



Australian Government

MEM07028 Operate computer controlled machines and processes

Release: 1

MEM07028 Operate computer controlled machines and processes

Modification History

Release 1. Supersedes and is equivalent to MEM07028B Operate computer controlled machines/processes

Application

This unit of competency defines the skills and knowledge required to operate and monitor a range of numerically controlled (NC), computer numerically controlled (CNC) and robot operated machines or processes in a production environment.

Technical difficulties are resolved in consultation with appropriate technical advisers.

Where operational maintenance is required to be performed unit MEM07001 Perform operational maintenance of machines/equipment should also be selected.

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: 2

Pre-requisite Unit

MEM07024	Operate and monitor machine and process
MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

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, job sheets or work instructions
2	Conduct pre-start checks	2.1	Undertake pre-start checks to SOPs
		2.2	Check all safety equipment for correct operation
3	Operate computer controlled machine/process	3.1	Select installed computer controlled program and verify in accordance with job instructions
		3.2	Operate computer controlled machine to product specifications
		3.3	Identify and report machine malfunctions
		3.4	Check production samples for compliance to specification
4	Monitor machine/process	4.1	Monitor tool wear and, where appropriate, replace pre-set tools and identify tool offsets in computer controlled program and adjust, or take other corrective action according to procedures
		4.2	Report product deviation from specification in accordance with SOPs

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.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM07028B Operate computer controlled machines/processes

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 MEM07028 Operate computer controlled machines and processes

Modification History

Release 1. Supersedes and is equivalent to MEM07028B Operate computer controlled machines/processes

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 specifications, charts, lists and other applicable reference documents for computer controlled machine and process operations
- safely undertaking pre-start checks of the machine/process
- selecting appropriate program for the specified work and operating the machine, identifying any malfunctions and checking completed work to ensure it meets specifications
- monitoring the machine or process operation, adjusting and rectifying any tooling settings, as required
- reporting malfunctions or out-of-specification operation, where necessary.

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)
- pre-start checks for machines and process
- safety equipment, features and procedures associated with the machine or process
- procedures for accessing and verifying computer controlled programs installed in the machine controller
- computer controlled machine operating procedures
- typical machine malfunctions and procedures for reporting
- measuring instruments/techniques
- examples of tool wear and the effect on product or part specifications and procedures to be followed once tool wear has been detected
- techniques for replacing pre-set tools
- adjustments to tool offsets and the effect of adjustments on part or product specifications
- procedures for reporting product or part deviations.

Assessment Conditions

- Assessors must:
 - have vocational competency in operating computer controlled machines and processes 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
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, 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.

Links

Companion Volume implementation guides are found in VETNet -

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