

# Model Curriculum

## Speed Frame Operator- Tenter and Doffer

**SECTOR: TEXTILE**  
**SUB-SECTOR: SPINNING**  
**OCCUPATION: SPINNING**  
**REF. ID: TSC/Q 0106, VERSION 1.0**  
**NSQF LEVEL: 4**



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**TEXTILE SECTOR SKILL COUNCIL**

for the


### MODEL CURRICULUM

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'SPEED FRAME OPERATOR - TENTER AND  
DOFFER' QP No. 'TSC/ Q 0106' **NSQF Level 4'**

Date of Issuance: **January, 18<sup>th</sup>, 2016**

Valid up to: **January 17<sup>th</sup>, 2017**

\* Valid up to the next review date of the Qualification Pack

  
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# Speed Frame Operator-Tenter and Doffer

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Speed Frame Operator-Tenter and Doffer”, in the “Textile” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Speed Frame Operator- Tenter and Doffer</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	Speed Frame Operator- Tenter and Doffer TSC/Q0106, version 1		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	18-01-2016
<b>Pre-requisites to Training</b>	Preferably equivalent to 5th (Normal literacy of reading, writing and understanding)		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Become well verse with taking charge of shift and handing over shift</li> <li>• Learn and perform broken sliver piecing</li> <li>• Perform broken roving piecing</li> <li>• Perform doffing preparation</li> <li>• Perform doffing</li> <li>• Become well verse in tenting responsibilities</li> <li>• Perform cleaning and maintenance activities</li> <li>• Maintain work area, tools and machines</li> <li>• Gain behavioural skill for team working</li> <li>• Maintain health, safety and security at work place</li> <li>• Comply with industry and organisational requirement</li> </ul>		

This course encompasses 11 out of 11 National Occupational Standards (NOS) of “Speed Frame Operator- Tenter and Doffer” Qualification Pack issued by “TSC: Textile Sector Skill Council”

