# Shaping Structures

Pre-Engineering Building

Purlins

Colour Coated Sheets









**Shree** is a pioneer & leader in Quality Pre-Engineered Steel Building industry in Gujarat. Shree understands the needs of customers and has mastered the PEB concept through continuous innovation & experience.

Shree has executed projects for its clients to utmost satisfaction across the state.

Shree is fully equipped with Efficient Design Team, State-of-the-art manufacturing facility and is backed by a very experienced execution team. Being capable to handle any size of project, Shree stands second to none in the industry.

#### Mission

o lead the PEB industry in India and explore new geographies. To create modernized PEB solutions ranging from single-storied structures to high-rises, industrial units to warehouses and commercial complexes to malls & multiplexes. To provide utmost customer satisfaction through efficient state-of-the-art solutions.









### **Advantages**

Pre-Engineering Building structures offer manifold advantages over traditional construction. Cost savings begin on the drawing board and continue at the job site resulting in ?Advantage PEB?.

# Shree Pre-engineering Building Solutions ensure a unique blend of advantages:

ALL DE LEVEL LEVEL

- Fast completion of projects
- Cost effective solution
- Factory-controlled quality
- Maintenance free solution
- Upto 90 M clear space
- Flexibility in expansion
- Energy efficient roof and wall systems
- Earthquake resistence



Compari	sion Vertical steel	
Code Compliance	Compliant with IS Codes	Compliant with the latest American codes AISC, MBMA as well as IS codes.
Construction time	Longer construction time due to site work and use of non-standard components.	Construction time is leser by 1/3rd of the conventional
Quality	Average quality due to site fabrication	Superior quality due to shop fabrication and enhanced surface finish
Flexibility	Not flexible being a welded connection	Totally flexible for future expansion. Also, dismantliable and relocatable.
Design optimization	Generally not optimized	Sophisticated software package enables optimum design by considering synergy between various elements thereby reducing weight
Cost saving & cost predictability	Difficult to predict costs due to unknown element of steel availability and usage	Precise estimation of cost is possible; economical as against conventional
Maintenance	Periodic maintenance once in every 2 to 3 years due to nature of steel used	Totally maintenance free since we offer superior surface preparation and painting as well as clean and high strength material.
Aesthetics	No emphasis on aesthetics	Architectural and aesthetical appeals provided along with functionality





Project Executed

Global Knowledge

Erection

Designing / Engineering

.ogistics

Beam Manufacturing

Advanced Roll Forming

> Shree does far more than supply and erection of pre-engineered metal buildings. Shree offers complete solutions to the customer enabling the customers to focus on their organisation's strategic goals. Shree undertakes a single source responsibility for the project through co-ordination of all the departments viz.,

- Engineering and design
- Manufacturing
- Project management
- Logistics
- Construction







## Manufacturing Facility

**Shree** currently has 50,000 sq.ft. state of the art manufacturing facility with an expansion capacity upto 3,00,000 sq.ft. & is located in well connected Industrial area of Changodar in Ahmedabad.

Our manufacturing facility produces Highest Quality Roofing & Cladding Profiles, Purlins and Accessories from best quality raw materials as per project specific requirements. Our efficient & experienced erection team ensures highest quality execution of the Project on site.

Our capacity to manufacture more than 125,000 MT of Roofing Sheets, 6000 MT C-Z Purlins & 9000 MT of primary members makes us a leading player in the industry.





# Engineering





**Shree** has a highly talented, experienced and efficient team of skilled engineers and designers to plan and execute projects from a simple warehouse to a most complex building across the nation. Our team delivers intelligent, creative, cost effective & aesthetically pleasing structures to meet the demands of fast growing infrastructure requirement across the State.

Optimum & efficient utilisation of raw material is ensured to reduce the amount of steel used through extensive testing and computer modelling, to meet stringent building codes.

Our team designs the projects with a variety of standards and design codes such as ASTM, MBMA & IS codes to suit customer needs of various industry & market segments.







