

ALM STEEL BUILDING TECHNOLOGY LTD.



WE MAKE BUILDING EASY



SMALL BUSINESS · AGRICULTURE · WAREHOUSING · WORKSHOPS · RECREATION · INDUSTRY · GARAGES

*Innovation is
our success*



INTRODUCTION

ISO 9001 : 2008 Certified company



We have started our journey from the year 2001 with prefabricated steel structure system. Since then ALM Steel Building Technology Ltd has grown up to its present position as one of the leading company for pre-engineered building construction in Bangladesh. ALM provides complete design, planning and construction services for all types of steel building. To cope up with the rapid growth of price of steel, we have started looking for latest technology which can reduces the construction cost. In the year of 2005 we had contacted with the M.I.C Industries, Inc. 11911, Freedom Drive, Reston, Virginia, USA 20190. We have introduced the patented ABM® technology first time in Bangladesh with the help of technical support of M.I.C Industries, Inc. Virginia, USA. ALM has been awarded ISO 9001:2008 quality management system certification in March, 2012 from United Kingdom Accreditation Service (UKAS) for its quality buildings & services.

ALM follows design standards and codes of practice when designing its buildings and uses software to ensure accurate manufacture and rapid problem free erection. Our highly professional team is dedicated to

provide our customer with the best of services. We ensure quick response in giving quotations and our offer includes :

- The most competitive prices.
- Proposal drawings that will help to visualize the building.
- Engineering support in case of special needs or to clarify and inquiry.
- Quality material and quality workmanship that will be long lasting and high performing.
- Site service for help and support.

In its quest to become the engineering leader in the quality metal building industry, all professional staff at ALM Steel Building Technology Ltd. are equipped with state of the art computer, software for engineering inputs and outputs such as design calculation, erection drawings, shop details and bill of materials preparation. All the documents are generated, checked, released and achieved in digital format.

CIRCUMFERENCE OF ALM

Co-ordination and Team Work

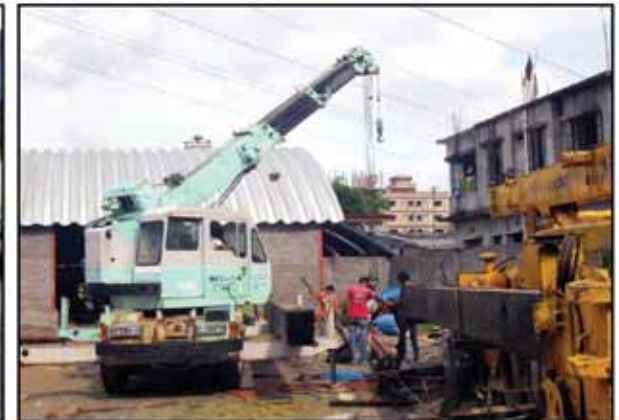
The project department co-ordinates on daily basis with the sales, engineering, production and the clients. Weekly co-ordination meetings are held in which all department heads meet to track the latest development on every project.

Strength in Delivery

We deliver and offload the materials at the site anywhere in Bangladesh. Material loads are assembled according to the site requirements and erection sequence. Since we have our own transportation system and crane, we can offload material at site within short time. Our equipments help our erection works smoothly and safely.

Efficiency in Production

We have a fully equipped state of the art production facility operated by highly skilled and experienced workforce. We follow the process approach of ISO 9001:2008 quality standard to fulfill the quality commitment for customer satisfaction.



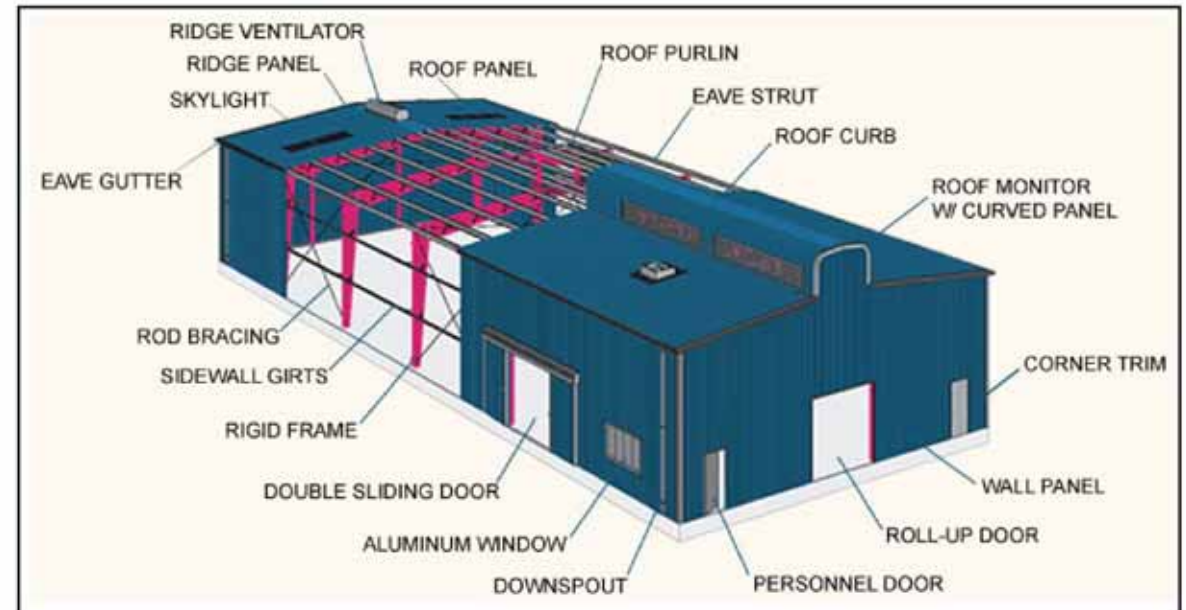
THE RANGE OF STEEL STRUCTURE (PEB)



THE RANGE OF STEEL STRUCTURE (PEB)

Steel Buildings, which are widely used around the world and have started to be the choice for a lot of new projects in Bangladesh. The company produces a lot of steel buildings such as:

High Rises, Multi storey Buildings, Industries, Workshop, Warehouse, Housing, Training Center, Gymnasium, Basketball Court, Swimming Pools, Markets Shopping Center, Bus Station, Police Station, Border Posts, Grain Storage, Fruit and Vegetable Storage, Cold Storage, Equipment Storage, Military Applications, Aircraft Hanger.



