

building **Structures** for **Life**

#### About the MPIL Group

Since 2001, MPIL has emerged as a leading manufacturer of complex steel structures, pre-engineered metal buildings, and fabricated solar panel mounting systems. The MPIL Group has diversified interests in steel, infrastructure, renewable energy, and logistics. MPIL's steel structures provide the steelwork for Mumbai International Airport, the Sahara Star Hotel and Convention Center, over 50MW of solar and thermal power plants and for India's largest clear-span dual-plane hangar. MPIL has LEED Gold certified manufacturing facilities in Maharashtra and Karnataka, aggregate production capacity of 50,000 tons per year and a team of 850 engineers and contractors. MPIL is dedicated to improving resource and energy efficiency in construction.

Steel Structure for Sahara Star Hotel and Convention Center-Mumbai



## Heavy and Complex Steel Structures



**MPIL STEEL STRUCTURES LIMITED**

Engineering the Earth

www.mpil.in

An ISO 9001:2008, 14000:2004 and OHSAS 18001:2007 accredited organization

#### Corporate & Regd. Office :

##### MPIL Headquarters

6th Floor, Trade Star, B-Wing, J B Nagar,  
Andheri-Kurla Road, Mumbai-400 059, India.  
Tel.: +91-22-4260 7000 • Fax : +91-22-4260 7070  
E-mail : contact@mpil.in • website: www.mpil.in

#### Works :

##### Maharashtra Unit

J-86, MIDC Tarapur, Boisar, Dist. Thane - 401 506  
Tel.: +91-2525-270 801 / 2 • Fax : +91-2525-270 803

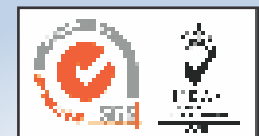
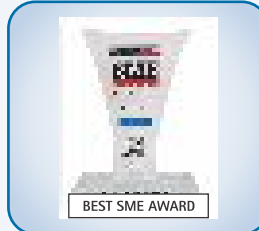
##### Karnataka Unit

Q-1/11, Q1/12, Shankar Gudda Colony, Near JSW Energy,  
Tornagallu Post, Sandur Taluk, Bellary Dist. Karnataka - 583 123



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## HEAVY AND COMPLEX STRUCTURES BY MPIL

The heavy and complex steel structures division at MPIL provides complete steelwork solutions: offering engineering expertise together with a wide range of services that include connection design, detailed drawings, manufacturing and fabrication, surface treatment and protection, delivery and erection.

MPIL's cutting edge fabrication experience together with its network of CNC automated manufacturing systems have pioneered construction of various infrastructure projects such as airports, power plants, high-rise buildings, bridges, and other industrial applications in India and Africa.

MPIL's production units feature specialized cutting, drilling and submerged-arc welding machines, along with its in-house team of qualified engineers, technicians, welders, riggers, fitters and detailers.

MPIL's signature projects include Terminal I and South West Pier of the Mumbai International Airport, 146-clear-span hangar for Air India, seven-storey Sahara Star Hotel and Convention Center as well as the 63-storey Marathon Futurex Tower. MPIL has executed various projects for the Larsen & Toubro – ECC division as per their standards of quality and delivery. MPIL is also proud of its association with the Zuari Italcementi Group for which MPIL has built 16 steel buildings, one of which is a single large 56 meter span coal storage shed built using 2400 tons of steel.