## **Main Frames**

- Suggested width range (meters)..... for most economical buildings
- Standard Eave height: 3M-8M; Std bay spacing; 6M/7.5M/9M;
- Standard Loadings: Live load; 0.58/0.75 KN/M2, Wind load: As per IS Standards



### **Crane Beam**





## **Secondary Members**

#### **Z - PURLIN**



### C - PURLIN



Secondary members are composed of roof purlins, Wall grits, eave sturts & roofing sheets. Roof purlins, wall grits & sturts are forms of Z-purlins, C-purlins and hollow sections. Z--purlins & C-purlins are cold formed steel members having a minimum yeild strength of 345 MPa with zinc coating (120/180/275 gsm)

#### **Roof Purlins**



#### 1a Roof Purlins (Cold Formed)

Purlins shall be Z sections with 200 to 300 mm depth & thickness varying from 1.75 to 2.50 mm as per structural requirement. These purlins are fixed to the top flanges of the rafters by means of cleats moulded to the rafters and the purlin web bolted to the cleats. Purlin ends are overlapped to act as continuous beams.

#### 1b Roof Purlins (hot formed)

Purlins shall be hollow sections with 96 x 48 to 172 x 92 mm sizes & thickness varying from 3.0 to 4.8 mm as per structural requirement. These purlins are fixed to the top flanges of the rafters by means of clips moulded to the rafters and bottom bolted to the cleats and can also be flushed with web of the rafter with side of the hollow section bolted to the cleats fixed with the web of the rafter resulting in a bird preventive structure with a neat look and increased strength of the structure.



#### Wall Girts



#### 2a Wall Girts (Cold Formed)

Wall Girts shall be Z sections with 200 to 300 mm depth & thickness varying from 1.75 to 2.50 mm as per structural requirement. There are two types of fixation methods.

- These girts are fixed to the outer flange of the side wall column by means of cleats moulded to the side column and the girt web bolted to the cleats.
  Overlap connections are provided for continuous beam action.
- 2) End Wall Girts and Flushed Girts on side walls are normally flushed to the outer flange of the columns by means of cleats bolted to the column web and the girt web bolted to the cleats.

#### 2b Wall Girts (Hot Formed)

Girts shall be hollow sections with 96 x 48 to 172 x 92 mm sizes & thickness varying from 3.0 to 4.8 mm as per structural requirement.

- These girts are fixed to the outer flange of the side wall column by means of cleats moulded to the side column and the girt horizontally bottom bolted to the cleats.
- 2) End Wall Girts and Flushed Girts on side walls are

normally flushed to the outer flange of the columns by means of cleats bolted to the column web and the girt horizontally bottom bolted to the cleats.



#### **HOLLOW SECTION**



Hollow Sections are Hot Rolled Formed Sections with a minimum yield strength of 310 MPa and UTS 450 MPa.

#### **Eave Sturts**



#### **3a Eave Struts (Cold Formed)**

Eave Struts shall be C & Z sections with 200 to 300 mm depth & thickness varying from 1.75 to 2.50 mm as per structural requirement at the Ends of the rafters These Eave Struts are fixed to the top flanges of the rafters by means of cleats moulded to the rafters and the struts web bolted to the cleats. Struts ends are overlapped to act as continuous beams.

#### **3b Eave Struts (Hot Formed)**

Eave Struts shall be hollow sections with  $96 \times 48$  to  $172 \times 92$  mm sizes & thickness varying from 3.0 to

4.8 mm as per structural requirement. These struts are fixed to the top flanges of the rafters by means of clips moulded to the rafters and bottom bolted to the cleats and can also be flushed with web of the rafter with side of the hollow section bolted to the cleats fixed with the web of the rafter resulting in a bird preventive structure with a neat look and increased strength of the structure.



#### **ROOFING SHEET**

Roof Sheets are cold formed with minimum yield strength of 550 MPa.

#### **Roof Sheets**



#### **Colour Coated Galvalume sheets**

Roofing Sheets & Wall clading systems made of metal sheets are used for structurally engineered Preengineered building solutions. They are available upto 12m+ in single length and are fixed through self drilling with fasteners. They are applied for roof slopes as low as 1:20 and are applied as internal lines for double skin roof & wall construction with or without insulation. They can also be curved to attain aesthetic architectural look.



