



Textile Post Processing Machine Operator

Electives: Washing Range/ Drying Range/ Folding/ Balloon Squeezing/ Calendar Machine

QP Code: TSC/Q5404

Version: 2.0

NSQF Level: 2

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



Qualification Pack

New Delhi - 110001

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TSC/Q5404: Textile Post Processing Machine Operator

Brief Job Description

A Textile Post Processing Machine Operator is responsible to do the specified job of post processing dyed /bleached, RFD fabric with proper control of parameters to get the desired effect. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of textile post processing Machines.

Personal Attributes

A Textile Post Processing Machine Operator should have physicals attributes like dexterity, coordination, motor skills, strength, stamina and handle heavy equipment. A Textile post processing machine operator should also have sensory attributes like hearing ability and vision (normal distance vision, color vision, night vision, peripheral vision, depth perception and ability to change focus).

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [TSC/N9015: Follow machine, safety, and organizational guidelines in textile sector](#)
2. [TSC/N9016: Follow teamwork, adaptability, and communication guidelines in textile sector](#)
3. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Electives(*mandatory to select at least one*):

Elective 1: Washing Range

A Washing Range Operator is responsible to do the specified job of washing of dyed or printed fabric with proper control of parameters to get the desired effect. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Washing range machine.

1. [TSC/N5410: Carryout shift change, production and quality analyse at washing range department](#)

Elective 2: Drying Range

A Drying Range Operator is responsible to do the specified job of drying and finishing of fabric with proper control of parameters to get the desired effect. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Drying machine.

1. [TSC/N5411: Carryout shift change, production and quality analyse at drying range department](#)

Elective 3: Folding

A Folding Machine Operator is responsible for inspection & folding / rolling of fabric on this machine. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Folding machine.

1. [TSC/N5412: Carryout shift change, folding and inspection activity at processed fabric folding department](#)

Elective 4: Balloon Squeezing

A Balloon Squeezer Machine Operator is responsible to do the specified job of Detwisting, Spreading, & Squeezing of Knitted fabric in Tubular or Open Width form with proper control of parameters to get the desired effect on a Balloon Squeezer Machine. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Balloon Squeezer machine.

1. [TSC/N5413: Carryout shift change, production and preparation of chemicals at balloon squeezer department](#)

Elective 5: Calendar Machine

A Calendaring Machine Operator is responsible to do the specified job of calendaring of fabric with proper control of parameters to get the desired effect. This job requires the individual to have thorough knowledge of process flow and material flow in a processing mill for fabric production and should know the important functions and operations of a Calendaring machine.

1. [TSC/N5414: Carryout shift change, production and quality analyse at calendar department](#)

Qualification Pack (QP) Parameters

Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
Country	India
NSQF Level	2
Credits	39
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8154.05
Minimum Educational Qualification & Experience	Ability to read and write

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Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	31/03/2025
NSQC Approval Date	17/11/2022
Version	2.0
Reference code on NQR	2022/TEXT/TSC/07033
NQR Version	1.0

TSC/N9015: Follow machine, safety, and organizational guidelines in textile sector

Description

This unit provides performance criteria, knowledge and skills required to follow machine, safety and organizational guidelines in textile sector.

Scope

The scope covers the following :

- Maintaining the work area, tools and machines
- Greening and energy conservation in textile sector
- Health, safety and response to emergencies at textile sector
- Organizational standards and policies

Elements and Performance Criteria

Maintaining the work area, tools and machines

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

- PC1.** handle materials, machinery, equipment and tools as per standard procedure
- PC2.** use appropriate material handling equipment and tools as per standard procedure
- PC3.** keep the equipment, machine and work area clean using appropriate cleaning tools as per standard procedure
- PC4.** undertake minor routine maintenance of equipment and tools as per standard maintenance procedure
- PC5.** maintain record for defective and unsafe equipment and tools
- PC6.** verify that machine guards are in place as per standard specifications
- PC7.** follow specified ergonomics for the assigned job role in textile sector
- PC8.** collect and store worn-out spare parts at specified location
- PC9.** report the condition of worn out parts as per standard procedure

Greening and energy conservation in textile sector

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

- PC10.** segregate wastes such as recyclable, non-recyclable, hazardous as per standard protocol
- PC11.** optimize usage of material and resources including water, electricity in various tasks
- PC12.** switch off the machines and lights when not in use

Health, safety and response to emergencies at textile sector

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

- PC13.** use Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, head cap, etc. as per guidelines
- PC14.** identify abnormal sounds emanating from faulty or worn out machine parts and take appropriate action
- PC15.** avoid dependency on any type of intoxicants

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- PC16.** maintain social distance as per the instruction at workplace
- PC17.** report hazardous material to superiors at workplace
- PC18.** use the various appropriate fire extinguishers on different types of fires correctly
- PC19.** follow the specified steps in case of electricity failure
- PC20.** lift heavy objects using correct lifting procedures
- PC21.** recall emergency exits, safe spots, etc. of workplace
- PC22.** practice mock drills and evacuation procedures organized by industry
- PC23.** assist others to reach to safe spots in emergency situations
- PC24.** provide basic first aid for injury to peers and report to superiors
- PC25.** interpret different signs, alarms and take action appropriately
- PC26.** follow the guidelines while working in hazards atmosphere
- PC27.** assist in designing the safety plans with peers and superiors
- PC28.** follow the approved safety plans at workplace

Organizational standards and policies

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

- PC29.** perform assigned duties as per organization's protocol within scheduled time period
- PC30.** follow organization policies, quality standards, rules and regulations for working in textile sector
- PC31.** motivate colleagues to follow operational guidelines of organization
- PC32.** wear specified uniform and follow etiquette as per standard guidelines for the textile sector
- PC33.** maintain hygienic working atmosphere as per protocol of the textile sector
- PC34.** submit lost and found articles as per standard protocol

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organizational standard procedures, quality standards, rules, codes, policies and safety standards in the textile sector
- KU2.** different type of tools and equipment used in textile sub- sector and their specifications and operating procedures
- KU3.** safe handling procedure of tools and equipment
- KU4.** the importance of displays and written instructions for the allocated machines
- KU5.** dos and donts specific to the assigned work responsibilities
- KU6.** protocol for minimizing the wastage of material, effort and time
- KU7.** organization's formats and procedures for reporting production, defects, faults, material/tool requisition and quality parameters and task completed for assigned job
- KU8.** schedule for cleaning and waste collection for the assigned job role
- KU9.** importance and standard procedure for disposal of soft, hard, non-hazardous and hazardous wastes and materials
- KU10.** available types of material handling equipment and handling methods used in the textile sector

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- KU11.** hazards of unsafe workplace conditions and procedures in the textile industry and methods to avoid hazards
- KU12.** various types of fire extinguishers
- KU13.** importance of stable mental condition in case of emergency
- KU14.** correct work posture and importance of ergonomics for the assigned job role
- KU15.** organizational quality systems like quality circle, 5S, ISO, SA, etc. followed in the textile sector
- KU16.** importance of following work wear standards, behavioral protocols and etiquette in the textile sector
- KU17.** importance of energy conservation through proper maintenance schedule in the textile sector
- KU18.** procedures and formats for reporting lost and found material
- KU19.** different types of alarms and their significance

Generic Skills (GS)

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

- GS1.** read and comprehend policies in notice boards displayed in the workplace
- GS2.** minimize the resource consumption for the assigned task
- GS3.** solve basic arithmetic calculations related to assigned job role
- GS4.** recognize and differentiate colors of materials used in textile sector
- GS5.** lift specified materials for the allotted task using prescribed ergonomic position
- GS6.** exhibit motor skill required for the allotted task

