

# Metalix Engineering

AN ISO 9001–2015 Certified company
Manufacturer Exporter of Piling Equipments
& Steel structure fabricator



Corporate office

65/2, Satyen Roy Road, Behala, Kolkata - 700034

Regd office

58/3 Rajendra Rajendra Banerjee Road, Kolkata - 700034





#### Commitment to Quality

METALIX ENGINEERING has well-equipped and organizational workshops to deliver the best Quality product within a minimum time frame. It has in-house chemical and physical test Laboratories as Well as a variety of highly-productive and state-of-the-art machinery, Including CNC Machine.

#### About US.

Founded in Kolkata in the year 1992, the METALIX ENGINEERING has established themselves as the benchmark in pre-fabricated Modular steel and metal buildings & Bridge Structural. We offer customized solutions for Commercial and non-commercial building structures.

#### The factors that have helped us in ensuring its sustainable growth are:

- Expertise in modern structural concept, analysis and design engineering
- Highly-skilled Professionals
- Stringent quality control and innovative research and development
- Relentless quest for product upgradation
- Well-equipped factories with ever-increasing production capacity
- Efficient Project Co-ordination Service
- Highly skilled Erection team with well-equipped construction machinery equipment





#### Equipment & Fabrication

SL. No.	Name of Equipment's	SL. No.	Name of Equipment's
01	Wielding Machine	01	Turret Drill
02	2 Shearing Machine 400 MT with 4mts, bed	02	Circular Saw Cutter
03	Gas Cutting Sets	03	Hand Shearing Machine
04	Wielding Machine (Rector type)	04	Mig Wielding Machine
05	Portable Drilling Machine magnetic base	05	Pillar Drilling Machine
06	Riveting Machine	06	Radial Drill
07	Spot Wielding Machine	07	Lathe 6 ft.



#### Pre engineered Building (PEB)

Structural engineering, a pre-engineered building (PEB) is designed by a PEB supplier or PEB manufacturer with a single design to be fabricated using various materials and methods to satisfy a wide range of structural and aesthetic design requirements.

This is contrasted with a building built to a design that was created specifically for that building. Within some geographic industry sectors pre-engineered buildings are also called pre-engineered metal buildings (PEMB) or, as is becoming increasingly common due to the reduced amount of pre-engineering involved in custom computer-aided designs, simply engineered metal buildings (EMB).





A box girder bridge, or box section bridge, is a bridge in which the main beams comprise girders in the shape of a hollow box.

The box girder normally comprises prestressed concrete, structural steel, or a composite of steel and reinforced concrete. The box is typically rectangular or trapezoidal in cross-section.

Box girder bridges are commonly used for highway flyovers and for modern elevated structures of light rail transport. Although the box girder bridge is normally a form of beam bridge, box girders may also be used on cable-stayed and other bridges.

# Bug Bridge Girder











# Cement & Steel Plant Structure

Structural steel is a category of steel used for making construction materials in a variety of shapes. Many structural steel shapes take the form of an elongated beam having a profile of a specific cross section. Structural steel shapes, sizes, chemical composition, mechanical properties such as strengths, storage practices, etc., are regulated by standards in most industrialized countries.

Most structural steel shapes, such as I-beams, have high second moments of area, which means they are very stiff in respect to their cross-sectional area and thus can support a high load without excessive sagging.

# Cement & Steel Plant Structure









# Bailey Bridge

A Bailey bridge is a type of portable, pre-fabricated, truss bridge. It was developed in 1940–1941 by the British for military use during the Second World War and saw extensive use by British, Canadian and American military engineering units.

A Bailey bridge has the advantages of requiring no special tools or heavy equipment to assemble. The wood and steel bridge elements were small and light enough to be carried in trucks and lifted into place by hand, without the use of a crane.

The bridges were strong enough to carry tanks. Bailey bridges continue to be used extensively in civil engineering construction projects and to provide temporary crossings for pedestrian and vehicle traffic.

