A Complete PEB Structure Provider

MULTITECH INFRACON PVT. LTD.

Innovative & cost-effective industrial solutions!

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MAKE IN INDIA

Formerly Known As Multitech Solution


A Complete PEB Structure Provider
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KONECRANES
P4
SAFETY FIRST!
30/5.0t
KONECRANES

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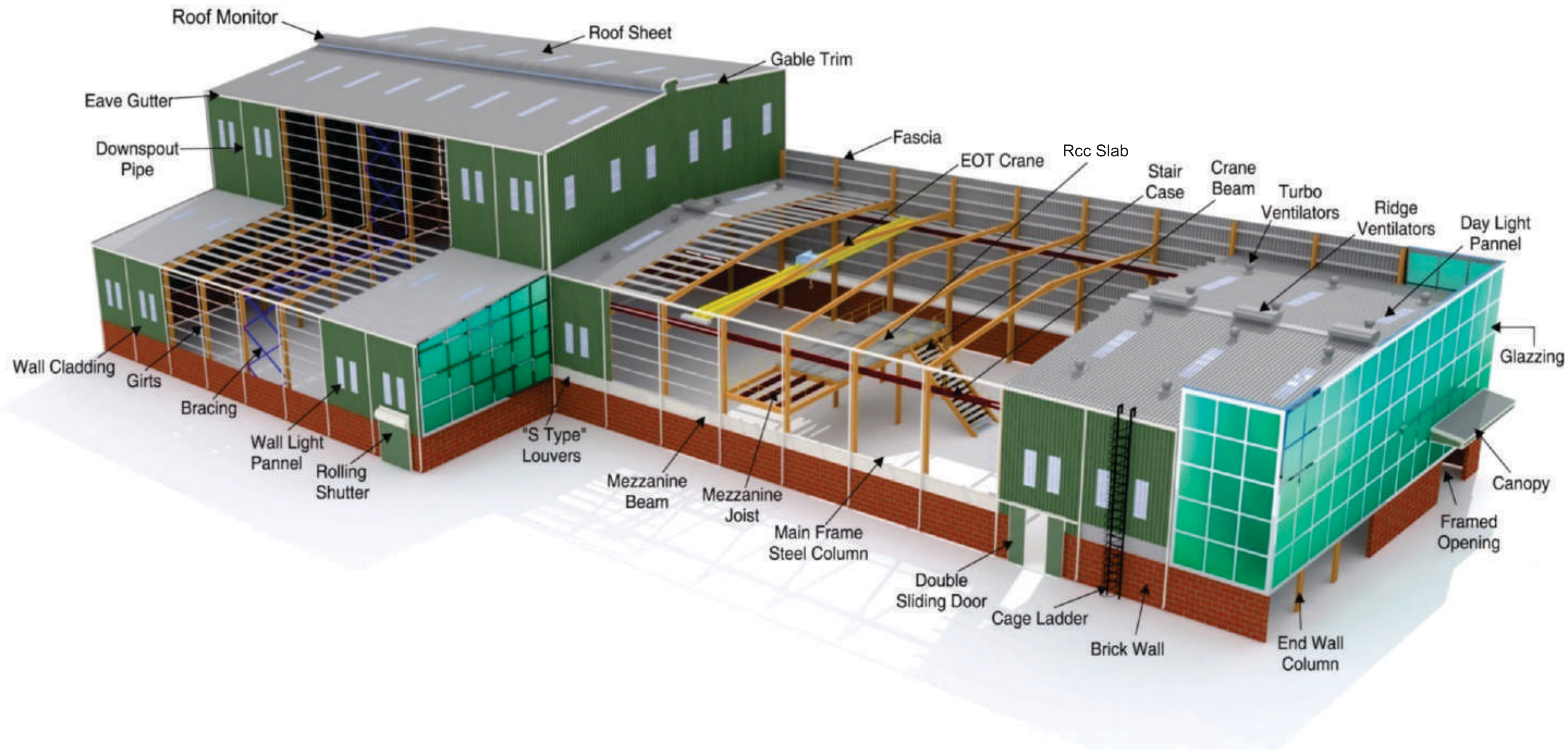
PEB STEEL BUILDING

MIPL Projects provides high quality solutions for all kind of Pre Engineering Building requirements and super structure. The good impact on environment makes steel buildings highly successful in the market. A Typical PEB Comprises of Primary & Secondary members, Roof & Wall Claddings, choice of insulations, choice of Mezzanine floors, Crane Beams and intergrated accessories.



ABOUT US MIPL

As a leading PEB manufacturer MIPL. Provides the complete service of engineering and fabrication this ensuring better quality control at every stage of the process.