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintaining the work area, tools and machines</i>	10	10	-	6
PC1. handle materials, machinery, equipment and tools as per standard procedure	-	-	-	-
PC2. use appropriate material handling equipment and tools as per standard procedure	-	-	-	-
PC3. keep the equipment, machine and work area clean using appropriate cleaning tools as per standard procedure	-	-	-	-
PC4. undertake minor routine maintenance of equipment and tools as per standard maintenance procedure	-	-	-	-
PC5. maintain record for defective and unsafe equipment and tools	-	-	-	-
PC6. verify that machine guards are in place as per standard specifications	-	-	-	-
PC7. follow specified ergonomics for the assigned job role in textile sector	-	-	-	-
PC8. collect and store worn-out spare parts at specified location	-	-	-	-
PC9. report the condition of worn out parts as per standard procedure	-	-	-	-
<i>Greening and energy conservation in textile sector</i>	7	10	-	6
PC10. segregate wastes such as recyclable, non-recyclable, hazardous as per standard protocol	-	-	-	-
PC11. optimize usage of material and resources including water, electricity in various tasks	-	-	-	-
PC12. switch off the machines and lights when not in use	-	-	-	-
<i>Health, safety and response to emergencies at textile sector</i>	32	40	-	28

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. use Personal Protective Equipment (PPEs) like body protector, ear plugs, nose mask, head cap, etc. as per guidelines	-	-	-	-
PC14. identify abnormal sounds emanating from faulty or worn out machine parts and take appropriate action	-	-	-	-
PC15. avoid dependency on any type of intoxicants	-	-	-	-
PC16. maintain social distance as per the instruction at workplace	-	-	-	-
PC17. report hazardous material to superiors at workplace	-	-	-	-
PC18. use the various appropriate fire extinguishers on different types of fires correctly	-	-	-	-
PC19. follow the specified steps in case of electricity failure	-	-	-	-
PC20. lift heavy objects using correct lifting procedures	-	-	-	-
PC21. recall emergency exits, safe spots, etc. of workplace	-	-	-	-
PC22. practice mock drills and evacuation procedures organized by industry	-	-	-	-
PC23. assist others to reach to safe spots in emergency situations	-	-	-	-
PC24. provide basic first aid for injury to peers and report to superiors	-	-	-	-
PC25. interpret different signs, alarms and take action appropriately	-	-	-	-
PC26. follow the guidelines while working in hazards atmosphere	-	-	-	-
PC27. assist in designing the safety plans with peers and superiors	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC28. follow the approved safety plans at workplace	-	-	-	-
<i>Organizational standards and policies</i>	16	20	-	10
PC29. perform assigned duties as per organization's protocol within scheduled time period	-	-	-	-
PC30. follow organization policies, quality standards, rules and regulations for working in textile sector	-	-	-	-
PC31. motivate colleagues to follow operational guidelines of organization	-	-	-	-
PC32. wear specified uniform and follow etiquette as per standard guidelines for the textile sector	-	-	-	-
PC33. maintain hygienic working atmosphere as per protocol of the textile sector	-	-	-	-
PC34. submit lost and found articles as per standard protocol	-	-	-	-
NOS Total	65	80	-	50

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9015
NOS Name	Follow machine, safety, and organizational guidelines in textile sector
Sector	Textile
Sub-Sector	Generic - Textiles Handloom
Occupation	Generic - Textiles & Handloom
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

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TSC/N9016: Follow teamwork, adaptability, and communication guidelines in textile sector

Description

This unit provides performance criteria, knowledge and skills required to follow team work, communication and adaptability in textile sector

Scope

The scope covers the following :

- Teamwork and communication
- Adaptability

Elements and Performance Criteria

Teamwork, trust and communication

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

- PC1.** contribute to create a positive work environment in the team
- PC2.** carry out tasks as per instructions received from superiors
- PC3.** contribute to team work as per allocated responsibility to complete the task by using appropriate tools and methods
- PC4.** build trust with team mates and superiors
- PC5.** implement the ideas after superior's approval at work place
- PC6.** communicate clearly with the team members as per standard protocol
- PC7.** use suggested hand signs, vocal sound signals to convey the information in the production area
- PC8.** listen effectively to the ideas and concerns of the peers
- PC9.** use correct and respectful terms while communicating as per industry policy
- PC10.** express views proactively and effectively
- PC11.** make efforts to resolve difference of opinion with superiors and team members
- PC12.** report to superior for problems identified in assigned duty
- PC13.** report the daily performance to superior in prescribed manner and formats

Adaptability

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

- PC14.** adapt to flexible work environment for the assigned task
- PC15.** adapt to work with various members of different ethnicity, gender and PwD without biases
- PC16.** consider opinions of colleagues, fitters, superiors for the assigned task
- PC17.** plan the work-routine within the limits of the responsibility
- PC18.** adopt new ideas after due approval from superior for improving the productivity

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** importance of teamwork and discipline
- KU2.** limits and responsibilities for the assigned duties in the textile sector
- KU3.** possible conflicts in the assigned job role and methods to resolve the same
- KU4.** importance of teamwork, group discussions and healthy work environment
- KU5.** importance of reporting as per the standard protocol
- KU6.** hierarchy of communication and communication etiquettes in the textile sector
- KU7.** protocol for communication with different ethnicity, gender and PwD
- KU8.** report and grievance submission formats
- KU9.** importance of hand, vocal sound signals in the textile sector

Generic Skills (GS)

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

- GS1.** read and comprehend written instructions
- GS2.** listen effectivity for the instructions
- GS3.** coordinate with team mates for the allotted tasks
- GS4.** use and comprehend prescribed voice and hand signals in the textile production area
- GS5.** fill forms and prepare reports such as production report, material requisition forms, leave application, etc. as per standard formats

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Teamwork, trust and communication</i>	10	15	-	5
PC1. contribute to create a positive work environment in the team	-	-	-	-
PC2. carry out tasks as per instructions received from superiors	-	-	-	-
PC3. contribute to team work as per allocated responsibility to complete the task by using appropriate tools and methods	-	-	-	-
PC4. build trust with team mates and superiors	-	-	-	-
PC5. implement the ideas after superior's approval at work place	-	-	-	-
PC6. communicate clearly with the team members as per standard protocol	-	-	-	-
PC7. use suggested hand signs, vocal sound signals to convey the information in the production area	-	-	-	-
PC8. listen effectively to the ideas and concerns of the peers	-	-	-	-
PC9. use correct and respectful terms while communicating as per industry policy	-	-	-	-
PC10. express views proactively and effectively	-	-	-	-
PC11. make efforts to resolve difference of opinion with superiors and team members	-	-	-	-
PC12. report to superior for problems identified in assigned duty	-	-	-	-
PC13. report the daily performance to superior in prescribed manner and formats	-	-	-	-
<i>Adaptability</i>	5	5	-	5
PC14. adapt to flexible work environment for the assigned task	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. adapt to work with various members of different ethnicity, gender and PwD without biases	-	-	-	-
PC16. consider opinions of colleagues, fitters, superiors for the assigned task	-	-	-	-
PC17. plan the work-routine within the limits of the responsibility	-	-	-	-
PC18. adopt new ideas after due approval from superior for improving the productivity	-	-	-	-
NOS Total	15	20	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	TSC/N9016
NOS Name	Follow teamwork, adaptability, and communication guidelines in textile sector
Sector	Textile
Sub-Sector	Generic - Textiles Handloom
Occupation	Generic - Textiles & Handloom
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	27/01/2022
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

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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

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

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

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

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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	30/12/2024
NSQC Clearance Date	30/12/2021

Qualification Pack

TSC/N5410: Carryout shift change, production and quality analyse at washing range department

Description

This unit is about carryout shift change, production and quality analyse at washing range department in a textile processing unit

Scope

The scope covers the following :

- Taking charge of shift from washing range operator
- Handing over shift to washing range operator
- Carry out preparatory activities for operations in the machine
- Operate the machine for specified tasks as per the work order
- Clean the machine on a regular basis and carryout preventive maintenance activities
- Taking out the sample after washing & comparing it with the standard

Elements and Performance Criteria

Taking charge of shift from washing range operator

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

- PC1.** come at least 10 - 15 minutes earlier to the work place
- PC2.** bring the necessary operational tools to the department
- PC3.** meet the previous shift operator and discuss with him/her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc
- PC4.** understand the fabric being processed & process running on the machine
- PC5.** ensure the technical details are mentioned on the job card display on the machine
- PC6.** check for the availability of the spare trolley for unloading the fabric
- PC7.** check the next batch to be processed is ready near the machine
- PC8.** ensure the required chemicals are already weighed & prepared
- PC9.** check the cleanliness of the machines & other work areas
- PC10.** question the previous shift washing range operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift
- PC11.** take charge of the shift from the outgoing washing range operator in a proper manner

