

## 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

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### Introduction

## Qualifications Pack – Knitting Machine Operator – Warp Knitting

**SECTOR:** TEXTILE

**SUB-SECTOR:** KNITTING

**OCCUPATION:** KNITTING

**REFERENCE ID:** TSC/ Q 4103

**ALIGNED TO:** NCO-2004 /8262.55

**Brief Job Description:** A Warp knitting machine operator is responsible for operating the warp knitting machine in a knitting mill. This job requires the individual to have thorough knowledge of process flow and material flow in a knitting mill for fabric production and should know the important functions and operations of warp knitting machines.

**Personal Attributes:** An knitting operator 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/Q4103		
	Job Role	Knitting Machine Operator-Warp Knitting		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Textile	Drafted on	15/12/14
	Sub-sector	Knitting	Last reviewed on	21/01/15
	Occupation	Knitting	Next review date	01/03/16
	Job Role	Knitting Machine Operator – Warp Knitting		
Role Description		This job requires the individual to have thorough knowledge in process flow and material flow in a knitting mill for fabric production and should be able to know the important functions and operations of Warp knitting machines.		
NSQF level		4		
Minimum Educational Qualifications		5 <sup>th</sup> standard, preferably		
Maximum Educational Qualifications		N/A		
Training (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/ N4109 Taking charge of shift and handing over shift to Knitting Machine Operator–Warp Knitting</a></li> <li><a href="#">TSC/ N4110 Repair yarn related faults in Warp Knitting</a></li> <li><a href="#">TSC/ N4111 Operating the Warp Knitting Machine</a></li> <li><a href="#">TSC/ N4112 Knotting the yarn and fabric take off</a></li> <li><a href="#">TSC/ N4113 Repair yarn related faults at the knitting head and fabric press off</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: N/A</b>		
Performance Criteria		As described in the relevant OS units		

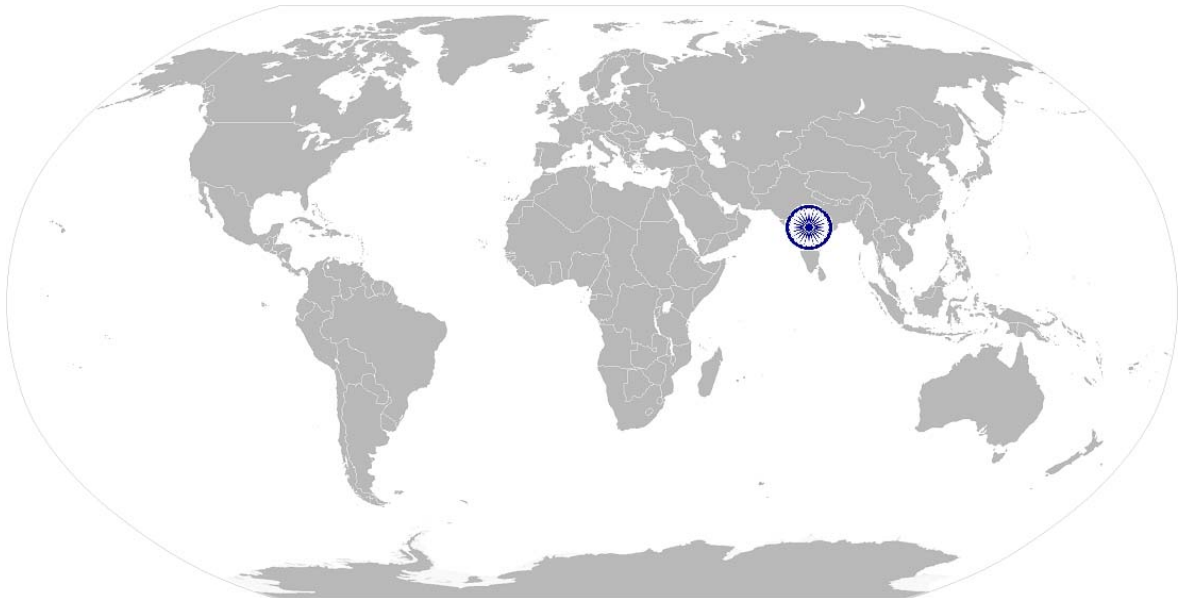
Table 1: Glossary of Key Terms

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/ N4109** Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting

# National Occupational Standard



## Overview

This unit is about taking charge of shift from the Knitting Machine operator-Warp Knitting and handing over shift to next Knitting Machine operator-Warp Knitting.

**TSC/ N4109** Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting

National Occupational Standard	<b>Unit Code</b>	<b>TSC/ N 4109</b>
	<b>Unit Title (Task)</b>	<b>Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting</b>
	<b>Description</b>	This unit is about taking charge of shift from previous shift Knitting Machine operator-Warp Knitting and relieving the responsibilities to the next shift Knitting Machine operator-Warp Knitting
	<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 operator-Warp Knitting</li> <li>Handing over shift to Knitting Machine operator-Warp Knitting</li> </ul>
	<b>Elements</b>	<b>Performance Criteria</b>
	<b>Taking charge of shift from Knitting Machine operator-Warp Knitting</b>	<p>To be competent, you must be able to:</p> <p>PC1. Reach at least 10 - 15 minutes early to the work place</p> <p>PC2. bring the necessary operational tools to the department</p> <p>PC3. meet the previous shift operator and collect the information regarding the count, process, issues faced in quality, current beam production followed in the knitting department.</p> <p>PC4. be updated on information regarding the current order such as it is for which company and other details.</p> <p>PC5. ensure proper functioning of machine and problems if any should be reported to the supervisor and maintenance in- charge.</p> <p>PC6. understand and be informed about the current order quantity and balance quantity.</p> <p>PC7. be updated on the new order fabric details and quantity.</p>
	<b>Handing Over Shift to Knitting Machine operator-Warp Knitting</b>	<p>PC8. clean the machine and department before handing over the shift.</p> <p>PC9. hand over the necessary operational tools if any.</p> <p>PC10. meet the next shift operator and give the information regarding the count, GSM, loop length, process, issues faced in quality, and current fabric production followed in the knitting department.</p> <p>PC11. note the production details for the current shift</p> <p>PC12. ensure proper functioning of the machine and problems if any, should be reported to the supervisor and maintenance incharge.</p> <p>PC13. give details to the next shift operator about the current order quality, quantity and balance quantity.</p> <p>PC14. convey information regarding new order fabric details and quantity.</p>
<b>Knowledge and Understanding (K)</b>		
<b>A. Organizational Context</b> (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 knitting industry</p> <p>KA2. safe working practices to be adopted in knitting industry</p> <p>KA3. quality systems and other processes practiced in the knitting industry</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 knitting industry</p>	



**TSC/ N4109** Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting

<b>B. Technical Knowledge</b>	<p>You need to know and understand:</p> <p>KB1. process flow and material flow in knitting industry</p> <p>KB2. functions of warp knitting machine</p> <p>KB3. importance of yarn quality, fabric type and quality</p> <p>KB4. functions of control switches and signal lamps in knitting machine</p> <p>KB5. knowledge of different functions in display panel and procedure to operate the knitting machine.</p> <p>KB6. importance of fabric technical details (gsm, loop length, type of the fabric...)</p> <p>KB7. knowledge about type of the fabric, machine settings.</p> <p>KB8. knowledge of different functions in display panel and procedure to operate the knitting machine.</p> <p>KB9. importance of cleanliness and safety at work place.</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. read and 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>
<b>B. Professional Skills</b>	<b>Problem Solving</b>
	<p>You need to know and understand how to:</p> <p>SB1. apply problem-solving approaches in different situations</p> <p>SB2. refer anomalies to the supervisor</p> <p>SB3. seek clarification on problems from others</p>
	<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 collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.</p> <p>SB7. standard operating procedure for carrying out knotting activity</p> <p>SB8. procedure for collecting the yarn from creel zone and condense through the guides, positive feeders for fabric formation.</p> <p>SB9. standard operating procedure for carrying out fabric take off activity</p> <p>SB10. procedure for segregating the different types of fabric and yarn</p> <p>SB11. procedure for storing the fabric roll.</p> <p>SB12. procedure for checking the fabric roll.</p> <p>SB13. procedure for segregating the different types of wastes</p>

**TSC/ N4109** Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting

	<p>SB14. procedure for storing reusable wastes and weighing them</p> <p>SB15. procedure for material handling of cone, fabric roll.</p> <p>SB16. maintain cleanliness at work.</p>
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**TSC/ N4109** Taking charge of shift and handing over shift to Knitting Machine Operator –Warp Knitting

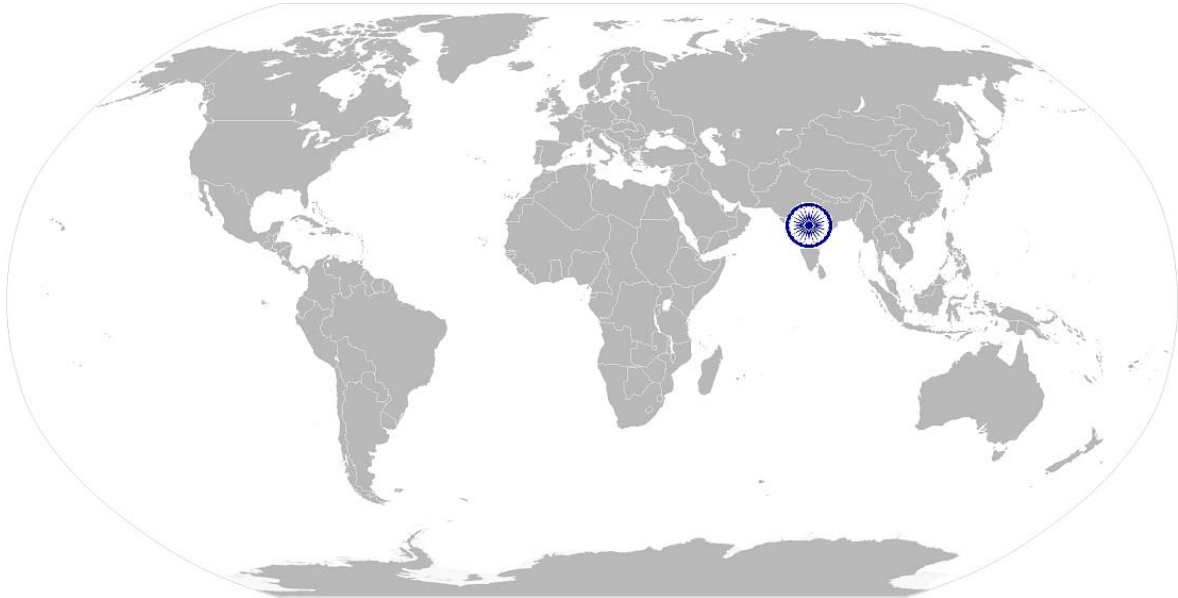
**NOS Version Control**

NOS Code	TSC/ N 4109		
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	Knitting	Next review date	01/03/16

