





Transforming the skill landscape



# Knitting Machine Operator Warp Knitting

QP Code: TSC/Q4103

Version: 3.0

NSQF Level: 3

Textile Sector Skill Council || 14-H, 14th Floor, Hansalaya Building, 15, Barakhamba Road New Delhi – 110001



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# TSC/Q4103: Knitting Machine Operator Warp Knitting

## **Brief Job Description**

A Warp knitting machine operator is responsible for operating the warp knitting machine in a knittingmill. 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**

A Warp knitting operator should have good eyesight, hand-eye-leg coordination, motor skills and vision. He/she should also have good interpersonal skills.

## Applicable National Occupational Standards (NOS)

#### **Compulsory NOS:**

1. <u>TSC/N4109</u>: <u>Taking charge of shift and handing over shift to Knitting Machine Operator Warp Knitting</u>

- 2. TSC/N4110: Repair yarn related faults in Warp Knitting
- 3. TSC/N4111: Operating the Warp Knitting Machine
- 4. TSC/N4112: Knotting the yarn and fabric take off at Warp Knitting
- 5. TSC/N4113: Repair yarn related faults at the knitting head and fabric press off
- 6. TSC/N9001: Maintain work area, tools, and machines
- 7. TSC/N9002: Working in a team
- 8. TSC/N9003: Maintain health, safety and security at workplace
- 9. TSC/N9004: Comply with industry and organizational requirement
- 10. DGT/VSQ/N0101: Employability Skills (30 Hours)

#### **Qualification Pack (QP) Parameters**

Sector	Textile
Sub-Sector	Knitting – Textiles







Occupation	Knitting
Country	India
NSQF Level	3
Credits	11
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8152.11
Minimum Educational Qualification & Experience	9th Class (with no experience (OR) Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience (OR) 8th grade pass with 1 year of relevant experience (OR) 5th grade pass with 4 years of relevant experience (OR) Ability to read and write with 5 years of experience)
Minimum Level of Education for Training in School	9th Class
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	27/01/2025
NSQC Approval Date	17/11/2022
Version	3.0
Reference code on NQR	2022/TEXT/TSC/07072
NQR Version	1.0







## TSC/N4109: Taking charge of shift and handing over shift to Knitting Machine Operator Warp Knitting

## Description

This unit is about taking charge of shift from previous shift Knitting Machine operatorWarpKnitting and relieving the responsibilities to the next shift Knitting Machineoperator-Warp Knitting

## Scope

The scope covers the following :

- Taking charge of shift from Knitting Machine operator-Warp Knitting
- Handing over shift to Knitting Machine operator-Warp Knitting

## **Elements and Performance Criteria**

#### Taking charge of shift from Knitting Machine operator Warp Knitting

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

- 1. reach at least 10-15 minutes early to the work place
- 2. bring the necessary operational tools to the department
- **3.** 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.
- **4.** be updated on information regarding the current order such as it is for which company and other details
- **5.** ensure proper functioning of machine and problems if any should be reported to the supervisor and maintenance in charge.
- 6. understand and be informed about the current order quantity and balance quantity.
- 7. be updated on the new order fabric details and quantity.
- Handing Over Shift to Knitting Machine operator-Warp Knitting

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

- 8. clean the machine and department before handing over the shift
- 9. hand over the necessary operational tools if any.
- **10.** 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.
- 11. note the production details for the current shift
- **12.** ensure proper functioning of the machine and problems if any, should be reported to the supervisor and maintenance incharge.
- **13.** give details to the next shift operator about the current order quality, quantity and balance quantity.
- **14.** convey information regarding new order fabric details and quantity.

## Knowledge and Understanding (KU)







The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP)and regulations in a knitting industry
- KU2. safe working practices to be adopted in knitting industry
- KU3. quality systems and other processes practiced in the knitting industry
- KU4. reporting to the supervisor or higher authority in case of emergency
- KU5. color coding adopted for different counts/ products in the knitting industry
- KU6. process flow and material flow in knitting industry
- KU7. functions of warp knitting machine
- KU8. importance of yarn quality, fabric type and quality
- KU9. functions of control switches and signal lamps in knitting machine
- **KU10.** knowledge of different functions in display panel and procedure to operate the knitting machine.
- KU11. importance of fabric technical details (gsm, loop length, type of the fabric...)
- **KU12.** knowledge about type of the fabric, machine settings.
- **KU13.** knowledge of different functions in display panel and procedure to operate the knitting machine.
- KU14. importance of cleanliness and safety at work place.

## **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- GS2. read and comprehend written instructions
- GS3. communicate with supervisor appropriately
- GS4. talk to others to convey information effectively
- **GS5.** apply problem-solving approaches in different situations
- GS6. refer anomalies to the supervisor
- GS7. seek clarification on problems from others
- **GS8.** apply good attention to detail
- **GS9.** check your work is complete and free from errors
- **GS10.** procedure to collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
- GS11. standard operating procedure for carrying out knotting activity
- **GS12.** procedure for collecting the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
- GS13. standard operating procedure for carrying out fabric take off activity
- GS14. procedure for segregating the different types of fabric and yarn
- **GS15.** procedure for storing the fabric roll.
- **GS16.** procedure for checking the fabric roll.
- GS17. procedure for segregating the different types of wastes







- **GS18.** procedure for storing reusable wastes and weighing them
- **GS19.** procedure for material handling of cone, fabric roll.
- **GS20.** maintain cleanliness at work.