Over **15**  
years of experience

Over **300**  
satisfied customers

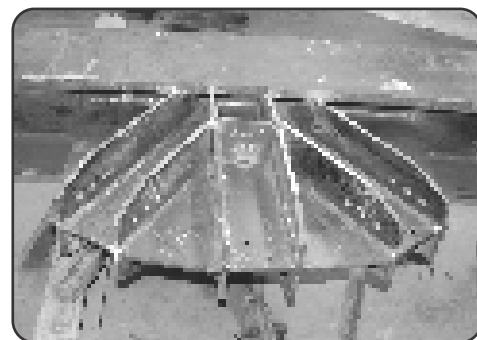
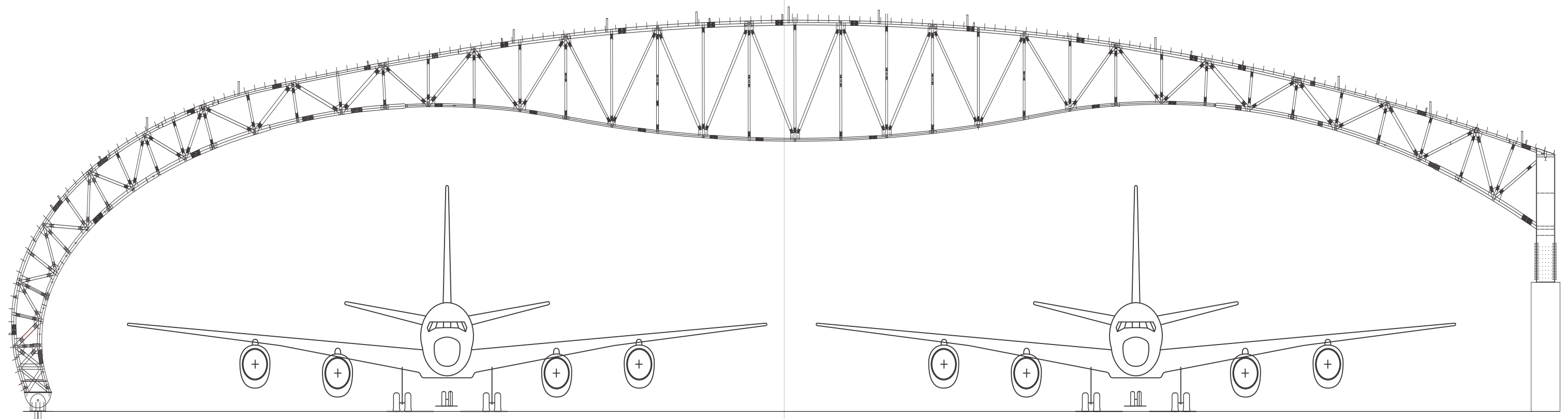
Over **25,000**  
tons of steel buildings manufactured

Over **50,000**  
tons of structure fabricated

Over **200,000**  
square feet fabrication facility

Over **100,00,000**  
square meter of industrial roofing area covered

DUAL-PLANE 146 METERS CLEAR-SPAN HANGER,  
MUMBAI INTERNATIONAL AIRPORT



DUAL-PLANE 146 METERS CLEAR-SPAN HANGER,  
MUMBAI INTERNATIONAL AIRPORT





DUAL-PLANE 146 METERS CLEAR-SPAN HANGER,  
MUMBAI INTERNATIONAL AIRPORT



PROJECT FACT FILE

DUAL-PLANE HANGER

Name	: Dual-Plane 146 Meters clear-span hanger, Mumbai International Airport
Client	: Larsen & Toubro
Location	: Mumbai International Airport
Erection Contractor	: Eversendai Constructions Pvt. Ltd.
Structure Tonnage	: 1200 Tons
Plate Thickness Used	: 3 mm, 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 30 mm, 32 mm, 36 mm, 40 mm, 50 mm, 60 mm
Welding Standard Used	: SAW, SMAW, FCAW (AS PER AWS D1.1)
Welding & Quality Test Code	: Ultrasonic & Radiographic
Project Executed in	: 180 Days
Critical Features	<ul style="list-style-type: none"><li>• QAP approved by L&amp;T</li><li>• Detail shop drawings</li><li>• Radial CNC cutting</li><li>• Full penetration welding at 60 mm joints with 100% MPIL + UT+RT</li><li>• Full pre assembly of independent segment in shop, total 18 segment</li><li>• Third party QC inspection by ECPL, L&amp;T and Bureau Veritas .</li><li>• Shot blasting, with three coats of primer and final fire resistant epoxy paint. Total DFT maintained 210 microns</li></ul>

PROJECT FACT FILE

SAHARA STAR HOTEL AND CONVENTION CENTER

Name	: Sahara Star Hotel And Convention Center
Client	: L&T ECC Division
Location	: Sahara Hotel Mumbai Domestic Airport
Erection Contractor	: L&T
Structure Tonnage	: 1500 Tons
Plate Thickness Used	: 10mm,12mm,16mm,20mm,25mm, 32mm,40mm,50mm,60mm
Welding Standard Used	: SAW, SMAW, FCAW (AS PER AWS D1.1)
Welding & Quality Test Code:	Ultrasonic Tested
Project Executed in	: 6 Month
Critical Features	<ul style="list-style-type: none"><li>• QAP approved by L&amp;T</li><li>• 32 meter H beam</li><li>• Full penetration welding across the length, 100% UT</li><li>• Full alignment in shop of 32 meters beam before dispatch with a total tolerance across length of only 2mm</li><li>• Welding of girders of 2.7 meter web with full penetration welding and with a 100 mm induced camber</li><li>• Shot blasting + paint = total DFT 70 microns</li><li>• Inspection by L&amp;T, NORR</li></ul>



