



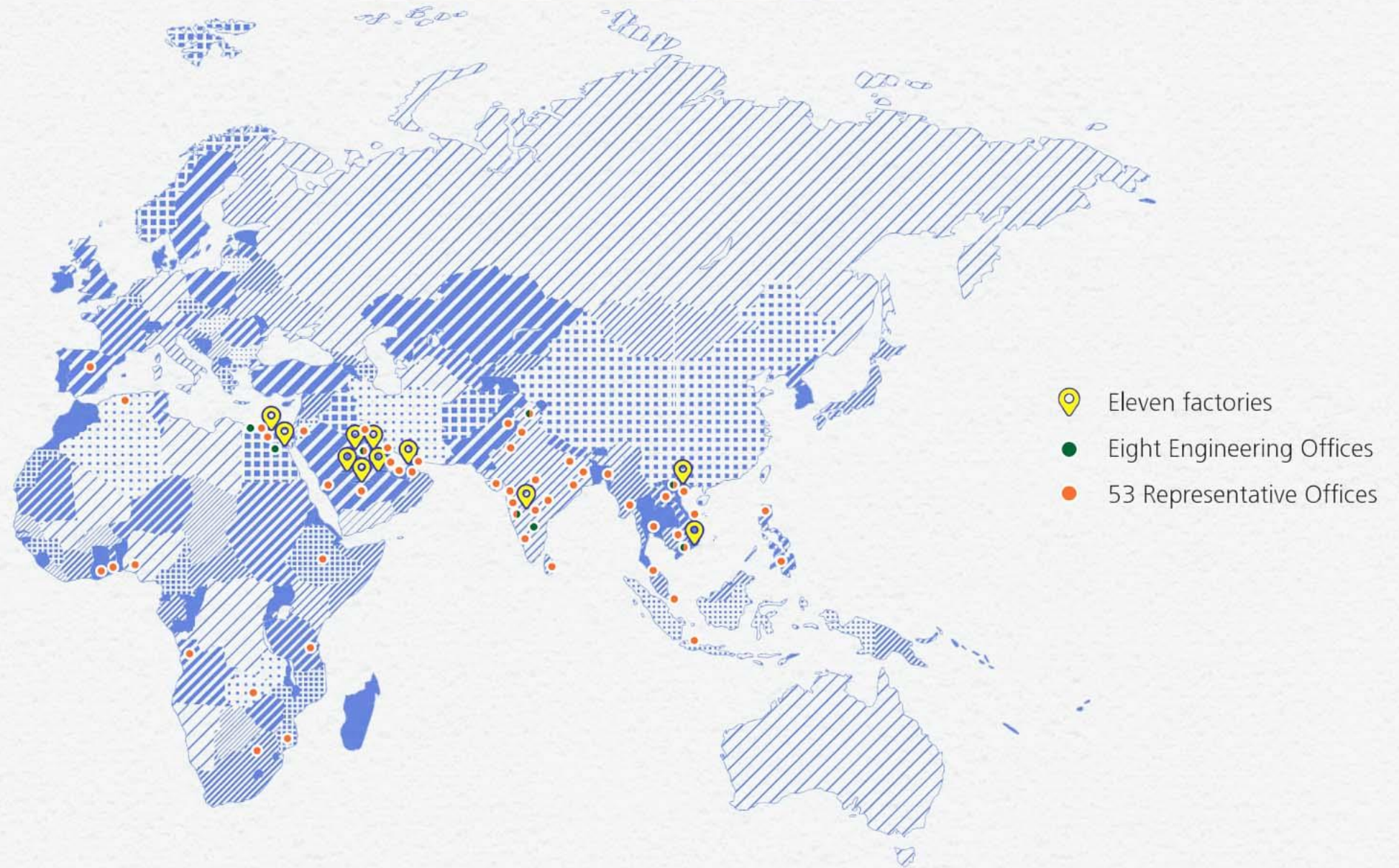
ZAMIL STEEL

total steel building solutions

Zamil Steel Buildings Vietnam Co., Ltd (ZSV)

An introduction

ZAMIL STEEL GLOBAL NETWORK



Vietnam - Laos - Cambodia - Philippines - Indonesia - Malaysia - Myanmar - Singapore - Thailand - Bangladesh



Zamil Steel Buildings Vietnam

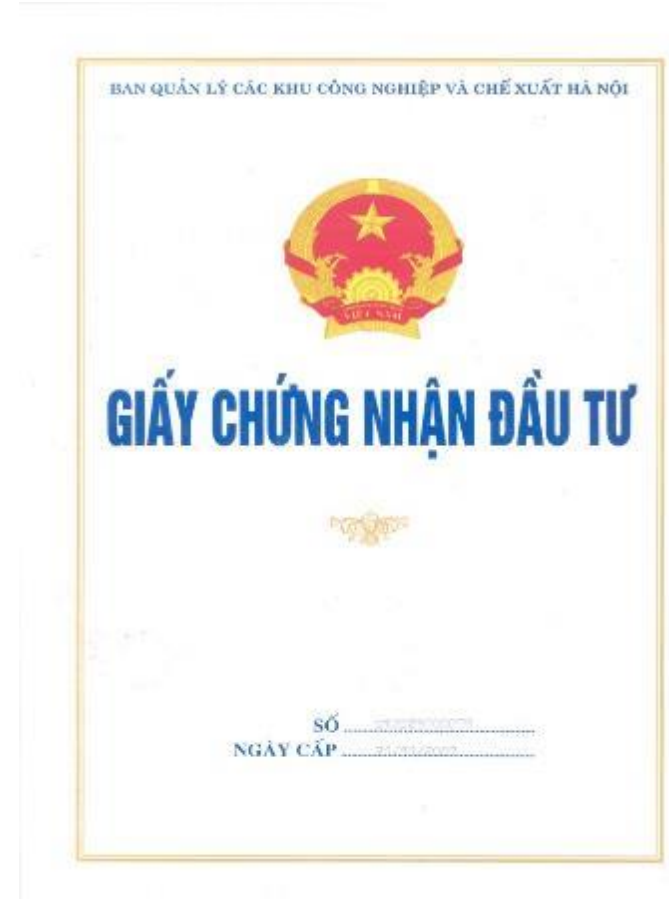


Introduction to ZSV



Zamil Steel Buildings Vietnam Co., Ltd is a joint venture between Mitsui & Co. of Japan and Zamil Industrial & Investment Company of Saudi Arabia, the largest pre-engineered steel building and metal buildings manufacturer in the Middle East, Asia, Africa, and Europe.

- Fabrication Capacity: **120,000 MT/Year**
- Performance: > **6,000 steel buildings** in various parts of Asia Pacific.





