



**Australian Government**

# **FBPBPG2011 Operate a fill and seal process**

**Release: 1**

## FBPBPG2011 Operate a fill and seal 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 fill and seal process.

This unit applies to individuals who work under general supervision and in a food processing packing environment. It typically applies to the worker responsible for applying basic operating principles to the operation and monitoring of a filling and sealing process and associated equipment. This is a primary packaging process to fill product into packaging, including bottles, jars, boxes, drums, bladders and pails. It can apply to both aseptic and non-aseptic filling and sealing processes.

This unit should not be delivered in a qualification with FBPBPG3012 Operate and monitor a form, fill and seal process.

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> |

| <b>Elements</b>                                                        | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 work instructions and clarify where required<br>1.2 Identify health and safety hazards and inform supervisor<br>1.3 Wear appropriate personal protective equipment and ensure correct fit<br>1.4 Confirm that materials and packaging components and consumables are available to meet food safety and operating requirements<br>1.5 Identify and confirm equipment is clean and not locked out |
| 2. Prepare the filling and sealing equipment and process for operation | 2.1 Fit machine and adjust machine components and related attachments to meet safety and operating requirements<br>2.2 Acknowledge operating parameters to meet safety and production requirements<br>2.3 Carry out pre-start checks, adjusting equipment performance according to work health and safety and operating procedures                                                                          |
| 3. Operate and monitor equipment                                       | 3.1 Start, operate and monitor the process for variation in operating conditions<br>3.2 Monitor packaging quality and ensure seal integrity meets specifications<br>3.3 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements<br>3.4 Follow and apply workplace cleaning procedures and environmental requirements                    |
| 4. Shut down the filling and sealing process                           | 4.1 Identify the appropriate shutdown procedure, and implement<br>4.2 Report maintenance requirements according to workplace procedures<br>4.3 Maintain workplace records 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            | <ul style="list-style-type: none"><li>Interpret workplace and standard operating procedures relevant to work task</li><li>Interpret production requirements</li></ul>                                                                         |
| Writing            | <ul style="list-style-type: none"><li>Record data and observations using digital and/or paper-based formats</li></ul>                                                                                                                         |
| Oral communication | <ul style="list-style-type: none"><li>Ask questions to clarify understanding or seek further information</li></ul>                                                                                                                            |
| Numeracy           | <ul style="list-style-type: none"><li>Monitor and interpret production and process control indicators and data, including weight (g, kg) and/or volume (ml, L)</li><li>Monitor supply and flow of materials to and from the process</li></ul> |

## Unit Mapping Information

| Code and title current version               | Code and title previous version              | Comments                                                                                                                                                                                                     | Equivalence status |
|----------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FBPBP2011<br>Operate a fill and seal process | FBPOP2021<br>Operate a fill and seal process | Updated sector code<br>Minor changes to Performance Criteria to clarify task<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 FBPBP2011 Operate a fill and seal 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 a fill and seal process to package one batch of product to specification, including:

- monitoring control points and conducting inspections as required to confirm process remains within specification, including:
  - flow rates
  - product weights and volumes
  - fill levels
  - times and temperatures, including product and sealing temperatures
  - supply of packaging components/consumables
  - packaging quality and seal integrity, including testing seal integrity
- following safe work procedures
- addressing routine processing issues.

## 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 basic principles of filling and sealing, including the purpose and characteristics required of packaging materials used and the method used to fill and seal product (where methods involve vacuum or map packaging, this includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements, including product weight
- basic operating principles of filling and sealing equipment, including:
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications

- the purpose and location of sensors and related feedback instrumentation
- services required for operation of filling equipment used in the workplace
- the flow of processes supplying the filling and sealing process, and the effect of outputs on downstream processes
- quality characteristics and requirements of filling and sealing, including:
  - quality requirements of product and packaging components/consumables
  - requirements of filling, including fill levels and weights
  - requirements of seal formation and integrity, and integrity testing procedures, where required
- methods used to monitor the process, including inspecting, measuring and testing
- inspection or test points (control points) in the process and the related procedures and recording requirements
- operating requirements and parameters, and corrective action required where operation is outside specified operating parameters, including procedures to clear a breach and restart following a crash or jam-up, as appropriate
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, and early warning signs of potential problems
- common causes of variation, and corrective action required, including the effect of variation in both product and packaging components/consumables on filling and sealing performance, which also includes the effect of temperature variation on the filling process
- food safety hazards and risks associated with filling and sealing, and related control measures
- health and safety hazards and controls requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- 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
- aseptic filling and sealing requirements
- cleaning and sanitation procedures for filling and sealing equipment
- recording requirements for traceability of product.

## Assessment Conditions

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

- physical conditions:
  - a food processing packing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - filling and sealing equipment and related services

- personal protective equipment
- materials and packaging components/consumables to be formed and filled
- product
- cleaning materials and equipment
- specifications:
  - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems and production/packaging schedules
  - information on equipment capacity and operating parameters
  - specifications, control points and operating parameters
  - 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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