



OPEN LETTER

In today's social integration development, in order to meet the demands of producing & manufacturing steel structures as well as the increase of many industrial factory, BSS always keep seeking, updating our machinery, equipment & human resources to meet the demand of industrial factory development. To maintain our strong brand identity, BSS is continuously making our best effort to deliver customers steel buildings with the best Quality - Art - Safety standards.



BSS always consider the benefits of Customers and Partners as our first priority and the Prestige is our core of action. We commit to provide the best convenience in cooperation and bring the best value to Customers. The developing strategy of BSS in future is to confirm being the most professional, prestigous, and efficient contractor of steel structure in Vietnam.

Our business criteria in every construction are Quality – Safety with the most Competitive price.

Futhermore, BSS is a dynamic and creative company. We have an experienced and young team, let us contribute to the development of society!

BEST REGARDS!

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- **PRODUCTS & SERVICE**

PRE-ENGINEERED BUILDINGS
STEEL STRUCTURES
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- **PROJECTS & CONSTRUCTIONS**

I.COMPANY INTRODUCTION

1. COMPANY INTRODUCTION 2. MISSION - VISION - BUSINESS PHILOSOPHY 3. HEADCOUNT STRUCTURE





1. COMPANY OVERVIEW

Established in 2015, BSS Vietnam Mechanic and Construction Co., Ltd. is a company provides solution in Designing, Fabricating & Installation of civil & industrial steel structures.

Vietnamese name : CÔNG TY TNHH CƠ KHÍ XÂY DỰNG BSS VIỆT NAM English name : BSS VIET NAM MECHANICAL & CONSTRUCTION CO.,LTD

Abbreviation : BSS VIET NAM

: 85/12 A, Quarter 1, Phu My Ward, District 1, HCMC
Registered address

Office : 535/25 Pham Van Dong, Ward 13, Binh Thanh District, HCMC : Street No.1, Binh Nhon Industrial Zone, Loi Binh Nhon Commune,

Tan An City, Long An Province

Phone : +84 (28) 6 286 1494

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2. MISSION - VISION - BUSINESS PHILOSOPHY



MISSION

Continuously research, apply & upgrade the modern knowledge of pre-engineered buildings and steel structures in Vietnam construction industry.

Collaborate together & deliver value to customers based on effective investment standard.

Leading & training the all the company employees to create the professional working team, improve the human resource quality as well as building strong organization.



VISION

We understand that only when the construction time & quality exceed customer's expectation, then we can be pleased with our dedication to the long-term development of BSS Vietnam – to become the most reliable contractor, supplier & partner in this industry.



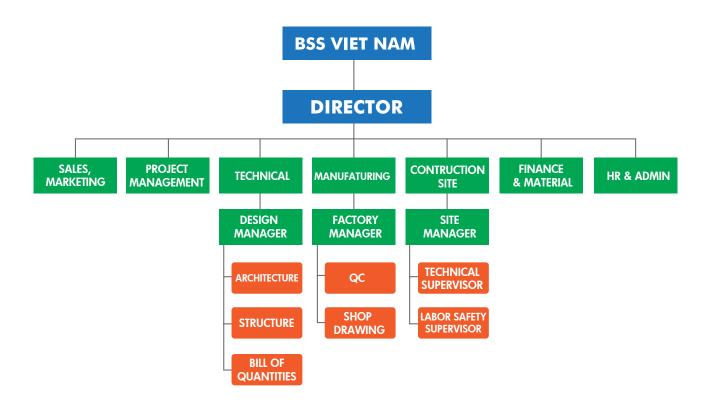
BUSSINESS PHILOSHOPHY

For every customer, every project, we always put our best effort to complete the job with the highest enthusiasm & dedication. When our customers succeed, we succeed.



3. HEADCOUNT STRUCTURE

BSS Vietnam understand that to meet customer's construction progress & quality, it depends a lot on the management & implementation teams from BSS Vietnam. Therefore, building a lean & strong performance headcount structure is one of the remarkable accomplishment of BSS Vietnam.





II.PRODUCTS & SERVICES

1. PRE-ENGINEERED BUILDINGS

1.1 Pre-engineered buildings introduction
1.2 Standard framing system
1.3 Panel system
1.4 Trim & flashing system
1.5 Building accessories
1.6 Pre-engineered buildings application

