



Australian Government

FBPBPG3010 Operate and monitor a carbonated beverage filling process

Release: 1

FBPBPG3010 Operate and monitor a carbonated beverage filling 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 filling process for a carbonated beverage, including carbonated water, juice and beer.

This unit applies to individuals who are responsible for operating and monitoring a beverage filling process and associated services in a beverage processing environment.

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

Bottling and Packaging (BPG)

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 filling	1.1 Identify and confirm beverage carbonation and filling requirements 1.2 Confirm availability of required product, containers and services

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	to meet filling requirements 1.3 Identify health, safety and food safety hazards, and control risks associated with carbonation and filling 1.4 Wear appropriate personal protective equipment and clothing, and ensure correct fit 1.5 Maintain the work area to comply with good manufacturing practices (GMP)
2. Carbonate beverage in preparation for filling	2.1 Carry out pre-start checks of equipment and product 2.2 Start up equipment and carbonate product to specification 2.3 Add additional ingredients as required, and record for traceability 2.4 Monitor levels of carbon dioxide and dissolved oxygen 2.5 Monitor equipment to identify any variation in operation, and adjust to ensure optimal performance 2.6 Sample beverage to ensure product specifications are met
3. Operate and monitor filling	3.1 Carry out pre-start checks of filling equipment and product 3.2 Check containers against production order and container specifications 3.3 Start equipment and fill containers to specification 3.4 Maintain stock flow to and from filler process within production requirements 3.5 Monitor fill levels and container seals to ensure product meets specification 3.6 Monitor equipment to identify any variation in operation, and adjust to ensure optimal performance 3.7 Pasteurise product as required of product specification
4. Shut down equipment and conduct housekeeping	4.1 Shut down equipment according to safe work procedures 4.2 Clean and maintain equipment to meet cleaning schedules and procedural requirements 4.3 Collect, treat and dispose of or recycle waste generated by both the process and cleaning procedures 4.4 Record filling activity to meet workplace and regulatory requirements

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 directions for the safe operation of equipment - Operate equipment using digital interface
Writing	Record product and processing information using digital and/or paper-based formats
Numeracy	- Monitor and interpret production and process control indicators and data - Monitor supply and flow of materials to and from the process - Measure volume of product (mL, L)

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBPG3010 Operate and monitor a carbonated beverage filling process	FBPOPR2005 Operate a beer filling process	Unit title and code updated to better match complexity of work task References to beer removed for broader application Element on carbonation added Minor changes to Performance Criteria to clarify task Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	Not 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 FBPBP3010 Operate and monitor a carbonated beverage filling 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 a filling process for at least one batch of carbonated beverage, including:

- applying food safety procedures to work practices
- following safe work procedures
- clearing routine jams and rectifying routine problems.

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:

- relationship between the filling process, production and packaging operations
- requirements of the filling process specific to product
- requirements of pre-start checks, including:
 - inspecting equipment condition to identify any signs of wear
 - selecting appropriate settings and/or related parameters
 - cancelling isolation or lock-outs
 - confirming that equipment is clean and correctly configured for processing requirements
 - positioning sensors and controls correctly
 - ensuring any scheduled maintenance has been carried out
 - confirming that all safety guards are in place and operational
- types of fillers used
- typical faults that occur and how they can be rectified, including:
 - flow rates/quantity
 - broken or faulty containers
 - contaminated product

- equipment faults
- services faults
- common microbiological, physical, chemical and allergen hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence
- aseptic filling and sealing requirements
- contamination/cross-contamination and food safety risks associated with the filling process, and related control measures
- quality characteristics to be identified, including levels of dissolved oxygen and carbon dioxide
- process specifications, procedures and operating parameters
- significance and methods of monitoring control points within the beverage filling process
- equipment and instrumentation used for filling
- services used in the filling process
- common causes of variation, and corrective action required
- good manufacturing practices (GMP) relevant to work task
- workplace procedures and responsibility for reporting problems
- shutdown and cleaning requirements associated with changeovers, and types of shutdowns
- waste handling requirements and procedures relevant to the filling process
- recording requirements and procedures, including down time
- environmental issues and controls relevant to the filling and sealing process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitisation procedures for filling process
- traceability requirements.

Assessment Conditions

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

- physical conditions:
 - a food or beverage processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective clothing and equipment
 - filling equipment and services
 - product to be filled
 - containers
 - cleaning equipment and materials
- specifications:

- work procedures, including advice on safe work practices, food safety and environmental requirements
- production schedule, batch instructions, control points and filling parameters
- sampling and testing schedules
- documentation and recording requirements.

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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