

Empowering
Industries
Since 1983



Pre -
Engineered
Buildings and
Steel
Structure

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INTRODUCTION:

ABS Engineering Corporation (Pvt.) Limited (ABS) is a specialized engineering company with a strong focus on complete mechanical works. Since its establishment in the year 1983, ABS Engineering Corporation (Pvt.) Limited is dealing in manufacturing of plants, machinery and equipment for Oil & Gas, Fertilizer, Petrochemical, Ethanol, Power Generation, Cement, Chemical, Process, Manufacturing and Allied Industries.

ABS operates through its two well-equipped workshop facilities in Karachi, just 25 minutes from the seaport. Spanning 7,500 sqm, the workshops feature full fabrication and machining capabilities, supported by multiple overhead cranes of various sizes (10 - 25 tons capacities). These facilities are staffed by skilled technicians and manpower, working under the guidance of experienced management to ensure high-quality execution across all projects.

ABS provides complete **turnkey plants on an Engineering, Procurement, and Construction (EPC) basis**, in collaboration with world-renowned technology providers and engineering companies.

ABS has proven capacity and expertise to deliver high quality engineering services and equipment built precisely as per customer's specification.

The combined facilities of both manufacturing units have capability to achieve production up to **10,000 tons/year**, depending on the nature of work, by deploying approximately **1,400,000 to 1,500,000 man-hours/300 days** (based on double shift working). On the basis of scope of work, ABS has seven divisions.

ABS is a **PEC-certified Category CB licensed** constructor and **ISO 9001:2015** certified company. It has implemented an Integrated Management System based on **ISO 14001:2015 (Environmental)** and **ISO 45001:2018 (Occupational Health & Safety)**, covering the company's health, safety, and environmental aspects.



ABS Workshop No. 1 - S.I.T.E, Karachi



ABS Workshop No. 2 - S.I.T.E, Karachi

Vision

To empower Pakistan's industry ecosystem with high-quality engineering, construction, and project management solutions that transform visions into reality.

Mission

To push the boundaries of mechanical construction by combining innovation, in-house manufacturing, and proven expertise — delivering safe, reliable, and high-quality solutions for our clients' projects





ABS Engineering Corporation (Pvt) Ltd.

Building Strength in Steel Structure and PEB

Having delivered a number of large and complex steel structures, ABS successfully executes Pre-Engineered Buildings (PEB) — both as standalone projects and as integrated parts of larger industrial facilities. The PEB Division delivers:

1. End-to-End Project Management from concept to completion
2. Precision Fabrication using ISO-certified processes
3. Safe and Reliable Erection with experienced site teams

The PEB Division reflects ABS's proven strength in steel construction — delivering fast, economical, and durable building solutions backed by decades of industrial expertise.

ABS Expertise in Pre-Engineered Buildings (PEB)

Proven Capability:

ABS successfully delivers multi-story PEB structures, combining in-workshop prefabrication with on-site erection and assembly managed under strict quality and safety systems complying with ISO 14001:2015 & ISO 45001:2018 and ISO 9001:2015 standards.

Well-Equipped Workshops:

ABS operates two fabrication workshops in Karachi, located close to each other for operational efficiency. Together, they provide 7,500 sqm of covered space, equipped with fabrication and machining facilities and supported by multiple overhead cranes ranging from 10 - 25 tons capacity.

Efficient Execution:

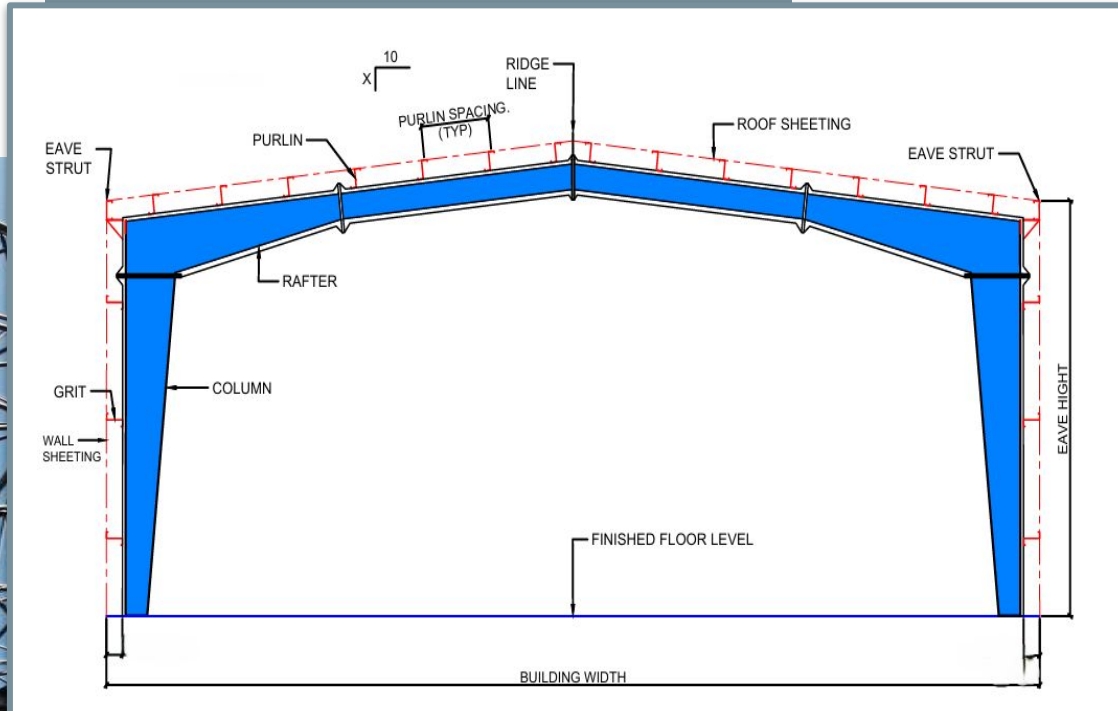
By Pre - fabricating and preparing structural components in workshops, ABS ensures high precision and shorter on-site construction timelines, minimizing project delays.