2. STEEL STRUCTURES

2.1 Steel structures introduction2.2 Steel structures application

3. SERVICES

3.1 Design
3.2 Manufacturing
3.3 Erection





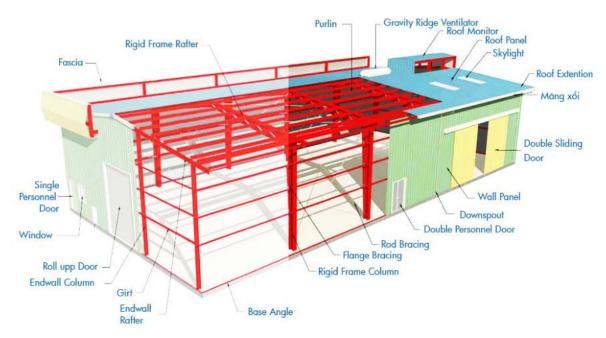
1.PRE-ENGINEERED BUILDINGS

1.1 PRE-ENGINEERED BUILDINGS INTRODUCTION

"Pre-engineered buildings" are made from steel members, which are fully designed & fabricated in the factory according to predetermined architectural and engineering drawings.

The complete production process (including inspection and quality control) is carried out with 3 main phases: design, fabricating and installing at site. All the steel structures are fully processed & fabricated in the factory, then shipped to the construction site to be assembled, thereby reducing the time of completion.

The foundation requirements of preengineered steel buildings are fewer and lighter. Material saving in some low load carrying structures of main frame makes pre-engineered buildings more economical than others, especially low-rise buildings. All structural members are bolted at site with clear erection drawings, thereby significantly reduce the time of design, production and erection.













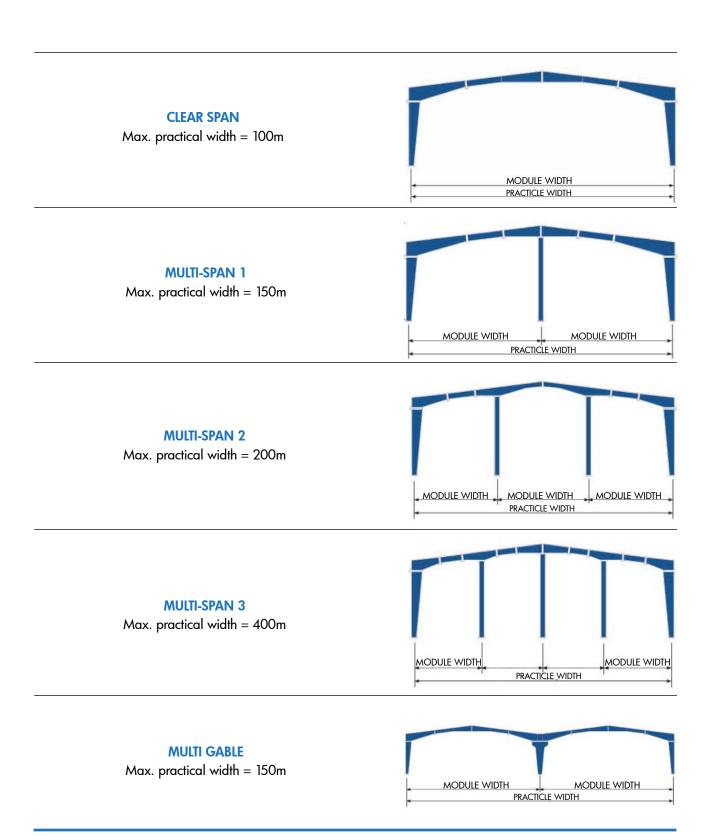




1.2 STANDARD FRAMING SYSTEM

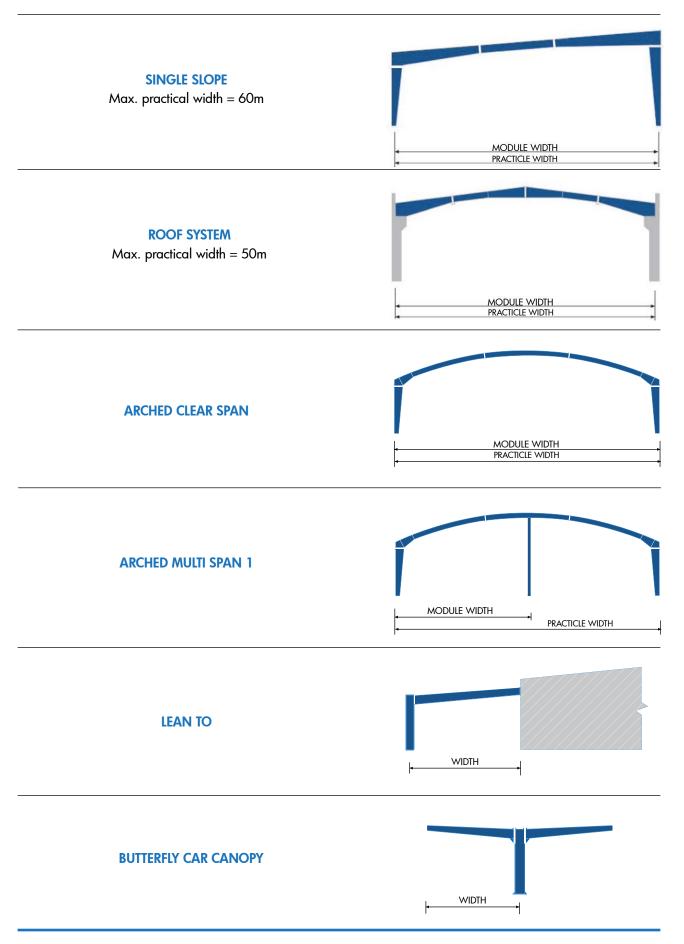
BSS provides many common kinds of standard framing system. Each one has its own advantages and suited for different applications.