Handing Over Shift to washing range operator

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

- PC12.** ensure in providing the details regarding fabric quality & the process running on the machine
- PC13.** provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
- PC14.** ensure the empty trolley is near the machine for unloading the fabric

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- PC15.** ensure the next lot to be processed is ready near the machine already stitched & arranged properly
- PC16.** ensure the required chemicals for the next lot or next process are weighed & prepared
- PC17.** get clearance from the incoming counterpart before leaving the work spot
- PC18.** report to his/her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift
- PC19.** ensure the shift has to be properly handed over to the incoming shift operator
- PC20.** report to his/ her 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
- PC21.** collect the wastes from waste collection bags, weigh them and transport to storage area
- PC22.** ensure the machine and its work place is clean

Carry out preparatory activities for operations in the machine

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

- PC23.** understand the task mentioned in the work order
- PC24.** ensure that the machine is empty & clean including guide rolls & squeezing rolls
- PC25.** feed the fabric from the batch or trolley in the center of the machine using fabric centering & compensating devices
- PC26.** ensure fabric is crease-less and evenly fed onto the machine using J-box for continuous operation of machine

Operate the machine for specified tasks as per Work Order

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

- PC27.** know the operations of the machine
- PC28.** read & understand the process being followed to do the task
- PC29.** keep even tension on fabric throughout the process
- PC30.** keep optimum pressure of the squeezer rolls to get good results
- PC31.** set the required temp in all chambers
- PC32.** open the steam valves & drain the condensate in all compartments
- PC33.** dispense the chemicals in the chambers
- PC34.** start the machine & take out fabric either on batch or trolley
- PC35.** check ph & temp & other parameters in all compartments

Clean the machine on a regular basis and carryout preventive maintenance activities

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

- PC36.** make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric
- PC37.** follow the preventive maintenance schedule & ensure the machine is running smoothly
- PC38.** check that all controls are functioning properly
- PC39.** clean & empty out the dirt collector as and when required
- PC40.** stop the machine in case of any abnormal sound
- PC41.** ensure enough supply of utilities such as water, air & steam for proper functioning of machine

Taking out the sample after washing & comparing it with the standard

Qualification Pack

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

- PC42.** take out the sample near the stitch
- PC43.** compare the sample with the standard
- PC44.** check the sample for washing or rubbing fastness
- PC45.** take the sample to your supervisor if the sample is not matching to the standard for decision

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedure (SOP) and regulations in a processing unit
- KU2.** safe working practices to be adopted in processing unit
- KU3.** quality systems and other processes practiced in the processing unit
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different products in the processing unit
- KU6.** understanding the importance of quality & productivity
- KU7.** understanding various defects in the fabric due to yarn, weaving or processing
- KU8.** reasons for various defects in the fabric due to processing & their remedy
- KU9.** process flow in a processing unit
- KU10.** material flow in a processing unit
- KU11.** functions of various controls of the machine
- KU12.** importance of material handling and types of material handling equipment being used
- KU13.** importance of cleanliness at workplace
- KU14.** functions and methodology for operating different material handling equipment
- KU15.** understanding the functions of various alarm signals
- KU16.** guidelines for operating the machine
- KU17.** guidelines for taking charge of shift from previous shift washing range operator
- KU18.** guidelines for handing over the shift to the next shift washing range operator
- KU19.** safety procedures to be followed while operating the machine
- KU20.** procedure followed to get the final output in processing unit
- KU21.** how to report to the supervisor or higher authority about any grievances faced
- KU22.** importance of discipline & punctuality
- KU23.** importance of take over & handover in achieving quality & productivity
- KU24.** any abnormal sound/ noise should be reported to the concerned/supervisor
- KU25.** how to report to the supervisor if there is any major defect in machine
- KU26.** type of fiber, yarn and fabric- yarn dyed, piece dyed or printed
- KU27.** ensure continuous feeding of fabric using scray/ j- box
- KU28.** various controls of machine
- KU29.** procedure of washing of dyed fabric
- KU30.** procedure of washing of printed fabric
- KU31.** proper use of guide rolls & tensioning devices to avoid unnecessary tension on the fabric

KU32. SOP of washing of fabric dyed or printed with reactive, vat or disperse dyestuffs

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 good attention to detail

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from washing range operator</i>	9	10	-	11
PC1. come at least 10 - 15 minutes earlier to the work place	-	-	-	-
PC2. bring the necessary operational tools to the department	-	-	-	-
PC3. meet the previous shift operator and discuss with him/her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc	-	-	-	-
PC4. understand the fabric being processed & process running on the machine	-	-	-	-
PC5. ensure the technical details are mentioned on the job card display on the machine	-	-	-	-
PC6. check for the availability of the spare trolley for unloading the fabric	-	-	-	-
PC7. check the next batch to be processed is ready near the machine	-	-	-	-
PC8. ensure the required chemicals are already weighed & prepared	-	-	-	-
PC9. check the cleanliness of the machines & other work areas	-	-	-	-
PC10. question the previous shift washing range operator for any deviation in the above and should bring the same to the knowledge of his/her shift superior as well as that of the previous shift	-	-	-	-
PC11. take charge of the shift from the outgoing washing range operator in a proper manner	-	-	-	-
<i>Handing Over Shift to washing range operator</i>	9	10	-	11
PC12. ensure in providing the details regarding fabric quality & the process running on the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	-	-	-
PC14. ensure the empty trolley is near the machine for unloading the fabric	-	-	-	-
PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	-	-	-	-
PC16. ensure the required chemicals for the next lot or next process are weighed & prepared	-	-	-	-
PC17. get clearance from the incoming counterpart before leaving the work spot	-	-	-	-
PC18. report to his/her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift	-	-	-	-
PC19. ensure the shift has to be properly handed over to the incoming shift operator	-	-	-	-
PC20. report to his/ her 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	-	-	-	-
PC21. collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
PC22. ensure the machine and its work place is clean	-	-	-	-
<i>Carry out preparatory activities for operations in the machine</i>	50	110	-	10
PC23. understand the task mentioned in the work order	-	-	-	-
PC24. ensure that the machine is empty & clean including guide rolls & squeezing rolls	-	-	-	-
PC25. feed the fabric from the batch or trolley in the center of the machine using fabric centering & compensating devices	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. ensure fabric is crease-less and evenly fed onto the machine using J-box for continuous operation of machine	-	-	-	-
<i>Operate the machine for specified tasks as per Work Order</i>	50	110	-	8
PC27. know the operations of the machine	-	-	-	-
PC28. read & understand the process being followed to do the task	-	-	-	-
PC29. keep even tension on fabric throughout the process	-	-	-	-
PC30. keep optimum pressure of the squeezer rolls to get good results	-	-	-	-
PC31. set the required temp in all chambers	-	-	-	-
PC32. open the steam valves & drain the condensate in all compartments	-	-	-	-
PC33. dispense the chemicals in the chambers	-	-	-	-
PC34. start the machine & take out fabric either on batch or trolley	-	-	-	-
PC35. check ph & temp & other parameters in all compartments	-	-	-	-
<i>Clean the machine on a regular basis and carryout preventive maintenance activities</i>	41	85	-	5
PC36. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric	-	-	-	-
PC37. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	-	-	-
PC38. check that all controls are functioning properly	-	-	-	-
PC39. clean & empty out the dirt collector as and when required	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC40. stop the machine in case of any abnormal sound	-	-	-	-
PC41. ensure enough supply of utilities such as water, air & steam for proper functioning of machine	-	-	-	-
<i>Taking out the sample after washing & comparing it with the standard</i>	41	85	-	5
PC42. take out the sample near the stitch	-	-	-	-
PC43. compare the sample with the standard	-	-	-	-
PC44. check the sample for washing or rubbing fastness	-	-	-	-
PC45. take the sample to your supervisor if the sample is not matching to the standard for decision	-	-	-	-
NOS Total	200	410	-	50

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5410
NOS Name	Carryout shift change, production and quality analyse at washing range department
Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

TSC/N5411: Carryout shift change, production and quality analyse at drying range department

Description

This unit is about carryout shift change, production and quality analyse at drying range department in a textile processing unit

Scope

The scope covers the following :

- Taking charge of shift from drying range operator
- Handing over shift to drying range operator
- Carry out preparatory activities for operations in the machine
- Operate the machine for specified tasks as per work order
- Clean the machine on a regular basis and carryout preventive maintenance activities
- Taking out the sample after drying & comparing it with the standard

Elements and Performance Criteria

Taking charge of shift from drying range operator

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

- PC1.** come at least 10 - 15 minutes earlier to the work place
- PC2.** bring the necessary operational tools to the department
- PC3.** meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc
- PC4.** understand the fabric being processed & process running on the machine
- PC5.** ensure the technical details are mentioned on the job card display on the machine
- PC6.** check for the availability of the spare trolley for unloading the fabric
- PC7.** check the next batch to be processed is ready near the machine
- PC8.** must ensure the required dyes & chemicals are already weighed & prepared
- PC9.** check the cleanliness of the machines & other work areas
- PC10.** question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift as well.

