



# Competency Standard (CS)

## Packaging Machine Operation

Level-3

### Agro Food Processing Sector

Competency Standard Code: CS-AFP-PMO-L3-EN-V1



National Skills Development Authority  
Prime Minister's Office  
Government of the People's Republic of Bangladesh



## Copyright

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This Competency Standard for **Packaging Machine Operation** is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

## Introduction

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The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of Well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "**Packaging Machine Operation**" is selected as one of the priority occupations of **Agro Food Processing** Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils , employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills Training. Trainees who successfully pass the assessment will receive a qualification in the Bangladesh National Qualification Framework (BNQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding elements.

## Overview

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A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of parts for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of occupation specific experts, academicians, representatives from NSDA, SEIP and ISC to identify the competencies required of an occupation in **Agro Food Processing Sector**.

Competency standards describe the knowledge, skills and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key parts of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

**Competency Standards for National Skill Certificate – 3 in  
Packaging Machine Operation, Agro Food Processing Sector  
Level Descriptors of Skills Sector, BNQF Level 1-6**

<b>Level &amp; Job classification</b>	<b>Knowledge Domain</b>	<b>Skills Domain</b>	<b>Responsibility Domain</b>
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

## List of Abbreviations

NSDA	- National Skills Development Authority
CS	- Competency Standard
SCVC	- Standard and Curriculum Validation Committee
ISC	- Industry Skills Council
CBLM	- Competency Based Learning Material
UoC	- Unit of Competency
PPE	- Personal Protective Equipment
OSH	- Occupational Safety and Health
CBC	- Competency Based Curriculum
AFP	- Agro Food Processing
PMO	- Packaging Machine Operation
CNC	- Computer and Numeric Control
BNQF	- Bangladesh National Qualification Framework
STP	- Skills Training Provider
SOP	- Standard Operating Procedure
UoC	- Unit of Competency
4 IR	- 4th Industrial Revolution



Approved by  
31th Authority meeting of NSDA  
Held on 20.12.2023



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**Competency Standards for National Skill Certificate – 3 in  
Packaging Machine Operation**

**Course Structure**

SL	Unit Code and Title	UoC Level	Nominal Hours
<b>Generic Units of Competencies</b>			<b>75</b>
1.	GU-03-L2-V1	Communicate in the Workplace	20
2.	GU-01-L3-V1	Apply Basic IT Skills	20
3.	GU-04-L3-V1	Lead small team	20
4.	GU-07-L3-V1	Receive and Respond to Workplace Instructions	15
<b>Sector Specific Units of Competencies</b>			<b>15</b>
5.	SU-AGF-04-L3-V1	Carry out precision checking and measurements	15
<b>Occupation Specific Units of Competencies</b>			<b>200</b>
6.	OU-AFP-PMO-01-L3-V1	Operate Injection Blow Moulding Machine	60
7.	OU-AFP-PMO-02-L3-V1	Perform Filling Product in Can/Bottle	60
8.	OU-AFP-PMO-03-L3-V1	Operate Blister Packaging Machine	50
9.	OU-AFP-PMO-04-L3-V1	Use Basic Control System	30
<b>Total Nominal Hours</b>			<b>290</b>

## Units & Elements at a Glance:

### Generic Unit of Competency - 75 Hrs.

Code	Unit of competency	Elements of competency	Duration (hours)
GU-03-L2-V1	Communicate in the Workplace	<ol style="list-style-type: none"> <li>1. Receive verbal instructions.</li> <li>2. Interpret verbal and written information/ instruction</li> <li>3. Convey instructions using verbal and written forms of communication</li> <li>4. Complete written documentation</li> <li>5. Participate in work place meetings and discussions</li> </ol>	20
GU-01-L3-V1	Apply Basic IT Skills	<ol style="list-style-type: none"> <li>1. Identify and use most commonly used IT tools</li> <li>2. Operate computer</li> <li>3. Work with word processing software</li> <li>4. Use spread sheet to create /prepare worksheets</li> <li>5. Use presentation packages to create / prepare presentation</li> <li>6. Print the documents</li> <li>7. Use the Internet and Access E-Mail</li> </ol>	20
GU-04-L3-V1	Lead Small Team	<ol style="list-style-type: none"> <li>1. Provide team leadership</li> <li>2. Assign responsibilities</li> <li>3. Set performance expectations for team members</li> <li>4. Supervise team performance</li> </ol>	20
GU-07-L3-V1	Receive and Respond to Workplace Instructions	<ol style="list-style-type: none"> <li>1. Interpret and follow verbal Instructions</li> <li>2. Read and interpret workplace documents</li> <li>3. Receive and follow written instructions</li> <li>4. Attend meetings and provide inputs</li> </ol>	15
<b>Total Hours</b>			<b>75</b>

### Sector Specific Units of Competencies (15 Hours)

Code	Unit of competency	Elements of competency	Duration (hours)
SU-AFP-04-L3-V1	Carry Out Precision Checking and Measurements	<ol style="list-style-type: none"> <li>1. Select the job/ component to be checked and measured</li> <li>2. Select measuring instrument</li> <li>3. Obtain measurements and checks</li> <li>4. Record/communicate measurement and check results</li> <li>5. Clean, maintain and store measuring instruments.</li> </ol>	15
<b>Total hours</b>			<b>15</b>

### Occupation Specific Unit of Competencies – 200 Hours

Code	Unit of Competency	Elements of Competency	Duration (hours)
OU-AFP_PMO-01-L3-V1	Operate Moulding Machine	<ol style="list-style-type: none"> <li>1. Prepare for packaging</li> <li>2. Perform moulding machine operation</li> <li>3. Clean machine (CIP, COP) and workplace</li> </ol>	60
OU-AFP_PMO-02-L3-V1	Operate Form, Fill and Seal/Capping Machines	<ol style="list-style-type: none"> <li>1. Prepare for Canning/Bottling</li> <li>2. Perform Canning/Bottling of Product</li> <li>3. Perform Capping</li> <li>4. Clean machine (CIP, COP) and workplace</li> </ol>	60
OU-AFP_PMO-03-L3-V1	Operate Blending, Sieving and Packing Machine	<ol style="list-style-type: none"> <li>1. Prepare for packaging</li> <li>2. Perform blister packaging operation</li> <li>3. Clean Machine and Workplace</li> </ol>	50
OU-AFP_PMO-04-L3-V1	Use Basic Control System	<ol style="list-style-type: none"> <li>1. Prepare for use basic control system</li> <li>2. Use control devices</li> <li>3. Apply basic PLC operation</li> </ol>	30
<b>Total hours</b>			<b>200</b>