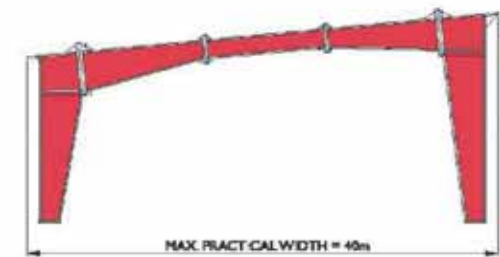
PARAMETERS & PRIMARY FRAMING SYSTEMS



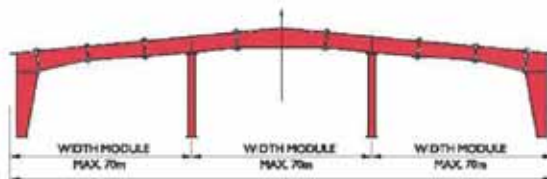
CLEAR SPAN (CS)



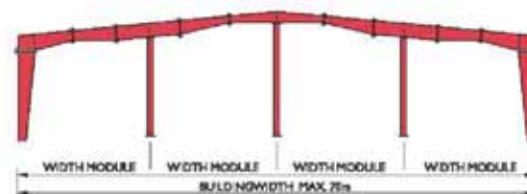
MULTISPAN "1" (MS-1)
(1 Interior Column)



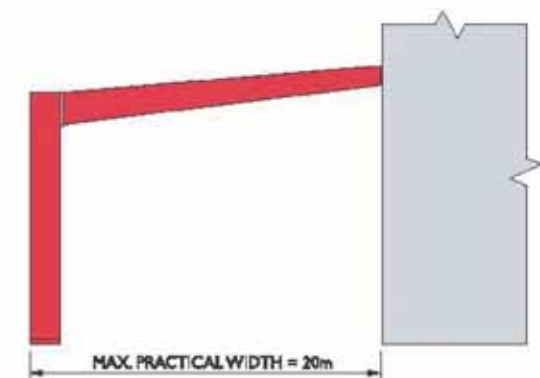
MONO SLOPE



MULTISPAN "2" (MS-2)
(2 Interior Columns)



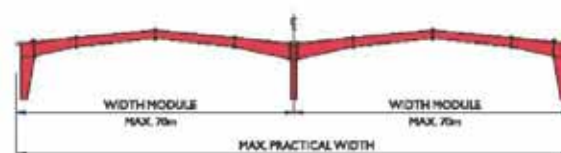
MULTISPAN "3" (MS-3)
(3 Interior Columns)



LEAN - TO (LT)



ROOF SYSTEM (RS)



MULTIGABLE "1" (MG-1)
(1 Interior Column)

Basic Building Parameters

Building Width: The distance from outside of eave strut of one sidewall to outside of eave strut of the opposite sidewall.

Building Length: The sum of all bays. For flush end walls, the distance between the outside flanges of end wall columns in opposite end walls is considered the building length. For bypass end walls the distance between the outside of wall girts in opposite end walls is considered the building length.

Roof Slope: The angle of the roof with respect to the horizontal. The most common roof slope is 1/10. Any practical roof slope is possible.

Interior Bay Length: The distance between the centre lines of columns of two adjacent interior rigid frames. The most interior bay lengths in the PEB industry are 6.0 to 8.0 m.

End Bay Length: The end bay length is the distance from the outside of the outer flange of end wall columns to centre line of the columns of the first interior rigid frame.

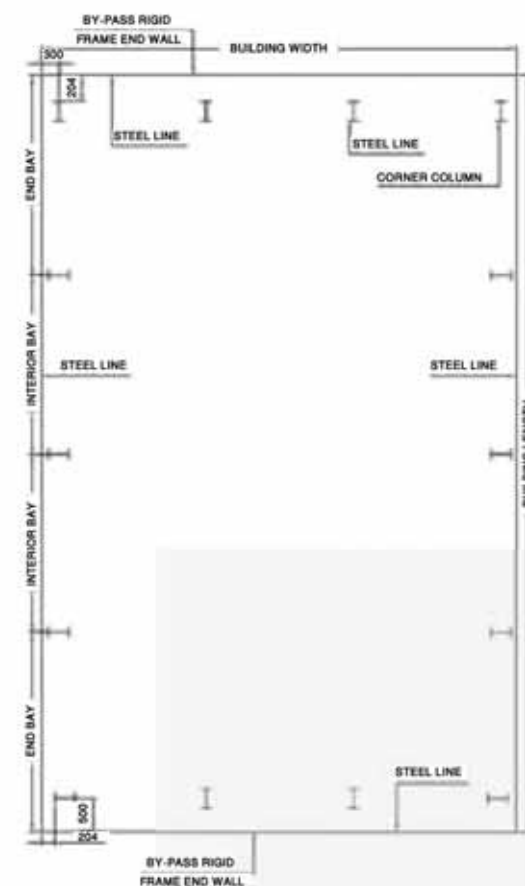
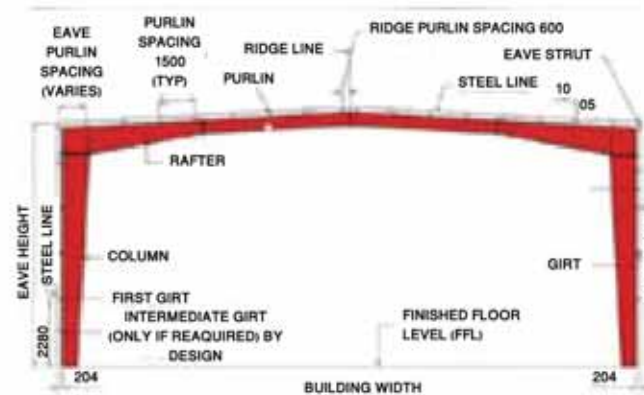
Building Height: The distance from finish floor level to the top outer point of the eave strut.

Steel Line: The plane of the out of secondary "Z" & "C" members.

Typical Purlin Spacing: Preferred Purlin Spacing is 1500 mm but may be higher or lower as required by design.

Ridge Purlin Spacing: is 600 mm to accommodate optional 600 mm ridge gravity ventilators. It is higher when a roof monitor is specified.

Eave Purlin Spacing: is generally the balance distance of all roof purlins spacing unless it exceeds 1500 mm, in which case it is divided in to two spaces.



