

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE INDUSTRY

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

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Introduction

Qualifications Pack- Casting Technician L3

SECTOR: AUTOMOTIVE

SUB-SECTOR: MANUFACTURING

OCCUPATION: FORMING-CASTING

JOB ROLE: ASSISTANT CASTING TECHNICIAN L3

REFERENCE ID: ASC/Q3202

ALIGNED TO: NCO-2004/8122.66

Assistant Casting Technician: This role is similar for all types of metal castings except pressure die castings and can be performed both manually and through automated processes.

Brief Job Description: Assistant Casting Technician will be involved in managing the specifications of the molten metal, setting up and operating the casting machinery and forming & finishing the metal cast

Personal Attributes:

Reading, writing and communication skills, ability to plan and prioritize, quality consciousness, safety orientation, Dexterity, Ability to use fingers, hands and feet with ease to complete the assigned task (Dexterity), high precision and sensitivity to problem solving and sensitivity towards safety for self and equipment.

Qualifications Pack For Casting Technician

Job Details	Qualifications Pack Code	ASC/Q3202		
	Job Role	Casting Technician L3		
	Credits(NSQF)	TBD	Version number	1.1
	Industry	Automotive	Drafted on	15/7/2013
	Sub-sector	Manufacturing	Last reviewed on	24/7/2013
	Occupation	Casting	Next review date	1/8/2015

Job Role	Casting Technician
Role Description	Responsible for, supporting the Operator in various types of pre& post casting operations & process documentation
NSQF level	3
Minimum Educational Qualifications	Class 10
Maximum Educational Qualifications	ITI
Training (Suggested but not mandatory)	<ul style="list-style-type: none"> • Different Latest Casting, Trimming and cleaning techniques and methodologies used in organization, Reading and writing skills • 5S and Safety
Experience	2-3 years
Occupational Standards (OS)	<ol style="list-style-type: none"> 1. ASC/N3205: Understand the job requirement 2. ASC/N3206:Support the operator in conducting casting process 3. ASC/N3207:Perform fettling and post casting operations 4. ASC/N0007: Conduct quality checks and inspection of the finished products 5. ASC/N0008: Conduct regular cleaning and maintenance of equipment 6. ASC/N0006: Create a safe and healthy working environment 7. ASC/N0021: Maintaining 5S at the work premises

Qualifications Pack For Casting Technician

Performance Criteria	As described in the relevant NOS units
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Qualifications Pack For Casting Technician

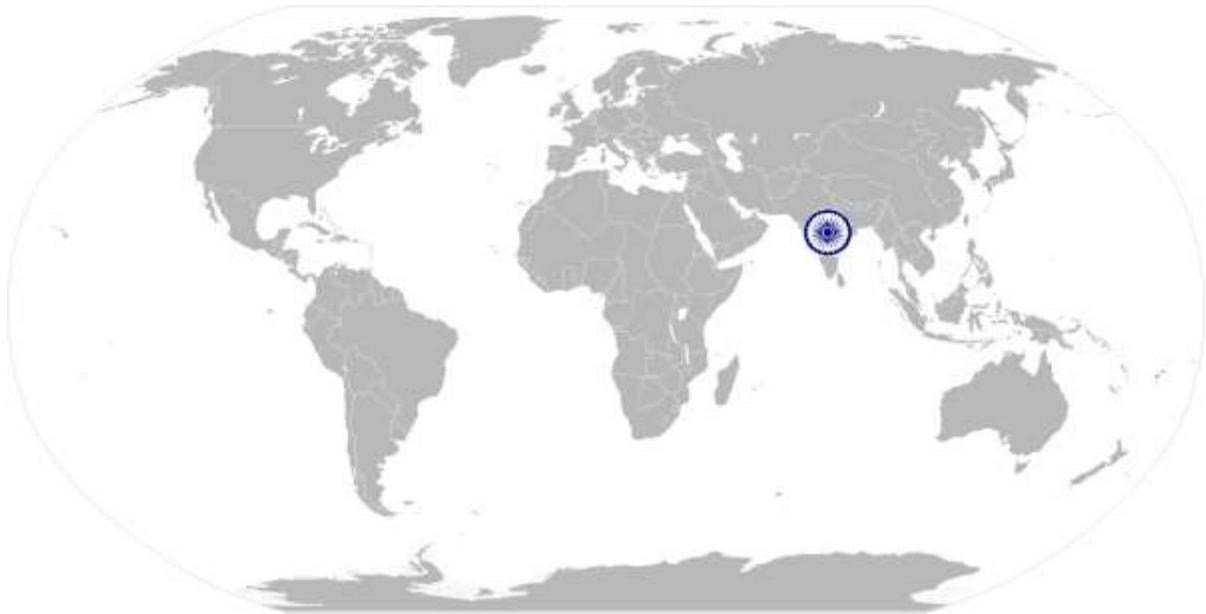
Definitions	Keywords /Terms	Description
	Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.
	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 NOS they are looking for.
	Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or 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 NOS.
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
	Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
	National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
	Organisational Context	Organisational 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.
	Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
	Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
	Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
	Scope	Scope is the 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 the quality of performance required.
	Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.

Qualifications Pack For Casting Technician

Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit Code is a unique identifier for a NOS unit, which can be denoted with an 'N'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Keywords /Terms	Description
NOS	National Occupational Standard(s)
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
NSQF	National Skills Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack

ASC/N3205: Understand the job requirement

National Occupational Standards



Overview

This unit is about understanding the job requirement and the activities & equipment associated with the process to complete the job requirement.

ASC/N3205: Understand the job requirement

National Occupational Standard	Unit Code	ASC/N3205
	Unit Title (Task)	Understand the Job requirement
	Description	This NOS is about understanding the job requirement, what processes need to be executed, what equipment will be used for the project and what is the required output considering the standards specified
	Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> Understanding the engineering drawings and sketches Escalation of queries to competent person in case of queries <p>The job holder will cover different casting methods for manufacturing body components for auto components</p>
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Understand the engineering drawings, sketches and work order	<p>PC1. Understand the work order (work output) required from the process and discuss the same with the operator</p> <p>PC2. Refer all engineering drawings and sketches related to the work output to understand the measurement and shape of the required work output</p> <p>PC3. Clearly understanding the does and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by supervisors</p>
	Escalations of queries on the given job	<p>PC4. Refer the queries to the Operator/ Caster if they cannot be resolved by the Assistant Caster on own</p> <p>PC5. Obtain help or advice from specialist if the problem is outside his/her area of competence or experience</p> <p>PC6. Confirm self-understanding to the Operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution</p>
	Knowledge and Understanding (K) w.r.t. the scope	
	Element	Knowledge and Understanding
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards and procedures followed in the company</p> <p>KA2. different types of products manufactured by the company</p> <p>KA3. functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution</p> <p>KA4. quality norms prescribed by the organization for casting jobs</p>	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of casting processes and associated equipment</p> <p>KB2. different parameters pertinent to casting process like Temperature, etc.</p> <p>KB3. measuring instruments like verniercalipers, micrometer and other measurement systems</p> <p>KB4. geometry and dimensions</p> <p>KB5. sketches and engineering drawings</p> <p>KB6. safety precautions to be taken for all types of casting activities</p> <p>KB7. mechanical, heat laws and working of casting machines etc.</p>	

