



Australian Government

MSFFM3017 Set up, operate and maintain routing and shaping machines

Release: 1

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Modification History

Release 1 - New unit of competency

Application

This unit of competency covers setting up, operating and maintaining routing and shaping machines using their full potential and capacities in the production of furniture.

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.

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|---|------------------|-----|--|
| 1 | Prepare for work | 1.1 | Work instructions are used to determine job requirements, including design, quality, materials, equipment and quantities |
| | | 1.2 | Cutting list and job specifications are read and interpreted |
| | | 1.3 | Work health and safety (WHS) requirements, including personal protection needs, are observed throughout the work |
| | | 1.4 | Material for machining is selected and inspected for quality |
| | | 1.5 | Routing and shaping machines, cutting tools and jigs are identified and checked for safe and effective operation |
| | | 1.6 | Procedures are determined for minimising waste material |
| | | 1.7 | Procedures are identified for maximising energy efficiency |

- while completing the job
- 2 Set up machines
 - 2.1 Safety equipment, including emergency stops, gauges, guards and controls are checked
 - 2.2 Routing and shaping machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturer instructions
 - 2.3 Trial runs are conducted to check machine operation, accuracy and quality of finished work
 - 2.4 Necessary adjustments are made to machine settings
 - 3 Operate machines
 - 3.1 Machine start-up procedure is carried out in accordance with manufacturer instructions
 - 3.2 Material is fed into machine in accordance with manufacturer instructions, tooling requirements, safe handling procedures and standard workplace operating procedures
 - 3.3 Machine is operated in accordance with its designed capacity and purpose, and to manufacturer recommendations
 - 3.4 Machine operation is monitored to ensure product quality and output
 - 3.5 Items that do not meet quality requirements are recycled or discarded according to workplace procedures
 - 3.6 Problems with the required work and/or the operation of the machine are identified and reported to appropriate persons
 - 4 Finalise operation and maintain equipment
 - 4.1 Work area is cleaned, hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures
 - 4.2 Machinery is cleaned and left in a safe mode
 - 4.3 Faulty and/or defective equipment is tagged and reported in accordance with workplace practices
 - 4.4 Unused hardware is collected and stored for re-use or disposal following workplace procedures
 - 4.5 Waste and scrap materials are dealt with following workplace procedures

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.

Routing and shaping machines include:

- spindle moulding machine
- overhead or inverted pin routing machine

Material to be routed and shaped include:

- solid timber
- manufactured board
- plastics and laminates

Unit scope includes:

- setting up fences and guides
- maintaining cutters
- selecting feed and spindle speeds
- the use of feed unit
- safety pressure devices/guards
- linear, convex and concave shaping
- rebating
- moulding and grooving material
- using jigs and fixtures

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
- work requires individuals to demonstrate some discretion, judgement and problem solving in the set up and operation of machines
- 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

Tools and equipment include:

- machine-specific tools
- screwdrivers
- hammers
- spanners
- jigs and fixtures

Materials include:

- routing and shaping machine consumables
- oils and lubricants and trial materials

Personal protective equipment includes:

- that prescribed under legislation, regulations and enterprise policies and practices

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 LMFFM3025B Set up, operate and maintain routing and shaping machines.

Links

Companion Volume implementation guides are found in VETNet -

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