



# **HIRA**

# **STRUCTURES**

POWERING THE NATION

# Prologue

Founded in 1999 and based in Raipur, RR ISPAT (A unit of Godawari Power and Ispat Ltd.) aims to be Central India's most trusted steel brand. Specializing in **Design, Engineering, Manufacturing,** and **Project Management** of Transmission Line Towers (33KV to 765KV), Substation Structures, Monopoles, High Masts, Solar Structures, and Rural Electrification Systems, we deliver comprehensive solutions.

Our product portfolio includes:

- **TRANSMISSION LINE TOWERS & SUBSTATION STRUCTURES** (up to 765KV), approved by key entities like PGCIL, GETCO, MPPTCL, CSPTCL, and more.
- **MONOPOLES**
- **LATTICE TOWERS** and **DISTRIBUTION POLES** for rural electrification

With a team dedicated to ethical business and innovation, we've expanded our product range, adopted cutting-edge technologies, and prioritized customer satisfaction. In just a decade, we became a leading name across India.

Our commitment to quality and timely deliveries is embedded in our DNA, ensuring top-notch products and services. We also promote work-life balance through initiatives like **MEDITATION SESSIONS**, boosting employee efficiency and retention.

As a responsible corporate, we actively contribute to **CSR** through Education, Health, Vocational Training, Livelihood, and Environmental initiatives, positively impacting our communities.



# Our Vision

To be a globally admired organization that manufactures innovative products through sustainable industrial and business development and delivering excellence with reliability.

To be an industry benchmark across all verticals, while becoming the supplier of choice, delivering premium products and services, creating value to our customers and demonstrating high ethical standards.

# Our Mission

To provide high quality products to consistently meet customer's specific requirements by using innovative technologies within an environment of motivated and dedicated employees who are determined to achieve perfection, highest business standards and work ethics.

To deliver world class products at competitive prices on demand as well as provide superior services to customers by developing leading edge solutions in technology and processes and opportunities for inclusive growth of the employees by nurturing human resource, so that all our partners can share the pride of success.

# Values

Business ethics and integrity.

Mutual trust and respect in time, on time and every time.

Empowerment of human resources.

Trustworthiness and transparency with stakeholders.

Spreading the mantra of harmony and wellbeing.

# HOT ROLLED COIL CUM Structure Mill

RR Ispat has commissioned its HR Coil Cum Structure Mill in technical collaboration with STECH

The products are used in various business sectors such as TLT, solar, automotive, construction, engineering, and energy infrastructure applications.



## Mill Capacity:

200,000 tons per annum

## Mill Finished Products Capability:

### Angles

from 60 to 250 mm, in bundles

### Channels

from 75 to 300 mm, in bundles

### Beams

from 100 to 200 mm, in bundles

### Strips

1.2 to 6 mm in thickness and  
280 to 620 mm in width (Coil Form)

## Finishing area:

The most innovative Double Decker finishing area with a brake slide type cooling bed on first deck for section products and a Laminar Cooling Run out area with Down Coilers for strip products on second deck. First deck is built further with Straightener, Cold saw and Bundling for section products.

The Above mill arrangement is conceptualized to achieve the best quality for every product, and further ensuring tolerances up to best of industry standards for section and strips products.

# Structural Rolling Mill



This new plant is driven by STECH with its innovative and hi-tech process control instrumentation with latest technology and features.

**A new plant is successfully commissioned with trial runs in May 2024 and subsequent supplies has been made to many prestigious clients.**

RR ISPAT has come up with “HR Coil Cum Structure Mill” where in with use of tested and best quality of raw material.

We are now capable of supplying following steel structures:

## **Equal Angles:**

ISA 60 x 60 x 4 to 10 mm  
ISA 65 x 65 x 4 to 10 mm  
ISA 70 x 70 x 5 to 10 mm  
ISA 75 x 75 x 5 to 10 mm  
ISA 80 x 80 x 6 to 12 mm  
ISA 90 x 90 x 6 to 12 mm  
ISA 100 x 100 x 6 to 15 mm  
ISA 110 x 110 x 8 to 16 mm  
ISA 120 x 120 x 8 to 15 mm  
ISA 130 x 130 x 8 to 16 mm  
ISA 150 x 150 x 10 to 20 mm  
ISA 200 x 200 x 12 to 25 mm  
(\* ISA 250 x 250 under consideration for addition)

## **Channels:**

ISMC 150 x 75 mm  
ISMC 175 x 75 mm  
ISMC 200 x 75 mm  
(\* ISMC 250 x 80 /82 mm )

## **H Beam:**

RSJ 152 x 152 (37 Kg/ mtr.)  
Order for further lighter sections ie 34 & 30 Kg can also be considered, subject to the quantity.  
(\* RSJ 100 x 116 mm)  
(\*Uc 152/203 mm)

**Mill has got (rolling capacity of 15000 MT per month) & our products are certified by BIS mark and comply under IS2062.**

# Transmission Line **Tower** & Substation **Structure** (Up to 765KV)



We are specialized in Design, Engineering and Manufacturing Galvanized Steel Transmission Line Towers (Single/Double/Multi-circuit) with capacity of **60,000 MT per annum**. We also manufacture Substation Structures with capacity of **6000 MT per annum**.

- Transmission Line Tower 33kV / 132kV / 220kV / 400kV / 765kV
- Switch Yard Structure

**HIRA**  
GROWING STRONGER TOGETHER

**CERTIFIED FOR EXCELLENCE!**

We are proud to announce that  
**WE ARE NOW POWERGRID APPROVED**  
FOR E250 GRADE BILLETS

पावरग्रिड  
POWERGRID

**HIRA**

Our recently introduced Backward Integration Project "Hot Rolled Coil Cum Structure Mill" is now approved with "Powergrid Corporation of India Ltd. to supply angles that vary from 65x65x4 mm to 200x200x20 mm of E250 & E350 grades.

# Monopoles



**Our latest solution for modern power infrastructure.**

With the same commitment to quality and sustainability, our Monopoles are designed to meet the demands of urban and challenging rural environments, RIGHT OF WAY, by setting new standards in power transmission. **33kV, 66kV, 132kV, 220kV, 400kV**, Switch Yard Structure and special structures like A-frame, Y-frame, Twin poles.

## Distribution **Line** & Rural **Electrification**



We provide solutions for Powerline carrying low-voltage electricity from substations to residential and commercial area as well as from Renewable Energy Production Centers to Substations. Our manufacturing capacity for this product is 24000 MT per annum.

