



**ASM** Engineers & Consultants



*.....For Your Steel Building Solution*

## ASM Engineers & Consultants

We, ASM Engineers & Consultants are fully dedicated in designing, manufacturing and complete erection of prefabricated steel building. We believe in commitment, quality, proper engineering design and due time supply. Our company is equipped with well know design experts, project engineers, fabrication supervisors etc.



Engr. Md. Anwar Hossain  
B.Sc Civil (BUET), FIEB(F-10449)

Engr. Md. Anwar Hossain graduated from BUET in 2000 and started his career in steel building design. He is the most experience & most senior designer in steel building sector in Bangladesh. He is expert in the field of multistoried steel building, single storey steel building, steel crane system, steel stair, steel bracing system, steel bridge, steel corridor system, steel jetty, steel lift core etc.



Engr. Salahuddin Ahmed  
B.Sc Civil (BUET), MIEB (M-23961)

Engr. Salahuddin Ahmed graduated from BUET in 2006 and started his career in steel building marketing & project implementation sector. He has extensive knowledge in guiding clients regarding building parameter and other technical issues.



Engr. Md. Mostafa  
Mechanical Engineer

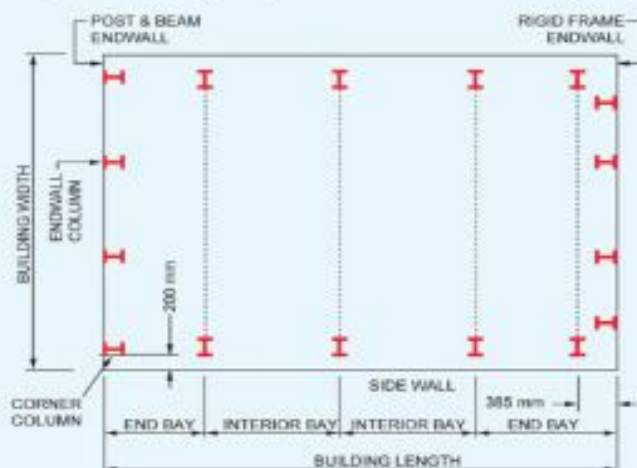
Engr. Md. Mostafa started his career with Zamil Steel Bangladesh in 2003. He was associated with largest steel building projects in Bangladesh done by Zamil Steel. He has a wide range of experience in project monitoring, project implementation, fabrication supervision etc.



## Basic Building Parameters

Pre-Engineered steel buildings of ASM Engineers & Consultants are designed by our design team with the basis of customer requirement considering the parameters of pre-Engineered steel structures. The basic parameters that define Pre-Engineered steel buildings are:

**Building length:** It is the distance between the outside flanges of end wall columns or distance between the steel line of both end walls. It is preferable to keep all bay length equal. If this is not possible try to keep all interior bays equal and make the end bays equal but shorter than the interior bays.



**Building width:** It is the distance between the outside of eave struts of both side wall facing. It is advisable to keep building width a multiple of c/c spacing of purlins. Roof purlins are spaced equally on each side of the ridge.

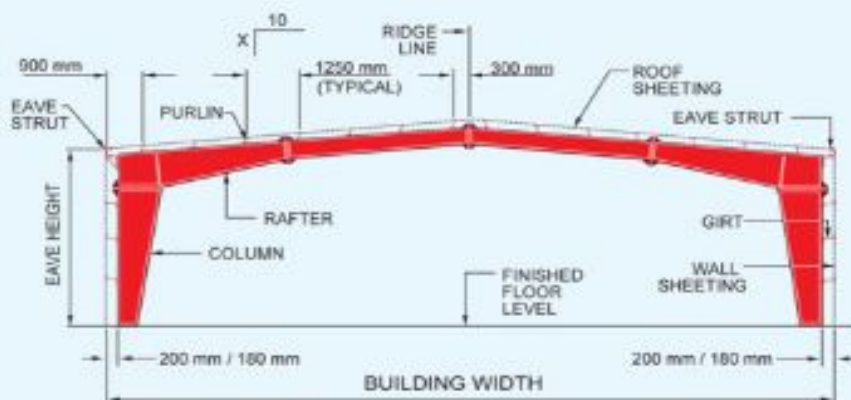
**End bay length:** It is the distance from outside of the outer flange of end wall columns to center line of the first interior frame columns.

