



Australian Government

FWPTMM5205 Optimise CNC operations

Release: 2

FWPTMM5205 Optimise CNC operations

Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 4.0.
Release 1	This version replaces equivalent unit FPITMM5201B Assess product feasibility of designs, 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 skills and knowledge required to optimise the overall performance of computer numerical control (CNC) sizing machines and CNC machining and processing centres, to maximise production output in a timber manufacturing facility.

The unit applies to individuals who work as managers or supervisors in timber manufacturing facilities. They generally demonstrate autonomy, judgement and limited responsibility in known or changing contexts and within established parameters.

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. Establish optimal	1.1 Review workplace health and safety requirements and emergency

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operating conditions	procedures, identify and report hazards and use personal protective equipment according to workplace requirements throughout the optimisation process 1.2 Assess production potential of system components 1.3 Analyse production orders and plans to identify sustained production requirements 1.4 Identify and analyse integration options to establish optimal integration model 1.5 Assess and record software and programming requirements to attain and maintain optimal integration
2. Prepare for software installation	2.1 Diagnose program format and operational purpose and identify specified applications 2.2 Check specifications for intended operating conditions 2.3 Check program instructions for compliance with specifications 2.4 Counter set software timers to specification
3. Install and integrate automatic process machine control programs	3.1 Select appropriate program loading technique 3.2 Connect external loading devices correctly to automatic process machine control system 3.3 Place machine control system in a correct operational mode to accept program loading 3.4 Download program according to manufacturer recommended procedure 3.5 Check during and after downloading to ensure accurate and complete data transfer 3.6 Disconnect external program loading devices and connections from process and machine control system 3.7 Complete integration protocols and actions
4. Commission automatic process and machine control program	4.1 Monitor operation of equipment using the program for accuracy and safe performance 4.2 Measure and check outputs for compliance with specifications and ensure maximum output 4.3 Check external inputs for compliance with specifications 4.4 Check total operation for compliance with specifications and

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	resolve any issues 4.5 Identify location for storage of program master copy and store accordingly 4.6 Record installation and commissioning process and problems and report 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	Interpret detailed and sometimes unfamiliar instructions for installing CNC software and commissioning machinery
Numeracy	Interpret sizing specifications for machines, and monitor the operation of commissioned machines to ensure accurate calibration
Navigate the world of work	Understand main tasks, responsibilities and boundaries of own role
Interact with others	Use modes of communication suitable for the purpose to confirm and clarify understanding
Get the work done	- Use computerised operating controls for CNC machines to monitor accurate and safe performance - Recognise and respond to routine problems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPTMM5205 Optimise CNC operations	FWPTMM5205 Optimise CNC operations	Updated workplace health and safety requirements and foundation skills;	Equivalent unit

Release 2	Release 1	clarified the intent of unit and assessment requirements.	
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Links

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