Edge in Experience:

With 40+ years in mechanical fabrication and industrial construction, ABS applies its extensive expertise to PEB projects — ensuring that every structure is engineered with durability, accuracy, and reliability.



PEB Fundamental Parameters

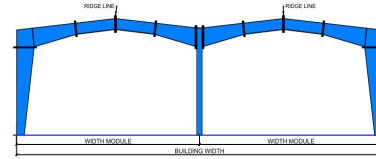


Frame Cross Section

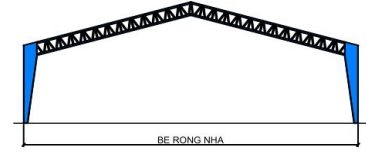
Fundamental PEB Parameters



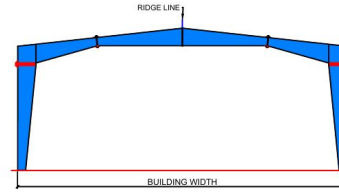
| Frame Type | Application | Advantage |
|---------------------|---|--|
| Multi-Gable (MG) | Large complexes with multiple adjoining sections or modules (up to 200m span) | Flexibility in design; supports very wide facilities |
| PEB Hybrid (PH) | Structures requiring hybrid steel solutions with long spans (up to 60m span) | Combines PEB efficiency with conventional truss benefits |
| Clear Span (CS) | Open spaces with no intermediate supports (up to 105m span) | Maximizes clear floor area; highly versatile |
| Single Slope (SS) | Workshops, sheds, and cost-effective sloped roofing (up to 45m span) | Economical, quick erection, effective for drainage slope |
| Multi-Span (MS-2/3) | Very wide industrial/commercial facilities with multiple modules (up to 200m span) | Supports extra-wide facilities; economical for modular construction |
| Roof System (RS) | Roof-only systems such as canopies or FSQs (up to 100m span) | Efficient roofing solution for open or partially enclosed spaces |
| Lean-To (LT) | Attached extension to an existing building for additional covered space or shed areas | Cost-effective way to expand facilities; simple design; quick to erect |



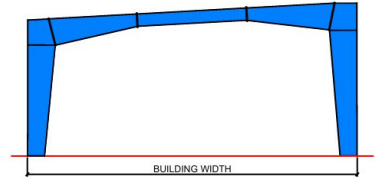
Multi - Gable (MG)



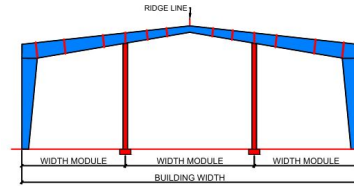
PEB Hybrid (PH)



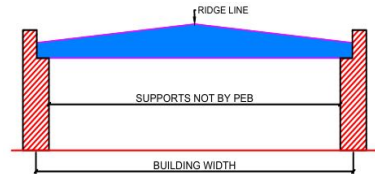
Clear Span (CS)



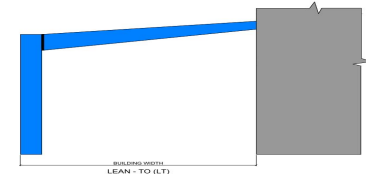
Single Slope (SS)