MAIN FRAMES

Mezzanine

A Mezzanine floor system consists of intermediate support columns, main beams, joist and a deck. Main beams span in lateral directions and joist span in longitudinal directions and shear connected to main beam

Cranes

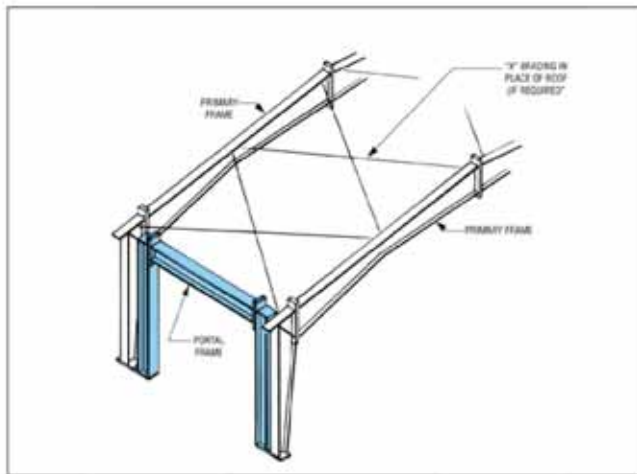
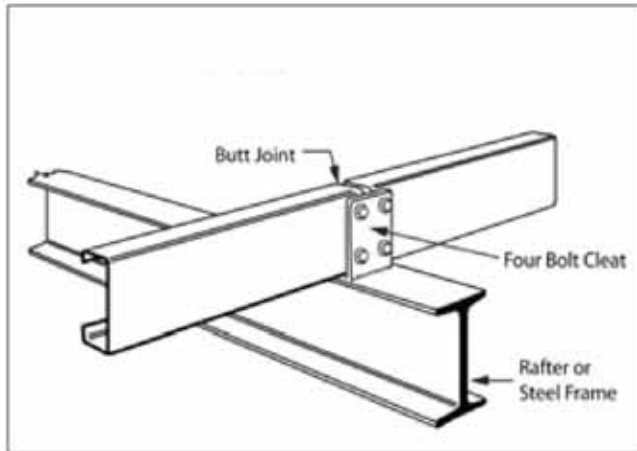
Structures can be designed to support any type of crane systems. In general cranes supported on brackets and for higher capacity crane independent support system is provided. Runway beam can be done in both rolled and welded sections. Jib cranes and monorail cranes are other systems in practice.



SECONDARY FRAMES

Purlins

Secondary structural members includes roof purlins, wall grits, eave struts, C-sections, flange brace, gable angles and base angles. Purlins, Grits, C-sections and Eave struts are available in the thickness of 1.5, 1.8, 2.0 & 2.5mm.



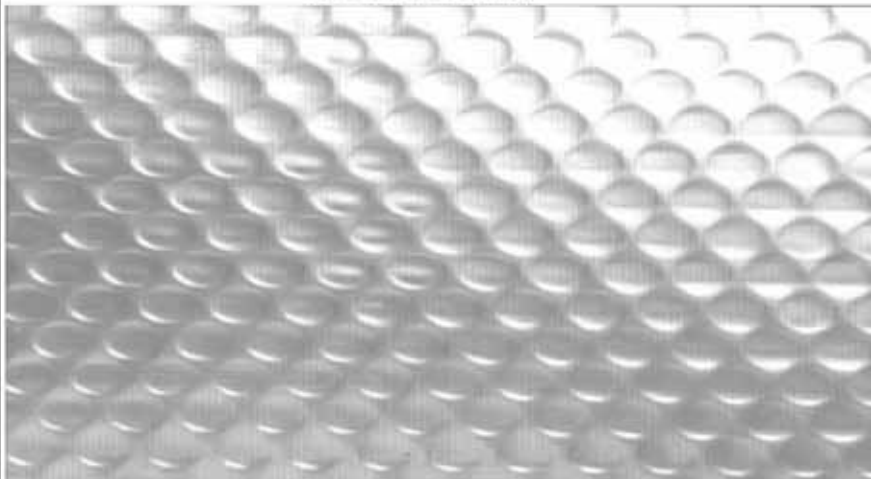
Bracings

All horizontal loads results from the action of wind forces, seismic forces and overhead cranes on a structure must eventually be carried to column bases and to foundations by Bracing System.

Diagonal Rod Bracing is used in regular practice Portal Frames are used when diagonal bracing is not allowed because of a requirement for clear unobstructed space.

Insulation

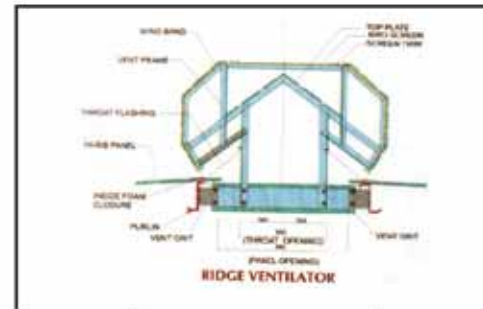
Heat Shield Aluminium Foil (Double Bubble)



Characteristic Comparisons Table for various types of Isulation

Type & Thickness	U-value	K-value	Remark
Heat Shield original Aluminium Foil with Air Bubble (4mm-5.5mm)	0.10	0.006	Environment Safe, World class Insulation, Fire Retardant & Water-Proof. Minimum 10 years warranty (Tested by-ASTM & BSTM) & BUET Tested
Glass Wool-30mm	(If use Aluminium foil) 0.642	0.040	Carcinogenic & harmful for poultry & dairy, non-durable & not easy to handle.
PU Foam- 20mm	0.625	0.0140	Non-Durable & not fire retardant as well as not water-proof. To agravale in fire.
PE Foam- 10mm	(If use Aluminium foil) 0.742	0.050	Non-durable, not Fire retardant, not water-proof & Packaging product.

ACCESSORIES



Ridge Ventilator



Louver



Translucent Panel



Natural ventilator

ALM[®] TECHNOLOGY-PIONEER OF OUR COUNTRY



Rapid Construction

The ALM[®] self-contained manufacturing factory on wheels, is capable of fabricating and assembling an entire building at the construction site. The high speed of construction and the patented process of seaming panels allow a crew of 10 to 12 workers to assemble a building in as little as a single day. Construction time is shortened, since ALM[®] steel buildings require no screws, bolts, fasteners, beams, trusses or columns.



Cost Effective

Our customers have reported that the ALM[®] constructed buildings cost 40 to 60 percent less than labor-intensive conventional construction or prefabricated buildings. The ALM's state-of-the-art technology lowers cost by reducing the crew and by eliminating your dependency on architects or engineers. With the ALM's patented seaming machine, there is no need for nuts, bolts or screws. This feasible solution allows you to manufacture a ALM[®] building in as little as a single day, saving valuable time and money.

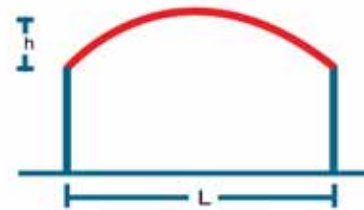
Flexible Design

The ALM[®] allows you to build structures to your unique specifications. Clear span building widths can be small or large. Building lengths and the ability to later expand a building are unlimited. The ALM's computer precision provides you with an unmatched capability to create self-supporting ground-to-ground panels with gable, double and single radius designs. Various colors of steel can also be used in the ALM[®] to enhance the appearance of your buildings.

