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# VISION

To be the leading solution provider in steel construction space by adopting best processes, practice and harnessing resources efficiently.

# MISSION

To champion our mantra "CUSTOMER DELIGHT" by augmenting eco friendly, sustainable, qualitative and timely deliverables.

To realize our vision and mission we shall exert every effort to achieve the following in all our activities:

- Gaining the confidence and trust of our supervising bodies, employees, stakeholders, customers, and the public through strict adherence to all applicable laws, regulations, best practices, Quality Standard (ISO 9001:2015)
- Adopting a proactive approach and setting an excellent example for other governmental and private sectors by implementing our Quality and Environment Management System and through applying scientific knowledge, use of resources in a sustainable manner and utilizing best available clean technologies in all our activities.
- Conducting all our business operations in such a way as to protect and conserve the environment, to prevent pollution and to minimize all risks to the environment.
- Systematically monitoring, measuring, reviewing and taking effective actions to mitigate adverse risks & enhancing positive impacts on the Quality & Environment of all our activities
- Communicating our Policy and Objectives to all our employees, stakeholders, partners, customers, interested parties and the public.
- Continually improving the effectiveness of our Quality and Environment Management System through periodic monitoring and review of its performance and suitability.

The above Policy provides the framework and sets the basis for establishing and reviewing our objectives at all relevant functions of Smith Structures India Pvt Ltd. It will be reviewed periodically for continuing stability and suitability.





**SSIPL**, established in 2012, is a powerhouse in the Pre-Engineered Buildings sector, swiftly conquering market leadership through unparalleled quality, volume, and customer satisfaction. With over **750 + completed buildings** and an annual revenue exceeding **750 + Crores**, our rapid ascent has earned recognition among the top 100 MSME companies in India by the Ministry of Micro, Small & Medium Enterprise in 2019.

SSIPL underwent a comprehensive evaluation by a distinguished jury, considering both financial and non-financial parameters. This assessment led to its recognition as one of the top 100 MSME companies in India.

SSIPL has heavily invested in the integral components of Design & Detailing, the cornerstone of its Steel Construction Solution. Boasting a team of over 70 + designers and detailers, SSIPL Engineering operates in Hyderabad and Ahmedabad, highlighting its dedication to excellence in the field.

SSIPL's commitment to producing top-quality products stems with its state-of-the-art manufacturing facility located in Ahmedabad, Gujarat, this modern facility has an impressive annual production capacity of 72,000 MT, spanning over 35,000 sqm of constructed space and covering a land area of 1 million sq. feet, they exemplify SSIPL's dedication to precision and excellence in manufacturing.

SSIPL sources cutting-edge equipment globally to craft superior Pre-Engineered Buildings. Our extensive machinery setup entails built-up, cold-formed, and roll-formed steel sections. Recognizing the pivotal role of painting in structural long evity, we've invested in an in-house online painting booth and shot blasting machine, ensuring top-notch quality and swift deliveries. The Construction service is paramount for the successful delivery of a project, emphasizing safety, accuracy, and adherence to drawings. At SSIPL, each project is treated as unique, receiving special care throughout. With a dedicated team of over 90+ Project Engineers overseeing execution, SSIPL ensures the final building is delivered to the client with the highest standards of safety and precision.

To have seamless interface with our esteemed end users SSIPL has a pool of experienced best Project Management professionals to ensure accomplishment of committed timelines with defined quality.

SSIPL has built an extensive clientele throughout India, delivering buildings across diverse categories such as factory buildings, warehouses, administrative blocks, and showrooms. It takes pride in its enviable portfolioranging from Light weight to complex heavy weight steel sections in various industry segments, including automobile and auto OEM, food and agro, chemical, pharmaceutical and packaging, tyre, warehousing, steel, electrical and electronics, textile, cold supply chain, and logistics.