	<b>Module</b>	<b>Key Learning Outcomes</b>	<b>Equipment Required</b>
1	<p><b>Taking charge of shift and handing over shift to operator</b></p> <p><b>Theory Duration</b> (hh:mm) 11:00</p> <p><b>Practical Duration</b> (hh:mm) 24:30</p> <p><b>Corresponding NOS Code</b> TSC/N 0116</p>	<ul style="list-style-type: none"> <li>• Learning general discipline</li> <li>• Become well verse with basic skills of communication</li> <li>• Understand the role of Speed frame operator-tenter and doffer</li> <li>• Perform tasks while taking charge of shift and handing over shift</li> <li>• Become familiar in faults identification</li> </ul>	<p><u>Class room requirements:</u> a batch of 25 people seating capacity with a screen and projector</p>
2	<p><b>Piecing the broken sliver</b></p> <p><b>Theory Duration</b> (hh:mm) 12:00</p> <p><b>Practical Duration</b> (hh:mm) 23:30</p> <p><b>Corresponding NOS Code</b> TSC/N 0117</p>	<ul style="list-style-type: none"> <li>• Gain knowledge on machine parts &amp; its function</li> <li>• Gain knowledge on control switches and display board operation starting, inching and stopping machine</li> <li>• Gain knowledge on control buttons and signal lights used for attending malfunctions</li> <li>• Gain knowledge on count, can content, colour coding, etc.</li> <li>• handling full/empty sliver cans (castor &amp; non castor cans)</li> <li>• patrolling and check sliver can exhaust, sliver break and malfunctions</li> <li>• piecing sliver ends</li> <li>• attending sliver break at creel</li> <li>• creeling sliver cans/changing cans</li> <li>• perform Quality piecing of sliver</li> </ul>	<p><u>1. common for every batch:</u> posters for work methods</p> <p><u>2. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
3	<p><b>Piecing the broken roving</b></p> <p><b>Theory Duration</b> (hh:mm) 06:45</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b></p>	<ul style="list-style-type: none"> <li>• Gain knowledge on machine parts &amp; its function related to the respective module</li> <li>• Gain knowledge on control buttons and signal lights used for attending roving break</li> <li>• handling air horn or nylon wire, flyer, etc.</li> <li>• piecing roving using air horn or nylon wire</li> <li>• attending roving break</li> <li>• perform Quality piecing of rove</li> <li>• knowing Waste control activities</li> </ul>	<p><u>1. A sample of following items for each trainee:</u> Air horn or nylon wire</p> <p><u>2. common for every batch:</u> posters for work methods</p> <p><u>3. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
4	<p>TSC/N 0118</p> <p><b>Preparing for doffing</b></p> <p><b>Theory Duration</b> (hh:mm) 06:45</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> TSC/N 0119</p>	<ul style="list-style-type: none"> <li>Gain knowledge on machine parts &amp; its function related to the respective module</li> <li>Gain knowledge on control buttons and signal lights involved for doffing</li> <li>Gain knowledge on bobbin colour coding</li> <li>handling bobbin trolley, empty bobbins, etc</li> <li>Patrol and identify the machine for doffing</li> <li>Knowing Procedure to collect empty bobbins in trolley from storage</li> <li>Knowing Procedure to load empty bobbins in machine</li> </ul>	<p><u>1. common for every batch:</u> Bobbin trolley, empty bobbins</p> <p><u>2. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
5	<p><b>Carryout doffing activity</b></p> <p><b>Theory Duration</b> (hh:mm) 04:30</p> <p><b>Practical Duration</b> (hh:mm) 13:00</p> <p><b>Corresponding NOS Code</b> TSC/N 0120</p>	<ul style="list-style-type: none"> <li>stopping machine and reset</li> <li>removing full bobbin and insert empty</li> <li>gaiting end</li> <li>starting machine</li> <li>attending starting breaks</li> </ul>	<p><u>1. A sample of following items for each trainee:</u> Bobbin trolley, air horn</p> <p><u>2. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
6	<p><b>Tenting responsibilities</b></p> <p><b>Theory Duration</b> (hh:mm) 09:00</p> <p><b>Practical Duration</b> (hh:mm) 26:00</p> <p><b>Corresponding NOS Code</b> TSC/N 0121</p>	<ul style="list-style-type: none"> <li>Storing doffed bobbins in appropriate place</li> <li>Knowing Procedure to be followed for storing bobbins</li> <li>Knowing Post doffing responsibilities – assist tenter for creeling sliver cans and machine cleaning activities</li> <li>Knowing other responsibilities – house keeping at empty/full bobbins storage, collect and dispose soft waste,</li> </ul>	<p><u>Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
7	<p><b>Carryout additional tenting responsibilities effectively</b></p> <p><b>Theory Duration</b> (hh:mm) 09:00</p>	<ul style="list-style-type: none"> <li>cleaning and maintenance activities – house keeping at work place, procedure to be followed to clean creel, clearer cloth, drafting zone, flyer, spindle rail and bobbin rail</li> <li>Performing preventive maintenance activities - procedure to be followed</li> </ul>	<p><u>1. A sample of following items for each trainee:</u> Cleaning brush, sweep stick, oil can, etc</p> <p><u>2. Class room requirements:</u> 25 people seating</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p><b>Practical Duration</b> (hh:mm) 26:00</p> <p><b>Corresponding NOS Code</b> TSC/N 0122</p>	<p>to oil the different parts of machine, replace worn out parts, etc.</p> <ul style="list-style-type: none"> <li>Maintain production record</li> </ul>	capacity with a screen and projector
8	<p><b>Maintain work area, tools and machines</b></p> <p><b>Theory Duration</b> (hh:mm) 05:00</p> <p><b>Practical Duration</b> (hh:mm) 12:30</p> <p><b>Corresponding NOS Code</b> TSC/N 9001</p>	<ul style="list-style-type: none"> <li>Gain knowledge on Housekeeping system</li> <li>Identification of basic hand tools like cleaning hook, cleaning stick, bag, etc.</li> <li>handling equipments</li> <li>perform Maintenance activities for handling equipments</li> </ul>	<u>Class room requirements:</u> 25 people seating capacity with a screen and projector
9	<p><b>Working in a team</b></p> <p><b>Theory Duration</b> (hh:mm) 05:30</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> TSC/N 9002</p>	<ul style="list-style-type: none"> <li>Understanding the team work and its importance</li> <li>Knowing the basic requirements for team working</li> </ul>	<u>Class room requirements:</u> 25 people seating capacity with a screen and projector
10	<p><b>Maintain health, safety and security at work place</b></p> <p><b>Theory Duration</b> (hh:mm) 14:30</p> <p><b>Practical Duration</b> (hh:mm) 20:30</p> <p><b>Corresponding NOS Code</b> TSC/N 9003</p>	<ul style="list-style-type: none"> <li>Knowing the general safety Rules</li> <li>Knowing the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their application under different working conditions.</li> <li>Gain knowledge on various health hazards relevant to workplace and basic first aid training.</li> <li>Identify and select right equipment such as fire extinguisher &amp; based on type of fire.</li> <li>Become good practice on first aid, fire fighting etc.</li> </ul>	<p><u>1. A sample of following items for each trainee:</u> apron, head cap, nose mask, ear plug, shoe,</p> <p><u>2. common for every batch:</u> first aid materials, fire extinguisher, work method posters/pictures,</p> <p><u>3. Class room requirements:</u> 25 people seating capacity with a screen and projector</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
11	<p><b>Comply with industry and organisational requirement</b></p> <p><b>Theory Duration</b> (hh:mm) 06:00</p> <p><b>Practical Duration</b> (hh:mm) 12:00</p> <p><b>Corresponding NOS Code</b> TSC/N 9004</p>	<ul style="list-style-type: none"> <li>• Know about organisational and industry standards</li> <li>• Know the requirements for self-development</li> <li>• Gain knowledge on Organisational &amp; Industry standards</li> </ul>	<p><u>Class room requirements:</u> 25 people seating capacity with a screen and projector</p>
	<p><b>Total Duration:</b></p> <p><b>Theory Duration</b> <b>90:00</b></p> <p><b>Practical Duration</b> <b>210:00</b></p>	<p><b>Unique Equipment Required:</b> Apron, head cap, nose mask, earplug, shoe, air horn, doffing trolley, cleaning brush, sweep stick, pen/pencil, lapping cleaning hook, and hip bag.</p>	