We have long industrial experience in MIPL Pre-Engineered Steel Construction Solution provider in India with incorporated facilities for design, manufacturing, logistics, and supply and project execution capabilities for pre-engineered steel buildings For today and in the future, Steel has become the material of choice the current & future of building construction, compared to concrete and timber. Thus steel building designs have become more bendable and adjustable.

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VISION

MIPL Projects vision becomes a steel buildings projects, Industrial buildings, Cold storage, Warehouses, Multistory buildings, Heavy Structure and Mezzanine floors.

MISSION

MIPL Projects mission to offer work with high quality like International Standards within give time line.

VALUES

MIPL Projects Strictly Fellow The Values -

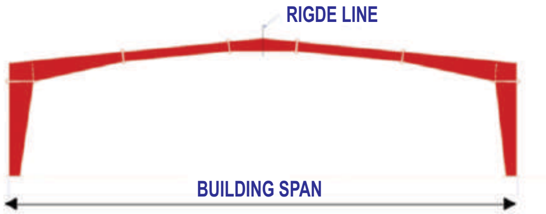
- Punctuality
- Commitment with Job
- Honesty
- Trust
- Courage
- Respect
- Empowerment
- Teamwork

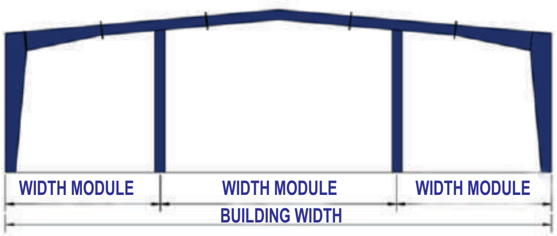
PRIMARY FRAMING SYSTEM

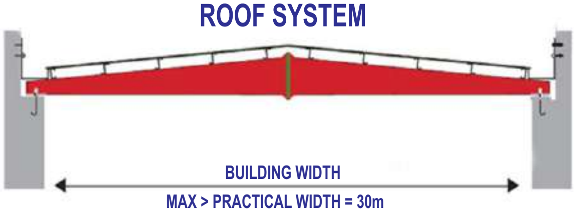
Our engineering strengths enable us to optimize complex building design into efficient building solutions to suit our customer's needs. Our primary framing consists of all structural elements which transfer load to the foundation and comprises of Endwall frames Endwalls are constructed with either economical bearing frames or rigid frames.

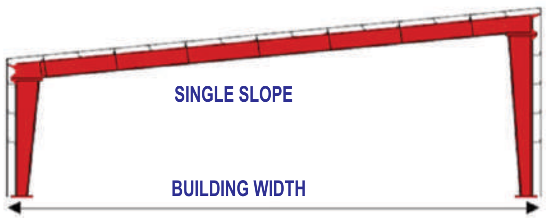
These frames are complemented by wind bracing, connection bolts, anchor bolts if required. Wind Bracing: It consists of cross-bracing located in the side walls and roof in one or more bays depending on the type of load and the length of the building.

