



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FDFBP2004A Operate the bottle sealing process**

**Release: 2**

## FDFBP2004A Operate the bottle sealing process

### Modification History

This unit supersedes and is equivalent to FDFBPBSEA Operate the bottle sealing process.  
April 2012: Minor typographical corrections.

### Unit Descriptor

|                        |                                                                                                                                                                                                      |
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| <b>Unit descriptor</b> | This unit covers the skills and knowledge required to set up, operate and shut down a range of semi-automated and automated bottling and packaging equipment involved in the bottle sealing process. |
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### Application of the Unit

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| <b>Application of the unit</b> | This unit has application in a wine operations bottling and packing environment. It typically targets the worker responsible for applying basic operating principles to the operation and monitoring of a bottle sealing process and associated equipment. |
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

## Employability Skills Information

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| <b>Employability skills</b> | This unit contains employability skills. |
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

| ELEMENT                                           | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Prepare to operate bottle sealing equipment    | 1.1 Product and materials are confirmed and available to meet bottle sealing requirements<br>1.2 Product and materials are prepared to meet bottle sealing requirements<br>1.3 Services are confirmed as available and ready for operation<br>1.4 Bottle sealing equipment is prepared and checked to confirm readiness for use<br>1.5 Equipment is set to meet bottle sealing requirements                                     |
| 2. Operate and monitor the bottle sealing process | 2.1 Bottle sealing equipment is started up according to workplace procedures<br>2.2 Control points are monitored to confirm performance is maintained within specification<br>2.3 Bottles are sealed according to specification<br>2.4 Bottle sealing equipment is monitored to confirm operating condition<br>2.5 Out-of-specification end product, process and equipment performance is identified, rectified and/or reported |
| 3. Shut down the bottle sealing process           | 3.1 Bottle sealing equipment is shut down according to workplace procedures<br>3.2 Bottle sealing equipment is prepared for cleaning<br>3.3 Waste generated by both the process and cleaning procedures is collected, treated and disposed of, or recycled according to workplace procedures<br>3.4 Work is conducted in accordance with workplace environmental guidelines                                                     |
| 4. Record information                             | 4.1 Workplace information is recorded in appropriate format                                                                                                                                                                                                                                                                                                                                                                     |

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

Note: The following required skills should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

### Ability to:

- access workplace information to identify bottle sealing requirements
- select, fit and use appropriate personal protective clothing and/or equipment
- confirm supply of necessary materials and services. This may include:
  - checking sealing materials meet workplace specifications
  - confirming gas, compressed air, water and power are available to equipment
- liaise with other work areas, which may include:
  - maintenance personnel
  - materials supply
  - cellar
  - bottle supply operators
  - bottle filling operators
  - bottle capsuling operators
  - labelling operators
  - quality assurance personnel
- confirm equipment status and condition. This may include completing a test run, making minor adjustments as required and confirming that:
  - cleaning and sanitation processes are completed
  - magazine, hoppers, chutes and guides are operational
  - any adjacent coding equipment is set up and operational
  - line controls (conveyors) are operational
  - line lube is operational and being correctly applied
  - torque testers are correctly calibrated
  - equipment is set for correct bottle height
  - vacuum pump is operational
  - vacuum block and corker jaws are correctly lubricated
  - bottle feeds are filled with correct screws and stars and accurately aligned
- set up and start up the process
- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring:
  - compressed air pressure
  - torque on Roll On Tamper Evident (ROTE) seals
  - cork depths as established by the workplace
  - effective seal on crown seals
  - correct vacuum is being applied to head space in bottle
  - consistent application of wire muselet
  - clarity of wine in bottles being sealed
  - the ongoing quality and appearance of sealing application
  - the ongoing quality of materials used in the sealing process
- monitor supply and flow of product and materials to and from the process
- take corrective action in response to out-of-specification results or non-compliance

- report and/or record corrective action as instructed
- sort, collect, treat, recycle or dispose of waste
- shut down equipment in response to an emergency situation
- shut down equipment in response to routine shutdown requirements. This may include removing product or consumables from the line
- prepare equipment for cleaning. This may involve draining and/or dismantling equipment, and removing waste either manually or by rinsing, in preparation for cleaning and sanitation
- record workplace information
- maintain work area to meet housekeeping standards
- clean and sanitise equipment externally according to enterprise procedures
- take samples according to enterprise procedures
- conduct tests according to enterprise procedures
- carry out routine maintenance according to enterprise procedures
- handle spirits according to enterprise procedures
- identify, rectify and/or report environmental non-compliance according to enterprise procedures
- use oral communication skills/language to fulfil the job role as specified by the organisation, including questioning, active listening, asking for clarification and seeking advice from supervisor
- work cooperatively within a culturally diverse workforce

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**Required knowledge includes:**

Note: The following required knowledge should be applied as appropriate to the equipment and processes that are used in the particular winery or workplace.

