Title	**Specify, operate and maintain performance of automated grain mills and milling equipment for feed milling**		
Level	**4**	**Credits**	**30**

Purpose	People credited with this unit standard are able to: specify grain mill performance parameters; prepare automated equipment for grain milling; operate automated grain milling equipment; and maintain performance of automated grain mills and grain milling equipment.

Classification	Food and Related Products Processing > Food Production - Milling

Available grade	Achieved

Guidance Information

1 Legislation relevant to this unit standard includes but is not limited to the:
Health and Safety at Work Act 2015.
Food Act 2014.
Food Regulations 2015.
Resource Management Act 1991.

2 Definitions
Interested parties refer to supervisors and/or production personnel and/or packaging personnel.
Organisational procedures refer to documents that include: worksite rules, codes, and practices; equipment operating instructions; manufacturer's specifications; production specifications; documented quality management systems; and health and safety requirements, including the use of PPE.
PPE refers to personal protective equipment such as protective clothing, gloves, safety glasses, headwear, footwear, hearing protection, safety devices.

3 Assessment information
All activities and evidence must be in accordance with organisational procedures.

Outcomes and performance criteria

Outcome 1

Specify grain mill performance parameters.

Performance criteria

1.1 Mill equipment performance parameters are specified, recorded, and promulgated to interested parties.

1.2 Resources required to optimise mill efficiency and effectiveness are identified and scheduled.

Range resources may include but are not limited to – physical, human, plant, equipment, raw material.

1.3 Maintenance of mill equipment is specified, scheduled, and promulgated to interested parties.

Outcome 2

Prepare automated equipment for grain milling.

Performance criteria

2.1 Access and power to equipment is confirmed as available.

2.2 Grist is confirmed as correct and is authorised by personnel responsible for production.

2.3 Destination for milled grain is identified and is confirmed as having sufficient capacity for scheduled and anticipated milling requirements.

2.4 Grain flow rate and weighing equipment are prepared in accordance with production specifications.

2.5 Documentation relating to equipment preparation is checked for accuracy and completeness.

2.6 Rolls are confirmed as being out of gear, and safety equipment is confirmed as being in correct position on equipment.

2.7 Production plan and schedule are checked for availability, currency, and accuracy.

2.8 Preparation of automated milling equipment is carried out.

2.9 Interested parties are informed of mill preparation in a manner and within a timeframe that optimise mill performance.

Outcome 3

Operate automated grain milling equipment.

Performance criteria

3.1 Lifts, elevators, and separators are confirmed as available for use and operational.

3.2 Rolls and hoppers are checked to ensure they are clear and free from excess product.

3.3 Sifting equipment is confirmed as being complete and operational in accordance with production specification and have correct stocks.

3.4 Product feed to automated milling equipment is controlled to optimise capacity and productivity of milling equipment.

3.5 Unscheduled stoppages due to operation of automated milling equipment are controlled.

3.6 Milled and sifted product is checked to ensure that it is free from coarse bran and meets product specification.

3.7 Documentation is checked for accuracy, completion, and is in correct place.

Range documentation – reports, production records, destination information, grist information, by-product data.

3.8 Variations in specified equipment performance are identified, and corrective action is implemented within a timeframe that optimises equipment performance.

Outcome4

Maintain performance of automated grain mills and grain milling equipment.

Performance criteria

4.1 Mill drives are set at correct tension and equipment is lubricated.

4.2 Rolls are checked to ensure they are clean and rotate free from mechanical impediments.

4.3 Faults in automated milling equipment are identified, isolated, and corrective action is implemented.

Range faults may include but are not limited to – electrical, mechanical, bearings, drives, vibrations, heat, burst covers, weighers inoperative, blockages in dust collection, worn, dented spouts.

4.4 Sieve covers are checked to ensure they not damaged and that sifter pads are clean in accordance with organisational procedures.

4.5 Variations in specified technical performance of automated milling equipment are identified, and corrective action is taken within a timeframe that optimises performance.

Range variations may include – qualitative, quantitative, safety.

4.6 Equipment spare parts are confirmed as being available in sufficient quantity and condition to maintain mill operation.

4.7 Life expectancy of milling equipment due to normal wear is identified, and reparative maintenance is scheduled within a timeframe that minimises loss of production and maximises mill efficiencies.

4.8 Documentation related to maintenance of automated milling equipment is accurate and complete.

Planned review date	31 December 2025

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 March 2010	31 December 2022
Review	2	25 February 2021	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.