# Bailey Bridge











A girder may be made of concrete or steel. Many shorter bridges, especially in rural areas where they may be exposed to water overtopping and corrosion, utilize concrete box girder.

The term "girder" is typically used to refer to a steel beam. In a beam or girder bridge, the beams themselves are the primary support for the deck, and are responsible for transferring the load down to the foundation.

Material type, shape, and weight all affect how much weight a beam can hold. Due to the properties of the second moment of area, the height of a girder is the most significant factor to affect its load capacity. Longer spans, more traffic, or wider spacing of the beams will all directly result in a deeper beam.

In truss and arch-style bridges, the girders are still the main support for the deck, but the load is transferred through the truss or arch to the foundation.

These designs allow bridges to span larger distances without requiring the depth of the beam to increase beyond what is practical. However, with the inclusion of a truss or arch the bridge is no longer a true girder bridge.

# Composite Bridge Girder







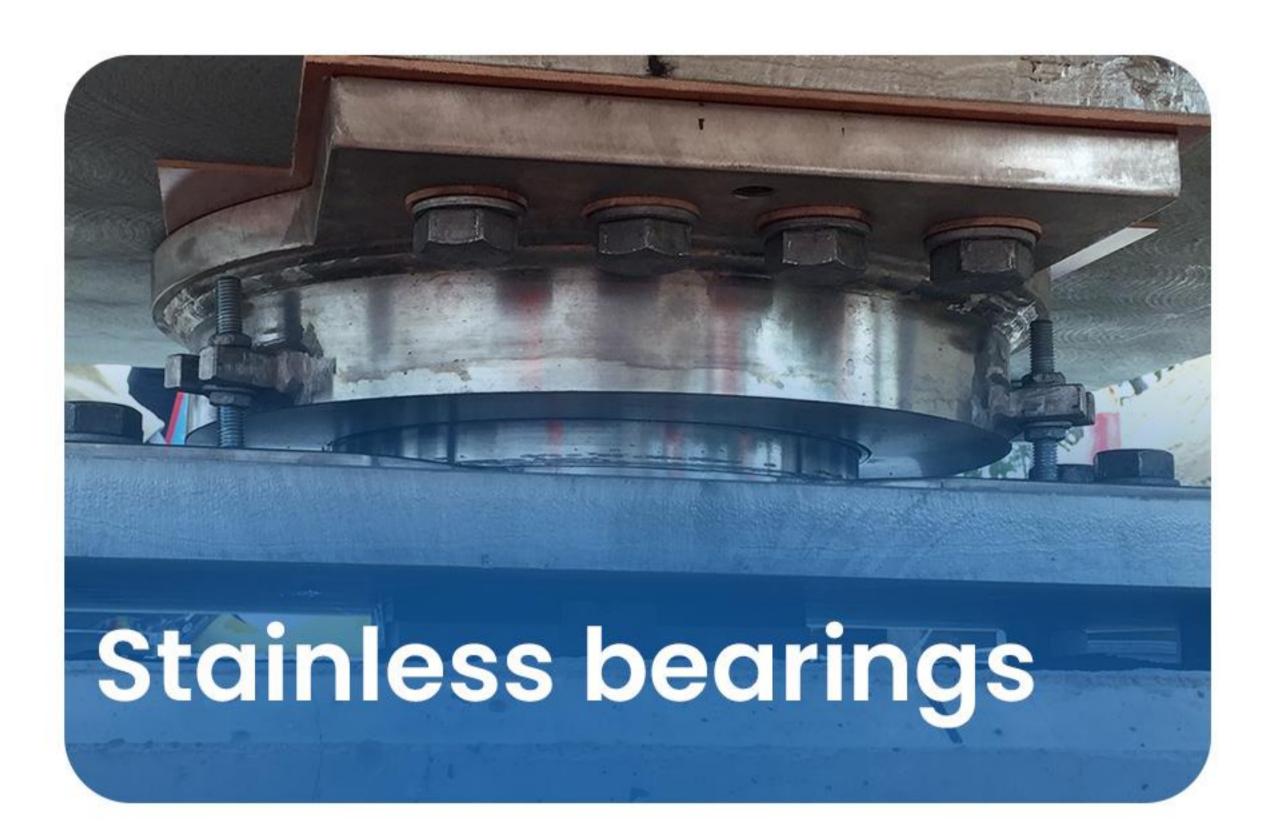
# Bridge Bearing

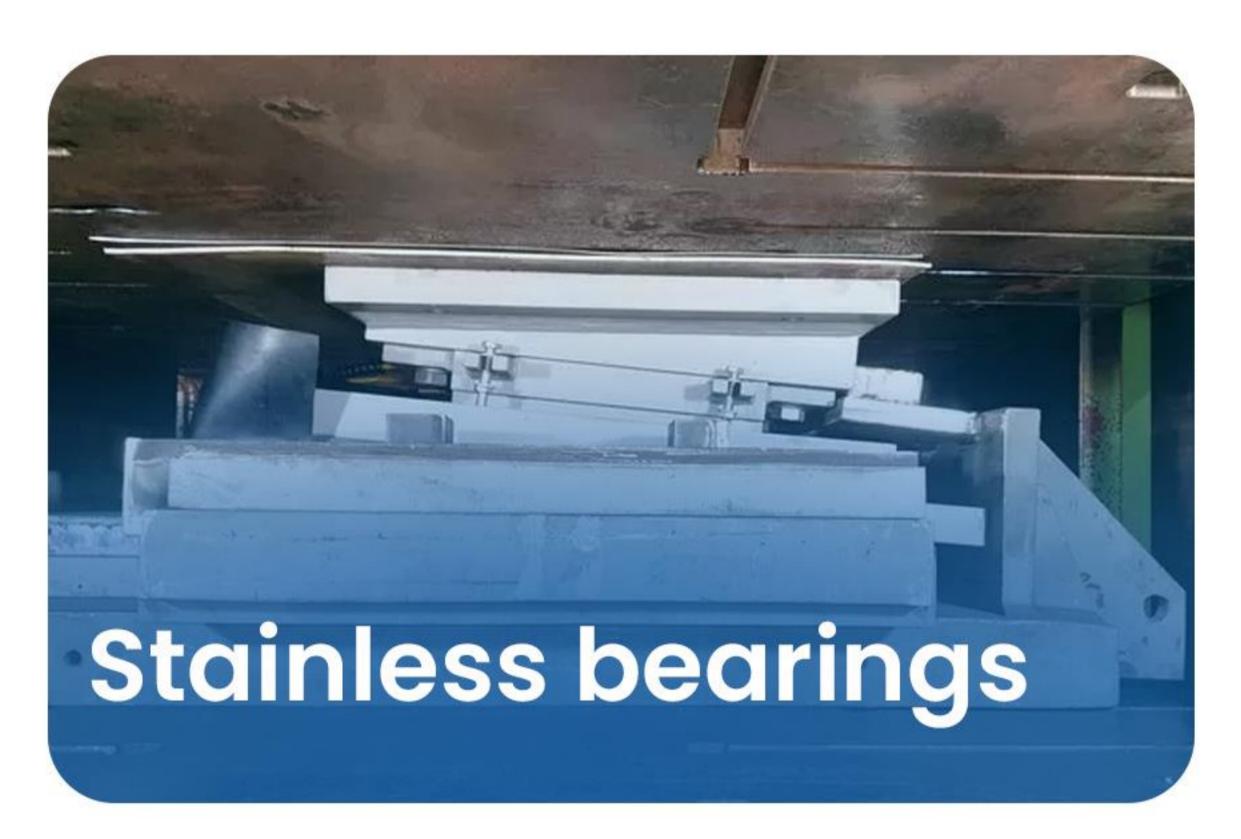
A bridge bearing is a component of a bridge which typically provides a resting surface between bridge piers and the bridge deck. The purpose of a bearing is to allow controlled movement and thereby reduce the stresses involved.

