

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE INDUSTRY



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What are Occupational Standards (OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

Contact Us:

ASDC, 1/6,
Siri Institutional Area,
Khel Gaon Road,
New Delhi-110049 (India)

E-mail:

skc@asdc.org.in



Introduction

Qualifications Pack-Machining Assistant or Helper L 2

SECTOR: AUTOMOTIVE

SUB-SECTOR: MANUFACTURING

OCCUPATION: MACHINING

JOB ROLE: MACHINING ASSISTANT OR HELPER LEVEL 2

REFERENCE ID: ASC/ Q 3502

ALIGNED TO: NCO-2004/ Nil

Machining Helper: An assistant to the operator and the entire team, the helper supports peripheral activities/ non-core activities in the manufacturing process

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

Qualifications Pack For Machining Assistant OR Helper

Job Details	Qualifications Pack Code	ASC/Q 3502		
	Job Role	Machining Assistant OR Helper		
	Credits(NSQF)	TBD	Version number	1.0
	Industry	Automotive	Drafted on	01/7/2013
	Sub-sector	Manufacturing	Last reviewed on	26/7/2013
	Occupation	Machining	Next review date	Under revision expected date of revised version 31-Dec-15
	NSQC Clearance on	05/08/15		

Job Role	Machining Assistant OR Helper level 2
Role 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
NSQF level	2
Minimum Educational Qualifications	Class 8-9 pass
Maximum Educational Qualifications	ITI
Training (Suggested but not mandatory)	Basic machining and housekeeping skills
Minimum Job Entry Age	1 ASCD recommends that candidates should seek full employment not before attaining an age of 18 years. 2 However, as per Factories Act1948: - No one can be employed before attaining the age of 15 - A person between the age of 15 – 18 (both inclusive) could be employed only with employers who follow safety and security systems & processes and also that the employee in this bracket will be working under supervision. 3 Please note that under the Factories Act 1948, different States may have slightly varying provision which need to be adhered to.
Experience	0-2 years of experience
Occupational Standards (OS)	ASC/N 3501: Support the machinist in the routine machining activities ASC/N3502: Support the machinist in post machining process ASC/N 0006: Maintain a safe and healthy working environment ASC/N 0021: Maintain 5S at the work premises Optional: N.A.
Performance Criteria	As described in the relevant NOS units

Qualifications Pack For Machining Assistant OR Helper

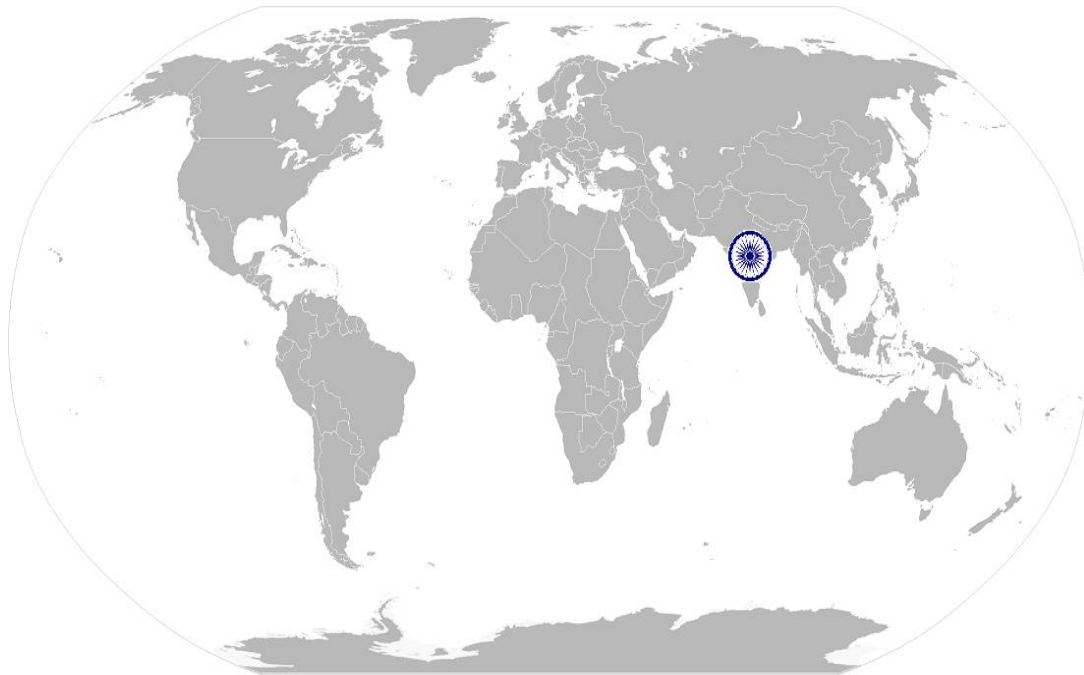
Definitions	Keywords /Terms	Description
	Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
	Sub-sector	Sub-sector is derived 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.
	Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or an area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
	Sub-function	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
	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 they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
	Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.
	National Occupational Standards (OS)	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	Knowledge and understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual need in order to perform to the required standard.
Organizational Context	Organizational context includes the way the organization 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	

Qualifications Pack For Machining Assistant OR Helper

	designated responsibilities.
Core Skills/ Generic Skills	Core skills or generic skills 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.
Keywords /Terms	Description
NOS	National Occupational Standard(s)
NSQF	National Standards Qualifications Framework
QP	Qualifications Pack
GRN	Goods Receipt Note
SAP	System Application and Products

