RIDDHIMA BUILDING SYSTEM

STEEL TECHNOLOGY

0

REGISTERED ADDRESS: F-184 ,UPSIDC, M.G.Road, Hapur-245101, Uttar Pradesh, Ghaziabad BRANCH OFFICE ADDRESS: F-245, SGM NAGAR, FARIDABAD

Phone:+91 120 640035, +91 8130785999 Email: info@rbsworld.co

> Whatever Good Things we build, end up Building us..

STEEL TECHNOLOGY

Pre-Engineered Building

Roofing Sheets & Panels

Solar Mounting Structure

Mezzanine Building

STEEL TECHNOLOGY Building your Vsions and Stronger Communities

CONTENTS

- INTRODUCTION
 PRODUCTS

 PRE ENGINEERED BUILDING
 Primary Framing System
 Secondary Framing System
 METAL ROOFING SYSTEM
 Hi-Rib Roofing
 Clip Lock Roofing
 INSULATION
 MEZZANINE BUILDING
 DECK PROFILE PIC
 FLASHING AND TRIM

 SERVICES
- SERVICE
- CLIENT

NTRODUCTION

M/s. RIDDHIMA BUILDING SYSTEM is a Faridabad based organisation specialising in Pre engineered Building, roofing and False Ceiling. It was founded in late 2002 and has already been started penetrating the Industrial market with full swing. RBS product to big houses.

RBS today has succeeded in carving a niche for itself in the last growing PEB, Roofing and False Ceiling business. The Company operates from its corporate office located at F-245, SGM NAGAR, NIT, FARIDABAD, HARYANA. The organisation has grown manifold since its inception because at the crux of all its operations, is a culture where we do not make compromise with Quality in our products and services. Needless to say this would have been a herculean task had it not been for our dedicated team of young and dynamic professionals. RBS is an organisation, waiting in the wings to take off. RBS represents a highly professional and pragmatic approach and our motto is to give full satisfaction to our esteemed customer with best services in Steel Building products. Our vision and the strategy is to continuously broaden and enhance the product line so as to offer increasingly versatile design applications to Preengineered building, Roofing system and False Ceiling.

METAL BUILDING SYSTEM

RBS METAL Building system a custom design to meet client requirement. The Basic Building parameters are :

BUILDING LENGTH : The distance between the outside flanges of end wall columns in opposite end walls is considered th building length End bay length is the distance from outside of the flange of end wall columns of center line of the first interior frame columns Interior bay length is the distance between the center lines of two adjacent interior main frame columns the most economical bay length are 6m or 7.5 m. However bay length up to 15m is possible. BUILDING HEIGHT ; Building height is the Eave height which usually is the distance

from the bottom of the main frame column base plate to the top outer point of the eave strut. Eave heights up-to 30 m are possible.

> When columns are recessed or elevated from finished floor, eave height is the distance from finished floor level to top of eave strut.

- ROOF SLOPE : This is the angle of the roof with respect to the horizontal. The most common roof slopes are 1/10 and 1/2-0. through (X/10) any practical roof slope is possible as per customers requirement.
- DESIGN LOAD : RBS building system are designed for the following minimum loads. The metal building will be design with INDIAN STANDARD codes and AMERICAN CODES as required. The building loads will be calculated with the required code as suggested.

Primary framing consists of all the structural elements which transfer loads to the foundations Main-frames consist of built-up welded primary framing members, including flange bracings, connection bolts and anchor bolts. The bases of the intermediate frames are generally pinned; however, certain circumstances may dictate the use of fixed constructions.





Secondary Framing consists of the elements which support the roof and wall sheeting and which transfer loads to the primary framing:

- Roof purlins
- Wall girts
- Framing of openings

Purlins and girts are galvanized Z sections, produced by cold roll forming. Connections are made using galvanized bolts. Framings of openings essentially consist of cold-formed L, C, U or Z galvanized sections



PRIMARY FRAMING SYSTEM

Secondary Framing System

ROOFING SYSTEM

The Multitec built-up roof system consists of ribbed steel panels and allow the application of a built-up roof system. The steel panel is fixed to the secondary framing by self-drilling screws. The panel overlaps are fastened with stitching screws. The secondary framing is normally Z purlins fixed with 1.5m purlin spacing to the primary framing. The thermal insulation varies depending on the type of the built-up roof adopted.