- Cross Arms
- Top Brackets
- Steel Poles
- Clamps

# Railway OHE Structure



Our Railway OHE Structures ensure efficient power transmission with cantilevers supporting the contact wire system and various mast types adapted for different track conditions, with production capacity of 24000 MT per annum.



- Portal: N, O, and R, covering spans from 10-40M.
- Mast: Steel masts include BFB, RSJ, K-type and B-type, selected based on location and stress requirements.
- TTC: Used for two tracks where masts or portals aren't feasible.
- SPS & TSS: Key components for structural support and traction substations.

# Solar Structures



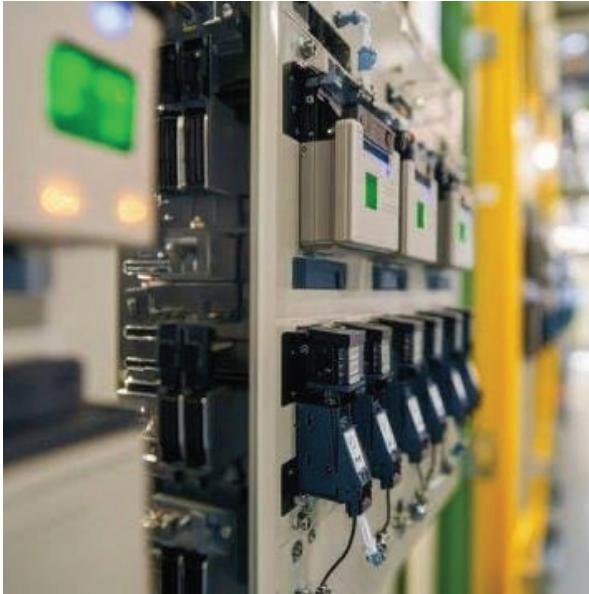
Quality is the main factor on which R.R. Ispat (A Unit of GPIL) delve, We maintain inner strength and the inevitable quality in our products like Solar Irrigation Pump structure, Solar Dual Pump Structure etc.

We are registered vendor of all states Nodal Agencies. We have supplied the structures in various government projects like PM-Kusum Yojna, Jal Jeevan Mission-JJM, PHE Projects etc.

- Solar Module Mounting Structure
- Solar Irrigation Pump Structure
- Solar Dual Pump Structure
- Solar Street Light Poles
- Solar Rooftop Structures
- Solar Structure at Multilevel Vehicle Parking
- Earthing Strips

# Electrical Engineering **Division**

The backbone of innovation



Delivering top-tier electrical solutions for seamless integration and performance in all projects.

- Indoor type VCB
- Outdoor type PCVCB
- C&R Panel for FDR & XMER
- Main LT Panel
- Synchronizing Panel
- MCC Panel
- PLC Panel
- Pump Controller starter
- Solar Controller – AC/DC
- Solar ACDB Panel
- Cable Tray

# Metal Beam Crash Barrier

## “W” Beams

Cold roll formed in thickness 3 mm/2.8 mm /2.5 mm/2.0 mm

Raw material conforming to IS 5986 / IS 2062/10748 or equivalent of grade fe360 I fe410 / fe510

Hot dip galvanized to 550 gsm / sq. m  
Overall length 4318 mm/3318 mm as per customized drawing

Effective length: 4000 mm

Width: 311 mm

## “Thrie” Beams

Cold roll formed in thickness 3 mm/2.8 mm/2.5 mm/2.0 mm

Raw materials conforming to IS 5986 / IS 2062/10748 or equivalent of grade fe360 I fe410 / fe510

Hot dip galvanized to 550 gsm/sq. m  
Overall length 4318 mm/3318 mm as per customized drawing