**Interior bay length:** It is measured as the distance between the center lines of two adjacent interior main frame column which usually varies from 6m, 7.5m and 9m-15m.

**Building height:** Building height is the eave height which normally is the distance from the bottom of main frame column base plate to the top outer point of the eave strut and can measure up to a height of 30m. In the case of recessed or elevated columns, eave height is the distance from finished floor to top of the eave strut.

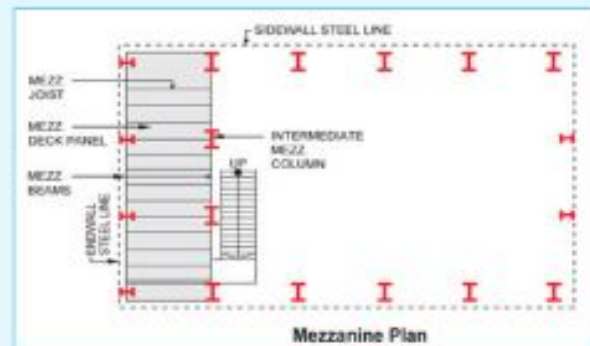
**Roof Slope:** This is the angle of the roof with respect to the horizontal. The most common roof slopes are 0.5/10 and 1/10. Any practical roof slope is possible also.

**Design load:** ASM Engineers & Consultants Pre-Engineered steel buildings are designed for live load 0.57kN/m<sup>2</sup>, wind loads (as per standard code), snow loads (if any), earthquake load, collateral loads (if any) or any other local climatic condition which must be specified during the time of quotation. Loads are applied in accordance with the latest American codes and standards applicable to Pre-Engineered buildings unless otherwise requested.



# Mezzanines

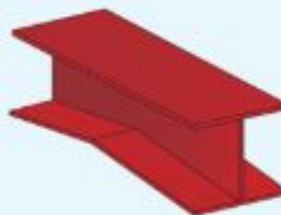
Standard mezzanine floor system consists of galvanized steel decking/checking plate supported by joists framed onto main mezzanine beams. The main beams shall be supported by intermediate columns when required by design loads. The primary mezzanine beams normally run across the width of the building and the joists normally run lengthwise (parallel to the roof purlins). The economy of a mezzanine system depends on applied loads (dead, live and collateral) and mezzanine column spacing. Multi level mezzanines, interior equipment platforms, catwalks and staircase can be accommodated if required as per complete given design data.



## Structural Components

**Primary Built up Members**  
(Minimum yield strength is  $34.50 \text{ kN/cm}^2$ )

High grade steel plate conforming to ASTM A572 Grade 50. Factory painted with a minimum of 35 microns of red oxide primer or any other paint system as per customer choice.



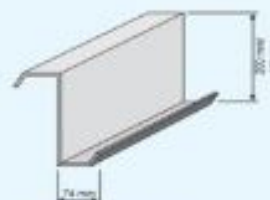
Typical Refter



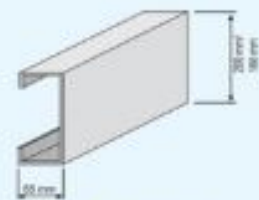
Typical Column

**Secondary Members**

Minimum yield strength is  $34.5 \text{ kN/cm}^2$ , (Available in 1.6 mm, 1.8 mm and 2 mm thickness) High grade steel conforming to ASTM A607 grade 50. Factory painted with a minimum of 35 microns of red oxide primer or galvanized.



