



Think Ahead Solutions

PRE ENGINEERED
BUILDING SOLUTIONS

We Build your imaginations.

About Us:

Think Ahead Solutions is specialized in design, manufacturing and installation services of Pre-Engineered Buildings and Structural Steel projects. The foundation of the company has been laid by professionals having rich experiences in business development, project management, project execution and customer relationship.

The necessity to meet the growing demand of **Pre-Engineered Buildings** in India and to provide complete end to end solution to clients for their buildings requirements has been the main reason for emergence of **Think Ahead Solutions**. Our aim is not merely supply the buildings to customers but to put in use our expertise at each and every stage of project right from the initial stage i.e. concept and planning, designing, detailing, manufacturing and execution of projects to provide customer an economical and a superfast solution for his requirement.

Vision:

To be the most reliable solution provider in the field of Pre-Engineered Buildings and Structural Steel projects.

Mission:

Our mission is to provide complete end to end solution to clients for their steel building requirements and enrich them with the experience at our services with utmost satisfaction.

Why Choose Us:

At **Think Ahead Solutions**, we stand out from the competition for several reasons:



Expertise:

Our team comprises skilled engineers, designers, and project managers with a deep understanding of PEB technology. We excel at turning your ideas into reality, providing tailored solutions for each project.

Quality:

We never compromise on quality. From using the finest materials to employing rigorous quality control measures, our commitment to excellence is unmatched.



Innovation:

Embracing the latest trends and technologies, we ensure that your PEB structures are not only functional but also aesthetically pleasing and environmentally friendly.

Customer-Centric Approach:

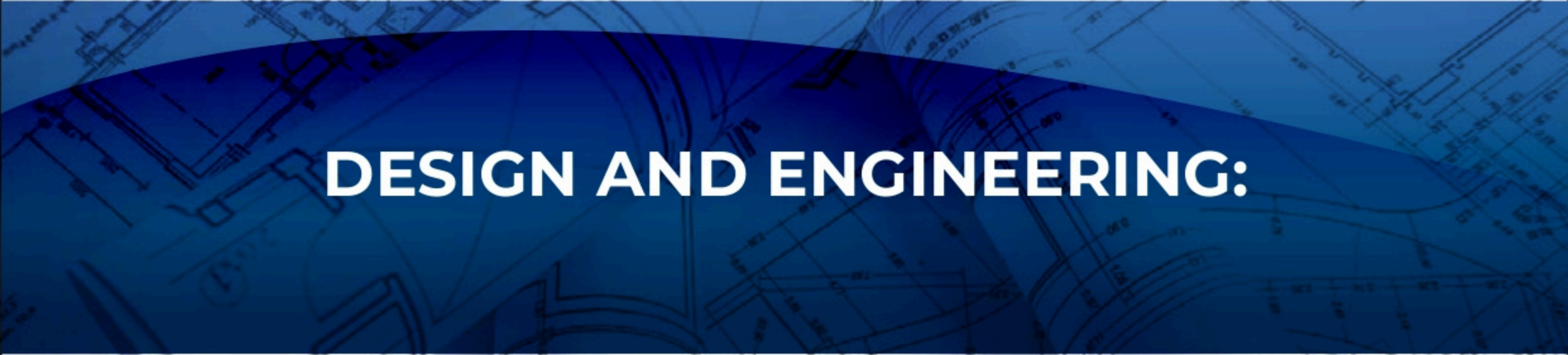
Your satisfaction is our priority. We collaborate closely with our clients, ensuring clear communication, and incorporating your feedback at every stage of the project.



Turnkey Solutions:

We offer comprehensive turnkey solutions, taking care of everything from concept to completion, saving you time and effort.

Our Services:

A background image of architectural blueprints, showing various technical drawings and lines in white on a dark blue background.

DESIGN AND ENGINEERING:

Our team of experienced designers and engineers work closely with you to create customized PEB solutions. Whether you need a warehouse, factory, or commercial building, we analyse your requirements and provide the most efficient and cost-effective design.

A background image of a factory interior, showing industrial machinery and structures in a dark blue, slightly blurred setting.

MANUFACTURING

Utilizing cutting-edge technology and premium materials, we manufacture the main structural components of the PEB in-house, ensuring top-notch quality and adherence to project timelines.

Our Services:

A photograph of two construction workers wearing hard hats and safety vests, standing on a construction site. The image is overlaid with a dark blue curved shape.

CONSTRUCTION

Our skilled construction team ensures the seamless assembly and erection of PEB structures at the project site. We follow strict safety protocols and best practices to guarantee a successful and incident-free construction process.

A photograph of a construction worker wearing a hard hat and safety vest, working on a corrugated metal roof. The image is overlaid with a dark blue curved shape.

ROOFING AND CLADDING

Enhance the appearance and functionality of your building with our wide range of roofing and cladding solutions. From insulated panels to metal sheets, we have various options to suit your specific needs.

About PEB:

Pre-engineered buildings are structures that are designed, fabricated, and assembled using pre-defined building systems. These systems are manufactured off-site and then transported to the construction site for quick and efficient installation. PEBs are commonly used for various purposes, including warehouses, factories, workshops, showrooms, sports facilities, and commercial buildings.

Key features of Pre-engineered buildings include:

Cost-effective: PEBs are cost-effective due to their efficient design, standardized components, and reduced construction time.

Quick construction: As most components are pre-fabricated, the construction process is faster compared to traditional buildings.

Customization: PEBs offer a degree of customization, allowing clients to choose from various sizes, designs, and finishes.

