

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR TEXTILE SECTOR

### 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:

Textile SSC

E-mail: [info@texskill.in](mailto:info@texskill.in)



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### Introduction

### Qualifications Pack – Knitting Machine Fitter

**SECTOR:** TEXTILE

**SUB-SECTOR:** KNITTING

**OCCUPATION:** MAINTENANCE

**REFERENCE ID:** TSC/ Q 4201

**ALIGNED TO:** NCO-2004 / 7233.46

**Brief Job Description:** Knitting machine fitter is responsible for carrying out maintenance activities in knitting machinery such as weft knitting machine, flat knitting machines and warp knitting machines. He should carry out maintenance activities in all aspects such as install, maintain, repair, overhaul and set up in all kind of knitting machines. This job requires the individual to have thorough knowledge of process flow and material flow in a knitting machine for fabric production and should have sound technical knowledge on erecting the different sequence of machines in knitting department.

**Personal Attributes:** A fitter should have good eyesight, hand-eye-leg coordination, motor skills and vision. He/she should also have good interpersonal skills.

|   |                          |   |                  |          |
|---|--------------------------|---|------------------|----------|
| Job Details                               | Qualifications Pack Code | TSC/Q4201   |                  |          |
|   | Job Role                 | Knitting Machine Fitter   |                  |          |
|   | Credits (NSQF)           | TBD   | Version number   | 1.0      |
|   | Sector                   | Textile   | Drafted on       | 15/12/14 |
|   | Sub-sector               | Knitting  | Last reviewed on | 21/01/15 |
|   | Occupation               | Maintenance   | Next review date | 01/03/16 |
|   | Job Role                 | Fitter  |                  |          |
| Role Description                          |                          | To carryout maintenance activities in all aspects such as install, maintain, repair, overhaul and set up in all kind of knitting machines such as weft knitting machine, flat knitting machines and warp knitting machines.   |                  |          |
| NSQF level                                |                          | 5   |                  |          |
| Minimum Educational Qualifications        |                          | 5 <sup>th</sup> standard, preferably  |                  |          |
| Maximum Educational Qualifications        |                          | N/A   |                  |          |
| Training<br>(Suggested but not mandatory) |                          | Not Applicable  |                  |          |
| Experience                                |                          | Preferably 1-2 years of work experience in a textile mill.  |                  |          |
| National Occupational Standards (NOS)     |                          | <b>Compulsory:</b> <ol style="list-style-type: none"> <li><a href="#">TSC/ N4201 Taking charge of shift and handing over shift to Knitting Machine Fitter</a></li> <li><a href="#">TSC/ N4202 General Maintenance Responsibilities of Knitting Machine Fitter</a></li> <li><a href="#">TSC/ N4203 Preventive maintenance responsibilities of Knitting Machine Fitter</a></li> <li><a href="#">TSC/ N4204 Break down maintenance of Knitting Machine</a></li> <li><a href="#">TSC/ N4205 Maintaining records and ensuring availability of spares for Knitting Machines</a></li> <li><a href="#">TSC/ N9001 Maintain work area, tools and machines</a></li> <li><a href="#">TSC/ N9002 Working in a team</a></li> <li><a href="#">TSC/ N9003 Maintain health, safety and security at workplace</a></li> <li><a href="#">TSC/ N9004 Comply with industry and organizational requirement</a></li> </ol> <b>Optional:</b><br>N/A |                  |          |
| Performance Criteria                      |                          | As described in the relevant OS units   |                  |          |

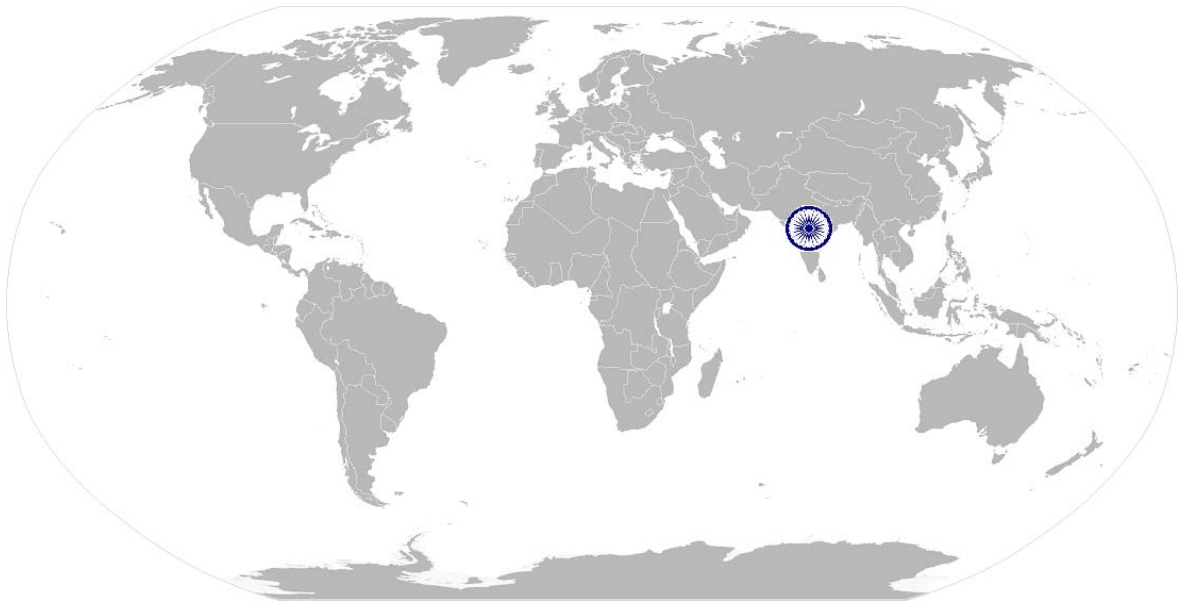
Table 1: Glossary of Key Terms

| Definitions | Keywords /Terms                       | Description   |
|-------------|---------------------------------------|---|
|             | 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.   |
|             | Sub-sector                            | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.  |
|             | Vertical                              | Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.   |
|             | 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 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-functions                         | 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 (NOS) | NOS are Occupational Standards which apply uniquely in the Indian context.  |
|             | Qualifications Pack Code              | Qualifications Pack Code is a unique reference code that identifies a qualifications pack.  |
|             | Qualifications Pack(QP)               | Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.   |
|             | Unit Code                             | Unit Code is a unique identifier for an OS unit, which can be denoted with either an 'O' or 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 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.   |
| 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.   |
| 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 designated responsibilities.  |
| 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 OS, these include communication related skills that are applicable to most job roles. |
| <b>Keywords /Terms</b>      | <b>Description</b>  |
| SSC                         | Sector Skill Council  |
| OS                          | Occupational Standard(s)  |
| NOS                         | National Occupational Standard(s)   |
| QP                          | Qualifications Pack   |
| NSQF                        | National Skill Qualifications Framework   |
| NCO                         | National Classifications of Occupation  |
| TBD                         | To Be Determined  |
| TSC                         | Textile Sector Skill Council  |
| NSDC                        | National Skill Development Corporation  |

TSC/ N 4201 Taking charge of shift and handing over shift to Knitting Machine Fitter

# National Occupational Standard



## Overview

This unit is about taking charge of shift from previous shift Knitting machine fitter and relieving the responsibilities to the next shift Knitting machine fitter.

**TSC/ N 4201 Taking charge of shift and handing over shift to Knitting Machine Fitter**

|                                |  |   |
|--------------------------------|--|---|
| National Occupational Standard | <b>Unit Code</b>   | <b>TSC/ N4201</b>   |
|                                | <b>Unit Title (Task)</b>                                   | <b>Taking charge of shift and handing over shift to Knitting Machine Fitter</b>   |
|                                | <b>Description</b>   | This unit is about taking charge of shift from previous shift Knitting machine fitter and relieving the responsibilities to the next shift Knitting machine fitter  |
|                                | <b>Scope</b>   | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>Taking charge of shift from Knitting machine fitter</li> <li>Handing over shift to Knitting machine fitter</li> </ul>  |
|                                | <b>Elements</b>  | <b>Performance Criteria</b>   |
|                                | <b>Taking charge of shift from Knitting machine fitter</b> | <p>To be competent, you must be able to:</p> <p>PC1. come at least 10 - 15 minutes earlier to the work spot</p> <p>PC2. bring the necessary operational tools to the department</p> <p>PC3. meet the previous shift fitter and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.</p> <p>PC4. understand the fabric produced, colour coding followed on the different knitting machines</p> <p>PC5. patrol around the knitting machines and ensure the smooth functioning of all the machines in the department</p> <p>PC6. ensure with previous shift fitter regarding the issues faced in the machines if any</p> <p>PC7. ensure all the machines are running properly, machines which are not running and problems if any should be clarified with the fitter, supervisor and operator</p> <p>PC8. check the cleanliness of the machines &amp; other work areas</p> <p>PC9. check whether any spare/raw material/ tool / yarn / any other material are thrown under the machines or in the other work areas.</p> <p>PC10. should question the previous shift maintenance people for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well that of the previous shift as well.</p> <p>PC11. ensure the work spot is clean</p> <p>PC12. Take over the shift from the outgoing shift fitter in a proper manner</p> |
|                                | <b>Handing over shift to Knitting machine fitter</b>       | <p>PC13. ensure in providing the details regarding fabric produced, colour coding being followed for his allocated number of machines in the knitting department</p> <p>PC14. provide all relevant information regarding the fabric produced, idle machines, damaged machine parts if any ,get clearance from the incoming counterpart before leaving the work spot</p> <p>PC15. report to his shift superiors as well as that of the incoming shift fitter in case his/ her counterpart doesn't report for the incoming shift fitter</p> <p>PC16. ensure the shift has to be properly handed over to the incoming shift fitter</p> <p>PC17. report to his shift superior about the quality / production / maintenance issues / safety issues/ any other issue faced in his/her shift and should leave</p>  |

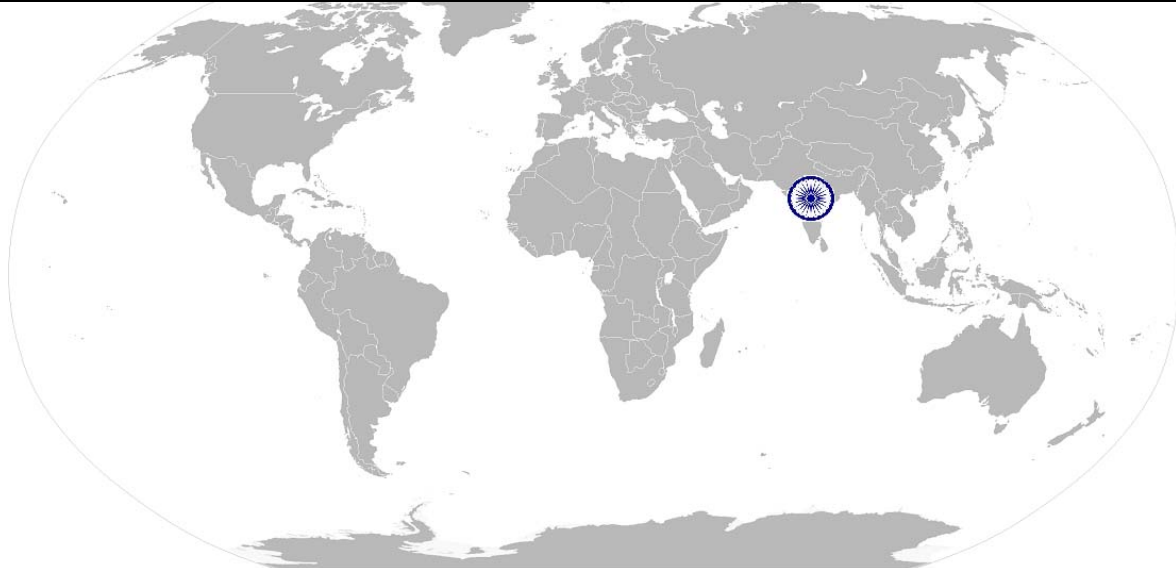


**TSC/ N 4201 Taking charge of shift and handing over shift to Knitting Machine Fitter**

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|  | the department only after getting concurrence for the same from his/ her superiors<br>PC18. ensure the work spot is clean  |
| <b>Knowledge and Understanding (K)</b>   |  |
| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | You need to know and understand:<br>KA1. standard operating procedures (SOP) and regulations in a knitting industry<br>KA2. safe working practices to be adopted in knitting industry<br>KA3. quality systems and other processes practiced in the knitting industry<br>KA4. reporting to the supervisor or higher authority in case of emergency<br>KA5. color coding adopted for different counts/ products in the knitting industry   |
| <b>B. Technical Knowledge</b>  | You need to know and understand:<br>KB1. Understanding the importance of <ul style="list-style-type: none"> <li>• Types of yarn</li> <li>• Yarn count</li> <li>• Types of yarn defects</li> <li>• Types of knitted fabric defects</li> </ul> KB2. Process flow and material flow in knitting industry<br>KB3. Importance of knitting<br>KB4. Functions of different parts of different types of knitting machines<br>KB5. Importance of colour coding followed for different counts<br>KB6. Guidelines for operating the knitting machine<br>KB7. Understanding the functions of different signal lamps<br>KB8. Guidelines for taking charge of shift from previous shift Knitting machine fitter<br>KB9. Guidelines for handing over the shift to the next shift Knitting machine fitter<br>KB10. Importance of material handling and types of material handling equipments used equipments<br>KB11. Functions and methodology for operating different material handling tools<br>KB12. Knowledge of waste collection system & equipments used<br>KB13. Importance of cleanliness at workplace<br>KB14. Safety procedures to be followed in knitting industry |
| <b>Skills (S)</b>  |  |
| <b>A. Core Skills/ Generic Skills</b>  | <b>Writing Skills</b>  |
|  | You need to know and understand how to:<br>SA1. write clear and short sentences  |
|  | <b>Reading Skills</b>  |
|  | You need to know and understand how to:<br>SA2. comprehend written instructions  |
|  | <b>Oral Communication (Listening and Speaking skills)</b>  |
|  | You need to know and understand how to:<br>SA3. communicate with supervisor appropriately<br>SA4. talk to others to convey information effectively   |
| <b>B. Professional Skills</b>  | <b>Problem Solving</b>   |
|  | You need to know and understand how to:<br>SB1. apply problem-solving approaches in different situations   |

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|  | SB2. refer anomalies to the supervisor  |
|  | SB3. seek clarification on problems from others   |
|  | <b>Attention to Detail</b>  |
|  | <p>You need to know and understand how to:</p> <p>SB4. apply good attention to detail</p> <p>SB5. check your work is complete and free from errors</p> <p>You need to know and understand how to:</p> <p>SB6. Procedure to patrol around the knitting department</p> <p>SB7. Procedure to operate the different mechanisms in knitting machine</p> <p>SB8. Procedure for patrolling around the knitting machine and identifying worn out or damaged machine parts</p> <p>SB9. Procedure to check the quality of cone package, fabric rolls , proper functioning of machine parts in knitting</p> <p>SB10. Procedure for operating different material handling tools and equipments</p> <p>SB11. Maintain neatness at work</p> |