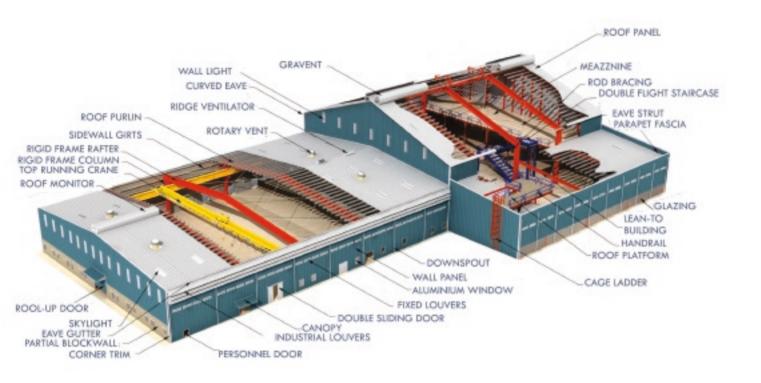
### Advantage:

■ ISO 9001-2015 ■ RDSO Accredited ■ NABL Accreditation in process ■ FM Accreditation in process ■ IGBC accreditation in process. Team of 600+ professionals ■ Pan India footprints that extend to other part of globe namely, Dubai, Nigeria, East Africa and West Africa. ■ 90+ certified and trained erectors ■ Proficient in applying and interpreting Indian, American, Euro, and international codes.

For an overview of our offering and capability we welcome you to visit our state of art facility at Ahmedabad, Gujarat.

# PRE- ENGINEERED BUILDINGS

Pre - Engineered Steel Buildings are designed and fabricated to meet client requirements in accordance with the Universal standards. A pre-engineered Building consists of Four important components — Primary members, Secondary members, Metal roof/cladding system & Connection fasteners. These components are so designed that they are compatible with each other. The fabrication of these components is carried out in factory under strict quality control as per detailed shop drawings. These components are transported to site with proper markings and assembled at site as per erection drawings.



# SALIENT FEATURES

- Uses high strength steel plates having yield strength of 345 MPA (i.e grade 50) for fabrication of primary members like columns, rafters, beams etc. Hence structural becomes light and economical. for high rise and heavy structure can use Ys 450 MPA
- Uses tapered beam sections concept, thus ensuring right amount of structural steel at right place.
- Built up sections are made from HR plates with submerged arc welding process in automatic welding machine in the factory.
- Uses cold formed either galvanised or non-galvanised sections for secondary members.
- Use metal color coated material for Roof sheets and cladding which are durable and aesthetically good looking.

- 6. Columns free buildings with longer span.
- Buildings with mezzanine /cranes with different functional requirement.
- Speedy and planned execution drastically cuts down time and costs of projects.
- Single source responsibility from inspection to completion, covering design, engineering, detailing, fabrication supply and erection.
- Design which provide structurally stable PEBs using universally accepted codes and guidelines.
- Special building components like skylight, ridge ventilators, turbo ventilators, sliding doors, windows, roof curbs, S-type louvers etc can be supplied and installed.
- Insulation to maintain temperature under control.

# **MANUFACTURING PLANT**



Spreaded over 1,15,000 m2



🎗 Kheda, Gujarat.

# MANUFACTURING FACILITY

Smith Structures India Pvt. Ltd. is located in Vansar, Kheda, GUJARAT-INDIA. The factory covers an area of 35,000 sqm. and land area 1 million square feet, Our ISO 9001-2015 certified operations by BUREAU VERITAS consistently deliver quality systems to all customers.

The factory manufactures first class quality building system components such as Columns, Beams, Purlins, Sheeting and Secondary structural items meant for Warehouses, Factories, Shopping Malls, Airports apart from structural members meant for refineries, oil and gas, High rise structures, Steel plants, Thermal plants etc. Structures even exported to various clients in countries like Middle East and Africa.