Possible causes of movement are thermal expansion and contraction, creep, shrinkage, or fatigue due to the properties of the material used for the bearing. External sources of movement include the settlement of the ground below, thermal expansion, and seismic activity.

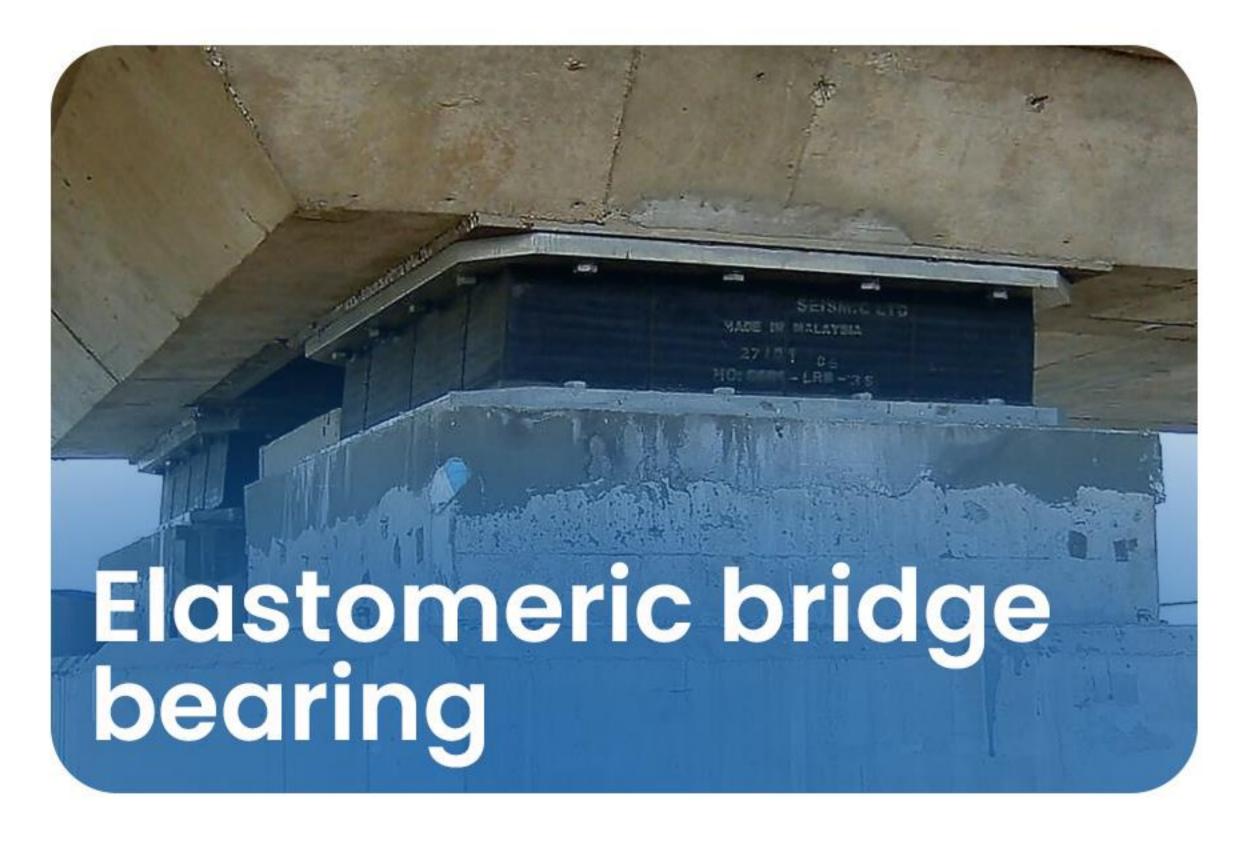
There are several different types of bridge bearings which are used depending on a number of different factors including the bridge span, loading conditions, and performance specifications. The oldest form of bridge bearing is simply two plates resting on top of each other.

