

Qualification Pack



Plastic Moulding Assistant/Helper

QP Code: ASC/Q4402

Version: 1.0

NSQF Level: 2

Automotive Skills Development Council || 153, Gr Floor, Okhla Industrial Area, Phase - III, Leela Building
New Delhi - 110020

Qualification Pack

Contents

ASC/Q4402: Plastic Moulding Assistant/Helper	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
ASC/N0006: Maintain a safe and healthy working environment	5
ASC/N0021: Maintain 5S at the work premises	10
ASC/N4404: Cleaning and Lubricating the extrusion machinery and the dies	17
ASC/N4405: Support the operator in moulding related operations	21
ASC/N4406: Finish and deposit finished goods in the designated area	25
Assessment Guidelines and Weightage	28
<i>Assessment Guidelines</i>	28
<i>Assessment Weightage</i>	29
Acronyms	30
Glossary	31

Qualification Pack

ASC/Q4402: Plastic Moulding Assistant/Helper

Brief Job Description

Moulding Helper will be involved in cutting the plastic moulding as per the desired shapes, supporting the operator moulding operations and storing the output at the designated place.

Personal Attributes

Reading, writing and communication skills, quality consciousness, safety orientation, Dexterity, Physique to sustain strenuous conditions, Ability to use fingers, hands and feet with ease to complete the assigned task (Dexterity), high precision and sensitivity towards safety for self and equipment.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N0006: Maintain a safe and healthy working environment](#)
2. [ASC/N0021: Maintain 5S at the work premises](#)
3. [ASC/N4404: Cleaning and Lubricating the extrusion machinery and the dies](#)
4. [ASC/N4405: Support the operator in moulding related operations](#)
5. [ASC/N4406: Finish and deposit finished goods in the designated area](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Moulding
Country	India
NSQF Level	2
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8142.9900
Minimum Educational Qualification & Experience	8th Class with 0-6 Months of experience Not applicable

Qualification Pack

Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Basic moulding and cutting process 5S, housekeeping and Safety Communication Skills
Minimum Job Entry Age	18 Years
Last Reviewed On	30/10/2013
Next Review Date	24/09/2021
Deactivation Date	24/09/2021
NSQC Approval Date	05/08/2015
Version	1.0
Reference code on NQR	2015/AUT/ASDC/01056
NQR Version	1.0

Qualification Pack

ASC/N0006: Maintain a safe and healthy working environment

Description

This NOS is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area, following practices which are not impacting the environment in a negative manner and training team members on health and safety related issues

Scope

The role holder will be responsible for

- identifying and reporting of risks
- creating and sustaining a safe, clean and environment friendly work place This NOS will be applicable to all Automotive sector manufacturing job roles

Elements and Performance Criteria

Identify and report the risks identified

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

- PC1..** Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise
- PC2.** Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc
- PC3.** Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations
- PC4.** Create awareness amongst other by sharing information on the identified risks

Create and sustain a Safe, clean and environment friendly work place

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

- PC5..** Follow the instructions given on the equipment manual describing the operating process of the equipments
- PC6..** Follow the Safety, Health and Environment related practices developed by the organization
- PC7.** Operate the machine using the recommended Personal Protective Equipments (PPE)
- PC8. .** Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc
- PC9.** Maintain high standards of personal hygiene at the work place
- PC10.** Ensure that the waste disposal is done in the designated area and manner as per organization SOP.
- PC11.** Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

Qualification Pack

- KU1.** relevant standards, procedures and policies related to Health, Safety and Environment followed in the company
- KU2.** basic knowledge of Safety procedures(fire fighting, first aid) within the organization
- KU3.** knowledge of various types of PPEs and their usage
- KU4.** basic knowledge of risks/hazards associated with each occupation in the organization
- KU5.** how to safely operate various tools and machines and risks associated with the tools/ equipment
- KU6.** knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment

Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** read safety instructions put up across the plant premises
- GS3.** read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated
- GS4.** effectively communicate information to team members
- GS5.** inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment.
- GS6.** question operator/ supervisor in order to understand the safety related issues
- GS7.** attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
- GS8.** use common sense and make judgments during day to day basis
- GS9.** use reasoning skills to identify and resolve basic problems
- GS10.** use common sense and make judgments during day to day basis
- GS11.** use reasoning skills to identify and resolve basic problems