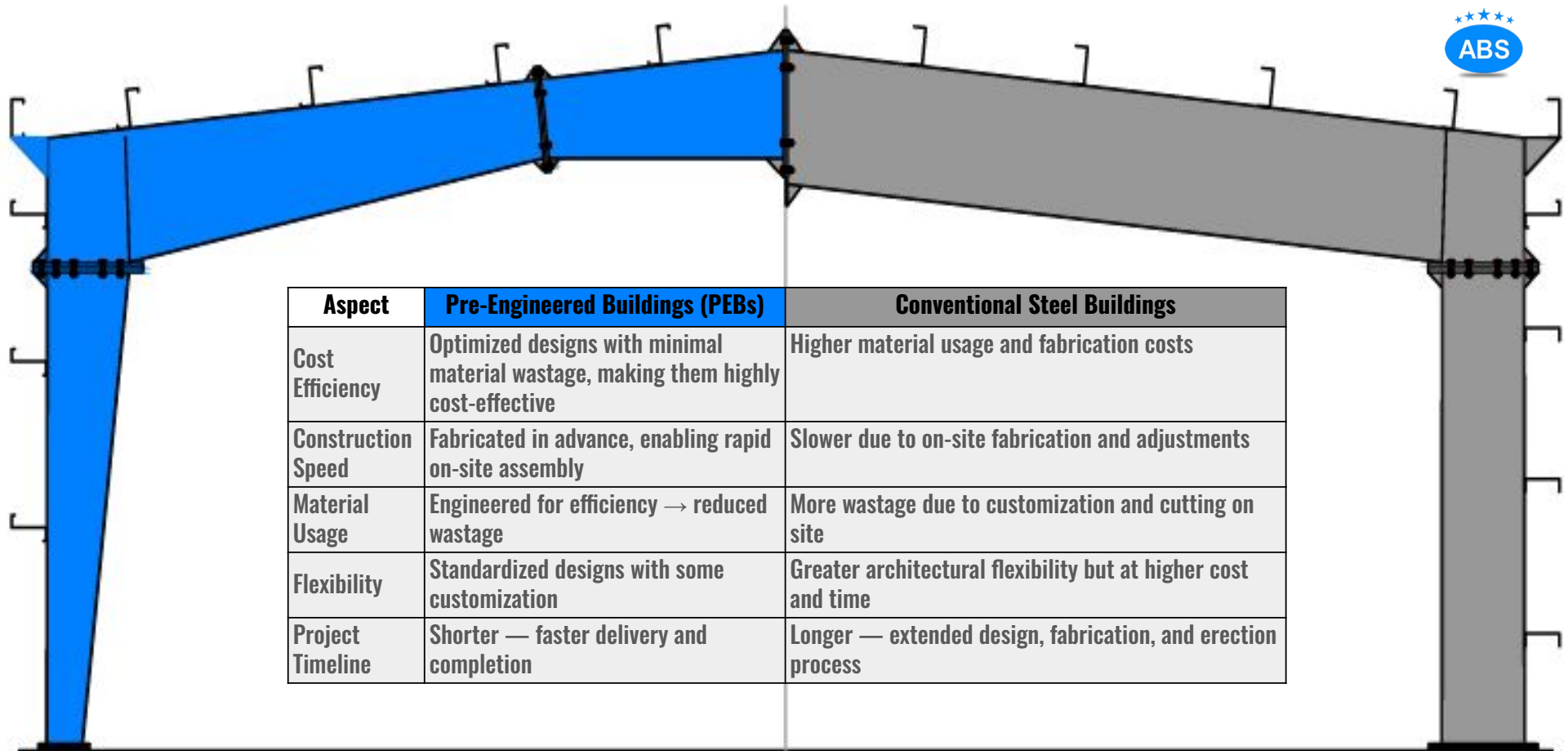
Multi Span "2" (MS)



Roof System (CS)



Lean - To (LT)



| Aspect | Pre-Engineered Buildings (PEBs) | Conventional Steel Buildings |
|--------------------|--|---|
| Cost Efficiency | Optimized designs with minimal material wastage, making them highly cost-effective | Higher material usage and fabrication costs |
| Construction Speed | Fabricated in advance, enabling rapid on-site assembly | Slower due to on-site fabrication and adjustments |
| Material Usage | Engineered for efficiency → reduced wastage | More wastage due to customization and cutting on site |
| Flexibility | Standardized designs with some customization | Greater architectural flexibility but at higher cost and time |
| Project Timeline | Shorter — faster delivery and completion | Longer — extended design, fabrication, and erection process |

Trial Assembly for Precision



ABS Engineering has successfully carried out trial assemblies for steel structures and PEBs at its fabrication facility, as per client requests. This process ensures perfect fit-up, accurate alignment, and seamless integration before dispatch.

By simulating site conditions in advance, we help clients achieve:

- Smooth and error-free on-site erection
- Reduced installation time
- Minimal rework or delays
- Consistent quality and safety

Through trial assembly, ABS provides clients with added confidence in the readiness and reliability of their projects.



Heavy & High Lifting



ABS conducts comprehensive rigging studies for heavy and high-elevation lifts using advanced CAD software, delivering detailed lift plans and rigging drawings for every critical lift across the plant.

With a highly skilled and experienced rigging team, ABS has successfully executed heavy lifts at heights of up to 110 m using cranes with capacities of up to 600 tons.



Delivered Projects - Steel Structure & PEB



Prefabricated Shed for Fermentation House



Multi Story Steel Structure for 200 TPD Fatty Acid Methyl Ester Plant



Steel Structure of Fermentation House for Ethanol Plant



Steel Structure for Ethanol Plant



Steel Structure for Preheater Tower and Kiln

Delivered Projects - Steel Structure & PEB



PEB for Oil Terminal



Clinker Storage Shed



Truss for Clinker Handling System



Steel Structure for Boiler Fuel Handling



Steel Structure for Boiler Fuel Handling

Our Clients