Handing over shift to drying range operator

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

- PC11.** hand over the shift to the incoming operator in a proper manner
- PC12.** ensure in providing the details regarding fabric quality & the process running on the machine
- PC13.** provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
- PC14.** ensure the empty trolley is near the machine for unloading the fabric

Qualification Pack

- PC15.** ensure the next lot to be processed is ready near the machine already stitched & arranged properly
- PC16.** ensure the required dyes & chemicals for the next lot or next process are weighed & prepared
- PC17.** get clearance from the incoming counterpart before leaving the work spot
- PC18.** should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift
- PC19.** ensure, the shift has to be properly handed over to the incoming shift operator
- PC20.** report to his/ her 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
- PC21.** collect the wastes from waste collection bags, weigh them and transport to storage area
- PC22.** ensure the machine and its work place is clean

Carry out preparatory activities for operations in the machine

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

- PC23.** understand the task mentioned in the work order
- PC24.** ensure that the machine is empty & clean
- PC25.** load the fabric from the batch/trolley in the center of the machine
- PC26.** ensure fabric is crease-less and evenly fed onto the machine
- PC27.** Check that edge control sensors & fabric centring device is functioning properly
- PC28.** ensure that all drying cylinders are clean & free from any lint or loose thread
- PC29.** drain condensate from the steam & air line
- PC30.** ensure enough & good quality steam & air pressure is available
- PC31.** keep empty batch or trolley ready for the fabric to be taken after drying
- PC32.** ensure that all safety devices & other controls are functioning properly

Operate the machine for specified tasks as per work order

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

- PC33.** know the operations of the drying range machine
- PC34.** read & understand the process being followed to do the task
- PC35.** keep even tension on fabric throughout the process
- PC36.** keep optimum pressure of the squeezer rolls to get good results
- PC37.** set the required temp in all cylinders
- PC38.** open the steam valves & drain the condensate
- PC39.** start the machine & take out fabric either on batch or trolley
- PC40.** ensure that all drying cylinders are moving freely & there is no crease formation in the fabric
- PC41.** check moisture content in the dried fabric & adjust the machine speed to the optimum for good productivity
- PC42.** take minimum time to change the batch or trolley or use J box to reduce stoppage time
- PC43.** close steam valves & cool down the machine before stopping down completely
- PC44.** make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric

Clean the machine on a regular basis and carryout preventive maintenance activities

Qualification Pack

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

PC45. follow the preventive maintenance schedule & ensure the machine is running smoothly

PC46. check that all controls are functioning properly

PC47. report to your supervisor or concerned person in case of any problem or abnormal sound in the machine

PC48. check & arrest any leakages in the steam, water or air line

PC49. oil & grease all moving parts of machine regularly

Taking out the sample after drying & comparing it with the standard

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

PC50. taking out the sample after drying near the stitch

PC51. compare the sample with the standard

PC52. take the sample to your supervisor if the sample is not matching to the standard for decision

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard operating procedure (SOP) and regulations in a processing unit

KU2. safe working practices to be adopted in processing unit

KU3. quality systems and other processes practiced in the processing unit

KU4. reporting procedure to the supervisor or higher authority in case of emergency

KU5. color coding adopted for different products in the processing unit

KU6. reasons for various defects in the fabric due to processing & their remedy

KU7. process flow in a processing unit

KU8. material flow in a processing unit

KU9. functions of various controls of the machine

KU10. importance of material handling and types of material handling equipment being used

KU11. importance of cleanliness at workplace

KU12. understanding the functions of various alarm signals

KU13. safety procedures to be followed while operating the machine

KU14. procedure followed to get the final output in processing unit

KU15. any abnormal sound/ noise should be reported to the concerned/supervisor

KU16. type of fiber, yarn and fabric- yarn dyed, piece dyed or printed

Generic Skills (GS)

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

GS1. read and comprehend written instructions

GS2. read any application sent by other colleagues

GS3. communicate in simple language orally

GS4. communicate with supervisor appropriately

GS5. apply good attention to detail

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from drying range operator</i>	9	10	-	11
PC1. come at least 10 - 15 minutes earlier to the work place	-	-	-	-
PC2. bring the necessary operational tools to the department	-	-	-	-
PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc	-	-	-	-
PC4. understand the fabric being processed & process running on the machine	-	-	-	-
PC5. ensure the technical details are mentioned on the job card display on the machine	-	-	-	-
PC6. check for the availability of the spare trolley for unloading the fabric	-	-	-	-
PC7. check the next batch to be processed is ready near the machine	-	-	-	-
PC8. must ensure the required dyes & chemicals are already weighed & prepared	-	-	-	-
PC9. check the cleanliness of the machines & other work areas	-	-	-	-
PC10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift as well.	-	-	-	-
<i>Handing over shift to drying range operator</i>	9	10	-	11
PC11. hand over the shift to the incoming operator in a proper manner	-	-	-	-
PC12. ensure in providing the details regarding fabric quality & the process running on the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	-	-	-
PC14. ensure the empty trolley is near the machine for unloading the fabric	-	-	-	-
PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	-	-	-	-
PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared	-	-	-	-
PC17. get clearance from the incoming counterpart before leaving the work spot	-	-	-	-
PC18. should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift	-	-	-	-
PC19. ensure, the shift has to be properly handed over to the incoming shift operator	-	-	-	-
PC20. report to his/ her 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	-	-	-	-
PC21. collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
PC22. ensure the machine and its work place is clean	-	-	-	-
<i>Carry out preparatory activities for operations in the machine</i>	50	110	-	8
PC23. understand the task mentioned in the work order	-	-	-	-
PC24. ensure that the machine is empty & clean	-	-	-	-
PC25. load the fabric from the batch/trolley in the center of the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. ensure fabric is crease-less and evenly fed onto the machine	-	-	-	-
PC27. Check that edge control sensors & fabric centring device is functioning properly	-	-	-	-
PC28. ensure that all drying cylinders are clean & free from any lint or loose thread	-	-	-	-
PC29. drain condensate from the steam & air line	-	-	-	-
PC30. ensure enough & good quality steam & air pressure is available	-	-	-	-
PC31. keep empty batch or trolley ready for the fabric to be taken after drying	-	-	-	-
PC32. ensure that all safety devices & other controls are functioning properly	-	-	-	-
<i>Operate the machine for specified tasks as per work order</i>	50	110	-	8
PC33. know the operations of the drying range machine	-	-	-	-
PC34. read & understand the process being followed to do the task	-	-	-	-
PC35. keep even tension on fabric throughout the process	-	-	-	-
PC36. keep optimum pressure of the squeezer rolls to get good results	-	-	-	-
PC37. set the required temp in all cylinders	-	-	-	-
PC38. open the steam valves & drain the condensate	-	-	-	-
PC39. start the machine & take out fabric either on batch or trolley	-	-	-	-
PC40. ensure that all drying cylinders are moving freely & there is no crease formation in the fabric	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC41. check moisture content in the dried fabric & adjust the machine speed to the optimum for good productivity	-	-	-	-
PC42. take minimum time to change the batch or trolley or use J box to reduce stoppage time	-	-	-	-
PC43. close steam valves & cool down the machine before stopping down completely	-	-	-	-
PC44. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric	-	-	-	-
<i>Clean the machine on a regular basis and carryout preventive maintenance activities</i>	42	85	-	6
PC45. follow the preventive maintenance schedule & ensure the machine is running smoothly	-	-	-	-
PC46. check that all controls are functioning properly	-	-	-	-
PC47. report to your supervisor or concerned person in case of any problem or abnormal sound in the machine	-	-	-	-
PC48. check & arrest any leakages in the steam, water or air line	-	-	-	-
PC49. oil & grease all moving parts of machine regularly	-	-	-	-
<i>Taking out the sample after drying & comparing it with the standard</i>	40	85	-	6
PC50. taking out the sample after drying near the stitch	-	-	-	-
PC51. compare the sample with the standard	-	-	-	-
PC52. take the sample to your supervisor if the sample is not matching to the standard for decision	-	-	-	-
NOS Total	200	410	-	50

