

CURRICULUM

FOR THE TRADE OF

**RUBBER PNEUMATIC TYRE
MOULDING TECHNICIAN**

UNDER

APPRENTICESHIP TRAINING SCHEME (ATS)

CONTENTS

SR. No.	Topics	Page No.
1.	Acknowledgement	3
2.	Background <ul style="list-style-type: none"> • Apprenticeship Training under Apprentice Act1961 • Changes in Industrial Scenario • Reformation 	4 4 4 5
3.	Rationale	6
4.	Job roles: Description	7
5.	General Information	8
6.	Course structure	9
7.	Block I - Basic Training –Junior Rubber Technician	10
8.	Model Curriculum - Junior Rubber Technician	11
9.	Assessment Criteria - Junior Rubber Technician	17
10.	Equipment List - Junior Rubber Technician	22
11.	Employability and Entrepreneurship Skills	23
12.	Block II - Practical Training (on-job training)	27
13.	Broad Skill Component	28
14.	Model Curriculum – Pneumatic Tyre Moulding Technician	29
15.	Assessment Criteria - Pneumatic Tyre Moulding Technician	43
16.	Equipment List – Pneumatic Tyre Moulding Technician	54
17.	Further Learning Pathways	56
18.	Infrastructure for On-Job Training	58
19.	Guidelines for Instructors and Paper Setters	59

ACKNOWLEDGEMENT

The RSDC sincerely express appreciation for the contribution of the Industry, State Directorate, Trade Experts and all others who contributed in revising the curriculum. Special acknowledgement to the following industries/organizations who have contributed valuable inputs in revising the curricula through their expert members:

1. Bhargave Rubber Pvt. Ltd.
2. Madurai Acme Enterprises Pvt. Ltd.
3. Remsons Cycles Pvt. Ltd.

Special acknowledgement by RSDC to the following expert members, who have contributed immensely in this curriculum.

Sl. No.	Name & Designation Sh./Mr./Ms.	Organization	Expert Group Designation
1.	Mr. Ramchandran Srinivasan	RSDC	SME
2.	Mr. Sunil Kumar Jagasia	RSDC	SME
3.	Mr. Santosh Gonsalves	Inspiredge India	SME

BACKGROUND

- **Apprenticeship Training Scheme under Apprentice Act 1961**

The Apprentices Act, 1961 was enacted with the objective of regulating the programme of training of apprentices in the industry by utilizing the facilities available therein for imparting on-the-job training. The Act makes it obligatory for employers in specified industries to engage apprentices in designated trades to impart Apprenticeship Training on the job in industry to school leavers and person having National Trade Certificate (ITI pass-outs) issued by National Council for Vocational Training (NCVT) to develop skilled manpower for the industry. There are four categories of apprentices namely; **trade apprentice, graduate, technician and technician (vocational) apprentices.**

Qualifications and period of apprenticeship training of **trade apprentices** vary from trade to trade. The apprenticeship training for trade apprentices consists of basic training followed by practical training. At the end of the training, the apprentices are required to appear in a trade test conducted by NCVT and those successful in the trade tests are awarded the National Apprenticeship Certificate.

The period of apprenticeship training for graduate (engineers), technician (diploma holders and technician (vocational) apprentices is one year. Certificates are awarded on completion of training by the Department of Education, Ministry of Human Resource Development.

- **Changes in Industrial Scenario**

Recently we have seen huge changes in the Indian industry. The Indian Industry registered an impressive growth during the last decade and half. The number of industries in India have increased manifold in the last fifteen years especially in services and manufacturing sectors. It has been realized that India would become a prosperous and a modern state by raising skill levels, including by engaging a larger proportion of apprentices, will be critical to success; as will stronger collaboration between industry and the trainees to ensure the supply of skilled workforce and drive development through employment. Various initiatives to buildup an adequate infrastructure for rapid industrialization and improve the industrial scenario in India have been taken.

- **Reformation**

The Apprentices Act, 1961 has been amended and brought into effect from 22nd December, 2014 to make it more responsive to industry and youth. Key amendments are as given below:

- Prescription of number of apprentices to be engaged at establishment level instead of trade-wise.
- Establishment can also engage apprentices in optional trades which are not designated, with the discretion of entry level qualification and syllabus.
- Scope has been extended also to non-engineering occupations.
- Establishments have been permitted to outsource basic training in an institute of their choice.
- The burden of compliance on industry has been reduced significantly.

[Please do not make any changes in the background content]

RATIONALE

Need for Apprenticeship in trade for Rubber Pneumatic Tyre Moulding Technician

1. The greater degree of relevance of the training with latest advancements of the industry will enhance the employability opportunities.
2. Ability to use latest tool & equipments and their different techniques.
3. Acquire knowledge of Pneumatic Tyre Moulding Operations.
4. Ability to select and use appropriate tools and equipment for Pneumatic Tyre Moulding.
5. Ability to understand the factors that influence Pneumatic Tyre Moulding.
6. Ability to identify defects related to Pneumatic Tyre Moulding.
7. Ability to conduct activities related to Pneumatic Tyre Moulding Machine Preparation.
8. Ability to perform Tyre Moulding Activity.
9. Ability to maintain Pneumatic Tyre Moulding shop 5S.
10. Exposure to regulations, use of work equipment, control of substances hazardous to health.
11. Ability to maintain equipment/tools used in Pneumatic Tyre Moulding.
12. Ability to manage supervisor and co-workers.
13. Exposure to reporting and documentation related to Pneumatic Tyre Moulding.
14. Able to communicate and behave in a professional manner when dealing with supervisor and co-workers.
15. Ability to escalate problem to appropriate level at right time.

JOB ROLE: Description

A Rubber Pneumatic Tyre Moulding Technician will be responsible for doing Pneumatic Tyre Moulding. He should be able to do all preparatory activities, prior to Tyre Moulding. He should be able to maintain the Tyre Moulding Machine in good condition. He should be well versed with all the 5S techniques to keep shop floor and work place clean & tidy. He should be able to identify tyre defects of Green Tyre, so that no rejection should occur in Tyre moulding. He should be able to identify defects generated during Tyre moulding process and should be able to rectify the issues which are causing defects. He should be able to do documentation as per organisational procedure. He should be well versed with Organisational hierarchy should know how to escalate issues to appropriate level.

He should be able to plan and organize assigned work and detect & resolve issues during work execution. He should be able to demonstrate possible solutions for the issues arising during day to day work and agree tasks within the team. He should be able to communicate with required clarity and understand technical English. He should be sensitive to environment, self-learning and productive.

GENERAL INFORMATION

- 1. Name of the Trade** : RUBBER PNEUMATIC TYRE MOULDING TECHNICIAN

- 2. Duration of Apprenticeship Training (Basic Training & Practical Training)** : 350Hrs +40Hrs= 390 Hrs & 1440Hrs

- 3. Duration of Basic Training** : Block –I: 350 Hrs + 40 Hrs Employability & Entrepreneurship
- Total duration of Basic Training** : **390 Hrs** (Additionally, 20 Hrs Digital Literacy inputs given in online mode)

- 4. Duration of Practical Training (On -job Training)** : Block–II: 1440 HRS, i.e. 36 weeks or 9months

- 5. Entry Qualification** : Passed 10thclass

- 6. Selection of Apprentices** : The apprentices will be selected as per Apprenticeship Act amended time to time.

- 7. Rebate for ITI passed trainees** :N.A.

Note: Industry may impart training as per above time schedule, however this is not fixed. The industry may adjust the duration of training considering the fact that all the components under the syllabus must be covered. However the flexibility should be given keeping in view that no safety aspect is compromised and duration of industry training to be remain as 1 year.