TSC/ N4110

Repair yarn related faults in Warp Knitting

# National Occupational Standard



## Overview

This unit is about repairing yarn related faults

TSC/ N4110

Repair yarn related faults in Warp Knitting

National Occupational Standard	Unit Code	TSC/ N 4110
	Unit Title (Task)	Repair yarn related faults in Warp Knitting
	Description	This unit is about carrying out the Repair of yarn-related faults at the knitting head and fabric press-offs.
	Scope	<b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>attending the yarn-related faults</li> </ul>
	Elements	Performance Criteria
	Attending the yarn related faults	To be competent, you must be able to: <ul style="list-style-type: none"> <li>PC1. identify incorrectly-positioned yarns and rethread them in accordance with workplace procedures</li> <li>PC2. identify the reasons for yarn breakage</li> <li>PC3. join broken yarns or new ends in accordance with workplace procedures.</li> <li>PC4. reset machines for restart after fault correction, style changes, and pattern changes.</li> </ul>
	<b>Knowledge and Understanding (K)</b>	
	<b>A. Organizational Context</b> (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 knitting unit /mill</li> <li>KA2. safe working practices to be adopted in knitting unit /mill</li> <li>KA3. quality systems and other processes practiced in the knitting unit / mill</li> <li>KA4. reporting to the supervisor or higher authority in case of emergency</li> <li>KA5. color coding adopted for different products in the knitting unit / mill</li> </ul>
	<b>B. Technical Knowledge</b>	You need to know and understand: <ul style="list-style-type: none"> <li>KB1. process flow and material flow in knitting industry</li> <li>KB2. functions of knitting machine</li> <li>KB3. functions of control switches and signal lamps in knitting machine</li> <li>KB4. importance of knotting</li> <li>KB5. importance of doffing</li> <li>KB6. importance of fabric quality</li> <li>KB7. guidelines for knotting the yarn</li> <li>KB8. guidelines for carrying out fabric take off activity</li> <li>KB9. functions of different control switches in knitting machine</li> <li>KB10. knowledge of different functions in display panel and procedure to operate the knitting machine</li> <li>KB11. functions of different signal lamps in knitting machine.</li> <li>KB12. importance of cleanliness and safety at work place</li> </ul>
	<b>Skills (S)</b>	
	<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
		You need to know and understand how to: <ul style="list-style-type: none"> <li>SA1. write clear and short sentences</li> </ul>
		<b>Reading Skills</b>
		You need to know and understand how to: <ul style="list-style-type: none"> <li>SA2. comprehend written instructions</li> </ul>
		<b>Oral Communication (Listening and Speaking skills)</b>
	You need to know and understand how to:	

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**Repair yarn related faults in Warp Knitting**

	SA3. communicate with supervisor appropriately 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: SB1. apply problem-solving approaches in different situations SB2. refer anomalies to the supervisor SB3. seek clarification on problems from others
	<b>Attention to Detail</b> You need to know and understand how to: SB4. apply good attention to detail SB5. check your work is complete and free from errors
	You need to know and understand: SB6. procedure to collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation. SB7. standard operating procedure for carrying out knotting activity SB8. standard operating procedure for carrying out fabric take off activity SB9. procedure for segregating the different types of wastes SB10. procedure for storing reusable wastes and weighing them SB11. procedure for material handling of cone, fabric roll SB12. maintain cleanliness at work



**TSC/ N4110**

**Repair yarn related faults in Warp Knitting**

**NOS Version Control**

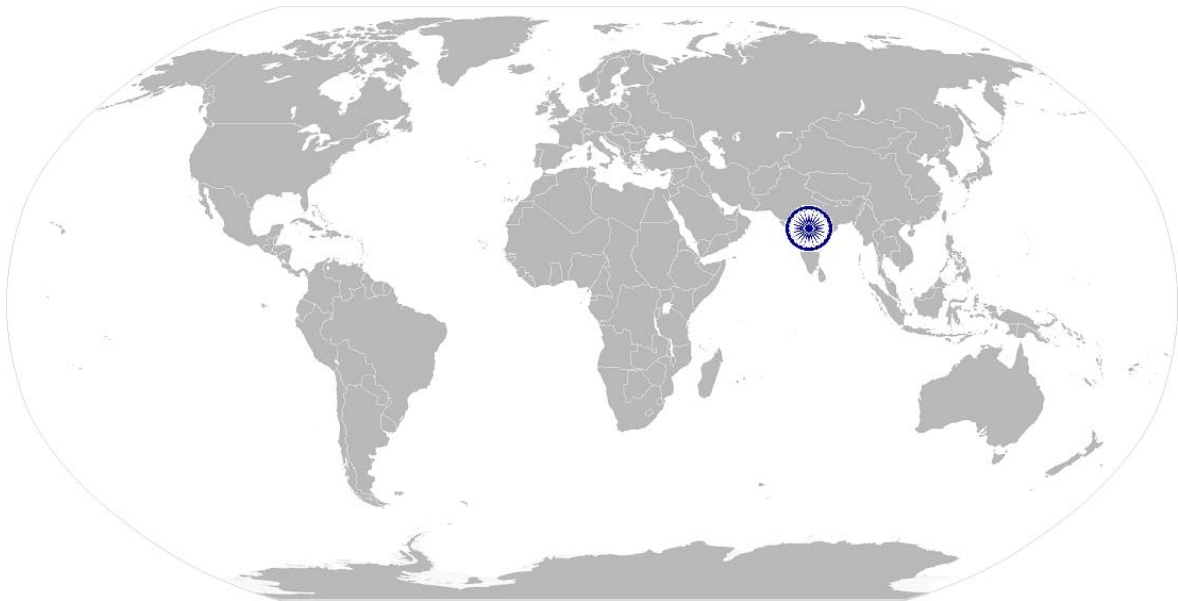
NOS Code	TSC/ N4110		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	Next review date	01/03/16



TSC/ N4111

Operating the Warp Knitting Machine

# National Occupational Standard



## Overview

This unit is about operating the warp knitting machine

**TSC/ N4111**

**Operating the Warp Knitting Machine**

**National Occupational Standard**

<b>Unit Code</b>	<b>TSC/ N 4111</b>
<b>Unit Title (Task)</b>	<b>Operating the warp knitting machine</b>
<b>Description</b>	This unit is about carrying out procedure for operating the warp knitting machine
<b>Scope</b>	<b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>operating the knitting machine</li> <li>repair yarn-related faults at the knitting head and fabric press-offs</li> <li>carryout maintenance activities</li> <li>material handling and safety at workplace</li> <li>other responsibilities</li> </ul>
<b>Elements</b>	<b>Performance Criteria</b>
Operating the Warping & Warp knitting machine	<p>to be competent, you must be able to:</p> <p>PC1. start the machine</p> <p>PC2. operate the control switches for starting and stopping the warping / warp knitting machine.</p> <p>PC3. follow the signal lamps used in machines.</p> <p>PC4. ensure proper functioning of the knitting machine by verifying in the display panel.</p> <p>PC5. operate the warping machine to produce beams of lengths specified in work instructions.</p> <p>PC6. Produce beams through reed and traverse-mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses</p> <p>PC7. Produce beams of exact levelness throughout by means of critical setting and adjustment of yarn tensions</p> <p>PC8. reset broken ends</p> <p>PC9. Thread completed beams into warp-knitting machines in accordance with workplace procedures.</p> <p>PC10. Identify completed beams, doff, and store in accordance with workplace procedures or as directed by the supervisor.</p> <p>PC11. Ensure yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns</p> <p>PC12. Ensure the warping environment is clean and free of contaminants</p> <p>PC13. ensure the machines are monitored for continuous functioning of all systems, and variations notified</p> <p>PC14. ensure the documentation of production is completed in accordance with workplace procedures.</p> <p>PC15. ensure the machines are lubricated as directed in the machine manual</p> <p>PC16. check whether the yarns are properly fed in the knitting machine</p> <p>PC17. knot the yarn during breakage</p> <p>PC18. view the display panel or signal and identify the reasons for machine stoppages if any</p> <p>PC19. ensure the knitting machine is running in the set speed by viewing the display panel</p> <p>PC20. ensure the working area is clean</p>



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**Operating the Warp Knitting Machine**

Repair yarn-related faults at the knitting head and fabric press-offs	<p>PC21. ensure proper functioning of machine</p> <p>PC22. ensure incorrectly-positioned yarns are rethreaded</p> <p>PC23. ensure the broken yarns or new ends are joined</p> <p>PC24. fabric press-offs are fixed in accordance with machine-type and workplace procedures.</p> <p>PC25. machines are reset for restart in accordance with workplace procedures.</p> <p>PC26. after fault correction, style changes, and pattern changes.</p>
Carryout maintenance activities	<p>PC27. support the fitter for carrying out maintenance activities</p> <p>PC28. ensure the gsm, loop length variation is within the limits and if it's abnormal report it to superiors.</p> <p>PC29. inform the supervisor and maintenance incharge in case of a jam</p> <p>PC30. to support the fitter during minor breakdown</p> <p>PC31. ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.</p> <p>PC32. safety precautions that comply with workplace procedures are observed.</p> <p>PC33. ensure the working environment is kept clean and free of contamination.</p>
Material handling and safety at workplace	<p>PC34. ensure proper material handling of yarn, beam and fabric roll</p> <p>PC35. ensure using proper material handling of tools and equipments</p> <p>PC36. ensure safety while operating the warp knitting machine</p> <p>PC37. use safety gadgets like caps, masks, ear plugs and shoes and verifying the safety stop motions</p>
Other responsibilities	<p>PC38. ensure the fabric produced is free from outside damages</p> <p>PC39. collect usable waste to be weighed at shift end and to be placed in the specified area</p> <p>PC40. inform superiors immediately, if any break down or fault in the machine is noticed</p> <p>PC41. ensure the proper functioning of signal lamps</p> <p>PC42. ensure that machine is always working properly, if any deviations inform superiors immediately</p> <p>PC43. yarn wastes are identified by fibre content and sorted according to workplace procedures.</p> <p>PC44. Ensure fabric wastes are identified and sorted according to workplace procedures.</p> <p>PC45. provide all relevant information's of the current working process to the next shift operator before relieving.</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (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 knitting unit / mill</p> <p>KA2. safe working practices to be adopted in knitting unit / mill</p> <p>KA3. quality systems and other processes practiced in the knitting unit / mill</p> <p>KA4. reporting to the supervisor or higher authority in case of emergency</p> <p>KA5. color coding adopted for different products in the knitting unit / mill</p>
<b>B. Technical Knowledge</b>	<p>You need to know and understand:</p> <p>KB1. process and material flow in a knitting unit / mill</p> <p>KB2. understanding the importance of yarn, types of yarn, yarn count, types of</p>