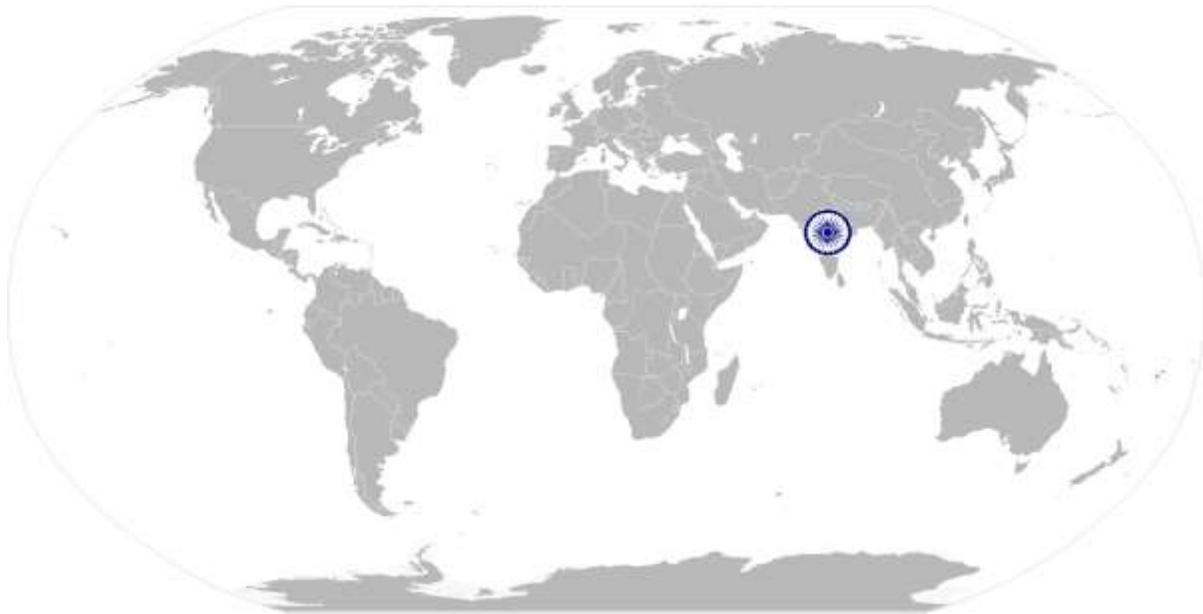
ASC/N3205: Understand the job requirement

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. document, interpret information from the sketches and engineering drawings SA2. note measurements, equipment panel readings for various process parameters in the required reporting formats
	Reading skills
	The user/individual on the job needs to know and understand how to: SA3. read and interpret engineering drawing and sketches SA4. read equipment manuals and process documents to understand the equipment and processes better SA5. read safety instructions especially symbols while using the equipment in the plant area
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules, and work-loads with co-workers SA7. question internal customers/ Casting shop supervisor in order to understand the nature of the problem and make a diagnosis
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB1. plan and organize the work order and jobs received from the Operator SB2. organize all process/ equipment manuals so that sorting/ accessing information is easy
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB3. ability to visualize the final job product after understanding the given drawing/ sketches SB4. ability to identify the strengths and weakness of various casting process
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB5. use common sense and make judgments during day to day basis SB6. use reasoning skills to identify and resolve basic problems
	Desire to learn and take initiatives
	The user/individual on the job needs to know and understand how to: SB7. follow instructions and work on areas of improvement identified SB8. complete the assigned tasks with minimum supervision SB9. complete the job defined by the operator/supervisor within the timelines and quality norms

ASC/N3205: Understand the job requirement

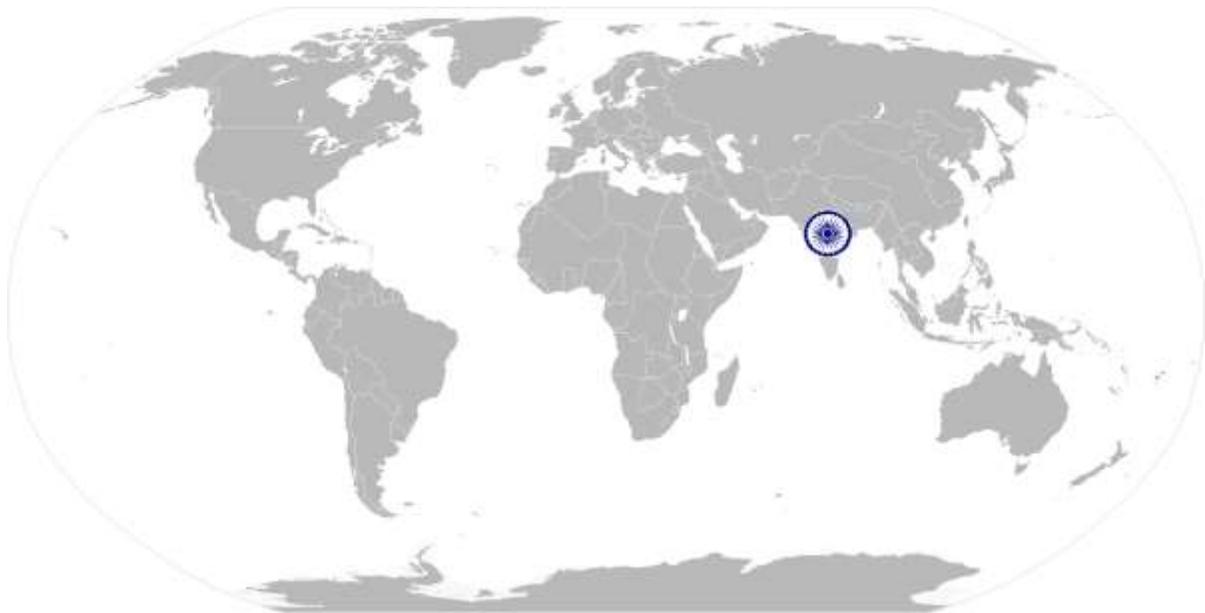
NOS Version Control

NOS Code	ASC/N3205		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
Occupation	Casting	Next review date	1/8/2015



ASC/N3206: Support the operator in conducting casting process

National Occupational Standard



Overview

This unit is about supporting the operator in various casting operations as per the final output specifications and the standards specified by the organization

ASC/N3206: Support the operator in conducting casting process

National Occupational Standard

Unit Code	ASC/N3206
Unit Title (Task)	Support the operator in conducting casting process
Description	This NOS is about supporting the operator in various casting operations as per the final output specifications and the standards specified by the organization
Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> Supporting the operator in conducting actual casting process Check the measurement instruments for operations Conduct visual inspection of the output posting casting process <p>The job holder will cover different casting methods for manufacturing body components for auto components</p>
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Conduct the actual casting process	<p>PC1. Ensure refractory ladles are preheated and in red hot condition, its pouring spout or lip is repaired and free from slag</p> <p>PC2. Ensure required Ferro alloy or inoculants are added during tapping or transfer</p> <p>PC3. Confirm metal temperature as per given specifications</p> <p>PC4. Confirm the pouring is done within stipulated time span</p> <p>PC5. Maintain down spur is always full during pouring</p> <p>PC6. Ensure metal stream inoculation per each mould</p> <p>PC7. Record the pouring observations like parting leak, gas evolution, interrupted pouring or any abnormality</p> <p>PC8. Allow the poured to cool as per given instructions before knock out</p> <p>PC9. Obtain instructions from operator to adjust the temperature and other parameters as per the casting requirement</p> <p>PC10. Obtain instructions from operator to turn valves to circulate water through cores, or spray water on filled molds to cool and solidify metal (in case of manual solidification)</p>
Check measurement instruments for monitoring casting process parameters	<p>PC11. Help the operator in monitoring the casting process (parameters like temperature etc.) by observing and analyzing the readings on various panels/ meters to prevent machine breakdown and deviations of the cast from desired specifications</p>
Perform the visual inspection of the output to further finish the casting	<p>PC12. Provide observations on final metal casting in terms of the dimensions as prescribed in the work order engineering drawing</p> <p>PC13. Perform further processing of cast in terms of chipping, fettling etc.</p>
Knowledge and Understanding (K)	

