



Australian Government

Assessment Requirements for MEM04010 Develop and manufacture wood patterns

Release: 2

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Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM04010 Develop and manufacture wood patterns (Release 1).

Release 1. Supersedes and is equivalent to MEM04010B Develop and manufacture wood 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, drawings, technical sketches and customer requirements to develop wood patterns
- determining type of wood pattern required through application of moulding/casting techniques and selecting the appropriate timber/timber composites to meet requirements
- preparing patterns for manufacture using the appropriate mathematical calculations for angles, tapers, clearances and determination of contraction rates
- laying out pattern showing tapers, machining allowances, core prints and method of construction
- manufacturing jigs and fixtures as required
- marking out and manufacturing all types of solid, split and turned wood patterns and wood pattern component parts using appropriate hand and power tools
- joining and fixing pattern components as required and checking conformance to specification
- marking, colour coding or tagging pattern to specifications for future use.

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 products, including features, characteristics and applications
- moulding and casting techniques
- tooling required for casting/moulding
- methoding techniques
- use and application of jigs and fixtures
- methods of constructing wood patterns

- formulae and mathematical techniques required for necessary manufacturing of patterns/core boxes, i.e. contraction, taper, clearances and machining allowances
- identification coding and numbering
- pattern checking techniques
- mouldability i.e. surface finish, face taper, convex or concave perspectives and undercuts.

Assessment Conditions

- Assessors must:
 - have vocational competency in the development and manufacture of wood 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

Companion Volume implementation guides are found in VETNet -

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