



**Australian Government**

# **FWPTMM3209 Install prefabricated timber building systems on-site**

**Release: 1**

# FWPTMM3209 Install prefabricated timber building systems on-site

## Modification History

| Release   | Comments                                                                              |
|-----------|---------------------------------------------------------------------------------------|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 4.0. |

## Application

This unit of competency describes the skills and knowledge required to position and connect panelised or modular prefabricated timber building systems safely and correctly during on-site installation.

The unit applies to individuals who work in the occupational area of installing prefabricated timber building structures. These include construction workers, carpenters or joiners and site supervisors. They generally work under broad or limited direction to complete routine activities related to their own work, and take responsibility for their work.

In order to undertake this unit, individuals must have a relevant trade qualification or equivalent.

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 occupational licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Nil

## Unit Sector

Timber Manufactured Products

## 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> |

| 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. Apply workplace health and safety during on-site installation             | <p>1.1 Obtain all workplace health and safety information to ensure that activities are performed safely</p> <p>1.2 Identify workplace and task-specific hazards and report accidents, incidents or near misses during on-site installation according to workplace health and safety requirements to maintain a safe workplace</p> <p>1.3 Identify and use required risk-control and safety measures and equipment according to workplace health and safety requirements</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 2. Plan and prepare for installation work                                    | <p>2.1 Obtain and review relevant workplace information, including task instructions, drawings, design specifications, schedules and manufacturer information, and seek clarification if necessary</p> <p>2.2 Confirm installation timeframe and sequence with relevant stakeholders or personnel to meet design specifications and on-site work schedules</p> <p>2.3 Review drawings and design specifications to identify the type, location and quantity requirements for fixings, connections and bracing</p> <p>2.4 Check building structure, slab or floor area and report non-conformance as per workplace processes</p> <p>2.5 Select tools, auxiliary materials and equipment for the installation of prefabricated timber building systems as required, and set up equipment to meet safe work requirements</p> <p>2.6 Obtain information needed to ensure that the inspection, use, maintenance and storage of equipment comply with manufacturer directions</p> <p>2.7 Maintain appropriate ongoing communications and briefings with key stakeholders, including feedback and timeline reviews, for the duration of the installation</p> |
| 3. Check prefabricated timber building systems logistics and storage on-site | <p>3.1 Ensure prefabricated timber building systems are delivered on-site in-line with the phase of the construction project and installation</p> <p>3.2 Ensure there is no risk of damage by weather (moisture), traffic or general construction to prefabricated timber building systems and that they are stored as close as practically possible to the construction site when storage is required</p> <p>3.3 Check prefabricated timber building systems, connections and support points for quantity, quality, tolerance compliance and conformance and damage upon delivery, and report issues to the</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                  | appropriate personnel or according to operational requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. Install prefabricated timber building systems | <p>4.1 Use tools and equipment safely and correctly according to operational requirements and manufacturer specifications to measure, mark out, level, finish and secure prefabricated timber building systems according to specifications</p> <p>4.2 Assist crane or dogger operators to lift prefabricated timber building systems in the sequential order and apply accurate placement and connection techniques to the required tolerances and specifications</p> <p>4.3 Check corners and walls to ensure they are accurately levelled, plumbed and squared according to specifications and operational requirements</p> <p>4.4 Check prefabricated timber building systems after installation against critical performance metrics and apply sealants as required to ensure compliance with fire, waterproofing and acoustic requirements and with design specifications</p> <p>4.5 Protect prefabricated timber building systems from damage and adverse weather conditions during the installation work and other worksite activities</p> |
| 5. Complete installation                         | <p>5.1 Complete installation within the required timeframe and according to on-site work schedules</p> <p>5.2 Maintain and store hand and power tools, equipment and machinery according to operational requirements</p> <p>5.3 Keep work area and access areas free of debris and waste material according to operational requirements</p> <p>5.4 Record any quality checks and changes or variations applied to a prefabricated timber system during the on-site installation work, according to operational requirements and communicate the process</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 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 |
|-------|-------------|
|-------|-------------|

| Skill                      | Description                                                                                                                                                                                                                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Navigate the world of work | <ul style="list-style-type: none"><li>Take responsibility for decisions made to meet design specifications and installation, storage and worksite requirements</li></ul>                                                                                                                                      |
| Interact with others       | <ul style="list-style-type: none"><li>Understand what to communicate, with whom and how in routine work situations</li><li>Provide relevant information to others as required</li></ul>                                                                                                                       |
| Get the work done          | <ul style="list-style-type: none"><li>Take responsibility for planning and organising own workload</li><li>Assess effectiveness regarding how well the work was achieved and how closely the process followed the original plan and timeframes</li><li>Consider how to link with the work of others</li></ul> |

