



Australian Government

MEM05008 Perform advanced manual thermal cutting, gouging and shaping

Release: 1

MEM05008 Perform advanced manual thermal cutting, gouging and shaping

Modification History

Release 1. Supersedes and is equivalent to MEM05008C Perform advanced manual thermal heating cutting, gouging and shaping

Application

This unit of competency defines the skills and knowledge required to perform advanced manual heating, thermal cutting, gouging and shaping to produce complex internal and external profiles.

Items are cut, shaped or gouged by a variety of methods to satisfy predetermined shape, size and surface finish specifications.

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: 2

Pre-requisite Unit

MEM05007	Perform manual heating and thermal cutting
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
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.

1	Determine job requirements	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, drawings, job sheets or work instructions
2	Select and set up equipment for manual thermal cutting, gouging and shaping	2.1	Select appropriate cutting process and procedure for material being worked
		2.2	Select and assemble appropriate accessories and equipment
		2.3	Ensure equipment is in safe working condition
		2.4	Set up equipment following SOPs
3	Perform hand held thermal cutting and shaping	3.1	Follow equipment start-up procedures
		3.2	Cut material to specifications
		3.3	Identify cutting defects and take corrective action in accordance with SOPs
		3.4	Remove material with minimum loss of sound metal
		3.5	Check final shape/profile/surface finish for compliance with specifications

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.

Methods include one (1) or more of the following:

- oxy acetylene
- oxy/hydrogen
- plasma
- carbon arc

Cutting and shaping equipment includes the following:

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

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>