## **Generic Unit of Competenceis**



<b>Unit code and Title</b>	<b>GU-03-L2-V1: Communicate in the Workplace</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes (KSAs) required to communicate in the workplace.  It includes the use of verbal and written forms of communication to receive, interpret, convey, and document information/instruction using appropriate communication equipment.
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b>Bold &amp; Underlined</b> terms are elaborated in the Range of Variables Training Components
1. Receive verbal instructions.	1.1 Instructions are accessed and interpreted 1.2 Questions are asked to clarify understanding or gain more information. 1.3 Information/instruction is recorded.
2. Interpret verbal and written information/instruction	2.1 <b>Written instructions</b> are interpreted. 2.2 Work <b>signage's</b> are properly responded. 2.3 Routine written instructions are followed in sequence. 2.4 Feedback is given to workplace supervisor.
3. Convey instructions using verbal and written forms of communication	3.1 Relevant <b>communication</b> methods are used to transmit instructions. 3.2 Appropriate non-verbal communication is used. 3.3 Channels of communication are identified and followed 3.4 Communication <b>tools and equipment</b> are operated and faults are identified and reported. 3.5 Information is conveyed using appropriate <b>forms</b> .
4 Complete written documentation	4.1 All required <b>documentation</b> is completed 4.2 Workplace data are recorded 4.3 Written information/instruction is passed to personnel.
5.Participate in work place meetings and discussions	5.1 Meetings are attended regularly and on time. 5.2 Meeting inputs are consistent with the meeting purpose and established protocols. 5.3 Opinions are expressed without interruption. 5.4 Meeting outputs are processed and implemented.
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Written instructions	1.1 Supervisor's/Manager's Instructions 1.2 Memoranda 1.3 Rules and Regulations 1.4 Signage 1.5 Approved Work Plan 1.6 External communications
2. Workplace guidelines	2.1 Labor Policies and Guidelines 2.2 Written Instructions 2.3 Operations Manual 2.4 Organizational Manuals

	2.5 Quality Assurance Handbook
3. Signage	3.1 On-site direction signs 3.2 Common site warnings 3.3 Location signs 3.4 Traffic signs
4. Communication	4.1 Verbal instructions 4.2 Written instructions 4.3 Online communication
5. Tools and machinery	5.1. Telephone 5.2. Mobile Phone 5.3. Fax machines 5.4. Two-way radio 5.5. Computers 5.6. Forms 5.7. Memo
6. Forms	6.1. Memorandum 6.2. Requisitioning Form 6.3. Personnel Form 6.4. Safety Report Form
7. Documentation	7.1. Reports (Monthly, Quarterly, Half-Yearly, Annual) 7.2. Plans (Strategic Plan, Operational Plan, Monthly Schedule) 7.3. Monitoring and Evaluation Report 7.4. Minutes of Meetings
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency	
1. Critical Aspects of Competency	Assessment required evidence that the candidate: 1.1 demonstrated knowledge of workplace procedures in receiving, interpreting and conveying verbal & written communication. 1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables.
2. Underpinning Knowledge	2.1 Workplace Communication Policies, Standards and Procedures 2.2 Verbal and Non-verbal communication 2.3 Modes of Communication 2.4 Communication Equipment: Types, Uses and Faults 2.5 Channels of Communication
3. Underpinning Skills	3.1 Receiving verbal instructions. 3.2 Interpreting verbal and written information/ instruction 3.3 Conveying instructions using verbal and written forms of communication 3.4 Completing written documentation 3.5 Participating in workplace meetings and discussions

4. Underpinning Attitude	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Demonstration 6.2 Oral questioning 6.3 Written test 6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module 7.2 Assessment should be done by a NSDA certified/nominated assessor.
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>GU-01-L3-V1: Apply Basic IT Skills</b>
<b>Unit Descriptor</b>	<p>This unit covers the basic knowledge, skills and attitude required to apply basic IT skills.</p> <p>It specifically includes Identifying and use most commonly used IT Tools, operating computer, working with word processing software, using spread sheet to create /prepare worksheets, using presentation packages to create / prepare presentation, printing the documents and using the internet and access E-mail.</p>
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Elements of Competency</b>	<p><b>Performance Criteria</b>  <b><u>Bold and Underlined</u></b> terms are elaborated in the Range of Variables Training Components.</p>
1. Identify and use most commonly used IT tools	1.1 Context of IT is interpreted 1.2 Commonly used <b><u>IT tools</u></b> are identified 1.3 Safe work practice and OSH Standards are followed
2. Operate computer	2.1 <b><u>Peripherals</u></b> are checked and connected with computer as per standard 2.2 Power cords / adapter are connected with computer and power outlets socket safely 2.3 Computer is switched on gently 2.4 PC <b><u>desktop / GUI settings</u></b> are arranged and customized as per requirement 2.5 Files and folders are created, opened, copied, renamed, deleted and sorted as per requirement 2.6 Properties of files and folders are viewed and searched 2.7 Disks are defragmented, formatted as per requirement
3. Work with word processing software	3.1 Word Processing software is selected and started 3.2 Basic typing technique is demonstrated 3.3 <b><u>Documents</u></b> are created as per requirement in personal use and office environment 3.4 <b><u>Contents</u></b> are entered 3.5 Documents are <b><u>formatted</u></b>
4. Use spread sheet to create /prepare worksheets	4.1 Spreadsheet are selected and started 4.2 Worksheets are created as per requirement in Personal use and office environment 4.3 Data are entered 4.4 <b><u>Functions</u></b> are used for calculating and editing logical operation 4.5 Sheets are formatted as per requirement 4.6 Charts are created 4.7 Charts/ Sheets are previewed