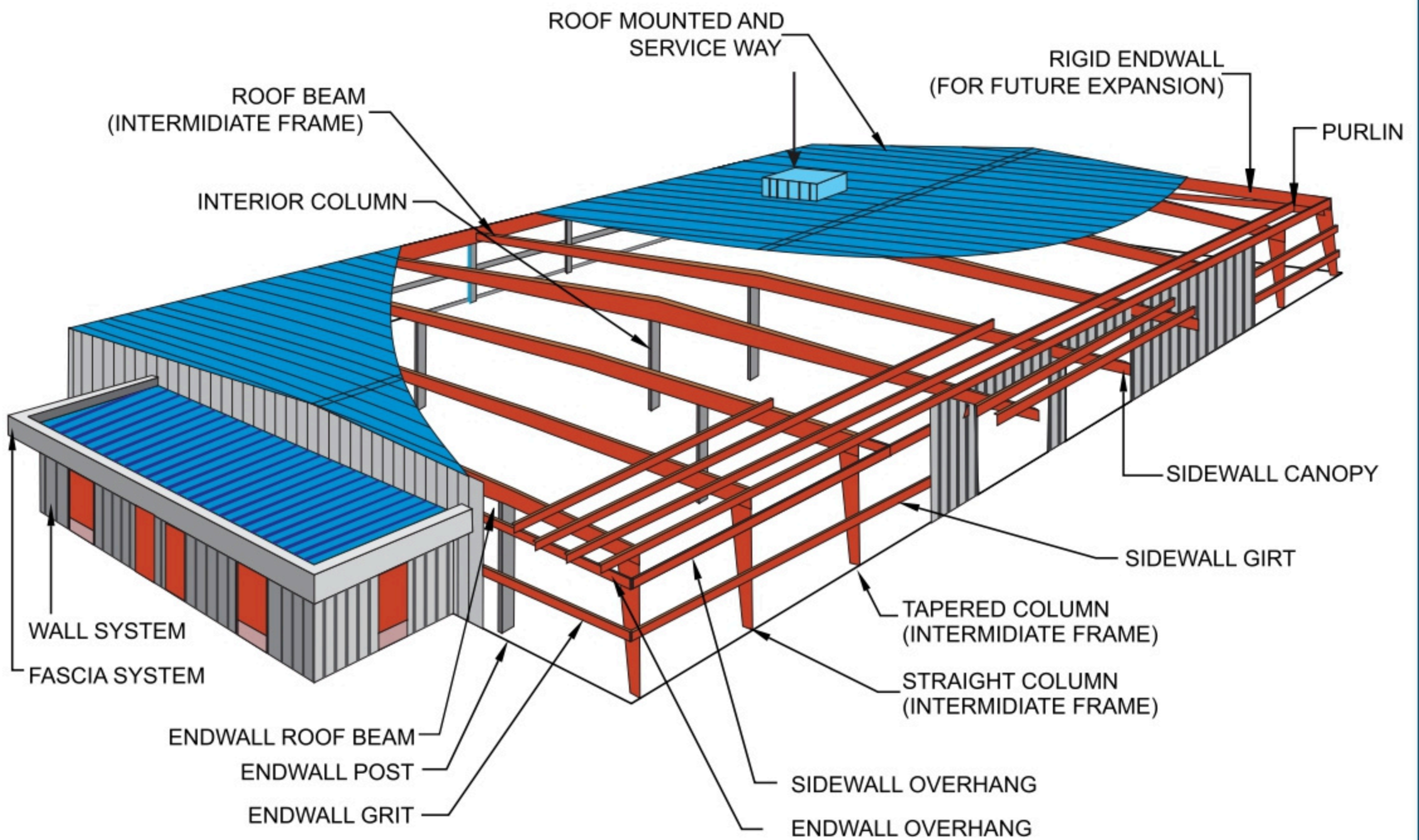
Low maintenance: These buildings typically require minimal maintenance due to the use of high-quality materials.

Structural strength: PEBs are designed to withstand various weather conditions and are engineered to ensure structural stability.