**TSC/ N4111**

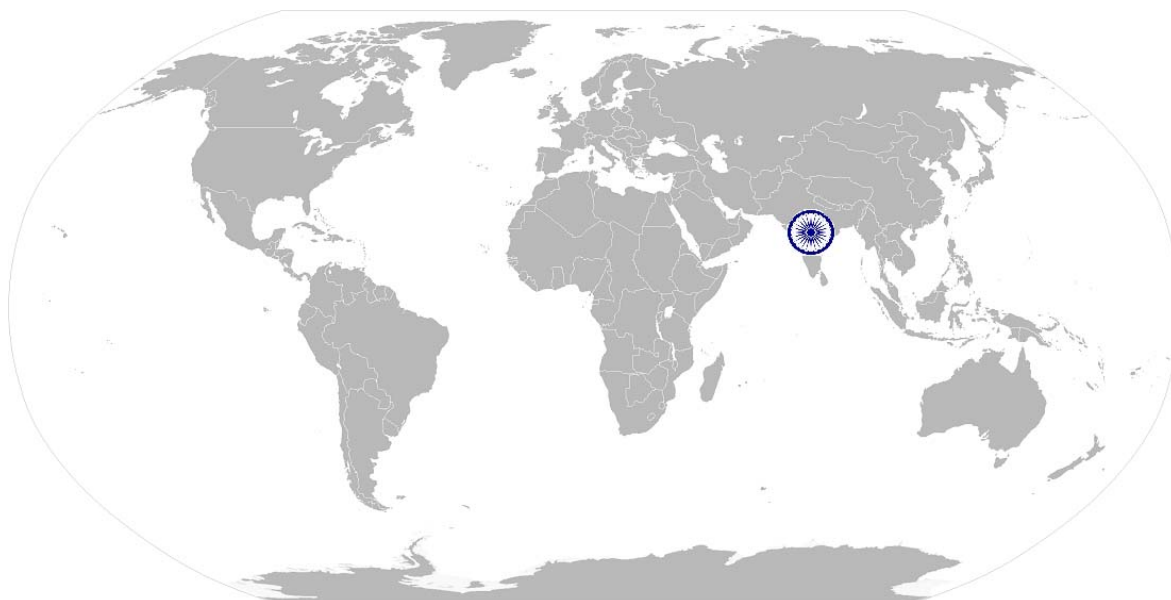
**Operating the Warp Knitting Machine**

	<p>fabric, loop length, gsm, importance of yarn and fabric quality</p> <p>KB3. importance of weft knitting machine, various parts in a knitting machine and their functions</p> <p>KB4. importance &amp; functions of signal lamps</p> <p>KB5. different control buttons in knitting machine</p> <p>KB6. knowledge of different functions in display panel and procedure to operate the knitting machine</p> <p>KB7. types of wastes</p> <p>KB8. procedure for collecting wastes</p> <p>KB9. guidelines for operating the material handling tools and equipments</p> <p>KB10. importance of cleanliness at work place</p> <p>KB11. procedure to identify the normal defects in fabric and actions needed to correct them</p> <p>KB12. guidelines for carrying out cleaning activities</p> <p>KB13. guidelines for carrying out maintenance activities</p> <p>KB14. importance of material handling</p> <p>KB15. types of material handling equipments used</p> <p>KB16. functions and methodology for operating different material handling equipments.</p> <p>KB17. safety gadgets used in a knitting department.</p>
<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>
	You need to know and understand how to: SA2. read and comprehend written instructions
	<b>Oral Communication (Listening and Speaking skills)</b>
	You need to know and understand how to: SA3. communicate with supervisor appropriately 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: SB1. apply problem-solving approaches in different situations SB2. refer anomalies to the supervisor SB3. seek clarification on problems from others
	<b>Attention to Detail</b>
	You need to know and understand how to: SB4. apply good attention to detail SB5. check your work is complete and free from errors
	You need to know and understand how to : SB6. procedure to identify and remove the defects in fabric SB7. procedure for cleaning the wastes and waste segregation SB8. procedure to carryout cleaning activities in knitting machine SB9. procedure for cleaning the knitting machine area.

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**Operating the Warp Knitting Machine**

	<p>SB10. procedure to carryout basic maintenance activities in knitting machine</p> <p>SB11. maintain cleanliness at work place</p>
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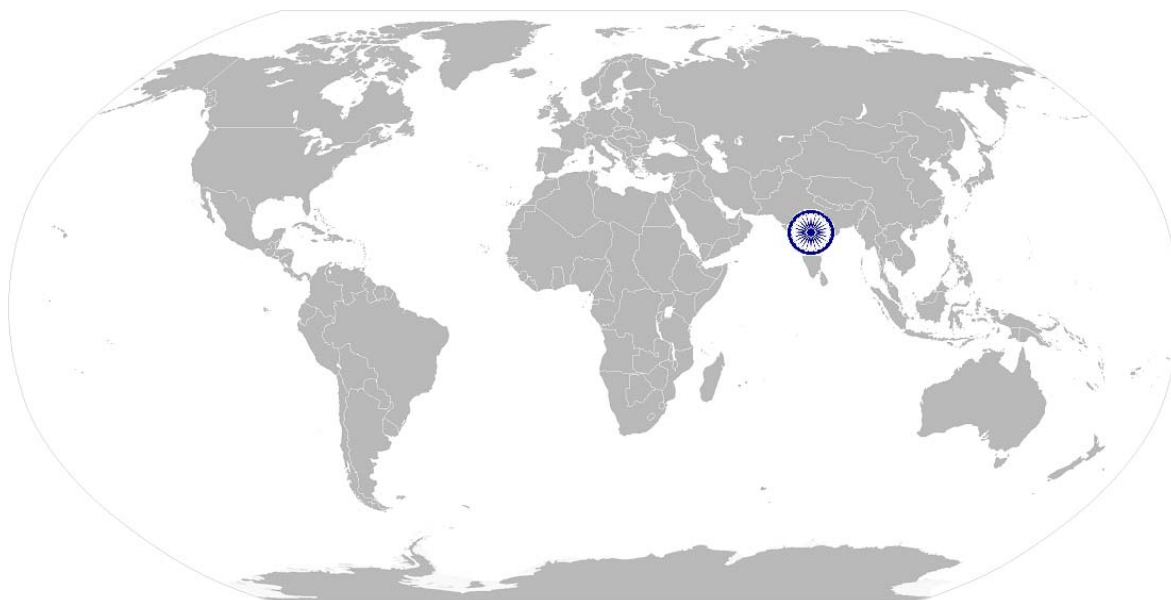


**TSC/ N4111**

**Operating the Warp Knitting Machine**

**NOS Version Control**

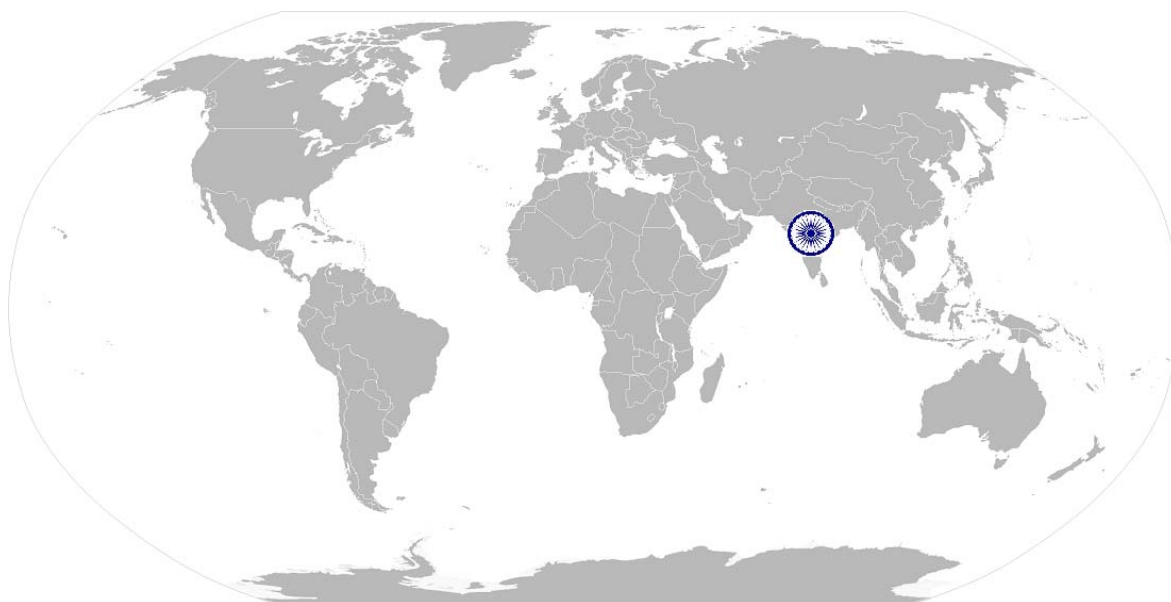
NOS Code	TSC/ N 4111		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	Next review date	01/03/16



TSC/ N4112

Knotting the Yarn & Fabric Take-off

# National Occupational Standard



## Overview

This unit is about knotting the yarn and fabric take off

TSC/ N4112

Knotting the Yarn & Fabric Take-off

National Occupational Standard	Unit Code	TSC/ N 4112
	Unit Title (Task)	Knotting the yarn and fabric take off
	Description	This unit is about carrying out knotting, cleaning and maintenance activities in knitting department
	Scope	<b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>attending the machine on yarn breakage</li> <li>knotting the yarn</li> <li>checking the quality of knotting</li> <li>carry out doffing</li> <li>post fabric take off responsibilities</li> </ul>
	Elements	Performance Criteria
	Attending the machine on yarn breakage	To be competent, you must be able to: PC1. identify whether the machine stoppage by viewing the signal lamps and in display panel PC2. identify the reasons for yarn breakage PC3. ensure minimum time is taken for attending the yarn breakage
	Knotting the yarn	PC4. unwind the yarn from beam PC5. ensure proper knotting PC6. draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone PC7. ensure proper functioning of knitting machine post knotting PC8. collect the wastes collected during knotting and store the waste at respective waste box PC9. segregate the reusable wastes and weigh and record them in a register PC10. ensure standard knotting procedure is adopted and quality of knotting is as per standards PC11. ensure minimum time is taken for knotting the yarn. PC12. ensure safety while carrying out knotting activity
	Checking the quality of knotting	PC13. verify the quality of knotting done in the yarn PC14. ensure yarn tension in the creeling section is appropriate PC15. ensure proper functioning of the machine
	Carrying out doffing	PC16. collect the empty cones from creel and replace with full cone. PC17. ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual PC18. keep the empty fabric roller ready for replacement PC19. doff the full fabric roll in case of manual take-off. PC20. ensure proper fabric take off procedure is followed PC21. move the fabric roll to storage area PC22. ensure the knitting machine is properly restarted after doffing
	Post fabric take off responsibilities	PC23. ensure proper functioning of knitting machine post fabric take off PC24. ensure proper material handling of yarn, beam and fabric PC25. ensure proper material handling of tools and equipments