SAHARA STAR PROJECT



32 Meter Long Mega Columns in Production Stage at MPIL Plant



## MP FABRICATED STEEL STRUCTURES

### Stocking Facility

- Close proximity to major HR plate mills; steel delivered just in time.
- Purchased directly from all major HR plate manufacturers of India.
- Delivered to length to minimize waste.
- State-of-the-art, efficient handling equipment.
- All weather mechanical plant.



### Fabricated Sections Production Line

- Sections fabricated from plate.
- Sections design for minimum weight and optimum fire protection.
- Automatic material handing.
- Automatic twin head welding.
- Service holes cut in beam webs as required.
- Sections up to 18m long, 2.0m deep.



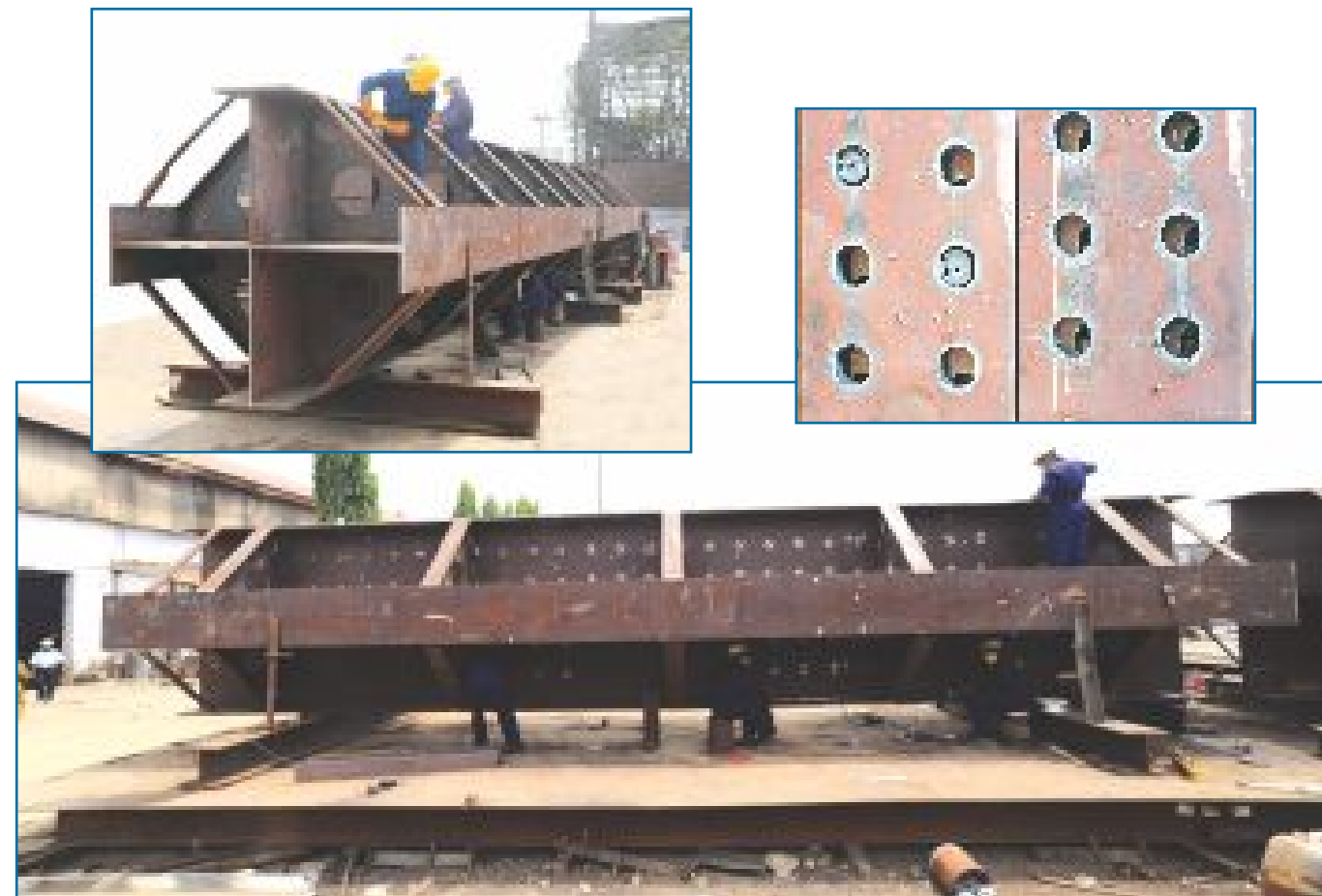
### Automatic Welding Bay with Sawing and Drilling Facility

