



Australian Government

MEM09005 Perform basic engineering detail drafting

Release: 1

MEM09005 Perform basic engineering detail drafting

Modification History

Release 1. Supersedes and is equivalent to MEM09005B Perform basic engineering detail drafting

Application

This unit of competency defines the skills and knowledge required to produce drawings to AS 1100 Technical drawing or equivalent using manual drafting or drawing equipment, where the critical dimensions, associated tolerances and design specifications are predetermined.

Where a computer-aided design (CAD) system is used unit MEM09009 Create 2-D drawings using computer-aided design system and MEM09010 Create 3-D models using computer-aided design system, should be selected as appropriate.

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
MEM09003	Prepare basic engineering drawing
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information

Competency Field

Drawing, drafting and design

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 requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Identify job requirements from specifications, job sheets or associated work instructions
2	Prepare assembly, layout and detail drafting	2.1	Prepare drawings in plane orthogonal, isometric projection or equivalent, including auxiliary views and sections to AS 1100 Technical drawing
		2.2	Prepare layout, assembly and component drawings from specifications
		2.3	Apply drawing dimensions and label using supplied tolerances in accordance with AS 1100 Technical drawing
		2.4	Produce drawings to specification in accordance with SOPs
		2.5	Use standard symbols to AS 1100 Technical drawing, or equivalent, to specify requirements
3	Determine component and material requirements	3.1	Identify component and material requirements according to design specifications
		3.2	Compile component and materials list
4	Complete documentation	4.1	Complete drawings and associated documentation in accordance with SOPs
		4.2	Store drawings and documentation 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.

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.

AS 1100 Technical drawing includes the following:

- interpretation under guidance, particularly in respect to any geometric tolerancing. AS 1100 Technical drawing is an extensive work and its application would usually be in line with SOPs

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>