KALPATARU PROJECTS INTERNATIONAL LIMITED
(Formerly Kalpataru Power Transmission Limited)

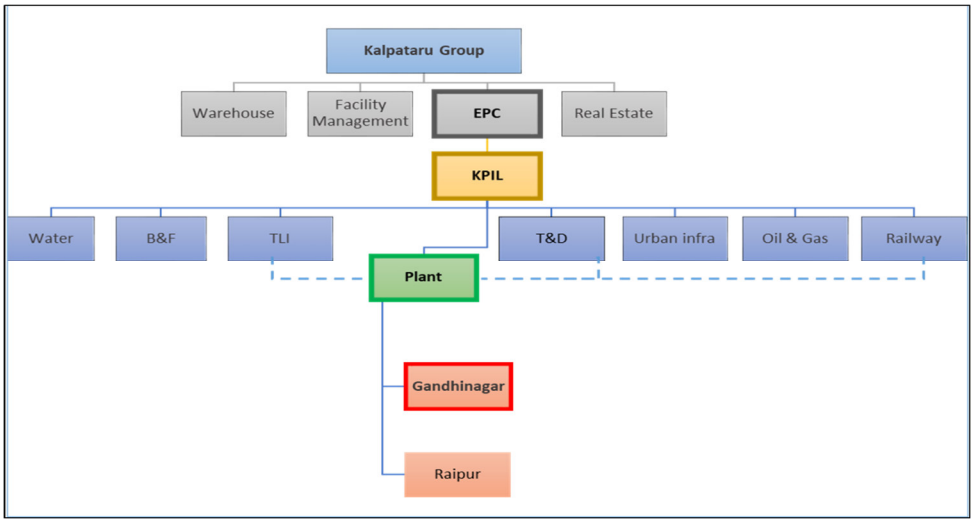
1. Company Profile

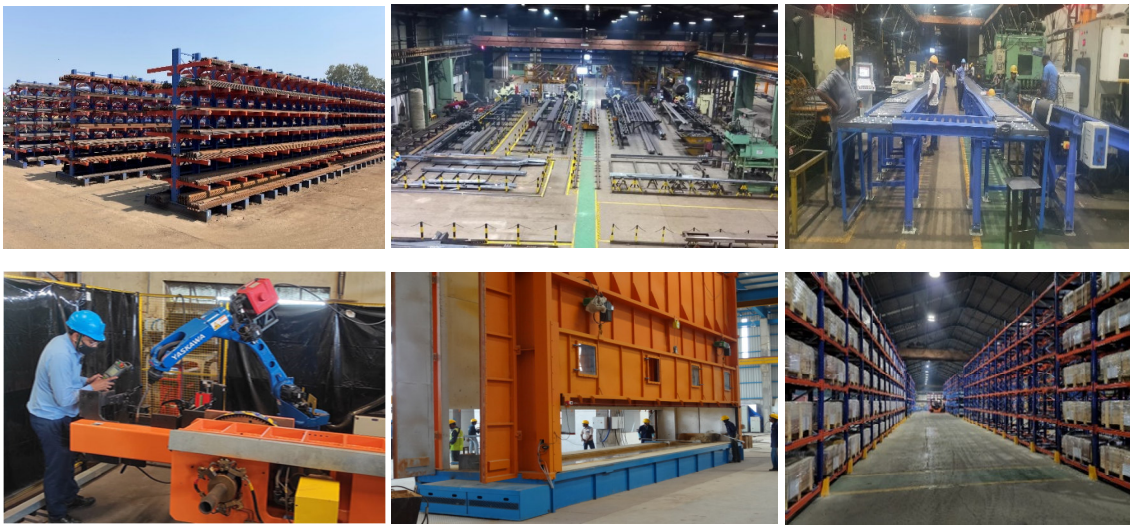
Kalpataru Projects International Limited (KPIL) is one of the largest Engineering and Construction companies listed in India, with a diversified portfolio of projects worldwide, in Power Transmission & Distribution (T&D), Buildings & Factories, Water Supply & Irrigation, Railways, Oil & Gas Pipelines, Urban Mobility (Flyovers & Metro Rail), Highways and Airports in over 75+ countries.

2. Manufacturing Plants

KPIL has one of the largest tower fabrication capabilities in the world, giving it advantages in cost efficiency and economies of scale, with Quality and Reliability in built in to the process. The Health, Safety & Environment initiatives of the Company have not only ensured safe working atmosphere for the staff and workmen but also won accolades from both national and international clients as well as government bodies.