- Online submerged arc welding lines.
- In-house NDT and Ultrasonic testing available.
- Ongoing inspection and welding quality testing.
- CNC controlled as well manual cutting and drilling options.
- Accuracy upto +/- 1mm.



### Shot Blasting and Painting Line

- Shot blast to SA2.5 or higher grade.
- Removal of all mill scale and rust particles.
- Ideal for paint adhesion.
- Red-oxide or enamel painting lines (upto 150microns with enamel, epoxy and fire resistant coating).





## MP PLATE WELDED BEAMS

### MPIL I/H Beams – Parallel Flange Sections

World over, parallel flange beams are the increasingly preferred standard for large constructions owing to their superior strength, cost-savings, enhanced durability, and higher load-bearing capacity. MPIL beams are now the most sought after primary sections recommended by structural engineers, architects and construction companies throughout India.



### Applications

Multi-storey buildings, bridges, flyovers, rail projects, power plants, refineries, airports and industrial sheds.

### Advantages of MPIL Plate Welded Beams

- Enhanced life cycle and durability.
- Time saving as manufactured on automatic online cutting and welding lines.
- Steel savings in excess of 20% as lower sectional weight beams can achieve higher load bearing capacity.
- Ideal for bolted or fabricated construction.
- Offer tremendous flexibility in design as beams are entirely custom-made.
- Shot blasted and painted; aesthetically superior.

### Product Specification

MPIL H/I Beams

Flange width : 200mm to 1500mm

Web thickness : 6mm to 60mm

Plate thickness : 6mm to 60mm

Length : Upto 12000mm without welding joint  
(can be made longer with welding joint)