## Unit Mapping Information

| Code and title current version                                      | Code and title previous version | Comments | Equivalence status |
|---------------------------------------------------------------------|---------------------------------|----------|--------------------|
| FWPTMM3209<br>Install prefabricated timber building systems on-site | 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 FWPTMM3209 Install prefabricated timber building systems on-site

### Modification History

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### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit. There must be evidence that, on at least three occasions, the individual has installed prefabricated timber building systems on-site, for two or more panelised or modular prefabricated timber building system types, including:

- cross-laminated timber floor and wall systems
- post and beam systems (Glulam, laminated veneer lumber)
- panelised floor cassette systems
- panelised wall systems (including cladding, insulation, windows or doors)
- panelised and pre-finished wall systems (inclining above, electrical, mechanical, plumbing or lining)
- pre-finished and fully finished timber-based modules.

In doing the above, the individual has:

- complied with health and safety requirements and regulations applicable to workplace operations
- identified design requirements and installation sequence of prefabricated timber building systems
- identified and selected correct fittings, connections, tie-downs and braces for the installation of prefabricated timber building systems
- checked suitability of building structure, slab or floor area for the installation of prefabricated timber building systems
- applied workplace quality procedures and processes in the context of installing prefabricated timber building systems
- selected and used processes, tools and equipment for measuring, marking out, levelling and securing prefabricated timber building systems into place
- placed prefabricated timber building system safely, efficiently and to required tolerances and installed connectors to required specifications
- checked that walls and corners are accurately levelled, plumbed and square
- identified typical faults and problems and rectified faults
- communicated efficiently with others, exchanging feedback and timeline reviews.

## 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:

- relevant current health and safety legislative obligations and workplace procedures as described in industry health and safety guides and site workplace health and safety plans
- hazards associated with the construction work and as identified through safe work method statements (SWMS), risk assessments, manufacturer technical information, regulations and industry health and safety guides, including but not limited to:
  - building systems and components
  - methods of work
  - waste material
  - risk of fire
  - power lines
  - cabling and plumbing
  - drains covered correctly
  - access and egress
- safety measures and equipment:
  - fire prevention and emergency procedures
  - evacuation procedure
  - signs and barricades
  - personal protective equipment (PPE)
  - fall prevention and fall arrest equipment
  - other methods for reducing the risk from fire and other hazards on a construction site as defined in the National Construction Code and site safety plan
- types of task-specific documents, their source, information included and how they are read and interpreted with reference to:
  - drawings
  - design specifications
  - on-site workflow, schedules and targets
  - method statements
  - risk assessments
  - progress charts and timetables
  - manufacturer information
  - product certifications
  - building regulations
- basic design and offsite manufacture processes for prefabricated timber building systems for recognising problems that arise from missing information, damaged or faulty prefabricated timber building systems and understanding methods to resolve them
- installation design specifications for different prefabricated timber building systems with reference to:
  - installation sequence

- lifting equipment, support connections and techniques
- bracing techniques
- technical properties and specific requirements of materials, elements, components, insulations and connections
- mechanical fixings, tie-downs and braces, connection strengths and installation tolerances
- building checks before prefabricated timber building system installation and the importance of checking
- testing and checking of prefabricated timber building systems for quality assurance:
  - required tests for different prefabricated timber building system and methods to undertake them
  - test sampling and frequency of testing within a managed process
- specialised tools and equipment for installation and fixing of different prefabricated timber building systems and methods of operation
- methods for measuring and calculating the quantity, length, area, centre of gravity and mass of different prefabricated timber building systems for lifting and installation operations
- techniques for accurate placement of prefabricated timber building systems before the full installation
- problems or faults related to prefabricated timber systems, including materials, components, connections or insulations that arise from on-site installation and impact on structural, fire and acoustic performance of the system
- critical performance metrics used in the on-site installation operations of prefabricated timber building systems regarding quality, cycle time, productivity and inventory
- methods for reporting:
  - circumstances that affect the work cycle time
  - quality checks
  - product changes or variations during installation
- maintenance and servicing requirements for tools and equipment as outlined in workplace procedures or manufacturer manual
- waste management procedures regarding safe disposal and recycling.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a construction site or environment that accurately represents workplace conditions
- resources, equipment and materials:
  - specialised tools and equipment for installation and fixing of prefabricated timber building systems
  - prefabricated timber building systems, components, sections and fittings

- PPE, signs and barricades, fall prevention and fall arrest equipment used in building construction operations
- specifications:
  - access to workplace health and safety policies, SWMS, emergency procedures, fire safety plans, drawings, design specifications, on-site workflow, schedules and targets, work method statements, risk assessments, manufacturer information and operating instructions for specialised tools and equipment, product certifications and building regulations
- relationships:
  - team member(s) including licenced crane operator and licenced dogger to lift prefabricated timber building systems
- timeframes:
  - according to time specified in job sheet.

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

## Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>