Plasma Cutting Machine

**Deck Sheet Machine** 

**PHI Welding Machine** 

Gantry Type H - Beam Welding M/C

Standing Seam Machine

**CNC Shearing Machine** 

**CNC Bending Machine** 

**CNC Punching Machine** 

**CNC Forming Machine** 

CNC - "Z" & "C" Purlin Machine

**Online Shot Blasting Machine** 

**CNC Drilling Machine** 

**Downspout Forming Machine** 

Coil Slitting & Cutting Machine



Plate Processing M/C

Oxy Fuel Plasma Cut M/C



# Pull Through Welding M/C



# Shot Blasting M/C



# CNC Drilling M/C



# Flange Line M/C



# Shearing M/C



# SSR Profiling M/C (Portable)



# Sheet Profiling M/C



# Gantry Beam M/C



# **DESIGN / ENGINEERING / PRODUCT DEVELOPMENT**

We call this "Knowledge Hub" – a world class design & engineering office manned with team of experienced Design & Engineers professionals and equipped with latest sophisticated design softwares.

Staad —Pro, MBS BOCAD, STRUCAD are among the few design and detailing tools are used at SSIPL design & engineering center, thus delivers the quick, accurate and cost effective solutions. The design office offer intelligent engineering solutions and support pre & post order functions with arrangement, fabrication & erection drawings. The computerised drafting & detailing simplify manufacturing programs and erection methods.

SSIPL knowledge archives has variety of design codes such as AISC, MBMA, AWS, UBC, ASCE, IBC, IS and many others to suit customer need of a pre-engineered building at anywhere in the world.

The buildings are designed as per latest universal codes like AISC / IS, as per utility of the building in consultation with the client / consultant. Smith Structures consistent efforts in research & developments has positioned the organisation as a lead runner in introducing innovative ideas and products in market place.

# General

### 1.1 Definition

- 1.1.1 The building, as specified herein, consists of columns, rafters, bracing, connection clips, roof purlins, wall girts, roof and wall sheeting, anchor bolts, flashing, trims, etc., or as specified. All materials shall be new and free from defects.
- 1.1.2 The main building structure comprises of single or multiple gable interior rigid frames with either rigid or "post-and-beam" frames at the endwalls.
- 1.1.3 The standard roof slopes are 0.5 or 1.0 unit of vertical rise to 10 units of horizontal run. Other slopes are available upon request.
- 1.1.4 The sidewall steel line is the plane of the inside vertical surface of the sidewall sheeting. It is also the plane of the outside vertical surface of the eave strut.
- 1.1.5 The endwall steel line is the plane of the inside vertical surface of the endwall sheeting. It is also the plane of the outside vertical surface of the outer flange of the endwall girts.
- 1.1.6 The building width is the distance between the steel lines of opposite sidewalls. Building width does not include the width of Lean-To buildings or roof extensions. The width of a Lean-To building is the distance from the steel line of the exterior sidewalls of the Lean-To building to the (sidewalls or endwalls) steel line of the main building to which the Lean-To building is attached.
- 1.1.7 The building length is the distance between the steel lines of opposite endwalls. Building length is a combination of several bay lengths. Building length does not include the width of endwall Lean-To buildings or roof extensions.
- 1.1.8 End bay length is the distance from the outside of the outer flange of endwall columns to the center line of the first interior frame.
- 1.1.9 Interior bay length is the distance between the center lines of two adjacent interior rigid frame columns.
- 1.1.10 The building eave height is the distance from finished floor level (FFL) to the top of the eave strut at the sidewalls steel line.

1.1.11 The building clear height is the distance from finished floor level (FFL) to the bottom of the end plate of the rafter at the knee.

