



Australian Government

Department of Education, Employment and Workplace Relations

LMFFM2010B Set up, operate and maintain basic static machines

Revision Number: 1

LMFFM2010B Set up, operate and maintain basic static machines

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit covers the competency to operate and maintain basic static machines used for sawing, planing, sanding and drilling in the production of furniture
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
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. Workplace health and safety requirements, including ventilation requirements and personal protection needs, are observed throughout the work 1.4. Material for machining is selected and inspected for quality 1.5. 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. Machine settings and adjustments are made in accordance with job requirements and machine and tool manufacturers' 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 manufacturers' instructions 3.2. Material is fed into machine in accordance with manufacturers' instructions, safe handling procedures and standard workplace operating procedures 3.3. Machine is operated in accordance with its designed capacity and purpose, tooling requirements and to manufacturers' recommendations 3.4. Machine operation is monitored to ensure product quality and output 3.5. Waste quantities are checked and minimised 3.6. Items that do not meet quality requirements are repaired, recycled or discarded according to workplace procedures 3.7. Problems with the required work and/or the operation of the machine are identified and reported

ELEMENT	PERFORMANCE CRITERIA
	to appropriate persons
4. Clean up work area and maintain equipment	4.1. Material that can be reused is collected and stored 4.2. Waste and scrap are removed following workplace procedures 4.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures 4.4. Operator maintenance is completed in accordance with manufacturers' specifications and site procedures 4.5. Unserviceable equipment is tagged and faults identified in accordance with workplace procedures 4.6. Equipment and tooling are maintained in accordance with workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- collect, organise and understand information related to work orders, machine operations, basic plans and safety procedures
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including the preparation and layout of the worksite and the obtaining of equipment and materials to avoid any back tracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- use pre-checking and inspection techniques to anticipate machining problems, avoid reworking and avoid wastage
- use the workplace technology related to machine operations, including tools, equipment and measuring devices

Required knowledge

- the range, characteristics, uses and limitations of basic static machines
- characteristics of materials and uses of products produced
- general workplace quality standards and procedures
- workplace guidelines regarding acceptable tolerance levels
- workplace safety policies and procedures
- procedures for reporting machinery faults and material defects

Evidence Guide

EVIDENCE GUIDE

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.

Critical Aspects of Evidence

- Read and interpret cutting lists and job specifications to prepare for work
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Identify materials used in the work process
- 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
- Identify, set up, operate and monitor the machines and complete the tasks identified in the Range Statement (above)
- Work effectively with others
- Modify activities to cater for variations in workplace context and environment

Resource Implications

Access to basic static machinery as identified in the Range Statement, standard operating procedures, and unprocessed materials.

Method of Assessment

Assessment methods must confirm consistency of performance over time and in a range of workplace relevant contexts.

Assessment should be by direct observation of tasks and questioning on underpinning knowledge.

Assessment should be conducted over time and may be in conjunction with assessment of other units of competency.

Context of Assessment

Assessment may occur on the job or in a workplace simulated facility with relevant process equipment, materials, work instructions and deadlines.

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.

The unit scope is to cover all the following basic machines and functions or tasks:

- cross-cut saw
- remove/replace saw blade
- blade selection/identification
- docking (oversize + 20mm)
- docking (accurate to +/- 0.25mm)
- docking square (no tolerance)
- machine fault finding
- rip saw
- remove/replace saw blade
- blade selection/identification
- set up riving knife to AS 1473
- parallel rip (oversize by 5mm+)
- machine fault finding
- scroll band saw
- remove/replace saw blade
- fold, unfold, reverse saw blade
- blade selection
- off fence ripping
- freehand ripping
- freehand curve cutting
- machine fault finding
- panel saw
- remove/replace saw blade
- set up scribe saw
- set up riving knife to AS 1473
- cut flat panel board (off rip fence using scribe saw)
- cut flat panel board (off cross-cut fence using scribe saw)
- machine fault finding
- surface planer (buzzer/jointer)
- machine face
- machine edge

RANGE STATEMENT	
	<ul style="list-style-type: none"> • machine chamfer or bevel • machine fault finding • panel planer (thicknesser) • parallel plane width • parallel plane thickness • machine fault finding • bobbin sander • sand concave surface • machine fault finding • disc sander • sand straight surface • sand convex surface • sand end grain • machine fault finding • belt sander (including finisher, edge sander and stroke [lacey] sander) • remove/replace belts • sand veneer face of flat panel board • sand solid timber face • sand solid timber edges (remove arris/shape) • machine fault finding • vertical drill press • select and replace drill bits • drill holes to pre-determined depths vertically • hinge boring • machine fault finding • horizontal borer (single bit) • select and replace drill bits • drill holes to pre-determined depths horizontally • hinge boring • machine fault finding
Unit context	<ul style="list-style-type: none"> • OH&S requirements include 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

RANGE STATEMENT	
	<ul style="list-style-type: none"> • Work requires individuals to demonstrate some discretion, judgement and problem solving skills in the set-up, operation and maintenance 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
Material to be machined may include but is not limited to:	<ul style="list-style-type: none"> • solid timber • manufactured board and metal
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation, regulations and enterprise policies and practices
Information and procedures	<ul style="list-style-type: none"> • 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 • Manufacturers' specifications and operational procedures

Unit Sector(s)

Unit sector	Furniture Making
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		