

**Modification history**

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

FBPPBK3XX1	Operate and monitor a cooling and slicing process
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a process to cool and slice baked products such as cake or bread.</p> <p>The unit applies to operators who take responsibility for cooling and slicing operations in a production baking environment. The work includes identifying and providing solutions to routine and some non-routine problems.</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>	Production baking (PBK)

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 cooling and cutting equipment and process for operation	1.1 Confirm availability of baked product 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 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 cooling and cutting process according to workplace procedures 2.2 Monitor equipment to ensure optimal operation 2.3 Monitor the process to confirm that product temperature and cut pieces meet specifications 2.4 Identify, rectify and report out-of-specification product and process outcomes 2.5 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 according to workplace procedures 3.3 Maintain workplace records accurately according to workplace procedures

<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 work instructions and product specifications</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record processing information using electronic, digital and/or paper-based formats</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Follow instructions and ask questions to clarify information</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret symbols and numbers on temperature gauges and scales</li> <li>Use basic arithmetic to calculate quantities</li> <li>Measure size and weight of products and check size of slices against specifications</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>
FBPPBK3XX1 Operate and monitor a cooling and slicing process	FBPPBK2001 Operate a cooling and slicing process	Unit code and title updated to better reflect complexity of task  Minor changes to Performance Criteria to clarify task  Foundation skills refined  Performance Evidence clarified  Minor changes to Knowledge Evidence and Assessment Conditions to clarify requirements	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 FBPPBK3XX1 Operate and monitor a cooling and slicing process</b>
<b>Performance Evidence</b>	
<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 set up, operated, adjusted and shut down cooling and slicing equipment to process at least one batch of product to meet specifications, including:</p> <ul style="list-style-type: none"> <li>• applying safe work procedures</li> <li>• following food safety procedures</li> <li>• conducting pre-start checks on machinery used for cooling and slicing including:             <ul style="list-style-type: none"> <li>• inspecting knife condition to identify any signs of wear</li> <li>• selecting appropriate settings to meet product dimension requirements</li> <li>• cancelling isolation or lock outs</li> <li>• confirming equipment is clean and correctly configured for processing requirements</li> <li>• positioning sensors and controls correctly</li> <li>• ensuring any scheduled maintenance has been completed</li> <li>• confirming all safety guards are in place and operational</li> </ul> </li> <li>• confirming cooling and cutting equipment settings, including:             <ul style="list-style-type: none"> <li>• conveyor speed</li> <li>• cooling tunnel settings</li> <li>• guides</li> <li>• knife position</li> </ul> </li> <li>• starting, operating, monitoring and adjusting process equipment to achieve product specifications including:             <ul style="list-style-type: none"> <li>• temperature gauges</li> <li>• throughput</li> <li>• product appearance, dimensions and weight</li> <li>• knife position and condition</li> </ul> </li> <li>• taking corrective action in response to typical faults and inconsistencies.</li> </ul>	

<b>Knowledge Evidence</b>	
<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"> <li>• purpose and basic principles of cooling and slicing process</li> <li>• basic operating principles of cooling and slicing equipment and main components including:             <ul style="list-style-type: none"> <li>• status and purpose of guards</li> <li>• operating capacities and applications of equipment used in performance evidence</li> <li>• purpose and location of sensors and related feedback instrumentation</li> <li>• procedures to replace rotary knives</li> </ul> </li> <li>• types and safe operating procedures for cooling and slicing equipment, including:             <ul style="list-style-type: none"> <li>• conveyors</li> <li>• cooling tunnels</li> <li>• guides</li> <li>• rotary knives</li> <li>• guillotine knives</li> </ul> </li> <li>• typical equipment faults and related causes, including:             <ul style="list-style-type: none"> <li>• signs and symptoms of faulty equipment</li> <li>• early warning signs of potential problems</li> </ul> </li> <li>• basic operating principles of process control and relationship between control panels and systems, and cooling and slicing equipment</li> <li>• key features of flow of cooling and slicing process and effect of outputs on downstream processes</li> <li>• outcomes to be achieved by cooling and slicing process, including:             <ul style="list-style-type: none"> <li>• required temperature range for product types</li> <li>• scope to adjust product length to achieve a given weight</li> </ul> </li> </ul>	

<b>Knowledge Evidence</b>
<ul style="list-style-type: none"> <li>• operating requirements and parameters, and corrective action required where operation is outside specified operating parameters, including:                             <ul style="list-style-type: none"> <li>• effect of ambient temperature on the cooling process</li> <li>• possible cause of condensation formation on product from the cooling tunnel</li> </ul> </li> <li>• methods used to monitor the cooling and slicing process, including:                             <ul style="list-style-type: none"> <li>• inspecting, measuring and testing</li> <li>• inspection or test points (control points)</li> <li>• related procedures and recording requirements</li> </ul> </li> <li>• common causes of variation and corrective action required</li> <li>• good manufacturing practices (GMP) relevant to work task</li> <li>• health and safety hazards and controls, including:                             <ul style="list-style-type: none"> <li>• risks associated with working with refrigerant and action required in the event of a leak</li> <li>• isolation, lock out and tag out procedures and responsibilities</li> </ul> </li> <li>• contamination/cross contamination and food safety risks associated with the process and related control measures</li> <li>• awareness 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</li> <li>• equipment shutdown requirements relevant to performance evidence, including:                             <ul style="list-style-type: none"> <li>• emergency and routine shutdowns</li> <li>• procedures to follow in the event of a power outage</li> </ul> </li> <li>• procedures and responsibility for reporting production and performance information</li> <li>• cleaning and sanitation procedures required for production equipment and work area</li> <li>• recording procedures to track traceability of product.</li> </ul>

<b>Assessment Conditions</b>
<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 production bakery or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and material:                             <ul style="list-style-type: none"> <li>• personal protective clothing and equipment</li> <li>• cooling and slicing equipment, including conveyors, cooling tunnels, rotary knives, guillotine knives and guides</li> <li>• product for cooling and slicing</li> <li>• cleaning materials 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>• production schedule/batch specifications, control points and processing parameters</li> <li>• recording requirements and procedures.</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>

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