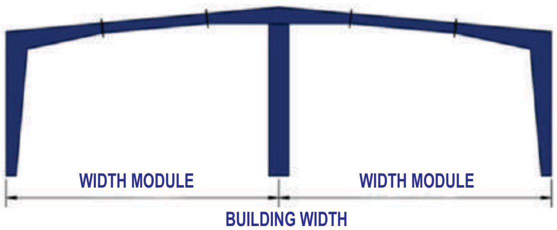
STRENGTHS OF PEBS

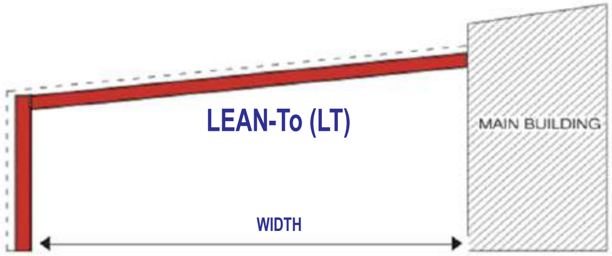












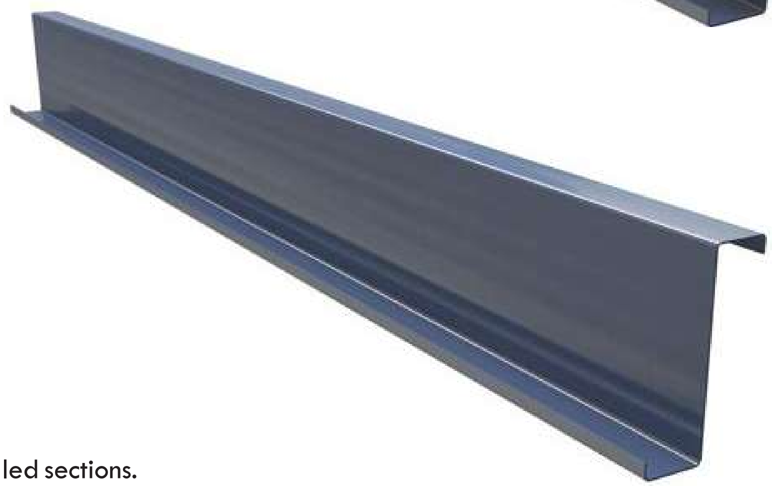
SECONDARY FRAMING SYSTEM

Our engineering strengths enable us to optimize complex building design into efficient building solutions to suit our customer's needs. Our primary framing consists of all structural elements which transfer load to the foundation and comprises of Endwall frames Endwalls are constructed with either economical bearing frames or rigid frames.

C Section Purlins (SECTION PROPERTIES FOR "C" SECTION)

DEPTH	THICKNESS	TOP OF	BOTTOM OF
MM	MM	FLANGE	FLANGE
180-225	1.6	50-70	50-70
180-225	1.8	50-70	50-70
180-225	2.0	50-70	50-70
180-225	2.5	50-70	50-70
180-225	3.0	50-70	50-70

Z Section Purlin (SECTION PROPERTIES FOR "Z" SECTION)



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180-225	2.5	50-70	50-70
180-225	3.0	50-70	50-70

ADVANTAGES OF MIPL PROJECTS PURLIN

- Saving upto 40-50% weight of the structural steel and 25-30% in cost when compared to hot rolled sections.
- Saving upto 35-40% in weight and 20% in cost when compared to hot rolled purlins.
- Purlin erection is easier than others.
- The purlins are supplied in required lengths with pre-punched holes. Hence, reduction in constrained time and cost in fabrication & erection and no wastage.
- Truss spacing can be increased, hence less number of trusses columns and foundation work resulting in further economy.
- Close tolerances on sectional dimensions due to process of cold roll forming.
- Low transportation cost due to reduced weight
- High versatility, durability and uniform quality

About the Product

Pre-Engineered Buildings are extremely quick and efficient. They have a simple design, are light weight & easy to construct due to which both costs & time of erection are minimized. The erection process is simple, fast, step by step and easy to install. Outstanding architectural design can be achieved at low cost. PEB are flexible and modular and lend themselves easily to future expansion.
Each one of our PEB structures are designed to meet the requirements of our customer, at a competitive price and delivered within the agreed time lines.
We have;

- Excellent support-experienced staff that have a proven record of achievement in this market.
- Procedures and software applications that are sophisticated in design yet uncomplicated and user friendly.
- We are close by, to offer the assistance required ensuring our distributors needs are addressed in a timely manner. The Pre-engineered steel building system in itself offers great advantages to the customer as a more feasible, practical and efficient alternative to conventional buildings. The system has earned acceptance across the world and is gaining rapid growth in India as well. Some of the distinct advantages include;
- Durability-Weather resistant, earthquake resistant Value-Lowinitialinvestment, low maintenance costs Environment- friendly - All the materials can be recycled Flexible-Easy to expand, easy to setup and change Faster-Reduced construction time Aesthetics-Gives the engineer enough flexibility to create unique structures.

Advantages of PEB

Cost Effective

- Our production capacity improved with high-tech engineering and production processes enables us to offer the most competitive prices in the industry; hence making our services cost efficient.
- Single source responsibility also spells less project manpower, equipment and infrastructure requirements at the customers end.

Speedy Construction

- Our buildings are the solution if speed and ease of construction are of primary concern.
- Constructions are easily retractable extendable offering design flexibility.
- Average of 8 to 12 weeks time until completion.

Project Management Capabilities

- Technical assistance available to address your requirements, right from conceptualization to successful completion of the project.
- On-site co-ordination with keen eye for quality control.
- Our customer service department closely co-ordinates between sales, engineering production, projects and our clients.

Engineering Competitiveness

- Experienced engineers with in-depth knowledge of the most modern state-of-the-art Technologies are involved from the first step of the concept to the final completion of design.
- The safety and quality of the work of our engineers constantly ensures that the high standards of MIPL buildings are maintained with consistency.

Resistance and Durability

- Resistant to harsh weather conditions like earthquakes, snow, fire and termites.
- Our buildings are extremely durable.

