



**Australian Government**

# **FBPTEC4019 Manage still operations to produce brown spirits**

**Release: 1**

## FBPTEC4019 Manage still operations to produce brown spirits

### Modification History

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

### Application

This unit of competency describes the skills and knowledge required to oversee the operations of a still, to produce batches of spirit to be aged in wood, such as whiskey and rum.

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.

Legislative requirements relating to distilling 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.

### Pre-requisite Unit

Nil

### Unit Sector

Technical (TEC)

### 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 distillation                      | 1.1 Identify standards, regulations and guidance materials that cover the requirements of working with ethanol in hazardous and explosive environments<br>1.2 Identify hazards associated with still operations and manage risks<br>1.3 Wear appropriate personal protective equipment (PPE) to ensure personal safety |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                  | 1.4 Identify specification for product<br>1.5 Receive product to be distilled and check quality meets specifications<br>1.6 Prepare still for operation<br>1.7 Prepare receival vessel to collect low wine<br>1.8 Prepare to record distillation details in line with regulatory requirements                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. Operate still to distil spirit                | 2.1 Transfer wash into the wash still<br>2.2 Distil wash to produce low wine, collected into receival vessel<br>2.3 Transfer low wine collected and heads and tails into the spirit still<br>2.4 Prepare alcohol receival vessel to collect distillate<br>2.5 Distil low wine and monitor the alcohol content of distillate throughout the distillation run<br>2.6 Cut flow of distillate at specified points to collect heads, hearts and tails<br>2.7 Conduct sensory analysis tests and monitor alcohol content and quality of product<br>2.8 Complete processing and batch records to ensure traceability<br>2.9 Conduct second distillation run as required for specific product |
| 3. Conduct housekeeping activities               | 3.1 Identify options for use of head and tails of still run<br>3.2 Clean equipment and work area in line with workplace procedures<br>3.3 Conduct routine maintenance activities<br>3.4 Dispose of waste in line with regulatory requirements<br>3.5 Complete batch records in line with workplace 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 |
|-------|-------------|
|-------|-------------|

| Skill              | Description                                                                                                                                                                                 |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral communication | <ul style="list-style-type: none"><li>• Use industry and product appropriate terminology</li></ul>                                                                                          |
| Numeracy           | <ul style="list-style-type: none"><li>• Accurately read and interpret gauges and test results</li><li>• Calculations to determine alcohol by volume (ABV) based on gravity change</li></ul> |

## Unit Mapping Information

| Code and title current version                                 | Code and title previous version | Comments | Equivalence status |
|----------------------------------------------------------------|---------------------------------|----------|--------------------|
| FBPTEC4019<br>Manage still operations to produce brown spirits | Not applicable                  | New unit | No 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 FBPTEC4019 Manage still operations to produce brown spirits

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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 managed still operations to collect spirit in line with pre-determined specifications for a brown spirit, on at least one occasion.

## 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:

- brown spirits typically distilled and aged in wooden casks
- definitions of whiskey, rum and brandy
- types of wash typically used to produce brown spirits
- different methods used for distilling spirits
- shape and parts of a still and their purpose
- critical differences between a pot still and a column still
- purposes of first and subsequent distillations
- alcohol boiling points
- quality and characteristics of different parts of the still run, including heads, hearts and tails
- harmful chemicals that are produced through distillation, including methanol, and boiling point
- alcohol content of different parts of the still run
- stages and changes required for equipment operation, specific to product
- typical tests carried out to check alcohol content, flavour and quality
- sensory analysis techniques to determine parts of distillation run
- instruments used for testing and how each is calibrated, such as hydrometer, alchometer
- options for using heads and tails of distillation run
- procedures and equipment used for transfer operations
- common causes of variation to product and corrective action required

- hazards, risks and controls, including for working with explosive atmosphere, heat, steam and ethanol
- routine maintenance requirements
- waste handling and disposal requirements
- Australian Standards, legislation, regulations and workplace licence requirements related to the production and storage of alcohol
- 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, waste disposal
- recording requirements for traceability of product and ATO requirements.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a workplace setting or an environment that accurately represents a real workplace
- resources, equipment and materials:
  - wash to be distilled
  - still
  - testing equipment
  - safety equipment, including personal protective equipment (PPE)
- specifications:
  - product specifications for brown spirit.

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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