Acronyms

National Occupational Standards



Overview

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

ASC/N 3501

Support the machinist in the routine machining activities

National Occupational Standard

Unit Code	ASC/N 3501
Unit Title (Task)	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	<p>This unit/task covers the following:</p> <p>Types of machining:</p> <ul style="list-style-type: none"> Manual and Automatic processes <p>Types of products</p> <ul style="list-style-type: none"> Auto Components Car Assembly – Body Assembly <p>Internal Interfaces:</p> <ul style="list-style-type: none"> Assembly line Paint shop Materials Management Maintenance
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Fetching and holding tools for the operator	<p>PC1. Bring right toolkits for the operator and check whether all required tools are available in the tool kit</p> <p>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</p>
Loading work pieces on the machines using fasteners and hand tools	<p>PC3. Support the assistant operator in arranging the work pieces in the specified manner as given in the setting document</p> <p>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</p>
Replace worn tools and sharpen dull cutting tools and dies	<p>PC5. Use bench grinders and cutting grinder machines to replace the tools and dies</p>
Support the assistant operator/ machinist in machine operations	<p>PC6. Use templates, measuring instruments and hand tools for the process of installation and adjustment of drills, cutters, dies and guides</p> <p>PC7. Adjust tool positions and machine control mechanisms through the cranking (turning) process to ensure clearances and tolerances as specified in the operating manual</p> <p>PC8. Extract the jammed pieces using fingers, wire hooks and lift bars</p>
Maintenance and cleaning of machine and workplace	<p>PC9. Store equipment auxiliaries and spare parts in proper designated areas</p> <p>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</p>

ASC/N 3501

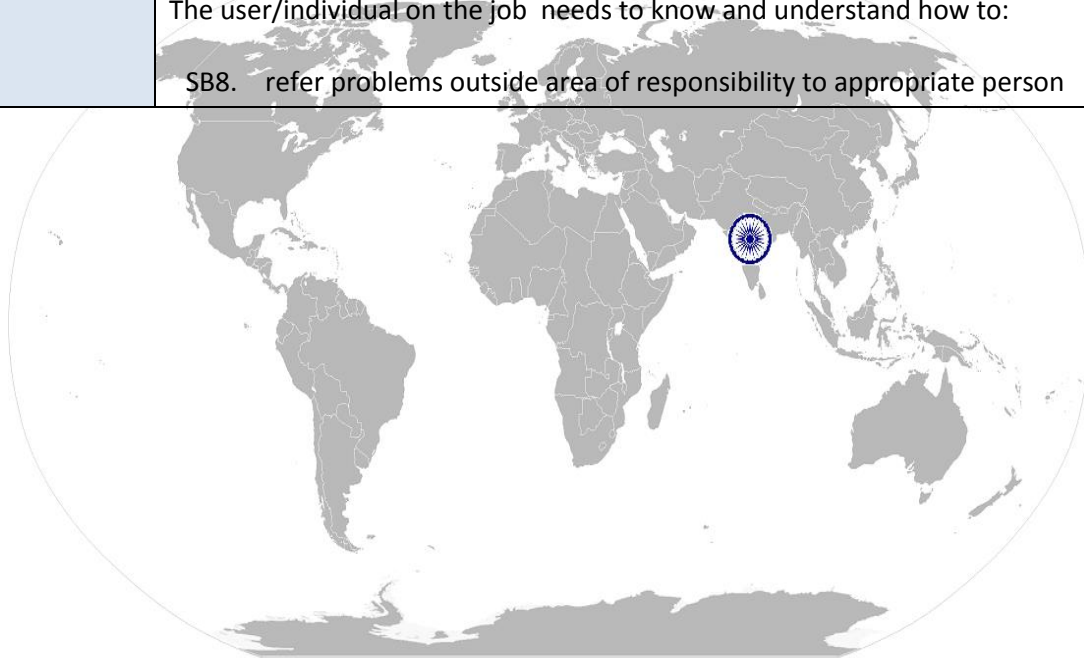
Support the machinist in the routine machining activities

	PC11. Regularly clean the working area in the weld shop and create a healthy, clean and safe working environment
Knowledge and Understanding (K) w.r.t. the scope	
Element	Knowledge and Understanding
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant standards and procedures followed in the company KA2. different types of products manufactured by the company
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different types of machining processes KB2. different types of tools used in the machining process KB3. basic principles of 5 S in manufacturing – Cleaning, sorting KB4. the application of coolants and lubricants KB5. basic Arithmetic and calculation methods
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations SA2. draw basic level drawings and charts
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. read documents and notes SA4. interpret/ Comprehend the information given in the documents and notes SA5. read and interpret symbols given on equipment and work area
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists and job requirements with co-workers SA7. effectively communicate information to team members SA8. question operator/ supervisor in order to understand the nature of the problem SA9. attentively listen with full attention and comprehend the information given by the speaker
B. Professional Skills	Plan and Organize

ASC/N 3501

Support the machinist in the routine machining activities

	<p>The user/individual on the job needs to know and understand how to :</p> <p>SB1. plan and organize the activities/ work allocated by supervisor and operator</p> <p>SB2. organize all equipment and kits so that sorting is easy on a day to day basis</p>
	<p>Judgmental Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. use common sense and make judgments during day to day basis</p> <p>SB4. use reasoning skills to identify and resolve basic problems</p>
	<p>Desire to learn and take initiatives</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. follow instructions and work on areas of improvement identified</p> <p>SB6. complete the assigned tasks with minimum supervision</p> <p>SB7. complete the job defined by the supervisor within the timelines and quality norms</p>
	<p>Problem solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB8. refer problems outside area of responsibility to appropriate person</p>

