







Model Curriculum

Size Mixer

SECTOR: TEXTILE

SUB-SECTOR: WEAVING - TEXTILES

OCCUPATION: PEPARATORY - WEAVING

REF ID: TSC/Q2102, VERSION 3.0

NSQF LEVEL: 3















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: **Size Mixer** QP No. 'TSC/ Q 2102' <u>NSQF Level 3</u>'

Date of Issuance: January, 27th, 2022

Valid up to: January, 27th, 2025

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

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CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Qualifications Pack – Size Mixer", in the "Textile" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Size Mixer					
Qualification Pack Name & Reference ID.	Size Mixer	Size Mixer				
	TSC/Q2102, version 3.0					
Version No.	3.0	Version Update Date	27.01.2022			
Pre-requisites to Training	(OR) • Grade 8 pass and pure vocational subject with (OR) • 8th grade pass with 1 (OR) • 5th grade pass with 4 (OR)	 Grade 8 pass and pursuing continuous schooling in regular school with vocational subject with no experience (OR) 8th grade pass with 1 year of relevant experience (OR) 5th grade pass with 4 years of relevant experience 				
Training Outcomes	After completing this programme, participants will be able to: Perform taking charge of shift and handing over shift Perform preparation size mix Maintain work area, tools and machines Gain behavioral skill for team working Maintain health, safety and security at work place Comply with industry and organizational requirement					









This course encompasses 6 out of 6 National Occupational Standards (NOS) of "Size Mixer" Qualification Pack issued by "TSC: Textile Sector Skill Council"

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Taking charge of shift and handing over shift to Size Mixer Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 60:00 Corresponding NOS Code TSC/N 2104	 Gain knowledge about general discipline Gain knowledge about basic skills of communication Understand the role of size mixer Perform tasks while taking charge of shift and handing over shift Gain knowledge on size ingredients Maintaining stock registers Gain knowledge about importance of surrounding cleanliness Familiar in reporting procedures 	Class room requirements: a batch of 25 people seating capacity with a screen and projector
2	Preparing Size Mix Theory Duration (hh:mm) 45:00 Practical Duration (hh:mm) 90:00 Corresponding NOS Code TSC/N 2105	 Gain knowledge on Size cooker & its function Making of size paste as per the receipe received Importance of temperature and steam pressure while size cooking Importance of wearing PPEs while preparing size mix Perform setting on shedding, back rest, temple setting, reed setting Gain knowledge on cleaning procedure of Size cooker 	1. common for every batch: poster/video visuals for work method 2.Class room requirements: a batch of 25 people seating capacity with a screen and projector
3	Maintain work area, tools and machines Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9001	Gain knowledge on Housekeeping system Identify and know unique functions of basic hand tools like cleaning hook, cleaning stick, bag, etc. Handling equipment Perform maintenance activities for handling equipment	1. common for every batch: poster/video visuals for work method 2.Class room requirements: a batch of 25 people seating capacity with a screen and projector









4	Working in a team Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9002	Understand the team work and its importance Knowledge about the basic requirements for team working	Class room requirements: a batch of 25 people seating capacity with a screen and projector
5	Maintain health, safety and security at work place Theory Duration (hh:mm) 15:00 Practical Duration (hh:mm) 30:00 Corresponding NOS Code TSC/N 9003	 Gain knowledge about the general safety Rules Gain knowledge about the importance of personal protective equipment like apron, cap, earplugs, nose mask etc. and their application under different working conditions. Gain knowledge on various health hazards relevant to workplace and basic first aid training. Identify and select right equipment such as fire extinguisher & based on type of fire. Perform good practice on first aid, fire fighting etc. 	1. A sample of following items for each trainee: apron, head cap, nose mask, ear plug, shoe, 2. common for every batch: first aid materials, fire extinguisher, work method posters/pictures, 3.Class room requirements: 25 people seating capacity with a screen and projector
6	Comply with industry and organisational requirement Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code TSC/N 9004	 Know about organizational and industry standards Know the requirements for self-development Gain knowledge on Organizational & Industry standards 	Class room requirements: 25 people seating capacity with a screen and projector









7 Employability Skills (30 Hours)

Theory Duration (hh:mm) 12:00

Practical Duration (hh:mm) 18:00

• Discuss the importance of Employability Skills in meeting the job requirements.

