

Title	Demonstrate knowledge of beverage filtration in a commercial beverage plant		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to describe the layout of a filtration system, and explain filtration operations.
----------------	--

Classification	Food and Related Products Processing > Food Production - Beverages
-----------------------	--

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

Guidance Information

- 1 This unit is a general introduction to filtration and its associated processes. For more specific information that relates to the actual performance of filtration see unit standard 7695; for clarifying beverages see unit standard 7777; for an overview of microbes and filtration see unit standard 16638.
- 2 This unit standard must be assessed in context of at least one of the following beverage products: beer, wine, or soft drinks.

Outcomes and performance criteria

Outcome 1

Describe the layout of a filtration system.

Performance criteria

- 1.1 The general layout of a filtration system is described in terms of the vessels and plant contained within it, and the movement of materials between them.
- 1.2 The description identifies the purpose of the filters and vessels in terms of their function.

Range may include but is not limited to – buffers, chillers, pipework, pumps.
- 1.3 The description identifies the principle features of plant design and relates them to those found in a beverage plant.

Range cleaning, hygiene, safety.

Outcome 2

Explain filtration operations.

Performance criteria

- 2.1 The explanation describes the purpose of filtration in terms of its role in beverage production.
- 2.2 The explanation describes filtration in the beverage industry in terms of the filter types and filter media used.
- Range filter types may include but are not limited to – depth, membrane, leaf, candle, sheet;
filter media may include but are not limited to – diatomaceous earth, perlite, silica hydrogels;
evidence of two of each is required.
- 2.3 Factors which can affect the performance of the filter are described in terms of effects on the product.
- Range effects on the product may include but are not limited to – beverage specifications, clarification process, stabilisation process;
evidence of two is required.
- 2.4 The explanation details the design, operation and performance of one type of filtration operation used in a beverage plant.
- 2.5 The explanation describes the process of sterile filtration in terms of usage and benefits to product integrity.
- Range maintenance of flavour, savings in energy and water, elimination of the need for pasteurisation.
- 2.6 Process checks and quality control for filtering are described as they relate to a beverage plant's quality control system.

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	6 May 1999	31 December 2022
Review	2	24 May 2005	31 December 2022
Review	3	28 January 2021	31 December 2022

Consent and Moderation Requirements (CMR) reference	0111
--	------

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

This unit standard is expiring.