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**Qualification Pack** 



## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Taking charge of shift from Knitting Machine operator Warp Knitting	8	14	-	8
<ol> <li>reach at least 10-15 minutes early to the work place</li> </ol>	1	2	-	1
<ol> <li>bring the necessary operational tools to the department</li> </ol>	1	2	-	1
<b>3.</b> 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.	2	2	-	2
<b>4.</b> be updated on information regarding the current order such as it is for which company and other details	1	2	-	1
5. ensure proper functioning of machine and problems if any should be reported to the supervisor and maintenance in charge.	1	2	-	1
<b>6.</b> understand and be informed about the current order quantity and balance quantity.	1	2	-	1
<b>7.</b> be updated on the new order fabric details and quantity.	1	2	-	1
Handing Over Shift to Knitting Machine operator- Warp Knitting	12	20	-	13
8. clean the machine and department before handing over the shift	1	2	-	1
<b>9.</b> hand over the necessary operational tools if any.	1	2	-	2
<b>10.</b> 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.	2	4	-	2
<b>11.</b> note the production details for the current shift	2	4	-	2







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>12.</b> ensure proper functioning of the machine and problems if any, should be reported to the supervisor and maintenance incharge.	2	4	-	2
<b>13.</b> give details to the next shift operator about the current order quality, quantity and balance quantity.	2	2	-	2
<b>14.</b> convey information regarding new order fabric details and quantity.	2	2	-	2
NOS Total	20	34	-	21







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N4109
NOS Name	Taking charge of shift and handing over shift to Knitting Machine Operator Warp Knitting
Sector	Textile
Sub-Sector	Knitting – Textiles
Occupation	Knitting
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







# TSC/N4110: Repair yarn related faults in Warp Knitting

## Description

This unit is about carrying out the Repair of yarn-related faults at the knitting headand fabric press-offs

## Scope

The scope covers the following :

• Attending the yarn-related faults

## **Elements and Performance Criteria**

#### Attending the yarn related faults

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

- 1. identify incorrectly-positioned yarns and rethread them in accordance with workplace procedures
- 2. identify the reasons for yarn breakage
- 3. join broken yarns or new ends in accordance with workplace procedures.
- 4. reset machines for restart after fault correction, style changes, and pattern changes.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP)and regulations in a knitting unit /mill
- KU2. safe working practices to be adopted in knitting unit /mill
- KU3. quality systems and other processes practiced in the knitting unit / mill
- KU4. reporting to the supervisor or higher authority in case of emergency
- KU5. color coding adopted for different products in the knitting unit / mill
- **KU6.** process flow and material flow in knitting industry
- KU7. functions of knitting machine
- KU8. functions of control switches and signal lamps in knitting machine
- KU9. importance of knotting
- **KU10.** importance of doffing
- KU11. importance of fabric quality
- KU12. guidelines for knotting the yarn
- KU13. guidelines for carrying out fabric take off activity
- KU14. functions of different control switches in knitting machine
- **KU15.** knowledge of different functions in display panel and procedure to operate the knitting machine
- **KU16.** functions of different signal lamps in knitting machine.
- KU17. importance of cleanliness and safety at work place







#### **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- GS2. comprehend written instructions
- GS3. communicate with supervisor appropriately
- GS4. talk to others to convey information effectively
- GS5. apply problem-solving approaches in different situations
- GS6. refer anomalies to the supervisor
- **GS7.** seek clarification on problems from others
- GS8. apply good attention to detail
- GS9. check your work is complete and free from errors
- **GS10.** procedure to collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
- GS11. standard operating procedure for carrying out knotting activity
- GS12. standard operating procedure for carrying out fabric take off activity
- GS13. procedure for segregating the different types of wastes
- GS14. procedure for storing reusable wastes and weighing them
- GS15. procedure for material handling of cone, fabric roll
- **GS16.** maintain cleanliness at work









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Attending the yarn related faults	8	11	-	6
<ol> <li>identify incorrectly-positioned yarns and rethread them in accordance with workplace procedures</li> </ol>	2	3	-	1
2. identify the reasons for yarn breakage	3	3	-	1
<b>3.</b> join broken yarns or new ends in accordance with workplace procedures.	1	3	-	2
<b>4.</b> reset machines for restart after fault correction, style changes, and pattern changes.	2	2	-	2
NOS Total	8	11	-	6







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N4110
NOS Name	Repair yarn related faults in Warp Knitting
Sector	Textile
Sub-Sector	Knitting – Textiles
Occupation	Knitting
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







# TSC/N4111: Operating the Warp Knitting Machine

## Description

This unit is about carrying out procedure for operating the warp knitting machine

## Scope

The scope covers the following :

- Operating the knitting machine
- Repair yarn-related faults at the knitting head and fabric press-offs
- Carryout maintenance activities
- Material handling and safety at workplace
- Other responsibilities

## **Elements and Performance Criteria**

#### Operating the Warping & Warp knitting machine

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

- 1. start the machine
- 2. operate the control switches for starting and stopping the warping / warp knitting machine.
- **3.** follow the signal lamps used in machines.
- **4.** ensure proper functioning of the knitting machine by verifying in the display panel.
- 5. operate the warping machine to produce beams of lengths specified in work instructions.
- 6. produce beams through reed and traverse-mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses
- **7.** produce beams of exact levelness throughout by means of critical setting and adjustment of yarn tensions
- 8. reset broken ends
- 9. thread completed beams into warp-knitting machines in accordance with workplace procedures.
- **10.** identify completed beams, doff, and store in accordance with workplace procedures or as directed by the supervisor.
- **11.** ensure yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns
- 12. ensure the warping environment is clean and free of contaminants
- **13.** ensure the machines are monitored for continuous functioning of all systems, and variations notified
- **14.** ensure the documentation of production is completed in accordance with workplace procedures.
- 15. ensure the machines are lubricated as directed in the machine manual
- 16. check whether the yarns are properly fed in the knitting machine
- 17. knot the yarn during breakage
- 18. view the display panel or signal and identify the reasons for machine stoppages if any
- **19.** ensure the knitting machine is running in the set speed by viewing the display panel







**20.** ensure the working area is clean

#### **21.** ensure proper functioning of machine

#### Repair yarn-related faults at the knitting head and fabric press-offs

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

- 22. ensure incorrectly-positioned yarns are rethreaded
- **23.** ensure the broken yarns or new ends are joined
- **24.** fabric press-offs are fixed in accordance with machine-type and workplace procedures.
- **25.** machines are reset for restart in accordance with workplace procedures.
- 26. after fault correction, style changes, and pattern changes.

