



HIBUILD

STEEL BUILDING SYSTEMS INTERNATIONAL

(Part Of Blue Square Group of Companies)

Pre-Qualification



INTRODUCTION

We are proud to introduce ourselves as a premier provider of design, manufacturing, and installation services for Pre-Engineered Steel Buildings and Hot Rolled Steel Structures. Operating from the bustling industrial hub of Umm Al Quwain our company, part of the Blue Square Group of Companies, was established in 2004 to address the growing needs of the construction industry across the GCC and Africa.

Our cutting-edge infrastructure supports impressive production capacities, including:

- **Pre-Engineered Buildings:** 900 metric tons per month
- **Hot Rolled Steel Structures:** 400 metric tons per month

Our design capabilities are enhanced by a proficient team of designers and drafters who expertly manage all stages from conceptualization to pre-fabrication. Utilizing advanced software such as STAAD, TEKLA, IDEASTATICA and AutoCAD, our team creates precise 2D and 3D models that adhere to both American and British standards.

Commitment to Quality (ISO 9001, ISO 14001, and ISO 45001 Certified):

At the heart of our operations is a commitment to sustained growth through Total Quality Management (TQM). We embed quality into every aspect of our business, striving for continuous improvement by setting goals that exceed basic legal requirements.

- **ISO 9001:2015:** We consistently aim to exceed customer expectations by delivering high-quality, cost-effective products and services on time, in full compliance with relevant standards and specifications.
- **ISO 14001:2015:** We are dedicated to environmental protection, minimizing pollution, and adopting sustainable manufacturing practices that conserve resources.
- **ISO 45001:2018:** Our unwavering focus on health and safety drives us to implement safe manufacturing procedures and continuously monitor and mitigate occupational hazards to prevent workplace injuries and illnesses.

In addition to our core services, our group includes sister companies such as **Four Square Steel Construction Contracting LLC**, which is dedicated to all hot rolled and other steel structures, and **Red Blue Flame Fire Safety and Security Systems**, specializing in fire fighting and fire alarm installations.

We trust that this brief overview provides valuable insights into our organization and its operations. We look forward to the opportunity to collaborate with your esteemed company and to building a successful business relationship.

VISION:

To rise as a premier leader in the MENA Region for manufacturing Pre-Engineered and Hot Rolled Buildings, and for supplying.

MISSION:

To deliver exceptional Pre-Engineered and Hot Rolled building solutions that precisely align with our customers' specifications and expectations. Our goal is to be the go-to provider for all Pre-Engineered and Hot Rolled building needs, offering a full spectrum of services, from design and production to supply and installation of steel structures.

PLANT PRODUCTION CAPACITY AND FACTORY AREA:

Our company operates on a 60,000 square foot facility, with the capacity to manufacture:

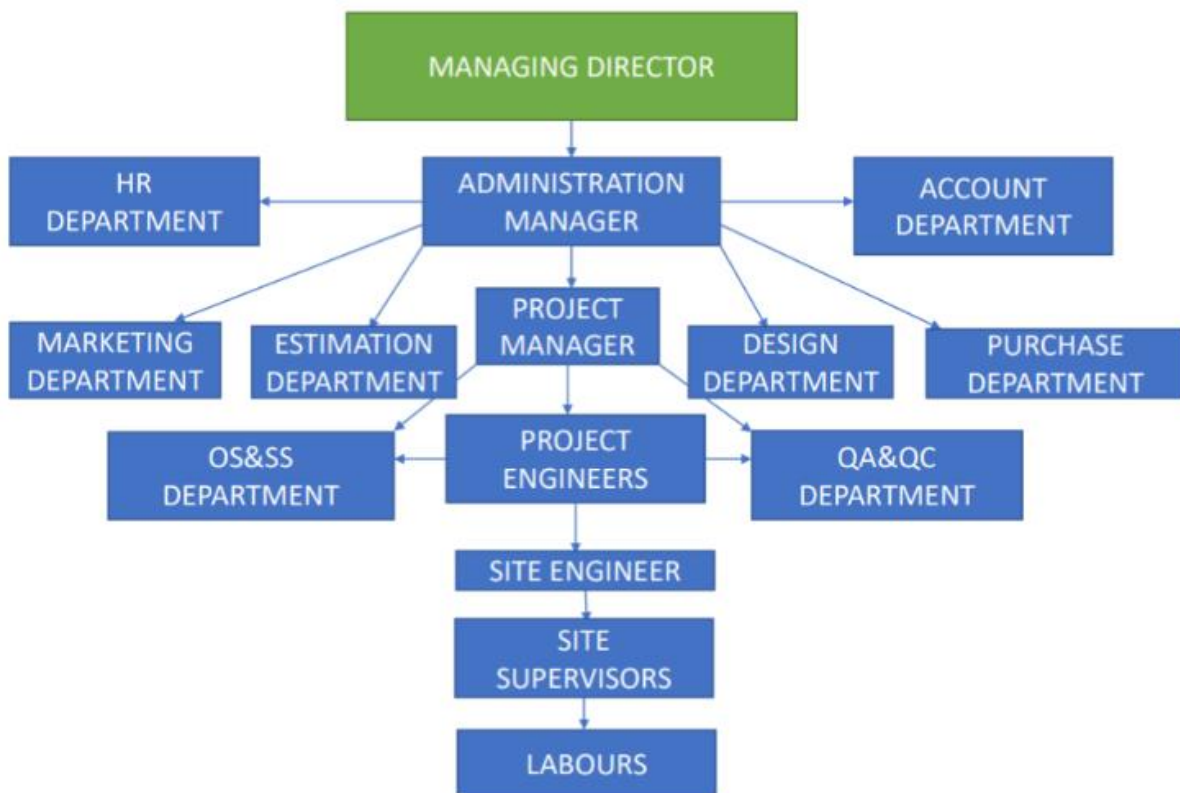
- a) Pre-Engineered Buildings: 900 tons per month
- b) Hot Rolled Steel Structures: 400 tons per month

EMPLOYEE CAPACITY

Having 85 above employees actively working.

WHY TO CHOOSE HIBUILD STEEL BUILDING SYSTEMS ??

- ❖ Reliable After Sale Service.
- ❖ Comprehensive And Detailed Engineering Output.
- ❖ Attention To Detail.
- ❖ Over 25 Years Of Experience.
- ❖ Low Maintenance.
- ❖ Faster Installation.
- ❖ Value Engineered Solutions.
- ❖ Stringent Quality Systems.
- ❖ Quality Products Designed Using International Standard.
- ❖ Continuous Products Improvement.
- ❖ Prompt Customer Services.



PRODUCTS

Hibuild steel offers comprehensive services that include designing, procuring, manufacturing, supplying, and erecting buildings and structures featuring the following products.

PRODUCT	SPECIFICATIONS
Built up sections (I beam,T beam etc) Grade : ASTM A572 Grade 345	Web Thickness: 5mm min, 25mm max Flange Thickness: 6mm min, 80mm max Flange width: min 123 mm,max 750 mm Web depth : 245 mm min,max 1500 mm
Hot rolled I sections C sections ,angles, tubes	Any size Grade : S275JR OR S355 JR
Rod bracing ASTM A663M grade 75(515) or equivalent	ASTMA 36 Grade, 16mm diameter, 20mm diameter, 24mm diameter, 30mm diameter
Connection Bolts	ASTM A325M, Hot Dipped Galvanized Min 12mm dia, maximum 50mm dia
Anchor bolts	L shape ASTM Grade 4.6 ,grade 8.8 Straight type grade 4.6,grade 8.8
Sag rods	ASTM F568M Property class 4.6, 12mm dia & 16mm dia
Base angle, edge angle, gable angle	Made from pre galvanized coil of 1.5 mm,2 mm,2.5mm,3mm thick
Eave gutter	Roof panel same thickness
Valley gutter	Made from 1mm aluminum sheet
Profiled steel/aluminium Sandwich panel	Top skin 45-250 in 0.4mm ,0.5 mm,0.7 mm aluminium or GI. Core 50mm,75mm, 100mm PU or PIR Bottom skin : 0.4mm,0.5 mm ,0.7mm, GI OR Aluminium sheet
Single skin steel/aluminium panel	45-250 mm profile 0.4mm,0.5mm,0.7mm aluminium or GI