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5411
NOS Name	Carryout shift change, production and quality analyse at drying range department
Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

TSC/N5412: Carryout shift change, folding and inspection activity at processed fabric folding department

Description

This unit is about carryout shift change, folding and inspection activity at processed fabric folding department in a textile processing unit

Scope

The scope covers the following :

- Taking charge of shift from folding machine operator
- Handing over shift to folding machine operator
- Carry out preparatory activities for operations in the machine
- Operate the machine for specified tasks as per work order
- Perform preventive maintenance and cleanliness of the machine
- Recording the defects in the fabric

Elements and Performance Criteria

Taking charge of shift from folding machine operator

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

- PC1.** ensure to bring the necessary operational tools to the department
- PC2.** report at least 10 - 15 minutes earlier to the work place and meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, spare, safety or any other specific instruction etc.
- PC3.** understand the fabric being processed and running on the machine
- PC4.** ensure the technical details are mentioned on the job card displayed on the machine
- PC5.** check for the availability of the spare trolley / batching trolley for unloading the fabric
- PC6.** ensure that the next batch to be processed is ready and placed near the machine
- PC7.** check the cleanliness of the machines and other work areas
- PC8.** obtain information from the previous shift operator for any deviation in the above and bring the same to the knowledge of the shift superior as well as that of the previous shift.
- PC9.** follow the process to take charge of the shift from the outgoing operator

Handing over shift to folding machine operator

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

- PC10.** provide all the details regarding fabric running on the machine
- PC11.** inform regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
- PC12.** get clearance from the incoming counterpart before leaving the work area
- PC13.** report to your shift superiors as well as that of the incoming shift operator in case your counterpart doesn't report for the incoming shift

Qualification Pack

PC14. report to your shift superior about the quality / production / safety issues/ any other issue faced in your shift and leave the department only after getting necessary clearance

PC15. collect the wastes from waste collection bags, weigh them and transport to storage area

PC16. ensure the machine and its work place is clean at the time of takeover

Carry out preparatory activities for operations in the machine

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

PC17. interact with the previous shift operator to discuss the process running on the machine

PC18. check if the machine is running smoothly or has any breakdown in previous shift

PC19. check for any quality issues in the fabric that need correction

Operate the machine for specified tasks as per work order

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

PC20. understand the task mentioned in the work order

PC21. ensure that the machine is empty and clean

PC22. apply proper technique to load the fabric from the batch/trolley in the center of the machine

PC23. ensure fabric is crease-less and evenly fed onto the machine

PC24. check the width of the fabric at regular intervals

PC25. perform regular checks to keep even temperature and minimum tension across the width of machine

PC26. examine the fabric for any type of defects in the fabric

PC27. mark the defects according to their nature minor or major

PC28. follow steps to cut and change the roll after specified length

PC29. select defect free fabric and put quality sticker / tag on the roll

PC30. follow the process to pack the roll in poly bag

Perform preventive maintenance and cleanliness of the machine

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

PC31. ensure that the machine is kept clean at all times, before loading, while running and after unloading the fabric

PC32. follow the preventive maintenance schedule to ensure that the machine is running smoothly

PC33. perform regular checks of functionality of all controls

PC34. ensure the right quality of air pressure is available for proper functioning of machine

PC35. implement procedure to cool down the machine after completion of job

Recording the defects in the fabric

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

PC36. identify the type of defect and its category

PC37. record the defect in the book under respective heads

PC38. ensure to mention the details about quality, width, length etc. on the roll

PC39. perform grading of the fabric according to specified grading system

PC40. make a summary of various defects to calculate defect percentage

PC41. analyse the recorded data pertaining to defects for improvement in production quality

Knowledge and Understanding (KU)

Qualification Pack

The individual on the job needs to know and understand:

- KU1.** standard operating procedures (SOP) and regulations in a processing unit
- KU2.** safe working practices to be adopted in processing unit
- KU3.** quality systems and other processes practiced in the processing unit
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different products in the processing unit
- KU6.** the importance of quality & productivity
- KU7.** reasons for various defects in the fabric due to processing & their remedy
- KU8.** process flow in a processing unit
- KU9.** material flow in a processing unit
- KU10.** functions of various controls of the machine
- KU11.** importance of material handling and types of material handling equipment being used
- KU12.** safety procedures to be followed while operating the machine
- KU13.** procedure followed to get the final output in processing unit
- KU14.** Knowledge of various defects such as uneven or patchy dyeing, stoppage marks, csv, crease marks, colour specks etc.
- KU15.** type of fiber, yarn and fabric- yarn dyed, piece dyed or printed

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 good attention to detail

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from folding machine operator</i>	9	10	-	11
PC1. ensure to bring the necessary operational tools to the department	-	-	-	-
PC2. report at least 10 - 15 minutes earlier to the work place and meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, spare, safety or any other specific instruction etc.	-	-	-	-
PC3. understand the fabric being processed and running on the machine	-	-	-	-
PC4. ensure the technical details are mentioned on the job card displayed on the machine	-	-	-	-
PC5. check for the availability of the spare trolley / batching trolley for unloading the fabric	-	-	-	-
PC6. ensure that the next batch to be processed is ready and placed near the machine	-	-	-	-
PC7. check the cleanliness of the machines and other work areas	-	-	-	-
PC8. obtain information from the previous shift operator for any deviation in the above and bring the same to the knowledge of the shift superior as well as that of the previous shift.	-	-	-	-
PC9. follow the process to take charge of the shift from the outgoing operator	-	-	-	-
<i>Handing over shift to folding machine operator</i>	9	10	-	11
PC10. provide all the details regarding fabric running on the machine	-	-	-	-
PC11. inform regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	-	-	-
PC12. get clearance from the incoming counterpart before leaving the work area	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. report to your shift superiors as well as that of the incoming shift operator in case your counterpart doesn't report for the incoming shift	-	-	-	-
PC14. report to your shift superior about the quality / production / safety issues/ any other issue faced in your shift and leave the department only after getting necessary clearance	-	-	-	-
PC15. collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
PC16. ensure the machine and its work place is clean at the time of takeover	-	-	-	-
<i>Carry out preparatory activities for operations in the machine</i>	50	110	-	10
PC17. interact with the previous shift operator to discuss the process running on the machine	-	-	-	-
PC18. check if the machine is running smoothly or has any breakdown in previous shift	-	-	-	-
PC19. check for any quality issues in the fabric that need correction	-	-	-	-
<i>Operate the machine for specified tasks as per work order</i>	50	110	-	8
PC20. understand the task mentioned in the work order	-	-	-	-
PC21. ensure that the machine is empty and clean	-	-	-	-
PC22. apply proper technique to load the fabric from the batch/trolley in the center of the machine	-	-	-	-
PC23. ensure fabric is crease-less and evenly fed onto the machine	-	-	-	-
PC24. check the width of the fabric at regular intervals	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. perform regular checks to keep even temperature and minimum tension across the width of machine	-	-	-	-
PC26. examine the fabric for any type of defects in the fabric	-	-	-	-
PC27. mark the defects according to their nature minor or major	-	-	-	-
PC28. follow steps to cut and change the roll after specified length	-	-	-	-
PC29. select defect free fabric and put quality sticker / tag on the roll	-	-	-	-
PC30. follow the process to pack the roll in poly bag	-	-	-	-
<i>Perform preventive maintenance and cleanliness of the machine</i>	42	85	-	5
PC31. ensure that the machine is kept clean at all times, before loading, while running and after unloading the fabric	-	-	-	-
PC32. follow the preventive maintenance schedule to ensure that the machine is running smoothly	-	-	-	-
PC33. perform regular checks of functionality of all controls	-	-	-	-
PC34. ensure the right quality of air pressure is available for proper functioning of machine	-	-	-	-
PC35. implement procedure to cool down the machine after completion of job	-	-	-	-
<i>Recording the defects in the fabric</i>	40	85	-	5
PC36. identify the type of defect and its category	-	-	-	-
PC37. record the defect in the book under respective heads	-	-	-	-
PC38. ensure to mention the details about quality, width, length etc. on the roll	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC39. perform grading of the fabric according to specified grading system	-	-	-	-
PC40. make a summary of various defects to calculate defect percentage	-	-	-	-
PC41. analyse the recorded data pertaining to defects for improvement in production quality	-	-	-	-
NOS Total	200	410	-	50