#### Carryout maintenance activities

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

- 27. support the fitter for carrying out maintenance activities
- **28.** ensure the gsm, loop length variation is within the limits and if its abnormal report it to superiors.
- 29. inform the supervisor and maintenance incharge in case of a jam
- 30. to support the fitter during minor breakdown
- **31.** ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.
- 32. safety precautions that comply with workplace procedures are observed.
- **33.** ensure the working environment is kept clean and free of contamination

#### Material handling and safety at workplace

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

- 34. ensure proper material handling of yarn, beam and fabric roll
- 35. ensure using proper material handling of tools and equipments
- 36. ensure safety while operating the warp knitting machine
- **37.** use safety gadgets like caps, masks, ear plugs and shoes and verifying the safety stop motions *Other responsibilities*

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

- 38. ensure the fabric produced is free from outside damages
- 39. collect usable waste to be weighed at shift end and to be placed in the specified area
- **40.** inform superiors immediately, if any break down or fault in the machine is noticed
- 41. ensure the proper functioning of signal lamps
- 42. ensure that machine is always working properly, if any deviations inform superiors immediately
- **43.** yarn wastes are identified by fibre content and sorted according to workplace procedures.
- 44. Ensure fabric wastes are identified and sorted according to workplace procedures.
- **45.** provide all relevant informations of the current working process to the next shift operator before relieving

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:







- KU1. standard operating procedures (SOP)and regulations in a knitting unit / mill
- KU2. safe working practices to be adopted in knitting unit / mill
- KU3. quality systems and other processes practiced in the knitting unit / mill
- KU4. reporting to the supervisor or higher authority in case of emergency
- KU5. color coding adopted for different products in the knitting unit /mill
- KU6. process and material flow in a knitting unit / mill
- **KU7.** understanding the importance of yarn, types of yarn, yarn count, types of fabric, loop length, gsm, importance of yarn and fabric quality
- **KU8.** importance of warp knitting machine, various parts in a knitting machine and their functions
- KU9. importance & functions of signal lamps
- KU10. different control buttons in knitting machine
- **KU11.** knowledge of different functions in display panel and procedure to operate the knitting machine
- **KU12.** types of wastes
- KU13. procedure for collecting wastes
- KU14. guidelines for operating the material handling tools and equipments
- KU15. importance of cleanliness at work place
- KU16. procedure to identify the normal defects in fabric and actions needed to correct them
- KU17. guidelines for carrying out cleaning activities
- KU18. guidelines for carrying out maintenance activities
- KU19. importance of material handling
- KU20. types of material handling equipments used
- **KU21.** functions and methodology for operating different material handling equipments.
- KU22. safety gadgets used in a knitting department.

## **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- **GS2.** read and comprehend written instructions
- GS3. communicate with supervisor appropriately
- GS4. talk to others to convey information effectively
- GS5. apply problem-solving approaches in different situations
- GS6. refer anomalies to the supervisor
- GS7. seek clarification on problems from others
- GS8. apply good attention to detail
- GS9. check your work is complete and free from errors
- **GS10.** procedure to identify and remove the defects in fabric
- **GS11.** procedure for cleaning the wastes and waste segregation
- GS12. procedure to carryout cleaning activities in knitting machine







- **GS13.** procedure for cleaning the knitting machine area.
- GS14. procedure to carryout basic maintenance activities in knitting machine
- **GS15.** maintain cleanliness at work place









## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Operating the Warping & Warp knitting machine	23	30	-	21
1. start the machine	1	2	-	1
2. operate the control switches for starting and stopping the warping / warp knitting machine.	1	2	-	1
<b>3.</b> follow the signal lamps used in machines.	1	1	-	1
<b>4.</b> ensure proper functioning of the knitting machine by verifying in the display panel.	1	1	-	1
<b>5.</b> operate the warping machine to produce beams of lengths specified in work instructions.	2	1	-	1
<b>6.</b> produce beams through reed and traverse- mechanism adjustments during warp build-up, free of yarn collars and/or winding collapses	1	2	-	1
<ol> <li>produce beams of exact levelness throughout by means of critical setting and adjustment of yarn tensions</li> </ol>	1	2	-	1
8. reset broken ends	1	2	-	1
<b>9.</b> thread completed beams into warp-knitting machines in accordance with workplace procedures.	1	1	-	1
<b>10.</b> identify completed beams, doff, and store in accordance with workplace procedures or as directed by the supervisor.	1	1	-	1
<b>11.</b> ensure yarn paths, eyelets, tension devices, and reeds are clean and free of contamination and build-up of residues from the yarns	1	1	-	1
<b>12.</b> ensure the warping environment is clean and free of contaminants	1	2	-	1
<b>13.</b> ensure the machines are monitored for continuous functioning of all systems, and variations notified	1	1	-	1







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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>14.</b> ensure the documentation of production is completed in accordance with workplace procedures.	1	1	-	1
<b>15.</b> ensure the machines are lubricated as directed in the machine manual	1	1	-	1
<b>16.</b> check whether the yarns are properly fed in the knitting machine	2	1	_	1
17. knot the yarn during breakage	1	2	-	1
<b>18.</b> view the display panel or signal and identify the reasons for machine stoppages if any	1	2	_	1
<b>19.</b> ensure the knitting machine is running in the set speed by viewing the display panel	1	2	-	1
20. ensure the working area is clean	1	1	-	1
21. ensure proper functioning of machine	1	1	-	1
<i>Repair yarn-related faults at the knitting head and fabric press-offs</i>	5	6	-	5
<b>22.</b> ensure incorrectly-positioned yarns are rethreaded	1	1	-	1
<b>23.</b> ensure the broken yarns or new ends are joined	1	2	-	1
<b>24.</b> fabric press-offs are fixed in accordance with machine-type and workplace procedures.	1	1	_	1
<b>25.</b> machines are reset for restart in accordance with workplace procedures.	1	1	_	1
<b>26.</b> after fault correction, style changes, and pattern changes.	1	1	_	1
Carryout maintenance activities	8	13	-	7
<b>27.</b> support the fitter for carrying out maintenance activities	2	1	_	1
<b>28.</b> ensure the gsm, loop length variation is within the limits and if its abnormal report it to superiors.	1	2	-	1