Durable and Low Maintenance Building

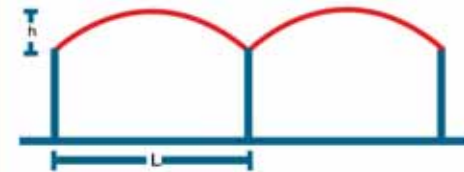
The ALM[®] constructs durable, virtually maintenance-free buildings, because they are watertight, rust-free and fireproof. ALM[®] buildings have been tested for several weather conditions and can withstand typhoons, earthquakes, harsh winds and heavy snow.





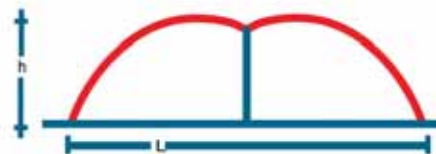
Type:SA

1. L= Up to 36m
2. h/L=0.15~0.2
3. Bottom Structure:RCC/Steel



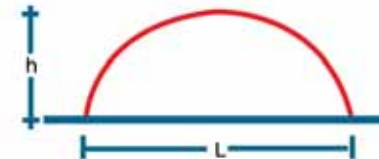
Type:MA

1. L= Up to 18M
2. h/L=0.15~0.2
3. Bottom Structure:RCC/Steel



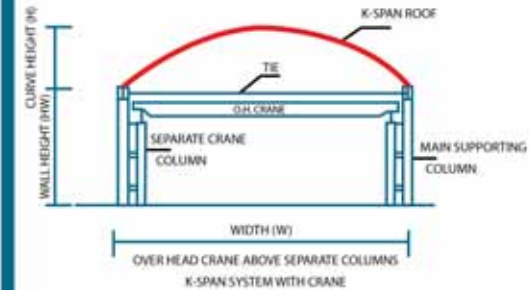
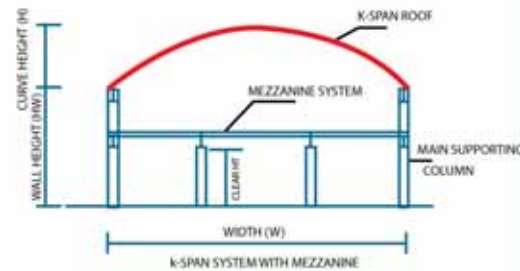
Type:GS

1. L= Up to 18M
2. h=up to 18M
3. Bottom Structure:RCC/Steel

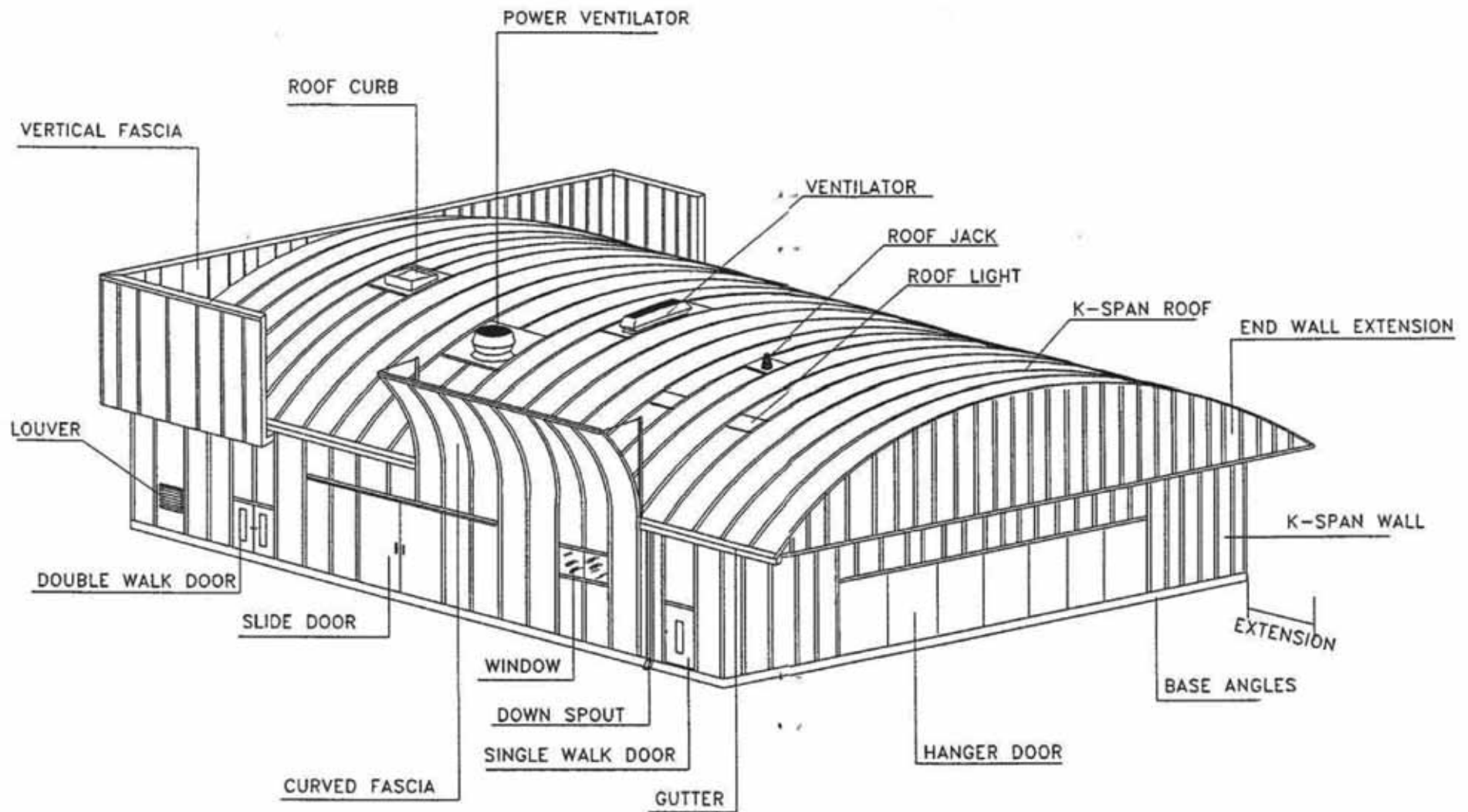


Type:Q

1. L= Up to 38M
2. h/L=0.13~0.5
3. Bottom Structure:RCC/Steel



ALM[®] BUILDING (GEOMETRY AND ACCESSORIES)





- ◆ **State-Of-The-Art Technology**
- ◆ No Carbon discharge during manufacturing
- ◆ Fastest Construction Technology in the world
- ◆ No maintenance cost

- ◆ **Cost saving : No Column, rafter, purlin**
- ◆ **Water Tight : No Nut Bolt, Screw for joint**
- ◆ **Low wind effect**
- ◆ Large clear span
- ◆ Energy Savings Construction