- Explain constitutional values, civic rights, duties, citizenship, responsibility towards society etc. that are required to be followed to become a responsible citizen.
- Show how to practice different environmentally sustainable practices
- Discuss 21st century skills.
- Display positive attitude, self-motivation, problem solving, time management skills and continuous learning mindset in different situations.
- Use appropriate basic English sentences/ phrases while speaking
- Demonstrate how to communicate in a well -mannered way with others.
- Demonstrate working with others in a team
- Show how to conduct oneself appropriately with all genders and PwD
- Discuss the significance of reporting sexual harassment issues in time
- Discuss the significance of using financial products and services safely and securely.
- Explain the importance of managing expenses, income, and savings.
- Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws
- Show how to operate digital devices and use the associated applications and features, safely and securely
- Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely.
- Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges.
- Differentiate between types of customers
- Explain the significance of identifying customer needs and addressing them
- Discuss the significance of maintaining hygiene and dressing appropriately.
- · Create a biodata
- Use various sources to search and apply for jobs
- Discuss the significance of dressing up neatly and maintaining hygiene for an interview
- Discuss how to search and register for apprenticeship opportunities.

Class room requirements: 25 people seating capacity with a screen and projector









Total Duration:	Unique Equipment Required: Apron, head cap, nose mask, earplug, shoe, Size ingredients, Size cooker, Gloves
Theory Duration 102:00	
Practical Duration 228:00	

Grand Total Course Duration: 330 Hours, 0 Minutes

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









Trainer Prerequisites for Job role: "Size Mixer" mapped to Qualification Pack: "Size

Mixer/TSC Q 2102, Version 3.0"

Sr. No.	Area	Details
1	Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack "Size Mixer /TSC Q2102,
2	Personal Attributes	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-organized and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Basic Literacy and Numeracy
4a	Domain Certification	Certified for Job Role: "Size Mixer" mapped to QP: "Size Mixer TSC/Q2102, Version 3.0". Minimum accepted score 80%.
4b	Platform Certification	Required that the Trainer is certified for MEP/Q2601 Job Role: "Trainer" with atleast 80% score
5	Experience	4 years experience in specific sector as a trainer with 1 year as size mixer

Employability Trainer Prerequisites

	Trainer Prerequisites							
Minimum Educational	Specialization	Releva Experi	nt Industry ence	Trainii	ng Experience	Remarks		
Qualification		Years	Specialization	Years Specialization				
Graduate/CITS	Any Discipline			2	Teaching Experience	Prospective ES trainer should:		
Current ITI Trainers	Employability Skills Training (3 days full- time course done between 2019-2022)					 have good communication skills be well versed in English 		
Certified current EEE trainers (155 hours)	from Management SSC (MEPSC)					 have digital skills have attention to detail be adaptable 		
Certified Trainer	Qualification Pack: Trainer (MEP/Q0102)					have willingness to learn		









Annexure: Assessment Criteria

Job Role: Size Mixer

Qualification Pack: size mixer (TSC/Q 2102) Sector Skill Council: Textile Sector Skill Council

Guidelines for assessment:-

- 1. Criteria for assessment for each qualification pack will be created by the Sector Skill Council. Each performance criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for theory & skill practical for each PC.
- 2. The assessment for the theory part will be based on knowledge bank of question created by the SSC.
- 3. Individual assessment agencies will create unique 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 50%.
- 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	Performance Criteria (PC)	C) Total Marks		Marks Allocation		
Standards (NOS)				Theory	Skills Practical	Viva
1. TSC/ N2104 (Taking	PC1. come atleast 10 - 15 minutes earlier to the work spot	160	12	0	10	2
charge of shift and handing over shift to Size	ft and like " weighing scale", " necessary tools' etc	9	2	5	2	
Mixer)	PC3. meet the previous shift size mixer, discuss with him/ her regarding the		10	2	6	2
	PC4. issues faced by them with respect to the quality or reuse of size, wastage etc., or safety or any other specific instruction etc. PC5. check the size level in the "storage tank "and should check whether any size mixing has to be prepared immediately, for the running program.		10	3	3	4
			10	5	5	0
	PC6. check the "size mix" given by the higher authority for the running program		10	4	6	0
	PC7. check the availability of the sizing ingredients & chemicals required for the running program		10	3	7	0
	PC8. take "instructions" in writing for the "size mixing" for the next programs, from the higher authority.			10	3	7









