



Australian Government

FBPOIL3011 Operate and monitor an olive oil separation process

Release: 1

FBPOIL3011 Operate and monitor an olive oil separation 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 an olive oil separation process.

This unit applies to individuals who work in an olive oil processing environment. It typically applies to the production worker responsible for applying basic operating principles to the operation and monitoring of a separator and associated equipment.

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

Edible Oils (OIL)

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 Confirm malaxed paste is available to meet product specification 1.2 Confirm separator and associated equipment is clean and ready for operation according to health, safety and food safety requirements 1.3 Wear appropriate personal protective clothing and ensure correct

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	fit
2. Prepare the separation process for operation	2.1 Fit machine components and related attachments and adjust to meet operating requirements 2.2 Enter processing and operating parameters as required to meet safety and production requirements 2.3 Carry out pre-start checks according to workplace health and safety and operating requirements 2.4 Check decanter plates are in the appropriate position 2.5 Pump paste into the decanter ready for separation
3. Operate and monitor equipment	3.1 Start, operate and monitor equipment to ensure optimal performance 3.2 Adjust decanter speed and monitor oil losses in the pomace 3.3 Inject small amount of water into centrifuge to reduce the chances of losing oil in the waste 3.4 Monitor presence of fine solid particles coming with oil that may compromise the separator's cleaning performance 3.5 Monitor performance of vertical centrifuge to confirm separation 3.6 Adjust amount of water added to separator in order to minimise stripping of polar compounds from the oil 3.7 Adjust separator's automatic or manual discharge cycles to ensure a reasonable oil cleaning performance 3.8 Taste and smell oil as it leaves the separator to detect any impurities 3.9 Identify, rectify and report out-of-specification equipment, product or process outcomes according to workplace requirements 3.10 Discard any tainted or impure olive oil according to environmental guidelines 3.11 Complete batch processing records according to workplace requirements
4. Shut down the separation process	4.1 Identify appropriate shutdown procedure 4.2 Shut down process according to workplace health and safety and operating requirements 4.3 Apply workplace cleaning procedures and dispose of any waste

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	according to environmental requirements 4.4 Identify and report maintenance 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
Learning	Problem-solve issues with process to ensure quality outcomes
Reading	- Interpret workplace and standard operating procedures relevant to work task - Interpret production requirements
Writing	Record processing data using digital and/or paper-based formats
Numeracy	- Measure ingredients (kg, T, L, hL) - Monitor and interpret production and process control indicators and data - Monitor supply and flow of materials to and from the process - Calculate percentages to determine water injection requirements (%)

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPOIL3011 Operate and monitor an olive oil separation process	Not applicable	The unit has been created to address a skill or task required by industry that is not covered by an existing unit	Newly created

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 FBPOIL3011 Operate and monitor an olive oil separation 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 and monitored separation equipment to process at least one batch of olive oil to specification, including:

- applying safe work procedures
- following food safety procedures
- taking corrective action in response to typical faults and inconsistencies in separated product.

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 the separation process, including stages and changes that occur during the separation process
- Australian Standard for Olive Oils and Olive-Pomace Oils (AS 5264-2011)
- Australian Olive Industry Code of Practice
- organoleptic properties of different types of olive oil, including extra virgin olive oil (EVOO)
- basic operating principles of equipment for the separation process, including:
 - safety hazards associated with separation equipment and the implications of interchanging parts/incorrect bowl balance
 - 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 separation equipment used in the workplace

- the flow of the separation process and the effect of product output on downstream processes
- impact of in-feed quality and concentration levels on the separation process
- quality characteristics and uses of separation process outputs
- characteristics of two and three phase separators and water usage, and where a water injection is required to reduce the chances of losing oil in the waste
- methods used to monitor the separation process, including inspecting, measuring and testing in-feed and out-feed solids, and other tests as required by the process
- good manufacturing practices (GMP) relevant to work task
- inspection or test points (control points) in the separation process and the related procedures and recording requirements, including use of refractometers, Baume tests and spin tests to measure solids)
- operating requirements and parameters, 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
- common causes of variation, and corrective action required, including how variation in temperature and solids affects the process
- contamination/cross-contamination, spoilage and other food safety risks associated with separating olive oil, and related control measures
- health and safety hazards and controls, including limitations of hearing and protective clothing and equipment relevant to the work 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 required for operating the separation process
- cleaning and sanitation procedures required for separation equipment, hoses, fittings and storage containers
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the operation of the separation process, including handling of effluent
- basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment
- recording procedures to ensure traceability of product.

Assessment Conditions

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

- physical conditions:
 - an oil processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:

- personal protective clothing and equipment
- separation equipment and related services
- malaxed product for separating
- cleaning materials and equipment
- specifications:
 - work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - information on equipment capacity and operating parameters
 - batch specifications, control points and processing 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

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>