Design Flexibility

- Building designed with aesthetic details of client requirements.
- Strong foundations and primary designs are flexible for future expansion.
- Professional designers and draftsman with architectural flexibility.

Cost Effective

Speedy Construction

Project Management Capabilities

Engineering Competitiveness

Resistance and Durability

Design Flexibility

HEAVY STRUCTURES SYSTEM

MIPL is among the leading companies engage in premium quality structural Steel Fabrication Services. Our in-depth expertise in this domain helps us deliver unparalleled quality of end product in good turnaround time. Our highly skilled and experienced engineers precisely execute these Fabrication Services as per client's demands and expectations.

We are looking for queries from the companies looking to off-load fabrication work, be it PEB Primary framing system, Secondary Framing system, heavy structural steel fabrication or any kind of steel related job work.

Our feasible price range makes us the first choice for clients. Rendered at par with the industry set quality values and principles, we go all the way to ensure timely deliveries while at the same time maintaining high standards of quality.

MULTI STORIES HIGH RISE BUILDINGS

Building a high-rise or any multi-level building demands the use of light-weight yet strong materials. Steel, by virtue of its high strength to weight ratio enables large spans and light weight construction. Steel structures can have a variety of structural forms like braced frames and moment resistant frames suitable to meet the specific requirements of higher buildings. Taller buildings also face higher wind loads, and hence steel being flexible, allows the building to move and deflect with the wind forces, rather than making it rigid like concrete.

PLANT / PROJECT GALLERY

PLANT / PROJECT GALLERY

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CRANE & MEZZANINE FLOOR SYSTEM

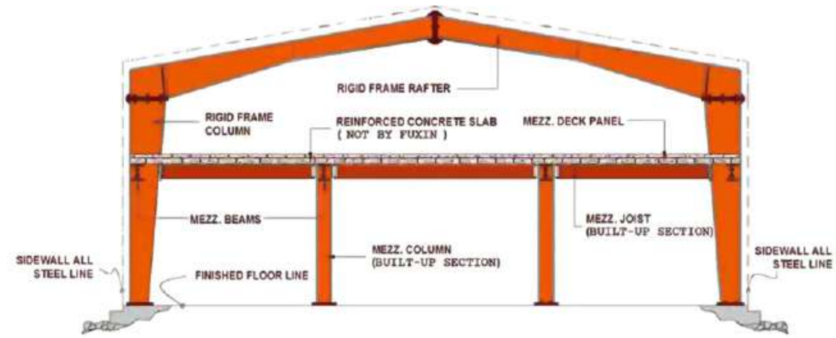
CRANES : CRANE systems in building: There are various types of crane systems used in industry for various purposes such as EOT overhead crane, Overhung/under-slung crane system, Monorail crane system etc. Alignment of crane beams is very important, the centres of the crane beam webs should be equal to the centres of the crane wheels, and the maximum tolerance is 10mm.

Alignment is achieved by setting each end of the beam to the correct dimension and stretching a line from end to end, alternately, a theodolite can be used if available. The crane beam brackets have slotted holes to assist in ease of alignment, if the building has been carefully plumbed, adjustment will be minimal. During alignment install the “T” brackets and shim plates, and install the angle braces form column to beam. Finally once alignment is confirmed, the bolts are fully tightened.

MEZZANINES FLOOR

MIPL PROJECTS mezzanine framing system consists of a steel deck supported by joists framed on to main mezzanine beams.If required by design loads, the main beams shall also be supported by intermediate columns. The top flange of the joists fits immediately below the top flange of the primary beam.

STEEL MEZZANINE Floors enables you to maximize the utility of the working height of your space to its optimum level. This can be achieved by doubling or tripling the surface area, using various options with flooring that match your requirements.

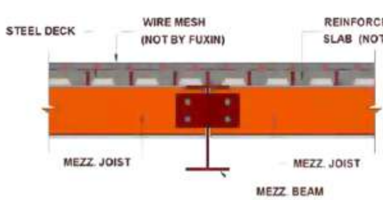


ELEVATION : MEZZANINE CROSS SECTION

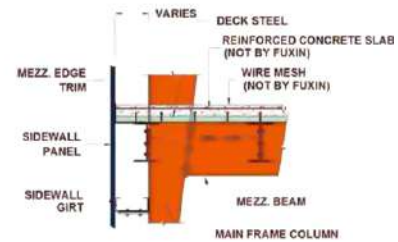
ADVANTAGES OF STEEL MEZZANINNE FLOORS

» They increase your floor area, in your existing space.
» They are quick, clean and easy to install.
» They can be disassembled, moved and re-assembled at another location and can also be increased or decreased in size to suit your future needs.
» The custom design and manufacturing of these floors and the range of flooring types and load-carrying capacities allows us to meet specific customer needs.