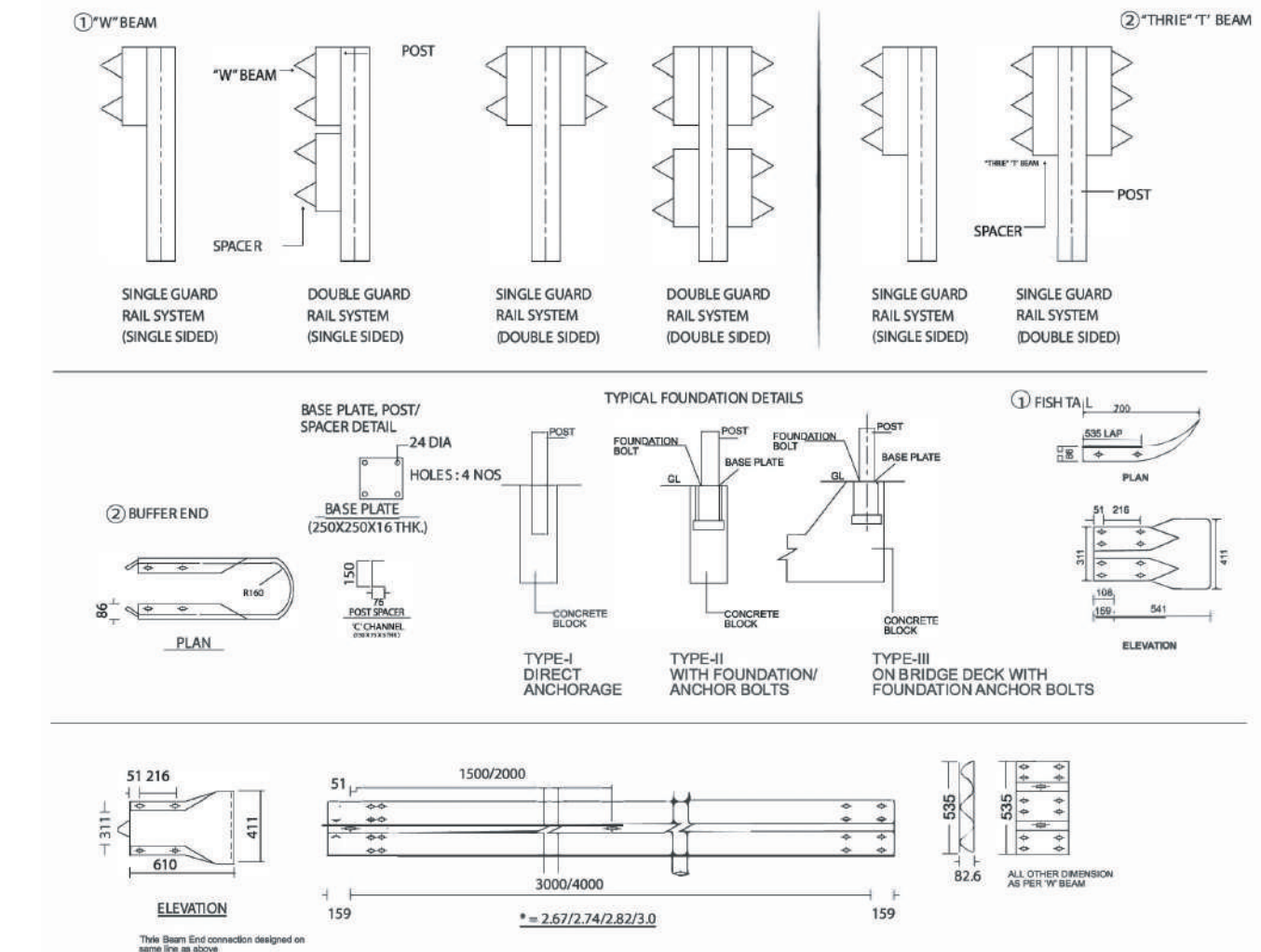
Effective length: 4000 mm/3000 mm

Width: 512 mm

**Our metal beam crash barriers conforming to approved specifications are as follows**

Ministry of Road Transport & Highway, India (MORTH)  
American (AASHTO M180)

## Metal Crash Barrier/Guardrail System: Types, Design details & End Connections



# Infrastructure Facilities

## Galvanizing Plant

Zinc Bath 1- SIZE 7 MTR Length X 1MTR Width X 1.4MTR Depth

Zinc Bath 2- SIZE 13.1 MTR Length X 1.2 MTR Width X 1.4 MTR Depth

Zinc Bath 3- SIZE 13.1 MTR Length X 1.5 MTR Width X 2.5 MTR Depth

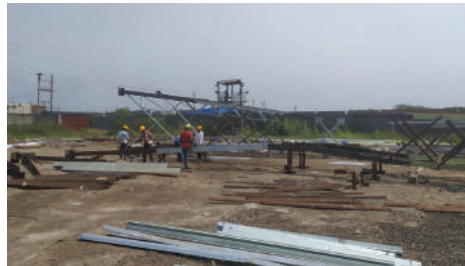
Annual Galvanizing Capacity - 1,20,000 MT



## Proto Yard

Providing a vast space for testing and showcasing industrial prototypes.

L-144m W-66m



## Design and Engineering

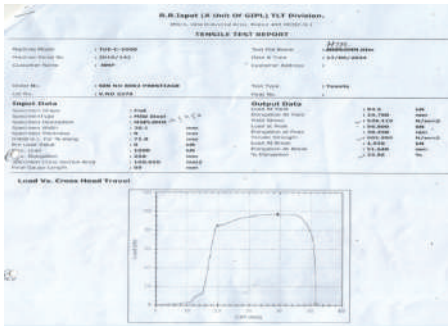
Our Design & Engineering team is capable of designing, 3D model and drawing by using

- PLS-Pole, PLS-Tower, PLS-Caisson & STAAD PRO
- PLS-CADD, SOLID WORKS, BOCAD
- AUTO CAD 2D & 3D
- CPRI & other approvals
  - 132 kV DC 32.4m BXA (30-60°) Design approved and type tested at CPRI
  - 400 kV DC Design and type test in progress

CENTRAL POWER RESEARCH INSTITUTE	
TEST REPORT	
Test Report Number	CPRI/RLM/EE/2470/118 Date: 10 June 2024
Name & Address of the Customer	M/s. SR Incept (A Unit of Godawari Power & Incept Limited) Mira Poles, Mira Group of Industries, 4001 & 4012, Mira Industrial Area, Birgaon, Rajapur, Chhatrapati 402 003
Name and Address of the Manufacturer	M/s. SR Incept (A Unit of CPRI) Mira Poles, Khara No. 4001, 2452, 27111, 251A, Mira Industrial Area, Mira, Rajapur, Chhatrapati 402 003
Particulars of sample tested	Transmission Line Klongpole
Type	Rule Steel 2 of 17
Description of test sample	Refer Sheet 2 of 17
Serial Number	Nil
Number of samples tested	One
Date(s) of Test(s)	31 May 2024
CPRI Sample code Number(s)	MEDTL2400014
Particulars of tests conducted	Refer Sheet 3 of 17
Test in accordance with Standard/Specification	IS 802 (Part III) 1978, RA, 2017
Sampling Plan	Not Applicable
Customer's Requirement	Nil
Deviations if any	Nil
Name of the witnessing persons	As per Annexure-1
Customer's representative	As per Annexure-1
Other than customer's representative	As per Annexure-1
Test subcontracted with address of the laboratory	None
Documents constituting this report (in words)	Seven (Seven) (Excluding Drawing & Annexure)
Number of Sheets	Nil
Number of Drawings	Nil
Number of Graphs	Nil
Number of Photographs	Three
Number of Test Circuit Diagram(s)	Nil
Number of Drawings	One
Test Engineer	(K. Vijaya Kumar)
Reviewed and Authorized by	(Dr. M. Selvaraj) Head of Division
ULR-TC452468ED70709	MECHANICAL ENGINEERING DIVISION
Division: Mechanical Testing	P.O. No. 2666, BHADRAVANAGAR P.O.
Group: Mechanical Properties of Metals	PROF. SR. C. RAMAN (ROAD, BENGALURU) - 560 080, (INDIA)
	Sheet 1 of 17
	Tel: +91 (0) 80-2207 2476

# In-house test facilities

- Raw material internal lab test facility.
- Welding and inspection has been done internally with qualified- WPQ (welder performance qualification). Logitudinal weld of monopole sections shall be check by conducting ultrasonic test and finally, all sections and arms are horizontally assembled followed by bolt fitment.
- Galvanization microns check and PDI check before dispatch has been followed.
- Our test lab is under process of NABL Accreditation.



**Welding Performance Qualification Certificate**

Parameter	Value
Welder Name	...
Welding Position	...
Welding Process	...
Welding Material	...
Welding Thickness	...
Welding Diameter	...
Welding Voltage	...
Welding Current	...
Welding Speed	...
Welding Time	...
Welding Defects	...
Welding Results	...

**INSPECTION SERVICES**

**ULTRASONIC TEST REPORT**

Item	Result
Welding	...
Material	...
Structure	...



