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PLASTIC PROCESSOR



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COMPETENCY STANDARDS

National Vocational Certificate Level 2-4

Version 1 - September, 2018



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Introduction

Plastic Processors are in demand across the country and abroad. Their services are required for everything from part moulding to floor management, including Injection, compression, blow and extrusion moulding operations. This is a good career opportunity for a reliable and responsible individual with a strong work ethic.

In order to build the capacity of technical and vocational training institutes in Pakistan through provision of demand driven competencies-based trainings in the manufacturing sector the NAVTTC, and TEVT Sector Support Program (TSSP) have joined hands together to develop qualifications for this sector. These qualifications will not only build the capacity of existing workers of this sector but also support the youth to acquire best fit skills for this sector. The benefits and impact of development of these qualifications will be on both demand and supply side.

Based upon this demand of industry these competency-based qualifications for Plastic Processor are developed under National Vocational Qualification Framework (NVQF) (Level 2 to 4). The qualifications mainly cover competencies along with related knowledge and professional skills which are essential for getting a job or self-employed.

The National Vocational & Technical Training Commission (NAVTTTC) has approved the Qualification Development Committee (QDC). The QDC consists of experts from the relevant industries from different geographical locations across Pakistan, together with academicians who were consulted during the development process to ensure input and ownership of all the stakeholders. The National Competency Standards could be used as a referral document for the development of curricula to be used by training institutions.

The Plastic Processor curriculum will prepare students to efficiently operate plastic processing machines such as injection, blow, compression, and extrusion moulding machines, and to perform basic preventive maintenance on most types of plastic processing machines and equipment. The coursework includes Safety, Plastic moulding Machines operations, starting up, maintaining and shutting down plastic processing machines; sampling and testing operations, routine servicing, rectifying process problems, and managing and supporting plastics operatives. Legal & environmental concerns. Graduates of this program may find employment with state and local Government / Private organizations engaged in plastic part manufacturing or other plastic processing activities.



Detail of National Vocational Certificate Levels

The detail of the competency standards included in these qualifications is given below:

- National Vocational Certificate level 2, in “Plastic Processor” Worker / Operator
 - Comply with Perform Personal Health and Safety Guidelines
 - Communicate the Workplace Policy and Procedure
 - Perform Basic Communication (Specific)
 - Perform Basic Computer Application (Specific)
 - Arrange Raw Material for Processing
 - Produce Injection moulded plastic parts
 - Produce Pipe through extrusion moulding machine
 - Produce Blow moulded plastic parts
 - Produce Compression moulded plastic parts

- National Vocational Certificate level 3, in “Plastic Processor” Manufacturing Expert
 - Apply Work Health and Safety Practices (WHS)
 - Identify and Implement Workplace Policy and Procedures
 - Communicate at Workplace
 - Perform Computer Application Skills
 - Manage Personal Finances
 - Operate injection moulding Machine for Production
 - Operate Pipe Extrusion moulding machine
 - Operate Compression moulding machine
 - Operate Blow moulding machine

- National Vocational Certificate level 4, in “Plastic Processor” Manufacturing Technician
 - Contribute to Work Related Health and Safety (WHS) Initiatives
 - Analysis Workplace Policy and Procedures
 - Perform Advanced Communication
 - Develop Advance Computer Application Skills
 - Manage Human Resource Services
 - Develop Entrepreneurial Skills
 - Perform off tool sampling



- Perform tool change over
- Perform Shutdown Procedures
- Manage Product Quality
- Manage Production Flow



Purpose of the Qualification

The purpose of the training is to provide skilled manpower to improve the existing capacity of the plastic parts manufacturing sector. This training will provide the requisite skills to the trainees to operate plastic processing Machines. It will enable the participants to meet the challenges in the field of plastic manufacturing industry. Further, it will improve the skill level of the machine operators and prepare them for the plastic manufacturing industry and to meet the market competition nationally and internationally.

The core purpose of this qualification is to produce skilled workforce for plastic processing industry who could operate plastic processing Machines according to national and international standards. In addition, this qualification will prepare unemployable youth to employee in this manufacturing sector.

Main Objectives of the Qualification

The plastic processor qualifications level 2- 4 consists of theoretical knowledge and practical skills required to work on Plastic Processing machines in Plastic manufacture industries. The main objectives of the qualification are as follows:

1. Apply Occupational Health and Safety Practices
2. Prepare plastic processing machines for productions
3. Skills required to operate plastics processing machines
4. Develop skills to perform Off Tool Sampling
5. Develop skills to perform Tool change over
6. Develop communication Skill
7. Develop Professionalism
8. Maintain safe working environment

Date of Validation

The level 2-4 of National vocational qualification on Plastic Processor Machine Operator has been validated by the Qualifications Development Committee (QDC) members on March 2-3, 2019 and will remain in currency until December 2021.



Codes of Qualifications

The International Standard Classification of Education (ISCED) is a framework for assembling, compiling and analyzing cross-nationally comparable statistics on education and training. ISCED codes for these qualifications are assigned as follows:

ISCED Classification for Plastic Processor level 1-3	
Code	Description
0722PPP019	National Vocational Certificate level 2, in “Plastic Processor” Worker / Machine Operator
0722PPP020	National Vocational Certificate level 3, in “Plastic Processor” Production Technician
0722PPP021	National Vocational Certificate level 4, in “Plastic Processor” Production Expert



Members of Qualification Development Committee

The following members participated in the Qualification development and validation process.

S#	Name	Designation	Organization	Role in QDC
1	Mr. Mansoor	Sr. Supervisor (Molding)	Dollar industries	QDC+OP+CS+Validation
2	Mr. Irfan	Executive plastic processing	Dollar industries	QDC+OP+CS+Validation
3	Mr. Ayaz ul Hassan	Dept. Manager Process	Novatex Limited	QDC+OP+CS+Validation
4	Mr. Raja Ghazanfar	Sr. Asst. Manager - Blowing	Gatron	QDC+OP+CS+Validation
5	Mr. Tariq Farooqui	Deputy Manager	Alson Auto part	QDC+OP+Validation
6	Mr. Syed Nadeem Gohar	Director	PSTC	QDC+OP+CS+Validation
7	Mr. Arshad Farooqui	Director / Chemical Engr.	NTU / PTC	QDC+OP+CS+Validation
8	Dr. S. Shams	Asst. Professor Polymer Eng	NTU / PTC	QDC+OP+CS
9	Mr. Rashid Mehmood	General secretary	PPMA	QDC+OP+CS+Validation
10	Mr. Hafiz Irfan Saeed	Certified Assessor	AMANTECH	QDC+OP+CS+Validation
11	Mr. S.M. Noman	C.E	Al-Huda Plastic	QDC+OP+CS+Validation
12	Mr. Junaid Rahim	Managing partner	Plastisol	QDC+OP+CS+Validation
13	Mr. Danish Iqbal	Director	Al-Huda Plastic	QDC+OP
14	Mr. Imran Ahmed	Director	Tropical Plastics	QDC+OP+CS+Validation
15	Mr. S. Farhan Ahmed	Sr. Instructor	PSTC	QDC+OP+CS+Validation
16	Mr. Ismail Kunji	Director	Plastisol	QDC+OP
17	Mr. Faisal Irshad	Maintenance supervisor	FAV Plastico	CS+Validation
18	Mr. Waqar Tanoli	Sr. Supervisor	Pak Arab	CS+Validation
19	Mr. Ubaib Ahmed Siddiqi	Production Manager	Pak Arab	CS+Validation
20	Mr. Liaquat Ali Jamro	Director Academics	STEVTA	CS+Validation
21	Mr. Shakeel Ahmed	Incharge Curriculum	TTB	CS+Validation
22	Mr. Ghulam Raza Hussain	Certified DACUM Expert	V.Principal TTC Hub	QDC+OP+CS+Validation



Entry Requirements

The entry for National Vocational Certificate level 2-4, in “Plastic Processor” are given below:

Title	Entry requirements
National Vocational Certificate level 2, in “Plastic Processor” Worker / Operator	Entry for assessment for this qualification is open. However, entry into formal training institute for this qualification is a person having Middle Pass (Eight year of formal education)
National Vocational Certificate level 3, in “Plastic Processor” Manufacturing Expert	Entry for assessment for this qualification is open. However, entry into formal training institute for this qualification is a Person having National Vocational Certificate level 2, in “Plastic Processor” Worker / Operator or Middle with Hands on Experience. Trainees must also be competent basic English and numeracy
National Vocational Certificate level 4, in “Plastic Processor” Manufacturing Technician	Entry for assessment for this qualification is open. However, entry into formal training institute for this qualification is a Person having National Vocational Certificate level 3, in “Plastic Processor” Manufacturing Expert or GIII or Middle with one year of work experience. Trainees must also be competent in advance English and numeracy and completion of appropriate admission assessment

**Categorization and Levelling of the Competency Standards**

Code	Name of Duty or (Module)	Level	Credit	Category
102200844	Comply Personal Health and Safety Guidelines	2	3	Generic
041700839	Communicate the Workplace Policy and Procedure	2	2	Generic
001100851	Perform Basic Communication (Specific)	2	3	Generic
061100856	Perform Basic Computer Application (Specific)	2	4	Generic
072200910	Arrange Raw Material for Processing	2	2	Technical
072200911	Produce Injection moulded plastic parts	2	12	Technical
072200912	Produce Pipe through extrusion moulding machine	2	10	Technical
072200913	Produce Blow moulded plastic parts	2	12	Technical
072200914	Produce Compression moulded plastic parts	2	10	Technical
102200846	Apply Work Health and Safety Practices (WHS)	3	3	Generic
041700840	Identify and Implement Workplace Policy and Procedures	3	2	Generic
001100852	Communicate at Workplace	3	3	Generic
061100858	Perform Computer Application Skills	3	4	Generic
041300867	Manage Personal Finances	3	3	Generic
072200915	Operate injection moulding Machine for Production	3	12	Technical
072200916	Operate Pipe Extrusion moulding machine	3	12	Technical
072200917	Operate Compression moulding machine	3	11	Technical
072200918	Operate Blow moulding machine	3	12	Technical
102200848	Contribute to Work Related Health and Safety (WHS) Initiatives	4	3	Generic
041700841	Analysis Workplace Policy and Procedures	4	3	Generic
001100853	Perform Advanced Communication	4	3	Generic
061100858	Develop Advance Computer Application Skills	4	4	Generic
041300869	Manage Human Resource Services	4	2	Generic
041300860	Develop Entrepreneurial Skills	4	3	Generic
072200919	Perform off tool sampling	4	10	Technical
072200920	Perform tool change over	4	10	Technical
072200921	Perform Shutdown Procedures	4	10	Technical
072200922	Manage Product Quality	4	10	Technical
072200923	Manage Production Flow	4	10	Technical

**Detail of Competency Standards****102200844 Comply with Perform Personal Health and Safety Guidelines**

Overview: This Competency Standard identifies the competencies required to protect/apply occupational Safety, health and Environment at workplace according to the industry's approved guidelines, procedures and interpret environmental rules/regulations. Trainee will be expected to identify and use Personal Protective Equipment (PPE) according to the work place requirements. The underpinning knowledge regarding Observe Occupational Safety and Health (OSH) will be sufficient to provide the basis for the job at workplace.

