



# Fitter - Shuttleless Weaving Machine: Air-Jet

QP Code: TSC/Q2405

Version: 3.0

NSQF Level: 4

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

## Qualification Pack

## Contents

TSC/Q2405: Fitter - Shuttleless Weaving Machine: Air-Jet .....	3
<i>Brief Job Description</i> .....	3
Applicable National Occupational Standards (NOS) .....	3
<i>Compulsory NOS</i> .....	3
<i>Qualification Pack (QP) Parameters</i> .....	3
TSC/N2409: Taking charge of shift and handing over shift to fitter- Shuttle less Weaving Machine: Air-Jet .....	5
TSC/N2410: Maintain shuttle-less Air-jet loom .....	11
TSC/N9001: Maintain work area, tools, and machines .....	22
TSC/N9002: Working in a team .....	26
TSC/N9003: Maintain health, safety and security at workplace .....	30
TSC/N9004: Comply with industry and organizational requirement .....	36
DGT/VSQ/N0101: Employability Skills (30 Hours) .....	40
Assessment Guidelines and Weightage .....	45
<i>Assessment Guidelines</i> .....	45
<i>Assessment Weightage</i> .....	46
Acronyms .....	47
Glossary .....	48

## TSC/Q2405: Fitter - Shuttleless Weaving Machine: Air-Jet

### Brief Job Description

A Fitter - Shuttleless Weaving Machine: Air-Jet is a job-role in a weaving department. The responsibility of Fitter - Shuttleless Weaving Machine: AirJet is to maintain the loom efficiently so as to get maximum output with minimum defects, with less cost of production giving due importance to safety and environment aspects. He/she should carry out all the maintenance aspects such as erecting, dismantling, assembling, leveling, attending & resolving repairs and breakdowns in preparatory department. He/she should also carry out regular preventive maintenance activities thus ensuring proper functioning of all machines.

### Personal Attributes

A Fitter - Shuttleless Weaving Machine: Air-Jet should have good eyesight, eye-hand coordination, motor skills and vision (including near vision, distance vision, color vision, peripheral vision, depth perception and ability to change focus).

### Applicable National Occupational Standards (NOS)

#### Compulsory NOS:

1. [TSC/N2409: Taking charge of shift and handing over shift to fitter- Shuttle less Weaving Machine: Air-Jet](#)
2. [TSC/N2410: Maintain shuttle-less Air-jet loom](#)
3. [TSC/N9001: Maintain work area, tools, and machines](#)
4. [TSC/N9002: Working in a team](#)
5. [TSC/N9003: Maintain health, safety and security at workplace](#)
6. [TSC/N9004: Comply with industry and organizational requirement](#)
7. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

### Qualification Pack (QP) Parameters

<b>Sector</b>	Textile
<b>Sub-Sector</b>	Weaving – Textiles
<b>Occupation</b>	Maintenance-Weaving Machines

## Qualification Pack

<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Credits</b>	15
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/8152.99
<b>Minimum Educational Qualification &amp; Experience</b>	11th Class (with no experience (OR) Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma with no experience (OR) 10th grade pass plus 1-year NTC/ NAC with no experience (OR) 8th grade pass plus 2-year NTC plus 1 Year NAC with no experience (OR) 8th pass plus 1-year NTC plus 1-Year NAC plus CITS with no experience (OR) 10th grade pass and pursuing continuous schooling (OR) 10th Grade Pass with 2 year relevant experience (OR) Previous relevant Qualification of NSQF Level 3.0 with minimum education as 5th Grade pass (OR) Previous relevant Qualification of NSQF Level 3.5 with 1 year relevant experience)
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	27/01/2025
<b>NSQC Approval Date</b>	17/11/2022
<b>Version</b>	3.0
<b>Reference code on NQR</b>	2022/TEXT/TSC/07084
<b>NQR Version</b>	1.0

## Qualification Pack

# TSC/N2409: Taking charge of shift and handing over shift to fitter-Shuttle less Weaving Machine: Air-Jet

## Description

This unit is about taking charge of shift from previous shift fitter - Shuttle-less weaving machine: Air-jet and relieving the responsibilities to the next shift fitter - Shuttleless weaving machine: Air-jet.

## Scope

The scope covers the following :

- Taking charge of shift to Fitter-Shuttleless Weaving Machine: Air-Jet
- Handing over the shift to Fitter-Shuttleless Weaving Machine: Air-Jet