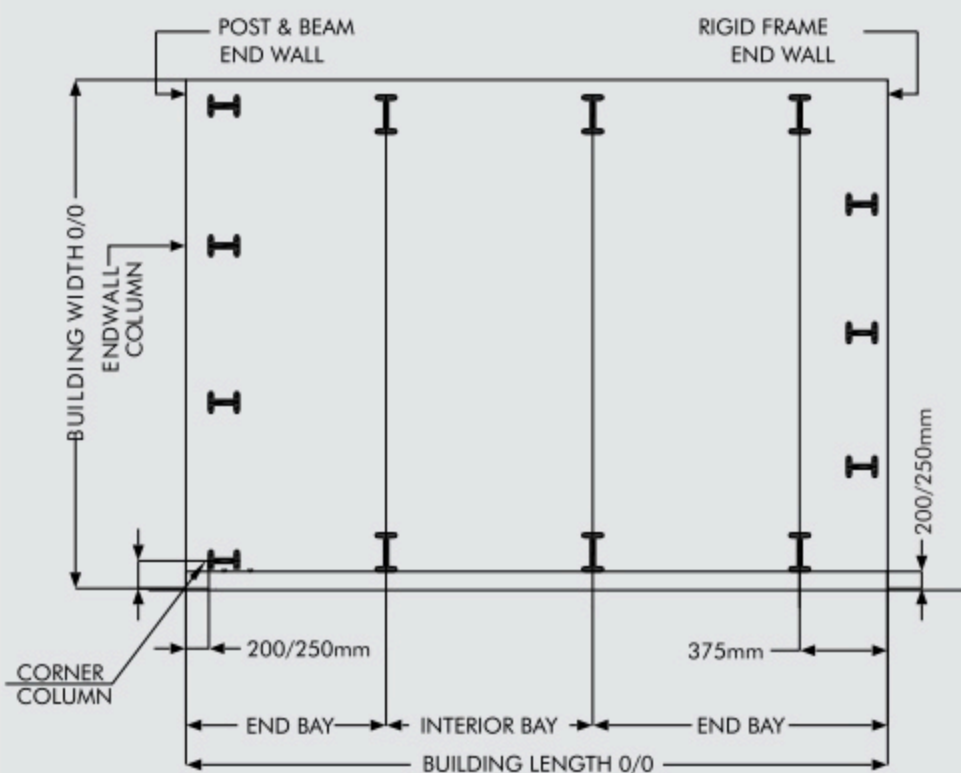
Advantages of PEB

- 1. Larger Span:** Upto 60mtr clear span can be constructed without column in between
- 2. Reduced Construction time:** When the foundation is being built in site, the structural members are simultaneously fabricated in industries. Since the erection time is also less it results in the early completion of the structure
- 3. Less Manpower at Site:** Most of the work in a PEB construction is done in the industries thus the requirement of manpower at the site is very less comparatively
- 4. Reduction in Cost:** Since both materials and manpower is minimized the overall cost of construction is reduced
- 5. Flexibility in Design:** The steel structural members are designed in software and is fabricated with machines, thus desired shape can be achieved without any compromise. Hence the PEB can be architecturally versatile
- 6. Scope for Future Expansion:** Since bolted connections are only used, the length wise expansion in a PEB becomes more evident
- 7. Low Maintenance:** Modern metal finishes and coatings will help the steel panels to resist corrosion, chemical attack etc., and also the steel surfaces can be easily repaired if damaged.
- 8. Seismic Resistance:** The super structure made of steel is light in weight and flexible enough to offer greater resistance to seismic waves when compared to conventional concrete structures.

