

Modification history

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

FBPTEC4XX4	Manage continuous still operations
Application	<p>This unit of competency describes the skills and knowledge required to oversee the operations of a continuous still and collect spirit to meet specifications. Continuous stills are able to produce a higher concentration of spirit compared to a pot still, and work continuously rather than in batches. Continuous stills are also referred to as column stills.</p> <p>This unit applies to those workers who have responsibility for overseeing the production of spirits and the quality assurance requirements associated with those products. It may include supervising the work of others.</p> <p>Legislative requirements relating to producing alcohol apply to this unit. Users are advised to check current requirements with the Australian Tax Office and state / territory liquor licensing and health agencies.</p>
Prerequisite Unit	Nil
Unit Sector	Technical (TEC)

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 continuous distillation	1.1 Identify hazards associated with continuous still operations and manage risks 1.2 Receive wash and check quality meets specifications 1.3 Prepare botanicals for addition to distillation 1.4 Assemble parts of the continuous still and prepare for operation 1.5 Turn on cooling water briefly to check there are no leaks 1.6 Prepare receival vessels for levels of the still
2. Operate continuous still to distil spirit	2.1 Pump wash to kettle of still 2.2 Place alcohol receival vessels 2.3 Activate boiler and turn on thermometer or insert temperature probe, as required 2.4 Monitor temperature and turn on cooling water when temperature reaches around 50C 2.5 Monitor output of spirit
3. Add botanicals to distillation	3.1 Add prepared botanicals to basket 3.2 Place basket in vapour space above boiling alcohol 3.3 Monitor output of spirit 3.4 Conduct standard tests to monitor alcohol content and quality of product 3.5 Analyse test results and adjust process as required 3.6 Complete processing and batch records to ensure traceability
3. Shutdown continuous still	3.1 Shut down boiler and turn off water 3.2 Dispose of liquid that remains in boiler in line with regulatory and environmental guidelines 3.3 Clean boiler, dome top and condenser thoroughly when cool
4. Conduct housekeeping activities	4.1 Clean equipment and work area in line with workplace procedures 4.2 Conduct routine maintenance activities 4.3 Dispose of waste in line with regulatory requirements

Foundation Skills	
<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>	
Skill	Description
Numeracy	<ul style="list-style-type: none"> • Accurately read and interpret gauges and test results • Calculations to determine alcohol by volume (ABV) based on gravity change
Get the work done	<ul style="list-style-type: none"> • Identify changes in quality of product and trace source

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
FBPTEC4XX4 Manage continuous still operations		New unit	No equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4
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TITLE	Assessment requirements for FBPTEC4XX4 Manage continuous still operations
Performance Evidence	
<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 managed continuous still operations to collect spirit in line with pre-determined specifications, on at least one occasion, including start up and shut down of still.</p>	

Knowledge Evidence	
<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"> • shape and parts of a continuous still and their purpose (analyser, rectifier, plates, pump, water distributor, indicator gauges, heat source) • critical differences between a pot still and a continuous still • boiling temperature of water and ethanol • critical temperatures and stages of refining that occur in a continuous still • harmful chemicals that are produced through distillation, such as methanol • quality and characteristics of spirit from different levels of the still • types and forms of botanicals that can be added to spirit • different methods of adding botanical flavour to spirit • typical tests carried out to check alcohol content, flavour and quality • instruments used for testing and how each is calibrated, such as hydrometer, alchometer • procedures and equipment used for transfer operations, including pumps, membranes, hoses valves, control instruments • equipment and instrumentation components, purpose and operation • significance and method of monitoring control points within the equipment operation • common causes of variation and corrective action required • sanitisation procedures and purpose • hazards, risks and controls, including for working with heat, steam and ethanol • shutdown and cleaning requirements of continuous still • routine maintenance requirements • waste handling and disposal requirements • legislation, regulation and workplace licence requirements related to distilled spirits, including license to operate a still, Australian Taxation Office (ATO) in relation to excise tax, legal definitions of whisky, brandy, rum and gin, waste disposal • recording requirements for traceability of product and Australian Taxation Office (ATO) requirements. 	

Assessment Conditions	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace • resources, equipment and materials: <ul style="list-style-type: none"> • wash • continuous still • testing equipment • specifications <ul style="list-style-type: none"> • product specifications. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	

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