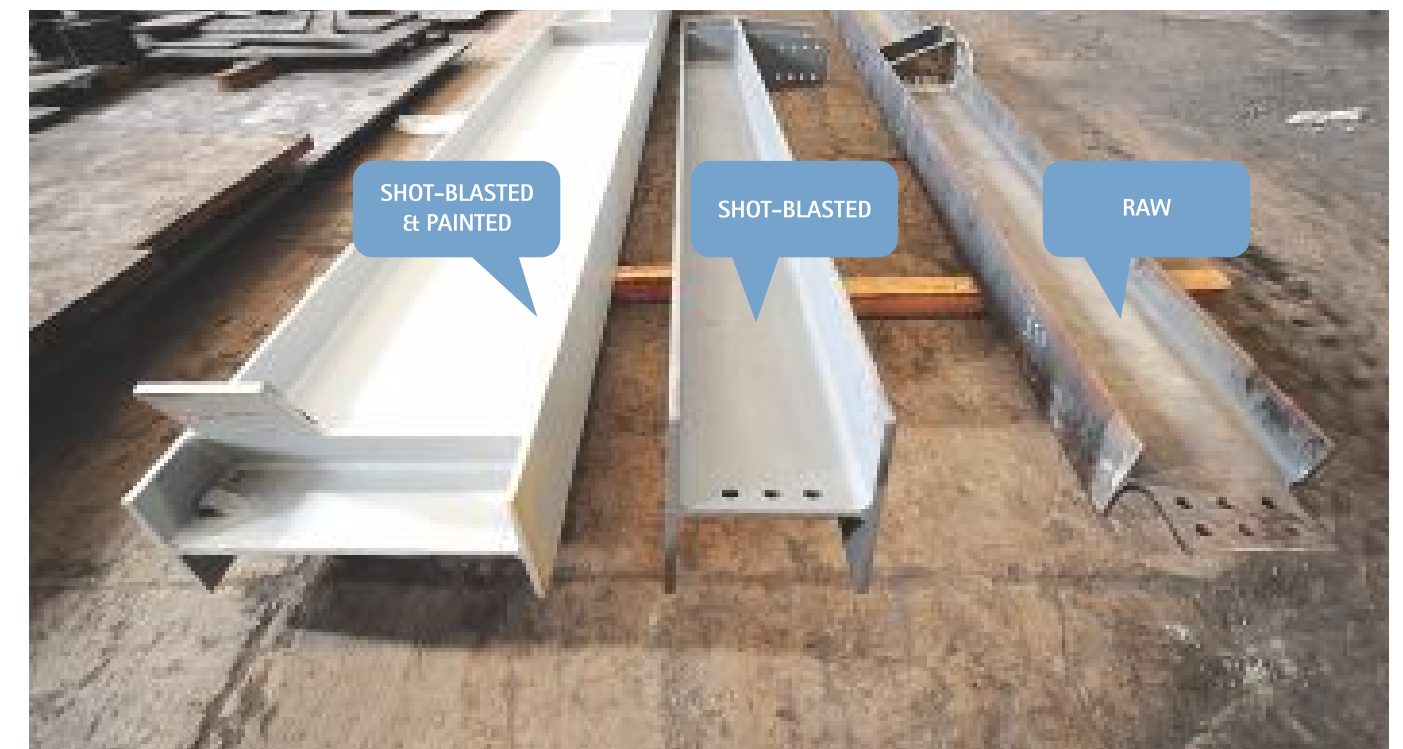
### Steel Grade

- IS 2062: E250A, E250B, E300, E350, E410
- ASTM: A36, A572 Grade 50 Certifications
- MPIL sections are also certified by Indian Institute of Technology (IIT) Mumbai, Department of Structural Engineering.



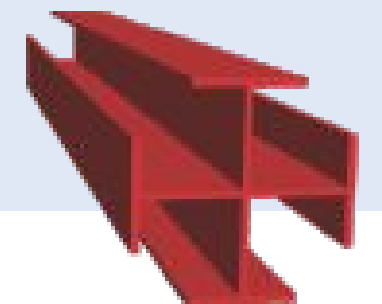
### Shot-blast & Painting

MPIL beams can be shot blasted, coated with red-oxide primer and enamel painted at the MPIL plant, before dispatch to client site.



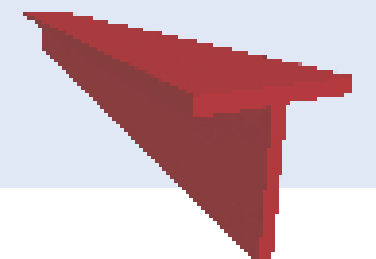
### MPIL Plus/Cross Beams

- Maximum weight per section can be 35 tons
- Maximum size per column can be 1200 x 1200mm
- Range of plate thickness can be 6mm to 60mm



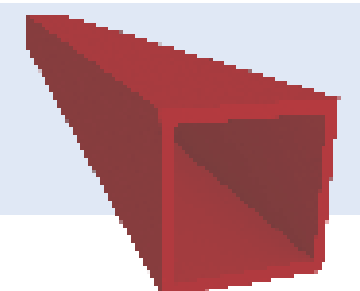
### MPIL T-Beams

- Flange width can be maximum of 1200mm
- Length upto 12 meters without welding joint



### MPIL Box Beams

- Width can be maximum of 1200mm to 1200mm
- Length upto 12 meters without welding joint



## MPIL PLANT & EQUIPMENT

### The MPIL fabrication facility features:

- State-of-the-art CNC (Computer Numerical Controlled) machines.
- 6 Automatic saw welding station.
- 100,000 square feet of storage yard for materials.
- 12 EOT Cranes ranging from 5MT capacity to 20 MT capacity.
- 3 Hydraulic Cranes of 15 MT each for open yard fabrication.
- Goliath crane in the open yard of ISMT Capacity.
- 250 highly skilled welders, riggers and fitters.
- Key-location near all major sources of hot-rolled steel plates manufacturers of India.

### Plate Cutting Machines

CNC controlled plate cutting/profiling machines have the capabilities to process plates upto 18 meters long, 5 meters wide and 80mm thickness, using gas – cutting/ plasma or shearing technology.