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5412
NOS Name	Carryout shift change, folding and inspection activity at processed fabric folding department
Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

TSC/N5413: Carryout shift change, production and preparation of chemicals at balloon squeezer department

Description

This unit is about carryout shift change, production and preparation of chemicals at balloon squeezer department in a textile processing unit

Scope

The scope covers the following :

- Taking charge of shift from balloon squeezer machine operator
- Handing over shift to balloon squeezer machine operator
- Carry out preparatory activities for operations of the machine
- Operate the machine for specified tasks as per work order
- Clean the machine and carryout preventive maintenance activities
- Preparing the finishing chemicals & filling the mangle trough & Checking the feel of finished fabric

Elements and Performance Criteria

Taking charge of shift from Balloon squeezer machine operator

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

- PC1.** come at least 10 - 15 minutes earlier to the work place
- PC2.** bring the necessary operational tools to the department
- PC3.** meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc
- PC4.** understand the fabric being processed & process running on the machine
- PC5.** ensure the technical details are mentioned on the job card display on the machine
- PC6.** check for the availability of the spare trolley for unloading the fabric
- PC7.** check the next batch to be processed is ready near the machine
- PC8.** ensure the required chemicals are already weighed & prepared
- PC9.** check the cleanliness of the machines & other work areas
- PC10.** question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift
- PC11.** take over the shift from the incoming operator in a proper manner

Handing Over Shift to Balloon squeezer machine operator

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

- PC12.** ensure in providing the details regarding fabric quality & the process running on the machine
- PC13.** to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
- PC14.** ensure the empty trolley is near the machine for unloading the fabric

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- PC15.** ensure the next lot to be processed is ready near the machine already stitched & arranged properly
- PC16.** ensure the required chemicals for the next lot or next process are weighed & prepared
- PC17.** should get clearance from the incoming counterpart before leaving the work spot
- PC18.** should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift
- PC19.** ensure the shift has to be properly handed over to the incoming shift operator
- PC20.** should report to his/ her 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
- PC21.** should collect the wastes from waste collection bags, weigh them and transport to storage area

- PC22.** ensure the machine and its work place is clean

Carry out preparatory activities for operations of the machine

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

- PC23.** understand the task mentioned in the work order
- PC24.** ensure that the machine is clean
- PC25.** place the fabric trolley/ box on the centre of turn table
- PC26.** lock the trolley/ box to avoid falling down while rotating
- PC27.** pass the fabric through squeezer rolls to the compensating basket
- PC28.** adjust roller pressure to suit the fabric construction
- PC29.** thread the fabric through the de-twisting unit
- PC30.** remove the twist in the fabric by operating the machine manually
- PC31.** feed the fabric to the expander basket
- PC32.** place the sensor on the cutting line
- PC33.** adjust the cutting knife on the slitting line
- PC34.** expand the magnetic stretcher/ expander basket to fit tightly in the fabric tube
- PC35.** pass the fabric through the trough to the squeezing rolls
- PC36.** pull out the fabric through plaiting device to the empty trolley
- PC37.** ensure the mangle trough & squeezing rollers are clean & free from any loose thread or lint
- PC38.** ensure the fabric trolley / box is clean & free from any type of contaminations
- PC39.** ensure the safety devices are functioning properly
- PC40.** ensure to use personal protective equipment such as mask, gloves, ear plugs & gum boots

Operate the machine for specified tasks as per Work Order

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

- PC41.** carry out the operations of the balloon squeezer machine
- PC42.** read & understand the process being followed to do the task
- PC43.** start the machine in manual mode & adjust the expander according to fabric width
- PC44.** set the overfeed in case of tubular fabric as specified in the job order
- PC45.** adjust the squeezer roller pressure to the optimum
- PC46.** adjust the machine speed to the optimum

Qualification Pack

PC47. check if all safety devices are working

PC48. change the machine to auto mode

PC49. check the width of fabric & adjust the expander accordingly

Clean the machine and carryout preventive maintenance activities

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

PC50. ensure the machine is kept clean all time, while working or after completion of job

PC51. follow the preventive maintenance schedule & make sure the machine is running smoothly without any problem

PC52. ensure the right quality of water steam & air is available for proper functioning of machine

PC53. ensure there is no leakage in the water, steam or air line

PC54. greasing & oiling of moving part/ of machine as specified

PC55. stop the machine in case of any abnormal sound and report the matter to concerned person & supervisor

PC56. ensure that all safety devices are working properly

Preparing the finishing chemicals & filling the mangle trough & Checking the feel of finished fabric

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

PC57. dissolve & mix the finishing chemicals as per the recipe

PC58. adjust the ph of finishing mixture as required

PC59. fill chemicals into mangle trough

PC60. adjust mangle pressure to get the right feel of fabric

PC61. report to the supervisor in case of any problem in the fabric

PC62. sample cutting & checking the feel of fabric after squeezer

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard operating procedures (SOP) and regulations in a processing unit /mill

KU2. safe working practices to be adopted in processing unit / mill

KU3. quality systems and other processes practiced in the processing unit/ mill

KU4. reporting to the supervisor or higher authority in case of emergency

KU5. color coding adopted for different products in the processing unit / mill

KU6. understanding the importance of quality & productivity

KU7. understanding various defects in the fabric due to yarn, weaving or processing

KU8. reasons for various defects in the fabric due to processing & their remedy

KU9. process flow in a processing unit

KU10. material flow in a processing unit

KU11. importance of material handling and types of material handling equipment being used

KU12. safety procedures to be followed while operating the machine

KU13. personal hygiene and duty of care

KU14. limits of responsibility

Qualification Pack

- KU15.** the production process and the specific work activities that relate to the whole process
- KU16.** equipment operating procedures / supervisor instructions
- KU17.** use of cleaning equipments such as blowers or vacuum cleaner to clean machine parts
- KU18.** knowledge about various signal lamps & control panel display of machine
- KU19.** knowledge about shrinkage parameters & finished widths of various products
- KU20.** Knowledge of optimum squeezing pressure for efficient squeezing & productivity
- KU21.** guidelines for operating the material handling tools and equipments
- KU22.** guidelines for carrying out maintenance activities
- KU23.** functions of safety gadgets used in the machine
- KU24.** effect of process parameter on the finish of fabric

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.** apply good attention to detail

