



**Australian Government**

# **MEM05006 Perform brazing and/or silver soldering**

**Release: 1**

# MEM05006 Perform brazing and/or silver soldering

## Modification History

Release 1. Supersedes and is equivalent to MEM05006C Perform brazing and/or silver soldering

## Application

This unit of competency defines the skills and knowledge required to perform brazing (including braze welding) and/or silver soldering and includes the preparation of materials and equipment and the inspection of the completed work.

It applies to silver soldering and brazing using all grades of silver solder and braze.

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 see 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.
---	---

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, sketches, job sheets or work instructions
2	<b>Prepare heating equipment</b>	2.1	Select the correct process to meet the job specifications
		2.2	Ensure heating equipment is in safe working condition
		2.3	Assemble heating equipment and set up according to SOPs
		2.4	Determine and set gas pressures
3	<b>Prepare materials</b>	3.1	Select and prepare consumables
		3.2	Prepare materials using appropriate tools and techniques
		3.3	Assemble/align materials to meet specifications
		3.4	Identify distortion prevention measures and take appropriate action
		3.5	Undertake test run and verify
4	<b>Braze and/or silver solder</b>	4.1	Preheat materials as required
		4.2	Apply consumables using appropriate techniques
		4.3	Apply jointing material in appropriate quantities
		4.4	Anneal material where required

Elements describe the essential outcomes.

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

- |   |                       |     |   |
|---|-----------------------|-----|---|
| 5 | <b>Inspect joints</b> | 5.1 | Remove excess jointing materials                                      |
|   |                       | 5.2 | Inspect joints and report/record inspection results according to SOPs |

## 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.

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

- ferrous
- non-ferrous

**Fuel gases include one (1) or more of the following:**

- acetylene
- liquefied petroleum gas (LPG)
- hydrogen

**Heating equipment includes the following:**

- gas cylinders
- hoses
- blowpipes
- tips and nozzles
- regulators
- flashback arrestors

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

- fluxes (resin or powder)
- all types of silver solder
- brazing grades

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.

**Process includes one (1) or more of the following:**

- brazing
- braze welding
- silver soldering

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM05006C Perform brazing and/or silver soldering

## Links

Companion Volume implementation guides are found in VETNet -

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