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| **Title** | **Perform basic calculations for saw doctoring** | | |
| **Level** | **2** | **Credits** | **5** |

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| **Purpose** | People credited with this unit standard are able to perform basic calculations used in saw sharpener operations; for stretcher roller operations; and for a machine centre. |

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| **Classification** | Solid Wood Manufacturing > Saw Doctoring |

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| **Available grade** | Achieved. |

**Guidance Information**

1 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.
*RPM* refers to revolutions per minute.
*SMPM* refers to surface metres per minute and is applied to rim, cutting or surface speed.
*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.

2 Assessment information
a All activities and evidence must be in accordance with workplace procedures and accepted industry practice.
b Formulae must be provided.

## Outcomes and performance criteria

### Outcome 1

Perform basic calculations used in saw sharpener operations.

Range calculations for – SMPM, RPM, pulley size.

**Performance criteria**

1.1 Formulae are transposed in accordance with mathematical principles.

1.2 Saw sharpener data are interpreted and entered into the formulae correctly.

1.3 Calculations are completed to provide the required values.

1.4 Accuracy of the calculated values is verified.

**Outcome 2**

Perform basic calculations used in stretcher roller operations.

Range calculations for – SMPM, gearbox ratio.

**Performance criteria**

2.1 Formulae are transposed in accordance with mathematical principles.

2.2 Stretcher roller machine data are interpreted and entered into the formulae correctly.

2.3 Calculations are completed to provide the required values.

2.4 Accuracy of the calculated values is verified.

**Outcome 3**

Perform basic calculations for a machine centre.

Range calculations for – SMPM, RPM, tooth bite, feed speed, tooth pitch, feed per revolution.

**Performance criteria**

3.1 Formulae are transposed in accordance with mathematical principles.

3.2 Machine centre data are interpreted and entered into the formulae correctly.

3.3 Calculations are completed to provide the required values.

3.4 Accuracy of the calculated values is verified.

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| **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 | 25 November 2000 | 31 December 2020 |
| Review | 2 | 18 December 2006 | N/A |
| Review | 3 | 24 September 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.