COURSE STRUCTURE

Training duration details: -

Time (in hours) Recommended Duration	390 Hrs	1440hrs 36 weeks (9 months)
Basic Training	Block– I	-----
Practical Training (On - job training)	----	Block – II

Components of Training	Months											
↓	1	2	3	4	5	6	7	8	9	10	11	12
Basic Training Block – I												
Practical Training Block – II												

CURRICULUM

BASIC TRAINING

(BLOCK – I)

DURATION: 350 HRS + 40 Hrs (Employability and Entrepreneurship Training) = 390 hrs (Additionally, 20 Hrs Digital Literacy inputs given in online mode)

Total duration of Basic Training : 390 Hrs

GENERAL INFORMATION

- 1) **Name of the Trade** : **RUBBER PNEUMATIC TYRE MOULDING TECHNICIAN : JUNIOR RUBBER TECHNICIAN**
 - 2) **Hours of Instruction** : 350 Hrs+40 Hrs= 390Hrs.
 - 3) **Batch size** : 30
 - 4) **Power Norms** : 6 KW for Workshop
 - 5) **Space Norms** : (10 x20=200sq)feet
 - 6) **Examination** : The internal assessment will be held on the completion
Of Block-I.
- 1) **Instructor Qualification** : Trainer Prerequisites for Job role: **JUNIOR RUBBER TECHNICIAN**

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “RSC/Q0831 Version 1.0”.
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- organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Any Graduate preferably in rubber or polymer
4a	Domain Certification	Certified for Job Role: “Junior Rubber Technician” mapped to QP: “RSC/Q0831”. Minimum accepted score as per RSDC guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/ Q1402”. Minimum accepted score as per RSDC guidelines is 80%.
5	Experience	5+ years of relevant work-experience, above supervisor level

Basic Training: Junior Rubber Technician RSC/Q0831

MODEL CURRICULUM

This program is aimed at training candidates for the job of a “Junior Rubber Technician”, in the “Rubber Industry” Sector/Industry and aims at building the following key competencies amongst the learner.

Program Name	Junior Rubber Technician		
Qualification Pack Name & Reference ID.	RSC/Q0831, v1.0		
Version No.	1.0	Version Update Date	Not Applicable
Pre-requisites to Training	10th Standard passed, preferably		
Training Outcomes	After completing this programme, participants will be able to: <ul style="list-style-type: none">• Assisting the operator in material handling in weighing• Assisting the operator in production process and equipment handling• Assisting the operator in post-production process		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Global and National Status of Rubber Industry Theory 2 hours Practical 0 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Understand the global rubber industry • Understand the rubber industry in India • Know the various advantages of rubber 	Laptop, white board, marker, projector
2	Machines Used in Rubber Product Manufacturing Theory 20 hours Practical 45 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Understand different machineries used in rubber processing • Identify various machines used in rubber processing • Understand and identify mixing mills in rubber processing • Understand mixing mill operation • Identify and understand internal mixers • Understand functioning of internal mixers and mixing methods • Understand pre-mixer and post-mixer area Equipment • Understand extruders and types of extruders • Understand combination of extruders and major parts of extruders • Perform and understand extruder operation • Understand calendar machines and calendaring process • Understand classification of calendar and major parts of calendar • Perform and understand extruder operation • Understand different equipment of Latex based industry • Identify and understand equipment like compounding mixer, drying oven, leaching tank, dipping tank, dehydration unit, vulcanising unit etc. 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, Hydraulic rubber moulding press, mixing mills, extruders, calendars, ball mills, compounding mixers, dipping tank, drying oven, leaching tank, vulcanisation, curing press

Sr. No.	Module	Key Learning Outcomes	Equipment Required
3	Maintenance and Upkeep of Machinery Theory 30 hours Practical 50 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Understand importance of preservation and protection of machines and equipment • Understand and perform maintenance of machinery and equipment • Understand objective of machine/equipment maintenance • Identify various types of maintenance • Perform maintenance type like Run To Failure (RTF), Preventive Maintenance (PM), Corrective Maintenance (CM) etc. • Familiarise with various tools (hand tools etc.) used in rubber processing • Identify and understand equipment like compounding mixer, drying oven, leaching tank, dipping tank, dehydration unit, vulcanising unit, and curing press. • Identify various hazards and risks involved in maintenance activity • Act on preventive measure to avoid hazards and risks 	Same as above
4	Assisting in Material Handling Theory 36 hours Practical 50 hours Corresponding NOS RSC / N 3101	<ul style="list-style-type: none"> • Assist raw material handling Operators to identify various raw materials used in the rubber industry (polymer, filler, processing aids, curatives, special additives etc.) • Assist raw material handling operators in the raw material storage area with respect identification, traceability including housekeeping & safety as per SOP. • Assist Lab Technician for sampling of raw material from the storage area as per SOP. • Assist raw material weighing operators for preparation of mix as per SOP. • Assist Mixing Operators for mixing of compounds . master batch, final as per SOP • Assist Lab Technician for collection of compounds with proper identification as per SOP. • Assist mixing operators for identifying different compounds in the mixing area • Assist Material Handling Operators for storage of compounds with proper identification in the storage area as per SOP. • Assist Mixing Operator for maintaining records for traceability. • Awareness on different safety devices (safety bar, safety guard etc.) attached with different 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, crane, conveyor, industrial truck, turn table, dock leveller, pallets, skids, tote pans, cartons, shrink wraps, pallet rack, drive through rack,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> • Rubber Processing Machineries. • Awareness on Material Safety Data Sheet(MSDS) • Assist to carry out disposal of waste and leftover tested material safely as per SOP 	
5	<p>Assisting the operator in production process and equipment handling Theory 25 Hours Practical 20 hours Corresponding NOS RSC / N 3102</p>	<ul style="list-style-type: none"> • Assist in identifying different material/compound and component required for different rubber processing (mixing, dipping, extrusion, calendaring, component preparation, building, moulding/curing). • Assist in raw material handling operators in the raw material storage area with respect to identification, traceability including housekeeping & safety as SOP. • Assist Lab Technician for sampling of raw material from the storage area, collection of compounds and components as per SOP. • Assist raw material weighing operators for preparation of mix as per SOP. • Assist Mixing Operators for mixing of compounds – master batch, final as per SOP. • Assist extrusion operator for extrusion process (pre, during and post) • Assist fabric dipping operation • Assist calendaring operation • Assist component preparation • Asst. Building operation • Assist Curing/moulding operation • Assist Finishing operation • Assist Material Handling Operators for storage of compounds with proper identification in the storage area as per SOP. • Assist Operators of Mixing, Extrusion, Calendaring, dipping, stock preparation, building & curing/moulding area for maintaining records. • Awareness on different safety devices (safety bar, safety guard etc.) attached with different Rubber Processing Machineries. • Carry out disposal of waste and left over tested material safely as per SOP 	calendars, ball mills, compounding mixers, dipping tank, drying oven, leaching tank, vulcanisation

6	Assisting the operator in post-production process Theory 15 Hours Practical 20 hours Corresponding NOS RSC / N 3103	<ul style="list-style-type: none"> • Collection of components and check for building • Prepare the machineries • Building the products, • Green Product inspection • Curing/Moulding • Finishing & finished product inspection. • Sampling and Testing • Awareness on different safety devices (safety bar, safety guard etc) attached with different • Rubber Processing Machineries. • Carry out disposal of waste and left over tested material safely as per SOP 	Same as above
7	Standards and Safety 05 Hours Practical 10 hours Corresponding NOS RSC/N3103	<ul style="list-style-type: none"> • Collection of components and check for building • Prepare the machineries • Build the products, • Inspect Green Product • Perform Curing/Moulding • Inspect Finishing & finished product • Perform Sampling and Testing • Identify Modern methods of quality management systems (ISO-9000, TS-16949, • ISO-14001, OHSAS-18001) • Identify and Implement 5S 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, reporting formats, registers, files,
8	IT Skills Theory 07 hours Practical 15 hours Corresponding NOS Bridge Module	<ul style="list-style-type: none"> • Understand parts of a computer • Understand basics of computer and concept of motherboard • Use Microsoft Word • Use Microsoft PowerPoint • Use Microsoft Excel • Understand Internet and its uses 	Power point presentation, LCD projector, Computer, LCD screen, white board, marker, pointer, Microsoft Office, Internet Connectivity
	Total Duration Theory Duration 140:00 Practical Duration 210:00	Unique Equipment Required: Laptop, white board, marker, projector, Power point presentation, Hydraulic rubber moulding press, mixing mills, extruders, calendars, ball mills, compounding mixers, dipping tank, drying oven, leaching tank, vulcanization Oven, curing press, crane, conveyor, industrial truck, turn table, dock leveller, pallets, skids, tote pans, cartons, shrink wraps, pallet rack, drive through rack, reporting formats, registers, files.	