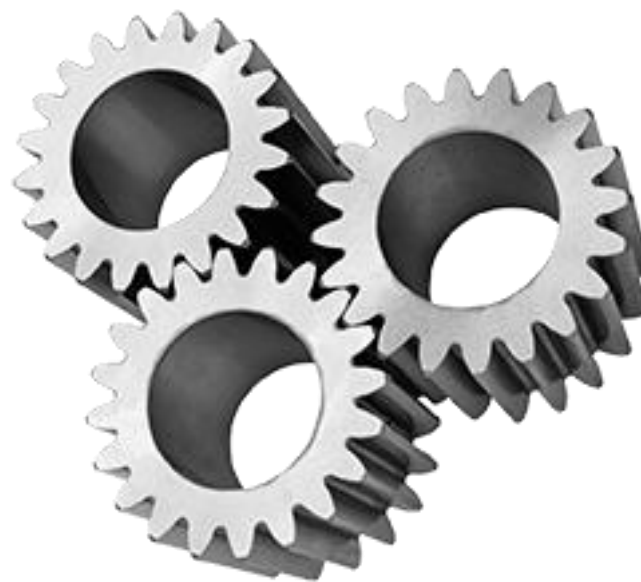
Zamil Steel Buildings Vietnam



In relation to Corporate Network

...A Member of Zamil Steel Network over 90 countries.

Engineering



Distribution

Manufacturing



Manufacturing Facilities



2 state-of-the-art Factories in Vietnam



Hanoi Plant Constructed in 1997, specializes in the fabrication of PEB & heavy Structural Steel products

Total Area: 41,200sq.m

Fabrication Capacity: 5,000MT per month



Dong Nai Plant Constructed in 2008, possesses cutting edge technologies & machinery for the fabrication of PEB, Open Web Steel Joist and Structural Steel

Total Area: 45,150sq.m

Fabrication Capacity: 4,500MT per month



In relation to Corporate Distribution Net Work



14 fully-staffed offices in 10 Asian Pacific Countries

- Hanoi
- HCMC
- Da Nang
- Hai Phong
- Yangon
- Singapore
- Kuala Lumpur
- Jakarta
- Manila
- Davao
- Bangkok
- Phnom Penh
- Vientiane
- Bangladesh



ZSV applies:

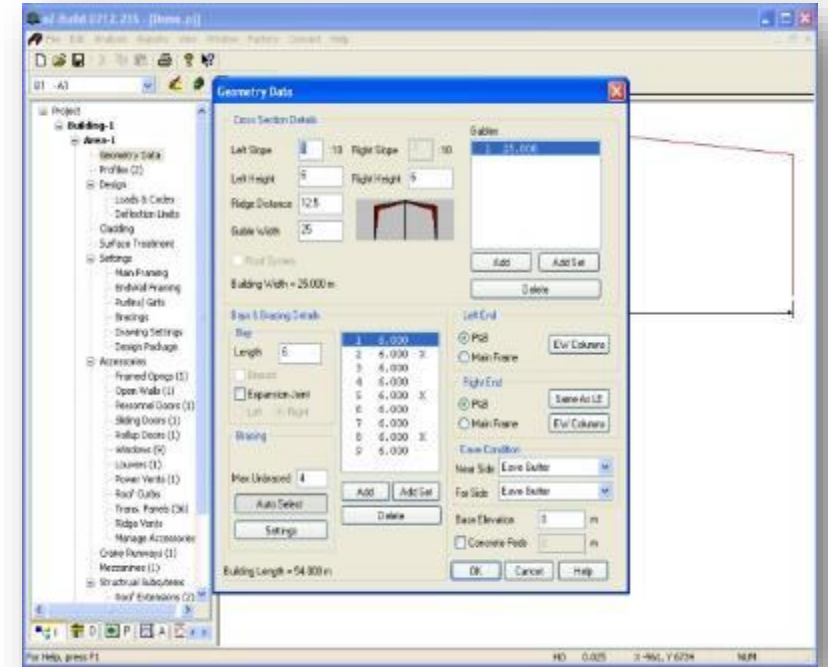
- Australia building code
- MBMA (Metal Buildings Manufacturers Association) – For design parameters
- AISI (American Iron and Steel Institute) – For cold formed sections
- AISC (American Institute of Steel Construction) – for Built Up sections
- AWS (American Welding Society) – For Welding works
 - British Standards
 - Euro-Code
 - IBC (Int'l Building Code)
 - Other domestic codes (Egyptian, Indian etc.)



Engineering Strength



- Experienced & Professional Engineers
- Fully computerized and globally networked
- In-house developed design and detailing software.
 - Flexibility in design to multinational and local codes
 - Comprehensive design calculations
 - Detailed and categorized bill of material.
 - Complete detailed drawings for Approval
 - Construction (Erection) drawings





Manufacturing Excellence





Manufacturing process



Skilled Workers



All member sized are pre-determined by engineering upon issuing of shop drawings to production floor for fabrication





Manufacturing process



PRIMARY MEMBERS – Raw Materials



Up to 3 month worth of raw material are purchased from reliable sources and accompanied with authentic mill certificate – **Responsive to any urgent request from Customers.**

All primary members of Pre Engineered Steel Buildings are sheared and welding from steel plates



Manufacturing process

PRIMARY MEMBERS - Shearing

- ✓ Accuracy in cutting edge
- ✓ Minimizing material waste



Steel Plates are being sheared to required length and sizes as per shop drawings.

Thicker plates will be gas cut





Manufacturing process



PRIMARY MEMBERS - Shearing



Fully automatic submerged arched welding

Flawless full penetration weld for flange to web connection





Manufacturing process



PRIMARY MEMBERS – Surface Preparation



Solvent cleaned or shot blasted for rust and dirt removal up to SSPC-SP10 (Sa 2.5) Standard





