Modification history

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 5.0

FBPBPG3XX3	Operate and monitor a form, fill and seal process
Application	This unit of competency describes the skills and knowledge required to set up, operate, monitor, adjust and shut down a form, fill and seal process. This unit applies to individuals responsible for applying basic operating principles to the operation and monitoring of a forming, filling and sealing process and associated equipment. It can apply to both aseptic and non-aseptic form and fill processes. This unit should not be delivered in a qualification with FBPBPG2XX4 Operate a fill and seal process. 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.
Prerequisite Unit	Nil
Unit Sector	Bottling and packaging (BPG)

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare for work in processing area	1.1 Confirm work instructions and clarify where required 1.2 Identify health and safety hazards and address risks 1.3 Wear appropriate personal protective equipment and ensure correct fit 1.4 Confirm that materials and packaging components and consumables are available to meet operating and food safety requirements 1.5 Identify and confirm equipment is clean, according to food safety guidelines, and not locked out
2. Prepare the forming, filling and sealing equipment and process for operation	2.1 Fit and adjust machine components and related attachments to meet safety and operating requirements 2.2 Acknowledge operating parameters to meet safety and production requirements 2.3 Carry out pre-start checks, adjusting equipment performance according to operating procedures
3. Operate and monitor equipment	3.1 Start, operate and monitor the process for variation in operating conditions according to safe work procedures 3.2 Monitor process to ensure fill levels are within specification 3.3 Monitor packaging quality and ensure seal integrity meets specifications 3.4 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Follow and apply workplace cleaning procedures and dispose of waste following environmental requirements
4. Shut down the forming, filling and sealing process	4.1 Identify the appropriate shutdown procedure and implement 4.2 Report routine maintenance requirements according to workplace procedures 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	• Interpret workplace and standard operating procedures relevant to work task • Interpret production requirements
Writing	• Record data and observations using digital and/or paper-based formats
Numeracy	• Monitor and interpret production and process control indicators and data, including weight (g, kg) and/or volume (ml, L) • Monitor supply and flow of materials to and from the process

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPBPG3XX3 Operate and monitor a form, fill and seal process	FBPOPR2020 Operate a form, fill and seal process	Updated unit code and title Minor changes to Performance Criteria to clarify task Foundation skills refined Performance Evidence clarified Minor changes to Knowledge Evidence to clarify requirements and Assessment Conditions	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

TITLE	Assessment requirements for FBPBPG3XX3 Operate and monitor a form, fill and seal process

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 form, fill and seal process to process at least one batch of goods to specification, including:
- starting, operating, monitoring and adjusting the forming, 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:
  - formation of container/packaging
  - flow rates
  - product weights and volumes
  - fill levels
  - temperature, including product and sealing temperatures
  - supply of packaging components/consumables
  - packaging quality and seal integrity, including testing packaging integrity
- following safe work procedures
- taking corrective action in response to typical faults and inconsistencies, including incorrect fill levels and misaligned seals.

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 forming, filling and sealing, including:
  - the purpose and characteristics required of packaging materials used
  - the methods used to form packaging, 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, including product weight
- basic operating principles of forming, 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 form, fill and seal equipment used in the workplace
- the flow of processes supplying the forming, filling and sealing process and the effect of process output on downstream processes
- good manufacturing practices (GMP) relevant to work task
- quality characteristics and requirements of forming, filling and sealing, including:
  - quality requirements of product and packaging components/consumables
  - requirements of packaging forming stage, and 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
- contamination/cross-contamination and food safety risks associated with the form, fill and seal and related control measures
- operating requirements and parameters and corrective action required where operation is outside specified operating parameters, including restart procedures following a crash or jam-up
- 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 characteristics and packaging components/consumables on forming, filling and sealing performance

Knowledge Evidence

- food safety hazards and risks associated with forming, filling and sealing, and related control measures
- health and safety hazards and controls relevant to the form, fill and seal process
- requirements of different shutdowns as appropriate to the process and workplace production 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 forming, 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 container preparation/forming, filling and sealing requirements
- cleaning and sanitation procedures for form, fill and seal equipment
- recording requirements for traceability of product.

Assessment Conditions

Assessment of skills 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:
    - forming, filling and sealing equipment and related services
    - personal protective clothing and equipment
    - materials and packaging components/consumables to be formed, filled and sealed
    - product
    - cleaning materials and equipment
- specifications:
    - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, 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.

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