ASC/N3206: Support the operator in conducting casting process

<p>B. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. relevant standards and procedures followed in the company KA2. different types of products manufactured by the company KA3. functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution KA4. quality norms prescribed by the organization for casting jobs
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KB1. different types of casting processes and associated equipment KB2. different parameters pertinent to casting process like Sand properties – GCS, Compatibility, Clay and moisture %, Squeeze pressure, metal temperature, inoculation addition, cooling time, casting hardness, tensile strength, elongation and microstructure requirement etc. KB3. knowledge of casting defects and how they are generated, how they can be prevented, knowledge of different raw materials, ferro alloys and consumables used in the melt shop KB4. knowledge of furnace operation, melting process, charging method and safety process of handling hot liquid iron, furnace lining process and control measuring instruments like vernier callipers, micrometer and other measurement systems KB5. geometry and dimensions KB6. sketches and engineering drawings KB7. safety precautions to be taken for all types of casting activities KB8. mechanical, heat laws and working of casting machines etc KB9. set up instructions, trouble shooting and emergency handling, contingency planning KB10. knowledge of pneumatic and hydraulics
<p>Skills (S) [Optional]</p>	
<p>C. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA1. write a log book in terms of output number, set up parameters, machine setting parameters and loss details etc. SA2. document, interpret information from the sketches and engineering drawings SA3. note measurements, equipment panel readings for various process parameters in the required reporting formats <p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA4. read and interpret engineering drawing and sketches SA5. read equipment manuals and process documents to understand the equipment and processes better SA6. read safety instructions especially symbols while using the equipment in the plant area <p>Oral Communication (Listening and Speaking skills)</p>

ASC/N3206: Support the operator in conducting casting process

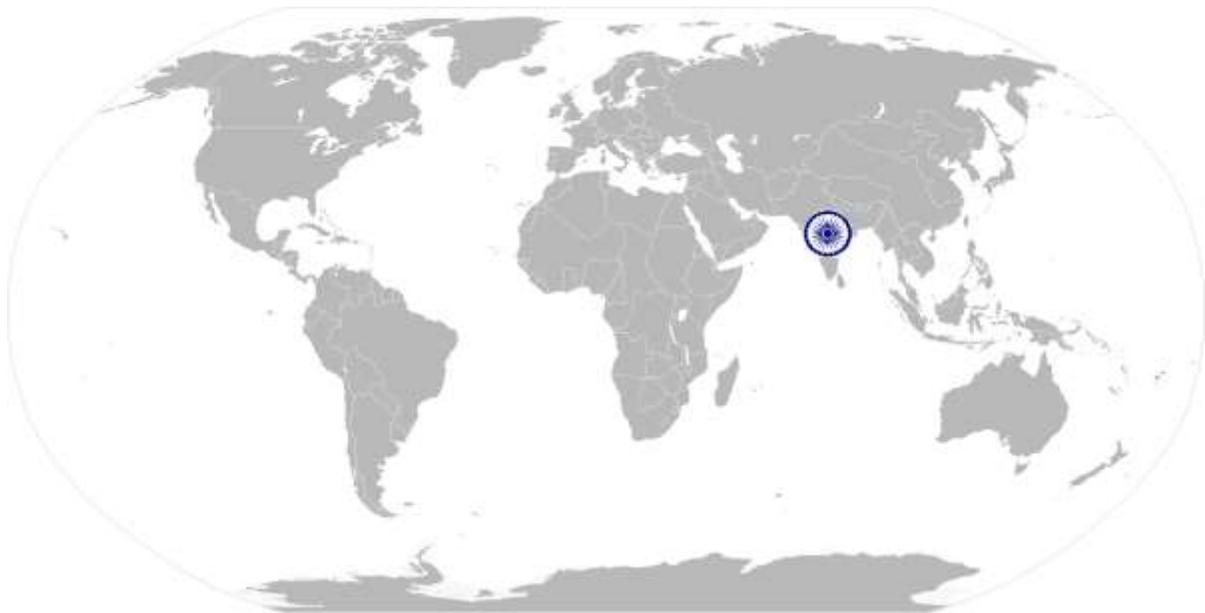
	The user/individual on the job needs to know and understand how to: SA7. discuss task lists, schedules, and work-loads with co-workers SA8. question internal customers/ Casting shop supervisor in order to understand the nature of the problem and make a diagnosis
D. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB1. organize all process/ equipment manuals so that sorting out information is fast SB2. organize apparatus etc. in an orderly manner at proper designated areas
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB3. visualize the final job product after understanding the given drawing/ sketches
	Problem solving
	The user/individual on the job needs to know and understand how to: SB4. think through the problem, evaluate the possible solution and suggest the best possible solution to the problem

NOS Version Control

NOS Code	ASC/N3206		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
occupation	Casting	Next review date	1/8/2015

ASC/N3207: Perform fettling and post casting operations

National Occupational Standard



Overview

This unit is about removing the sprues, runners, risers and chipping of any of unnecessary projections on the surface of the castings through the process of fettling and trimming

ASC/N3207: Perform fettling and post casting operations

National Occupational Standard

Unit Code	ASC/N3207
Unit Title (Task)	Perform fettling and post casting operations
Description	This NOS is about removing the projections or extra metal from the surface of casting in line with the required specifications and industry standards
Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> Performing the fettling operations Perform the visual inspection of the output to ensure conformity to quality standards <p>The job holder will cover different casting methods for manufacturing body components for auto components</p>
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Perform Fettling operation	<p>PC1. Analyze the cast in terms of the geometrical dimensions as per the control charts defined and identify the sprues, projections, runners, risers etc. on the surface</p> <p>PC2. Trim the cast to remove fins, flashes and excess metal from the surface in order to provide accurate shape to the cast</p> <p>PC3. Finish and fine trim the cast to remove the excess metal from the surface with the aid of:</p> <ol style="list-style-type: none"> swing frame or pedestal grinders, chipping tools, hammers, hand saws, pneumatic or electrical tools etc. for manual fettling gas cutting and Flame cutting methods for semi manual fettling <p>PC4. Modify the trimming and fettling process (if required) and ensure alignment with the prescribed standards</p> <p>PC5. Store the excess material (or runners/ risers etc.) in order to be reused</p> <p>PC6. Modify the trimming and fettling process (if required) and ensure alignment with the prescribed standards</p> <p>PC7. Store the excess material (or runners/ risers etc.) in order to be reused</p>
Perform the visual inspection of the output to ensure alignment with desired specifications	<p>PC8. Measure the final metal casting and compare the dimensions as prescribed in the work order engineering drawing</p> <p>PC9. In case the parts are not as per the given measurements, undertake further shaping of the metal casting</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards and procedures followed in the company</p> <p>KA2. different types of products manufactured for customers by the company</p> <p>KA3. functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution</p> <p>KA4. quality norms prescribed by the organization for casting jobs</p>

