



Australian Government

MEM04018 Perform general woodworking machine operations

Release: 1

MEM04018 Perform general woodworking machine operations

Modification History

Release 1. Supersedes and is equivalent to MEM04018B Perform general woodworking machine operations

Application

This unit of competency defines the skills and knowledge required to set up and operate woodworking machines used by engineering patternmakers and marine fabricators.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of power tools for hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

Note: This unit does not cover the use of woodworking machines for furniture and building construction.

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

Band: A

Unit Weight: 4

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools

Competency Field

Casting and moulding

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, sketches, job sheets or work instructions
2	Set up woodworking machines	2.1	Select appropriate woodworking machine to meet specifications
		2.2	Select tools and cutters appropriate to task requirements
		2.3	Sharpen and/or shape cutting tools as required
		2.4	Install tools and cutters in an appropriate manner according to procedures
		2.5	Set and adjust guards and stops
3	Operate woodworking machines	3.1	Position and secure material to be machined
		3.2	Machine materials to specification
		3.3	Optimise material use and minimise waste
4	Check finished component	4.1	Check machined component against specifications and predetermined finish

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.

Job requirements include one (1) or more of the following:

- sizing
- appearance in terms of figure, grain or surface finish
- allowance of imperfections, including:
 - twist
 - bow
 - bend
 - sloping grain
 - knots
 - shakes
 - gum veins

Woodworking machines include one (1) or more of the following:

- band saws
- buzzers
- thicknesses
- disk sander
- bobbin sander
- pattern mill
- wood lathe
- pedestal router and drill

Set up includes the following:

- installation of the blades and cutters
- settings for the job including adjustments for sizing and speed

Cutting tools include one (1) or more of the following:

- blades
- outer bits

Guards/stops include:

- fixed and variable guards and stops

Unit Mapping Information

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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 MEM04018 Perform general woodworking machine operations

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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, sketches and other applicable reference documents to determine job requirements
- selecting and setting up appropriate woodworking machine by selecting and installing appropriate tools/cutters, and adjusting fixed and variable guards and stops as required
- operating machine by positioning and securing material effectively, machining material to specifications and optimising material use and minimising waste
- checking machined component for predetermined finish against 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)
- application and use of general woodworking machines
- interpreting instructions, drawings or sketches
- numerical operations and calculations associated with this unit
- machine settings, including installation of blades and cutters, clamping for the job, and adjusting for size and speed
- range of tools and cutters for different purposes
- consequences of incorrect set or cutting angles
- consequences of tool holders, tools and cutters, being incorrectly secured
- consequences of not using guards
- timber product knowledge, including features, characteristics and applications
- methods of optimising quality of appearance, retention of shape, strength, and the minimisation of waste.

Assessment Conditions

- Assessors must:

- have vocational competency in performing general woodworking machine operations 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. This must 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.

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