### 1.2 Standard Structural Framing Systems

- 1.2.1 Clear Span (CS) buildings have a gable roof with vertical sidewalls and endwalls. Interior bay frames are clear span rigid frames without interior columns.
- 1.2.2 Multi-Span (MS) buildings have a gable roof with vertical sidewalls and endwalls. Interior bay frames are rigid frames, typically with tapered exterior columns, tapered rafters and square tube or built-up interior columns.
- 1.2.3 Space Saver (SV) buildings have a gable roof with vertical sidewalls and endwalls. Interior bay frames are clear span rigid frames having constant depth columns and tapered rafters typically with horizontal bottom flanges.
- 1.2.4 Lean-To (LT) buildings consist of outer sidewall columns and simple span rafters attached to the sidewall columns or the endwall posts of the main building. Lean-To columns are of constant depth. Lean-To rafters may be tapered or of constant depth.
- 1.2.5 Multi-Gable (MG) buildings have a roof with two or more gables and vertical sidewalls and endwalls. Interior bay frames are rigid frames typically having tapered exterior columns, tapered rafters and built-up interior columns.

### 1.3 Standard Framing Features

- 1.3.1 Main frames are typically constructed from tapered or constant depth columns and rafters.
- 1.3.2 Rigid frames for Clear Span (CS) and Multi-Span (MS) buildings are most commonly spaced from 6000 mm to 10000 mm, center line to center line.
- 1.3.3 Outside flanges of Clear Span (CS) and Multi-Span (MS) rigid frame columns are inset 280 mm from the sidewall steel line to allow for by-pass girts.
- 1.3.4 Outside flanges of Space Saver (SV) rigid frame columns shall be placed flush with the sidewalls steel line.

- 1.3.5 The top flanges of all rigid frame rafters are 200/250 mm below the bottom of the roof sheeting
- 1.3.6 End frames are "post-and-beam" (P&B) load bearing frames with endwall girts flush framed into the webs of the endwall posts so that the outer flanges of the girts are in the same vertical plane as the outer flanges of the posts. Optional rigid frames may be used at the building ends.
- 1.3.7 Endwall posts are typically spaced at 6000 mm. Depending on the width of the building and endwall openings, other spacing may also be used. When the building width is not evenly divisible by 6000 mm, the interior spacing of the endwall posts is typically kept at 6000 mm with two equal end spacings smaller or larger than 6000 mm.
- 1.3.8 For Clear Span (CS) and Multi-Span (MS) buildings, the sidewall girts are attached (by-passed) to the outer flanges of exterior columns. Sidewall girts are lapped at all interior frames. For Space Saver (SV) and Lean-To (LT) buildings, the sidewall girts are flush connected (flush framed) so that the outer flange of the girts is in the same vertical plane as the outer flange of the exterior columns.
- 1.3.9 The bottom flanges of roof purlins are attached to the outer (top) flanges of the rafters. Purlins are lapped at all interior frames in all structural framing systems.

### 1.4 **Building Components**

- 1.4.1 Columns and rafters of rigid frames are tapered built-up "I" sections. Interior columns of multi-span frames may be square tube sections.
- 1.4.2 All rigid frame connections are bolted. Columns and rafters are provided with welded end plates for anchoring to foundations and for member-to- member attachment. Pre-punched holes or welded clips are provided for attachment of purlins and girts, bracing, and other components.
- 1.4.3 Load bearing "post-and-beam" (P&B) end frames may be constructed from cold-formed channels, hot rolled sections or built-up welded plate sections, as required.
- 1.4.4 Purlins and girts are pre-punched cold-formed "Z" shaped sections, 200/250 mm in depth with stiffened flanges.
- 1.4.5 Eave struts are pre-punched cold-formed "Z" shaped sections, 200/250 mm in depth with 65/75 mm stiffened flanges. The eave strut serves as a longitudinal structural bracing member in addition to acting as a transition point for walls & roof sheeting.
- 1.4.6 Panels (roof & walls) are roll formed to the maximum practical length (generally 12000 mm) to minimize end laps in the field.
- 1.4.7 The standard roof and walls panel is Profile "S". It is a roll formed panel having 4 major high ribs and 12 minor ribs. The panel covers a width of 1000 mm. The lapped major rib has a siphon break to prevent capillaric intrusion of water at the side lap. The panel has an extended bearing leg to provide stiffening during installation
- 1.4.8 Roof panels have a minimum end lap of 125 mm over purlins & are fully protected from siphon action by an end lap mastic.
- 1.4.9 Wall panels have the same side lapping as the roof panels. End lap is 125 mm over the girts. Generally no side or end lap mastic is required.
- 1.4.10 Profiled ridge panels are provided at the ridge of all buildings with single skin roof panels.
- 1.4.11 Eave gutters are supplied in lengths of 6000 mm. They are coldformed to a profiled cross-section that is about 175 mm wide x 170 mm high.
- 1.4.12 Downspouts for eave gutters are supplied in lengths of up to 9000 mm to minimize splicing. They are cold-formed to a ribbed rectangular cross section 135 mm wide x 90 mm deep.