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#### **Qualification Pack**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>29.</b> inform the supervisor and maintenance incharge in case of a jam	1	2	-	1
<b>30.</b> to support the fitter during minor breakdown	1	2	-	1
<b>31.</b> ancillary process machines are operated in accordance with machine-builder's instructions and workplace procedures.	1	2	-	1
<b>32.</b> safety precautions that comply with workplace procedures are observed.	1	2	-	1
<b>33.</b> ensure the working environment is kept clean and free of contamination	1	2	-	1
Material handling and safety at workplace	4	5	-	4
<b>34.</b> ensure proper material handling of yarn, beam and fabric roll	1	2	-	1
<b>35.</b> ensure using proper material handling of tools and equipments	1	1	-	1
<b>36.</b> ensure safety while operating the warp knitting machine	1	1	-	1
<b>37.</b> use safety gadgets like caps, masks, ear plugs and shoes and verifying the safety stop motions	1	1	-	1
Other responsibilities	9	12	-	8
<b>38.</b> ensure the fabric produced is free from outside damages	2	1	-	1
<b>39.</b> collect usable waste to be weighed at shift end and to be placed in the specified area	1	2	-	1
<b>40.</b> inform superiors immediately, if any break down or fault in the machine is noticed	1	2	-	1
<b>41.</b> ensure the proper functioning of signal lamps	1	2	-	1
<b>42.</b> ensure that machine is always working properly, if any deviations inform superiors immediately	1	1	-	1
<b>43.</b> yarn wastes are identified by fibre content and sorted according to workplace procedures.	1	1	-	1







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>44.</b> Ensure fabric wastes are identified and sorted according to workplace procedures.	1	1	-	1
<b>45.</b> provide all relevant informations of the current working process to the next shift operator before relieving	1	2	_	1
NOS Total	49	66	-	45







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N4111
NOS Name	Operating the Warp Knitting Machine
Sector	Textile
Sub-Sector	Knitting – Textiles
Occupation	Knitting
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







# TSC/N4112: Knotting the yarn and fabric take off at Warp Knitting

## Description

This unit is about carrying out knotting, cleaning and maintenance activities in knitting department

#### Scope

The scope covers the following :

- attending the machine on yarn breakage
- knotting the yarn
- checking the quality of knotting
- carry out doffing
- post fabric take off responsibilities

## **Elements and Performance Criteria**

#### Attending the machine on yarn breakage

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

- 1. identity whether the machine stoppage by viewing the signal lamps and in display panel
- 2. identify the reasons for yarn breakage
- 3. ensure minimum time is taken for attending the yarn breakage

#### Knotting the yarn

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

- 4. unwind the yarn from beam
- 5. ensure proper knotting
- **6.** draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone
- 7. ensure proper functioning of knitting machine post knotting
- 8. collect the wastes collected during knotting and store the waste at respective waste box
- 9. segregate the reusable wastes and weigh and record them in a register
- **10.** ensure standard knotting procedure is adopted and quality of knotting is as per standards
- **11.** ensure minimum time is taken for knotting the yarn.
- 12. ensure safety while carrying out knotting activity

#### Checking the quality of knotting

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

- **13.** verify the quality of knotting done in the yarn
- 14. ensure yarn tension in the creeling section is appropriate
- 15. ensure proper functioning of the machine

#### Carrying out doffing

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

**16.** collect the empty cones from creel and replace with full cone.







- **17.** ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual
- 18. keep the empty fabric roller ready for replacement
- 19. doff the full fabric roll in case of manual take-off.
- 20. ensure proper fabric take off procedure is followed
- 21. move the fabric roll to storage area
- 22. ensure the knitting machine is properly restarted after doffing

#### Post fabric take off responsibilities

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

- 23. ensure proper functioning of knitting machine post fabric take off
- 24. ensure proper material handling of yarn, beam and fabric
- 25. ensure proper material handling of tools and equipments

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP)and regulations in a knitting unit /mill
- KU2. safe working practices to be adopted in knitting unit / mill
- KU3. quality systems and other processes practiced in the knitting unit / mill
- **KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5. color coding adopted for different counts in the knitting unit / mill
- **KU6.** process flow and material flow in knitting industry
- **KU7.** functions of knitting machine
- KU8. functions of control switches and signal lamps in knitting machine
- **KU9.** importance of knotting
- KU10. importance of fabric take-off
- **KU11.** importance of fabric quality
- **KU12.** guidelines for knotting the yarn
- KU13. guidelines for carrying out fabric take off activity
- **KU14.** knowledge of different functions in display panel and procedure to operate the knitting machine
- KU15. importance of cleanliness and safety at work place

## **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- GS2. comprehend written instructions
- **GS3.** communicate with supervisor appropriately
- GS4. talk to others to convey information effectively







- **GS5.** apply problem-solving approaches in different situations
- **GS6.** refer anomalies to the supervisor
- **GS7.** seek clarification on problems from others
- **GS8.** apply good attention to detail
- **GS9.** check your work is complete and free from errors
- **GS10.** procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
- GS11. standard operating procedure for carrying out knotting activity
- GS12. standard operating procedure for carrying out fabric take off activity
- **GS13.** procedure for segregating the different types of wastes
- GS14. procedure for storing reusable wastes and weighing them
- GS15. procedure for material handling of cone, fabric roll .
- **GS16.** maintain cleanliness at work



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**Qualification Pack** 

#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Attending the machine on yarn breakage	3	5	-	3
<ol> <li>identity whether the machine stoppage by viewing the signal lamps and in display panel</li> </ol>	1	2	-	1
2. identify the reasons for yarn breakage	1	2	-	1
<b>3.</b> ensure minimum time is taken for attending the yarn breakage	1	1	-	1
Knotting the yarn	10	13	-	9
4. unwind the yarn from beam	1	1	-	1
5. ensure proper knotting	2	1	-	1
<b>6.</b> draw the yarn through the guide, guide rollers and pass it through the stop motion ,guide in delivery zone	1	2	-	1
<ol> <li>ensure proper functioning of knitting machine post knotting</li> </ol>	1	2	-	1
8. collect the wastes collected during knotting and store the waste at respective waste box	1	2	-	1
<ol> <li>segregate the reusable wastes and weigh and record them in a register</li> </ol>	1	1	-	1
<b>10.</b> ensure standard knotting procedure is adopted and quality of knotting is as per standards	1	1	-	1
<b>11.</b> ensure minimum time is taken for knotting the yarn.	1	1	-	1
<ol> <li>ensure safety while carrying out knotting activity</li> </ol>	1	2	-	1
Checking the quality of knotting	5	4	-	4
<b>13.</b> verify the quality of knotting done in the yarn	3	2	-	2
<b>14.</b> ensure yarn tension in the creeling section is appropriate	1	1	-	1