These are standard kinds of buildings, all specific requirements are carefully considered by our technicians to best satisfy the usage needs and investment efficiency of customers.





1.2 STANDARD FRAMING SYSTEM





1.3 PANEL SYSTEM

BSS supplies various types of steel panels for walling, flooring & partitions...with up-to-date quality standard to deliver total cladding & covering solution for customers.

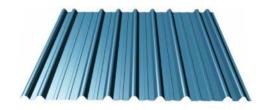
1.3.1 5 RIBS PROFILE PANEL

This is one of the most common panels, with 5 high ribs design brings strength, durability, and flexible length according to customer requirements. Suitable for roof & wall panel.



1.3.2 9 RIBS PROFILE PANEL

9 ribs panel is being used for wall panels instead of the common 5 ribs panel. With an architectural aesthetic appearance, it is used flexibly as ceiling sheets, interior partitions, fascia or parapets.



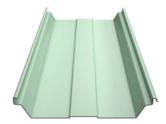
1.3.3 KLIPLOCK

This roof is used for roofs, without the use of screws, has high wave heights are extremely effective against leaks. It is designed to deliver better wind resistance & suitable with large-scale construction.



1.3.4 SEAMLOCK

Lockseam has strong durability & effectively effective against leak-water and overflowing water. This is an excellent choice for rainy and high wind-speed areas & often used for roof panel in the industrial building system.



1.3.5 SKYLIGHT

This panel delivers good light exposure, high transparency, strong durability & impact resistance, ...



1.3.6 DECKING PANEL

This panel is used as shuttering for mezzanine reinforced concrete floors. With high ribs design & a lot of transversal burrs distributed equidistantly along the longitudinal panel, the former increase the hardness of decking panel. Therefore, it is often used as formworks for civil and industrial buildings.

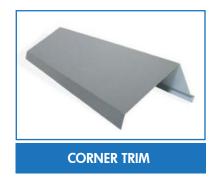




1.4 TRIMS & FLASHING SYSTEM

BSS process many types of trim & flashing accessories at the factory with specific shape and accurate size which the technical drawings to ensure the high quality & precisely-matched color.

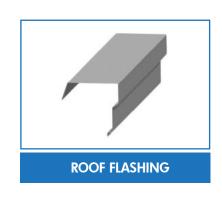
With highly-graded materials & modern production line, each trim & flashing accessories from BSS are produced in standard size & thickness with high durability, no corrosion even over long period of time.

























1.5 BUILDING ACCESSORIES

According to customer's requirements, BSS provides a complete package of building accessories for the construction such as: windows, doors, rigde ventilators, stairs, railing ...





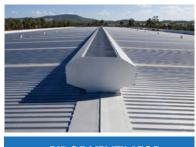
DOOR



SLIDING DOOR



ROLL UP DOOR



RIDGE VENTILATOR



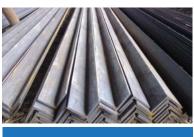
STAIRCASE



ANCHOR BOLTS



BOLTS



V ANGLE BRACING



HEAT INSULATING FOAM



1.6 PRE-ENGINEERED BUILDINGS APPLICATION

Pre-engineered buildings are used for various applications in construction industry due to its many advantages, such as: low cost, high durability, perfect quality control and fast erection;

The highly flexible pre-engineered buildings which processed & fabricated by BSS is the most suitable solution for many constructions such as: factories, warehouses, logistics center, showrooms, shopping malls, schools, hospitals, community buildings, etc...

■ INDUSTRIAL CONSTRUCTION

Factories, warehouses, plants, cold stores, mills, assembly plants,

■ AGRICULTURAL CONSTRUCTION

Greenhouses, fertilizer plants, dairy farms, ...

■ COMMERCIAL CONSTRUCTION

Showrooms, Exhibition Halls, Supermarkets/Hypermarkets, Shopping Centers, Power Stations, Petrol Stations, Restaurants,...

■ PUBLIC CONSTRUCTION

Shools, Hopitals, Aircraft Terminals, train station, ...