5. Use presentation packages to create / prepare presentation	5.1 Appropriate presentation software packages are selected and started 5.2 Presentation is created as per requirement in personal use and office environment 5.3 Image, Illustrations, text, table, symbols and media are entered as per requirements 5.4 Presentations are formatted and animated 5.5 Presentations are previewed
6. Print the documents	6.1 Printer is connected with computer and power outlet properly 6.2 Power is switched on at both the power outlet and printer 6.3 Printer is installed and added 6.4 Correct printer settings are selected and document is printed
7. Use the Internet and Access E-Mail	7.1 Appropriate internet <b>browsers</b> are selected 7.2 Search engines are used to access information 7.3 Video / Information are Shared /downloaded / uploaded from / to web site/social media 7.4 Web based resources are used 7.5 Email services are identified and selected to create a new email address 7.6 Document is prepared, attached and sent to different types of recipients 7.7 Email is read, forwarded, replied and deleted as per requirement 7.8 Custom email folders are created and manipulated 7.9 Email message is printed
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. IT tools	1.1 Phone 1.2 Cell Phone 1.3 TABs 1.4 Radio 1.5 Television 1.6 Computers 1.7 Laptops 1.8 Notebooks 1.9 Internet 1.10 Software 1.11 Satellite
2. Peripherals	2.1. Monitor 2.2. Keyboard 2.3. Mouse 2.4. Modem

	<ul style="list-style-type: none"> <li>2.5. Scanner</li> <li>2.6. Printer</li> </ul>
3. Desktop / GUI settings	<ul style="list-style-type: none"> <li>3.1 Icons</li> <li>3.2 Taskbar</li> <li>3.3 View</li> <li>3.4 Resolutions</li> </ul>
4. Documents	<ul style="list-style-type: none"> <li>4.1 Word documents</li> <li>4.2 Standard CV / Bio-Data with different text &amp; fonts, image and table.</li> <li>4.3 Application / Official letter with proper paragraph and indenting, spacing, styles, Illustrations, Tables, Header &amp; Footers and symbols.</li> <li>4.4 Standard report / newspaper items with column, footnote and endnote, drop cap, indexing and page numbering.</li> </ul>
5. Contents	<ul style="list-style-type: none"> <li>5.1 Illustrations and styles</li> <li>5.2 Text</li> <li>5.3 Table</li> <li>5.4 Symbols</li> <li>5.5 Header &amp; Footer</li> </ul>
6. Formatted	<ul style="list-style-type: none"> <li>6.1 Bold</li> <li>6.2 Italic</li> <li>6.3 Underline</li> <li>6.4 Font size, colour,</li> <li>6.5 Change case</li> <li>6.6 Alignment and intend</li> </ul>
7. Functions	<ul style="list-style-type: none"> <li>7.1. Mathematics</li> <li>7.2. Logical</li> <li>7.3. Simple Statistical</li> </ul>
8. Browsers	<ul style="list-style-type: none"> <li>8.1 Internet Explorer</li> <li>8.2 Firefox</li> <li>8.3 Google Chrome</li> <li>8.4 Opera</li> <li>8.5 Safari</li> <li>8.6 Omni Web</li> </ul>
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical Aspects of Competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 created, opened, copied, renamed, deleted and sorted files and folders as per requirement.</li> <li>1.2 completed application software Installations as per standard</li> <li>1.3 performed simple trouble shooting with Computer</li> <li>1.4 created email accounts.</li> </ul>

	1.5 used email account for online platforms purpose
2. Underpinning Knowledge	2.1 Basic competent of PC 2.2 IT and IT Tools 2.3 Different type of software and application packages 2.4 Use of word processor, spread sheet and presentation software 2.5 Different type of math and logical functions 2.6 Computer Trouble Shooting 2.7 Techniques to access internet
3. Underpinning Skills	3.1 Identifying and use IT Tools 3.2 Demonstrating typing on word processing software 3.3 Saving and retrieving documents on Word Processing software. 3.4 Demonstrated ability to create email accounts 3.5 Opening an email account and use it for different purpose. 3.6 Configured appropriate printer settings and printed the document
4. Underpinning Attitudes	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Workplace (simulated or actual) 5.2 IT Tools 5.3 Computers with word processing application 5.4 Internet connection 5.5 Presentations 5.6 Learning manuals
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral Questioning 6.4 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module 7.2 Assessment should be done by an NSDA certified/nominated assessor
<b>Accreditation Requirements</b>	

Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

<b>Unit Code and Title</b>	<b>GU-04-L3-V1: Lead Small Team</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to lead small team. It specifically includes – provide team leadership; assign responsibilities; set performance expectations for team members; and supervised team performance.
<b>Nominal Hours</b>	<b>20 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b>Bold &amp; Underlined</b> terms are elaborated in the Range of Variables
1. Provide team leadership	<p>1.1 <b><u>Work requirements</u></b> are identified and presented to team members</p> <p>1.2 Reasons for instructions and requirements are communicated to team members</p> <p>1.3 <b><u>Team members’ queries and concerns</u></b> are recognized, discussed and dealt with</p>
2. Assign responsibilities	<p>2.1 Duties, and responsibilities are allocated having regard to the skills, knowledge and attitudes required to properly undertake the assigned task</p> <p>2.2 Duties are allocated having regard to individual preference, domestic and personal considerations, whenever possible</p>
3. Set performance expectations for team members	<p>3.1 Performance expectations are established based on client needs and according to assignment requirements</p> <p>3.2 Performance expectations are based on individual team members’ duties and area of responsibility</p> <p>3.3 Performance expectations are discussed and directed to implement in the workplace</p>
4. Supervise team performance	<p>4.1 <b><u>Monitoring of performance</u></b> are taken place against defined performance criteria and / or assignment instructions and corrective action taken if required</p> <p>4.2 Team members are provided <b><u>feedback</u></b>, positive support and advice on strategies to overcome any deficiencies</p> <p>4.3 <b><u>Performance issues</u></b> which cannot be rectified or addressed within the team are referenced to appropriate personnel</p> <p>4.4 Team members are kept informed of any changes in the priority allocated to assignments or tasks which might impact on clients’ / customers’ needs and satisfaction</p> <p>4.5 Team operations are monitored to ensure that employer / client needs and requirements are met</p>

