



**Australian Government**

# **FWPTMM2204 Machine material**

**Release: 1**

## FWPTMM2204 Machine material

### Modification History

| Release   | Comments                                                                              |
|-----------|---------------------------------------------------------------------------------------|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 5.0. |

### Application

This unit of competency describes the skills and knowledge required to set up and operate basic static machines used for sawing, planing, sanding and drilling. This includes identifying requirements in a work order, following workplace health and safety procedures, planning machining processes, setting up and operating static machines and performing routine machine maintenance.

The unit applies to individuals who operate basic static machines in a timber processing or manufacturing facility.

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

### Pre-requisite Unit

Nil

### Unit Sector

Timber Manufactured Products

Timber Merchandising

### Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                               |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                             |
| 1. Prepare for machining                         | 1.1 Review work order and check with appropriate personnel<br>1.2 Review workplace health and safety procedures, including the use of personal protective equipment, equipment lock-out and safe manual handling techniques<br>1.3 Identify, assess and take actions to mitigate risks and hazards |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                  | <p>associated with machining material</p> <p>1.4 Identify workplace environmental protection procedures for minimising and disposing of waste material, cleaning tools and equipment, and maximising energy efficiency</p> <p>1.5 Obtain type and quantity of material to be machined from storage location</p> <p>1.6 Select appropriate equipment, and check for operational effectiveness according to manufacturer recommendations</p> <p>1.7 Plan material machining process according to work order</p>                                     |
| 2. Set up machines                               | <p>2.1 Check safety equipment, including emergency stops, gauges, guards and controls</p> <p>2.2 Complete machine settings and adjustments according to job requirements and manufacturer instructions</p> <p>2.3 Complete trial runs to check machine operation and accuracy and quality of finished work</p> <p>2.4 Accept or reject trialled material, and reuse, recycle or dispose of according to workplace and environmental protection practices</p> <p>2.5 Adjust machine setting as necessary</p>                                       |
| 3. Operate machines                              | <p>3.1 Complete equipment pre-start-up checks according to workplace procedures</p> <p>3.2 Operate machine according to manufacturer instructions, safe operating procedures and environmental protection practices</p> <p>3.3 Monitor machine operation to ensure product quality and output</p> <p>3.4 Repair sub-quality items to minimise waste, and recycle or discard others according to workplace and environmental protection practices</p> <p>3.5 Stack material safely in designated location according to work order requirements</p> |
| 4. Complete operator maintenance                 | <p>4.1 Follow workplace safety procedures to lock out equipment</p> <p>4.2 Keep machine area clear of dust, off-cuts and debris according to safety and site requirements</p> <p>4.3 Inspect saw blade, knife, drill or sanding belt condition according to workplace and manufacturer guidelines</p> <p>4.4 Inform appropriate personnel of need to replace saw blade, knife, drill or sanding belt according to workplace and manufacturer</p>                                                                                                  |

| Elements                                         | Performance Criteria                                                                                                           |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                         |
|                                                  | procedures<br>4.5 Record and report machining outcomes, equipment faults and maintenance requirements to appropriate personnel |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill                      | Description                                                                                                                                                                      |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | <ul style="list-style-type: none"> <li>Interprets key requirements in workplace health and safety and environmental procedures for clearing sawn waste from work area</li> </ul> |
| Writing                    | <ul style="list-style-type: none"> <li>Completes basic written production reports and tally sheets</li> </ul>                                                                    |
| Oral communication         | <ul style="list-style-type: none"> <li>Responds to oral questions on routine matters related to output quality</li> </ul>                                                        |
| Numeracy                   | <ul style="list-style-type: none"> <li>Uses basic arithmetic skills to identify quantities of required material within work plans, and counts raw materials</li> </ul>           |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Follows workplace policies and procedures relevant to work role</li> </ul>                                                                |
| Interact with others       | <ul style="list-style-type: none"> <li>Participates in conversations to inform maintenance staff about equipment faults</li> </ul>                                               |
| Get the work done          | <ul style="list-style-type: none"> <li>Identifies and responds to routine problems</li> </ul>                                                                                    |

## Unit Mapping Information

| Code and title current version | Code and title previous version | Comments                                                                                                                                 | Equivalence status |
|--------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FWPTMM2204<br>Machine material | FWPTMM2202<br>Machine material  | Reworded application; revised performance criteria and evidence for mapping; updated foundation skills; minor edits/updates to knowledge | Equivalent unit    |

|  |  |          |  |
|--|--|----------|--|
|  |  | evidence |  |
|--|--|----------|--|

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: -  
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

## Assessment Requirements for FWPTMM2204 Machine material

### Modification History

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### Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion, safely set up and operated basic static machines for each of the following operations: sawing, planing, sanding and drilling; and has:

- followed work order and relevant workplace health and safety and environmental protection procedures
- set up machine
- performed sawing, planing, drilling and sanding operations on timbers and boards from one or more of the following in line with an individual work order:
  - 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
- completed operator maintenance on at least one occasion for each of the following types of machines:
  - sawing machine
  - planing machine
  - drilling machine
  - sanding machine.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- environmental protection practices for forest products factory settings:
  - reducing water and energy use
  - cleaning plant, tools and equipment
  - disposing of, recycling and reusing timber and other waste
- storage layout and categories for:
  - raw materials
  - stacking finished materials
- machining characteristics of timber and timber defects
- cutting patterns and sequences
- industry standard cross-sections and lengths
- types, purpose, features, set-up, operation and non-specialist repair and maintenance of basic static machines:
  - measuring equipment
  - docking saws
  - bench saws
  - panel saws
  - band saws
  - panel planers
  - surface planers
  - drill presses
  - boring machines
  - edge sanders
  - profile sanders
  - panel sanders
  - stroke sanders
- reasons, methods and timing of inspection of condition of saw blade, knife, drill and sanding belt
- workplace procedures specific to machining activities:
  - workplace health and safety, with particular emphasis on equipment lock-out
  - use and maintenance of equipment
  - communication reporting lines
  - recording and reporting cutting process and equipment faults.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:

- skills must be demonstrated in a forest and forest products factory setting or an environment that accurately reflects workplace conditions
- resources, equipment and materials:
  - machining tools: docking saws, bench saws, panel saws, band saws, panel planers, surface planers, drill presses, boring machines, edge sanders, profile sanders, panel sanders, stroke sanders
  - measuring equipment
  - maintenance tools and equipment
  - consumable components for replacement during operator maintenance
  - personal protective equipment suitable for machining activities
  - commercially available timbers and boards
  - template reports for recording processing and equipment faults
- specifications:
  - manufacturer instructions for use and maintenance of equipment
  - access to work order for machining activities, with specific instructions for the machining and storage of timber and timber products
  - access to written workplace procedures for machining activities.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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