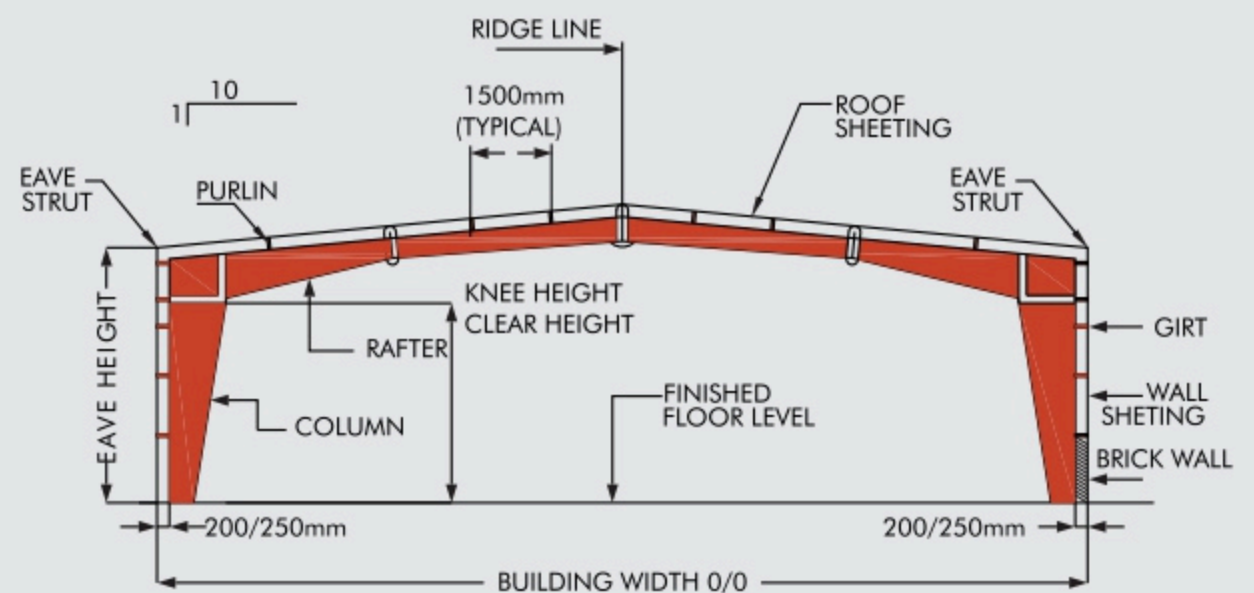
PEB 3D View



Typical Plan

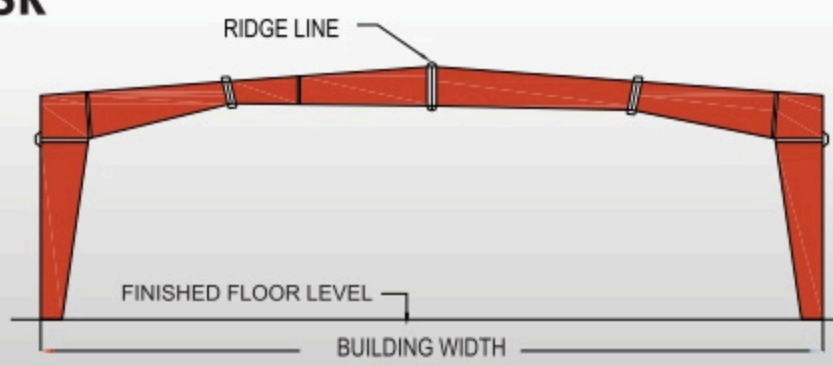


Typical Section



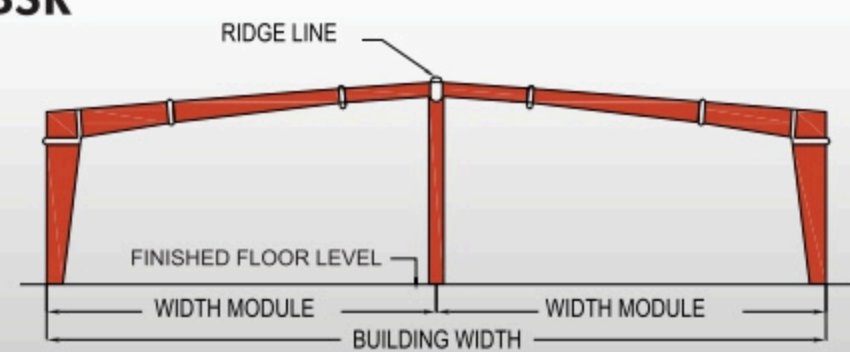
Types of typical frames

SBSR



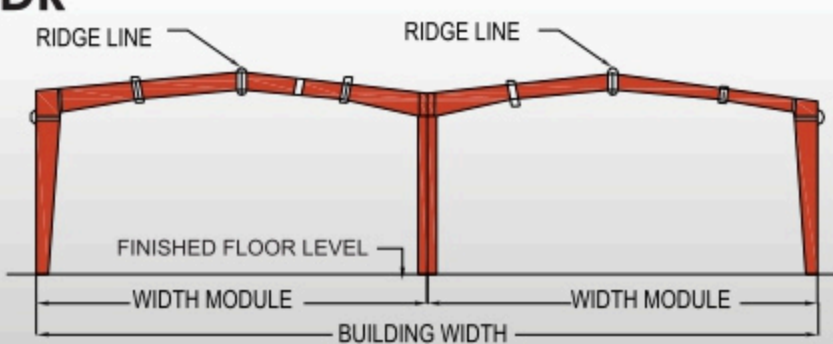
PRACTICAL WIDTH - 6 M TO MAX. 60 M

DBSR



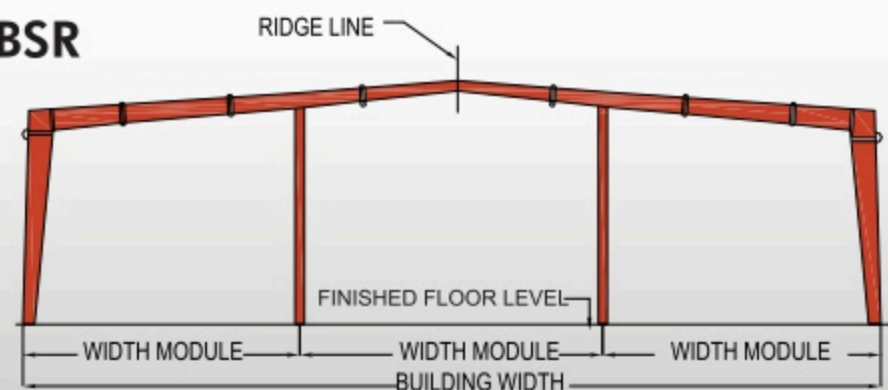
PRACTICAL WIDTH - 24 M TO MAX. 48 M

DBDR



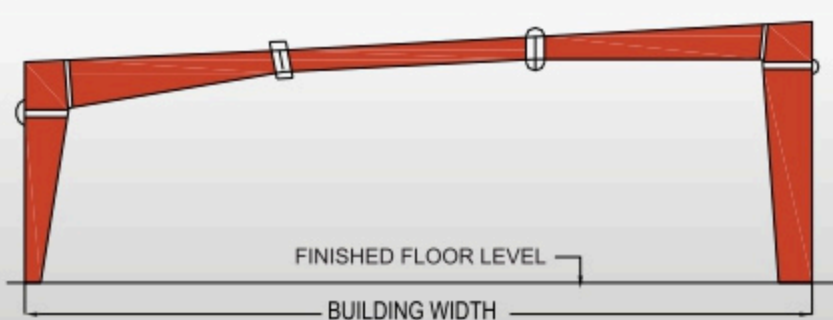
PRACTICAL WIDTH - 24 M TO MAX. 60 M

TBSR



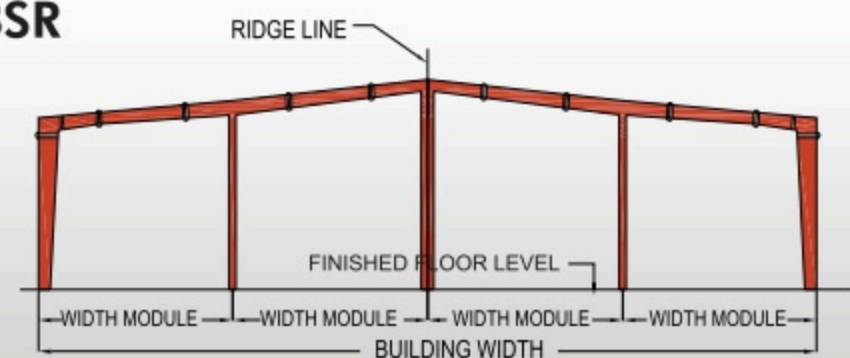
PRACTICAL WIDTH - 36 M TO MAX. 72 M

LTR



PRACTICAL WIDTH - 3 M TO MAX. 18 M

FBSR



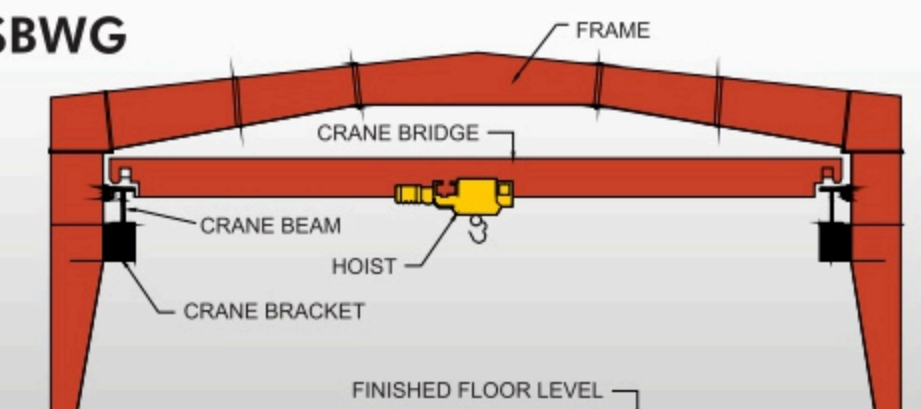
PRACTICAL WIDTH - 48 M TO MAX. 96 M

Y - Canopy

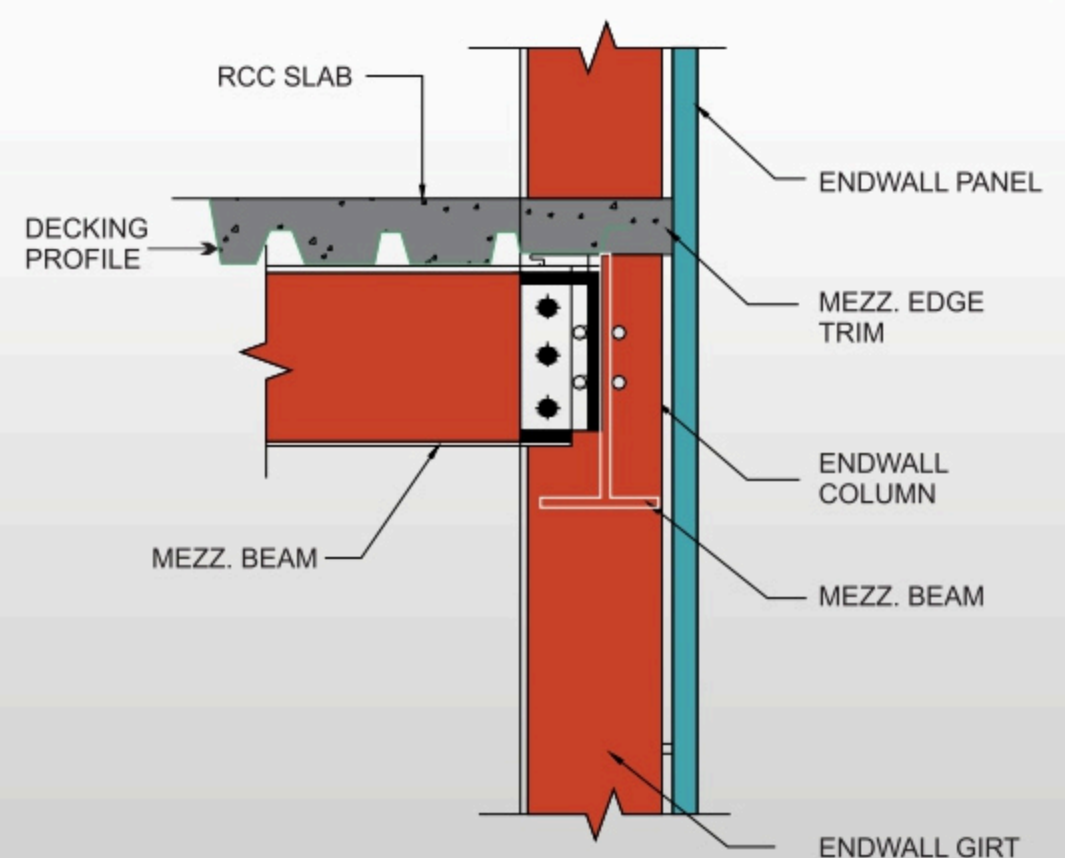


PRACTICAL WIDTH - 6 M TO MAX. 12 M

SBWG



TOP RUNNING CRANE



HOIST CONNECTION TO ENDWALL COLUMN
(FOR MEZZANINE SLAB)

Design Load considerations



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Dead load	:	0.10-0.15 KN/M2.
Live Load	:	0.50-0.75 KN/M2.
Wind Load	:	As per IS 875:1987 (Part)3 for location , For Aurangabad 39M/sec.
Roof Slope	:	1 : 10
Bay Spacing	:	6 M, 7.5 M & 9 M are most common.
Eaves Height	:	4.00 Mt to 12.00 Mt from FFL Level to Top of Eaves Strut.

Applicable Codes

Welding is designed in accordance with : Structural Welding Code-Steel Manual 1996 AWS

Wind Speed is applied in accordance with : IS 875 (Part 3): 1987 Code for Practice for Design.

Cold Formed members are designed in accordance with : 1980 Edition of Cold Formed Steel Design Manual, American Iron & Steel Institute (AISI)

Hot Rolled Sections & Built up sections are designed in accordance with : 1989 Manual of Steel Construction, Allowable stress Design, American institute of steel const (AISI).

Design for seismic loads, collateral loads or any other local conditions must be specified at the time of enquiry.

Loads are applied in accordance with the latest American Codes & Standards applicable to Pre Engineered Buildings unless otherwise requested at the time of enquiry.

