



Australian Government

FWPWPP3218 Plan and coordinate machining of panels

Release: 1

FWPWPP3218 Plan and coordinate machining of panels

Modification History

Release	Comment
1	Replaces equivalent unit FPIWPP3218B Plan and coordinate machining of panels, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to manage operational logistics for panel machining activities which includes planning cutting patterns and schedules for operators.

The unit applies to production operators and technicians who plan and coordinate machining of panels in a forest and wood products factory and also involves monitoring and evaluating processes and problems to determine and recommend improvements.

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

Pre-requisite Unit

Nil

Unit Sector

Wood Panel Products

Elements and Performance Criteria

<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Plan machining operations	1.1 Interpret production orders and plan production of panel types and sizes. 1.2 Develop panel machining schedules to ensure optimum production outcomes. 1.3 Plan and document cutting patterns to maximise output and

	minimise wastage. 1.4 Communicate all information to operators in line with organisational procedures
2. Coordinate panel cutting operations	2.1 Identify and record variations in panel condition and report to operators. 2.2 Assist operators to resolve machining problems. 2.3 Monitor panel cutting processes; assess effectiveness of cutting pattern and ability to maintain schedule. 2.4 Modify cutting patterns and schedules to ensure optimum performance and communicate changes to operators. 2.5 Ensure machined panels are directed to designated area for storage or transferred for further processing. 2.6 Direct processes for rejecting and disposing of sub-standard machined panels and off-cuts in line with organisational safety procedures and environmental protection practices. 2.7 Complete and maintain operating logs and cutting records in line with organisational procedures. 2.8 Investigate and record major processing and equipment faults and resolve or report to appropriate personnel.
3. Evaluate machining performance	3.1 Monitor and evaluate panel cutting operations and output to determine process improvements. 3.2 Analyse systematic problems with equipment and panel quality for potential to improve machining processes. 3.3 Document recommended process improvements and communicate to appropriate personnel in line with organisational procedures.

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	- complete calculations to determine: - panel amounts required to satisfy production orders - optimum volume return from panels - machining schedules considering human and equipment resource capacity. - complete routine production records involving dimensions, panel profiles and quantities tallied against work orders.
---------------------	---

	analyse machining process data to measure performance of cutting operations.
Oral communication skills to:	- provide clear and unambiguous information to operators about: - initial and changing cutting patterns and schedules - requirements to dispose of sub-standard panels and off-cuts.
Reading skills to:	interpret production orders.
Writing skills to:	- develop documents in a style and format easily understood by others: - cutting patterns and schedules - reports on systematic issues with machining processes, potential process improvements including rationale for recommendations - complete accurate basic records of cutting output and equipment faults.
Planning and organising skills to:	- source, collect and organise data to inform cutting schedules and process improvement reports - efficiently and logically manage operational logistics for machining activities.
Problem-solving skills to:	- assess machining processes during operation and take quick action to modify schedules to resolve output problems - investigate equipment faults, consider systematic issues and resolve - analyse production problems, consider various solutions and determine process improvements.
Teamwork skills to:	take responsibility for coordinating a team of operators for effective machining operations.
Technology skills to:	- monitor and evaluate the operational effectiveness of machining equipment - use a computer, keyboard and software to prepare cutting patterns, machining schedules, and reports.

Range of Conditions

Not Applicable

Unit Mapping Information

FPIWPP3218B Plan and coordinate machining of panels

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPWPP3218 Plan and coordinate machining of panels

Modification History

Release	Comment
1	Replaces equivalent unit FPIWPP3218B Plan and coordinate machining of panels, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- plan and coordinate panel machining operations for production jobs in line with different production orders for each job
- determine, document and communicate cutting patterns and schedules for each of the above jobs
- assess panel output during machining operations for:
 - size
 - volume recovery
 - quality finish
 - dimensional consistency
- monitor, assess and modify schedules in response to changing circumstances within each of the above production jobs
- complete operating logs and cutting records for each of the above production jobs
- complete a detailed report about systematic issues arising across the jobs covering problems with processes, equipment and panels including recommendations for process improvements.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- environmental protection practices for machining panels:

- reducing water and energy use
- disposing of, recycling and reusing timber and other waste
- operational capacity of panel machining equipment
- stages of the panel machining process
- typical flow of panel supply in and out of the machining area
- range of cutting patterns used on panels to achieve maximum output
- methods of determining cutting schedules to maximise:
 - equipment and labour use
 - volume return from panels
 - efficient handling of panels to be machined
- typical timber panel defects and how they affect ability to produce quality machined panels:
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- methods used to:
 - assess panel cutting processes for quality of outcomes
 - diagnose and analyse systematic problems with equipment and panels
- format, content and use of:
 - cutting pattern documents
 - cutting schedules
 - operating logs and cutting records
 - process improvement reports
- organisational procedures specific to planning and coordinating panel machining operations:
 - communication reporting lines for operator team members and self
 - documenting cutting patterns, schedules and reports
 - recording and reporting systematic equipment faults.
 -

Assessment Conditions

The following resources must be made available:

- computers, keyboards, printers and software used to prepare planning and production documents
- machining production line with a continuous conveyor belt system
- saws which must include at least one of the following:

- manually controlled docking and trimming saws
- band saws
- bench saws
- panel saws
- saws with adjustable angle
- saws with one or multiple blades
- table saws
- personal protective equipment suitable for coordinating machining production lines
- panels of various dimensions which must include one or more of the following:
 - laminated
 - veneered
 - plywood
 - chipboard
 - fibreboard
 - medium density fibreboard
- templates for:
 - cutting pattern documents
 - cutting schedules
 - operating logs and cutting records
 - process improvement reports
 - records for equipment faults
- production order for panels with specific instructions for sizes, shapes or profiles
- organisational procedures for planning and coordinating panel machining operations
- a team of operators with whom the individual can interact.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting. Machining operations must be present in order that the individual can monitor, assess and modify schedules in response to changing circumstances.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