## Elements and Performance Criteria

### *Taking charge of shift from fitter Shuttleless weaving machine: Air-jet*

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

1. come at least 15-20 minutes earlier to the work spot.
2. ensure that the necessary tools, gauges etc., are in place
3. meet the previous shift fitter & discuss with Him regarding the issues faced by Him with respect to the quality, production, spare, safety or any other specific instruction etc.
4. check for the availability of the weft & the condition of the same.
5. check the working condition of the weft Feeders.
6. check for the fabric defects on cloth.
7. check for the correct functioning of Centre Cutter, Side Cutter etc., wherever they are in use.
8. check for the proper functioning of the Lino units.
9. check whether ends are drawn properly in catch cord
10. check the condition of the running beams for cross ends, ends pulling out etc. particularly at the selvedge
11. check the air pressure in the main air line
12. note down the break downs in the machines
13. check for the size of the Cloth Rolls & to see whether any indication is there in the cloth rolls.
14. check the cleanliness of the machines & other work areas.
15. check whether any spare/raw material/ tool / fabric/ any other material are thrown under the machines or in the other work areas.
16. question the previous shift Fitter for any deviation and should bring the same to the knowledge of His/ Her shift Superior as well that of the previous shift

### *Handing over the Shift to fitter Shuttle-less weaving machine: Air-jet*

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

17. hand over the shift to the incoming Fitter in a proper manner & get clearance from him before leaving the work spot.

## Qualification Pack

18. report to His shift superiors as well as that of the incoming shift, in case His/ Her counterpart doesn't come for duty. In that case, the shift has to be properly handed over to the incoming shift Superior & get clearance from him before leaving the work spot.
19. report to His shift Superior about the quality / production /safety issues/ any other issue faced in His/ Her shift and should leave the department only after getting concurrence for the same from His/ Her superiors.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the organization's policies & standard operating procedures (SOP).
- KU2.** should have awareness & knowledge of customers.
- KU3.** potential hazards associated with the machines and the safety precautions.
- KU4.** protocol to obtain more information on work related tasks.
- KU5.** contact person in case of queries on procedure or products and for resolving issues related to defective machines, tools, materials & equipments.
- KU6.** details of the various job roles & responsibilities.
- KU7.** documentation and reporting formats.
- KU8.** work targets & review with superiors.
- KU9.** protocol and format for reporting work related risks/ problems.
- KU10.** method of obtaining /giving feedback with respect to performance.
- KU11.** importance of team work harmonious working relationships.
- KU12.** Wrong Drawing, Wrong Dentering, End Out, Double End, Broken Pick, Double Pick, Missing Pick, Hand Stain, Hole, Wrong Weft, Bad Selvedge.
- KU13.** End Out, Let-Off, Take- Up problem, Temple Mark, Temple Cut, Emery Hole/ Emery Cut/ Emery Mark, Broken Pick, Missing Pick, Double Pick, Short Pick, Snarls, Impression Mark, Oil Stain, Lashing In, Weft Catching, Selvedge Cut, Loops, Weft Stitches, Warp Stitches, Bumping Mark, Weft Crack, Cloth Torn, Bad Shedding, Warp Floats, Weft Floats, Reed Mark, Bad Selvedge, Starting Mark, Thin & Thick Place, Hair line crack.
- KU14.** guidelines for storage & disposal of waste materials.
- KU15.** Minimum quality requirements of the product with respect to permissible/non-permissible defects. Process flow & material flow in a weaving mill
- KU16.** Fabric quality particulars such as ends & picks per inch, width, weave etc.
- KU17.** Yarns from natural fibers - Cotton, Silk, and Wool.
- KU18.** Yarns from Manmade Fibers - Polyester, Nylon, Viscose.
- KU19.** Blended yarns - Polyester Cotton, Polyester Viscose.
- KU20.** Procedure for operating Air Jet looms
- KU21.** Functions of various controls of air jet looms
- KU22.** Functions and methodology for operating different material handling tools. Knowledge of waste collection systems & their use
- KU23.** Safety procedures to be followed at work place
- KU24.** Tappet loom/ Cam Loom/ Crank Loom, Dobby Loom, Jacquard Loom.



## Qualification Pack

- KU25.** Plain Weave, Twill, Drill, Plain Satin, Stripe Satin, Dobby designs, Jacquard designs.
- KU26.** Wrong Drawing, Wrong Denting, End Out, Double End, Broken Pick, Double Pick, Missing Pick, Hand Stain, Hole, Wrong Weft, Bad Selvedge.
- KU27.** End Out, Let-Off, Take- Up problem, Temple Mark, Temple Cut, Emery Hole/ Emery Cut/ Emery Mark, Broken Pick, Missing Pick, Double Pick, Short Pick, Snarls, Impression Mark, Oil Stain, Lashing In, Weft Catching, Selvedge Cut, Loops, Weft Stitches, Warp Stitches, Bumping Mark, Weft Crack, Cloth Torn, Bad Shedding, Warp Floats, Weft Floats, Reed Mark, Bad Selvedge, Starting Mark, Thin & Thick Place, Hair line crack.
- KU28.** Spinning Faults - Thin Place, Thick Place, Neps, Kitties, Contamination, Color Flies, Yarn variation, Shade Variation.
- KU29.** Sizing Faults - Shade variation, Size Patches, Sizing Oil, Bead formation.
- KU30.** Weaving Faults - Wrong Weft, Wrong Pattern, Less Width, Low EPI, Low PPI, wrong warp.
- KU31.** Four Point American System
- KU32.** British System of grading Cuttable Faults, Warp Way Continuous Faults, Specification Deviations
- KU33.** American System
- KU34.** safety mechanisms of the machines & ensure that the same are in order.
- KU35.** Functions of stop motions & ensure that the same are in order.
- KU36.** Functions of various indication lamps & ensure that the same are in order.
- KU37.** the functional operations of the machines, where he is working.