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and report the risks identified</i>	8	23	-	-
PC1.. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise	3	6	-	-
PC2. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc	2	6	-	-
PC3. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations	2	6	-	-
PC4. Create awareness amongst other by sharing information on the identified risks	1	5	-	-
<i>Create and sustain a Safe, clean and environment friendly work place</i>	17	52	-	-
PC5.. Follow the instructions given on the equipment manual describing the operating process of the equipments	3	7	-	-
PC6.. Follow the Safety, Health and Environment related practices developed by the organization	3	8	-	-
PC7. Operate the machine using the recommended Personal Protective Equipments (PPE)	3	8	-	-
PC8. . Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc	2	8	-	-
PC9. Maintain high standards of personal hygiene at the work place	2	7	-	-
PC10. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	3	8	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. Inform appropriately the medical officer/ HR in case of self or an employees illness of contagious nature so that preventive actions can be planned for others	1	6	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0006
NOS Name	Maintain a safe and healthy working environment
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Maintenance
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	15/09/2013
Next Review Date	15/09/2015
NSQC Clearance Date	20/07/2015

Qualification Pack

ASC/N0021: Maintain 5S at the work premises

Description

This NOS is about ensuring all 5 S activities both at the shop floor and the office area to facilitate increase in work productivity

Scope

The individual needs to. Ensure sorting, streamlining & organizing, storage and documentation, cleaning, standardization and sustenance across the plant and office premises of the organization

Elements and Performance Criteria

Ensure sorting

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

- PC1..** follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.
- PC2..** ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions
- PC3..** follow the technique of waste disposal and waste storage in the proper bins as per sop
- PC4..** segregate the items which are labelled as red tag items for the process area and keep them in the correct places
- PC5.** sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions
- PC6. .** ensure that areas of material storage areas are not overflowing
- PC7.** properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required
- PC8.** return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area
- PC9.** follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards
- PC10.** follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists

Ensure proper documentation and storage (organizing , streamlining)

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

- PC11.** check that the items in the respective areas have been identified as broken or damaged
- PC12.** follow the given instructions and check for labelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc
- PC13.** make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions

Ensure cleaning of self and the work place

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

Qualification Pack

- PC14.** check whether safety glasses are clean and in good condition
- PC15.** keep all outside surfaces of recycling containers are clean
- PC16..** ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards
- PC17..** check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up
- PC18..** ensure workbenches and work surfaces are clean and in good condition
- PC19.** follow the cleaning schedule for the lighting system to ensure proper illumination
- PC20.** store the cleaning material and equipment in the correct location and in good condition
- PC21.** ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene

Ensure sustenance

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

- PC22.** follow the daily cleaning standards and schedules to create a clean working environment
- PC23.** attend all training programs for employees on 5 s
- PC24.** support the team during the audit of 5 s
- PC25.** participate actively in employee work groups on 5s and encourage team members for active participation
- PC26.** follow the guidelines for what to do and what not to do to build sustainability in 5s as mentioned in the 5s check lists/ work instructions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards, procedures and policies related to 5S followed in the company
- KU2.** have basic knowledge of 5S procedures
- KU3.** know various types 5s practices followed in various areas
- KU4.** understand the 5S checklists provided in the department/ team
- KU5.** have skills to identify useful & non useful items
- KU6.** have knowledge of labels , signs & colours used as indicators
- KU7.** knowledge on how to sort and store various types of tools, equipment, material etc.
- KU8.** know , how to identify various types of waste products
- KU9.** understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body
- KU10.** have knowledge of best ways of cleaning & waste disposal
- KU11.** understand the importance of standardization in processes
- KU12.** understand the importance of sustainability in 5S
- KU13.** have knowledge of TQM process
- KU14.** have knowledge of various materials and storage norms
- KU15.** understand visual controls, symbols, graphs etc.