Grand Total Course Duration: 350 Hours, 0 Minute

ASSESSMENT CRITERIA

Assessment Criteria	
Job Role	Junior Rubber Technician
Qualification Pack	RSC/Q0831, v1.0
Sector Skill Council	Rubber Sector Skill Council

Sr. No.	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 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 theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4	Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5	To pass the Qualification Pack, every candidate should score a minimum 50% of aggregate marks to successfully clear the assessment
6	In case of successfully passing only certain number of NOSs, the candidate is eligible to take subsequent assessment on the balance NOSs to pass the Qualification Pack.

Assessment outcomes	Assessment Criteria for outcomes	Marks Allocation			
		Total Mark (100+100+100 = 300)	Out Of	Theory	Skills Practical
1. RSC / N 3101 Assisting the operator in material handling in weighing	PC1. Assist raw material handling Operators to identify various raw materials used in the rubber industry (polymer, filler, processing aids, curatives, special additives etc.)	100	7	5	2
	PC2. Assist raw material handling operators in the raw material storage area with respect identification, traceability including housekeeping & safety as per SOP.		7	5	2
	PC3. Assist Lab Technician for sampling of raw material from the storage area as per SOP.		8	5	3
	PC4. Assist raw material weighing operators for preparation of mix as per SOP.		8	5	3
	PC5. Assist Mixing Operators for mixing of compounds – master batch, final as per SOP		10	5	5
	PC6. Assist Lab Technician for collection of compounds with proper identification as per SOP.		10	5	5
	PC7. Assist mixing operators for identifying different compounds in the mixing area		10	5	5
	PC8. Assist Material Handling Operators for storage of compounds with proper identification in the storage area as per SOP.		10	5	5
	PC9. Assist Mixing Operator for maintaining records for traceability.		10	5	5

	Awareness on different safety devices (safety bar, safety guard etc) attached with different Rubber Processing Machineries. Awareness on Material Safety Data Sheet (MSDS)		10	5	5
	PC10. Assist to carry out disposal of waste and left over tested material safely as per SOP		10	5	5
	Sub Total		100	55	45
2. RSC / N 3102 Assisting the operator in production process and equipment handling	PC1.Assist in identifying different material/compound and component required for different rubber processing (mixing, dipping, extrusion, calendaring, component preparation, building, moulding/curing).	100	5	5	0
	PC2.Assist in raw material handling operators in the raw material storage area with respect to identification, traceability including housekeeping & safety as SOP.		5	5	0
	PC3.Assist Lab Technician for sampling of raw material from the storage area, collection of compounds and components as per SOP.		5	5	0
	PC4. Assist raw material weighing operators for preparation of mix as per SOP.		5	5	0
	PC5. Assist Mixing Operators for mixing of compounds – master batch, final as per SOP.		10	5	5
	PC6. Assist extrusion operator for extrusion process (pre, during and post)		10	5	5

	PC7.Assist fabric dipping operation		5	5	0
	PC8.Assist calendering operation		5	5	0
	PC9.Assist component preparation		5	5	0
	PC10.Asst. Building operation		10	5	5
	PC11.Assist Curing/moulding operation		10	5	5
	PC12.Assist Finishing operation		5	5	0
	PC13.Assist Material Handling Operators for storage of compounds with proper identification in the storage area as per SOP.		5	5	0
	PC14.Assist Operators of Mixing, Extrusion, Calendering, dipping, stock preparation, building & curing/moulding area for maintaining records.		5	5	0
	Awareness on different safety devices (safety bar, safety guard etc) attached with different Rubber Processing Machineries.		5	5	0
	PC15. Carry out disposal of waste and left over tested material safely as per SOP		5	5	0
	Sub Total		100	80	20
3. RSC/N 3103 Assisting the operator in post production process	PC1. Collection of components and check for building	100	10	5	5
	PC2. Prepare the machineries		10	5	5
	PC3. Building the products,		10	5	5

	PC4. Green Product inspection		10	5	5
	PC5. Curing/Moulding		15	5	10
	PC6. Finishing & finished product inspection.		10	5	5
	PC7. Sampling and Testing		15	5	10
	Awareness on different safety devices (safety bar, safety guard etc) attached with different Rubber Processing Machineries.		10	5	5
	PC8. Carry out disposal of waste and left over tested material safely as per SOP		10	5	5
	Sub Total		100	50	50
	Grand Total	300	300	185	115
	<u>Percentage Weightage:</u>			20%	80%
	<u>Minimum Pass % to qualify (aggregate):</u>			50%	

EQUIPMENT LIST

Junior Rubber Technician – RSC/Q0831

S. No.	SSC	QP Code	Name of the QP	NSQF Level	Equipment Name	Min. no. Equipment req. (Per batch of 20 trainees)	Unit	Is this a mandatory Equipment to be available at the training Center (yes/no)	Dimension / Specification /Description / Any Other Remarks
1	RSDC	RSC/0831	Junior Rubber Technician	3	Lab Curing Press	1	Nos.	Yes	
2	RSDC	RSC/0831	Junior Rubber Technician	3	Lab Mill	1	Nos.	Yes	
3	RSDC	RSC/0831	Junior Rubber Technician	3	Tensile Tester	1	Nos.	No	
4	RSDC	RSC/0831	Junior Rubber Technician	3	Dispersion Checker	1	Nos.	Yes	
5	RSDC	RSC/0831	Junior Rubber Technician	3	Rebound Tester	1	Nos.	Yes	
6	RSDC	RSC/0831	Junior Rubber Technician	3	Abrasion Tester	1	Nos.	Yes	
7	RSDC	RSC/0831	Junior Rubber Technician	3	Hardness Tester	2	Nos.	Yes	
8	RSDC	RSC/0831	Junior Rubber Technician	3	Ozone Tester	1	Nos.	No	
9	RSDC	RSC/0831	Junior Rubber Technician	3	Oven, Furnace	1	Nos.	Yes	
10	RSDC	RSC/0831	Junior Rubber Technician	3	Adhesion Tester -For Fabric Reinforcement	2	Nos.	Yes	
11	RSDC	RSC/0831	Junior Rubber Technician	3	Gravity Tester	1	Nos.	Yes	
12	RSDC	RSC/0831	Junior Rubber Technician	3	Melting Point Tester	1	Nos.	Yes	
13	RSDC	RSC/0831	Junior Rubber Technician	3	Ash Content Tester	1	Nos.	Yes	
14	RSDC	RSC/0831	Junior Rubber Technician	3	Iodine Content Tester	1	Nos.	Yes	
15	RSDC	RSC/0831	Junior Rubber Technician	3	Moisture Check Tester	1	Nos.	Yes	
16	RSDC	RSC/0831	Junior Rubber Technician	3	PH Tester	1	Nos.	Yes	
17	RSDC	RSC/0831	Junior Rubber Technician	3	Mooney Viscometer	1	Nos.	No	
18	RSDC	RSC/0831	Junior Rubber Technician	3	Rheometer	1	Nos.	No	