## Generic Skills (GS)

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

- GS1.** Read and communicate orally in local language.
- GS2.** Write clear and short sentences
- GS3.** Plan and manage work routine based on instructions from supervisor.
- GS4.** participate in the various programs/ meetings that will be conducted by the Superiors.
- GS5.** put forth the suggestions in the interest of the Company.
- GS6.** participate in the Quality Circles formed by the Superiors.
- GS7.** extend voluntary support and adapt to the various procedures that are adopted by the Company with respect to compliances for the different certifications like ISO 9001, ISO 14001, SA 8001 GOTS Certification Fair Trade etc.
- GS8.** ensure that Warp breaks/loom hour doesn't exceed 2.
- GS9.** ensure that weft breaks/loom hour doesn't exceed 1.
- GS10.** ensure that fabric rejection doesn't exceed 1%.
- GS11.** ensure that the efficiency is maintained in excess of 85%.
- GS12.** ensure that the warp waste doesn't exceed 0.5%.
- GS13.** ensure that the weft waste doesn't exceed 0.5 %

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from fitter Shuttleless weaving machine: Air-jet</i>	<b>14</b>	<b>41</b>	-	<b>10</b>
1. come at least 15-20 minutes earlier to the work spot.	-	2	-	1
2. ensure that the necessary tools, gauges etc., are in place	2	2	-	1
3. meet the previous shift fitter & discuss with Him regarding the issues faced by Him with respect to the quality, production, spare, safety or any other specific instruction etc.	1	3	-	-
4. check for the availability of the weft & the condition of the same.	1	3	-	-
5. check the working condition of the weft Feeders.	-	3	-	1
6. check for the fabric defects on cloth.	-	2	-	1
7. check for the correct functioning of Centre Cutter, Side Cutter etc., wherever they are in use.	1	3	-	1
8. check for the proper functioning of the Lino units.	-	3	-	-
9. check whether ends are drawn properly in catch cord	1	3	-	-
10. check the condition of the running beams for cross ends, ends pulling out etc. particularly at the selvedge	1	2	-	-
11. check the air pressure in the main air line	1	2	-	1
12. note down the break downs in the machines	2	3	-	-
13. check for the size of the Cloth Rolls & to see whether any indication is there in the cloth rolls.	2	3	-	1
14. check the cleanliness of the machines & other work areas.	1	3	-	1



## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
15. check whether any spare/raw material/ tool / fabric/ any other material are thrown under the machines or in the other work areas.	1	2	-	1
16. question the previous shift Fitter for any deviation and should bring the same to the knowledge of His/ Her shift Superior as well that of the previous shift	-	2	-	1
<i>Handing over the Shift to fitter Shuttle-less weaving machine: Air-jet</i>	2	7	-	1
17. hand over the shift to the incoming Fitter in a proper manner & get clearance from him before leaving the work spot.	-	2	-	-
18. report to His shift superiors as well as that of the incoming shift, in case His/ Her counterpart doesn't come for duty. In that case, the shift has to be properly handed over to the incoming shift Superior & get clearance from him before leaving the work spot.	1	3	-	1
19. report to His shift Superior about the quality / production /safety issues/ any other issue faced in His/ Her shift and should leave the department only after getting concurrence for the same from His/ Her superiors.	1	2	-	-
<b>NOS Total</b>	<b>16</b>	<b>48</b>	<b>-</b>	<b>11</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TSC/N2409
<b>NOS Name</b>	Taking charge of shift and handing over shift to fitter- Shuttle less Weaving Machine: Air-Jet
<b>Sector</b>	Textile
<b>Sub-Sector</b>	Weaving – Textiles
<b>Occupation</b>	Maintenance-Weaving Machines
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	27/01/2022
<b>Next Review Date</b>	27/01/2025
<b>NSQC Clearance Date</b>	17/11/2022

## TSC/N2410: Maintain shuttle-less Air-jet loom

### Description

This unit provides performance criteria, knowledge & understanding, skills & abilities required to maintain shuttle-less loom (Airjet), by attending to repairs with respect to production & quality so as to get maximum output & minimum defects, with less cost of production without causing any damage to the people, the machine etc., without wasting much of raw materials, spares, tools etc., & without spoiling the environmental aspects.