■ RECREATIONAL AREA

Sport centers, Gymnasiums, Swimming Pool,...





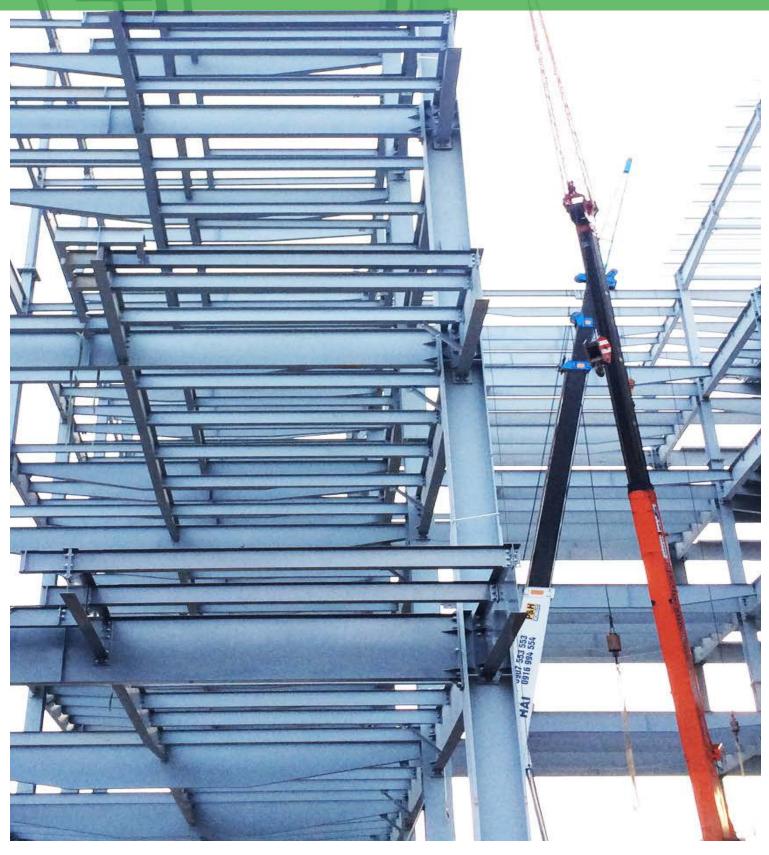














2. STEEL STRUCTURES

2.1 STEEL STRUCTURES INTRODUCTION

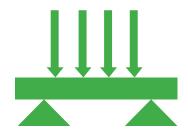
Steel structure is a metal structure which is made of structural steel components connect with each other to carry loads and provide full rigidity.

Steel structure is one of the most important structure in modern construction, especially for heavy industrial buildings. Because of the high strength grade of steel, this structure is reliable and requires less raw materials than others.





2.2 ADVANTAGES OF STEEL STRUCTURES



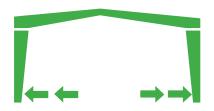
HIGH DURABILITY & GREAT LOAD CARRYING CAPACITY

Steel is the most sustainable material used in construction compared with other building materials, as many steel features are similar with the construction load carrying capacity. Therefore, the structures made of steel are highly durable, they do not get shrink or swell during the construction process.



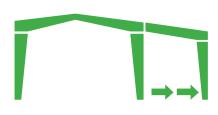
LIGHT WEIGHT STRUCTURE, EASY TO TRANSPORT & ERECT

With simple design, structural steel components are lighter and stronger than other weight-bearing materials like wood, stone or concrete. Thus, it is easy to transport & erect, reduce the construction time and contributes to the early use of the project.



MEET ALL THE CONSTRUCTION DEMAND

Steel structure is easily recycled and reused for other building purposes with many applications. Therefore, it is specially used by architecture engineers in almost every projects, which need large space & area.



FLEXIBILITY OF EXPANSION & LOW MAINTENANCE

Steel structure is metal structure made of steel components fabricated at the factory, which are then shipped to the site & simply bolted in place. Therefore, steel structure can be easily expanded to create more space through bolts & welding connections.



TIGHTNESS, WATER RESISTANT

Steel structure connections are considered to be very tight with water resistant feature; making it an ideal choice for building liquid storage tanks, gas tanks; which is difficult to conduct with other materials.



2.3 APPLICATION OF STEEL STRUCTURES

Steel structures have many flexible features such as: sustainable, easy to fabricate - install - maintain, ... so that they can be used for many buildings & constructions with different applications. Steel structures are even compulsory material in some constructions & building categories.

■ PUBLIC CONSTRUCTION

Steel structures are mainly used for main frame structure of large span construction, which need high stability such as: industry buildings, factories, oil refineries, gas plants (Industrial construction), trading centers - commercial complexes, offices, stadiums & cultural houses (Civil construction)



Steel structures or steel are the most flexible materials used in many transportation constructions & categories such as: bridges, roads, toll stations, advertising billboards, vehicle shelters, ...