EMPLOYABILITY AND ENTREPRENEURSHIP SKILLS

MODEL CURRICULUM

Program Name	Employability and Entrepreneurship Skills		
Qualification Pack Name & Reference ID	ALL		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	NA		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Identify personal strengths and value systems: safe work habits, achievement motivation, time management, anger management, stress management. • Recall important tenets of digital literacy: fundamentals of computer terminology, parts of a computer and a keyboard, main applications of MSOffice. • Discuss the essentials of matters pertaining to money: saving money, bank accounts, types of costs, investment options, insurance products, taxes. • Prepare for employment and self-employment: preparing for an interview, effective resume writing, basic workplace terminology. • Illustrate the basics of entrepreneurship and identify new business opportunities: effective leadership, effective speaking, effective listening, problem solving, business opportunities, types of entrepreneurs, entrepreneurial process and ecosystem, resilient entrepreneurs 		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Introduction</p> <p>Theory Duration (hh:mm) 00:30</p> <p>Practical Duration (hh:mm) 00:00</p>	<ul style="list-style-type: none"> Recognize the importance of general discipline in the class room (dos and don'ts) List expectations from the program Outline the objectives of the program 	Laptop, white board, marker, projector
2	<p>Personal Strengths and Value Systems</p> <p>Theory Duration (hh:mm) 04:00</p> <p>Practical Duration (hh:mm) 04:00</p>	<ul style="list-style-type: none"> Identify common health issues and tips to prevent them Discuss critical safety habits to be followed by employees Understand motivation with the help of Maslow's Hierarchy of Needs List the characteristics of entrepreneurs with achievement motivation Discuss how to maintain a positive attitude Discuss the role of attitude in self-analysis List your strengths and weaknesses Describe the importance of honesty in entrepreneurs List the characteristics of highly creative and innovative people Discuss the benefits of time management List the traits of effective time managers Apply effective time management techniques Apply tips for anger management and stress management 	Workbook exercises on health standards, Laptop, activity on strengths and weaknesses, white board, marker, projector
3	<p>Digital Literacy: A Recap</p> <p>Theory Duration (hh:mm) 01:00</p> <p>Practical Duration (hh:mm) 03:00</p>	<ul style="list-style-type: none"> Identify the basic parts of a computer and keyboard Recall basic computer terminology Identify the functions of basic computer keys Discuss the main applications of MS Office Discuss the benefits of Microsoft Outlook Identify the different types of e-commerce Explain the benefits of e-commerce for retailers and customers 	Laptop, white board, marker, projector, CPU, Monitor, keyboard, mouse, MS Office software, E-Wallet softwares such as PayTM, SBI buddy etc.

		<ul style="list-style-type: none"> • Discuss how the Digital India campaign will help boost e-commerce in India • Describe how you will sell a product or service on an e-commerce platform • Elaborate on the need for digital transactions • Identify the modes of digital transactions • Explain the uses of digital transactions 	
4	<p>Money Matters</p> <p>Theory Duration (hh:mm) 06:00</p> <p>Practical Duration (hh:mm) 02:00</p>	<ul style="list-style-type: none"> • Recognize the importance and benefits of saving money • Discuss the main types of bank accounts • Illustrate the process of opening a bank account • Differentiate between fixed and variable costs • Describe the main types of investment options • Identify the different types of insurance products and types of taxes • Discuss the uses of online banking • Describe the main types of electronic funds transfers 	Laptop, white board, marker, projector, Passport, Driving License, Voter ID card, PAN card, Aadhaar card, sample KYC document, bank opening form (can be downloaded from the Internet)
5	<p>Preparing for Employment and Self-Employment</p> <p>Theory Duration (hh:mm) 02:00</p> <p>Practical Duration (hh:mm) 04:00</p>	<ul style="list-style-type: none"> • Follow the steps to prepare for an interview • Create an effective Resume • Identify the most frequently asked interview questions • Discuss how to answer the most frequently asked interview questions • Identify basic work place terminology 	Laptop, white board, marker, projector, sample CVs, Mock interviews, role plays, role play briefs, FAQs, quiz on basic workplace technologies.
6	<p>Entrepreneurship</p> <p>Theory Duration (hh:mm) 04:30</p> <p>Practical Duration (hh:mm) 09:00</p>	<ul style="list-style-type: none"> • Discuss the concept and significance of entrepreneurship and the characteristics of an entrepreneur • List the qualities of an effective leader and the benefits of effective leadership • List the traits of an effective team • Apply techniques of effective listening • Apply techniques of effective speaking • Solve problems by identifying important problem solving traits • Discuss how to identify new business opportunities within your business 	Laptop, white board, marker, projector, SWOT activity: pen and paper individual exercise, charts, colored pens, Group Activity: poster making on entrepreneurship ecosystem. Activity: SMART Goal writing

		<ul style="list-style-type: none"> • Describe the different types of entrepreneurs • State the characteristics of entrepreneurs • Recall entrepreneur success stories • Follow the entrepreneurial process and explain the entrepreneurship ecosystem • Recognize the purpose of the Make in India campaign • Identify key schemes to promote entrepreneurs • Define the relationship between entrepreneurship and risk appetite and entrepreneurship and resilience • Discuss the characteristics of a resilient entrepreneur • Identify techniques of dealing effectively with failure 	
	<p>Total Duration</p> <p>Theory Duration 18:00</p> <p>Practical Duration 22:00</p>	<p>Unique Equipment Required: Laptop, white board, marker, projector</p>	

Grand Total Course Duration: **40 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [National Skill Development Corporation](#))

PRACTICAL TRAINING (ON-JOB TRAINING)
(BLOCK – II)
DURATION: 1440 Hrs

GENERAL INFORMATION

- 1) **Name of the Trade** : **RUBBER PNEUMATIC TYRE MOULDING TECHNICIAN :**
Pneumatic Tyre Moulding Operator
- 2) **Duration of On-Job Training** : **1440 hrs.**
- 3) **Batch size** : 30 (recommended)
- 4) **Examination** : i) The internal assessment will be held on completion of
The block
ii) Rubber Sector Skill Council (RSDC) will conduct exam
at the end of Apprenticeship Training.
- 5) **Instructor Qualification** :

Trainer Prerequisites for Job role: **“Pneumatic Tyre Moulding”**

Sr. No.	Area	Details
1	Job Description	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “RSC/Q0207 Version 1.0”.
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- organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	Minimum Educational Qualifications	Any Graduate preferably in rubber or polymer
4a	Domain Certification	Certified for Job Role: “Injection Moulding Operator” mapped to QP: “RSC/Q0207”. Minimum accepted score as per RSDC guidelines is 80%.
4b	Platform Certification	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/ Q1402”. Minimum accepted score as per RSDC guidelines is 80%.
5	Experience	5+ years of relevant work-experience, above supervisor level
6	Infrastructure for On-Job Training	As per Tools & Equipment required for On-Job Training

**BROAD SKILL COMPONENT
BROAD SKILL COMPONENT TO BE COVERED DURING ON-JOB TRAINING**

BLOCK – II

1. Preparation of Tyre Moulding machine for Tyre Moulding operation.
2. Usage of all the tools & equipment for Tyre Moulding.
3. Inspection of Green Tyre before Tyre Moulding.
4. Types of Tyre Moulding Machine Parameters & their effect on Tyre Moulding.
5. Parameter feeding in Control Panel.
6. Parameter changing in Control Panel.
7. Press & Mould pre-heating before Tyre moulding.
8. Minor Machine (Tyre Moulding) Maintenance.
9. Mould Changing Crane Operation.
10. Mould changing in Tyre Moulding Machine.
11. Tyre Mould maintenance.
12. Tyre Defect Identification.
13. Selection & Application of Countermeasure for Tyre Defects.
14. Application of Problem solving techniques, such as – Why-Why Analysis & Fish Bone Diagram.
15. Waste Tyre Disposal
16. 5S techniques application at workplace.
17. Reporting as per organisation's hierarchy.
18. Using Fire Extinguishers
19. Using Organisation's Emergency procedure.
20. Doing basic First Aid.
21. Communicating with Co-workers and resolving work conflicts

Pneumatic Tyre Moulding Operator -RSC/Q0211

Model Curriculum

Key Learning Outcomes:

Program Name	Pneumatic Tyre Moulding Operator		
Qualification Pack Name & Reference ID.	RSC/Q0211, v1.0		
Version No.	1.0	Version Update Date	Not Applicable
Pre-requisites to Training	10th Standard passed, preferably		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Prepare Tyre Moulding Machine: Cleaning of moulding machine, loading desired mould, Spraying Release agent, Setting Machine Parameter as per work instruction, • Perform Tyre moulding: Visual inspection of Green Tyre, Size/Ply verification, Loading Green Tyre in moulding machine, placing Serial no/PR strip in mould, verification of correct pressure and temperature during cycle, Steam draining after cycle completion, • Perform Post Tyre Moulding Activities: Unloading curing tyre from moulding machine, Removing PCI Ring, Tyre Inspection, Flashes and Vent trimming, Sample submission for lab testing • Maintain Tyre Moulding Shop as per 5S guideline: Sorting of material available at workplace, Placing all things in order, Cleaning of area, making standard for cleaning and things to keep, Sustaining the level of 5S achieved, Identifying cleaning equipment for cleaning, using appropriate PPE while cleaning • Check quality of moulded Tyre and rectify the defects: Visual inspection, Tread and Tyre key dimension measurement, Identify moulding defects, take corrective action for eliminating defects • Report and document about Tyre moulding: Documenting and Reporting various information like . Production, Inspection, machine status, Tyre Batch card • Escalate Problem to right authority: Know the hierarchy of organisation, Know the immediate Supervisor, Escalation of matters which are beyond job role • Develop entrepreneurship qualities: Identifying business opportunity, Creating business plan, arranging financial resources for funding, Hiring Suitable manpower, making process improvements for increasing Profitability 		

Sr. No.	Module	Key Learning Outcomes	Equipment Required
Week 1	Introduction to Rubber & Tyre Industry (Session-1) Theory Duration (hh:mm) 40:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module	Trainee will be able to do following - <ul style="list-style-type: none"> • Get familiarized with Trainees • Set rules and regulation during program • Brief objectives of training program • Identify your roles and responsibilities • Discuss about Rubber Industry • Explain different sources of Rubber • Discuss about major Rubber Associations • Explain the Tyre History • Discuss the Tyre industry in India • Define all major players of Tyre manufacturer 	Laptop, White board+marker, projector, Black Board+Chalk, Participant Handbook, Samples – RSS sheets, Crepe Rubber, TSR Rubber, Synthetic Rubber, Reclaimed Rubber, Rubber Product – 20 nos.,
Week 2	Introduction to Rubber & Tyre Industry (Session-2) Theory Duration (hh:mm) 2:00 Practical Duration (hh:mm) 38:00 Corresponding NOS Code Bridge Module	Trainee will be able to do following - <ul style="list-style-type: none"> • Identify and define Tyre specifications • Explain the difference between Cross-ply Tyre and Radial Tyre • Define material used in Tyre manufacturing • Discuss and explain Tyre manufacturing • Explain equipment used for Tyre manufacturing • Define Roles and responsibilities for Pneumatic Tyre Moulding Operator 	Laptop, White board+marker, projector, Black Board+ Chalk, Participant Handbook, Tyre sample with sidewall coding, Tyre cut sections,
Week 3	Preparing Tyre Moulding Machine (Session-1) Theory Duration (hh:mm) 16:00 Practical Duration (hh:mm) 24:00 Corresponding NOS Code RSC/N1101	Trainee will be able to do following - <ul style="list-style-type: none"> • Explain construction of Tyre Moulding Machine • Describe the details of Tyre Moulding Machine parts • Prepare Machine for Tyre Moulding • Demonstrate the cleaning process of Tyre moulding machine • Demonstrate the required mould loading in machine • Demonstrate the mould cleaning after loading in machine • Describe the process of arranging 'Green Tyre' for Moulding • Define purpose of Release agent application in mould 	Laptop, White board+marker, projector, Black Board+Chalk, Participant Handbook, Tyre Moulding Machine, Tyre Moulds, Green Tyre, Release Agent, Moulding Changing Equipment, Mould Carrying Crane, Safety Equipment

Week 4	<p>Preparing Tyre Moulding Machine (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1101</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> To be able to do preparation required for doing Pneumatic Tyre Moulding. To be able achieve target and meet deadlines while working. To be able to follow required Safety guidelines 	Same as above
Week 5	<p>Preparing Tyre Moulding Machine (Session-3)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1101</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> To be able to do preparation required for doing Pneumatic Tyre Moulding. To be able achieve target and meet deadlines while working. To be able to follow required Safety guidelines 	Same as above
Week 6	<p>Preparing Tyre Moulding Machine (Session-4)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1101</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> To be able to do preparation required for doing Pneumatic Tyre Moulding. To be able achieve target and meet deadlines while working. To be able to follow required Safety guidelines 	Same as above
Week 7	<p>Preparing Tyre Moulding Machine (Session-5)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1101</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> To be able to do preparation required for doing Pneumatic Tyre Moulding. To be able achieve target and meet deadlines while working. To be able to follow required Safety guidelines 	Same as above

Week 8	<p>Preparing Tyre Moulding Machine (Session-6)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1101</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do preparation required for doing Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 9	<p>Performing Tyre Moulding (Session-1)</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Demonstrate Machine check-up points before Tyre Moulding • Demonstrate Control Panel check-up points before Tyre Moulding • Demonstrate Mould check-up points before Tyre Moulding • Discuss Importance of Mould Cleaning & Maintenance • Describe General operating instruction before Tyre moulding • Explain 'Green tyre' Inspection • Describe preparation points before Tyre Moulding • Explain steps involved in changing mould in Tyre Moulding Machine • Demonstrate the steps for performing Tyre Moulding • Describe the Safety Precautions to be taken during Tyre Moulding. • Discuss Do's and Don'ts for Tyre Moulding Operations 	<p>Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Tyre Moulding Machine, Green Tyre, Tyre Mould Clamp, Crane, Machine and Mould cleaning Equipment,</p>
Week 10	<p>Performing Tyre Moulding (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above

Week 11	<p>Performing Tyre Moulding (Session-3)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above
Week 12	<p>Performing Tyre Moulding (Session-4)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above
Week 13	<p>Performing Tyre Moulding (Session-5)</p> <p>Theory Duration (hh:mm) 00:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above
Week 14	<p>Performing Tyre Moulding (Session-6)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above

Week 15	<p>Performing Tyre Moulding (Session-7)</p> <p>Theory Duration (hh:mm) 00:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above
Week 16	<p>Performing Tyre Moulding (Session-8)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1102,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to do Pneumatic Tyre Moulding. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines 	Same as above
Week 17	<p>Preparing Post Tyre Moulding Operations (Session-1)</p> <p>Theory Duration (hh:mm) 5:00</p> <p>Practical Duration (hh:mm) 35:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Explain Post-Tyre Moulding activities • Describe the Quality issues in Tyre Moulding operation. • Define the Countermeasures to be taken on quality issues related to Tyre Moulding 	White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Cured Tyre, Tyre Finishing Tools – Flash removing tool, Scissor, etc., Tyre / Tyres with different moulding defects
Week 18	<p>Preparing Post Tyre Moulding Operations (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above

Week 19	<p>Preparing Post Tyre Moulding Operations (Session-3)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 20	<p>Preparing Post Tyre Moulding Operations (Session-4)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 21	<p>Preparing Post Tyre Moulding Operations (Session-5)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 22	<p>Preparing Post Tyre Moulding Operations (Session-6)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above

Week 23	<p>Preparing Post Tyre Moulding Operations (Session-7)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 24	<p>Preparing Post Tyre Moulding Operations (Session-8)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N1103,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Post Pneumatic Tyre Moulding Activities. • To be able achieve target and meet deadlines while working. • To be able to follow required Safety guidelines. 	Same as above
Week 25	<p>Housekeeping (Session-1)</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code RSC/N5001,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Explain what is housekeeping • Define importance of Housekeeping • Describe purpose of Housekeeping • Explain benefits of Housekeeping • Explain what is '5S' • Define each 'S' and its meaning 	White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Floor Cleaning Equipment, Broom, Cleaning Cloth, Brush, Solvent
Week 26	<p>Housekeeping (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5001,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to perform Housekeeping Activities for Work Area. • To be able to follow required Safety guidelines. 	Same as above