### **Base Material**

**Colour Coated Galvalume** As per IS 513 (AZ 150) Thickness - 0.40 to 0.8 mm

**Bare Galvalume** As per IS 513 Thickness - 0.40 to 0.8 mm

SDP

**Colour Coated Galvanized** As per IS 277 (120 gsm) Thickness - 0.5 mm to 0.8 mm

### **Coating Systems**

RMP	
(Regular Modified)	

SMP

(Silicon Modified Polyester)

(Super Durable Polyester)

**PVDF** (Polyvinylidene Fluoride Polyester)

#### MountDeck



Available in (1) Colour Coated Galvanized (0.5 to 0.8 mm) (2) Colour Coated Galvalume (0.45 to 0.80 mm) (3) Bare Galvalume (0.40 to 0.80 mm)

Universal Corrosion Inhibitive Primer (Nominal 5µm)\*\*

Zn-Al alloy Coating Conversion Coating

Backing Coat (Nominal 5µm)

#### **Cross section view of COLORBOND<sup>©</sup>** steel

#### **Galvalume Sheeting**

#### **Bare Galvalume**

	Colour	: Natural Silver
	Coating	: AZ 150, 55% Al, 43% Zn, 1.6% Si
p Coat* of Super Durable Polyester (Nominal 20µm)**	<b>Base Material</b>	: ASTMA792M Grade 345 Class I
Universal Corrosion Inhibitive Primer (Nominal 5µm)**		(Max. 550 MPA YS)
Conversion Coating	Colour Coating : None	
Zn-Al alloy Coating	-	
ZINCALUME <sup>®</sup> steel substrate	Due mainte d	

#### **Pre-painted (PPGL)**

Colour	: Any RAL Colour	
Coating	: AZ 150, 55% Al, 43% Zn, 1.6% Si	
Base Material	: ASTMA792M Grade 345 Class I	
	(Max. 550 MPA YS)	
Colour Coating : T/C 18-20 micron		
	RMP / SDP over 5 micron epoxy prime	

### **Colour Shades**

#### **Standard Colours**

Shree Prefab Steels P Limited utilises Colorbond®, the most advanced pre-painted steel sheets of the construction industry with superior strength of steel, higher corrosion resistance of Zinc-Aluminium alloy coated ZINCALUME® steel and exceptional aesthetics of a superior paint finish. Shree PEB offers owners, architects, designers and builders a wide range of colours t oadd life to the building.



Different shades are also available in other brands.

### The PEB Process Flow at Shree



 Enquiry received by sales team

The Sales Team ▶ understands the requirements of customers





 Shree submits the quotation

Customer ► finalizes the deal & sends purchase order



Fabrication and supply of structure material



Erection of the building & building & possession to the customer within stipulated time frame



General Arrangement drawings are approved by customer



### Why Shree ?

Advantages of choosing Shree for your project



Early & Fast Occupation of Premises Early Return on Investment Higher Profitability



**Consistent Quality** Proven Technology Reliable Solution



**Complete Solution** Single Source Responsibility Global Capability

**Complete Safety** Minimal Risk of Lost Time Injuries Complete Peace of mind for Shree Customers





Lower Life-Cycle Cost Lower Maintenance Cost Greater Life - Cycle Cost Savings



Advanced Technology Latest technology utilised Global Knowledge applied



High Productivity Leak - Proof Roof System







- Factories
- Warhouses
- Aircraft Hangars, Metro Stations & Shipyards
- Showrooms, Offices, Schools, Hospitals, Site Offices, Commercial Complex, Shopping Malls, Sport Stadiums and other recreational facilities,
- ▶ Fuel Stations, Bus Shelters, Car Parks, Cold Storages











## Quality & Customer Service

**Shree** has earned trust, confidence & reputation for itself through Highest Quality, Cost effective solutions, Innovation, Consistency, Commitment, Efficient Service & Timely completion of projects. Shree caters its customers across the State with Pin to Piano solutions ie from Planning to Execution of Pre-engineering Buildings.





### Prestigious **Projects**









Intas Phatmacueticals Ltd.	Mechtech Engineering	
Arvind Mills Ltd.	Parikh Enterprises	
Entire Ceramics Ltd.	Ramrajya Cotton	
Varmora Ceramics	Balkrishna Textile	
Ricasill Ceramics	Devang Steels	
Macons Engineering	Sachi Steel Solutions Pvt. Ltd.	
M/s. Pogenn & Nagarsheth	Vijaya Land Infrastructure	

Narmada Fertilizers







**Office:** 301, Gala Business Center-1, Nr. Klassic Gold Hotel, St. Xavier's Cross Road, Navrangpura, Ahmedabad-380 009.

- **T** +91 79 65413309,40075253 **M** +91 9227499906
- **F** +91 79 300227950

E info@shreeprefab.com

W www.shreeprefabsteels.com

**Works:** Survey No. 453, Opp. Chacharwadi Bus Stop, Opp Divyabhaskar, Nr. SPI Container, Sarkhej-Bavla Highway, Tal.-Sanand, Dist.-Ahmedabad.