	<p>4.1 Follow-up communication is provided on all issues affecting the team</p> <p>4.6 All relevant documentation is completed</p>
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but are not limited to):
1. Work requirements	<p>1.1 Client Profile</p> <p>1.2 Assignment instructions</p>
2. Team member's queries and concerns	<p>2.1 Roster</p> <p>2.2 Shift details</p>
3. Monitoring of performance	<p>3.1 Formal process</p> <p>3.2 Informal process</p>
4. Feedback	<p>4.1 Formal process</p> <p>4.2 Informal process</p> <p>4.3 Sandwich process</p>
5. Performance issues	<p>5.1 Work output</p> <p>5.2 Work quality</p> <p>5.3 Team participation</p> <p>5.4 Compliance with workplace protocols</p> <p>5.5 Safety</p> <p>5.6 Customer service</p>
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	<p>1.1 Maintained or improved individuals and / or team performance given a variety of possible scenario</p> <p>1.2 Assessed and monitored team and individual performance against set criteria</p> <p>1.3 Represented concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf</p> <p>1.4 Allocated duties and responsibilities, having regard to individual's knowledge, skills and attitude and the needs of the tasks to be performed</p> <p>1.5 Set and communicated performance expectations for a range of tasks and duties within the team and provided feedback to team members</p>

2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 Company policies and procedures</li> <li>2.2 Relevant legal requirements</li> <li>2.3 How performance expectations are set</li> <li>2.4 Methods of Monitoring Performance</li> <li>2.5 Client expectations</li> <li>2.6 Team members' duties and responsibilities</li> </ul>
3. Underpinning skills	<ul style="list-style-type: none"> <li>3.1 Informal performance counselling skills</li> <li>3.2 Team building skills</li> <li>3.3 Negotiating skills</li> </ul>
4. Required attitudes	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Promptness in carrying out activities</li> <li>4.3 Sincere and honest to duties</li> <li>4.4 Environmental concerns</li> <li>4.5 Eagerness to learn</li> <li>4.6 Tidiness and timeliness</li> <li>4.7 Respect for rights of peers and seniors in workplace</li> <li>4.8 Communicate with peers and seniors in workplace</li> </ul>
5. Resource implications	<ul style="list-style-type: none"> <li>5.1 Workplace (actual or simulated)</li> <li>5.2 Tools, equipment and facilities appropriate to processes or activity</li> <li>5.3 Materials relevant to the proposed activity</li> <li>5.4 Equipment and outfits appropriate in applying safety measures</li> <li>5.5 Manuals, codes, standards and reference material</li> </ul>
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> <li>6.1 Written test</li> <li>6.2 Demonstration</li> <li>6.3 Oral questioning</li> <li>6.4 Portfolio</li> </ul>
7. Context of assessment	<ul style="list-style-type: none"> <li>7.1 Competency assessment must be done in a training centre or in an actual or simulated workplace after completion of the training module</li> <li>7.2 Assessment should be done by NSDA certified assessor</li> </ul>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>GU-07-L3-V1: Receive and Respond to Workplace Instructions</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to receive and respond to workplace instructions. It specifically includes the task of interpreting and following verbal instructions, reading and interpreting workplace documents, receiving and following written instructions and attending meetings and providing inputs.
<b>Nominal Hours</b>	<b>15 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold and Underlined</u></b> terms are elaborated in the Range of Variables Training Components.
1. Interpret and follow verbal Instructions	1.1 Verbal Instructions are interpreted 1.2 Questions are asked to clarify understanding or obtaining more information 1.3 Instructions are followed as per understanding 1.4 Information/ instruction is recorded
2. Read and interpret workplace documents	2.1 <b><u>Written instructions</u></b> are read and interpreted in accordance with <b><u>workplace guidelines</u></b> 2.2 Work <b><u>signage</u></b> are interpreted
3. Receive and follow written instructions	3.1 Written instructions are interpreted 3.2 Routine written instructions are followed in sequence 3.3 Feedback is given to workplace supervisor based on workplace guidelines
4. Attend meetings and provide inputs	4.2 Meetings are attended regularly and on time following well-disseminated agenda 4.3 Proper <b><u>Communication</u></b> methods are used to transmit instructions 4.4 Appropriate non-verbal communication is used 4.5 Inputs are provided consistent with the meeting purpose 4.6 Opinions are expressed without interruption 4.7 Meeting outputs are implemented
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Written instructions	1.1 Supervisor's / manager's instructions 1.2 Memoranda 1.3 Rules and regulations 1.4 Signage 1.5 Approved work plan 1.6 External communications
2. Workplace guidelines	2.1. Labor policies and guidelines 2.2. Written instructions

	<ul style="list-style-type: none"> <li>2.3. Operations manual</li> <li>2.4. Organizational manuals</li> <li>2.5. Quality assurance handbook</li> </ul>
3. Signage	<ul style="list-style-type: none"> <li>3.1 On-site direction signs</li> <li>3.2 Common site warnings</li> <li>3.3 Location signs</li> <li>3.4 Traffic signs</li> </ul>
4. Communication	<ul style="list-style-type: none"> <li>4.1 Verbal instructions</li> <li>4.2 Written instructions</li> <li>4.3 Online communication</li> </ul>
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical Aspects of Competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Interpreted and follow verbal Instructions</li> <li>1.2 Read and interpreted dworkplace documents</li> <li>1.3 Receive and follow written instructions</li> <li>1.4 Attended meetings and provide inputs</li> </ul>
2. Underpinning Knowledge	<ul style="list-style-type: none"> <li>2.1 Workplace communication policies, standards and procedures</li> <li>2.2 Verbal and non-verbal communication</li> <li>2.3 Modes of communication</li> </ul>
3. Underpinning Skills	<ul style="list-style-type: none"> <li>3.1 Receiving verbal instructions</li> <li>3.2 Interpreting verbal and written information/ instruction</li> <li>3.3 Conveying instructions using verbal and</li> <li>3.4 Written forms of communication</li> <li>3.5 Participating in work place meetings and discussions</li> </ul>
4. Underpinning Attitudes	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety</li> <li>4.2 Environmental concerns</li> <li>4.3 Eagerness to learn</li> <li>4.4 Tidiness and timeliness</li> <li>4.5 Respect for rights of peers and seniors in workplace</li> <li>4.6 Communication with peers and seniors in workplace</li> </ul>
5. Resource Implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> <li>5.3 Workplace (actual or simulated)</li> <li>5.4 Telephone</li> <li>5.5 Writing materials</li> </ul>
4 Methods of Assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> <li>6.1 Written test</li> <li>6.2 Demonstration</li> <li>6.3 Oral questioning</li> <li>6.4 Portfolio</li> </ul>
7 Context of Assessment	<ul style="list-style-type: none"> <li>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after</li> </ul>

	completion of the training module 7.2 Assessment should be done by an NSDA certified/ nominated assessor
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**Accreditation Requirements**

