



Australian Government

FBPBEV3004 Operate and monitor a beer filtration process

Release: 1

FBPBEV3004 Operate and monitor a beer filtration process

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a beer filtration process to make bright beer.

This unit applies to individuals who have responsibility for filtering beer in a brewery. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer filtration process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with state/territory health and safety and food safety regulations, legislation and standards that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Beverages (BEV)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the filtration process for operation	1.1 Confirm beer is available to meet production requirements 1.2 Confirm availability of services according to operating requirements 1.3 Wear appropriate personal protective clothing, and ensure correct

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	fit 1.4 Conduct pre-start checks of equipment according to operator instructions, including checking that hygiene and sanitation standards are met 1.5 Set the filtration process to meet production requirements
2. Operate and monitor equipment	2.1 Start up beer filtration equipment according to safe operating procedures 2.2 Monitor equipment and control points to minimise dissolved oxygen, and confirm performance is maintained within specification 2.3 Undertake blending of beer as part of filtration process, as required of product specification 2.4 Confirm system and sub-system outputs meet specifications 2.5 Undertake microbiology testing at control points for risk of bacterial infection or wild yeast contamination 2.6 Identify, rectify and report out-of-specification product, process and equipment performance 2.7 Record production and other workplace information according to workplace procedures
3. Shut down the filtration system	3.1 Shut down the system safely according to operating procedures 3.2 Clean and maintain equipment to meet the workplace cleaning schedule and procedural requirements 3.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 3.4 Record workplace information according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret workplace and standard operating procedures relevant to work task

Skill	Description
	Interpret production requirements
Writing	Complete processing records using electronic, digital and/or paper-based formats
Numeracy	- Monitor and interpret production and process control indicators and data - Use fractions, decimals, proportions and percentages to determine responses to results - Use volumes (ml, L, hL) and weights (mg, g, kg) to describe product quantities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBEV3004 Operate and monitor a beer filtration process	FBPOPR2013 Operate a bright beer tank process	Unit merged with FBPOPR2015 Operate a beer filtration process Prerequisite removed Unit title and sector code updated to better match work task Code updated to better match complexity of work task Minor changes to Performance Criteria to clarify intent Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	Not equivalent
FBPBEV3004 Operate and monitor a beer filtration process	FBPOPR2015 Operate a beer filtration process	Unit merged with FBPOPR2013 Operate a bright beer tank process Prerequisite removed	Not equivalent

Code and title current version	Code and title previous version	Comments	Equivalence status
		Unit title and sector code updated to better match work task Code updated to better match complexity of work task Minor changes to Performance Criteria to clarify intent Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPBEV3004 Operate and monitor a beer filtration process

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has set up, operated, adjusted and shut down beer filtration equipment to process at least one batch of beer to specifications, including:

- applying safe work practices
- applying food safety procedures to work practices
- using fobbing equipment correctly to control oxygen and beer quality
- undertaking required corrective action in the event of variations to specification and procedures.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and principles of the filtration process
- relationship between the wort production process, the fermentation process and bright beer tanks
- stages and changes that occur during filtration
- purpose of filter aids, filtration beds and filters in the beer production process
- significance and methods of monitoring control points within the filtration process
- beer filtration equipment used, including components, purpose and operation
- consequences of turbulence and the procedures to avoid it
- effect of bacteria, oxygen and temperature on quality
- fobbing and its effect on quality
- addition of flavours in filtration
- addition of hop products in filtration
- common causes of variation, and corrective action required
- contamination/cross-contamination and food safety risks related to the filtration process, and related controls

- good manufacturing practices (GMP) relevant to work task
- health and safety hazards and controls relevant to the beer filtration process
- environmental issues and controls, including waste handling requirements and procedures
- shutdowns and cleaning requirements associated with changeovers
- recording requirements and procedures for the beer filtration process
- cleaning and sanitisation procedures for beer filtration equipment
- sampling and testing procedures.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a brewery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective clothing and equipment
 - relevant hazard control equipment and storage areas for hazardous goods
 - filtration equipment
 - filter aids and stabilising agents
 - beer to be filtered
- specifications:
 - workplace procedures, including safe work practices, food safety, quality and environmental requirements
 - specifications, control points and parameters for the beer filtration equipment and process
 - beer filtration equipment operating and service manuals
 - recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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