



Australian Government

FBPHVB3005 Operate and monitor a doughnut making process

Release: 1

FBPHVB3005 Operate and monitor a doughnut making 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 the manufacturing process to produce yeast raised or cake doughnuts.

The unit applies to operators who take responsibility for doughnut making operations in a production baking environment. The work includes identifying and providing solutions to routine and some non-routine problems.

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 licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

High Volume Baking (HVB)

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 manufacturing equipment and process for operation	1.1 Confirm availability of ingredients and resources to meet production requirements 1.2 Identify health and safety hazards and address risks, including using appropriate personal protective clothing and equipment 1.3 Identify and confirm equipment is clean and maintenance

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	requirements have been met, according to health, safety and food safety requirements 1.4 Fit machine components and related attachments and adjust to meet operating and safety requirements 1.5 Select processing and operating parameters to meet safety and production requirements 1.6 Carry out pre-start checks according to operator instructions
2. Operate and monitor equipment	2.1 Start and operate the doughnut making process according to workplace procedures 2.2 Monitor equipment to ensure optimal operations 2.3 Monitor the process to confirm that product meets specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 Use equipment to apply topping and fillings according to production specifications and operator instructions 2.6 Conduct work and maintain a clean and tidy workplace according to workplace environmental and food safety procedures
3. Shut down the process	3.1 Complete the process safely according to workplace procedures 3.2 Identify and report maintenance requirements 3.3 Maintain workplace records accurately according to workplace procedures
4. Recognise and correct common faults	4.1 Test doughnuts to ensure end product meets specifications 4.2 Identify causes of typical faults and how they can be rectified according to workplace requirements 4.3 Discard faulty products according to workplace and environmental guidelines

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	Interpret text in work instructions and production schedule, and recognise workplace signage
Writing	Record processing information using digital and/or paper-based formats
Oral communication	Participate in verbal exchanges to ask questions and convey workplace information
Numeracy	- Measure size (mm, cm) and weight (mg, g, kg) of ingredients and products - Scale quantities (up and down) of doughnut mix, oil, glazing and other products needed for production - Interpret gauges, including temperature scales

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPHVB3005 Operate and monitor a doughnut making process	FBPPBK2005 Operate a doughnut making process	Unit code and title updated to better reflect complexity of task Minor changes to Performance Criteria to clarify task Element 4 added Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions to clarify requirements	Not equivalent

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 FBPHVB3005 Operate and monitor a doughnut making 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 set up, operated, adjusted and shut down doughnut-making equipment to produce at least one batch of doughnuts to specification, including:

- applying safe work procedures
- following food safety procedures
- conducting pre-start checks for equipment, including:
 - doughnut mixing and forming equipment
 - deep frying equipment
 - cooling tunnels/spirals
- monitoring and adjusting process equipment to achieve required outcomes, including monitoring:
 - materials transfer prior to commencing mixing
 - mixing parameters for water and flour temperature
 - sequence of ingredient addition and mixing times
 - forming parameters, including air pressure to maintain weight of doughnut
 - proving parameters – humidity and temperature within prover and time
 - frying parameters – oil temperature, appearance of cooked doughnuts and time
- taking corrective action in response to typical faults and inconsistencies.

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 doughnut manufacturing process
- stages and requirements of each processing stage in doughnut manufacture, including:
 - mixing

- dropping
- proving
- frying
- role of main ingredients
- types of equipment, including:
 - doughnut mixing and forming equipment
 - deep frying equipment, gas and electric
 - cooling tunnels and spirals
 - weigh scales
 - hoppers
 - forming equipment
 - cutters
 - provers
- basic operating principles of equipment, including:
 - main equipment components
 - status and purpose of guards
 - equipment operating capacities and applications
 - purpose and location of sensors and related feedback instrumentation
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, loss of power, and early warning signs of potential problems
- good manufacturing practices (GMP) relevant to work task
- basic operating principles of process control, including the relationship between control panels and systems and the doughnut production equipment
- key features of the flow of the doughnut manufacturing process, and the effect of outputs on customer satisfaction and downstream processes, including packaging
- quality requirements of materials, and effect of variation on doughnut manufacturing process performance
- quality characteristics to be achieved by the finished doughnut
- process specifications, procedures and operating parameters, including procedures for adjusting water temperature to compensate for atmospheric conditions
- methods used to monitor the doughnut manufacturing process, including:
 - inspecting, measuring and testing
 - inspection or test points (control points) in the process
 - related procedures and recording requirements
- health and safety hazards and controls, including:
 - limitations of personal protective equipment
 - routine shutdown requirements
 - emergency shutdown procedures
 - procedures to follow in the event of a power outage

- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- contamination/cross-contamination and food safety risks associated with the process, and related control measures
- fundamentals of common microbiological, physical, chemical and allergen hazards related to the foods handled in the work area, including the types of hazards likely to occur, the conditions under which they occur, possible consequences, and control methods to prevent occurrence
- waste disposal procedures
- emerging technologies related to high volume production baking
- cleaning and sanitisation procedures required for production equipment and work area
- procedures to track traceability of product and ingredients.

Assessment Conditions

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

- physical conditions:
 - a high volume production bakery or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective equipment
 - doughnut making and frying equipment and related services
 - equipment to apply toppings and fillings
 - ingredients for batter
 - 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
 - production schedule/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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