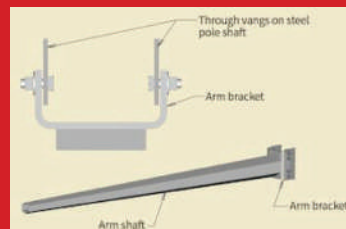
## SINGLE BEND CONNECTING PLATE



## BASE PLATE WELDING



## VANG CONNECTIONS





# Vendors Approval



PWD Maharashtra

Maharashtra Rail Infrastructure Development Co. Ltd.

Maharashtra State Electricity Transmission Co. Ltd.

Gujarat Rail Infrastructure Development Co. Ltd.

CIDCO

CPWD-Lucknow

PWD-Madhya Pradesh

PWD-Chhattisgarh

PWD-Maharashtra

AAI-PAN India

PWD-Jharkhand

PWD-Telangana

PGCIL

MPPKVCL

GETCO

CSPTCL

CSPDCL

UPRNNL

JUSNL

KSEBL

R&B-Gujrat

PWD-Haryana

PWD-Uttar Pradesh

All major Municipalities

South East Central Railway

Central Railway

# CSR Initiatives

Committed to reducing our carbon footprint and conserving the environment

**MAKING THE WORLD A BETTER PLACE**

**2014**

Magic Water Hanging Tap



**2014**

Meditation Hall for staff



**2015**

Swami Vivekanand Statue



**2017**

Sea Hawk Square



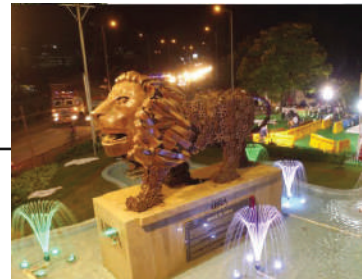
**2016**

Ashok Vatika



**2016**

Make in India Chowk



**2018**

Siltara Oxyzone



Planted trees across 100 acres in Siltara Oxyzone and several places

**2023**

Pahadi Myna Circle



**2024**

Sparrow Chowk





## Get in touch

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**Mail** : [marketing@rrispat.com](mailto:marketing@rrispat.com)  
**Website** : [www.rrispat.com](http://www.rrispat.com)  
**Address** : R R Ispat (A unit of Godawari Power & Ispat Ltd.)  
490/1, Urla Industrial Complex, Raipur-493221, C.G.



**HIRA**  
**STRUCTURES**



**HIRA**  
**POLES**



# DIRECTORS

## Overview

At **HIRA Poles**, we are committed to quality, innovation, and ethical practices, consistently "Growing Stronger Together." In just a decade, we've expanded our product line with durable, cutting-edge solutions like High Mast, Monopole, Octagonal Lighting Poles, Conical Poles, daN Poles, Stadium Mast, Flag Mast, Latching Mast, Gantry Structure, Signage Mast, Swaged Poles, Solar Structure and Smart City Poles—each crafted to bring "Strength in Every Rise" across industries.

Our success lies in a dedicated workforce supported by well-being initiatives like meditation sessions, which foster efficiency and retention. Through CSR efforts in education, health, and environmental sustainability, we also strive to uplift our communities, creating lasting positive impact.



# Our **VISION**

To become a globally admired organization that manufactures innovative products through sustainable industrial and business development and delivering excellence with reliability.

To be an industry benchmark across all verticals, while becoming the supplier of choice, delivering premium products and services, creating value to our customers and demonstrating high ethical standards.

# Our **MISSION**

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# Our **VALUES**

- Business ethics and integrity
- Respect time and expectations of all
- Associate empowerment of human resources
- Agile work culture
- Building trustworthy relationship with customers, stakeholders and society
- Spreading the mantra of harmony and well being



# PRODUCT Overview



## High Mast

Ideal for large-area lighting solutions with durable, high-reach poles.

We offer high mast ranging from 9M to 60M height with specific standards R&L (rising & lowering) circular LC, special cradle type (0-180°) LC suitable to mount 24 nos (0-360°) fix type and double LC with more than 24 nos.

All force coefficient values & other factors to design wind pressure we follow are per wind tunnel report conducted at NWTF, IIT Kanpur

## Raising and lowering High Mast Details

### Lantern Carriage

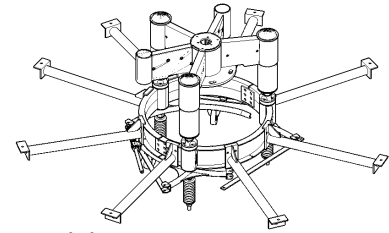
Lantern Carriage is an important part of a high mast as it carry lighting system on it. It has 6, 8 & 12 arms which carry luminaries. It is made of ERW pipe, having a ring & straight arms with several holes for passing cables from it. Lantern carriage is made in two parts which make the assembly easy in erected condition of mast. It goes up to the top by help of winch & motor. It can come down to the height of door if any service or maintenance is required. To avoid scratches on surface of mast in case of up-down movement of mast, provided "Rubber Buffer" on the inner side of ring.



## Latching System

Raising and lowering mechanism helps the operator to lower the lantern carriage for maintenance which keeps the mast in good and working condition.

**Latching Mechanism** ensure that lantern carriage should remain docked at correct position even if the suspension wire ropes fails. As these lighting masts are normally installed in public areas, safety of life is the core purpose of this system.



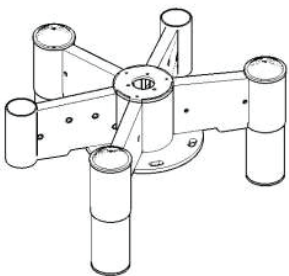
The latching mechanism shall consist of three main sub assemblies.

- a. Head frame
- b. Luminaire carriage
- c. Self centering system

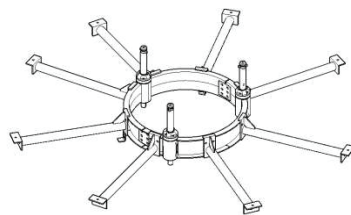
All material shall be of corrosive resistant in nature including stainless steel, aluminium or galvanized steel unless otherwise specified.

## Components of Latching System

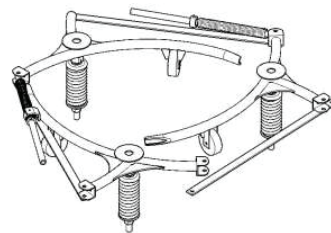
**A. Head Frame**



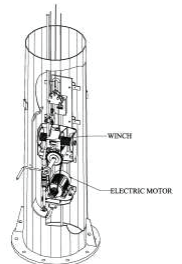
**B. Luminaire Carriage**



**C. Self-Centering System**



**D. Winch**



## Winch with Motor

Winches are the heart of a high mast placed inside the door & rotated by the help of motor. Winch is double drum with oil filled inside for the lubrication. Winch is used for movement of lantern carriage on mast.