### Scope

The scope covers the following :

- Attending to quality Issues
- Attending Production Issues/ Break downs
- Ensuring Maintenance activities of shuttle-less loom (Airjet)
- Other work practices

### Elements and Performance Criteria

#### *Attending to quality Issues*

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

- PC1.** ensure that the production is commenced only after the sample is approved.
- PC2.** ensure that bulk production is started only after the first roll is approved.
- PC3.** ensure that Warp Stop motion functions properly, so that there is no end out problem, warp float etc. in the fabrics.
- PC4.** ensure that Weft stop motion functions properly so that fabrics dont get rejected due to weft crack.
- PC5.** maintain Take Up & Let-Off mechanisms properly
- PC6.** ensure proper functioning of stop motions, Back Rest, Shedding etc., so that fabrics are free from defects like starting mark, bad shedding etc.
- PC7.** maintain temple setting, reed setting so that fabrics don't get rejected for reasons like temple cut, temple mark, Reed mark etc.
- PC8.** attend the other fabric defects like Tails, Under Tuck In, Drop Pick, Cloth Torn, Weft Stitches, floats etc.

#### *Attending Production Issues/ Break downs*

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

- PC9.** attend excessive weft breaks.
- PC10.** attend to Weft Transfer failures.
- PC11.** attend excessive warp breaks.
- PC12.** attend to loom stoppages due to Airjet getting Jammed
- PC13.** ensure that Heald wires, Heald Frames, reed etc. are in good working condition.
- PC14.** ensure that the loom runs with the correct belt size and see that there is no slippage in the same, so as to ensure that the loom works at the recommended speed.

## Qualification Pack

- PC15.** see that replenishment of spares or attending to break downs is done in the prescribed time.
- PC16.** ensure required humidity is maintained in the loom shed.
- PC17.** check the knotted looms & ensure that knotting is carried out without cross ends.
- PC18.** report to His shift superiors as well check the sort change loom & ensure that drawing & reaching was carried out without any cross ends.

### *Handing over the Shift to fitter Shuttle-less weaving machine:Air-jet*

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

- PC19.** ensure Loom Breakage Study and check the quality of both warp & weft yarn. For any deviation the same has to be brought to the knowledge of the higher authority
- PC20.** check the Sizing quality and for any deviation, the same has to be brought to the notice of the higher authority.
- PC21.** ensure proper dropper cleaning.

### *Ensuring Maintenance activities*

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

- PC22.** ensure that the looms are cleaned properly as per the below schedule: Daily cleaning, Cleaning during Knotting, Cleaning during Sort Changes
- PC23.** check the oil level on weekly basis.
- PC24.** change the oil on yearly basis
- PC25.** correct / arrest oil leakages
- PC26.** take precautions during knotting
- PC27.** carry out preventive maintenance as per the schedule.
- PC28.** ensure the life of all the spares through effective maintenance.
- PC29.** maintain Spare Changing Details note, for the following details: a) Loom No., b) Name Of The Spare, c) Side (If any), d) Part No., e) Name Of the Supplier, f) Make, g) Date of Application, h) Date Of Removal, i) Reason For Removal, j) Life Of Item
- PC30.** salvage the Broken Spare & to avail new spare, only after producing the Old Spare to the Stores.
- PC31.** maintain sort muster as per the below details: a) Loom No., b) Construction Details, c) Warp details, d) Warp Count, e) Warp Mill Name, f) Warp Yarn Test Report (Test Parameters), g) Reed Used, h) Total Ends Used, i) Name Of The Sizing, j) Warping Breakage Rate, k) Average Warp Count, l) Size Pick Up, m) Warp break/ loom hour, n) Weft Details, o) Weft Count, p) Weft Mill Name, q) Weft Yarn Test Report (Test Parameters), r) Reed Space, s) Weft breakage per loom hour, t) Average Loom Efficiency, u) Loom Speed, v) Average Production in Kilo Picks/loom day, w) Production in metres/loom day, x) Date of knotting, y) Knotted metres, z) Date of exhaustion, Produced metres, Warp Crimp, Warp Consumption/metre (Excluding Size Add On), Warp Wt in kgs/ metre (Including Size add on), Weft Consumption/metre, Total cloth wt in kgs/ metre, GSM, Fabric doffed Kg/ Mtr, Fabric inspected Kg/ Mtr, Fabric Passed Kg/ Mtr, Fabric Rejected Kg/ Mtr, Rejection %, Reason For Rejection, Warp Waste %, Weft Waste %
- PC32.** maintain effective working of Generator
- PC33.** Ensure that Air is not misused. use air for cleaning only in the areas where it is recommended
- PC34.** ensure proper maintenance of Air Compressor

