



Australian Government

Assessment Requirements for MEM04013 Develop and manufacture polystyrene patterns

Release: 2

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Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM04013 Develop and manufacture polystyrene patterns (Release 1).

Release 1. Supersedes and is equivalent to MEM04013B Develop and manufacture polystyrene patterns.

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, sketches and drawings for developing and manufacturing polystyrene patterns, including determining the grade and type of bead
- marking out pattern/pattern components to specifications, including determining the contraction allowance
- manufacturing pattern by joining and securing pattern components using appropriate adhesives
- selecting and using appropriate tooling
- checking and marking pattern for identification purposes to specification
- handling and storing patterns in an appropriate manner.

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)
- types and applications of polystyrene for pattern making
- formulae and mathematical techniques required for manufacturing patterns/core boxes, i.e. contraction, taper, clearances and machining allowances
- marking out techniques for polystyrene patterns, including undercuts and holes
- types and applications of adhesives
- tools and their uses in the manufacture of polystyrene patterns
- pattern checking techniques
- handling and storage techniques.

Assessment Conditions

- Assessors must:
 - have vocational competency in the development and manufacture of polystyrene patterns 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>