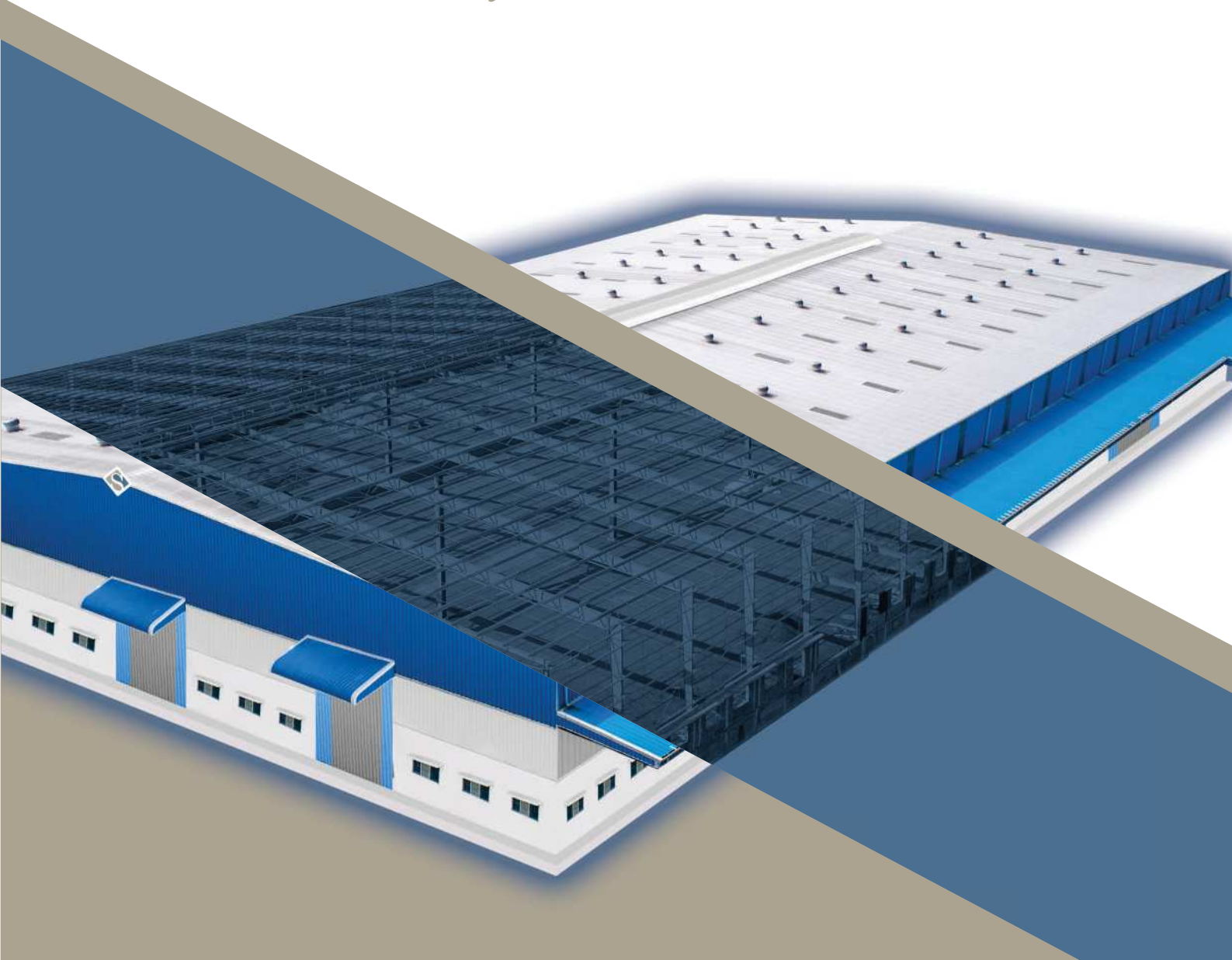




Smith  
Structures  
India Pvt. Ltd.

*" Making Your Vision Come True "*



## Pre-Engineered Steel Buildings & Structures

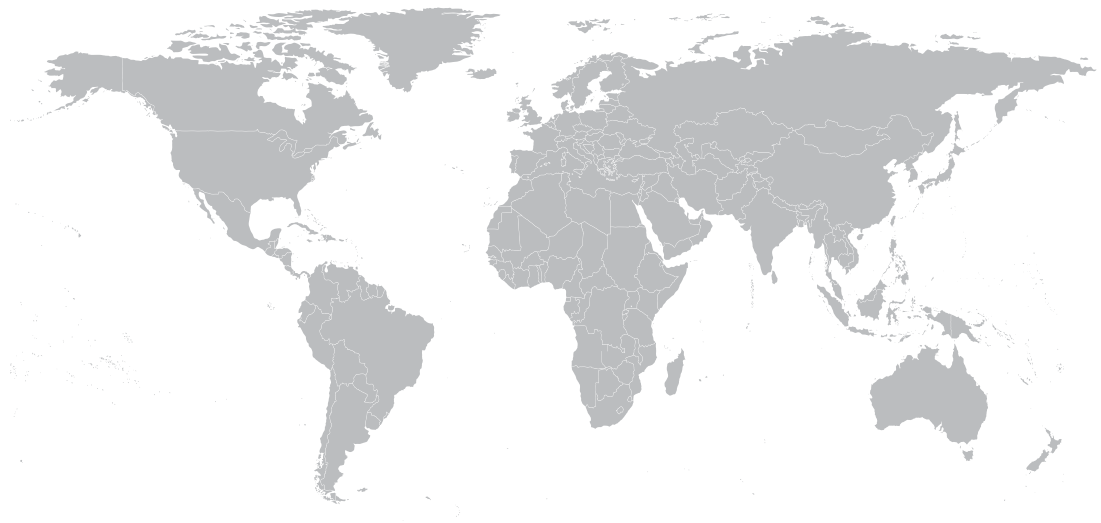
ISO 9001:2015  
BUREAU VERITAS  
Certification





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## Vision

To be the world's most reliable and innovative manufacturer, service and solution provider in the Pre – Engineered Building Industry.

## Mission

Smith Structures India Pvt Ltd will consistently be the preferred partner of steel building users, their consultants and contractors. We give value for money by prompt delivery of high quality buildings, supported by accurate engineering designs through our investments in people, technology and manufacturing capacity. Profitable growth and our passion for innovation let us continue to offer rewarding careers to our employees and continuously provide excellent service to our customers.

## Our Policy Statement

We, Smith Structures India Pvt Ltd, are committed to the success of our business, the design, production and supply of pre-engineered/structural steel buildings and cladding.

**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.





## Manufacturing Plants



**Plant -1**

📍 Meghpar (Borichi), Ta.Anjar, Dist.Kutch (Guj.)



**Plant -2**

📍 Vansar, N.H.-8, Ta. Matar, Dist. Kheda (Guj.)





## Company Profile

**Smith Structures (India) Pvt Ltd** is most emerging company in India in the segment of Pre Engineered Buildings. Smith Structures India Pvt Ltd (SSIPL) started operations in India in the 2012. SSIPL has been on the steep trajectory of market leadership in terms of quality work, volume and customer satisfaction by investing in People & technology. The growth is continuously fuelled by long term vision of company leadership carried forward by highly committed team of professionals. SSIPL has completed more than 600 buildings from the date of inception. The annual revenue of company has surpassed 400 Cr in the short time frame. Our achievements are recognized by Ministry of Micro, Small & Medium Enterprise by including SSIPL in top 100 MSME companies in India. SSIPL were evaluated by Jury on Financial & Non-Financial parameters to include in top 100 company in MSME Company in India.

Design & detailing is the back bone of Pre-Engineered Building hence SSIPL has employed a team of highly trained designer & detailers. SSIPL is having more than 60 designer & detailers. Design office is located at Hyderabad & Ahmedabad.

A state of art manufacturing is the indispensable to produce finest product that were designed & detailed accurately. SSIPL has modern manufacturing facility at Gandhidham and Kheda Gujarat with annual production capacity of 70,000.0 MT spread over 35,000 Sqm constructed area and land area 1 million sq.feet. All the machines, tools, tackles are sourced from the finest supplier across the globe to produce best possible Pre-Engineered Building. We are having full range of machines to produce built up sections, cold formed section & roll formed steel. Painting system play a vital role in terms of life of the structure and a good set up is required to provide good quality painting and faster deliveries. SSIPL has inhouse online painting booth and shot blasting machine.