Mezzanines can also carry racking and shelving systems on them. Railing and access stairs are designed and installed as part of our Mezzanine Floors. They can be made in as many tiers as the per specific customer needs.



MEZZ. JOIST CONNECTION
TO MEZZ. BEAM



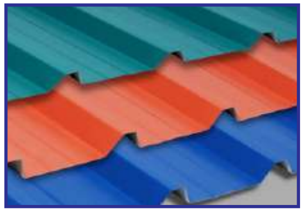
MEZZ. BEAM CONNECTION
TO MAIN COLUMN

MIPL PEB COMPONENTS

Roof and wall Panel- SML panels are prepared with a multiayered coating system to ensure long life and optimum coating adherence. The base material is pre-treated, before applying a corrosion resistant primer and top coat. The combined thickness of the painted film is 25 microns on the front side and 12 microns on the reverse side.
SML pre-painted sheeting is hot dipped galvanized zinc or hot dipped zinc / aluminum coated. The surface of the metal coatings is then given a series of pre treatments to ensure that they are completely clean. SML cladding can be used for roofs and walls and are available with or without insulation.
Roof and wall Insulation- The main purpose of insulating a building is to reduce the heat transfer coming through the ceilings and openings. Thermal insulation in buildings is an important factor to achieving thermal comfort for its occupants. Insulation reduces unwanted heat loss or gain and can decrease the energy demands of heating and cooling systems. In a narrow sense insulation can just refer to the insulation materials employed to slow heat loss, such as: glass wool, rock wool, polystyrene, form, but it can also involve a range of designs and techniques to address the main modes of heat transfer-conduction, radiation and convection materials.

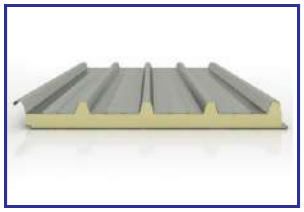
Roof and Wall Sheeting

SML standard steel panels are 0.47 mm to 0.65 mm thick and have a minimum yield strength of 345/550 MPa. Steel panels are hot dipped and galvanized with zinc or zinc-aluminium coating. Galvanized materials conform to G90 for 275 grams per square metre according to ASTM A653. Zinc-Aluminium coated materials conform to AZ150 according to ASTM A792.
Widely accepted, popular and cost-effective trapezoidal profile with 35mm deep trough, 250mm pitch, has wide pans with stiffener ribs. The precision engineered profile configuration incorporates male/female ends with full return leg and anti-capillary flute at side lap, thus ensuring leak-prof sheeting capable of efficient water drain out. The profile is also available in crimp-curved form for semi-circular/arched roofing and flashing.



Polyurethane Insulation

This is a panel manufactured by the press injection method to produce a polyurethane core between exterior steel facings. It can be used on the roof and wall as cladding.



Fiber Glass Insulation

This can be used on the roof or wall and can be retrofitted on existing buildings. The fiber glass insulation is fire safe and CFC free and does not emit toxic smoke. It is laminated to the top and bottom steel facings with special chemical glue hence completely filling the insulation cavity.

Sandwich Panels

MIPL Roof Insulated Panel- MIPL Roof Insulated Panels is one of the premier roofing systems which uses the MIPL Roof profile for a durable, low maintenance and weather-tight roofing system. The large panel size reduces the number of joints, and the high corrugation overlap joint reduced water leakage.

MIPL Wall Insulated Panel- MIPL Wall Insulated Panels uses the MIPL Wall cladding profile for a speedy and cost-efficient solution for external walls where higher insulation performance is required. This profile is most suitable to overshadow the fasteners. It can be applied as external walls for commercial and industrial applications.

BUILDING ACCESSORIES

MIPL Steel Buildings have the flexibility to allow integration of all kinds of standard bought out accessories. We also provide proprietary accessories.

- Louvers
- Roof Monitors
- Turbo vents
- Insulation
- Canopies
- Ridge ventilators
- Fascia
- Framed Openings
- Gutters & Down take Pipes
- Flashings
- Polycarbonate/FRP Daylight Panel
- Puff Panel

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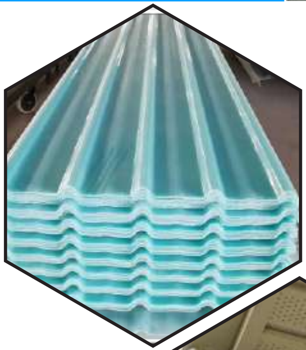
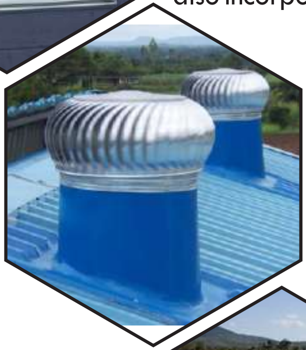
Louvers

MIPL louver is a frame containing adjustable overlapping blades which allow air flow and also block sunlight entry. The standard size available is 1m x 1m which also incorporates insect screen.



