



Australian Government

MEM05053 Set and edit computer controlled thermal cutting machines

Release: 2

MEM05053 Set and edit computer controlled thermal cutting machines

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM05053 Set and edit computer controlled thermal cutting machines (Release 1).

Release 1. Supersedes and is equivalent to MEM05053A Set and edit computer controlled thermal cutting machines.

Application

The unit of competency defines the skills and knowledge required to set up and edit any computer or numerically controlled thermal cutting machine or process and applications, including NC/CNC thermal cutting machines and industrial robots performing thermal cutting.

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

Where advanced manual thermal cutting, gouging and shaping is required unit MEM05008 Perform advanced manual thermal cutting, gouging and shaping should also be selected.

Where setting and editing other computer controlled machines is required unit MEM07016 Set and edit computer controlled machines and processes 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: This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C7 (AQF level IV).

Unit Weight: 4

Pre-requisite Unit

MEM05009	Perform automated 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

MEM18001 Use hand tools

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 | Set work holding fixtures/devices/tools and gas and nozzle controls | 2.1 Select correct ancillary devices and attach to machine using SOPs |
| | | 2.2 Prepare machine to accept work holding devices |
| | | 2.3 Set work holding fixtures/devices/tools to zero or a datum using appropriate setting devices |
| | | 2.4 Set gas and nozzle controls according to type and thickness of material to be cut and to minimise distortion |
| | | |
| 3 | Trial program | 3.1 Trial program observing all safety procedures |
| | | 3.2 Check sample cut for compliance with specifications |
| | | 3.3 Edit program to ensure job conforms to specification |
| | | |
| 4 | Complete setting | 4.1 Replace worn or damaged nozzles, regulators and work holding devices/tools, where appropriate, or take other |

Elements describe the essential outcomes.

process

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

corrective action in accordance with SOPs

- 4.2 Instruct operator, if necessary, ensuring that all safety procedures and devices are in place

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.

- Program editing includes the following:**
- identifying and accessing program in edit mode in situ in order to make changes associated with:
 - gas mixtures
 - nozzle or work piece feed speed
 - operational sequence

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM05053 Set and edit computer controlled thermal cutting machines (Release 1).

Release 1. Supersedes and is equivalent to MEM05053A Set and edit computer controlled thermal cutting machines.

Links

Companion Volume implementation guides are found in VETNet -

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