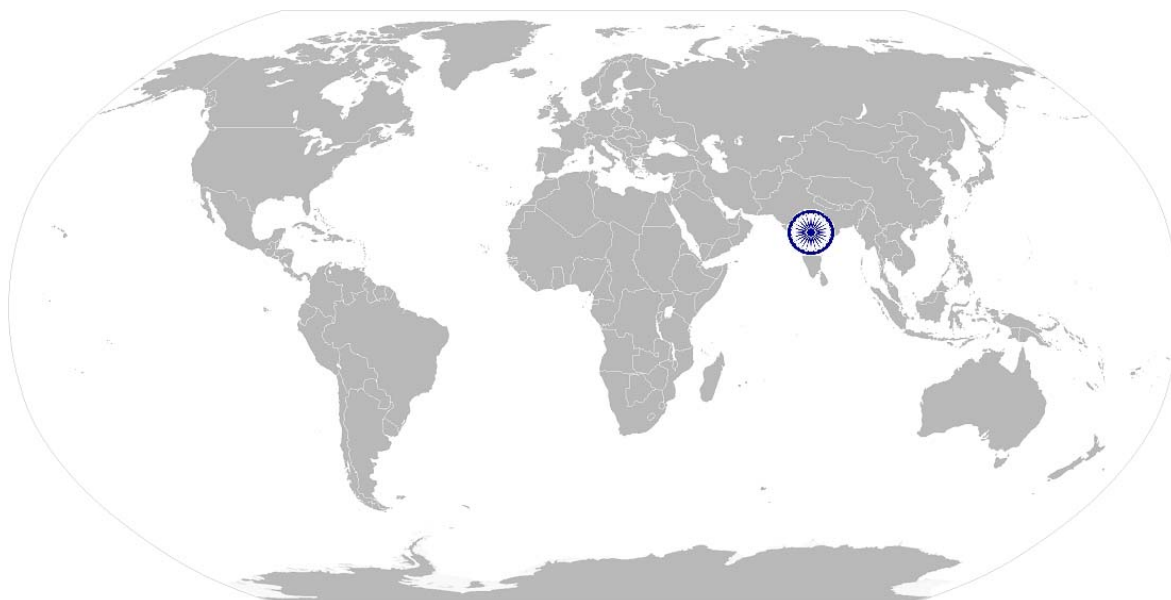




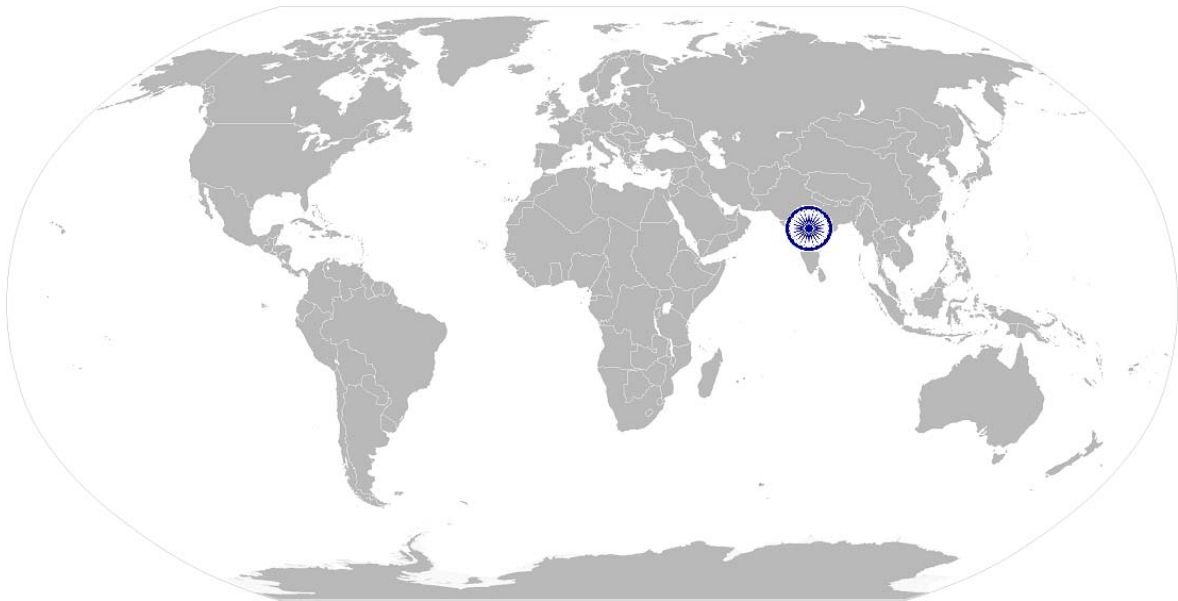
**TSC/ N 4201 Taking charge of shift and handing over shift to Knitting Machine Fitter**

**NOS Version Control**

| NOS Code            | TSC/ N4201  |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |



# National Occupational Standard



## Overview

This unit is about carrying out general maintenance activities in the knitting department.

**TSC/ N4202**

**General Maintenance Responsibilities of Knitting Machine Fitter**

**National Occupational Standard**

|                                |  |
|--------------------------------|--|
| <b>Unit Code</b>               | <b>TSC/ N4202</b>  |
| <b>Unit Title (Task)</b>       | <b>General Maintenance Responsibilities of Knitting Machine Fitter</b>   |
| <b>Description</b>             | This unit is about carrying out general maintenance activities in the knitting department.   |
| <b>Scope</b>                   | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>general maintenance activities</li> </ul>   |
| <b>Elements</b>                | <b>Performance Criteria</b>  |
| General maintenance activities | <p>You need to know and understand:</p> <p>PC1. taking round of the work area before the start of the shift and observing the working.</p> <p>PC2. Taking note of the machines stopped for repairs and the type of problem.</p> <p>PC3. dismantle and assemble different mechanisms in the machines on need basis.</p> <p>PC4. repair and overhaul electrical and mechanical systems of knitting machinery.</p> <p>PC5. adjust and set up complex machinery for new patterns or products</p> <p>PC6. perform maintenance, such as, cleaning and lubrication of knitting machinery, and replace and align moving parts as required</p> <p>PC7. recommend equipment changes or modifications and evaluate new equipment</p> <p>PC8. troubleshoot, test run and verify machine for proper operation.</p> <p>PC9. clean machines (before &amp; after work).</p> <p>PC10. understand different fabric knitting structures</p> <p>PC11. differentiate the needs of single knit and double knit machines, etc.</p> <p>PC12. operate machines, handle fabric and control of each machine properly</p> <p>PC13. install yarn cones on machine, adjust colours to different feeders, choose and change knitting structures graph on the machine</p> <p>PC14. Identify the yarn quality problems in knitting cotton with polyester or spandex</p> <p>PC15. Set /make various fabric structures jersey, pique, rib, interlock, fleece, etc.</p> <p>PC16. identify fabric order details such as knit structure, GSM, yarn count, gauge, size ,order quantity etc.</p> <p>PC17. inquire about the nature and extent of machine or knitting faults with operator</p> <p>PC18. Identify &amp; assess knitting faults in the fabric</p> <p>PC19. Examine the yarn visually to assess its possible impact on machine operations</p> <p>PC20. Take decision to change the yarn or machine part upon establishment of fault in knitting machine when it is to be returned to optimal performance through repair of faulty operation or replacement of yarn or machine parts</p> <p>PC21. Ensure to return the knitting machine to optimum performance level after repair of faulty operation, replacement of yarn or machine part</p> <p>PC22. Test run the machine &amp; make sample ,to ensure that the problem is fixed</p> |

**TSC/ N4202**

**General Maintenance Responsibilities of Knitting Machine Fitter**

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|  | <p>PC23. identify quality standards and have knowledge of quality parameters</p> <p>PC24. quality concepts and implementation of process quality program</p> <p>PC25. identify the quality complaints in the machines.</p> <p>PC26. identify the works done till date and the works pending in the machines stopped for repairs or for maintenance works or modifications.</p> <p>PC27. track the production plan, prepare maintenance plan, and allocate people for different activities.</p> <p>PC28. keeping track of the machines allotted for various fabric and decide on the parameters to be checked while doing maintenance, like condition of needles, sinkers or cams, loop settings, take-down mechanism.</p> <p>PC29. allocation of the workers for different tasks considering their knowledge, skills, maturity and workloads agreed.</p> <p>PC30. reference to process parameters and work out the changes to be made for change in quality, GSM, stitch length etc. and getting the changes made by the concerned maintenance workers. ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers.</p> <p>PC31. counsel and influence the poor performing worker achieve the norms</p> |
| <b>Knowledge and Understanding (K)</b>   |  |
| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | <p>You need to know and understand:</p> <p>KA1. standard operating procedures (SOP) and regulations in a textile mill</p> <p>KA2. safe working practices to be adopted in textile mill</p> <p>KA3. quality systems and other processes practiced in the textile mill</p> <p>KA4. reporting to the supervisor or higher authority in case of emergency</p> <p>KA5. color coding adopted for different counts/ products in the textile mill</p>  |
| <b>B. Technical Knowledge</b>  | <p>You need to know and understand:</p> <p>KB1. plan maintenance activities and prepare date-wise plans for maintenance and replacement of parts considering their life.</p> <p>KB2. role of humidity and temperature in maintaining quality and productivity. basic knowledge of operating a humidification plant.</p> <p>KB3. workloads, work allocation and standard working conditions for maintenance operatives.</p> <p>KB4. knitting methods and the various types of knit effects</p> <p>KB5. yarn twist and application</p> <p>KB6. yarn counts</p> <p>KB7. pattern specifications</p> <p>KB8. factors affecting machine performance: yarn strength, sizing, ambient conditions</p> <p>KB9. machine manufacturer specifications</p> <p>KB10. common knitting machine faults and methods</p> <p>KB11. the knitting cycle</p> <p>KB12. the principal cams controlling the knitting cycle</p> <p>KB13. alterations to the cams to produce miss-knitting, and tucking</p> <p>KB14. knock over timing</p>  |

**TSC/ N4202**

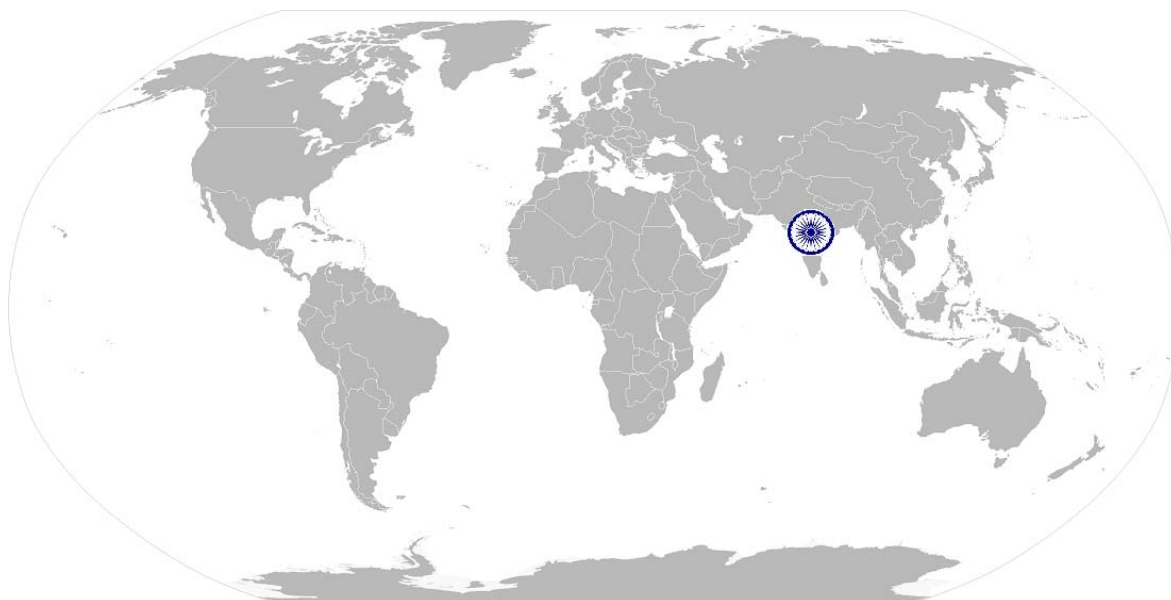
**General Maintenance Responsibilities of Knitting Machine Fitter**

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|   | <p>KB15. delayed knock over</p> <p>KB16. the means of adjusting knitting quality</p> <p>KB17. the correct positioning of yarns in the feeders</p> <p>KB18. safety and environmental aspects of relevant enterprise activities</p> <p>KB19. practices, including hazard identification and control measures</p> <p>KB20. quality practices</p> <p>KB21. workplace practices</p> <p>KB22. recording and reporting practices</p> <p>KB23. calculation of maintenance efficiency; time spent for maintenance, men employed, cost of maintenance, costs of spares consumption, mean time between breakdowns, and the industry norms</p> <p>KB24. factors affecting maintenance.</p> <p>KB25. roles and responsibilities of a maintenance personnel</p> <p>KB26. basic supervisory skills – listening and observing, communication, counseling, taking charge, reporting and motivating.</p> <p>KB27. general management knowledge of managing subordinates, co-coordinating with workshop, electrical department, stores and production</p> <p>KB28. standing orders and discipline in working</p> <p>KB29. precautions to be taken while working</p> <p>KB30. importance of cleanliness and personal safety</p> <p>KB31. fire fighting and first aid</p> <p>KB32. safety precautions and gadgets to be used in factory</p> |
| <b>Skills (S)</b>                         |  |
| <b>A. Core Skills/<br/>Generic Skills</b> | <b>Writing Skills</b>  |
|   | You need to know and understand how to:<br>SA1. write clear and short sentences  |
|   | <b>Reading Skills</b>  |
|   | You need to know and understand how to:<br>SA2. comprehend written instructions  |
|   | <b>Oral Communication (Listening and Speaking skills)</b>  |
|   | You need to know and understand how to:<br>SA3. communicate with supervisor appropriately<br>SA4. talk to others to convey information effectively   |
| <b>B. Professional Skills</b>             | <b>Problem Solving</b>   |
|   | You need to know and understand how to:<br>SB1. apply problem-solving approaches in different situations<br>SB2. refer anomalies to the supervisor<br>SB3. seek clarification on problems from others  |
|   | <b>Attention to Detail</b>   |
|   | You need to know and understand how to:<br>SB4. apply good attention to detail<br>SB5. check your work is complete and free from errors  |
|   | You need to know and understand how to:<br>SB6. set and operate knitting machines<br>SB7. test, analyze and prepare samples  |

**TSC/ N4202**

**General Maintenance Responsibilities of Knitting Machine Fitter**

- SB8. interpret and document for a simple range of knit patterns
- SB9. read, interpret and follow information on work specifications, standard operating procedures and work instructions and other reference material
- SB10. undertake preventative maintenance to circular knitting machines including servicing, according to manufacturer instructions and regular checking for worn or damaged parts.
- SB11. maintain accurate records
- SB12. communicate within the workplace
- SB13. sequence operations
- SB14. meet specifications
- SB15. clarify and check task-related information
- SB16. carry out work according to practices
- SB17. skill to change the settings of different mechanisms
- SB18. dismantle and assemble different mechanisms in machines