AUXILIARY WORKS

Steel structures are widely used for many auxiliary structures such as shoring system (support for underground construction), bracing system (support structure for large-scale constructions, highrise buildings, ...) such as pipe rack, pipe bridges, ...

SUPER HIGH-RISE BUILDINGS

With multidirectional wind loads acting on super-high-rise buildings, it is necessary to have the building core system made of complex steel structures to ensure the safety & avoid of collapse.

PIPE RACK SYSTEM

With good load bearing capacity & flexible for erection, steel structures are widely used for pipe rack system in many petrochemical factories, conveyor belts, ...

OTHER ART & SPECIFIC CONSTRUCTION

Steel structures are also used in art works & other specific constructions such as art towers, TV towers, satellites, drilling rigs,....











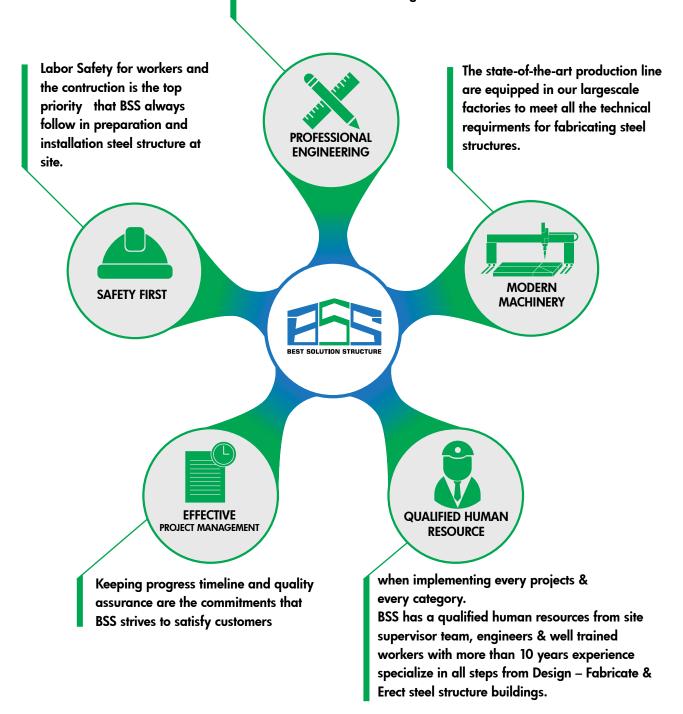




2.4 BSS VIETNAM STEEL STRUCTURE

With more than 20 year-experience in steel structure industry, BSS Vietnam has invested many modern machinery line, large scale factory & employees, ...to meet every requirement of the construction quality of customers.

> BSS has a professional engineer team with many experiences specialized in steel structure. All the engineering procedures are conducted by up-todate technical software with latest international & national design codes.





3. SERVICE

3.1 DESIGN

3.1.1 INTRODUCTION TO ENGINEERING & DESIGN SERVICE

With a team of experienced engineers in steel structure, BSS always deliver the best design solutions to customers with the highest quality and cost effective standard to meet their requirements.

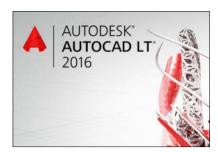
Our professional engineer team specialized in steel structure analysis, detailing from Design concept – production to erection drawings with up-to-date technical softwares such as Tekla, Staad pro, SAp, Autocad,...











BSS follows many national & international accepted codes of practice in the analysis, design and fabrication all of our steel buildings, including:

- TCVN 5575 : 2012 Steel structures Design standards
- TCVN 2737: 1995 Loads & effects Design standards
- QCVN 02:2009/BXD National technical regulations on natural condition figures
- AISC ASD-89 Specification for Structural Steel Buildings Allowable Stress Design
- AISC M103 Detailing for Steel Construction
- AISC M106 Manual of Steel Construction Allowable Stress Design
- MBMA Metal Building Manufactures Association

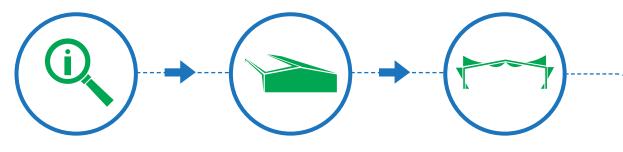








3.1.2 DESIGN PROCESS



COLLECT INFORMATION

Collect all information & specific requirements from customers.

Discuss & recommend them the suitable solution of pre-engineered buildings & steel structures to meet their needs: types of construction, location, total area, its functions, ...

2 CONCEPT DESIGN

Based on the customer's data, engineer department will prepare proposal drawings, included: technical drawings, floor plan, ... to discuss with investors.

