



**AUSTRALIAN  
NATIONAL TRAINING  
AUTHORITY**

# **Food Processing Industry**

## **FDF 98**

# **Biscuits Competency Units**

**NATIONAL FOOD INDUSTRY  
TRAINING COUNCIL**

<b>Qualification</b>	<b>Code</b>
Certificate III in Food Processing	FDF30198
Certificate II in Food Processing	FDF20198
Certificate I in Food Processing	FDF10198

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<b>FDf BIdC1 A</b>	<b>Locate industry and company products and processes (Biscuits)</b>
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**Descriptor** This is a specialist unit that has been customised for the biscuit sector. It covers the products and processes used in the workplace

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Processes and procedures are carried out within company policy and procedures and legislative requirements
- Biscuit processes depend on product type but typically include ingredient preparation, dispensing, cream/filling preparation, dough preparation, forming, baking, combining. It may also include extrusion, toasting and enrobing. Finished products is cooled, wrapped and packed ready for despatch
- Stages refer to functions or activities in the receivals, production, packaging and despatch processes

<b>Element</b>	<b>Performance criteria</b>	<b>Evidence guide – Part A</b>
Identify products and quality requirements	Company product range is identified  Quality requirements of final products are identified in accord with company specifications	Part A of the Evidence guide identifies the knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence Guide outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.
Identify and locate production and packaging processes	Raw materials and related handling systems are located and operated as required  Production and packaging stages and processes are identified  Equipment used for each stage is located	<p><b>Ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify materials and production requirements</li> <li>- identify and locate materials used in the work process</li> <li>- identify and location production and/or packaging stages and process in the workplace</li> <li>- comply with OHS and food safety requirements when moving around the workplace</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- range of final products produced by the company</li> <li>- quality requirements/specifications for final products</li> <li>- consequences of product failing to meet quality requirements</li> <li>- stages and processes used to manufacture and package product</li> <li>- basic purpose of equipment used at each stage</li> </ul>

Element	Performance criteria	Evidence guide – Part A
		<ul style="list-style-type: none"> <li>– outputs at each stage of the process</li> <li>– raw materials/consumables used</li> <li>– preparation, packaging, handling and storage of finished product prior to sale</li> <li>– OHS, quality, food safety and environmental requirements relating to own work</li> </ul>

## Evidence guide – Part B

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to describe biscuit processing products and processes given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production systems, stages and processes
- raw materials, in-process and finished product requirements and/or specifications

## Relationship to other units

Co-requisites:

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

## **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food industry

Related learning resources:

- Industrial Communication A
- Calculations A
- Occupational Health & Safety A
- Quality Assurance A
- Food Safety A (Hygiene and Sanitation A)







**Descriptor**

This is a specialist unit that has been developed for biscuit processing sector. It includes the procedures for weighing and measuring non bulk ingredients

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, and production schedules
- Preparation equipment may include weighing and measuring equipment, load shifting and drum lifting equipment, trolleys, bags, buckets and storage containers. It also includes personal protective equipment such as goggles, gloves, breathing masks and the use of fume cabinets as required
- Non bulk ingredients may include wet non chemical ingredients (syrup, butter) or dry chemical ingredients (salt, spices, skim milk powders, flavours )
- Services may include power, and water
- Inspection/monitoring is typically visual to confirm appearance of product
- Information systems may be print or screen based

Element	Performance criteria	Evidence guide
Prepare the ingredient preparation process for operation	<p>Ingredients are transferred and available to meet production and recipe specifications</p> <p>Services are confirmed as available and ready for operation.</p> <p>Equipment is checked and ready for use</p>	<p>This part of the evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. The Assessment guide and context following, outlines how this guide</p>

<p>Weigh and or measure ingredients</p>	<p>Ingredients are weighed/measured to specification</p> <p>Ingredients are placed in containers/bags, labelled and stored to meet batch and recipe requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared as required</p>	<p>is to be applied. It should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements. This includes using ingredient preparation sheets to identify: <ul style="list-style-type: none"> <li>➤ required ingredients</li> <li>➤ item number</li> <li>➤ product type</li> <li>➤ number of mixes required</li> <li>➤ weights of ingredients required</li> </ul> </li> <li>- confirm supply of necessary product and services. This includes installing new drums/tanks of product as required and ensuring supply of clean and dry containers</li> <li>- select fit and use personal protective clothing and or equipment</li> <li>- liaise with other work areas</li> <li>- confirm equipment status and condition. This may include selection and taring of electronic scales</li> <li>- weigh/measure ingredients. This includes labelling and placing product into ingredients box on trolleys (<i>cont</i>)</li> </ul>
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Element	Performance criteria	Evidence guide
Clean instrumentation and dispose of waste	<p>Weighing, and measuring equipment is cleaned according to company procedures</p> <p>Waste is collected treated and disposed or recycled according to company procedures</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>– monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring for:               <ul style="list-style-type: none"> <li>➢ lumps/contaminants</li> <li>➢ ingredient shortages</li> <li>➢ batch requirements</li> </ul> </li> <li>– take corrective action in response to out-of-specification results or non-compliance</li> <li>– report and record corrective action as required</li> <li>– monitor supply and flow of product to and from the process.</li> <li>– complete relevant workplace documentation</li> <li>– sort, collect, recycle or dispose of inedible offal and waste</li> <li>– prepare equipment for cleaning</li> <li>– record workplace information</li> <li>– maintain work area to meet housekeeping standards</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– recipe and batch specifications</li> <li>– non bulk ingredients used</li> <li>– key features of the preparation operation</li> <li>– links to related processes</li> <li>– specifications, procedures and operating parameters for weighing and measuring ingredients. This includes procedures for selecting and taring scales and the use of check weights to ensure scales are accurate</li> <li>– quality parameters for ingredients</li> <li>– equipment purpose and operation</li> <li>– production requirements and schedules</li> <li>– labelling requirements and purposes</li> <li>– services used</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures for and responsibility for reporting problems</li> <li>– environmental aspects, impacts and controls</li> <li>– cleaning, care and storage of equipment and instrumentation used</li> <li>– housekeeping requirements</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul>
Record information	Workplace information is recorded in the appropriate format	

## Evidence guide (continued)

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to weigh and measure ingredients given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- ingredient preparation sheets and specifications
- non bulk ingredients and additives
- production schedule, batch/recipe instructions
- measuring/weighing equipment
- services
- personal protective equipment and clothing
- cleaning schedule as required
- record keeping system

