

**Modification history**

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 5.0

FBPOPR2029X	Operate a baking process
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down processes used to bake and depan baked products.</p> <p>This unit applies to individuals who work under general supervision in a food processing production workplace. It typically applies to the production worker responsible for producing baked products that may include pastry, biscuits, cake and other dough-based products that may be fresh or frozen.</p> <p>This unit does not apply to production of bread. For bread baking, refer to the relevant plant baking and/or retail baking units of competency.</p> <p>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.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Operational (OPR)

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 baking equipment and process for operation	1.1 Confirm materials are available to meet production requirements 1.2 Wear appropriate personal protective clothing and ensure correct fit 1.3 Prepare materials and pans to meet production requirements 1.4 Confirm services are available and ready for operation 1.5 Set the process to meet safety and production requirements 1.6 Conduct pre-start checks according to operator instructions
2. Operate and monitor equipment	2.1 Start, operate and monitor the baking process for variation in operating conditions 2.2 Load product and bake product to specification according to food safety and operating requirements 2.3 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements 2.4 Follow and apply workplace cleaning procedures and environmental requirements
3. Shut down the baking process	3.1 Identify the appropriate shutdown procedure 3.2 Shut down the process safely according to operating procedures 3.3 Identify and report maintenance requirements 3.4 Maintain workplace records in appropriate format

<b>Foundation Skills</b>	
<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>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Interpret workplace and standard operating procedures relevant to work task</li> <li>Interpret production requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record processing data using electronic, digital and/or paper-based formats</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Monitor and interpret production and process control indicators and data, including temperature (°C), time, speed, moisture</li> <li>Monitor supply and flow of materials to and from the process</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FBPOPR2029X Operate a baking process	FBPOPR2029 Operate a baking process	Minor changes to Performance Criteria to clarify task  Foundation skills refined  Performance Evidence clarified  Minor changes to Knowledge Evidence to clarify requirements and Assessment Conditions	Equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a>
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<b>TITLE</b>	<b>Assessment requirements for FBPOPR2029X Operate a baking process</b>
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**Performance Evidence**

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria of this unit.

There must be evidence that the individual has operated a baking process to bake at least one batch of product to meet specifications, including:

- applying safe work procedures
- following food safety procedures
- 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, and rework bins are positioned
- confirming settings and parameters, including:
  - correct oven settings for baking time
  - oven zone temperatures
  - conveyor speed, loaders and dischargers
  - circulation and exhaust fans
  - water seals
  - burner controls and steam
  - heights, guides and air blowers
  - pre-blast conveyor
- starting, operating, monitoring and adjusting process equipment to achieve required outcomes, including monitoring control points and conducting inspections to confirm process remains within specification, including:
  - baking output, including quantities and product appearance (colour and sheen, uniformity of shape, weight and size, and moisture)
- confirming product is cleanly removed from the pan (depanning stage) and/or belt/band
- addressing routine processing issues.

**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 each stage of the baking process, including the stages of the baking process and changes that occur in the product, including starch gelatinisation, the effect of variables (e.g. time, temperature and humidity), and oven zones as appropriate to oven type
- basic operating principles of equipment, including:
  - the difference between convection and impingement ovens
  - main equipment components
  - status and purpose of guards
  - equipment operating capacities and applications
  - the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the baking process and the effect of outputs on customer satisfaction and downstream processes, including packaging
- quality requirements of materials and the effect of variation on baking process performance
- quality characteristics to be achieved by the baked product
- process specifications, procedures and operating parameters for different baked pastry products
- operating requirements, parameters and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems

<p><b>Knowledge Evidence</b></p> <ul style="list-style-type: none"> <li>• methods used to monitor the baking process, including inspecting, measuring and testing, by the process</li> <li>• inspection or test points (control points) in the baking process and the related procedures and recording requirements, including the ability to conduct dew point and/or wet bulb tests</li> <li>• contamination/cross contamination and food safety risks associated with the baking process and related control measures</li> <li>• 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</li> <li>• common causes of variation and corrective action required</li> <li>• work health and safety hazards and controls, including risks of spontaneous combustion and limitations of protective clothing and equipment used</li> <li>• requirements of different shutdowns as appropriate to the baking process and workplace production requirements, including emergency and routine shutdowns, and procedures to follow in the event of a power outage</li> <li>• isolation, lock-out and tag-out procedures and responsibilities relevant to operating a baking process</li> <li>• procedures and responsibility for reporting production and performance information</li> <li>• environmental issues and controls relevant to the baking process, including waste/rework collection and handling procedures related to the process</li> <li>• purpose and operating procedures for related processes, including in-line proving and finishing equipment where relevant</li> <li>• basic operating principles of process control where relevant, including the relationship between control panels and systems and the physical equipment</li> <li>• routine maintenance procedures for baking equipment</li> <li>• cleaning and sanitation procedures for baking equipment</li> <li>• recording procedures to ensure traceability of product.</li> </ul>	
<p><b>Assessment Conditions</b></p> <p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions: <ul style="list-style-type: none"> <li>• a workplace or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials: <ul style="list-style-type: none"> <li>• personal protective clothing and equipment</li> <li>• baking and depanning equipment and services, and related equipment</li> <li>• product to be baked</li> <li>• sampling schedules and test procedures and equipment</li> </ul> </li> <li>• specifications: <ul style="list-style-type: none"> <li>• work procedures, including advice on safe work practices, food safety, quality and environmental requirements</li> <li>• information on equipment capacity and operating parameters</li> <li>• specifications, control points and processing parameters</li> <li>• production schedule and recipe/batch instructions</li> <li>• documentation and recording requirements and procedures</li> <li>• cleaning procedures, materials and equipment.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
<p><b>Links</b></p>	<p>Companion Volumes, including Implementation Guides, are available at VETNet:  <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4</a></p>