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## **Sector Specific Unit of Competencies**

<b>Unit Code and Title</b>	<b>SU-AGP-04-L3-V1: Carry Out Precision Checking and Measurements</b>
<b>Unit Descriptor</b>	<p>This unit specifies the knowledge, skills and attitude required to identify roles and responsibilities and work in the food industry.</p> <p>It includes the tasks of selecting the job/ component to be checked and measured, selecting measuring instrument, obtaining measurements and checking, recording/communicating measurement and check results, cleaning, maintaining and storing measuring instruments.</p>
<b>Nominal Hours</b>	<b>15 hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold and Underlined</u></b> terms are elaborated in the Range of Variable
1. Select the job/ component to be checked and measured	<p>1.1 Job/equipment /device is selected for measuring and checking</p> <p>1.2 Required specifications/ingredients/quantity are determined in accordance with Recipe</p> <p>1.3 Required physical condition is identified in accordance with process flow diagram</p> <p>1.4 Required specifications is identified in accordance with process flow diagram</p> <p>1.5 Process flow diagram is used to select the measuring instruments.</p>
2. Select measuring instrument	<p>2.1 Appropriate measuring instruments are selected in accordance with job requirement.</p> <p>2.2 <b><u>Measuring instruments</u></b> are identified and checked</p> <p>2.3 Applications of measuring instruments are determined.</p> <p>2.4 Usability and accuracy of measuring device is checked and verified.</p> <p>2.5 Weighing and measuring device is prepared for measurement.</p> <p>2.6 Fits, Tolerance, clearance and limits are identified according to job requirements.</p>
3. Obtain measurements and checks	<p>3.1 Measurements are obtained using appropriate measuring instrument.</p> <p>3.2 <b><u>Systems of measurements</u></b> are identified and converted where necessary.</p> <p>3.3 Measurement is kept accurately in accordance to specification.</p> <p>3.4 Measurement is checked against job requirement</p> <p>3.5 Physical conditions are checked in accordance with job requirements</p>

4. Record/communicate measurement and check results	4.1 Measurements of voltage, current and power ratings are recorded in accordance with workplace procedure 4.2 Measurements are interpreted, recorded and communicated to the appropriate authority
5. Clean, maintain and store measuring instruments.	5.1 Dust and dirt are removed from the measuring instruments 5.2 Condition of measuring instruments are checked 5.3 Measuring instruments are checked and calibrated 5.4 Measuring instruments are stored in accordance with workplace procedure.
<b>Range of Variables</b>	
<b>Variable</b>	<b>Range (May Includes but not limited to)</b>
1. Measuring instruments	1.1 Weighing scale 1.2 Measuring scale 1.3 Digital measuring scale 1.4 PLC based measuring scale 1.5 Measuring cup 1.6 Measuring spoon 1.7 Digital thermometer 1.8 Pyrometer 1.9 Hygrometer 1.10 Refractometer 1.11 Infrared thermometer 1.12 Luxmeter 1.13 Load shell
2. Systems of measurements	2.1 FPS 2.2 MKS 2.3 CGS 2.4 SI Unit
<b>Evidence Guide</b>	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency	
1. Critical aspects of competency	Assessment required evidence that the candidate: 1.1 Selected Job/equipment /device for measuring and checking 1.2 Identified measuring instruments 1.3 Identified fits, tolerance, clearance and limits are identified according to job requirements. 1.4 Kept measurement accurately in accordance to specification 1.5 Checked measurement is checked against job requirement 1.6 Checked and measured ingredients using appropriate checking instrument
2. Underpinning knowledge	2.1 Difference between measuring and checking 2.2 Types of measuring instruments and their applications 2.3 Types of checking tools and their applications 2.4 Specifications of instruments 2.5 Method, procedure and techniques when taking Measurements 2.6 Methods, procedures and techniques when checking

		<p>2.7 Methods, procedures and techniques during batch preparation</p> <p>2.8 Preventive maintenance for measuring instruments and tools</p> <p>2.9 Calibration and adjustment procedures for measuring instruments and checking tools</p>
3. Underpinning Skills		<p>3.1 Checking physical conditions using appropriate checking tool</p> <p>3.2 Measuring specifications and quantity of the components in accordance with the diagram</p> <p>3.3 Interpreting and communicating measurement, specifications and standards</p> <p>3.4 Checking condition of measuring instruments,</p> <p>3.5 calibrating and storing in accordance with workplace procedure</p> <p>3.6 Applying techniques to measuring and checking</p>
4. Underpinning Attitudes		<p>4.1 Commitment to occupational safety and health</p> <p>4.2 Communication with peers, sub-ordinates and seniors in workplace.</p> <p>4.3 Promptness in carrying out activities.</p> <p>4.4 Tidiness and timeliness.</p> <p>4.5 Respect of peers, sub-ordinates and seniors in workplace.</p> <p>4.6 Environmental concern.</p>
5. Resource implications		<p>5.1 Workplace</p> <p>5.2 Different types of measuring instruments and devices</p> <p>5.3 Tools, equipment and facilities appropriate to processes or activity.</p> <p>5.4 Stand by firefighting equipment</p> <p>5.5 Materials relevant to the proposed activity.</p> <p>5.6 Equipment and outfits appropriate in applying safety measures.</p> <p>5.7 Relevant manuals, codes, standards and reference material.</p>
6. Methods assessment	of	<p>Methods of assessment may include but not limited to:</p> <p>6.1 Demonstration</p> <p>6.2 Oral questioning</p> <p>6.3 Written test</p> <p>6.4 Portfolio</p>
7. Context assessment	of	<p>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>

**Accreditation Requirements**

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## **Occupation Specific Unit of Competencies**