	PC9. check availability of the size ingredients & the size chemicals required for the next programs		10	2	6	2
	PC10. note down the total stock of the sizing ingredients, sizing chemicals etc. in the register maintained and to show the same to the higher authority.		10	2	6	2
	PC11. check the availability of water		9	3	3	3
	PC12. check the Steam condition		10	4	6	0
	PC13. hand over the shift to the incoming size mixer in a proper manner & get clearance from the incoming counterpart before leaving the work spot		10	3	4	3
	PC14. report to his/ her shift superiors as well as that of the incoming shift, in case his/ her counterpart doesn't doesn't come for work for the incoming shift.		10	2	8	0
	PC15. properly hand over to the incoming shift superior (in case his/her counterpart does not arrive) & get clearance from him/ her, before leaving the work spot		10	1	9	0
	PC16. 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		10	1	9	0
	Total		160	40	100	20
	Weightage %			25%	63%	12%
2. TSC/ N2105 (Preparing Size Mix)	PC1. check whether the size cooker is kept cleaned, before any new mixing is prepared. if not, it has to be cleaned.	340	20	4	12	4
	PC2. weigh the size ingredients, size chemicals etc. required for preparing the new mixing.		20	4	12	4
	PC3. remove condensed water from the size cooker.		16	3	10	3
	PC4. fill water in the cooker as per the "size mixing "given		16	3	10	3
	PC5. check the steam pressure		16	3	10	3









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	PC6. pour hardened materials like "pva" first & see that it gets dissolved in the water completely		16	3	10	3
	PC7. pour maize and then the chemicals as per the size mixing given		16	3	10	3
	PC8. see that all these materials poured in the cooker are dissolved completely.		20	7	11	2
	PC9. close the cooker and steam has to be applied to the cooker		16	6	8	2
	PC10. allow the materials poured in the cooker, boiled for 20 minutes after the temperature in the Cooker is raised to 130 degree F		20	10	6	4
	PC11. check the viscosity & refractometer reading for the size		20	10	6	4
	PC12. check whether the storage tank is completely cleaned. if not, to clean the same.		18	3	12	3
	PC13. drain out the left out sizer of the previous shift to collect in other storage vessels as per the instructions of the higher authority.		16	3	10	3
	PC14. transfer the size prepared to the Storage Tank		20	10	10	0
	PC15. wear the protecting tools like "shoes", "gloves "etc., whenever required.		20	10	10	0
	PC16. keep all the vessels and the working area neat & clean		16	8	8	0
	PC17. give preference to safety . should not enter the area, where he/ she is not allowed. should not do a job in which training has not being given		18	9	9	0
	PC18. ensure that no size / sizing material / any other material in the other work areas.		16	8	8	0
	PC19. report immediately to the Superior for any problem		20	10	10	0
	Total		340	117	182	41
	Weightage %			34%	54%	12%
3. TSC/ N9001 (Maintain work area,	PC1. Handle materials, machinery, equipment and tools safely and correctly	50	4	2	1	1









tools and	PC2. Use correct lifting and handling		1			
machines)	procedures		4	2	1	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	1	2	1
	PC6. Carry out running maintenance within agreed schedules		4	2	1	1
	PC7. Carry out maintenance and/or cleaning within one's responsibility		4	2	1	1
	PC8. Report unsafe equipment and other dangerous occurrences		4	2	1	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	2	1	1
	PC13. Store cleaning equipment safely after use		3	1	1	1
	PC14. Carry out cleaning according to schedules and limits of responsibility		4	2	1	1
	Total		50	21	15	14
	Weightage %			42%	30%	28%
4.TSC/ N9002 (Working in a team)	PC1. be accountable to the own role in whole process	50	5	1	3	1
teamy	PC2. perform all roles with full responsibility		4	1	2	1
	PC3. be effective and efficient at workplace		4	2	1	1
	PC4. properly communicate about company policies		4	1	1	2
	PC5. report all problems faced during the process		4	1	1	2
	PC6. talk politely with other team members and colleagues		4	1	1	2
	PC7. submit daily report of own performance		5	2	2	1