**Grand Total Course Duration: 300 Hours, 0 Minutes**

*(This syllabus/ curriculum has been approved by TSC: Textile Sector Skill Council)*



## Trainer Prerequisites for Job role: “Speed Frame Operator-Tenter and Doffer” mapped to Qualification Pack: “Speed Frame Operator-Tenter and Doffer /TSC Q 0106, Version 1.0”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “ <u>Speed Frame Operator-Tenter and Doffer/TSC Q0106, Version 1.0</u> ”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	Preferably equivalent to 5th (Normal literacy of reading, writing and understanding)
4a	<b>Domain Certification</b>	Certified for Job Role: “ <u>Speed Frame Operator-Tenter and Doffer</u> ” mapped to QP: “ <u>Speed Frame Operator-Tenter and Doffer /TSC Q0106, Version 1.0</u> ”. Minimum accepted score 80%.
4b	<b>Platform Certification</b>	Required that the Trainer is certified for SSC/Q 1402 Job Role: “Trainer” with atleast 80% score
5	<b>Experience</b>	Minimum 5 years experience with Speed Frame Operator-Tenter and Doffer

## Annexure: Assessment Criteria

<b>Assessment Criteria for Speed Frame Operator – Tenter &amp; Doffer</b>	
<b>Job Role</b>	<b>Speed Frame Operator – Tenter &amp; Doffer</b>
<b>Qualification Pack</b>	<b>Speed Frame Operator – Tenter &amp; Doffer (TSC/ Q 0106)</b>
<b>Sector Skill Council</b>	<b>Textile Sector Skill Council</b>