Manufacturing process



PRIMARY MEMBERS – Painting

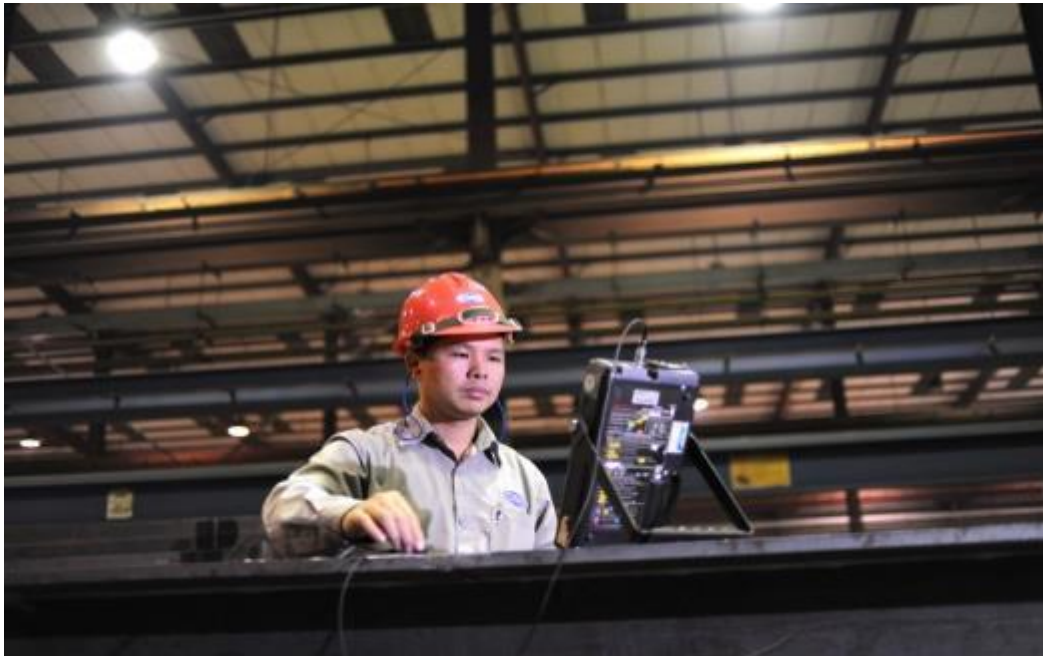


Materials are then air sprayed or dip painted



Quality Assurance

- ZSV is certified with ISO 9001-2000
- An independent Quality Control Department
- Quality Control Plan with the latest inspection tools





Key Products in Vietnam



Structural Steel



Pre-engineered steel buildings (PEB)

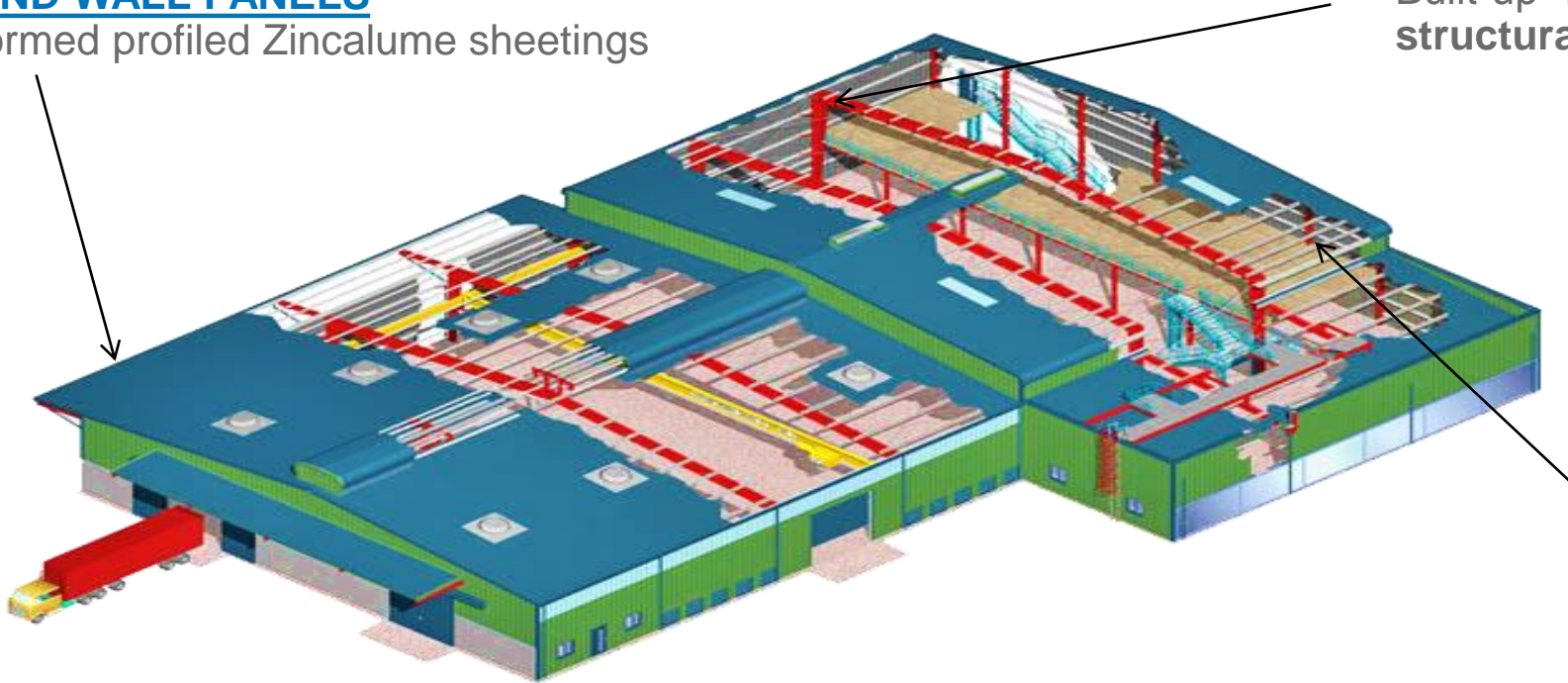


MaxSEAM® Roof system



ROOF AND WALL PANELS

Rolled formed profiled Zincolume sheetings



COLUMNS AND RAFTERS

Built-up “I” shape primary structural framing members:

- Clear Span
- Multi-Span
- Multi - Gable

ROOF PURLINS AND WALL GIRTS

Cold-formed “Z” and “C” shaped secondary structural members

APPLICATIONS: Customized Buildings:

Factories, steel mills, fertilizer plants, warehouse and, aircraft hangars:

