



Australian Government

Department of Education, Employment and Workplace Relations

MEM05003B Perform soft soldering

Release: 1

MEM05003B Perform soft soldering

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit applies to performing 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.
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Application of the Unit

Application of the unit	<p>All work is undertaken to predetermined standards of quality, safety and procedures.</p> <p>Techniques of applying soft solder may include the use of soldering irons (all types) and direct flame or other heating devices. Preparation of materials includes cleaning, deburring, twisting of conductors and fluxing.</p> <p>Depending on the actual soldering job, hand and power tools and drawing and interpretation skills may be required. These are covered by units MEM18001C (Use hand tools), MEM18002B (Use power tools/hand held operations) and MEM12023A (Perform engineering measurements).</p> <p>This unit should not be selected if Unit MEM05001B (Perform manual soldering/desoldering - electrical/electronic components) or Unit MEM10002B (Terminate and connect electrical wiring) has already been selected.</p> <p>Band: A</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify job requirements	1.1.Soldering requirements are identified and correctly understood from job sheets or instructions.
2. Undertake soft soldering	2.1.Tools, equipment and consumables appropriate to the task are assembled and prepared for use as required. 2.2.Materials to be soldered are prepared, arranged and checked as required, to ensure solder joint meets specifications. 2.3.Correct techniques are used to apply soft solder to standard operating procedures. 2.4.Solder joint is cleaned and checked for conformance to specifications using standard operating procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- using soldering irons
- using direct flame and other heating devices
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures
- following oral instruction

Required knowledge

Look for evidence that confirms knowledge of:

- the effect of material to be soft soldered on the selection of consumables
- the reasons for preparing surfaces prior to soldering
- the procedures for rectifying defects in soldered joints
- use and application of personal protective equipment for soft soldering
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to perform soft soldering.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication materials handling, recording and reporting associated with performing soft soldering or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Tools	Soldering irons (all types) and direct flame or other heating devices
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Materials	Ferrous and non-ferrous
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Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Fabrication
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