A common form of modern bridge bearing is the elastomeric bridge bearing. Another type of bridge bearing is the mechanical bridge bearing. There are several types of mechanical bridge bearing, such as the pinned bearing, which in turn includes specific types such as the rocker bearing, and the roller bearing. Another type of mechanical bearing is the fixed bearing, which allows rotation, but not other forms of movement.









#### NHAI / RDSO / METRO / RVNL Projects Approved Products



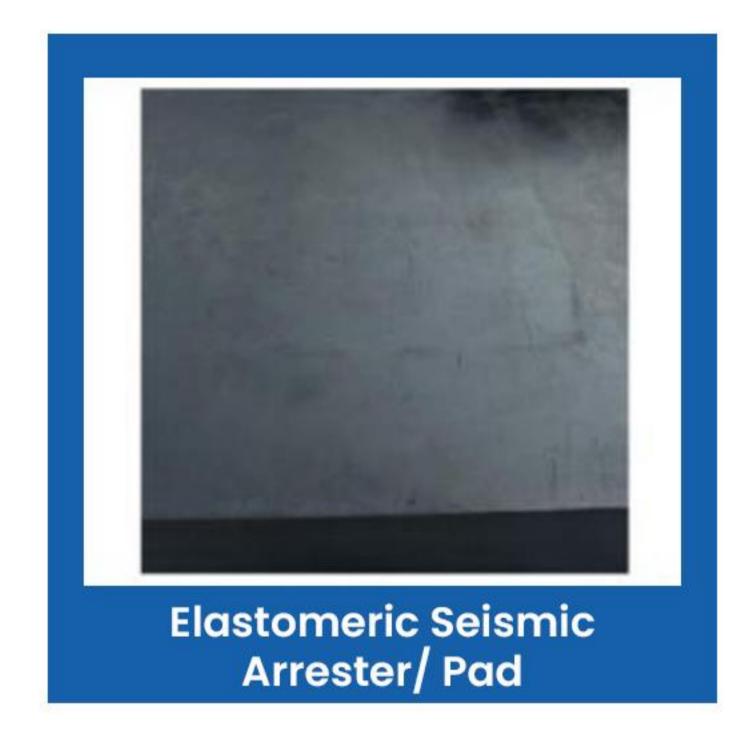
























## Bridge Nut Bolt

Custom Bolts & Fasteners for the Bridge Construction Bridge Cophnstruction needs fasteners it can rely on during heavy construction, in outdoor environments, and under other conditions that demand high-quality. Fasteners comprise a broad category of components that include nails, screws, and other hardware that connects separate parts and elements of the bridge construction.

We are your one-stop source for non-standard fasteners cut to length and threaded to your exact application specifications. Our extensive inventory includes blanks in many grades of steel. We carry Hex Bolts up to 4" / M100 in diameter and 48" long, as well as Heavy Hex Nuts up to 4" / M100 in diameter.

# Types of Fasteners For Bridge Construction

- a) Headcote Screws. b) Nuts And Bolts. c) Square Drive Deck Screws.
- d) Square Nut. e) Anchor Bolts. f) Rivets etc.