Week 27	<p>Reporting and Documentation (Session-1)</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code RSC/N5002,</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Explain what is documentation • Describe the importance of Documentation. • Define Purpose of Documentation • Explain Type of Documentation • Describe common Documentation used in Tyre Industry • Explain what is reporting • Describe importance of Reporting • Explain about Government Act and Bylaws • Describe about rules. • Define meaning of Policies and Guidelines • Describe meaning of Procedure • Explain what is work instruction • Define what is communication • Describe communication process • Explain problems in communication • Describe various communication barriers • Explain traits of Active Listening • Discuss points of good writing skill • Explain how to resolve conflict with team member • Discuss Organisational Procedures for Reporting and Documentation • Decide priority of work required to be done • Describe how to select work to do from pending work 	<p>White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Sample of Documentations, Sample of Reports, Sample of Procedure, Sample of Work Instructions</p>
Week 28	<p>Reporting and Documentation (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5002</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to report & Document work related activities 	<p>Same as above</p>

Week 29	<p>Carrying Out Quality Checks (Session-1)</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code RSC/N5003</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Define need of Quality Control in Tyre Moulding • Identify and discuss Measuring equipment for Tyre Inspection • Discuss methodology of Problem solving • Describe implication of Tyre Defects 	<p>White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, Tyre / Tyres with different Quality defects, Different Inspection Tools – Vernier Caliper, Micrometer, Rubber Hardness Tester, Measuring Tape, Tread Depth Gauge, X-Ray Machine</p>
Week 30	<p>Carrying Out Quality Checks (Session-2)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5003</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to carry out Quality checks. • To do problem solving for quality problems • To resolve Tyre Defects 	<p>Same as above</p>
Week 31	<p>Carrying Out Quality Checks (Session-3)</p> <p>Theory Duration (hh:mm) 00:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5003</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to carry out Quality checks. • To do problem solving for quality problems • To resolve Tyre Defects 	<p>Same as above</p>

<p>Week 32</p>	<p>Carrying Out Quality Checks (Session-4)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5003</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to carry out Quality checks. • To do problem solving for quality problems • To resolve Tyre Defects 	<p>Same as above</p>
<p>Week 33</p>	<p>Carrying Out Quality Checks (Session-5)</p> <p>Theory Duration (hh:mm) 0:00</p> <p>Practical Duration (hh:mm) 40:00</p> <p>Corresponding NOS Code RSC/N5003</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to carry out Quality checks. • To do problem solving for quality problems • To resolve Tyre Defects 	<p>Same as above</p>
<p>Week 34</p>	<p>Health and Safety (Session-1)</p> <p>Theory Duration (hh:mm) 20:00</p> <p>Practical Duration (hh:mm) 20:00</p> <p>Corresponding NOS Code Bridge Module</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Describe the Hazards • Identify Hazard in Tyre Industry • Describe Chemical hazard • Describe Physical hazard • Describe Ergonomic hazard • Explain the health and safety requirements for Tyre Industry • Discuss health and safety procedure of organisation • Explain what is PPEs • Discuss requirement of PPE • Identify different types of PPEs used in Rubber and Tyre Industry • Describe the purpose of various PPEs used in Rubber and Tyre Industry • Demonstrate the Use of different PPEs. • Define what is emergency • Describe various emergency situations in Industry • Describe common injuries in industry • Describe First Aid box and its constituents • Demonstrate how to handle Fire Emergencies • Demonstrate how to use a multipurpose Fire Extinguisher • Describe type and class of Fires • Describe suitable fire extinguisher as per fire type and class 	<p>White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts, first aid kit, Sample of PPEs – Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher</p>

Week 35	<p>Problem Identification and Escalation</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code RSC/N5004</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • Explain what is Problem • Describe how to identify Problem • Define Hierarchies • Discuss Hierarchy in tyre Industry • Explain how to escalate problem • Describe need for escalation 	<p>White Board + Marker or Black board + Chalk, Duster, Laptop/PC + Projector or Flipcharts, Participant Handbook / Copies of Handouts,</p>
Week 36	<p>Revision</p> <p>Theory Duration (hh:mm) 10:00</p> <p>Practical Duration (hh:mm) 30:00</p> <p>Corresponding NOS Code All NOS</p>	<p>Trainee will be able to do following -</p> <ul style="list-style-type: none"> • To be able to summarize the skills learned in previous weeks. • To be able to attend all the previous exercises which are mixed. • To make them ready to adopt a career in this field. 	<p>All the equipment as mentioned above</p>
	<p>Total Duration</p> <p>Theory Duration 153:00</p> <p>Practical Duration 1287:00</p>	<p>Unique Equipment Required: Laptop, projector, White board + marker or Black Board + Chalk, Participant Handbook, Samples – RSS sheets, Crepe Rubber, TSR Rubber, Synthetic Rubber, Reclaimed Rubber, Rubber Product, Tyre sample with sidewall coding, Tyre cut sections, Tyre Moulding Machine, Tyre Moulds, Green Tyre, Release Agent, Moulding Changing Equipment, Mould Carrying Crane, Safety Equipment, Tyre Moulding Machine, Green Tyre, Tyre Mould Clamp, Crane, Machine and Mould cleaning Equipment, Cured Tyre, Tyre Finishing Tools – Flash removing tool, Scissor, etc., Tyre / Tyres with different moulding defects, Floor Cleaning Equipment, Broom, Cleaning Cloth, Brush, Solvent, Sample of Documentations, Sample of Reports, Sample of Procedure, Sample of Work Instructions, Different Inspection Tools – Vernier Caliper, Micrometer, Rubber Hardness Tester, Measuring Tape, Tread Depth Gauge, X-Ray Machine, first aid kit, Sample of PPEs – Safety Goggle, Safety Shoes, Safety Gloves, Safety Hat, Mask, Earmuff, First Aid Box, Fire Extinguisher</p>	

Grand Total Course Duration: **1440 Hours, 0 Minutes**

Assessment Criteria

Assessment Criteria	
Job Role	Pneumatic Tyre Moulding Operator
Qualification Pack	RSC/Q0211, v1.0
Sector Skill Council	Rubber Sector Skill Council

Sr. No.	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 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 theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4	Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5	To pass the Qualification Pack, every candidate should score a minimum 70% of aggregate marks to successfully clear the assessment
6	In case of successfully passing only certain number of NOSs, the candidate is eligible to take subsequent assessment on the balance NOSs to pass the Qualification Pack.

		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Mark (700)	Out Of	Theory	Skills Practical
RSC/N2204 Prepare tyre moulding machine	PC1. Ensure that press is clean	100	3	0	3
	PC2. Blow air to remove any condensate and foreign matter in the mould cavity		7	6	1
	PC3. Ensure that the correct mould is loaded		3	0	3
	PC4. Set parameters for the Bag-O-Matic /airbag type Presses (press timer, steam pressure and cure cycle steps), as per job card		7	6	1
	PC5. Apply mould release agent appropriately		7	6	1
	PC6. Warm up the press		3	0	3
	PC7. Follow equipment preparation process as per company requirements		7	6	1
	PC8. Ensure that no delays are caused as a result of improper preparation and failure to identify problems		2	0	2
	PC9. Ensure the mainline gauges and pressures are as per specification		2	0	2
	PC10. Ensure the calibration status of all measuring equipment and instruments and fit to use per quality standards followed by the plant		2	0	2
	PC11. Collect all green tyres required for the batch		6	5	1
	PC12. Ensure painting of green tyre paintings at inner and outer (if any) has been done properly with no puddles.		4	0	4

	PC13. Match the batch code of each green tyre with the batch code on the job schedule given by the planning department		7	6	1
	PC14. Ensure that each material is in the correct quantity		3	0	3
	PC15. Ensure, by visual inspection, that green tyre is of desired quality (free of contamination etc.)		3	0	3
	PC16. Ensure that no delays are caused as a result of improper preparation and failure to identify problems		7	5	2
	PC17. Ensure housekeeping in moulding area		7	5	2
	PC18. Use hand gloves while working on the moulding press to avoid contact with hot moulds		7	5	2
	PC19. Ensure that he does not put his hand inside the press while the press is closing		3	0	3
	PC20. Adhere to all other safety norms (like wearing shoes, gloves, safety goggles etc)		5	5	0
	PC21. Comply with health, safety, environment guidelines, regulations etc in accordance with organizational SOP		5	5	0
	Sub Total		100	60	40
RSC/N2205 Perform Tyre Moulding operation	PC1. Ensure, by visual inspection, that green tyre is of desired quality (free of contamination, uniformly PAINTED WITH INSIDE AND OUTSIDE PAINTS and localized in the area where the painting is required etc.)	100	8	6	2
	PC2. Ensure that batch size of green tyre is as per specified quantity		8	6	2
	PC3. Plan batch sequence in shifts based on raw material availability/rejection to maximize output		3	1	2

