



Australian Government

**FWPTMM5203 Generate and transfer
complex computer-aided drawings and
specifications**

Release: 2

FWPTMM5203 Generate and transfer complex computer-aided drawings and specifications

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 FPITMM5203B Generate and transfer complex computer-aided drawings and specifications, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. |

Application

This unit of competency describes the skills and knowledge required to prepare complex drawings using computer-aided techniques and capabilities including three-dimensional (3-D) modelling and exploded assembly drawings. Work involves the conversion of drawings for computer numerical control (CNC) applications in an engineered wood or timber product manufacturing facility.

The unit applies to individuals who work as timber product designers and production managers. They generally demonstrate autonomy, judgement and defined responsibility in known or changing contexts and within broad but 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. Prepare for drawing | 1.1 Identify type of drawings to be created with computer-aided design (CAD) systems and clarify where required with appropriate personnel 1.2 Select appropriate equipment and check for operational effectiveness according to manufacturer recommendations 1.3 Plan CAD process according to workplace procedures |
| 2. Create exploded assembly drawings | 2.1 Obtain and complete drawing preparations 2.2 Prepare 3-D models for all components 2.3 Create a perspective view of the model according to drawing specifications 2.4 Explode model, so all components are visible 2.5 Label all individual components according to workplace format 2.6 Complete quality checks to ensure the accuracy of outcomes 2.7 Store drawings according to workplace procedures |
| 3. Create job sheets | 3.1 Select and complete job sheet preparations 3.2 Set up job sheet template according to workplace formats 3.3 Create orthographic views and incorporate dimensions 3.4 Specify sequencing of machine operations and operator requirements 3.5 Prepare, review and test draft job sheets and amend as required 3.6 Store job sheets according to workplace procedures |
| 4. Convert drawings for CNC applications | 4.1 Identify and check conversion requirements from CNC machine specifications 4.2 Create layers and obtain additional information required for final conversion 4.3 Assign drawing entities to relevant layers 4.4 Convert drawings to the required file type 4.5 Store converted file according to workplace procedures 4.6 Record generation process and any equipment faults 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 | <ul style="list-style-type: none"> Interpret detailed familiar and unfamiliar: <ul style="list-style-type: none"> workplace procedures for computer drawing activities templates CNC machine specifications |
| Writing | <ul style="list-style-type: none"> Incorporate unambiguous notes, labels and instructions within drawings |
| Numeracy | <ul style="list-style-type: none"> Calculate dimensions for product components and represent these in drawings |
| Navigate the world of work | <ul style="list-style-type: none"> Understand main tasks, responsibilities and boundaries of own role |
| Interact with others | <ul style="list-style-type: none"> Use modes of communication suitable for the purpose to confirm and clarify understanding |
| Get the work done | <ul style="list-style-type: none"> Use a computer, keyboard and the system capabilities of CAD system software to generate and transfer complex drawings Recognise and respond to routine problems |

Unit Mapping Information

| Code and title current version | Code and title previous version | Comments | Equivalence status |
|---|---|---|--------------------|
| FWPTMM5203 Generate and transfer complex computer-aided drawings and specifications Release 2 | FWPTMM5203 Generate and transfer complex computer-aided drawings and specifications Release 1 | Clarified intent of unit in application; updated foundation skills. | 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>