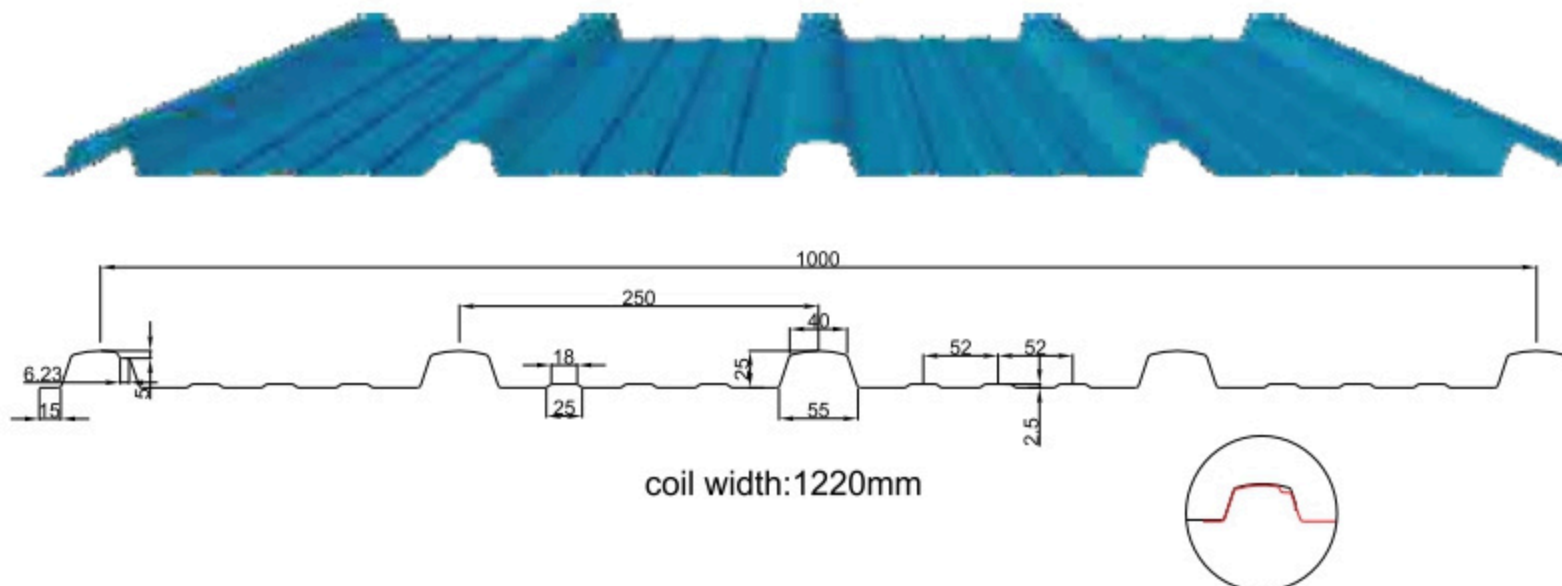
Material Specifications for Various Components

STEEL MATERIAL	SPECIFICATIONS	MINIMUM Yield Strength
Primary Members Portal Frames/Builtup Frames	ASTM A 570 G 50/ IS 8500 or Equivalent	Y S 345 mpa
Secondary Members Cold Formed HR steel Galvanised Steel	ASTM A 570 or IS 1079/10748 ASTM A 653 MSS Gr 34, coating 150/180 GSM	Y S 245 or 345 mpa Y S 345 mpa
Roof Sheeting & Panels Bare & Colour Coated	ASTM A 792M Grade D AZM150	Y S 345 or 550 mpa
Valley Gutter Galvanised Steel	IS 513 Grade O Or D	Y S 240 mpa
Mezzanine Deck Panels Galvanised Steel	ASTM A 653 SS Grade 55, Zink Coating 180 gsm	Y S 550 mpa
Diagonal Bracing Members Rods round bar	ASTM A 36M / IS2062 or Equivalent	Y S 245 mpa
High Strength Bolts (Rafter)	ASTM A 325M Grade 8.8, or Equivalent	UTS 830 mpa
Anchor Bolts	ASTM A 36M / IS2062 or Equivalent	Y S 245 mpa
Galvanised M S Bolts	ASTM A 307 / IS1367 or Equivalent Grade 4.6 Hot dip Galvanised /plating yellow colour	Y S 245 mpa

Roof Cladding Systems

With high precision Roll forming and Component forming machines, you can be assured about the Quality & Reliability of PEB Metal Roofing Solutions. PEB Roofing Sheets are available in Pre-painted Galvanized Iron. These Roofing sheets are available in a range of superior and aesthetic colors for Roofing and wall Cladding. These Roofing Sheets have excellent corrosion and weather resistance thereby ensuring low maintenance and long durability of the roofing system.

