

Title	Screen furnish		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: demonstrate knowledge of furnish screening to remove reject material; operate a furnish screening system; and monitor and control the performance of a furnish screening system.
----------------	---

Classification	Wood Fibre Manufacturing > Pulp and Paper Manufacturing Skills
-----------------------	--

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

Guidance Information

1 Legislation and references

Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

- Hazardous Substances and New Organisms Act 1996;
- Health and Safety at Work Act 2015;
- Resource Management Act 1991;
- Health and Safety at Work (Major Hazard Facilities) Regulations 2016.

2 Definitions

Furnish refers to the fibrous product constituents comprising pulp and paper (including recycled papers, pulps and broke) blended in stock preparation to meet the requirements of various final pulp or paper product grades.

Furnish screening systems are systems containing more than one screening stage (primary, secondary, tertiary). The system may or may not include a number of different types of screen, such as pressure, vibrating, or centrifugal screens.

Operating parameters refer to the boundary conditions in which the operations are carried out in furnish screening.

Operating procedures refer to the process(es) that are worked through, e.g. standard operating procedure (SOP) in furnish screening.

Worksite documentation refers to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace, and are consistent with manufacturer's requirements. 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, sustainability, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the pulp and paper industry.

3 Assessment information

Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, worksite documentation and legislative requirements. This includes the knowledge and use of suitable tools and equipment.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of furnish screening to remove reject material.

Performance criteria

1.1 Purpose of furnish screening process is explained.

1.2 Operating components and process controls of screens are described and their purpose is explained.

Range operating components may include but are not limited to – primary, secondary, tertiary stages using knotters, pressure, vibratory, centrifugal screens.

1.3 Operation of furnish screening system is explained.

1.4 Operating parameters and capability of pulp screening systems are explained.

Range operating parameters may include but are not limited to – screen hole sizes, shapes of holes or slits, sizes of screen plates, volume of pulp through screens, pressures, consistencies, reject flows.

1.5 Hazards associated furnish screening systems are identified and actions to be taken to minimise, or eliminate the hazard are described.

Range hazards may include but are not limited to – heat, steam, moving components, water, electricity, pressure.

1.6 Consequences of non-conformance of screening with worksite operating procedures are described.

1.7 Roles and responsibilities of furnish screening operator are described.

Outcome 2

Operate a furnish screening system.

Performance criteria

2.1 Safe work practices associated with operating a furnish screening system are identified and used.

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

2.2 System is set up, started up, operated, and shut down.

2.3 Operating parameters are set and adjusted to enable production requirements to be achieved.

Range operating parameters – consistency, furnish volume; production requirements – recovery of acceptable furnish, maintenance of stock, production rate, disposal of reject materials.

2.4 Essential care and housekeeping requirements are carried out.

Outcome 3

Monitor and control the performance of a furnish screening system.

Performance criteria

3.1 Furnish screen system is monitored and parameters are controlled in accordance with operating parameters.

Range control parameters – consistency, dilution, flow rate.

3.2 Operating and equipment faults and malfunctions are identified and relevant corrective actions are taken.

Range operating faults and malfunctions – blocked screens, failed screens, blinded screens, broken plates, blockages, pressure drops.

3.3 Screened furnish for shive count, cleanliness, and consistency is monitored to meet specified requirements.

3.4 Production rate is regulated in accordance with process requirements.

3.5 Production, maintenance, and quality records are explained and completed.

Planned review date	31 December 2028
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 February 1999	31 December 2024
Review	2	18 December 2006	31 December 2024
Review	3	24 October 2014	31 December 2025
Review	4	30 November 2023	N/A

Consent and Moderation Requirements (CMR) reference

0173

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

Comments on this unit standard

Please contact the Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.