<b>Sr. No.</b>	<b>Guidelines for Assessment</b>
1	Criteria for assessment for each qualification pack will be created by the Sector Skill Council. Each performance criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for theory & skill practical for each PC.
2	The assessment for the theory part will be based on knowledge bank of question created by the SSC.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on these criteria.
5	To pass the qualification pack, every trainee should score a minimum of 70%.
6	In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
<b>1. TSC/N 0116 (Taking charge of shift and handing over shift to Speed Frame Operator-Tenter and Doffer)</b>	PC1. Come at least 10 - 15 minutes earlier to the work spot	<b>100</b>	2	1	1	0
	PC2. Bring the necessary operational tools to the department		4	1	2	1
	PC3. Meet the previous shift operator and discuss with him/ her regarding the issues faced by them with respect to the quality or production or spare or safety or any other specific instruction etc.		4	1	1	2
	PC4. Understand the count produced, colour coding, followed in the speed frames for his allocated number of spindles or machines		4	1	1	2
	PC5. Ensure the technical details are mentioned in the display board in the speed frame machine		3	1	1	1
	PC6. Should check for the availability of the spare roving bobbins		2	1	1	0
	PC7. Should check the availability of bobbin trolley with technical details mentioned regarding the count being produced		2	1	1	0
	PC9. Check the roving passage and yarn formation is proper		4	1	2	1
	PC10. Should check for the run outs , availability of the roving bobbins		3	1	1	1
	PC11. Ensure all the spindles are running properly, if not should be enquired for the reason for idle spindle and report to the superiors regarding the same		4	2	1	1
	PC12. Should check the condition of different running bobbins		3	1	1	1
	PC13. Ensure proper functioning of speed frame machine parts and machine		4	1	2	1
	PC14. Ensure all allocated spindles are running with uniform length of roving is wound on bobbin, variations if any should be discussed with operator and reported to superiors		3	1	1	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC15. Check the condition of running spindles, damages if any should be reported		3	1	1	1
	PC16. Check the cleanliness of the machines & other work areas		3	1	1	1
	PC17. Check whether any spare/raw material/ tool / yarn / any other material are thrown under the machines or in the other work areas.		4	2	1	1
	PC18. 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 that of the previous shift as well.		4	1	2	1
	PC19. Ensure no roller lapping in speed frame		3	1	1	1
	PC20. Remove the roller lapping manually if any without damaging the cots		4	1	2	1
	PC21. Ensure that only the correct size of spacer is used for replacement		3	1	1	1
	PC22. Ensure the wastes collection boxes are empty while taking charge of shift		3	1	1	1
	PC23. ensure the work spot is clean					
	PC24. Should hand over the shift to the incoming speed frame tenter in a proper manner		4	1	1	2
	PC25. Ensure in providing the details regarding hank / count produced, colour coding followed in the speed frames for his allocated number of spindles or machines		4	1	2	1
	PC26. To provide all relevant information regarding the count produced, idle spindles, damaged machine parts if any		4	1	1	2
	PC27. Should get clearance from the incoming counterpart before leaving the work spot		3	1	1	1
	PC28. Should report to his/ her shift superiors as well as that of the incoming shift operator in case his/		4	1	1	2