### **Relationship to other units**

Co-requisites:

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

## **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing industry

Related learning resources:

- Industrial Communication A
- Calculations A
- Occupational Health and Safety A
- Quality Assurance A
- Food Safety A (Hygiene and Sanitation A)

<b>FDf BIDP2 A</b>	<b>Dispense non-bulk ingredients (Biscuits)</b>
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**Descriptor** This is a specialist unit that has been developed for biscuit processing sector. It covers the dispensing and blending of non bulk ingredients used in the manufacture of biscuits

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, and production schedules, batch/recipe instructions and ingredient preparation sheets
- Materials include wet and dry non bulk ingredients and can be highly concentrated materials such as colours, flavours, enzyme powders, preservatives or additives
- Equipment may include weighing and measuring equipment, mixing/blending tanks, sieves, storage tanks, containers, bags and bag sealers. It also includes personal protective equipment such as goggles, gloves, breathing masks and the use of fume cabinets as required
- Confirming status of measuring instrumentation may include checking that instrumentation meets cleaning and sanitation requirements and is measuring accurately. This can involve simple calibrations and checking calibration
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspection points
- Weighing and measuring typically involves the use of highly accurate instrumentation such as high accuracy scales, top hand balance, dispensary instrumentation
- Weighing and dispensing may be automatically or manually controlled
- Services may include power, and water
- Information systems may be print or screen based
- Work may involve exposure to chemicals, dangerous or hazardous substances.

<b>Element</b>	<b>Performance criteria</b>	<b>Evidence guide</b>
Prepare dispensing process for operation	Ingredients are transferred and available to meet production and recipe specifications  Services are confirmed as available and ready for operation.  Measuring and weighing equipment is checked and ready for use	This part of the evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. The Assessment guide and

<p>Measure and/or weigh ingredients</p>	<p>Materials are dispensed and labelled to meet batch/recipe requirements</p> <p>Ingredients are placed in containers/bags, labelled and stored to meet batch and recipe requirements</p>	<p>context following, outlines how this guide is to be applied. It should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements. This includes using ingredient preparation sheets to identify: <ul style="list-style-type: none"> <li>➤ required ingredients</li> <li>➤ when a blend/pre-mix is required</li> <li>➤ product type</li> <li>➤ number of mixes required</li> <li>➤ weight and type of ingredient required</li> </ul> </li> <li>- confirm supply of necessary materials and services.</li> <li>- select fit and use personal protective clothing and or equipment</li> </ul>
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Element	Performance criteria	Evidence guide
<p>Measure and/or weigh ingredients</p>	<p>Pre-mixes and blends are prepared according to recipe/batch instructions</p> <p>Pre-mixes are labelled and stored or transferred as required by production requirements</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p> <p>Waste generated by the process is monitored and cleared as required</p>	<ul style="list-style-type: none"> <li>- liaise with other work areas</li> <li>- confirm equipment status and condition. This may include taring of electronic scales</li> <li>- weigh/measure ingredients. This includes packing, sealing, labelling and storage/transfer of ingredients</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring for: <ul style="list-style-type: none"> <li>➢ appearance, colour, and odour</li> <li>➢ lumps/contaminants</li> <li>➢ ingredient shortages</li> </ul> </li> <li>- prepare blends. This includes sieving and mixing of dry powders in hot water</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve, ensuring : <ul style="list-style-type: none"> <li>➢ water level in tank is to specification</li> <li>➢ water pump operating</li> <li>➢ sieves in place</li> <li>➢ powder pre-mixed prior to addition to tank</li> </ul> </li> </ul>
<p>Clean instrumentation and dispose of waste</p>	<p>Weighing, measuring and pre-mix equipment is cleaned according to company procedures</p> <p>Waste is collected treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- report and record corrective action as required</li> </ul>
<p>Record information</p>	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of product to and from the process.</li> <li>- complete relevant workplace documentation</li> <li>- sort, collect, recycle or dispose waste</li> <li>- prepare equipment for cleaning</li> <li>- record workplace information</li> <li>- maintain work area to meet housekeeping standards</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- recipe and batch specifications</li> <li>- non bulk ingredients used</li> <li>- key features of the weighing/ measuring and blending operations</li> <li>- links to related processes</li> <li>- specifications, procedures and operating parameters for weighing, measuring and blending ingredients. This includes procedures for: <ul style="list-style-type: none"> <li>➢ taring scales</li> <li>➢ checking accuracy of scales</li> <li>➢ requisitioning ingredients</li> <li>➢ storage and segregation of dispensed materials</li> </ul> </li> <li>- quality parameters for ingredients</li> <li>- equipment purpose and operation</li> <li>- production requirements and schedules</li> </ul> <p>(cont)</p>



Element	Performance criteria	Evidence guide
		<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– sealing, labelling and storage requirements and purposes</li> <li>– services used</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures for and responsibility for reporting problems</li> <li>– environmental aspects, impacts and controls</li> <li>– cleaning, care and storage of equipment and instrumentation used</li> <li>– housekeeping requirements</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures. This may include reconciling and recording materials dispensed against materials released and returned to storage</li> </ul>

### Evidence guide (continued)

#### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

#### Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to weigh, measure and blend ingredients given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- ingredient preparation sheets and specifications
- non bulk ingredients and additives
- production schedule, batch/recipe instructions
- measuring/weighing and blending equipment
- services
- personal protective equipment and clothing
- cleaning schedule as required

- record keeping system

### **Relationship to other units**

Pre-requisites or equivalent:

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement the quality system
- Implement the food safety plan

### **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing industry

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`

**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the preparation of sweet fillings or cream

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include weighing, sieving, mixing, pumping and testing equipment and kettles.
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational. It may also involve checking operation/calibration of measuring instrumentation
- Cream filling materials typically includes icing sugar, shortening, colours, flavours, milk powder and additives. Fondant/jam materials typically includes jam, icing sugar, glucose, water, syrups, and additives
- Fillings may include fondants, cream, and jam
- Preparation processes may include mixing/blending and cooking
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems
- Work may involve exposure to chemicals, dangerous and hazardous substances

