

Rajratan Global Wire Limited Pithampur Plant

Year	Category	Company	Plant	Area
2024-25	Category A	Rajratan Global Wire Limited	Pithampur Plant	India

1. Organization Profile

1.1 About Rajratan Group:

It was in the early nineties that Rajratan graduated from the traditional business of Iron & Steel trading and ventured into manufacturing of bead wire for tyres. Automobile boom in India was the prime reason behind this futuristic step which was taken after much contemplation. What started with indigenous technology soon upgraded itself into a world-class manufacturing set-up ably backed by a skilled workforce. With the automobile sector flourishing globally, Rajratan saw to it and not only expanded its existing capacity but also ensured strategic geographic expansion. Rajratan Thailand was a result of this very progressive thought.

Quality, Innovation and Customer Service have been the very basis of existence at Rajratan right from the beginning. This very philosophy has helped Rajratan become the leading manufacturer and supplier of bead wire in India and also the only manufacturer of bead wire in Thailand. With a comprehensive group production capacity the company has earned a reputation of being one of the most trusted and preferred brand around the globe.

Rajratan have overall capacity of 180,000 tonne per annum, with two manufacturing plants in India (Pithampur and Chennai) and one manufacturing plant in Thailand (Ratchaburi).



Pithampur Plant, Indore - India

Office & Factory:
Plot No. 199/200 A, B & C
Sector '1', Pithampur,
District Dhar - 454775, M.P.
Plant Installed in 1991's
(Plant Capacity 72,000 TPA) - 2022



Ratchaburi Plant - Thailand

Office & Factory
155/11 Moo 4, Tombol Chetsamian
Amphor, Potharam, Ratchaburi, Thailand
- 70120,
Plant Installed in 2008
(Plant Capacity 60,000 TPA) - 2023



Sriperumbudur Plant, Chennai - India

Office & Factory:
Plot No. D-1/2, Sipcot Industrial Park,
Vallam Vadagal Phase-II, Taluk
Sriperumbudur, Dist. Kancheepuram-
602105, Tamil Nadu
Green Field project
(Plant Capacity 60,000 TPA) -2024



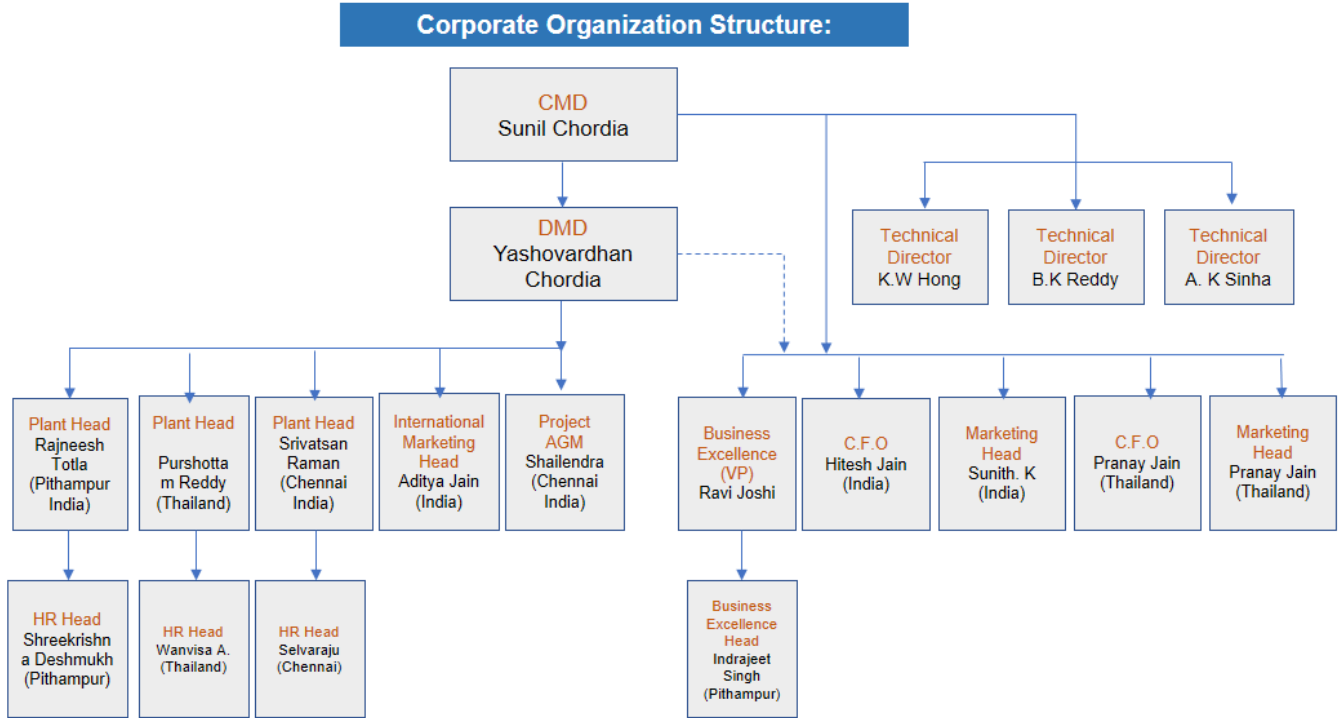
As the Rajratan Group, we are committed to continual improvement, constantly striving to showcase our journey toward excellence. Our dedication to growth and innovation drives us to set new benchmarks in quality, sustainability, and service, ensuring we remain at the forefront of our industry.