<b>Unit Code and Title</b>	<b>OU-AFP-PMO-05-L2-V1: Operate Moulding Machine</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to operate moulding machine.  It specifically includes preparing for packaging, performing mulding machine operation and cleaning machine and workplace.
<b>Nominal Hours</b>	<b>60 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>(Bold &amp; underlined</u></b> terms are elaborated in the Range of Variables)
1. Prepare for packaging	<p>1.1 Occupational Safety and Health (OSH) is followed and Personal Protective Equipment (PPE) is worn.</p> <p>1.2 Required room temperature and room humidity is set and confirmed as per product standards.</p> <p>1.3 Packaging materials are collected as per product requirement.</p> <p>1.4 <b><u>Moulding machine</u></b> is selected as per requirement.</p> <p>1.5 Pre-start checking is carried out as per standards.</p>
2. Perform moulding machine operation	<p>2.1 Machine performance is checked and <b><u>parameters</u></b> are adjusted as per operating procedures.</p> <p>2.2 Moulding machines are operated as per job requirements.</p> <p>2.3 Steps of waste reduction process are followed as per SOP</p> <p>2.4 Packaging processes are monitored to ensure quality production.</p> <p>2.5 <b><u>Problems</u></b> in packaging system are identified and rectified.</p> <p>2.6 Weight,volume and thickness of packaging products are checked and adjusted as per SOP</p> <p>2.7 Finished product is stored in allocated place as per workplace standard.</p> <p>2.8 Shut down procedure is followed as per SOP.</p>
3. Clean machine (CIP, COP) and workplace	<p>3.1 Machine and workplace are cleaned as per workplace standard.</p> <p>3.2 waste materials are recycled as per SOP</p> <p>3.3 Waste materials which cannot be recycled are disposed in allocated space according to workplace standard.</p>
<b>Range of variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Moulding Machine	<p>1.1 Injection Moulding.</p> <p>1.2 Blow Moulding.</p> <p>1.3 Cap Moulding Machine</p>

2. Parameters	<ul style="list-style-type: none"> <li>2.1 Speed.</li> <li>2.2 Temperature.</li> <li>2.3 Air pressure</li> <li>2.4 Uniformity</li> </ul>
3. Problems	<ul style="list-style-type: none"> <li>3.1 Uneven Shape</li> <li>3.2 Uneven surface</li> <li>3.3 Weight or quantity variation</li> <li>3.4 Haziness</li> <li>3.5 Thickness variation</li> <li>3.6 Milky shed</li> </ul>
<p><b>Evidence Guide</b></p> <p>Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.</p>	
1. Critical aspects of competency	<ul style="list-style-type: none"> <li>1.1 Prepared for packaging.</li> <li>1.2 Performed moulding operation.</li> <li>1.3 Cleaned machine and workplace.</li> </ul>
2. Underpinning knowledge	<ul style="list-style-type: none"> <li>2.1 OSH procedures.</li> <li>2.2 Hazard and types of hazard</li> <li>2.3 Control hazard</li> <li>2.4 Types of packaging materials.</li> <li>2.5 Types packaging machine.</li> <li>2.6 Functions of molding machine</li> <li>2.7 Different defects and their rectification</li> <li>2.8 Weight, volume and thicknes checking and adjusting procedures.</li> <li>2.9 Shutdown procedures.</li> <li>2.10 Machine and workplace cleaning procedures.</li> <li>2.11 Cleaning in Place(CIP) and Cleaning on Place (COP)</li> </ul>
3. Underpinning skills	<ul style="list-style-type: none"> <li>3.1 Following OSH in the workplace</li> <li>3.2 Identifying and controlling hazards</li> <li>3.3 Setting and confirming required room temperature and humidity.</li> <li>3.4 Carrying out pre-start checking.</li> <li>3.5 Operating moulding machine.</li> <li>3.6 Monitoring packaging process.</li> <li>3.7 Identifying and rectifying problems.</li> <li>3.8 Storing finished products.</li> <li>3.9 Following compliance of waste disposal</li> <li>3.10 Maintaining 5S of housekeeping</li> </ul>

4. Required attitudes	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety.</li> <li>4.2 Promptness in carrying out activities.</li> <li>4.3 Sincere and honest to duties.</li> <li>4.4 Environmental concerns.</li> <li>4.5 Eagerness to learn.</li> <li>4.6 Tidiness and timeliness.</li> <li>4.7 Respect for rights of peers and seniors in workplace.</li> <li>4.8 Communication with peers and seniors in workplace.</li> </ul>
5. Resource implications	<ul style="list-style-type: none"> <li>5.1 Workplace</li> <li>5.2 Tools, equipment and facilities appropriate to processes or activity.</li> <li>5.3 Stand by firefighting equipment</li> <li>5.4 Materials relevant to the proposed activity.</li> <li>5.5 Equipment and outfits appropriate in applying safety measures.</li> <li>5.6 Relevant manuals, codes, standards and reference material.</li> </ul>
6. Method of assessment	<p>Assessment methods may include but not limited to:</p> <ul style="list-style-type: none"> <li>6.1 Written test.</li> <li>6.2 Demonstration.</li> <li>6.3 Oral questioning.</li> <li>6.4 Portfolio.</li> </ul>
7. Context of assessment	<ul style="list-style-type: none"> <li>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module.</li> <li>7.2 Assessment should be done by a suitably qualified/certified assessor.</li> </ul>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>OU-AFP-PMO-02-L3-V1: Perform Filling Product in Can/Bottle</b>
<b>Unit Descriptor</b>	<p>This unit covers the knowledge, skills and attitudes required to perform filling product in can/bottle.</p> <p>It specifically includes preparing for canning/bottling, performing canning/bottling product, capping bottle and cleaning machine and workplace.</p>
<b>Nominal Hours</b>	<b>60 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>(Bold &amp; underlined)</u></b> terms are elaborated in the Range of Variables)
1. Prepare for Canning/Bottling	<p>1.1 Occupational Safety and Health (OSH) is followed and Personal Protective Equipment (PPE) is worn.</p> <p>1.2 Required room temperature and room humidity is set and confirmed as per product standards.</p> <p>1.3 Packaging materials are collected as per product requirement.</p> <p>1.4 Canning/Bottling machine is selected as per requirement.</p> <p>1.5 Pre-start checking is carried out as per standards.</p>
2. Perform Canning/Bottling of Product	<p>2.1 Machine performance is checked and <b><u>parameters</u></b> are adjusted as per operating procedures.</p> <p>2.2 Washing/Rinsing is carried out as per standard procedure</p> <p>2.3 Canning/bottling machine is operated as per job requirements.</p> <p>2.4 Canning/bottling processes are monitored to ensure quality production.</p> <p>2.5 <b><u>Problems in canning/bottling</u></b> system are identified and rectified.</p> <p>2.6 Weight and volume of canned/bottled products are checked and adjusted as per standard.</p> <p>2.7 Shut down procedure is followed as per SOP.</p>
3. Perform Capping	<p>3.1 Machine performance is checked as per operating procedures.</p> <p>3.2 Capping machine is operated as per job requirements.</p> <p>3.3 Capping process is monitored to ensure quality production.</p> <p>3.4 <b><u>Problems in capping</u></b> system are identified and rectified.</p> <p>3.5 <b><u>Quality of capping is checked as per standard procedure</u></b></p> <p>3.6 Filled product is transferred for labelling, coding, wrapping and cartoning</p>
3. Clean machine (CIP, COP) and workplace	<p>3.4 Machine and workplace are cleaned as per workplace standard.</p> <p>3.5 waste materials are recycled as per SOP</p>