## Lighting Arrestor

Lighting arrestor is installed on the top of the head frame cover which helps to transfer electricity to earth in case of thunder strike. A 12 mm strip is provided below door which transfer electricity to earth & protects the luminaries & electrical panels from any damage.

## Head Frame

Head frame is the top most part of a high mast, holds the pulley arrangement in it. The SS316/304 rope used for moving the lantern carriage passes through the head frame pulley.

There are two types of head frames manufactured by us :

1. Two way head frame
2. Three way head frame

Two way head frame contains set of pulley on either sides of it. In three way system, it has 3 wire ropes passing through it.



## Electrical System

Mast shall have the facilities of testing the luminaries at the bottom level. The cables used in a mast is EPR insulated, PCP sheating & Cotton Braiding to get the required strength & flexibility. These cables are connected with the aluminium junction box on lantern carriage.

## Feeder Piller

It is the controller for operating functions of highmast like, up-down motion, operation of luminaries etc. Feeder panel provides advantage of switching luminaries in one or more groups as per the requirement.



## Foundation Bolt

Foundation bolts provide anchoring to the Pole / Highmasts Monopoles as well as provides stability to the structure. The size & length of a foundation bolt is decided according to the location, height of structure & wind speed at particular zone. Quantity of nut & washer also changes as per the load applied on the structure. Sizes are available from M16 to M39 & as per requirements manufactured in EN-8 grade. We use red oxide paint & hot dipped galvanizing to increase resistance against corrosion. We use EM-30 to M-78 anchor bolts with high tensile strength. Bolts and studs are of grade 8.8.



## HIGH MAST – Technical Specification

Sr. No.	Mast Ht. (mtr/s)	Mast Code (mtr)	Top dia.(mm)	Mast Details Bottom dia (mm)	Thk.(mm)	Nos.	Anchor Bolt Details Dia.x length (mm)	PCD(mm)
1	12.0	RRIHM 12A	100	310	3	4	M24x850	385
2	12.0	RRIHM 12B	100	360	3	4	M24x850	445
3	12.5	RRIHM 12.5A	100	310	3,3	4	M24x850	385
4	12.5	RRIHM 12.5B	100	360	3,3	4	M24x850	445
5	12.5	RRIHM 12.5C	150	360	3,3	4	M24x850	445
6	16	RRIHM 16A	150	360	3,3	6	M24x850	445
7	16	RRIHM 16B	150	360	3,4	6	M24x850	445
8	16	RRIHM 16C	150	410	3,3	8	M30x850	490
9	16	RRIHM 16D	150	410	3,4	8	M30x850	490
10	16	RRIHM 16E	150	460	3,3	8	M30x850	590
11	16	RRIHM 16F	150	460	3,4	8	M30x850	590
12	20	RRIHM 20A	150	360	3,3	6	M24x850	445
13	20	RRIHM 20B	150	360	3,4	6	M30x850	445
14	20	RRIHM 20C	150	410	3,3	8	M30x850	490
15	20	RRIHM 20D	150	410	3,4	8	M30x850	490
16	20	RRIHM 20E	150	460	3,3	8	M30x850	590
17	20	RRIHM 20F	150	460	3,4	8	M30x850	590
18	20	RRIHM 20G	150	460	4,5	8	M30x850	590
19	25	RRIHM 25A	150	460	3,4,4	12	M30x850	590
20	25	RRIHM 25B	150	460	3,4,5	12	M30x850	590
21	25	RRIHM 25C	150	460	4,4,5	12	M30x850	590
22	25	RRIHM 25D	150	540	3,4,5	12	M30x850	650
23	25	RRIHM 25E	150	540	4,4,5	12	M30x850	650
24	30	RRIHM 30A	150	460	3,4,4	12	M30x850	590
25	30	RRIHM 30B	150	460	3,4,5	12	M30x850	590
26	30	RRIHM 30C	150	540	3,4,5	12	M30x850	650
27	30	RRIHM 30Q	150	540	4,4,5	12	M30x850	650
28	30	RRIHM 30E	150	540	4,4,6	12	M30x850	650
29	30	RRIHM 30F	150	540	4,5,6	12	M30x850	650
30	30	RRIHM 30G	150	610	3,4,5	12	30x850 M	740
31	30	RRIHM 30H	150	610	4,4,5	12	M30x850	740



# Octagonal Lighting Poles

Sleek & modern lighting poles perfect for urban environments.

We are offering octagonal poles ranging from 3M to 12M with SA, DA, TA, FA standard cap type and special brackets like (Sword, Swan and decorative etc)

## Street Light Poles

Designing is based on BSEN 40-3-3:2003 & tested for stability by using application softwares. Location of installation, terrain category & wind speed are important factors for stability check. All factors are as per IS 875 or as per customer requirements.

Raw material is procured as per IS 2062/BSEN 10025 & galvanized as per BSEN ISO 1461.

We produce polygonal & conical poles hot dip galvanized as well as painted which can be used for illumination, power distribution, signaling etc. The poles are provided with different types of brackets & customized accessories depending upon the application.

## Octagonal Street Light Poles - Technical Specification

Pole Type	Description	Top Dia. (mm)	Bottom Dia. (mm)	Sheet Thickness (mm)	Base Plate Dimensions (LxBxT)
RRIOC -030	3M Octagonal Pole	70	130	3	200 x 200 x 12
RRIOC -040	4M Octagonal Pole	70	130	3	200 x 200 x 12
RRIOC -050	5M Octagonal Pole	70	130	3	200 x 200 x 12
RRIOC -060	6M Octagonal Pole	70	130	3	200 x 200 x 12
RRIOC -081	8M Octagonal Pole	70	130	3	200 x 200 x 16
RRIOC -082	8M Octagonal Pole	70	155	3	250 x 250 x 16
RRIOC -090	9M Octagonal Pole	70	130	3	200 x 200 x 16
RRIOC -091	9M Octagonal Pole	70	155	3	250 x 250 x 16
RRIOC -092	9M Octagonal Pole	70	175	3	275 x 275 x 16
RRIOC -101	10M Octagonal Pole	70	130	3	200 x 200 x 16
RRIOC -102	10M Octagonal Pole	70	155	3	250 x 250 x 16
RRIOC -103	10M Octagonal Pole	70	175	3	275 x 275 x 16
RRIOC -111	11M Octagonal Pole	70	155	3	250 x 250 x 16
RRIOC -112	11M Octagonal Pole	70	175	3	275 x 275 x 16
RRIOC -113	11M Octagonal Pole	90	210	3	300 x 300 x 16
RRIOC -121	12M Octagonal Pole	70	175	3	275 x 275 x 16
RRIOC -122	12M Octagonal Pole	90	210	3	300 x 300 x 16
RRIOC -123	12M Octagonal Pole	90	240	3	320 x 320 x 16



# Conical Poles

Sleek & modern lighting poles perfect for urban environments.