Our Journey towards Excellence "The way of life"

1991	1995	2020	2022	2023	2024	2025
<ul style="list-style-type: none"> Started commercial production of pre-stressed concrete wires and stands. 	<ul style="list-style-type: none"> Started manufacturing of tyre bead wire 	<ul style="list-style-type: none"> TPM Launched at Pithampur India plant (5th Oct 2020) 	<ul style="list-style-type: none"> Capacity expansion at Pithampur India plant to 72000 ton p.a. 	<ul style="list-style-type: none"> Pithampur India plant TPM Excellence Award Application TPM Launch in Thailand Chennai India plant Installation commenced. 	<ul style="list-style-type: none"> Pithampur India plant TPM Excellence Award Assessment. TPM Initiation at Chennai India Plant Commercial Production at Chennai Plant. 	<ul style="list-style-type: none"> Pithampur India Plant JIPM TPM Excellence Award Thailand plant TPM Excellence Award Application
2032	2031	2030	2029	2027	2026	2026
<ul style="list-style-type: none"> Thailand plant TPM Special Award Application Chennai plant TPM Consistency Award Assessment 	<ul style="list-style-type: none"> Pithampur India Plant TPM Special Award Thailand plant Consistency TPM Award Chennai plant TPM Consistency Application 	<ul style="list-style-type: none"> Pithampur India Plant TPM Special award assessment Thailand Plant TPM Consistency Assessment 	<ul style="list-style-type: none"> Pithampur India Plant TPM Special award application Thailand Plant TPM Consistency Application Chennai plant TPM Excellence Award 	<ul style="list-style-type: none"> Pithampur India Plant Ex. In C TPM C Thailand plant TPM Excellence Award Chennai plant TPM Excellence Award 	<ul style="list-style-type: none"> Pithampur India Plant TPM Consistency Application Thailand plant TPM Excellence Award Assessment Chennai plant TPM Excellence Award application 	

1.2 Our organization structure:

Our leadership hierarchy is led by our Chairman and Managing director Mr. Sunil Chordia, supported by our Deputy managing director Mr. Yashovardhan Chordia and key functional heads in managing two domestic and one international plants.



1.3 About Rajratan Pithampur:

Rajratan Pithampur serves as the flagship plant of the Rajratan group, supplying bead wire to prestigious and discerning customers across the geographies. With a 45% market share in India and a growing export presence in the international markets, it plays role in the company’s global expansion.



VIEW OF RAJRATAN PITHAMPUR PLANT



AERIAL VIEW OF RAJRATAN PITHAMPUR PLANT

Rajratan Pithampur plant holds the capacity of total 72,000 tonne per annum, where 60,000 tonne p.a. contribution is of bead wire and 12,000 tonne p.a. is black wire. We have the capacity to produce all ranges of bead wire from 0.89mm to 2.4mm.

Rajratan Pithampur is ISO 14001:2015 and ISO 45001:2018 certified. Based on our vision, mission, values, and SWOT analysis we understood that TPM is the best tool for our business to achieve operational excellence and so, formal TPM declaration was carried out on 5th October 2020 followed by TPM kick-off on 25th March 2021.



