

Title	Identify, diagnose, and rectify finger jointed product defects		
Level	4	Credits	25

Purpose	People credited with this unit standard are able to: identify the causes of finger jointed product defects; diagnose joint failure in finger jointed products; and rectify finger jointed product defects.
----------------	--

Classification	Solid Wood Manufacturing > Finger Jointing
-----------------------	--

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Legislation
Health and Safety at Work Act 2015.
Resource Management Act 1991.
- 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.
Corrective action refers to actions such as communication to management, communication to on-site technical person, communication to off-site technical support person, cleaning, communication with maintenance staff, recalibration, or changes made to the operating system in accordance with workplace procedures.
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
 - a All activities and evidence must meet workplace procedures and accepted industry practice.
 - b This unit standard is for those involved in the troubleshooting of finger jointing operations, while the operation of the finger jointer is covered in Unit 4547, *Coordinate finger jointer operations in solid wood manufacturing*.

Outcomes and performance criteria

Outcome 1

Identify the causes of finger jointed product defects.

Performance criteria

- 1.1 Raw material characteristics influencing final product quality are identified from product samples.
- Range may include but is not limited to – moisture content (both high and low), distortion, undersize and oversize, shook edges not straight and parallel, out of square ends, juvenile wood fibre.
- 1.2 Machine operating faults that influence final product quality are identified from product samples.
- Range may include but is not limited to – wear, feed issues, broken parts, alignment, operating speeds.
- 1.3 Machine setup factors that affect final product quality at profile centres are identified from product samples.
- Range may include but is not limited to – squareness of the in-feed, hold down adjustment, trim saw setup, scribing saw setup, cross alignment of cutter heads, transfer system adjustment.
- 1.4 Glue applicator performance and adjustments that affect final product quality at profile centres are identified from product samples.
- Range alignment, spread.
- 1.5 Machine factors that affect final product quality after the profile centres are identified from product samples.
- Range may include but is not limited to – Crowder, cut off saw, press, out-feed systems.
- 1.6 Product defects relating to cutter grinding and preparation are identified from product samples.
- Range may include but is not limited to – tear-out, rip-out, uneven fingers, shadowing, joint does not bind.
- 1.7 Product defects caused by misalignment are identified from product samples.
- Range may include but are not limited to – misalignment of crowder section, uneven pressure.

Outcome 2

Diagnose joint failure in finger jointed products.

Range defects diagnosed in a production situation.

Performance criteria

- 2.1 Joint failure attributed to inadequate adhesive application and control is identified and potential causes of the failure are described.
- 2.2 The impacts of incorrect moisture content of shoo on joint failure are identified and potential causes are described.
- 2.3 Joint failure with thick glue lines is identified and potential causes are described.
- 2.4 Causes of joint failure, where there is clear evidence that correct adhesive control and application and shoo moisture content requirements have been followed, are identified and potential causes are described.

Outcome 3

Rectify finger jointed product defects.

Range defects rectified in a production situation.

Performance criteria

- 3.1 Corrective action is implemented to rectify raw materials' product defects.

Range may include but is not limited to – moisture content, grade, dimensions, mechanical damage prior to machining.
- 3.2 Corrective action is implemented to rectify adhesive and adhesive application defects causing defective product.
- 3.3 Corrective action is implemented to rectify machine operating faults causing defective product.

Range defects may include but are not limited to – wear, damage.
- 3.4 Corrective action is implemented to rectify machine set up factors causing defective product.

Range set up factors may include but are not limited to – calibration, alignment.
- 3.5 Safe work practices are followed.
- 3.6 Equipment and work area are left clean, clear, and tidy.
- 3.7 Production, maintenance, and quality records are explained and completed.

Planned review date	31 December 2024
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 December 2006	N/A
Review	2	25 June 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013
--	------

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.