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	her counterpart doesn't report for the incoming shift					
	PC29. Ensure the shift has to be properly handed over to the incoming shift operator		3	1	1	1
	PC30. 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		4	1	1	2
	PC31. Should collect the wastes from waste collection bags, weigh them and transport to storage area		3	1	1	1
	PC32. Ensure the work spot is clean		2	1	1	0
	<b>Total</b>		<b>100</b>	<b>32</b>	<b>36</b>	<b>32</b>
	<b>Weightage %</b>			<b>32</b>	<b>36</b>	<b>32</b>
<b>2. TSC/N 0117- (Piecing the broken sliver at speed frame)</b>	PC1. Identify whether the machine stoppage is due to a sliver breakage or roving breakage	<b>100</b>	5	2	2	1
	PC2. Move in the creel and identify which sliver is broken		5	2	2	1
	PC3. Identify the reasons for sliver breakage by viewing the breakage spot i.e., whether sliver is broken at creel or sliver is exhausted in the sliver can		6	2	3	1
	PC4. Ensure minimum time is taken for attending the sliver breakage		4	1	2	1
	PC5. Ensure that the sliver passes through the creeling section without affecting the quality of sliver		4	1	2	1
	PC6. Ensure proper length of sliver is available for piecing		5	2	3	0
	PC7. Piece the broken sliver together in the event of sliver breakage at creel section		6	2	3	1
	PC8. Piece the sliver between cans in the event of sliver exhaust in sliver can and replacement with a full sliver can		6	2	3	1
	PC9. Keep the sliver waste in the waste collection pocket provided		5	2	2	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	to each tenter and then put in the waste in waste collection box					
	PC10. Ensure standard piecing procedure is adopted and quality of piecing is as per standards		6	2	3	1
	PC11. Ensure minimum time is taken for piecing the sliver		4	1	2	1
	PC12. Inspect the creeling section and identify the empty can and sliver cans which are about to be exhausted		4	1	2	1
	PC13. Remove the empty can and replace with the full can		5	2	2	1
	PC14. Dispose empty can to storage location/draw frame department		2	1	1	0
	PC15. Bring the full cans from draw frame department or from the drawn sliver can storage location		3	1	1	1
	PC16. Ensure colour coding of sliver can fed in the creel is correct		5	2	2	1
	PC17. Properly handle the sliver		5	2	2	1
	PC18. Ensure sliver surface doesn't gets damaged		4	2	1	1
	PC19. Use appropriate trolley to move/transport the sliver cans		2	1	1	0
	PC20. Verify the quality of piecing done in the sliver		5	1	3	1
	PC21. Ensure sliver tension in the creeling section is appropriate		5	2	2	1
	PC22. Ensure proper functioning of the machine		4	1	2	1
	<b>Total</b>		<b>100</b>	<b>35</b>	<b>46</b>	<b>19</b>
	<b>Weightage %</b>			<b>35</b>	<b>46</b>	<b>19</b>
<b>3. TSC/N 0118 – (Piecing the broken roving at speed frame)</b>	PC1. Identify the reason for machine stoppage by seeing the signal lamps.	<b>75</b>	4	1	1	2
	PC2. Patrol and identify in which spindle the roving is broken		3	1	2	1
	PC3. Check and identify the reasons for roving breakage by viewing at the breakage spot i.e., whether the roving is broken at spindle or flyer or drafting zone		3	1	2	1
	PC4. Ensure minimum time is taken for attending and identifying the roving breakage		2	1	1	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC5. Carryout Inching and trim drafted rove for piecing		2	0	1	0
	PC6. Lift the bobbin slightly from spindle to unwind the broken roving		2	0	1	0
	PC7. Unwind or remove the broken roving from the bobbin		3	1	1	1
	PC8. Unwind extra length of roving from the bobbin		4	1	1	1
	PC9. Fix the bobbin in a proper manner in the spindle and pass the roving through the false twister making it ready for piecing		4	1	1	1
	PC10. Use blow horn to pass the rove end in flyer		3	1	1	0
	PC11. Piece the roving between false twister and drafting zone by standard piecing techniques		3	2	2	1
	PC12. Ensure minimum time is taken for piecing the rove		4	1	1	1
	PC13. Ensure in proper material handling of roving and roving bobbin		4	1	2	1
	PC14. Ensure surface of roving doesn't gets damaged		4	1	2	1
	PC15. Ensure to avoid usage of damaged or defective bobbins		3	1	1	1
	PC16. Ensure the quality of piecing is as per standard		4	1	2	1
	PC17. Ensure the tension of the pieced roving is proper		4	1	2	1
	PC18. Ensure the bobbin is perfectly fitted in the spindle		4	1	2	1
	PC19. Verify proper material passage from drafting zone till the roving wound on bobbin		3	1	2	1
	PC20. Run machine and check		2	0	2	0
	PC21. Remove the sliver waste and roving waste and deposit in the respective waste collection bags		2	1	1	1
	PC22. Ensure proper functioning of the machine		4	0	2	1
	PC23. Ensure and maintain colour code		4	1	2	1
	<b>Total</b>		<b>75</b>	<b>20</b>	<b>35</b>	<b>20</b>
	<b>Weightage %</b>			<b>27</b>	<b>46</b>	<b>27</b>

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
<b>4. TSC/N 0119 (Preparing for doffing at speed frame)</b>	PC1. Follow the plan as instructed by superior for performing doffing activities at various machines in speed frame department	<b>75</b>	5	1	1	3
	PC2. Identify which machine in speed frame departments is ready for doffing		5	1	2	2
	PC3. Identify the empty bobbin required for next doff and segregate it size wise, count wise and type wise		4	1	2	1
	PC4. Ensure the bobbins are clean, clean the empty bobbins if needed		4	1	2	1
	PC5. Ensure the empty bobbins in good condition		4	1	2	1
	PC6. Remove the damaged bobbins and store in a separate place		5	2	2	1
	PC7. Ensure correct sized and colour coded empty bobbin is to be loaded in the bobbin trolley		4	1	2	1
	PC8. Ensure proper material handling of empty bobbin		4	1	2	1
	PC9. Load the empty bobbins in the bobbin trolley in an organised manner		5	1	3	1
	PC10. Load the required number of empty bobbins as per requirement in different bobbin trolleys		5	2	2	1
	PC11. Move and arrange the bobbin trolleys in an organised manner near the speed frame machine		5	1	3	1
	PC12. Ensure minimum time is taken out for carrying the activities		4	1	2	1
	PC13. Support the tenter in bringing the new sliver cans from the draw frame department to the speed frame creeling zone		4	1	2	1
	PC14. Ensure correct sliver can is taken from the draw frame department		4	1	2	1
	PC15. Arrange the sliver cans in an organised manner near the creel zone		4	1	2	1