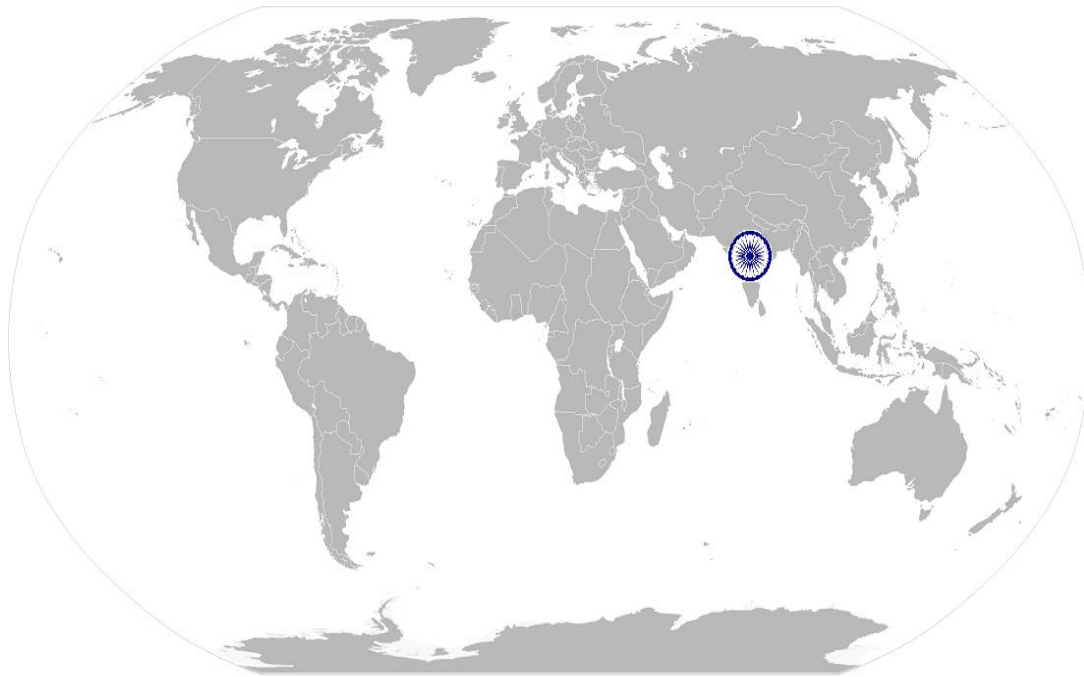


ASC/N 3501

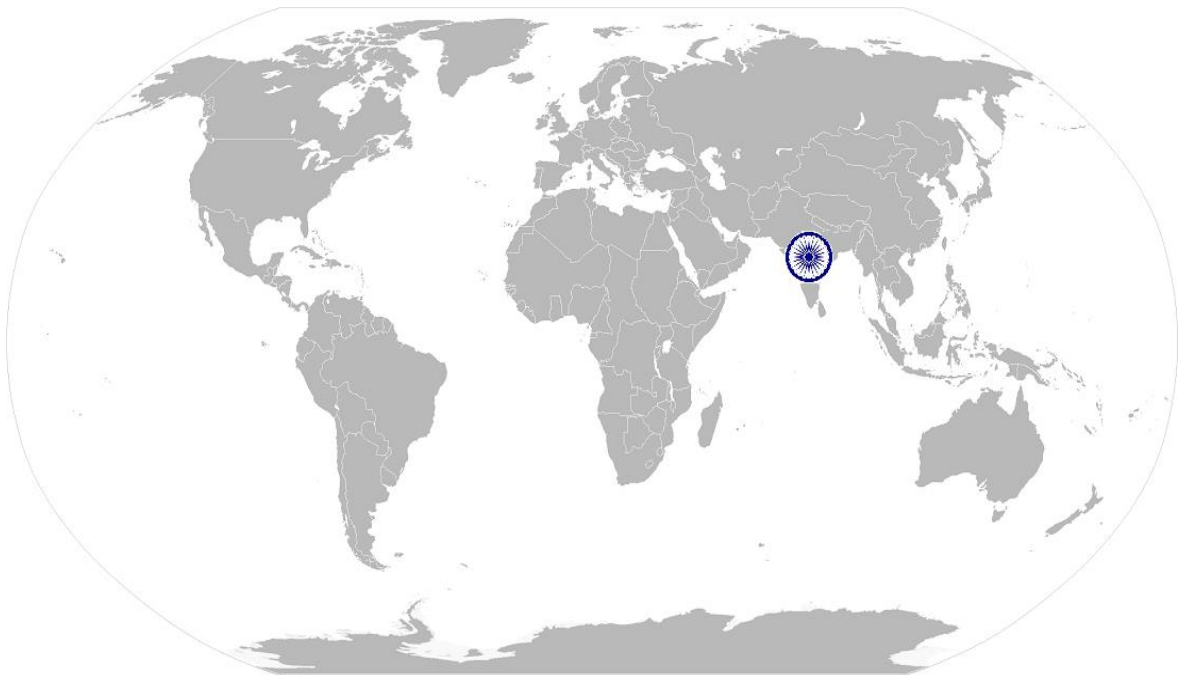
Support the machinist in the routine machining activities

NOS Version Control

NOS Code	ASC/ N 3501		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	01/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	26/7/2013
Occupation	Machining	Next review date	Under revision expected date of revised version 31-Dec-15



National Occupational Standards



Overview

This unit is about supporting the operator and the manufacturing team in post production 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

ASC/N 3502

Support the machinist in post machining process

Unit Code	ASC/N 3502
Unit Title (Task)	Support the machinist in post machining process
Description	This unit is about supporting the operator and the manufacturing team in post-production 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	<p>This unit/task covers the following:</p> <p>Types of machining:</p> <ul style="list-style-type: none"> • Automatic <p>Types of products</p> <ul style="list-style-type: none"> • Auto Components • Car Assembly – Body Assembly <p>Internal Interfaces:</p> <ul style="list-style-type: none"> • Assembly line • Paint shop • Materials Management • Maintenance
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Unloading work pieces on the machines	<p>PC1. Support the assistant operator in removing the output products from the machining apparatus in the specified manner as given in the setting document</p> <p>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</p>
Do Debarring	<p>PC3. With the help of the correct tool remove the extra burrs and chips from the metal surface</p>
Check quality of the machined pieces (Gauging)	<p>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</p> <p>PC5. Bring right inspection tools for the operator and check whether all required tools are available near the inspection platform</p> <p>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</p> <p>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</p>
Knowledge and Understanding (K)	
B. Organizational Context (Knowledge)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards and procedures followed in the company</p>