Competency Units	Performance Criteria
CU1. Identify Personal Hazards at Workplace	<p>P1: Identify risk to personal health</p> <p>P2: Identify hygiene and safety at work place</p> <p>P3: Identify processes</p> <p>P4: Identify tools, equipment and consumable materials that have the potential to cause harm</p> <p>P5: Report, identified risk to Health, hygiene and safety to concerned</p>
CU2. Apply Personal Protective and Safety Equipment (PPE)	<p>P1: List the Personal Protective equipment</p> <p>P2: Select personal protective equipment in terms of type and quantity according to work orders.</p> <p>P3: Wear personal protective equipment according to job requirements.</p> <p>P4: Clean personal protective equipment</p> <p>P5: Stored Personal Protective equipment in proper place after use.</p>
CU3. Comply Occupational Safety and Health (OSH)	<p>P1: Maintain cleanliness and hygiene as per organizational policy</p> <p>P2: Comply with Health, hygiene and safety precautions before starting work</p> <p>P3: Comply organizational Health, hygiene and safety guidelines during work</p> <p>P4: Deal with resolvable problems according to prescribed procedures</p> <p>P5: Report un resolvable problems to concerned</p>



	P6: Place the tools equipment etc at their prescribed place after completion of work
CU4. Dispose of hazardous Waste/materials from the designated area.	P1: Identify hazardous waste materials which needs to be disposed off P2: Segregate hazardous or non-hazardous waste carefully from the designated area as per approved procedure P3: Use proper disposal hazardous containers for dispose-off hazardous waste as per procedure P4: Take necessary precautions like putting masks and gloves while disposing hazardous waste/ materials as per standard operating procedure

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard.

This includes the knowledge of:

- K1:** Explain safety rules and regulations of organization
- K2:** List Personal protection and safety Equipment
- K3:** Describe meaning of Safety signs and symbols
- K4:** Demonstrate understanding of safety related Standard Operating Procedure/guidelines
- K5:** Describe waste disposal SOPs
- K6:** Explain best practices relating to clean and safe work environment

Critical Evidence(s) Required

The candidate needs to produce following critical evidence (s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of maintaining personal health and hygiene practices. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.



041700839 Communicate the Workplace Policy and Procedure

Overview: This unit describes the performance outcomes, skills and knowledge required to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision.

Competency Units	Performance Criteria
CU1. Identify workplace communication procedures	<p>P1. Identify organizational communication requirements and workplace procedures with assistance from relevant authority</p> <p>P2. Identify appropriate lines of communication with supervisors and colleagues.</p> <p>P3. Seek advice on the communication method/equipment most appropriate for the task</p>
CU2. Communicate at workplace	<p>P1. Use effective questioning, and active listening and speaking skills to gather and convey information</p> <p>P2. Use appropriate non-verbal behavior at all times</p> <p>P3. Encourage, acknowledge and act upon constructive feedback</p>
CU3. Draft Written Information	<p>P1. Identify and comply with required range of written materials in accordance with organizational policy and procedures</p> <p>P2. Draft and present assigned written information for approval, ensuring it is written clearly, concisely and within designated timeframes.</p> <p>P3. Ensure written information meets required standards of style, format and detail.</p> <p>P4. Seek assistance and/or feedback to aid communication skills development</p>
CU4. Review Documents	<p>P1. Check draft for suitability of tone for audience, purpose, format and communication style</p> <p>P2. Check draft for readability, grammar, spelling, sentence and paragraph construction and correct any inaccuracies or gaps in content.</p> <p>P3. Check draft for sequencing and structure</p> <p>P4. Check draft to ensure it meets organizational requirements</p>



	P5. Ensure draft is proofread, where appropriate, by supervisor or colleague
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Knowledge and Understanding

- K1:** Key provisions of relevant regulations that may affect aspects of business operations, such as privacy laws
- K2:** Organizational policies, plans and procedures.
- K3:** Barriers to communication
- K4:** Communication model
- K5:** Verbal and written communication techniques

Critical Evidence(s) Required

A person who demonstrates competency in this unit must be able to provide evidence of the ability to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

**001100851 Perform Basic Communication (Specific)**

Overview: This unit describes the skills and knowledge required to assist in the development of communication competence by providing information regarding different forms of communication and their appropriate use.

By the end of this program, learners will be able, to communicate more effectively and efficiently by: working in a team, follow supervisor's instructions and develop generic communication work skills at workplace

Competency Units	Performance Criteria
CU1. Communicate in a team to achieve intended outcomes	<p>P1. Treat team members with respect</p> <p>P2. Maintain positive relationships to achieve common organizational goals</p> <p>P3. Get work related information from team</p> <p>P4. Identify interrelated work activities to avoid confusion</p> <p>P5. Adopt communication skills, which are designed in a team.</p> <p>P6. Identify problems in communication with a team</p> <p>P7. Resolve Communication barrier through discussion and mutual agreement</p>
CU2. Follow Supervisor's instructions as per organizational SOPs	<p>P1. Receive the instructions from Supervisor</p> <p>P2. Carry out the instructions of the supervisor</p> <p>P3. Report to the supervisor as per organizational SOPs</p>
CU3. Develop Generic communication skills at workplace	<p>P1. Develop basic reading skills</p> <p>P2. Develop Basic writing Skills</p> <p>P3. Develop basic listening skills</p>

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** Basic Learn and understand Types of communication
- K2:** Basic Reading Skills
- K3:** Basic Writing skills



- K4:** Basic Verbal communication skills
- K5:** Basic Problem solving skills
- K6:** Basic Self-Management Skills
- K7:** Basic Technology Skills
- K8:** Basic Interview Skills
- K9:** Basic Workplace dress code
- K10:** Basic The role of team members and functionality of the teams

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Make a list of appropriate communication skills with colleagues and supervisors



061100856 Perform Basic Computer Application (Specific)

Overview: This unit describes the skills and knowledge required to use spreadsheet to prepare a page of document, develops familiarity with Word, Excel, Access, PowerPoint, email, and computer graphics basics.

It applies to individuals who perform a range of routine tasks in the workplace using a fundamental knowledge of spreadsheets, Microsoft office and computer graphics in under direct supervision or with limited responsibility.

Competency Units	Performance Criteria
CU1. Create Word Documents	<p>P1. Open word processing application</p> <p>P2. Create a word document</p> <p>P3. Customize page layout with relevant name setting</p> <p>P4. Set up page in a word document</p> <p>P5. Edit word document as required</p> <p>P6. Use simple formatting tools when creating the document</p> <p>P7. Save word document to directory</p> <p>P8. Insert table in a word document</p> <p>P9. Insert appropriate images into document as necessary</p> <p>P10. Insert header/footer in a word document</p> <p>P11. Insert section break in a word document</p> <p>P12. Set style in word document</p> <p>P13. Select basic Print settings</p> <p>P14. Print the document</p>
CU2. Use internet for Browsing	<p>P1. Use search engines to open website</p> <p>P2. Search data on different topics</p> <p>P3. Refine search to increase relevance of information or content</p> <p>P4. Navigate a website to access the information or content required</p>



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** Describing formatting styles and their effect on formatting, readability and appearance of documents
- K2:** Outline purpose, use and function of word-processing software.
- K3:** Editing in MS Word
- K4:** Formatting in MS word
- K5:** Use of different search engines
- K6:** Use of different web pages

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Identify the components of computer
- Follow organizational ergonomic work health and safety (WHS) requirements and practices
- Create, open and retrieve documents using customized basic settings
- Format documents by creating tables and adding text, objects and images
- Save and prints documents.
- Download data through web browser



072200910 Arrange Raw Material for Processing

Overview: This competency standard is designed to gain basic knowledge and skills required to arrangement of raw material for processing of manufacturing products and sample. The standard covers specific knowledge related to arrangement procedure of raw material and understanding manufacturing requirement, recognizing materials and specifications, and bill of material/s and manufacturing parts according to manufacturing drawings.

Competency Units	Performance Criteria
CU1. Obtain work order	P1. Interpret existing job order sheet/card. P2. Communicate pre completion of existing job order to relevant department.
CU2. Identify components & Attachments	P1. Enlist different components P2. Enlist different attachments
CU3. Apply pre-processing procedure	P1. Adapt procedure for colouring as per job card /work order. P2. Use additives as per requirement P3. Load the material in machine hopper as per work order. P4. Apply drying of the material as per requirement of job.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Define types of plastic / polymers
- Describe reporting procedures
- Describe drying procedures
- Explain material mixing procedure
- Explain online crushing tools & techniques
- Define material handling and storing procedures



Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Communicate pre completion of existing job order to relevant department.
- Verify the material provided as per work order.
- Load the material in machine hopper as per requirement.