RR Ispat (A Unit of GPIL) offering conical poles ranging from 3M to 12M with SA, DA, TA, SA standard cap type and special brackets like (Sword, Swan and decorative etc).

We are specialized in bend poles, ambrossia (decorative poles) etc.

## Conical Street Light Poles - Technical Specification

Pole Type	Description	Top Diameter (mm)	Bottom Diameter (mm)	Sheet Thickness (mm)	Base Plate Dimensions (LxBxT)
RRICP-030	3M Conical Pole	75	107	3	200 x 200 x 12
RRICP-040	4M Conical Pole	75	118	3	200 x 200 x 12
RRICP-050	5M Conical Pole	75	129	3	200 x 200 x 12
RRICP-060	6M Conical Pole	75	140	3	200 x 200 x 16
RRICP-070	7M Conical Pole	75	151	3	250 x 250 x 16
RRICP-080	8M Conical Pole	75	162	3	250 x 250 x 16
RRICP-090	9M Conical Pole	75	173	3	275 x 275 x 16
RRICP-100	10M Conical Pole	75	184	3	275 x 275 x 16
RRICP-112	11M Conical Pole	75	195	3	300 x 300 x 16
RRICP-122	12M Conical Pole	75	206	3	300 x 300 x 16

- All poles are hot dip galvanized as per standard BSEN ISO 1461.
- Providing painted structures as per requirement of customer.



## Stadium Mast

Perfectly engineered structures for optimal lighting in sports arenas and stadiums.

Our engineering solutions are available for:

1. Stadium masts heights ranging from 16M to 60M height.
2. Fixture fittings on head frame ranging from 12 nos to 171 nos.
3. Support for design of stadium masts as per both Indian and British standards.
4. Expertise in making Head frame shapes like ROUND, RECTANGLE, CIRCLE & TRAPEZOIDAL etc.

## Flag Mast

Strong, towering poles, designed for flag displays, ranges from 9M to 130M in height and accommodate flags from 9x6ft to 120x80ft with special domes. Design includes STAAD report checks.

Engineering solutions are also available for all flag types varying from domestic, international & religious type flag masts.



## Signage Mast

Reliable structures for mounting signage in public spaces.

Ranges from 17M to 22M in land and coastal projects with both fix and R/L mechanism. (IOCL, HPCL, BPCL, IIOBP, etc.)

**Designs are approved by IIT Bombay**





# Monopole

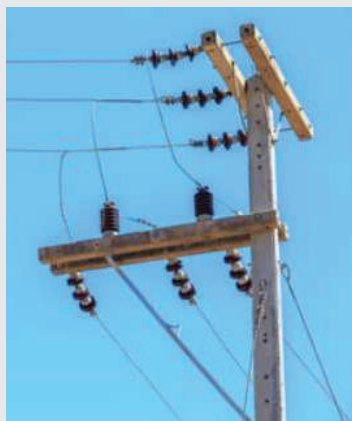
Introducing high-quality MONOPOLES for modern power infrastructure, designed to tackle challenging urban environments with ease. Suitable for 33kV to 400kV power transmission, Switch Yard Structures, and special designs like A-frame, Y-frame, and Twin poles.

## Distribution (daN) Poles & Rural Electrification

We provide solutions for power line carrying low voltage electricity from substations for residential and commercial spaces as well as from Renewable Energy Production Centers to Substations.

Our manufacturing capacity for this product is **24000 MT per annum.**

- a. Cross Arms**
- b. Top Brackets**
- c. Steel Poles /daN Poles**
- d. Clamps**



# daN Poles

## Standards

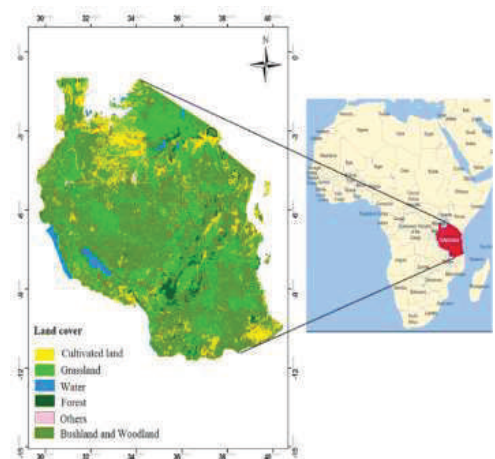
1. EN 10025: Hot rolled products of structural steel
2. EN 10149: Hot rolled flat products made of high yield strength for cold forming
3. EN 10079: Definition of steel products
4. NFA 35 503: Steel for galvanization by hot immersion.
5. ISO 1461: Hot dip galvanized coatings on fabricated iron and steel articles specifications and test methods.
6. ISO 14713: Protection against corrosion of iron and steel structures in zinc and aluminium coatings guidelines.

## Load Combinations Applied on Poles

1. Nominal tension applied to the pole top
2. Specific weight of the pole
3. Specific weight of the conductors and the accessories of line (cross arms, insulators)
4. Wind Pressure on the pole by taking into account the following uniform pressures:

### Common Climate Conditions

- a. WIND PRESSURE: "CLIENT SPECIFIED"
- b. Maximum ambient temperature: 35 °C
- c. Average ambient temperature for year: 25 °C
- d. Minimum ambient temperature: 10 °C
- e. Altitude: 2000m
- f. Relative humidity: up to 95%

