



Australian Government

Department of Education, Employment and Workplace Relations

FPITMM2202B Machine material

Release: 1

FPITMM2202B Machine material

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to operate and maintain basic static machines used for sawing, planing, sanding and drilling. The unit includes operator maintenance

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPITMM2202A Machine material

Application of the Unit

Application of the unit

This unit involves machining material in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

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. Prepare for machining	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to machining material are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Type and quantity of material to be machined is acquired from the storage location 1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.5. Material machining process is planned in line with site procedures 1.6. Communication with others is established and maintained in line with OHS requirements
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 line with job requirements, and machine and tool manufacturer's instructions 2.3. Trial runs are conducted to check machine operation, accuracy and quality of finished work 2.4. Material machined during the trial run is accepted or rejected and disposed of in line with site procedures and environmental requirements 2.5. Necessary adjustments are made to machine settings
3. Operate machines	3.1. Pre start-up checks are carried out on equipment in line with site requirements 3.2. Machine is operated in line with manufacturer's instructions, safe handling procedures, standard workplace operating procedures and environmental protection requirements 3.3. Machine operation is monitored to ensure product quality and output 3.4. Material is safely stacked in a designated location in line with work order requirements 3.5. Waste quantities are checked and minimised and items that do not meet quality requirements repaired, recycled or discarded in line with site procedures and environmental requirements

ELEMENT**PERFORMANCE CRITERIA**

- 3.6. Fixed cutter heads are removed and replaced in line with site procedures
- 3.7. Straight cutters are jointed in line with site procedures
- 3.8. Machining outcomes and equipment faults or maintenance requirements are ***recorded and reported*** to the appropriate personnel

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to safely machine material, use and maintain relevant tools, machinery and equipment
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately locate, record and report information
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task and to calculate quantities of materials
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures, review and accurately identify work requirements

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for machining material
- Environmental protection requirements, including the safe disposal of waste material, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for machining material
- Environmental risks and hazards
- Characteristics of timber, timber products and defects
- Cutting patterns and sequences
- Blade, knife, drill and sanding belt condition assessment
- Industry standard cross-sections and lengths
- Storage systems and labelling

REQUIRED SKILLS AND KNOWLEDGE

- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

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.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently machine material within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to machining material
 - following organisational policies and procedures relevant to machining material
 - effectively communicating and following safe working practices
 - machining material in line with the work order and within prescribed organisational tolerances
 - conducting operator maintenance on sawing, planning, drilling and sanding equipment
 - stacking batches of machined material in line with organisational requirements and OHS regulations
- Context of and specific resources for assessment**
- Competency is to be assessed in the workplace or realistically simulated workplace
 - Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
 - Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
 - Assessment is to follow relevant regulatory or Australian Standards requirements
 - The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

EVIDENCE GUIDE

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

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.

RANGE STATEMENT

OHS requirements:

are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- manual handling including shifting, lifting and carrying

Environmental requirements
may include:

- legislation
- organisational policies and procedures
- workplace practices

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures

RANGE STATEMENT

- ethical standards
 - recording and reporting requirements
 - equipment use and maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Work order** is to include:
- instructions for the machining and despatch of timber and timber products from the work site
- and may include:
- type
 - size
 - length
 - angle
 - quantity
 - grade
 - instructions for the environmental monitoring of work and procedures
 - environmental care requirements relevant to the work
- Appropriate personnel** may include:
- supervisors
 - suppliers
 - clients
 - colleagues
 - managers
- Material** may include:
- native timber species
 - imported timber species
 - dressed timber
 - in-the-rough timber
 - stress and non-stress graded timber
 - preservative treated timber
 - medium density fibreboard
 - laminated veneer
 - chipboard
 - fibreboard and other manufactured board products
 - coated and/or treated timber products
 - beams or laminated beams
- Machining** is to include:
- sawing operations
 - planning operations

RANGE STATEMENT

- Storage locations** may include:
- drilling
 - sanding
 - storage racks
 - storage bays
 - bins
 - stacks
 - pallet boxes
 - modularised storage components
 - temporary stacking bays (stand, frame or ground)

and may be divided into:

- standard product classification
 - product designation
 - size
 - dimension
 - stack number
 - weight
 - grade
 - shelf life
 - stock rotation position
- Equipment** may include:
- measuring equipment
 - docking saws
 - bench saws
 - panel saws
 - bandsaws
 - panel planers
 - surface planers
 - drill presses
 - boring machines
 - edge sanders
 - profile sanders
 - panel sanders
 - stroke sanders

and is to include:

- procedures for lock-out, i.e. protecting operators and co-workers from accidental injury by isolating the machine from the power source
- Communication** may include:
- verbal and non-verbal language

RANGE STATEMENT

- constructive feedback
 - active listening
 - questioning to clarify and confirm understanding
 - use of positive, confident and cooperative language appropriate to individual social and cultural differences
 - control of tone of voice and body language
- Machine settings** may include:
- measurement
 - setting equipment to stops, fences, angles, depths, feeds or speeds
- Disposing of** may include:
- recycling rejected material machined during the trial run
 - re-using rejected material machined during the trial run
- Pre start-up checks** are conducted to ensure:
- equipment has been set-up correctly
 - blades, knives, drills or sanding belts are installed accurately
 - machinery is operating to optimum performance
- Output** is the speed or rate at which material is machined
- Stacking** may include:
- preparing for transport
 - categorising in common size, length and angle
 - marking lots in line with work order and site requirements
 - locating so as not to block access or passage
- Waste** may include:
- off-cuts
 - shavings
 - sawdust
 - dust
 - swarf
- Records and reports** may include:
- the machining method
 - product type
 - size
 - inspection
 - storage locations
 - quality outcomes
 - hazards
 - incidents or equipment malfunctions
- and may be:

RANGE STATEMENT

- manual
- using a computer-based system or another appropriate organisational system

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Timber Manufactured Products and Timber Merchandising