Stalion



Introduction

We, Stallion Engineering are amongst the wellknown emerging firms indulged in Service Providing of Pre-Engineered Steel Structure (PEB), Light Gauged Steel Frame (LGSF), Light Gauge Partition Walls, Polyurethane (PU) and Polyisocyanurate Panel (PIR) System, Roofing & Cladding, and Structural Rehabilitation & Retro Fittings based on Exterior Insulation and Finish System (EIFS). Our provided services are extensively admired by our patrons for its flexibility, well-timed execution, and promptness. Stallion Engineering has remarkable proficiency in the areas of engineering & construction. Its core competency lies in providing large scale turnkey solutions in the field of steel construction. Stallion Engineering is one of the most trusted names in the industry and has engraved a position for itself by achieving various breakthrough like façade upgradation of the various DHQs of the Punjab.

Apart from Pre-Engineered buildings, Stallion has embarked on Fabrication of non PEB Steel Structures for conventional buildings or for industrial structures. We completed front façades of four major healthcare units including structural steel members and light gauge steel studs. Similar other jobs are ongoing for major projects in Pakistan as well. We are in the process of enhancing this activity in a major way.







Pre-Engineered Building (PEB) is a steel structure built over a structural concept of primary members, secondary members, and the cover sheeting connected to each other. The structural members are custom designed to be lighter in weight as well as high in strength.

For today and in the future, Steel has become the material of choice in building construction, compared to concrete and timber in Pakistan. Thus, steel building designs have become more flexible, durable and adaptable.

PEB revolutionized the construction market using built-ups in place of conventional Hot Rolled Sections. Pre-Engineered Steel Buildings can be fitted with different structural additions like trusses, mezzanine floors, fascia's, canopies, and crane systems as per user requirements.



Primary Members

Primary members consist of columns, rafters, beams etc. These are fabricated from high strength Grade-36 or Gr. 50 Hot Rolled Plates. Plates are cut to size and shape. Built up sections are made from these Plates by welding them together to make the desired engineered shape.





Secondary members

Secondary Members used in a PEB include purlin, Wall Girts, Eave struts, fascia channelsetc. Purlins and Girts are cold roll formed light gauge "Z and C" sections varying in depth from 150 to 300mm and in thickness from 1.5mm to 2.5mm as per design requirement.

Roof and Wall Sheeting

The roof and wall sheeting shall be fixed to the purlins/girts by means of GI self-tapping screws-5.5mm x 25mm long, through profile ribs at every alternate corrugation for intermediate purlins and every corrugation for end purlin/eave strut.



NOTE: USE PANEL MODULE VALUE FOR STITCHING TRIMS/FLASHINGS TO WALL PANELS. TYPE-'S' PANEL MODULE

Polystyrene Panel (EPS Sandwich Panel)

The EPS panels are made by sandwiching a core of rigid foam (Expanded Polystyrene) insulation between two structural thin skins of pre-painted galvanized (PPGI) steel sheeting. EPS Sandwich panels are commonly used for residential, commercial & industrial purposes available in 50,75 and 100mm thickness.

Polyurethane Panel (PU Sandwich Panel)

The PU panels are made by injection of rigid polyurethane foam at high density between two rigid structural thin skins of pre-painted galvanized (PPGI) steel sheeting. PU panels are available in 50,75 and 100mm thickness.



Wall Panel

Light Gauge Steel Frame (LGSF)

The light construction LGSF frame is assembled from cold formed galvanized steel profiles. In the gaps between the elements of the frame heat insulation material is placed and the frame is supplied with surface layers made of various materials, forming a layered structure.

Generally, the elements of the frame structure are constructed of C profiles with a dry, assembly style building technology. The applied materials filling the gaps between the

Features of Light Gauge Steel Framing

- Cold rolled steel sections galvanized with coating that are corrosion resistant.
- · High strength results in safer structures, less maintenance.
- Less weight (yet very strong)than wood members and concrete results lighter foundations and less probability of damages in an earthquake.
- Construction time is much less, almost one third of the normal construction
- All steel material is 100 % recyclable; Not vulnerable to any type of fungi or organism.