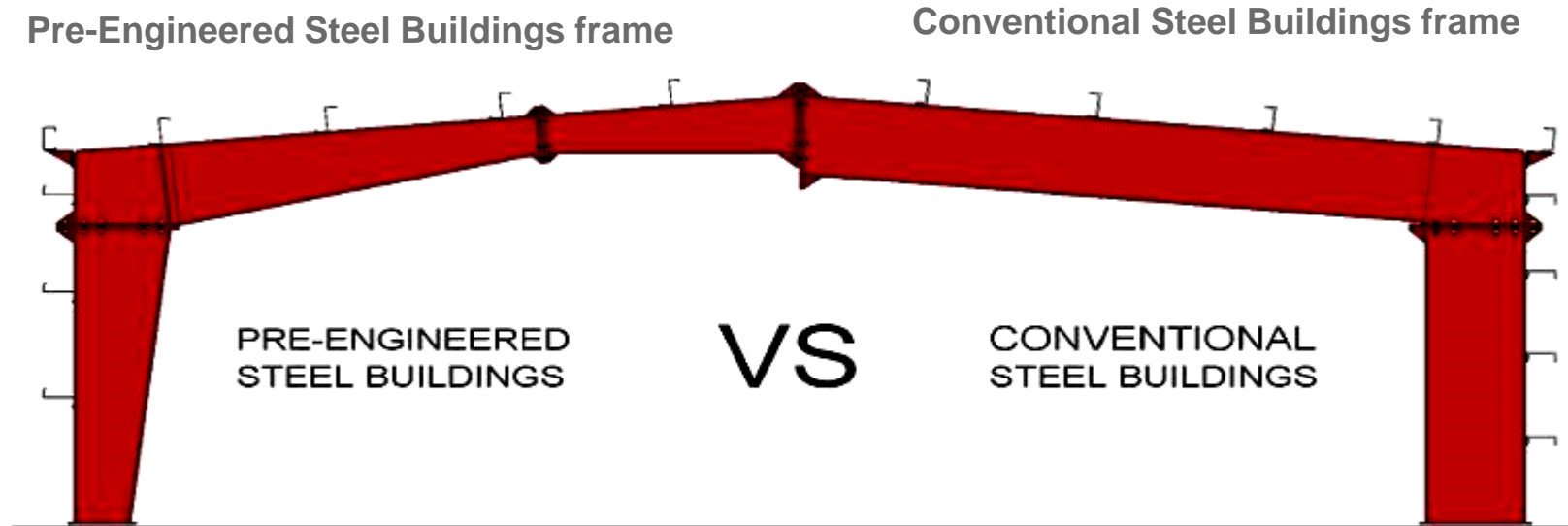
- Low rise building
- Spanning up to 100 meters



Pre-engineered steel buildings - DIFFERENCES



The secrets of Pre-Engineered Steel Buildings designs – PRIMARY MEMBERS



- Pre-Engineered Steel Building built-up frames are designed to be tapered and webs often have variable depth and thicknesses
- The frame geometry matches the shape of the internal stress diagram, thus minimizing material wastage and reducing the total weight
- Conventional steel uses straight members designed for the maximum internal stress in the member
- The shaded area shows parts of the member which are over-designed and in excess of design requirements



Pre-engineered steel buildings - DIFFERENCES



Fast track engineering solutions to high quality and cost effective steel buildings

PEB System	Conventional System
<ul style="list-style-type: none">• Use hot rolled steel plates to form sections.• Large spanning capacity due to flexibility of depth design.• Lightweight as members are designed and fabricated accordance to stress ratio.• Portal frame design, High flexibility sizes are built using different thickness of steel plates.• Lots of (automatic) welding for web to flange.• Connection details standard, fastest fabrication.• Simple Erection.	<ul style="list-style-type: none">• Use hot rolled I and H beams sections.• Spanning capacity limited.• Beam depth dependant on manufacturer.• Sizes & Load tables are fixed so optimization is difficult.• Less welding, only for joints and connections.• Connection details standard and reasonable fabrication time.• Simple Erection



ZS Structural Steel



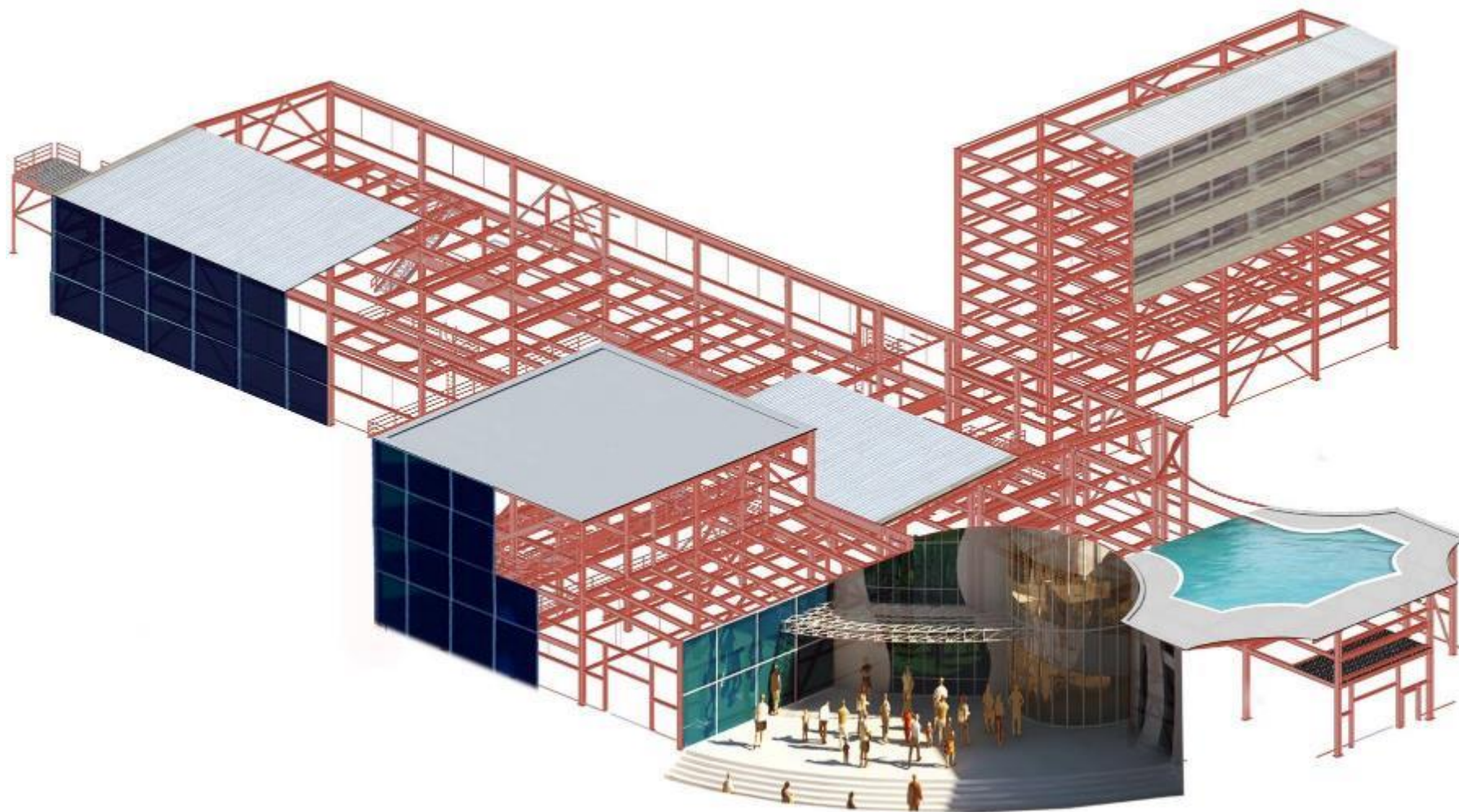
Application

- High-rise Buildings
- Airport Terminals
- Sport & Conference Halls
- Industrial Buildings, Power Plants, Refineries, Petrochemical Plants