3 TECHNICAL DESIGN

According to architecture drawing, BSS engineer team will calculate the loading capacity of the structures to ensure the aesthetics as well as building quality according to international & Vietnam codes.



COMPLETING ERECTION DRAWINGS

Detail the erection drawings to ensure the technical requirements as well as meeting the installation progress.

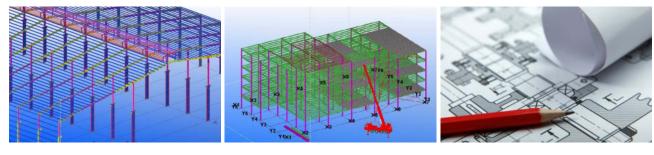
5 MAKING BILL OF **QUANTITIES & QUOTATION**

Based on the detailed data, BSS will start to make the bill of quantities (BOQ) and send quotation to customers.

DETAILING THE PRODUCTION DRAWING

Detailing shopdrawing with Tekla software to calculate exactly each component output.

If no error is noted, the production drawings are immediately passed to the factory for production.





3.2 MANUFACTURING & FABRICATING

3.2.1 INTRODUCTION TO MANUFACTURING & FABRICATING SERVICE

BSS provides the manufacturing & fabricating service of pre-engineered buildings, steel structures & other components for many constructions in Vietnam.

HIGHLY-GRADED MATERIALS

With many years of experience in steel industry, BSS have many qualified sources of materials with high quality & fully meet technical standards. Our materials are stored at large-scale factory at Loi Binh Nhon Industrial zone, Tan An – Long An province, always available for mass production to timely meet customer's orders.

PRODUCTION PROCEDURE WITH UP-TO-DATE STANDARDS

All the production procedure of steel structures are followed by BSS with latest national & international standards as below:

- ANSI/AWS d1.1/d1.1M:2002 Structural Steel Welding Code
- ISO 8501-1- Preparation of steel substrates before application of paints and related products
- MBMA 2002 Metal Buildings Manufacturers Association Authoritative guide for the design and manufacture of pre-engineered steel buildings
- TCVN 170: 2007- Structural steel processing, installing and accepting technical requirments
- TCVN 8789: 2011 Structure protect painting Protecting requirments and trial method
- TCVN 9406: 2012 Undamamaged painting method defines the thickness of dry painting.
- TCVN 9276:2012 Paint protects the structure Checking guideline, supervise the quality of execution

With state-of-the-art machinery, we manufacture & process a large amount of steel components, store them in warehouse and then ship directly to the construction site.

STRINGENT QUALITY CONTROL

All stages of production process are supervised by operators & QC engineers, ensure the fabricated components can be used in heavy load bearing construction. Other processes from detailing production drawings, fabricating, welding, surface preparation, painting & delivery are also closely monitored & inspected.











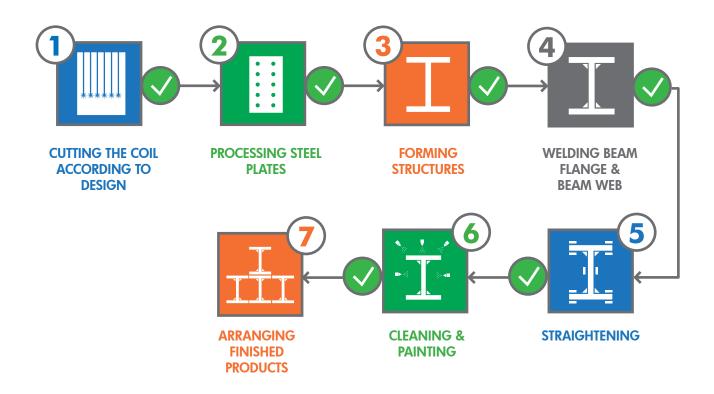


3.2.2 MANUFACTURING PROCESS

This process determines the requirements on processing and quality control to ensure the finished products meet all technical & manufacturing standards that are mentioned in building contract.

This process is written by BSS Vietnam Mechanic and Construction Company Ltd., (BSS) on the processing & manufacturing Pre-engineered buildings & steel structures.

This manufacturing process accompanied with shop drawings are considered to be the unified standards for outsourcing, controlling and accepting products.