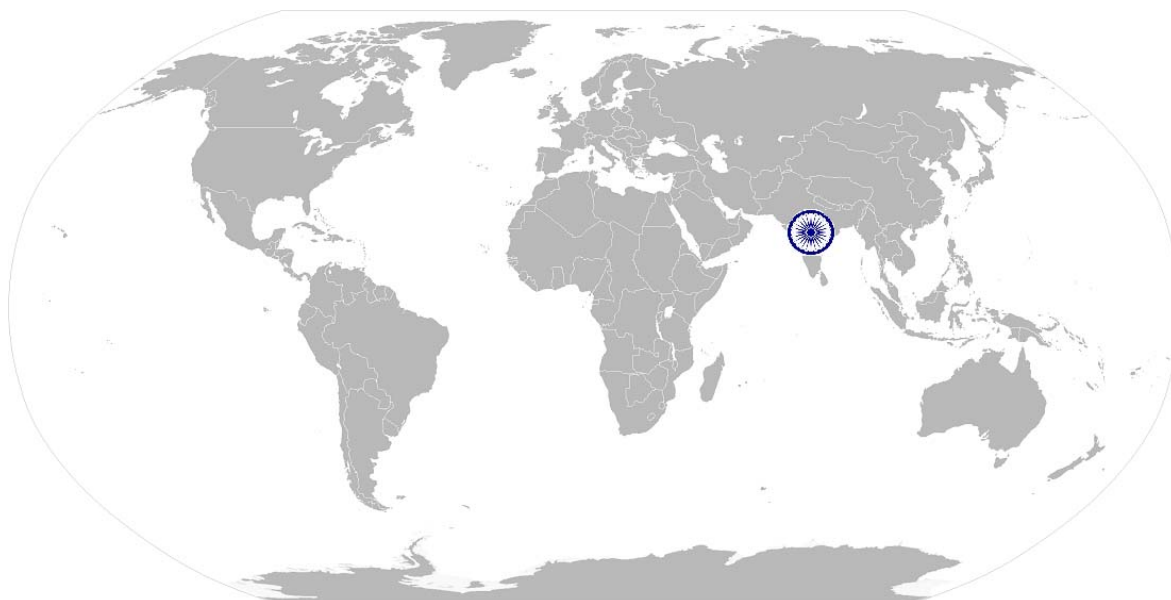


**TSC/ N4202**

**General Maintenance Responsibilities of Knitting Machine Fitter**

**NOS Version Control**

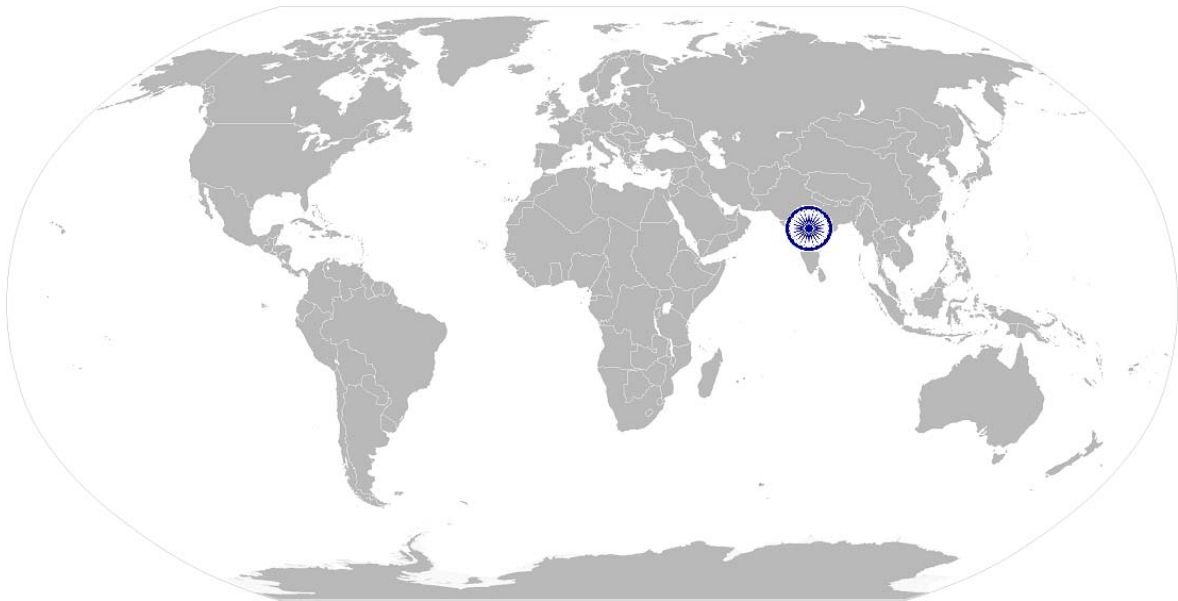
| NOS Code            | TSC/ N4202  |                  |            |
|---------------------|-------------|------------------|------------|
| Credits (NSQF)      | TBD         | Version number   | 1.0        |
| Industry            | Textile     | Drafted on       | 15/12/2014 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/2015 |
| Occupation          | Maintenance | Next review date | 01/03/16   |



TSC/ N4203

Preventive maintenance responsibilities of Knitting Machine Fitter

# National Occupational Standard



## Overview

This unit is about carrying out preventive maintenance activities in the knitting department

**TSC/ N4203 Preventive maintenance responsibilities of Knitting Machine Fitter**

| Unit Code   | TSC/ N4203  |
|---|---|
| Unit Title (Task)                                 | Preventive maintenance responsibilities of Knitting Machine Fitter  |
| Description                                       | This unit is about carrying out preventive maintenance activities in knitting department  |
| Scope   | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>Inspecting the condition of machine parts</li> <li>Carrying out maintenance</li> <li>Oiling and greasing the machine parts</li> </ul>  |
| Performance Criteria (PC) w.r.t. the Scope        |   |
| Elements  | Performance Criteria  |
| Inspecting the working condition of machine parts | <p>To be competent, you must be able to:</p> <p>PC1. check the proper functioning of machine parts like cylinder, dial, positive feeder, take down mechanism, stop motion and the ancillaries like trolleys, filters, and needles &amp; sinkers etc.</p> <p>PC2. check the conditions of machine parts while they are being cleaned/scoured or overhauled</p> <p>PC3. ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers.</p>  |
| Carrying out maintenance                          | <p>PC4. change the settings of the machines on need basis.</p> <p>PC5. give instructions to the machine operator about machine handling</p> <p>PC6. identify the worn out parts and get them replaced.</p> <p>PC7. verify the safety stop motions and get them attended</p> <p>PC8. monitor the stoppages due to breakdowns and analyse the reasons for breakdowns and take precautionary measures.</p> <p>PC9. monitor the cylinder change activities in knitting machines and fabric change</p> <p>PC10. monitor the cam and needles, draw, first landing, pressing, second landing, knock over, holding down, sinker action, threading-up</p> <p>PC11. carry out all changes to machine settings in accordance with workplace procedures and as directed by a supervisor</p> <p>PC12. conduct tool audits, i.e. the tools used for maintenance like spanners, gauge, lubricating and flushing pumps etc.</p> |
| Oiling and greasing the machine parts             | <p>PC13. oil and grease the different machine parts at scheduled intervals for smooth functioning of machines</p> <p>PC14. schedule the oiling and greasing activities</p> <p>PC15. ensure correct oil and grease are taken</p> <p>PC16. ensure proper functioning of machines in preparatory department</p>  |
| Knowledge and Understanding (K)                   |   |

**TSC/N4203**

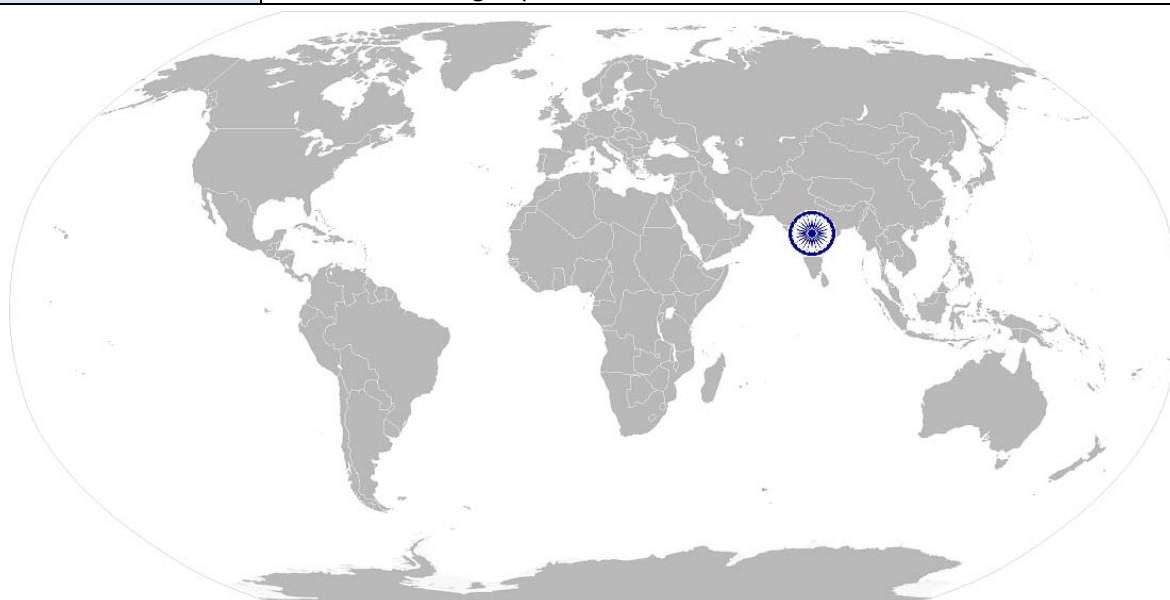
**Preventive maintenance responsibilities of Knitting Machine Fitter**

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| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | You need to know and understand:<br>KA1. standard operating procedures (SOP) and regulations in a textile mill<br>KA2. safe working practices to be adopted in textile mill<br>KA3. quality systems and other processes practiced in the textile mill<br>KA4. reporting to the supervisor or higher authority in case of emergency<br>KA5. color coding adopted for different counts/ products in the textile mill  |
| <b>B. Technical Knowledge</b>  | You need to know and understand:<br>KB1. Importance and functions of various machines and mechanisms used in knitting machine<br>KB2. Plan maintenance activities and prepare date-wise plans for maintenance and replacement of parts considering their life<br>KB3. Role of humidity and temperature in maintaining quality and productivity. Basic knowledge of operating a humidification plant<br>KB4. Workloads, work allocation and standard working conditions for maintenance operatives<br>KB5. Calculation of maintenance efficiency; time spent for maintenance, men employed, cost of maintenance, costs of spares consumption, mean time between breakdowns, and the industry norms<br>KB6. Factors affecting maintenance<br>KB7. Roles and responsibilities of a maintenance supervisor<br>KB8. Basic supervisory skills<br>KB9. Importance of conducting the tool audits<br>KB10. Importance of oiling and greasing<br>KB11. General management knowledge of managing subordinates, coordinating with workshop, electrical department, stores and production.<br>KB12. Standing orders and discipline in working and precautions to be taken while working.<br>KB13. Safety precautions and gadgets to be used in factory |
| <b>Skills (S)</b>  |   |
| <b>A. Core Skills/ Generic Skills</b>  | <b>Writing Skills</b>   |
|  | You need to know and understand how to:<br>SA1. write clear and short sentences   |
|  | <b>Reading Skills</b>   |
|  | You need to know and understand how to:<br>SA2. comprehend written instructions   |
|  | <b>Oral Communication (Listening and Speaking skills)</b>   |
|  | You need to know and understand how to:<br>SA3. communicate with supervisor appropriately<br>SA4. talk to others to convey information effectively  |
| <b>B. Professional Skills</b>  | <b>Problem Solving</b>  |
|  | You need to know and understand how to:<br>SB1. apply problem-solving approaches in different situations  |

**TSC/N4203**

**Preventive maintenance responsibilities of Knitting Machine Fitter**

|  |  |
|--|--|
|  | SB2. refer anomalies to the supervisor   |
|  | SB3. seek clarification on problems from others  |
|  | <b>Attention to Detail</b>   |
|  | <p>You need to know and understand how to:</p> <p>SB4. apply good attention to detail</p> <p>SB5. check your work is complete and free from errors</p>   |
|  | <p>You need to know and understand :</p> <p>SB6. skill to check the condition of different machine parts</p> <p>SB7. procedure to replace worn-out parts</p> <p>SB8. procedure for cylinder change, fabric change.</p> <p>SB9. procedure to oil and grease the different machine parts</p> <p>SB10. ensure correct oil and grease are taken</p> <p>SB11. skill to change the settings of the different machine parts of all the machines in knitting department.</p> |

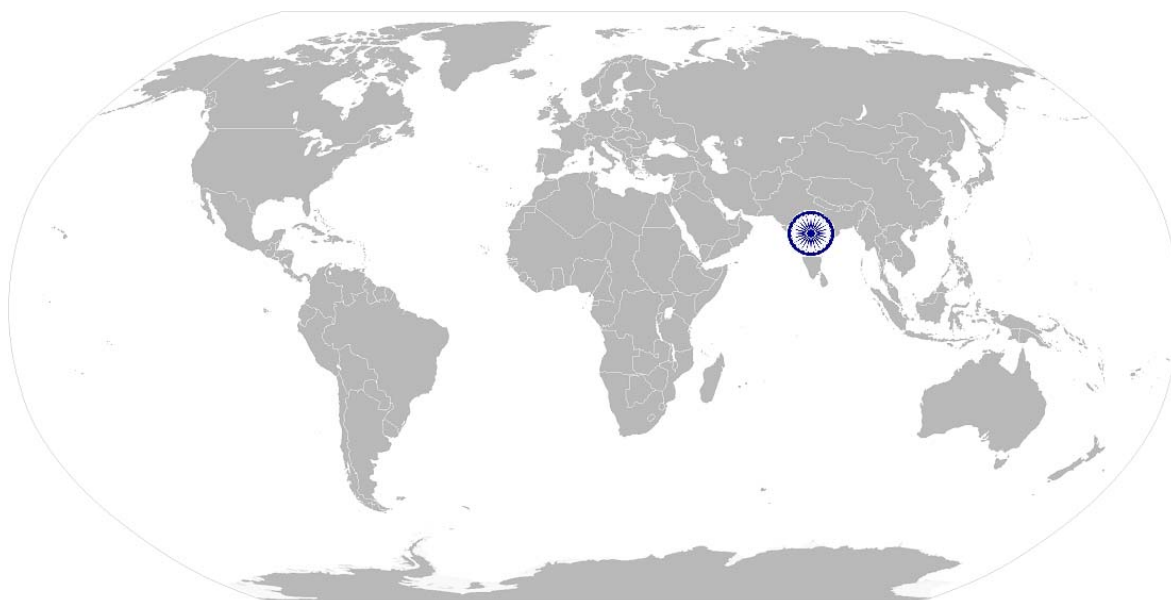


**TSC/N4203**

**Preventive maintenance responsibilities of Knitting Machine Fitter**

**NOS Version Control**

| NOS Code            | TSC/ N4203  |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |

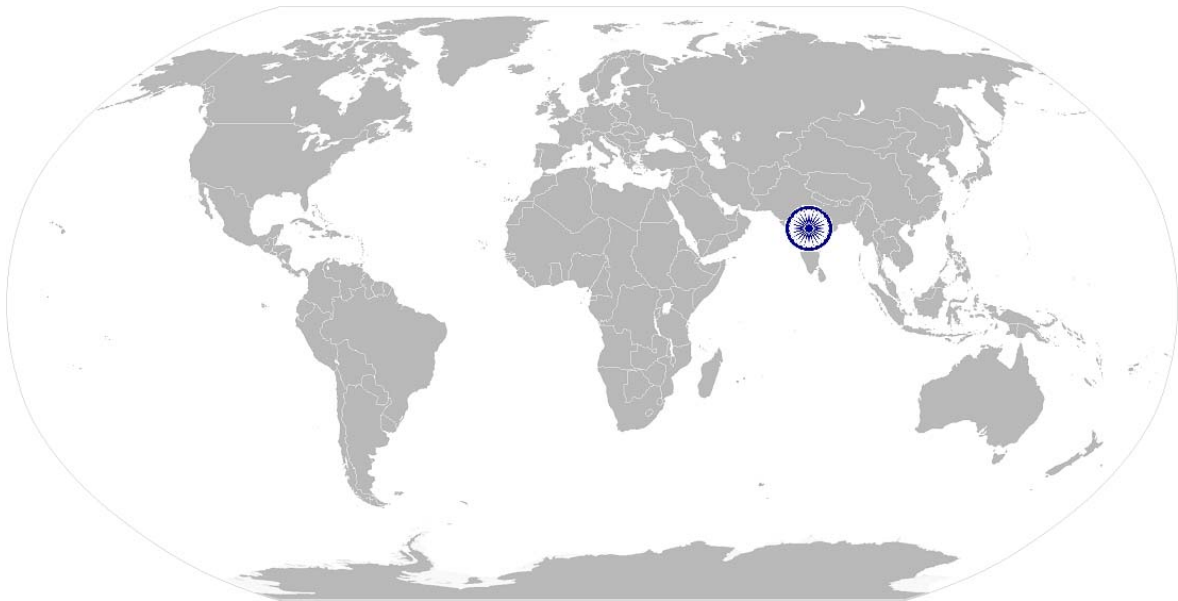




TSC/ N4204

Breakdown maintenance of Knitting Machine

# National Occupational Standard



## Overview

This unit is about carrying out breakdown maintenance activities in the knitting department in case of emergency.