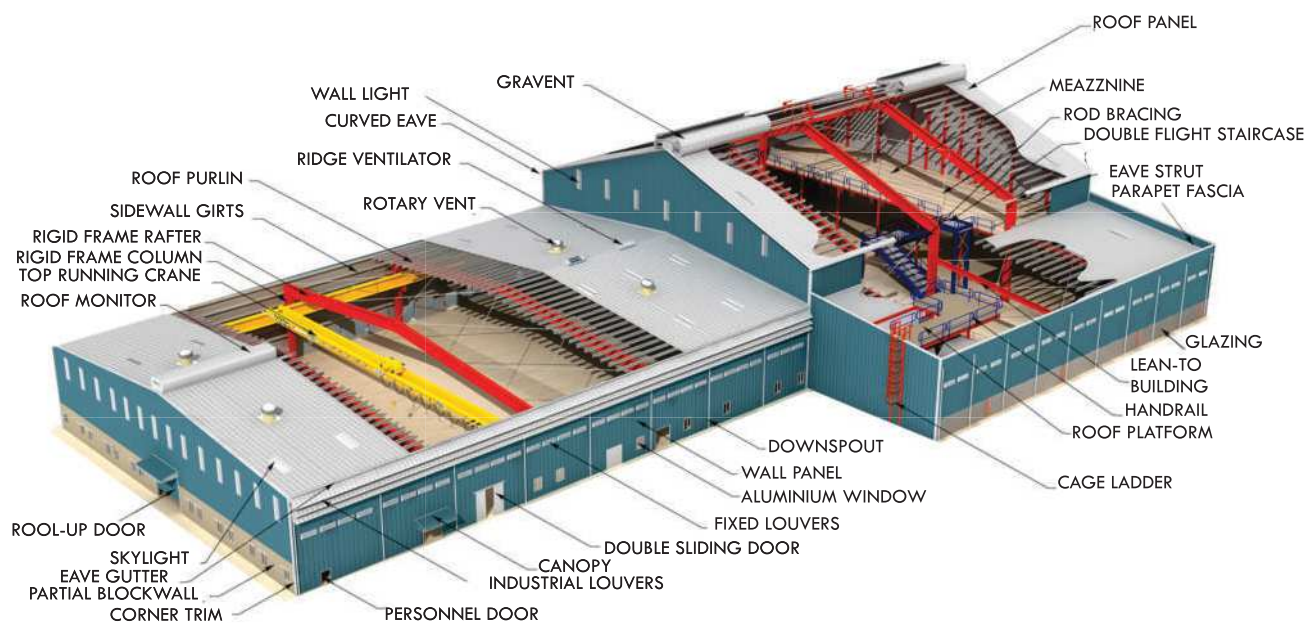
SSIPL sources steel from the top-notch steel suppliers to ensure quality of raw material. All the secondary & primary accessories are being purchased only from the best supplier of their segments to have best building.

Installation is the most critical phase for final delivery of project with safety, accuracy and as per the drawings. SSIPL considers every project as individual project that needs special care. SSIPL has team of more than 60 Project engineers to take care of project at the execution stage and ensure final building is delivered to client as per the standard with safety.

SSIPL has established a wide clientele across the India. Our supplied buildings are spread over various categories like Factory buildings, warehouse, Administrative blocks, and Show rooms etc. We have won well known customer across various industry segments- Automobile & Auto OEM, Food & Agro, Chemical, Pharmaceutical & Packaging, Textile, Tyre, Warehousing, Steel, and Electrical & Electronics, Textile, Cold supply chain & Logistics etc.

# Smith 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

1. 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.
2. Uses tapered beam sections concept, thus ensuring right amount of structural steel at right place.
3. Built up sections are made from HR plates with submerged arc welding process in automatic welding machine in the factory.
4. Uses cold formed either galvanised or non-galvanised sections for secondary members.
5. Use metal color coated material for Roof sheets and cladding which are durable and aesthetically good looking.
6. Columns free buildings with longer span.
7. Buildings with mezzanine /cranes with different functional requirement.
8. Speedy and planned execution drastically cuts down time and costs of projects.
9. Single source responsibility from inspection to completion, covering design, engineering, detailing, fabrication supply and erection.
10. Design which provide structurally stable PEBs using universally accepted codes and guidelines.
11. Special building components like skylight, ridge ventilators, turbo ventilators, sliding doors, windows, roof curbs, S-type louvers etc can be supplied and installed.
12. Insulation to maintain temperature under control.





CNC Punching



Oxy- Fuel Plasma Cut



CNC Drilling



Crimping



Shearing



PHI Welding



Shot Blasting



Radial Drill

Punching





CNC Bending



Flange Line



Deck Sheet



C- Purlin



Downspout



Sheet Profile

## Manufacturing Facility

**Smith Structures India Pvt. Ltd.** is located in Meghpar Borichi, Taluka-Anjar(Kutch) GUJARAT-INDIA. The factory covers an area of 30000 sqm. 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





## 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.
- 1.4.13 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 hot rolled 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.

## 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 capillary 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 cold-formed 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.

## Design

### 2.1 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.
- 2.2.3 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.

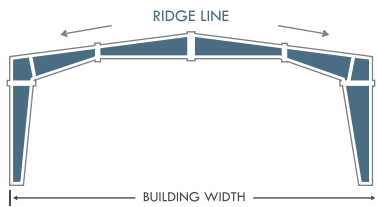




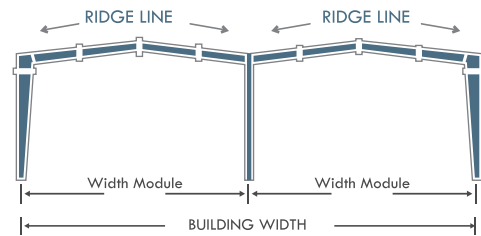


## Standard Frame Types

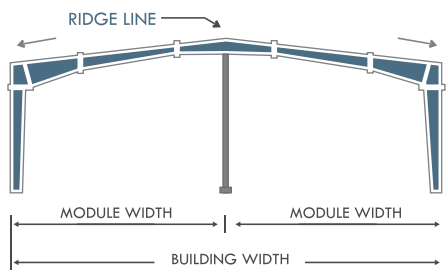
**Tapered Column Clear Span (TCCS)**



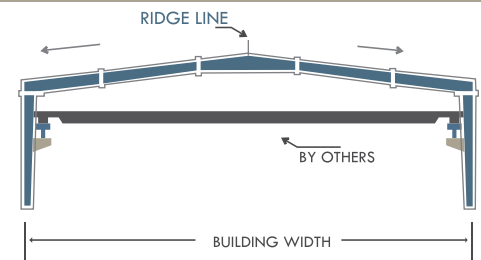
**Multi Gable (MG) I / II**



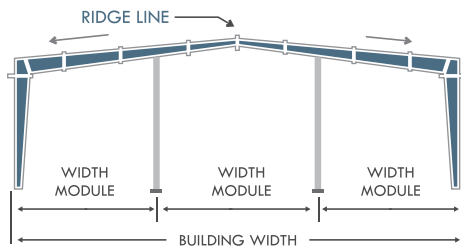
**Multi Span I**



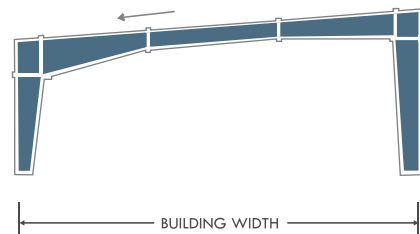
**Clear Span with Crane**



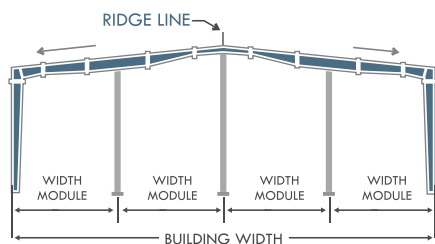
**Multi Span II**



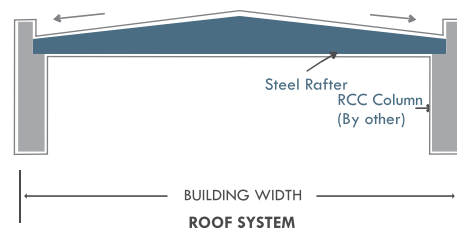
**Mono Slope**



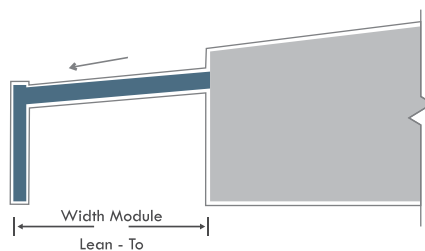
**Multi Span III**



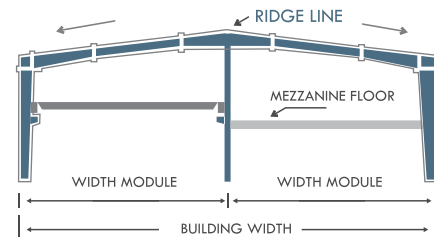
**Rafter System**



**Lean - To**



**Multi Span I with Crane & Mezzanine**

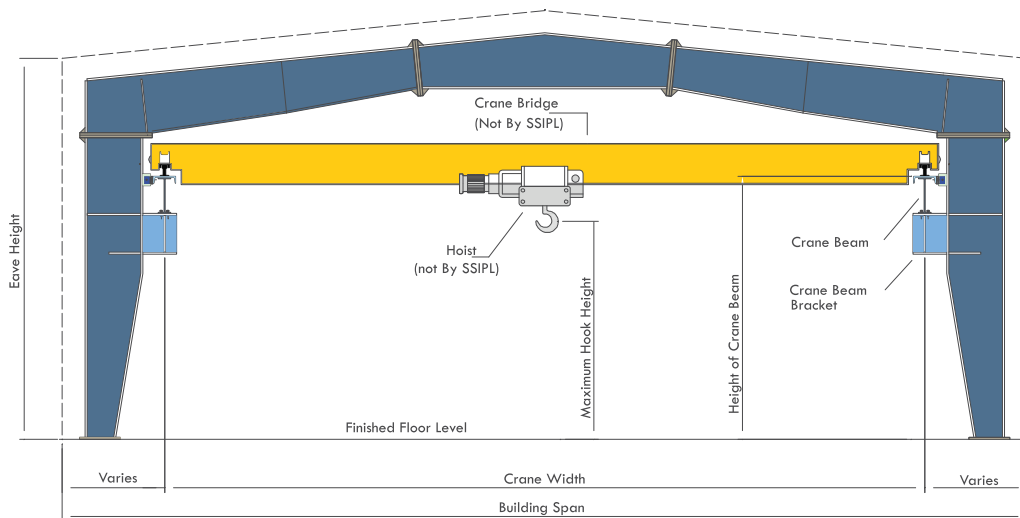


# Cranes

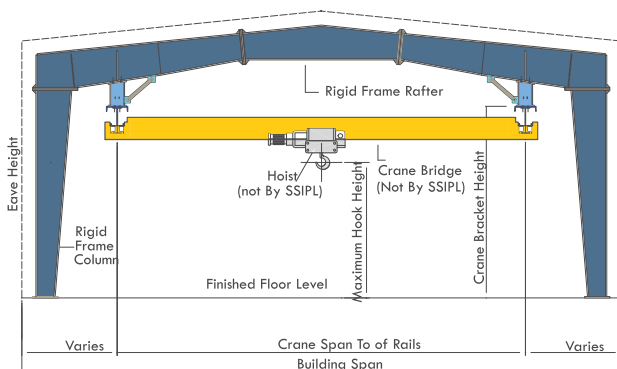
When Crane System is required, SSIPL supply includes Columns, Rafters, Brackets, Crane runway beams & lateral tie that support crane system. Clients have to provide complete crane data as per the crane's manufacturer for optimal designing of PEB having crane systems.

