

# Machining Assistant/Helper Level 2

QP Code: ASC/Q3502

NSQF Level: 2

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## Qualification Pack

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## Qualification Pack

### ASC/Q3502: Machining Assistant/Helper Level 2

#### Brief Job Description

The Helper role is responsible for small time routine jobs like cleaning, washing, fetching and holding tool for the operators, loading and unloading of work pieces on the machine setup , bringing raw material and spare parts from the stores etc.

#### Personal Attributes

Basic understanding of the machining and housekeeping process, Basic reading, writing and communication skills, safety orientation, ability to do physical tasks like lifting, holding etc- Ability to lift objects required during the operations either manually or using lifts, chains without displaying fatigue, hands and feet dexterity, good vision.

#### 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/N3501: Support the machinist in the routine machining activities](#)
4. [ASC/N3502: Support the machinist in post machining process](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing
<b>Occupation</b>	Machining
<b>Country</b>	India
<b>NSQF Level</b>	2
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/9321.1401
<b>Minimum Educational Qualification &amp; Experience</b>	9th Class with 0-6 Months of experience Not applicable OR 9th Class OR 9th Class

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<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	Basic machining and housekeeping skills
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	26/07/2013
<b>Next Review Date</b>	30/06/2020
<b>NSQC Approval Date</b>	05/08/2015
<b>Version</b>	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:

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- 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

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and report the risks identified</i>	<b>8</b>	<b>23</b>	-	-
<b>PC1..</b> Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise	3	6	-	-
<b>PC2.</b> Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc	2	6	-	-
<b>PC3.</b> Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations	2	6	-	-
<b>PC4.</b> 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>	<b>17</b>	<b>52</b>	-	-
<b>PC5..</b> Follow the instructions given on the equipment manual describing the operating process of the equipments	3	7	-	-
<b>PC6..</b> Follow the Safety, Health and Environment related practices developed by the organization	3	8	-	-
<b>PC7.</b> Operate the machine using the recommended Personal Protective Equipments (PPE)	3	8	-	-
<b>PC8. .</b> 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	-	-
<b>PC9.</b> Maintain high standards of personal hygiene at the work place	2	7	-	-
<b>PC10.</b> Ensure that the waste disposal is done in the designated area and manner as per organization SOP.	3	8	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> 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	-	-
<b>NOS Total</b>	<b>25</b>	<b>75</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

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

#### 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:

- 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

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- 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.

## Generic Skills (GS)

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

- GS1.** write basic level notes and observations

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- 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

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Ensure sorting</i>	<b>10</b>	<b>30</b>	-	-
<b>PC1..</b> 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	-	-
<b>PC2..</b> ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions	1	3	-	-
<b>PC3..</b> follow the technique of waste disposal and waste storage in the proper bins as per sop	1	3	-	-
<b>PC4..</b> segregate the items which are labelled as red tag items for the process area and keep them in the correct places	1	3	-	-
<b>PC5.</b> 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	-	-
<b>PC6. .</b> ensure that areas of material storage areas are not overflowing	1	3	-	-
<b>PC7.</b> 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	-	-
<b>PC8.</b> 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	-	-
<b>PC9.</b> follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards	1	3	-	-
<b>PC10.</b> 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>	<b>3</b>	<b>9</b>	-	-
<b>PC11.</b> check that the items in the respective areas have been identified as broken or damaged	1	3	-	-
<b>PC12.</b> 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	-	-
<b>PC13.</b> 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>	<b>8</b>	<b>24</b>	-	-
<b>PC14.</b> check whether safety glasses are clean and in good condition	1	3	-	-
<b>PC15.</b> keep all outside surfaces of recycling containers are clean	1	3	-	-
<b>PC16..</b> 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	-	-
<b>PC17..</b> check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up	1	3	-	-
<b>PC18..</b> ensure workbenches and work surfaces are clean and in good condition	1	3	-	-
<b>PC19.</b> follow the cleaning schedule for the lighting system to ensure proper illumination	1	3	-	-
<b>PC20.</b> store the cleaning material and equipment in the correct location and in good condition	1	3	-	-
<b>PC21.</b> ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene	1	3	-	-
<i>Ensure sustenance</i>	<b>4</b>	<b>12</b>	-	-