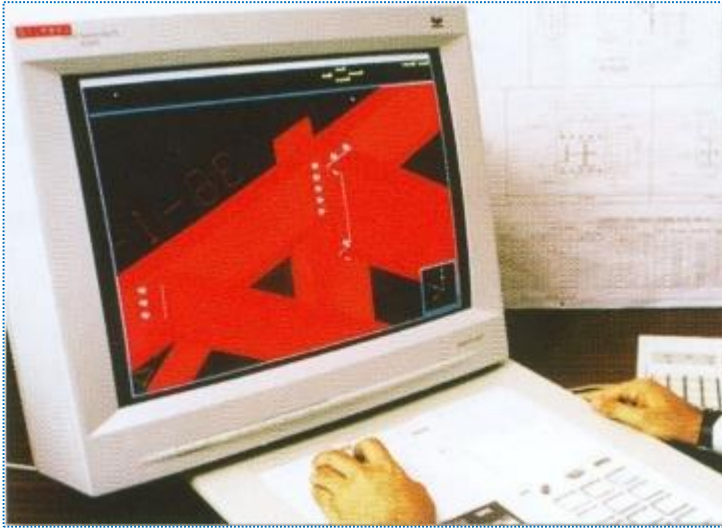


COMPLEX PROJECTS

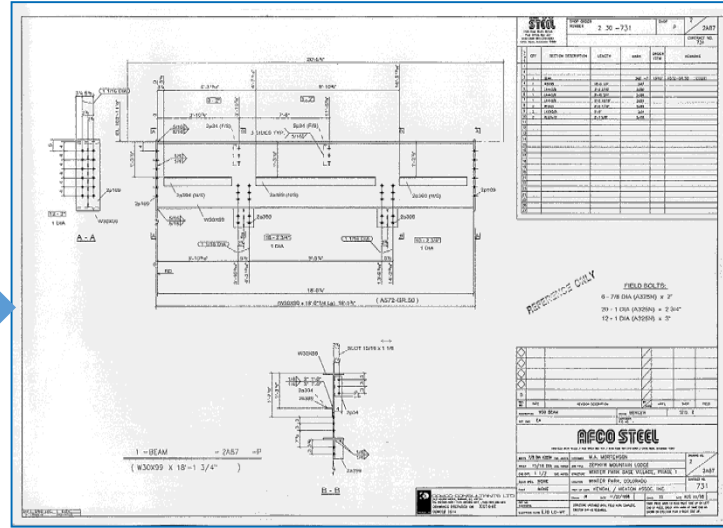
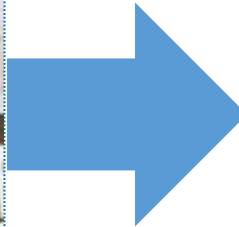




Work Process



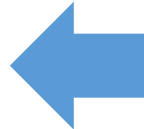
Pre- Design (by Customer)



Detailing



Production



Erection



ZSV Structural steel



Structural Steel Plant



Dong Nai Plant Constructed in 2008, posses cutting edge technologies & machinery for the fabrication of PEB and Structural Steel

Total Area: 45,150sq.m

Location: AMATA Industrial Zone, Dong Nai, Vietnam

Fabrication Capacity: 4,500MT per month



Problems Associated with Conventional Roofing System

- Water Leakage
 - Caused by endlaps, improper installation of fasteners etc.
- Thermal Expansion of Panels
 - Thermal expansions cause by temperature fluctuations causes potential damaging effects on panels system.
- Wind Uplift
 - Damage fasteners system and roofing.

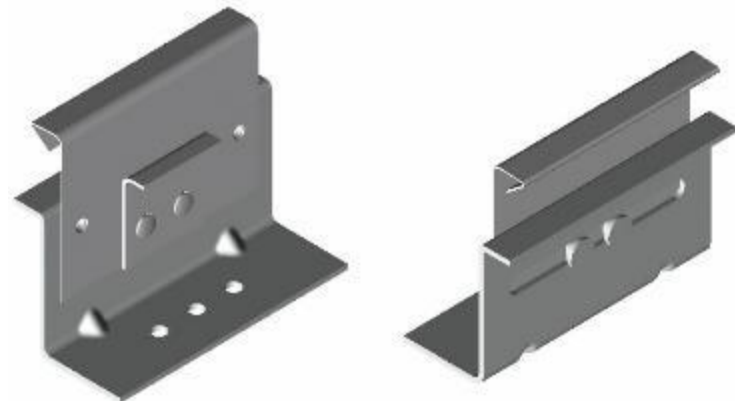
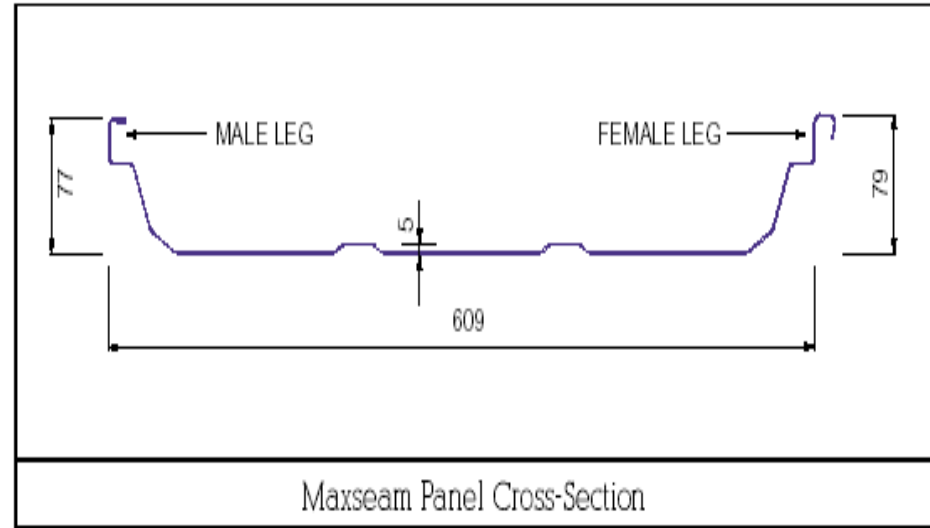


ZS- MaxSEAM® Roofing system



A Standing Roof Seaming System with:

- 360 degree double lock seam
- Special Sliding clip
- Deep valley for rain water drainage
-finally it functions as monolithic membrane