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from Balloon squeezer machine operator</i>	9	10	-	11
PC1. come at least 10 - 15 minutes earlier to the work place	-	-	-	-
PC2. bring the necessary operational tools to the department	-	-	-	-
PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc	-	-	-	-
PC4. understand the fabric being processed & process running on the machine	-	-	-	-
PC5. ensure the technical details are mentioned on the job card display on the machine	-	-	-	-
PC6. check for the availability of the spare trolley for unloading the fabric	-	-	-	-
PC7. check the next batch to be processed is ready near the machine	-	-	-	-
PC8. ensure the required chemicals are already weighed & prepared	-	-	-	-
PC9. check the cleanliness of the machines & other work areas	-	-	-	-
PC10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift	-	-	-	-
PC11. take over the shift from the incoming operator in a proper manner	-	-	-	-
<i>Handing Over Shift to Balloon squeezer machine operator</i>	9	10	-	11
PC12. ensure in providing the details regarding fabric quality & the process running on the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	-	-	-
PC14. ensure the empty trolley is near the machine for unloading the fabric	-	-	-	-
PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	-	-	-	-
PC16. ensure the required chemicals for the next lot or next process are weighed & prepared	-	-	-	-
PC17. should get clearance from the incoming counterpart before leaving the work spot	-	-	-	-
PC18. should report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift	-	-	-	-
PC19. ensure the shift has to be properly handed over to the incoming shift operator	-	-	-	-
PC20. should report to his/ her 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	-	-	-	-
PC21. should collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
PC22. ensure the machine and its work place is clean	-	-	-	-
<i>Carry out preparatory activities for operations of the machine</i>	50	100	-	8
PC23. understand the task mentioned in the work order	-	-	-	-
PC24. ensure that the machine is clean	-	-	-	-
PC25. place the fabric trolley/ box on the centre of turn table	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. lock the trolley/ box to avoid falling down while rotating	-	-	-	-
PC27. pass the fabric through squeezer rolls to the compensating basket	-	-	-	-
PC28. adjust roller pressure to suit the fabric construction	-	-	-	-
PC29. thread the fabric through the de-twisting unit	-	-	-	-
PC30. remove the twist in the fabric by operating the machine manually	-	-	-	-
PC31. feed the fabric to the expander basket	-	-	-	-
PC32. place the sensor on the cutting line	-	-	-	-
PC33. adjust the cutting knife on the slitting line	-	-	-	-
PC34. expand the magnetic stretcher/ expander basket to fit tightly in the fabric tube	-	-	-	-
PC35. pass the fabric through the trough to the squeezing rolls	-	-	-	-
PC36. pull out the fabric through plaiting device to the empty trolley	-	-	-	-
PC37. ensure the mangle trough & squeezing rollers are clean & free from any loose thread or lint	-	-	-	-
PC38. ensure the fabric trolley / box is clean & free from any type of contaminations	-	-	-	-
PC39. ensure the safety devices are functioning properly	-	-	-	-
PC40. ensure to use personal protective equipment such as mask, gloves, ear plugs & gum boots	-	-	-	-
<i>Operate the machine for specified tasks as per Work Order</i>	50	100	-	5

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC41. carry out the operations of the balloon squeezer machine	-	-	-	-
PC42. read & understand the process being followed to do the task	-	-	-	-
PC43. start the machine in manual mode & adjust the expander according to fabric width	-	-	-	-
PC44. set the overfeed in case of tubular fabric as specified in the job order	-	-	-	-
PC45. adjust the squeezer roller pressure to the optimum	-	-	-	-
PC46. adjust the machine speed to the optimum	-	-	-	-
PC47. check if all safety devices are working	-	-	-	-
PC48. change the machine to auto mode	-	-	-	-
PC49. check the width of fabric & adjust the expander accordingly	-	-	-	-
<i>Clean the machine and carryout preventive maintenance activities</i>	32	75	-	5
PC50. ensure the machine is kept clean all time, while working or after completion of job	-	-	-	-
PC51. follow the preventive maintenance schedule & make sure the machine is running smoothly without any problem	-	-	-	-
PC52. ensure the right quality of water steam & air is available for proper functioning of machine	-	-	-	-
PC53. ensure there is no leakage in the water, steam or air line	-	-	-	-
PC54. greasing & oiling of moving part/ of machine as specified	-	-	-	-
PC55. stop the machine in case of any abnormal sound and report the matter to concerned person & supervisor	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC56. ensure that all safety devices are working properly	-	-	-	-
<i>Preparing the finishing chemicals & filling the mangle trough & Checking the feel of finished fabric</i>	50	115	-	10
PC57. dissolve & mix the finishing chemicals as per the recipe	-	-	-	-
PC58. adjust the ph of finishing mixture as required	-	-	-	-
PC59. fill chemicals into mangle trough	-	-	-	-
PC60. adjust mangle pressure to get the right feel of fabric	-	-	-	-
PC61. report to the supervisor in case of any problem in the fabric	-	-	-	-
PC62. sample cutting & checking the feel of fabric after squeezer	-	-	-	-
NOS Total	200	410	-	50

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5413
NOS Name	Carryout shift change, production and preparation of chemicals at balloon squeezer department
Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

TSC/N5414: Carryout shift change, production and quality analyse at calendar department

Description

This unit is about carryout shift change, production and quality analyse at calendar department in a textile processing unit

Scope

The scope covers the following :

- Taking charge of shift from calendaring machine operator
- Handing over shift to calendaring machine operator
- Carry out preparatory activities for operations in the machine
- Operate the machine for specified tasks as per work order
- Clean the machine on a regular basis and carryout preventive maintenance activities
- Taking out the sample after calendaring & comparing it with the standard

Elements and Performance Criteria

Taking charge of shift from calendaring machine operator

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

- PC1.** come atleast 10 - 15 minutes earlier to the work place
- PC2.** bring the necessary operational tools to the department
- PC3.** meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc
- PC4.** understand the fabric being processed & process running on the machine
- PC5.** ensure the technical details are mentioned on the job card display on the machine
- PC6.** check for the availability of the spare trolley for unloading the fabric
- PC7.** check the next batch to be processed is ready near the machine
- PC8.** ensure the required dyes & chemicals are already weighed & prepared
- PC9.** check the cleanliness of the machines & other work areas
- PC10.** question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift

Handing over shift to calendaring machine operator

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

- PC11.** take over the shift from the outgoing operator in a proper manner
- PC12.** ensure in providing the details regarding fabric quality & the process running on the machine
- PC13.** to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine
- PC14.** ensure the empty trolley is near the machine for unloading the fabric

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- PC15.** ensure the next lot to be processed is ready near the machine already stitched & arranged properly
- PC16.** ensure the required dyes & chemicals for the next lot or next process are weighed & prepared
- PC17.** get clearance from the incoming counterpart before leaving the work spot
- PC18.** report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift
- PC19.** ensure that the shift has to be properly handed over to the incoming shift operator
- PC20.** report to his/ her 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
- PC21.** collect the wastes from waste collection bags, weigh them and transport to storage area
- PC22.** ensure the machine and its work place is clean

Carry out preparatory activities for operations in the machine

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

- PC23.** understand the task mentioned in the work order
- PC24.** ensure that the machine is empty & clean
- PC25.** load the fabric from the batch/trolley in the center of the machine
- PC26.** ensure fabric is crease-less and evenly fed onto the machine
- PC27.** drain condensate water from the steam line before opening the steam
- PC28.** ensure required steam pressure is there in the main supply line
- PC29.** drain water from air supply line & check if required pneumatic pressure is available
- PC30.** check oil level in the hydraulic pump
- PC31.** ensure empty batch or trolley is ready to take the fabric after calendaring
- PC32.** open steam valve or switch on electrical heater for heating the calendaring rollers

Operate the machine for specified tasks as per work order

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

- PC33.** know the operations of the calendaring machine
- PC34.** read & understand the process being followed to do the task
- PC35.** keep even tension on fabric throughout the process
- PC36.** set the required roller pressure
- PC37.** set the required temp of calendaring rolls
- PC38.** ensure that all safety devices are operational
- PC39.** start the machine & take out fabric either on batch or trolley
- PC40.** adjust the machine speed, roller temp or pressure according to required finish

Clean the machine on a regular basis and carryout preventive maintenance activities

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

- PC41.** make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric
- PC42.** follow the preventive maintenance schedule of the machine is running smoothly
- PC43.** check that all controls are functioning properly

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- PC44.** ensure the right quality of water, steam & air is available for proper functioning of machine
- PC45.** cool down the machine after completion of job
- PC46.** ensure working of metal detector and its sensitivity
- PC47.** check oil pressure and level in hydraulic unit
- PC48.** report to his work place well before time to meet the previous shift operator
- PC49.** discuss with him the process running on the machine
- PC50.** check if the machine is running smoothly & has any breakdown in previous shift
- PC51.** check for any quality issues in the fabric running on the machine