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC22.</b> follow the daily cleaning standards and schedules to create a clean working environment	1	3	-	-
<b>PC23.</b> attend all training programs for employees on 5 s	0.5	2	-	-
<b>PC24.</b> support the team during the audit of 5 s	1	3	-	-
<b>PC25.</b> participate actively in employee work groups on 5s and encourage team members for active participation	0.5	2	-	-
<b>PC26.</b> 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	-	-
<b>NOS Total</b>	<b>25</b>	<b>75</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

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



## Qualification Pack

### ASC/N3501: Support the machinist in the routine machining activities

#### Description

This unit is about supporting the operator and the team in day to day routine tasks as part of the machining process like fetching and holding tools, loading work pieces, maintenance of machine parts

#### Scope

This unit/task covers the following: Types of machining: Manual and Automatic processes Types of products Auto Components Car Assembly Body Assembly Internal Interfaces: Assembly line Paint shop Materials Management Maintenance

- Manual and Automatic processes
- Auto Components
- Car Assembly Body Assembly
- Assembly line
- Paint shop
- Materials Management
- Maintenance

#### Elements and Performance Criteria

##### *Fetching and holding tools for the operator*

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

- PC1.** . bring right toolkits for the operator and check whether all required tools are available in the tool kit
- PC2.** . hold the tools during operations in the correct manner as specified by the operator and the standard operating procedures so that the operator can easily complete the assigned job

##### *Loading work pieces on the machines using fasteners and hand tools*

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

- PC3.** . support the assistant operator in arranging the work pieces in the specified manner as given in the setting document
- PC4.** . ensure that there is no damage done to the work pieces while loading them on the machining apparatus using pulleys, chains and other hoisting mechanisms

##### *Replace worn tools and sharpen dull cutting tools and dies*

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

- PC5.** . use bench grinders and cutting grinder machines to replace the tools and dies

##### *Support the assistant operator/ machinist in machine operations*

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

- PC6.** . use templates , measuring instruments and hand tools for the process of installation and adjustment of drills, cutters, dies and guides
- PC7.** . adjust tool positions and machine control mechanisms through the cranking (turning) process to ensure clearances and tolerances as specified in the operating manual
- PC8.** . extract the jammed pieces using fingers, wire hooks and lift bars

## Qualification Pack

### *Maintenance and cleaning of machine and workplace*

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

- PC9.** . store equipment auxiliaries and spare parts in proper designated areas
- PC10.** . regularly clean the equipment and process auxiliaries (cutting tools, dies) to remove any dust, moisture, waste material which would have got collected on the equipment and remove the metal chips and extra coolant
- PC11.** . regularly clean the working area in the weld shop and create a healthy, clean and safe working environment

### 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.** different types of machining processes
- KU4.** different types of tools used in the machining process
- KU5.** basic principles of 5 S in manufacturing Cleaning, sorting
- KU6.** the application of coolants and lubricants
- KU7.** basic Arithmetic and calculation methods

### Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** draw basic level drawings and charts
- GS3.** read documents and notes
- GS4.** interpret/ Comprehend the information given in the documents and notes
- GS5.** read and interpret symbols given on equipment and work area
- GS6.** discuss task lists and job requirements with co-workers
- GS7.** effectively communicate information to team members
- GS8.** question operator/ supervisor in order to understand the nature of the problem
- GS9.** attentively listen with full attention and comprehend the information given by the speaker
- GS10.** plan and organize the activities/ work allocated by supervisor and operator
- GS11.** organize all equipment and kits so that sorting is easy on a day to day basis
- GS12.** use common sense and make judgments during day to day basis
- GS13.** use reasoning skills to identify and resolve basic problems
- GS14.** follow instructions and work on areas of improvement identified
- GS15.** complete the assigned tasks with minimum supervision
- GS16.** complete the job defined by the supervisor within the timelines and quality norms
- GS17.** refer problems outside area of responsibility to appropriate person