Tools and Equipment

1. Basic Hand tools
2. Measuring tools and instruments
3. Service Manuals
4. Operational Manuals
5. Material data/facts Sheets



072200911 Produce Injection Moulded Plastic Parts

Overview: This competency standard is designed to provide skills and knowledge to produce injection molded plastic part through injection moulding machine under supervision of expert operator. You will be able to perform samples production and bulk production according to order sheet assigned. The standard covers basic knowledge related to machine operation of injection moulding machine and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Interpret work order	P1. Obtain work order P2. Verify production quantity available P3. Ensure raw material available as per work order P4. Ensure machine setting for production as per data sheet provided
CU2. Perform Production	P5. Start machine on auto cycle mode as operation manual. P6. Perform periodic quality checks as per requirement.
CU3. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin etc P3. Ensure machine lubrication as per requirement.
CU4. Submit production report	P1. Record production report as per given format (kg/ nos, hours). P2. Submit report to concerned department.
CU5. Transport finish product to Concerned department	P1. Place finished product in designated area P2. Take approval of finished product from Quality control P3. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Know machine operating procedure.
- Know measuring & marking tools related to machines and product measurement



- Define functions of machine.
- Explain basic hand tools of machine maintenance and operation.
- knowledge of production/Target
- Understand production reports
- Knowledge of Packing standards
- Knowledge of Packed components placement area
- Brief components checking
- Define components of delivery procedure
- Describe components of standards Quality
- Knowledge of defects of components
- Describe identification of materials

Critical Evidence(s) Required

The learner must present evidence of practical observations showing their ability to demonstrate how to produce injection moulded part on injection moulding machine as per workorder that need to be maintained throughout the shift.

They must also complete a knowledge assessment test (written or oral) together with a portfolio of evidence that shows their knowledge and understanding. Further guidance is provided in the Assessment Evidence Guide for this Competency Standard

Tools and Equipment

1. Injection Moulding Machine
2. Mould
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools



072200912 Operate Pipe Extrusion machine operation

Overview: This competency standard is designed to provide skills and knowledge to produce Pipes on pipe extrusion moulding under supervision of expert operator. You will be able to perform samples production and bulk production according to order sheet assigned. The standard covers basic knowledge related to machine operation of extrusion moulding machine and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Interpret work order	P1. Obtain work order P2. Verify production quantity available P3. Ensure raw material available as per work order P4. Ensure machine setting for production as per data sheet provided
CU2. Start production as per requirement	P1. Adjust pipe sizing as per job card. P2. Fix printer as per job card. P3. Manage production rate as per machine capacity to achieve standard component.
CU3. Perform follow up procedure	P1. Verify pipe length as per order P2. Verify pipe standard dimensions and visual inspection P3. Generate parameters report according to set format.
CU4. Submit production report	P1. Note machine hours as per format. P2. Record production (kg/hr) as per format. P3. Record rejection (kg/no.) as per procedure and format. P4. Record machine downtime (hrs/min) on set format. P5. Record machine output(productivity) on set format
CU5. Transport finished product	P1. Ensure finished goods are counted according to organization procedure. P2. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess



underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Know pipe extrusion materials
- Know extruder type
- Define heat, pressure controller
- Know Machine operation
- Know cooling system of extrusion
- know vacuum calibrator
- Understand job order
- Define classification of pipes as per standard
- Know measuring instruments
- Know hand tools and use

Critical Evidence(s)

The learner must present evidence of practical observations showing their ability to demonstrate how to produce pipes on extrusion moulding machine as per workorder that need to be maintained throughout the shift.

They must also complete a knowledge assessment test (written or oral) together with a portfolio of evidence that shows their knowledge and understanding. Further guidance is provided in the Assessment Evidence Guide for this Competency Standard

Tools and Equipment

1. Pipe Extrusion Machine
2. Extrusion Die
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools



072200917 Operate Compression Moulding Machine

Overview: This competency standard is designed to provide skills and knowledge to produce compression moulded plastic part through compression moulding machine under supervision of expert operator. You will be able to perform samples production and bulk production according to order sheet assigned. The standard covers basic knowledge related to machine operation of compression moulding machine and reporting procedure of machine

Competency Units	Performance Criteria
CU1. Interpret work order	P1. Obtain work order P2. Verify production quantity available P3. Ensure raw material available as per work order P4. Ensure machine setting for production as per data sheet provided
CU2. Perform Production	P1. Start machine on auto cycle mode as per operation manual. P2. Perform periodic quality checks as per requirement.
CU3. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin as per requirement. P3. Ensure machine lubrication as per requirement.
CU4. CU6. Submit production report	P1. Record production report as per given format (kg/ nos, hours). P2. Submit report to concerned department
CU5. CU7. Transport finish product to Concerned department	P1. Place finished product in designated area. P2. Take approval of finished product from Quality control P3. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:



- knowledge of workorder
- Know type of machine and operations
- Know basic information Hydraulic, Pneumatic, electrical & heating system.
- Define capacity of machine
- Know measuring & marking tools related to machines
- Know basic hand tools of machine maintenance and operation
- Brief Sampling techniques of moulding machines
- Define function and type of machine parts
- Describe reporting procedures of industries
- Explain types of plastics & their applications
- Explain production report
- Describe Packing standards
- Explain Packed components placement area
- Define components of delivery procedure
- Describe components of standards Quality
- Explain defects of components

Critical Evidence(s)

The learner must present evidence of practical observations showing their ability to demonstrate how to produce pipes on extrusion moulding machine as per workorder that need to be maintained throughout the shift.

They must also complete a knowledge assessment test (written or oral) together with a portfolio of evidence that shows their knowledge and understanding. Further guidance is provided in the Assessment Evidence Guide for this Competency Standard

Tools and Equipment

1. Color-code cards,
2. Utility documentation.
3. Service Manuals,
4. O. H. S Regulation manuals
5. Compression Mould



072200918 Operate Blow Molding Machine

Overview: This competency standard is designed to provide skills and knowledge to produce blow moulded plastic part through blow moulding machine under supervision of expert operator. You will be able to perform samples production and bulk production according to order sheet assigned. The standard covers basic knowledge related to machine operation of compression moulding machine and reporting procedure of machine

Competency Units	Performance Criteria
CU1. Interpret work order	P1. Obtain work order P2. Verify production quantity available P3. Ensure raw material available as per work order P4. Ensure machine setting for production as per data sheet provided
CU2. Perform Production	P1. Start machine on auto cycle mode as per SOP P2. Perform periodic quality checks as per requirement.
CU3. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin etc P3. Ensure machine lubrication as per requirement.
CU4. CU6. Submit production report	P1. Record production report as per given format (kg/ nos, hours). P2. Submit report to concerned department.
CU5. CU7. Transport finish product to Concerned department	P1. Place finished product in designated area P2. Take approval of finished product from Quality control P3. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:



- Basic operation of blow molding machines
- Know measuring & marking tools related to machines
- Define functions of blow molding machine
- Know basic hand tools of machine maintenance and operation
- knowledge of production/Target
- Explain production report
- Describe Packing standards
- Explain Packed components placement area
- Knowledge of components checking
- Define components of delivery procedure
- Describe components of standards Quality
- Knowledge of defects of components
- Describe identification of materials
- Know Material drying procedure

Critical Evidence(s) Required

The learner must present evidence of practical observations showing their ability to demonstrate how to produce pipes on extrusion moulding machine as per workorder that need to be maintained throughout the shift.

They must also complete a knowledge assessment test (written or oral) together with a portfolio of evidence that shows their knowledge and understanding. Further guidance is provided in the Assessment Evidence Guide for this Competency Standard

Tools and Equipment

1. Blow Moulding Machine
2. Blow Mould
3. Air compressor
4. Vacuum machine
5. De-humidifier
6. Chiller for cold water
7. Utility documentation.
8. Service Manuals.
9. Operational Manuals.
10. Basic Hand tools



102200846 Apply Work Health and Safety Practices (WHS)

Overview: This unit describes the skills to work with safety and participate in hazard assessment activities, follow emergency procedures and participate OHS practices in process.

Competency Units	Performance Criteria
CU1. Implement safe work practices at work place	P1. Implement relevant rules and procedures of WHS at work place. P2. Comply with duty of care requirements P3. Use personal protective equipment according to safe work practices P4. Contribute to WHS consultative activities P5. Raise WHS issues with relevant personnel
CU2. Participate in hazard assessment activities a work place	P1. Identify hazards or WHS issues in the workplace to relevant personnel P2. Assess and control risks according to own level of responsibility, in line with workplace procedures P3. Report hazards or WHS issues in the workplace to relevant personnel P4. Document risk control actions as required
CU3. Follow emergency procedures at workplace	P1. Report emergencies or incidents promptly to relevant personnel P2. Deal with emergencies in line with own level of responsibility P3. Implement evacuation procedures as required
CU4. Participate in OHS consultative processes	P1. Contribute to workplace meetings, inspections or other consultative activities P2. Raise OHS (Occupational Health and Safety) issues with designated persons in accordance with organizational procedures P3. Take actions to eliminate workplace hazards or to reduce risks



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard.

This includes the knowledge of:

- K1:** Outline the WHS rights and responsibilities that apply to own role
- K2:** Explain the term duty of care
- K3:** Describe typical health and safety roles in the workplace
- K4:** List and describe common safety signs and symbols
- K5:** Explain procedures for reporting hazards, risks, incidents and accidents
- K6:** Identify and describe common hazards and major causes of accidents relevant to the workplace
- K7:** Explain what the term risk control means
- K8:** List and describe potential emergency situations and how to respond to them

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

Demonstrate evidences of the Health and safety Processes to avoid any incident.