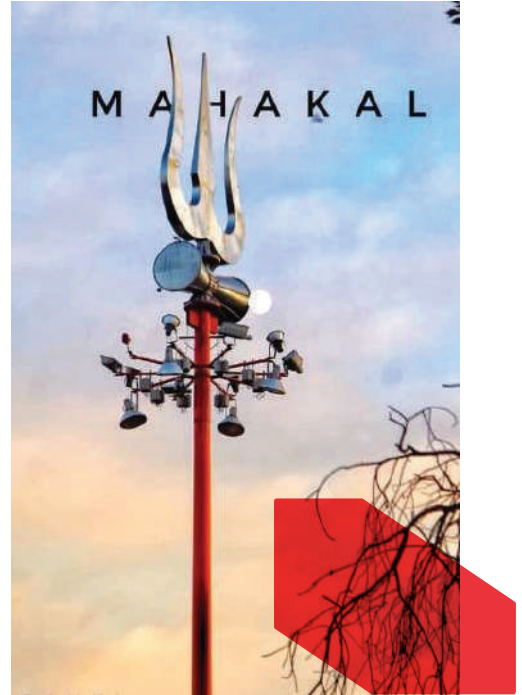


# Special Structures

**Antenna Mast**



**Trishul Mast**



**Telecom Mast**



**Umbrella Mast**



# Swaged Tubular Pole

Swaged Tubular Poles are specially used in Street Lighting purpose in NACs/ Municipal Corporations/ Housing Board Colonies / Residential areas. These kinds of poles are specially designed by swaging at the end to give more tensile strength and durability. Being galvanized, it bears rust and maintenance free feature. Thus it makes the first choice of many architects and professionals. It's light weight design makes it hassle free and easy in shipment and installation.

Pole Height and Design - Basically, the height of the swaged poles ranges from 5M to 14M with a thickness variation from 2.5mm to 7.2mm depending upon the area (locality) of usage. Usually it can be classified into two types based upon its design :

1. Single Arm: The pole consists of a unidirectional arm, bending from the swaged junction/ joint
2. Dual Arm: The pole consists of two arms, bending diametrically opposite to each other from the swaged junction/joint.

We customize order as per the requirement of client.

Raw materials used:

We use the best quality Hot Rolled Coils, produced from the finest plant of India, as raw material to manufacture the perfect dimension of swaged poles. We have in-house Galvanizing plants with capacity of 7M and 13M. To give the best Hot Dip Galvanized product, we use Zinc directly procured from Hindustan Zinc Limited, the only trusted Zinc manufacturer in India.

Our Swaged Tubular Pole Features

- Finest Grade Material (H.R. Coil IS:10748 grade | and above )
- Highly Resistant to Rust and Corrosion (Zinc coating of 550 gsm/sq.mtr)
- Minimal maintenance cost
- Lightweight and Durable
- Low Shipping Cost (Centrally located in India)





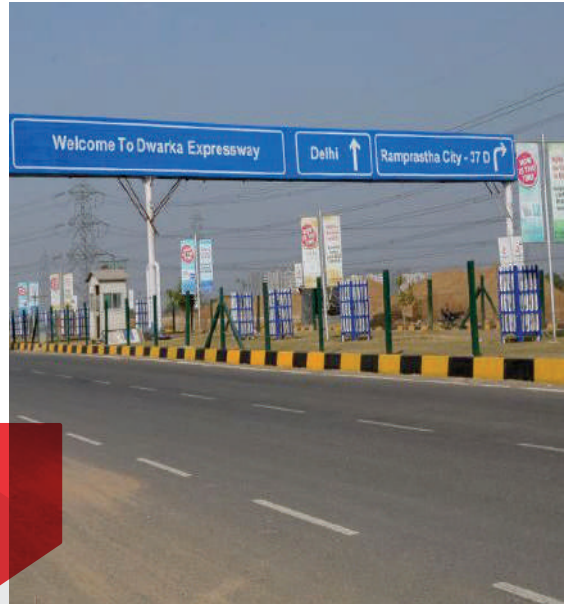
## Solar Mast

Combining innovation and strength for efficient, sustainable solar energy solutions. With ranges of 9M to 30M both standalone & AIO (all in one) solar system which carries upto 8-10 solar panels along with barrier boxes & light fixturer.

## Gantry Structure

Providing robust support for heavy-duty applications, ensuring reliability in critical infrastructure projects.

Usage: Traffic poles, single leg, double leg, triple leg, CCTV, VMS, VDIS, mounting gantries



## Unipole

We offer single column structure for billboards and advertisement and navigation poles as well.

# Infrastructure Facilities

## Design and Engineering

Our Design & Engineering team is capable of designing, 3D model and drawing by using

- PLS-Pole, PLS-Tower, PLS-Caisson & STAAD PRO
- PLS-CADD, SOLID WORKS, BOCAD
- AUTO CAD 2D & 3D
- CPRI & other approvals
  - 132 kV DC 32.4m BXA (30-60°) Design approved and type tested at CPRI
  - 400 kV DC with QUAD MOOSE conductor (wind zone-5) Design and type test in progress
- Specialised in doing STAAD analysis for all special structure (HMP, flag mast, stadium mast, gantry, navigation tower, etc).



## HMP Plant Machines & Capacities



### CTL MACHINE

**CTL Capacity:** Thickness Up to 6 mm & Width Up to 2000 mm

**Trapezoidal Cutting Capacity:** Thickness Up to 4 mm & Width Up to 1500 Length: 12000 mm in both

**Production Output:** Pole- 400 Pole/Day, HM- 20 HM/Day

### PLASMA CUTTING MACHINE

**Plasma Cutting Capacity:** Thickness Up to 16 mm x Width 2500 mm x Length 12000 mm

**Oxy Cutting Capacity:** Thickness Up to 100 mm x Width 2500 mm x Length 12000 mm

**Production Output:** Pole Baseplate-250 per Day, HM Baseplate-30 per Day, Monopole Baseplate-10 per Day



### PRESS BRAKE MACHINE- 13 MTR

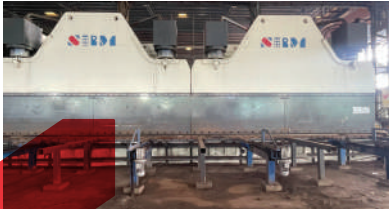
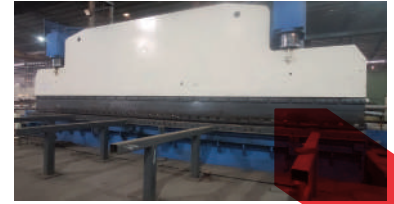
**Bending Capacity:** Thickness Up to 12 mm

**Bending Capacity:** Length Up to 12000 mm

**Capacity:** 1300 MT

**Production Output:** Pole- 200/Day, HM- 20 Day

**PRESS BRAKE MACHINE-08 MTR**  
**Bending Capacity:** Thickness Up to 4 mm  
**Bending Capacity:** Length Up to 8000 mm  
**Capacity:** 500 MT  
**Production Output:** Pole-200/Day



