

**Modification history**

Release	Comments
Release 2	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 3.0.
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 2.0

FBPCEL3009	Operate the crossflow filtration process
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to operate crossflow filtration within wine or beverage cellar operations.</p> <p>The unit applies to individuals who take responsibility for their own work using discretion and judgement in the selection and use of available resources.</p> <p>All work must be carried out to comply with workplace procedures, according to state/territory health and safety, and food safety regulations, legislation and standards that apply to the workplace.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Cellar Operations (CEL)

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 crossflow filtration operations	1.1 Identify job requirements 1.2 Confirm availability of required materials and services to meet production requirements 1.3 Confirm environmental guidelines and identify potential health and safety in the workplace hazards and controls according to workplace procedures 1.4 Select, fit and use personal protective equipment relevant to the job requirements 1.5 Prepare materials to meet production requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the crossflow filtration process to meet production requirements
2. Operate and monitor the crossflow filtration	2.1 Start up the crossflow filtration process according to workplace procedures 2.2 Monitor process confirm crossflow filtration meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the crossflow operation	3.1 Identify and implement appropriate shutdown procedures 3.2 Dismantle equipment safely and prepare for cleaning 3.3 Collect, treat and dispose of or recycle waste generated by both the crossflow filtration process and cleaning procedures 3.4 Record information according to workplace procedures

<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Comprehend instructions in workplace documents</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete workplace documents in required format</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Perform calculations relating to measurements, quantities and operational specifications</li> <li>Interpret symbols and numbers during monitoring of process</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Apply workplace procedures and legislative responsibilities to own role</li> </ul>
Interact with others	<ul style="list-style-type: none"> <li>Use required communication mode to report operational information to relevant personnel</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Plan, sequence and implement tasks according to set routines and procedures</li> <li>Problem solve issues as they arise</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FBPCEL3009 Operate the crossflow filtration process, Release 2	FBPCEL3009 Operate the crossflow filtration process, Release 1	Unit Application and Assessment Conditions updated to include 'beverage production'.	Equivalent

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a>
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<b>TITLE</b>	<b>Assessment requirements for FBPCEL3009 Operate the crossflow filtration process</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has demonstrated at least one crossflow filtration process including:</p> <ul style="list-style-type: none"> <li>• accessing workplace information to identify crossflow filtration processing requirements</li> <li>• selecting and fitting appropriate personal protective equipment</li> <li>• checking supply and status of materials before commencing crossflow filtration process</li> <li>• preparing and confirming status of equipment and services before commencing crossflow filtration process</li> <li>• setting up and starting the crossflow filtration process</li> <li>• monitoring the pressure crossflow process</li> <li>• taking corrective action in response to non-conformance results</li> <li>• shutting down the process after crossflow filtration operations are completed</li> <li>• conducting work according to environmental and workplace health and safety requirements.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• purpose of the crossflow filtration process and the links between filtration and other processes used in wine operations</li> <li>• basic operating principles of crossflow filtration equipment</li> <li>• types of membranes used in filtration processes and their application in wine making</li> <li>• differences between crossflow filtration and other types of filtration processes used in wine operations</li> <li>• main filtration techniques and how these techniques can affect the characteristics of the wine</li> <li>• main methods used in the crossflow filtration process: <ul style="list-style-type: none"> <li>• backwashing</li> <li>• alternating tangential flow</li> <li>• clean-in-place</li> <li>• concentration</li> <li>• dilution</li> <li>• process flow disruption</li> <li>• flow rate calculation</li> </ul> </li> <li>• common causes of non-conformance results for product, process and equipment and corrective action required including: <ul style="list-style-type: none"> <li>• issues that can be rectified</li> <li>• issues that must be reported</li> </ul> </li> <li>• responsibilities for health and safety in the workplace including: <ul style="list-style-type: none"> <li>• health and safety hazards associated with the crossflow filtration process</li> <li>• methods for controlling risks associated with work health and safety hazards</li> </ul> </li> <li>• responsibilities for identifying and controlling environmental issues</li> <li>• workplace procedures and responsibility for: <ul style="list-style-type: none"> <li>• reporting problems</li> <li>• shutting down the process</li> <li>• cleaning</li> <li>• handling waste</li> <li>• recording information.</li> </ul> </li> </ul>	
<b>Assessment Conditions</b>	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions:</li> </ul>	

### Assessment Conditions

- a wine or beverage production workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - personal protective equipment for crossflow filtration operations
  - equipment and materials required for crossflow filtration process
  - system for recording and reporting information
- specifications:
  - workplace procedures for crossflow filtration process.

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