Transforming the skill landscape

#### **Qualification Pack**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. ensure proper functioning of the machine	1	1	-	1
Carrying out doffing	10	13	-	9
<b>16.</b> collect the empty cones from creel and replace with full cone.	2	1	-	1
<b>17.</b> ensure whether the fabric roll is ready for fabric take off by viewing the details in display panel or by manual	1	2	-	1
<b>18.</b> keep the empty fabric roller ready for replacement	1	2	-	1
<b>19.</b> doff the full fabric roll in case of manual take-off.	2	2	-	1
<b>20.</b> ensure proper fabric take off procedure is followed	2	3	-	2
<b>21.</b> move the fabric roll to storage area	1	2	-	1
<b>22.</b> ensure the knitting machine is properly restarted after doffing	1	1	-	2
Post fabric take off responsibilities	3	4	-	3
<b>23.</b> ensure proper functioning of knitting machine post fabric take off	1	2	-	1
<b>24.</b> ensure proper material handling of yarn, beam and fabric	1	1	-	1
<b>25.</b> ensure proper material handling of tools and equipments	1	1	-	1
NOS Total	31	39	-	28







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N4112
NOS Name	Knotting the yarn and fabric take off at Warp Knitting
Sector	Textile
Sub-Sector	Knitting – Textiles
Occupation	Knitting
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







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

## Description

This unit is about carrying out the Repair of yarn-related faults at the knitting head and fabric press-offs

## Scope

The scope covers the following :

- attending the yarn-related faults
- repair fabric press-offs

## **Elements and Performance Criteria**

#### Attending the yarn related faults

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

- 1. rethread incorrectly-positioned yarns in accordance with workplace procedures
- 2. identify the reasons for yarn breakage
- 3. join broken yarns or new ends
- **4.** ensure machines are reset for restart in accordance with workplace procedures after fault correction, style changes, and pattern changes.

#### Repair fabric pressoff

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

- 5. ensure fabric press-offs are fixed in accordance with machine-type and workplace procedures.
- machines are reset for restart in accordance with workplace procedures after fault correction, style changes, pattern changes

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP)and regulations in a knitting unit / mill
- KU2. safe working practices to be adopted in knitting unit / mill
- KU3. quality systems and other processes practiced in the knitting unit /mill
- KU4. reporting to the supervisor or higher authority in case of emergency
- KU5. color coding adopted for different products in the knitting unit / mill
- KU6. process flow and material flow in knitting industry
- KU7. functions of knitting machine
- KU8. functions of control switches and signal lamps in knitting machine
- KU9. importance of knotting
- **KU10.** importance of doffing







- **KU11.** importance of fabric quality
- KU12. guidelines for knotting the yarn
- **KU13.** guidelines for carrying out fabric take off activity
- **KU14.** knowledge of different functions in display panel and procedure to operate the knitting machine
- **KU15.** functions of different signal lamps in knitting machine.
- **KU16.** importance of cleanliness and safety at work place

## **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- GS2. comprehend written instructions
- GS3. communicate with supervisor appropriately
- GS4. talk to others to convey information effectively
- GS5. apply problem-solving approaches in different situations
- GS6. refer anomalies to the supervisor
- **GS7.** seek clarification on problems from others
- GS8. apply good attention to detail
- **GS9.** check your work is complete and free from errors
- **GS10.** procedure for collect the yarn from creel zone and condense through the guides, positive feeders for fabric formation.
- **GS11.** standard operating procedure for carrying out knotting activity
- GS12. standard operating procedure for carrying out fabric take off activity
- GS13. procedure for segregating the different types of wastes
- GS14. procedure for storing reusable wastes and weighing them
- GS15. procedure for material handling of cone, fabric roll
- **GS16.** maintain cleanliness at work



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#### **Qualification Pack**

#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Attending the yarn related faults	4	6	-	4
<ol> <li>rethread incorrectly-positioned yarns in accordance with workplace procedures</li> </ol>	1	2	-	1
2. identify the reasons for yarn breakage	1	2	-	1
3. join broken yarns or new ends	1	1	-	1
<b>4.</b> ensure machines are reset for restart in accordance with workplace procedures after fault correction, style changes, and pattern changes.	1	1	-	1
Repair fabric pressoff	3	3	-	2
<b>5.</b> ensure fabric press-offs are fixed in accordance with machine-type and workplace procedures.	2	1	-	1
<b>6.</b> machines are reset for restart in accordance with workplace procedures after fault correction, style changes, pattern changes	1	2	-	1
NOS Total	7	9	-	6







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N4113
NOS Name	Repair yarn related faults at the knitting head and fabric press off
Sector	Textile
Sub-Sector	Knitting – Textiles
Occupation	Knitting
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	27/01/2025
NSQC Clearance Date	17/11/2022







## TSC/N9001: Maintain work area, tools, and machines

## Description

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

## Scope

The scope covers the following :

• Maintaining the work area, tools and machines

## **Elements and Performance Criteria**

#### Maintaining the work area, tools and machines

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

- 1. handle materials, machinery, equipment and tools with care and use them in the correct way
- 2. use correct lifting and handling procedures
- 3. use materials to minimize waste
- 4. maintain a clean and hazard free working area
- 5. maintain tools and equipment
- 6. carry out running maintenance within agreed schedules
- 7. carry out maintenance and/or cleaning within ones responsibility
- 8. report unsafe equipment and other dangerous occurrences
- 9. ensure that the correct machine guards are in place
- 10. work in a comfortable position with the correct posture
- 11. use cleaning equipment and methods appropriate for the work to be carried out
- 12. dispose of waste safely in the designated location
- 13. store cleaning equipment safely after use
- 14. carry out cleaning according to schedules and limits of responsibility

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. personal hygiene and duty of care
- KU2. safe working practices and organisational standard operating procedures
- KU3. limits of your own responsibility
- **KU4.** ways of resolving problems within the work area
- KU5. the production process and the specific work activities that relate to the whole process
- KU6. the importance of effective communication with supervisors
- KU7. the lines of communication, authority and reporting procedures







- KU8. the organisation's rules, codes and guidelines (including timekeeping)
- **KU9.** the company's quality standards
- KU10. the importance of complying with written instructions
- **KU11.** equipment operating procedures / supervisor's instructions
- KU12. work instructions and specifications and interpret them accurately
- KU13. relation between work role and the overall manufacturing process
- KU14. hazards likely to be encountered when conducting routine maintenance
- KU15. the importance of taking action when problems are identified
- KU16. different ways of minimising waste
- KU17. the importance of running maintenance and regular cleaning
- KU18. effects of contamination on products i.e. machine oil, dirt, foreign materials
- KU19. common faults with equipment and the method to rectify
- KU20. maintenance procedures
- KU21. different types of cleaning equipment and substances and their use
- KU22. safe working practices for cleaning and the method of carrying them out