- 1.4.13 Valley gutters are supplied in maximum lengths of 4500 mm. They are cold-formed / GI / MS with FRP Lining and as per design required.
- 1.4.14 Downspouts for valley gutters in Multi-Gable (MG) buildings are PVC pipes supplied in three sizes; 110 mm, 160 mm & 200 mm (outside diameter). Fiberglass or PVC outlets connecting the valley gutter to the downspouts are also supplied.
- 1.4.15 Diagonal bracing, providing longitudinal stability against wind, seismic or other forces, is attached to the web of the rigid frame near the outer flange of columns & rafters. The standard diagonal bracing is MS Painted steel with an eye bolt and an adjusting nut and hillside washer at each end. Solid round bars or hotrolled angles may be used as required by design.
- 1.4.16 Flange braces, in the form of angles, are provided to stabilize the interior flanges of rigid frame rafters and columns at certain purlin and girt locations.
- 1.4.17 Base angles are provided in fully sheeted walls 6000 mm in length for attachment of the wall panel to the concrete slab. The concrete floor slab must have a 40 mm x 40 mm notch at the perimeter (below the finished floor level) to accommodate the bottom of the wall panel to prevent ingress of dust and water. The base angle is a light gauge bent plate.

# Design

### Codes

- 2.1.1 Frame members (hot rolled or built-up) are designed in accordance with the American Institute of Steel Construction (AISC): Manual of Steel Construction, Allowable Stress Design/IS Codes.
- 2.1.2 Cold-formed members are designed in accordance with the American Iron and Steel Institute (AISI): "Cold-formed Steel Design Manual."
- 2.1.3 All welds are designed in accordance with the American Welding Society (AWS): "Structural Welding Code - Steel".
- 2.1.4 Loads are applied in accordance with the requirements of the Metal Building Manufacturers Association (MBMA) of the USA: "Low Rise Building Systems Manual/IS-875".
- 2.1.5 Other codes can be accommodated if specified.

### 2.2 Loads

- 2.2.1 The building is designed to withstand the dead load (DL) of the structure plus a specified live load (LL) and wind load (WL).
- 2.2.2 Auxiliary (Collateral) loads, if any, must be specified by the customer at the time of request for quotation.
- When snow load is of concern, the customer will specify the snow load where applicable, in accordance with local codes.
- 2.2.4 Load combinations shall be in accordance with the requirements of the "Low Rise Building Systems Manual" published by MBMA or as per IS Code.
- 2.2.5 Other loads and load combinations can be accommodated and must be specified at the time of request for quotation.
- 2.2.6 SSIPL will not be responsible for any static or dynamic loads that are transferred to its building from the plant machinery and equipment, unless the loads are specifically requested at the time of request for quotation.