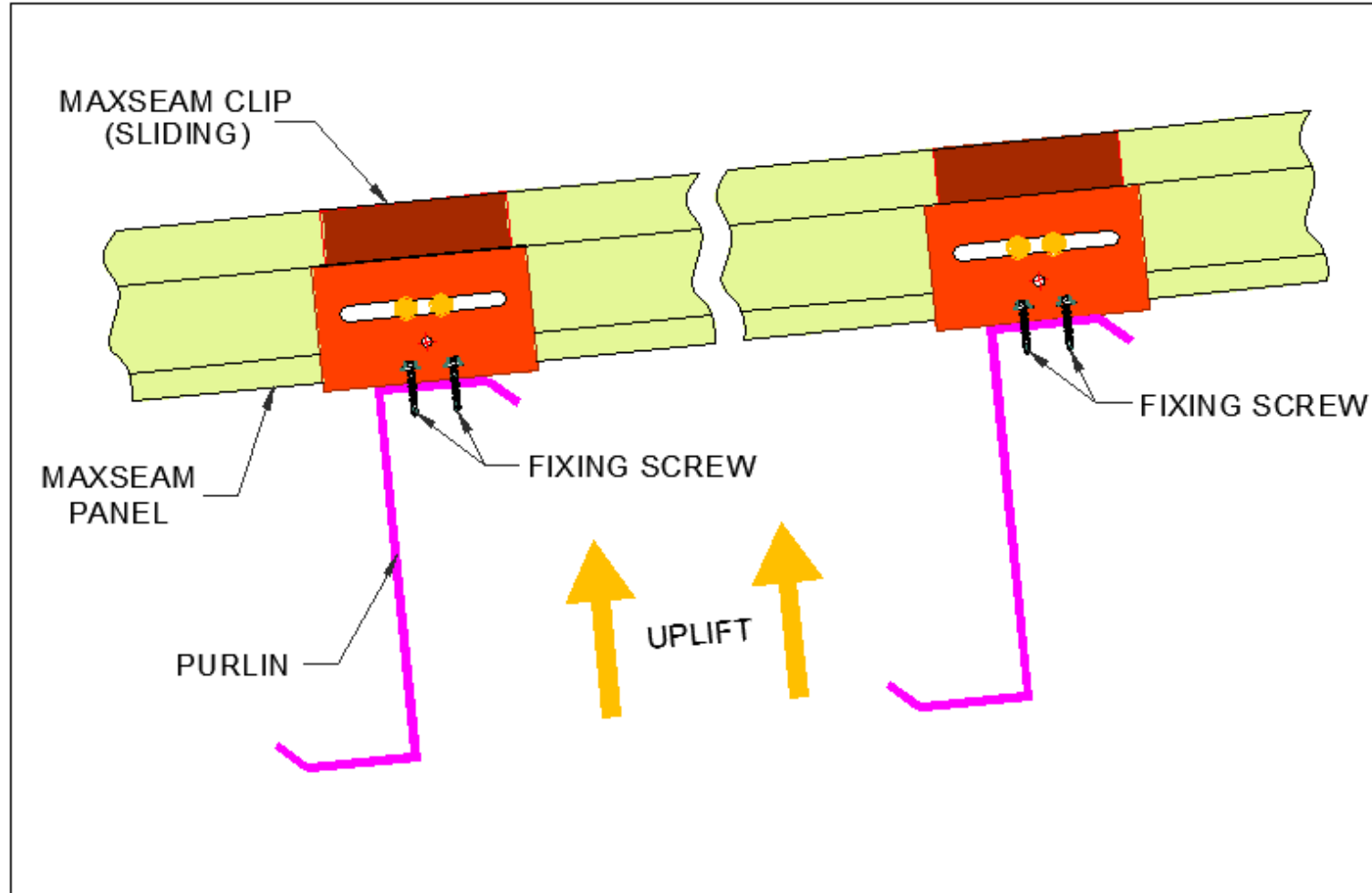




ZS- MaxSEAM® Roofing system



Why **MaxSEAM®**

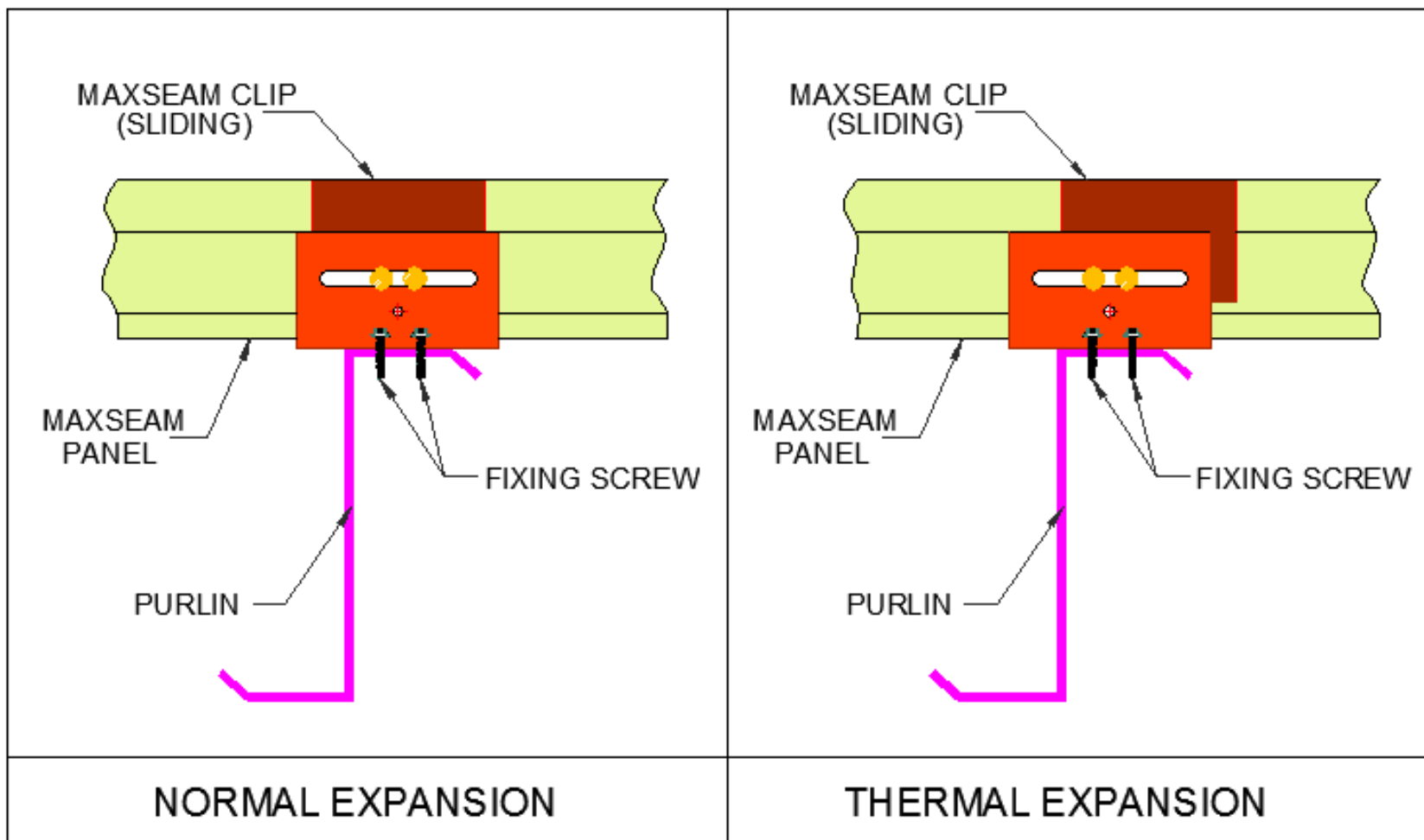




ZS- MaxSEAM® Roofing system



Why MaxSEAM®





ZS- MaxSEAM® Roofing system



Why **MaxSEAM®**

SuperSEAMER: Long sheet with no end lap





ZS- MaxSEAM® Roofing system



Mobile Roll Former On Site



Loading of Coils



Rolling MaxSEAM® Panels On Site



Unloading Panels for Hoisting



ZS- MaxSEAM ® Roof system



Hoisting of Panels to Roof



Spreading Panels on Roof



Installation of Insulation and Laying of panels



Seaming of Panels



ZS- MaxSEAM® Roofing system



A Smart Choice

	Normal Snap-on Roof	MaxSEAM® Standing Seam Roof
Wind Up Lift	★	★★★
Water Leakage	★★	★★★
Thermal Expansion	★★	★★★

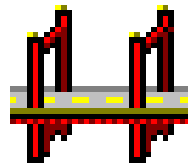


Zamil Steel Buildings Vietnam

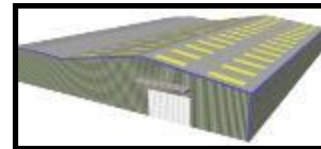


What made Zamil special?

Designing & Detailing



ASFAD



EZ BUILD



ORACLE

Manufacturing



Sales & Customer Services





What to expect from Zamil?

Design capabilities	=	Structural integrity
Optimized solutions	=	Cost saving
Fabrication capacity	=	Faster delivery
Erection experience	=	Final quality
After-sales service	=	Peace of mind

Think Steel Buildings, Think Zamil



Major Projects



From the snowy plateau of Mongolia to the stormy Tropics, rain or shine, from roof systems to floor systems, factories to aircraft hangars, pipe racks to petrochemical plants, over 5,000 Zamil Steel Vietnam's buildings have stood by their highly satisfied owners across Asia Pacific Region



VIETNAM - HONDA manufacturing facility at Vinh Phuc Province



GREEN PLANT - Built with “**Environmental and human friendliness**” in mind, this green plant possesses one of the most advanced and efficient technology of Honda Global bringing total capacity of Honda Vietnam to 1.5 million units per year.