ASC/N3207: Perform fettling and post casting operations

its processes)	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of casting processes and associated equipment</p> <p>KB2. different mechanisms to perform fettling and trimming of the cast basis the size of cast and runners & risers on the surfaces</p> <p>KB3. different types of tools being used for fettling and trimming</p> <p>KB4. measuring instruments like vernier callipers, micrometer</p> <p>KB5. geometry and dimensions</p> <p>KB6. sketches and engineering drawings</p> <p>KB7. final product output and hence decide on the key steps to be followed</p> <p>KB8. safety precautions to be taken for all types of casting activities</p>
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. document information from the sketches and engineering drawings</p> <p>SA2. prepare sketches for the final output product in IOC etc.</p> <p>SA3. make sketches to internal customers on the requirement of casting metal, fettling and trimming toolsetc</p> <p>SA4. note measurements, equipment panel readings for various process parameters in the required reporting formats</p> <p>Reading Skills</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. read and interpret engineering drawing and sketches</p> <p>SA6. read equipment manuals and process documents to understand the equipment and processes better</p> <p>SA7. read safety instructions with symbols while using the equipment in the plant area</p> <p>SA8. read internal information drawings sent by internal customers (other functions within the organization)</p> <p>Oral Communication (Listening and Speaking skills)</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SA9. discuss task lists, schedules, and work-loads with co-workers</p> <p>SA10. question internal customers/ Casting shop supervisor in order to understand the nature of the problem and make a diagnosis</p>
B. Professional Skills	<p>Plan and Organize</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. plan and organize the work order and jobs received from the internal customers</p> <p>SB2. plan and organize the design documents received from internal customers</p> <p>SB3. organize all process/ equipment manuals so that sorting out information is fast</p> <p>SB4. organize apparatus etc. in an orderly manner at proper designated areas</p>

ASC/N3207: Perform fettling and post casting operations

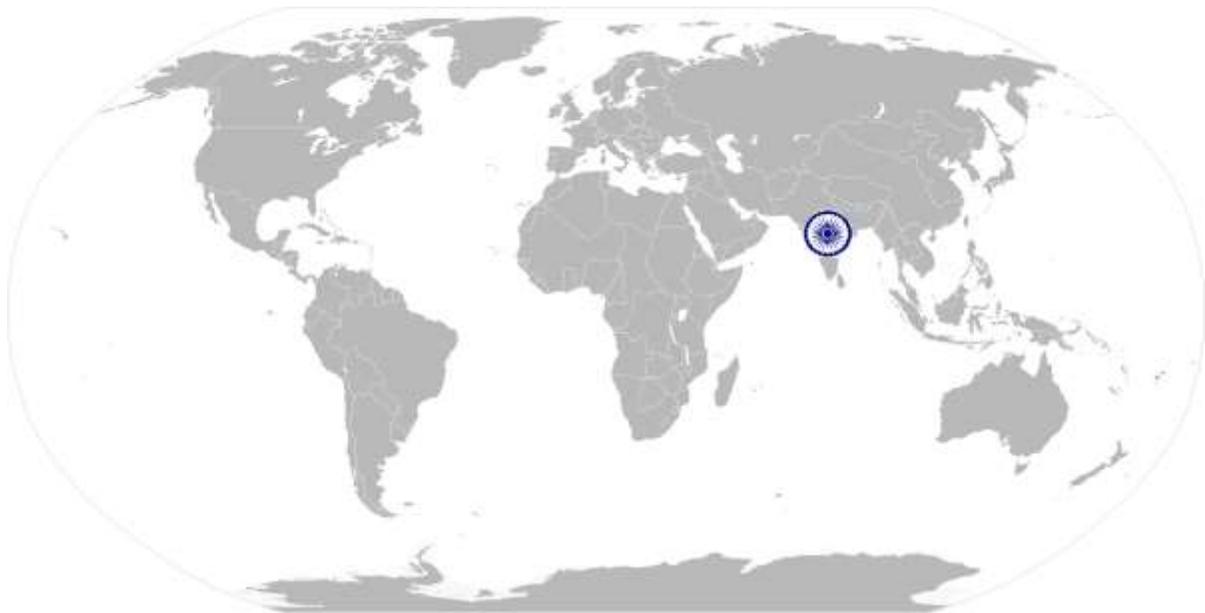
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB5. visualize the final job product after understanding the given drawing/ sketches SB6. measure the casting so in terms of the geometrical dimensions so that the final output is as per the given drawing SB7. finalize the optimum levels of physical parameters so that the job output meets the prescribed job standards
	Problem solving
	The user/individual on the job needs to know and understand how to: <ul style="list-style-type: none"> SB8. think through the problem, evaluate the possible solution and suggest the best possible solution to the problems

NOS Version Control

NOS Code	ASC/N3207		
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Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
Occupation	Casting	Next review date	1/8/2015

ASC/N0007: Conduct quality checks and inspection of the finished products

National Occupational Standard



Overview

This unit is about conducting Quality Checks and inspection of the finished products produced and repair the bad quality items produced in the manufacturing process

ASC/N0007: Conduct quality checks and inspection of the finished products

National Occupational Standard

Unit Code	ASC/N0007
Unit Title (Task)	Conduct quality checks and inspection of the finished products
Description	<p>This NOS is about inspecting the finished goods produced for any damages, deformities and Further repairing the parts produced so that the damaged/ defective pieces can be corrected and right quality components are supplied to</p> <ol style="list-style-type: none"> 1. The customer/ end user 2. Internal manufacturing team
Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> • Inspection of the finished goods to detect deviations from the product design • Record logs and observations in the required format
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Inspection of finished goods to detect any deviations from the product design	<p>PC1. Measure the specifications of the finished product using devices like micrometer, Vernier calipers, gauges, rulers, weighing scales and any other inspection equipment and compare with the parameters given in the work order</p> <p>PC2. Compare texture, color, surface properties, hardness and strength with the given product specifications</p>
Record log of defective products and discard defective pieces	<p>PC3. Note down the observations of the basic inspection process and identify pieces which are OK and also not meeting the specified standards</p> <p>PC4. Separate the defective pieces into two categories – pieces which can be repaired/ modified and pieces which are beyond repair</p> <p>PC5. Discard the pieces which are beyond repair and repair the ones which need minor modifications/ rework</p> <p>PC6. Maintain records of each category of work outputs</p>
Repair the pieces with minor defects	<p>PC7. Rectify minor defects like excess slag, shape deformation, sharp edges, rough surfaces, grooves, holes etc. by Fettling, chipping, cutting, sawing, filling, shearing, hammering etc.</p> <p>PC8. Escalate all issues related to change in color, surface properties, hardness etc. so that the manufacturing equipment can be reset to achieve the specified output</p>
Knowledge and Understanding (K)w.r.t. the scope	
Element	Knowledge and Understanding
C. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards specified for the manufacturing process</p> <p>KA2. basic process followed for inspection of the pieces</p> <p>KA3. basic knowledge about the Quality Management policy and manual of the organization</p>
B. Technical	The user/individual on the job needs to know and understand:

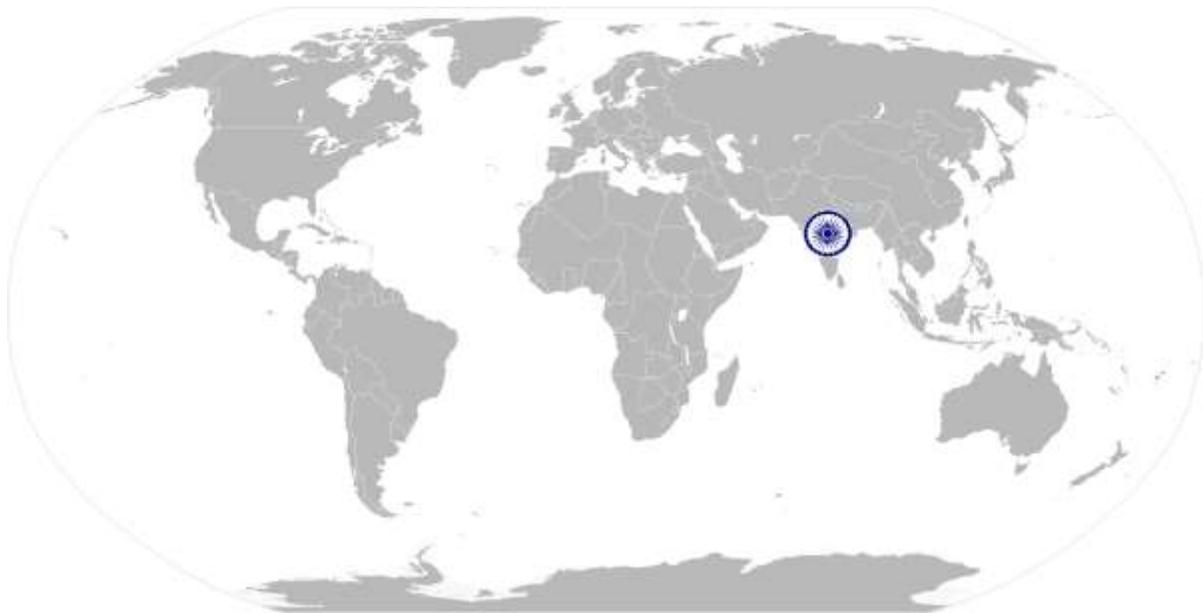
ASC/N0007: Conduct quality checks and inspection of the finished products

