



Australian Government

MEM05003 Perform soft soldering

Release: 1

MEM05003 Perform soft soldering

Modification History

Release 1. Supersedes and is equivalent to MEM05003B Perform soft soldering

Application

This unit of competency defines the skills and knowledge required to perform soft soldering applications of ferrous and non-ferrous materials, using straightforward techniques, where heat damage to components or finish of soldered joint is not critical.

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

Where the selection and use of engineering measuring equipment 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.
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1	Determine job	1.1	Follow standard operating procedures (SOPs)
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Elements describe the essential outcomes.

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

	requirements	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, sketches, job sheets or work instructions
2	Undertake soft soldering	2.1	Assemble tools, equipment and consumables appropriate to the task and prepare for use
		2.2	Prepare, arrange and check materials to be soldered to ensure solder joint meets specifications, as required
		2.3	Use correct techniques to apply soft solder according to SOPs
		2.4	Clean and check solder joint for compliance to specifications and rectify any identified faults

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.

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

- cleaning
- deburring
- twisting of conductors
- fluxing

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Materials include one (1) or more of the following:

- ferrous
- non-ferrous

Tools include one (1) or more of the following:

- all types of soldering irons
- direct flame
- other heating devices

Unit Mapping Information

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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 MEM05003 Perform soft soldering

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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
- preparing to soft solder by selecting appropriate tools and preparing materials in accordance with SOPs
- applying soft solder to materials using appropriate techniques
- cleaning and checking solder joint for compliance to 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 work practices and procedures and use of personal protective equipment (PPE)
- effect of material to be soft soldered on the selection of consumables
- reasons for preparing surfaces prior to soldering
- procedures for rectifying defects in soldered joints.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing soft soldering 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
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, 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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