



Automotive Plastic Moulding Assistant

QP Code: ASC/Q4402

Version: 2.0

NSQF Level: 2

Automotive Skills Development Council || 153, Gr Floor, Okhla Industrial Area, Phase - III, Leela Building
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ASC/Q4402: Automotive Plastic Moulding Assistant

Brief Job Description

The individual in this role supports the Plastic Moulding Operator / Technician during preparation for moulding work such as bringing material and tools, moulding activities such as equipment setup, holding tools etc. and post-moulding activities such as cleaning and maintenance of equipment and workarea.

Personal Attributes

The person should be patient, organised, team-oriented and have the ability to work for long hours in adverse conditions. They should be keen observers and have an eye for detail and quality.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N9803: Organize work and resources \(Manufacturing\)](#)
2. [ASC/N9802: Interact effectively with colleagues, customers and others](#)
3. [ASC/N4404: Support the plastic moulding operator / technician in routine moulding activities](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Plastic Moulding Operation
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8142.9900
Minimum Educational Qualification & Experience	8th Class
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years

Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	2.0

ASC/N9803: Organize work and resources (Manufacturing)

Description

This NOS unit is about implementing safety, planning work, adopting sustainable practices for optimising use of resources

Scope

The scope covers the following :

- Maintain safe and secure working environment
- Health and hygiene
- Perform work as per quality standards
- Effective waste management practices
- Material/energy conservation practices

Elements and Performance Criteria

Maintain safe and secure working environment

To be competent, the user/individual on the job must be able to:

- PC1. identify hazardous activities and the possible causes of risks or accidents in the workplace
- PC2. follow safe working practices while dealing with hazards to ensure safety of self and others
- PC3. carry out routine check of the machine for identifying potential hazards
- PC4. use appropriate protective clothing/equipment for specific tasks and work
- PC5. follow safety hazards and preventive techniques during fire drill
- PC6. report any identified breaches in health, safety and security policies and procedures to the designated person

Health and hygiene

To be competent, the user/individual on the job must be able to:

- PC7. ensure workstation and equipment are regularly clean and sanitized
- PC8. clean hands with soap, alcohol-based sanitizer regularly
- PC9. avoid contact with ill people and self-isolate in a similar situation
- PC10. wear and dispose PPEs regularly and appropriately
- PC11. report advanced hygiene and sanitation issues to appropriate authority
- PC12. follow stress and anxiety management techniques

Perform work as per quality standards

To be competent, the user/individual on the job must be able to:

- PC13. ensure that work is accomplished as per the requirements within the specified timeline
- PC14. ensure team goals are given preference over individual goals

Effective waste management practices

To be competent, the user/individual on the job must be able to:

- PC15. follow the fundamentals of 5S for waste management
- PC16. segregate waste into different categories

- PC17. follow processes specified for disposal of hazardous waste
- PC18. identify recyclable, non-recyclable and hazardous waste
- PC19. dispose non-recyclable, recyclable and reusable waste appropriately at identified location

Material/energy conservation practices

To be competent, the user/individual on the job must be able to:

- PC20. identify ways to optimize usage of material in various tasks/activities/processes
- PC21. check for spills/leakages in various tasks/activities/processes
- PC22. plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC23. check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC24. report malfunctioning (fumes/ sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC25. ensure electrical equipment and appliances are properly connected and turned off when not in use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organisation procedures for health, safety and security, individual role and responsibilities in this context
- KU2. the organisation's emergency procedures for different emergency situations and the importance of following the same
- KU3. evacuation procedures for workers and visitors
- KU4. how and when to report hazards as well as the limits of responsibility for dealing with hazards
- KU5. potential hazards, risks and threats based on the nature of work
- KU6. preventative and remedial actions to be taken in case of exposure to toxic material
- KU7. various types of fire extinguisher
- KU8. various types of safety signs and their meaning
- KU9. appropriate first aid treatment relevant to different condition e.g. bleeding, minor burns, eye injuries etc.
- KU10. relevant standards, procedures and policies related to 5S followed in the company
- KU11. the various materials used and their storage norms
- KU12. efficient utilisation of material and water
- KU13. basics of electricity and prevalent energy efficient devices
- KU14. common practices of conserving electricity
- KU15. common sources and ways to minimize pollution
- KU16. categorisation of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU17. usage of different colors of dustbins
- KU18. waste management techniques
- KU19. significance of greening