TSC/ N4112

## Knotting the Yarn & Fabric Take-off

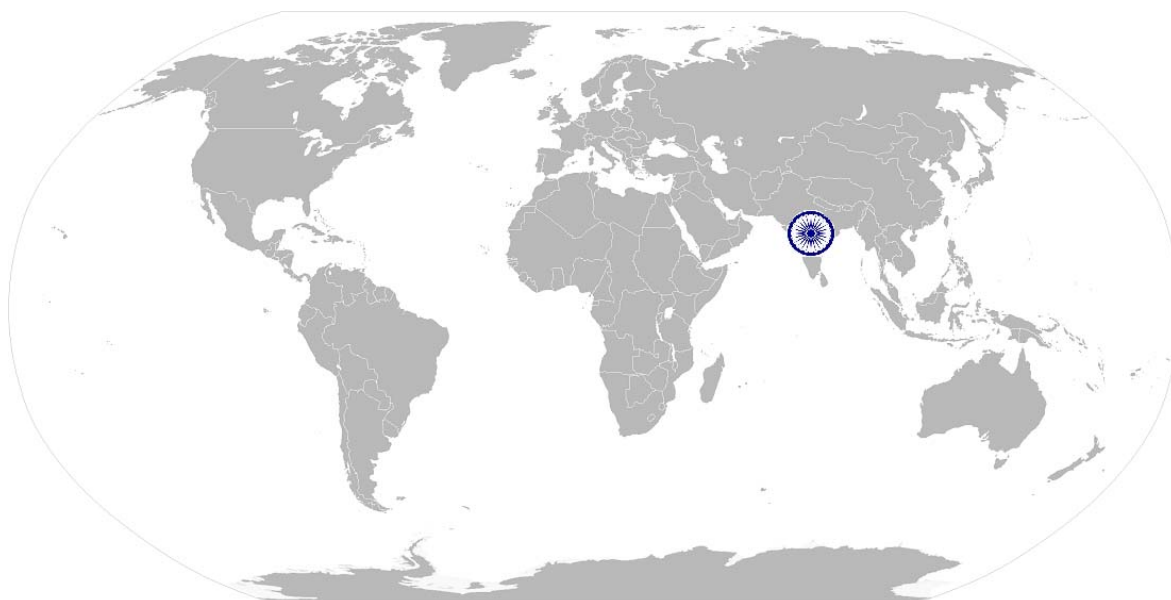
Knowledge and Understanding (K)	
<b>A. Organizational Context</b> (Knowledge of the company/ organization and its processes)	<p>You need to know and understand:</p> <p>KA1. standard operating procedures (SOP) and regulations in a knitting unit / mill</p> <p>KA2. safe working practices to be adopted in knitting unit / mill</p> <p>KA3. quality systems and other processes practiced in the knitting unit / mill</p> <p>KA4. reporting to the supervisor or higher authority in case of emergency</p> <p>KA5. color coding adopted for different counts in the knitting unit / mill</p>
<b>B. Technical Knowledge</b>	<p>You need to know and understand:</p> <p>KB1. process flow and material flow in knitting industry</p> <p>KB2. functions of knitting machine</p> <p>KB3. functions of control switches and signal lamps in knitting machine</p> <p>KB4. importance of knotting</p> <p>KB5. importance of fabric take-off</p> <p>KB6. importance of fabric quality</p> <p>KB7. guidelines for knotting the yarn</p> <p>KB8. guidelines for carrying out fabric take off activity</p> <p>KB9. knowledge of different functions in display panel and procedure to operate the knitting machine</p> <p>KB10. importance of cleanliness and safety at work place</p>
Skills (S)	
<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>
<b>B. Professional Skills</b>	<b>Problem Solving</b>
	<p>You need to know and understand how to:</p> <p>SB1. apply problem-solving approaches in different situations</p> <p>SB2. refer anomalies to the supervisor</p> <p>SB3. seek clarification on problems from others</p>
	<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. procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.</p> <p>SB7. standard operating procedure for carrying out knotting activity</p> <p>SB8. standard operating procedure for carrying out fabric take off activity</p>



**TSC/ N4112**

**Knotting the Yarn & Fabric Take-off**

	<p>SB9. procedure for segregating the different types of wastes</p> <p>SB10. procedure for storing reusable wastes and weighing them</p> <p>SB11. procedure for material handling of cone, fabric roll .</p> <p>SB12. maintain cleanliness at work</p>
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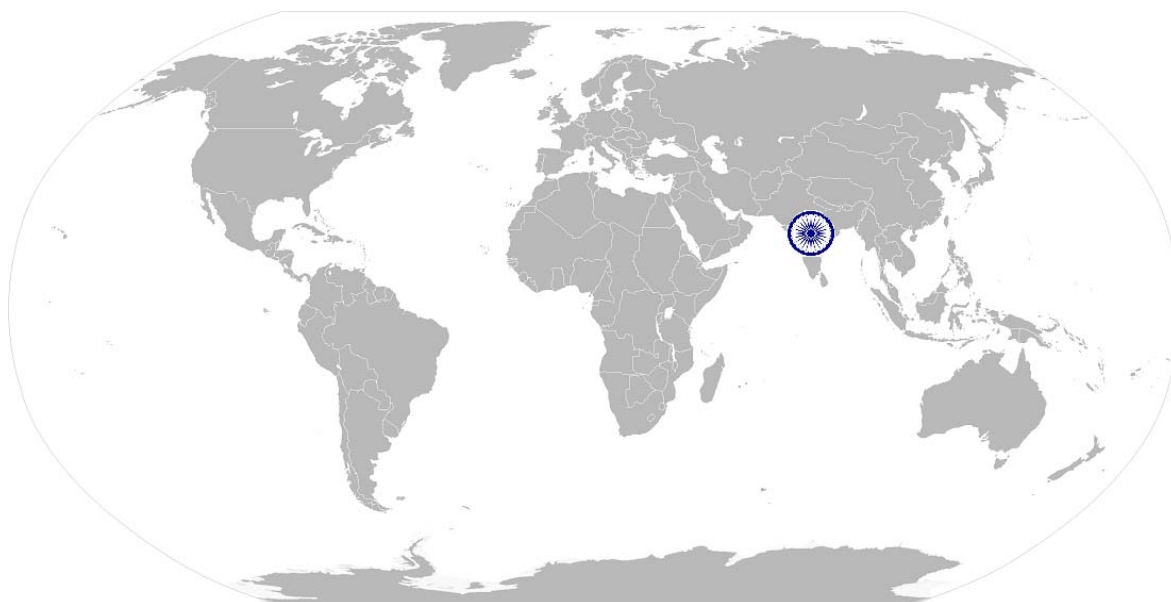


**TSC/ N4112**

**Knotting the Yarn & Fabric Take-off**

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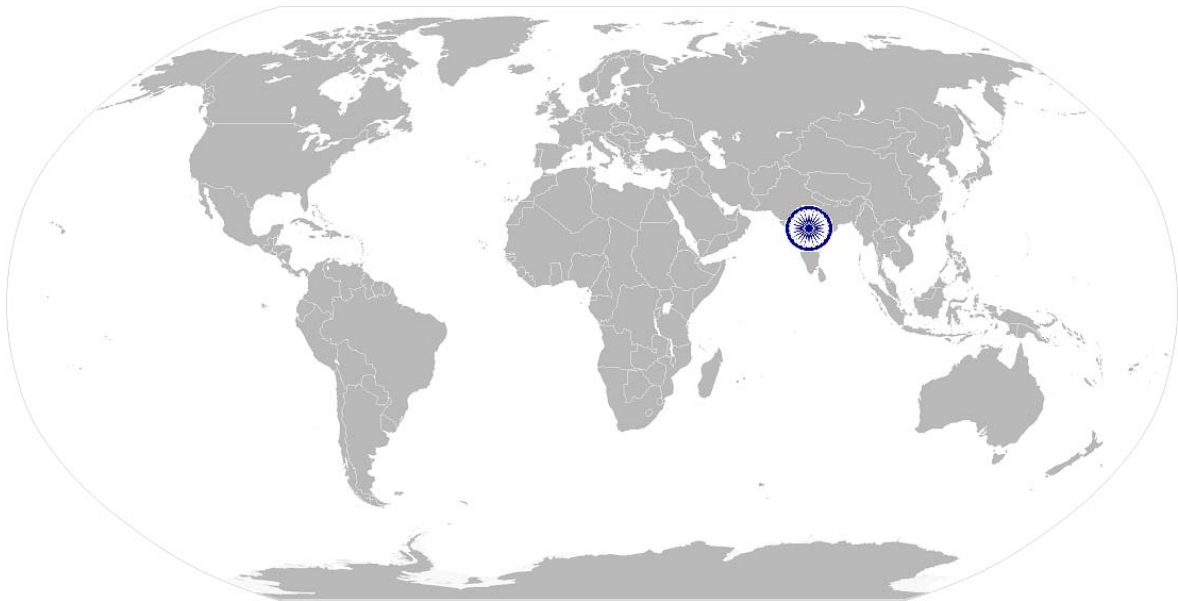
NOS Code	TSC/ N 4112		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	Next review date	01/03/16



TSC/ N4113

Repair yarn related faults at the knitting head and fabric press off

# National Occupational Standard



## Overview

This unit is about repairing the yarn related faults at the knitting head and fabric press off