**Knowledge of:**

- purpose and principles of bottle sealing equipment
- key features of bottle sealing equipment and components
- links to related processes
- stages and changes which occur during the process
- effect of process stages on end product
- quality characteristics and uses of end product
- effect of product and materials on process outcomes
- emergency and troubleshooting procedures
- process specification, procedures and operating parameters
- equipment and instrumentation components, purpose and operation
- basic operating principles of process control systems where relevant
- services required
- significance and methods of monitoring control points
- common causes of variation and corrective action required
- Occupational Health and Safety (OHS) hazards and controls
- routine maintenance requirements

- lock-out and tag-out procedures
- procedures and responsibility for reporting problems
- environmental issues and controls
- shutdown sequence
- shutdown and cleaning requirements associated with changeovers and types of shutdown
- collection, treatment and handling requirement for waste generated by process and cleaning operation
- recording requirements and procedures
- cleaning and sanitation procedures where relevant
- sampling procedures where relevant
- testing procedures where relevant
- routine maintenance procedures where relevant
- spirit handling requirements and procedures where relevant

## Evidence Guide

| <b>EVIDENCE GUIDE</b>                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Overview of assessment                                                                                                                                                                                                 | Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed. Competence in this unit must be achieved in accordance with food safety standards and regulations.                                                                                                                                                                                                                                                |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit                                                                                                                           | <p>Evidence of ability to:</p> <ul style="list-style-type: none"> <li>• conduct pre-start checks on machinery used for bottle sealing</li> <li>• start, operate, monitor and adjust process equipment to achieve required quality outcomes</li> <li>• take corrective action in response to typical faults and inconsistencies</li> <li>• complete workplace records as required</li> <li>• apply safe work practices and identify OHS hazards and controls</li> <li>• safely shut down equipment.</li> </ul> |
| Context of and specific resources for assessment                                                                                                                                                                       | <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> <li>• personal protective clothing and equipment as</li> </ul>                                                                                                                                                                                                                                                                                                             |

| <b>EVIDENCE GUIDE</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | <p>required</p> <ul style="list-style-type: none"> <li>• work procedures, including advice on company practices, safe work practices, food safety, quality and environmental requirements</li> <li>• instructions, information, specifications and schedules as required</li> <li>• equipment, services and corresponding information as required</li> <li>• products and materials as required</li> <li>• internal and external customers and suppliers as required</li> <li>• cleaning procedures, materials and equipment as required</li> <li>• documentation and recording requirements and procedures.</li> </ul> |
| Method of assessment                | This unit should be assessed together with other units of competency relevant to the function or work role.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Guidance information for assessment | To ensure consistency in one's performance, competence should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.                                                                                                                                                                                                                                                                                                                                                     |

## Range Statement

| <b>RANGE STATEMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p> |                                                                                                                                                              |
| <b>Policies and procedures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Work is carried out in accordance with workplace procedures, licensing requirements and legislative requirements                                             |
| <b>Workplace information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Workplace information can include:</p> <ul style="list-style-type: none"> <li>• Standard Operating Procedures (SOPs)</li> <li>• specifications</li> </ul> |

| <b>RANGE STATEMENT</b>        |                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | <ul style="list-style-type: none"> <li>• production schedules or instructions</li> <li>• work notes</li> <li>• Material Safety Data Sheets (MSDS)</li> <li>• manufacturer instructions</li> <li>• verbal direction from manager, supervisor or senior operator</li> </ul>                                                                  |
| <b>Equipment</b>              | <p>Equipment may seal the product by ROTE seals, such as:</p> <ul style="list-style-type: none"> <li>• Stelvin</li> <li>• corks (natural or synthetic)</li> <li>• cork stoppers</li> <li>• cork and wire muselet to maintain sterile integrity and longevity of product</li> <li>• crown seals for bottle primary fermentation</li> </ul>  |
| <b>Products and materials</b> | <p>Products and materials may include:</p> <ul style="list-style-type: none"> <li>• bottles (any size) for still wine, sparkling wine, fortified wine, spirits and related drink products</li> <li>• ROTE seals</li> <li>• corks (natural or synthetic)</li> <li>• cork stoppers</li> <li>• wire muselet</li> <li>• crown seals</li> </ul> |
| <b>Equipment status</b>       | <p>Confirming equipment status involves:</p> <ul style="list-style-type: none"> <li>• checking that hygiene and sanitation standards, safety standards and pre-start requirements are met and that equipment is operational</li> <li>• checking operation or calibration of measuring instrumentation</li> </ul>                           |
| <b>Services</b>               | <p>Services may include:</p> <ul style="list-style-type: none"> <li>• power</li> <li>• compressed air</li> <li>• water</li> <li>• inert gas</li> <li>• steam</li> <li>• vacuum</li> </ul>                                                                                                                                                  |
| <b>Monitoring the process</b> | <p>Monitoring the process may involve:</p> <ul style="list-style-type: none"> <li>• the use of production data, such as performance control charts</li> </ul>                                                                                                                                                                              |

| <b>RANGE STATEMENT</b>                            |                                                                                                                                                                                                                                                                       |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Process operation and monitoring functions</b> | Process operation and monitoring functions may be: <ul style="list-style-type: none"><li>• manual or involve the use of a process control system</li></ul>                                                                                                            |
| <b>Control points</b>                             | Control points refer to those key points in a work process that must be monitored and controlled. These include: <ul style="list-style-type: none"><li>• food safety (critical)</li><li>• quality and regulatory control points</li><li>• inspection points</li></ul> |
| <b>Information systems</b>                        | Information systems may be: <ul style="list-style-type: none"><li>• print or screen based</li></ul>                                                                                                                                                                   |

## Unit Sector(s)

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| <b>Unit sector</b> | Wine operations |
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## Custom Content Section

Not applicable.