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

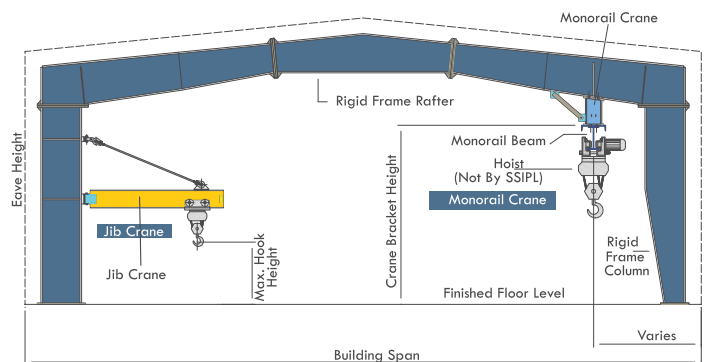
**Top Running Crane Along Building Length**



**Underhung Crane**



**Jib Crane and Monorail Crane**



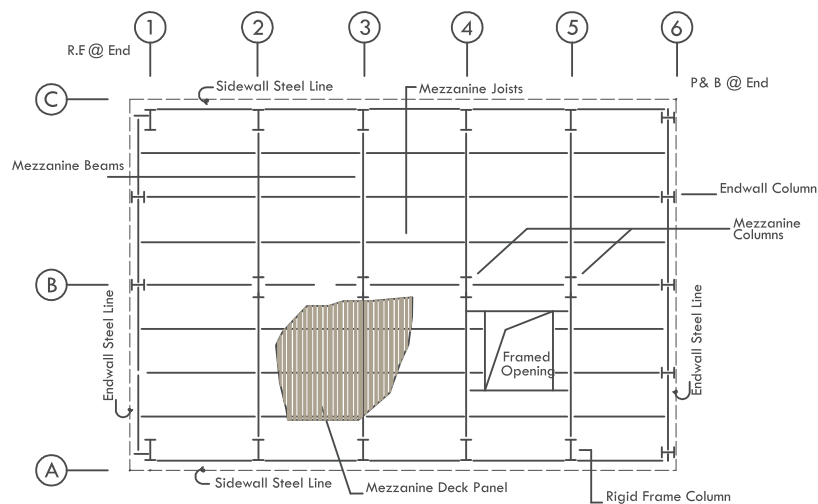
## Mezzanine Systems

The standard mezzanine framing system consists of a steel deck supported by joists into main mezzanine beams. If required by design loads, the main beams shall also be supported by intermediate columns. The top flange of the joists fit at same level of the top flange of the primary beams.

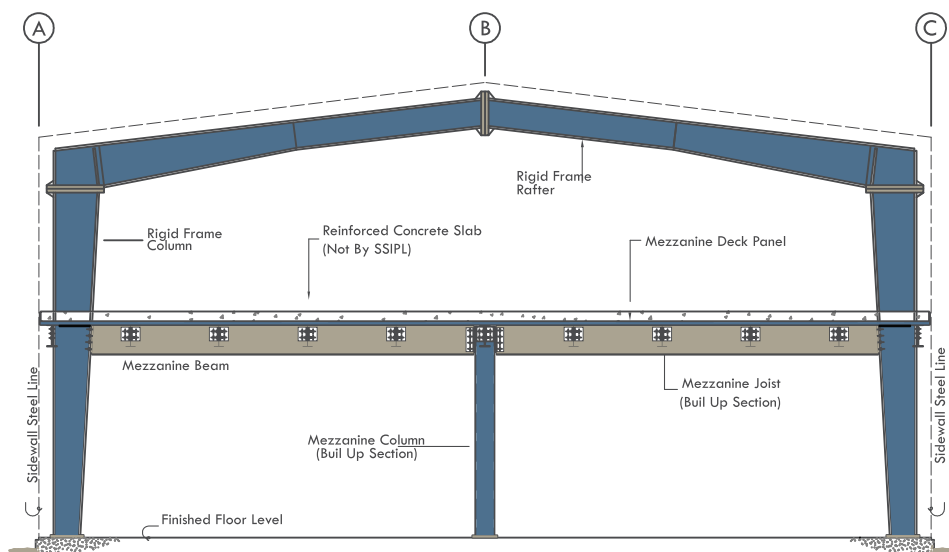
The embossments on the top and sides of the deck sheet ribs provide added grip and minimize slip by creating a bond with concrete as done with normal reinforcement.

It provides permanent formwork as well as positive reinforcement. No erection, removal, handling or storage of timber / steel formwork as in conventional concrete slab construction, saving valuable time. Clean, uniform and attractive ribbed underside (soft fit) for exposed situation reduces the cost of ceiling finishes. MS deck sheet is provided for suitable load on the floor and covered with form concrete.