**TSC/ N4204**

**Breakdown maintenance of Knitting Machine**

| Unit Code  | TSC/N4204  |
|--|--|
| Unit Title (Task)  | Breakdown Maintenance of Knitting Machine  |
| Description  | This unit is about carrying out breakdown maintenance activities in the knitting department in case of emergency   |
| Scope  | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>▪ Attending the machine on breakdown</li> <li>▪ Identifying the reason for breakdown and carryout maintenance activity</li> <li>▪ Post maintenance activities</li> </ul>  |
| Performance Criteria (PC) w.r.t. the Scope   |  |
| Elements   | Performance Criteria   |
| Attending the machine on breakdown   | To be competent, you must be able to:<br>PC1. attend the machine on a break down<br>PC2. report to the maintenance incharge on a breakdown<br>PC3. prepare the machine for carrying out breakdown maintenance<br>PC4. ensure in bringing the proper tool and equipments required for carrying out maintenance  |
| Identifying the reason for breakdown and carryout maintenance activity                         | PC5. analyze the machine which is under breakdown<br>PC6. identify the reason for breakdown<br>PC7. carryout maintenance activities<br>PC8. replace worn out parts with new parts<br>PC9. ensure safety while carrying out maintenance activity<br>PC10. ensure proper material handling of maintenance tools  |
| Post maintenance activities  | PC11. check for proper functioning of machine after maintenance<br>PC12. run the machine and check for smooth functioning of machine parts<br>PC13. repair further if further fine tuning is needed<br>PC14. ensure the output material quality is as per quality requirement.<br>PC15. ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers<br>PC16. ensure minimum time is taken to attend the breakdown, identify the reason for breakdown and carryout the breakdown maintenance activities |
| Knowledge and Understanding (K)  |  |
| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | You need to know and understand:<br>KA1. standard operating procedures (SOP) and regulations in a textile mill<br>KA2. safe working practices to be adopted in textile mill<br>KA3. quality systems and other processes practiced in the textile mill<br>KA4. reporting to the supervisor or higher authority in case of emergency<br>KA5. color coding adopted for different counts/ products in the textile mill   |
| <b>B. Technical</b>  | You need to know and understand:   |

**TSC/ N4204**

**Breakdown maintenance of Knitting Machine**

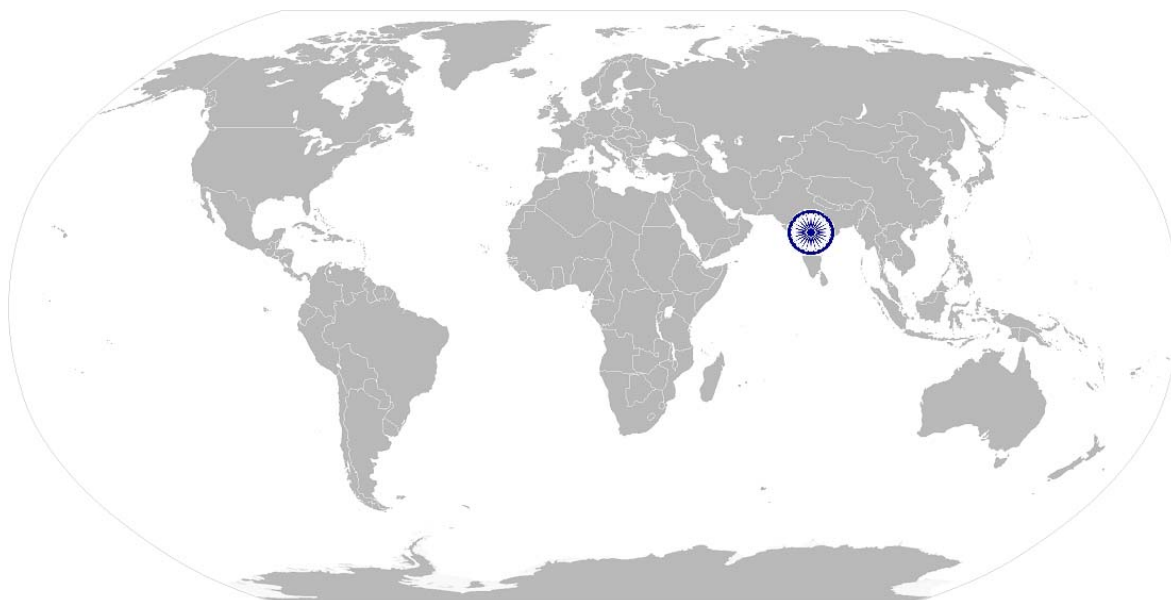
|                                       |   |
|---------------------------------------|---|
| <b>Knowledge</b>                      | <p>KB1. Importance and functions of various machines and mechanisms used in knitting department machines</p> <p>KB2. Workloads, work allocation and standard working conditions for maintenance operatives.</p> <p>KB3. Roles and responsibilities of a maintenance supervisor</p> <p>KB4. Basic supervisory skills</p> <p>KB5. General management knowledge</p> <p>KB6. Standing orders and discipline in working and precautions to be taken while working</p> <p>KB7. Factors affecting maintenance</p> <p>KB8. Standing orders and discipline in working and precautions to be taken while working.</p> <p>KB9. Importance of time management</p> <p>KB10. Safety precautions and gadgets to be used in factory</p> |
| <b>Skills (S)</b>                     |   |
| <b>A. Core Skills/ Generic Skills</b> | <b>Writing Skills</b>   |
|                                       | <p>You need to know and understand how to:</p> <p>SA1. write clear and short sentences</p>  |
|                                       | <b>Reading Skills</b>   |
|                                       | <p>You need to know and understand how to:</p> <p>SA2. comprehend written instructions.</p>   |
|                                       | <b>Oral Communication (Listening and Speaking skills)</b>   |
|                                       | <p>You need to know and understand how to:</p> <p>SA3. communicate with supervisor appropriately</p> <p>SA4. talk to others to convey information effectively</p>   |
|                                       | <p>You need to know and understand :</p> <p>SA5. skill to identify the reason for breakdown</p> <p>SA6. skill to carryout different maintenance activities</p> <p>SA7. skill to material handling the different maintenance tools properly</p> <p>SA8. skill to identify the quality of output material is as per requirement</p> <p>SA9. maintain cleanliness at work place</p>  |

**TSC/ N4204**

**Breakdown maintenance of Knitting Machine**

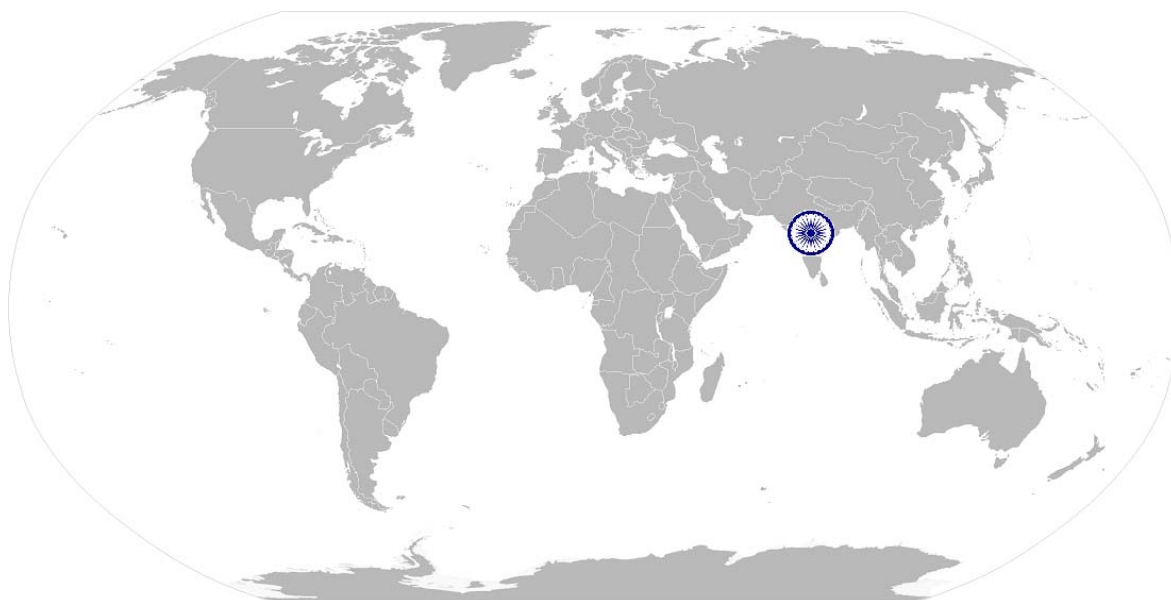
**NOS Version Control**

| NOS Code            | TSC/N4204   |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |



Maintaining records and ensuring availability of spares for Knitting Machine

# National Occupational Standard



## Overview

This unit is about the procedure of maintaining records of maintenance activities in the knitting department

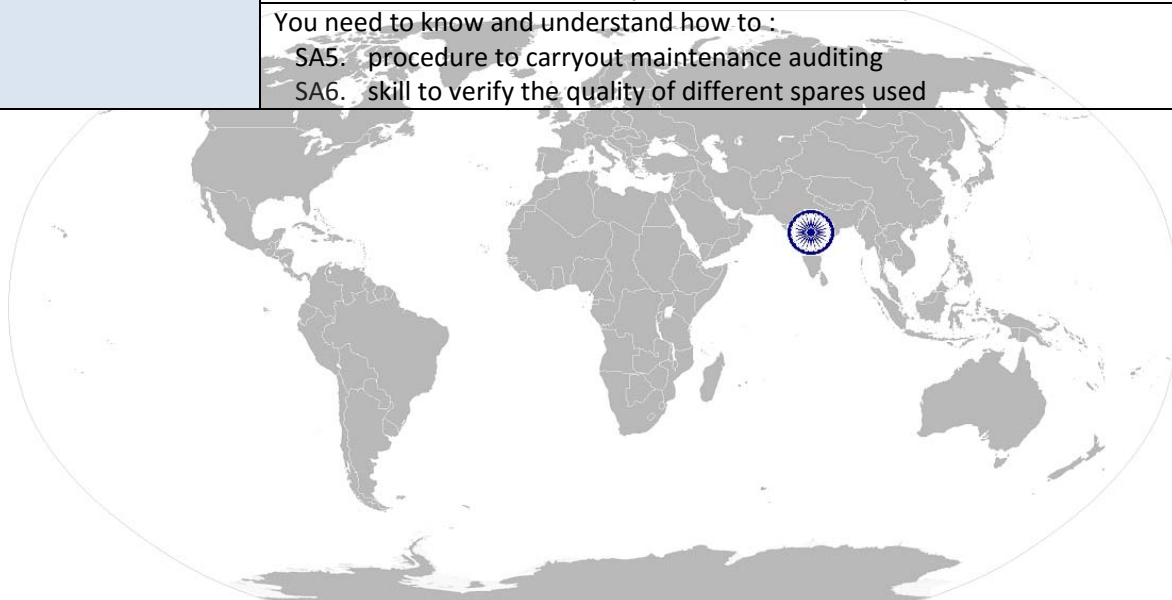
**TSC/ N4205 Maintaining records and ensuring availability of spares for Knitting Machine**

|                                |  |   |
|--------------------------------|--|---|
| National Occupational Standard | <b>Unit Code</b>   | <b>TSC/ N4205</b>   |
|                                | <b>Unit Title (Task)</b>   | <b>Maintaining records and ensuring availability of spares for Knitting Machine</b>   |
|                                | <b>Description</b>   | This unit is about the procedure of maintaining records of maintenance activities in the knitting department  |
|                                | <b>Scope</b>   | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>▪ Maintaining records</li> </ul>   |
|                                | <b>Performance Criteria (PC) w.r.t. the Scope</b>  |   |
|                                | <b>Elements</b>  | <b>Performance Criteria</b>   |
|                                | Maintaining records  | To be competent, you must be able to: <ul style="list-style-type: none"> <li>PC1. carryout maintenance auditing</li> <li>PC2. record the activities in the log book (report book) and update the machine history book</li> <li>PC3. verify the stock of various spares, accessories and lubricants and work out the indenting plan and place indents</li> <li>PC4. refer the machinery catalogues and identify the correct spares needed</li> <li>PC5. check the quality of materials received at stores, for e.g. bearings, wheels, machine spares, needles, belts, brushes, spanners and other tools, etc.</li> <li>PC6. carry out maintenance machine audit</li> <li>PC7. maintain records of maintenance</li> <li>PC8. ensure availability of spares and give requisitions on need basis</li> </ul> |
|                                | <b>Knowledge and Understanding (K)</b>   |   |
|                                | <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | You need to know and understand: <ul style="list-style-type: none"> <li>KA1. standard operating procedures (SOP) and regulations in a textile mill</li> <li>KA2. safe working practices to be adopted</li> <li>KA3. quality systems and other processes practiced in the textile mill</li> <li>KA4. reporting to the supervisor or higher authority in case of emergency</li> </ul>   |
|                                | <b>B. Technical Knowledge</b>  | You need to know and understand: <ul style="list-style-type: none"> <li>KB1. plan maintenance activities and prepare date-wise plans for maintenance and replacement of parts considering their life.</li> <li>KB2. understand types and functions of different spares of different machines in knitting department</li> <li>KB3. calculate maintenance efficiency; time spent for maintenance, men employed, cost of maintenance, costs of spares consumption, mean time between breakdowns, and the industry norms</li> <li>KB4. understand roles and responsibilities of a maintenance foreman</li> <li>KB5. general management knowledge of managing subordinates, coordinating with</li> </ul>   |