	PC8. adjust in different work situations		4	1	2	1
	PC9. give due importance to others' point of view		4	1	1	2
	PC10. avoid conflicting situations		4	2	1	1
	PC11. develop new ideas for work procedures		4	2	1	1
	PC12. improve upon the existing techniques to increase process efficiency		4	2	1	1
	Total		50	17	17	16
	Weightage %			34%	34%	32%
5. TSC/ N9003 (Maintain health, safety	PC1. comply with health and safety related instructions applicable to the workplace	100	5	2	2	1
and security at workplace)	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	1	2	1
	PC4. maintain a healthy lifestyle and guard against dependency on intoxicants		4	1	2	1
	PC5. follow environment management system related procedures		4	1	2	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	1	2	1
	PC8. store materials and equipment in line with organisational requirements		4	2	1	1
	PC9. safely handle and remove waste		4	2	1	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	0	2	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	2	1	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	1	2	1	
	PC19. identify different kinds of possible hazards (environmental, personal, ergonomic, chemical) of the industry		4	1	2	1	
	PC20. recognise other possible security issues existing in the workplace		4	1	2	1	
	PC21. recognise different measures to curb the hazards		4	1	2	1	
	PC22. communicate the safety plan to everyone		4	1	2	1	
	PC23. attach disciplinary rules with the implementation		4	1	2	1	
	Total		100	34	43	23	
	Weightage %			34%	43%	23%	
6. TSC/ N9004 (Comply with	PC1. perform own duties effectively	50	4	2	1	1	
industry and organisational requirement)	PC2. take responsibility for own actions			4	2	1	1
	PC3. be accountable towards the job role and assigned duties		4	1	2	1	
	PC4. take initiative and innovate the existing methods		3	1	1	1	









PC5. focus on self-learning and improvement	4	2	1	1
PC6. co-ordinate with all the team members and colleagues	4	2	1	1
PC7. communicate politely	4	1	1	2
PC8. avoid conflicts and miscommunication	4	2	1	1
PC9. know the organisational standards	4	1	2	1
PC10. implement them in your performance	4	2	1	1
PC11. motivate others to follow them	3	1	1	1
PC12. know the industry standards	4	1	3	0
PC13. align them with organisation standards	4	1	2	1
Total	50	19	18	13
Weightage %		38%	36%	26%









National Occupational Standards (NOS)	Performance Criteria (PC)	Total Marks	Out	Marks Allocation			
			Of	Theory Marks	Practical Marks	Viva Marks	
7.	Introduction to Employability Skills			1	1	-	
DGT/VSQ/N0101 – Employability Skills	1. understand the significance of						
	employability skills in meeting the						
	job requirements						
	Constitutional values – Citizenship			1	1	-	
	2. identify constitutional values, civic						
	rights, duties, personal values and						
	ethics and environmentally						
	sustainable practices.						
	Becoming a Professional in the 21st			1	3		
	Century			1	3	_	
	3. explain 21st Century Skills such as						
	Self-Awareness, Behavior Skills,						
	Positive attitude, self-motivation,						
	problem-solving, creative thinking,						
	time management, social and						
	cultural awareness, emotional						
	awareness, continuous learning mindset etc.						
	Basic English Skills			2	3		
	4. speak with others using some basic				3	-	
	English phrases or sentences						
				1	1		
	Communication Skills			1	1	-	
	5. follow good manners while						
	communicating with others						
	6. work with others in a team						
	Diversity & Inclusion			1	1	-	
	7. communicate and behave						
	appropriately with all genders and						
	PwD						
	8. report any issues related to sexual harassment						
	Financial and Legal Literacy			2	4		
	9. use various financial products and			3	4	-	
	<u> </u>						
	services safely and securely 10. calculate income, expenses,						
	savings etc.						
	11. approach the concerned authorities						
	for any exploitation as per legal						
	1						
	rights and laws						









Essential Digital Skills			4	6	-
12. operate digital devices and use its					
features and applications securely					
and safely					
13. use internet and social media					
platforms securely and safely					
Entrepreneurship			3	5	-
14. identify and assess opportunities					
for potential business					
15. identify sources for arranging					
money and associated financial					
and legal challenges					
Customer Service			2	2	-
16. identify different types of					
customers					
17. identify customer needs and					
address them appropriately.					
18. follow appropriate hygiene and					
grooming standards.					
Getting ready for apprenticeship &			1	3	
Jobs			1	3	-
19. create a basic biodata					
20. search for suitable jobs and apply					
21. identify and register apprenticeship					
opportunities as per requirement					
NOS Total	4	50	20	30	-
Grand Total	8	300	268	405	127
1	1				I.







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