- Industrial
- Warehouse
- Training Center
- Gymnasium
- Basketball Court
- Swimming Pools
- Markets
- Shopping Center
- Bus / Railway Station
- Grain Storage
- Fruit and Vegetable Storage
- Dairy Farms
- Military Applications
- Airports



AFIL Jute Mill

DESIGN SPECIFICATIONS OF ALM[®] BUILDING SYSTEM



- All structural steel sections and welded plate members will be designed in accordance with the applicable sections, relating to design requirements and allowable stresses, of the latest edition of the American Institute of Steel Construction “Specification for the Design, Fabrication and Erection of the Structural Steel for Buildings.” “AISC”
- All light-gauge, cold formed, structural members and covering will be designed in accordance with the applicable section, relating to design requirements and allowable stresses, of the latest edition of the American Iron and Steel Institute “Specification for the Design of Cold Formed Steel Structural Members”. “AISI”
- Design loads will be in accordance with one of the following:
 - a) “American National Standards Institute” (ANSI) / “American Society of Civil Engineering” (ASCE).
 - b) “Uniform Building Code” (UBC)
 - c) “Steel Building Manufacturers Association of Bangladesh” (SBMA)

Beautiful designs that complete the outside view of the building with an artistic touch of beauty, whether it was outside or inside the building. ALM[®]-SPAN arches can be also dismantled and erected again in any other place without any changes in its shape or specifications where it is impossible in the conventional steel systems.

Out of this comparison, we find out that using the ALM[®]-SPAN system is much more effective than using other conventional steel building systems for the following reasons:

- 1- The cost estimate of a ALM[®]-SPAN SYSTEM steel building is half the cost estimate of a conventional steel building.
- 2- The necessary time needed to execute a ALM[®]-SPAN steel building is half the time needed to execute a conventional steel building.
- 3- The cost estimate for the maintenance of a ALM[®]-SPAN SYSTEM steel building afterwards is considerably less than the cost estimate for the maintenance of a conventional steel building.

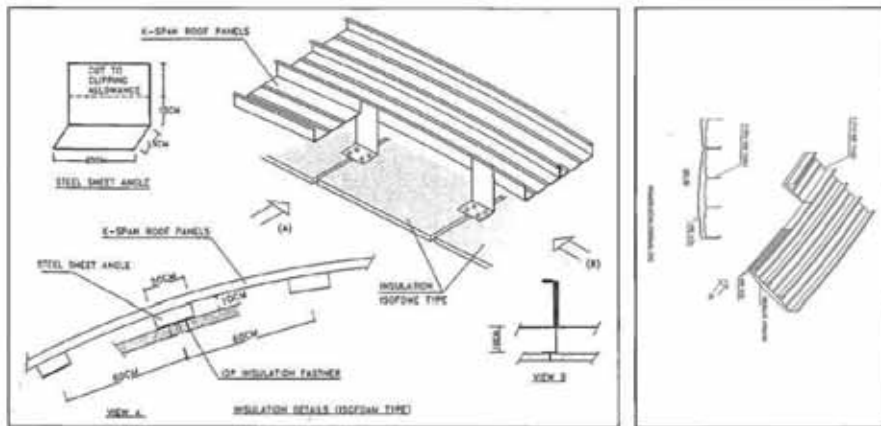
SPRAY HEAT INSULATION

- It can be used for ALM[®] SPAN system thickness, Type and thermal properties per customer requirements.

ISO FOME

- ISO Fome or (ISO Board) INSULATION type can fit to ALM[®] SPAN panels as shown in details.

- ISO Fome type, physical, thermal properties as per fabricator manual.



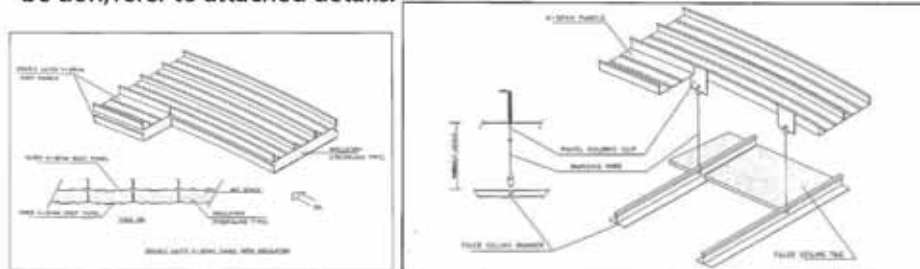
INSULATION

FIBER GLASS INSULATION

- Insulation used for special facilities as cold store buildings.

- Insulation facing type, physical and thermal properties as per fabricator's manual.

- Thickness of insulation is varying from 500mm to 150mm, all thickness can be fitted in special K-Span panels and also double skin insulated K-Span panels can be done, refer to attached details.



FALSE CEILING

- False ceiling system can be erected on ALM[®] Building System and can also be supplied, it can be supported (hanged) from ALM[®] Building system as shown in figure.

- False ceilings components hangers and runners can be supplied by ALM[®] Building system if the required.

- Specification of false ceiling system (members and tiles) depend on customer requirements.

- AK ducts and sprinkler can be hanged from roof by same concept.

