welding

Application

This unit of competency defines the skills and knowledge required to carry out routine manual metal arc welding (MMAW) of low carbon mild steel where the welding is not required to meet an Australian Standard or equivalent.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, should also be selected as appropriate.

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

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
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** 1.1 Follow standard operating procedures (SOPs)

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.
requirements		<p>1.2 Comply with work health and safety (WHS) requirements at all times</p> <p>1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs</p> <p>1.4 Identify job requirements from specifications, job sheets or work instructions</p>
2	Prepare materials and equipment for welding	<p>2.1 Identify location of welds in accordance with procedures and job specifications</p> <p>2.2 Clean and prepare materials ready for welding</p> <p>2.3 Set up welding equipment according to SOPs</p> <p>2.4 Select correct electrodes and adjust settings to suit application</p>
3	Perform routine welding using MMAW	<p>3.1 Weld materials to job requirements</p> <p>3.2 Clean welds according to SOPs</p>

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.

Welds include the following:

- butt
- fillet

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.

Preparing includes one (1) or more of the following:

- cleaning
- setting up jigs
- fixtures
- clamps
- joint preparation

Welding equipment includes the following:

- welding leads
- welding machines
- electrode holder

Cleaning includes one (1) or more of the following:

- slag and spatter
- cleaning
- using files
- grinders

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM05012C Perform routine manual metal arc welding

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>