3.2.3 MANUFACTURING EQUIPMENT



01. LONG PLATED STEEL CUTTING (6m)

USAGE

- Cutting the plate with thickness from 4mm 16mm
- Cutting length: 6000mm

ADVANTAGES

- Hydraulic machines operate better than mechanical machine
- Have the program control board, cutting exactly dimension as per required.
- Able to cut the details <= 500mm with length <= 6100mm



02. HORIZONTAL AUTOMATIC WELDING MACHINE

USAGE:

- Weld automatically to form the structure

ADVANTAGES

- Machine without erection between web and flange helps increasing productivity of factory.
- Creating the stability of welding; no need to depend on the clever of workers because of automatic machine



03. AUTOMATIC H,I BEAM ASSEMBLY MACHINE

USAGE

- Creating the shape of structure with I section

ADVANTAGES

- No need much labor to create the shape of structure with I section
- Totally automatic running. Because this machine is the horizontal machine, the productivity will be so high.



04. OVERHEAD CRANE

USAGE

- Used to move steel products & materials during production process

ADVANTAGES

 It greatly improves material handling productivity within a factory, promotes safety and allows more efficient utilization of space by reducing traffic.





05. BRACKET-DRILLING MACHINE

USAGE

- To create holes for beam flange.

ADVANTAGES

- It is possible to drill many details at once
- Precisely processing thanks to the fitting gear that match with the detail drilling



06. MULTI CUTTING-PUNCHING MACHINE

USAGE

- To create holes, cut V & L angles & detail many small plates

ADVANTAGES

- Execute multi-functions at the same time



07. CNC GAS STEEL PLATE CUTTING MACHINE

- To cut detail plates according to programmed orders.

ADVANTAGES

- Can cut & process plates with complicated details
- Can process many detail plates at once



08. SHOT-BLASTING MACHINE

USAGE

- To clean the structure surface before painting

ADVANTAGES

- Completely automatic machine, ensures that components are removed from dirt to SA 2.5
- Optimizing the production time and reducing labor force



3.2.3 MANUFACTURING EQUIPMENT



09. INDUSTRIAL PAINT SPRAYER

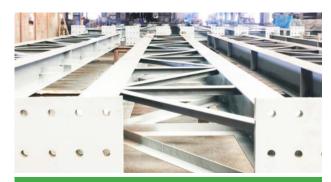
USAGE

- To paint steel sections & other components

ADVANTAGES

- High productivity with the features of industrial spraying machine
- Create high pressure on the surface

3.2.4 BSS STEEL STRUCTURE PRODUCTS



FINISHED PAINTING



MARKING



PRODUCT ARRANGEMENT



PACKAGING



PACKAGING



MAINTENANCE





3.3 INSTALLATION & ERECTION SERVICE

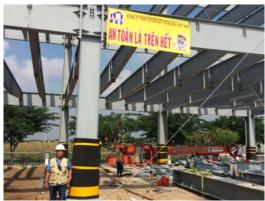
3.3.1 3.3.1 INTRODUCTION TO INSTALLATION & ERECTION SERVICE

BSS is the trusted partners of many reputatable investors & contractors in install & erect large-scale Pre-engineered buildings & steel structures construction.

Our strength is to have many years of practical construction experience with excellent site supervisor team and well trained workers specialize in steel structures. All the erection process are conducted according to international safety & quality standards.

TCVN 170: 2007 – Structural steel – processing, installing and accepting - technical requirments MBMA - metal buildings manufacturers association – guide for the design & manufacture of pre-engineered steel buildings Beside, all the workers & site engineers have to be fully equipped with special safety tools & equipments, to ensure the safety & technical requirements in any condition.

















3.3.2 ERECTION PROCESS



PREPARATION AT SITE

· Checking the ground, warehouse position & traffic at site.

RECEIVE & STORING MATERIALS

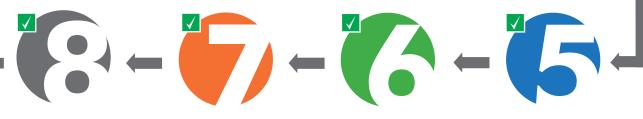
- Marking the materials code & length description.
- The materials are covered with Tarpaulins and put on wood shelves

LOCATE THE ANCHOR BOLTS FOOT COLUMN

• The diameter of anchor bolt, distance between anchor bolts have to be determined with allowed difference

COLUMN INSTALLATION

- All the columns have to be installed first
- · Put the columns at right position and tighten the anchor bolts, and install the wall beam and tighten the temporary bracing



INSTALL THE NEXT BAYS

• Install same as the first bay, using at least 1/3 purlins & columns bracing for next bays

ADJUST THE FIRST BAY

• Use the temporary bracing to pull the columns straightly, then tighten the anchor bolts, columns bracing bolts.

FINISH THE INSTALLATION OF THE FIRST BAY

- · Fix the columns by highly intensative anchor bolts
- Install all purlin roofs, roofs bracing system

MAIN FRAME INSTALLATION

- Combine the trusses, brace the cantilever under the ground.
- Use the Hoist machine to lift the trusses and put in right position, then tighten the anchor bolts to the columns and then tighten temporary bracing.



