



Australian Government

FWPCOT3309 Assemble timber roof trusses

Release: 1

FWPCOT3309 Assemble timber roof trusses

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to plan, set up and assemble timber roof trusses using a truss jig or computer-operated truss table. It includes the operation and control of a truss press.

The unit applies to truss fabricators, truss press operators, timber manufactured products technicians, jig setters, machine operators or saw operators who take responsibility for organising and completing tasks assigned to them without close supervision.

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 for assembly	1.1 Determine job requirements from work order or fabrication plan and, where required, confirm with appropriate person 1.2 Confirm safety requirements for timber roof truss assembly according to workplace safety procedures 1.3 Identity type and determine quantity of material required for assembly of roof trusses according to fabrication plan 1.4 Determine type of nail plates and components required according

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	to specifications or fabrication plan 1.5 Select, fit and use personal protective equipment (PPE) 1.6 Select appropriate tools and equipment and check for serviceability and report and faults for damage 1.7 Determine job priorities and sequence job tasks according to fabrication plan
2. Set up for timber roof truss assembly	2.1 Prepare, set up and adjust assembly table or jigs to specified roof truss pattern configuration 2.2 Select and position pre-cut material to include webs, overhang and other design requirements 2.3 Discard defective or unsuitable components according to workplace procedures 2.4 Clamp components in jigs, and check for fit and allowable tolerances 2.5 Select and position steel nail plates accurately over joints according to fabrication plan
3. Control pressing operations	3.1 Conduct a pre-operation check on truss press equipment according to manufacturer instructions and workplace procedures 3.2 Carry out inspection of initial truss to ensure all nail plates fixed according to fabrication plan 3.3 Coordinate and operate truss-pressing operations and confirm finished product complies with fabrication plan or work order
4. Prepare products for despatch and report	4.1 Label roof truss according to workplace procedures 4.2 Remove components from assembly table or jigs and safely stack in designated location 4.3 Strap and pack finished products ready for transportation 4.4 Minimise wastage of strapping and packaging materials and maximise use of recycled materials 4.5 Record and report production outcomes and problems according to workplace reporting procedures
5. Clean up	5.1 Clean work area and recycle, reuse or dispose of waste according to workplace environmental procedures 5.2 Clean and maintain tools, equipment and machinery, and report

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	any faults or damage according to workplace procedures 5.3 Return and safely store tools and equipment in designated areas

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
Writing	Label trusses using clear and legible writing

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT3309 Assemble timber roof trusses	FWPCOT3242 Lay up timber roof trusses	Redesigned unit using content from FWPCOT3242 Lay up timber roof trusses and FWPCOT3243 Operate a truss press Re-titled Reworded and added Elements and Performance Criteria Assessment Requirements reworded	Not Equivalent
FWPCOT3309 Assemble timber roof trusses	FWPCOT3243 Operate a truss press	Redesigned unit using content from FWPCOT3242 Lay up timber roof trusses and FWPCOT3243 Operate a	Not Equivalent

		truss press Re-titled Reworded and added Elements and Performance Criteria Assessment Requirements reworded	
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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>

Assessment Requirements for FWPCOT3309 Assemble timber roof trusses

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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:

- assembled a minimum of two of the following:
 - standard type truss
 - truncated standard truss
 - girder truss
 - truncated girder
 - jack truss
 - gable truss
 - saddle/valley truss
- set up and operated a truss press
- labelled, strapped, packed and protected products ready for despatch.

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:

- workplace quality requirements relevant to assembling timber roof trusses
- workplace environmental policy and procedures for disposing of, recycling and reusing waste materials
- workplace safety requirements relevant to assembling timber roof trusses:
 - safe operation of machinery and equipment
 - exposure to excessive noise
 - hazardous manual tasks
 - hazard identification and controls
 - use of personal protective equipment (PPE)

- exposure to dust
- typical timber defects and impact on the finished product:
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - knots
 - resin pockets
- processes, procedures and techniques for:
 - flow of material supply in and out of the roof truss assembly area
 - use of assembly componentry
 - assembly sequences and jig and press operation
 - stacking and storing materials
 - labelling products for identification and transportation
 - stacking, binding and protecting finished products ready for despatch
 - workplace communication and reporting lines
 - recording and reporting assembly outcomes and equipment faults
- truss types:
 - standard
 - truncated standard
 - girder truss
 - truncated girder
 - jack truss
 - gable truss
 - saddle/valley truss
- functional and operational features of tools, equipment and machinery for roof truss assembly:
 - electric circular saws
 - docking saws
 - drills
 - staple and nail guns
 - compressor or compressed air supply
 - nail plate presses
 - measuring and marking equipment
 - truss assembly tables
 - assembly jigs
 - strapping equipment
- range of industry standard lengths, cross sections and tolerances and applicable terminology relating to roof trusses

- typical assembly faults triggering correction to ensure product quality:
 - incorrectly positioned joints
 - timber splits from nailing
 - incorrectly positioned connector plates/straps.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a timber truss fabrication facility or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - timber products and connector plates
 - assembly tables or jigs to assemble timber roof trusses
 - truss press
- specifications:
 - access to work order or fabrication plan detailing truss assembly to be undertaken
 - access to workplace safety and environmental policies and procedures applicable to assembling timber roof trusses
- relationships:
 - supervisor or team member.

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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