# Bridge Nut Bolt











# Job Experience

SL.No.	Project Name	Job site
1	Shade & Crane Girder at Liluah Eastern Railway	Liluah, Howrah
2	PEPSI Bottling Plant Project(Factory Shade)	Garia, Mahamayatala
3	Steel Bridge Girder Fabrication for Manipur PWD	Kangla, Manipur
4	Steel Bridge Girder Fabrication for Manipur PWD	Mongjam, Manipur
5	Steel Bridge Girder Fabrication for Manipur PWD	IREIMA, Manipur
6	Steel Bridge Girder Fabrication for Manipur PWD	Phijam Mapa, Manipur
7	Steel Bridge Girder Fabrication for Santragachi	Santragachi, Howrah
8	Steel Bridge Girder Fabrication for Arunachal	East Siang, Arunachal
9	Steel Bridge Girder Fabrication for Meghalaya	William Nagar, Meghalaya
10	Steel Bridge Girder Fabrication for Jharkhand	Latehar, Jharkhand
11	Steel Bridge Girder Fabrication for Nepal	Itahari, Nepal
12	Steel Bridge Girder Fabrication for Arunachal	Pasighat, Arunachal
13	Steel Bridge Girder Fabrication for Andaman	Port Blair, Andaman
14	Laxmi Motors Showroom & Workshop	Silchar, Assam

# Job Experience

SL.No.	Project Name	Job site
15.	Nepali Sahitya Parishad Bhawan	Gangtok, Sikkim
16	Multi-Deck steel framing structure for community hall	Sikkim, Gangtok
17	Slag Crushing & Coal Storage Shed	Raipur, Chattisgarh
18	Steel Structure for Meditation Room	Siliguri, West Bengal
19	Exide Battery Factory Shade	Birshibpur, Howrah
20	Skipper Tower Testing Palnt	Baghnan, Howrah
21	Maruti Showroom cum Workshop	Bhubaneswar, Orissa
22	Boiler House Shed at HEC	Ranchi, Jharkhand.
23	Multi-Deck steel framing structure for community hall	Sikkim, Gangtok
24	Slag Crushing & Coal Storage Shed	Raipur, Chattisgarh
25	Steel Structure for Meditation Room	Siliguri, West Bengal
26	Steel Structure for Warehouse	Guwahati, Assam
27	See food processing unit site	Badra, Orissa

















#### Certificate of Registration

This is to certify that The Quality Management System of

#### METALIX ENGINEERING

Ashuti Road, Mahesh Tala, LP-20/37/16/2, Kolkata-700141, West Bengal, India

has been assessed and found to be in accordance with the requirements of the Quality Management System standard

ISO 9001:2015

for the following scope:

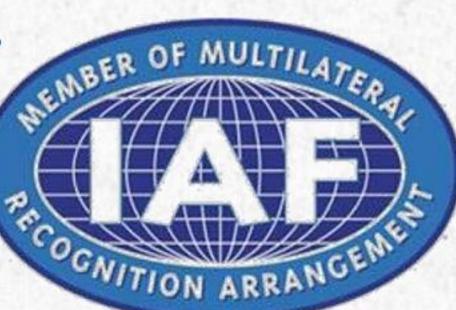
Manufacturer & Exporter of Pilling Equipment (DMC & Hydraulic Rotary Machine), Steel Structure Fabrication for Bridge Girder, Peb Shade and Various Kind of Heavy Steel Structure.

CERTIFICATE No. : MET240288QIN

ISSUED DATE : 25/01/2024 1ST SURVEILLANCE DUE : 24/12/2024 EXPIRY DATE : 24/01/2027 2ND SURVEILLANCE DUE : 24/12/2025

level dut

**Managing Director** 







CB-MS-4022
Accredited By United Accreditation Foundation (UAF)
400 North Center DR, STE 202 Norfolk, VA 23502,
United States of America (USA)

For BMG Conformity Assessment Services Pvt. Ltd.