**TSC/ N4205 Maintaining records and ensuring availability of spares for Knitting Machine**

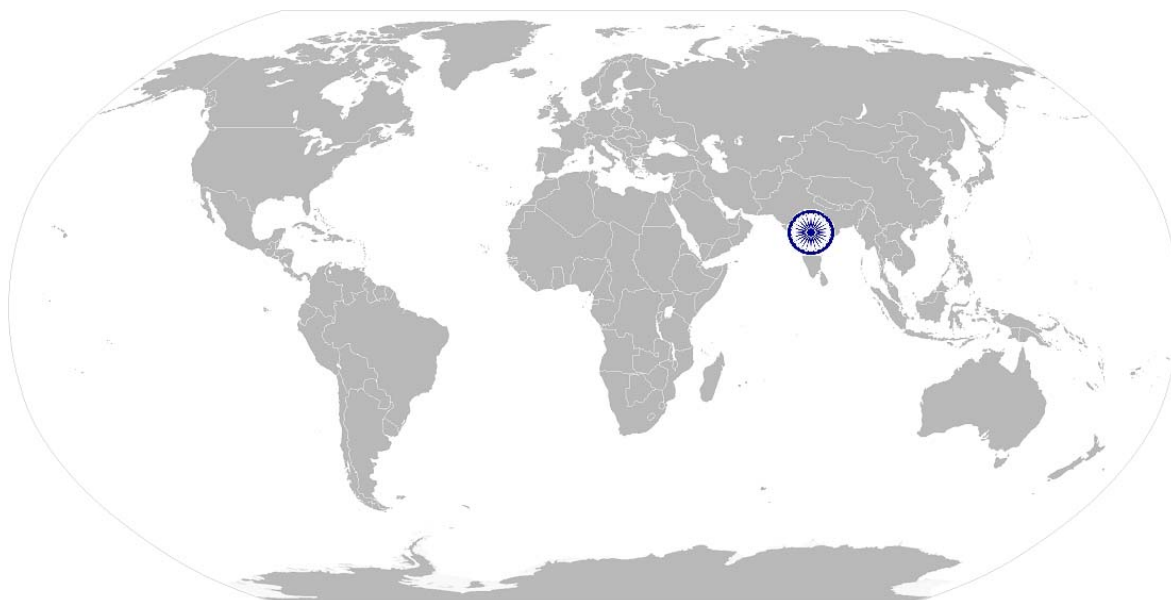
|   |  |
|---|--|
|   | workshop, electrical department, stores and production.<br>KB6. follow standing orders and maintain discipline at work   |
| <b>Skills (S)</b>                         |  |
| <b>A. Core Skills/<br/>Generic Skills</b> | <b>Writing Skills</b>  |
|   | You need to know and understand how to:<br>SA1. Write clear and short sentences  |
|   | <b>Reading Skills</b>  |
|   | You need to know and understand how to:<br>SA2. comprehend written instructions  |
|   | <b>Oral Communication (Listening and Speaking skills)</b>  |
|   | You need to know and understand how to:<br>SA3. communicate with supervisor appropriately<br>SA4. talk to others to convey information effectively<br>You need to know and understand how to :<br>SA5. procedure to carryout maintenance auditing<br>SA6. skill to verify the quality of different spares used |



**TSC/ N4205 Maintaining records and ensuring availability of spares for Knitting Machine**

**NOS Version Control**

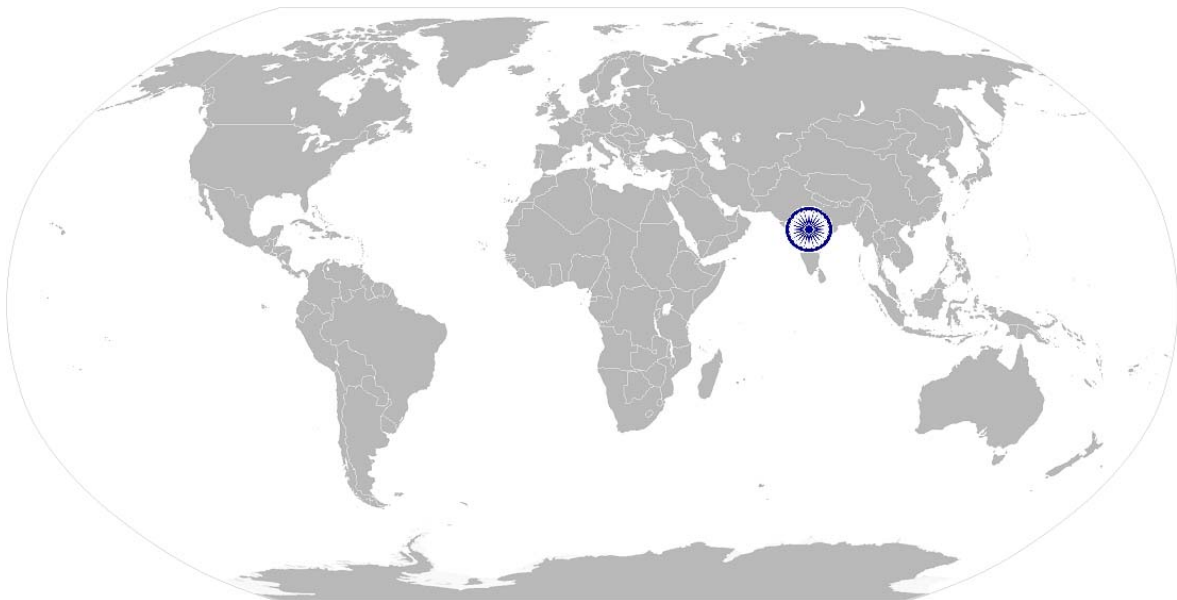
| NOS Code            | TSC/ N4205  |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |



**TSC/ N9001**

**Maintaining work area, tools and machine**

# National Occupational Standard



## Overview

This unit is about maintaining work areas and activities to ensure tools and machines are maintained as per norms.

**TSC/ N9001**

**Maintaining work area, tools and machine**

|                                |  |  |
|--------------------------------|--|--|
| National Occupational Standard | <b>Unit Code</b>   | <b>TSC/ N9001</b>  |
|                                | <b>Unit Title (Task)</b>   | <b>Maintaining work area, tools and machines</b>   |
|                                | <b>Description</b>   | This unit provides performance criteria, knowledge & understanding and skills & abilities required to organize/ maintain work areas and activities to ensure tools and machines are maintained as per norms  |
|                                | <b>Scope</b>   | This unit/task covers the following: <ul style="list-style-type: none"> <li>▪ Maintain the work area, tools and machines</li> </ul>  |
|                                | <b>Performance Criteria (PC) w.r.t. the Scope</b>  |  |
|                                | <b>Elements</b>  | <b>Performance Criteria</b>  |
|                                | Maintain the work area, tools and machines   | <p>To be competent, you must be able to:</p> <p>PC1. handle materials, machinery, equipment and tools with care and use them in the correct way</p> <p>PC2. use correct lifting and handling procedures</p> <p>PC3. Know the use of materials and minimize waste</p> <p>PC4. maintain a clean and hazard free working area</p> <p>PC5. maintain tools and equipment</p> <p>PC6. carry out running maintenance within agreed schedules</p> <p>PC7. carry out maintenance and/or cleaning within one's responsibility</p> <p>PC8. report unsafe equipment and other dangerous occurrences</p> <p>PC9. ensure that the correct machine guards are in place</p> <p>PC10. work in a comfortable position with the correct posture</p> <p>PC11. use cleaning equipment and methods appropriate for the work to be carried out</p> <p>PC12. dispose of waste safely in the designated location</p> <p>PC13. store cleaning equipment safely after use</p> <p>PC14. carry out cleaning according to schedules and limits of responsibility</p> |
|                                | <b>Knowledge and Understanding (K)</b>   |  |
|                                | <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | <p>You need to know and understand:</p> <p>KA1. personal hygiene and duty of care</p> <p>KA2. safe working practices and organizational standard operating procedures (SOP)</p> <p>KA3. limits of your own responsibility</p> <p>KA4. ways of resolving problems within the work area</p> <p>KA5. the production process and the specific work activities that relate to the whole process</p> <p>KA6. the importance of effective communication with supervisors</p> <p>KA7. the lines of communication, authority and reporting procedures</p> <p>KA8. the organization's rules, codes and guidelines (including timekeeping)</p> <p>KA9. the company's quality standards</p> <p>KA10. the importance of complying with written instructions</p> <p>KA11. equipment operating procedures / supervisor's instructions</p>   |
|                                | <b>B. Technical</b>  | You need to know and understand:   |

**TSC/ N9001**

**Maintaining work area, tools and machine**

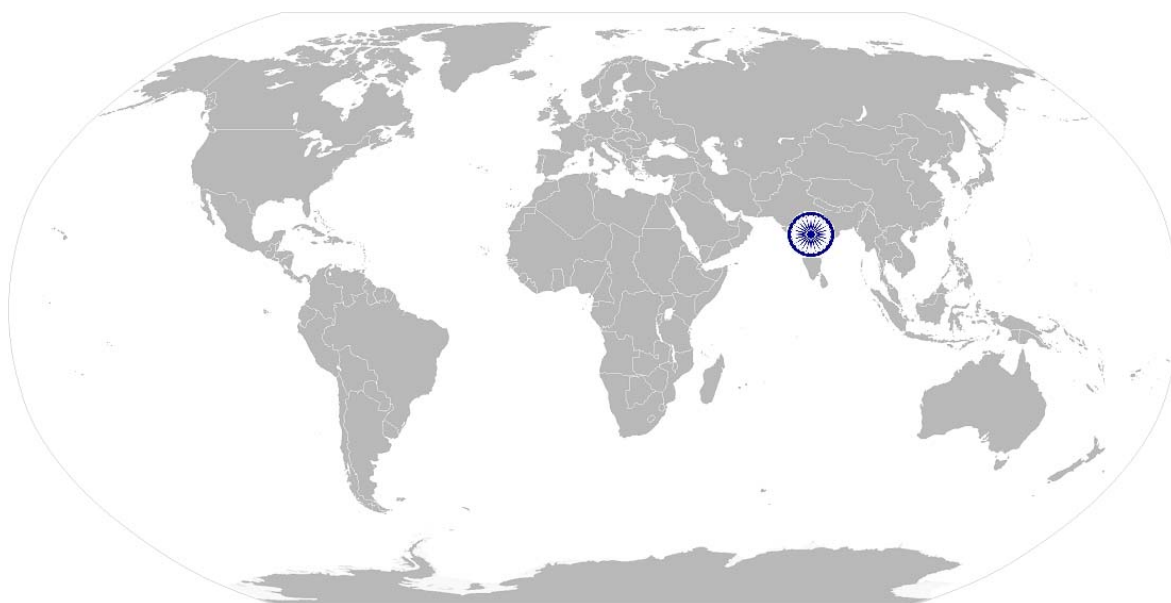
|   |   |
|---|---|
| <b>Knowledge</b>                          | <p>KB1. work instructions and specifications and interpret them accurately</p> <p>KB2. relation between work role and the overall manufacturing process</p> <p>KB3. hazards likely to be encountered when conducting routine maintenance</p> <p>KB4. the importance of taking action when problems are identified</p> <p>KB5. different ways of minimizing waste</p> <p>KB6. the importance of running maintenance and regular cleaning</p> <p>KB7. effects of contamination on products i.e. machine oil, dirt, foreign materials</p> <p>KB8. common faults with equipment and the method to rectify</p> <p>KB9. maintenance procedures</p> <p>KB10. different types of cleaning equipment and substances and their use</p> <p>KB11. safe working practices for cleaning and the method of carrying them out</p> |
| <b>Skills (S)</b>                         |   |
| <b>A. Core Skills/<br/>Generic Skills</b> | <b>Writing Skills</b>   |
|   | You need to know and understand how to:   |
|   | SA1. Write clear and short sentences  |
|   | <b>Reading Skills</b>   |
|   | You need to know and understand how to:   |
|   | SA2. comprehend written instructions<br>SA3. read any application sent by other colleagues  |
| <b>B. Professional Skills</b>             | <b>Oral Communication (Listening and Speaking skills)</b>   |
|   | You need to know and understand how to:   |
|   | SA4. Communicate effectively in local language  |
|   | SA5. communicate with supervisor appropriately  |
|   | SA6. talk to others to convey information effectively   |
|   | <b>Problem Solving</b>  |
|   | You need to know and understand how to:   |
|   | SB1. identify the real reason of problem faced  |
|   | SB2. apply problem-solving approaches in different situations   |
|   | SB3. refer anomalies to the supervisor  |
|   | SB4. seek clarification on problems from others   |
|   | <b>Attention to Detail</b>  |
|   | You need to know and understand how to:   |
|   | SB5. apply good attention to detail   |
|   | SB6. check your work is complete and free from errors   |
|   | SB7. make sure every kind of communication is error free  |
|   | You need to know and understand :   |
|   | SB8. communicate effectively  |
|   | SB9. apply leadership skills wherever required  |
|   | SB10. take initiative at the right place  |
|   | SB11. understand the requirement to be creative   |

## TSC/ N9001

## Maintaining work area, tools and machine

### NOS Version Control

| NOS Code            | TSC/ N9001  |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |

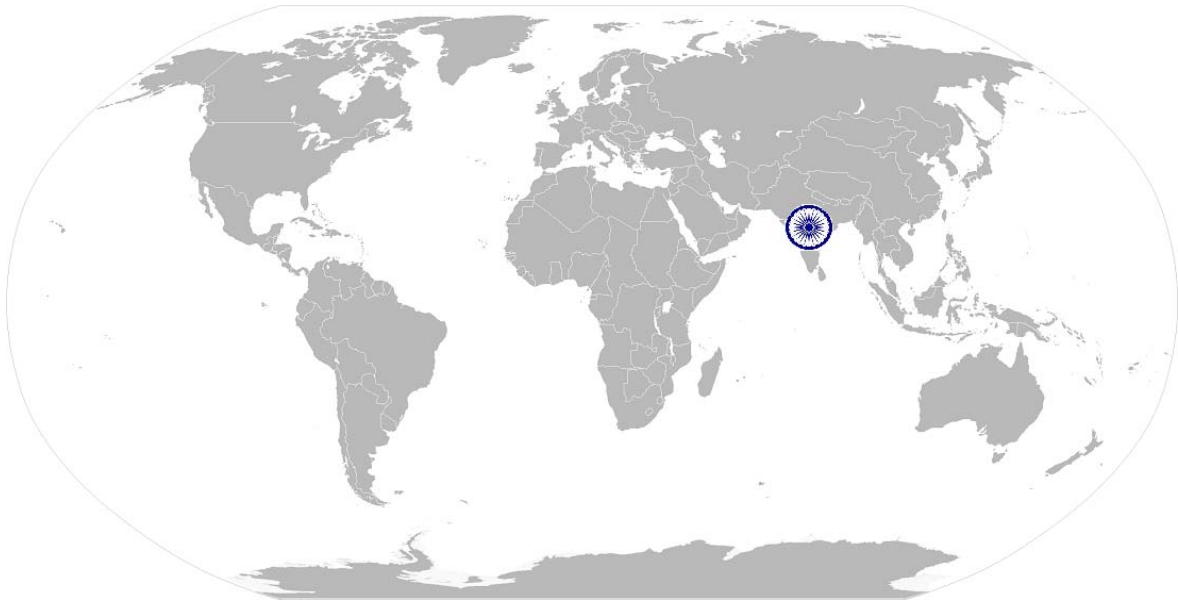




TSC/ N9002

Working in a team

# National Occupational Standard



## Overview

This unit is about working as part of a team in the textile industry.