KPIL has two manufacturing plants with a total production capacity of 2,40,000 MT per annum in India, one located at Gandhinagar, Gujarat and second one at Raipur, Chhattisgarh.





2.1 Gandhinagar Plant / Factory Profile

Gandhinagar plant, located at Capital of Gujarat state in India, is one of the largest transmission tower manufacturing plant in this industry, including in-house galvanizing (and painting if specified), with a capacity of 96,000 MT per annum. The processes and systems are integrated through ERP and other digital mechanisms.

2.2 Gandhinagar Plant – Product Range

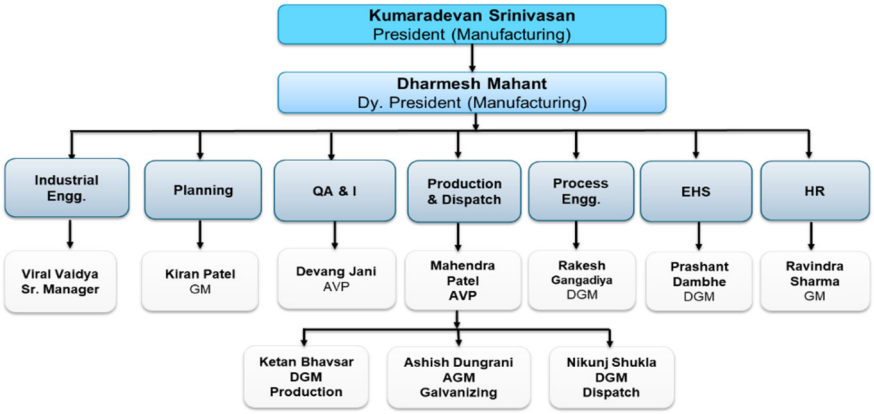
Transmission Lines

Substations

2.3 Gandhinagar Plant – Process Technology

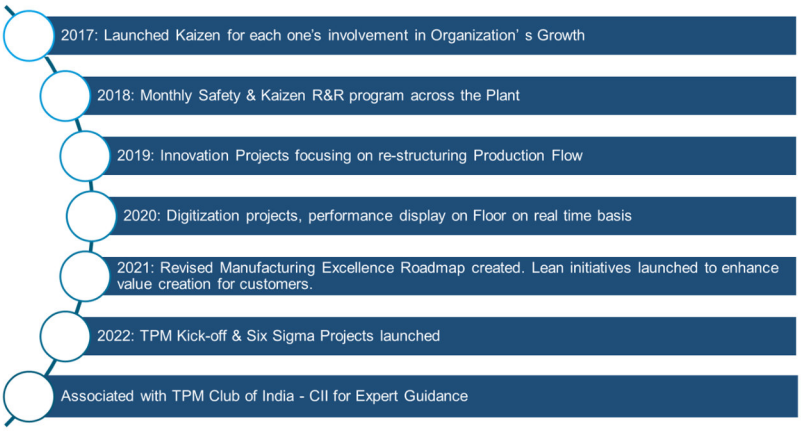
- Certifications - ISO 45001, ISO14001, ISO 9001, ISO 3834-2, DASt 022 & EN 1090-2
- Angle CNC punching machines – 12 nos.
- Angle CNC drilling machines – 4 nos.
- Plate CNC punching machines – 5 nos.
- Plate CNC drilling machines – 4 nos.
- Galvanizing Kettle size – 10 m x 1.5 m x 3.2 m
- NABL Accredited Laboratory for mechanical, galvanizing & spectrometer testing.

2.4 Gandhinagar Plant – Staff Organization Structure



- Highly energetic & qualified professionals with rich experience in respective domains.
- Have delivered many challenging projects meeting client expectations in terms of Quality, Delivery and Total Customer satisfaction.
- Team with focused growth mindset of continuous improvements & learning.

2.5 Milestones on the Journey of Manufacturing Excellence



2.6 Awards & Recognition

Background and Aim of TPM at Gandhinagar Plant

Background	Aim
• Inefficient flow and fast deterioration of production facilities, resulting consequently in lower equipment availability and low production. • Possible opportunities for safety and environment related incidents. • Dynamic market conditions resulting in non-uniform load in the plants leading to increased cost.	• Potential to elevate the shop floor to excellence through the implementation of formal TPM & Lean program. • To reduce losses and increase Overall Equipment Effectiveness through a structured and comprehensive TPM program. • Increase global footprints by grabbing new business opportunities.