ADVANTAGES :

- Can be used for complex roof shapes
- Economical rain water drainage
- Attractive and economical Easy to install
- Cost-effective energy efficiency
- Long-term performance
- Reduced peak height
- Simple and economical parapets
- Fully integrated accessories: skylights, smoke vents, polycarbonate vaults, roof curbs
- High degree of thermal insulation (depending on the specification of the built-up roof system)
- An increase of safety and water tightness thanks to the strength of its fixation

ROOFING AND WALL CLADDING SYSTEMS

TECHNICAL SPECIFICATION OF PPGI

Substrate IS 513 Cold Rolled Steel Coils Tensile Strength : 240Mpa-550Mpa Galvanizing : As per IS 277 Zinc Coatina : 120 GSM - 150 GSM Pre-painting IS 14246 Type of Coating: RMP/SMP Total Coated 0.50mm - 0.80mm Thickness (TCT):

TECHNICAL SPECIFICATION OF GALVALUME

Substrate :	55% Aluminum, 43.4% Zinc & 1.6% Silicon
Tensile Strength :	550Mpa
Coating Standard :	As per AS 1397-1993
Coating Mass :	AZ 150
Base Metal :	High Tensile Steel
Total Coated Thickness (TCT) :	0.47mm - 0.60mm

RBS HI-RIB PROFILE

RBS 250 Hi-rib Profile is manufacture from Pre-painted Zincalume / Galvalume steel steel (PPGI) AL-Zn Alloy coated steel AZ-150 as per ASTM-1397 (Bare Galvalume) and color coated Al-Zn Alloy coated steel (Color Coated Galvalume) with a cover width of 1020mm, overall width of 1060mm, pitch of 250mm and a crest height of 32mm. RBS 250 Hi-rib Profile can be fixed on both roof and wall cladding and any slope and height as per the designers choice.

SPECIFICATION

DATA TABLE	Thickness of Base Metal (mm)	Thickness of Total Coated (mm)	Mass Per Unit Area (Kg./m2)	
Zincalume/ Galvalume	0.42	0.47	4.25	
Zincalume/ Galvalume Colour Coated	0.42	0.50	4.35	
Colour Coated Galvanised Steel	0.45	0.50	4.56	



RBS CLIP-LOCK SYSTEM

This profile is designed to be fixed to roof purlins or wall cladding in order to have a puncture free roof with concealed fastening. This system is manufactured from Bare Galvalume / Zincalume and Color Coated Galvalume / Zincalume and PPGI. The profile is formed in the standard width of 450 mm with a pitch of 225.00mm and crest height of 40mm. RBS Clip-lock System is available up-to any length depending upon the requirement of the size.



INSULATION

Insulation consists of a fibre glass blanket with a laminated vapour barrier. Isoblocs significantly reduce thermal bridges and Alustrip improves the overall appearance of the insulation joints. The fibre glass blanket consists of a flexible blanket of high quality fibre glass, based on a thermo-setting synthetic resin with a homogeneous fibre fleece and long fibres, without residual or reused materials.

- Density: 16kg/m³

Vapour barriers

Isobloc

Isoblocs are insulating strips made of extruded polystyrene boards. Isoblocs are located over purlins and girds and significantly reduce thermal bridges.

Alustrip aesthetics. N.B.: delivery of Alustrip is optional.

SPECIFICATION

	Total Coated Coated Thickness (mm)	Approx. mass per unit area Kg./m2	Approx. mass coverage m2 ton	
Bare Galvalume	0.47mm	5.10	196	
Color Coated Galvalume	0.50mm	5.25	190	
Color Coated Galvalume	0.55mm	5.85	171	
Color Coated Galvalume	0.60mm	6.25	155	

- Thermal conductivity: 0.037W/(m²/K) - Nominal thicknesses: 40, 60, 80 and 100mm - Lengths: Factory cut-to-length rolls to suit each project - Packaging: in perforated polybags and labelled for correct identification on jobsite

Consist of a glass-scrim reinforced film bonded to the fibre glass blanket. The vapour barrier is wider than the actual insulation width, creating overlaps strengthened by double glass-scrim reinforcement (80mm) for stapling together.

