



**Australian Government**

# **MEM06002 Perform hammer forging**

**Release: 1**

## MEM06002 Perform hammer forging

### Modification History

Release 1. Supersedes and is equivalent to MEM06002B Perform hammer forging

### Application

This unit of competency defines the skills and knowledge required to use hammer and power hammer tools and formers, apply hammer forging techniques and operate heating devices.

Equipment used does not include drop and upset machinery, vacuum furnaces or rolling and extruding mill machinery.

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: 4**

### 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.

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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>Select material</b>	2.1    Select material for use with specific tools and formers 2.2    Make material calculations using volumes and weights that include provision for thermal expansion/contraction, oxidisation and shrinkage
3 <b>Use hammer tools and formers</b>	3.1    Select and use hammer tools and formers for specific forging techniques 3.2    Set up and operate forging machine
4 <b>Apply hammer forging techniques</b>	4.1    Select and apply appropriate hammer forging technique 4.2    Recognised defects and take appropriate action for rectification 4.3    Apply correct techniques to the handling of hot metal with regard to balancing and pivoting 4.4    Apply the correct heating process

## 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.

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

- low/high carbon steels
- alloys
- stainless steel
- lead

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

- thermal expansion/contraction
- material wastage

**Hammer tools and formers include one (1) or more of the following:**

- flatters
- set hammers
- hot/cold sets
- ball peen hammer
- swages

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

- galls
- fins
- shrinkage
- oxidisation

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

- diesel
- electric and gas furnaces
- coke fires
- gaseous oxygen/fuel equipment

## 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>