## Qualification Pack

- PC35.** ensure that Loom Cards with all the required details are placed on all the looms: a) Loom No., b) Construction details, c) Reed Count, d) Reed Space, e) Weft Count, f) Pick Wheel, g) Winding Spindle No., h) Drawing Method
- PC36.** see that the weft yarn is completely used without any wastage of raw materials. For any quality issue or defective cone etc., the same has to be brought to the notice of the superiors.
- PC37.** maintain Knotting Entry Note with the following details: a) Loom No., b) Construction Details, c) Date Of Knotting, d) Time of Exhaustion, e) Cleaning Completed Time, f) Beam Loading Completed Time, g) Knotting Completed Time, h) Loom Run Time, i) Total Stopped Time For Knotting, j) Name Of the Sizing, k) Set No., l) Beam Nos., m) Beam Metres, n) Old Warp Waste kgs, o) New Warp Waste kgs, p) Cleaning Quality, q) Knotting Quality
- PC38.** ensure that Relative Humidity in the Department is maintained properly
- PC39.** ensure that correct quality of thrums is there & see that the same are properly tied.
- PC40.** check the knotted loom for knotting quality etc. Double ends have to be removed should report to Superiors for any deviation in the same & for any other quality issue.
- PC41.** check that all the safety covers are in place.
- PC42.** ensure that cloth rolls are doffed whenever/ wherever necessary.
- PC43.** give preference to safety. Should not enter the area, where He/ She are not allowed. Should not do a job in which training has not being given.
- PC44.** ensure that no raw material/ cloth/ spare/ tool / any other material is thrown under/ near the machines or in the other work areas.
- PC45.** Should ensure that cloth rolls are doffed whenever/wherever necessary
- PC46.** should give preference to safety. Should not enter the area, where he/she are not allowed. Should not do a job in which the training has not being given
- PC47.** should ensure that no raw material/ cloth/spare/tool/any other material is thrown under/ near the machines or in the other work areas.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** The Organization's Policies & Standard Operating Procedures (SOP).
- KU2.** have awareness & knowledge of customers.
- KU3.** Potential hazards associated with the machines and the safety precautions.
- KU4.** Protocol to obtain more information on work related tasks.
- KU5.** Contact Person in case of queries on procedure or products and for resolving issues related to defective machines, tools, materials & equipments.
- KU6.** Details of the various job roles & responsibilities.
- KU7.** documentation and reporting formats.
- KU8.** work targets & review with superiors.
- KU9.** protocol and format for reporting work related risks/ problems.
- KU10.** Method of obtaining /giving feedback with respect to performance.
- KU11.** Importance of Team work & harmonious working relationships.
- KU12.** Process for offering /obtaining work related assistance.

## Qualification Pack

- KU13.** Responsibilities under health, safety and environmental legislation.
- KU14.** Guidelines for storage & disposal of waste materials.
- KU15.** Planning maintenance activities and preparing date-wise plans for maintenance and replacement of parts considering their life
- KU16.** workloads, work allocation and standard working conditions for maintenance operatives
- KU17.** Knowledge about make & models of various air jet machines & their spare parts
- KU18.** Knowledge about oils & lubricants used in air jet looms
- KU19.** Knowledge of various bearings & belts used in air jet looms
- KU20.** Fabric quality particulars such as ends & picks per inch, width, weave etc.
- KU21.** Yarns from natural fibers - Cotton, Silk, and Wool.
- KU22.** Yarns from Manmade Fibers - Polyester, Nylon, Viscose.
- KU23.** Blended yarns - Polyester Cotton, Polyester Viscose.
- KU24.** Shuttleless loom Rapier, Projectile, Airjet, Waterjet.
- KU25.** Tappet loom/ Cam Loom/ Crank Loom, Dobby Loom, Jacquard Loom.
- KU26.** Plain Weave, Twill, Drill, Plain Satin, Stripe Satin, Dobby designs, Jacquard designs.
- KU27.** End Out, Let-Off, Take- Up problem, Temple Mark, Temple Cut, Emery Hole/Emery Cut/ Emery Mark, Broken Wrong Drawing, Wrong Denting, End Out, Double End, Broken Pick, Double Pick, Missing Pick, Hand Stain, Hole, Wrong Weft, Bad Selvedge.
- KU28.** End Out, Let-Off, Take- Up problem, Temple Mark, Temple Cut, Emery Hole/ Emery Cut/ Emery Mark, Broken Pick, Missing Pick, Double Pick, Short Pick, Snarls, Impression Mark, Oil Stain, Lashing In, Weft Catching, Selvedge Cut, Loops, Weft Stitches, Warp Stitches, Bumping Mark, Weft Crack, Cloth Torn, Bad Shedding, Warp Floats, Weft Floats, Reed Mark, Bad Selvedge, Starting Mark, Thin & Thick Place, Hair line crack.
- KU29.** Spinning Faults - Thin Place, Thick Place, Neps, Kitties, Contamination, Color Flies, Yarn variation, Shade Variation.
- KU30.** Sizing Faults - Shade variation, Size Patches, Sizing Oil, Bead formation.
- KU31.** Weaving Faults - Wrong Weft, Wrong Pattern, Less Width, Low EPI, Low PPI, wrong warp.
- KU32.** Four Point American System: Below 3 - 1 point, Between 3 to 6 - 2 points, Between 6 to 9 - 3 points, Above 9 - 4 points
- KU33.** British System of grading Cuttable Faults, Warp Way Continuous Faults, Specification Deviations: A Grade:- No Cuttable Faults, No Warp Way Continuous Faults, No 3 Major Faults, 15 minor points, B Grade:- Rejection. Deviation from A Grade, Cuttable Faults: Hole, Let - Off, Take - Up, Selvedge Cut, Weft Crack, Cloth Torn, Wrong Pattern, Bad Shedding, Size Patches, Sizing Oil, Bead Formation, Wrong weft, Major Faults: Wrong Drawing, Wrong Denting, End Out, Double End, Temple Mark Temple Cut, Emery Hole, Emery Cut, Emery Mark, Impression Mark, Guide Tooth Mark, Under Tuck In, Tails, Warp Stitches, Warp Floats, Reed Mark, Bad Selvedge, Yarn Variation, Shade Variation, cloth Width - No Minus is accepted & No excess above 0.5 is accepted, ends per inch - plus or minus 2 are accepted, picks per inch - plus or minus 1.
- KU34.** American System: A Grade:- No Cuttable Faults, No Warp Way Continuous Faults, No of grading Export Specification Deviation. Maximum 15 points for 100 Square meter Standard Piece, B Grade:- Rejection. Deviation from A Grade lengths. Between 40 meters to 79.75 meters - 20% (to variation from Buyer to Buyer) Above 80 meters - 80%
- KU35.** the safety mechanisms of the machines & ensure that the same are in order.