041700840 Identify and Implement Workplace Policy and Procedures

Overview: This unit describes the skills and knowledge required to develop and implement a workplace policy & procedures and to modify the policy to suit changed circumstances. It applies to individuals with managerial responsibilities who undertake work developing approaches to create, monitor and improve strategies and policies within workplaces and engage with a range of relevant stakeholders and specialists.

Competency Units	Performance Criteria
CU1. Identify workplace policy & procedures	P1. Identify the workplace policy & procedures P2. Apply appropriate strategies that can be used to measure whether your workplace health and safety obligations are being met. P3. Assure the policies are realistic, resources and personnel to implement P4. Implement the policy & procedures that reflects the organizations commitments P5. Ensure the appropriate methods of implementation, outcomes and performance indicators
CU2. Implement workplace policy & procedures	P1. Apply and assign responsibility for recording systems to track continuous improvements in policy & procedures P2. Implement strategies for continuous improvement in effective and efficient information
CU3. Communicate workplace policy & procedures	P1. Communicate procedures to help implement workplace policy P2. Inform those involved in implementing the policy about expected outcomes, activities to be undertaken and assigned responsibilities
CU4. Review the implementation of workplace policy & procedures	P1. Identify the trends that may require remedial actions P2. Record the trends that may require remedial actions. P3. Ensure policy and procedures as required are made for continuous improvement of performance



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard.

This includes the knowledge of:

- K1:** Legislation, regulations and codes of practice applicable to the organization
- K2:** internal and external sources of information and organizational policy & procedures
- K3:** Typical barriers to implementing policies and procedures in an organization.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

Identify evidences of the ability to implement work place policy and procedures. briefly identify work place procedures to avoid incident.



001100852 Communicate at Workplace

Overview: This unit describes the performance outcomes, skills and knowledge required to develop communication skills in the workplace. It covers gathering, conveying and receiving information, along with completing assigned written information under direct supervision.

Competency Units	Performance Criteria
CU1. Communicate within the organization	P1. Communicate within a department P2. Communicate with other departments. P3. Use various media to communicate effectively P4. Communicate orally and written
CU2. Communicate outside the organization	P1. Deal with vendors P2. Deal with clients/customers P3. Interact with other organisations P4. Use various media to communicate effectively P5. Work with people of different cultures / backgrounds
CU3. Communicate effectively in workgroup	P1. Assess the issues to provide relevant suggestion to group members P2. Resolve the issues/ problems /conflicts within the group P3. Arrange group working sessions to increase the level of participation in the group processes P4. Communicate messages to group members clearly to ensure interpretation is valid P5. Communicate style /manner to reflect professional standards/ awareness of appropriate cultural practices P6. Act upon constructive feedback
CU4. Communicate in writing	P1. Identify relevant procedures for written information P2. Use strategies to ensure correct communication in writing .i.e. <ul style="list-style-type: none">• correct composition• clarity• comprehensiveness• accuracy• appropriateness



	<p>P3. Draft assigned written information for approval, ensuring it is written within designated timeframes</p> <p>P4. Ensure written information meets required standards of style, format and detail</p> <p>P5. Seek assistance / feedback to aid communication skills development</p>
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Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** Importance of intra and inter organizational communication
- K2:** Basics of business communication
- K3:** Defining Modes of communication
- K4:** Effective communication in workgroup
- K5:** Communicating through writing
- K6:** The importance of teamwork

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

In your current position, what types of written communication do you use most often? (List them all).

**061100858 Perform Computer Application Skills**

Overview: This unit describes the skills and knowledge required to use spreadsheet applications, prepare in page documents, develops familiarity with Word, Excel, Access, PowerPoint, email, and computer graphics basics.

It applies to individuals who perform a range of routine tasks in the workplace using a fundamental knowledge of spreadsheets, Microsoft office and computer graphics in under direct supervision or with limited responsibility.

Competency Units	Performance Criteria
CU1. Prepare In-page documents as per required information	<p>P1. Set keyboard preferences according to information requirements</p> <p>P2. Layout Page according to information requirements</p> <p>P3. Toggle between Languages</p> <p>P4. Identify the usage of tool bar</p> <p>P5. Insert Columns as per requirement</p> <p>P6. Print the document</p>
CU2. Prepare Spreadsheets as per required information	<p>P1. Create workbook according to information requirements</p> <p>P2. Insert sheet according to information requirements</p> <p>P3. Enter basic formulae / functions using cell referencing when required</p> <p>P4. Correct formulas when error messages occur</p> <p>P5. Use a range of common tools during spreadsheet development</p> <p>P6. Edit columns and rows within the spreadsheet Filter data</p> <p>P7. Save the spreadsheet to a folder on a storage device</p> <p>P8. Format spreadsheet using formatting features as required</p> <p>P9. Incorporate object and chart in spreadsheet</p> <p>P10. Print spreadsheet</p>
CU3. Use MS Office as per required information	<p>P1. Use Microsoft Word for documentation</p> <p>P2. Use Microsoft Excel for documentation</p> <p>P3. Use Microsoft PowerPoint for presentation</p> <p>P4. Perform OneNote</p> <p>P5. Perform Outlook for emails</p>



	P6. Perform Publisher applications
CU4. Perform computer graphics in basic applications	P1. Perform graphic fundamentals in basic applications P2. Draw Points and lines to make images P3. Draw Dots in space to make images P4. Draw lightening blot Shapes to make images P5. Enlarge circles and rectangles to block in forms
CU5. Create Email account for communications	P1. Make email account for communications P2. . Compose text of an email message according to organizational guidelines as required P3. Create an automatic signature for the user P4. Attach files to email message where required P5. Send email message P6. Reply to / forward a received message using available features P7. Save an attachment to the relevant folder P8. Save email message using available settings P9. Adjust email accounts to restrict and quarantine possible email security problems <ul style="list-style-type: none">• Print email message as per requirements

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** List basic technical terminology related to reading help files and prompts
- K2:** Explain the effect of formatting and appearance on the readability and usability of spreadsheets
- K3:** Outline log-in procedures relating to accessing a personal computer (PC)
- K4:** Describe the purpose, use and function of spreadsheet applications.



- K5:** Understand **MS Word** to create documents, flyers, publications
- K6:** Understand **MS PowerPoint** to create presentations
- K7:** Understand **MS Excel** to store, organize, and manipulate data
- K8:** Understand **OneNote** to organize data you collect including handwritten notes, drawings, screen captures, audio clips, and more
- K9:** Understand of **Publisher** to create extensive publications, posters, flyers, menus
- K10:** Understand **Outlook** to manage email and calendars, to do lists, and contacts

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Create spreadsheets
- Customize basic settings
- Format spreadsheets
- Apply basic formulas
- Insert objects and charts in spreadsheets
- Save and print spreadsheets.



041300867 Manage Personal Finances

Overview: This unit of competency describes the outcomes required to manage develop, implement and monitor a personal budget in order to plan regular savings and manage debt effectively.

Competency Units	Performance Criteria
CU1. Develop a personal budget	<p>P1. Calculate current living expenses using available information to prepare a personal budget.</p> <p>P2. Keep a record of all income and expenses for a short period of time to help estimate ongoing expenses.</p> <p>P3. Subtract total expenses from total income to determine a surplus or deficit budget for the specified period.</p> <p>P4. Find reasons for a deficit budget and ways to reduce expenditure identified.</p> <p>P5. Identify ways to increase income</p>
CU2. Develop long term personal budget	<p>P1. Analyze income and expenditure and set long term personal financial goals.</p> <p>P2. Develop a long-term budget based on the outcomes of short-term budgeting.</p> <p>P3. Identify obstacles that might affect the business</p> <p>P4. Formulate a regular savings plan based on budget</p>
CU3. Identify ways to maximize future finances	<p>P1. Determine sources to maximize personal income,</p> <p>P2. Get further education or training to maintain or improve future income.</p> <p>P3. Identify the need for debt to finance living and other expenses,</p> <p>P4. Determine the appropriate levels of debt and repayment.</p> <p>P5. Consolidate existing debt, where possible, to minimize interest costs and fees.</p> <p>P6. Seek professional money management services.</p>



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1:** Explain the abilities to plan and organize to keep records and monitor a personal budget
- K2:** Describe abilities to set and review goals
- K3:** Explain basic financial management and record keeping to enable development and management of a personal budget
- K4:** Describe benefits of financial goal setting and personal budgeting to enable effective management of personal finances
- K5:** Outline numeracy skills to compare income and expenditure

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

Demonstrates competency to provide evidence of the ability to manage personal finances. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.



072200915 Operate Injection Moulding Machine

Overview: This competency standard is designed to provide skills and knowledge to operate injection moulding machine in accordance with the manufacturer's Manual. You will be able to perform samples production and bulk production according to organization target. The standard covers specific knowledge related to operation of injection moulding machine and explaining parameters setting, dry run procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Adjust Moulding machine parameters	P1. Turn on machine as operation manual. P2. Feed parameters as per PPS and job. P3. Verify all parameters as per job/ data sheet
CU2. Perform Dry Run	P1. Ensure Mould opening & closing position as per tool P2. Ensure mechanism of Ejector of the tool P3. Verify protection of tool as per operation manual and procedure.
CU3. Perform Semi Auto Operation	P1. Ensure barrel temperatures has achieved according to data sheet P2. Perform purging till required material ready for sample shot. P3. Start moulding cycle as per SOP. P4. Inspect the samples as per data sheet.
CU4. Perform Production	P1. Start machine on auto cycle mode as operation manual. P2. Perform periodic quality checks as per requirement.
CU5. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin etc. P3. Ensure machine lubrication as per requirement.
CU6. Submit production report	P1. Record production report as per given format (kg/ nos, hours). P2. Submit report to concerned department.