ASC/N 3502

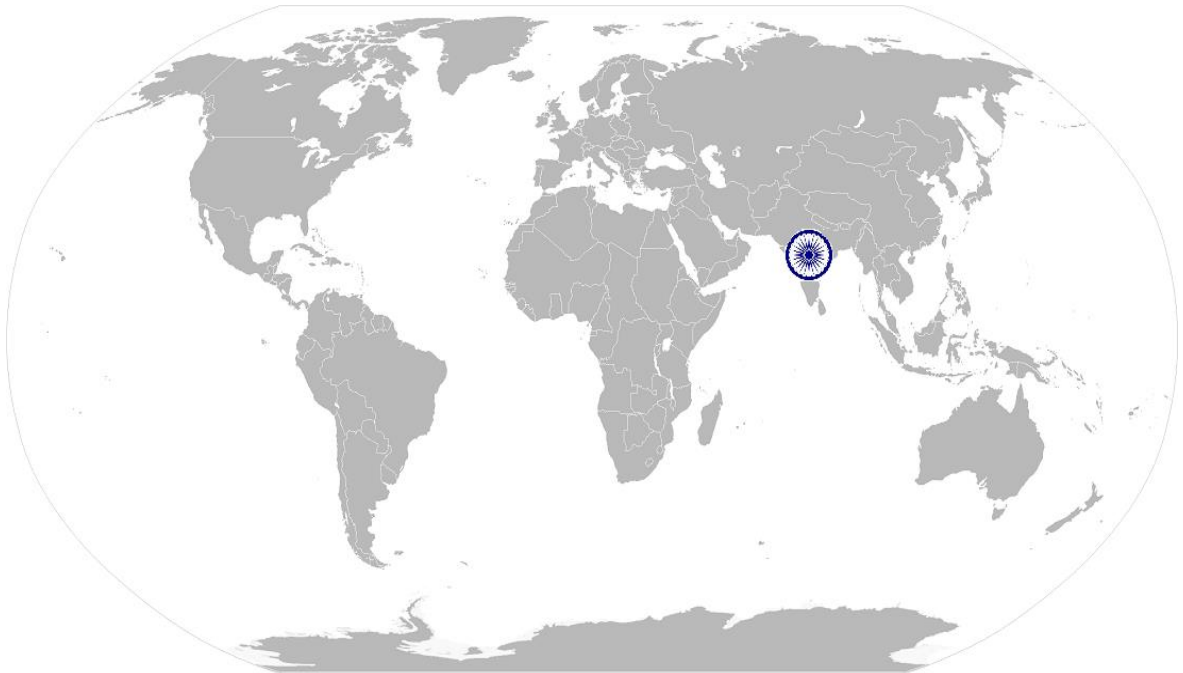
Support the machinist in post machining process

of the company / organization and its processes)	KA2. different types of products manufactured by the company KA3. basic norms for Quality in Production process
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different types of machining processes KB2. different types of tools used in the measurement and inspection process KB3. different tools used for lifting objects KB4. basic principles of 5 S in manufacturing – Cleaning, sorting KB5. basic Arithmetic and calculation methods
Skills (S) w.r.t. the scope	
Element	Skills
C. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations SA2. draw basic level drawings and charts
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. read documents and notes SA4. interpret/ Comprehend the information given in the documents and notes SA5. read and interpret symbols given on equipment and work area
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists and job requirements with co-workers SA7. effectively communicate information to team members SA8. question operator/ supervisor in order to understand the nature of the problem SA9. attentively listen with full attention and comprehend the information given by the speaker
A. Professional Skills	Plan and Organize
	The user/individual on the job needs to understand how to : SB1. organize the activities/ work allocated by supervisor and operator SB2. organize all equipment and kits so that sorting is easy on daily basis
	Judgmental Thinking
	The user/individual on the job needs to know and understand how to: SB3. use common sense and make judgments during day to day basis SB4. use reasoning skills to identify and resolve basic problems
	Desire to learn and take initiatives

ASC/N 3502

Support the machinist in post machining process

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. follow instructions and work on areas of improvement identified</p> <p>SB6. complete the assigned tasks with minimum supervision</p> <p>SB7. complete the job defined by the supervisor within the timelines and quality norms</p>
	<p>Quality Consciousness</p>
	<p>SB8. ability to identify defective parts in the manufacturing line by comparing manufactured pieces with the work standard</p>