Poly carbonate / FRP Daylight Pane

Commonly in Pre-Engineered building, Polycarbonate sheet and FRP sheet are used as daylight or wall light panel. Fiber-Reinforced Plastic (FRP) (also fiber-reinforced polymer) is a composite material made of a polymer matrix reinforced with Fibers. The fibers are usually glass, carbon, basalt or aramid, although other fibers such as paper or wood or asbestos have been sometimes used.

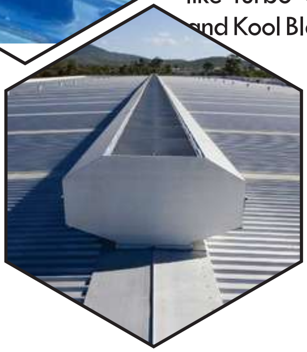


Turbo Vents

MIPL is the one of the leading suppliers of ventilators for Industrial Product. Procured from reliable vendors, in our range of ventilators, we offer three types of ventilators like Turbo Ventilator, S.S. Ventilator and Kool Blast Power Ventilator.

Gutters & Down Spout

MIPL Gutters were designed originally for roofs with flat vertical edges. A Downspout is a pipe for conveying rain water from a roof or gutter to the ground or to a drain. Our plain round galvalume downspouts are smooth and
cylinder shaped for maximum water flow capacity.



Ridge Ventilator

MIPL Ridge Ventilators are gravity type ventilator which is provided with a bird screen and Mechanical Controlled Damper. Allows natural ventilation of the building.

Flashings

MIPL Flashings are used in transition areas and divert water from one area to another. It join/ covers vertical cladding with roofing and corners.

TYPES OF BUILDINGS

As a Leading PEB Manufacturer MIPL provides the complete service of Engineering and fabrication thus ensuring better quality control at every stage of the process.

MIPL is a turnkey solution provider for all commercial and industrial Pre-Engineered Building (PEB) System. At MIPL we cater to wide range of Car Parking Space, Textiles Laboratories, Metro Stations Structural, aesthetic design requirements of industrial and architectural sector.

MIPL precision engineered Metal Roofing Structures can be built in minimum time and thus makes it ideal choice for making all non-residential, wide-span and low-rise building such as:

Factory Buildings

Showroom	Auditorium, Function Hall	Shopping Malls
Warehouses	Spinning Mills	Office Buildings
Garages	Aircraft Hangars	Railway Stations
Car Parking Space	Warehouses	Supermarkets
Service Centre	Community Halls	Institutions
Metro Train Stations	Production Units	Textiles Industries

Standard Colors

- Off White
- Cottage Green
- Sky Blue
- Beige
- Torres Blue
- Brick Red
- Bare

MIPL MANUFACTURING FACILITIES

MIPL offer's hi-tech solutions to our customers by utilizing MBS (Metal Building Software), Staad Pro (3D Structural analysis and design software) and Tekla (Model-based software) with highest precision to meet the structural requirements of the Pre-Engineered Steel Building Systems. In addition to this, we depute qualified experienced safety inspectors to ensure complete project safety and provide good after sales service to our customers. The buildings are designed on world's most advanced PEB integration platform and are manufactured using state-of-the-art machinery. The organization on the whole provides complete and the most economical building solutions under one roof.

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Heavy Duty H-beam Welding Line

Object	Max. Size, mm	Min. Size, mm
Beam Height	1500	200
Flange Width	800	200
Flange Thickness	20	6
Web Thickness	16mm	5
Beam Length	15000	3000
Tape Redness	15degree	-----
Beam Weight	550 kg/m	-----

Duty 6 M Press Brake Heavy

Capacity:

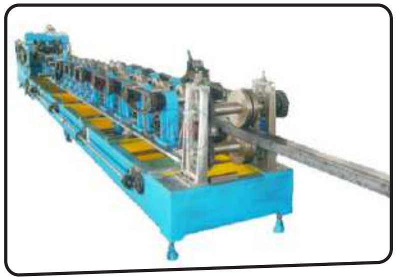
- Most fabrication shops have a range of machines, which can form holes for connections in structural steelwork.
- 2000 kn
- Max. Working length-2500 mm
- Distance between frames-5100 mm