CU7. Transport finish product to Concerned department

- P1.** Place finished product in designated area
- P2.** Take approval of finished product from Quality control
- P3.** Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Describe structure of machines.
- Describe measuring & marking tools related to machines.
- Define functions of machine.
- Explain basic hand tools of machine maintenance and operation.
- Explain knowledge of production/Target.
- Explain production report.
- Describe Packing standards
- Brief components checking
- Define components of delivery procedure
- Describe components of standards Quality
- Explain defects of components
- Describe identification of materials.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Identify Machines and its related Attachments
- Identify Capacity of machine before use
- Mould & machine setting as per requirement
- Material identification of plastic processing
- Reporting procedure as per organizational standard.

Tools and Equipment

1. Injection Moulding Machine
2. Machine Mould
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools



072200916 Operate Pipe Extrusion machine operation

Overview: This competency standard is designed to provide skills and knowledge to operate pipe extrusion machine in accordance with the manufacturer's Manual. You will be able to perform samples production and bulk production according to organization target. The standard covers specific knowledge related to operation of pipe extrusion machine and explaining parameters setting, running procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Inspect extrusion machine pre-start parameters	P1. Check control variables as per process P2. Check extruder parameters as per standard P3. Check downstream parameters as per standard
CU2. Carry out operation	P1. Perform purging agent is drained. P2. Ensure extrude flow as per requirement P3. Guide the extruder to haul-off unit. P4. Check pipe concentricity as per standard. P5. Start vacuum/bath according to instruction set P6. Ensure cutting as per size
CU3. Start production as per requirement	P1. Adjust pipe sizing as per job card. P2. Fix printer as per job card. P3. Manage production rate as per machine capacity to achieve standard component.
CU4. Perform follow up procedure	P1. Verify pipe length as per order P2. Verify pipe standard dimensions and visual inspection P3. Generate parameters report according to set format.
CU5. Submit production report	P1. Note machine hours as per format. P2. Record production (kg/hr) as per format. P3. Record rejection (kg/no.) as per procedure and format. P4. Record machine downtime (hrs/min) on set format. P5. Record machine output(productivity) on set format
CU6. Transport finished product	P1. Ensure finished goods are counted according to



organization procedure.

P2. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Describe pipe extrusion materials.
- Describe extruder type.
- Define heat, pressure controller.
- Describe Machine operation.
- Explain cooling parameters and vacuum calibration.
- Describe printers and printing procedure.
- Explain job order.
- Explain classification of pipes as per standard.
- Describe adjustment of the die head.
- Define measuring instruments.

Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Perform housekeeping tasks.
- Adjusting the dies/sizes.
- Adjusting the barrel & die temperature
- Adjusting calibrator
- Adjust the extruder & haul machine speed
- Ensure material temperature

Tools and Equipment

1. Pipe Extrusion Machine
2. Machine Mould
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools



072200917 Operate Compression Moulding Machine

Overview: This competency standard is designed to provide skills and knowledge to operate compression moulding machine in accordance with the manufacturer's Manual. You will be able to perform samples production and bulk production according to organization target. The standard covers specific knowledge related to operation of compression moulding machine and explaining parameters setting, dry run procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Adjust parameters of machine	P1. Check raw material to set machine operation P2. Turn on machine as per instruction manual and procedure set by organization P3. Feed parameters as per job/ data sheet. P4. Verify all pre-start parameters as per job card / data sheet
CU2. Perform Dry Run	P1. Ensure Mould opening & closing position P2. Ensure mechanism of Ejector of the Mould P3. Verify protection of Mould as per SOP.
CU3. Perform Semi Auto Operation	P1. Lubricate the Mould and feed plastic as per standard volume and component P2. Start heating of Mould as per data sheet P3. Feed material dose as per data sheet P4. Clamp the Mould as per instruction manual and procedure by organizational standard P1. Wait for the melting of raw material P2. Wait for the cooling before ejection
CU4. Perform Production	P1. Start machine on auto cycle mode as per operation manual. P2. Perform periodic quality checks as per requirement.
CU5. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin as per requirement. P3. Ensure machine lubrication as per requirement.
CU6. Submit production	P3. Record production report as per given format (kg/ nos, hours).



report	P4. Submit report to concerned department
CU7. Transport finish product to Concerned department	P4. Place finished product in designated area. P5. Take approval of finished product from Quality control P6. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Explain knowledge of production/Target.
- Define types of hazards
- Describe Risk Assessment procedures
- Describe structure of machines
- Explain Hydraulic, Pneumatic, electrical & heating system.
- Explain tool lifting techniques on machines
- Define capacity of machine
- Describe measuring & marking tools related to machines
- Explain basic hand tools of machine maintenance and operation
- Brief Sampling techniques of moulding machines
- Define function and type of machine parts
- Describe reporting procedures of industries
- Explain the processing cycle of machine.
- Explain types of plastics & their applications
- Explain production report.
- Describe Packing standards
- Explain Packed components placement area
- Components checking
- Define components of delivery procedure
- Describe components of standards Quality
- Explain defects of components



Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Mould & machine setting
- Machine temperature setting
- Material selection
- Feed material dose as per data sheet.

Tools and Equipment

6. Color-code cards,
7. Utility documentation.
8. Service Manuals,
9. O. H. S Regulation manuals,



072200918 Operate Blow Molding Machine

Overview: This competency standard is designed to provide skills and knowledge to operate blow moulding machine in accordance with the manufacturer's Manual. You will be able to perform samples production and bulk production according to organization target. The standard covers specific knowledge related to operation of blow moulding machine and explaining parameters setting, dry run procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Adjust Moulding machine parameters	P1. Turn on machine as operation manual. P2. Feed parameters as per PPS and job. P3. Verify all parameters as per job/ data sheet
CU2. Perform Dry Run	P1. Ensure Mould opening & closing position as per tool P2. Ensure Mould mechanism and Ejection system P3. Verify protection of tool as per operation manual and procedure. P4. Verify material is dryness as per specification
CU3. Perform Semi Auto Operation	P1. Ensure molding temperatures has achieved according to data sheet P2. Start parism till required material ready for sample. P3. Start moulding cycle as per SOP. P4. Inspect the samples as per data sheet.
CU4. Perform Production	P1. Start machine on auto cycle mode as per SOP P2. Perform periodic quality checks as per requirement.
CU5. Perform follow up procedure for machine production	P1. Ensure product packed in assigned packaging. P2. Check feed level in hopper /bin etc P3. Ensure machine lubrication as per requirement.
CU6. Submit production report	P1. Record production report as per given format (kg/ nos, hours). P2. Submit report to concerned department.
CU7. Transport finish product to Concerned department	P1. Place finished product in designated area P2. Take approval of finished product from Quality control



P3. Deliver relevant packaging documents to store personnel.

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Describe structure of blow molding machines.
- Describe measuring & marking tools related to machines.
- Define functions of blow molding machine.
- Understanding of basic hand tools of machine maintenance and operation.
- Explain knowledge of production/Target.
- Know report writing or production report
- Describe Packing standards
- Know quality standards of the components
- Define components of delivery procedure
- Describe components of standards Quality
- Know defects of components
- Describe identification of materials
- Explain Material drying procedure

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Material identification
- Drying procedure.
- Mould setup

Tools and Equipment

1. Blow Moulding Machine
2. Machine Mould
3. Air compressor
4. Vacuum machine
5. De-humidifier
6. Chiller for cold water
7. Utility documentation.
8. Service Manuals and operation manual



102200848 Contribute to Work Related Health and Safety (WHS) Initiatives

Overview: This unit describes the skills and knowledge required to manage the identification, review, development, implementation and evaluation of effective participation and consultation processes as an integral part of managing work health and safety (WHS).

Competency Units	Performance Criteria
CU1. Contribute to initiate work-related health and safety measures	P1. compile database on work-related health and safety P2. Identify measures that address legal obligations. P3. Consult with individuals/ parties to formulate measures and initiatives P4. Consult with individuals/parties to identify factors impacting on work-related health and safety P5. Participate in consultative meetings.
CU2. Contribute to establish work-related health and safety measures	P1. Assist in planning of work-related health and safety measures P2. Contribute to the development of work-related health and safety measures P3. Identify to implement work-related health and safety measures i.e. <ul style="list-style-type: none">• resourcing requirements,• timelines• responsibilities P4. Assist to implement work-related health and safety measures and initiatives i.e. <ul style="list-style-type: none">• scheduling• liaison• administering resources• communication
CU3. Contribute to ensure legal requirements of WHS measures	P1. Identify WHS legal requirements P2. Apply knowledge of all aspects of WHS measures to <ul style="list-style-type: none">• Consultation• workplace policies• participation processes P3. Ensure, WHS measures are in accordance with legal



	requirements
CU4. Contribute to review WHS measures	<p>P1. Develop effective practices to review work-related health and safety measures</p> <p>P2. Assist individuals and parties related to WHS measures in following activities</p> <ul style="list-style-type: none">• preparing reports• communicating review• evaluating outcomes
CU5. Evaluate the organization's WHS system	<p>P1. Assess ongoing compliance with OHS (Occupational Health and safety)</p> <p>P2. Take feedback from concerned persons regarding WHS measures.</p> <p>P3. Assess the overall effectiveness of WHS management practices</p> <p>P4. Assist the development process of WHS measures in following ways</p> <ul style="list-style-type: none">• Suggest amendments• Document amendments• Implement amendments <p>P5. Take feedback from concerned persons regarding WHS measures.</p> <p>P6. Communicate improvements in WHS Measures</p>

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard.