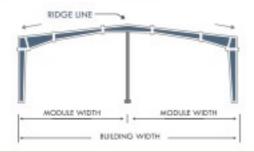


# STANDARD FRAME TYPES

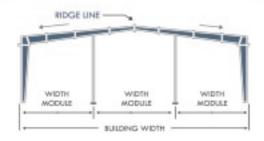
# Tapered Column Clear Span (TCCS)



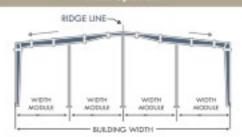
### Multi Span I



### Multi Span II



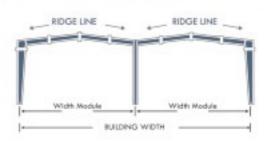
### Multi Span III



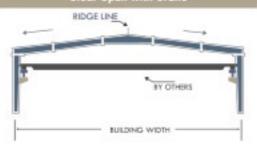
### Lean - To



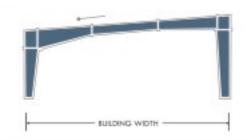
### Multi Gable (MG) I / II



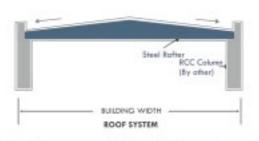
Clear Span with Crane



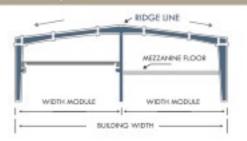
Mono Slope



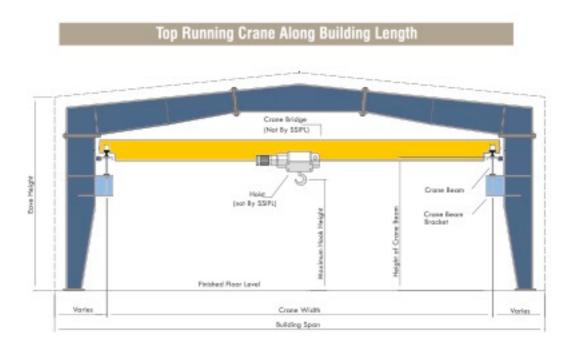
Rafter System



Multi Span I with Crane & Mezzanine

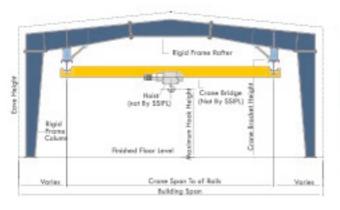


# The most common types of Crane System available for Pre-Engineered Steel Buildings are:



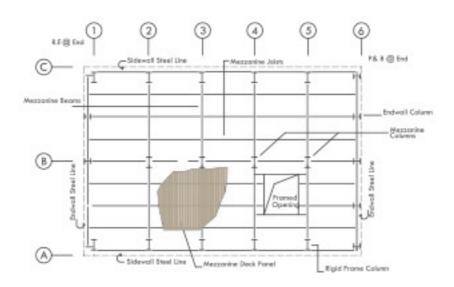
## **Underhung Crane**

## Jib Crane and Monorail Crane

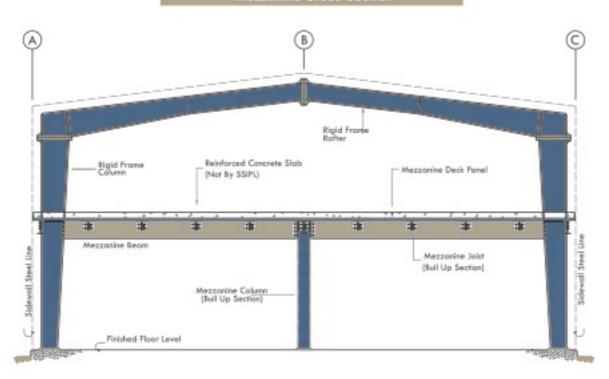




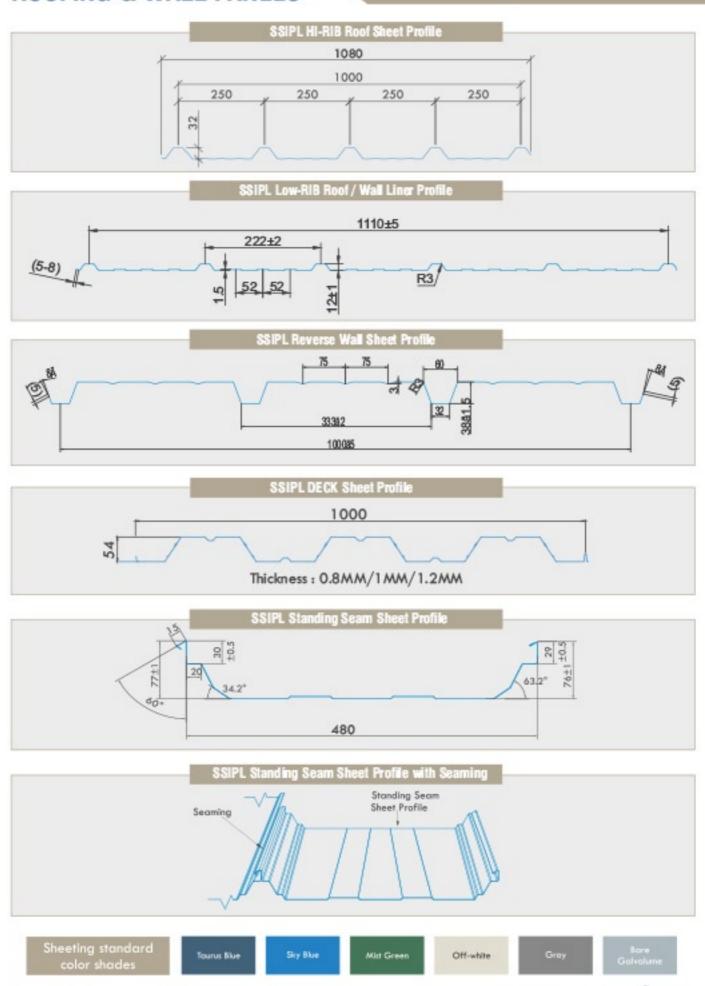
### Mezzanine Plan



# Mezzanine Cross Section



# **ROOFING & WALL PANELS**









































































































# PROJECT MANAGEMENT

The project management is responsible for the overall management controlling, risk management and for the maintenance of project management systems for the entire organization. It supports all projects of the organization and offers tools and other resources, such as project assistance, standards and guidelines, to all project managers for smooth execution of project.



# **Quality Assurance & Quality Control**

We, SSIPL being an ISO 9001:2015, believe in Total Quality Management rather than only Total Quality Control. The philosophy underlying the implementation of a TQM strategy is to see organisational customers and clients as the vital key to organisational SUCCESS.