**TSC/ N9002**

**Working in a team**

| Unit Code                                  | TSC/ N9002  |
|--|---|
| Unit Title (Task)                          | Working in a team   |
| Description                                | This unit is about working as a team member in the textile industry   |
| Scope                                      | <p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>commitment and trust</li> <li>communication</li> <li>adaptability</li> <li>creative freedom</li> </ul>   |
| Performance Criteria (PC) w.r.t. the Scope |   |
| Elements                                   | Performance Criteria  |
| Commitment and trust                       | <p>To be competent, you must be able to:</p> <p>PC1. be accountable to the own role in whole process</p> <p>PC2. perform all roles with full responsibility</p> <p>PC3. be effective and efficient at workplace</p>   |
| Communication                              | <p>PC4. properly communicate about company policies</p> <p>PC5. report all problems faced during the process</p> <p>PC6. talk politely with other team members and colleagues</p> <p>PC7. submit daily report of own performance</p>  |
| Adaptability                               | <p>PC8. adjust in different work situations</p> <p>PC9. give due importance to others' point of view</p> <p>PC10. avoid conflicting situations</p>  |
| Creative freedom                           | <p>PC11. develop new ideas for work procedures</p> <p>PC12. improve upon the existing techniques to increase process efficiency</p>   |
| Knowledge and Understanding (K)            |   |
| A. Organizational Context                  | <p>You need to know and understand:</p> <p>KA1. standard operating procedures (SOP) and regulations in a textile mill</p> <p>KA2. procedure followed to get the final output in the mill</p> <p>KA3. safe working practices to be adopted in textile mill</p> <p>KA4. reporting to the supervisor or higher authority about any grievances faced</p>  |
| B. Technical Knowledge                     | <p>KB1. the importance of the previous and next step of the process</p> <p>KB2. process flow in a textile mill and the concerned workers</p> <p>KB3. material flow in a textile mill and the required person</p> <p>KB4. functions of different parts of the machine</p> <p>KB5. tools and equipments used</p> <p>KB6. guidelines for operating the machine</p> <p>KB7. safety procedures to be followed in the machine</p> |
| Skills (S)                                 |   |
| A. Core Skills/ Generic Skills             | Writing Skills  |
|  | <p>You need to know and understand how to:</p> <p>SA1. write clear and short sentences</p> <p>SA2. write daily work report</p> <p>SA3. write grievance complaint application</p>  |
|  | Reading Skills  |

**TSC/ N9002**

**Working in a team**

|                               |   |
|-------------------------------|---|
|                               | SA4. comprehend written instructions  |
|                               | SA5. read any application sent by other colleagues  |
|                               | <b>Oral Communication (Listening and Speaking skills)</b>   |
|                               | SA6. communicate with supervisor appropriately<br>SA7. talk to co-workers to convey information effectively |
| <b>B. Professional Skills</b> | <b>Problem Solving</b>  |
|                               | You need to know and understand how to:   |
|                               | SB1. identify the real reason of problem faced  |
|                               | SB2. be able to find the most effective solution to the problems faced                                      |
|                               | <b>Attention to Detail</b>  |
|                               | SB3. apply good attention to detail   |
|                               | SB4. ensure every kind of communication is error free   |
|                               | You need to know and understand how to:   |
|                               | SB5. communicate effectively  |
|                               | SB6. apply leadership skills wherever required  |
|                               | SB7. take initiative at the right place   |
|                               | SB8. understand the requirement to be creative  |



## TSC/ N9002

## Working in a team

### NOS Version Control

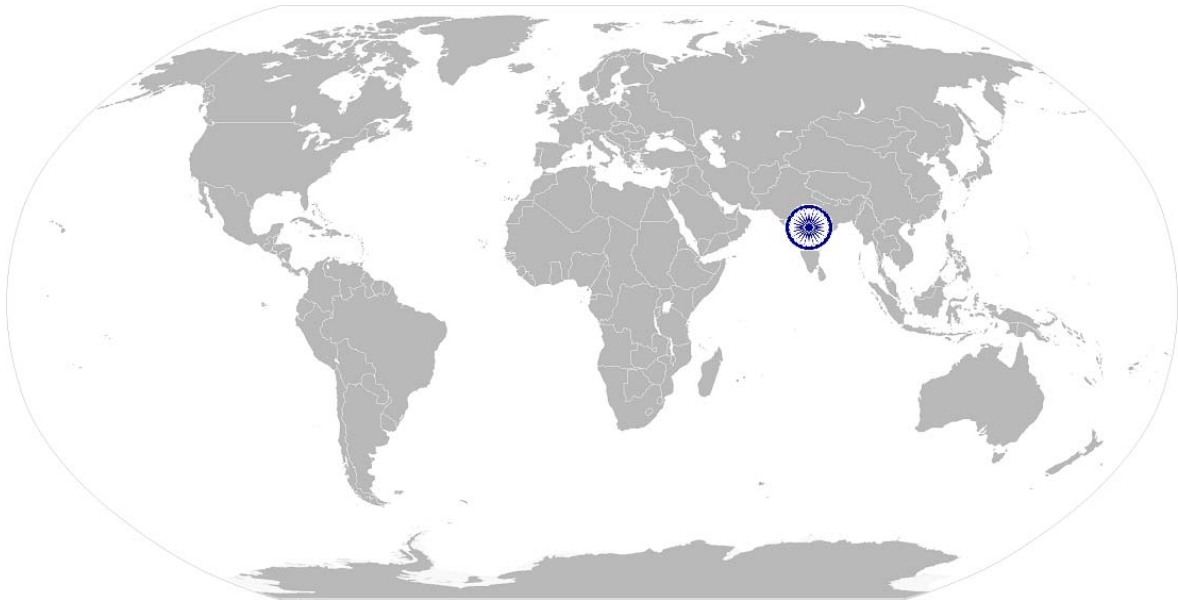
| NOS Code                     | TSC/ N9002  |                  |          |
|------------------------------|-------------|------------------|----------|
| Credits (NSQF)<br>[OPTIONAL] | TBD         | Version number   | 1.0      |
| Industry                     | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector          | Knitting    | Last reviewed on | 21/01/15 |
| Occupation                   | Maintenance | Next review date | 01/03/16 |



**TSC/ N9003**

**Maintain health, safety and security at work place**

# National Occupational Standard



## Overview

This unit is about maintaining health, safety, and security standards at workplace.

**TSC/ N9003**

**Maintain health, safety and security at work place**

|  |  |
|--|--|
| <b>Unit Code</b>   | <b>TSC/ N9003</b>  |
| <b>Unit Title (Task)</b>                                     | <b>Maintain health, safety and security at work place</b>  |
| <b>Description</b>   | This unit provides performance criteria, knowledge & understanding and skills & abilities required to comply with health, safety and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others.  |
| <b>Scope</b>   | This unit/task covers the following: <ul style="list-style-type: none"> <li>Comply with health, safety and security requirements at work</li> <li>Recognizing the hazards</li> <li>Planning the safety techniques</li> <li>Implementing the programs</li> </ul>  |
| <b>Performance Criteria (PC) w.r.t. the Scope</b>            |  |
| <b>Elements</b>  | <b>Performance Criteria</b>  |
| Comply with health, Safety and security requirements at work | <p>To be competent, operator must be able to:</p> <p>PC1. comply with health and safety related instructions applicable to the workplace</p> <p>PC2. use and maintain personal protective equipment such as "ear plug", "nose mask", "head cap" etc., as per protocol</p> <p>PC3. carry out own activities in line with approved guidelines and procedures</p> <p>PC4. maintain a healthy lifestyle and guard against dependency on intoxicants</p> <p>PC5. follow environment management system related procedures</p> <p>PC6. identify and correct (if possible) malfunctions in machinery and equipment</p> <p>PC7. report any service malfunctions that cannot be rectified</p> <p>PC8. store materials and equipment in line with organisational requirements</p> <p>PC9. safely handle and remove waste</p> <p>PC10. minimize health and safety risks to self and others due to own actions</p> <p>PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks</p> <p>PC12. monitor the workplace and work processes for potential risks and threat</p> <p>PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned</p> <p>PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel</p> <p>PC15. participate in mock drills/ evacuation procedures organized at the workplace</p> <p>PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so</p> <p>PC17. take action based on instructions in the event of fire, emergencies or accidents</p> <p>PC18. follow organisation procedures for shutdown and evacuation when required</p> |
| Recognizing the hazards                                      | <p>PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry</p> <p>PC20. recognise other possible security issues existing in the workplace</p>   |
| Planning the safety techniques                               | PC21. recognise different measures to curb the hazards   |



**TSC/ N9003**
**Maintain health, safety and security at work place**

|  |   |
|--|---|
| Implementing the programs  | PC22. communicate the safety plan to everyone<br>PC23. attach disciplinary rules with the implementation  |
| <b>Knowledge and Understanding (K)</b>   |   |
| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) | You need to know and understand:<br>KA1. standard operating procedures (SOP) and regulations in a textile mill<br>KA2. safe working practices to be adopted in textile mill<br>KA3. quality systems and other processes practiced in the textile mill<br>KA4. health and safety related practices applicable at the workplace<br>KA5. potential hazards, risks and threats based on nature of operations<br>KA6. organizational procedures for safe handling of equipment and machine operations<br>KA7. potential risks due to own actions and methods to minimize these<br>KA8. environmental management system related procedures at the workplace<br>KA9. layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points<br>KA10. potential accidents and emergencies and response to these scenarios<br>KA11. reporting protocol and documentation required<br>KA12. details of personnel trained in first aid, fire-fighting and emergency response<br>KA13. actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire |
| <b>B. Technical Knowledge</b>  | You need to know and understand:<br>KB1. occupational health and safety risks and methods<br>KB2. personal protective equipment and method of use<br>KB3. identification, handling and storage of hazardous substances<br>KB4. proper disposal system for waste and by-products<br>KB5. signage related to health and safety and their meaning<br>KB6. importance of sound health, hygiene and good habits<br>KB7. ill-effects of alcohol, tobacco and drugs  |
| <b>Skills (S)</b>  |   |
| <b>A. Core Skills/ Generic Skills</b>  | <b>Writing Skills</b>   |
|  | You need to know and understand how to:   |
|  | SA1. write clear and short sentences  |
|  | <b>Reading Skills</b>   |
|  | SA2. read and understand the company instructions<br>SA3. read and understand work instructions<br>SA4. read and understand the safety guidelines   |
|  | <b>Oral Communication (Listening and Speaking skills)</b>   |
|  | SA1. listen to others attentively<br>SA2. respond to emergencies, accidents or fire at the workplace<br>SA3. evacuate the premises and help others in need while doing so<br>SA4. the value of physical fitness, personal hygiene and good habits<br>SA5. talk with others politely   |
| <b>B. Professional Skills</b>  | <b>Decision Making</b>  |
|  | SB1. identify correct safety measure for particular hazard<br>SB2. make required safety plans as and when required  |

**TSC/ N9003**

**Maintain health, safety and security at work place**

|  |   |
|--|---|
|  | SB3. raise alarm in case of emergency                         |
|  | <b>Analytical Thinking</b>                                    |
|  | SB4. know the use of correct safety measure whenever required |
|  | <b>Attention to Detail</b>                                    |
|  | SB5. be attentive to details                                  |
|  | SB6. be careful to avoid occurrence of hazards                |
|  | You need to know and understand :                             |
|  | SB7. maintenance of neatness at work                          |
|  | SB8. procedure for reporting unwanted behavior                |

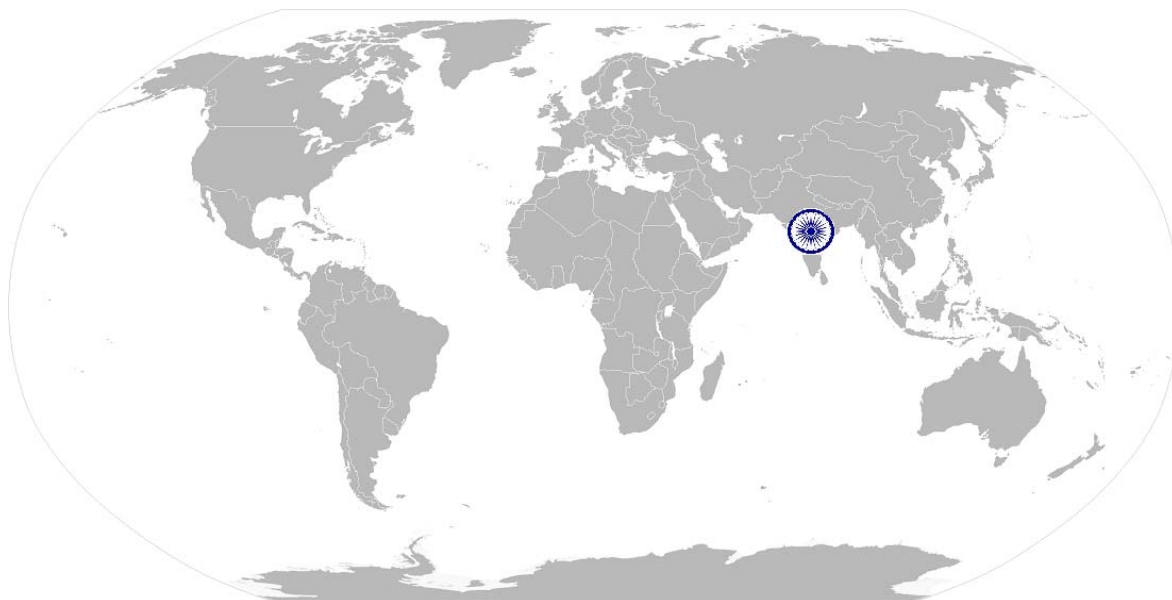


**TSC/ N9003**

**Maintain health, safety and security at work place**

**NOS Version Control**

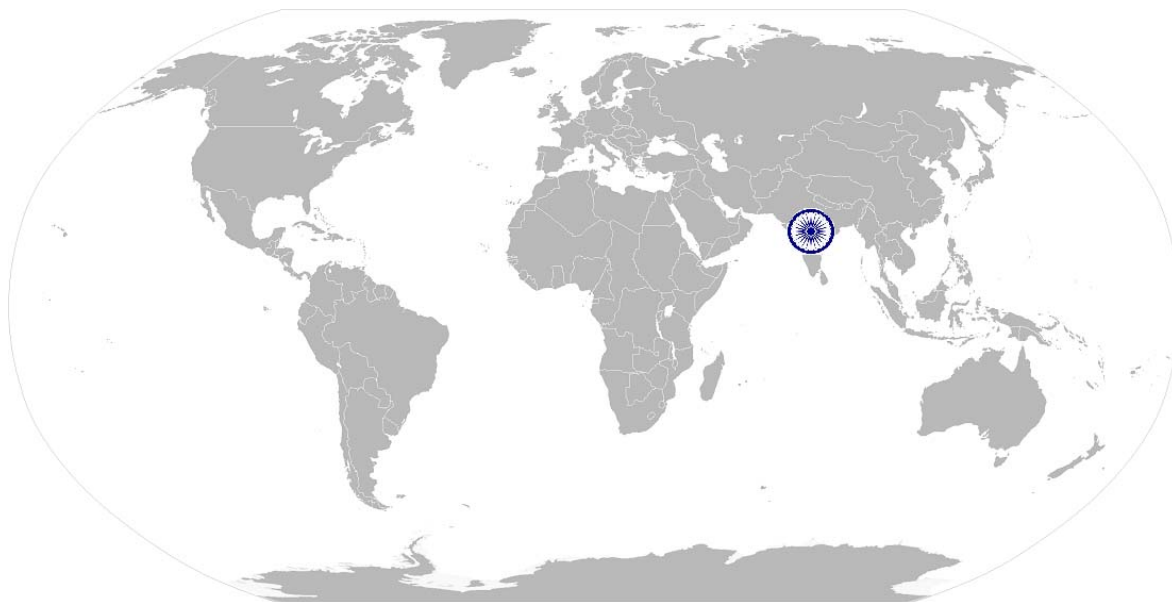
| NOS Code                     | TSC/ N9003  |                  |          |
|------------------------------|-------------|------------------|----------|
| Credits (NSQF)<br>[OPTIONAL] | TBD         | Version number   | 1.0      |
| Industry                     | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector          | Knitting    | Last reviewed on | 21/01/15 |
| Occupation                   | Maintenance | Next review date | 01/03/16 |



**TSC/ N9004**

**Comply with industry and organizational requirements**

# National Occupational Standard



## Overview

This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry.