3. Key to our Manufacturing Excellence

3.1 Need of TPM

With the continuous increase in the manufacturing complexities consequent to entry in to new markets and customers globally, inefficiencies and losses in the manufacturing line were also on the increasing side. In order to counter these inefficiencies and losses, the need for a structured improvement programme was felt. A proven and Time tested approach became essential to align the company with the evolving business environment. With its inbuilt focus on reducing losses through its 8 pillar approach, TPM became a conscious choice, for the plant to embrace.

3.2 Adopting TPM for Achieving Manufacturing Excellence

Our company vision is "To be the foremost global player in all the business verticals we operate in." To align with this vision, we recognize the critical need for TPM, as it will enable us to achieve Three Zero's, enhance employee capabilities, boost productivity and improve customer satisfaction.

3.3 TPM Policy and Kick Off

In order to communicate effectively to all the stake holders about the new initiative and its objectives, TPM Policy was declared by management.

KALPA-TARU

KALPATARU PROJECTS INTERNATIONAL LIMITED
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TPM Policy

We at Kalpataru Projects International Limited are committed to implement and sustain "Total Productive maintenance" by...

- Continual improvement of productivity and reduction in cost.
- Aiming zero defects, zero breakdown, zero accident & zero losses.
- Safe , Clean and pleasant working environment for high employee morale.
- Improve customer satisfaction by delivering quality product and service on time.
- Upgrading knowledge & skills of employee by training and encouraging kaizen activity.

Kumaradevan Srinivasan
President
(Manufacturing)

Date: 21.02.2022

TPM Kick Off: Based on the results achieved in MMM, the plant "kicked-off" the program. Top Management team and Business partners officially kicked off the program for deployment of all eight pillars in Gandhinagar plant on 9th June 2022.

Achieving 'Optimal Production System'—with Zero breakdowns, Zero defects, and Zero harm appeared like an unattainable goal earlier. However, the Total Productive Maintenance (TPM) approach is steadily bringing our plant's vision closer to reality. By deeply understanding and embracing TPM in its true spirit, and by consistently applying its principles in our daily operations, we've seen substantial improvements in our work culture, system orientation, analytical mind-set and flexibility.

Key outcomes from implementing TPM include:

- **Enhanced Teamwork:** Fostering collaboration across all levels of the organization, from top management to frontline employees.
- **Improved Machine Reliability:** Ensuring that machines consistently perform at high reliability and efficiency.
- **Maximized Machine Availability:** Reducing downtime and eliminating major losses, as defined by TPM principles, to increase overall equipment effectiveness.
- **Boosted Employee Morale:** Strengthening the engagement and morale of team members, particularly those on the frontline.
- **Operator Empowerment:** Providing TPM training and support to empower operators to take ownership of and pride in maintaining their equipment.
- **Focus on Self-Development:** Offering ongoing training to promote continuous learning and personal growth among our employees.
- **Leadership Development:** Identifying and nurturing future leaders through dedicated leadership development programs.

Through TPM, we are making continuous stride towards a culture of excellence, where operational performance is optimized, and every team member contributes to our collective success.

Below are the tangible benefits achieved after implementation of TPM –

Company & plant name	Kalpataru Projects International Limited - Gandhinagar Plant			
TPM Slogan/Objectives	TPM In, we Win			
Category	**Index**	**Unit**	**BM FY 21-22 TPM Started**	**Actual Status FY 24-25 Upto Nov-24**
S	Number of work-related accidents requiring days off work	Cases/ year	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	18	2
P	Productivity	MT/man/month	5.03	6.49
P	OEE (or Overall Plant Efficiency)	%	69.8	78.6
P	Availability	%	85.8	91.1
P	Performance Rate	%	81.0	86.1
P	Quality Products Rate	%	99.5	99.9
P	Number of breakdowns	Breakdowns/ year	2616	2196
P	MTBF	Hour	195	252
P	MTTR	Hour	3.66	1.82
Q	Number of customer complaints	Number/year	9	2
Q	In-line defect rate (scrap)	%	0.15	0.08
Q	In-line defect rate (rework)	%	0.43	0.17
C	Cost index	Cost/MT	12747	11793
D	Production Lead time	Days	24.8	13.6
D	Delivery performance	%	85.7	96
S	Frequency rate	Number of occupational accidents with leave for 1 000 000 worked hours	0	0
M	Number of Employee Suggestions	Number/year	145	505