### Our Aim: Level of Product Quality > Customer / Client's Expectation.

At SSIPL, quality is the key attribute around which all activities and processes are executed. We adopt a comprehensive quality plan complying with MBMA, ASTM and AWS requirements at various stages of design and manufacturing.

### The process includes

Incoming/Raw Material Inspection In-process Inspection NDT Final Inspection

# TOTAL QUALITY MANAGEMENT

**Total Quality Management (TQM)** is a strategy that embodies the belief that the management process must focus on integrating the customer – driven quality throughout an organisation.

# SSIPL - TQM Policy



PDCA is an iterative four - step management method used in business for the control and continuous improvement of processes and products.

At SSIPL, we consider it as an effective tool which has improved our product and procedure for manufacturing it via continuous feedbackfrom client and inter departments.



# **QUALITY INSPECTION AT SSIPL**



# Incoming Material Inspection

Visual Apperance | Dimensional | Specifications

# In-process Inspection

Dimensional | Non Destructive Testing | Visual



Visual | Paint Inspection | Final Stage Inspection

# **AWARDS & ACHIEVEMENTS**













# Smith Structures (India) Pvt. Ltd.

PROUD TO BE HONOURED AS **BEST PRE-ENGINEERED BUILDING (STEEL & PRE-CAST)** 





### **ENVIRONMENTAL**

The impact the building will have today and in the future when considering factors as energy usage, efficient use of space, recyclability, materials used for construction, all in an effort to conserve natural resources.