The Anti Capillary Groove

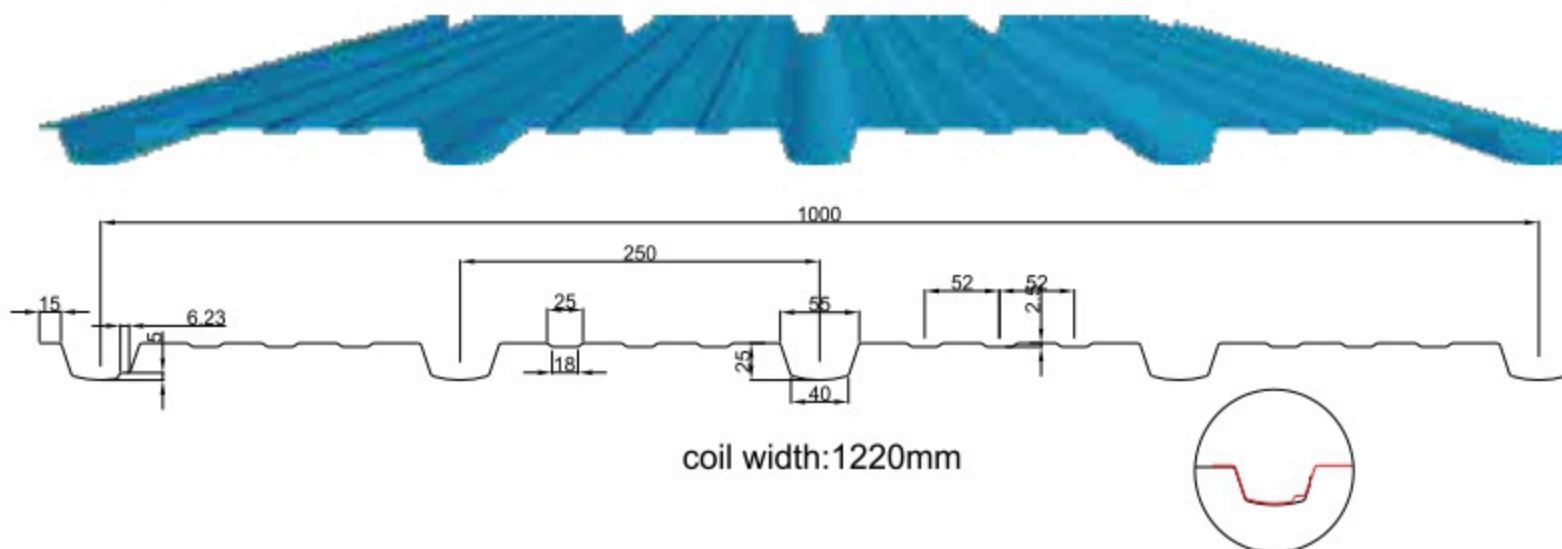


PEB use high tensile steel as base material with a coating of high quality alloy of AL & Zn.

Technical Specifications of Aluminium-Zinc-Alloy Coated steel

Roof Sheeting : Pre-painted Galvanized Iron with 0.5mm Thickness & 1000mm wide out of 1220 sheet

Wall Cladding Systems



PEB use high tensile steel as base material with a coating of high quality alloy of AL & Zn.

Technical Specifications of Aluminium-Zinc-Alloy Coated steel

Fixing Accessories



Bolts & Nuts
(For Steel Structure)

Self Drilling & Tapping Screws With
Sealing Washer (For Sheeting)

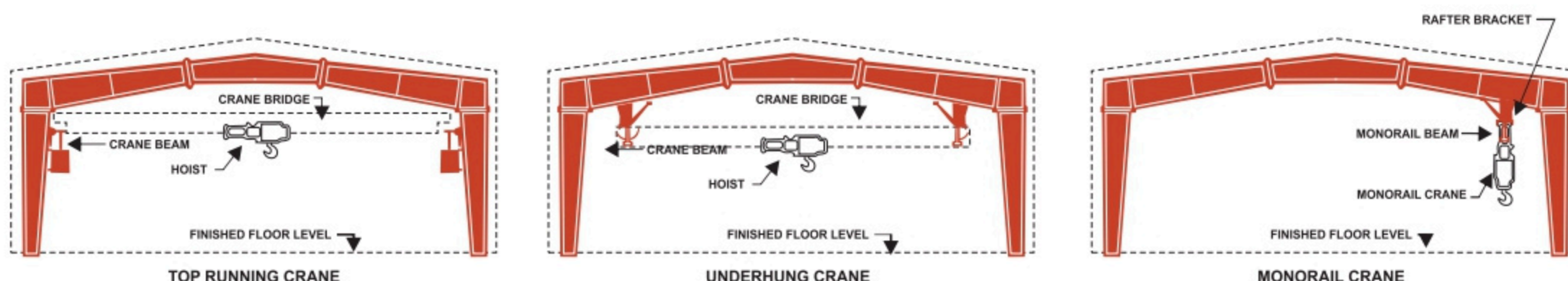
Sealant & Closures
(For Sheeting)

Crane System



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PEB Crane System includes crane runway beams, columns, brackets and crane stop. PEB engineering department will design the crane runway beams and frames supporting them on the basis of crane loading data provided by the customer, and in accordance with the relevant standards



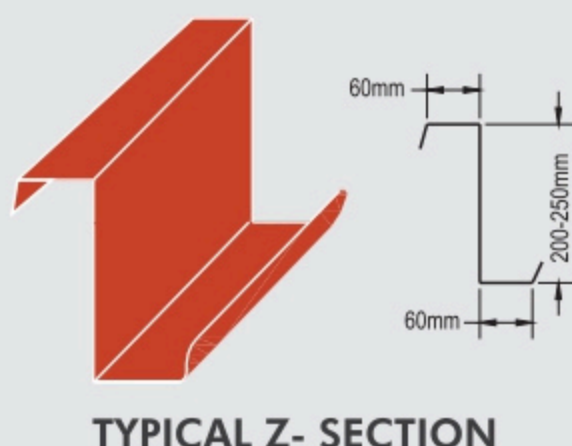
Pre-Engineered Building System Components

A) Primary Built-up Members



Built-up "I" shaped primary structural framing members (columns and rafters)

B) Secondary Members : Cold "Z" shaped secondary structural members (roof purlin, eaves struts and wall girts)



The Main Advantages of "Z" Purlins are :

Savings upto 40-50% weight of structural steel and 25-30% in costs when compared to Hot Rolled Sections.

Saving upto 30-40% in weight and 15% in costs when compared to Tubular Purlins.