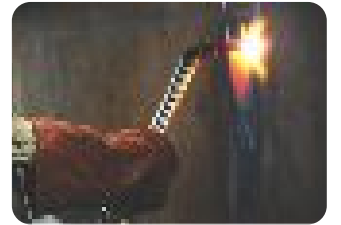
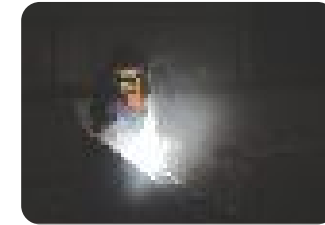
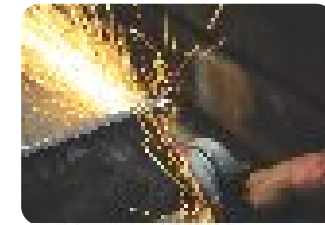
## MPIL PLANT & EQUIPMENT

### Plate Punching and Drilling Machines

The plate processing machine has the facility to punch, drill, mark, and cut plates using gas-cutting and shearing technology.

### Saw, Drill and Notching Lines

MPIL has facility for heavy duty sawing and drilling at wider widths and heights, capable of coping and cutting sections, angles, channels, tubes and hollow sections.



### Gantry Welding

The automatic SAW gantry line can manufacture built-up sections, such as H/I beams, and hollow sections such as rectangles and square beams.



### Simplex Infrastructure Ltd.

Supply of Steel Structures for  
Tendaho Sugar Mill , Ethopia

**Structure Tonnage: 2000 MT**



#### 2. Raw Sugar Godown

- 1. Length- 260 m
- 2.Width – 80 m ( Clear Span)
- 3.Height – 33m



A 40 m structural roof member under full  
assembly inspection prior to dispatch

#### 4. Jhaveri Flexo Silvassa

A 33 m high building commissioned for  
Jhaveri Flexo in Silvassa in a remote  
location on hill top with high intensity  
rainfall during the monsoon with zero  
accidents.



- #### 5. Star Agri Warehousing , Kota
- Warehouses for Star Agri Warehousing  
with a total area of 13500 sqm in Kota,  
Rajasthan

#### 6. Viraj Profiles, Tarapur

Warehouses for Viraj Profiles for  
stockpiling inbound material in  
Tarapur , Maharashtra



40 Meter Height Engineering Shop For Lavgan Dockyard Port  
for the Chowgule Group



PROJECT FACT FILE (ALL WEATHER PORT)

Client :	Lavgan Dockyard Pvt Ltd (Chowgule Group)
Location :	Jaigad Port, Ratnagiri
Design Consultant:	Perkins Eastman, Tata Consulting Engineers Ltd
Structure Tonnage:	2000 MT
Total no of Buildings:	14
Plate thickness used:	6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 30 mm, 36 mm, 40 mm.

Critical Features:	Eave Height – 32 meters.
Fascia:	1.25 meters all around the buildings.
Crane Capacity:	10 T & 5 T
Roofing and Cladding:	MP Standing Seam Panels with Insulation, Liner Panels, Brows over Windows & Ridge Ventilators.





## PROJECT PERFORMANCE

### 1. Sahara Star Hotel, Mumbai

Scope of Work: Fabricated heavy steel sections for 60mm and 80mm with Length of 33 meters.  
Quantity: 1100 MT



### 2. Mumbai International Airport Ltd. (MIAL), Mumbai

Scope of Work: Fabrication for 146 Meter Clear span Dual Airport Hangar.  
Quantity: 1000 MT

### 4. Mumbai International Airport Terminal

Scope of Work: Mega Columns of 32 Meter Ton/Per Piece Mega Columns.  
Quantity: 4800 MT



### 5. Zuari Cement – Italcementi Group, Yerraguntala

Design Supply and Erection of Coal Stockyard including Civil Work.

Principal Technical Consultants: FLSmidth

Length- 450 m

Width – 60 m ( Clear Span)

Height – 17 m



### 3. Marathon Futurex Towers, Mumbai

Scope of Work: Fabrication of floor beams and structural steel plate sections.  
Quantity: 2000 MT



### 6. Bharat Heavy Electrical Ltd

Supply of boiler components for 660 MW  
Suratgarh Power Plant