### Mezzanine Plan



### Mezzanine Cross Section

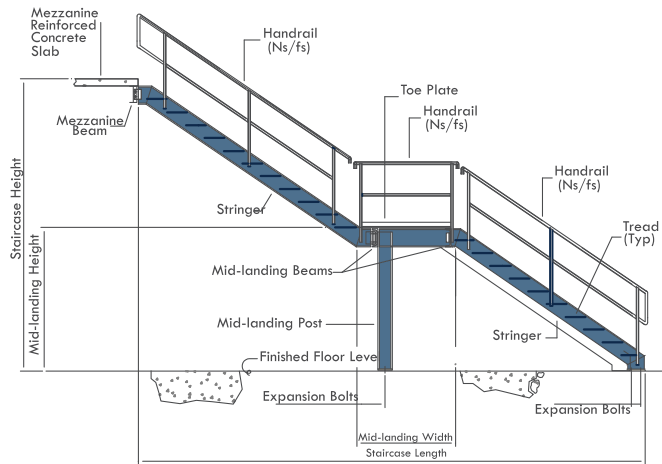




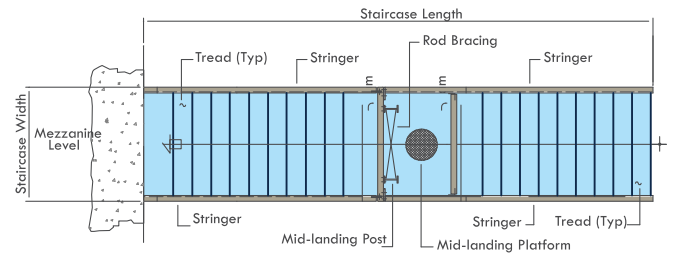
# Staircase

## Single Flight Staircase

Elevation: Single Flight Staircase with Mid-landing

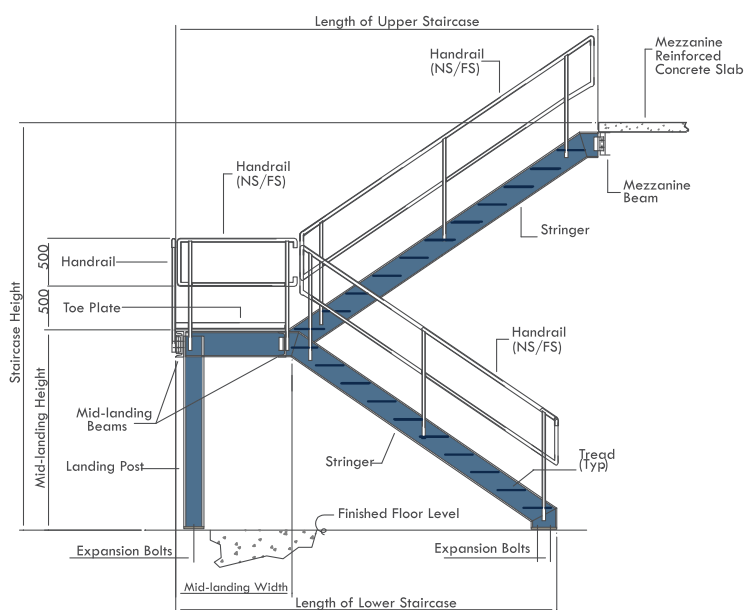


Plan: Single Flight Staircase with Mid-landing

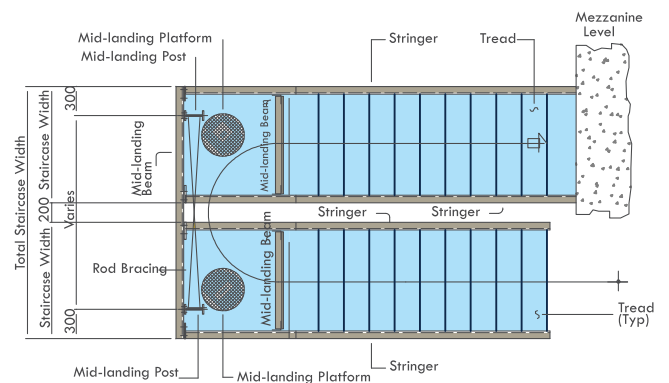


## Double Flight Staircase

Elevation: Double Flight Staircase with Mid-landing



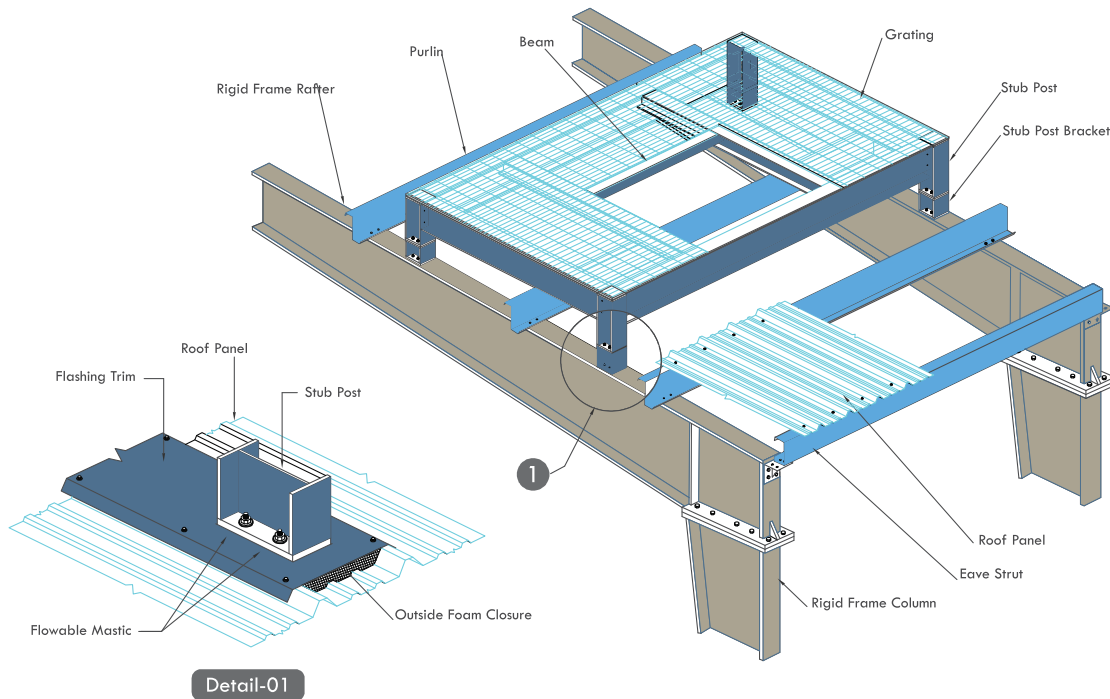
Plan: Double Flight Staircase with Mid-landing



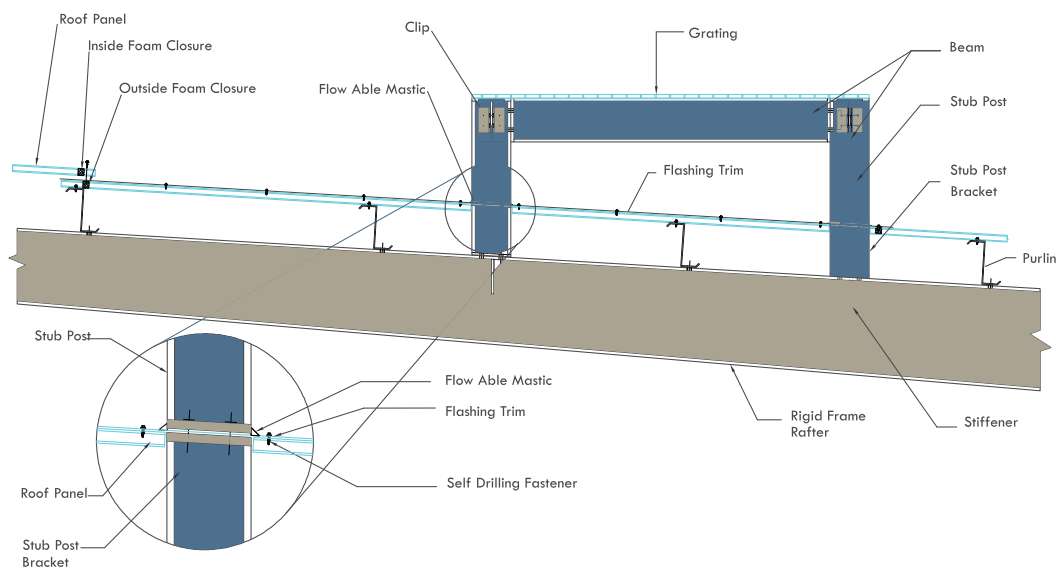


# Roof Platform

## Typical Roof Platform

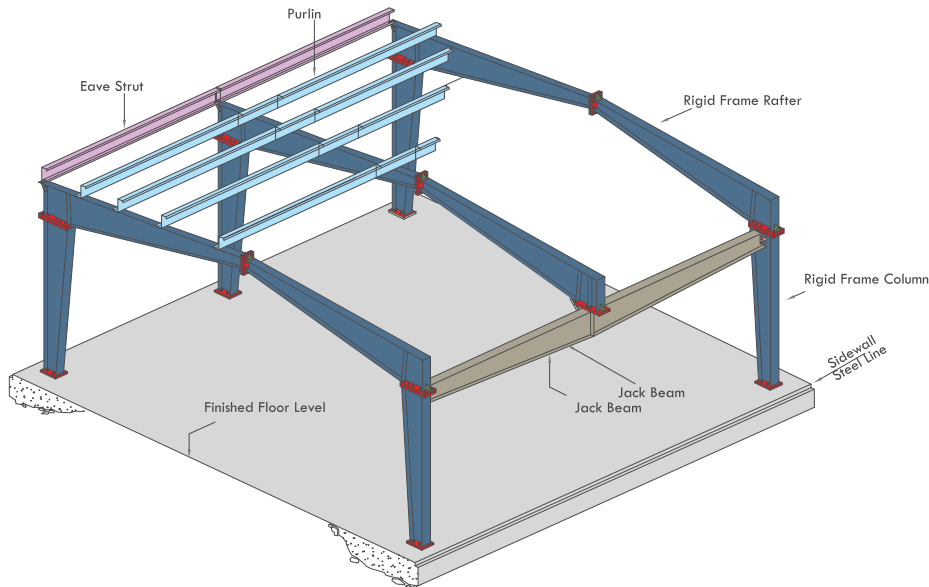


## Section of Typical Roof Platform

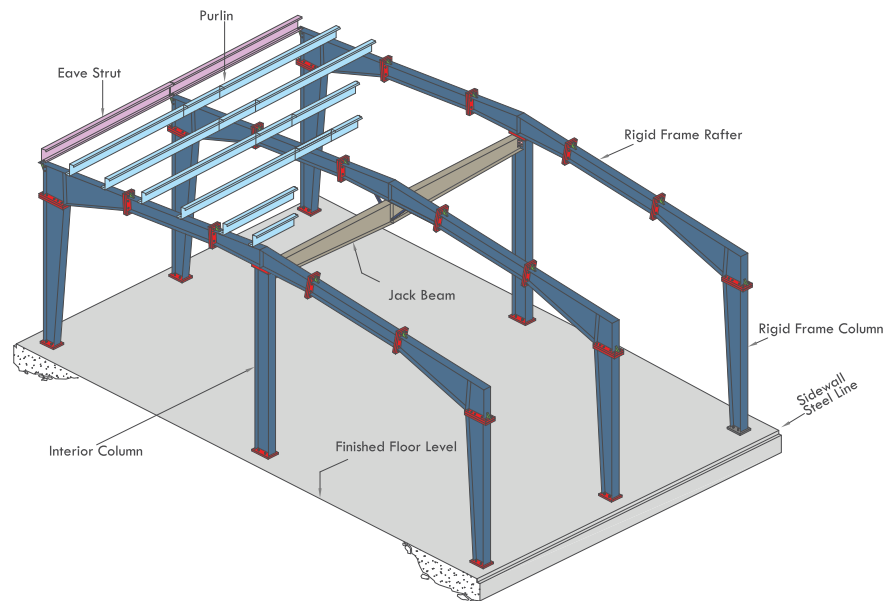


# Jack Beam

## ISOMETRIC: Jack Beam at Sidewall



## ISOMETRIC: Jack Beam at Interior Column Location



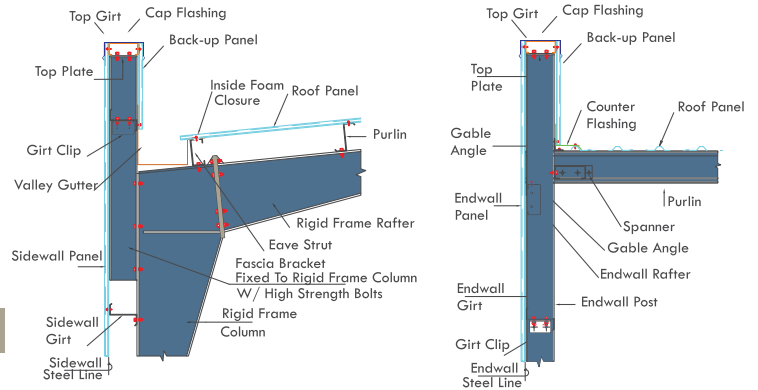
**Jack Beams** are used to make economical as well as safe approach for creating longer bay length when large unimpeded space, is required. Common bay lengths (5,6,7,8,9 & 10) can be doubled by the use of jack beam making it possible to have 12,15,16,18 and 20 m clear bay length in areas where unstructured space is required. For example, if a customer specifies to have 10 m bay lengths instead of the more economical 8 m bay length, jack beams will be used in the interior of the building to make that possible. Jack beams may also be used on the exterior walls in the same way.