Element	Performance criteria	Evidence guide
Prepare the process for operation	Ingredients are confirmed and available to meet production requirements  Ingredients are prepared to meet production requirements	Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.  <b>Demonstrated ability to:</b> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements</li> <li>- select, fit and use personal protective clothing and/or equipment</li> <li>- confirm supply of necessary materials and services</li> <li>- liaise with other work areas such as production and dispensing <i>(cont)</i></li> </ul>

Element	Performance criteria	Evidence guide
<p>Prepare the process for operation</p>	<p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production specifications</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- confirm condition of materials</li> <li>- confirm equipment status and condition</li> <li>- weigh and load materials. This may include use of automatic loading systems. It also involves the pumping of jam into kettles</li> <li>- set up and start up the process. This may include setting up and starting up sieving, mixing, pumping and cooking equipment to meet production requirements</li> </ul>
<p>Operate and monitor the filling preparation process</p>	<p>The filling preparation process is started up according to company procedures</p> <p>Ingredients are sieved, mixed and/or cooked to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Fillings meet specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification ingredients, process and equipment performance is identified, rectified and / or reported</p>	<ul style="list-style-type: none"> <li>- prepare fillings. This includes: <ul style="list-style-type: none"> <li>➤ checking temperature of ingredients</li> <li>➤ weighing ingredients</li> <li>➤ loading of ingredients in correct sequence</li> <li>➤ mixing time and speed to product specification</li> <li>➤ kettle times and temperature to product specification</li> </ul> </li> <li>- monitor the filling preparation process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➤ product temperature</li> <li>➤ product weight</li> <li>➤ filling colour, density, viscosity and consistency</li> </ul> </li> <li>- monitor supply and flow of materials to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- report and/or record corrective action as required</li> <li>- conduct product/batch changeovers</li> <li>- transfer fillings to production area</li> <li>- sort, collect, treat, recycle or dispose of waste</li> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records</li> <li>- maintain work area to meet housekeeping standards</li> </ul> <p>May include ability to:</p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- carry out routine maintenance</li> </ul>

Element	Performance criteria	Evidence guide
Shut down the process	<p>The process is shut down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– purpose and basic principles of filling preparation</li> <li>– link to related processes and affect of filling quality on down stream processes</li> <li>– differences in filling types for different product types or brands</li> <li>– effect of raw materials on process outcomes</li> <li>– main methods used to prepare fillings</li> <li>– quality characteristics and uses of fillings</li> <li>– process specifications, procedures and operating parameters. This includes procedures for:               <ul style="list-style-type: none"> <li>➢ storing/holding and transferring fillings</li> <li>➢ remixing to right consistency</li> <li>➢ incorporating left over filling</li> <li>➢ requisitioning and receiving ingredients</li> </ul> </li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic operating principles of process control systems where relevant</li> <li>– services used</li> <li>– significance and methods of monitoring of control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– shut down sequences and cleaning requirements associated with changeovers and types of shutdowns</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p><b>May include knowledge of:</b></p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing plan and procedures</li> <li>– routine maintenance procedures</li> </ul>
Record information	Workplace information is recorded in the appropriate format	

### Evidence guide (continued)

#### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.

- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### **Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to prepare and operate the filling preparation process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and batch instructions
- specifications, control points and processing parameters
- filling preparation equipment and instrumentation
- sampling and testing schedules and procedures, as required
- services
- materials
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to operate the filling preparation process in the workplace, units should be co-assessed.

## **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing industry

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`

Prepare fillings



**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the principles, equipment and procedures used to manufacture biscuit dough

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules, batch/recipe instructions and mixing cards and dough sheets
- Biscuit types may include hard sweet, cream, crackers, cookies, and plain sweet
- Biscuit ingredients may include wet or dry, bulk and pre-weighed non- bulk ingredients.
- Equipment may include mixing, sieving and hydraulic lifting equipment
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational. It may also involve checking operation/calibration of measuring instrumentation
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems
- Work may involve exposure to chemicals, dangerous and hazardous substances

Element	Performance criteria	Evidence guide
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Prepare the process for operation

Materials are confirmed and available to meet production requirements

Services are confirmed as available and ready for operation

Equipment is checked to confirm readiness for use  
The process is set to meet production specifications

The process is set to meet production requirements

**Part A of  
the  
Evidence  
guide  
identifies  
the skills  
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knowledge  
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Element	Performance criteria	Evidence guide
<p>Operate and monitor the dough manufacturing process</p>	<p>The dough manufacturing process is started up according to company procedures</p> <p>Ingredients are sieved (as required) ,loaded mixed to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Dough meets specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- confirm equipment status and condition. This can include ensuring:                             <ul style="list-style-type: none"> <li>➤ equipment is cleaned and controls set to production requirements</li> </ul> </li> <li>- set up and start up the process</li> <li>- prepare dough. This includes loading ingredients in required sequence, sieving of minor ingredients as specified and mixing of ingredients to specification</li> <li>- monitor the dough preparation process and equipment operation to identify out-of-specification results or non-compliance. This can include monitoring:                             <ul style="list-style-type: none"> <li>➤ mixing time and speed</li> <li>➤ dough temperature</li> <li>➤ pH</li> <li>➤ dough consistency, feel and texture</li> <li>➤ moisture level</li> <li>➤ stand time</li> </ul> </li> <li>- tip dough into trough for transfer to forming area</li> </ul>
<p>Shut down the process</p>	<p>The process is shut down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of ingredients to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- report and/or record corrective action as required</li> <li>- conduct product/batch changeovers</li> <li>- sort, collect, treat, recycle or dispose of waste</li> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records</li> <li>- maintain work area to meet housekeeping standards</li> </ul> <p><b>May include ability to:</b></p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- carry out routine maintenance</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- purpose and basic principles of dough manufacturing</li> <li>- Purpose of each stage in the process and links to related stages</li> </ul> <p><i>(cont)</i></p>

Element	Performance criteria	Evidence guide
Record Information	Workplace information is recorded in the appropriate format	<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– effect of each stage on the quality of end product, customer satisfaction and down stream. This may include: <ul style="list-style-type: none"> <li>➢ effect of dough temperature on spread, texture and surface characteristics of final product</li> <li>➢ effect of standing time on consistency/texture of dough and in turn on the forming process</li> </ul> </li> <li>– relationship between forming process and type of dough required</li> <li>– effect of raw materials on process outcomes</li> <li>– effect of dough temperature, consistency and standing time on quality characteristics and uses of pastry for different product types or brands</li> <li>– relationships between time and temperature and humidity in the pastry manufacturing process</li> <li>– process specifications, procedures and operating parameters. This includes procedures for: <ul style="list-style-type: none"> <li>➢ calculating running times</li> <li>➢ calculating number of doughs required to finish off the mix</li> <li>➢ adjusting dough temperature</li> <li>➢ check weighing dough in trough</li> </ul> </li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic operating principles of process control systems where relevant</li> <li>– services used</li> <li>– significance and methods of monitoring of control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– shut down sequences and cleaning requirements associated with changeovers and types of shutdowns</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> <li>– re work rates and procedures</li> </ul> <p>May include knowledge of:</p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing plan and procedures</li> <li>– routine maintenance procedures</li> </ul>