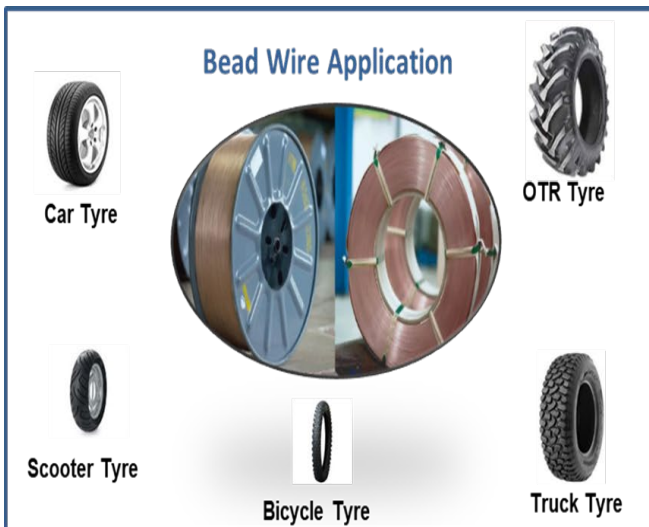
GLIMPSE OF TPM DECLARATION



GLIMPSE OF TPM KICK-OFF

1.4 Products at Rajratan Global wire Ltd.

Our main product bead wire also known as Reinforcement wire is a drawn steel wire, which is manufactured from quality wire rod with high carbon content. Bead wire's surface is coated with copper or bronze which ensure proper adhesion with the used rubber compound and helps the sir stay in the tyre. It is one of the most important raw material of tyre in terms of safety and used in all types of tyres from bicycle to aircraft.



Our other product black wire is high carbon steel wire. It is a drawn steel wire which is manufactured with quality wire rod with high carbon content and majorly focus on non automotive applications like mattress wire, spring wire, duct wire etc.

2. Milestones on the Journey of Manufacturing Excellence

2.1 Our Vision, Mission and TPM Policy:

To achieve manufacturing excellence, we took drive from our vision, mission, values and based on that form our TPM policy.

Vision, Mission & Values

Vision :-

- To become the leading and most preferred bead wire manufacturer and supplier to tyre companies in India and globally.

Mission :-

- To manufacture and supply superior quality products at competitive prices and support it with excellent customer service.
- To imbibe constantly develop a culture of excellence and improvement in every aspect of the business we are in.
- To ensure and enhance safe working condition

Values :-

- Ethical business built on mutual trust.
- Quality orientation and constant innovation.
- Continuous learning and personal growth.
- To care for and share with the society we live in.

Sunil Chordia
Managing Director



TPM Policy

We are committed to achieve excellence in performance by:

- Maximize overall Equipment Effectiveness. (Achieving Zero Accident, Zero Breakdown and Zero Defects)
- Ensuring customer satisfaction.
- Minimizing losses and reducing costs.
- Creating productive work environment.

Total employee involvement through TPM as a way of life.

Sunil Chordia
Managing Director



2.2 Our Customers:

Rajratan Global Wire Limited supplies bead wire to the leading Tyre manufacturing companies across the globe.

OUR CUSTOMERS

83% of customers have long term relationships with the company.

NEW CUSTOMERS

FY2024-25

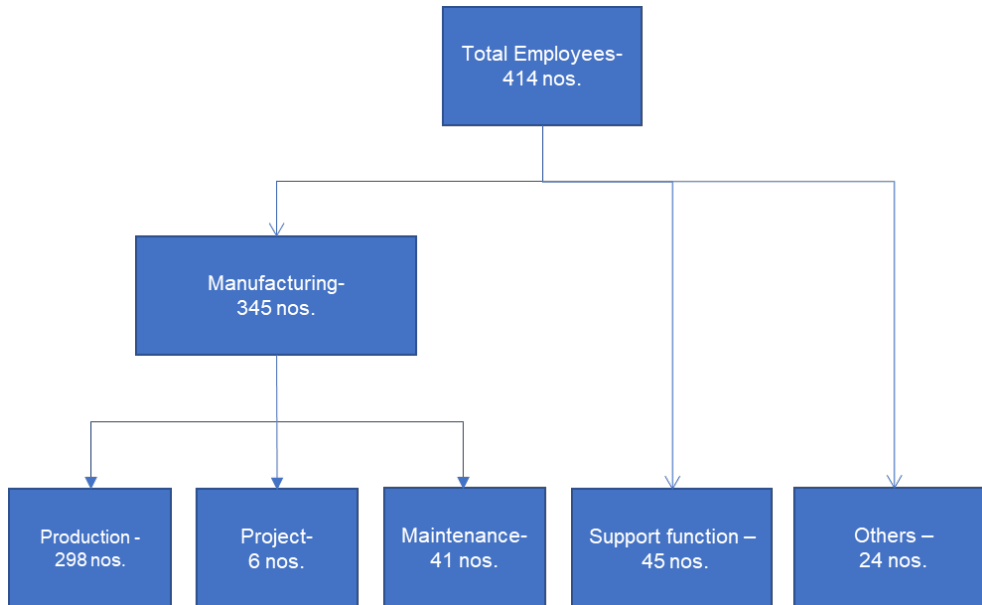
2.3 Working formation:

Rajratan is auto ancillary industry working round the clock and all employees work with 8 hours’ shift per day with scheduled staggered weekly off. The plant is managed by 414 employees.

Minimum qualification for operator is 10th / 12th / ITI + Computer literacy

Minimum qualification for staff is Diploma in any field / Graduation

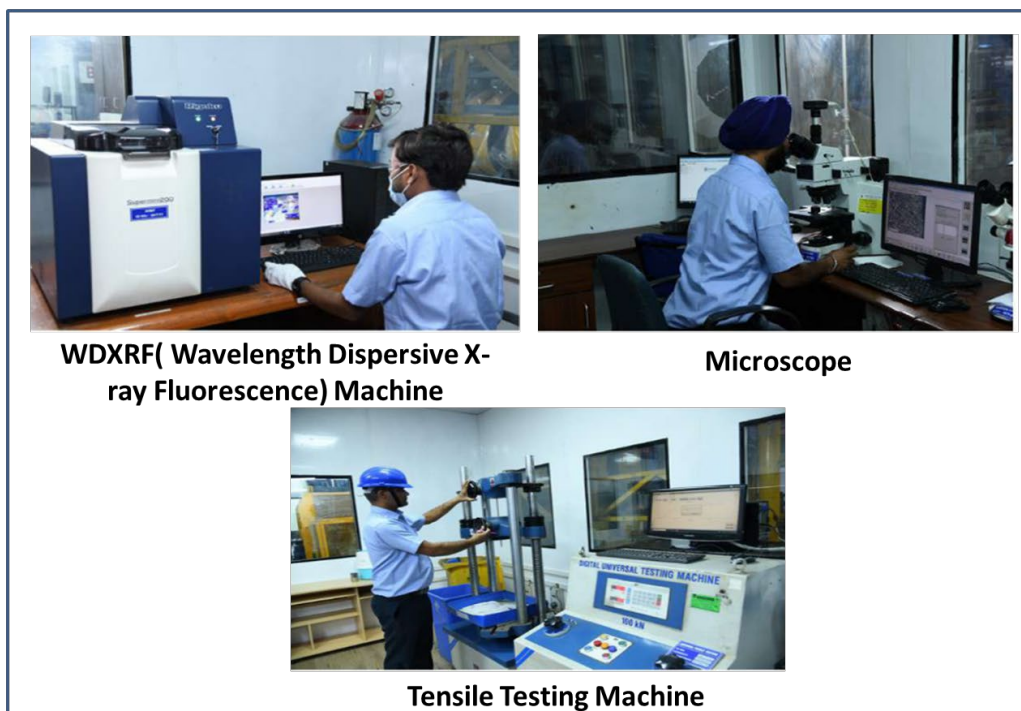
Average age of operator is 35 years and average age of staff is 30 years



2.4 In-house facilities:

Rajratan have established in-house quality control lab providing high quality products to our customer and an exclusive research and development facility. Also we have technical collaboration with Indian Institute of Technology, Indore centre.

