



Australian Government

FBPPBK2005 Operate a doughnut making process

Release: 1

FBPPBK2005 Operate a doughnut making process

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down the doughnut manufacturing process.

This unit applies to individuals who work in a baking production environment under general supervision with some accountability for their own work. This includes identifying and providing solutions to a limited range of predictable problems relating to the operation and monitoring of doughnut production.

All work must be carried out to comply with workplace procedures, in accordance with State/Territory work 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

Production baking (PBK)

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 Read or listen to work instructions from supervisor and clarify where needed 1.2 Identify work health and safety hazards and report to supervisor 1.3 Wear appropriate personal protective equipment and ensure

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	correct fit 1.4 Confirm availability of materials to meet production requirements 1.5 Identify and confirm cleaning and maintenance requirements have been met 1.6 Fit machine components and related attachments and adjust to meet operating requirements 1.7 Select processing and operating parameters to meet safety and production requirements 1.8 Check and adjust equipment according to manufacturer instructions to ensure optimum performance 1.9 Carry out pre-start checks according to operator instructions
2. Operate and monitor the doughnut manufacturing process	2.1 Start the doughnut-making process according to workplace procedures 2.2 Monitor equipment to identify variation in operating conditions and report variations in equipment operation 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 guidelines
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

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
Numeracy	- Interpret symbols and numbers to calibrate equipment and check frying temperatures - Use basic arithmetic to calculate quantities of doughnut mix, oil, glazing and other products needed for production
Oral communication	Participate in verbal exchanges to ask questions and convey workplace information
Navigate the world of work	Recognise and follow workplace requirements, including safety, quality, food safety and environmental requirements, associated with own role and area of responsibility
Interact with others	Follow accepted practices and protocols for reporting issues to supervisors
Get the work done	- Follow clearly defined instructions to plan and assemble resources and sequence tasks required to produce doughnuts - Monitor processes and control points, identify routine problems related to own work or role, and initiate standard procedures to resolve - Use key functions and follow routine procedures for using digital technology and automated equipment

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPPBK2005 Operate a doughnut making process	FDFBK2005A Operate a doughnut making process	Updated to meet Standards for Training Packages Minor changes to performance criteria for clarity	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 FBPPBK2005 Operate 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 a doughnut-making process on at least three occasions, including:

- accessing workplace information to identify doughnut manufacturing requirements
- selecting, fitting and using personal protective equipment
- confirming supply of necessary materials and services
- confirming condition of materials, including confirming flour and water temperature, flour type and oil type
- conducting pre-start checks, including:
 - inspecting equipment condition to identify any signs of wear
 - selecting appropriate settings and/or related parameters
 - cancelling isolation or lock outs
 - confirming that equipment is clean and correctly configured for processing requirements
 - positioning sensors and controls correctly
 - ensuring any scheduled maintenance has been carried out
 - confirming that all safety guards are in place and operational
- conducting pre-start checks for equipment, including:
 - doughnut mixing and forming equipment
 - deep frying equipment
 - cooling tunnels/spirals
- starting, operating, 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
- operating finishing/filling equipment according to workplace procedures, including:
 - preparing decorating ingredients
 - mixing and heating, crushing, cutting or sieving toppings
- monitoring temperature of toppings, spread/application of toppings and glazes, jam/filling placement and quantity and appearance of finished product
- using process control systems according to workplace procedures
- taking corrective action in response to out-of-specification results in line with own role and responsibilities
- following work health and safety procedures including:
 - responding to and/or reporting equipment failure
 - locating emergency stop functions on equipment
 - following isolation and lock out or tag out procedures to take process and related equipment off-line in preparation for cleaning and/or maintenance
- completing workplace records
- applying environmental and food safety policies and procedures to work practices, including:
 - maintaining work area to meet housekeeping standards
 - cleaning and sanitising equipment according to workplace procedures.

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
 - proving
 - frying
 - filling
 - finishing
- role of main ingredients, including:
 - flour
 - yeast
 - water
 - ice
 - oil
 - glazes
 - topping

- pre-mixes
- types of equipment, including:
 - doughnut mixing and forming equipment
 - filling equipment
 - finishing equipment
 - deep frying equipment, gas and electric
 - cooling tunnels and spirals
 - weigh scales
 - hoppers
 - forming equipment
 - cutters
 - injectors
 - provers
 - enrobers
- 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
- 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
- operating requirements and parameters and corrective action required where results are out-of-specification operating parameters
- 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
 - temperature of toppings
 - spread and application of toppings and glazes
 - placement of jams and fillings

- quantity and appearance of finished product
- common causes of variation and corrective action required
- doughnut-finishing requirements, including:
 - preparation methods
 - monitoring of parameters
 - application of finishings
 - quality requirements
- work health and safety hazards and controls, including:
 - limitations of personal protective equipment
 - routine shut down requirements
 - emergency shut down 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
- environmental and food safety issues and controls relevant to the doughnut manufacturing process, including:
 - waste and rework collection and handling
 - contamination and food safety risks
- cleaning and sanitation procedures.

Assessment Conditions

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

- physical conditions:
 - a workplace or an environment that accurately represents workplace conditions
- resources, equipment and material:
 - personal protective clothing and equipment
 - doughnut mixing, forming, proving, injecting and frying equipment, and glazing and topping application equipment
 - doughnut ingredients, frying oil and glazing, or toppings and fillings to meet production requirement
 - documentation or technology for recording information
 - cleaning procedures, materials and equipment
- specifications:
 - work instructions including control points and doughnut production processing parameters
 - production schedule and recipe and batch specifications for doughnut products
 - information on equipment capacity and operating parameters
 - workplace procedures for doughnut production process
- relationships (internal and/or external):
 - workplace supervisor

- timeframes:
 - according to work requirements.

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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