ASC/N 3502

Support the machinist in post machining process

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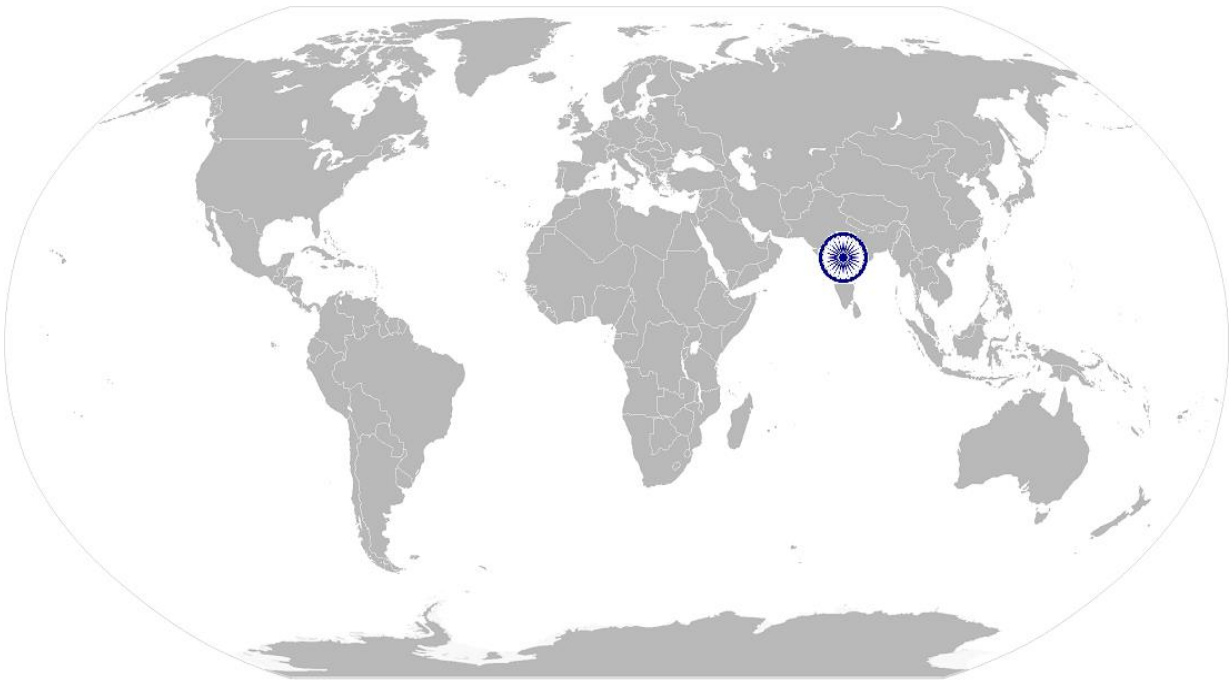
NOS Code	ASC/ N 3502		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	01/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	26/7/2013
Occupation	Machining	Next review date	Under revision expected date of revised version 31-Dec-15



ASC/N 0006

Maintain a safe and healthy working environment

National Occupational Standards



Overview

This unit is about establishing a Safe, Healthy and Environment friendly workplace

ASC/N 0006

Maintain a safe and healthy working environment

National Occupational Standard	Unit Code	ASC/N 0006
	Unit Title (Task)	Maintain a safe and healthy working environment
	Description	This OS unit 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
	Scope	<p>This unit/task covers the following:</p> <p>Types of processes:</p> <ul style="list-style-type: none"> • Welding • Casting • Forging • Machining <p>Types of products</p> <ul style="list-style-type: none"> • Auto Components • Car Assembly – Body Assembly
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Identify and report the risks identified	<p>PC1. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, loud noise</p> <p>PC2. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc</p> <p>PC3. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations</p> <p>PC4. Create awareness amongst other by sharing information on the identified risks</p>
	Create and sustain a Safe, clean and environment friendly work place	<p>PC5. Follow the instructions given on the equipment manual describing the operating process of the equipment</p> <p>PC6. Follow the safety, health and environment related practices developed by the organization</p> <p>PC7. Operate the machine using the recommended personal protective equipment (ppe)</p> <p>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</p> <p>PC9. Maintain high standards of personal hygiene at the work place</p> <p>PC10. Ensure that the waste disposal happens in the designated area</p>
	Knowledge and Understanding (K)w.r.t. the scope	
	Element	Knowledge and Understanding

ASC/N 0006

Maintain a safe and healthy working environment

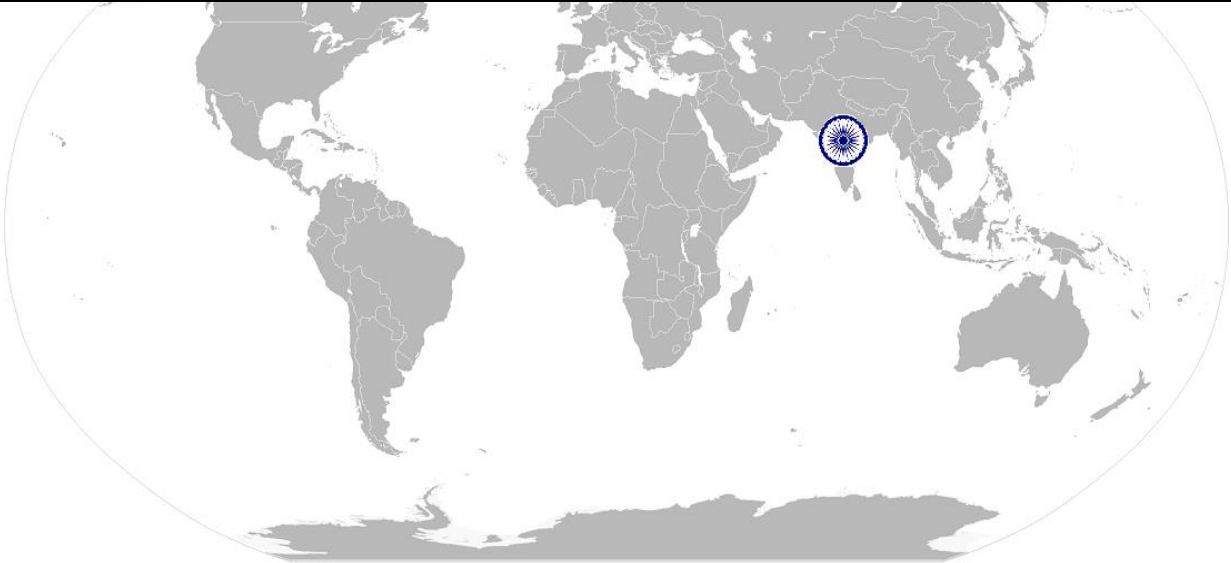
C. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to Health, Safety and Environment followed in the company
A. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic knowledge of Safety procedures(firefighting, first aid) within the organization KB2. basic knowledge of various types of PPEs and their usage KB3. basic knowledge of risks associated with each occupation in the organization KB4. knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment
Skills (S)w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. read safety instructions put up across the plant premises SA3. read safety precautions mentioned in equipment manuals and panels to understand the potential risks associated with the equipment
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. effectively communicate information to team members and inform employees in the plant and concerned functions about potential Safety, Health and Environment related risks observed SA5. question operator/ supervisor in order to understand the safety related issues SA6. attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
B. Professional Skills	Judgmental Thinking
	The user/individual on the job needs to know and understand how to: SB1. use common sense and make judgments during day to day basis SB2. use reasoning skills to identify and resolve basic problems