National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC16. Distribute the existing slivers without waste to sliver cans at the time of starting new count or run out or any other time as required		4	1	2	1
	PC17. Ensure proper material handling of sliver and sliver can		5	2	2	1
	<b>Total</b>		<b>75</b>	<b>20</b>	<b>35</b>	<b>20</b>
	<b>Weightage %</b>			<b>27</b>	<b>46</b>	<b>27</b>
<b>5. TSC/N 0120 (Carryout doffing activity at Speed frame)</b>	PC1. Transport the empty bobbin trolley to the front part of speed frame machine	<b>50</b>	3	1	1	1
	PC2. Arrange the empty bobbin trolley in an organized manner		4	1	2	1
	PC3. Stop the machine		2	0	2	0
	PC4. Ensure the machine is completely stopped and open the safety door		4	1	2	1
	PC5. Remove the fully bobbin from spindle and store in the bobbin trolley		4	1	2	1
	PC6. Fix the empty bobbin in the spindle		4	1	2	1
	PC7. Repeat the doffing activity for specified number of spindles as instructed by his / her superior		4	1	2	1
	PC8. Gait the roving end with the empty bobbin		4	1	2	1
	PC9. Ensure proper material handling of roving and full bobbin		4	1	2	1
	PC10. Ensure minimum time is taken for carrying out doffing activity		4	1	2	1
	PC11. Ensure all the full bobbins are replaced with empty bobbins		6	2	2	2
	PC12. Ensure gaiting is done for all the spindles in a proper manner		4	1	2	1
	PC13. Ensure all the full bobbins are placed in the bobbin trolley		3	1	1	1
	<b>Total</b>		<b>50</b>	<b>13</b>	<b>24</b>	<b>13</b>
<b>Weightage %</b>		<b>26</b>	<b>48</b>	<b>26</b>		
<b>6. TSC/N 0121 (Tenting responsibility at speed frame)</b>	PC1. Ensure the doffing is carried out in a proper manner	<b>100</b>	5	1	1	3
	PC2. Ensure the delivery zone is clean		5	1	2	2
	PC3. Support the tenter by bringing draw frame can for creeling, creeling activities and		5	1	3	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	piecing in the event of a count change					
	PC4. Ensuring the machine is ready to start		4	1	2	1
	PC5. Ensure proper functioning of machine		4	1	2	1
	PC6. Report to the supervisor / maintenance team if the machine is not functioning properly		6	1	2	3
	PC7. Ensure proper transportation of filled bobbin trolley		4	1	2	1
	PC8. Ensure count wise storage of filled roving bobbin in storage area		5	1	2	2
	PC9. Ensure proper material handling of roving bobbin		4	1	2	1
	PC10. Ensure material is covered post doffing		5	2	2	1
	PC11. Ensure in keeping the empty bobbins clean and arranged in proper manner		4	1	2	1
	PC12. Clean the defective roving bobbins in the respective shift		6	1	3	2
	PC13. Segregate the sliver waste and roving waste count wise and store in the respective waste bins		6	2	3	1
	PC14. Weigh the different types of waste collected in the speed frame departments		5	2	2	1
	PC15. Transport the collected wastes to the waste room		4	1	2	1
	PC16. Support tenter in carrying out tenting activities then and there as instructed by supervisor		4	1	2	1
	PC17. Support the maintenance team while machine is under maintenance		5	2	2	1
	PC18. Clean the gear end, off end, spindle rails, spindles, bobbin rail, clearer rollers and other parts of machine as instructed by supervisor using proper cleaning tools		6	2	3	1
	PC19. Take part doffs wherever necessary as instructed by the supervisor		5	1	3	1
	PC20. Transport the empty cans to the draw frame can storage area after count change		4	1	2	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC21. Ensure cleanliness at work place		4	1	2	1
	<b>Total</b>		<b>100</b>	<b>26</b>	<b>46</b>	<b>28</b>
	<b>Weightage %</b>			<b>26</b>	<b>46</b>	<b>28</b>
<b>7. TSC/N 0122 (Carry out additional responsibilities effectively at speed frame)</b>	PC1. Clean the creeling area	<b>100</b>	3	1	1	1
	PC2. Ensure proper removal of dusts from the creeling zone		3	1	1	1
	PC3. Clean the front and back portion of the machine		4	1	2	1
	PC4. Clean the back portion of the drafting arrangement		4	1	2	1
	PC5. Clean the front portion of drafting arrangement		4	1	2	1
	PC6. Ensure proper cleaning of drafting zone		4	1	2	1
	PC7. Clean the flyer, bobbin rail and spindle rail		4	1	2	1
	PC8. Collect the wastes in the waste collection chamber and depositing in the waste collection box		4	1	2	1
	PC9. Clean the waste collection chamber		4	1	2	1
	PC10. Ensure the wastes collected from different parts of machine are deposited in the respective dustbins.		5	2	2	2
	PC11. Clean the alley around the speed frame machine using proper cleaning equipments		4	1	1	1
	PC12. Ensure the speed frame department is neat and clean		4	1	2	1
	PC13. Ensure proper functioning of machine		4	1	2	1
	PC14. Check and verify the quality of different machine parts		4	1	2	0
	PC15. Remove the worn out parts and replace with new parts in speed frame machine		4	1	2	2
	PC16. Carry out preventive maintenance activities at the specified intervals		5	1	2	1
	PC17. Oil the different parts of speed frame machine		4	1	2	2