# Fascia System

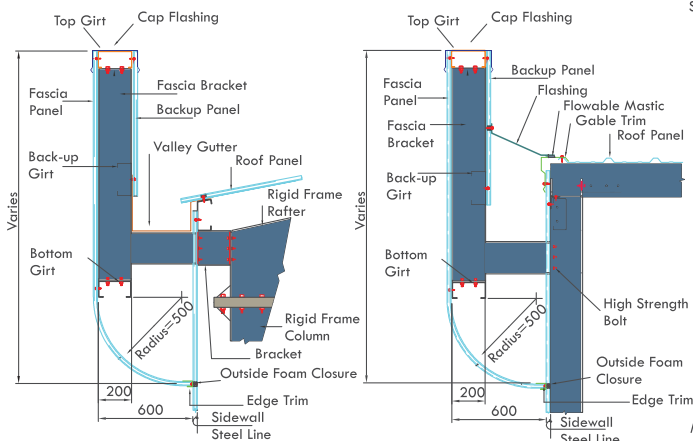
## Flush Fascias with Eave Gutter



Typical Sidewall Section for Flush Fascia

Typical Endwall Section for Flush Fascia

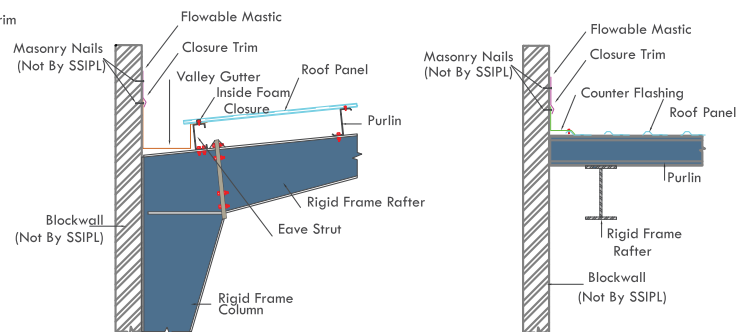
## Section: Bottom Curved Fascia with Valley Gutter



Typical Sidewall Section

Typical Endwall Section

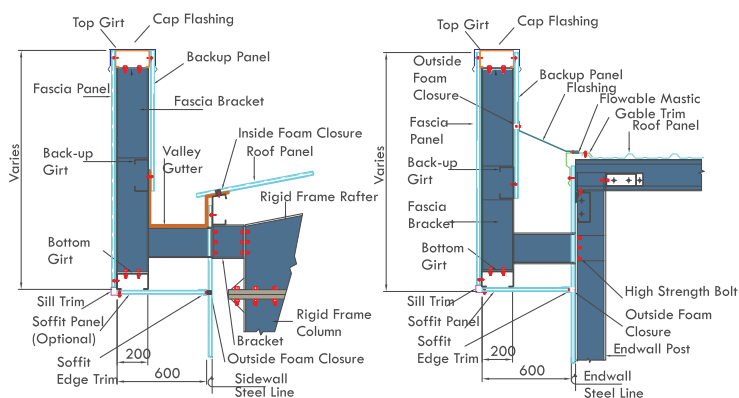
## Flushed Fascia or Parapet Fascia



Typical Sidewall Section Flushed Fascia with Box Gutter

Typical Endwall Section Flushed Fascia with Box Gutter

## Section : Vertical Fascia with Valley Gutter, Back Panel & Soffit

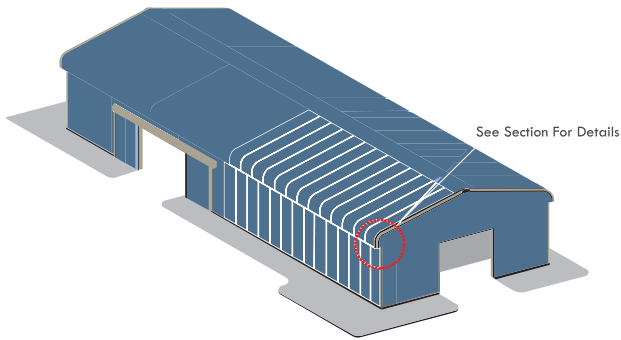


Typical Sidewall Section

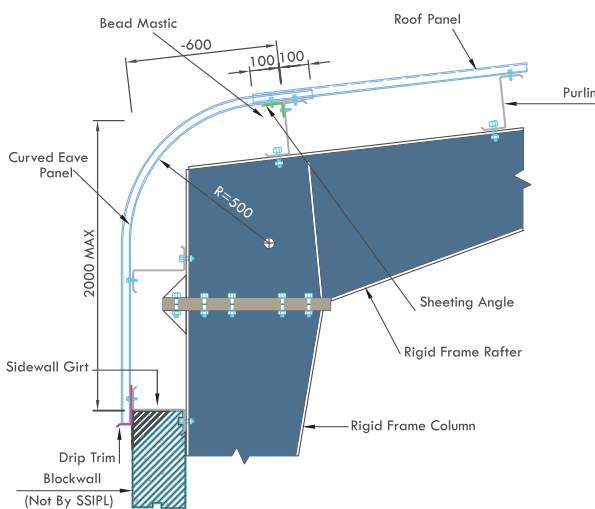
Typical Endwall Section

# Canopy & Eave Details

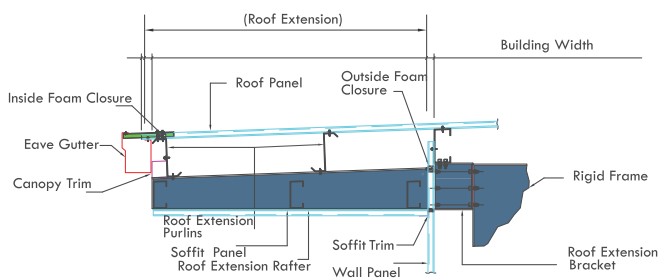
## Isometric : Curved Eaves



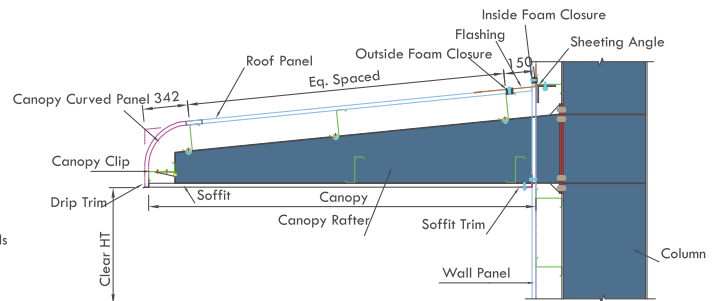
## Section : Curved Eave



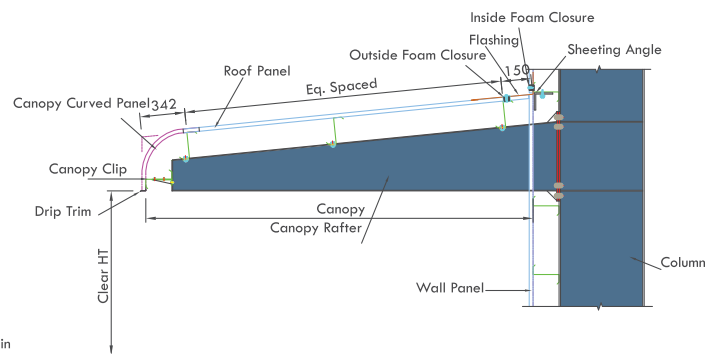
## Roof Extension at Eave (with Soffit)



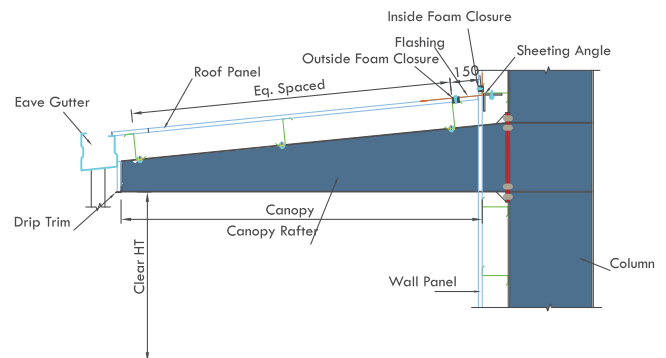
## Canopy with Curved Eaves with Bottom Soffit



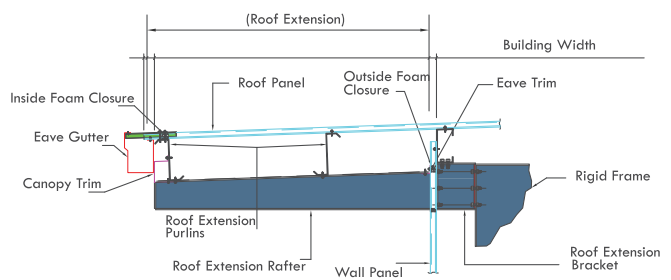
## Canopy with Curved Eaves without Soffit



## Canopy with Gutter & Downtake without Soffit



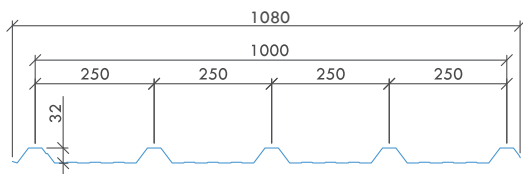
## Roof Extension at Eave (without Soffit)



