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| Title | Grind finger jointer cutterhead in solid wood manufacturing | | |
| Level | 4 | Credits | 15 |

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| Purpose | People credited with this unit standard are able to: manage hazards associated with grinding a finger jointer cutterhead in solid wood manufacturing; demonstrate knowledge of the operation and operating principles of a grinder; prepare grinder; mount and adjust cutterhead; grind a finger jointer cutterhead; and store cutterhead. |
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| Classification | Solid Wood Manufacturing > Finger Jointing |
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| Available grade | Achieved |
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| Prerequisites | Unit 15060, <i>Maintain finger jointer cutterhead in solid wood manufacturing</i> ; and Unit 669, <i>Demonstrate knowledge of grinding wheels and fluids</i> ; or demonstrate equivalent knowledge and skills. |
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Guidance Information

- 1 The following apply to the performance of all outcomes of this unit standard:
 - a All work practices must meet recognised codes of practice and documented worksite health and safety and environmental procedures (where these exceed the code) for personal, product and worksite health and safety, and must meet the obligations required under current legislation, including the Health and Safety in Employment Act 1992, and its subsequent amendments.
 - b All work practices must meet documented worksite operating procedures. This includes the recording (by electronic or non-electronic means) of activities, events, and decisions.
 - c All evidence of communications gathered in relation to this unit standard must be in accordance with worksite procedures for content, recipient, timing and method.
- 2 Competence must be demonstrated using one of the two standard cutterhead types used in New Zealand, solid profile or milled to pattern.
- 3 Definitions

Manufacturer's instructions are instructions provided by manufacturers of substances, equipment, and machinery used in solid wood manufacturing. These instructions may include details on safe and correct handling, use and storage of substances and/or details on substance properties. Examples are labels on substance containers, product data sheets, and operator's manuals.

Worksite policies and procedures refer to documented policies and to documented or other directions provided to staff. These include, but are not limited to, ways of

managing health and safety, environmental considerations, quality, and production, and must conform to legislation. Examples include standard operating procedures, company health and safety plans, on-site briefings, and supervisor's instruction.

Outcomes and performance criteria

Outcome 1

Manage hazards associated with grinding a finger jointer cutterhead in solid wood manufacturing.

Performance criteria

1.1 Hazards associated with grinding a finger jointer cutterhead are identified and actions to be taken to isolate, minimise or eliminate the hazard are described in accordance with worksite policies and procedures.

Range hazards may include but are not limited to – handling cutterheads, grinding wheel disintegration, loose grinding wheel, exposure to grinding coolant.

1.2 Safe work practices associated with grinding a finger jointer cutterhead are identified and used in accordance with worksite policies and procedures.

Range practices may include but are not limited to – isolation procedures, lock-outs, emergency stops, machine guarding, wearing of appropriate safety equipment.

Outcome 2

Demonstrate knowledge of the operation and operating principles of a grinder.

Performance criteria

2.1 Purpose and function of the grinder are explained in accordance with manufacturer's instructions.

2.2 Operating capability of the grinder is explained in accordance with manufacturer's instructions.

2.3 Operating components of the grinder are explained in accordance with manufacturer's instructions.

Range components may include but are not limited to – grinding wheel, dividing head, arbor, filter, coolant pump.

2.4 Roles and responsibilities of the tool room operator in terms of grinding, are described in accordance with worksite policies and procedures.

Outcome 3

Prepare grinder.

Performance criteria

- 3.1 Grinder and work area are cleaned in accordance with worksite policies and procedures.
- 3.2 Grinding wheel and grinder speed are selected to suit cutter steel and grinder operation in accordance with manufacturer's instructions.
- 3.3 Grinding wheel is checked for faults, and action is taken where required, in accordance with worksite policies and procedures.
- Range faults – cracks, clogging;
action – replacement, dressing or shaping.
- 3.4 Grinding wheel is prepared and grinder operation is checked in accordance with manufacturer's instructions.
- Range true running, vibration.
- 3.5 Grinding angle is set in accordance with manufacturer's instructions.
- 3.6 Grinder feed and increments are set in accordance with manufacturer's instructions.

Outcome 4

Mount and adjust cutterhead.

Performance criteria

- 4.1 Cutterhead is locked to the arbor according to manufacturer's instructions.
- 4.2 Dividing head is set in accordance with manufacturer's instructions.
- 4.3 Clearance between grinding wheel and cutters is adjusted in accordance with manufacturer's instructions.
- 4.4 Grinding coolants are handled and stored in accordance with worksite policies and procedures.

Outcome 5

Grind a finger jointer cutterhead.

Performance criteria

- 5.1 Operation of grinder is checked after the first pass in accordance with worksite policies and procedures.
- 5.2 Coolant flow rate and cleanliness are maintained during wet grinding in accordance with manufacturer's instructions.
- 5.3 Cutterheads are ground until the specified edge and cutting angles are obtained across all cutters.
- 5.4 Cutterhead edges are ground to conform to finger jointer hook gauge.
- 5.5 Cutterhead edges are sharpened to specified angle, are free from defects and are concentric.
Range burning, chipping, grinding marks.
- 5.6 Grinder is cleaned in accordance with manufacturer's instructions.

Outcome 6

Store cutterhead.

Performance criteria

- 6.1 Cutterhead is drained, if applicable, in accordance with worksite policies and procedures.
- 6.2 Cutterhead is stored for safety, and to avoid moisture and dust, in accordance with worksite policies and procedures.
- 6.3 Records are completed in accordance with worksite policies and procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|------------------|--------------------------|
| Registration | 1 | 10 February 1999 | 31 December 2018 |
| Revision | 2 | 14 March 2000 | 31 December 2018 |
| Revision | 3 | 15 December 2000 | 31 December 2018 |
| Review | 4 | 18 December 2006 | 31 December 2018 |
| Review | 5 | 19 March 2010 | 31 December 2018 |
| Review | 6 | 20 November 2014 | 31 December 2022 |
| Review | 7 | 25 June 2020 | 31 December 2022 |

Consent and Moderation Requirements (CMR) reference

0013

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.