FIRE PROTECTION

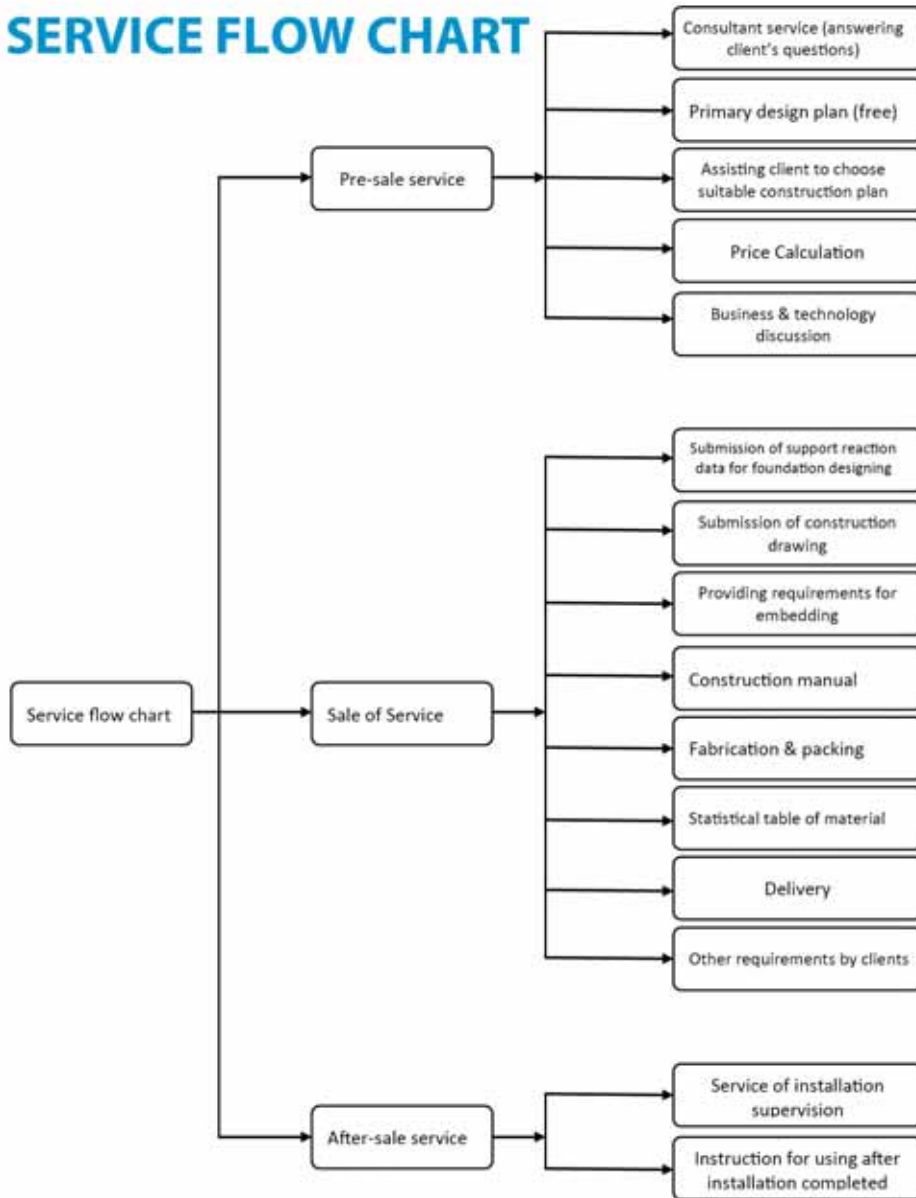
Fire resistant coating can applied to ALM[®] Building system to get a given fire rating by spraying it to the ALM[®]-SPAN panels. It gives good insulation, sound absorption and bonding properties.

ADVANTAGES OF ALM BUILDING SYSTEM

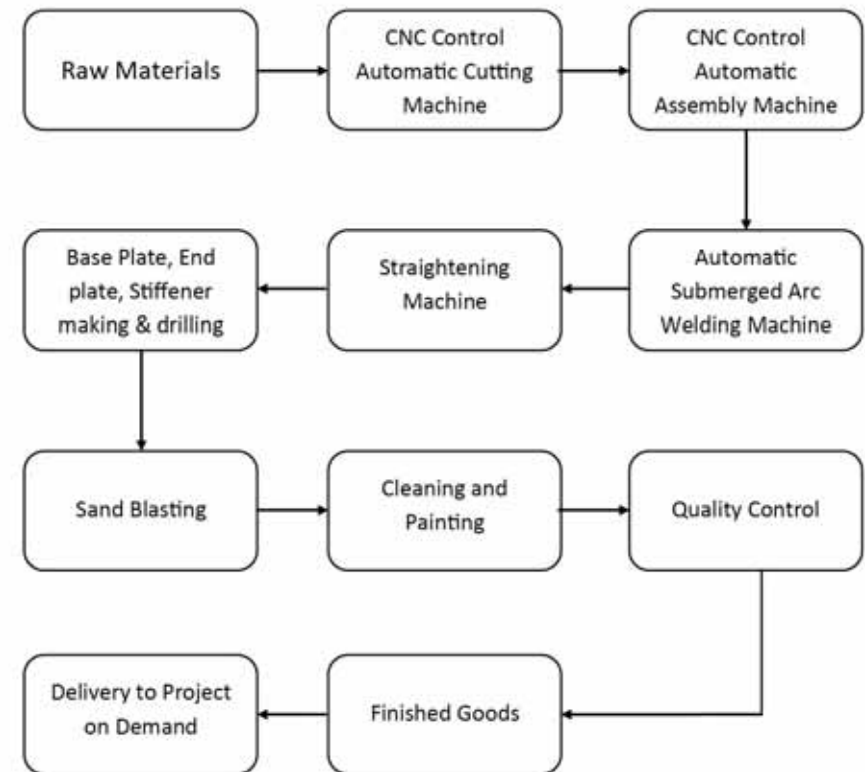
- Self Supported Arch Roof
- No Need of Rafter, Purling
- No Nut, Bolt, Fastener for Joint
- Automatic Seam Locking (100% Water Tight)
- Low Wind Effect because of Aerodynamic Shape
- Low Earthquake effect
- Rapid Construction,
- 95% Energy Savings in ALM manufacturing Process
- Maintenance Free, More Durable & Rigid Steel Structure
- 20 to 50% Cost Savings
- Provides Maximum Vacuum Space
- Smart Looking
- Minimum Heat Effect as Maximum Thickness of Mild Steel with Al-Zn Coating & it's Shape
- ALM Building System is backed with a 20 year warrantee.

FLOW CHART

SERVICE FLOW CHART



FACTORY PRODUCTION AND DELIVERY FLOW CHART





Modern Automatic Production Line



Straightening Machine



Roof / Wall Panel Profile Machine



Shoot Blasting Machine



Over Head Crane in Factory



Purlin Profile Machine



Automatic Drill Machine



Automatic Sub-merged Arc Welding Machine



CNC Control Automatic H / I Section Assembling Machine



CNC Control Automatic Hole Making & Shear Cutting Machine (Multi-Use)