Knowledge	<p>KB1. techniques of using measurement instruments like rulers, Vernier calipers, micrometer, weighing scale, gauges and other inspection equipment</p> <p>KB2. guidelines to identify quality defects in work pieces</p> <p>KB3. methods used for cutting, shearing, hammering, drilling which can repair pieces with minor defects</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: SA1. note the number of pieces with defects which can be repaired to number of pieces which will be discarded
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. read process and equipment manuals to understand the working of the equipment SA3. read measuring instruments reading to identify any deviations from the dimensions given in the product engineering drawing
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. discuss task lists and job requirements with co-workers SA5. effectively communicate information to team members SA6. question operator/ supervisor in order to understand the nature of the problem SA7. attentively listen with full attention and comprehend the information given by the speaker
	B. Professional Skills
	The user/individual on the job needs to know and understand how to: SB1. plan and organize the work order and jobs received from the operator SB2. organize all process/ equipment manuals so that sorting/ accessing information is easy
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB3. visualize the final job product after understanding the given drawing/ sketches SB4. co relate the type of job output required with the casting methodology to be used
	Critical Thinking and Judgment
	The user/individual on the job needs to know and understand how to: SB5. use common sense and make judgments during day to day basis SB6. use reasoning skills to identify and resolve basic problems

ASC/N0007: Conduct quality checks and inspection of the finished products

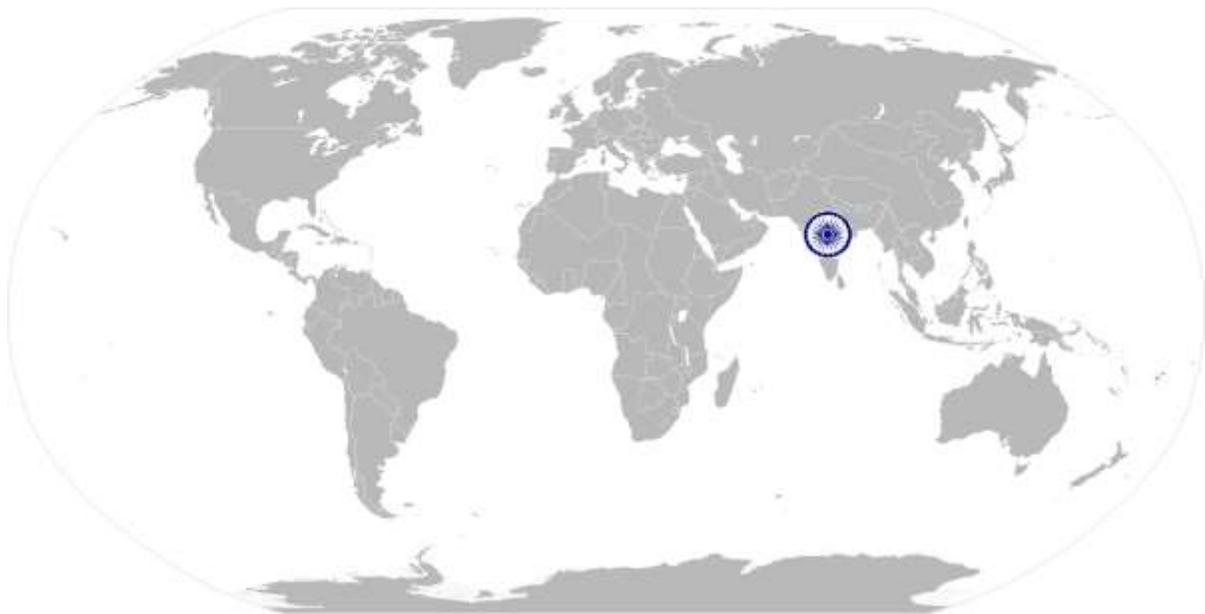
NOS Version Control

NOS Code	ASC/N0007		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
Occupations	All	Next review date	1/8/2015



ASC/N0008: Conduct regular cleaning and maintenance of equipment

National Occupational Standards



Overview

This unit is about cleaning and maintaining the equipment on a regular basis to prevent any breakdown or improper quality of work output

ASC/N0008: Conduct regular cleaning and maintenance of equipment

National Occupational Standard

Unit Code	ASC/ N0008
Unit Title (Task)	Conduct regular cleaning and maintenance of equipment
Description	This NOS is about systematically arranging the equipment in proper area, cleaning the process equipment & auxiliaries on a regular basis and doing basic level maintenance of the equipment, recording any problems related to equipment working
Scope	The role holder will be responsible for <ul style="list-style-type: none"> • Storing the equipment in the proper condition • Regular cleaning and maintenance of equipment and work area
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Storing equipment in proper condition	PC1. Arrange all equipment in a proper order as indicated in the equipment manual PC2. Store equipment auxiliaries and spare parts in proper designated areas PC3. Clearly tag process related equipment parts/ spare parts as per part number or serial number so that sorting of equipment becomes easy PC4. Cover equipment so that there is limited dust collection and moisture contact
Regular cleaning of the equipments and work area	PC5. Regularly clean the equipment and process auxiliaries to remove any dust, moisture, waste material which would have got collected on the equipment PC6. Regularly open the equipment and clean the internal parts of the equipment PC7. Regularly clean the working area under the process and create a healthy, clean and safe working environment
Conduct regular preventive maintenance of equipments	PC8. Check the working of all bearing, rollers, shafts etc and oil all moving parts of the equipment on a periodic basis PC9. Check the working of non moving parts and periodically conduct preventive maintenance to prevent machine failure PC10. Periodically check the equipment calibration and report any errors to the maintenance teams for rectification
Recording observations and preparing MIS	PC11. Prepare periodic log sheets of equipment maintenance dates, maintenance schedules and maintenance activity conducted on the equipment
Knowledge and Understanding (K) w.r.t. the scope	
Element	Knowledge and Understanding
D. Organizational Context (Knowledge of the company / organization and its	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. relevant standards and procedures followed in the company for the process of maintenance and equipment storage KA2. functional processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution

