



Australian Government

MEM09003 Prepare basic engineering drawing

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM09003B Prepare basic engineering drawing

Application

This unit of competency defines the skills and knowledge required to prepare basic engineering drawings across mechanical, electrical/electronic, fabrication and fluid power applications, and includes preparing new drawings or changing existing drawings. Manual and computer aided drafting and drawing equipment can be used. Preparation of parts lists and issuing of drawing documents is included.

Specifications for drawings are pre-determined and are obtained from design information, customer requirements, sketches and preliminary layouts.

Where a more extensive computer-aided design (CAD) system is used for design, unit MEM09009 Create 2-D drawings using computer-aided design system should 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
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.

- | | |
|---|---|
| 1 Determine job requirements | <ul style="list-style-type: none">1.1 Follow standard operating procedures (SOPs)1.2 Comply with work health and safety (WHS) requirements at all times1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs1.4 Identify job requirements and purpose of drawing from specifications, associated documents or work instructions1.5 Identify and collect all data necessary to produce the drawing1.6 Confirm drawing requirements and method with relevant personnel and establish timeframes for completion |
| 2 Prepare or make changes to engineering drawing | <ul style="list-style-type: none">2.1 Select drafting equipment appropriate to the drawing method chosen2.2 Apply drafting principles to produce a drawing that is consistent with SOPs, in consultation with supervisor, as required2.3 Ensure completed drawing is approved in accordance with SOPs |
| 3 Prepare engineering parts list | <ul style="list-style-type: none">3.1 Identify components parts and organise by component type in accordance with SOPs and customer requirements |
| 4 Issue drawing | <ul style="list-style-type: none">4.1 Complete drawings and parts lists records in accordance with SOPs4.2 Copy approved drawings and parts lists and issue to relevant personnel4.3 Store approved drawings and parts lists, and catalogue in |

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

Relevant personnel include one (1) or more of the following:

- technical personnel
- supervisors
- manufacturers
- suppliers
- contractors
- customers

Drafting principles include the following:

- interpreting AS 1100.101-1992 (R2014) Technical drawing – General principles as required to prepare drawing
- preparing drawings in accordance with AS 1100.101-1992 (R2014) Technical drawing – General principles, or equivalent, as required

Completing records include one (1) or more of the following:

- cataloguing
- issuing security classifications
- filing
- preparing distribution lists

Issued includes one (1) or more of the following:

- hard copy
- photographic
- slide or transparency form

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.

- presentation as a single drawing or with other drawings
- presentation as a package

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>