## Qualification Pack

- KU36.** Functions of stop motions & ensure that the same are in order.
- KU37.** Functions of various indication lamps & ensure that the same are in order.
- KU38.** functional operations of the machines, where he is working.

## Generic Skills (GS)

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

- GS1.** Plan and manage work routine based on instructions from supervisor.
- GS2.** participate in the various programs/ meetings that are conducted by the Superiors.
- GS3.** put forth the suggestions in the interest of the Company.
- GS4.** participate in the Quality Circles formed by the Superiors.
- GS5.** voluntary supports and adapt to the various procedures that are adopted by the Company with respect to compliances for the different certifications like ISO 9001, ISO 14001, SA 8001 GOTS Certification Fair Trade etc.
- GS6.** put forth the suggestions in the interest of the Company.
- GS7.** participate in the Quality Circles formed by the Superiors.
- GS8.** extend voluntary supports and adapt to the various procedures that are adopted by the Company with respect to compliances for the different certifications
- GS9.** ensure that Warp breaks/loom hour doesn't exceed 2
- GS10.** ensure that weft breaks/loom hour doesn't exceed 1.
- GS11.** ensure that fabric rejection doesn't exceed 1%.
- GS12.** ensure that the efficiency is maintained in excess of 85%.
- GS13.** ensure that the warp waste doesn't exceed 0.5%.
- GS14.** ensure that the weft waste doesn't exceed 0.5 %



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Attending to quality Issues</i>	<b>5</b>	<b>16</b>	-	<b>7</b>
<b>PC1.</b> ensure that the production is commenced only after the sample is approved.	-	2	-	1
<b>PC2.</b> ensure that bulk production is started only after the first roll is approved.	-	2	-	1
<b>PC3.</b> ensure that Warp Stop motion functions properly, so that there is no end out problem, warp float etc. in the fabrics.	-	2	-	1
<b>PC4.</b> ensure that Weft stop motion functions properly so that fabrics dont get rejected due to weft crack.	1	2	-	1
<b>PC5.</b> maintain Take Up & Let-Off mechanisms properly	1	2	-	-
<b>PC6.</b> ensure proper functioning of stop motions, Back Rest, Shedding etc., so that fabrics are free from defects like starting mark, bad shedding etc.	2	2	-	1
<b>PC7.</b> maintain temple setting, reed setting so that fabrics don't get rejected for reasons like temple cut, temple mark, Reed mark etc.	1	2	-	1
<b>PC8.</b> attend the other fabric defects like Tails, Under Tuck In, Drop Pick, Cloth Torn, Weft Stitches, floats etc.	-	2	-	1
<i>Attending Production Issues/ Break downs</i>	<b>10</b>	<b>24</b>	-	<b>5</b>
<b>PC9.</b> attend excessive weft breaks.	-	2	-	-
<b>PC10.</b> attend to Weft Transfer failures.	2	2	-	-
<b>PC11.</b> attend excessive warp breaks.	1	3	-	1
<b>PC12.</b> attend to loom stoppages due to Airjet getting Jammed	1	2	-	1
<b>PC13.</b> ensure that Heald wires, Heald Frames, reed etc. are in good working condition.	2	3	-	-

## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC14.</b> ensure that the loom runs with the correct belt size and see that there is no slippage in the same, so as to ensure that the loom works at the recommended speed.	2	4	-	1
<b>PC15.</b> see that replenishment of spares or attending to break downs is done in the prescribed time.	-	2	-	-
<b>PC16.</b> ensure required humidity is maintained in the loom shed.	-	2	-	1
<b>PC17.</b> check the knotted looms & ensure that knotting is carried out without cross ends.	1	2	-	-
<b>PC18.</b> report to His shift superiors as well check the sort change loom & ensure that drawing & reaching was carried out without any cross ends.	1	2	-	1
<i>Handing over the Shift to fitter Shuttle-less weaving machine:Air-jet</i>	<b>4</b>	<b>9</b>	-	<b>2</b>
<b>PC19.</b> ensure Loom Breakage Study and check the quality of both warp & weft yarn. For any deviation the same has to be brought to the knowledge of the higher authority	2	4	-	1
<b>PC20.</b> check the Sizing quality and for any deviation, the same has to be brought to the notice of the higher authority.	2	3	-	1
<b>PC21.</b> ensure proper dropper cleaning.	-	2	-	-
<i>Ensuring Maintenance activities</i>	<b>24</b>	<b>60</b>	-	<b>9</b>
<b>PC22.</b> ensure that the looms are cleaned properly as per the below schedule: Daily cleaning, Cleaning during Knotting, Cleaning during Sort Changes	2	2	-	-
<b>PC23.</b> check the oil level on weekly basis.	1	2	-	-
<b>PC24.</b> change the oil on yearly basis	2	3	-	1
<b>PC25.</b> correct / arrest oil leakages	1	4	-	-
<b>PC26.</b> take precautions during knotting	-	4	-	1
<b>PC27.</b> carry out preventive maintenance as per the schedule.	1	2	-	-

## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC28.</b> ensure the life of all the spares through effective maintenance.	1	2	-	-
<b>PC29.</b> maintain Spare Changing Details note, for the following details: a) Loom No., b) Name Of The Spare, c) Side (If any), d) Part No., e) Name Of the Supplier, f) Make, g) Date of Application, h) Date Of Removal, i) Reason For Removal, j) Life Of Item	2	3	-	1
<b>PC30.</b> salvage the Broken Spare & to avail new spare, only after producing the Old Spare to the Stores.	1	2	-	-
<b>PC31.</b> maintain sort muster as per the below details: a) Loom No., b) Construction Details, c) Warp details, d) Warp Count, e) Warp Mill Name, f) Warp Yarn Test Report (Test Parameters), g) Reed Used, h) Total Ends Used, i) Name Of The Sizing, j) Warping Breakage Rate, k) Average Warp Count, l) Size Pick Up, m) Warp break/ loom hour, n) Weft Details, o) Weft Count, p) Weft Mill Name, q) Weft Yarn Test Report (Test Parameters), r) Reed Space, s) Weft breakage per loom hour, t) Average Loom Efficiency, u) Loom Speed, v) Average Production in Kilo Picks/loom day, w) Production in metres/loom day, x) Date of knotting, y) Knotted metres, z) Date of exhaustion, Produced metres, Warp Crimp, Warp Consumption/metre (Excluding Size Add On), Warp Wt in kgs/ metre (Including Size add on), Weft Consumption/metre, Total cloth wt in kgs/ metre, GSM, Fabric doffed Kg/ Mtr, Fabric inspected Kg/ Mtr, Fabric Passed Kg/ Mtr, Fabric Rejected Kg/ Mtr, Rejection %, Reason For Rejection, Warp Waste %, Weft Waste %	2	3	-	1
<b>PC32.</b> maintain effective working of Generator	1	2	-	-
<b>PC33.</b> Ensure that Air is not misused. use air for cleaning only in the areas where it is recommended	2	2	-	-
<b>PC34.</b> ensure proper maintenance of Air Compressor	1	2	-	1
<b>PC35.</b> ensure that Loom Cards with all the required details are placed on all the looms: a) Loom No., b) Construction details, c) Reed Count, d) Reed Space, e) Weft Count, f) Pick Wheel, g) Winding Spindle No., h) Drawing Method	2	3	-	1

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC36.</b> see that the weft yarn is completely used without any wastage of raw materials. For any quality issue or defective cone etc., the same has to be brought to the notice of the superiors.	-	2	-	-
<b>PC37.</b> maintain Knotting Entry Note with the following details: a) Loom No., b) Construction Details, c) Date Of Knotting, d) Time of Exhaustion, e) Cleaning Completed Time, f) Beam Loading Completed Time, g) Knotting Completed Time, h) Loom Run Time, i) Total Stopped Time For Knotting, j) Name Of the Sizing, k) Set No., l) Beam Nos., m) Beam Metres, n) Old Warp Waste kgs, o) New Warp Waste kgs, p) Cleaning Quality, q) Knotting Quality	2	3	-	1
<b>PC38.</b> ensure that Relative Humidity in the Department is maintained properly	-	2	-	-
<b>PC39.</b> ensure that correct quality of thrums is there & see that the same are properly tied.	-	2	-	-
<b>PC40.</b> check the knotted loom for knotting quality etc. Double ends have to be removed should report to Superiors for any deviation in the same & for any other quality issue.	-	2	-	-
<b>PC41.</b> check that all the safety covers are in place.	1	2	-	-
<b>PC42.</b> ensure that cloth rolls are doffed whenever/ wherever necessary.	-	2	-	-
<b>PC43.</b> give preference to safety. Should not enter the area, where He/ She are not allowed. Should not do a job in which training has not being given.	-	3	-	-
<b>PC44.</b> ensure that no raw material/ cloth/ spare/ tool / any other material is thrown under/ near the machines or in the other work areas.	1	2	-	-
<b>PC45.</b> Should ensure that cloth rolls are doffed whenever/wherever necessary	-	2	-	-
<b>PC46.</b> should give preference to safety. Should not enter the area, where he/she are not allowed. Should not do a job in which the training has not being given	1	1	-	1

### Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC47.</b> should ensure that no raw material/ cloth/spare/tool/any other material is thrown under/ near the machines or in the other work areas.	-	1	-	1
<b>NOS Total</b>	<b>43</b>	<b>109</b>	<b>-</b>	<b>23</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	TSC/N2410
<b>NOS Name</b>	Maintain shuttle-less Air-jet loom
<b>Sector</b>	Textile
<b>Sub-Sector</b>	Weaving – Textiles
<b>Occupation</b>	Maintenance-Weaving Machines
<b>NSQF Level</b>	4
<b>Credits</b>	TBD
<b>Version</b>	2.0
<b>Last Reviewed Date</b>	27/01/2022
<b>Next Review Date</b>	27/01/2025
<b>NSQC Clearance Date</b>	17/11/2022

## Qualification Pack

### 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



## Qualification Pack

- 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

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintaining the work area, tools and machines</i>	<b>17</b>	<b>20</b>	-	<b>13</b>
1. handle materials, machinery, equipment and tools with care and use them in the correct way	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
6. 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	-	-
9. ensure that the correct machine guards are in place	1	1	-	1
10. work in a comfortable position with the correct posture	1	1	-	1
11. use cleaning equipment and methods appropriate for the work to be carried out	1	1	-	1
12. dispose of waste safely in the designated location	1	2	-	1
13. store cleaning equipment safely after use	1	1	-	1
14. carry out cleaning according to schedules and limits of responsibility	1	1	-	1
<b>NOS Total</b>	<b>17</b>	<b>20</b>	-	<b>13</b>

## Qualification Pack

### National Occupational Standards (NOS) Parameters

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

## Qualification Pack

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

## Qualification Pack

### National Occupational Standards (NOS) Parameters

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



## Qualification Pack

### 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:

## Qualification Pack

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

## Assessment Criteria

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

### Qualification Pack

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

## Qualification Pack

### National Occupational Standards (NOS) Parameters

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

## Qualification Pack

### 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:



## Qualification Pack

- 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

## Assessment Criteria

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

## Qualification Pack

### National Occupational Standards (NOS) Parameters

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

## Qualification Pack

### 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, self-motivation, 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

## 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

## Qualification Pack

- 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

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC1.</b> understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	<b>1</b>	<b>1</b>	-	-
<b>PC2.</b> identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	<b>1</b>	<b>3</b>	-	-
<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.	-	-	-	-
<i>Basic English Skills</i>	<b>2</b>	<b>3</b>	-	-
<b>PC4.</b> speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	<b>1</b>	<b>1</b>	-	-
<b>PC5.</b> follow good manners while communicating with others	-	-	-	-
<b>PC6.</b> work with others in a team	-	-	-	-
<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>1</b>	-	-
<b>PC7.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
<b>PC8.</b> report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	<b>3</b>	<b>4</b>	-	-
<b>PC9.</b> use various financial products and services safely and securely	-	-	-	-

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



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	DGT/VSQ/N0101
<b>NOS Name</b>	Employability Skills (30 Hours)
<b>Sector</b>	Cross Sectoral
<b>Sub-Sector</b>	Professional Skills
<b>Occupation</b>	Employability
<b>NSQF Level</b>	2
<b>Credits</b>	1
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	NA
<b>Next Review Date</b>	17/11/2025
<b>NSQC Clearance Date</b>	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 : 70

## Qualification Pack

(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/N2409.Taking charge of shift and handing over shift to fitter- Shuttle less Weaving Machine: Air-Jet	16	48	-	11	75	14
TSC/N2410.Maintain shuttle-less Air-jet loom	43	109	-	23	175	32
TSC/N9001.Maintain work area, tools, and machines	17	20	-	13	50	9
TSC/N9002.Working in a team	19	20	-	11	50	9
TSC/N9003.Maintain health, safety and security at workplace	32	40	-	28	100	18
TSC/N9004.Comply with industry and organizational requirement	15	20	-	15	50	9
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	9
<b>Total</b>	<b>162</b>	<b>287</b>	<b>0</b>	<b>101</b>	<b>550</b>	<b>100</b>

## Acronyms

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

## Glossary

<b>Sector</b>	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.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	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.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	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.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	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.
<b>Scope</b>	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.

## Qualification Pack

<b>Knowledge and Understanding (KU)</b>	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.
<b>Organisational Context</b>	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.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	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.
<b>Electives</b>	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.
<b>Options</b>	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.