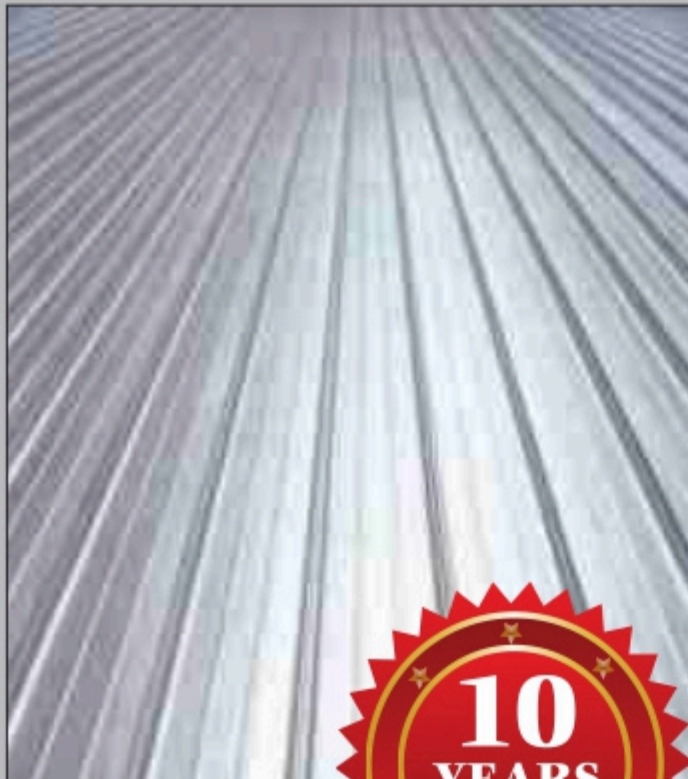
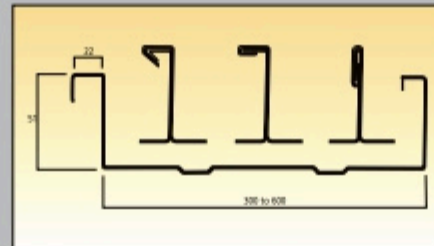
We offer a wide range of sections to facilitate better and economical selection. Purlin erection is easier than other.

C) Comparison of Z-Purlins & Conventional HR Section

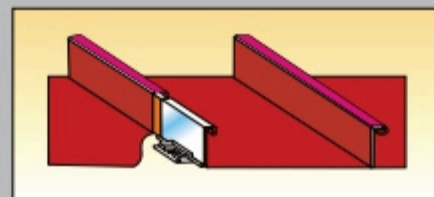
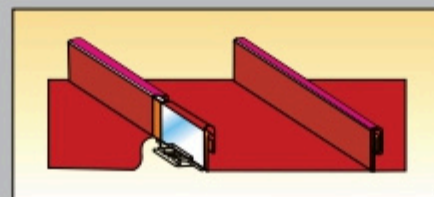
SPAN (M)	HOT ROLLED (HR)	ROLL FORMED (CRF)	WEIGHT (HR) (KG/M)	WEIGHT (CRF) (KG/M)	COST (HR)	COST (CRF)	SAVING IN WEIGHT (%)	SAVING IN COST (%)
4.0	ISMC 100	150C50T2	9.2	4.3	245	178	54	29
5.0	ISMC 125	200C50T2.5	12.7	5.9	336	241	55	30
6.0	ISMC 150	225C75T2.5	16.4	7.8	432	317	54	28
7.0	ISMC 175	275C75T2.5	19.1	8.8	502	356	55	30
8.0	ISMC 200	300C75T3	22.1	11.0	580	446	51	24

- Shape & Size are subjected to change due to continuous improvement
- Prices shown are indicative and are subjected to change without notice

Standing Seam Roofing System SSRS-450



300 to 600mm Coverage Model SS2000 50mm Standing Seam UL 90 Rated



- 100% Leak Proof ● Screw Less
- Metal Roofing System ● Certified 10 Years Warranty

Turbo Ventilating System

The wind driven Air ventilators are used the world over because of their Low Capital Costs, Easy adaptability, High air displacement capacity per ventilator and Overall reliability. The air ventilator is designed to withstand a wind velocity of up to 100 kmph. it is made of Stainless Steel or Aluminium, therefore virtually maintenance free with a Ten Year Warranty.

The air ventilator weights less than 3 Kgs. This enables flexibility and they can be installed anywhere on the roof without any structural changes.



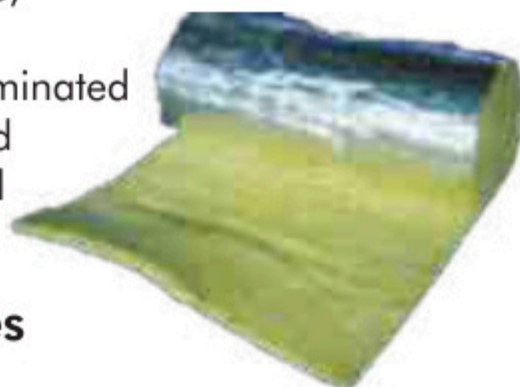
Features

- Not Motor driven
- Saves cost as it needs only natural winds
- Safe as it does not require electricity
- No Pollution as it uses natural air
- Easy to install on any type or roof
- Light Weight
- Maintenance Free
- Rainproof as it designed to protect from rain
- Helps remove stale, damp and hot air

Insulation Material

Ⓐ Insulated Building Rolls

Insulated building rolls are efficient low-density insulation material made from non-combustible glass wool fibre & bonded together by thermosetting resins. The Product is easy to handle, cut & install. It is factory laminated with reinforced aluminium foil on one side.



Advantages

- Keeps cool & comfortable in summer & warm in winter
- Reduction in noise by high sound absorbtion
- Non-Combustible
- Water Repellent

Ⓑ Reflective insulation 4mm

R9 equivalent to 50 mm thk
24 kg m3 Glass wool.



Ⓒ PEB Louvers





Think Ahead Solutions



8286468031 / 9036179517
+91-8527121600



thinkaheadsolutions123@gmail.com

Office Add:



**Plot No 40, Gat No 444/4,
Success Industrial Park, Opposite
Mahindra Gate No 8, Nighoge,
Pune, Maharashtra - 410501**

Factory Add:

**Plot No 40, Gat No 444/4,
Success Industrial Park, Opposite
Mahindra Gate No 8, Nighoge,
Pune, Maharashtra - 410501**