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read safety instructions/guidelines
- GS2. modify work practices to improve them
- GS3. ask for clarifications from superior about the job requirement
- GS4. work with supervisors/team members to carry out work related tasks
- GS5. complete tasks efficiently and accurately within stipulated time
- GS6. inform/report to concerned person in case of any problem
- GS7. make timely decisions for efficient utilization of resources
- GS8. write reports such as accident report, in at least English/regional language
- GS9. be punctual and utilize time efficiently

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain safe and secure working environment</i>	11	5	-	7
PC1. identify hazardous activities and the possible causes of risks or accidents in the workplace	2	1	-	2
PC2. follow safe working practices while dealing with hazards to ensure safety of self and others	2	-	-	1
PC3. carry out routine check of the machine for identifying potential hazards	2	1	-	1
PC4. use appropriate protective clothing/equipment for specific tasks and work	2	1	-	1
PC5. follow safety hazards and preventive techniques during fire drill	2	1	-	1
PC6. report any identified breaches in health, safety and security policies and procedures to the designated person	1	1	-	1
<i>Health and hygiene</i>	7	5	-	2
PC7. ensure workstation and equipment are regularly clean and sanitized	2	2	-	1
PC8. clean hands with soap, alcohol-based sanitizer regularly	1	1	-	1
PC9. avoid contact with ill people and self-isolate in a similar situation	1	-	-	-
PC10. wear and dispose PPEs regularly and appropriately	1	-	-	-
PC11. report advanced hygiene and sanitation issues to appropriate authority	1	1	-	-
PC12. follow stress and anxiety management techniques	1	1	-	-
<i>Perform work as per quality standards</i>	5	3	-	2
PC13. ensure that work is accomplished as per the requirements within the specified timeline	2	2	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. ensure team goals are given preference over individual goals	3	1	-	1
<i>Effective waste management practices</i>	15	10	-	4
PC15. follow the fundamentals of 5S for waste management	3	2	-	1
PC16. segregate waste into different categories	2	1	-	-
PC17. follow processes specified for disposal of hazardous waste	2	2	-	1
PC18. identify recyclable, non-recyclable and hazardous waste	4	2	-	1
PC19. dispose non-recyclable, recyclable and reusable waste appropriately at identified location	4	3	-	1
<i>Material/energy conservation practices</i>	12	7	-	5
PC20. identify ways to optimize usage of material in various tasks/activities/processes	2	1	-	1
PC21. check for spills/leakages in various tasks/activities/processes	2	1	-	1
PC22. plug spills/leakages and escalate to appropriate authority if unable to rectify	2	1	-	-
PC23. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	2	2	-	1
PC24. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	2	1	-	1
PC25. ensure electrical equipment and appliances are properly connected and turned off when not in use	2	1	-	1
NOS Total	50	30	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N9803
NOS Name	Organize work and resources (Manufacturing)
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Next Review Date	24/12/2025

ASC/N9802: Interact effectively with colleagues, customers and others

Description

This NOS unit is about communicating with customers and colleagues/superiors, either in own work group or in other work groups within organisation.

Scope

The scope covers the following :

- Communicate effectively with colleagues, customers and others
- Interact with supervisor or superior

Elements and Performance Criteria

Communicate effectively with colleagues, customers and others

To be competent, the user/individual on the job must be able to:

- PC1. maintain clear communication with colleagues, customers and others, wherever needed, through all means i.e. face-to-face, telephonic or written
- PC2. adjust communication styles to reflect gender and persons with disability (PwD) sensitivity
- PC3. work in a way that shows respect for colleagues and others
- PC4. follow the organisation's policies and procedures while working in a team
- PC5. respect personal space of colleagues and customers

Interact with supervisor or superior

To be competent, the user/individual on the job must be able to:

- PC6. identify work requirements by receiving instructions from reporting supervisor
- PC7. escalate problems to supervisors that cannot be handled including repairs and maintenance of machine
- PC8. report the completed work
- PC9. rectify errors as per feedback

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. the importance of effective communication and establishing good working relationships with colleagues and supervisor
- KU2. different methods of communication as per the circumstances
- KU3. gender based concepts, issues and legislation

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read instructions/guidelines/procedures

- GS2. listen effectively and orally communicate information
- GS3. ask for clarification and advice from the concerned person
- GS4. maintain positive and effective relationships with colleagues and customers
- GS5. evaluate the possible solution(s) to the problem
- GS6. deliver consistent and reliable service to customers
- GS7. complete written work with attention to detail
- GS8. check that the work meets customer requirements

