



Australian Government

MSFFM1002 Operate basic woodworking machines

Release: 1

MSFFM1002 Operate basic woodworking machines

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers operating basic woodworking machines used for sawing, planing, sanding and drilling in the production of furniture. It applies to a VET in Schools or pre-vocational program for new entrants to the furnishing industry.

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

Pre-requisite Unit

Competency Field

Unit Sector

Furniture Making

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Prepare for work	1.1	Work instructions are used to identify job requirements, including quality, materials, equipment, and quantities
		1.2	Work health and safety (WHS) requirements, including ventilation requirements and personal protection needs, are observed throughout the work
		1.3	Material for machining is selected and inspected for quality
		1.4	Machines, cutting tools and jigs are identified and checked for safe and effective operation
2	Operate machines	2.1	Safety equipment, including emergency stops, gauges, guards and controls are checked
		2.2	Machine start-up procedure is carried out in accordance with manufacturer instructions

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|-----|---|---|-----|--|-----|--|-----|---|-----|---|
| | 2.3 | Material is fed into machine in accordance with manufacturer instructions, safe handling procedures and standard workplace operating procedures | | | | | | | | |
| | 2.4 | Machine is operated in accordance with its designed capacity and purpose, tooling requirements and to manufacturer recommendations | | | | | | | | |
| | 2.5 | Machine operation is monitored to ensure product quality and output | | | | | | | | |
| | 2.6 | Waste quantities are minimised | | | | | | | | |
| | 2.7 | Items that do not meet quality requirements are recycled or discarded according to workplace procedures | | | | | | | | |
| | 2.8 | Problems with the required work and/or the operation of the machine are identified and reported to appropriate persons | | | | | | | | |
| 3 | Clean up work area and maintain equipment | <table border="0"> <tr> <td>3.1</td> <td>Material that can be re-used is collected and stored</td> </tr> <tr> <td>3.2</td> <td>Waste and scrap are removed following workplace procedures</td> </tr> <tr> <td>3.3</td> <td>Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures</td> </tr> <tr> <td>3.4</td> <td>Unserviceable equipment is reported in accordance with workplace procedures</td> </tr> </table> | 3.1 | Material that can be re-used is collected and stored | 3.2 | Waste and scrap are removed following workplace procedures | 3.3 | Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures | 3.4 | Unserviceable equipment is reported in accordance with workplace procedures |
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Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

Specifies 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. Range is restricted to essential operating conditions and any other variables essential to the

work environment.

Basic woodworking machines include:

- cross cut saw
- rip saw
- band saw
- panel saw
- surface planer (buzzer/jointer)
- panel planer (thicknesser)
- bobbin sander
- disc sander
- belt sander (finisher) – stroke and linisher
- vertical drill press
- horizontal borer (single bit)

Tasks include:

- machine face
- machine edge
- off fence ripping
- freehand ripping
- freehand curve cutting
- parallel rip (oversize by 5 mm+)
- docking:
 - (oversize + 20 mm)
 - (accurate to +/- 0.25 mm)
 - square (no tolerance)
- cut flat panel board (off rip fence using scribe saw)
- cut flat panel board (off cross-cut fence using scribe saw)
- parallel plane width
- parallel plane thickness
- sand concave surface
- sand straight surface
- sand end grain and outside curve
- sand flat surfaces
- hinge boring
- drill holes to pre-determined depths vertically, selecting and replacing drill bits as required
- changing belts and blades
- drill holes to pre-determined depths horizontally (and to create a mortise)

Unit context includes:

- WHS requirements, including legislation, building codes, material safety management systems, hazardous substances and dangerous goods code, and local safe operating procedures
- work is carried out in accordance with legislative obligations, environmental legislation, relevant health

- regulations, manual handling procedures and organisation insurance requirements
 - competency may be demonstrated in workplaces involved in the manufacture of solid timber furniture, domestic furniture, commercial furniture, kitchen and bathroom cabinets and/or furniture components
 - solid timber and manufactured board
- Materials to be machined include:**
- that prescribed under legislation, regulations and enterprise policies and practices
- Personal protective equipment includes:**
- Information and procedures include:**
- workplace procedures relating to the use of tools and equipment
 - work instructions, including job sheets, cutting lists, plans, drawings and designs
 - workplace procedures relating to reporting and communication
 - manufacturer specifications and operational procedures

Unit Mapping Information

Supersedes and is equivalent to LMFFM1002B Operate basic woodworking machines.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFFM1002 Operate basic woodworking machines

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Performance Evidence

- Identify work requirements and materials used in the work process
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Operate and monitor the machines, including changing belts, blades and drill bits as required, and complete the tasks identified in the Range of Conditions for:
 - one (1) saw
 - one (1) planer
 - one (1) drill
 - one (1) sander
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems, interpret basic plans and follow safety procedures
- Minimise wastage of resources, including materials, time and money
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

Knowledge Evidence

- Characteristics, uses and limitations of woodworking machines
- General workplace quality standards and procedures
- Workplace safety policies and procedures
- Procedures for reporting machinery faults and material defects

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification

- be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to basic woodworking machinery, standard operating procedures and materials.

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