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Fetching and holding tools for the operator</i>	<b>4</b>	<b>16</b>	-	-
<b>PC1.</b> . bring right toolkits for the operator and check whether all required tools are available in the tool kit	2	8	-	-
<b>PC2.</b> . hold the tools during operations in the correct manner as specified by the operator and the standard operating procedures so that the operator can easily complete the assigned job	2	8	-	-
<i>Loading work pieces on the machines using fasteners and hand tools</i>	<b>4</b>	<b>16</b>	-	-
<b>PC3.</b> . support the assistant operator in arranging the work pieces in the specified manner as given in the setting document	2	8	-	-
<b>PC4.</b> . ensure that there is no damage done to the work pieces while loading them on the machining apparatus using pulleys, chains and other hoisting mechanisms	2	8	-	-
<i>Replace worn tools and sharpen dull cutting tools and dies</i>	<b>2</b>	<b>8</b>	-	-
<b>PC5.</b> . use bench grinders and cutting grinder machines to replace the tools and dies	2	8	-	-
<i>Support the assistant operator/ machinist in machine operations</i>	<b>6</b>	<b>22</b>	-	-
<b>PC6.</b> . use templates , measuring instruments and hand tools for the process of installation and adjustment of drills, cutters, dies and guides	2	8	-	-
<b>PC7.</b> . adjust tool positions and machine control mechanisms through the cranking (turning) process to ensure clearances and tolerances as specified in the operating manual	2	8	-	-
<b>PC8.</b> . extract the jammed pieces using fingers, wire hooks and lift bars	2	6	-	-
<i>Maintenance and cleaning of machine and workplace</i>	<b>4</b>	<b>18</b>	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC9.</b> . store equipment auxiliaries and spare parts in proper designated areas	2	6	-	-
<b>PC10.</b> . regularly clean the equipment and process auxiliaries (cutting tools, dies) to remove any dust, moisture, waste material which would have got collected on the equipment and remove the metal chips and extra coolant	1	6	-	-
<b>PC11.</b> . regularly clean the working area in the weld shop and create a healthy, clean and safe working environment	1	6	-	-
<b>NOS Total</b>	<b>20</b>	<b>80</b>	-	-

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N3501
<b>NOS Name</b>	Support the machinist in the routine machining activities
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing
<b>Occupation</b>	Machining
<b>NSQF Level</b>	2
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	26/07/2013
<b>Next Review Date</b>	31/12/2015
<b>NSQC Clearance Date</b>	05/08/2015

## Qualification Pack

### ASC/N3502: Support the machinist in post machining process

#### Description

This unit is about supporting the operator and the manufacturing team in postproduction process - Unload work pieces using various tools, help the assistant operator in basic quality checks of machined parts and count the good quality and bad qualities and help the assistant operator in maintaining records.

#### Scope

This unit/task covers the following: Types of machining: Automatic Types of products Auto Components Car Assembly Body Assembly Internal Interfaces: Assembly line Paint shop Materials Management Maintenance

- Automatic
- Auto Components
- Car Assembly Body Assembly
- Assembly line
- Paint shop
- Materials Management
- Maintenance

#### Elements and Performance Criteria

##### *Unloading work pieces on the machines*

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

- PC1.** . support the assistant operator in removing the output products from the machining apparatus in the specified manner as given in the setting document
- PC2.** . use lifting tools like lifts, pulleys, chains, hoists and ensure that there is no damage done to the machined pieces while un loading them

##### *Do Debarring*

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

- PC3.** . with the help of the correct tool remove the extra burrs and chips from the metal surface

##### *Check quality of the machined pieces (Gauging)*

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

- PC4.** . support the assistant operator in measuring the specifications of the finished product using devices like micrometers, vernier calipers, gauges, rulers, weighing scales and any other inspection equipment
- PC5.** . bring right inspection tools for the operator and check whether all required tools are available near the inspection platform
- PC6.** . support the operator/ asst. operator in noting down the observations of the basic inspection process and identify pieces which are ok and also not meeting the specified standards
- PC7.** . separate the defective pieces into two categories pieces which can be repaired/ modified and pieces which are beyond repair and maintain records of each category