Qualification Pack

Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** note down observations (if any) related to the process
- GS3.** read 5S instructions put up across the plant premises
- GS4.** effectively communicate information to team members inform employees in the plant and concerned functions about 5S
- GS5.** question the process head in order to understand the 5S related issues
- GS6.** attentively listen with full attention and comprehend the information given by the speaker during 5S training programs
- GS7.** use common sense and make judgments during day to day basis
- GS8.** use reasoning skills to identify and resolve basic problems using 5S
- GS9.** persuade co team members to follow 5 S
- GS10.** ensure that the co team members understand the importance of using 5 S tool
- GS11.** use innovative skills to perform and manage 5 S activities at the work desk and the shop floor
- GS12.** exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work
- GS13.** do what is right, not what is a popular practices
- GS14.** follow shop floor rules& regulations and avoid deviations; make 5S an integral way of life
- GS15.** ensure self-cleanliness on a daily basis
- GS16.** demonstrate the will to keep the work area in a clean and orderly manner

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure sorting</i>	10	30	-	-
PC1.. follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.	1	3	-	-
PC2.. ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions	1	3	-	-
PC3.. follow the technique of waste disposal and waste storage in the proper bins as per sop	1	3	-	-
PC4.. segregate the items which are labelled as red tag items for the process area and keep them in the correct places	1	3	-	-
PC5. sort the tools/ equipment/ fasteners/ spare parts as per specifications/ utility into proper trays, cabinets, lockers as mentioned in the 5s guidelines/ work instructions	1	3	-	-
PC6. . ensure that areas of material storage areas are not overflowing	1	3	-	-
PC7. properly stack the various types of boxes and containers as per the size/ utility to avoid any fall of items/ breakage and also enable easy sorting when required	1	3	-	-
PC8. return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work area	1	3	-	-
PC9. follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards	1	3	-	-
PC10. follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists	1	3	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure proper documentation and storage (organizing , streamlining)</i>	3	9	-	-
PC11. check that the items in the respective areas have been identified as broken or damaged	1	3	-	-
PC12. follow the given instructions and check for labelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc	1	3	-	-
PC13. make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions	1	3	-	-
<i>Ensure cleaning of self and the work place</i>	8	24	-	-
PC14. check whether safety glasses are clean and in good condition	1	3	-	-
PC15. keep all outside surfaces of recycling containers are clean	1	3	-	-
PC16.. ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards	1	3	-	-
PC17.. check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up	1	3	-	-
PC18.. ensure workbenches and work surfaces are clean and in good condition	1	3	-	-
PC19. follow the cleaning schedule for the lighting system to ensure proper illumination	1	3	-	-
PC20. store the cleaning material and equipment in the correct location and in good condition	1	3	-	-
PC21. ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene	1	3	-	-
<i>Ensure sustenance</i>	4	12	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC22. follow the daily cleaning standards and schedules to create a clean working environment	1	3	-	-
PC23. attend all training programs for employees on 5 s	0.5	2	-	-
PC24. support the team during the audit of 5 s	1	3	-	-
PC25. participate actively in employee work groups on 5s and encourage team members for active participation	0.5	2	-	-
PC26. follow the guidelines for what to do and what not to do to build sustainability in 5s as mentioned in the 5s check lists/ work instructions	1	2	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N0021
NOS Name	Maintain 5S at the work premises
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	15/03/2014
Next Review Date	15/03/2016

Qualification Pack

ASC/N4404: Cleaning and Lubricating the extrusion machinery and the dies

Description

This NOS unit is about cleaning and lubricating the extrusion machinery and the dies being used for moulding operations as per the standards specified by the organization

Scope

The Moulding Helper will be responsible for

- Cleaning and lubricating the extrusion machinery
- escalations of any queries regarding the job The role holder will interact with maintenance team and material management team

Elements and Performance Criteria

Clean and Lubricate the Extrusion machinery and the Dies

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

- PC1..** clearly understanding the does and donts of the manufacturing process as defined in sops/ work instructions or defined by supervisors
- PC2..** inspect the extrusion machinery and dies after moulding operations for left over plastic or other impurities or any clogging
- PC3..** load the machinery and dies into cleaning tank with chemicals or manually spray the cleaning agents like caustic solution etc. to ensure that the waste plastic material which has remained in the machine after completion of operations is removed and the machine does not clog
- PC4..** lubricate the machinery and dies with oil/ grease in order to prepare it for the next cycle of moulding operations
- PC5..** in case of automatic cleaning, adjustable cleaning times are preset and dies are left to be cleaned and lubricated automatically
- PC6..** examine machinery and dies to ensure they are clean, smooth, and coated as per the specification/ visual sample 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.** different types of products manufactured by the company
- KU3.** functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
- KU4.** quality norms prescribed by the organization for moulding jobs
- KU5.** latest cleaning and lubricating agents and chemicals
- KU6.** different types of moulding processes and associated equipment