	PC4. Check the green tyre – size, ply rating (PR), inner / outer painting etc		3	1	2
	PC5. Apply mould release agent , as required		5	2	3
	PC6. Load the “green” tyre in the mould with Center Post in position (in case of BOM Press)		5	2	3
	PC7. Place Serial No., PR strip (if any) in the mould cavity at particular location as the case may be		3	1	2
	PC8. Switch-on the press for cycle operation and ensure that press starts closing correctly		3	1	2
	PC9. Ensure that bladder starts blowing simultaneously while press is closing ,thus pressing the tyre on the mould wall (in case of BOM Press)		3	1	2
	PC10. Ensure that cure cycle has correct low, high , hot water and cold water pressure (LPS, HPS, HW & CW)		3	1	2
	PC11. Drain steam followed by hot water, hold and then cold water (in case of BOM Press/Nylon Carcass).		4	1	3
	PC12. In the case of air bag type curing the positioning of tyre is a must to ensure the correct location of airbag valve to facilitate the joining of steam line for filling steam inside airbag.		5	2	3
	PC13. Ensure that material wastage is within tolerance limits		6	2	4

	PC14. Ensure that no rework or rejection is generated.		2	0	2
	PC15. Match the quality of output to company's product requirements		3	1	2
	PC16. Meet production quantity targets set for the operation		3	1	2
	PC17. Follow work instructions as laid down by the company		3	1	2
	PC18. Avoid skin contact with hot tyres and moulds.		6	4	2
	PC19. Handle the hot tyre coming out of the press appropriately		6	4	2
	PC20. Ensure that he does not put his hand inside the press while the press is closing		7	3	4
	PC21. Use hand gloves while working on the moulding press		5	3	2
	PC22. Adhere to all other safety norms (like wearing shoes, gloves, safety goggles etc)		4	4	0
	PC23. Comply with health, safety, environment guidelines, regulations etc in accordance with organizational SOP		3	3	0
	Sub Total		100	50	50
RSC/N2206 Perform post - tyre moulding operation activities	PC1. Follow work instructions as laid down by the company		3	1	2
	PC2. Remove the tyre manually, if on completion of cure cycle, the tyre does not pop up automatically out of the press	100	3	1	2
	PC3. Roll the tyre and put on PCI Unit, apply air pressure and cool it for specified time pressure		5	2	3
	PC4. Remove tyre from PCI rings after required PCI time is over		5	2	3

	PC5. Inspect tyre for any visual defect		3	1	2
	PC6. Trim the vents and flashes of the tyre if required		5	3	2
	PC7. Handover the equipment to the next operator in clean and good condition		4	2	2
	PC8. Dispose off waste material as per waste disposal procedures laid down by the company		5	3	2
	PC9. Carry out disposal of waste material safely		5	3	2
	PC10. Form batch size as per company specifications		5	3	2
	PC11. Carry out batch marking for the tyres removed out the PCI unit		6	3	3
	PC12. Carry out batch marking as per instructions laid down by the company (in terms of weight, colour etc).		6	3	3
	PC13. Send sample of specified product to lab for testing, if warranted		5	3	2
	PC14. Send sample in specified quantity to lab for testing		5	3	2
	PC15. Send sample in the specified form to lab for testing		5	3	2
	PC16. Send the remaining material to the designated storage area		5	3	2
	PC17. Ensure housekeeping in moulding area		2	0	2
	PC18. Avoid skin contact with hot tyres and other moulds		4	2	2
	PC19. Handle the hot tyre coming out of the press appropriately		3	1	2
	PC20. Use hand gloves while working on the moulding press		4	2	2
	PC21. Ensure that he does not put his hand inside the press while the press is closing		4	2	2

	PC22. Adhere to all other safety norms (like wearing shoes, gloves, safety goggles etc)		4	2	2
	PC23. Comply with health, safety, environment guidelines, regulations etc in accordance with organizational SOP		4	2	2
	Sub Total		100	50	50
RSC/N5001 To Carry Out Housekeeping	PC1. Inspect the area while taking into account various surfaces	100	3	3	0
	PC2. Identify the material requirements for cleaning the areas inspected, by considering risk, time, efficiency and type of stain		3	3	0
	PC3. Ensure that the cleaning equipment is in proper working condition		3	3	0
	PC4. Select the suitable alternatives for cleaning the areas in case the appropriate equipment and materials are not available and inform the appropriate person		3	3	0
	PC5. Plan the sequence for cleaning the area to avoid re-soiling clean areas and surfaces		3	3	0
	PC6. Inform the affected people about the cleaning activity		2	2	0
	PC7. Display the appropriate signage for the work being conducted		3	3	0
	PC8. Ensure that there is adequate ventilation for the work being carried out		3	3	0
	PC9. Wear the personal protective equipment required for the cleaning method and materials being used		3	3	0
	PC10. Use the correct cleaning method for the work area, type of soiling and surface		3	3	0
	PC11. Carry out cleaning activity without disturbing others		3	3	0
	PC12. Deal with accidental damage, if any, caused while carrying out the work		3	3	0
	PC13. Report to the appropriate person any difficulties in carrying out your work		3	3	0

	PC14. Identify and report to the appropriate person any additional cleaning required that is outside one's responsibility or skill		3	3	0
	PC15. Ensure that there is no oily substance on the floor to avoid slippage		9	3	6
	PC16. Ensure that no scrap material is lying around		9	3	6
	PC17. Maintain and store housekeeping equipment and supplies		3	3	0
	PC18. Follow workplace procedures to deal with any accidental damage caused during the cleaning process		3	3	0
	PC19. Ensure that, on completion of the work, the area is left clean and dry and meets requirements		8	2	6
	PC20. Return the equipment, materials and personal protective equipment that were used to the right places making sure they are clean, safe and securely stored		3	3	0
	PC21. Dispose the waste garnered from the activity in an appropriate manner		9	3	6
	PC22. Dispose of used and unused solutions according to manufacturer's instructions, and clean the equipment thoroughly		9	3	6
	PC23. Maintain schedules and records for housekeeping duty		3	3	0
	PC24. Replenish any necessary supplies or consumables		3	3	0
	Sub Total		100	70	30
RSC/N5002 To Carry Out Reporting And Documentation	PC1. Report data / problems / incidents as applicable in a timely manner	100	12	8	4
	PC2. Report to the appropriate authority as laid down by the company		12	8	4
	PC3. Follow reporting procedures as prescribed by the company		12	8	4
	PC4. Identify documentation to be completed relating to one's role		10	6	4

	PC5. Record details accurately an appropriate format		16	6	10
	PC6. Complete all documentation within stipulated time according to company procedure		14	4	10
	PC7. Ensure that the final document meets with the requirements of the persons who requested it or make any amendments accordingly		6	4	2
	PC8. Make sure documents are available to all appropriate authorities to inspect		6	4	2
	PC9. Respond to requests for information in an appropriate manner whilst following organizational procedures		6	6	0
	PC10. Inform the appropriate authority of requests for information received		6	6	0
	Sub Total		100	60	40
RSC/N5003 To Carry Out Quality Checks	PC1. Ensure that total range of checks are regularly and consistently performed		24	10	14
	PC2. Use appropriate measuring instruments, equipment, tools, accessories etc ,as required		24	10	14
	PC3. Identify non-conformities to quality assurance standards		6	4	2
	PC4. Identify potential causes of non-conformities to quality assurance standards		5	3	2
	PC5. Identify impact on final product due to non-conformance to company standards	100	5	3	2
	PC6. Evaluating the need for action to ensure that problems do not recur		6	4	2
	PC7. Suggest corrective action to address problem		5	3	2
	PC8. Review effectiveness of corrective action		5	3	2
	PC9. Interpret the results of the quality check correctly		4	4	0
	PC10. Take up results of the findings with QC in charge/appropriate authority.		3	3	0
	PC11. Take up the results of the findings within stipulated time		3	3	0