## Evidence guide (continued)

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to manufacture of biscuit dough given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- specifications, control points and processing parameters
- dough mixing equipment and instrumentation
- materials/ingredients
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- relevant work areas and communication system
- relevant OHS clothing and equipment as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures

- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to support the dough manufacturing process in the workplace, units should be co-assessed.

## **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing industry

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`





**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the preparation and operation of the biscuit forming process

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include depositing, rolling, forming and cutting equipment and conveying systems. It also includes personal protection equipment such as hearing protection and eye glasses
- Materials can include various types of biscuit dough, dusting flour and process consumables
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational. It may also involve checking operation/calibration of measuring instrumentation
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

Element	Performance criteria	Evidence guide
Prepare the forming process for operation	<p>Materials are confirmed and available to meet production requirements</p> <p>Materials are prepared to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production specifications</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements</li> <li>- select, fit and use personal protective clothing and/or equipment</li> <li>- confirm supply of necessary materials and services. This includes transfer and loading of dough into hoppers</li> <li>- liaise with other work areas <i>cont)</i></li> </ul>

Element	Performance criteria	Evidence guide
Operate and monitor the forming process	<p>The forming process is started up according to company procedures</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Formed product meets specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- confirm condition of materials. This can include confirming: <ul style="list-style-type: none"> <li>➤ dough type matches product specification</li> <li>➤ dough temperature, consistency/texture, moisture level, weight and colour</li> <li>➤ room temperature</li> <li>➤ dough standing time</li> <li>➤ dough supply</li> </ul> </li> <li>- confirm equipment status and condition. This can include ensuring equipment components are assembled in required configuration for biscuit type</li> <li>- set up and start up the process. This can include: <ul style="list-style-type: none"> <li>➤ setting control panel for process type</li> <li>➤ setting equipment speeds</li> </ul> </li> </ul>

<p>Shut down the process</p>	<p>The forming process is shut down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>➤ adjusting roller and web settings (as required)</li> <li>➤ adjusting depositing/extrusion settings (as required)</li> <li>– form product to specification. This can involve conducting trial run in preparation for full production run</li> <li>– monitor the forming process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring:             <ul style="list-style-type: none"> <li>➤ biscuit size, shape and thickness</li> <li>➤ biscuit weight</li> <li>➤ biscuit temperature</li> <li>➤ incorporation of re-work dough</li> </ul> </li> <li>– monitor supply and flow of materials to and from the process</li> <li>– take corrective action in response to out-of-specification results or non-compliance</li> <li>– report and/or record corrective action as required</li> <li>– conduct product/batch changeovers</li> <li>– sort, collect, treat, recycle or dispose of waste</li> <li>– shut down equipment in response to an emergency situation</li> <li>– shut down equipment in response to routine shut down requirements</li> <li>– prepare equipment for cleaning</li> <li>– maintain workplace records</li> <li>– maintain work area to meet housekeeping standards</li> </ul> <p><b>May include the ability to:</b></p> <ul style="list-style-type: none"> <li>– clean and sanitise equipment</li> <li>– take samples and conduct tests</li> <li>– carry out routine maintenance</li> </ul>
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Element	Performance criteria	Evidence guide
Record information	Workplace information is recorded in the appropriate format	<p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– purpose and basic principles of biscuit forming</li> <li>– purpose of each stage in the process and links to related processes</li> <li>– effect of each stage on the quality of end product, customer satisfaction and down stream processes such as baking and packaging</li> <li>– effect of dough quality on process outcomes</li> <li>– quality characteristics of formed products</li> <li>– process specifications, procedures and operating parameters. This includes procedures for incorporating re-work dough and procedures for mending webs as required</li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic operating principles of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring of control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– shut down sequences and cleaning requirements associated with changeovers and types of shut downs</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p><b>May include knowledge of:</b></p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing plan and procedures</li> <li>– routine maintenance procedures</li> </ul>

## Evidence guide (continued)

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.

- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### **Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to operate a forming process given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- specifications, control points and processing parameters
- forming equipment and instrumentation
- materials
- services
- sampling and testing schedules and procedures, as required
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to operate the forming process in the workplace, units should be co-assessed.

## **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing industry

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`





**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the preparation and operation of the baking process

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include ovens (direct, indirect gas fired (radiant heat) or convection), panning web, take off and cooling conveyors, band brushes, vibratory stripping knives and testing equipment
- Materials include formed dough to be baked and process consumables such as panning oil
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

Element	Performance criteria	Evidence guide
Prepare the process for operation	<p>Materials are confirmed as available to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements</li> <li>- select, fit and use personal protective clothing and equipment</li> <li>- confirm supply of materials and services. This includes checking type and quality of formed dough to be baked</li> <li>- liaise with other work areas. Synchronise web speed with forming and packaging processes as required</li> <li>- confirm equipment status and condition ensuring equipment set for particular run/product</li> </ul> <p><i>(cont)</i></p>

Element	Performance criteria	Evidence guide
Operate and monitor the process	<p>Process is started up according to company procedures</p> <p>Product is baked to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Baked product meets specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- set up and start up the oven. This may include: <ul style="list-style-type: none"> <li>➤ completing safety checks</li> <li>➤ complying with light up and pre-start up procedures</li> <li>➤ setting oven speed and baking times</li> <li>➤ setting each oven zone's temperature, air pressure, burner patterns, dampers, and extraction fans</li> <li>➤ setting steam (if required)</li> <li>➤ ensuring oven and conveyors are clean or product or contaminates</li> </ul> </li> <li>- operate the process to meet specifications</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➤ biscuit size and shape. Check against packet length and packet dimension specifications</li> <li>➤ biscuit texture, colour and weight</li> <li>➤ biscuit moisture level</li> <li>➤ biscuit count</li> <li>➤ product is cleanly removed from baking band</li> </ul> </li> </ul>
Shut down the process and clean equipment	<p>The process is shut-down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of materials to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- conduct batch/product changeovers</li> <li>- report and/or record corrective action as required</li> <li>- sort, collect, treat, recycle or dispose of waste.</li> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records maintain work area to meet housekeeping standards</li> </ul>
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records maintain work area to meet housekeeping standards</li> </ul> <p>May include the ability to:</p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- conduct routine maintenance</li> </ul>