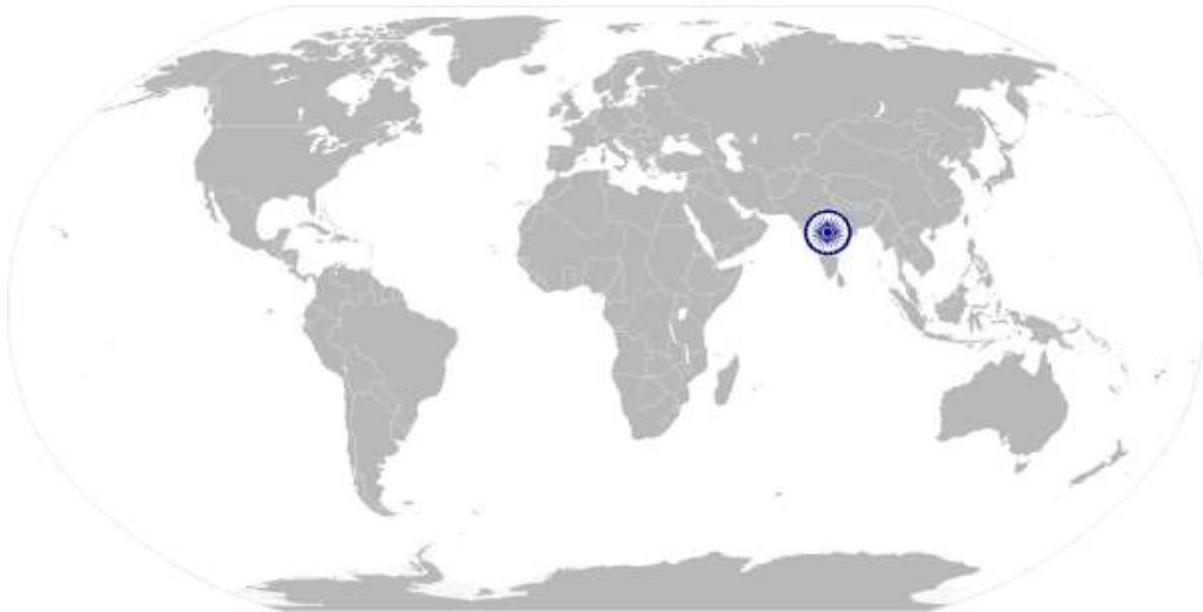
ASC/N0008: Conduct regular cleaning and maintenance of equipment

processes)	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. basic level maintenance and cleaning techniques</p> <p>KB2. various solvents, chemicals, lubricants etc. used during the maintenance processes</p> <p>KB3. procedure for arranging the equipment and spare parts in the prescribed manner including tagging and numbering of machine parts & spares</p> <p>KB4. safety precautions to be taken during cleaning and maintenance activities</p>
Skills (S)w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. note equipment part codes, name tags etc. in the prescribed formats and records for the same</p> <p>SA2. note observations related to equipment performance, breakdown, cleaning and maintenance schedules etc. in the prescribed MIS format</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. read equipment manuals and process documents to understand the equipment and processes better</p> <p>SA4. read instructions especially safety instructions related to equipment cleaning and maintenance</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. discuss task lists and job requirements with co-workers</p> <p>SA6. effectively communicate information to team members</p> <p>SA7. listen and analyse any noise and vibrations in the equipment and report the same to the maintenance team for preventive action</p> <p>SA8. attentively listen with full attention and comprehend the information given by the speaker</p>
B. Professional Skills	Plan and Organize
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. plan and organize the work order and jobs received from the Operator</p> <p>SB2. organize all process/ equipment manuals so that sorting/ accessing information is easy as per the part/ machine number in the specified format in the designated area</p>
	Critical Thinking and Judgment
	<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>

ASC/N0008: Conduct regular cleaning and maintenance of equipment

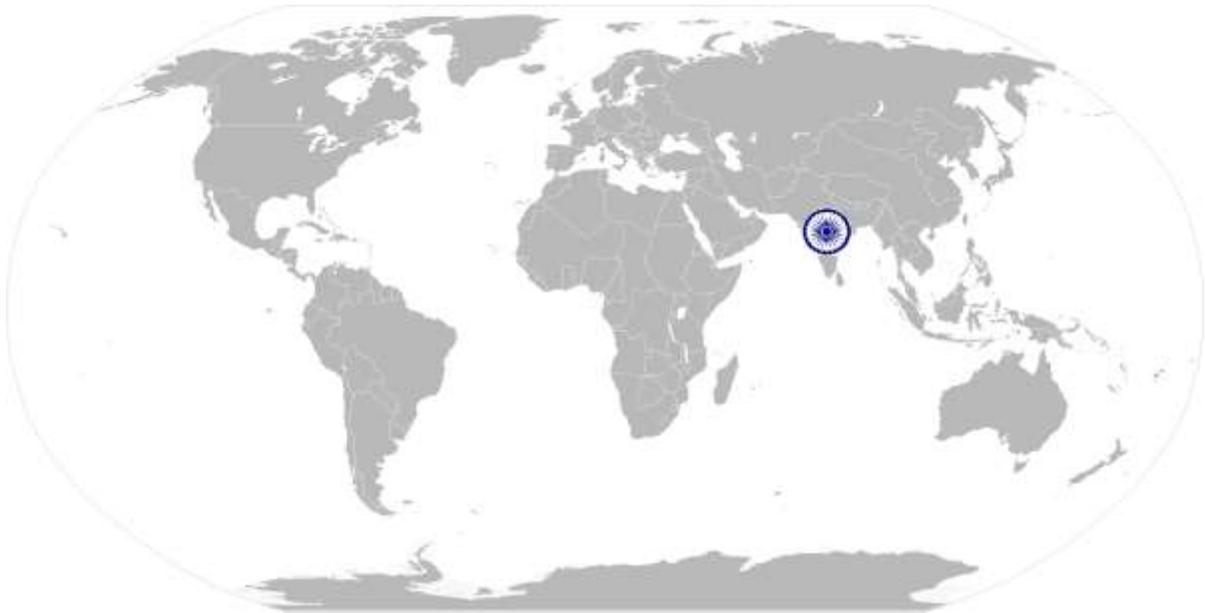
NOS Version Control

NOS Code	ASC/N0008		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
Occupation	All	Next review date	1/8/2015



ASC/N0006: Maintain a healthy and safe working environment

National Occupational Standards



Overview

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

ASC/N0006: Maintain a healthy and safe working environment

National Occupational Standard	Unit Code	ASC/N0006
	Unit Title (Task)	Maintain a healthy and safe 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
	Scope	The role holder will be responsible for <ul style="list-style-type: none"> Identifying and reporting of risks Adhering to the policies and processes for sustaining a safe, clean and environment friendly work place This NOS will be applicable to all Automotive sector manufacturing job roles
	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, chemicals, 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 is done in the designated area and manner as per organization SOP.</p> <p>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</p>
	Knowledge and Understanding (K)w.r.t. the scope	
	Element	Knowledge and Understanding

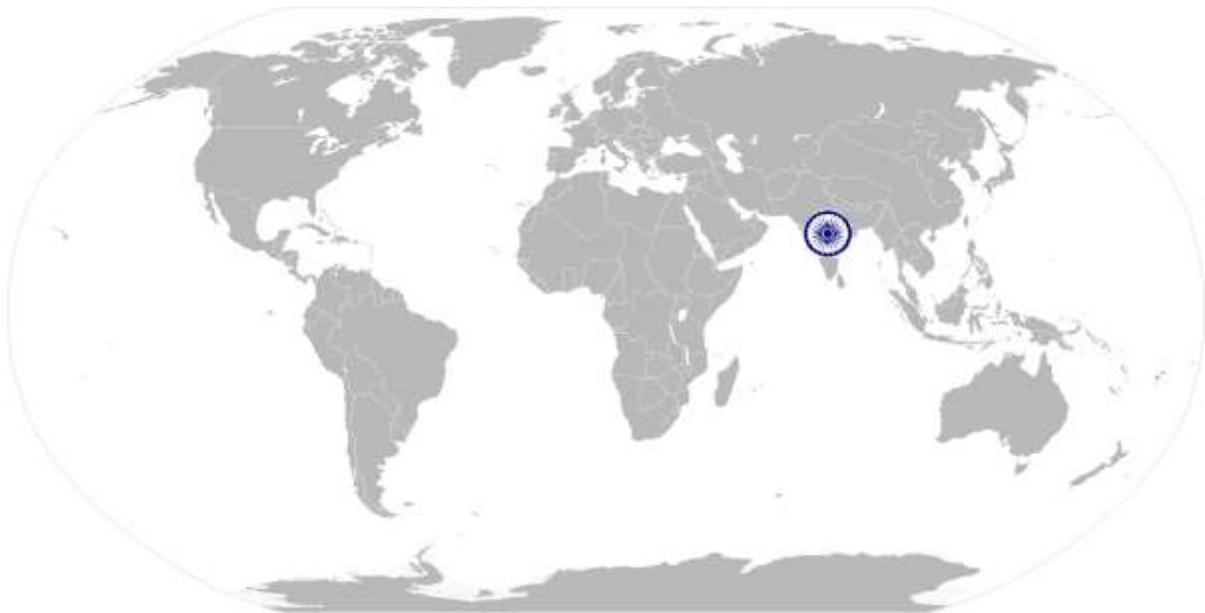
ASC/N0006: Maintain a healthy and safe working environment