C-338, 2nd Floor, Sector-10, Noida-201301, G.B. Nagar, (U.P.) India

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#### Manipur





#### Assam





#### Arunachal Pradesh





### Meghalaya





#### Mizoram





#### Nagaland





#### Sikkim





## Tripura







# 10 Years of experience





www.pilingmachineindia.com www.metalixengineering.com





# 10 Years of experience











#### 10 Years of experience











# 10 Years of experience







































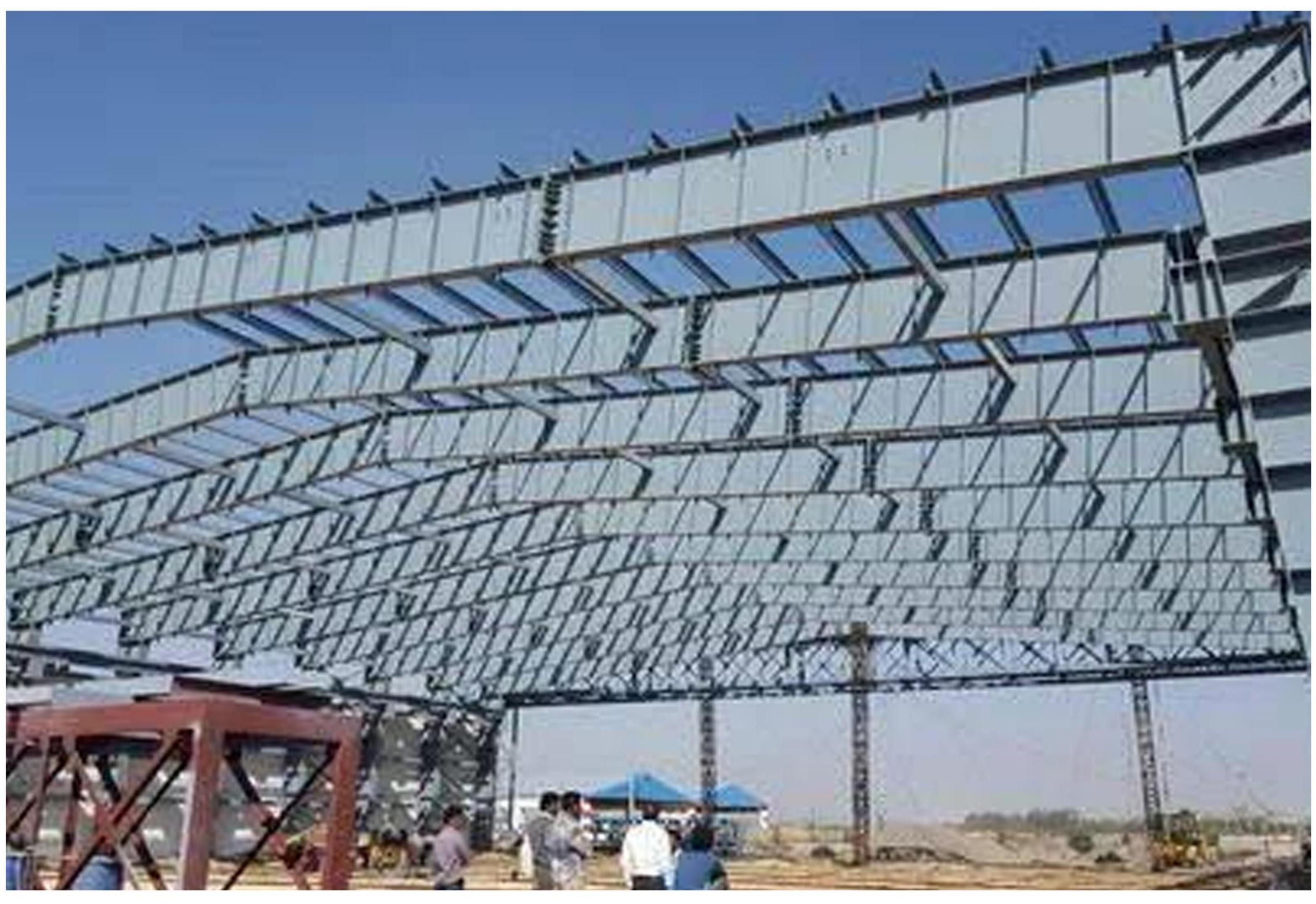
































































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