



Australian Government

**Assessment Requirements for MEM30033
Use computer-aided design (CAD) to create
and display 3D models**

Release: 1

Assessment Requirements for MEM30033 Use computer-aided design (CAD) to create and display 3D models

Modification History

Release 1. Supersedes and is equivalent to MEM30033A Use computer-aided design (CAD) to create and display 3-D models.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- identifying modelling work requirements and determining appropriate software functions and features
- applying CAD functions to produce a rendered 3D model on at least two occasions to Australian Standard (AS) 1100.101 Technical drawing - General principles.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

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:

- solid modelling techniques
- development of sectioned models
- multiple viewing
- 3D geometric shapes
- use of cutting plane
- use of cross hatching
- use of pre-drawn library files and primitives to produce a 3D model
- how to extract mass and area properties from 3D models
- application of basic rendering techniques to a 3D model.

Assessment Conditions

- Assessors must:
 - have vocational competency in using computer-aided design (CAD) to create and display 3D models 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 that 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>