## **Generic Skills (GS)**

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

- **GS1.** comprehend written instructions
- GS2. read any application sent by other colleagues
- GS3. Communicate effectively in local language
- GS4. communicate with supervisor appropriately
- GS5. talk to others to convey information effectively
- GS6. identify the real reason of problem faced
- **GS7.** apply problem-solving approaches in different situations
- GS8. refer anomalies to the supervisor
- GS9. seek clarification on problems from others
- GS10. apply good attention to detail
- GS11. check your work is complete and free from errors
- GS12. make sure every kind of communication is error free
- GS13. communicate effectively
- GS14. apply leadership skills wherever required
- GS15. take initiative at the right place
- GS16. understand the requirement to be creative



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#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintaining the work area, tools and machines	17	20	-	13
<ol> <li>handle materials, machinery, equipment and tools with care and use them in the correct way</li> </ol>	2	2	-	1
2. use correct lifting and handling procedures	1	2	_	1
3. use materials to minimize waste	2	1	_	1
4. maintain a clean and hazard free working area	1	1	-	1
5. maintain tools and equipment	2	1	_	1
<b>6.</b> carry out running maintenance within agreed schedules	1	2	-	1
7. carry out maintenance and/or cleaning within ones responsibility	1	2	-	1
8. report unsafe equipment and other dangerous occurrences	1	2	-	-
<b>9.</b> ensure that the correct machine guards are in place	1	1	-	1
<b>10.</b> work in a comfortable position with the correct posture	1	1	-	1
<b>11.</b> use cleaning equipment and methods appropriate for the work to be carried out	1	1	-	1
<b>12.</b> dispose of waste safely in the designated location	1	2	-	1
13. store cleaning equipment safely after use	1	1	-	1
<b>14.</b> carry out cleaning according to schedules and limits of responsibility	1	1	-	1
NOS Total	17	20	-	13







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N9001
NOS Name	Maintain work area, tools, and machines
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	3.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







# TSC/N9002: Working in a team

## Description

This unit is about working as a team member in the textile industry

### Scope

The scope covers the following :

- commitment and trust
- communication
- adaptability
- creative freedom

## **Elements and Performance Criteria**

### Commitment and trust

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

- 1. be accountable to the own role in whole process
- 2. perform all roles with full responsibility
- 3. be effective and efficient at workplace

#### Communication

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

- 4. properly communicate about company policies
- 5. report all problems faced during the process
- 6. talk politely with other team members and colleagues
- 7. submit daily report of own performance

#### Adaptability

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

- 8. adjust in different work situations
- 9. give due importance to other's point of view
- **10.** avoid conflicting situations

### Creative freedom

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

- **11.** develop new ideas for work procedures
- 12. improve upon the existing techniques to increase process efficiency

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** standard operating procedures (SOP) and regulations in a textile mill
- KU2. procedure followed to get the final output in the mill







- **KU3.** safe working practices to be adopted in textile mill
- KU4. reporting to the supervisor or higher authority about any grievances faced
- KU5. the importance of the previous and next step of the process
- **KU6.** process flow in a textile mill and the concerned workers
- KU7. material flow in a textile mill and the required person
- KU8. functions of different parts of the machine
- KU9. tools and equipments used
- **KU10.** guidelines for operating the machine
- **KU11.** safety procedures to be followed in the machine

## **Generic Skills (GS)**

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

- **GS1.** write clear and short sentences
- GS2. write daily work report
- **GS3.** write grievance complaint application
- **GS4.** comprehend written instructions
- GS5. read any application sent by other colleagues
- GS6. communicate with supervisor appropriately
- GS7. talk to co-workers to convey information effectively
- **GS8.** identify the real reason of problem faced
- GS9. be able to find the most effective solution to the problems faced
- GS10. apply good attention to detail
- GS11. ensure every kind of communication is error free
- GS12. communicate effectively
- GS13. apply leadership skills wherever required
- GS14. take initiative at the right place
- GS15. understand the requirement to be creative









### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Commitment and trust	5	4	-	2
<ol> <li>be accountable to the own role in whole process</li> </ol>	2	1	-	1
2. perform all roles with full responsibility	2	1	-	1
3. be effective and efficient at workplace	1	2	-	-
Communication	6	7	-	4
<ol> <li>properly communicate about company policies</li> </ol>	1	2	-	1
<ol> <li>report all problems faced during the process</li> </ol>	1	2	-	1
<ol> <li>talk politely with other team members and colleagues</li> </ol>	2	1	-	1
7. submit daily report of own performance	2	2	-	1
Adaptability	5	4	-	3
8. adjust in different work situations	1	1	-	1
<b>9.</b> give due importance to other's point of view	2	1	-	1
<b>10.</b> avoid conflicting situations	2	2	-	1
Creative freedom	3	5	-	2
11. develop new ideas for work procedures	1	3	-	1
<b>12.</b> improve upon the existing techniques to increase process efficiency	2	2	-	1
NOS Total	19	20	-	11







## National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9002
NOS Name	Working in a team
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	6.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







# TSC/N9003: Maintain health, safety and security at workplace

## 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

The scope covers the following :

- comply with health, safety and security requirements at work
- Recognizing the hazards
- Planning the safety techniques
- Implementing the programs

## **Elements and Performance Criteria**

### Comply with health, Safety and security requirements at work

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

- **1.** comply with health and safety related instructions applicable to the workplace
- 2. use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol
- 3. carry out own activities in line with approved guidelines and procedures
- 4. maintain a healthy lifestyle and guard against dependency on intoxicants
- 5. follow environment management system related procedures
- 6. identify and correct (if possible) malfunctions in machinery and equipment
- 7. report any service malfunctions that cannot be rectified
- 8. store materials and equipment in line with organisational requirements
- 9. safely handle and remove waste
- **10.** minimize health and safety risks to self and others due to own actions
- **11.** seek clarifications, from supervisors or other authorized personnel in case of perceived risks
- 12. monitor the workplace and work processes for potential risks and threat
- **13.** carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned
- 14. report hazards and potential risks/ threats to supervisors or other authorized personnel
- 15. participate in mock drills/ evacuation procedures organized at the workplace
- 16. undertake first aid, fire-fighting and emergency response training, if asked to do so
- **17.** take action based on instructions in the event of fire, emergencies or accidents
- **18.** follow organisation procedures for shutdown and evacuation when required