ASC/N 0006

Maintain a safe and healthy working environment

NOS Version Control

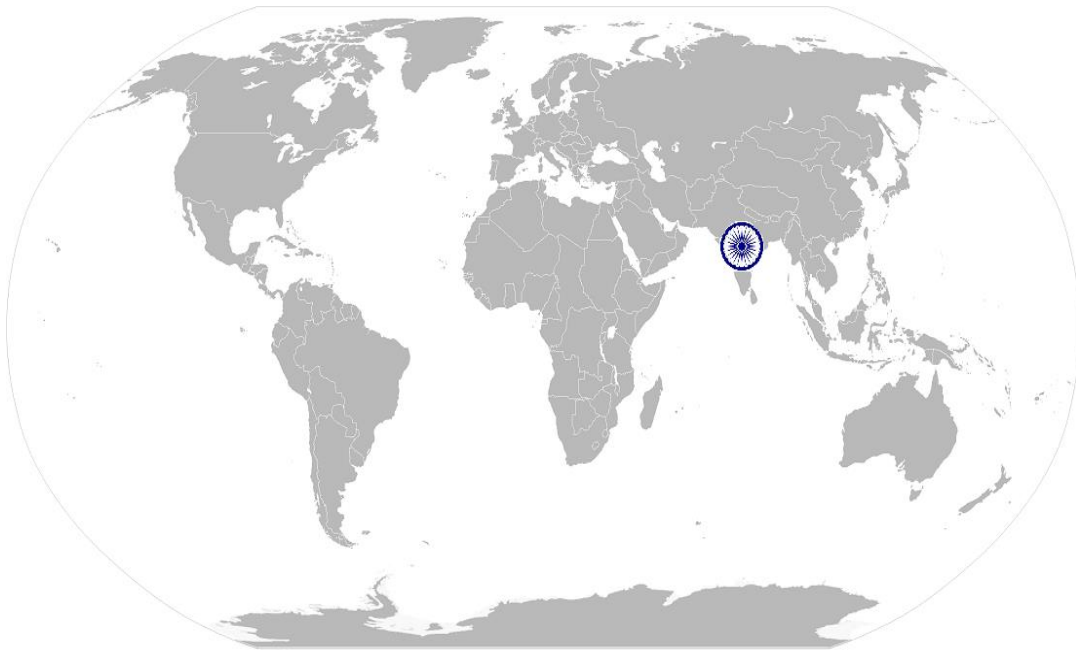
NOS Code	ASC/N 0006		
Credits(NSQF)	2	Version number	1.0
Industry	Automotive	Drafted on	01/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	26/7/2013
Occupation	Machining	Next review date	Under revision, expected date of revised version 31-Dec-15



ASC/N 0021

Maintain 5S at the work premises

National Occupational Standard



Overview

This unit is about the understanding all principles of 5S and follow the given guidelines to ensure a clean and efficient working environment in the organization

ASC/N 0021

Maintain 5S at the work premises

National Occupational Standard

Unit Code	ASC/N 0021
Unit Title (Task)	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 <ul style="list-style-type: none"> Ensure sorting, streamlining & organizing, storage and documentation, cleaning, standardization and sustenance across the plant and office premises of the organization
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Ensure sorting	<p>PC1. Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and un-necessary items are not cluttering the workbenches or work surfaces.</p> <p>PC2. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions</p> <p>PC3. Follow the technique of waste disposal and waste storage in the proper bins as per SOP</p> <p>PC4. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places</p> <p>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</p> <p>PC6. Ensure that areas of material storage areas are not overflowing</p> <p>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</p> <p>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</p> <p>PC9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards</p>
Ensure proper documentation and storage (organizing, streamlining)	<p>PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists</p> <p>PC11. Check that the items in the respective areas have been identified as broken or damaged</p> <p>PC12. Follow the given instructions and check for labeling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc.</p> <p>PC13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions</p>

ASC/N 0021

Maintain 5S at the work premises

<p>Ensure cleaning of self and the work place</p>	<p>PC14. Check whether safety glasses are clean and in good condition</p> <p>PC15. Keep all outside surfaces of recycling containers are clean</p> <p>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</p> <p>PC17. Check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up</p> <p>PC18. Ensure workbenches and work surfaces are clean and in good condition</p> <p>PC19. Follow the cleaning schedule for the lighting system to ensure proper illumination</p> <p>PC20. Store the cleaning material and equipment in the correct location and in good condition</p> <p>PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene</p>
<p>Ensure sustenance</p>	<p>PC1. Follow the daily cleaning standards and schedules to create a clean working environment</p> <p>PC2. Attend all training programs for employees on 5 S</p> <p>PC3. Support the team during the audit of 5 S</p> <p>PC4. Participate actively in employee work groups on 5S and encourage team members for active participation</p> <p>PC5. 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</p>
Knowledge and Understanding (K) w.r.t. the scope	
Element	Knowledge and Understanding
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards, procedures and policies related to 5S followed in the company</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to :</p> <p>KB5. have basic knowledge of 5S procedures</p> <p>KB6. know various types 5s practices followed in various areas</p> <p>KB7. understand the 5S checklists provided in the department/ team</p> <p>KB8. have skills to identify useful & non useful items</p> <p>KB9. have knowledge of labels , signs & colours used as indicators</p> <p>KB10. Have knowledge on how to sort and store various types of tools, equipment, material etc.</p> <p>KB11. know , how to identify various types of waste products</p> <p>KB12. understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human</p>