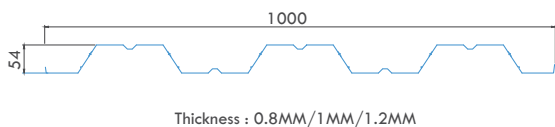


## Roofing & Wall Panels

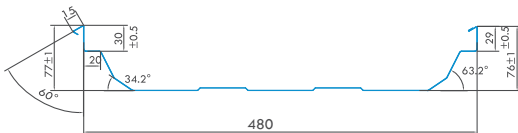
### SSIPL HI-RIB Sheet Profile



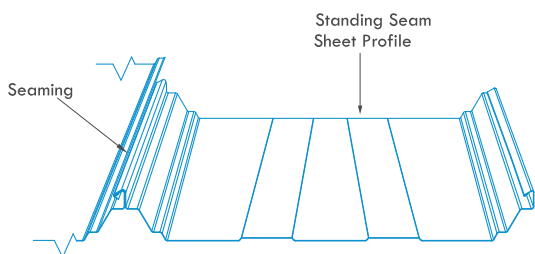
### SSIPL DECK Sheet Profile



### SSIPL Standing Seam Sheet Profile



### SSIPL Standing Seam Sheet Profile with Seaming



Metals panels are the most attractive features of Metal Building System, having contributed mightily for the growing popularity of the Metal Buildings. The term “Panel” in this context refers to the metal skins used as roof and wall panels, interior roof and wall liners, partition panels, Fascia Panels, soffit panels etc. SSIPL roof systems can be used as single skin roof or wall cladding or can be used in combination with advanced multi-layered insulated systems to give optimal thermal and acoustic characteristics. They can also be combined with other cladding systems on the inside to form a Sandwich Panel System.

From Industrial & Infrastructure projects to commercial developments, malls, offices, and homes, SSIPL offers several systems for structural and architectural roof and wall cladding applications. All the panels are available in Galvalume and Galvanised steel substrates and in premium color coatings for permanent appearance. All the roof and wall coverings are supplied with custom accessories such as flashings, cappings, trims, Fasteners etc. which are formed out of the same substrates and coatings as the roof and wall covering panels.

### SSIPL – Roof & Wall cladding

SRS/ SWS, a pierced fixed roof and wall covering system, consists of structurally- engineered profiled panels that are available in single length (up to 12 m ) and are fixed by means of self-drilling fasteners. It can be used for roof slopes as low as 1 in 10. SRS roofing/ cladding panels can be used as internal liners for double –skin roof and wall construction, with our without insulation. Roof curved panels are also offered for special architectural requirements.

### SSIPL Standing Seam Roof System-SSR 600

Standing Seam blends the aesthetics of an architectural panel with the strength of a structural panel. These panels have a good uplifts ratings assuring the reliability of the roof and can go down to roof slopes of up to 1:50. Panels for each system are available in 0.55 mm or 0.6 mm TCT Galvalume. Galvalume is high quality cold-rolled sheet steel with a corrosion resistant metallic coating of aluminum and zinc.

SSR is field seamed system that combines a slim rib with exceptional uplift resistance. This panel has been designed to withstand the most rigorous conditions. The SS features CONCEALED FASTENING and on-site roll forming for single length panels to form a one piece non-pierced roofing systems. A standing seam roof system is the most weather tight roof system available in the roofing industry. Special clips available allow thermal roof expansion and contraction during extreme weather conditions. All trim is weather tight and aesthetically pleasing, giving the roof a nice finished appearance. Also, the only panel penetration required, other than for end laps, is outside the building envelope. The end laps are tightly sealed using either unique components or by swaging the panels.

Sheeting standard  
color shades

Taurus Blue

Sky Blue

Mist Green

Off-white

Gray

Bare  
Galvalume



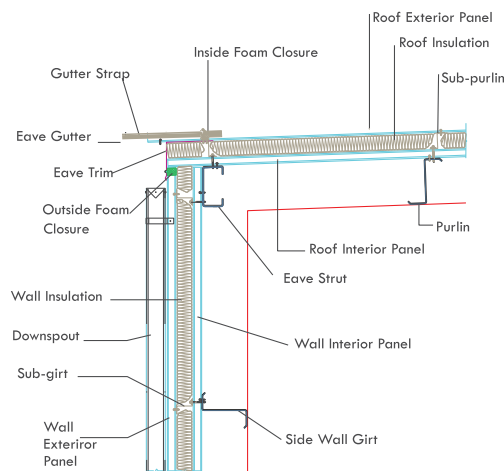
# Insulated Panels

## Insulated Roof and wall Cladding

Heating or cooling is one of the largest operating expense in a building. That's why it is important that each building has good thermal insulation adapted for the usage of the building. SSIPL offers metal building roll insulation laminated or foil reinforced kraft or white metalised scrim craft vapour barrier. Metal Building insulation exhibits low thermal conductivity value.

SSIPL roofing and wall cladding are individually designed for each project and are adapted to the specific requirements of the customer. Single or double –skin insulated roof and wall cladding represent a major breakthrough in meeting the demand for a versatile highspecification system. The cost efficiency achieved makes it a viable proposition for all the users who require higher insulation values in terms of energy efficient roof and walls.

### Roof and Wall Double Skin with Insulation by Using Sub-Girt/Purlin



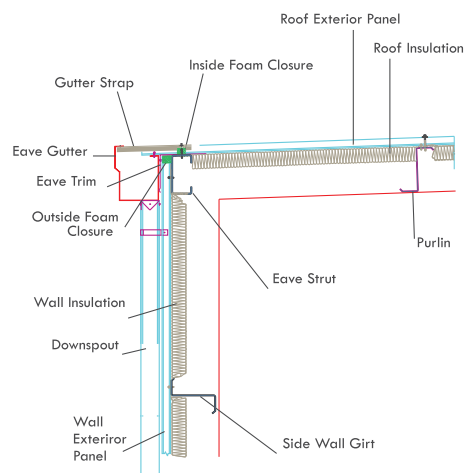
## Single- Skin Insulated construction

Single-skin insulated roof and wall construction comprises of roof and wall cladding with metal building roof insulation used underneath the cladding as underdeck insulation. The metal building insulation is rolled over the purlins or girts & the external cladding SRS/ SWS are then fixed to the secondary framing through the insulation. Only the vapour barrier is visible from inside of the building.

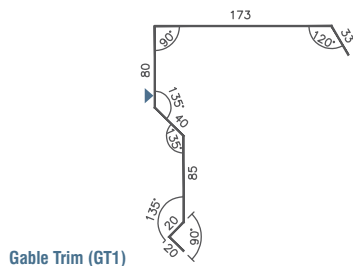
## Double –Skin Insulated Construction

Double – skin insulated roof construction comprises of internal liner panels directly screwed to the secondary framing, sub-girts screwed through spacer blocks and liner sheet to the purlins below. Metal building roll insulation with vapour barrier is laid over the sub-girts and finally the outer panel is screwed to the inside face of girts with the external sheet and insulation fixed on the outside of the building.

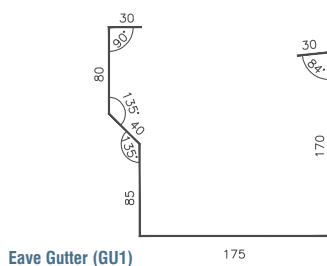
### Roof and Wall Single Skin with Insulation



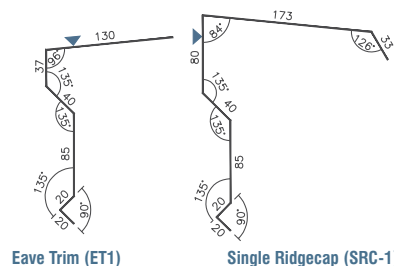
## Standard Trims & Flashing



### Gable Trim (GT1)

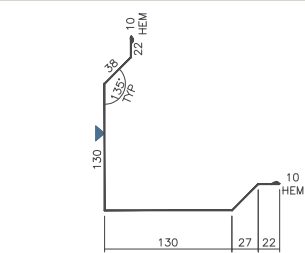


### Eave Gutter (GU1)

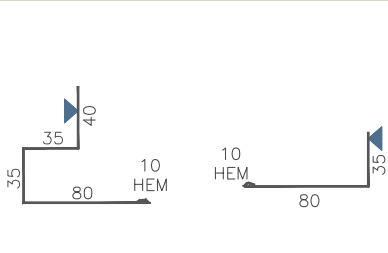


### Eave Trim (ET1)

### Single Ridgecap (SRC-1)

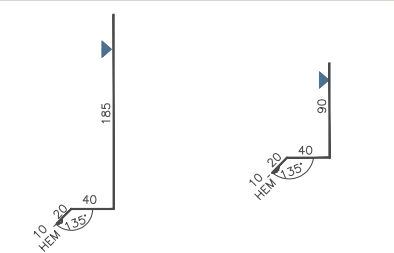


### Outside Corner Trim (OT1)



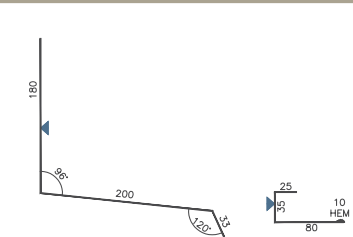
### Facia Sill Trim (FST-1)

### Facia Sill Trim (FST-2)



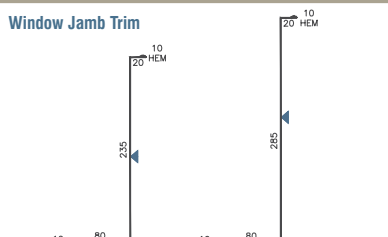
**Masonry Trim- MF1**

### Drip Trim (DT1)



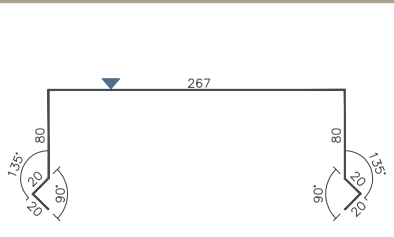
### Transition Trim (TT1)