#### Knowledge and Understanding (KU)

## Qualification Pack

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.** basic norms for Quality in Production process
- KU4.** different types of machining processes
- KU5.** different types of tools used in the measurement and inspection process
- KU6.** different tools used for lifting objects
- KU7.** basic principles of 5 S in manufacturing Cleaning, sorting
- KU8.** basic Arithmetic and calculation methods

## Generic Skills (GS)

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

- GS1.** write basic level notes and observations
- GS2.** draw basic level drawings and charts
- GS3.** read documents and notes
- GS4.** interpret/ Comprehend the information given in the documents and notes
- GS5.** read and interpret symbols given on equipment and work area
- GS6.** discuss task lists and job requirements with co-workers
- GS7.** effectively communicate information to team members
- GS8.** question operator/ supervisor in order to understand the nature of the problem
- GS9.** attentively listen with full attention and comprehend the information given by the speaker
- GS10.** organize the activities/ work allocated by supervisor and operator
- GS11.** organize all equipment and kits so that sorting is easy on daily basis
- GS12.** use common sense and make judgments during day to day basis
- GS13.** use reasoning skills to identify and resolve basic problems
- GS14.** follow instructions and work on areas of improvement identified
- GS15.** complete the assigned tasks with minimum supervision
- GS16.** complete the job defined by the supervisor within the timelines and quality norms
- GS17.** ability to identify defective parts in the manufacturing line by comparing manufactured pieces with the work standard

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Unloading work pieces on the machines</i>	<b>6</b>	<b>22</b>	-	-
<b>PC1.</b> . support the assistant operator in removing the output products from the machining apparatus in the specified manner as given in the setting document	2	11	-	-
<b>PC2.</b> . use lifting tools like lifts, pulleys, chains, hoists and ensure that there is no damage done to the machined pieces while un loading them	4	11	-	-
<i>Do Debarring</i>	<b>4</b>	<b>11</b>	-	-
<b>PC3.</b> . with the help of the correct tool remove the extra burrs and chips from the metal surface	4	11	-	-
<i>Check quality of the machined pieces (Gauging)</i>	<b>15</b>	<b>42</b>	-	-
<b>PC4.</b> . support the assistant operator in measuring the specifications of the finished product using devices like micrometers, vernier calipers, gauges, rulers, weighing scales and any other inspection equipment	4	11	-	-
<b>PC5.</b> . bring right inspection tools for the operator and check whether all required tools are available near the inspection platform	3	11	-	-
<b>PC6.</b> . support the operator/ asst. operator in noting down the observations of the basic inspection process and identify pieces which are ok and also not meeting the specified standards	4	10	-	-
<b>PC7.</b> . separate the defective pieces into two categories pieces which can be repaired/ modified and pieces which are beyond repair and maintain records of each category	4	10	-	-
<b>NOS Total</b>	<b>25</b>	<b>75</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ASC/N3502
<b>NOS Name</b>	Support the machinist in post machining process
<b>Sector</b>	Automotive
<b>Sub-Sector</b>	Manufacturing
<b>Occupation</b>	Machining
<b>NSQF Level</b>	2
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	26/07/2013
<b>Next Review Date</b>	31/12/2015
<b>NSQC Clearance Date</b>	05/08/2015

## Qualification Pack

### 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.

**Recommended Pass % aggregate for QP : 60**

#### 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/N3501.Support the machinist in the routine machining activities	20	80	-	-	100	35

### Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N3502.Support the machinist in post machining process	25	75	-	-	100	30
<b>Total</b>	<b>95</b>	<b>305</b>	<b>-</b>	<b>-</b>	<b>400</b>	<b>100</b>

## Qualification Pack

### Acronyms

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

## Qualification Pack

### Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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

<b>Knowledge and Understanding (KU)</b>	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.
<b>Organisational Context</b>	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.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	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.
<b>Electives</b>	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.
<b>Options</b>	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.