E. 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 KA2. emergency handling procedures & hierarchy for escalation						
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/hazards 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	<table border="1"> <tr> <td data-bbox="589 831 1482 886"> Writing Skills </td> </tr> <tr> <td data-bbox="589 890 1482 953"> The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations </td> </tr> <tr> <td data-bbox="589 957 1482 1012"> Reading Skills </td> </tr> <tr> <td data-bbox="589 1016 1482 1155"> 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 </td> </tr> <tr> <td data-bbox="589 1159 1482 1213"> Oral Communication (Listening and Speaking skills) </td> </tr> <tr> <td data-bbox="589 1218 1482 1562"> The user/individual on the job needs to know and understand how to: SA4. effectively communicate information to team members SA5. inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment. SA6. question operator/ supervisor in order to understand the safety related issues SA7. attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs </td> </tr> </table>	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	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 SA5. inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment. SA6. question operator/ supervisor in order to understand the safety related issues SA7. attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
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B. Professional Skills	<table border="1"> <tr> <td data-bbox="589 1566 1482 1621"> Judgmental Thinking </td> </tr> <tr> <td data-bbox="589 1625 1482 1722"> 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 </td> </tr> </table>	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				
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ASC/N0006: Maintain a healthy and safe working environment

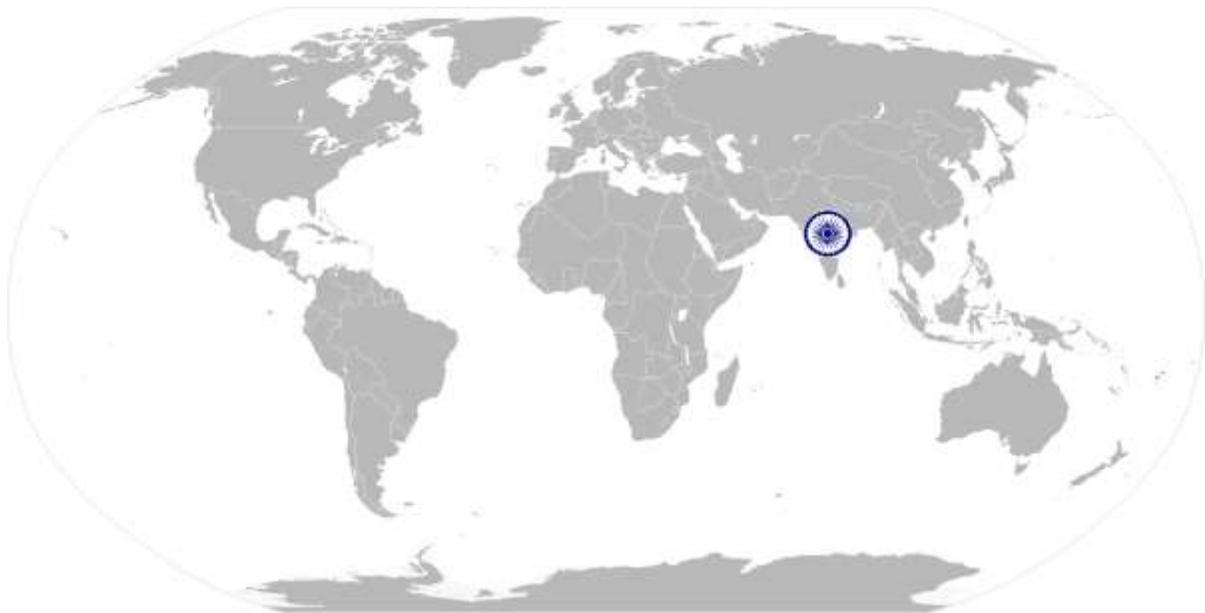
NOS Version Control

NOS Code	ASC/N0006		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/7/2013
Industry Sub-sector	Manufacturing	Last reviewed on	24/7/2013
Occupation	All	Next review date	1/8/2015



ASC/N0021: Maintaining 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/N0021: Maintaining 5S at the work premises

National Occupational Standard

Unit Code	ASC/N0021
Unit Title (Task)	Maintaining 5S in 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 unnecessary 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 labelled 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 labelling 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/N0021: Maintaining 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 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</p>
<p>Ensure sustenance</p>	<p>PC1. Follow the daily cleaning standards and schedules to create a clean working environment PC2. Attend all training programs for employees on 5 S PC3. Support the team during the audit of 5 S PC4. Participate actively in employee work groups on 5S and encourage team members for active participation 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>
<p>Knowledge and Understanding (K) w.r.t. the scope</p>	
<p>Element</p>	<p>Knowledge and Understanding</p>
<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: 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 KB6. know various types 5s practices followed in various areas KB7. understand the 5S checklists provided in the department/ team KB8. have skills to identify useful & non useful items KB9. have knowledge of labels , signs & colours used as indicators KB10. Have knowledge on how to sort and store various types of tools, equipment, material etc. KB11. know , how to identify various types of waste products KB12. understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body KB13. have knowledge of best ways of cleaning & waste disposal</p>

ASC/N0021: Maintaining 5S at the work premises

	<p>KB14. understand the importance of standardization in processes KB15. understand the importance of sustainability in 5S KB16. have knowledge of TQM process KB17. have knowledge of various materials and storage norms 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: SA8. write basic level notes and observations SA9. note down observations (if any) related to the process SA10. write information documents to internal departments/ internal teams
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA11. 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: SA12. effectively communicate information to team members inform employees in the plant and concerned functions about 5S SA13. question the process head in order to understand the 5S related issues SA14. 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: 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: 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
The user/individual on the job needs to know and understand how to : SB7. use innovative skills to perform and manage 5 S activities at the work desk and the shop floor SB8. exhibit inquisitive behaviour to seek feedback and question on the existing set patterns of work	
	Self –Discipline

ASC/N0021: Maintaining 5S at the work premises

	<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/N0021		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	1/03/2014
Industry Sub-sector	Manufacturing/ R&D	Last reviewed on	15/03/2014
Occupation	All	Next review date	15/03/2016



Qualification Pack for Casting Technician Level 3

Criteria for assessment of Trainees
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JOB ROLE	CASTING TECHNICIAN L3
Qualification Pack	ASC/Q 3202
No. Of NOS	3 Role specific , 4 generic