Qualification Pack

- KU7.** different parameters pertinent to cleaning process like preset time, cycle time etc.
- KU8.** working of cleaning tools and apparatus
- KU9.** different chemicals used in the cleaning process of extrusion machines and dies
- KU10.** safety precautions to be taken for all types of cleaning activities especially while handling hot , caustic solutions etc.

Generic Skills (GS)

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

- GS1.** write drawings to internal customers on the requirement of cleaning and lubricating agents, etc.
- GS2.** note measurements, equipment panel readings for various process parameters in the required reporting formats
- GS3.** read equipment manuals and process documents to understand the equipment and processes better
- GS4.** read instructions (e.g. safety instructions) with symbols while using the equipment in the plant area
- GS5.** read internal drawings sent by internal customers (other functions within the organization)
- GS6.** discuss task lists, schedules, and work-loads with co-workers
- GS7.** question internal customers/ Moulding shop supervisor appropriately in order to understand the nature of the problem and make a diagnosis
- GS8.** plan and organize the work order and jobs received from the internal customers
- GS9.** plan and organize the design documents received from internal customers
- GS10.** organize all process/ equipment manuals so that sorting out information is without much time delay.
- GS11.** organize apparatus etc. in an orderly manner at designated areas
- GS12.** understand the requirement of different types of cleaning and lubricating agents for different types of dies
- GS13.** finalize the optimum levels of physical parameters so that the job output meets the prescribed job standards, visual samples
- GS14.** think through the problem, evaluate the possible solution and suggest the best possible solution to the operator
- GS15.** identify immediate or temporary solutions to resolve delay

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Clean and Lubricate the Extrusion machinery and the Dies</i>	25	75	-	-
PC1.. clearly understanding the does and donts of the manufacturing process as defined in sops/ work instructions or defined by supervisors	5	10	-	-
PC2.. inspect the extrusion machinery and dies after moulding operations for left over plastic or other impurities or any clogging	4	13	-	-
PC3.. load the machinery and dies into cleaning tank with chemicals or manually spray the cleaning agents like caustic solution etc. to ensure that the waste plastic material which has remained in the machine after completion of operations is removed and the machine does not clog	4	14	-	-
PC4.. lubricate the machinery and dies with oil/ grease in order to prepare it for the next cycle of moulding operations	4	14	-	-
PC5.. in case of automatic cleaning, adjustable cleaning times are preset and dies are left to be cleaned and lubricated automatically	4	12	-	-
PC6.. examine machinery and dies to ensure they are clean, smooth, and coated as per the specification/ visual sample to be used for next set of operations	4	12	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N4404
NOS Name	Cleaning and Lubricating the extrusion machinery and the dies
Sector	Automotive
Sub-Sector	Manufacturing and R&D
Occupation	Moulding
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	30/10/2013
Next Review Date	30/10/2015

Qualification Pack

ASC/N4405: Support the operator in moulding related operations

Description

This NOS unit is about pouring the plastic hopper into the extruder and supporting the operator in various moulding operations as per the final output specifications and the standards specified by the organization

Scope

The Moulding Helper will be responsible for

- feeding the plastic granules in the hopper
- support the operator in conducting actual moulding process The role holder will interact with maintenance team and material management team

Elements and Performance Criteria

Feed the plastic granules in the hopper

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

- PC1..** use weighing machines to measure the quantity of granules and ensure that the correct quantity of granules are put in the hopper
- PC2..** perform preheating of plastic granules to improve their tensile strength
- PC3..** ensure that the plastic granules are mixed with additives (if any) before being fed into the hopper
- PC4..** check that the apparatus is being cleaned before starting the moulding operations
- PC5..** feed the plastic granules into the hopper as per operators instructions