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively with colleagues, customers and others</i>	36	11	-	14
PC1. maintain clear communication with colleagues, customers and others, wherever needed, through all means i.e. face-to-face, telephonic or written	8	-	-	4
PC2. adjust communication styles to reflect gender and persons with disability (PwD) sensitivity	8	-	-	-
PC3. work in a way that shows respect for colleagues and others	7	4	-	3
PC4. follow the organisation's policies and procedures while working in a team	7	4	-	3
PC5. respect personal space of colleagues and customers	6	3	-	4
<i>Interact with supervisor or superior</i>	14	19	-	6
PC6. identify work requirements by receiving instructions from reporting supervisor	7	4	-	-
PC7. escalate problems to supervisors that cannot be handled including repairs and maintenance of machine	-	5	-	3
PC8. report the completed work	7	5	-	-
PC9. rectify errors as per feedback	-	5	-	3
NOS Total	50	30	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N9802
NOS Name	Interact effectively with colleagues, customers and others
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Next Review Date	22/09/2025

ASC/N4404: Support the plastic moulding operator /technician in routine moulding activities

Description

This NOS is about supporting the plastic moulding operator /technician during preparation for moulding work, moulding and post-moulding activities.

Scope

The scope covers the following :

- Support plastic moulding operator /technician in preparatory activities
- Support plastic moulding operator /technician in moulding activities
- Support plastic moulding operator /technician in post-moulding activities
- Carry out maintenance of machine and mould/dies

Elements and Performance Criteria

Support plastic moulding operator /technician in preparatory activities

To be competent, the user/individual on the job must be able to:

- PC1. identify the tools, equipment, additives, dies, coolant and input materials required for the job as per SOP and plastic moulding operator/technician instructions
- PC2. collect the required tools, equipment, additives, dies, coolant and input materials from the stores and ensure that all the items required for work are available as per SOP
- PC3. check the input material, tools and moulding apparatus for any defects and that they are as per the required quality standards
- PC4. clean the dies, tools and moulding apparatus properly and ensure that they are free from oil, grease and dust particles
- PC5. use weighing machines to measure the quantity of granular input material and additives and ensure that the correct ratio of granules and additives are put in the hopper
- PC6. support the operator/technician in pre-heating of plastic granules to reduce the moisture content

Support plastic moulding operator / technician in moulding activities

To be competent, the user/individual on the job must be able to:

- PC7. feed the plastic granules into the hopper as per operator's instructions
- PC8. hold the tools and accessories required during plastic moulding activities in the correct manner as specified by the operator using appropriate PPE
- PC9. unload the moulded pieces from the moulding machine safely by using necessary equipment like clamps, cranes, hoist etc. and allow it to cool for sometime
- PC10. carry out complete cooling process to cool the moulded pieces as mentioned in the Work Instructions/ SOPs, in case cooling has to be separately

Support plastic moulding operator / technician in post-moulding activities

To be competent, the user/individual on the job must be able to:

- PC11. support the operator/technician in removing runners/ gates or extra materials through degassing and deflashing processes

- PC12. stamp the moulded pieces specifying the information related to moulding process and standards followed as per SOP and operator's instructions
- PC13. support in checking the moulded pieces as per the work instructions for product quality
- PC14. support in segregating, tagging and storing the right quality parts into Ok pieces, defective pieces which can be repaired/reworked and pieces that are beyond repair
- PC15. arrange the goods as per the batch number, piece number etc. into designated packing boxes, bin, trolley
- PC16. clean the workarea properly after completion of work
- PC17. dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations

Carry out maintenance of machine and mould/dies

To be competent, the user/individual on the job must be able to:

- PC18. inspect the injection/extrusion machinery and dies after moulding operations for left over plastic or other impurities or any clogging
- PC19. use cleaning agents like silicon, antirust spray etc. to remove the waste plastic material which has remained in the machine/mould after completion of operations under the supervision of an operator
- PC20. carry out lubrication of the machinery and dies with oil/ grease in order to prepare it for the next cycle of moulding operations
- PC21. examine machinery and mould/dies to ensure that they are clean, smooth and coated as per the specification and ready to be used for next set of operations

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. relevant standards and procedures followed in the company
- KU2. basic process followed for moulding of the pieces
- KU3. do's and don'ts of manufacturing process
- KU4. different types of moulding processes, associated equipment like dies moulds, screw/reciprocating screw/ plunger, heaters, auxiliary equipment like pick up robo, mould temperature controller , etc. and their working
- KU5. different types of dies to be used for moulding operations and their setting up mechanism
- KU6. process parameters of moulding machine and their impact on final output
- KU7. Standard Operating Procedures (SOP) recommended by OEM for using tools and moulding apparatus
- KU8. the post-moulding processes like inspection, cleaning, maintenance etc.
- KU9. methods of storage and tagging of final product
- KU10. SOP recommended by the organisation for checking irregularities in the product/work piece
- KU11. cleaning methods for tools, equipment and workarea cleaning
- KU12. safety requirements during the moulding work
- KU13. how to collect and store consumables, tools etc. as per organisational procedures
- KU14. use of appropriate PPE, material handling equipment and tools for completing the tasks
- KU15. how to check defects in the moulding apparatus and tools