Element	Performance criteria	Evidence guide
		<p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– purpose and basic principles of each stage of the baking process</li> <li>– purpose of each stage and links to related processes</li> <li>– effect of each stage on the quality of end product, customer satisfaction and down stream processes such as packaging</li> <li>– changes which occur in product during baking</li> <li>– quality characteristics of final baked product for each baking zone</li> <li>– process specifications, procedures and operating parameters for different baked pastry products. This includes an understanding of: <ul style="list-style-type: none"> <li>➢ specific function of settings in each oven zone in relation to characteristics of finished product</li> <li>➢ procedures for cleaning and conditioning oven band</li> <li>➢ procedures for conducting trial bake of product, rejecting out-of-specification formed dough and communicating with mixing and forming sections</li> </ul> </li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic understanding of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring control points within the process including testing procedures required during the baking process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– rework requirements and procedures</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p><b>May include:</b></p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing procedures</li> <li>– routine maintenance requirements and procedures</li> </ul>

## Evidence guide (continued)

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### Assessment context

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to bake biscuits given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- baking equipment
- specifications, control points and processing parameters
- product to be baked
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to bake biscuits in the workplace, units should be co-assessed.

### **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing sector

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`



**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the preparation and operation of the biscuit creaming process

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include cream/jam pumps, stirrers and holding tanks, creaming machines (including cream extruders/depositors, stencils) depressors, chain feed, take off webs, stackers, cooling tunnel
- Materials include sweet fillings such as cream, jam, chocolate and baked biscuits (tops and bottoms)
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

Element	Performance criteria	Evidence guide
Prepare the process for operation	<p>Materials are confirmed as available to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements</li> <li>- select, fit and use personal protective clothing and equipment</li> <li>- confirm supply of materials and services. This includes confirming type, quality and supply of biscuits and cream/filling</li> <li>- liaise with other work areas. Synchronise operations with other processes as required</li> <li>- confirm equipment status and condition ensuring equipment set for particular product <i>(cont)</i></li> </ul>

Element	Performance criteria	Evidence guide
Operate and monitor the process	<p>Process is started up according to company procedures</p> <p>Biscuits bases are filled, topped, depressed and stacked to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Biscuit meets specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- set up and start up the process. This may include setting: <ul style="list-style-type: none"> <li>➤ chain feed speed</li> <li>➤ pin and shoe heights</li> <li>➤ depositor timing</li> <li>➤ cream pump speed</li> <li>➤ depressor pressure</li> <li>➤ stacker speed</li> <li>➤ cooling tunnel web speed</li> </ul> </li> <li>It also involves loading and connecting cream hopper and jam kettle to depositing machine</li> <li>- operate the process to meet specifications. This also involves synchronising processes</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➤ cream consistency</li> <li>➤ cream placement</li> <li>➤ ratio of cream to biscuit</li> <li>➤ product weight</li> <li>➤ biscuit dimensions</li> <li>➤ packet length</li> </ul> </li> </ul>
Shut down the process and clean equipment	<p>The process is shut-down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of materials to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- conduct batch/product changeovers</li> <li>- report and/or record corrective action as required</li> </ul>
Record information	Workplace information is recorded in the appropriate format	<ul style="list-style-type: none"> <li>- sort, collect, treat, recycle or dispose of waste.</li> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records maintain work area to meet housekeeping standards</li> </ul> <p><b>May include the ability to:</b></p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- conduct routine maintenance</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- purpose and basic principles of each stage of the creaming process</li> <li>- purpose of each stage and links to related processes</li> <li>- effect of each stage on the quality of end product, customer satisfaction and down stream processes such as packaging <i>(cont)</i></li> </ul>



Element	Performance criteria	Evidence guide
		<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– quality characteristics of final product</li> <li>– process specifications, procedures and operating parameters for: <ul style="list-style-type: none"> <li>➢ loading materials</li> <li>➢ depositing cream</li> <li>➢ topping and depressing biscuit</li> <li>➢ stacking</li> <li>➢ cooling</li> </ul> </li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic understanding of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring control points within the process</li> <li>– common causes of variation and corrective action required such as: <ul style="list-style-type: none"> <li>➢ chipping</li> <li>➢ wedging</li> <li>➢ cream moving/shifting</li> </ul> </li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p>May include:</p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing procedures</li> <li>– routine maintenance requirements and procedures</li> </ul>

### Evidence guide (continued)

#### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.

- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.

### **Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to cream biscuits given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- creaming and stacking equipment
- specifications, control points and processing parameters
- materials
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to cream and stack biscuits in the workplace, units should be co-assessed.

### **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing sector

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`

**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the preparation and operation of an extrusion, toasting and breaking process used in the manufacture of cruskit products

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include mixers, sieves, extrusion, toasting and breaking equipment
- Materials include pre-mixed dry ingredients and water
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

Element	Performance criteria	Evidence guide
Prepare the process for operation	<p>Materials are confirmed as available to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>- access workplace information to identify production requirements</li> <li>- select, fit and use personal protective clothing and equipment</li> <li>- confirm supply of materials and services. This includes ensuring a continuous supply of dry ingredients to the extruder.</li> <li>- liaise with other work areas. Synchronise processes as required</li> <li>- confirm equipment status and condition. This includes ensuring equipment is assembled to specification</li> </ul> <p><i>(cont)</i></p>