	PC12. Record of results of action taken		3	3	0
	PC13. Record adjustments not covered by established procedures for future reference		3	3	0
	PC14. Review effectiveness of action taken		2	2	0
	PC15. Follow reporting procedures where the cause of defect cannot be identified		2	2	0
	Sub Total		100	60	40
RSC/N5004 To Carry Out Problem Identification And Escalation	PC1. Identify defects/indicators of problems	100	7	4	3
	PC2. Identify any wrong practices that may lead to problems		6	3	3
	PC3. Identify practices that may impact the final product quality		6	3	3
	PC4. Identify if the problem has occurred before		5	3	2
	PC5. Identify other operations that might be impacted by the problem		6	4	2
	PC6. Ensure that no delays are caused as a result of failure to escalate problems		5	3	2
	PC7. Take appropriate materials and sample, conduct tests and evaluate results to establish reasons to confirm suspected reasons for non-conformance (where required)		8	5	3
	PC8. Consider possible reasons for identification of problems		8	5	3
	PC9. Consider applicable corrections and formulate corrective action		3	3	0
	PC10. Formulate action in a timely manner		3	3	0
	PC11. Communicate problem/remedial action to appropriate parties		7	5	2
	PC12. Take corrective action in a timely manner		2	2	0
	PC13. Take corrective action for problems identified according to the company procedures		2	2	0

	PC14. Report/document problem and corrective action in an appropriate manner		8	5	3
	PC15. Monitor corrective action		2	2	0
	PC16. Evaluate implementation of corrective action taken to determine if the problem has been resolved		2	2	0
	PC17. Ensure that corrective action selected is viable and practical		2	2	0
	PC18. Ensure that correct solution is identified to an identified problem		2	2	0
	PC19. Take corrective action for problems identified according to the company procedures		1	1	0
	PC20. Ensure that no delays are caused as a result of failure to take necessary action		1	1	0
	PC21. Escalate problem as per laid down escalation matrix		4	3	1
	PC22. Escalate the problem within stipulated time		4	3	1
	PC23. Escalate the problem in an appropriate manner		3	2	1
	PC24. Ensure that no delays are caused as a result of failure to escalate problems		3	2	1
	Sub Total		100	70	30
	Grand Total	700	700	420	280
	<u>Percentage Weightage:</u>			20%	80%
	<u>Minimum Pass % to qualify (aggregate):</u>			70%	

EQUIPMENT LIST

PNEUMATIC TYRE MOULDING OPERATOR – RSC/Q0211

S. No.	SSC	QP Code	Name of the QP	NSQF Level	Equipment Name	Min. no. Equipm ent req. (Per batch of 20 trainee s)	Unit	Is this a mandatory Equipment to be available at the training Center (yes/no)	Dimension / Specificatio n / Descriptio n / Any Other Remarks
1	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Tyre Moulding Machine	1	Nos.	Yes	
2	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Tyre Building Machine	1	Nos.	No	
3	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Extruder Machine	1	Nos.	No	
4	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Calender Machine	1	Nos.	No	
5	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Vernier Caliper	1	Nos.	Yes	
6	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Micro meter	1	Nos.	Yes	
7	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Hardness Tester	1	Nos.	Yes	
8	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Measuring tape	4	Nos.	Yes	
9	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Tread Depth Gauge	4	Nos.	Yes	
10	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	X-Ray Machine	1	Nos.	No	
11	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Tyre Mould	2	Nos.	Yes	
12	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Tyre Mould Clamp	1	Nos.	No	
13	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Crane	1	Nos.	No	
14	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Cleaning Brush	4	Nos.	Yes	
15	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Cleaning cloth	As per Req.	Nos.	Yes	

16	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Solvent	10	Liters	Yes	
17	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Floor Cleaning Equipment	1	Nos.	No	
18	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Air Pressure Gun	1	Nos.	Yes	
19	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Flash Removing Tool	4	Nos.	Yes	
19	RSDC	RSC/0221	Pneumatic Tyre Moulding Operator	4	Scissor	4	Nos.	Yes	

FURTHER LEARNING PATHWAYS

After completion of the apprenticeship training the candidates have wide career choices available with them in the Rubber & Tyre industry. A candidate after completing apprenticeship can be skilled horizontally in various segments like, Mixing, Moulding, Lab Testing, Tyre Building, Extrusion, Calendaring & Warehousing, and can finally be vertically moved to heading the production unit.

The candidates after their tenure as apprentice may adopt any of the following:

1. **Rubber Technician:** They may adopt the career as Rubber Technician and will be capable of doing following jobs:
 - A) **Production–Junior Rubber Technician – RSC/Q0831:** The apprentice will be capable of assisting in various production activity of Rubber.
 - B) **Moulding/Curing – Tyre Moulding Operator – RSC/Q0211:** The apprentice will be capable of running Tyre moulding operation.
 - C) **Moulding/Curing – Tyre Pre Cure Operator – RSC/Q0202:** The apprentice will be capable of doing all pre Tyre moulding activities.
 - D) **Moulding/Curing – Tyre Post Cure Operator – RSC/Q0203:** The apprentice will be capable of doing all post Tyre moulding activities.
 - E) **Moulding/Curing – Bladder Curing Operator – RSC/Q0204:** The apprentice will be capable of curing the extruded green bladder slugs to produce tyre curing bladders.
 - F) **Moulding/Curing – Mould Cleaning & Inspection Operator – RSC/Q0212:** The apprentice will be capable of inspecting and cleaning the moulds and make it ready for use in the rubber products industry.

2. **Supervisor:** The training gives them the scope of working as a supervisor, as for the job roles mentioned below, which enable them to move to the level of production manager
 - **Production - Junior Rubber Technician – RSC/Q0831**
 - **Production – Supervisor - Tyre Moulding–RSC/Q0211**

3. **Moulding/Curing- Tyre – Production Manager (Tyre Moulding):** The apprentice with due amount of experience can manage the production and supervise the quality assurance of the products fabricated and also be able to take responsibility for all the planning, coordination and the control of manufacturing processes, and also map the demand and supply gap.

Employment opportunities:

Apart from above mentioned avenues, the apprentice can always aspire to be one of the following as stated below:

- 1) **Tyre manufacturing units in Indi:** The apprentice may be employed with the biggest player of the trades and be a part of their manufacturing set and deliver quality work.
- 2) **Tyre manufacturing set up:** The apprentice may be encouraged to set up their own manufacturing unit.
- 3) **Education and Training:** They may also take up the role of the instructor in this field, where they can impart their manufacturing knowledge to the aspiring students.

INFRASTRUCTURE FOR ON-JOB TRAINING

TRADE: PNEUMATIC TYRE MOULDING TECHNICIAN

For a Batch of 30 APPRENTICES

Actual training will depend on the existing facilities available in the establishments. However, the industry should ensure that the broad skills defined against On –Job Training part (i.e.9months) are imparted. In case of any short fall the concern industry may impart the training in cluster mode/ any other industry/ at any setup.

GUIDELINES FOR INSTRUCTORS AND PAPER SETTERS

Due care to be taken for proper & inclusive delivery among the batch. Some of the following some method of delivery may be adopted:

- A) LECTURE
- B) LESSON
- C) DEMONSTRATION
- D) PRACTICE
- E) GROUPDISCUSSION
- F) DISCUSSION WITH PEERGROUP
- G) PROJECTWORK
- H) INDUSTRIALVISIT

2. Maximum utilization of latest form of training viz., audio visual aids, integration of IT, etc. may be adopted.

3. The total hours to be devoted against each topic may be decided with due diligence to safety & with prioritizing transfer of required skills.



Address: Rubber Sector Skill Council, PHD House, 4th Floor, Siri Fort
Institutional Area, New Delhi 110016 Email: info@rsdc.in

Web: www.rsdc.in

Phone: 011- 41009347/48

CIN No: V93000DL2012NPL238885