



Australian Government

FBPOPR2037 Operate a filtration process

Release: 1

FBPOPR2037 Operate a filtration 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 filtration process.

This unit applies to individuals who work under general supervision and exercise limited autonomy in a food processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a filtration process and associated equipment.

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 filtration processing area	1.1 Confirm materials are available to meet operating requirements 1.2 Identify and confirm cleaning and maintenance requirements and status according to work health and safety and food safety requirements

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 Wear appropriate personal protective clothing and ensure correct fit
2. Prepare the filtration equipment and process for operation	2.1 Fit and adjust machine components and related attachments to meet operating requirements 2.2 Enter processing and operating parameters to meet safety and production requirements 2.3 Check equipment performance and adjust according to production requirements 2.4 Carry out pre-start checks according to work health and safety and operating procedures
3. Operate and monitor the filtration process	3.1 Start, operate and monitor the filtration process for variation in operating conditions 3.2 Confirm separation of solids from solution meets specifications 3.3 Monitor the process to confirm that specifications are met 3.4 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.5 Follow and apply workplace housekeeping and environmental procedures
4. Shut down the filtration process	4.1 Identify the appropriate shutdown procedure 4.2 Shut down the process according to work health and safety and operating procedures 4.3 Identify and report maintenance requirements according to workplace procedures 4.4 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
-------	-------------

Skill	Description
Reading	- Interpret workplace and standard operating procedures relevant to job role - Interpret production requirements
Writing	Record operating, routine maintenance and shutdown information on paper-based and electronic media
Numeracy	- Monitor and interpret production and process control indicators and data - Monitor supply and flow of materials to and from the process
Navigate the world of work	- Apply workplace procedures to own role and responsibilities - Identify skills, knowledge and experience required for performing own role in the workplace - Ask questions to clarify understanding or seek further information
Interact with others	- Communicate and report operational and safety information to relevant personnel - Use modes of communication suitable to purpose to confirm understanding when conducting operational start-up and shutdown procedures
Get the work done	- Access and interpret process control panels and system - Maintain a clean and hazard-free work area - Identify out-of-specification standards and maintain quality specifications - Confirm equipment status and condition - Interpret process and equipment information to monitor process and respond to abnormal performance and variations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOPR2037 Operate a filtration process	FDFOP2037A Operate a filtration 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 FBPOPR2037 Operate a filtration 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 filtration process on at least one occasion, including:

- accessing workplace information to identify filtration processing requirements
- selecting, fitting and using personal protective clothing and/or equipment
- confirming supply of necessary materials and services
- conducting pre-start checks, including:
 - inspecting equipment condition to identify any signs of wear
 - selecting and fitting appropriate screens and equipment components
 - selecting settings and/or related parameters
 - cancelling isolation or lock-outs as required
 - positioning sensors and controls correctly
 - ensuring any scheduled maintenance has been carried out
 - confirming that all safety guards are in place and operational
- starting, operating, monitoring and adjusting filtration process and equipment to achieve required outcomes, including:
 - flow rates
 - residence time
 - solids for in-feeds and out-feeds (this is typically done by conducting a spin test)
- monitoring supply and flow of materials to and from the filtration process
- taking corrective action in response to out-of-specification results, including identifying and responding to sieve or screen blockages or tears
- identifying and/or reporting equipment faults, including confirming condition screens and sieves and replacing damaged components within level of responsibility
- locating emergency stop functions on equipment
- follow isolation and lock-out/tag-out procedures to take filtration and related equipment off-line in preparation for cleaning and/or maintenance within level of responsibility

- cleaning and sanitising filtration equipment
- completing workplace records
- maintaining work area to meet housekeeping standards
- using process control systems according to workplace 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 filtration, including stages and changes that occur during filtration
- basic operating principles of filtration equipment, including:
 - main equipment components
 - status and purpose of guards
 - equipment operating capacities and applications, including relevant screens and sieves by filtration equipment
 - the purpose and location of sensors and related feedback instrumentation
- services required for operation of filtration equipment used in the workplace
- the flow of the filtration process and the effect of product output on downstream processes
- effect of raw material characteristics on filtration performance
- quality characteristics required of filtration process output
- test methods used to monitor solids in in-feed and out-feed streams
- operating requirements and parameters for the filtration process and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems, including screen or sieve damage
- common causes of variation in the operation of the filtration process and corrective action required
- spoilage and other food safety risks associated with filtration
- work health and safety hazards and controls, including the limitations of protective clothing and equipment relevant to the work process
- requirements of different shutdowns as appropriate to the filtration process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage
- cleaning procedures appropriate for the range of filtration components used
- isolation, lock-out and tag-out procedures and responsibilities required for the operation of the filtration process
- cleaning and sanitising methods and procedures required for the filtration process
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to filtration, including handling of effluent

- basic operating principles of process control, where relevant, including the relationship between control panels and systems and the physical equipment.

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
 - filtration and related equipment and services
 - materials required for filtration
 - sampling schedules and test procedures and equipment as required
 - cleaning procedures, materials and equipment
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements, stock flow systems, production schedules, and batch/recipe instructions
 - information on equipment capacity and operating parameters
 - production schedule/batch instructions
 - documentation and 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>