



Australian Government

Assessment Requirements for MEM04015 Develop and manufacture vacuum forming moulds and associated equipment

Release: 2

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Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM04015 Develop and manufacture vacuum forming moulds and associated equipment (Release 1).

Release 1. Supersedes and is equivalent to MEM04015B Develop and manufacture vacuum forming moulds and associated equipment.

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
- identifying and interpreting specifications, charts, lists, drawings and other applicable reference documents to develop and manufacture vacuum forming moulds
- applying vacuum forming processes in determining design of moulds and selecting appropriate materials to meet specifications
- undertaking calculations for pattern parameters taking into account plastic sheet thickness and contraction rates
- developing and marking out pattern showing size, position of air evacuation and of the moulded form
- selecting and using appropriate machines, machining process and hand and power tools as needed to shape, produce, fashion and manufacture vacuum forming patterns to specification
- checking vacuum forming pattern to specification.

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 and use of personal protective equipment (PPE)
- timber and epoxy resin product knowledge, including features, characteristics and applications
- vacuum forming techniques
- tooling required for manufacture of vacuum forming patterns and moulds
- formulae and calculations/formulae required to manufacture patterns and moulds i.e. contraction, taper

- techniques, tools and equipment to measure, mark out and produce vacuum forming patterns and moulds
- pattern checking techniques.

Assessment Conditions

Assessors must:

- have vocational competency in the development and manufacture of vacuum forming moulds and associated equipment 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.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including 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

The MEM Metal and Engineering Training Package Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>