NOS Title/ NOS Elements	NOS & Performance Criterion Description	Marks allocation	
		Viva	Practical
ASC/N3205	Understand the job requirements		
Understand the engineering drawings, sketches and work order	PC1. Understand the work order (work output) required from the process and discuss the same with the operator PC2. Refer all engineering drawings and sketches related to the work output to understand the measurement and shape of the required work output PC3. Clearly understanding the does and don'ts of the manufacturing process as defined in SOPs/ Work Instructions or defined by supervisors	20	50
Escalations of queries on the given job	PC4. Refer the queries to the Operator/ Caster if they cannot be resolved by the Assistant Caster on own PC5. Obtain help or advice from specialist if the problem is outside his/her area of competence or experience PC6. Confirm self-understanding to the Operator once the query is resolved so that all doubts & queries can be resolved before the actual process execution	10	10
	subtotal	30	60
ASC/N 3206	Support the casting process		
Conduct the actual casting process	PC1. Ensure refractory ladles are preheated and in red hot condition, its pouring spout or lip is repaired and free from slag PC2. Ensure required Ferro alloy or inoculants are added during tapping or transfer PC3. Confirm metal temperature as per given specifications PC4. Confirm the pouring is done within stipulated time span PC5. Maintain down spur is always full during pouring PC6. Ensure metal stream inoculation per each mould PC7. Record the pouring observations like parting leak, gas evolution, interrupted pouring or any abnormality PC8. Allow the poured to cool as per given instructions before knock out PC9. Obtain instructions from operator to adjust the temperature and other parameters as per the casting requirement	10	50

Qualification Pack for Casting Technician Level 3

	PC10. Obtain instructions from operator to turn valves to circulate water through cores, or spray water on filled molds to cool and solidify metal (in case of manual solidification)		
Check measurement instruments for monitoring casting process parameters	PC11. Help the operator in monitoring the casting process (parameters like temperature etc.) by observing and analyzing the readings on various panels/ meters to prevent machine breakdown and deviations of the cast from desired specifications	10	10
Perform the visual inspection of the output to further finish the casting	PC12. Provide observations on final metal casting in terms of the dimensions as prescribed in the work order engineering drawing PC13. Perform further processing of cast in terms of chipping, fettling etc.	5	10
subtotal		25	70
ASC/N3207	Perform fettling & post casting activities	Viva	Practical
Perform Fettling operation	PC1. Analyze the cast in terms of the geometrical dimensions as per the control charts defined and identify the sprues, projections, runners, risers etc. on the surface PC2. Trim the cast to remove fins, flashes and excess metal from the surface in order to provide accurate shape to the cast PC3. Finish and fine trim the cast to remove the excess metal from the surface with the aid of: a. swing frame or pedestal grinders, chipping tools, hammers, hand saws, pneumatic or electrical tools etc. for manual fettling b. gas cutting and Flame cutting methods for semi manual fettling PC4. Modify the trimming and fettling process (if required) and ensure alignment with the prescribed standards PC5. Store the excess material (or runners/ risers etc.) in order to be reused PC6. Modify the trimming and fettling process (if required) and ensure alignment with the prescribed standards PC7. Store the excess material (or runners/ risers etc.) in order to be reused	20	40
		30	50
Perform the visual inspection of the output to ensure alignment with desired specifications	PC8. Measure the final metal casting and compare the dimensions as prescribed in the work order engineering drawing PC9. In case the parts are not as per the given measurements, undertake further	10	20

Qualification Pack for Casting Technician Level 3

	shaping of the metal casting		
		60	110
ASC/N 0007	Inspection of the finished goods	Viva	Practical
Inspection of finished goods to detect any deviations from the product design	<p>PC1. Measure the specifications of the finished product using devices like micrometer, Vernier calipers, gauges, rulers, weighing scales and any other inspection equipment and compare with the parameters given in the work order</p> <p>PC2. Compare texture, color, surface properties, hardness and strength with the given product specifications</p>	10	20
Record log of defective products and discard defective pieces	<p>PC3. Note down the observations of the basic inspection process and identify pieces which are OK and also not meeting the specified standards</p> <p>PC4. Separate the defective pieces into two categories – pieces which can be repaired/ modified and pieces which are beyond repair</p> <p>PC5. Discard the pieces which are beyond repair and repair the ones which need minor modifications/ rework</p> <p>PC6. Maintain records of each category of work outputs</p>	20	30
Repair the pieces with minor defects	<p>PC7. Rectify minor defects like excess slag, shape deformation, sharp edges, rough surfaces, grooves, holes etc. by Fettling, chipping, cutting, sawing, filling, shearing, hammering etc.</p> <p>PC8. Escalate all issues related to change in color, surface properties, hardness etc. so that the manufacturing equipment can be reset to achieve the specified output</p>	20	30
	Sub total	50	80
ASC/N 0008	Carry out regular cleaning & maintenance of the equipment	Viva	Practical
Storing equipment in proper condition	<p>PC1. Arrange all equipment in a proper order as indicated in the equipment manual</p> <p>PC2. Store equipment auxiliaries and spare parts in proper designated areas</p> <p>PC3. Clearly tag process related equipment parts/ spare parts as per part number or serial number so that sorting of equipment becomes easy</p> <p>PC4. Cover equipment so that there is limited dust collection and moisture contact</p>	10	30
Regular cleaning of the equipments and work area	<p>PC5. Regularly clean the equipment and process auxiliaries to remove any dust, moisture, waste material which would have got collected on the equipment</p> <p>PC6. Regularly open the equipment and clean the internal parts of the equipment</p> <p>PC7. Regularly clean the working area under the process and create a healthy, clean and safe working environment</p>	10	10
Conduct regular preventive maintenance of equipments	<p>PC8. Check the working of all bearing, rollers, shafts etc. and oil all moving parts of the equipment on a periodic basis</p> <p>PC9. Check the working of non- moving parts and periodically</p>	10	20

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	<p>conduct preventive maintenance to prevent machine failure</p> <p>PC10. Periodically check the equipment calibration and report any errors to the maintenance teams for rectification</p>	10	10
Recording observations and preparing MIS	<p>PC11. Prepare periodic log sheets of equipment maintenance dates, maintenance schedules and maintenance activity conducted on the equipment</p>	5	10
	subtotal	45	80
ASC/N0006A	Maintain a safe and healthy working environment at the work place	Viva	Practical
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, chemicals ,loud noise</p> <p>PC2. Identify areas in the plant which are potentially hazardous/ unhygienic in nature</p> <p>PC3. Conduct regular checks on machine health to identify potential hazards due to wear and tear of machine</p> <p>PC4. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc.</p> <p>PC5. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations</p> <p>PC6. Create awareness amongst other by sharing information on the identified risks</p>	40	-
Create and sustain a Safe, clean and environment friendly work place	<p>PC7. Support the Safety team and the supervisor in creating the risk mitigation plan</p> <p>PC8. Follow the instructions given on the equipment manual describing the operating process of the equipment</p> <p>PC9. Follow the Safety, Health and Environment related practices developed by the organization</p> <p>PC10. Operate the machine using the recommended Personal Protective Equipment (PPE) and ensure team members also use the related PPEs at the workplace</p> <p>PC11. 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>PC12. Attend all safety and fire drills to be self aware of safety hazards and preventive techniques</p> <p>PC13. Maintain high standards of personal hygiene at the work place</p> <p>PC14. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.</p> <p>PC15. Inform the medical officer/ HR in case of self or an</p>	30	80

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	employee's illness of contagious nature so that preventive actions can be planned for others		
	Sub total	70	80
ASC / N 0021	Maintain 5 S activities at the workplace	Viva	practical
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 labelled 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>	10	20
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 labelling 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>	10	20
Ensure cleaning of self and the work place	<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</p>		

Qualification Pack for Casting Technician Level 3

	<p>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>	10	40
Ensure sustenance	<p>PC22. Follow the daily cleaning standards and schedules to create a clean working environment</p> <p>PC23. Attend all training programs for employees on 5 S</p> <p>PC24. Support the team during the audit of 5 S</p> <p>PC25. Participate actively in employee work groups on 5S and encourage team members for active participation</p> <p>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</p>	10	20
	Sub total	50	120
	Total	330	600