



Australian Government

MEM07004 Perform complex machine setting

Release: 2

MEM07004 Perform complex machine setting

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM07004 Perform complex machine setting (Release 1).

Release 1. Supersedes and is equivalent to MEM07004B Perform machine setting (complex).

Application

This unit of competency defines the skills and knowledge required to perform complex machine setting on a range of non-numerical control (NC)/computer numerical control (CNC) production machines and processes, including manual, semi-automatic and automatic machines.

Where numerical control/computer numerical control skills are required unit MEM07015 Set 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: A

Unit Weight: 8

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools

Plus, one or more of the following, including their prerequisites

MEM07006	Perform lathe operations
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MEM07007	Perform milling operations
MEM07008	Perform grinding operations
MEM07013	Perform machining operations using horizontal and vertical boring machines
MEM07025	Perform advanced machine and process operation
MEM07026	Perform advanced plastic processing
MEM07027	Perform advanced press operations
MEM07041	Perform production machining

Competency Field

Machine and process operations

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 machine	2.1	Determine sequence of operations and set machine accordingly
		2.2	Adjust machine to meet specifications and operational requirements
		2.3	Measure first-off samples and inspect for compliance with specifications

Elements describe the essential outcomes.

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

- 2.4 Change tools and adjust settings to specification, as required
- 2.5 Instruct machine operator, if necessary, on sequencing settings and any required safety procedures

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.

Set includes the selection of one (1) or more of the following:

- gears
- cams
- trip dogs
- pin boards
- other timing mechanisms

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>

Assessment Requirements for MEM07004 Perform complex machine setting

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting job sheets, specifications and other applicable reference documents for complex machine setting
- setting machines using appropriate tools and equipment to meet specifications for the machine operation, including measuring first-off samples for compliance with specifications
- identifying and rectifying worn or damaged tooling
- instructing machine operators on correct use of complex machines and correct safety procedures to be followed.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- characteristics and hazards of complex machines and machine processes
- tooling, equipment and timing requirements of machine operations
- common product faults or defects and adjustments required to rectify
- strategies for instructing the machine operator and conveying routine instructions.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing complex machine setting at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.

- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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