ASC/N 0021

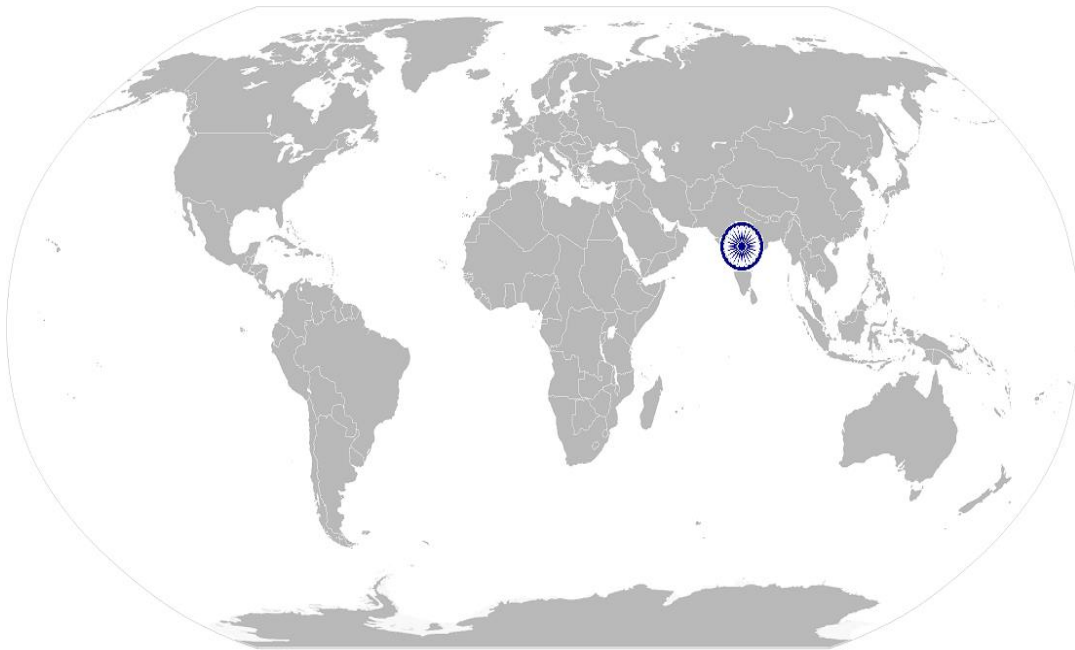
Maintain 5S at the work premises

	<p>body</p> <p>KB13. have knowledge of best ways of cleaning & waste disposal</p> <p>KB14. understand the importance of standardization in processes</p> <p>KB15. understand the importance of sustainability in 5S</p> <p>KB16. have knowledge of TQM process</p> <p>KB17. have knowledge of various materials and storage norms</p> <p>KB18. understand visual controls, symbols, graphs etc.</p>
Skills (S)w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA7. write basic level notes and observations SA8. note down observations (if any) related to the process SA9. write information documents to internal departments/ internal teams
	Reading Skills
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA10. read 5S instructions put up across the plant premises
	Oral Communication (Listening and Speaking skills)
The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SA11. effectively communicate information to team members inform employees in the plant and concerned functions about 5S SA12. question the process head in order to understand the 5S related issues SA13. attentively listen with full attention and comprehend the information given by the speaker during 5S training programs 	
B. Professional Skills	Judgmental Thinking
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB3. use common sense and make judgments during day to day basis SB4. use reasoning skills to identify and resolve basic problems using 5S
	Persuasion
	The user/ individual on the jobs needs to know and understand how to: <ul style="list-style-type: none"> SB5. persuade co team members to follow 5 S SB6. ensure that the co team members understand the importance of using 5 S tool
	Creativity

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	<p>The user/individual on the job needs to know and understand how to :</p> <p>SB7. use innovative skills to perform and manage 5 S activities at the work desk and the shop floor</p> <p>SB8. exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work</p>
	<p>Self –Discipline</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. do what is right, not what is a popular practices</p> <p>SB10. follow shop floor rules& regulations and avoid deviations; make 5S an integral way of life</p> <p>SB11. ensure self-cleanliness on a daily basis</p> <p>SB12. demonstrate the will to keep the work area in a clean and orderly manner</p>

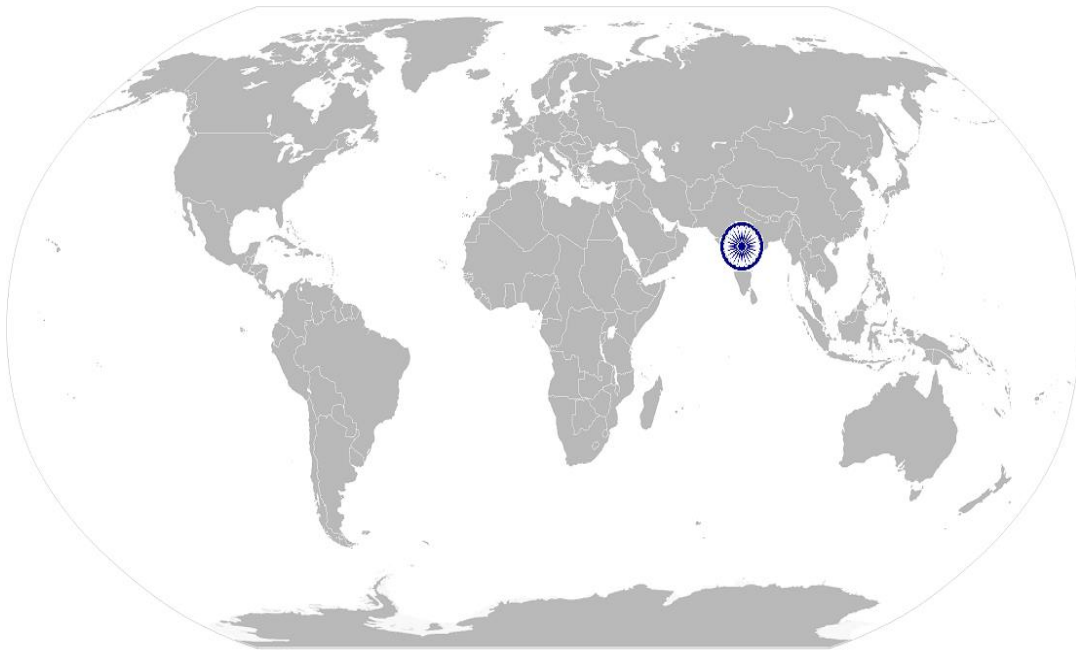


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NOS Version Control

NOS Code	ASC/N 0021		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	1/03/2014
Industry Sub-sector	Manufacturing/ R&D	Last reviewed on	15/03/2014
Occupation	Machining	Next review date	Under revision expected date of revised version 31-Dec-15