Shearing:

- Sections can be cut to length or width by cropping or shearing using hydraulic shears. Heavy sections or long plates-specialist plate shears.
- For smaller plates and sections-shearing knives

Hydrolic Hole Punching Machine

Plate thickness	16 mm
Punch dia	28 mm
Plate size	3000x600 mm
Punch accuracy	±0.2 mm
Stroke per min	30
Hydrolic capacity	20 mt



C&Z Purlin Forming Machine

In addition to its complete line of metal building panel systems and structural purlin & girt members, we also offers a full complement of purlin clips & girts clips shown on this page. Contact us for full details and for information on customized clips.

CNC Plasma Machine

Length 12.5 mtr
Breadth 3.0 mtr
Thickness 5 mm to 40 mm

To way CNC Plasma Machine for quality Cutting of HR Plates for H. Beam/Columns.

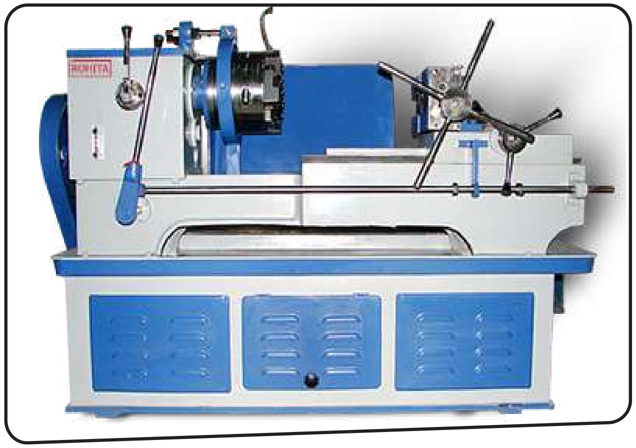
MIPL MANUFACTURING FACILITIES

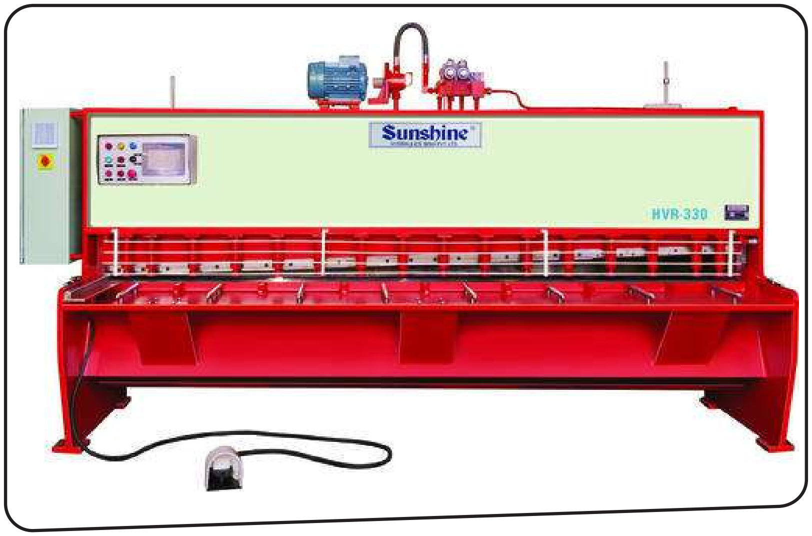
A Complete PEB Structure Provider

- H-Beam assembling machine
- Hydraulic Hole Punching Machine
- Heavy Duty H-beam Welding Line
- HV Sheet Roll Forming Machine
- Plasma Cutting Machine
- Hydraulic Press Up To 350 mt
- EOT Crane
- Duty 6 M Press Brake Heavy
- Saw Welding Machine
- Shearing Machine
- C&Z Purlin Forming Machine
- Mig Welding Machine
- Cheaser Machine
- Broach Cutter Machine

HV Sheet Roll Forming Machine

It is the continuous cold roll forming machine for producing steel structure panels. This series forming machine has more than 100 models for producing different panels.





