

**Modification history**

| Release   | Comments  |
|-----------|---|
| Release 1 | This version released with FBP Food, Beverage and Pharmaceutical Training Package version 6.0 |

| FBPHVB3XX8               | Operate and monitor a batter production process   |
|--------------------------|---|
| <b>Application</b>       | <p>This unit of competency describes the skills and knowledge required to set up set up, operate, adjust and shut down processes used to produce batter for cakes, puddings and muffins.</p> <p>This unit applies to individuals who take responsibility for the operation and monitoring of a batter production process and associated equipment in a high volume 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 according to state/territory health and safety and food safety regulations, legislation and standards that apply to the workplace.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p> |
| <b>Prerequisite Unit</b> | Nil   |
| <b>Unit Sector</b>       | High volume baking (HVB)  |

| 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 work in processing area           | 1.1 Check and confirm production schedule<br>1.2 Confirm materials are available to meet production requirements<br>1.3 Wear appropriate personal protective clothing and ensure correct fit<br>1.4 Prepare materials and pans to meet production requirements<br>1.5 Confirm services are available and ready for operation  |
| 2. Prepare process for operation                 | 2.1 Check equipment is clean and not locked out<br>2.2 Fit machine components and related attachments and adjust to meet operating requirements<br>2.3 Enter processing and operating parameters as required to meet safety, food safety and production requirements<br>2.4 Carry out pre-start checks according to workplace health and safety and operating requirements<br>2.5 Load ingredients ready for processing, according to product specification and safe work procedures  |
| 3. Operate and monitor equipment                 | 3.1 Start, operate and monitor the batter production process to ensure optimal performance<br>3.2 Monitor equipment and services to ensure optimal performance<br>3.3 Monitor batter to ensure specifications are met<br>3.4 Take samples and test product to ensure it meets specifications<br>3.5 Identify, adjust and report out-of-specification equipment, product or process outcomes according to workplace requirements<br>3.6 Follow and apply workplace cleaning procedures and environmental requirements<br>3.7 Complete batch processing records according to workplace requirements |

| <b>Elements</b>                                  | <b>Performance Criteria</b>   |
|--|---|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>  |
| 4. Complete the process                          | 4.1 Identify the appropriate shutdown procedure<br>4.2 Shut down the process safely according to operating procedures<br>4.3 Prepare equipment for cleaning in preparation for maintenance or next start-up<br>4.4 Identify and report maintenance requirements according to workplace requirements<br>4.5 Complete workplace records according to workplace requirements |
| 5. Recognise and correct common faults           | 5.1 Take samples and test batter to ensure it meets specifications<br>5.2 Identify cause of typical faults and how they can be rectified according to workplace requirements<br>5.3 Discard faulty products according to workplace and environmental guidelines   |

| <b>Foundation Skills</b>   |  |
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| <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>   |
| Learning   | <ul style="list-style-type: none"> <li>• Problem-solve issues with process to ensure quality outcomes</li> </ul>   |
| 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 digital and/or paper-based formats</li> </ul>  |
| Numeracy   | <ul style="list-style-type: none"> <li>• Scale recipes up or down</li> <li>• Calculate yield of batch</li> <li>• Weigh ingredients (mg, g, kg, T)</li> <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> <li>• Check weights of deposited batter</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> |
| FBPHVB3XX8<br>Operate and monitor a batter production process | Not applicable                         | Newly created unit | No equivalent unit        |

| <b>Links</b>  |
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| Companion Volumes, including Implementation Guides, are available at VETNet:<br><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 FBPHVB3XX8 Operate and monitor a batter production 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 operated and monitored production equipment to process at least one batch of cake or pudding batter, including:</p> <ul style="list-style-type: none"> <li>• applying safe work procedures</li> <li>• following food safety procedures</li> <li>• monitoring supply and flow of materials to and from the batter production to confirm it remains within specification, including:             <ul style="list-style-type: none"> <li>• flour temperature and type</li> <li>• moisture</li> <li>• mixing time</li> <li>• mixing speed</li> <li>• batter appearance</li> </ul> </li> <li>• taking corrective action in response to typical faults and inconsistencies.</li> </ul> |   |

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| <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 each stage of the mixing process, the effect of variables (time, temperature and mixing speed)</li> <li>• purpose of mixing equipment</li> <li>• quality characteristics of batter to be achieved by mixing and the effect of variation on baked product</li> <li>• basic operating principles of equipment, including:             <ul style="list-style-type: none"> <li>• main equipment components</li> <li>• status and purpose of guards</li> <li>• equipment operating capacities and applications</li> <li>• the purpose and location of sensors and related feedback instrumentation</li> </ul> </li> <li>• services required and action to take if services are not available</li> <li>• typical cake or pudding batter ingredients and their purpose, including:             <ul style="list-style-type: none"> <li>• flour</li> <li>• moisture</li> <li>• eggs</li> <li>• pre-mixes</li> <li>• typical additives</li> <li>• baking powder</li> <li>• sugar</li> </ul> </li> <li>• the flow of the mixing process and the effect of outputs on downstream processes</li> <li>• process specifications, procedures and operating parameters for batters for different products, including:             <ul style="list-style-type: none"> <li>• mixing time and speed</li> <li>• ingredient and finished batter temperature</li> <li>• batter consistency, appearance and texture</li> </ul> </li> <li>• preparation of pans, tins, trays, liners and papers</li> <li>• operating requirements, parameters and corrective action required where operation is outside specified operating parameters</li> <li>• typical equipment faults and related causes, including signs and symptoms of faulty equipment and early warning signs of potential problems</li> <li>• methods used to monitor the mixing process, including inspecting, measuring specific gravity, flow tests, checking weights and temperatures</li> <li>• inspection or test points (control points) in the mixing process and the related procedures and recording requirements</li> </ul> |  |

| <b>Knowledge Evidence</b>  |
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| <ul style="list-style-type: none"> <li>• contamination/cross contamination, cross contact and food safety risks associated with the mixing 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>• health and safety hazards and controls, including limitations of protective clothing and equipment used</li> <li>• requirements of different shutdowns as appropriate to the mixing 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 mixing process</li> <li>• environmental issues and controls relevant to the mixing process, including waste/rework collection and handling procedures related to the process</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 mixing equipment</li> <li>• cleaning and sanitation procedures for mixing equipment</li> <li>• procedures and responsibility for reporting production information and traceability of product.</li> </ul> |

| <b>Assessment Conditions</b>   |
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| <p>Assessment of the skills in this unit of competency 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 high volume production bakery 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 equipment</li> <li>• mixing equipment and related services</li> <li>• batter ingredients</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>• production schedule and recipe/batch instructions</li> <li>• documentation and recording requirements.</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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