**TSC/ N4113**

**Repair yarn related faults at the knitting head and fabric press off**

National Occupational Standard	<b>Unit Code</b>	<b>TSC/ N4113</b>
	<b>Unit Title (Task)</b>	<b>Repair yarn related faults at the knitting head and fabric press off</b>
	<b>Description</b>	This unit is about carrying out the Repair of yarn-related faults at the knitting head and fabric press-offs
	<b>Scope</b>	<b>This unit/task covers the following:</b> <ul style="list-style-type: none"> <li>attending the yarn-related faults</li> <li>repair fabric press-offs</li> </ul>
	<b>Elements</b>	<b>Performance Criteria</b>
	Attending the yarn-related faults	To be competent, you must be able to: <ul style="list-style-type: none"> <li>PC1. rethread incorrectly-positioned yarns in accordance with workplace procedures</li> <li>PC2. identify the reasons for yarn breakage</li> <li>PC3. join broken yarns or new ends</li> <li>PC4. ensure machines are reset for restart in accordance with workplace procedures after fault correction, style changes, and pattern changes.</li> </ul>
	Repair fabric press-offs	<ul style="list-style-type: none"> <li>PC5. ensure fabric press-offs are fixed in accordance with machine-type and workplace procedures.</li> <li>PC6. machines are reset for restart in accordance with workplace procedures after fault correction, style changes, pattern changes</li> </ul>
	<b>Knowledge and Understanding (K)</b>	
	<b>A. Organizational Context</b> (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 knitting unit / mill</li> <li>KA2. safe working practices to be adopted in knitting unit / mill</li> <li>KA3. quality systems and other processes practiced in the knitting unit /mill</li> <li>KA4. reporting to the supervisor or higher authority in case of emergency</li> <li>KA5. color coding adopted for different products in the knitting unit / mill</li> </ul>
	<b>B. Technical Knowledge</b>	You need to know and understand: <ul style="list-style-type: none"> <li>KB1. process flow and material flow in knitting industry</li> <li>KB2. functions of knitting machine</li> <li>KB3. functions of control switches and signal lamps in knitting machine</li> <li>KB4. importance of knotting</li> <li>KB5. importance of doffing</li> <li>KB6. importance of fabric quality</li> <li>KB7. guidelines for knotting the yarn</li> <li>KB8. guidelines for carrying out fabric take off activity</li> <li>KB9. knowledge of different functions in display panel and procedure to operate the knitting machine</li> <li>KB10. functions of different signal lamps in knitting machine.</li> <li>KB11. importance of cleanliness and safety at work place</li> </ul>
<b>Skills (S)</b>		
<b>A. Core Skills/ Generic Skills</b>		<b>Writing Skills</b>
		You need to know and understand how to: <ul style="list-style-type: none"> <li>SA1. write clear and short sentences</li> </ul>

**TSC/ N4113 Repair yarn related faults at the knitting head and fabric press off**

	<b>Reading Skills</b>
	You need to know and understand how to: SA2. comprehend written instructions
	<b>Oral Communication (Listening and Speaking skills)</b>
	You need to know and understand how to: SA3. communicate with supervisor appropriately 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: SB1. apply problem-solving approaches in different situations SB2. refer anomalies to the supervisor SB3. seek clarification on problems from others
	<b>Attention to Detail</b>
	You need to know and understand how to: SB4. apply good attention to detail SB5. check your work is complete and free from errors
	You need to know and understand :
	SB6. procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation. SB7. standard operating procedure for carrying out knotting activity SB8. standard operating procedure for carrying out fabric take off activity SB9. procedure for segregating the different types of wastes SB10. procedure for storing reusable wastes and weighing them SB11. procedure for material handling of cone, fabric roll SB12. maintain cleanliness at work

**TSC/ N4113 Repair yarn related faults at the knitting head and fabric press off**

**NOS Version Control**

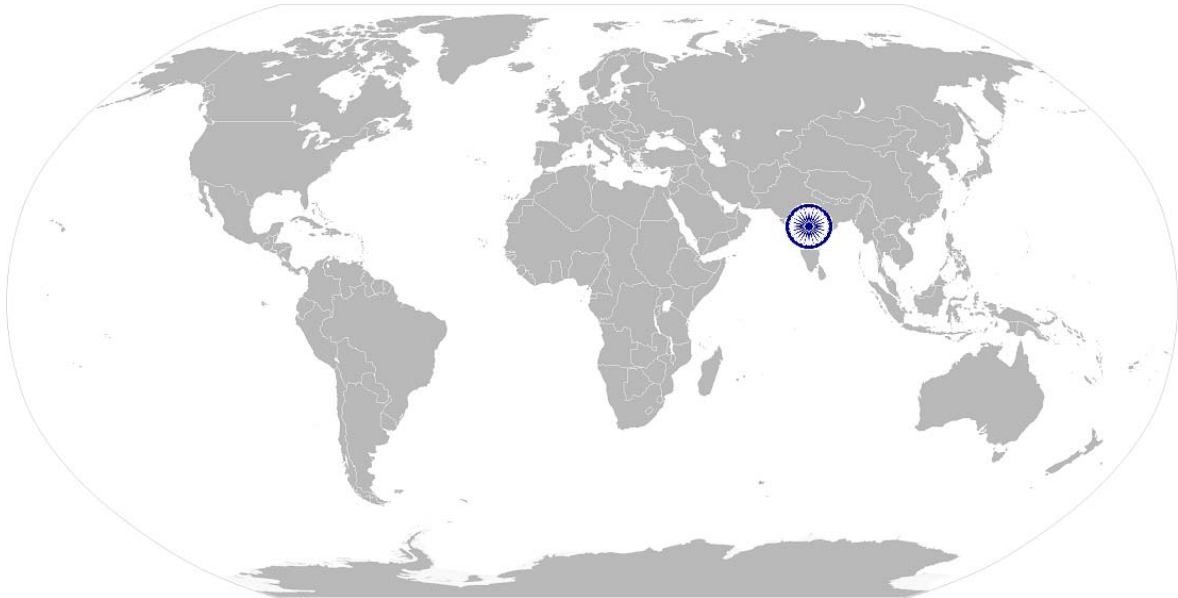
NOS Code	TSC/ N 4113		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	Next review date	01/03/16



**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**

<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 organise/ 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. use materials to 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> (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</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 organisation'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 Knowledge</b>	<p>You need to know and understand:</p> <p>KB1. work instructions and specifications and interpret them accurately</p> <p>KB2. relation between work role and the overall manufacturing process</p>

**TSC/ N9001**

**Maintaining work area, tools and machine**

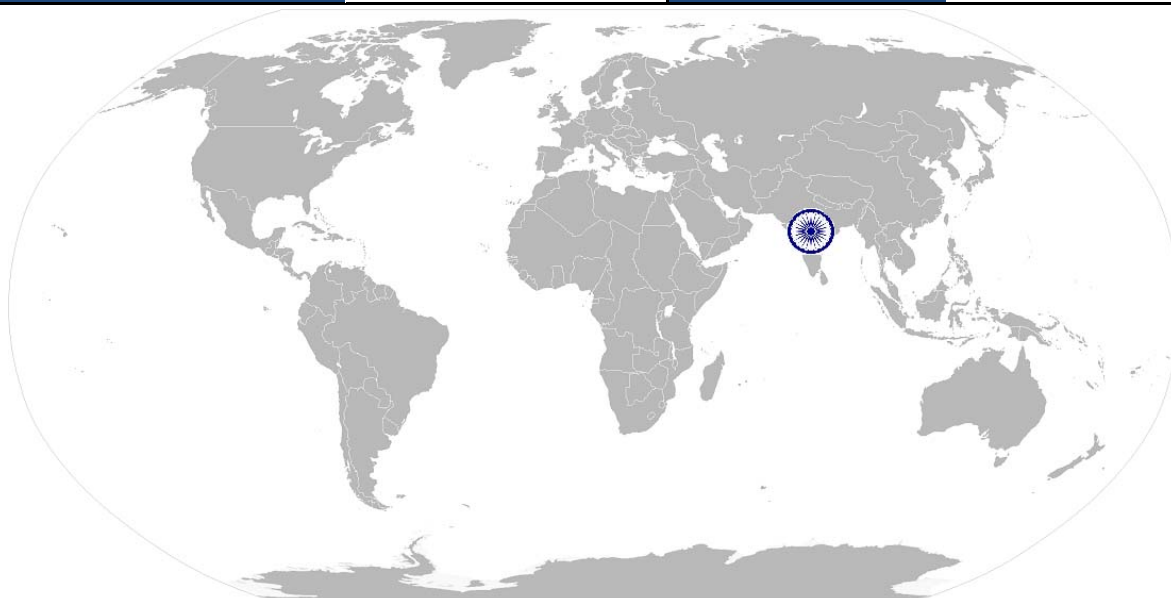
	<p>KB3. hazards likely to be encountered when conducting routine maintenance</p> <p>KB4. the importance of taking action when problems are identified</p> <p>KB5. different ways of minimizing waste</p> <p>KB6. the importance of running maintenance and regular cleaning</p> <p>KB7. effects of contamination 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/ 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 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**

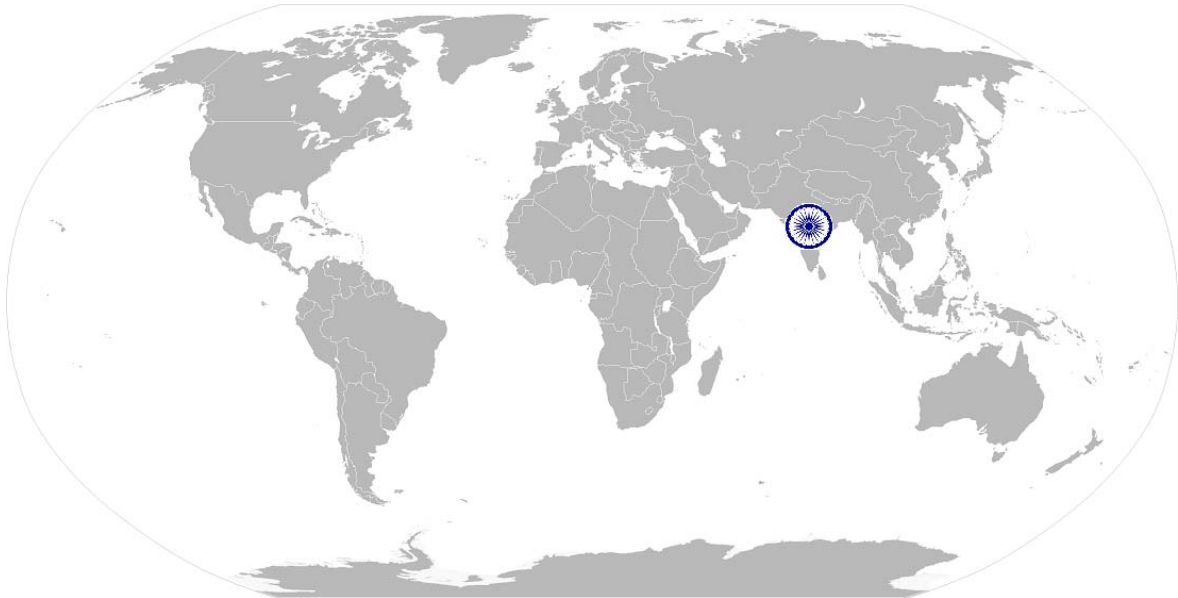
NOS Code	TSC/ N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	Next review date	01/03/16



