



**Australian Government**

# **MEM06001 Perform hand forging**

**Release: 1**

# MEM06001 Perform hand forging

## Modification History

Release 1. Supersedes and is equivalent to MEM06001B Perform hand forging

## Application

This unit of competency defines the skills and knowledge required to use hand tools and formers, apply hand forging techniques and operate heat treatment equipment.

Where simple manual heating and bending is required unit MEM05007 Perform manual heating and thermal cutting should also be selected.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawings 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 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: 4**

## Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools

## 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>Apply hand forging techniques</b>	2.1	Select and use hand tools and formers for specific forging techniques
		2.2	Select and apply appropriate hand forging technique to produce articles to specification
		2.3	Adhere to forging temperatures and heat specifications for various materials
		2.4	Make allowance for material shrinkage and oxidation
3	<b>Operate heating equipment</b>	3.1	Set up and correctly operate the appropriate heating equipment, required for the job
		3.2	Operate equipment in a manner that minimises oxidation
		3.3	Control heat to specified areas

## 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.

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

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

**Hand forging techniques include one (1) or more of the following:**

- drawing
- swaging
- bending
- upsetting
- spreading
- punching
- drifting

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

- low to medium carbon steels
- low to medium alloy steels

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

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

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM06001B Perform hand forging

## Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>