



Australian Government

FBPCEL2004 Perform heat exchange operations

Release: 1

FBPCEL2004 Perform heat exchange operations

Modification History

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

Application

This unit of competency describes the skills and knowledge required to prepare and operate heat exchange equipment.

The unit applies to individuals who work in winemaking operations and take responsibility for their own work. Individuals generally work under supervision but have some autonomy and accountability for their own work.

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.

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

Pre-requisite Unit

Nil

Unit Sector

Cellar Operations (CEL)

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 the heat exchange process for operation	1.1 Identify and confirm heat exchange operations requirements 1.2 Confirm availability of required materials and services to meet heat exchange operations requirements 1.3 Confirm environmental guidelines and identify potential health

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	and safety hazards and controls according to workplace procedures 1.4 Select and fit personal protective equipment required for heat exchange operations 1.5 Prepare materials to meet heat exchange operations requirements 1.6 Check equipment to confirm readiness for use according to workplace procedures 1.7 Set the process to meet heat exchange operations requirements
2. Operate and monitor the heat exchange process	2.1 Start up the heat exchange process according to workplace procedures 2.2 Monitor control points to confirm performance meets specifications 2.3 Identify and address non-conformance of product, process and equipment according to workplace procedures
3. Shut down the heat exchange process	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 heat exchange process and cleaning procedures 3.4 Record workplace information 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	Comprehend instructions in workplace documents
Writing	Complete workplace documents in required format
Numeracy	- Perform calculations relating to measurements, quantities and operational specifications - Interpret symbols and numbers during monitoring of process
Navigate the world of	Apply workplace procedures and legislative responsibilities to

Skill	Description
work	own role
Interact with others	• Use required communication mode to report operational information to relevant personnel
Get the work done	• Plan, sequence and implement tasks according to set routines and procedures • Respond to routine problems using workplace instructions and procedures

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCEL2004 Perform heat exchange operations	FDFCEL2011A Perform heat exchange operations	Updated to meet Standards for Training Packages Minor changes to Elements and Performance Criteria for clarity Prerequisites removed	Equivalent unit

Links

Companion Volume Implementation Guides are found in VETNet: -

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

Assessment Requirements for FBPCEL2004 Perform heat exchange operations

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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 demonstrated at least one heat exchange operation:

- accessing workplace information to identify heat exchange processing requirements
- selecting and fitting appropriate personal protective equipment (PPE)
- conducting work according to environmental and health and safety requirements in the workplace
- checking supply and status of materials before commencing heat exchange operation
- preparing and confirming status of equipment and services before commencing heat exchange process
- setting up and starting up heat exchange process
- monitoring the heat exchange process
- taking corrective action in response to non-compliance results
- shutting down the process after heat exchange operations are completed.

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 of the heat exchange process and the links between heat exchange and other processes used in wine operations
- basic operating principles of heat exchange equipment
- materials used in the heat exchange process including:
 - grape varieties, whole fruit bunches and common additives
 - preparation requirements and effect of variation on the heat exchange process
- main heat exchange techniques and how these techniques can affect the characteristics of the wine

- methods used to monitor the process
- common causes of non-conformance results for product, process and equipment and corrective action required including:
 - issues that can be rectified
 - issues that must be reported
- responsibilities for health and safety in the workplace including:
 - health and safety hazards associated with the heat exchange process
 - methods for controlling risks associated with health and safety hazards
- responsibilities for identifying and controlling environmental issues
- workplace procedures and responsibility for:
 - reporting problems
 - shutting down the process
 - cleaning
 - handling waste
 - recording required information.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a wine operations workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - PPE for heat exchange operations
 - equipment and materials for heat exchange process
 - system for recording and reporting information
- specifications:
 - workplace procedures for heat exchange operations.

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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