



**Australian Government**

# **FBPBEV3007 Operate and monitor a beer maturation process**

**Release: 1**

# FBPBEV3007 Operate and monitor a beer maturation 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 maturation process.

This unit applies to individuals who work in operational roles in a brewery. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a beer maturation process and associated equipment.

All work must be carried out to comply with workplace procedures, in accordance with state/territory health and safety, food safety and environmental 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 for work in processing area           | 1.1 Confirm maturation requirements according to production requirements<br>1.2 Confirm clarification requirements, including specifications for any additions and agents |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                  | 1.3 Confirm materials are available to meet production requirements<br>1.4 Confirm services as being ready for operation according to workplace procedures and safety and food safety requirements<br>1.5 Wear appropriate personal protective clothing and equipment, and ensure correct fit                                                                                                                                                                                                                           |
| 2. Prepare the maturation process for production | 2.1 Check equipment to confirm readiness for use according to workplace procedures<br>2.2 Set the maturation process to meet production requirements<br>2.3 Carry out pre-start checks according to operator instructions                                                                                                                                                                                                                                                                                               |
| 3. Operate and monitor process and equipment     | 3.1 Start up, operate and monitor equipment and control points according to safe work procedures<br>3.2 Confirm system and sub-system outputs meet specification<br>3.3 Monitor equipment to confirm optimal operations<br>3.4 Identify, rectify and/or report out-of-specification product, process and equipment performance<br>3.5 Complete size and product changeovers in accordance with batch instructions<br>3.6 Record workplace information for the beer maturation process according to workplace procedures |
| 4. Shut down the system                          | 4.1 Shut down the system safely according to operating procedures<br>4.2 Clean and maintain equipment to meet the workplace cleaning schedule and procedural requirements<br>4.3 Collect, treat and dispose of or recycle waste generated by both the process and workplace cleaning procedures<br>4.4 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 |
|-------|-------------|
|-------|-------------|

| Skill    | Description                                                                                                                                                                                                                                                                              |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading  | <ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to job role</li> <li>Interpret production requirements</li> </ul>                                                                                                                  |
| Writing  | <ul style="list-style-type: none"> <li>Record product and processing information on digital and/or paper-based formats</li> </ul>                                                                                                                                                        |
| Numeracy | <ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data</li> <li>Monitor supply and flow of materials to and from the process</li> <li>Use volumes (ml, L, hL) and weights (mg, g, kg) to describe product quantities</li> </ul> |

## Unit Mapping Information

| Code and title current version                              | Code and title previous version                 | Comments                                                                                                                                                                                                                                                                 | Equivalence status |
|-------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FBPBEV3007<br>Operate and monitor a beer maturation process | FBPOPR2016<br>Operate a beer maturation process | Prerequisite removed<br>Unit title and code updated to better match work task<br>Minor changes to Performance Criteria to clarify intent<br>Foundation Skills refined<br>Performance Evidence clarified<br>Minor changes to Knowledge Evidence and Assessment Conditions | Equivalent         |

## 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 FBPBEV3007 Operate and monitor a beer maturation 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 operated and monitored a beer maturation process to produce at least one batch of beer to meet product specifications, including:

- applying safe work practices
- applying food safety procedures to work practices
- operating equipment and controls to achieve specifications, including:
  - required temperature
  - required concentration of finings and other additions
  - transfers
  - disposal of sediment and other waste
- undertaking corrective action in the event of variation to specification.

## 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 beer maturation process
- relationship between the maturation process, the fermentation process and the filtration process
- stages and changes that occur during beer maturation
- requirements of maturation
- purpose of temperature control and cold storage in the beer maturation process
- purpose of protein absorbing agents
- purpose of oxygen scavenging agents
- purpose of tannin absorbing agents
- procedures for vessel transfer
- quality characteristics to be achieved

- process specifications, procedures and operating parameters
- good manufacturing practices (GMP) relevant to work task
- significance and methods of monitoring control points within the maturation process
- beer maturation equipment and instrumentation components, purpose and operation
- common causes of variation, and corrective action required
- work health and safety hazards and controls relevant to a beer maturation process
- environmental issues and controls for process, including waste handling requirements and procedures
- procedures to track traceability of product
- cleaning and sanitisation procedures for a beer maturation process
- purpose of finings in a beer maturation process
- cask maturation process.

## Assessment Conditions

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

- physical conditions:
  - a brewery or a workplace environment that accurately represents workplace conditions
- resources, equipment and materials:
  - equipment, materials and services necessary to the maturation process
  - personal protective clothing and equipment
  - fermentation tank
  - additions and agents
  - supply and flow of materials to and from the process
  - waste sediment disposal
- specifications:
  - access to workplace information to identify production requirements and beer type for beer maturation process
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
  - product/beer-type changeover processes
  - reporting and documentation processes and requirements.

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

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