



**Australian Government**

# **MEM06007 Perform basic incidental heat/quenching, tempering and annealing**

**Release: 1**

# MEM06007 Perform basic incidental heat/quenching, tempering and annealing

## Modification History

Release 1. Supersedes and is equivalent to MEM06007B Perform basic incidental heat/quenching, tempering and annealing

## Application

This unit of competency defines the skills and knowledge required to perform straightforward heating/quenching, tempering and annealing materials to specifications.

Work would normally be one-off processes or processes incidental to trade work (e.g. toolmaking and metal spinning).

Where more comprehensive or complex heating treatment is required unit MEM06003 Carry out heat treatment and MEM06004 Select heat treatment processes and test finished product, should also be selected as appropriate.

Where continuous or batch heat treatment of materials is required unit MEM07024 Operate and monitor machine and process should also be selected.

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 hand tools is required unit MEM18001 Use hand tools should also be selected.

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

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

Forging

### 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, sketches, job sheets or work instructions |
| 2 | <b>Set up equipment for heat/quenching, tempering and annealing</b> | 2.1 | Select appropriate heating process and/or procedure for the given job                    |
|   |   | 2.2 | Set up equipment according to manufacturers' instructions and SOPs                       |
| 3 | <b>Operate heating equipment</b>                                    | 3.1 | Observe all safety procedures  |
|   |   | 3.2 | Follow appropriate heating equipment operating procedures                                |
|   |   | 3.3 | Make appropriate equipment adjustments, as required                                      |
|   |   | 3.4 | Treat material to achieve required result  |

### 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, accessibility of the item, and local industry and regional contexts) are included.

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

- heating/quenching
- tempering
- annealing

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

- oxy acetylene
- LPG gas equipment
- forge

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

- ferrous
- non-ferrous metals

## 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>