LAB TESTING FACILITY



WDXRF(Wavelength Dispersive X-ray Fluorescence) Machine

Microscope

Tensile Testing Machine

LAB RESEARCH AND DEVELOPMENT FACILITY

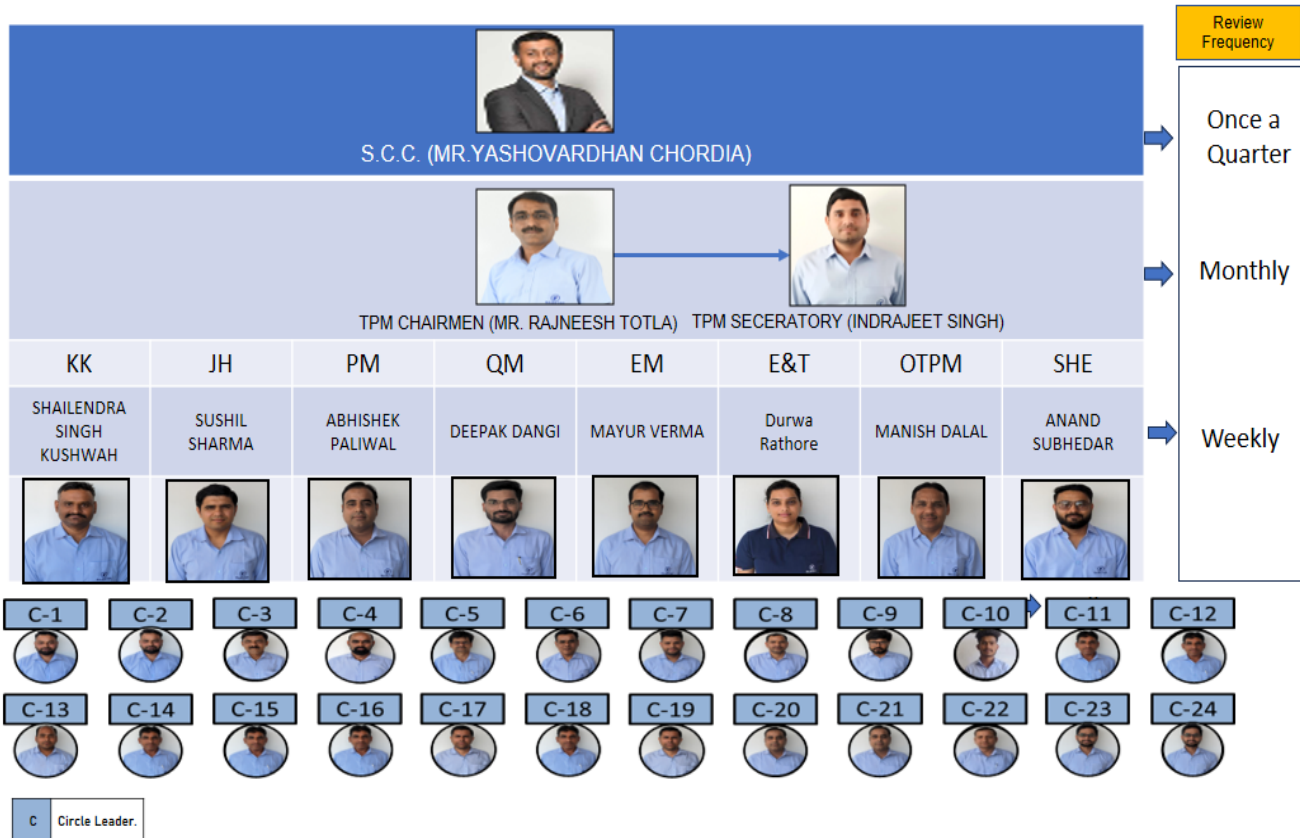


2.5 Technical Training Centre:

Our Technical training centre consist of cut modules and training modules on 8 major subjects (Electrical system, Electronics system, Transmission system, Hydraulic system, Pneumatic system, Fastners system, Lubrication system and safety) to train the employees to become competent to understand the machines, its operations and abnormalities. New infrastructure created for technical center in 4000 sq. ft. areas, Smart training room with siting capacity of 24 employees in one session is there for classroom trainings.