Alustrip is a colour coated strip stretched over purlins and located under the side laps of the layers, in order to ease erection and to improve interior



MEZZANINE BUILDING

Mezzanines are an important feature of many industrial and commercial/retail buildings, both to suit requirements of modern stocking and storage techniques and to maximise the efficiency of machinery layouts and productionflows. Multidek is an in-situconcrete solution with the cast on metal decking, which can be laid continuously, allowing design optimisation of sections to reduce weight and cost.

- Maximum flexibility for positioning and size of openings, even after completion of the mezzanine design and construction
- Multidek beam spans up to 9m
- Floor beam spacing are usually 3m

ADVANTAGES

- Single source supply for mezzanine and building
- •Integrated design of the mezzanine in the building
- Maximized use of building space
- Reduced construction time: simultaneous erection of mezzanine and the building
- •Guaranteed quality by use of precast elements, in steel or in concrete

DECK PROFILE PIC

Sr. no.	Thickness(mm)	Weight(sq/m)	Weight(kg/m)	Area(cm**2)	Lyy(cm**4)	lxx(cm**4)	Zyy(cm**3)	Zxx(cm**3)	Ryy(cm)	Rxx(cm)
1	0.6	6.37	5.8	7.39	19.29	5567	8.34	119.71	1.62	27.44
2	0.8	8.5	7.74	9.86	25.73	7723	11.08	115.59	1.62	27.44
3	1	12.29	10.2	12.32	3.38	9278	15.17	194.48	1.61	27.44
4	1.2	12.43	11.56	14.73	38.32	11099	16.32	232.49	1.61	27.44
5	1.6	16.57	15.37	19.58	50.81	14766	21.41	309.12	1.61	27.44
6	2	20.71	19.14	24.39	63.02	19398	26.24	384.89	1.6	27.46
7	2.5	25.89	23.94	30.49	78.81	19936	32.46	481.06	1.6	27.46

Material	Galvalume	Pre-Coated	Galvanised	
Thickness	0.47-1.6	0.5-1.6	0.45-1.6	
Coating	Alu-Zin 150GSN	Zinc 120Gsn	Zinc 120GSn	
Length	Upto 12 Mtr	Upto 12 Mtr	Upto 12 Mtr	
Color	As per color Shed	As per Color Shed	As per Color Shed	
Strength	340	240-340	240-700	

Sr. No.	Thickness	1	1.2	1.4	1.5	1.6	1.7
1	0.45	500	370	270	235	205	185
2	0.5	590	410	300	260	230	205
3	0.55	645	445	329	285	250	220
4	0.6	700	485	355	310	275	240
5	0.65	760	525	385	335	295	260
6	0.8	930	640	475	410	360	320



RBS ALSO PROVIDE SOLUTION FOR TURBO VENTILATORS, FRP SHEETS , POLYCARBONATE SHEETS AND INSULATION

FLASHINGS AND TRIMS

To provide the customers with an added advantage of solution under one roof, RBS lend support in providing FRP Sheet, Polycarbonate Sheets as per the required Profiles and upto a thickness of 4mm ,Heavy Duty SS and Aluminum Turbo Ventilators with FRP Base and Insulation Solution sourced from reputed manufacturer assuring of best quality and most competitive pric.

SERVICES

Pre Engineering Building producers The construction industry is anticipated to witness faster growth and tougher competition in coming few years. To stay ahead and keep pace with challenging time, it's essential to look for an option that helps meet the building requirements faster and thus decreases the time taken in construction.

RBS' solution is the answer to such needs and requirements. RBS' services and solutions give you unique pre-engineered building ideas that allow easy and faster installation. At RBS, the frame of PEB is manufactured using high potential galvanized steel members which keep the frame flexible. We also make the frame an appropriate solution to create flexible designs that can be added to any architectural feature of the building. Moreover, the PEB manufactured by us has lightweight and gives more open space to work inside the building. The lightweight structure makes it easy to

move and save the cost of construction as well.

Setting a benchmark in the field of Pre Engineering Building producers, we have expertise in designing and constructing specialized Pre Engineered Building. The design and detailing work on PEBs is carried out by our experienced and skilled engineering team, which utilizes fully optimized techniques without compromising on quality. RBS delivers individual services and solutions to every client.



