



Australian Government

FWPTMM3202 Manufacture using joinery machines

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPITMM3202B Manufacture using joinery machines, 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 prepare, cut and drill machined joints in timber using mortise and tenon machines, borers and routers. Work includes non-specialist equipment maintenance and is completed in a forest and wood products factory setting.

The unit applies to Machine Operator, Timber Manufactured Products Technician, Engineered Timber Products Technician.

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

<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>
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1. Prepare for profiling	1.1 Review work order and where required check with appropriate personnel. 1.2 Obtain type and quantity of material to be machined from storage location. 1.3 Select appropriate equipment and check for operational effectiveness in line with manufacturer's recommendations. 1.4 Identify process and material to be manufactured; select cutting blades or drills.
2. Set up profiling equipment	2.1 Complete equipment pre start-up checks in line with organisational procedures. 2.2 Select machine guides and attach to machinery. 2.3 Install cutting blades or drills into selected machinery. 2.4 Set depth and width of cut or hole in line with required process and to minimise waste. 2.5 Position material stack in close proximity to maximise ease of machine feeding. 2.6 Test equipment set-up for depth and width through trial run on timber and adjust as required.
3. Cut material to profile	3.1 Feed material into machine at feed rate prescribed by organisational requirements. 3.2 Use equipment and machinery in line with organisational procedures, manufacturer's instructions and environmental protection practices. 3.3 Follow, maintain and adjust manufacturing sequence to produce required quantity and maximise feed rate. 3.4 Check manufacturing process regularly and adjust to maintain desired depth and width. 3.5 Reject material with defects and dispose of in line with environmental protection practices. 3.6 Stack material safely in designated location in line with work order requirements. 3.7 Report equipment faults to appropriate personnel. 3.8 Complete and maintain accurate records and reports of machining outcomes in line with organisational procedures.

4. Complete operator maintenance	4.1 Follow organisational safety procedures to lock-out equipment. 4.2 Check cutting blades and drills for bluntness or damage. 4.3 Remove and replace cutting blades and drills in line with manufacturer's recommendations. 4.4 Dispose of used blades and drills in line with organisational procedures and environmental protection practices. 4.5 Keep machine area clear of dust and debris in line with WHS and site requirements.
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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:	- identify quantities of required material within work plans and count raw materials - interpret order sizes and set up machinery to achieve correct depth and width of cut or hole - calculate the feed rate to optimise quality and quantity of production output.
Oral communication skills to:	- ask questions and actively listen to clarify contents of work orders - make accurate verbal reports on equipment faults.
Reading skills to:	- interpret detailed familiar and unfamiliar: - WHS and other organisational procedures - work orders - manufacturers' instructions and maintenance recommendations.
Writing skills to:	complete accurate basic reports on machining outcomes.
Planning and organising skills to:	efficiently and logically sequence the stages of preparation and production using work order to guide activities.
Problem-solving skills to:	- identify incorrect depths and widths through trial and make machine adjustments - identify and dispose of defected materials - recognise faulty equipment and resolve by reporting or rectifying.
Technology skills to:	select, use and maintain appropriate machinery, tools and personal protective equipment used for machining activities.

Range of Conditions

Not Applicable

Unit Mapping Information

FPITMM3202B Manufacture using joinery machines

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 FWPTMM3202 Manufacture using joinery machines

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1	Replaces equivalent unit FPITMM3202B Manufacture using joinery machines, 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:

- follow organisational policies and procedures relevant to manufacturing material using joinery machines
- cut and drill machined joints in line with the work order and within prescribed organizational specifications, including these processes:
 - drilling
 - boring
 - mortising
 - tenoning
 - trenching
 - grooving
 - rebating
 - beveling
 - routing
- stack batches of cut material in line with organizational requirements
- conduct operator maintenance on joinery machine equipment

Knowledge Evidence

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

- features and uses of these types of machined joints:
 - grooves
 - rebates
 - bevels
 - trenches
 - mortises
 - tenons
 - holes
- cutting and drilling techniques and processes including feed rates and finish
- types of cutting and drilling tools and equipment; their purpose, features, operation and basic non-specialist repair and maintenance:
 - measuring equipment
 - saws
 - routing machines
 - single or double end tenoners
 - mortisers
 - borers
 - multi-borers
 - drill presses
 - mortising chisels
 - tenoning saws or chains
- environmental protection practices for forest products factory settings:
 - reducing water and energy use
 - cleaning of plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- organisational procedures specific to production activities using joinery machines:
 - 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

The following resources must be made available:

- cutting and drilling tools and equipment:
 - measuring equipment
 - saws

- routing machines
- single or double end tenoners
- mortisers
- borers
- multi-borers
- drill presses
- cutting blades and drills:
 - square and angular router cutting bits
 - drills in varying sizes
 - mortising chisels
 - tenoning saws and chains
 - trenching heads
- maintenance tools and equipment for cutting and drilling tools
- consumable components; cutting blades and drills
- personal protective equipment suitable for cutting and drilling activities
- a diverse, comprehensive and commercial product range of timber
- manufacturers' instructions for use and maintenance of equipment
- work order for production activities with specific instructions for the cutting, drilling and storage of timber and timber products
- template reports for recording processing and equipment faults
- relevant personnel for the purposes of communicating information
- organisational procedures for production activities using joinery machines.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

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.

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