### Jamb Trim (JT1)

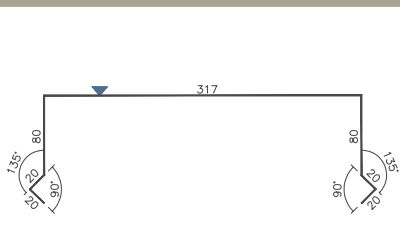


### Jamb Trim (JT2-200)

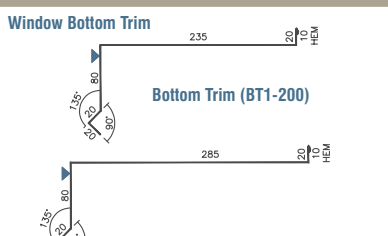
### Jamb Trim (JT2-250)



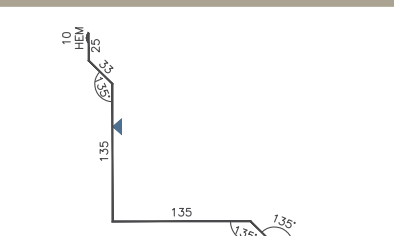
## Cap Flashing For 200Z-FC200



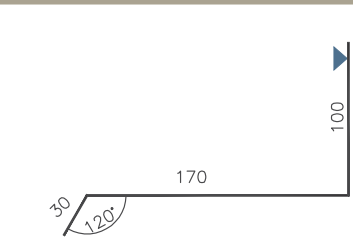
### Cap Flashing For 250Z-FC250



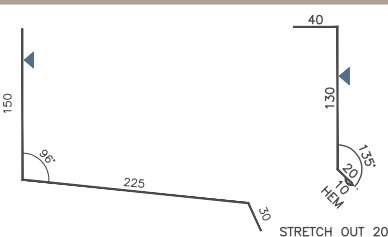
**Bottom Trim (BT1-250)**



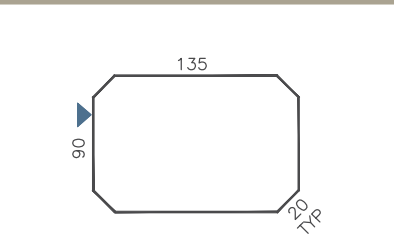
### Inside Corner Trim (IT1)



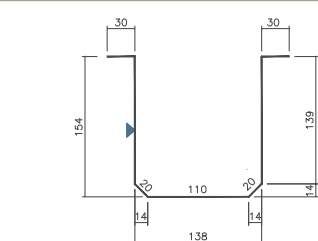
### Fascia Transition Flashing (FT1)



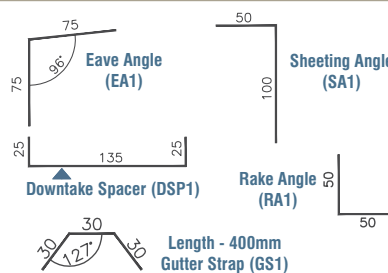
### Apron Trim



## Downtake Profile



### Downtake Strap (DSS1)



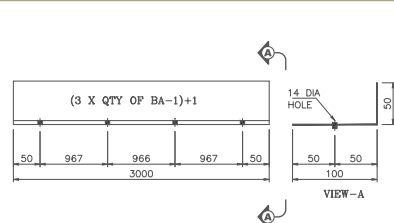
### Eave Angle

### Sheeting Angle

**Downtake Spacer (DSP1)**

Rake Angle  
(RA1)

Length - 400mm  
Gutter Strap (GS1)



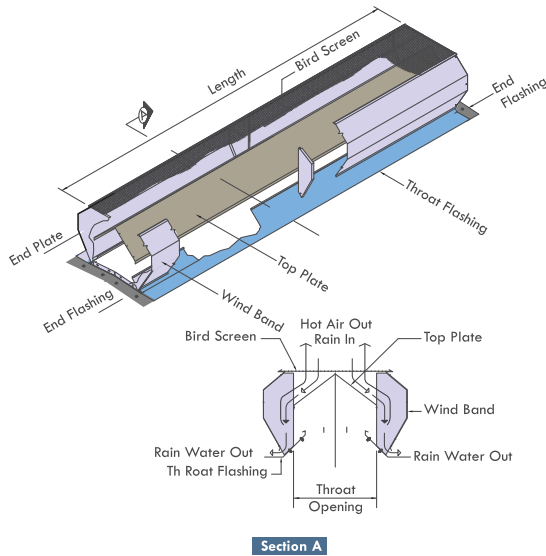
**Base Angle (BA1)**



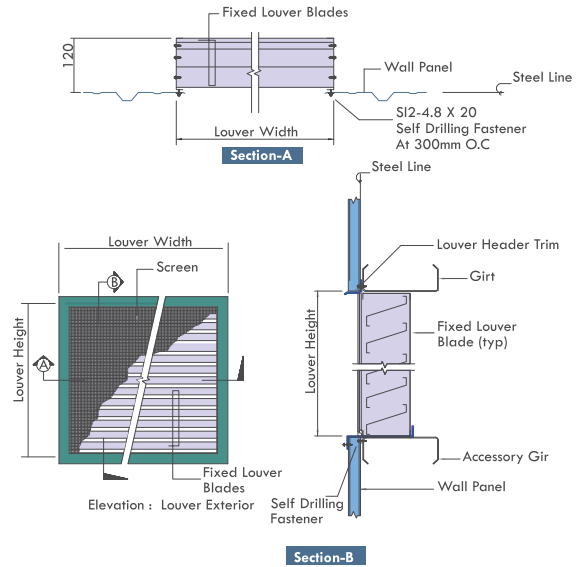
# Accessories

Roof Monitor | Ridge Vents | Turbo Vents | Skylights | S-Type Louvers | Gutter | Downtake

