



Australian Government

MEM09006 Perform advanced engineering detail drafting

Release: 1

MEM09006 Perform advanced engineering detail drafting

Modification History

Release 1. Supersedes and is equivalent to MEM09006B Perform advanced engineering detail drafting

Application

This unit of competency defines the skills and knowledge required to use manual drafting and drawing equipment to produce assembly, layout and detail drawings to AS 1100 Technical drawing or equivalent.

Skills covered by this unit are applied individually or in a team environment where comprehensive responsibility for the production of the drawing is exercised, and critical dimensions and associated tolerances are determined as required.

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

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

Band: B

Unit Weight: 4

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM09003	Prepare basic engineering drawing
MEM09005	Perform basic engineering detail drafting
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 job sheets or other associated work instructions |
| 2 | Prepare assembly, layout and detail drawing | 2.1 Determine specification requirements |
| | | 2.2 Undertake engineering calculations to determine all dimensions required to ensure functional operation and suitability |
| | | 2.3 Produce all drawings to AS 1100 Technical drawing or equivalent |
| 3 | Select material, components or assemblies | 3.1 Select material, components or assemblies from data sheets or supplier catalogues to meet specifications |
| | | 3.2 Compile material, component or assembly list |
| 4 | Check drawings | 4.1 Check drawings to ensure compliance with specifications |
| | | 4.2 Check drawings to ensure that assembly or fabrication is possible |

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.

Dimensions include the following:

- limits and fits
- surface texture
- datum references
- geometric tolerances

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>