Support the operator in conducting the actual moulding process

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

- PC6..** unload the moulding from die post moulding operations
- PC7..** remove the output from the machine once the cycle is complete using proper clamps and other handling tools to carefully pick the product from the machine area
- PC8..** in case the output has to be separately cooled, ensure that the helper cools it using the cooling process as mentioned in the work instructions/ sops
- PC9..** clean the plastic molding to remove runners/ gates or extra materials through degating and deflashing processes
- PC10..** stamp the moulding with the identifying information (wherever required) and send the same for further processing

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of products manufactured by the company

Qualification Pack

- KU3.** functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
- KU4.** quality norms prescribed by the organization for moulding jobs
- KU5.** reading panels, meters, indicators etc. to monitor the process
- KU6.** different types of moulding processes, associated equipment like dies, screw/ reciprocating screw/ plunger, heaters etc. and their working
- KU7.** different parameters pertinent to moulding process like heater temperature, hydraulic pressure/ air pressure/ vacuum pressure, rotating speed of the screw, operating current and voltage, injection time, refilling time etc. and the impact of these parameters on the process
- KU8.** various types of plastics like thermoplastics/ thermosetting plastics and their properties
- KU9.** various types of coolants like water etc. and their properties
- KU10.** moulding defects and how they are generated, how they can be prevented, different consumables used in the melt shop
- KU11.** extruder operation, melting process, and safety process of handling hot liquid plastic and control
- KU12.** measuring instruments like vernier callipers, micrometer and other
- KU13.** geometry and dimensions
- KU14.** sketches and engineering drawings
- KU15.** safety precautions to be taken for all types of moulding activities

Generic Skills (GS)

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

- GS1.** document, interpret information from the sketches and engineering drawings
- GS2.** write log book in terms of output quantity, set up parameters, machine setting parameters and loss details etc.
- GS3.** note measurements, equipment panel readings for various process parameters in the required reporting formats
- GS4.** read and interpret engineering drawing and sketches
- GS5.** read equipment manuals and process documents to understand the equipment and processes better
- GS6.** read safety instructions especially symbols while use the equipment in the plant area
- GS7.** discuss task lists, schedules, and work-loads with co-workers
- GS8.** question internal customers/ Moulding shop supervisor in order to understand the nature of the problem and make a diagnosis
- GS9.** organize all process/ equipment manuals so that sorting out information is fast
- GS10.** organize apparatus etc. in an orderly manner at proper designated areas
- GS11.** visualize the final job product after understanding the given drawing/ sketches
- GS12.** think through the problem, evaluate the possible solution and suggest the best possible solution to the problem

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Feed the plastic granules in the hopper</i>	13	40	-	-
PC1.. use weighing machines to measure the quantity of granules and ensure that the correct quantity of granules are put in the hopper	2	8	-	-
PC2.. perform preheating of plastic granules to improve their tensile strength	4	9	-	-
PC3.. ensure that the plastic granules are mixed with additives (if any) before being fed into the hopper	3	8	-	-
PC4.. check that the apparatus is being cleaned before starting the moulding operations	1	6	-	-
PC5.. feed the plastic granules into the hopper as per operators instructions	3	9	-	-
<i>Support the operator in conducting the actual moulding process</i>	12	35	-	-
PC6.. unload the moulding from die post moulding operations	3	8	-	-
PC7.. remove the output from the machine once the cycle is complete using proper clamps and other handling tools to carefully pick the product from the machine area	3	8	-	-
PC8.. in case the output has to be separately cooled, ensure that the helper cools it using the cooling process as mentioned in the work instructions/ sops	3	7	-	-
PC9.. clean the plastic molding to remove runners/ gates or extra materials through degating and deflashing processes	1	6	-	-
PC10.. stamp the moulding with the identifying information (wherever required) and send the same for further processing	2	6	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N4405
NOS Name	Support the operator in moulding related operations
Sector	Automotive
Sub-Sector	Manufacturing and R&D
Occupation	Moulding
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	30/10/2013
Next Review Date	30/10/2015

Qualification Pack

ASC/N4406: Finish and deposit finished goods in the designated area

Description

This NOS unit is about removing the finished goods from the assembly line, cut them as per requirement and storing the finished goods in the designated area in the plant/ forwarding the finished pieces to the next process in the assembly process

Scope

The Moulding Helper will be responsible for

- cutting the output pieces
- removing finished goods from the moulding block
- storing the finished goods in designated areas The role holder will interact with maintenance team and material management team