FINISH FRAMING INSTALLATION

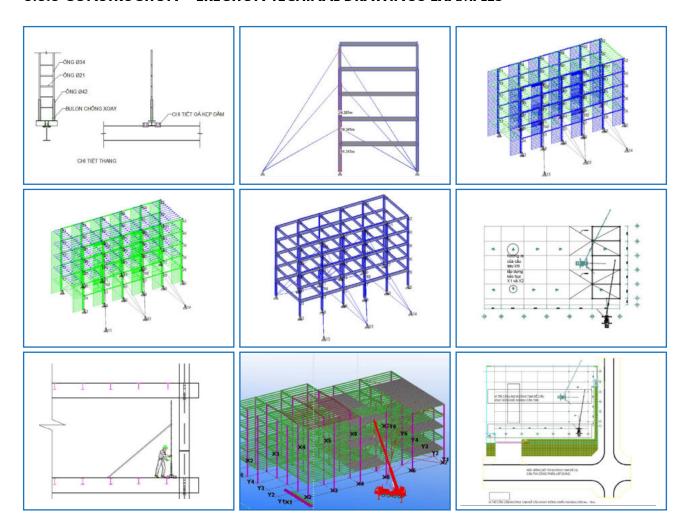
- Install all purlins, column bracing & beam flanges
- Install all wind & ventilator system, bracing pin & purlins
- Straightening the frames before roofing

ROOFING & CLADDING INSTALLATION

- Repaint the defects on main frame structures before roofing
- Use hoist to lift cladding panel onto the purlins, and start roofing from side to top



3.3.3 CONSTRUCTION – ERECTION TECHINAL DRAWINGS EXAMPLES



3.3.4 LABOR SAFETY

Labor Safety is the top priority of BSS, all the related activities to labor safety must be carried out prior to project implementation.



Before & during the erection at site, BSS always supplies our workers full of safety equipments such as: hard helmet, safety belts, gloves, safety boots, equipment bags.



All of the techical engineers & workers at site are fully equipped with labor safety skills through many training courses hold by BSS.

III. FEATURE CUSTOMERS & PARTNERS





FEATURE CUSTOMERS & PARTNERS





































IV.FEATURE PROJECTS & CONSTRUCTIONS





DBW GARMENT FACTORY

CATEGORY : STEEL STRUCTURE

ADDRESS : LONG HAU INDUSTRIAL ZONE, LONG AN PROVINCE

SCALE : $18.000 \ m^2$, $1000 \ Tons$

: DBW GARMENT FACTORY (GERMANY) **INVESTOR**

COMPLETED TIME: 2015















2 GHIMLY GLOBAL FACTORY

CATEGORY : PRE-ENGINEERED BUILDING

ADDRESS : LONG THANH, DONG NAI PROVINCE, VIETNAM

SCALE : 22.000 m²













3 VIET DUNG FACTORY

CATEGORY : PRE-ENGINEERED BUILDING

ADDRESS : AN PHU TRUNG INDUSTRIAL ZONE, CU CHI DIST., HCMC

SCALE : 12.000 m²











4 RICE GRINDING MILL

CATEGORY : PRE-ENGINEERED BUILDINGS
ADDRESS : CAN THO PROVINCE, VIETNAM

SCALE : 12.000 m²







5 PETROL STORAGE WAREHOUSE

CATEGORY : PRE-ENGINEERED BUILDINGS

ADDRESS : LONG HAU INDUSTRIAL ZONE, LONG AN PROVINCE

SCALE : 2.000 m²







MAM HUNG METAL FACTORY

CATEGORY : PRE-ENGINEERED BUILDINGS

ADDRESS : STREET NO.10, THUAN DAO INDUSTRIAL ZONE, BEN LUC DISTRICT, LONG AN PROVINCE

SCALE : 22.000 m²















I GITEN SHOES FACTORY

CATEGORY: PRE-ENGINEERED BUILDINGS

ADDRESS : STREET NO.10, LONG HAU HOA BINH INDUSTRIAL ZONE, BEN LUC DISTRICT, LONG AN

SCALE : 8.000 m²













8 MARUICHI SUN STEEL FACTORY

CATEGORY PRE-ENGINEERED BUILDINGS

ADDRESS: DT743B, DI AN TOWN, BINH DUONG PROVINCE

SCALE : 6.000 m²





IV. FEATURE PROJECTS & CONSTRUCTIONS



JAPANESE SCHOOL

CATEGORY : SUPPLY STEEL FENCES & LOUVERS **ADDRESS** : 07 TAN PHU ST., DIST. 7, HCMC.







I LAC TY SHOES FACTORY

CATEGORY : PRE-ENGINEERED BUILDINGS

ADDRESS : MYANMAR **SCALE** : 6.000 m²





www.bssvn.com

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