	4.1 Waste materials which cannot be recycled are disposed in allocated space according to workplace standard.
<b>Range of variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. Parameters	1.1 Speed 1.2 Temperature 1.3 Air pressure 1.4 Water pressure 1.5 CO2 Pressure 1.6 Seaming Height and Width 1.7 Head Space 1.8 Uniformity 1.9 Ratio controller
2. Problems in canning/bottling	2.1 Uneven Shape 2.2 Weight or quantity variation 2.3 Leakage 2.4 Pressure fluctuation
3. Problems in capping	3.1 Torque issues 3.2 Deformed cap 3.3 Broken cap
<b>Evidence Guide</b>	
Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.	
1. Critical aspects of competency	1.1 Prepared for canning/bottling. 1.2 Canned/bottled product. 1.3 Capped bottle. 1.4 Cleaned machine and workplace.
2. Underpinning knowledge	2.1 OSH procedures. 2.2 Types of canning/bottling materials. 2.3 Functions of canning and bottling machine 2.4 Different defects in canning, bottling and capping 2.5 Rectifications of different defects 2.6 Pre-start checking procedures. 2.7 Shutdown procedures. 2.8 Machine and workplace cleaning procedures.

3. Underpinning skills	3.1 Setting and confirming room temperature and room humidity. 3.2 Carrying out pre-start check. 3.3 Operating canning/bottling machine. 3.4 Identifying and rectifying problems in canning /bottling system. 3.5 Operating capping machine. 3.6 Storing finished product. 3.7 Cleaning machine and workplace.
4. Required attitudes	4.1 Commitment to occupational health and safety. 4.2 Promptness in carrying out activities. 4.3 Sincere and honest to duties. 4.4 Environmental concerns. 4.5 Eagerness to learn. 4.6 Tidiness and timeliness. 4.7 Respect for rights of peers and seniors in workplace. 4.8 Communication with peers and seniors in workplace.
5. Resource implications	5.1 Workplace 5.2 Tools, equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant manuals, codes, standards and reference material.
6. Method of assessment	Assessment methods may include but not limited to: 6.1 Written test. 6.2 Demonstration. 6.3 Oral questioning. 6.4 Portfolio.
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module. 7.2 Assessment should be done by a suitably qualified/certified assessor.

### **Accreditation Requirements**

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<b>Unit Code and Title</b>	<b>OU-AFP-PMO-03-L3-V1: Operate Blister Packaging Machine</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to operate moulding machine. It specifically includes preparing for packaging, performing blister packaging operation and cleaning machine and workplace.
<b>Nominal Hours</b>	<b>50 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>(Bold &amp; underlined)</u></b> terms are elaborated in the Range of Variables)
1. Prepare for packaging	1.1 Occupational Safety and Health (OSH) is followed and <b><u>Personal Protective Equipment (PPE)</u></b> is worn. 1.2 Required room temperature and room humidity is set and confirmed as per product standards. 1.3 Packaging materials are collected as per product requirement. 1.4 Blister packaging machine is selected as per requirement. 1.5 Pre-start checking is carried out as per standards.
2. Perform blister packaging operation	2.1 Machine performance is checked and <b><u>parameters</u></b> are adjusted as per operating procedures. 2.2 Blister packaging machine are operated as per requirements. 2.3 Packaging process are monitored to ensure quality production. 2.4 <b><u>Problems</u></b> in packaging system are identified and rectified. 2.5 Weight of products are checked and adjusted machine as per SOP 2.6 Blistered product is transferred for <b>next process</b> as per workplace standard. 2.7 Shut down procedure is followed as per SOP.
3. Clean machine and workplace	3.1 Machine and workplace are cleaned as per workplace standard. 3.2 Waste materials are recycled as per SOP 3.3 Waste materials which cannot be recycled are disposed in allocated space according to workplace standard.
<b>Range of variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):
1. PPE	1.1 Apron 1.2 Hand Gloves 1.3 Face mask 1.4 Safety shoe 1.5 Ear plug 1.6 Safety Goggles 1.7 Shoe cover/Designated footwear 1.8 Cap

	1.9 Beard guard
2. Parameters	2.1 Speed 2.2 Temperature 2.3 Relative humidity 2.4 Air pressure
3. Problems	3.1 Uneven Shape/Deshape 3.2 Weight or quantity variation 3.3 Haziness 3.4 Leakage
4. Next process	4.1 Labelling 4.2 Coding 4.3 Wrapping 4.4 Cartoning
<p><b>Evidence Guide</b></p> <p>Evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet all requirements of current version of Units of Competency.</p>	
1. Critical aspects of competency	1.1 Prepared for packaging. 1.2 Performed blister packaging operation. 1.3 Cleaned machine and workplace.
2. Underpinning knowledge	2.1 OSH procedures. 2.2 Hazards and type of hazard 2.3 Types of packaging materials. 2.4 Functions of blister packaging machine 2.5 Different defects and their rectification 2.6 Weight checking and adjusting procedures. 2.7 Shutdown procedures. 2.8 Machine and workplace cleaning procedures. 2.9 Cleaning in Place(CIP) and Cleaning on Place (COP)
3. Underpinning skills	3.1 Following OSH in the workplace 3.2 Identifying and controlling hazards 3.3 Setting and confirming required room temperature and humidity. 3.4 Carrying out pre-start checking. 3.5 Monitoring packaging process. 3.6 Identifying and rectifying problems. 3.7 Storing finished products. 3.8 Disposing waste materials following the compliance 3.9 Communication skills 3.10 Problem solving skills 3.11 Presentation skills 3.12 Following compliance of waste disposal 3.13 Maintaining 5S of housekeeping