Elements and Performance Criteria

Cut the moulding

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

- PC1..** understand the set parameters for dimensions of each of the output
- PC2..** cut the moulding as per the desired specifications within the desired timelines
- PC3..** keep a count of number of output pieces produced after cutting

Removing the finished goods from the moulding block

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

- PC4..** inspect the goods for scratches, flashes, marks at the time of removal from moulding block
- PC5..** hold the finished goods with necessary equipment like clamps, cranes, hoist etc. for unloading from the moulding block
- PC6..** safely lift the finished goods and move them to a designated area to prevent any damage to the finished goods
- PC7..** in case the plastic moulding are to be moved forward in the assembly line, ensure that the right hangers are used for transportation of finished goods in a safe manner

Storing the finished goods in the designated area

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

- PC8..** tag the finished goods with job number, piece number and other markings for identification
- PC9..** arrange the goods as per the batch number, piece number etc. into designated packing boxes
- PC10..** in case of assembly line, transport the finished goods to the next assembly line process

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company for Finished Goods storage

Qualification Pack

- KU2.** different types of products manufactured by the company
- KU3.** functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
- KU4.** usage of clamps, cranes, hoists for lifting work pieces
- KU5.** tagging of the finished goods as per batch codes, material/ part codes, piece numbers etc.
- KU6.** arranging of the tagged goods in the finished goods storage area
- KU7.** safety precautions to be taken for material movement

Generic Skills (GS)

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

- GS1.** write drawings to internal customers on the requirement of moulding apparatus etc.
- GS2.** note batch codes, material codes, piece number in the prescribed formats and records for the same
- GS3.** read equipment manuals and process documents to understand the equipment and processes better
- GS4.** read instructions especially safety instructions especially for using material handling equipment
- GS5.** read internal information drawings sent by internal customers (other functions within the organization)
- GS6.** discuss task lists, schedules, and work-loads with co-workers
- GS7.** question internal customers/ Moulding shop supervisor appropriately in order to understand the nature of the problem and make a diagnosis
- GS8.** plan and organize the work order and jobs received from the internal customers
- GS9.** plan and organize the finished Goods as per the batch/ product number in the designated area

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Cut the moulding</i>	8	23	-	-
PC1.. understand the set parameters for dimensions of each of the output	3	7	-	-
PC2.. cut the moulding as per the desired specifications within the desired timelines	3	10	-	-
PC3.. keep a count of number of output pieces produced after cutting	2	6	-	-
<i>Removing the finished goods from the moulding block</i>	12	31	-	-
PC4.. inspect the goods for scratches, flashes, marks at the time of removal from moulding block	3	9	-	-
PC5.. hold the finished goods with necessary equipment like clamps, cranes, hoist etc. for unloading from the moulding block	3	8	-	-
PC6.. safely lift the finished goods and move them to a designated area to prevent any damage to the finished goods	3	7	-	-
PC7.. in case the plastic moulding are to be moved forward in the assembly line, ensure that the right hangers are used for transportation of finished goods in a safe manner	3	7	-	-
<i>Storing the finished goods in the designated area</i>	5	21	-	-
PC8.. tag the finished goods with job number, piece number and other markings for identification	2	7	-	-
PC9.. arrange the goods as per the batch number, piece number etc. into designated packing boxes	2	7	-	-
PC10.. in case of assembly line, transport the finished goods to the next assembly line process	1	7	-	-
NOS Total	25	75	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N4406
NOS Name	Finish and deposit finished goods in the designated area
Sector	Automotive
Sub-Sector	Manufacturing and R&D
Occupation	Moulding
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	30/10/2013
Next Review Date	30/10/2015

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on 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 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. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 60

Qualification Pack

(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/N0006.Maintain a safe and healthy working environment	25	75	-	-	100	20
ASC/N0021.Maintain 5S at the work premises	25	75	-	-	100	15
ASC/N4404.Cleaning and Lubricating the extrusion machinery and the dies	25	75	-	-	100	20
ASC/N4405.Support the operator in moulding related operations	25	75	-	-	100	25
ASC/N4406.Finish and deposit finished goods in the designated area	25	75	-	-	100	20
Total	125	375	-	-	500	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

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.

Qualification Pack

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.