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**

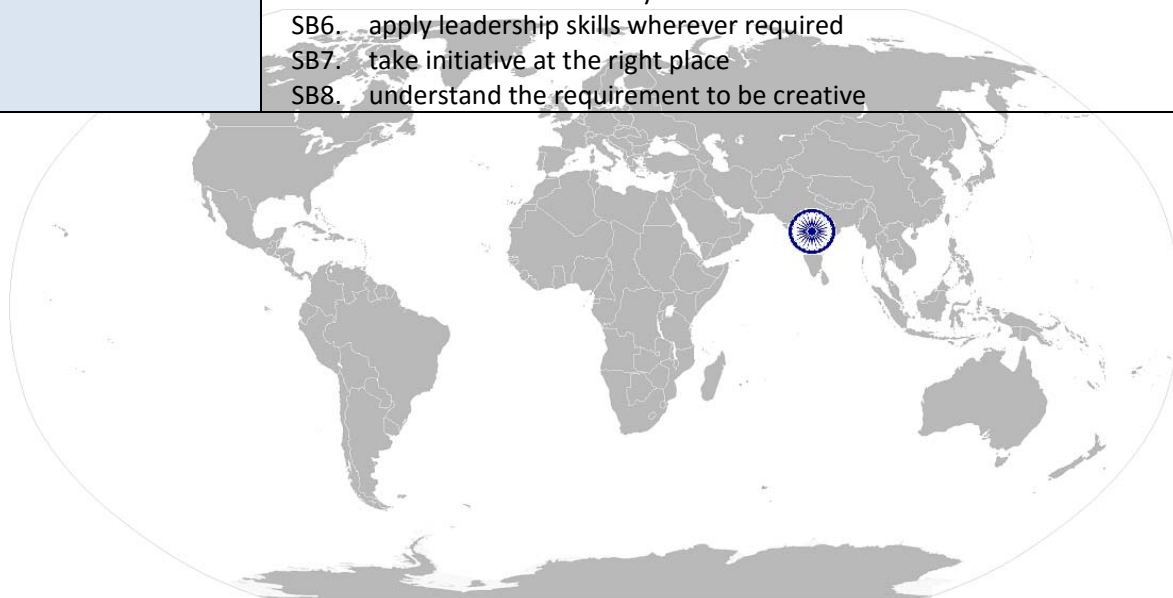
**Working in a team**

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	This unit/task covers the following: <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	To be competent, you must be able to: PC1. be accountable to the own role in whole process PC2. perform all roles with full responsibility PC3. be effective and efficient at workplace
Communication	PC4. properly communicate about company policies PC5. report all problems faced during the process PC6. talk politely with other team members and colleagues PC7. submit daily report of own performance
Adaptability	PC8. adjust in different work situations PC9. give due importance to others' point of view PC10. avoid conflicting situations
Creative freedom	PC11. develop new ideas for work procedures PC12. improve upon the existing techniques to increase process efficiency
Knowledge and Understanding (K)	
<b>A. Organizational Context</b>	You need to know and understand: KA1. standard operating procedures (SOP) and regulations in a textile mill KA2. procedure followed to get the final output in the mill KA3. safe working practices to be adopted in textile mill KA4. reporting to the supervisor or higher authority about any grievances faced
<b>B. Technical Knowledge</b>	KB1. the importance of the previous and next step of the process KB2. process flow in a textile mill and the concerned workers KB3. material flow in a textile mill and the required person KB4. functions of different parts of the machine KB5. tools and equipments used KB6. guidelines for operating the machine KB7. safety procedures to be followed in the machine
Skills (S)	
<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 SA2. write daily work report SA3. write grievance complaint application
	<b>Reading Skills</b>

**TSC/ N9002**

**Working in a team**

<b>B. Professional Skills</b>	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 SA7. talk to co-workers 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. 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



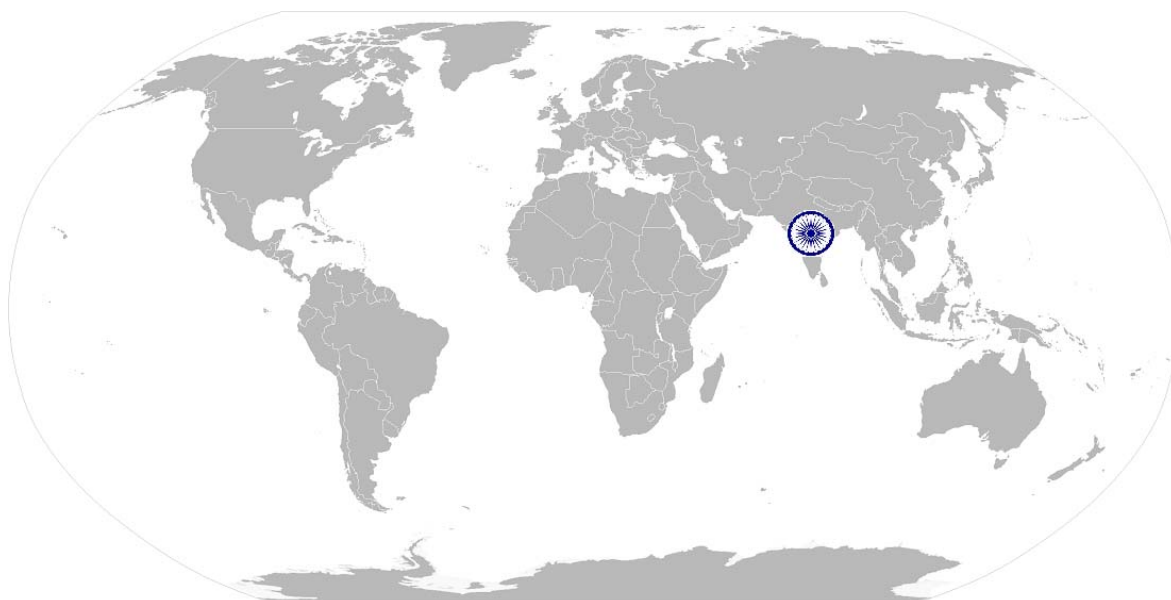


**TSC/ N9002**

**Working in a team**

**NOS Version Control**

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

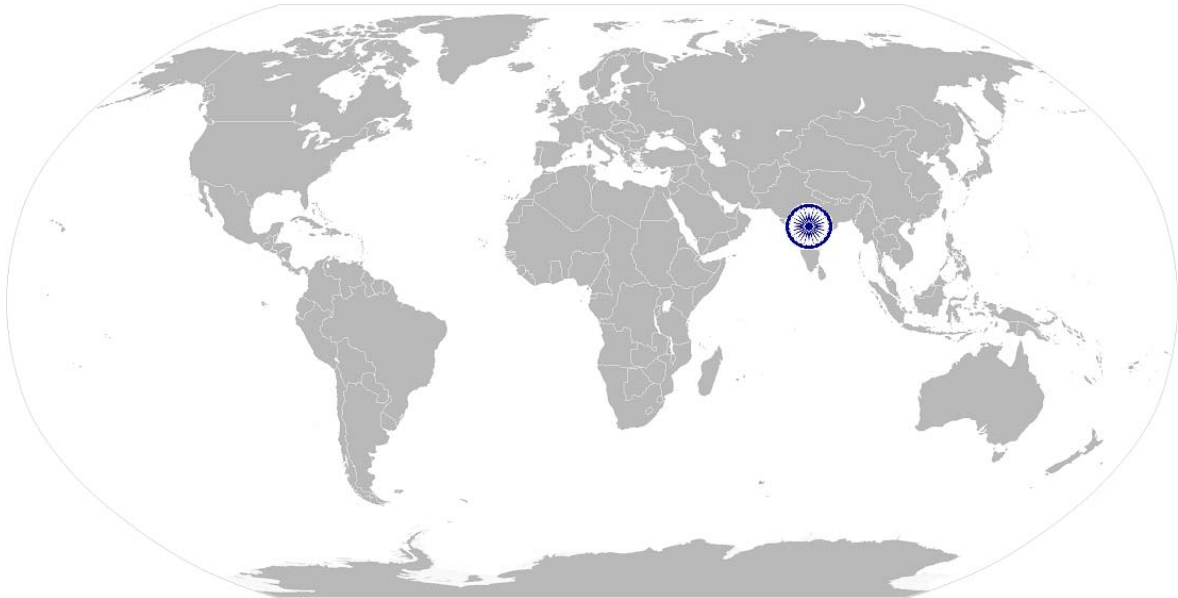




**TSC/ N9003**

**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**

Unit Code	TSC/ N9003
Unit Title (Task)	Maintain health, safety and security at work place
Description	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.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> <li>Comply with health, Safety and security requirements at work</li> <li>Recognizing the hazards</li> <li>planning safety techniques</li> <li>implementing the programs</li> </ul>
Performance Criteria (PC) w.r.t. the Scope	
Elements	Performance Criteria
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

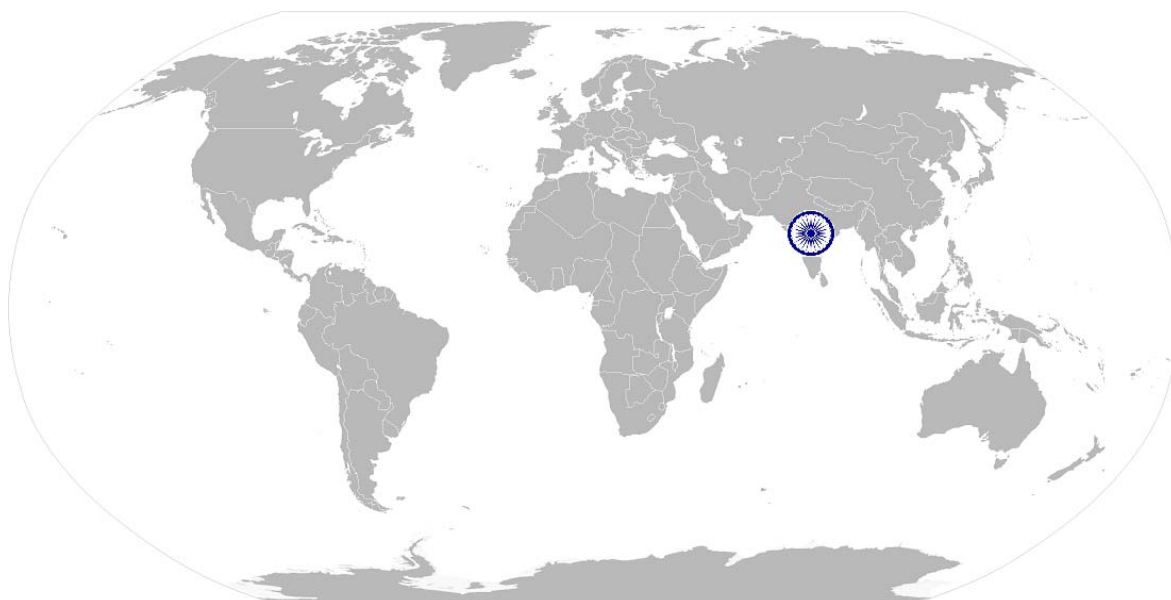
**TSC/ N9003**
**Maintain health, safety and security at work place**