Taking out the sample after calendaring & comparing it with the standard

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

- PC52.** taking out the sample after calendaring near the stitch
- PC53.** compare the sample with the standard
- PC54.** take the sample to your supervisor if the sample is not matching to the standard for decision
- PC55.** adjust the roller pressure, temp or machine speed to match the required feel & finish as advised by the supervisor

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard operating procedure (SOP) and regulations in a processing mill
- KU2.** safe working practices to be adopted in processing unit /mill
- KU3.** quality systems and other processes practiced in the processing unit/ mill
- KU4.** reporting to the supervisor or higher authority in case of emergency
- KU5.** color coding adopted for different products in the processing unit /mill
- KU6.** understanding the importance of quality & productivity
- KU7.** understanding various defects in the fabric due to yarn, weaving or processing
- KU8.** reasons for various defects in the fabric due to processing & their remedy
- KU9.** process flow in a processing unit
- KU10.** material flow in a processing unit
- KU11.** functions of various controls of the calendaring machine
- KU12.** importance of material handling and types of material handling equipment being used
- KU13.** functions and methodology for operating different material handling equipment
- KU14.** safety procedures to be followed while operating the machine
- KU15.** type of fiber, yarn and fabric- yarn dyed, piece dyed or printed
- KU16.** functions of various hydraulic & pneumatic controls
- KU17.** control functions of machine
- KU18.** take corrective action immediately to avoid waste of time & production loss
- KU19.** effect of various parameters such as roller pressure, temp & speed on the final feel & finish of fabric

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 good attention to detail

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Taking charge of shift from calendaring machine operator</i>	9	10	-	11
PC1. come atleast 10 - 15 minutes earlier to the work place	-	-	-	-
PC2. bring the necessary operational tools to the department	-	-	-	-
PC3. meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality, production, spare, safety or any other specific instruction etc	-	-	-	-
PC4. understand the fabric being processed & process running on the machine	-	-	-	-
PC5. ensure the technical details are mentioned on the job card display on the machine	-	-	-	-
PC6. check for the availability of the spare trolley for unloading the fabric	-	-	-	-
PC7. check the next batch to be processed is ready near the machine	-	-	-	-
PC8. ensure the required dyes & chemicals are already weighed & prepared	-	-	-	-
PC9. check the cleanliness of the machines & other work areas	-	-	-	-
PC10. question the previous shift operator for any deviation in the above and should bring the same to the knowledge of his/ her shift superior as well as that of the previous shift	-	-	-	-
<i>Handing over shift to calendaring machine operator</i>	9	10	-	11
PC11. take over the shift from the outgoing operator in a proper manner	-	-	-	-
PC12. ensure in providing the details regarding fabric quality & the process running on the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. to provide all relevant information regarding the stoppages or breakdown in the machine, any damage to the fabric or machine	-	-	-	-
PC14. ensure the empty trolley is near the machine for unloading the fabric	-	-	-	-
PC15. ensure the next lot to be processed is ready near the machine already stitched & arranged properly	-	-	-	-
PC16. ensure the required dyes & chemicals for the next lot or next process are weighed & prepared	-	-	-	-
PC17. get clearance from the incoming counterpart before leaving the work spot	-	-	-	-
PC18. report to his/ her shift superiors as well as that of the incoming shift operator in case his/ her counterpart doesn't report for the incoming shift	-	-	-	-
PC19. ensure that the shift has to be properly handed over to the incoming shift operator	-	-	-	-
PC20. report to his/ her 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	-	-	-	-
PC21. collect the wastes from waste collection bags, weigh them and transport to storage area	-	-	-	-
PC22. ensure the machine and its work place is clean	-	-	-	-
<i>Carry out preparatory activities for operations in the machine</i>	50	110	-	8
PC23. understand the task mentioned in the work order	-	-	-	-
PC24. ensure that the machine is empty & clean	-	-	-	-
PC25. load the fabric from the batch/trolley in the center of the machine	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. ensure fabric is crease-less and evenly fed onto the machine	-	-	-	-
PC27. drain condensate water from the steam line before opening the steam	-	-	-	-
PC28. ensure required steam pressure is there in the main supply line	-	-	-	-
PC29. drain water from air supply line & check if required pneumatic pressure is available	-	-	-	-
PC30. check oil level in the hydraulic pump	-	-	-	-
PC31. ensure empty batch or trolley is ready to take the fabric after calendaring	-	-	-	-
PC32. open steam valve or switch on electrical heater for heating the calendaring rollers	-	-	-	-
<i>Operate the machine for specified tasks as per work order</i>	50	110	-	8
PC33. know the operations of the calendaring machine	-	-	-	-
PC34. read & understand the process being followed to do the task	-	-	-	-
PC35. keep even tension on fabric throughout the process	-	-	-	-
PC36. set the required roller pressure	-	-	-	-
PC37. set the required temp of calendaring rolls	-	-	-	-
PC38. ensure that all safety devices are operational	-	-	-	-
PC39. start the machine & take out fabric either on batch or trolley	-	-	-	-
PC40. adjust the machine speed, roller temp or pressure according to required finish	-	-	-	-
<i>Clean the machine on a regular basis and carryout preventive maintenance activities</i>	42	85	-	7

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC41. make sure the machine is kept clean at all times, before loading, while running & after unloading the fabric	-	-	-	-
PC42. follow the preventive maintenance schedule of the machine is running smoothly	-	-	-	-
PC43. check that all controls are functioning properly	-	-	-	-
PC44. ensure the right quality of water, steam & air is available for proper functioning of machine	-	-	-	-
PC45. cool down the machine after completion of job	-	-	-	-
PC46. ensure working of metal detector and its sensitivity	-	-	-	-
PC47. check oil pressure and level in hydraulic unit	-	-	-	-
PC48. report to his work place well before time to meet the previous shift operator	-	-	-	-
PC49. discuss with him the process running on the machine	-	-	-	-
PC50. check if the machine is running smoothly & has any breakdown in previous shift	-	-	-	-
PC51. check for any quality issues in the fabric running on the machine	-	-	-	-
<i>Taking out the sample after calendaring & comparing it with the standard</i>	40	85	-	5
PC52. taking out the sample after calendaring near the stitch	-	-	-	-
PC53. compare the sample with the standard	-	-	-	-
PC54. take the sample to your supervisor if the sample is not matching to the standard for decision	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC55. adjust the roller pressure, temp or machine speed to match the required feel & finish as advised by the supervisor	-	-	-	-
NOS Total	200	410	-	50

National Occupational Standards (NOS) Parameters

NOS Code	TSC/N5414
NOS Name	Carryout shift change, production and quality analyse at calendar department
Sector	Textile
Sub-Sector	Processing - Textiles
Occupation	Textile Finishing
NSQF Level	2
Credits	TBD
Version	1.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
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/N9015.Follow machine, safety, and organizational guidelines in textile sector	65	80	-	50	195	20
TSC/N9016.Follow teamwork, adaptability, and communication guidelines in textile sector	15	20	-	10	45	5
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	5
Total	100	130	0	60	290	30

Elective: 1 Washing Range

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5410.Carryout shift change, production and quality analyse at washing range department	200	410	-	50	660	70
Total	200	410	-	50	660	70

Elective: 2 Drying Range

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5411.Carryout shift change, production and quality analyse at drying range department	200	410	-	50	660	70
Total	200	410	-	50	660	70

Elective: 3 Folding

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5412.Carryout shift change, folding and inspection activity at processed fabric folding department	200	410	-	50	660	70
Total	200	410	-	50	660	70

Elective: 4 Balloon Squeezing

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5413.Carryout shift change, production and preparation of chemicals at balloon squeezer department	200	410	-	50	660	70
Total	200	410	-	50	660	70

Elective: 5 Calendar Machine

Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
TSC/N5414.Carryout shift change, production and quality analyse at calendar department	200	410	-	50	660	70
Total	200	410	-	50	660	70

Acronyms

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

Qualification Pack

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.

Qualification Pack

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.