### **ECONOMIC**

Lowering operating costs, enhancing asset value, improving productivity, as well as optimizing life cycle performance.

### **HEALTH & COMMUNITY**

Improvement of air quality, occupant comfort, and overall health conditions.

Smith Structures India Pvt. Ltd., a prime player in the pre fabricated metal buildings sector has been the preferred choice for may of the customers across various sectors.

The company believes in the cause for a green future and acts as a catalyst for a revolution for attaining sustainable goals. Buildings fabricated by Smith Structures India Pvt. Ltd., have some innate features that make them green to a large extent.

Smith Structures India Pvt. Ltd. the pioneer in the pre engineered buildings sector in India, offers comprehensive solutions for LEED compliance. Ourdesignand methodologies enable customers to get substantive LEED points that contribute to the rating of a building as green.

# Green Innovations From Smith Structures India Pvt. Ltd.

### Steel - the Green Metal

Steel is the basic material that is used in the construction of a pre engineered building. It negates the harmful effects associated with concrete and cement. Steel used by Smith Structures India Pvt. Ltd. for any building can be 100 % recycled in the future, after the building has lived its life. Steel also lowers the life cycle cost as it is easier to maintain.

### Heat Island Effect

Smith Structures India Pvt. Ltd. uses metal roof panels that have high solar reflectance index (SRI). This helps in reducing the energy consumption and the heat island effect.

### Insulated Metal Panels

Smith Structures India Pvt. Ltd. offers effective insulation solutions for both the roof and walls. The panels have a superior R value that will contribute towards greater thermal and energy efficiency

# Sky Lights

Sky Lights help in ushering natural light into the building. This ensures minimum or negligible usage of artificial lighting thus contributing towards lesser emissions.

# Regional Materials Usage

Materials that are used by Smith Structures India Pvt. Ltd. are procured from regional sources. This helps to cut costs & emissions on transportation & logistics.

# **Innovation & Design**

The pre engineered buildings fabricated by Smith Structures India Pvt. Ltd. use appropriate software, which ensure that resources are optimized.

# Long bay Spacing

Smith Structures India Pvt. Ltd. offers long bay spacing that will help in reducing the number of footings for any site. This technique ensures that civil work is reduced, usage of materials is optimized thus maintaining the ecological balance.

# Renewable Energy Options

Smith Structures India Pvt. Ltd. efficient leak proof Double Lok roofing system enables the installation of solar panels on the roof top. Solar power helps customers in meeting their power requirements, reducing the emissions and in the process be eligible for carbon credits under CDM.





## Warehouses & E-Logistics



# Plastic & Packaging













































































### Tyre









































































# Textile & Hygiene Products

























# Automobile



# **Appliances**



































































# Steel Processing

















SANDVIK















# **FMCG & Beverages**











































# Ceramics Sanitary



















# Engineering



# Chemicals & Fertilizers































Group























SANTRAM









ARWADE 🗪 INFRASTRUCTURE LIMITED











RINAC INDIA LIMITED























BÆRLOCHER 700



















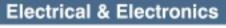










































# Cold Storage & Refrigeration



# Renewable Energy





















# Ply



# Paper Industry



























# Mining



















# Wires & Cables









# **Defence & Aerospace**



# Petrochemicals















# Refractories



# Breweries / Distilleries







**BOUDH DISTILLERY** 



# Manufacturers of Quality Pre-Engineered Steel Buildings & Structures

### Plant

Survey no. 358, Kheda Bypass Road, N.H.-8, Vansar, 387570, Ta.Matar, Dist. Kheda, Gujarat, INDIA.

### Head Office (Sales & Marketing)

1101, Maple Trade Centre, Nr. Surdhara Circle, Thaltej, Ahmedabad - 380052, Gujarat, INDIA.

### Regional Offices

Ahmedabad | Vadodara | Delhi | Mumbai | Pune | Kolkata | Hyderabad | Indore | Chennai

### Contact Us

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