



Australian Government

Department of Education, Employment and Workplace Relations

MEM04018B Perform general woodworking machine operations

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers setting up and operating wood working machines used by engineering pattern makers and marine fabricators.
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Application of the Unit

Application of the unit	<p>This unit applies to setting up and using woodworking machines for engineering pattern making and marine vessel manufacture.</p> <p>This unit does not cover the use of woodworking machines for furniture and building construction.</p> <p>For hand held/power tools, Unit MEM18002B (Use power tools/hand held operations) should be selected.</p> <p>If the interpretation of technical drawings is required Unit MEM09002B (Interpret technical drawings) should also be selected.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Determine job requirements	1.1. Job instructions and specifications are interpreted and understood. 1.2. Appropriate woodworking machine is selected to meet specifications.
2. Set up woodworking machines	2.1. Tools/cutters are selected appropriate to task requirements. 2.2. Cutting tools are sharpened and/or shaped to specification. 2.3. Tools/cutters are correctly installed using standard operating procedures. 2.4. Guards/stops are set and adjusted as required.
3. Operate woodworking machines	3.1. Material to be machined is positioned and secured effectively. 3.2. Materials are machined to specification using standard operating procedures. 3.3. Material use is optimised and waste is minimised.
4. Check finished component	4.1. Machined component is checked against specifications and predetermined finish.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- determining job requirements from job instructions, specifications, standard operating procedures and other applicable reference documents
- checking and clarifying task-related information
- selecting and setting machines
- setting guards and stops
- handling, machining and storing timber and wood
- measuring materials and components to specified sizes/tolerances
- checking for conformance to specifications

REQUIRED SKILLS AND KNOWLEDGE**Required knowledge**

Look for evidence that confirms knowledge of:

- application and use of general wood working machines
- interpreting instructions, drawings or sketches
- numerical operations and calculations within the scope of this unit
- machine settings including installation of blades and cutters, clamping for the job, including adjustments for sizing and speed
- the range of tools/cutters for different purposes
- the consequences of incorrect set or cutting angles
- the consequences of tool holders, tools and cutters etc., being incorrectly secured
- the consequences of not using guards etc.
- timber product knowledge including features, characteristics and applications
- methods of optimising quality of appearance, retention of shape, strength, and the minimisation of waste
- use and application of personal protective equipment
- safe work practices and procedures
- hazards and control measures associated with general woodworking machine operations

Evidence Guide

EVIDENCE GUIDE	
<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to set up and operate wood working machines. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p>
<p>Context of and specific resources for assessment</p>	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing general woodworking machine operations or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
<p>Method of assessment</p>	<p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p>

EVIDENCE GUIDE

Guidance information for assessment	
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Job requirements

Sizing, appearance in terms of figure, grain or surface finish, allowance of imperfections such as twist, bow, bend, sloping grain, knots, shakes, gum veins etc.

Woodworking machines

Band saws, buzzers, thicknesses, disk sander, bobbin sander, pattern mill, wood lathe, pedestal router and drill

Set up

Installation of the blades and cutters, settings for the job, including adjustments for sizing and speed

Cutting tools

Blades, router bits

Guards/stops

Fixed and variable guards and stops

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Casting and moulding
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