**TSC/ N9004**

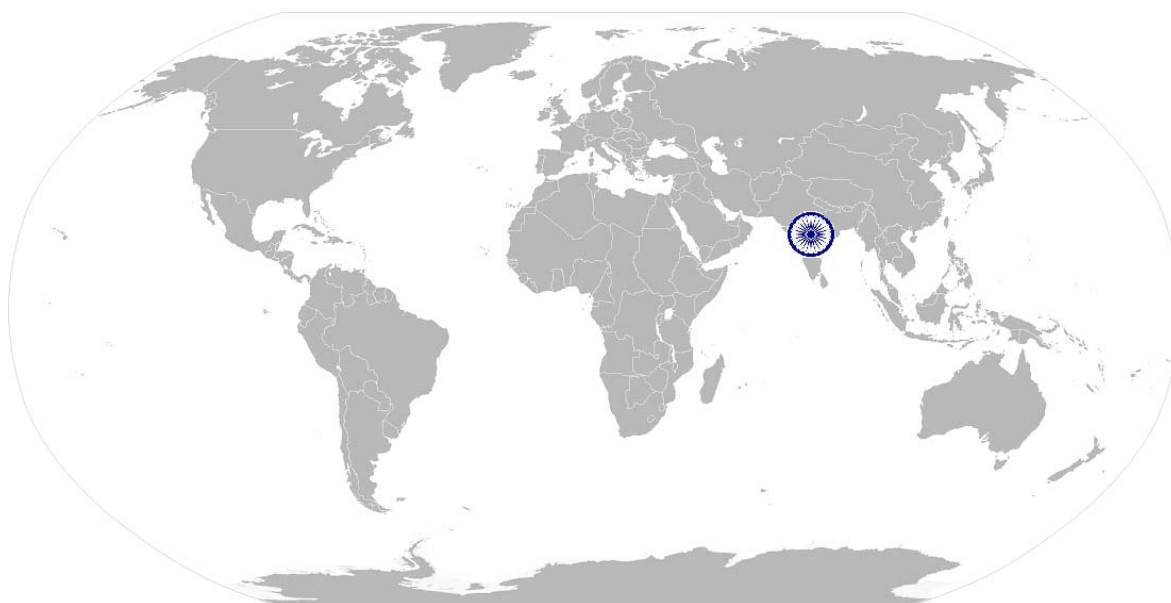
**Comply with industry and organizational requirements**

|  |   |   |
|--|---|---|
| National Occupational Standard   | <b>Unit Code</b>                                  | <b>TSC/ N9004</b>   |
|  | <b>Unit Title (Task)</b>                          | <b>Comply with industry and organizational requirements</b>   |
|  | <b>Description</b>                                | This unit is about knowing, understanding, and complying with the requirements of the organization and the textile industry   |
|  | <b>Scope</b>                                      | <b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>self development</li> <li>team work</li> <li>organizational standards</li> <li>industry standards</li> </ul>   |
|  | <b>Performance Criteria (PC) w.r.t. the Scope</b> |   |
|  | <b>Elements</b>                                   | <b>Performance Criteria</b>   |
|  | Self- development                                 | To be competent, you must be able to:<br>PC1. perform own duties effectively<br>PC2. take responsibility for own actions<br>PC3. be accountable towards the job role and assigned duties<br>PC4. take initiative and innovate the existing methods<br>PC5. focus on self-learning and improvement |
|  | Team work   | PC6. co-ordinate with all the team members and colleagues<br>PC7. communicate politely<br>PC8. avoid conflicts and miscommunication   |
|  | Organizational standards                          | PC9. know the organisational standards<br>PC10. implement them in your performance<br>PC11. motivate others to follow them  |
|  | Industry standards                                | PC12. know the industry standards<br>PC13. align them with organisation standards   |
| <b>Knowledge and Understanding (K)</b>   |   |   |
| <b>A. Organizational Context</b><br>(Knowledge of the company/ organization and its processes) |   | You need to know and understand:<br>KA1. standard operating procedures (SOP) and regulations in a textile mill<br>KA2. reporting to the supervisor or higher authority<br>KA3. knowledge of organizational standards<br>KA4. knowledge of industry standards                                      |
| <b>B. Technical Knowledge</b>  |   | You need to know and understand:<br>KB1. process and material flow in a textile mill<br>KB2. importance of complying with the standards<br>KB3. guidelines for cleaning the various parts of machine  |
| <b>Skills (S)</b>  |   |   |
| <b>A. Core Skills/ Generic Skills</b>  |   | <b>Writing Skills</b>   |
|  |   | You need to know and understand how to:<br>SA1. write clear and short sentences   |
|  |   | <b>Reading Skills</b>   |

**TSC/ N9004**

**Comply with industry and organizational requirements**

|  |   |
|--|---|
|  | You need to know and understand how to:                   |
|  | SA2. read the given instructions                          |
|  | SA3. comprehend written instructions                      |
|  | <b>Oral Communication (Listening and Speaking skills)</b> |
|  | SA4. talk effectively with others                         |
|  | SA5. put forward your point                               |
|  | SA6. listen to others                                     |
|  | you need to know and understand :                         |
|  | SA7. Organizational requirements                          |
|  | SA8. your responsibilities at the workplace               |
|  | SA9. procedure to comply with the industry standards      |



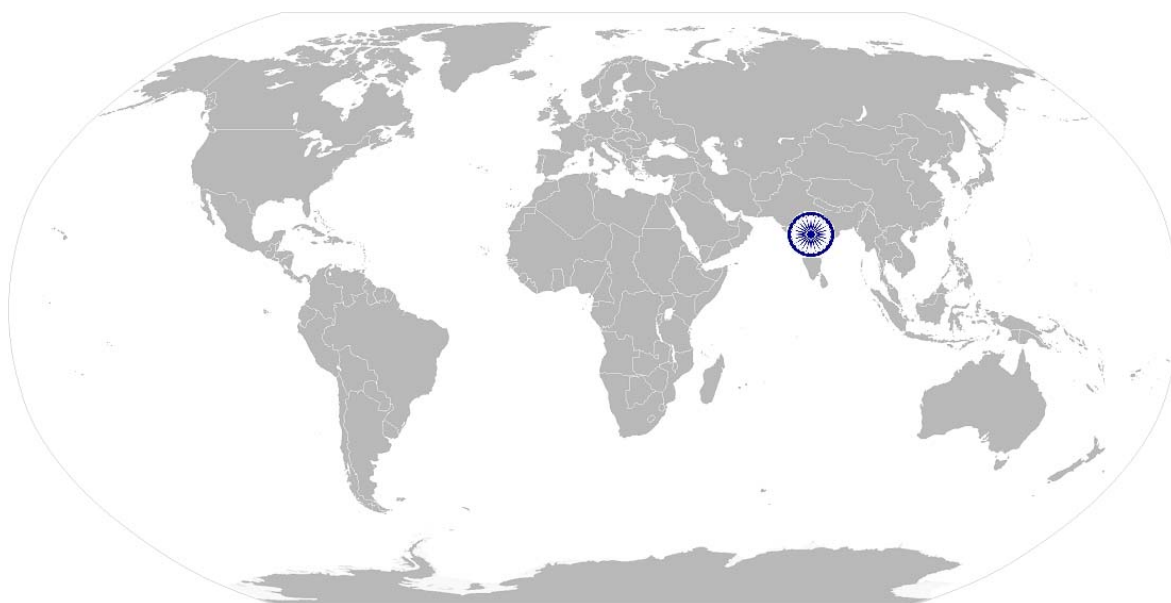


**TSC/ N9004**

**Comply with industry and organizational requirements**

**NOS Version Control**

| NOS Code            | TSC/N 9004  |                  |          |
|---------------------|-------------|------------------|----------|
| Credits (NSQF)      | TBD         | Version number   | 1.0      |
| Industry            | Textile     | Drafted on       | 15/12/14 |
| Industry Sub-sector | Knitting    | Last reviewed on | 21/01/15 |
| Occupation          | Maintenance | Next review date | 01/03/16 |



### Assessment Criteria

| <b>Job Role: Knitting Machine Fitter</b><br><b>Qualification Pack: Knitting Machine Fitter</b><br><b>Sector Skill Council: Textile Sector Skill Council</b>  |  |             |          |                  |                  |          |
|--|--|-------------|----------|------------------|------------------|----------|
| <b>Guidelines for assessment :-</b><br>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 & skill practical for each PC.<br>2. The assessment for the theory part will be based on knowledge bank of question created by the SSC.<br>3. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre (as per assessment criteria below).<br>4. To pass the qualification pack, every trainee should score a minimum of 80%. |  |             |          |                  |                  |          |
| National Occupational Standards (NOS)  | Performance Criteria (PC)  | Total Marks | Out Of   | Marks Allocation |                  |          |
|  |  |             |          | Theory           | Skills Practical | Viva     |
| <b>1.TSC/N4201<br/>(Taking charge of shift and handing over shift to Knitting Machine Fitter )</b>   | PC1. come at least 10 - 15 minutes earlier to the work spot  | <b>100</b>  | <b>4</b> | <b>1</b>         | <b>2</b>         | <b>1</b> |
|  | PC2. bring the necessary operational tools to the department   |             | <b>6</b> | <b>2</b>         | <b>2</b>         | <b>2</b> |
|  | PC3. meet the previous shift fitter and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc. |             | <b>7</b> | <b>2</b>         | <b>2</b>         | <b>3</b> |
|  | PC4. understand the fabric produced, colour coding followed on the different knitting machines   |             | <b>7</b> | <b>3</b>         | <b>2</b>         | <b>2</b> |
|  | PC5. patrol around the knitting machines and ensure the smooth functioning of all the machines in the department   |             | <b>6</b> | <b>2</b>         | <b>3</b>         | <b>1</b> |
|  | PC6. ensure with previous shift fitter regarding the issues faced in the machines if any   |             | <b>6</b> | <b>1</b>         | <b>3</b>         | <b>2</b> |
|  | PC7. ensure all the machines are running properly, machines which are not running and problems if any should be clarified with the   |             | <b>5</b> | <b>1</b>         | <b>2</b>         | <b>2</b> |

### Assessment Criteria

|  |  |  |   |   |   |   |
|--|--|--|---|---|---|---|
|  | fitter, supervisor and operator  |  |   |   |   |   |
|  | PC8. check the cleanliness of the machines & other work areas  |  | 6 | 2 | 1 | 3 |
|  | PC9. check whether any spare/raw material/ tool / yarn / any other material are thrown under the machines or in the other work areas.  |  | 4 | 1 | 2 | 1 |
|  | PC10. should question the previous shift maintenance people for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well that of the previous shift as well. |  | 5 | 2 | 2 | 1 |
|  | PC11. ensure the work spot is clean  |  | 4 | 1 | 2 | 1 |
|  | PC12. Take over the shift from the outgoing shift fitter in a proper manner  |  | 7 | 2 | 2 | 3 |
|  | PC13. ensure in providing the details regarding fabric produced, colour coding being followed for his allocated number of machines in the knitting department  |  | 6 | 2 | 2 | 2 |
|  | PC14. provide all relevant information regarding the fabric produced, idle machines, damaged machine parts if any ,get clearance from the incoming counterpart before leaving the work spot                  |  | 6 | 1 | 2 | 3 |
|  | PC15. report to his shift superiors as well as that of the incoming shift fitter in case his/ her counterpart doesn't report for the incoming shift fitter   |  | 6 | 2 | 2 | 2 |
|  | PC16. ensure the shift has to be properly handed over to the incoming shift fitter   |  | 6 | 2 | 1 | 3 |
|  | PC17. report to his shift superior about the quality / production / maintenance issues / safety issues/ any other issue faced in his/her shift and should leave  |  | 5 | 1 | 2 | 2 |

### Assessment Criteria

|  |   |                    |            |            |            |            |
|--|---|--------------------|------------|------------|------------|------------|
|  | the department only after getting concurrence for the same from his/ her superiors  |                    |            |            |            |            |
|  | PC18. ensure the work spot is clean   |                    | 4          | 1          | 2          | 1          |
|  | <b>Total</b>  |                    | <b>100</b> | <b>29</b>  | <b>36</b>  | <b>35</b>  |
|  |   | <b>Weightage %</b> |            | <b>29%</b> | <b>36%</b> | <b>35%</b> |
|  |   |                    |            |            |            |            |
| <b>2. TSC/N4202 (General Maintenance Responsibilities of Knitting Machine Fitter )</b> | PC1. taking round of the work area before the start of the shift and observing the working.                                       | <b>191</b>         | <b>5</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>   |
|  | PC2. Taking note of the machines stopped for repairs and the type of problem.   |                    | <b>6</b>   | <b>2</b>   | <b>3</b>   | <b>1</b>   |
|  | PC3. dismantle and assemble different mechanisms in the machines on need basis.   |                    | <b>7</b>   | <b>2</b>   | <b>4</b>   | <b>1</b>   |
|  | PC4. repair and overhaul electrical and mechanical systems of knitting machinery.   |                    | <b>6</b>   | <b>2</b>   | <b>3</b>   | <b>1</b>   |
|  | PC5. adjust and set up complex machinery for new patterns or products   |                    | <b>5</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>   |
|  | PC6. perform maintenance, such as, cleaning and lubrication of knitting machinery, and replace and align moving parts as required |                    | <b>5</b>   | <b>2</b>   | <b>3</b>   | <b>0</b>   |
|  | PC7. recommend equipment changes or modifications and evaluate new equipment  |                    | <b>7</b>   | <b>3</b>   | <b>3</b>   | <b>1</b>   |
|  | PC8. troubleshoot, test run and verify machine for proper operation.  |                    | <b>5</b>   | <b>2</b>   | <b>1</b>   | <b>2</b>   |
|  | PC9. clean machines (before & after work).  |                    | <b>7</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>   |
|  | PC10. understand different fabric knitting structures   |                    | <b>5</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>   |
|  | PC11. differentiate the needs of single   |                    | <b>5</b>   | <b>1</b>   | <b>1</b>   | <b>3</b>   |

**Assessment Criteria**

|  |   |  |    |   |   |   |
|--|---|--|----|---|---|---|
|  | knit and double knit machines, etc.   |  |    |   |   |   |
|  | PC12.operate machines, handle fabric and control of each machine properly   |  | 11 | 4 | 5 | 2 |
|  | PC13.install yarn cones on machine, adjust colours to different feeders, choose and change knitting structures graph on the machine   |  | 6  | 2 | 3 | 1 |
|  | PC14.Identify the yarn quality problems in knitting cotton with polyester or spandex  |  | 7  | 2 | 4 | 1 |
|  | PC15.Set /make various fabric structures jersey, pique, rib, interlock, fleece, etc.  |  | 6  | 2 | 3 | 1 |
|  | PC16.identify fabric order details such as knit structure,GSM, yarn count, gauge, size ,order quantity etc.   |  | 5  | 2 | 2 | 1 |
|  | PC17.inquire about the nature and extent of machine or knitting faults with operator  |  | 5  | 2 | 3 | 0 |
|  | PC18. Identify & assess knitting faults in the fabric   |  | 7  | 3 | 3 | 1 |
|  | PC19.Examine the yarn visually to assess its possible impact on machine operations  |  | 5  | 2 | 1 | 2 |
|  | PC20.Take decision to change the yarn or machine part upon establishment of fault in knitting machine when it is to be returned to optimal performance through repair of faulty operation or replacement of yarn or machine parts |  | 7  | 2 | 3 | 2 |
|  | PC21.Ensure to return the knitting machine to optimum performance level after repair of   |  | 5  | 2 | 2 | 1 |

### Assessment Criteria

|  |   |  |    |   |   |   |
|--|---|--|----|---|---|---|
|  | faulty operation, replacement of yarn or machine part   |  |    |   |   |   |
|  | PC22. Test run the machine & make sample ,to ensure that the problem is fixed   |  | 5  | 1 | 1 | 3 |
|  | PC23.identify quality standards and have knowledge of quality parameters  |  | 6  | 2 | 3 | 1 |
|  | PC24.quality concepts and implementation of process quality program   |  | 6  | 2 | 3 | 1 |
|  | PC25.identify the quality complaints in the machines.   |  | 7  | 2 | 4 | 1 |
|  | PC26.identify the works done till date and the works pending in the machines stopped for repairs or for maintenance works or modifications.   |  | 6  | 2 | 3 | 1 |
|  | PC27.track the production plan, prepare maintenance plan, and allocate people for different activities.   |  | 5  | 2 | 2 | 1 |
|  | PC28.keeping track of the machines allotted for various fabrics and decide on the parameters to be checked while doing maintenance, like condition of needles, sinkers or cams, loop settings, take-down mechanism. |  | 5  | 2 | 3 | 0 |
|  | PC29. allocation of the workers for different tasks considering their knowledge, skills, maturity and workloads agreed.   |  | 7  | 3 | 3 | 1 |
|  | PC30. reference to process parameters and work out the changes to be made for change in quality, GSM, stitch length etc. and getting the changes made by the concerned  |  | 10 | 3 | 2 | 5 |