#### Recognizing the hazards

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







- **19.** identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry
- **20.** recognise other possible security issues existing in the workplace

Planning the safety techniques Implementing the programs

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

- **21.** recognise different measures to curb the hazards
- 22. communicate the safety plan to everyone
- 23. attach disciplinary rules with the implementation

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. standard operating procedures (SOP) and regulations in a textile mill
- KU2. safe working practices to be adopted in textile mill
- KU3. quality systems and other processes practiced in the textile mill
- KU4. health and safety related practices applicable at the workplace
- KU5. potential hazards, risks and threats based on nature of operations
- KU6. organizational procedures for safe handling of equipment and machine operations
- KU7. potential risks due to own actions and methods to minimize these
- KU8. environmental management system related procedures at the workplace
- **KU9.** layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points
- KU10. potential accidents and emergencies and response to these scenarios
- KU11. reporting protocol and documentation required
- KU12. details of personnel trained in first aid, fire-fighting and emergency response
- **KU13.** actions to take in the event of a mock drills/ evacuation procedures or actual accident, emergency or fire
- KU14. occupational health and safety risks and methods
- KU15. personal protective equipment and method of use
- KU16. identification, handling and storage of hazardous substances
- KU17. proper disposal system for waste and by-products
- KU18. signage related to health and safety and their meaning
- **KU19.** importance of sound health, hygiene and good habits
- KU20. ill-effects of alcohol, tobacco and drugs

## **Generic Skills (GS)**

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

- **GS1.** write clear and short sentences
- GS2. read and understand the company instructions







- GS3. read and understand work instructions
- GS4. read and understand the safety guidelines
- **GS5.** listen to others attentively
- **GS6.** respond to emergencies, accidents or fire at the workplace
- **GS7.** evacuate the premises and help others in need while doing so
- GS8. the value of physical fitness, personal hygiene and good habits
- **GS9.** talk with others politely
- GS10. identify correct safety measure for particular hazard
- **GS11.** make required safety plans as and when required
- **GS12.** raise alarm in case of emergency
- GS13. know the use of correct safety measure whenever required
- **GS14.** be attentive to details
- **GS15.** be careful to avoid occurrence of hazards
- **GS16.** maintenance of neatness at work
- GS17. procedure for reporting unwanted behavior



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## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Comply with health, Safety and security requirements at work	27	35	-	23
<ol> <li>comply with health and safety related instructions applicable to the workplace</li> </ol>	2	2	-	2
<ol> <li>use and maintain personal protective equipment such as ear plug, nose mask , head cap etc., as per protocol</li> </ol>	2	2	-	2
<b>3.</b> carry out own activities in line with approved guidelines and procedures	2	2	-	2
<ol> <li>maintain a healthy lifestyle and guard against dependency on intoxicants</li> </ol>	2	2	-	2
5. follow environment management system related procedures	2	2	-	2
<b>6.</b> identify and correct (if possible) malfunctions in machinery and equipment	2	2	-	1
<ol> <li>report any service malfunctions that cannot be rectified</li> </ol>	2	2	-	1
8. store materials and equipment in line with organisational requirements	2	2	-	1
9. safely handle and remove waste	2	2	-	1
<b>10.</b> minimize health and safety risks to self and others due to own actions	1	2	-	1
<b>11.</b> seek clarifications, from supervisors or other authorized personnel in case of perceived risks	1	2	-	2
<b>12.</b> monitor the workplace and work processes for potential risks and threat	1	2	-	1
<b>13.</b> carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned	1	2	-	1
<b>14.</b> report hazards and potential risks/ threats to supervisors or other authorized personnel	1	2	-	1







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>15.</b> participate in mock drills/ evacuation procedures organized at the workplace	1	2	-	-
<b>16.</b> undertake first aid, fire-fighting and emergency response training, if asked to do so	1	2	-	1
<b>17.</b> take action based on instructions in the event of fire, emergencies or accidents	1	2	-	1
<b>18.</b> follow organisation procedures for shutdown and evacuation when required	1	1	-	1
Recognizing the hazards	2	2	-	2
<b>19.</b> identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry	1	1	-	1
<b>20.</b> recognise other possible security issues existing in the workplace	1	1	-	1
<i>Planning the safety techniques Implementing the programs</i>	3	3	-	3
<b>21.</b> recognise different measures to curb the hazards	1	1	-	1
<b>22.</b> communicate the safety plan to everyone	1	1	-	1
<b>23.</b> attach disciplinary rules with the implementation	1	1	-	1
NOS Total	32	40	-	28







## **National Occupational Standards (NOS) Parameters**

NOS Code	TSC/N9003
NOS Name	Maintain health, safety and security at workplace
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	5.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







# TSC/N9004: Comply with industry and organizational requirement

## Description

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

## Scope

The scope covers the following :

- self development
- team work
- organizational standards
- industry standards

## **Elements and Performance Criteria**

#### Self development

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

- 1. perform own duties effectively
- 2. take responsibility for own actions
- 3. be accountable towards the job role and assigned duties
- 4. take initiative and innovate the existing methods
- 5. focus on self-learning and improvement

#### Team work

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

- 6. co-ordinate with all the team members and colleagues
- 7. communicate politely
- 8. avoid conflicts and miscommunication

#### Organisational standards

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

- 9. know the organisational standards
- 10. implement them in your performance
- 11. motivate others to follow them

#### Industry standards

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

- 12. monitor the workplace and work processes for potential risks and threat
- 13. align them with organisation standards

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:







- KU1. standard operating procedures (SOP) and regulations in a textile mill
- KU2. reporting to the supervisor or higher authority
- KU3. knowledge of organisational standards
- **KU4.** knowledge of industry standards
- **KU5.** process and material flow in a textile mill
- KU6. importance of complying with the standards
- **KU7.** guidelines for cleaning the various parts of machine

### **Generic Skills (GS)**

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

- GS1. write clear and short sentences
- **GS2.** read the given instructions
- GS3. comprehend written instructions
- GS4. talk effectively with others
- GS5. put forward your point
- GS6. listen to others
- **GS7.** Organizational requirements
- **GS8.** your responsibilities at the workplace
- GS9. procedure to comply with the industry standards