Sustainability advantages such as improved thermal performance & re-location.

Service Hole For electrical utilities



Lip notch For easy fixing of studs Utility Service Hole For plumbing and ventilation



Printing ID label For quick and easy assembling with accuracy Web notch Studs Pass through horizontally

41mm

49mm

11mm

Screw hole For quick. easy and accurate assembly

4 | P a g e

Dry Partition Walls

A drywall is a high performance lightweight interior wall system consisting of a GI steel frame, encased in gypsum plasterboards or Cement Fiber Board on either side attached with self-drilling drywall screws. The joints are then taped and finished with the jointing compounds.

Drywalls can be used to partition any interior and are the preferred choice of construction for a range of applications, in homes, hotels, hospitals, schools, theatres, and industry. They are strong and robust (drywalls of up to 15 metres high have been built) and can typically last the lifetime of a building unless they are subjected to abuse or alteration.

Interior Partitions

Gypsum-based partitions are used extensively to efficiently create and divide spaces in offices. These partitions are easy and quick to build, provide excellent acoustic insulation (preventingsound from moving from one room to another), good fire protection and can take all types offinishes (from paint to wallpaper to wooden laminates and veneers). They are a superior cost-effective alternative to conventional masonry walls which take long to build and are not flexible; and wooden partitions, which pose a fire hazard, offer poor sound insulation and are expensive.

External / Wet Area Drywalls

Specialized drywall solutions are available for interior wet area applications (like bathrooms and kitchens), which use special boards likeMoisture Resistant gypsum board or cement board. These offer superior moisture resistance properties and the flexibility to fix Ceramic tiles and heavier





Pre-Engineered Concept

Pre-fabricated steel buildings are designed and fabricated to meet client requirements and in accordance with the Universal standards. A pre-engineered steel building consists of four important components - primary members, secondary members, metal roofing/ Wall cladding and 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

- Uses high strength steel plates having yield strength of 245 and 345 Mpa (i.e. grade 36, 50) for fabrication of primary members like columns, rafters, beams etc. Hence structure becomes light and economical.
- Uses tapered beam section concept, thus ensuring right amount of structural steel at right place.
- Uses cold formed galvanized sections for secondary members.
- Usage of metal color coated material for sheets and cladding which are durable and aesthetically good looking.
- Column free buildings with longer spans. Building with mezzanine, cranes with different functional requirement.
- Speedy and planned execution drastically cuts down time and costs of projects.
- Special building components like skylights, ridge ventilators, turbo ventilators, sliding doors, windows, roof curbs etc. can be supplied and installed.
- Insulation to maintain temperature under control.









Client : Nayyar Carpets Project : Warehouse Shed-2 , Gujrat



Client : Pak Army Project : Cattle Shed - 1, Jehlum



















Client : Sharif Complex, Multan Project : Facade & Steel Decks





Pre Enginreing Buildings & Dry walls



DHQ Sheikhupura (Facade Work)

- Scope of work

 Steel Structure
- EIFS System
- ACP Cladding & LouversSteel Fiber Shed
- Surface Area = 31500sft
 Project cost = 17.8M Duration = 2 month
 - Client = IDAP





Children Complex DHQ Sheikhupura

Scope of work

• Lite Gauge Steel

EIFS System

Surface Area = 10,000sft = Project cost = 11M Client = IDAP Duration = 1 month





DHQ Nankana Sahib (Facade Work)

Scope of work

Steel Structure
Lite Gauge Steel EIFS System

Surface Area = 9600sft
Project cost = 9M
Duration = 1 month
Client = IDAP Duration = 1 month





DHQ Okara South (Facade Work)

Scope of work Steel Structure

- ACP Cladding
- Light Gauge Steel Glass Work

Surface Area = 12,000sft = Project cost = 18M
Duration = 2 month = Client = IDAP









Sandwich Panel, Dry wall & Glass Work













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