Element	Performance criteria	Evidence guide
Operate and monitor the process	<p>Process is started up according to company procedures</p> <p>Materials are mixed, cooked, extruded, toasted and cut to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Product meets specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- set up and start up the equipment. This may include pre start checks for toaster, breaker and extruder. In addition for extruder ensure: <ul style="list-style-type: none"> <li>➤ water pump working</li> <li>➤ bin discharge speed set</li> <li>➤ temperature and heaters set</li> <li>➤ motor speed set</li> <li>➤ screw feed is on</li> </ul> </li> <li>- operate the process to meet specifications ensuring that system has reached specified temperature</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➤ biscuit size (width, length and thickness)</li> <li>➤ biscuit texture, colour and weight</li> <li>➤ biscuit moisture level</li> <li>➤ clean, even break/cut</li> </ul> </li> </ul>
Shut down the process and clean equipment	<p>The process is shut-down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of materials to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- conduct batch/product changeovers</li> <li>- report and/or record corrective action as required</li> <li>- sort, collect, treat, recycle or dispose of waste.</li> </ul>

<p>Record information</p>	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records maintain work area to meet housekeeping standards</li> </ul> <p><b>May include the ability to:</b></p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- conduct routine maintenance</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- purpose and basic principles of each stage of the cruskit manufacturing process</li> <li>- purpose of each stage and links to related processes</li> <li>- effect of each stage on the quality of end product, customer satisfaction and down stream processes such as packaging</li> <li>- changes which occur in product during processing</li> <li>- quality characteristics of final product</li> <li>- process specifications, procedures and operating parameters (<i>cont</i>)</li> </ul>
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Element	Performance criteria	Evidence guide
		<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic understanding of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– rework requirements and procedures</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p>May include:</p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing procedures</li> <li>– routine maintenance requirements and procedures</li> </ul>

**Evidence guide (continued)**

**Assessment guide**

- Assessment must take account of the food industry’s endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry’s core competencies for the particular AQF level.

### **Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to manufacture cruskits given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- extrusion, toasting and breaking equipment
- specifications, control points and processing parameters
- materials
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to manufacture cruskits in the workplace, units should be co-assessed.

### **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing sector

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`

**Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the principles, procedures and equipment used to manufacture wafer products.

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include depositing, and baking equipment and wafer plates
- Materials include pre-mixed batter and production consumables
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

Element	Performance criteria	Evidence guide
Prepare the wafer process for operation	<p>Materials are confirmed as available to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>– access workplace information to identify production requirements</li> <li>– select, fit and use personal protective clothing and equipment</li> <li>– confirm supply of materials and services. This includes confirming quality, quantity and temperature of batter</li> <li>– liaise with other work areas. Synchronise processes as required</li> <li>– confirm equipment status and condition. This includes ensuring equipment is assembled to specification</li> </ul> <p>(cont)</p>



Element	Performance criteria	Evidence guide
Operate and monitor the wafer process	<p>Process is started up according to company procedures</p> <p>Materials are deposited, toasted and cut to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Wafer products meet specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>– set up and start up the equipment. This may include pre start checks for oven and depositing equipment and ensuring: <ul style="list-style-type: none"> <li>➢ batter loaded</li> <li>➢ wafer plates selected for product type</li> <li>➢ oven settings adjusted for product type</li> <li>➢ web/chain speed set</li> <li>➢ rate of batter deposition set</li> </ul> </li> <li>– operate the process to meet specifications ensuring that system has reached specified temperature</li> <li>– monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➢ wafer size (width, length and thickness)</li> <li>➢ wafer texture, colour and weight</li> <li>➢ wafer moisture level</li> </ul> </li> <li>– monitor supply and flow of materials to and from the process</li> </ul>
Shut down the process and clean equipment	<p>The process is shut-down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>– take corrective action in response to out-of-specification results or non-compliance</li> <li>– conduct batch/product changeovers</li> <li>– report and/or record corrective action as required</li> <li>– sort, collect, treat, recycle or dispose of waste.</li> <li>– shut down equipment in response to an emergency situation</li> <li>– shut down equipment in response to routine shut down requirements</li> </ul>
Record information	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> <li>– prepare equipment for cleaning</li> <li>– maintain workplace records maintain work area to meet housekeeping standards</li> </ul> <p><b>May include the ability to:</b></p> <ul style="list-style-type: none"> <li>– clean and sanitise equipment</li> <li>– take samples and conduct tests</li> <li>– conduct routine maintenance</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– purpose and basic principles of each stage of the wafer manufacturing process</li> <li>– purpose of each stage and links to related processes</li> <li>– effect of each stage on the quality of end product, customer satisfaction and down stream processes such as packaging</li> <li>– changes which occur in product during processing</li> </ul> <p><i>(cont)</i></p>

Element	Performance criteria	Evidence guide
		<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– quality characteristics of final product</li> <li>– process specifications, procedures and operating parameters</li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic understanding of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– rework requirements and procedures</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p>May include:</p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing procedures</li> <li>– routine maintenance requirements and procedures</li> </ul>

**Evidence guide (continued)**

**Assessment guide**

- Assessment must take account of the food industry’s endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry’s core competencies for the particular AQF level.

### **Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to manufacture wafers given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- depositing, toasting and cutting equipment
- specifications, control points and processing parameters
- materials
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

### **Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan
- Bake biscuits

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to manufacture wafers in the workplace, units should be co-assessed.

### **Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing sector

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation



**FDF BIRC2 A****Manufacture rye crisp breads****Descriptor**

This is a specialist unit that has been developed for the biscuit sector. It covers the principles, procedures and equipment used to manufacture rye crisp breads

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, legislative requirements and industrial arrangements
- Workplace information can include Standard Operating Procedures (SOPs), specifications, production schedules and batch/recipe instructions
- Equipment may include depositing, baking and cutting (revolving saws) and stacking equipment
- Materials include chilled and aerated slurry and production consumables.
- Confirming equipment status involves checking that hygiene and sanitation standards are met, all safety guards are in place and equipment is operational
- Services may include power, steam, water, vacuum, compressed and instrumentation air
- Monitoring the process may involve the use of production data such as performance control charts
- Process operation and monitoring functions may be manual or involve the use of a process control system
- Control points refer to those key points in a work process that must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspections points
- Information systems may be print or screen based
- Weighing and measuring equipment may include both manual and automated systems

<b>Element</b>	<b>Performance criteria</b>	<b>Evidence guide</b>
Prepare the process for operation	<p>Materials are confirmed as available to meet production requirements</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The process is set to meet production requirements</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>– access workplace information to identify production requirements</li> <li>– select, fit and use personal protective clothing and equipment</li> <li>– confirm supply of materials and services. This includes confirming slurry quality, quantity, temperature and degree of aeration</li> <li>– liaise with other work areas. Synchronise processes as required</li> <li>– confirm equipment status and condition. This includes ensuring equipment is assembled to specification</li> </ul>

