



**Australian Government**

# **FBPOPR2021 Operate a fill and seal process**

**Release: 1**

## FBPOPR2021 Operate a fill and seal process

### Modification History

| Release   | Comments                                                                                      |
|-----------|-----------------------------------------------------------------------------------------------|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0 |

### 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 exercise limited autonomy 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, boxes, drums, bladders and pails. It can apply to both aseptic and non-aseptic filling and sealing processes.

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

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

### Pre-requisite Unit

Nil

### Unit Sector

Operational (OPR)

### 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 Read or listen to work instructions from supervisor and clarify where needed                       |

| Elements                                                               | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                       | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                      |
|                                                                        | 1.2 Identify work health and safety hazards and tell 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 cleaning and maintenance requirements and status                               |
| 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 Enter operating parameters as required 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 the filling and sealing process                 | 3.1 Start, operate and monitor the process for variation in operating conditions<br>3.2 Monitor packaging quality and seal integrity to meet safety and production requirements<br>3.3 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements<br>3.4 Follow and apply workplace cleaning and environmental procedures |
| 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 job role</li> <li>Interpret production requirements</li> </ul>                                                                                                                                                                                                                                                      |
| Writing                    | <ul style="list-style-type: none"> <li>Record operating, routine maintenance and shutdown information on paper-based and electronic media</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> </ul>                                                                                                                                                                                                                             |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Apply workplace procedures to own role and responsibilities</li> <li>Identify skills, knowledge and experience required for performing own role in the workplace</li> <li>Ask questions to clarify understanding or seek further information</li> </ul>                                                                                                                               |
| Interact with others       | <ul style="list-style-type: none"> <li>Communicate and report operational and safety information to relevant personnel</li> <li>Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures</li> </ul>                                                                                                                                              |
| Get the work done          | <ul style="list-style-type: none"> <li>Access and interpret process control panels and system</li> <li>Maintain a clean and hazard-free work area</li> <li>Identify out-of-specification standards and maintain quality specifications</li> <li>Confirm equipment status and condition</li> <li>Interpret process and equipment information to monitor process and respond to abnormal performance and variations</li> </ul> |

## Unit Mapping Information

| Code and title current version                | Code and title previous version               | Comments                                        | Equivalence status |
|-----------------------------------------------|-----------------------------------------------|-------------------------------------------------|--------------------|
| FBPOPR2021<br>Operate a fill and seal process | FDFOP2021A<br>Operate a fill and seal process | Updated to meet Standards for Training Packages | Equivalent unit    |

## 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 FBPOPR2021 Operate a fill and seal process

## Modification History

| Release   | Comments                                                                                      |
|-----------|-----------------------------------------------------------------------------------------------|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0 |

## Performance Evidence

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

There must be evidence that the individual has operated a fill and seal process on at least one occasion, including:

- accessing workplace information to identify filling and packaging requirements
- selecting, fitting and using PPE
- confirming supply of necessary packaging components/consumables, product and services
- conducting 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 as required
  - confirming that equipment is clean and correctly configured for packaging requirements
  - loading packaging components/consumables
  - positioning sensors and controls correctly
  - ensuring any scheduled maintenance has been completed
  - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting the filling and sealing process equipment to achieve required outcomes, 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
- taking corrective action in response to out-of-specification results

- responding to and/or reporting equipment failure within level of responsibility
- locating emergency stop functions on equipment
- following isolation and lock-out/tag-out procedures as required to take filling and sealing process and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility
- preparing filling and sealing equipment for cleaning
- completing workplace records as required
- maintaining work area to meet housekeeping standards
- using process control systems according to enterprise procedures
- cleaning and sanitising equipment according to enterprise procedures
- following relevant work health and safety 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 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, it includes an understanding of the effect of modified atmosphere on product shelf-life)
- product and packaging coding requirements and related legal 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 as required by the process
- 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
- work 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 the filling and sealing process.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective clothing and equipment
  - filling and sealing process and related equipment and services
  - materials and packaging components/consumables to be formed and filled
  - product
  - sampling schedules and test procedures and equipment as required
  - documentation
  - cleaning procedures, 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 and procedures.

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

## Links

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