### Assessment Criteria

|   |  |                    |     |     |     |     |
|---|--|--------------------|-----|-----|-----|-----|
|   | maintenance workers ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers.   |                    |     |     |     |     |
|   | PC31.counsel and influence poor performing worker achieve the norms  |                    | 7   | 2   | 3   | 2   |
|   | <b>Total</b>   |                    | 191 | 66  | 83  | 42  |
|   |  | <b>Weightage %</b> |     | 35% | 43% | 22% |
|   |  |                    |     |     |     |     |
| <b>3. TSC/N4203<br/>(Preventive maintenance responsibilities of Knitting Machine)</b> | PC1. check the proper functioning of machine parts like cylinder,dial,positive feeder, take down mechanism, stop motion and the ancillaries like trolleys, filters, and needles & sinkers etc. | <b>89</b>          | 5   | 2   | 2   | 1   |
|   | PC2. check the conditions of machine parts while they are being cleaned/scoured or overhauled  |                    | 5   | 2   | 2   | 1   |
|   | PC3. ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers.  |                    | 5   | 2   | 2   | 1   |
|   | PC4. change the settings of the machines on need basis.  |                    | 6   | 2   | 3   | 1   |
|   | PC5. give instructions to the machine operator about machine handling  |                    | 7   | 3   | 3   | 1   |
|   | PC6. identify the worn out parts and get them replaced.  |                    | 5   | 2   | 2   | 1   |
|   | PC7. verify the safety stop motions and get them attended  |                    | 5   | 2   | 2   | 1   |

### Assessment Criteria

|  |   |                   |           |            |            |            |
|--|---|-------------------|-----------|------------|------------|------------|
|  | PC8. monitor the stoppages due to breakdowns and analyse the reasons for breakdowns and take precautionary measures.                    |                   | 5         | 1          | 3          | 1          |
|  | PC9. monitor the cylinder change activities in knitting machines and fabric change  |                   | 7         | 3          | 3          | 1          |
|  | PC10. monitor the cam and needles, draw, first landing, pressing, second landing, knock over, holding down, sinker action, threading-up |                   | 7         | 2          | 3          | 2          |
|  | PC11. carry out all changes to machine settings in accordance with workplace procedures and as directed by a supervisor                 |                   | 5         | 1          | 3          | 1          |
|  | PC12. conduct tool audits, i.e. the tools used for maintenance like spanners, gauge, lubricating and flushing pumps etc.                |                   | 7         | 3          | 3          | 1          |
|  | PC13. oil and grease the different machine parts at scheduled intervals for smooth functioning of machines                              |                   | 5         | 2          | 2          | 1          |
|  | PC14. schedule the oiling and greasing activities   |                   | 5         | 2          | 2          | 1          |
|  | PC15. ensure correct oil and grease are taken   |                   | 5         | 1          | 3          | 1          |
|  | PC16. ensure proper functioning of machines in preparatory department   |                   | 5         | 1          | 3          | 1          |
|  | <b>Total</b>  |                   | <b>89</b> | <b>31</b>  | <b>41</b>  | <b>17</b>  |
|  |   | <b>Weightage%</b> |           | <b>35%</b> | <b>46%</b> | <b>19%</b> |

**Assessment Criteria**

|   |  |           |          |          |          |          |
|---|--|-----------|----------|----------|----------|----------|
| <b>4. TSC/N4204<br/>(Breakdown<br/>Maintenance of<br/>Knitting Machine)</b> | PC1. attend the machine on a break down  | <b>70</b> | <b>4</b> | <b>1</b> | <b>2</b> | <b>1</b> |
|   | PC2. report to the maintenance incharge on a breakdown                                       |           | <b>4</b> | <b>1</b> | <b>1</b> | <b>2</b> |
|   | PC3. prepare the machine for carrying out breakdown maintenance                              |           | <b>4</b> | <b>1</b> | <b>2</b> | <b>1</b> |
|   | PC4. ensure in bringing the proper tool and equipments required for carrying out maintenance |           | <b>4</b> | <b>1</b> | <b>2</b> | <b>1</b> |
|   | PC5. analyze the machine which is under breakdown  |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |
|   | PC6. identify the reason for breakdown   |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |
|   | PC7. carryout maintenance activities   |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |
|   | PC8. replace worn out parts with new parts   |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |
|   | PC9. ensure safety while carrying out maintenance activity                                   |           | <b>4</b> | <b>1</b> | <b>2</b> | <b>1</b> |
|   | PC10. ensure proper material handling of maintenance tools                                   |           | <b>4</b> | <b>2</b> | <b>2</b> | <b>0</b> |
|   | PC11. check for proper functioning of machine after maintenance                              |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |
|   | PC12. run the machine and check for smooth functioning of machine parts                      |           | <b>4</b> | <b>1</b> | <b>3</b> | <b>0</b> |
|   | PC13. repair further if further fine tuning is needed  |           | <b>4</b> | <b>1</b> | <b>3</b> | <b>0</b> |
|   | PC14. ensure the output material quality is as per quality                                   |           | <b>5</b> | <b>1</b> | <b>3</b> | <b>1</b> |

### Assessment Criteria

|   |   |                    |           |            |            |            |
|---|---|--------------------|-----------|------------|------------|------------|
|   | requirement.  |                    |           |            |            |            |
|   | PC15.ensure the use of safety gadgets like caps, masks, ear plugs, gloves and shoes by all maintenance workers  |                    | 4         | 1          | 2          | 1          |
|   | PC16.ensure minimum time is taken to attend the breakdown, identify the reason for breakdown and carryout the breakdown maintenance activities            |                    | 4         | 1          | 2          | 1          |
|   | <b>Total</b>  |                    | <b>70</b> | <b>17</b>  | <b>39</b>  | <b>14</b>  |
|   |   | <b>Weightage %</b> |           | <b>24%</b> | <b>56%</b> | <b>20%</b> |
|   |   |                    |           |            |            |            |
| <b>5. TSC/N4205 (Maintaining records and ensuring availability of spares for Knitting Machine )</b> | PC1.carryout maintenance auditing   | <b>30</b>          | 4         | 1          | 2          | 1          |
|   | PC2.record the activities in the log book (report book) and update the machine history book   |                    | 4         | 2          | 2          | 0          |
|   | PC3.verify the stock of various spares, accessories and lubricants and work out the indenting plan and place indents                                      |                    | 4         | 2          | 2          | 0          |
|   | PC4.refer the machinery catalogues and identify the correct spares needed   |                    | 3         | 2          | 1          | 0          |
|   | PC5.check the quality of materials received at stores, for e.g. bearings, wheels, machine spares, needles, belts, brushes, spanners and other tools, etc. |                    | 4         | 1          | 2          | 1          |
|   | PC6.carry out maintenance machine audit   |                    | 4         | 1          | 2          | 1          |
|   | PC7.maintain records of maintenance   |                    | 3         | 1          | 1          | 1          |
|   | PC8.ensure availability of spares and give requisitions on need basis   |                    | 4         | 1          | 2          | 1          |
|   | <b>Total</b>  |                    | <b>30</b> | <b>11</b>  | <b>14</b>  | <b>5</b>   |

### Assessment Criteria

|   |   | Weightage %        |           | 37%        | 46%        | 17%        |
|---|---|--------------------|-----------|------------|------------|------------|
| <b>6.TSC/N9001(Maintaining work area, tools and machines)</b> | PC1. handle materials, machinery, equipment and tools with care and use them in the correct way | <b>50</b>          | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC2. use correct lifting and handling procedures  |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC3. Know the use of materials and minimize waste   |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC4. maintain a clean and hazard free working area  |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC5. maintain tools and equipment   |                    | <b>4</b>  | <b>2</b>   | <b>1</b>   | <b>1</b>   |
|   | PC6. carry out running maintenance within agreed schedules                                      |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC7. carry out maintenance and/or cleaning within one's responsibility                          |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC8. report unsafe equipment and other dangerous occurrences                                    |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC9. ensure that the correct machine guards are in place  |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC10. work in a comfortable position with the correct posture                                   |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC11. use cleaning equipment and methods appropriate for the work to be carried out             |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC12. dispose of waste safely in the designated location  |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | PC13. store cleaning equipment safely after use   |                    | <b>3</b>  | <b>1</b>   | <b>1</b>   | <b>1</b>   |
|   | PC14. carry out cleaning according to schedules and limits of responsibility                    |                    | <b>4</b>  | <b>1</b>   | <b>2</b>   | <b>1</b>   |
|   | <b>Total</b>  |                    | <b>50</b> | <b>15</b>  | <b>21</b>  | <b>14</b>  |
|   |   | <b>Weightage %</b> |           | <b>30%</b> | <b>42%</b> | <b>28%</b> |
| <b>7.TSC/N9002 (Working in a team)</b>                        | PC1. be accountable to the own role in whole process  | <b>50</b>          | <b>4</b>  | <b>2</b>   | <b>1</b>   | <b>1</b>   |
|   | PC2. perform all roles with full responsibility   |                    | <b>4</b>  | <b>2</b>   | <b>1</b>   | <b>1</b>   |

### Assessment Criteria

|   |   |                    |           |            |            |            |
|---|---|--------------------|-----------|------------|------------|------------|
|   | PC3. be effective and efficient at workplace  |                    | 5         | 2          | 2          | 1          |
|   | PC4. properly communicate about company policies  |                    | 4         | 1          | 1          | 2          |
|   | PC5. report all problems faced during the process   |                    | 4         | 1          | 1          | 2          |
|   | PC6. talk politely with other team members and colleagues   |                    | 4         | 1          | 1          | 2          |
|   | PC7. submit daily report of own performance   |                    | 5         | 2          | 2          | 1          |
|   | PC8. adjust in different work situations  |                    | 4         | 2          | 1          | 1          |
|   | PC9. give due importance to others' point of view   |                    | 4         | 2          | 1          | 1          |
|   | PC10. avoid conflicting situations  |                    | 4         | 2          | 1          | 1          |
|   | PC11. develop new ideas for work procedures   |                    | 4         | 1          | 2          | 1          |
|   | PC12. improve upon the existing techniques to increase process efficiency   |                    | 4         | 1          | 2          | 1          |
|   | <b>Total</b>  |                    | <b>50</b> | <b>19</b>  | <b>16</b>  | <b>15</b>  |
|   |   | <b>Weightage %</b> |           | <b>38%</b> | <b>32%</b> | <b>30%</b> |
|   |   |                    |           |            |            |            |
| <b>8.TSC/N9003<br/>(Maintain health, safety and security at work place)</b> | PC1. comply with health and safety related instructions applicable to the workplace                                   | <b>100</b>         | 5         | 2          | 2          | 1          |
|   | PC2. use and maintain personal protective equipment such as "ear plug", "nose mask", "head cap" etc., as per protocol |                    | 5         | 2          | 2          | 1          |
|   | PC3. carry out own activities in line with approved guidelines and procedures   |                    | 4         | 2          | 1          | 1          |
|   | PC4. maintain a healthy lifestyle and guard against dependency on intoxicants   |                    | 4         | 2          | 1          | 1          |
|   | PC5. follow environment management system related procedures  |                    | 4         | 2          | 1          | 1          |
|   | PC6. identify and correct (if possible) malfunctions in machinery and equipment                                       |                    | 5         | 2          | 2          | 1          |
|   | PC7. report any service malfunctions that cannot be rectified   |                    | 4         | 2          | 1          | 1          |



**Assessment Criteria**

|   |   |   |   |   |
|---|---|---|---|---|
| PC8. store materials and equipment in line with organisational requirements                                       | 4 | 1 | 2 | 1 |
| PC9. safely handle and remove waste   | 4 | 1 | 2 | 1 |
| PC10. minimize health and safety risks to self and others due to own actions                                      | 5 | 2 | 2 | 1 |
| PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks              | 4 | 2 | 0 | 2 |
| PC12. monitor the workplace and work processes for potential risks and threat                                     | 5 | 2 | 2 | 1 |
| PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned           | 5 | 2 | 2 | 1 |
| PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel                    | 4 | 1 | 2 | 1 |
| PC15. participate in mock drills/ evacuation procedures organized at the workplace                                | 4 | 2 | 2 | 0 |
| PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so                       | 5 | 2 | 2 | 1 |
| PC17. take action based on instructions in the event of fire, emergencies or accidents                            | 5 | 2 | 2 | 1 |
| PC18. follow organisation procedures for shutdown and evacuation when required                                    | 4 | 2 | 1 | 1 |
| PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry | 4 | 2 | 1 | 1 |
| PC20. recognise other possible security issues existing in the workplace  | 4 | 2 | 1 | 1 |
| PC21. recognise different measures to curb the hazards  | 4 | 2 | 1 | 1 |
| PC22. communicate the safety plan to  | 4 | 2 | 1 | 1 |

### Assessment Criteria

|   |  |                    |            |            |            |            |
|---|--|--------------------|------------|------------|------------|------------|
|   | everyone   |                    |            |            |            |            |
|   | PC23. attach disciplinary rules with the implementation      |                    | 4          | 2          | 1          | 1          |
|   | <b>Total</b>   |                    | <b>100</b> | <b>43</b>  | <b>34</b>  | <b>23</b>  |
|   |  | <b>Weightage %</b> |            | <b>43%</b> | <b>34%</b> | <b>23%</b> |
|   |  |                    |            |            |            |            |
| <b>9.TSC/N9004<br/>(Comply with industry and organizational requirements)</b> | PC1. perform own duties effectively                          | <b>50</b>          | 4          | 1          | 2          | 1          |
|   | PC2. take responsibility for own actions                     |                    | 4          | 1          | 2          | 1          |
|   | PC3. be accountable towards the job role and assigned duties |                    | 4          | 2          | 1          | 1          |
|   | PC4. take initiative and innovate the existing methods       |                    | 3          | 1          | 1          | 1          |
|   | PC5. focus on self-learning and improvement                  |                    | 4          | 1          | 2          | 1          |
|   | PC6. co-ordinate with all the team members and colleagues    |                    | 4          | 1          | 2          | 1          |
|   | PC7. communicate politely                                    |                    | 4          | 1          | 1          | 2          |
|   | PC8. avoid conflicts and miscommunication                    |                    | 4          | 1          | 2          | 1          |
|   | PC9. know the organisational standards                       |                    | 4          | 2          | 1          | 1          |
|   | PC10. implement them in your performance                     |                    | 4          | 1          | 2          | 1          |
|   | PC11. motivate others to follow them                         |                    | 3          | 1          | 1          | 1          |
|   | PC12. know the industry standards                            |                    | 4          | 3          | 1          | 0          |
|   | PC13. align them with organisation standards                 |                    | 4          | 2          | 1          | 1          |
|   | <b>Total</b>   |                    | <b>50</b>  | <b>18</b>  | <b>19</b>  | <b>13</b>  |
|   |  | <b>Weightage %</b> |            | <b>36%</b> | <b>38%</b> | <b>26%</b> |
| <b>Grand Total</b>  |  |                    | <b>730</b> | <b>249</b> | <b>303</b> | <b>178</b> |