	PC18. Verify the proper build of the roving bobbin		4	1	1	1
	PC19. Support the doffer while carrying out doffing activities		4	1	2	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC20. Record the production details in the production report		4	1	2	1
	PC21. Report to the supervisor in case of emergency stoppage of machine		4	1	2	2
	PC22. Report to the supervisor and maintenance in charge if the operator was able to replace the worn out machine part with a new one.		4	1	2	1
	PC23. Support the maintenance team while machine is under maintenance		4	1	2	1
	PC24. Ensure all details related to production are provided the next shift operator while relieving		4	1	2	1
	PC25. Ensure count wise storage of wound bobbin without damaging the roving		4	1	2	1
	<b>Total</b>		<b>100</b>	<b>26</b>	<b>46</b>	<b>28</b>
	<b>Weightage %</b>			<b>26</b>	<b>46</b>	<b>28</b>
<b>8.TSC/N9001 (Maintain work area, tools and machines)</b>	PC1. handle materials, machinery, equipment and tools with care and use them in the correct way	<b>50</b>	4	1	2	1
	PC2. use correct lifting and handling procedures		4	1	2	1
	PC3. use materials to minimize waste		3	1	1	1
	PC4. maintain a clean and hazard free working area		3	1	1	1
	PC5. maintain tools and equipment		4	2	1	1
	PC6. carry out running maintenance within agreed schedules		4	1	2	1
	PC7. carry out maintenance and/or cleaning within one's responsibility		4	1	2	1
	PC8. report unsafe equipment and other dangerous occurrences		4	1	2	1
	PC9. ensure that the correct machine guards are in place		3	1	1	1
	PC10. work in a comfortable position with the correct posture		3	1	1	1
	PC11. use cleaning equipment and methods appropriate for the work to be carried out		3	1	1	1
	PC12. dispose of waste safely in the designated location		4	1	2	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC13. store cleaning equipment safely after use		3	1	1	1
	PC14. carry out cleaning according to schedules and limits of responsibility		4	1	2	1
	<b>Total</b>		<b>50</b>	<b>15</b>	<b>21</b>	<b>14</b>
	<b>Weightage %</b>			<b>30</b>	<b>42</b>	<b>2</b>
<b>9.TSC/N9002 (Working in a team)</b>	PC1. be accountable to the own role in whole process	<b>50</b>	4	2	1	1
	PC2. perform all roles with full responsibility		5	3	1	1
	PC3. be effective and efficient at workplace		5	1	3	1
	PC4. properly communicate about company policies		5	2	1	2
	PC5. report all problems faced during the process		5	1	1	3
	PC6. talk politely with other team members and colleagues		4	1	1	2
	PC7. submit daily report of own performance		5	2	2	1
	PC8. adjust in different work situations		3	1	1	1
	PC9. give due importance to others' point of view		3	1	1	1
	PC10. avoid conflicting situations		3	1	1	1
	PC11. develop new ideas for work procedures		4	1	2	1
	PC12. improve upon the existing techniques to increase process efficiency		4	1	2	1
	<b>Total</b>		<b>50</b>	<b>17</b>	<b>17</b>	<b>16</b>
	<b>Weightage %</b>			<b>34</b>	<b>34</b>	<b>32</b>
<b>10.TSC/N9003 (Maintain health, safety and security at work place)</b>	PC1. comply with health and safety related instructions applicable to the workplace	<b>100</b>	5	2	2	1
	PC2. use and maintain personal protective equipment such as “ear plug” “nose mask” “head cap” etc., as per protocol		5	2	2	1
	PC3. carry out own activities in line with approved guidelines and procedures		4	2	1	1
	PC4. maintain a healthy lifestyle and guard against dependency on intoxicants		4	2	1	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC5. follow environment management system related procedures		4	2	1	1
	PC6. identify and correct (if possible) malfunctions in machinery and equipment		5	2	2	1
	PC7. report any service malfunctions that cannot be rectified		4	2	1	1
	PC8. store materials and equipment in line with organisational requirements		4	1	2	1
	PC9. safely handle and remove waste		4	1	2	1
	PC10. minimize health and safety risks to self and others due to own actions		5	2	2	1
	PC11. seek clarifications, from supervisors or other authorized personnel in case of perceived risks		4	2	0	2
	PC12. monitor the workplace and work processes for potential risks and threat		5	2	2	1
	PC13. carry out periodic walk-through to keep work area free from hazards and obstructions, if assigned		5	2	2	1
	PC14. report hazards and potential risks/ threats to supervisors or other authorized personnel		4	1	2	1
	PC15. participate in mock drills/ evacuation procedures organized at the workplace		4	2	2	0
	PC16. undertake first aid, fire-fighting and emergency response training, if asked to do so		5	2	2	1
	PC17. take action based on instructions in the event of fire, emergencies or accidents		5	2	2	1
	PC18. follow organisation procedures for shutdown and evacuation when required		4	2	1	1
	PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry		4	2	1	1
	PC20. recognise other possible security issues existing in the workplace		4	2	1	1