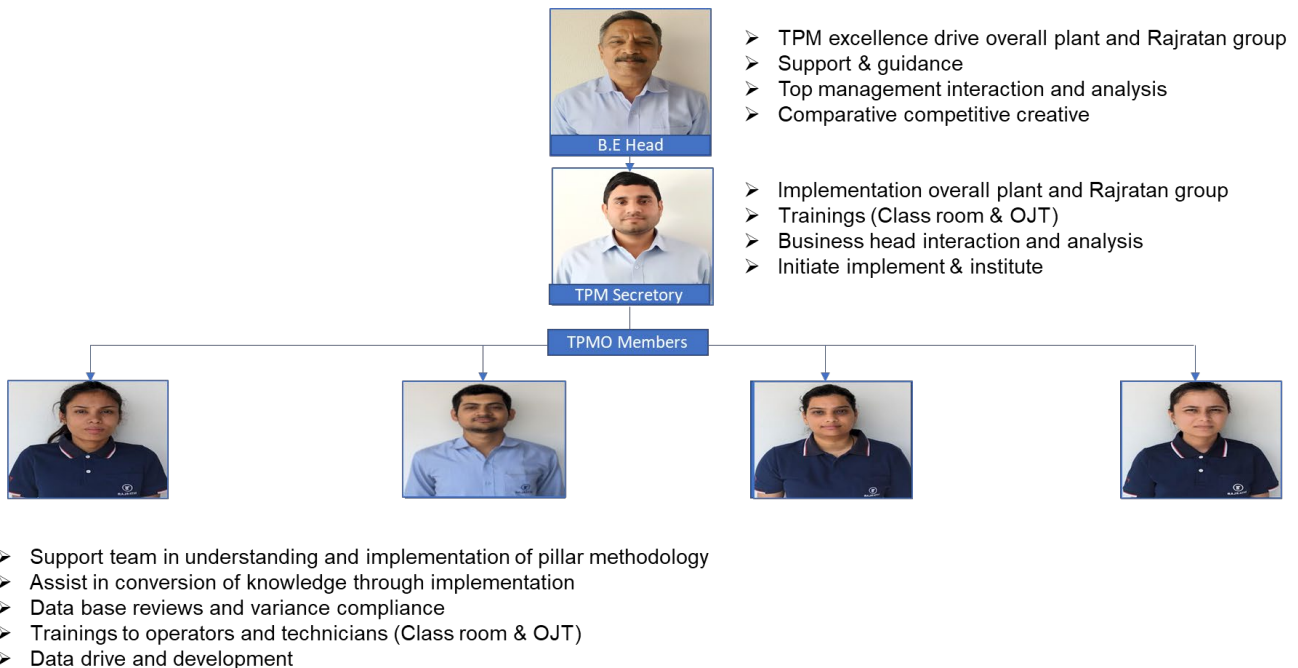


2.6 TPM Organization Structure:



2.7 TPM Office, Activities & Equipment Summary:

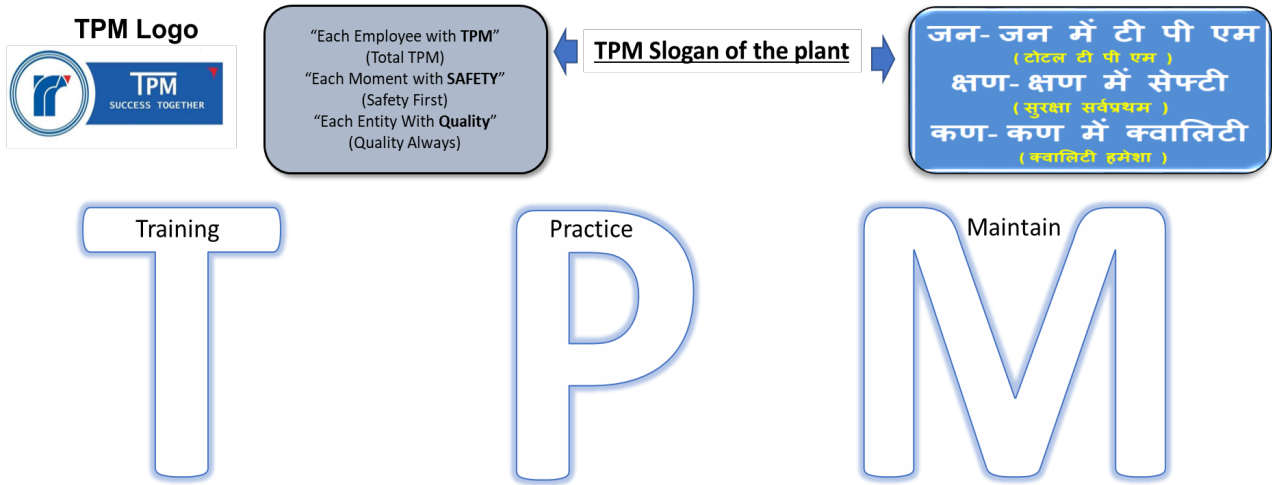
We have a dedicated team towards effective TPM implementation with roles and responsibilities.



2.7.1 Activities started for Total Employee involvement:

“Jan Jan Mein TPM Drive”

Jan Jan main TPM Drive started to increase TPM Awareness among all the employees through Gemba Awareness, On Job Training, Quiz Competition, TPM Slogan of the plant and actively participated employees being awarded in monthly communication meeting.