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

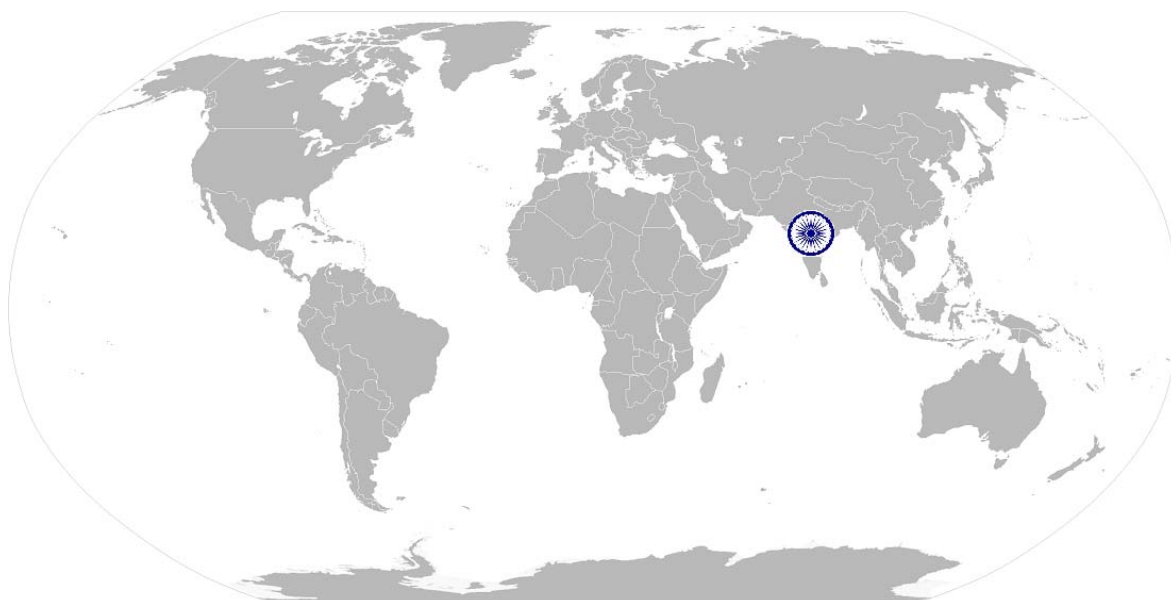


**TSC/ N9003**

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

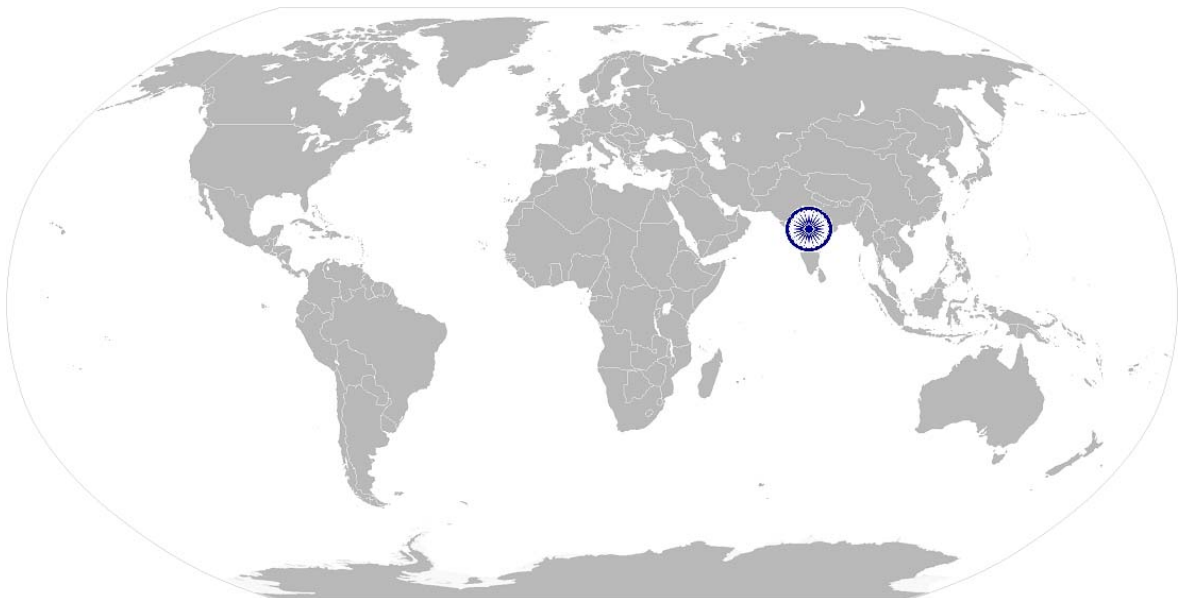
**NOS Version Control**

NOS Code	TSC/ N9003		
Credits (NSQF)	TBD	Version number	1.0
Industry	Textile	Drafted on	15/12/14
Industry Sub-sector	Knitting	Last reviewed on	21/01/15
Occupation	Knitting	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: PC1. perform own duties effectively PC2. take responsibility for own actions PC3. be accountable towards the job role and assigned duties PC4. take initiative and innovate the existing methods PC5. focus on self-learning and improvement
	Team work	PC6. co-ordinate with all the team members and colleagues PC7. communicate politely PC8. avoid conflicts and miscommunication
	Organisational standards	PC9. know the organisational standards PC10. implement them in your performance PC11. motivate others to follow them
	Industry standards	PC12. know the industry standards PC13. align them with organisation standards
	<b>Knowledge and Understanding (K)</b>	
	<b>A. Organizational Context</b> (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. standard operating procedures (SOP) and regulations in a textile mill KA2. reporting to the supervisor or higher authority KA3. knowledge of organizational standards KA4. knowledge of industry standards
	<b>B. Technical Knowledge</b>	You need to know and understand: KB1. process and material flow in a textile mill KB2. importance of complying with the standards KB3. guidelines for cleaning the various parts of machine
	<b>Skills (S)</b>	
	<b>A. Core Skills/</b>	<b>Writing Skills</b>
		You need to know and understand how to:

**TSC/ N9004 Comply with industry and organizational requirements**

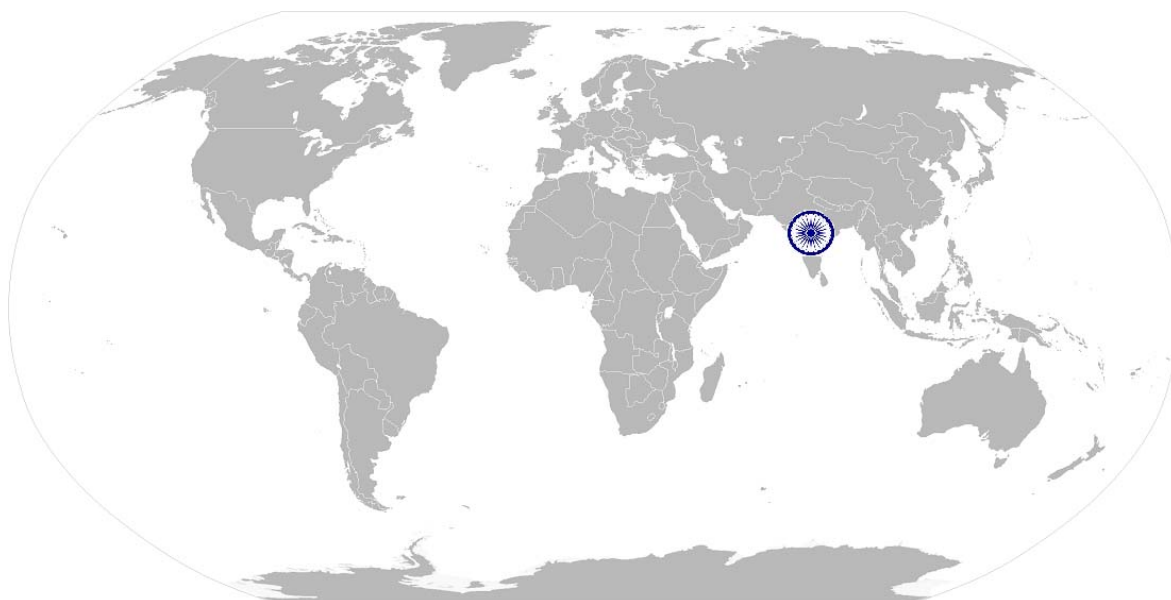
<b>Generic Skills</b>	SA1. write clear and short sentences
	<b>Reading Skills</b>
	You need to know and understand how to:
	SA2. read the given instructions
	SA3. comprehend written instructions
	<b>Oral Communication (Listening and Speaking skills)</b>
	SA4. talk effectively with others
	SA5. put forward 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	Knitting	Next review date	01/03/16



### Assessment Criteria

**Job Role: Knitting Machine Operator - Warp Knitting**  
**Qualification Pack: Knitting Machine Operator - Warp Knitting**  
**Sector Skill Council: Textile Sector Skill Council**

#### Guidelines for assessment :-

1. Criteria for assessment for each qualification pack will be created by the Sector Skill Council. Each performance criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for theory & skill practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of question created by the SSC.
3. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre (as per assessment criteria below).
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/N4109 (Taking charge of shift and handing over shift to Knitting Machine Operator – Warp Knitting)</b>	PC1. Reach at least 10 - 15 minutes early to the work place	<b>75</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC2. bring the necessary operational tools to the department		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC3. meet the previous shift operator and collect the information regarding the count, process, issues faced in quality, current beam production followed in the knitting department.		<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>
	PC4. be updated on information regarding the current order such as it is for which company and other details.		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC5. ensure proper functioning of machine and problems if any should be reported to the supervisor and maintenance incharge.		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC6. understand and be informed about the current order quantity and balance quantity.		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC7. be updated on the new order fabric		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>

