



Australian Government

MEM12022 Program coordinate measuring machines (advanced)

Release: 1

MEM12022 Program coordinate measuring machines (advanced)

Modification History

Release 1. Supersedes and is equivalent to MEM12022B Program coordinate measuring machines (advanced)

Application

This unit of competency defines the skills and knowledge required to write, trial and edit programs for a range of coordinate measuring machines (CMMs) to measure features of parts in multiple planes using multiple probes.

Where programming using single probes in a single plane is required unit MEM12021 Program coordinate measuring machines should be selected.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM12003	Perform precision mechanical measurement
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Measurement

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
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1	Determine job	1.1	Follow standard operating procedures (SOPs)
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Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
	requirements	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
		1.5	Determine part parameters and measurement requirements
		1.6	Establish program attributes according to SOPs
2	Determine probe configuration for multiple probes	2.1	Determine probe configuration
		2.2	Determine probe angles and qualify multiple probes
3	Create multiple direct computer control (DCC) alignment	3.1	Create multiple DCC alignment according to SOPs
		3.2	Integrate DCC sub-routines
4	Construct advanced geometric features	4.1	Determine and construct geometric features
		4.2	Dimension features according to specifications
5	Review and maintain part programs/system	5.1	Review/edit part programs to comply with changes to specifications
		5.2	Change system wide options
		5.3	Output results to various formats according to SOPs
		5.4	Archive and back up programs

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

No range of conditions provided for this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM12022B Program coordinate measuring machines (advanced)

Links

Companion Volume implementation guides are found in VETNet -

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