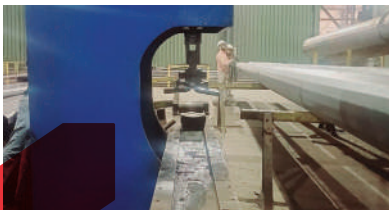
**PRESS BRAKE MACHINE FOR MONOPOLE**  
**Bending Capacity:** Thickness Up to 30 mm  
**Bending Capacity:** Length Up to 13000 mm  
**Capacity:** 2500 MT  
**Production Output:** Monopole- 6 Sheet/Day

**SAW MACHINE FOR POLE**  
**Welding Capacity:** Outer Dia. Up to 200 mm  
**Welding Capacity:** Length Up to 12000 mm  
**Production Output:** Pole-80/Day



**SAW MACHINE FOR HIGH MAST**  
**Welding Capacity:** Outer Dia. Up to 610 mm  
**Welding Capacity:** Length Up to 12000 mm  
**Production Output:** Pole- 20/Day

**SAW MACHINE FOR MONOPOLE**  
**Welding Capacity:** Outer Dia. Up to 1600 mm  
**Welding Capacity:** Length Up to 12000 mm  
**Production Output:** Monopole-2/Day



**STRAIGHTENING MACHINE FOR POLE**  
**Capacity:** Outer Dia. Up to 210 mm  
**Capacity:** Length Up to 12000 mm  
**Production Output:** Pole- 160/Day

## Galvanizing Plant

Zinc Bath 1- SIZE 7 MTR Length X 1 MTR Width X 1.4 MTR Depth

Zinc Bath 2- SIZE 13.1 MTR Length X 1.2 MTR Width X 1.4 MTR Depth

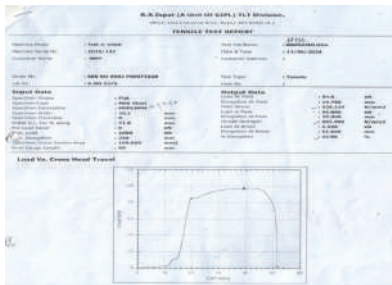
Zinc Bath 3- SIZE 13.1 MTR Length X 1.5 MTR Width X 2.5 MTR Depth

Annual Galvanizing Capacity - 1,20,000 MT



# In-house test facilities

- Raw material internal lab test facility.
- Welding and inspection has been done internally with qualified- WPQ (welder performance qualification). Longitudinal weld of monopole sections is checked by conducting ultrasonic test and finally, horizontally assembled all sections and arms to check overlap and connect bolt fitment.
- Galvanization microns check and PDI check has been followed before dispatch.
- Our test lab is under process of NABL Accreditation.



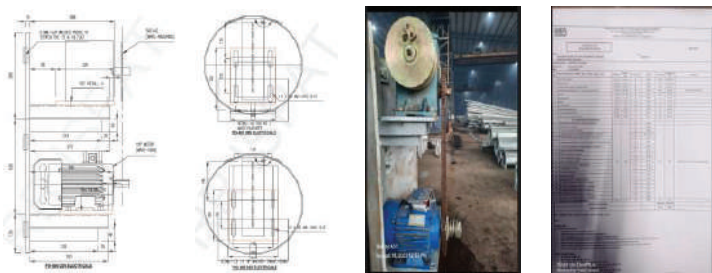
Detailed technical drawing of a tower section, showing various dimensions and labels for different parts of the structure. The drawing includes a table with columns for 'Part No.', 'Part Name', 'Material', 'Quantity', and 'Remarks'.

Inspection report form from IMSA Inspection Services. The form includes fields for 'Inspection No.', 'Inspection Date', 'Inspector', and 'Client'. It also has a section for 'Inspection Details' and a signature line.



## PDI Check Before Dispatch

2D & 3D VIEW (DOOR FRAME, WINCH, MOTOR ALIGNMENT CHECK & PACKING LIST)



INTERNAL PROTO INSPECTION: RR ISPAT (A Unit of GPIL)



Stadium Mast with Safety Cage Ladder.



Stadium Mast with Man Rider.

# Vendors Approval

PWD Maharashtra

Maharashtra Rail Infrastructure Development Co. Ltd.

Maharashtra State Electricity Transmission Co. Ltd.

Gujarat Rail Infrastructure Development Co. Ltd.

CIDCO

CPWD-Lucknow

PWD-Madhya Pradesh

PWD-Chhattisgarh

PWD-Maharashtra

AAI-PAN India

PWD-Jharkhand

PWD-Telangana

PGCIL

IOCL

HPCL

MPPKVCL

GETCO

CSPTCL

CSPDCL

UPRNNL

JUSNL

KSEBL

R&B-Gujrat

PWD-Haryana

PWD-Uttar Pradesh

All major Municipalities

South East Central Railway

Central Railway

BPCL

JIO BP

## Our Clients



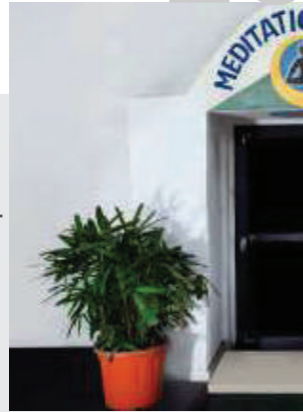
# CSR Initiatives

2014



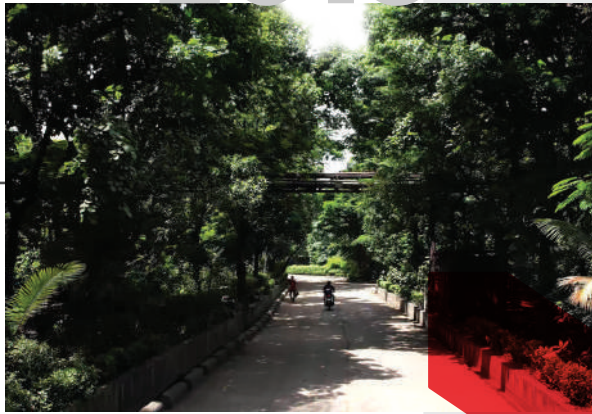
MAGIC WATER HANGING TAP

20



MEDITATION HALL

2016



ASHOK VATIKA

20



MAKE IN INDIA CHO

2018



SILTARA OXYZONE

20



PAHADI MYNA CIRC

2014



FOR STAFF

2015



SWAMI VIVEKANAND STATUE

2016



WVK

2017



SEA HAWK SQUARE

2023



PLE

2024



SPARROW CHOWK

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STRUCTURES



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POLES

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