



Australian Government

Assessment Requirements for MEM09006 Perform advanced engineering detail drafting

Release: 1

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Modification History

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

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
- preparing layout, assembly and detail drawings to AS 1100 Technical drawing or equivalent according to specifications including undertaking calculations to determine all dimensions appropriate to ensure functional operation and suitability
- undertaking numerical operations, geometry, calculations and formulae associated with performing advanced engineering detail drafting
- interpreting data sheets and supplier catalogues to select material, components or assemblies to meet specifications
- checking drawing for compliance with specifications.

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
- specifications and requirements of the component, assembly or layout to be drawn
- numerical operations, geometry, calculations and formulae associated with performing advanced engineering detail drafting
- functional operation of the component or assembly to be drawn
- surfaces which are to be in contact or separated
- appropriate type of fit for contacting surfaces and reasons for selection
- effect of surface finish on the performance and operation of surfaces
- appropriate datum points
- procedures for determining all appropriate lineal, diametric and geometric tolerances
- requirements of AS 1100 Technical drawing or equivalent for the drawings to be produced
- specifications of the materials, components or assemblies
- appropriate components and materials from supplier catalogues and reasons for selection
- procedures and reasons for checking the drawings to ensure that manufacturing or assembly is possible, efficient and cost effective

- drawing specifications
- methods of manufacture or assembly from the drawings
- unnecessary or inappropriate tolerances.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing advanced engineering detail drafting 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>