THE MOST COMMON APPLICATIONS OF PRE-ENGINEERED BUILDINGS ARE

Industrial
- Workshops
- Warehouses
- Bulk Products Storage
- Factories
- Cold Stores
- Administrative Buildings
- Car Parking Sheds

Institutional
- Exhibition Halls
- Schools
- Sports Hall
- Hospitals
- Theatres
- Auditorium

Commercial
- Showrooms
- Supermarkets
- Restaurants
- Offices
- Service Stations
- Distribution Centers

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Multistorey Building


Ware House


Factory Building


Stadium


Cold Storage


Crane Building


Shopping Mall


Industrial Building

DESIGN & ENGINEERING

The engineering department uses the latest versions of internationally renowned industry standard 3D and 2D software for designing and detailing. Eco Turnkey Solutions Pvt. Ltd. upholds its position at the cutting edge of the industry due to its commitment to quality and customer satisfaction. Skilled structural engineers using the very latest in computerized engineering design and detailing systems permit the selection of the most Economical accurate and efficient framing and cladding systems.

The Design/Engineering Department is fully computerized, utilizing the latest software package to enable duce the most Economical structures in the shortest time possible.

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DESIGN & ENGINEERING

FEATURES	STEEL SOLUTIONS
Design	Highly advanced and customized software determines the exact position of each part of the building. Combining the structural determines the exact position of each part of the building. Combining the structural strength with the optimum use of steel to ensure safety and longevity of the steel structure.
Delivery	Average 6 to 8 weeks.
Foundations	Simple design, light foundations.
Erection Simplicity	Standard component connections, short curves.
Seismic Resistance	Low weight of flexible frames offer higher resistance to earthquakes.
Overall Price	Cost efficient.
Architecture	Outstanding architectural design.
Sourcing & Co-ordination	The building is supplied completely with cladding and all accessories, including erection from a single source.
Future Expansions	It is simple and easy.
Logistics & Project Management	Our dedicated logistics & project management team ensures speedy and timely delivery.
Aesthetic Look	Saxena Marine-Tech provides various external & internal building products that may be combined with wood, granite, ceramic, tiles, marble, plaster, paint and polish, to give you the desired look.
Unique Manufacturing Philosophy	The highly sophisticated CNC enabled machines identify each member of the building network, A unique identification plan on each roll-formed steel member allows rapid erection on site, using simple tools.

COMPARISON

DESCRIPTION	PRE-ENGINEERED BUILDING SYSTEM (PEB)	STEEL SOLUTIONS
Design Criteria	AISC/MBMA/AWS/ ASTM/ BS	AISC / AWS/ JIS/DIN / BS/ BS
Weight	About 40% lighter through the efficient use of steel. Primary framing members are designed with suitable MIPL Box Section/LIP channel Section with the most steel in the areas of highest stress, using high strength steel. Secondary members are light gauges cold-formed "Z" or "C" shaped members. Members are roll-formed for minimum weight and labour cost. Secondary member light in weight due to cold rolling of Z&C shaped members.	Steel member sizes must be selected from standard hot rolled section, which in many cases are heavier than what is actually required by design. Members are the same cross-section along the entire span, regardless of local stress magnitude. Secondary members are from standard hot rolled "I" and "C" sections. In many cases members are heavier than required and therefore are not as economical as cold-formed members.
Design	Quick and efficient since standardization of PEB has significantly reduced design time.	Each conventional steel structure is designed from scratch by the Consultant, with fewer design aids available to the Engineer.
Base Material	MIPL PEB system uses prime quality steel only. Sources of procurement are SAIL & TISCO. Hence, ensures mechanical & metallurgical quality of steel.	Generally, procurement of material from non-standard sources. Inferior mechanical and metallurgical properties.
Foundation	Simple design, easy to construct and lightweight.	Extensive, heavy foundations required
Accessories (Window, Doors, Ventilators)	Designed to fit the system, with andardized, interchangeable parts, including pre-designed flashings and trims. Mass produced for economy. All vailable with the building.	Every project requires special design for accessories and special sourcing for each. Flashing and trims must be uniquely designed and fabricated
Delivery Period	Average 6 to 8 weeks.	Average 5 to 6 months.
Erection	Easy, Fast, step by step. Erection costs & limes are accurately known, based upon extensive experience with similar buildings.	Slow extensive field labour required. Typically 20% more expensive than PEB. In most of the cases, the erection costs and time are not estimated accurately.
Architecture	Outstanding architectural design can be achieved at low cost. Conventional wall & fascia materials, such as concrete, masonry & wood, can be utilized.	Special architectural design requires research and high cost.
Overall Price	Price per square meter may be as much as 15% lower than conventional steel.	High price per square meter.
Sourcing & Co-ordination	Building is supplied complete with cladding & all accessories, including erection if desired, all from one source of supply.	Many sources of supply. Project Management time required to co-ordinate suppliers and sub-contractors.

A Complete PEB Structure Provider

MULTITECH INFRACON PVT. LTD.

Innovative & cost-effective industrial solutions!

UNIT I:
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