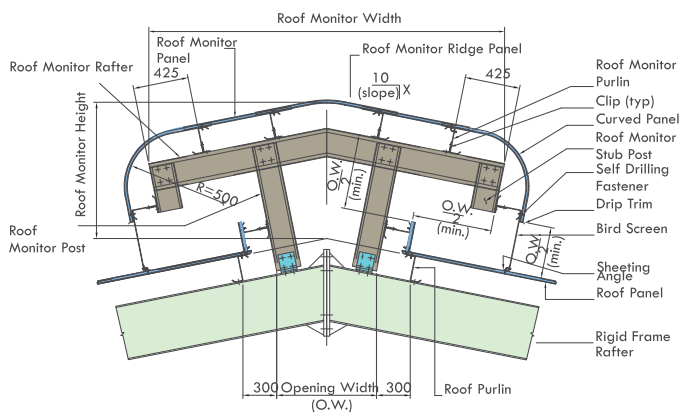
## Ridgevent System



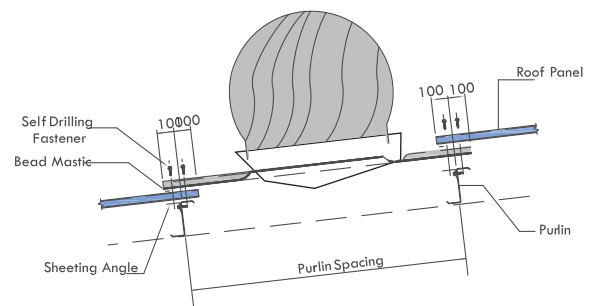
## S-type Louver Detail



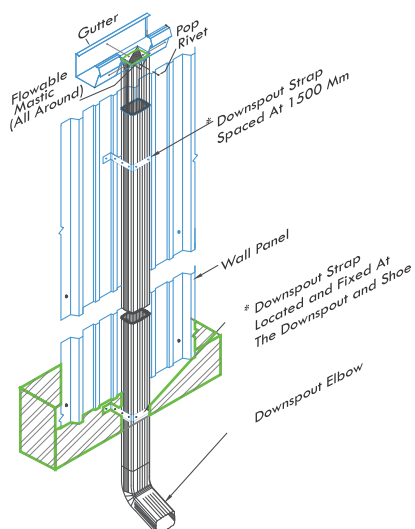
## Roof Monitor



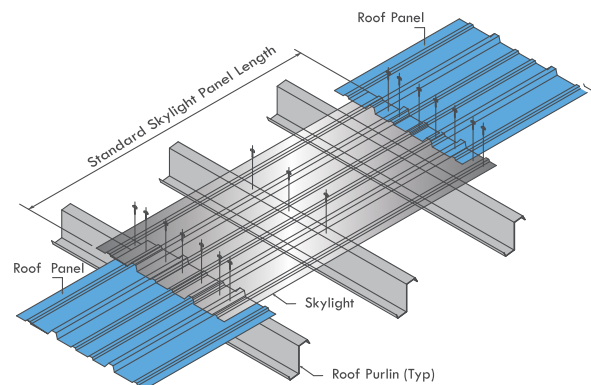
## Turbovent Fixing Detail



## Gutter / Downspout Fixing To Wallpanel Using Strap



## Sky Lights And Wall Lights











**Radiant Polymers Pvt Ltd**



**Jaivel Aerospace**



**Endurance Technologies Ltd**









**SA Logistics**



**Intas Pharmaceuticals Ltd**



**Khanchandani**





Khanchandani



Gandhi Reality / Indospace



Paharpur Cooling Towers Ltd







Sunbeam Auto Pvt Ltd



Century Metal Recycling



AG Industries









Asha Pen Color- Vapi



Indev Logistics



Landmark CFS





Mehali Papers



Rishi kiran Logistics



Shirish B Desai







**Naman Associates**



**V-Excel Spares & Equipment**



**Koshambh Multitrade**





Ammann Apollo



Ammann Apollo



Camrola Quartz / AGL







Nextile / Varmora



Uniproducs Ltd



Rhoma Logistics





Chacharwadi Indus Technopark 1 LLP



Yamuna Machinery



Pioneer Panels







**Balaji Wires and Cables**



**ALP Nishikawa**



**TG Advait**





Ahinsha Polymer



Siemens Gamesa



Phoenix Flexibles







**Durlax Archtech**



**Jade Granites**



**Maple Panels**





Hind Terminals



Godrej



Dow Agrosciences







Indofil Chemicals



Apex Honda



Parikh Constantia





ABB Ltd



Varmora







**Omkar Group**



**Nandigram Realtors**



**Welspun Corp Ltd**





Canpac Trends Pvt Ltd



Machino Polymer Ltd



Aareha Elastin







**Mahansaria Tyres Pvt Ltd**



**GRG Smart Vehicle Pvt Ltd**



**Enterpot Developers**





**Mahansaria Tyres Pvt Ltd**



**Welspun Corp Ltd.**



**Endurance Technologies Ltd.**







**Rucha Engineers Pvt Ltd**



**AG industries (Hero Group)**



**Hamilton Housewares**





Endurance Technologies Ltd.



Siemens Gamesa Renewable



Instafarm Products Pvt. Ltd.







**Hi-Tech Competent Builders (P) Ltd.**



**Metso India Private Limited**



**Jay Bharat Maruti Limited**





Sellowrap EPP India Pvt. Ltd.



GRG Cotspin Limited



Bridge and Roof Co (India) Ltd.







**Prime Properties Builders & Developers**



**Hehong Paper (India) Technology Pvt. Ltd.**



**Capital Foods Private Limited**





Nirlep Appliances Pvt. Ltd.



Shakti Infra (Total 4 Buildings)



Serap India Private Limited







**Tristar Infraproject LLP - Mundra**



**Tristar Infraproject LLP - Khalapur**



**Khanchandani Brothers**





Kottanz India Manufacturing Pvt. Ltd.



BLA Textiles Pvt. Ltd.







**Prakhyat Infraprojects Pvt. Ltd.**



**Jay Laxmi Food Processing Pvt. Ltd.**



**Adani Logistics Ltd.**





Gautam Freight Pvt. Ltd.



GrainSpan Nutrients Pvt. Ltd.



Edicon Paper Product Pvt. Ltd.





**Confii Sanitaryware Pvt Ltd**



**Welspun India Limited**



**Simpolo Group- Simpolo Vitrified**





Simero Ceramics



Shreejee Cold Storage & Warehouse



Gautam Freight Pvt. Ltd.







SK Corrugates Pvt. Ltd.



Sun Polyfilms Pvt. Ltd.



A & J Microns Pvt. Ltd.





Eracon Vitriified Pvt.Ltd.



Pegasus Panel Pvt. Ltd.







**Rubber King Auto Pvt. Ltd.**



**Adani Logistics Limited**



**Hi-Tech Competent Builders (P) Ltd.**





Raalchem Industries Limited



Baldawala Corporation



SNK Infraspaces Private Limited







**Seabird Marine Services Pvt. Ltd.**



**Accura Enterprises Pvt. Ltd.**



**Supple tek Industries Pvt. Ltd.**





Tong Garden India Pvt. Ltd.



Boxovia Pvt. Ltd.



Adani Ports & Logistics - Taloja







**Indev Logistics Pvt. Ltd.**



**Internex Poly Pvt. Ltd. & Microfiber Corp. Pvt. Ltd.**



**Audax Protective Fabrics Pvt. Ltd.**





Spunweb Nonwoven Pvt. Ltd.



SYAM Trelleborg Tires LLP.



Shaily Engineering Plastics Ltd.







**Cosmos Impex (I) Pvt.Ltd**



**Nobel Hygiene Pvt. Ltd.**



**Titanium Logispace Pvt. Ltd.**





## Project Management

The project management office is responsible for the overall project 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

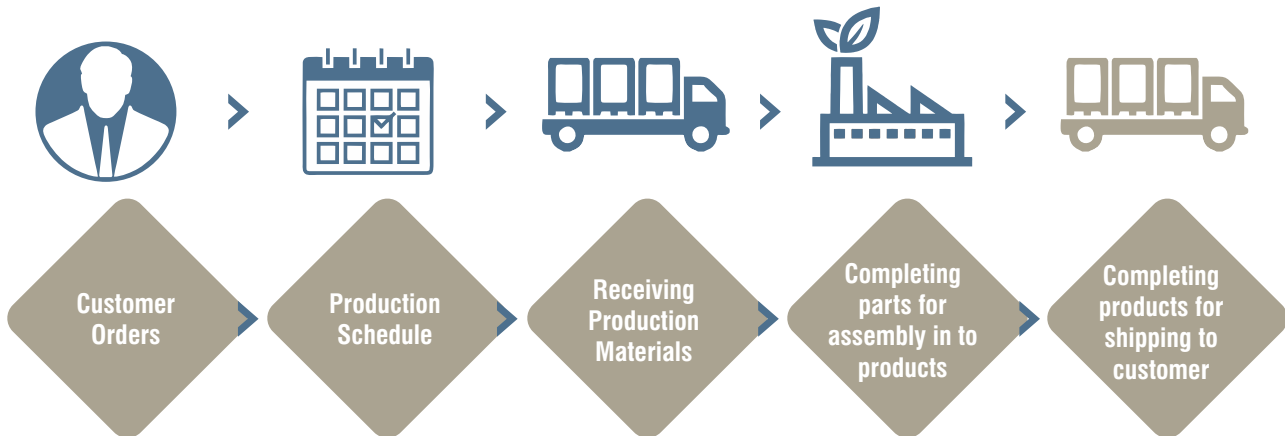
- Incoming / Raw Material Inspection
- In-process Inspection
- NDT
- Final Inspection



# 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 feedback from client and inter departments.

## PDCA CYCLE







## Quality Inspection at SSIPL



### Incoming **Material Inspection**

Visual Apperance | Dimensional | Specifications



### In-process **Inspection**

Dimensional | Non Destructive Testing | Visual



### Final - Stage **Inspection**

Visual | Paint Inspection | Final Stage Inspection



## Awards & Achievements



### Awarded Outstanding Company in **PRE-ENGINEERED BUILDINGS**







Climate change, Sustainability and Green have become the most ubiquitous words.

The demand for environmentally-friendly, or green, construction solutions has increased in recent times. People across various sectors are concerned with sustainable goals.

It has been widely acknowledged that buildings consume a major portion of materials, resources and energy, thus contributing directly or indirectly to the environmental maladies.

Therefore the paradigm of green buildings has been evolved to counter the malignant effects on the environment.

# Setting Green Standards

## 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 many 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. Our design and 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

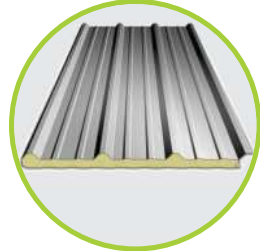
The pre engineered buildings fabricated by Smith Structures India Pvt. Ltd. use appropriate software, which ensure that resources are optimized.

### 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.







## Our Clients

**adani**<sup>TM</sup>

**AMMANN**



**ADITYA BIRLA**  
**GRASIM**

**Arvind**  
FASHIONING POSSIBILITIES

**HITACHI**  
Inspire the Next



**MILTON**  
Intelligent homeware

**Dow**  
Dow AgroSciences

**SIEMENS Gamesa**  
RENEWABLE ENERGY

**WELSPUN**  
Dare to Commit

**INTAS**

**MEHALI**

**AG** AG Industries  
solution provider

**DalmiaSeven**

**ALP**  
THE ALP GROUP

**JBM Group**

**Constantia**  
Flexibles

**HIND TERMINALS**  
.....Moving India Ahead

**INDOFIL INDUSTRIES LIMITED**

Lifting Global Trade.  
**APM TERMINALS**

**ABB**

**BÄRLOCHER**



**SAFARI**

**ASTRAL PIPES**

**AGL TILES**  
Asian Granito India Ltd.  
Beautiful Life

**ENDURANCE**  
Complete Solutions

**UPL**

**CEAT**



**BOMBARDIER**



**SUZLON**  
POWERING A GREENER TOMORROW

**CHEMCO**  
PACKAGING MADE PERFECT

**PAHARPUR**

**RUCHA**  
ENGINEERING 2.0

**LECHLER**

**CMR**  
Creating recycling value

**Mahindra INTERTRADE**

**MUNJAL AUTO INDUSTRIES LIMITED**

**Radiant**  
POLYMERS

**SUPREME GROUP**

**REAL**  
Namkeen

**Sterlite Tech**





## Our Clients







## Our Clients







## Our Clients





*" Making Your Vision Come True "*



Manufacturers of Quality  
Pre-Engineered Steel Buildings & Structures

**Plant-1 (Anjar-Kutch)**

Plot No. 4 & 5,  
Opp. R.T.O. Office,  
Meghpar (Borichi)- 370110  
Tal. Anjar, Dist. Kutch,  
GUJARAT.

**Plant-2 (Kheda)**

Survey No. 358,  
Kheda Bypass Road,  
N.H.-8, Vansar, 387570,  
Ta.Matar, Dist. Kheda,  
GUJARAT.

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GUJARAT.

info@smithstructure.com  
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