VIETNAM - Marketing Center using Structural Steel Structure in Hanoi





THAILAND - CANADOIL Warehouse at Rayong





SINGAPORE - JURONG SHIPYARD Mobile Yard





THE PHILIPPINES Diamond Store





MYANMAR - Pre-engineered Aviation Hangar Using 60m OWSJ Rafters





MYANMAR - City Mart Shopping Mall





MONGOLIA - Mill Building





MALAYSIA - AirAsia Aircraft Hangar at Kuala Lumpur LCCT





LAOS - Beerlao New Production Warehouse





JAPAN - IKEGAI Factory at Tuskuba





INDONESIA - SMOE Workshop at Batam Island





CHINA - SHEN LIU Workshop at Guangdong





MAURITIUSSUDS Sugar Mill





AUSTRALIA Metroll Warehouse





VIETNAM - Structural Steel Cafeteria





PHILIPPINES - Structural Steel Asanuma Ironwood





MALAYSIA - Bahru Stainless Cold Rolling Mill





PHILIPPINES - Structural Steel Hotel





SINGAPORE - Pipe Rack Structure





VIETNAM - Structural Steel Mining Processing Plant





VIETNAM - Structural Steel Visiting Center





INDONESIA - PETROSEA Conveyor System





INDONESIA - CATERPILLAR Factory in Batam Island





VIETNAM CANON Factory





VIETNAM YAMAHA Manufacturing Plant





VIETNAM - POMINA Steel Factory





SINGAPORE - Wieland Metal Factory





VIETNAM - POSCO HYUNDAI Factory





VIETNAM - SHISEIDO Factory