This includes the knowledge of:

- K1:** Explain the application of relevant mandatory health monitoring, including biological monitoring, to help secure work health and safety
- K2:** Explain the difference between work-related health and safety measures and initiatives designed to meet specific legislative requirements and obligations, and those designed to support non-statutory health promotion programs, and give examples of each



- K3:** List factors that impact on work-related health and safety and their potential effects
- K4:** Identify internal and external sources of WHS information and data, and how to access them
- K5:** Outline organizational WHS and other relevant policies, procedures, processes and systems, including human resources
- K6:** Summarize relevant WHS legislation, other legislation (such as privacy and workers compensation) and common law rights and duties specific to work-related health and safety measures and initiatives
- K7:** Describe work-related health and safety measures and initiatives that either address specific legislative requirements and obligations, or support non-statutory health prevention programs, including:
 - The factors impacting on worker health and safety that they address
 - Effectiveness
 - Costs and benefits
 - Criteria for decisions regarding their implementation in a specific workplace
 - How they should be implemented.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to contribute work-related health and safety measures and initiatives. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.



041700841 Comply with Workplace Policy and Procedures

Overview: This unit describes the skills and knowledge required to implement a workplace policy & procedures and to modify the policy to suit changed circumstances. It applies to individuals with managerial responsibilities who undertake work developing approaches to create, monitor and improve strategies and policies within workplaces and engage with a range of relevant stakeholders and specialists.

Competency Units	Performance Criteria
CU1. Manage work timeframes	P1. Complete work tasks within deadlines in according to order of priority P2. Supervisors are informed of any delays in work times or projects
CU2. Manage to convene meeting	P1. Develop agenda in line with meeting purpose P2. Select participants and notify them accordingly P3. Carryout meeting arrangements according to the time P4. Record the minutes of the meeting
CU3. Decision making at workplace	P1.
CU4. Set and meet own work priorities at instent	P1. Take initiative to prioritize and facilitate competing demands to achieve organizational goals and objectives P2. Use technology efficiently and effectively to manage work priorities and commitments P3. Maintain appropriate work-life balance
CU5. Develop and maintain professional competence	P1. Assess personal knowledge and skills against competency P2. Participate in networks to enhance personal knowledge, skills and work relationships P3. Seek feedback from employees, clients and colleagues to develop and improve competence



CU6. Follow and implement work safety requirements	P1. Identify and report emergency incidents P2. Practice organizational policy and procedures for responding to emergency incidents P3. Identify and implement workplace procedures and work instructions for controlling risks
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Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard.

This includes the knowledge of:

- K1:** Healthy work life balance
- K2:** Meeting terminologies, structures and arrangements
- K3:** Relevant organizational procedures and policies regarding meetings, chairing and minutes.
- K4:** Barriers to implement policies and procedures in an organization and possible strategies to address them.

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to understand workplace policy and procedures. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments



001100853 Perform Advanced Communication

Overview: This unit describes the performance outcomes, skills and knowledge required to develop communication skills used professionally. It covers plan and organise work and conduct trainings at workplace, along with demonstrating professional skills independently.

Competency Units	Performance Criteria
CU1. Demonstrate professional skills	<p>P1. Use different modes of communication to communicate</p> <ul style="list-style-type: none">• Speaking• Reading• Writing• Listening• Presentation• visual representation etc <p>P2. Develop CV Skills according requirements</p> <p>P3. Upgrade professional skills by attending trainings, webinars, conferences etc.</p> <p>P4. Perform Continuous professional development as required at workplace</p> <p>P5. Develop interview skills</p>
CU2. Plan and Organize work	<p>P1. Identify task requirements.</p> <p>P2. Plan steps to complete tasks.</p> <p>P3. Review planning and organizing process.</p> <p>P4. Organize work.</p>
CU3. Provide trainings at workplace	<p>P1. Assess the need for training</p> <p>P2. Prepare trainees for the learning experience</p> <p>P3. Present training session</p> <p>P4. Support trainees in managing their own learning</p> <p>P5. Facilitate group learning</p> <p>P6. Provide opportunity for practice</p> <p>P7. Provide feedback on progress on trainees</p> <p>P8. Review delivery experience</p>



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** Explaining the training skills
- K2:** Identification of the professional skills
- K3:** Describing the advanced language skills
- K4:** Understanding of the assessment and trainees feedback methods
- K5:** Direct and indirect communication methods
- K6:** Explaining the need of the training type at the work place

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Job sheet
- Office emails and coordination reports
- Feedback proforma

**061100858 Develop Advance Computer Application Skills**

Overview: This unit provides an overview of Microsoft Office programs to create personal, academic and business documents following current professional and/or industry standards, i.e. Data Entry, Power Point Presentation and managing data base and graphics for Design

It applies to individuals employed in a range of work environments who need to be able to present a set range of data in a simple and direct forms

Competency Units	Performance Criteria
CU1. Manage Information System to complete a task	P1. Perform Data Entry in MS office P2. Manage File/folder in MS office P3. Perform Scanning of document P4. Maintain Office Record in drives P5. Perform Printing of document P6. Search required Files/Folders P7. Convert Files in required format. P8. Manage sizes of Files/Folders <ul style="list-style-type: none"> • Compress • Zip /unzip
CU2. Prepare Presentation using computers	P1. Prepare presentation as per requirements, i.e. <ul style="list-style-type: none"> • Open blank presentation and add text / graphics • Create a simple design for a presentation • Apply existing styles within a presentation • Use presentation template and slides to create a presentation • Use various tools to improve the look of the presentation • Save presentation to the appropriate storage device and folder with required name P2. Customize basic settings to meet user requirements P3. Format presentation as require <ul style="list-style-type: none"> • Develop organizational charts • Add objects and manipulate to meet presentation purposes • Modify slide layout, including text and colours, to meet



	<p>presentation requirements</p> <ul style="list-style-type: none">• Save presentation in another format• Save to storage device and close presentation <p>P4. Add slide show effect into presentation as required to enhance the presentation</p> <ul style="list-style-type: none">• Incorporate pre-set Animation• Apply Multimedia effects• Record Narration• Apply hyperlink• Apply video• Rehearse Timings• Test presentation for overall effect <p>P5. Print the presentation</p> <ul style="list-style-type: none">• Select appropriate print format for presentation• Select preferred slide orientation• Add notes and slide numbers• Preview slides and run spell check before presentation• Print selected slides and submit presentation to appropriate person for feedback <p>P6. Practice verbal presentation</p> <p>P7. Practice presentation through AV Aids</p>
<p>CU3. Use Microsoft Access to manage database</p>	<p>P1. Collect the data using a standard data base package.</p> <p>P2. Start access to manage database .i.e.</p> <ul style="list-style-type: none">• identify problem statement of Data• Develop a table with fields /attributes according to database usage/ user requirements• Create a primary key and establish an index for each table• Modify table layout and field attributes as required• Create a relationship between the two tables• Add data in a table according to information requirements• Add records as required• delete records as required• Save database to storage area



	<ul style="list-style-type: none">• close down database to storage area• Apply criteria in the following Query• SQL view of Query• Wildcards of query• Query Criteria <p>P3. Customize basic settings:</p> <ul style="list-style-type: none">• Adjust page layout to meet user requirements• Open and view different toolbars• Format font as appropriate for the purpose of the database entries• Create reports• Design reports to present data in a logical sequence• Modify reports to include or exclude additional requirements• Distribute reports to appropriate person in a suitable format <p>P4. Create forms</p> <ul style="list-style-type: none">• Use a wizard to create a simple form• Open existing database and modify records through a simple form• Rearrange objects within the form to accommodate information requirements
<p>CU4. Develop graphics for Design</p>	<p>P1. Develop graphic design concepts based on a thorough understanding of the communication need</p> <p>P2. Use design techniques confidently to produce designs</p> <p>P3. Integrate design tools skillfully to produce designs</p> <p>P4. Evaluate the success of completed designs to meet objectives</p> <p>P5. evaluate feedback from client / peers</p>



Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out the tasks covered in this competency standard. This includes the knowledge of:

- K1:** List basic technical terminology to read help files and prompts
- K2:** Outline the different types of formal and informal presentations
- K3:** Explain Power point presentation
- K4:** Segregation of Data
- K5:** Define the relation among data
- K6:** Define criteria in the query
- K7:** Creates and modify reports and forms.
- K8:** Outline basic database design principles
- K9:** Current graphic design software
- K10:** Discuss features of current and emerging technologies used in graphic design practice and the options they present for effective graphic design solution

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Design and develop a simple database using a standard database package
- Create, format and prepare presentations for distribution and display
- Customize basic settings
- Add slide show effects.
- Generate employment report from given data by using Microsoft Access.



041300869 Manage Human Resource Services

Overview: This unit describes the skills and knowledge required to plan, manage and evaluate delivery of human resource services, integrating business ethics. It applies to individuals with responsibility for coordinating a range of human resource services across an organization. They may have staff reporting to them.

Competency Units	Performance Criteria
CU1. Determine strategies for delivery of human resource services	<p>P1. Analyze business strategy and operational plans to determine human resource requirements</p> <p>P2. Review external business environment that likely impact on organization's human resource requirements</p> <p>P3. Consult line and senior managers to identify human resource needs in their areas</p> <p>P4. Review organization's requirements for diversity in the workforce</p> <p>P5. Deliver human resource services that comply with business goals</p> <p>P6. Develop strategic action plan for delivery of human resource services</p> <p>P7. Develop roles and responsibilities of human resource team</p> <p>P8. Develop quality assurance policy</p>
CU2. Manage the delivery of human resource services	<p>P1. Communicate human resource strategies and services to internal and external stakeholders</p> <p>P2. Develop and negotiate service agreements between</p> <ul style="list-style-type: none">• The human resource team,• Service providers• Client groups <p>P3. Document service specifications, performance standards and timeframes</p> <p>P4. Document /communicate service</p> <ul style="list-style-type: none">• Specifications,• Performance standards• Timeframes <p>P5. Monitor Quality assurance processes</p> <p>P6. Ensure that services are delivered by appropriate providers,</p>



	according to service agreements and operational plans P7. Identify underperformance of human resource team or service providers
CU3. Evaluate human resource service delivery	P1. Establish Management information system for human resource services P2. Conduct survey to determine level of satisfaction P3. Analyze feedback of survey P4. Recommend changes to service delivery P5. Support agreed change processes across the organization
CU4. Manage integration of business ethics in human resource practices	P1. Ensure ethics in personal behavior P2. Ensure code of conduct is observed across the organization, P3. Observe confidentiality requirements in dealing with all human resource information P4. Deal promptly with unethical behavior P5. Ensure all persons responsible for human resource functions understand requirements regarding their ethical behavior

Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1:** Identify the key provisions of legal and compliance requirements that apply to managing human resources
- K2:** Summarize the organization's code of conduct
- K3:** Explain human resource strategies and planning processes and their relationship to business and operational plans
- K4:** Describe performance and contract management
- K5:** Explain how feedback is used to modify the delivery of human resources.



Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to manage human resource services. The evidence should integrate employability skills with workplace tasks and job roles and verify competency is able to be transferred to other circumstances and environments.

Performance requirements

This competency is to be assessed using standard and authorized work practices, safety requirements and environmental constraints. Demonstrated evidence is required of the ability to:

- Plan and manage human resource delivery within legislative, organizational and business ethics frameworks
- Communicate effectively with a range of senior personnel
- Identify and arrange training support where appropriate
- Calculate human resource return on investment within the organization.



041300860 Develop Entrepreneurial Skills

Overview: This Competency Standard identifies the competencies required to develop entrepreneurial skills, in accordance with the organization's approved guidelines and procedures. You will be expected to develop a business plan, collect information regarding funding sources, develop a marketing plan and develop basic business communication skills. Your underpinning knowledge regarding entrepreneurial skills will be sufficient to provide you the basis for your work.

Competency Units	Performance Criteria
CU1. Develop a business plan	P1. Conduct a market survey to collect following information <ul style="list-style-type: none">• Customer /demand• Tools, equipment, machinery and furniture with rates• Raw material• Supplier• Credit / funding sources• Marketing strategy• Market trends• Overall expenses• Profit margin P2. Select the best option in terms of cost, service, quality, sales, profit margin, overall expenses P3. Compile the information collected through the market survey, in the business plan format
CU2. Collect information regarding funding sources	P1. Identify the available funding sources based on their terms and conditions, maximum loan limit, payback time, interest rate P2. Choose the best available option according to investment requirement P3. Prepare documents according to the loan agreement requirement P4. Include the information of funding sources in the business plan
CU3. Develop a marketing plan	P1. Make a marketing plan for the business including product, price, placement, promotion, people, packaging and positioning P2. Include the information of marketing plan in the business plan



CU4. Develop basic business communication skills	P1. Communicate with internal customers e.g.: labor, partners and external customers e.g.: suppliers, customers etc., using effective communication skills P2. Use different modes of communication to communicate internally and externally e.g.: presentation, speaking, writing, listening, visual representation, reading etc. P3. Use specific business terms used in the market
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Knowledge and Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1:** Explain the 7ps of marketing including product, price, placement, promotion, people, packaging and positioning
- K2:** Describe 7Cs of business communication
- K3:** Define different modes of communication and their application in the industry
- K4:** Enlist specific business terms used in the industry
- K5:** Enlist the available funding sources
- K6:** Explain how to get loan to start a new business
- K7:** Explain market survey and its tools e.g: questionnaire, interview, observation etc
- K8:** Describe the market trends for specific product offering
- K9:** State the main elements of business plan
- K10:** Explain how to fill the business plan format

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) to be competent in this competency standard:

A person who demonstrates competency in this unit must be able to provide evidence of the ability to develop Entrepreneurial Skills.

Performance requirements

- Conduct market survey and formulate business plans in terms of feasibility, investment potential, risk, and completeness.
- Demonstrate the use of both verbal and non-verbal business communication.
- Effectively present business ideas and profile



072200919 Perform Off Tool Sampling

Overview: This competency standard identifies the competencies required to perform off tool sampling in accordance with job order/sheet's guidelines. You will be expected to carry out off tool sample, ensuring cost effectiveness, conforming to standards and regulations. The underpinning knowledge regarding off tool sampling will be sufficient to provide the basis for your work.

Competency Units	Performance Criteria
CU1. Ensure type of tool	P1. Select tool as per given job card/ work order P2. Select machine as per tool according to job card/ work order. P3. Verify selection of tool/ Machine according to job requirement P4. Install the tool on selected machine as per installation manual. P5. Connect auxiliaries with tool as per machine operation manual.
CU2. Set machine parameters	P1. Set parameters as per Process Parameter Sheet (PPS) of machine and job card. P2. Check safeties of Mould and machine for safe operation.
CU3. Execute Dry Run operation	P1. Check open/close Mould manually for dry run operation. P2. Ensure temperature of heaters as per SOP P3. Check Ejector mechanism as per execution operation
CU4. Produce sample	P1. Purge material manual mode as per job requirement. P2. Run continuous operation on semi-auto/ auto mode till the required physical appearance achieved. P3. Verify the physical appearance of sample as per SOP of quality standard
CU5. Verify sample specification	P1. Check dimensions of the sample as per drawing specification. P2. Check assembly of the sample as per job card. P3. Produce the required sample size in auto mode according to pilot lot.
CU6. Generate sample report	P1. Prepare the sample report on given format. P2. Submit the sample report for approvals as per standard.



CU7. Take approval for processing	P1. Execute sampling process after approval received. P2. Maintain process parameters for quality production.
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Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Define types of hazards
- Describe Risk Assessment procedures
- Describe structure of machines
- Explain Hydraulic, Pneumatic, electrical & heating system.
- Explain tool lifting techniques on machines
- Define capacity of machine
- Describe measuring & marking tools related to machines
- Explain basic hand tools of machine maintenance and operation
- Brief Sampling techniques of machines
- Define function and type of machine parts
- Describe reporting procedures of industries
- Explain the processing cycle of machine.
- Explain types of plastics & its application

Critical Evidence(s) Required

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Verify selection of tool/machine
- Check safeties of machine/mould
- Ensure auxiliaries and functions as per tool requirement
- Check physical appearance as per SOP
- Check assembly or dimension of sample.
- Submit the report for approval
- Execute production after approval



Tools and Equipment

1. Basic Hand tools
2. Moulding Machine
3. Machine Mould
4. Utility documentation.
5. Service Manuals.
6. Operational Manuals.
7. Basic supplies, such as grease, oil, cleaning agent, emery paper etc.
8. Related Measuring tools



072200920 Perform tool change over to machine

Overview: This competency standard is designed to provide skills and knowledge to performance of tool change over to machine in accordance with the manufacturer's Manual. You will be able to perform tool change as per production requirement and ensuring parameters after installation according to machine production target. The standard covers specific knowledge related to operation of tool change procedure, installation and explaining parameters setting, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Obtain work order according to standard	<p>P1. Collect work order from relevant department.</p> <p>P2. Interpret work order as per organizational procedure.</p> <p>P3. Read existing job order sheet/card.</p> <p>P4. Communicate pre completion of existing job order to relevant department.</p>
CU2. Prepare tool for production	<p>P1. Line up tools according to work order.</p> <p>P2. Clean tool according to instruction manual and procedure.</p> <p>P3. Check quality report before installation.</p>
CU3. Carry out Tool installation	<p>P1. Arrange required hand/ power tools and accessories for installation.</p> <p>P2. Check hydraulic/ pneumatics, and water lines.</p> <p>P3. Perform Installation of tool(Mould/die)</p> <p>P4. Ensure level/alignment of tool with machine.</p>
CU4. Carry out tool storage	<p>P1. Arrange required hand/ power tools and accessories for offloading</p> <p>P2. Apply anti rust coating on tool (Mould/Die).</p> <p>P3. Drain cooling media before offloading of Tool.</p> <p>P4. Perform offloading as per instruction manual and procedure.</p> <p>P5. Prepare and submit remarks sheet as per standard.</p> <p>P6. Clean and shift tool (Mould/Die) for storage in designated area.</p>



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Describe Mould/Dies and types of machine.
- Describe the tool change over procedure.
- Explain the Mould handling techniques.
- Describe assessment of the hazards and types
- Explain basic hand tools and measuring tools, types and using procedure.

Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Collect work order from relevant department
- Check quality report before installation.
- Perform Installation of tool (Mould/die)
- Perform offloading as per procedure
- Prepare and submit remarks sheet as per standard.

Tools and Equipment

1. Moulding Machine
2. Machine Mould
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools
7. Tools for tool installation



072200921 Perform Shutdown Procedure

Overview: This competency standard is designed to provide skills and knowledge to performance shutdown procedures to machine in accordance with the manufacturer's Manual. You will be able to perform arrangement of tools, shutdown as planned, and emergency shutdown as per machine requirement. The standard covers specific knowledge related to operation of shutdown procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Arrange tools and accessories	P1. Select tools and accessories as per job requirement P2. Verify the tools according to job requirement. P3. Arrange material for purging as per standard P4. Offload Mould / die as per requirement
CU2. Perform planned shutdown	P1. Remove material from hopper as per requirement. P2. Load purging material in Hopper. P3. Set machine parameter for purging. P4. Perform purging as requirement. P5. Stop machine auxiliaries P6. Stop main drives/ machine. P7. Drain out cooling channels as requirement. P8. Clean and lubricate Mould/ die. P9. Perform low pressure clamping as per SOP. P10. Turn off power supply of machine P11. Report designated person as organizational procedure.
CU3. Perform Emergency shutdown	P1. Carry out immediate emergency stop button P2. Inform incident to designated person as SOP. P3. Identify root cause of shutdown. P4. Take corrective actions as per requirement. P5. Submit shutdown report.