4. Required attitudes	<ul style="list-style-type: none"> <li>4.1 Commitment to occupational health and safety.</li> <li>4.2 Promptness in carrying out activities.</li> <li>4.3 Sincere and honest to duties.</li> <li>4.4 Environmental concerns.</li> <li>4.5 Eagerness to learn.</li> <li>4.6 Tidiness and timeliness.</li> <li>4.7 Respect for rights of peers and seniors in workplace.</li> <li>4.8 Communication with peers and seniors in workplace.</li> </ul>
5. Resource implications	<ul style="list-style-type: none"> <li>5.1 Workplace</li> <li>5.2 Tools, equipment and facilities appropriate to processes or activity.</li> <li>5.3 Stand by firefighting equipment</li> <li>5.4 Materials relevant to the proposed activity.</li> <li>5.5 Equipment and outfits appropriate in applying safety measures.</li> <li>5.6 Relevant manuals, codes, standards and reference material.</li> </ul>
6. Method of assessment	<p>Assessment methods may include but not limited to:</p> <ul style="list-style-type: none"> <li>6.1 Written test.</li> <li>6.2 Demonstration.</li> <li>6.3 Oral questioning.</li> <li>6.4 Portfolio.</li> </ul>
7. Context of assessment	<ul style="list-style-type: none"> <li>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module.</li> <li>7.2 Assessment should be done by a suitably qualified/certified assessor.</li> </ul>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

<b>Unit Code and Title</b>	<b>OU-AFP-PMO-04-L3-V1: Use Basic Control System</b>
<b>Unit Descriptor</b>	This unit covers the knowledge, skills and attitudes required to use basic control system. It includes preparing for use control system; using control devices and applying basic PLC operation.
<b>Nominal Hours</b>	<b>30 Hours</b>
<b>Elements of Competency</b>	<b>Performance Criteria</b> <b><u>Bold &amp; Underlined</u></b> terms are elaborated in the Range of Variables
1. Prepare for use control system	<p>1.1 Safe work practices are observed and Personal Protective Equipment (PPE) is worn as required for the work performed.</p> <p>1.2 <b><u>Tools and control devices</u></b> are selected and prepared in line with job requirements.</p> <p>1.3 <b><u>Materials and components</u></b> are identified required for control system.</p>
2. Use control devices	<p>2.1 Initial <b><u>check-up</u></b> of devices is conducted in accordance with user manual.</p> <p>2.2 Devices are used as per manufacturer instruction.</p> <p>2.3 Systems faults are identified during operation and reported to relevant authority</p>
3. Apply basic PLC operation	<p>3.1 The major section of PLC system is Identified as required for operation.</p> <p>3.2 Field and control devices are identified according to plans / drawing instruction.</p> <p>3.3 PLC operation program is optimized in accordance with the system function / as per flow chart.</p> <p>3.4 PLC System is operated in accordance with prescribed procedure.</p> <p>3.5 Faults of Field and control devices are identified and reported</p>
<b>Range of variables</b>	
<b>Variable</b>	<b>Range</b> (may include but not limited to):

1. Tools	1.1 Pliers; assorted 1.2 Screwdrivers; assorted 1.3 Wrenches; assorted 1.4 Multimeter 1.5 Calibrators 1.6 Flow meters 1.7 Pressure meter 1.8 Thermometer 1.9 Low voltage power supply (DC)
2. Control devices	2.1 PLC unit 2.2 Magnetic contactor 2.3 Temp controller 2.4 Level controller 2.5 Flow controller 2.6 Limit switch 2.7 Pressure Sensor 2.8 Timing relay 2.9 Starter 2.10 Inverter
3. Materials and components	3.1 Software for PLC 3.2 Wires 3.3 Terminal lugs 3.4 Terminal blocks 3.5 Terminal wire marker 3.6 Sensors <ul style="list-style-type: none"> <li>▪ Heat / temperature</li> <li>▪ Pressure</li> <li>▪ Flow</li> <li>▪ Motion</li> <li>▪ Proximity</li> <li>▪ I R</li> </ul> 3.7 Limit switches 3.8 Relays
4. Checkup	4.1 Checking broken, burnt, sparking, short circuited, over heated components of the product. 4.2 Visual inspection of the unit with power off 4.3 Operate the unit according to manual to check for defects

**Evidence Guide**

Evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of Unit of Competency.

1. Critical aspects of competency	Assessment required evidences that the candidate: 1.1 Identified control devices; 1.2 Conducted connections of control device with peripheral equipment; 1.3 Identified field and control devices; 1.4 Conducted minor repair of system faults; and 1.5 Used control system.
2. Underpinning knowledge	2.1 Principles and operation of electronic control system. 2.2 Function of Programmable Logic Controller (PLC). 2.3 Function of inverter. 2.4 Functions of different control devices 2.5 Function of different components
3. Underpinning skills	3.1 Assembling & disassembling of control devices. 3.2 Connecting devices with power supply. 3.3 Handling materials, control devices 3.4 Operating control devices. 3.5 Identifying system faults. 3.6 Reporting system faults.
4. Required attitude	4.1 Commitment to occupational safety and health. 4.2 Promptness in carrying out activities. 4.3 Tidiness & timeliness. 4.4 Eagerness to learn. 4.5 Sincere & honest to duties. 4.6 Environmental concerns. 4.7 Respect for rights of peers and seniors. 4.8 Communication with peers & seniors in workplace.
5. Resource implications	5.1 Workplace 5.2 Tools, equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material.
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Demonstration 6.2 Oral questioning 6.3 Written test

	6.4 Portfolio
7. Context of assessment	<p>7.1 Competency assessment must be done in a training center or in an actual or simulated workplace after completion of the training module.</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p><b>Accreditation Requirements</b></p> <p>Training Providers must be accredited by National Skills Development Authority (NSDA), the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of qualification under BNQF. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

## Validation of Competency Standard

The Competency Standards for National Skills Certificate Level-3 in Packaging Machine Operation is validated by NSDA on 30 November, 2023.

### List of members in the validation workshop:

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