Element	Performance criteria	Evidence guide
<p>Operate and monitor the process</p>	<p>Process is started up according to company procedures</p> <p>Materials are deposited, toasted and cut to specification</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>Product meets specifications</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to (continued)</i></p> <ul style="list-style-type: none"> <li>- set up and start up the equipment. This may include pre start checks for depositors, ovens, and cutters. <ul style="list-style-type: none"> <li>➤ slurry loaded</li> <li>➤ oven, cutter and stacker settings adjusted for product type</li> <li>➤ web speed set</li> <li>➤ rate of batter deposition set</li> <li>➤ flour (dusting) process set</li> <li>➤ docking roller adjusted for product type</li> </ul> </li> <li>- operate the process to meet specifications ensuring that system has reached specified temperature</li> <li>- monitor the process and equipment operation to identify out-of-specification results or non-compliance. This can involve monitoring: <ul style="list-style-type: none"> <li>➤ slurry volume, weight and density</li> <li>➤ biscuit size (width, length and thickness)</li> <li>➤ biscuit texture, colour and weight</li> <li>➤ biscuit moisture level</li> <li>➤ clean, even break/cut</li> </ul> </li> </ul>
<p>Shut down the process and clean equipment</p>	<p>The process is shut-down according to company procedures</p> <p>Waste generated by the process is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>- monitor supply and flow of materials to and from the process</li> <li>- take corrective action in response to out-of-specification results or non-compliance</li> <li>- conduct batch/product changeovers</li> <li>- report and/or record corrective action as required</li> </ul>

<p>Record information</p>	<p>Workplace information is recorded in the appropriate format</p>	<ul style="list-style-type: none"> <li>- sort, collect, treat, recycle or dispose of waste.</li> <li>- shut down equipment in response to an emergency situation</li> <li>- shut down equipment in response to routine shut down requirements</li> <li>- prepare equipment for cleaning</li> <li>- maintain workplace records maintain work area to meet housekeeping standards</li> </ul> <p><b>May include the ability to:</b></p> <ul style="list-style-type: none"> <li>- clean and sanitise equipment</li> <li>- take samples and conduct tests</li> <li>- conduct routine maintenance</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>- purpose and basic principles of each stage of the biscuit manufacturing process</li> <li>- purpose of each stage and links to related processes</li> <li>- effect of each stage on the quality of end product, customer satisfaction and down stream processes such as packaging</li> <li>- effect of slurry temperature on it's ability to hold air</li> <li>- effect of docking roller on baking process <i>(cont)</i></li> </ul>
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Element	Performance criteria	Evidence guide
		<p><i>Underpinning knowledge (continued)</i></p> <ul style="list-style-type: none"> <li>– changes which occur in product during processing</li> <li>– quality characteristics of final product</li> <li>– process specifications, procedures and operating parameters</li> <li>– equipment and instrumentation components, purpose and operation</li> <li>– basic understanding of process control systems where relevant</li> <li>– services used</li> <li>– significance and method of monitoring control points within the process</li> <li>– common causes of variation and corrective action required</li> <li>– OHS hazards and controls</li> <li>– lock out and tag out procedures</li> <li>– procedures and responsibility for reporting problems</li> <li>– environmental issues and controls</li> <li>– rework requirements and procedures</li> <li>– waste handling requirements and procedures</li> <li>– recording requirements and procedures</li> </ul> <p>May include:</p> <ul style="list-style-type: none"> <li>– cleaning and sanitation procedures</li> <li>– sampling and testing procedures</li> <li>– routine maintenance requirements and procedures</li> </ul>

**Evidence guide (continued)**

**Assessment guide**

- Assessment must take account of the food industry’s endorsed assessment guidelines and may use the non-endorsed Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995.
- The competencies described in this unit need to be performed over a specified time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should reinforce the integration of the key competencies and the food industry’s core competencies for the particular AQF level.



**Assessment context**

Assessment must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to manufacture biscuits given:

- work procedures including advice on safe work practices, food safety and environmental requirements
- production schedule and recipe/batch instructions
- depositing, baking, cutting and stacking equipment
- specifications, control points and processing parameters
- materials
- sampling and testing schedules and procedures, as required
- services
- material safety data sheets as required
- routine preventative maintenance schedule as required
- cleaning schedule as required
- documentation and record keeping system

**Relationship to other units**

Pre-requisites or equivalent

- Communicate in the workplace
- Apply basic mathematical concepts
- Apply safe work procedures
- Apply basic quality assurance practices
- Apply basic food safety practices

Co-requisites:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement quality system
- Implement food safety plan
- Bake biscuits

Related units:

- Conduct routine tests
- Clean and sanitise equipment
- Conduct routine preventative maintenance

Where related units are required to manufacture wafers in the workplace, units should be co-assessed.

**Relationship to learning resources**

Main learning resources:

There are no specific learning resources currently available for this sector of the food processing sector

Related learning resources:

- Industrial Communication B
- Occupational Health and Safety B
- Quality Assurance B
- Food Safety B (Hygiene and Sanitation B and C)
- Cleaning and Sanitation`

**FDf BIOS3 A****Operate a system (Biscuits)****Descriptor**

This is a specialist unit that has been customised for the biscuit sector. It covers the preparation and operation of a production or packaging system.

A system typically describes the operation of an entire process which may be comprised of a number of sub-systems. System operation requires higher level planning and problem solving skills than are necessary when operating an individual sub-system or piece of equipment. It can also involve facilitating the work of others.