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## **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Self development	5	9	-	7
1. perform own duties effectively	1	2	-	2
2. take responsibility for own actions	1	2	-	2
<b>3.</b> be accountable towards the job role and assigned duties	1	2	-	1
<b>4.</b> take initiative and innovate the existing methods	1	1	-	1
5. focus on self-learning and improvement	1	2	_	1
Team work	3	5	-	4
6. co-ordinate with all the team members and colleagues	1	2	-	1
7. communicate politely	1	1	_	2
8. avoid conflicts and miscommunication	1	2	-	1
Organisational standards	3	4	-	3
9. know the organisational standards	1	1	_	1
<b>10.</b> implement them in your performance	1	2	_	1
<b>11.</b> motivate others to follow them	1	1	-	1
Industry standards	4	2	-	1
<b>12.</b> monitor the workplace and work processes for potential risks and threat	2	1	-	-
13. align them with organisation standards	2	1	_	1
NOS Total	15	20	-	15







## National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9004
NOS Name	Comply with industry and organizational requirement
Sector	Textile
Sub-Sector	Spinning, Weaving, Processing, Knitting
Occupation	Textile Mill sector - Cotton
NSQF Level	3
Credits	TBD
Version	3.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022







# DGT/VSQ/N0101: Employability Skills (30 Hours)

## Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

## Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

### **Elements and Performance Criteria**

#### Introduction to Employability Skills

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

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values - Citizenship

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

**PC2.** identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

#### Becoming a Professional in the 21st Century

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

**PC3.** explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, selfmotivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

#### Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

#### Communication Skills

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

- PC5. follow good manners while communicating with others
- PC6. work with others in a team



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#### **Qualification Pack**



#### **Diversity & Inclusion**

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

- PC7. communicate and behave appropriately with all genders and PwD
- PC8. report any issues related to sexual harassment

#### Financial and Legal Literacy

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

- PC9. use various financial products and services safely and securely
- PC10. calculate income, expenses, savings etc.
- **PC11.** approach the concerned authorities for any exploitation as per legal rights and laws *Essential Digital Skills*

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

- PC12. operate digital devices and use its features and applications securely and safely
- PC13. use internet and social media platforms securely and safely

### Entrepreneurship

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

PC14. identify and assess opportunities for potential business

**PC15.** identify sources for arranging money and associated financial and legal challenges *Customer Service* 

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

- PC16. identify different types of customers
- PC17. identify customer needs and address them appropriately
- PC18. follow appropriate hygiene and grooming standards

### Getting ready for apprenticeship & Jobs

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

- PC19. create a basic biodata
- PC20. search for suitable jobs and apply
- PC21. identify and register apprenticeship opportunities as per requirement

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. need for employability skills
- KU2. various constitutional and personal values
- KU3. different environmentally sustainable practices and their importance
- KU4. Twenty first (21st) century skills and their importance
- KU5. how to use basic spoken English language
- KU6. Do and dont of effective communication
- KU7. inclusivity and its importance
- KU8. different types of disabilities and appropriate communication and behaviour towards PwD
- KU9. different types of financial products and services







- **KU10.** how to compute income and expenses
- **KU11.** importance of maintaining safety and security in financial transactions
- **KU12.** different legal rights and laws
- **KU13.** how to operate digital devices and applications safely and securely
- KU14. ways to identify business opportunities
- KU15. types of customers and their needs
- KU16. how to apply for a job and prepare for an interview
- KU17. apprenticeship scheme and the process of registering on apprenticeship portal

## **Generic Skills (GS)**

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

- GS1. communicate effectively using appropriate language
- GS2. behave politely and appropriately with all
- **GS3.** perform basic calculations
- GS4. solve problems effectively
- **GS5.** be careful and attentive at work
- GS6. use time effectively
- GS7. maintain hygiene and sanitisation to avoid infection



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#### **Qualification Pack**

### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	1	1	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the job requirements	-	-	-	-
Constitutional values – Citizenship	1	1	-	-
<b>PC2.</b> identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	1	3	-	-
<b>PC3.</b> explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
Basic English Skills	2	3	-	-
<b>PC4.</b> speak with others using some basic English phrases or sentences	-	-	-	-
Communication Skills	1	1	-	-
<b>PC5.</b> follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
Diversity & Inclusion	1	1	-	-
<b>PC7.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC8.</b> report any issues related to sexual harassment	-	-	-	-
Financial and Legal Literacy	3	4	-	-
<b>PC9.</b> use various financial products and services safely and securely	-	-	-	-







Transforming the skill landscape

### **Qualification Pack**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
<b>PC11.</b> approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
Essential Digital Skills	4	6	-	-
<b>PC12.</b> operate digital devices and use its features and applications securely and safely	-	-	-	-
<b>PC13.</b> use internet and social media platforms securely and safely	-	-	-	-
Entrepreneurship	3	5	-	-
<b>PC14.</b> identify and assess opportunities for potential business	-	-	-	-
<b>PC15.</b> identify sources for arranging money and associated financial and legal challenges	-	-	-	-
Customer Service	2	2	-	-
PC16. identify different types of customers	-	-	-	-
<b>PC17.</b> identify customer needs and address them appropriately	-	-	-	-
<b>PC18.</b> follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
<b>PC21.</b> identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-







## National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

## Assessment Guidelines and Assessment Weightage

### **Assessment Guidelines**

1.Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.

2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.

3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).

4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.

5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 50







(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

## **Assessment Weightage**

### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N4109.Taking charge of shift and handing over shift to Knitting Machine Operator Warp Knitting	20	34	-	21	75	11
TSC/N4110.Repair yarn related faults in Warp Knitting	8	11	-	6	25	4
TSC/N4111.Operating the Warp Knitting Machine	49	66	-	45	160	24
TSC/N4112.Knotting the yarn and fabric take off at Warp Knitting	31	39	-	28	98	15
TSC/N4113.Repair yarn related faults at the knitting head and fabric press off	7	9	-	6	22	3
TSC/N9001.Maintain work area, tools, and machines	17	20	-	13	50	7
TSC/N9002.Working in a team	19	20	-	11	50	7
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	15
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	7
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	7
Total	218	289	0	0	680	100







## Acronyms

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







## Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) 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 (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.







Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.