Modification history

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| Release | Comments |
| Release 2 | This version released with FWP Forest and Wood Products Training Package Version 4.0.Version created to update workplace health and safety requirements and foundation skills and clarify intent of unit and assessment requirements. |
| Release 1 | This version replaces equivalent FPICOT3234B Cut material using CNC sizing 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. |

| UNIT CODE | FWPCOT3234 Cut material using CNC sizing machines |
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| Application | This unit of competency describes the skills and knowledge required to set up and operate computer numerically controlled (CNC) sizing machines to process engineered wood products and timber components in a manufacturing facility. Work also involves operator maintenance.The unit applies to individuals who work as production workers, engineered timber products technicians, machine operators or timber fabricators. Operators generally work under broad or limited direction to complete routine activities related to own work and take responsibility for their work.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, regulatory, or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Common Technical |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare for cutting engineered wood product or timber | 1.1 Review work order, specifications, workplace health and safety requirements, environmental protection practices and emergency procedures for CNC cutting operations and where required check with appropriate personnel1.2 Follow workplace health and safety requirements, environmental protection practices and emergency procedures and use personal protective equipment (PPE) in line with operational requirements throughout CNC cutting operations1.3 Identify and report hazards and use personal protective equipment (PPE) in line with workplace requirements and health and safety legislation to maintain safe work practices1.3 Obtain type and quantity of material to be cut from storage location |
| 2. Set up CNC sizing machine | 2.1 Set CNC optimising program to meet work specifications2.2 Check cutting machine mechanisms, emergency stops, gauges, guards and controls for safe and effective operation2.3 Adjust cutting machine settings in line with work specifications2.4 Complete trial run to check system and machine operation for accuracy, quality and dimensions of finished work2.5 Accept or reject trialled material and dispose of in line with environmental protection practices2.6 Complete final adjustments to CNC optimising program and equipment |
| 3. Operate CNC sizing machine | 3.1 Use equipment in line with workplace health and safety procedures, manufacturer instructions, operating capacity and purpose and environmental protection practices3.2 Feed engineered wood product or timber into machine, operate cutting equipment in line with tooling requirements and monitor regularly to minimise waste and ensure correct dimensions are produced3.3 Repair or dispose of incorrect cuts, off-cuts and material with defects in line with environmental protection practices3.4 Identify routine processing problems and resolve or report to appropriate personnel |
| 4. Complete operator maintenance | 4.1 Lock out equipment in line with workplace health and safety procedures 4.2 Check blades for bluntness or damage4.3 Remove and replace blades in line with manufacturer recommendations4.4 Dispose of used blades in line with environmental protection practices4.5 Keep machine clear of dust and debris in line with organisational safety procedures4.6 Record and report production outcomes, equipment faults and maintenance requirements to appropriate personnel |

| Foundation SkillsThis 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. |
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| Skill | Description |
| Numeracy  | * identify quantities of required material within work orders and count and count numbers to be cut
* set numerical data on CNC optimising program according to sizing specifications
* calculate the feed rate to optimise quality and quantity of production output
* measure finished dimensions against specifications and allowable tolerances
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| Navigate the world of work | * understand main tasks, responsibilities and boundaries of own role
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| Interact with others | * use modes of communication suitable to purpose to confirm and clarify understanding
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| Get the work done | * recognise and respond to routine problems
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| Unit Mapping Information |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPCOT3234 Cut material using CNC sizing machines | FWPCOT3234 Cut material using CNC sizing machines | Updated workplace health and safety requirements and foundation skills; and clarified intent of unit and assessment requirements | Equivalent unit  |

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

| TITLE | Assessment requirements for FWPCOT3234 Cut material using CNC sizing machines |
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| Performance Evidence |
| An individual demonstrating competency must satisfy all of the elements, performance criteria and foundation skills of this unit. There must be evidence that, on at least one occasion, the individual has:* followed organisational workplace health and safety requirements and environmental protection procedures for cutting engineered wood product or timber using CNC sizing machines
* cut engineered wood product or timber using CNC sizing equipment in line with a work order and within prescribed organisational tolerances and according to manufacturer recommendations
* set computer programs for the CNC sizing equipment in line with work specifications
* conducted operator maintenance on CNC equipment.
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| Knowledge Evidence |
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| 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:* health and safety hazards or risks related to operating CNC sizing machines for cutting engineered wood products or timber as identified through risk assessments, manufacturer technical information, regulations and industry health and safety guides
* workplace policies and procedures specific to cutting material using CNC sizing machines:
* health and safety with particular emphasis on equipment lock out and use of personal protective equipment
* use of CNC equipment
* communication reporting lines
* recording and reporting production outcomes, equipment faults and maintenance requirements
* environmental protection practices for manufacturing facilities:
* reducing water and energy use
* cleaning plant, tools and equipment
* disposing of, recycling and reusing timber and other waste
* range of cutting patterns used with CNC sizing machines to achieve accurate dimensions and quality of finished product
* characteristics of timber, timber products and timber defects
* system functions and capabilities of CNC software for sizing machines including cutting patterns and sequences
* purpose, features and operation of CNC sizing machines:
* CNC beam saws
* CNC double end profiling machines
* methods for assessing saw blade condition.
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| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:* physical conditions:
* skills must be demonstrated in an environment that accurately represents workplace conditions
* resources, equipment and materials:
* CNC sizing machine
* computer program for sizing machines
* maintenance tools and equipment for sizing machines
* consumable saw blades
* personal protective equipment suitable for cutting material using CNC sizing machines
* suitable material including one or more of the following commercial timber:
* beams, including laminated beams
* cross laminated timber
* laminated veneer
* chipboard
* medium density fibreboard
* dressed timber
* preservative treated timber
* specifications:
* manufacturer instructions for use and maintenance of equipment
* work order with specific instructions for cutting material using CNC sizing machines
* workplace policies and procedures for cutting material using CNC sizing machines including health and safety and emergency procedures and environmental protection procedures
* template documents for recording production outcomes, equipment faults and maintenance requirements.

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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