VIETNAM - SSC DINH VU Factory





VIETNAM - PANASONIC Factory



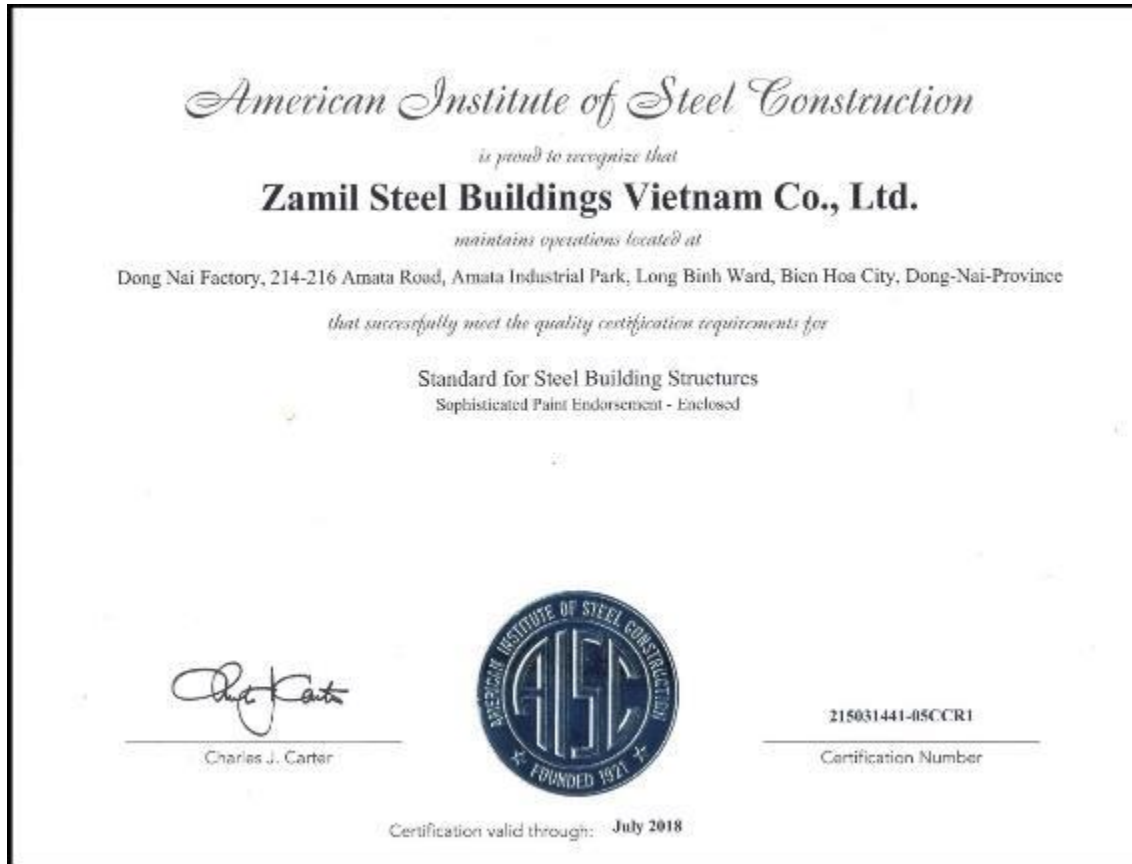


VIETNAM - SAMSUNG ELECTRONICS Factory





Certifications, Accreditations & Awards





Certifications, Accreditations & Awards





Certifications, Accreditations & Awards





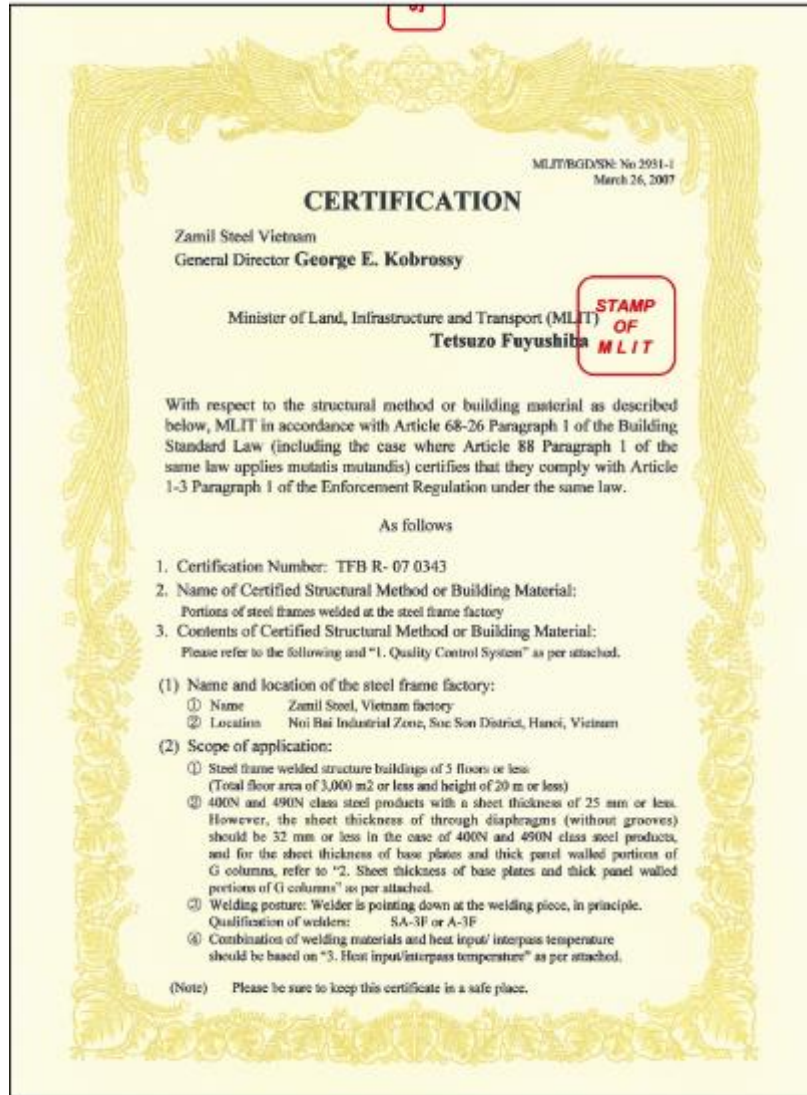
Certifications, Accreditations & Awards





Certifications, Accreditations & Awards





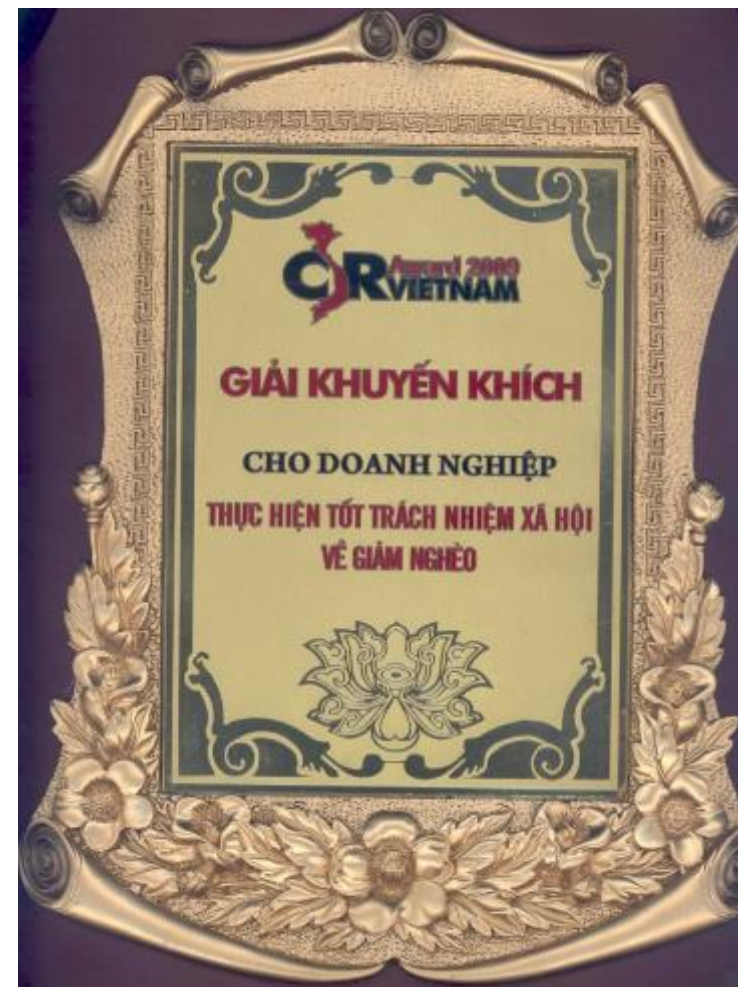


Certifications, Accreditations & Awards





Certifications, Accreditations & Awards





Corporate Vision

To be the world's most reliable and innovative manufacturer, service and solution provider in the steel building industry.

Corporate Mission

To supply high-quality steel building products, providing related services and solutions to a worldwide client base while utilizing innovative technologies within an environment of motivated employees, focused on continuous improvement, highest business standards, work ethics and corporate citizenship, leading to added value for our customers and sustained return on investment to our shareholders.



Contact Us

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total steel building solutions

Thank you for your attention !