**Range of variables**

The range of variables provides further advice to interpret the scope and context of this unit of competence. It assumes:

- Work is carried out in accordance with company procedures, licensing requirements, legislative requirements and industrial awards and agreements
- System operation typically involves planning, co-ordination and troubleshooting within their level of authority
- Control points refer to those key points in a work process which must be monitored and controlled. This includes food safety (critical), quality and regulatory control points as well as inspection points
- Information systems may be print or screen based
- Co-ordination, planning and troubleshooting is undertaken with assistance from others
- Workplace systems are in place to support production and packaging processes. These include quality, food safety, occupational health and safety and environmental management

<b>Element</b>	<b>Performance criteria</b>	<b>Evidence guide – Part A</b>
Prepare the system for operation	<p>Supply of materials is confirmed to meet production/packaging requirements</p> <p>Work area is prepared for operation</p> <p>Services are confirmed as available and ready for operation</p> <p>Equipment is checked to confirm readiness for use</p> <p>The system is set to meet specifications</p>	<p>Part A of the Evidence guide identifies the skills and knowledge to be demonstrated to confirm competence for this unit. Part B of the Evidence guide outlines how this guide is to be applied. Both parts should be read in conjunction with the Range of variables.</p> <p><b>Demonstrated ability to:</b></p> <ul style="list-style-type: none"> <li>– liaise with relevant work areas to confirm or secure necessary materials, services, equipment and labour to meet production requirements</li> <li>– confirm that all equipment within the system meets hygiene and sanitation standards, all safety guards are in place and equipment is ready for operation</li> <li>– confirm that materials and/pr packaging consumables have been cleared for use</li> <li>– monitor implementation of set-up and start up procedures. This may involve monitoring the use of checksheets by others</li> <li>– monitor observance of work procedures and systems</li> <li>– monitor materials flow and work-in-progress through the system(<i>cont.</i>)</li> </ul>

Element	Performance criteria	Evidence guide – Part A
Operate and monitor the system	<p>The system is started up according to company procedures</p> <p>Control points are monitored to confirm performance is maintained within specification</p> <p>System outputs meet specification</p> <p>Equipment is monitored to confirm operating condition</p> <p>Out-of-specification product, process and equipment performance is identified, rectified and/or reported</p>	<p><i>Demonstrated ability to: (continued)</i></p> <ul style="list-style-type: none"> <li>– confirm that the system operates within specified parameters and control points are monitored</li> <li>– determine responses to out-of-specification results or non-conformance within level of responsibility</li> <li>– co-ordinate batch/product changeovers</li> <li>– communicate information effectively</li> <li>– plan maintenance and cleaning procedures to minimise disruption</li> <li>– monitor operating efficiencies of the system and investigate, resolve and/or report problems</li> <li>– review and maintain procedures to support system improvements</li> </ul> <p><b>Underpinning knowledge:</b></p> <ul style="list-style-type: none"> <li>– purpose and principles of the system</li> <li>– equipment purpose and operation including an understanding of process control systems where used</li> <li>– technical knowledge of product/packaging characteristics and processing/packaging requirements</li> <li>– codes and legislation relating to product and packaging requirements</li> <li>– equipment calibration schedule and responsibilities</li> <li>– type and purpose of sampling and testing conducted</li> <li>– related work areas and departments</li> <li>– relevant procedures, specifications and operating parameters</li> </ul>
Shut down the system	<p>The system is shut down according to company procedures</p> <p>Equipment is cleaned and maintained to meet cleaning schedule and procedural requirements</p> <p>Waste generated by both the process and cleaning procedures is collected, treated and disposed or recycled according to company procedures</p>	<ul style="list-style-type: none"> <li>– relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management</li> <li>– industrial awards and agreements relating to system operation</li> <li>– hazards, risks, controls and methods for monitoring processes within the system</li> <li>– maintenance and cleaning requirements of equipment in system</li> <li>– process improvement procedures and related consultative arrangements</li> <li>– troubleshooting procedures and problem solving techniques</li> <li>– recording and reporting requirements</li> </ul>
Contribute to continuous improvement of the system	<p>Quality of process outputs is assessed against specifications</p> <p>Opportunities for improvement are identified and investigated</p> <p>Proposals for improvements are developed and implemented within company planning arrangements and according to company procedures</p>	<ul style="list-style-type: none"> <li>– relevant systems and legislative responsibilities in areas such as human resources, food safety, quality, occupational health and safety and environmental management</li> <li>– industrial awards and agreements relating to system operation</li> <li>– hazards, risks, controls and methods for monitoring processes within the system</li> <li>– maintenance and cleaning requirements of equipment in system</li> <li>– process improvement procedures and related consultative arrangements</li> <li>– troubleshooting procedures and problem solving techniques</li> <li>– recording and reporting requirements</li> </ul>

Element	Performance criteria	Evidence guide – Part A
Record information	Workplace information is recorded in the appropriate format	

## Evidence guide – Part B

### Assessment guide

- Assessment must take account of the food industry's endorsed assessment guidelines and may use the non-endorsed *Assessment Framework for the Food and Beverage Processing Industry NFITC June 1995*.
- The competencies described in this unit need to be performed over time and events, under normal workplace conditions, having due regard for the key assessment principles of validity, reliability, fairness and flexibility.
- Assessment should be structured on whole of work activities giving emphasis to confirming that the assessee can achieve the workplace outcomes described in the Performance criteria, including demonstration of the underpinning knowledge and skills contained in the Evidence guide.
- The equipment used should be the actual items described in the Range of variables and Assessment context.
- The procedures and documentation should be those typically used in a workplace. Compliance with statutory occupational health and safety, food safety, hygiene and environmental requirements relevant to the food processing industry should be emphasised.
- Assessment should reinforce the integration of the key competencies and the food industry's core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.
- Assessment should not require a higher level of communication competency than that specified in the core competencies for the particular AQF level.

### Assessment context

Assessment of this unit must occur in a real or simulated workplace. Such an environment must provide an opportunity for the assessee to prepare and operate a production system given:

- work procedures including advice on safe work practices, food safety and environmental requirements for processes within the system
- company policies and workplace systems including human resources, OHS, quality, food safety and environmental management
- production/packaging schedule
- specifications, control points and processing parameters
- production/packaging system equipment
- personnel operating the system
- services
- related work areas and communication system
- relevant OHS clothing and equipment
- cleaning, calibration and maintenance schedules as required
- sampling and testing schedules as required
- troubleshooting advice where available
- documentation and record keeping system
- planning, resources management and training arrangements

## Relationship to other units

Pre-requisites or equivalent:

- Collect, present and apply workplace information
- Implement occupational health and safety principles and procedures
- Implement the quality system
- Implement the food safety plan

Co-requisites:

- Analyse and convey workplace information
- Monitor the implementation of occupational health and safety
- Monitor the implementation of the quality system
- Monitor the implement the food safety plan

Related units:

- Facilitate Teams

Where related units form an integral part of system operation in the workplace, these units should be co-assessed.

## Relationship to learning resources

Main learning resource:

- General Foods System Preparation and Operation

Related learning resources:

- Industrial Communication C
- Quality Assurance C
- Occupational Health and Safety C
- Food Safety C (Hygiene and Sanitation D)
- Work Team Communication