2.7.2 The equipment categorization criteria of plant in S, A, B and C category for better planing of TPM Implementation. S – Super Critical, A- Critical, B- Moderate, C- Low

EQUIPMENT SUMMARY					
Equipment Area	S Type	A Type	B Type	C Type	Total
Manufacturing Equipment	14	123	88	85	310
Office OTPM Equipment	0	5	13	496	514
Total	14	128	101	581	824

3. Benefits Achieved

Over the past three years of implementing TPM, Rajratan, Pithampur have experienced significant improvements in operational excellence. Through TPM, we have enhanced equipment reliability, leading to a notable reduction in unplanned downtime and an increase in overall equipment effectiveness. This has contributed to higher production efficiency, reduced costs, and optimized resource utilization. Additionally, the proactive maintenance approach has empowered our teams to identify and address potential issues before they escalate, further minimizing disruptions. By fostering a culture of continuous improvement and empowering employees at all levels, TPM has not only streamlined our processes but also significantly elevated product quality and safety standards, resulting in higher customer satisfaction and a more agile, resilient operation.

3.1 Tangible benefits:

TPM Slogan/Objectives		“Each Employee with TPM”(Total TPM) “Each Moment with SAFETY”(Safety First) “Each Entity With Quality”(Quality Always)				
Category	Index	Unit	BM (TPM Started)	Actual Status (Excellence "A" SSA)	Target	Improvement from baseline (in % w.r.t YTD)
Enter the year →			2020-21	2024-25 (Till Sept.)	2024-25	
S-1.1	Number of work-related accidents requiring days off work (Reportable)	Cases/ year	1	0	0	100%
S-1.2	Number of work-related accidents not requiring days off work (Non Reportable)	Cases/ year	7	0	0	100%
S-1.3	Frequency rate (Reportable - Major Accident)	Number of occupational accidents with leave for 1 000 000 worked hours	1	0	0	100%
P-1	Productivity for main products	Parts/Operator hours MT/Day	115	139	142	21%
P-2	OEE	%	69	83	85	20.28%
P-2.1	Availability	%	78	89	90	14.10%
P-2.2	Performance Rate	%	90	95	95	5.55%
P-2.3	Quality Products Rate	%	98.3	99	100	0.71%
P-3	Number of Breakdowns Overall	Breakdowns/ year	2759	260	500	81.16%

P-3.1	Number of Breakdowns of "S Category"	Breakdowns/ year	683	34	60	90.00%
P-4	MTBF Overall	Hour/Year	983	5235	4000	432.50%
P-4.1	MTBF of "S Category"	Hour	178	1807	1500	386.52%
P-5	MTRR Overall	Hour/Occurrence (Minutes/Occurrence)	1.4 (84)	1.63 (97.8)	1 (60)	16.42%
P-5.1	MTRR of "S Category"	Hour (Minutes)	1.47 (88.20)	1.44 (86.40)	1 (60)	38.10%
Q-1	Number of customer complaints-Overall	Number/year	65	9	0	86.15%
Q-1.1	Number of customer complaints-Technical	Number/year	33	2	0	94%
Q-2	In-line defect rate (scrap) In-house Rejection (Scrap)	% of production	1.6	1	0.9	38%
Q-3	In-line defect rate (rework)	% of production	0.12	0.04	0.04	67%
C	Cost index (rupees) Conversion Cost	Cost/Unit Cost/Kilogram INR/MT	11408	14970	14800	-31%
D-1	Production Lead time (RM to FG)	Days	3	3	3	-
D-2	Delivery performance (Supply to agreed delivery plan)	%	83	100	100	20%
M	Number of Employee Suggestions Kaizen	Number/year Kaizen/ Employee/ Month	0.12	1	1	733%

3.2 Intangible benefits:

- > Overall culture change is observed
- > Ownership and Team work enhanced
- > Communication level improved at each level
- > Decision making enhanced
- > Employee overall morale improved
- > Floor condition improved
- > Visual display and visual controls improved

4. Key of our Manufacturing Excellence

The key of our manufacturing excellence is driven by a focus on continuous improvement and sustainability, ensuring long term growth and success. We consistently enhance efficiency and quality by integrating innovative practices.

4.1 Future Plan:

- > Challenging TPM consistency award
- > Achieve 100% customer satisfaction index
- > To become self-certified supplier for our customers
- > Implement TPM at supplier end
- > To become digital factory