Typical "Z" section



Typical "C" section

**GABLE TRIM :**  
(Girth 425 mm)  
**GT-425(1)**

**EAVE GUTTER :**  
(Girth 575 mm)  
**EG-575(1)**

**EAVE GUTTER :**  
(Girth 788 mm)  
**EG-788**

**EAVE GUTTER :**  
(Girth 1000 mm)  
**EG-1000**

**DOWN PIPE :**  
(Girth 425 mm)  
**DP-425 (1)**

**BOTTOM TRIM :**  
(Girth 312 mm)  
**BT-212**

**External Corner Trim:**  
(Girth 425 mm)  
**ECT-425**

**Internal Corner Trim:**  
(Girth 425 mm)  
**ICT-425**

**RIDGE CAPPING :**  
(Girth 575 mm)  
**RC-575(1)**

**RIDGE CAPPING :**  
(Girth 788 mm)  
**RC-788**

**VALLEY GUTTER :**  
(Girth 788 mm)  
**VG-788A**

**VALLEY GUTTER :**  
(Girth 788 mm)  
**VG-788B**

**VALLEY GUTTER :**  
(Girth 1000 mm)  
**VG-1000A**

**VALLEY GUTTER :**  
(Girth 1000 mm)  
**VG-1000B**

\* Details of capping  
\* All dimensions are in mm





## Sundry Items

Fasteners are used to connect roof/wall panels to purlins/girts. Self drilling high grade carbon steel stitch fasteners are used at roof panel side laps and for connecting trims and flashing to roof and wall panels.

Pop rivets are used to attach light gauge components such as eave gutter, valley gutters, downspouts, trims etc. for the purpose to creating tight joints.

Rolled bead mastic is used along all side laps of roof panels to prevent water seepage.

Foam closures are used to make a building weather tight. Inside foam closures are placed between base angles and wall panels all around the building. Out side closures are placed between wall panels and eave gutter along sidewalls and between wall panels and gable trims along end walls. Inside closures are placed between eave struts and roof panels along sidewalls.

Flowable mastic, supplied in a nozzled cartridge, is used to seal gutter joints & over lapping flashing.

Bolts and nuts are used to connect columns with rafter to connect one component of primary / secondary members with another component of primary/ secondary members.



Hillside Washer



Fasteners



Bolts & Nuts



Anchor Bolts



Anchor Bolts



Sealants & Closures

**KHORSHED METAL INDUSTRIES LTD, 36000SFT, KHULNA**



**KHORSHED METAL INDUSTRIES LTD, 36000SFT, KHULNA**



**H.H. TEXTILE MILLS LTD, 29237 SFT, NARAYANGANJ**



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**HAMKO PLASTIC INDUSTRIES LTD 2 STORIED, 43200 SFT, KHULNA**



**HAMKO PLASTIC INDUSTRIES LTD 2 STORIED, 43200 SFT, KHULNA**





**GMS COMPOSITE KNITTING INDUSTRIES LTD, 55000 SFT, KASHIMPUR**



**AKIJ JUTE MILLS LTD, 5000 SFT, JESSORE**



**CROWN KNITWEAR LTD, 16000 SFT, MAWNA**



**HAMKO LEATHERS LTD. 2 STORIED, 40,000 SFT, GAZIPUR**



**HAKO LEATHERS LTD. 5 STORIED, 74000 SFT, GAZIPUR**



**GLOBAL FOOTWEAR LTD, 10,000SFT, MOUCHAK**





AARONG-BRAC, MEZZANINE FLOOR, 8000 SFT



CRANE SYSTEM-GMS COMPOSITE



PAXER-LIFT CORE



PAXER-LIFT CORE



HAMKO PLASTIC PAVILION AT INTERNATIONAL TRADE FAIR



KHORSHED METAL INDUSTRIES LTD, 36000SFT, KHULNA



**KHORSHED METAL INDUSTRIES LTD, 36000 SFT, KHULNA**



**GMS COMPOSITE KNITTING INDUSTRIES LTD, 55000 SFT, KASHIMPUR**



**GMS COMPOSITE KNITTING INDUSTRIES LTD, 55000 SFT, KASHIMPUR**



**DYNASTY GROUP-MEZZANINE FLOOR, 5000 SFT, MIRPUR**



**GMS BRUSHING UNIT, 20000 SFT, KASHIMPUR**



**CROWN KNITWEAR LTD, 16000 SFT, MAWNA**





HAMKO LEATHERS LTD. 2 STORIED, 40000 SFT, GAZIPUR



HAMKO LEATHERS LTD. 5 STORIED, 74000SFT, GAZIPUR



CANOPY



FIRE EXIT STAIR- GMS COMPOSITE KNITTING INDUSTRIES LTD



TOPAZ GARMENTS-STAIR



PAXER-LIFT CORE