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Define types of hazards.
- Describe Risk Assessment procedures
- Explain Hydraulic, Pneumatic, electrical & heating system.
- Explain tool lifting techniques on machines
- Explain basic hand tools of machine maintenance and operation
- Define function and type of machine parts
- Describe reporting procedures of industries
- Explain the processing cycle of machine.
- Explain types of plastics & its application

Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Verify selection of tool/machine
- Check safeties of machine/Mould
- Execute production after approval
- Submit shutdown report
- Ensure machine does not running empty
- Clean & lubricate tool before hand over to store



Tools and Equipment

1. Moulding Machines
2. Machine Mould
3. Utility documentation.
4. Service Manuals.
5. Operational Manuals.
6. Basic Hand tools
7. Lifting Crane (20-100 ton)
8. Measuring tools and instruments
9. Millwright toolkit
9. Purging Chemical



072200922 Manage product Quality

Overview: This competency standard is designed to provide skills and knowledge to manage product quality, in accordance with inspection procedure, irregularities, quality acceptance, of quality control department. You will be able to report quality inspection and facilitate quality audit process. The underpinning knowledge regarding quality management and procedure of quality audit of sample and production will be sufficient to provide the basis for your work.

Competency Units	Performance Criteria
CU1. Perform inspection	P1. Ensure calibration of inspection tools as per given standard. P2. Inspect the sample as per requirement. P3. Prepare reports on organizational standard formats. P4. Follow periodic inspection as per approved standard.
CU2. Identify irregularities as per standard	P1. Check irregularities in production as per organizational standard. P2. Communicate irregularities in production as per organizational standard to relevant person and authorities. P3. Prepare reports of Ok or NOT Ok parts as per quality standard of organization.
CU3. Apply acceptable quality level to product.	P1. Take preventive action to revert back quality standard P2. Take corrective action to revert back quality standard P3. Record corrective/ preventive actions taken
CU4. Prepare Quality Inspection report	P1. Trainee will be able to: P2. Prepare process data sheet as per organizational standard P3. Report breakdown hours as per organizational standard
CU5. Facilitate in auditing	P1. Complete process records prior to audit as required P2. Provide records to internal/external auditor.



Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:

- Explain process flow chart
- Describe reporting formats
- Describe reporting procedures
- Explain common types of defects in product quality
- Explain common types of solutions in product quality
- Explain inter departmental communication procedure
- Describe industrial standard of plastic processing machines.

Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Manage product as per approved standard
- Communicate irregularities in product. to relevant department.
- Take corrective action to revert back to approved standard.
- Prepare process data sheet as per format set by management
- Provide records to internal/external auditor.

Tools and Equipment

1. Measuring tools and instruments
2. Utility documentation.
3. Service Manuals.
4. Operational Manuals.
5. Basic Hand tools.
6. Computer/ laptop for documentation (latest version with complete office automation software)



072200923 Manage Production Flow

Overview: This competency standard is designed to provide skills and knowledge to manage production flow of machine in accordance with the manufacturer's Manual. You will be able to perform planning of production schedule, ensuring of raw material and accessories, verify data sheet of machine and prepare production report. The standard covers specific knowledge related to operation of shutdown procedure, and reporting procedure of machine.

Competency Units	Performance Criteria
CU1. Plan Production Schedule	P1. Verify Job card P2. Distribute plans on shop floor P3. Ensure workforce according to production target
CU2. Ensure raw material & accessories	P1. Verify the types of material P2. Arrange the master batch or pigment P3. Arrange the packaging material
CU3. Ensure the machine data sheet	P1. Feed new setting P2. Verify from PD & QC+QA P3. Arrange reference sheet
CU4. Prepare Production Report	P1. Select the target P2. Make hourly production report P3. Feed the actual production with plan

Knowledge & Understanding

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. The candidate must possess underpinning knowledge and understanding required to carry out tasks covered in this competency standard. Therefore he/she must be able to:



- Explain Identification of plastic material
- Describe job card
- Define Machine capacity
- Describe Mould identification with color coding & numbers
- Explain arrangement techniques and procedures of manpower according to requirement
- Brief selection procedure of skill operator for machine
- Explain material maintenance data sheet
- Describe machine operation with best data sheet
- Define the verification procedure of the finish part with QC,QA, or PD.

Critical Evidence(s)

The candidate needs to produce following critical evidence(s) in order to be competent in this competency standard:

- Verify selection of tool/machine
- Check safeties of machine/Mould
- Execute production after approval
- Submit shutdown report
- Ensure machine does not running empty
- Clean & lubricate tool before hand over to store

Tools and Equipment

1. Utility documentation.
2. Service Manuals.
3. Operational Manuals.
4. Basic Hand tools
5. Measuring tools and instruments



Complete List of Tools and Equipment

List of Machines and Tools

Sr. #	Description
1.	Steel-toed footwear,
2.	hard hat,
3.	safety gloves,
4.	appropriate safety glasses,
5.	high visibility vest,
6.	hearing protection,
7.	breathing apparatus,
8.	De-electric boots and gloves for protection from electrical shock.
9.	fall protection, and other applicable PPE
10.	Site emergency response plan,
11.	fire extinguishers,
12.	fire blankets,
13.	respirators, masks,
14.	fire hoses,
15.	first aid kits, stretchers, WHMIS book, and other related tools and gear
16.	basic tools, such as grease gun,
17.	hammer,
18.	screwdrivers,
19.	pliers,
20.	self-locking pliers,
21.	adjustable wrench,
22.	assorted other wrenches, measuring tape(100m)
23.	Basic supplies, such as grease, oil, window cleaner, rags, ice scraper, whisk broom.
24.	Color-code cards, utility documentation. Logbooks Service Manuals, OHS Regulation,
	Measuring & marking tools
	Inspection gauges



Sr. #	Description
MACHINES	
1	<p>Injection Molding Machine (60-120 ton)</p> <ul style="list-style-type: none">○ Air Cool Chiller (5 ton)○ Hopper Drier (25kg)○ Mixer○ Crusher○ Auto Loader○ Mold○ Mold temperature controller○ Sprue picker robotic arm○ Compressor (10 bar)○ Dosing units○ Power Winch set for lifting○ Chain pulley block set○ Pallet lifter○ Hydraulic oil○ Hydraulic pipes○ Cooling pipes○ Mold surveillance system/ Mold monitor
2	<p>Extrusion blow molding</p> <ul style="list-style-type: none">○ Mixer○ Crusher○ Auto Loader○ Mold○ Dosing units○ Power Winch set for lifting○ Chain pulley block set○ Pallet lifter○ Hydraulic oil○ Hydraulic pipes○ Cooling pipes○ Compressor (12 bar)



Sr. #	Description
	<ul style="list-style-type: none">○ Die heads○ Parison wall thickness control○ 2-litre double head double station○ Water Level gauge○ De flasher unit○ Leak tester
3	<ul style="list-style-type: none">● Hand operated blow molding machine
4	<ul style="list-style-type: none">● Stretch Blow moulding machine<ul style="list-style-type: none">○ Heating Oven○ Blowing Unit○ Compressor (35 bar) with air tank○ Mold De-Humidifier○ Mold○ 1 liter twin Cavity hand feeding automatic machine○ Pre-form loader○ Crusher○ Cooling pipes○ Low pressure compressor
5	<ul style="list-style-type: none">● Injection blow molding machine (30ton)<ul style="list-style-type: none">○ Mold (120 ml)○ Mold temperature controller○ Air Drier○ Air cooled Chiller 5 ton○ Auto Loader○ Hydraulic Oil○ Compressor (12 bar)○ Cooling pipes○ High temperature hydraulic pipes○ Mould protection sprays



Sr. #	Description
6	<ul style="list-style-type: none">● Injection stretch blow moulding machine (45 ton)<ul style="list-style-type: none">○ Drier○ Mould humidifier○ Chillier○ Mould temperature controller○ Auto Loader○ Compressor○ Pre-Mixer○ Liquid Dosing system○ Mould sprays
7	<ul style="list-style-type: none">● Pipe Extrusion Machine 90mm Screw diameter<ul style="list-style-type: none">○ High speed mixer○ Twin screw extruder○ Auto loader○ Extrusion Die○ Pip- profile die○ Vacuum sizing unit○ Haul-off unit○ Pipe Cutter○ Stacker○ Belling machine○ Automatic winding unit○ Pelletizing unit○ Die changing trolleys
8	<ul style="list-style-type: none">● PE pipe extruder 60 mm Screw diameter<ul style="list-style-type: none">○ High speed mixer○ Auto loader○ Extrusion Die○ Pip- profile die○ Vacuum sizing unit○ Haul-off unit



Sr. #	Description
	<ul style="list-style-type: none">○ Pipe Cutter○ Stacker○ Belling machine○ Automatic winding unit○ Pelletizing unit○ Die changing trolleys
9	<ul style="list-style-type: none">● Sheet Extruder Machine<ul style="list-style-type: none">○ Auto loader○ Sheet die○ Vacuum sizing unit○ Haul-off unit○ Stacker○ Automatic winding unit○ Pelletizing unit○ Die changing trolleys○ Slitter
10	<ul style="list-style-type: none">● Pet Injection Molding Machine (140 ton)<ul style="list-style-type: none">○ Air Cool Chiller (5 ton)○ Hopper Drier (25kg)○ Mixer○ Crusher○ Auto Loader○ Mold○ Mold temperature controller○ Sprue picker robotic arm○ Compressor (10 bar)○ Dosing units○ Power Winch set for lifting○ Chain pulley block set○ Pallet lifter



Sr. #	Description
	<ul style="list-style-type: none">○ Hydraulic oil○ Hydraulic pipes○ Cooling pipes○ Mold surveillance system/ Mold monitor○ Mold Sprays
11	<ul style="list-style-type: none">● Film Extrusion Machine<ul style="list-style-type: none">○ Auto loader○ Blown film die○ sizing unit○ Winding unit○ Pelletizing unit○ Die changing trolleys○ Slitter