CNC Control Flame Cutting Machine



Factory Space

PHOTO GALLERY

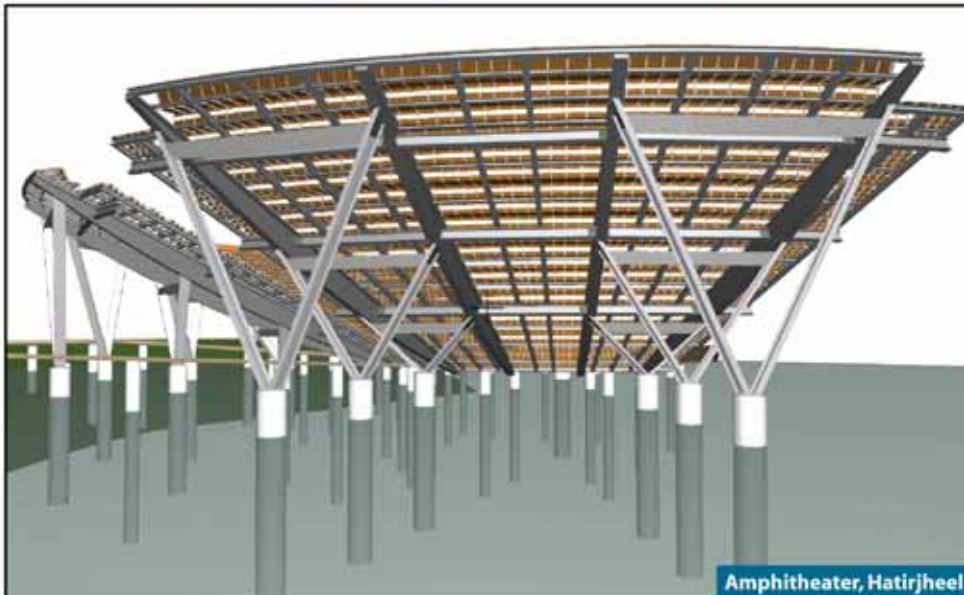


PHOTO GALLERY



Ifad Multiproducts, Ashulia



Shanin Group, Lalbag, Dhaka



Richmond Auto Bricks Ltd. Ashulia, Savar, Dhaka.



CRP, Ganakbari, Savar, Dhaka

PHOTO GALLERY



PHOTO GALLERY



PHOTO GALLERY



PHOTO GALLERY



PHOTO GALLERY



PHOTO GALLERY



PHOTO GALLERY

Easy to Dismantle & Reassemble



Note : Single Storied was built in 2009. After five years in 2014 it is dismantled & reassembled to two storied.



PHOTO GALLERY



PHOTO GALLERY



INDUSTRIAL RACKING SYSTEM



Stow Storage Solutions

The high quality storage systems for all palletized goods, small goods and long items.



We are the official agent
www.stow-group.com



ABB Group



Novartis (Bangladesh) Ltd.



ABB Group



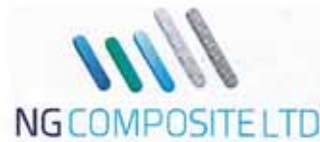
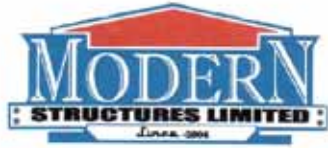
Novartis (Bangladesh) Ltd.



OUR CORPORATE FRIENDS



OUR CORPORATE FRIENDS





CERTIFICATE OF REGISTRATION

THIS IS TO CERTIFY THAT THE
QUALITY MANAGEMENT SYSTEM OF

ALM Steel Building Technology Ltd.

ISO 9001:2008

**Jogirchit, Boldighat
Sreepur, Gazipur-1745
BANGLADESH**

Has been assessed and registered as complying with the requirements of the International Standard shown above for the following Goods and Services. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organisation.

Design, Development, Fabrication & Erection of Prefabricated Steel Building and Construction of self-Supported Arch Roofing System.



JAS-ANZ



www.jas-anz.org/register

Tony Wilde

Tony Wilde
Group Chairman
ISC (Global), License #1150/2011 CC

Registration Number: QAC/A880/0052
Registration Date: 01/Jul/2016
Expiry Date: 15/Sep/2018
Amendment Date:

ISC (Global), Building 11, 7th Floor, Bay Square, Business Bay, Dubai, UAE.



This certificate is valid until the Expiry Date on the condition that audits are conducted and paid for as per the Certification Agreement. Should this condition not be met, cancellation procedures will be initiated and the client will be removed from the JAS-ANZ register. This Certificate remains the property of International Standards Certifications (Global) FZ LLC and must be returned upon request. It must not be altered in any way. Intentional misuse of this certificate will result in cancellation without prior notification.



CONSTRUCTION

A breakthrough in building

MD HASAN

It is an architectural feat a Bangladeshi company has brought in. Only a small group of 20 people can build a 10,000-square feet steel building, spending just four to five days—whatever it is—industrial unit, warehouse or even an indoor stadium.

With a rapid construction ability, the new Automatic Building Machine (ABM) technology can also save 40 to 50 percent costs depending on size compared to conventional construction or prefabricated steel buildings.

A business idea comes through someone having the ability to take risks and challenges. And his or her idea also runs the risk of making the new technology popular in terms of cost effectiveness. The initiator believes that the new generation businessmen will be willing to explore the latest technology considering global cost-cutting strategies.

HM Jahidul Islam, managing director of ALM Steel Building Technology Ltd, started business of making conventional prefabricated steel buildings in 2002 after completing his graduation from Bangladesh University of Engineering and Technology (BUET) in civil engineering.

"ABM is completely a new idea in Bangladesh. But its advantages turned me optimistic to make it available in the country," said Islam who has so far bagged orders worth over Tk 2 crore in different parts of the country for constructing nine such units.

At the end of 2007, Islam found a US company doing something different, which he thought could be a new business opportunity in Bangladesh for building low-cost steel infrastructure. Islam then communicated with the US-based MIC Industries Inc and got positive response.

MIC Industries Inc is the inventor of ABM technology. Now, more than 60 countries use MIC's technology to fabricate and construct institutional, industrial, agricultural, recreational, commercial and military buildings.

However, Islam did not hurry to bring the technology, as he himself was not much aware of it. Following the US company's advice, Islam had to pass the year 2008 for training him in China on ABM technology.

Coming back to Bangladesh, Islam abandoned his old venture Nirman Koushali and set up ALM Steel Building to introduce ABM technology in the country with 30 employees of his previous company.

He chose some areas for introducing ABM technology, such as industrial workshop, warehouses, housing projects, gym-



Steel coil is being shaped in line with the customer requirements at a construction site. ALM Steel Building Technology Ltd has brought in Automatic Building Machine technology to construct an infrastructure within a short span with a small manpower and lower costs.

nasiums, basketball courts, swimming pools, markets, shopping malls, bus stations, grain storages, dairy farms, equipment storages, airports and border posts. According to him, his background in the steel industry helped him a lot to introduce the new technology. Making a big infrastructure within a short span also surprised his clients.

"It's just like a magic," said Nurul Karim, consultant of Sedia Trading and managing director of DK Architect Ltd, adding that ABM technology is self-supported and therefore no framing is required.

"A big infrastructure can be set up within only four to five days with less than 35 percent costs. And so, we went for ABM technology," he said. Sedia Trading's warehouse was the ALM's first project in Bangladesh where ABM technology was used.

Islam explained why his company brought ABM technology from the US company along with some other required machines from China and Korea.

ABM is a self-contained manufacturing technology on wheels and capable of fabri-

cating and assembling an entire building at the construction site.

"When a customer confirms an order, we move to the site with a group of 20 workers and then construct the steel building in line with the customer's required design," said Islam.

"We will be able to make an infrastructure even in a day once our workers become fully skilled," he said.

