



Australian Government

MEM25009 Form timber shapes using hot processes

Release: 2

MEM25009 Form timber shapes using hot processes

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM25009 Form timber shapes using hot processes (Release 1).

Release 1. Supersedes and is equivalent to MEM25009B Form timber shapes using hot processes.

Application

This unit of competency defines the skills and knowledge required to form solid timber shapes using hot processes within a mould, existing structure or over a former assembly.

Where complex forming is required unit MEM09021 Interpret and produce drawings of curved 3-D shapes should also be selected.

Where straightforward construction and assembly of marine timber components is undertaken, including laminating by cold processes, unit MEM25005 Construct and assemble marine vessel timber components should also be selected.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM04018	Perform general woodworking machine operations
MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12007	Mark off/out structural fabrications and shapes
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools

MEM18002

Use power tools/hand held operations

Competency Field

Marine craft construction

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Prepare to form timber shapes	2.1	Select appropriate bending process and identify components
		2.2	Determine construction sequence
		2.3	Select and use tools and equipment appropriate to job requirements
3	Form timber shapes	3.1	Select standard jigs/templates to suit job application
		3.2	Construct jigs/templates to suit required shape
		3.3	Construct components to specifications using hot processes
		3.4	Set up laminating/heating equipment according to SOPs, where applicable
		3.5	Construct and shape components to specifications

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

3.6 Ensure final components conform to specifications

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Tools and equipment include one (1) or more of the following:

- jigs
- templates
- steam boxes
- cramps
- fasteners

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM25009 Form timber shapes using hot processes (Release 1).

Release 1. Supersedes and is equivalent to MEM25009B Form timber shapes using hot processes.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM25009 Form timber shapes using hot processes

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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 and drawings to select jig/template or fastening method relevant to form application
- selecting timber from drawing according to specifications and identifying any faults
- preparing and operating heating/steaming equipment using appropriate tools, jigs, moulds and templates to construct components to specifications
- bending, shaping, assembling and/or positioning timber components for clamping or fastening and fixing securely
- checking final component for compliance to 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 and use of personal protective equipment (PPE)
- relevant job specifications
- forming and component assembly practices
- heating/steaming equipment types and application
- heating times, temperatures and humidity requirements, where appropriate
- timber types, specifications and characteristics
- fault identification in material, including twist, shakes and sloping grain
- forming and component assembly practice
- jig/templates types and their application
- jig/template construction process to suit specified shape
- bending and forming processes used for constructing components
- relevant laminating/heating equipment, their use and safety procedures
- heating, construction and shaping of components

- checking specified component size.

Assessment Conditions

- Assessors must:
 - have vocational competency in forming timber shapes using hot processes 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.

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