### Assessment Criteria

	details and quantity.					
	PC8. clean the machine and department before handing over the shift.		4	1	2	1
	PC9. hand over the necessary operational tools if any.		5	1	2	2
	PC10. meet the next shift operator and give the information regarding the count, GSM, loop length, process, issues faced in quality, and current fabric production followed in the knitting department.		8	2	4	2
	PC11. note the production details for the current shift		8	2	4	2
	PC12. ensure proper functioning of the machine and problems if any, should be reported to the supervisor and maintenance incharge.		8	2	4	2
	PC13. give details to the next shift operator about the current order quality, quantity and balance quantity.		6	2	2	2
	PC14. convey information regarding new order fabric details and quantity.		6	2	2	2
	<b>Total</b>		<b>75</b>	<b>20</b>	<b>34</b>	<b>21</b>
		<b>Weightage %</b>		<b>27%</b>	<b>45%</b>	<b>28%</b>
<b>2. TSC/N4110 (Repair yarn related faults in Warp Knitting)</b>	PC1. identify incorrectly-positioned yarns and rethread them in accordance with workplace procedures	<b>25</b>	6	2	3	1
	PC2. identify the reasons for yarn breakage		7	3	3	1
	PC3. join broken yarns or new ends in accordance with workplace procedures.		6	1	3	2
	PC4. reset machines for restart after fault correction, style changes, and pattern changes.		6	2	2	2
	<b>Total</b>		<b>25</b>	<b>8</b>	<b>11</b>	<b>6</b>

### Assessment Criteria

		Weightage %		32%	44%	24%
<b>3. TSC/N4111 (Operating the warp knitting machine)</b>	PC1. start the machine	<b>160</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC2. operate the control switches for starting and stopping the warping / warp knitting machine.		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC3. follow the signal lamps used in machines.		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC4. ensure proper functioning of the knitting machine by verifying in the display panel.		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC5. operate the warping machine to produce beams of lengths specified in work instructions.		<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>
	PC6. Produce beams through reed and traverse-mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC7. Produce beams of exact levelness throughout by means of critical setting and adjustment of yarn tensions		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC8. reset broken ends		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC9. Thread completed beams into warp-knitting machines in accordance with workplace procedures.		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC10. Identify completed beams, doff, and store in accordance with workplace procedures or as directed by the supervisor.		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC11. Ensure yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC12. Ensure the warping environment is clean and free of contaminants		<b>4</b>	<b>1</b>	<b>2</b>	<b>1</b>
	PC13. ensure the machines are monitored for continuous functioning of all systems, and variations notified		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
	PC14. ensure the documentation of production is completed in accordance with workplace		<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>



### Assessment Criteria

	procedures.				
	PC15. ensure the machines are lubricated as directed in the machine manual	3	1	1	1
	PC16. check whether the yarns are properly fed in the knitting machine	4	2	1	1
	PC17. knot the yarn during breakage	4	1	2	1
	PC18. view the display panel or signal and identify the reasons for machine stoppages if any	4	1	2	1
	PC19. ensure the knitting machine is running in the set speed by viewing the display panel	4	1	2	1
	PC20. ensure the working area is clean	3	1	1	1
	PC21. ensure proper functioning of machine	3	1	1	1
	PC22. ensure incorrectly-positioned yarns are rethreaded	3	1	1	1
	PC23. ensure the broken yarns or new ends are joined	4	1	2	1
	PC24. fabric press-offs are fixed in accordance with machine-type and workplace procedures.	3	1	1	1
	PC25. machines are reset for restart in accordance with workplace procedures.	3	1	1	1
	PC26. after fault correction, style changes, and pattern changes.	3	1	1	1
	PC27. support the fitter for carrying out maintenance activities	4	2	1	1
	PC28. ensure the gsm, loop length variation is within the limits and if it's abnormal report it to superiors.	4	1	2	1
	PC29. inform the supervisor and maintenance incharge in case of a jam	4	1	2	1
	PC30. to support the fitter during minor breakdown	4	1	2	1
	PC31. ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.	4	1	2	1
	PC32. safety precautions that comply with workplace procedures are observed.	4	1	2	1
	PC33. ensure the working environment is	4	1	2	1

### Assessment Criteria

	kept clean and free of contamination.					
	PC34. ensure proper material handling of yarn, beam and fabric roll		4	1	2	1
	PC35. ensure using proper material handling of tools and equipments		3	1	1	1
	PC36. ensure safety while operating the warp knitting machine		3	1	1	1
	PC37. use safety gadgets like caps, masks, ear plugs and shoes and verifying the safety stop motions		3	1	1	1
	PC38. ensure the fabric produced is free from outside damages		4	2	1	1
	PC39. collect usable waste to be weighed at shift end and to be placed in the specified area		4	1	2	1
	PC40. inform superiors immediately, if any break down or fault in the machine is noticed		4	1	2	1
	PC41. ensure the proper functioning of signal lamps		4	1	2	1
	PC42. ensure that machine is always working properly, if any deviations inform superiors immediately		3	1	1	1
	PC43. yarn wastes are identified by fibre content and sorted according to workplace procedures.		3	1	1	1
	PC44. Ensure fabric wastes are identified and sorted according to workplace procedures.		3	1	1	1
	PC45. provide all relevant information's of the current working process to the next shift operator before relieving.		4	1	2	1
	<b>Total</b>		<b>160</b>	<b>49</b>	<b>66</b>	<b>45</b>
		<b>Weightage %</b>		<b>31%</b>	<b>41%</b>	<b>28%</b>
<b>4. TSC/N4112 (Knotting the yarn and fabric take off)</b>	PC1. identify whether the machine stoppage by viewing the signal lamps and in display panel	<b>98</b>	4	1	2	1
	PC2. identify the reasons for yarn breakage		4	1	2	1
	PC3. ensure minimum time is taken for		3	1	1	1

### Assessment Criteria

	attending the yarn breakage				
	PC4. unwind the yarn from beam	3	1	1	1
	PC5. ensure proper knotting	4	2	1	1
	PC6. draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone	4	1	2	1
	PC7. ensure proper functioning of knitting machine post knotting	4	1	2	1
	PC8. collect the wastes collected during knotting and store the waste at respective waste box	4	1	2	1
	PC9. segregate the reusable wastes and weigh and record them in a register	3	1	1	1
	PC10. ensure standard knotting procedure is adopted and quality of knotting is as per standards	3	1	1	1
	PC11. ensure minimum time is taken for knotting the yarn.	3	1	1	1
	PC12. ensure safety while carrying out knotting activity	4	1	2	1
	PC13. verify the quality of knotting done in the yarn	7	3	2	2
	PC14. ensure yarn tension in the creeling section is appropriate	3	1	1	1
	PC15. ensure proper functioning of the machine	3	1	1	1
	PC16. collect the empty cones from creel and replace with full cone.	4	2	1	1
	PC17. ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual	4	1	2	1
	PC18. keep the empty fabric roller ready for replacement	4	1	2	1
	PC19. doff the full fabric roll in case of manual take-off.	5	2	2	1
	PC20. ensure proper fabric take off procedure is followed	7	2	3	2
	PC21. move the fabric roll to storage area	4	1	2	1
	PC22. ensure the knitting machine is properly restarted after doffing	4	1	1	2

### Assessment Criteria

	PC23. ensure proper functioning of knitting machine post fabric take off		4	1	2	1
	PC24. ensure proper material handling of yarn, beam and fabric		3	1	1	1
	PC25. ensure proper material handling of tools and equipments		3	1	1	1
	<b>Total</b>		<b>98</b>	<b>31</b>	<b>39</b>	<b>28</b>
		<b>Weightage %</b>		<b>32%</b>	<b>40%</b>	<b>29%</b>
<b>5. TSC/N4113 (Repair yarn related faults at the knitting head and fabric press off)</b>	PC1. rethread incorrectly-positioned yarns in accordance with workplace procedures	<b>22</b>	4	1	2	1
	PC2. identify the reasons for yarn breakage		4	1	2	1
	PC3. join broken yarns or new ends		3	1	1	1
	PC4. ensure machines are reset for restart in accordance with workplace procedures after fault correction, style changes, and pattern changes.		3	1	1	1
	PC5. ensure fabric press-offs are fixed in accordance with machine-type and workplace procedures.		4	2	1	1
	PC6. machines are reset for restart in accordance with workplace procedures after fault correction, style changes, pattern changes		4	1	2	1
	<b>Total</b>		<b>22</b>	<b>7</b>	<b>9</b>	<b>6</b>
		<b>Weightage %</b>		<b>32%</b>	<b>41%</b>	<b>27%</b>
<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>	4	1	2	1
	PC2. use correct lifting and handling procedures		4	1	2	1
	PC3. use materials to minimize waste		3	1	1	1
	PC4. maintain a clean and hazard free working area		3	1	1	1
	PC5. maintain tools and equipment		4	2	1	1

### Assessment Criteria

	PC6. carry out running maintenance within agreed schedules		4	1	2	1
	PC7. carry out maintenance and/or cleaning within one's responsibility		4	1	2	1
	PC8. report unsafe equipment and other dangerous occurrences		4	1	2	1
	PC9. ensure that the correct machine guards are in place		3	1	1	1
	PC10. work in a comfortable position with the correct posture		3	1	1	1
	PC11. use cleaning equipment and methods appropriate for the work to be carried out		3	1	1	1
	PC12. dispose of waste safely in the designated location		4	1	2	1
	PC13. store cleaning equipment safely after use		3	1	1	1
	PC14. carry out cleaning according to schedules and limits of responsibility		4	1	2	1
	<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>	4	2	1	1
	PC2. perform all roles with full responsibility		4	2	1	1
	PC3. be effective and efficient at workplace		4	1	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	1	2	1
	PC9. give due importance to others' point of view		5	1	3	1
	PC10. avoid conflicting situations		4	1	2	1
	PC11. develop new ideas for work		4	1	2	1

### Assessment Criteria

	procedures					
	PC12. improve upon the existing techniques to increase process efficiency		4	1	2	1
	<b>Total</b>		<b>50</b>	<b>15</b>	<b>20</b>	<b>15</b>
		<b>Weightage %</b>		<b>30%</b>	<b>40%</b>	<b>30%</b>
<b>8.TSC/N9003 (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
	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		4	1	2	1



### Assessment Criteria

	authorized personnel					
	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 everyone		4	2	1	1
	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 (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

### Assessment Criteria

	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>630</b>	<b>253</b>	<b>206</b>	<b>171</b>