National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out Of	Marks Allocation		
				Theory	Skills Practical	Viva
	PC21. recognise different measures to curb the hazards		4	2	1	1
	PC22. communicate the safety plan to everyone		4	2	1	1
	PC23. attach disciplinary rules with the implementation		4	2	1	1
	<b>Total</b>		<b>100</b>	<b>43</b>	<b>34</b>	<b>23</b>
	<b>Weightage %</b>			<b>43</b>	<b>34</b>	<b>23</b>
<b>11.TSC/N9004 (Comply with industry and organizational requirement)</b>	PC1. perform own duties effectively	<b>50</b>	4	1	2	1
	PC2. take responsibility for own actions		4	1	2	1
	PC3. be accountable towards the job role and assigned duties		4	2	1	1
	PC4. take initiative and innovate the existing methods		3	1	1	1
	PC5. focus on self-learning and improvement		4	1	2	1
	PC6. co-ordinate with all the team members and colleagues		4	1	2	1
	PC7. communicate politely		4	1	1	2
	PC8. avoid conflicts and miscommunication		4	1	2	1
	PC9. know the organisational standards		4	2	1	1
	PC10. implement them in your performance		4	1	2	1
	PC11. motivate others to follow them		3	1	1	1
	PC12. know the industry standards		4	3	1	0
	PC13. align them with organisation standards		4	2	1	1
	<b>Total</b>		<b>50</b>	<b>18</b>	<b>19</b>	<b>13</b>
<b>Weightage %</b>			<b>36</b>	<b>38</b>	<b>26</b>	
<b>Grand Total</b>			<b>850</b>	<b>265</b>	<b>359</b>	<b>226</b>



### **Textile Sector Skill Council**

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