Criteria for assessment of Trainees

Job Role: - Machining Assistant/Helper
 Qualification Pack: - ASC/Q 3502
 Sector Skill Council Automotive Skills Development

Guidelines for Assessment

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 proportion of marks for Theory and Skills Practical for each 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. To pass the Qualification Pack, every trainee should score a minimum of 60% of aggregate marks to successfully clear the assessment.
5. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.

Assessable Outcomes	Assessment Criteria of Outcomes	Total Marks	Out Of	Theory	Skills Practical
ASC/N3501(Support the machinist in the routine machining activities)- Fetching and holding tools for the operator	PC1. Bring right toolkits for the operator and check whether all required tools are available in the tool kit	100	10	2	8
	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		10	2	8
Loading work pieces on the machines using fasteners and hand tools	PC3. Support the assistant operator in arranging the work pieces in the specified manner as given in the setting document		10	2	8
	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		10	2	8
Replace worn tools and sharpen dull cutting tools and dies	PC5. Use bench grinders and cutting grinder machines to replace the tools and dies		10	2	8
Support the assistant operator/ machinist in machine operations	PC6. Use templates, measuring instruments and hand tools for the process of installation and adjustment of drills, cutters, dies and guides		10	2	8

	PC7. Adjust tool positions and machine control mechanisms through the cranking (turning) process to ensure clearances and tolerances as specified in the operating manual		10	2	8
	PC8. Extract the jammed pieces using fingers, wire hooks and lift bars		8	2	6
Maintenance and cleaning of machine and workplace	PC9. Store equipment auxiliaries and spare parts in proper designated areas		8	2	6
	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		7	1	6
	PC11. Regularly clean the working area in the weld shop and create a healthy, clean and safe working environment		7	1	6
			100	20	80
ASC/N3502(Support the machinist in post machining process)- Unloading work pieces on the machines	PC1. Support the assistant operator in removing the output products from the machining apparatus in the specified manner as given in the setting document	100	13	2	11
	PC2. Use lifting tools like lifts, pulleys, chains, hoists and ensure that there is no damage done to the machined pieces while unloading them		15	4	11
Do Debarring	PC3. With the help of the correct tool remove the extra burrs and chips from the metal surface		15	4	11
Check quality of the machined pieces (Gauging)	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		15	4	11
	PC5. Bring right inspection tools for the operator and check whether all required tools are available near the inspection platform		14	3	11
	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		14	4	10

	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		14	4	10
			100	25	75
ASC/N0006(Maintain a safe and healthy working environment)- Identify and report the risks identified	PC1. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals, loud noise	100	9	3	6
	PC2. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc		8	2	6
	PC3. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations		8	2	6
	PC4. Create awareness amongst other by sharing information on the identified risks		6	1	5
Create and sustain a Safe, clean and environment friendly workplace	PC5. Follow the instructions given on the equipment manual describing the operating process of the equipments		10	3	7
	PC6. Follow the Safety, Health and Environment related practices developed by the organization		11	3	8
	PC7. Operate the machine using the recommended Personal Protective Equipments (PPE)		11	3	8
	PC8. Maintain a clean and safe working environment near the workplace and ensure there is no spillage of chemicals, production waste, oil, solvents etc		10	2	8
	PC9. Maintain high standards of personal hygiene at the workplace		9	2	7
	PC10. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.		11	3	8
	PC11. Inform appropriately the medical officer/ HR in case of self or an employee's illness of contagious nature so that preventive actions can be planned for others		7	1	6

			100	25	75
ASC/N0021(Maintain 5S at the work premises)-Ensure sorting	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.	100	4	1	3
	PC2.Ensure segregation of waste in hazardous/ non hazardous waste as per the sorting work instructions		4	1	3
	PC3. Follow the technique of waste disposal and waste storage in the proper bins as per sop		4	1	3
	PC4. Segregate the items which are labelled as red tag items for the process area and keep them in the correct places		4	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		4	1	3
	PC6. Ensure that areas of material storage areas are not overflowing		4	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		4	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		4	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		4	1	3
	PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists		4	1	3
Ensure proper documentation and storage (organizing, streamlining)	PC11. Check that the items in the respective areas have been identified as broken or damaged		4	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		4	1	3
	PC13. Make sure that all material and tools are stored in the designated places and in the		4	1	3

	manner indicated in the 5s instructions			
Ensure cleaning of self and the workplace	PC14. Check whether safety glasses are clean and in good condition	4	1	3
	PC15. Keep all outside surfaces of recycling containers are clean	4	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	4	1	3
	PC17. Check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up	4	1	3
	PC18. Ensure workbenches and work surfaces are clean and in good condition	4	1	3
	PC19. Follow the cleaning schedule for the lighting system to ensure proper illumination	4	1	3
	PC20. Store the cleaning material and equipment in the correct location and in good condition	4	1	3
	PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene	4	1	3
	Ensure sustenance	PC22. Follow the daily cleaning standards and schedules to create a clean working environment	4	1
PC23. Attend all training programs for employees on 5 s		2.5	0.5	2
PC24. Support the team during the audit of 5 s		4	1	3
PC25. Participate actively in employee work groups on 5s and encourage team members for active participation		2.5	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		3	1	2
		100	25	75