KU16. maintenance process of moulding apparatus and dmould/dies

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read work instructions and equipment manuals
- GS2. attentively listen and comprehend the information given by the operator/team members
- GS3. write work related information in English/regional language
- GS4. communicate the work requirements to the technician and co-workers
- GS5. recognise a workplace problem and take suitable action
- GS6. make timely decisions for efficient utilization of resources
- GS7. complete the assigned tasks as per schedule

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Support plastic moulding operator / technician in preparatory activities</i>	6	17	-	6
PC1. identify the tools, equipment, additives, dies, coolant and input materials required for the job as per SOP and plastic moulding operator/technician instructions	1	4	-	2
PC2. collect the required tools, equipment, additives, dies, coolant and input materials from the stores and ensure that all the items required for work are available as per SOP	1	3	-	1
PC3. check the input material, tools and moulding apparatus for any defects and that they are as per the required quality standards	1	3	-	1
PC4. clean the dies, tools and moulding apparatus properly and ensure that they are free from oil, grease and dust particles	1	3	-	1
PC5. use weighing machines to measure the quantity of granular input material and additives and ensure that the correct ratio of granules and additives are put in the hopper	1	2	-	-
PC6. support the operator/technician in pre-heating of plastic granules to reduce the moisture content	1	2	-	1
<i>Support plastic moulding operator/technician in moulding activities</i>	3	9	-	2
PC7. feed the plastic granules into the hopper as per operator's instructions	-	2	-	-
PC8. hold the tools and accessories required during plastic moulding activities in the correct manner as specified by the operator using appropriate PPE	1	3	-	1
PC9. unload the moulded pieces from the moulding machine safely by using necessary equipment like clamps, cranes, hoist etc. and allow it to cool for sometime	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. carry out complete cooling process to cool the moulded pieces as mentioned in the Work Instructions/ SOPs, in case cooling has to be separately	1	2	-	1
<i>Support plastic moulding operator / technician in post-moulding activities</i>	7	22	-	7
PC11. support the operator/technician in removing runners/ gates or extra materials through degassing and deflashing processes	1	4	-	1
PC12. stamp the moulded pieces specifying the information related to moulding process and standards followed as per SOP and operator's instructions	1	3	-	1
PC13. support in checking the moulded pieces as per the work instructions for product quality	1	3	-	2
PC14. support in segregating, tagging and storing the right quality parts into Ok pieces, defective pieces which can be repaired/reworked and pieces that are beyond repair	1	3	-	1
PC15. arrange the goods as per the batch number, piece number etc. into designated packing boxes, bin, trolley	1	3	-	1
PC16. clean the workarea properly after completion of work	1	3	-	-
PC17. dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations	1	3	-	1
<i>Carry out maintenance of machine and mould/dies</i>	4	12	-	5
PC18. inspect the injection/extrusion machinery and dies after moulding operations for left over plastic or other impurities or any clogging	1	3	-	2
PC19. use cleaning agents like silicon, antirust spray etc. to remove the waste plastic material which has remained in the machine/mould after completion of operations under the supervision of an operator	1	3	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC20. carry out lubrication of the machinery and dies with oil/ grease in order to prepare it for the next cycle of moulding operations	1	3	-	1
PC21. examine machinery and mould/dies to ensure that they are clean, smooth and coated as per the specification and ready to be used for next set of operations	1	3	-	1
NOS Total	20	60	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N4404
NOS Name	Support the plastic moulding operator / technician in routine moulding activities
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Plastic Moulding Operation
NSQF Level	2
Credits	TBD
Version	2.0
Next Review Date	NA

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 60

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N9803.Organize work and resources (Manufacturing)	50	30	-	20	100	15
ASC/N9802.Interact effectively with colleagues, customers and others	50	30	-	20	100	10
ASC/N4404.Support the plastic moulding operator /technician in routine moulding activities	20	60	-	20	100	75
Total	120	120	-	60	300	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PPE	Personal Protective Equipment
PwD	Person with Disability
SOP	Standard Operating Practices
PwD	Persons with Disability

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.