ALM uses high-tensile and high-intensified steel coil imported from China and Korea. The steel coil is shaped through ABM machine as per the customer's requirements and set through automatic seam-locking technology.

Islam said the ABM technology uses an integrated microprocessor to produce unique structures from various designs with ground-to-ground and self-supporting panels that require no beams, trusses, columns, nuts, bolts, fasteners, screws or rods.

ABM technology meets high safety standards including European compliance. ABM buildings are virtually maintenance-

free, since they are watertight, rust-free, earthquake-resistant and fireproof, said Islam.

Bangladesh's steel building industry has an annual turnover of Tk 100 crore. But maximum of the works are foreign company-dependent.

"If we can make ABM popular in Bangladesh, a big amount of foreign currency will be saved as ABM costs 30 to 50 percent less than conventional technology," Islam said.

In near future, Islam hopes, industrial sector would be the main customer of ABM technology for its cost effectiveness.

"But the technology can do much for the low-income people of the country," he said. From his own experiences from visiting various countries, Islam is now planning to provide low-cost housing facilities to the rural people through the ABM technology.

A steel-made house will give more lifetime than a conventional tin-made house with at least 35 percent lower cost.

Islam@thedailystar.com

ইস্পাতের ভবন জনপ্রিয় হচ্ছে

স্বপ্ন হাসান

শেষ ১৫ মিনিটে পড়ুন
কিন্তু এটা খুবই গুরুত্বপূর্ণ।
কিন্তু এটা খুবই গুরুত্বপূর্ণ।
কিন্তু এটা খুবই গুরুত্বপূর্ণ।



গড়ে উঠেছে নতুন শিল্প খাত

- ১,০০০ কোটি টাকার বিনিয়োগ। দেশে বার্ষিক ২,০০০ কোটি টাকার চাহিদা।
- পূর্বাঙ্গ ভবনের আমদানি গুচ্ছ ১২ শতাংশ মধ্যবর্তী কাঁচামালের ২৫ শতাংশ
- ভবনধনের ঝুঁকি কম



শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন

শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন

শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন
শিল্প খাতের উন্নয়ন

BUSINESS

Apparel makers to choose steel buildings to relocate plants

Apparel makers are looking for a new building to house their plants. They are attracted to steel buildings because of their low cost and quick construction time.

Steel buildings are becoming popular among apparel makers because of their low cost and quick construction time. They are also more durable and fire-resistant.

Apparel makers are looking for a new building to house their plants. They are attracted to steel buildings because of their low cost and quick construction time. They are also more durable and fire-resistant.



স্বল্প সময়ে শাস্যীয় খরচে কারখানা ও ওদাম নির্মাণে স্টিল বিল্ডিং প্রযুক্তি

Steel buildings are becoming popular among apparel makers because of their low cost and quick construction time. They are also more durable and fire-resistant.

১৩
অর্থ ও বাণিজ্য

প্রথম পাতা

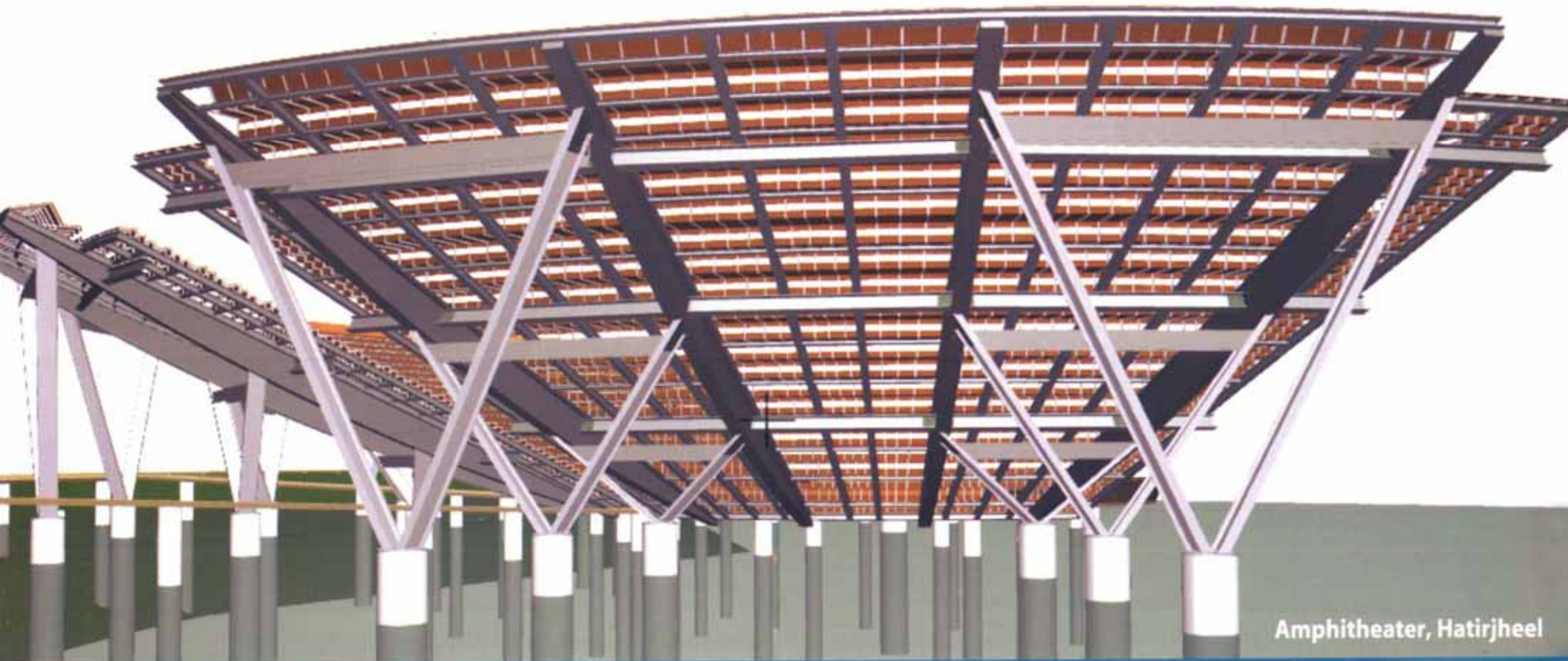
অর্থ ও বাণিজ্য

প্রথম পাতা

১৩







Amphitheater, Hatirjheel

Factory :

Corporate Office :

Jogirchit, Boldighat
Sreepur, Gazipur
Bangladesh

ALM Steel Building Technology Ltd

House # 466(4th Floor), Road # 31, New DOHS
Mohakhali, Dhaka-1206, Bangladesh
Tel: +88-02-9835230, 9836451, Fax: 8871289

E-mail : info@alm.com.bd

Web ; www.alm.com.bd

