



Australian Government

FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations

Release: 1

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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 calibrate, adjust and test different forms of scanning equipment used in sawmilling operations, including optical (1–3 dimension), X-ray, microwave, multispectral and acoustic scanning equipment. It includes working safely, identifying the capability of scanning equipment in detecting timber characteristics and defects, following calibration procedures, and reporting on calibration outcomes.

The unit applies to individuals who calibrate different forms of scanning equipment used in sawmilling operations.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

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

Pre-requisite Unit

Nil

Unit Sector

Common Technical (COT)

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 to calibrate	1.1 Review work order to determine job requirements and, where

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scanning equipment	required, seek clarification from appropriate personnel 1.2 Review workplace health and safety procedures, including the use of personal protective equipment, equipment lock-out and safe manual handling techniques 1.3 Identify, assess and take actions to mitigate risks and hazards associated with working with scanning equipment 1.4 Identify and implement workplace procedures for minimising waste material and maximising energy efficiency 1.5 Obtain tools, equipment and testing devices needed for the work, and check for correct operation and safety
2. Calibrate scanning equipment	2.1 Identify capability and resolution of scanning equipment in detecting timber characteristics and defects 2.2 Identify calibration procedures and calibration points for scanning equipment 2.3 Identify and take into account factors that may impact on the accuracy of scanning equipment during the calibration process 2.4 Test and adjust scanning equipment as necessary to ensure equipment meets calibration requirements 2.5 Carry out calibration of scanning equipment efficiently without waste of materials or damage to apparatus, the surrounding environment or services, and using sustainable energy principles
3. Verify calibration outcome	3.1 Conduct a test for a benchmark object (the standard) to confirm accuracy and desired outcome from the process 3.2 Repeat calibration procedure if accuracy is not achieved 3.3 Record all calibration data accurately according to workplace and manufacturer requirements
4. Complete calibration activities	4.1 Document calibration status and report out-of-calibration scanning equipment 4.2 Lock out calibration scanning equipment according to workplace and safety requirements 4.3 Perform routine maintenance of scanning equipment according to workplace and manufacturer instructions 4.4 Clean work area according to workplace and safety requirements

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	Extracts key information from operational manuals to determine software parameters of scanning equipment
Writing	Prepares routine written reports using required format, language and structure
Oral communication	Employs active listening and questioning to clarify content of work orders
Numeracy	- Uses standard measures to record calibration outcomes - Interprets graphical and statistical data used in calibration process
Navigate the world of work	Understands main tasks, responsibilities and boundaries of own role
Interact with others	Uses modes of communication suitable to purpose to confirm and clarify understanding
Get the work done	Recognises and responds to routine problems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations	Not applicable	New unit	No equivalent unit

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 FWPCOT3292 Calibrate and maintain scanning equipment used in sawmilling operations

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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, accurately calibrated scanning equipment used in sawmilling operations and has:

- followed work order and relevant workplace health and safety and environmental protection procedures
- reviewed work order to determine job requirements
- used personal protective equipment (PPE), lock-out procedures and safe manual handling techniques
- identified, assessed and taken actions to mitigate risks and hazards associated with working with scanning equipment
- calibrated one or more of the following types of scanning equipment:
 - optical (1–3 dimension)
 - X-ray
 - microwave
 - multispectral
 - acoustic
- tested the calibration accuracy
- performed routine maintenance of scanning equipment
- recorded all calibration data accurately according to workplace and manufacturer requirements.

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:

- types of risk and hazards and mitigation measures associated with operating and calibrating scanning equipment

- types of scanning equipment:
 - optical (1–3 dimension)
 - X-ray
 - microwave
 - multispectral
 - acoustic
- methods for determining capability and resolution of different scanning equipment in detecting timber characteristics and defects, including:
 - thickness
 - shape
 - wane
 - knots
 - decay
 - foreign objects
 - heartwood
 - log stiffness
 - grain angle
 - colour check
 - stain
- calibration procedures and calibration points for scanning equipment
- function of key components of scanning equipment, operating principles, details of the pre-use, calibration and safety checks, and operating procedures for the items used
- factors that may impact on the accuracy of scanning equipment and their control
- role and importance of regular calibration checks and maintenance of equipment
- methods for testing calibration using a benchmark object (the standard)
- methods and frequency used to perform the checks and calibrations
- awareness of environmental sustainability issues as they relate to the work task
- legal, ethical and work health and safety requirements specific to the work task
- procedures for quarantining out-of-calibration equipment.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a forest product factory setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - scanning equipment used in sawmill operations including one or more of the following: optical (1–3 dimension), X-ray, microwave, multispectral, acoustic scanning equipment
 - tools, equipment and testing devices used in calibrating scanning equipment

- PPE for operating and calibrating scanning equipment
- specifications:
 - template documents for recording calibration outcomes
 - manufacturer instructions for calibration of scanning equipment
 - work order with specific instructions for calibration of scanning equipment
 - workplace procedures for calibration of scanning equipment.

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

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