

Title	Laminate curved products for wood product manufacturing		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices when laminating curved products for wood product manufacturing; finger joint required lamination feedstock; check operational equipment and glue supply; laminate the curved product; and monitor production of laminated curved products and control maintenance requirements.
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Classification	Solid Wood Manufacturing > Wood Product Manufacturing Skills
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Available grade	Achieved
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Guidance Information

- 1 Legislation and references

Health and Safety at Work Act 2015.
Resource Management Act 1991.
AS/NZS 1328.1:1998 Glued laminated structural timber – Performance requirements and minimum production requirements.
AS/NZS 1328.2:1998 Glued laminated structural timber – Guidelines for AS/NZS 1328: Part 1 for the selection, production and installation of glued laminated structural timber.
AS 5067-2003: Timber – Non-structural glued laminated – Performance and production requirements.
- 2 Definitions

Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider wood manufacturing industry as examples of best practice.

Workplace procedures refer to documented policies and procedures set by the organisation carrying out the work, and to documented or other directions provided to staff, and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor’s instructions, and procedures to comply with legislative and local body requirements relevant to the wood manufacturing sector.
- 3 Assessment information

All activities and evidence must be in accordance with workplace procedures and accepted industry practice.

- 4 Recommended unit standards for entry:
Unit 4548, *Laminate straight timber for wood product manufacturing*;
Unit 15055, *Demonstrate knowledge of the principles of finger jointing in solid wood manufacturing*;
Unit 15056, *Demonstrate knowledge of the principles of laminating in wood product manufacturing*;
Unit 15058, *Test finger jointed product in solid wood manufacturing*; and
Unit 15059, *Test laminated product in wood product manufacturing*.
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Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices when laminating curved products for wood product manufacturing.

Performance criteria

- 1.1 Hazards associated with laminating curved products are identified and actions to be taken to manage the hazard are described.
- Range hazards may include but are not limited to – moving equipment, noise.
- 1.2 Safe work practices associated with laminating curved products are identified and applied.
- Range practices may include but are not limited to – isolation procedures, lock-outs, emergency stops, machine guarding, the wearing of appropriate safety equipment.

Outcome 2

Finger joint required lamination feedstock.

Performance criteria

- 2.1 Grade and moisture content of feedstock is selected for finger jointing.
- 2.2 Number of pieces and lengths of feedstock are calculated.
- 2.3 Finger joint samples are selected for testing.
- 2.4 Individual laminates are pressed and are precision dressed within 48 hours of pressing.
- 2.5 Finger joints are staggered during dry lay-up.
- 2.6 Individual laminates are stacked.

Outcome 3

Check operational equipment and glue supply.

Performance criteria

- 3.1 Correct length bolts, washers and press blocks are selected, cleaned, and lubricated.
- 3.2 Ancillary services are checked.
Range air supply, heating.
- 3.3 Required pressing pressures are calculated.
- 3.4 Glue ingredients, glue mixer, glue applicator, and glue testing equipment are prepared and checked.

Outcome 4

Laminate the curved product.

Performance criteria

- 4.1 The laminating operation is discussed with production staff, and other interested parties are notified of the production schedule.
- 4.2 Glue mixing, glue spreading operations, and glue testing are commenced.
- 4.3 Laminations are laid up in the correct order.
- 4.4 Pressure is applied.
- 4.5 Curving of the laminations is commenced working out from the centre of the curve and crook is removed from the individual laminate as pressure is applied.
- 4.6 Final pressure is checked.
- 4.7 Heat is applied.

Outcome 5

Monitor production of laminated curved products and control maintenance requirements.

Performance criteria

- 5.1 Operating faults are identified, and corrective action is taken.
- 5.2 Control information is entered into any fitted control device and output data are monitored and interpreted, or control data are recorded manually.
- 5.3 Maintenance and cleaning of the laminating equipment is carried out.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 December 2006	31 December 2015
Review	2	20 March 2014	N/A
Review	3	22 October 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.