CONSTRUCTION TYPES

Hibuild steel specializes in designing and supplying buildings using the following frame profiles:

- Clear Span
- Multi Span
- Multi Gable
- Multi Span Multi Gable
- Single Slope
- C-Shaped Car Canopy
- Y-Shaped Car Canopy
- T-Shaped Car Canopy

Our Clear Span buildings range from 10m to 100m in width, with building heights varying from 4m to 50m. The roof slope options range from 0.4:10 to 3:10. We can design buildings to accommodate top-running cranes of any capacity, underhung cranes, and monorails based on customer requirements.

Additionally, our designs can include mezzanine levels with various decking options such as permanent concrete decks, composite or hollow core slabs, checkered plates, gratings, or plywood decking. We also offer custom-designed hangar buildings of any span and height, equipped with any type of door as required.

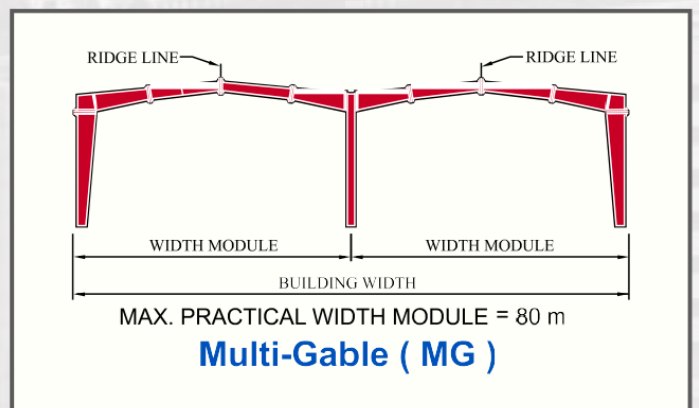
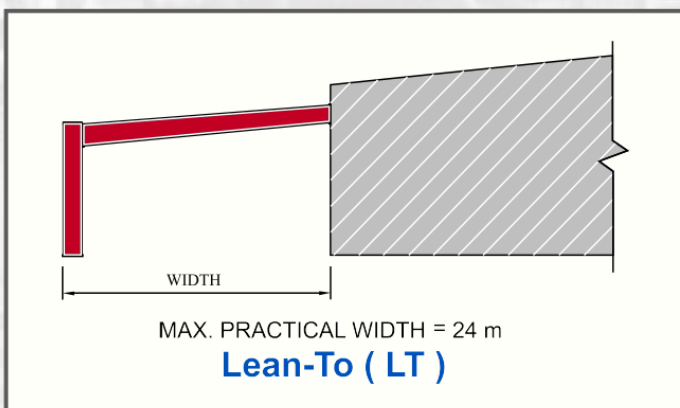
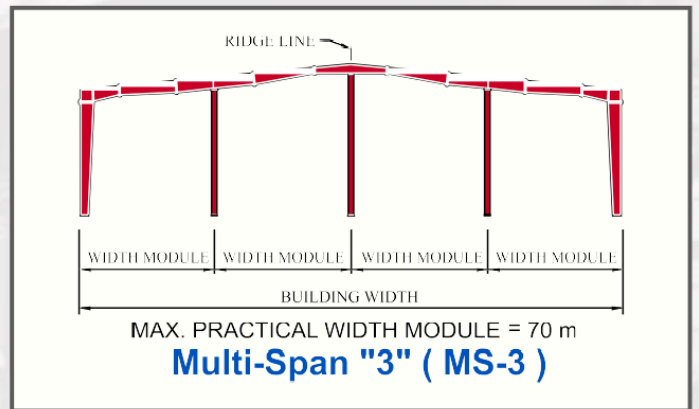
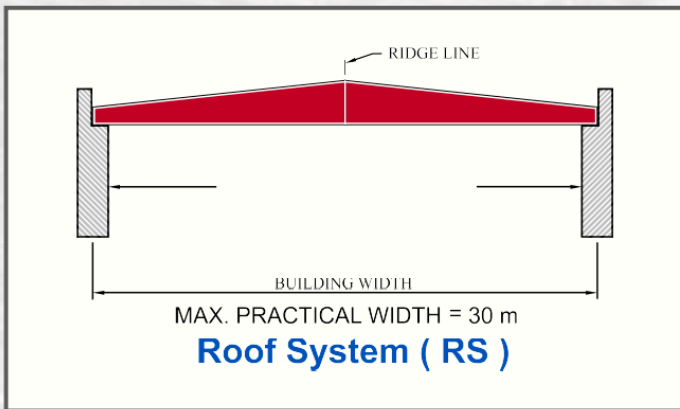
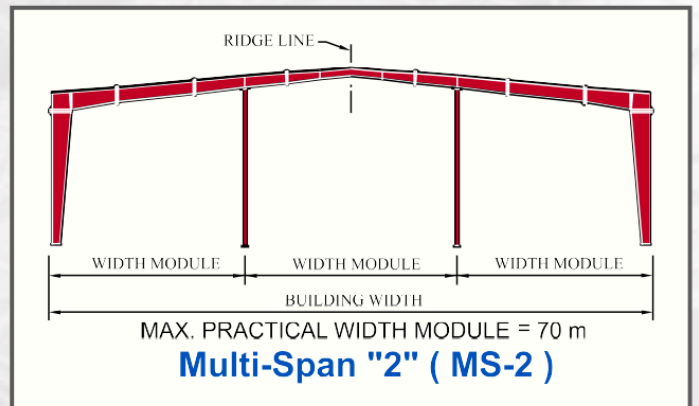
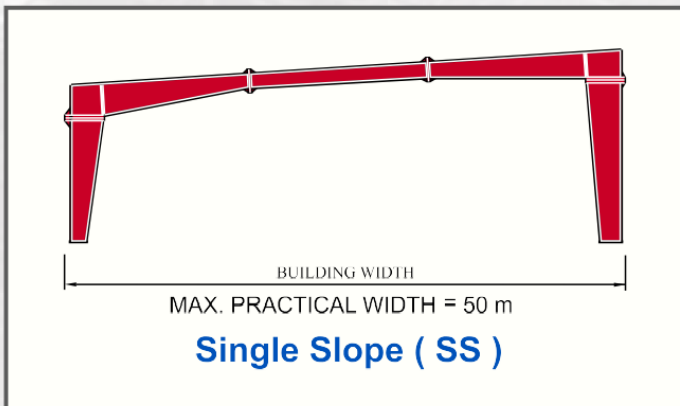
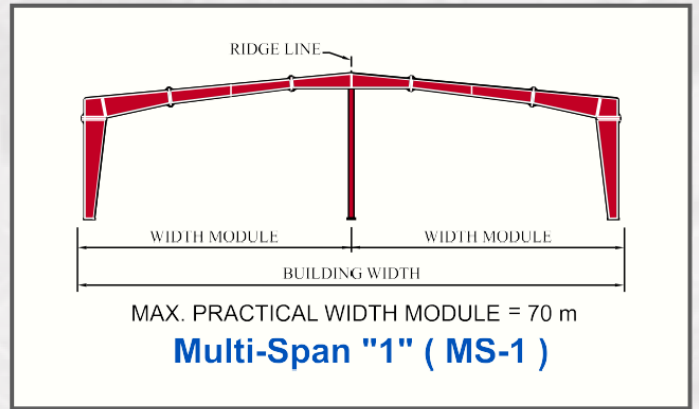
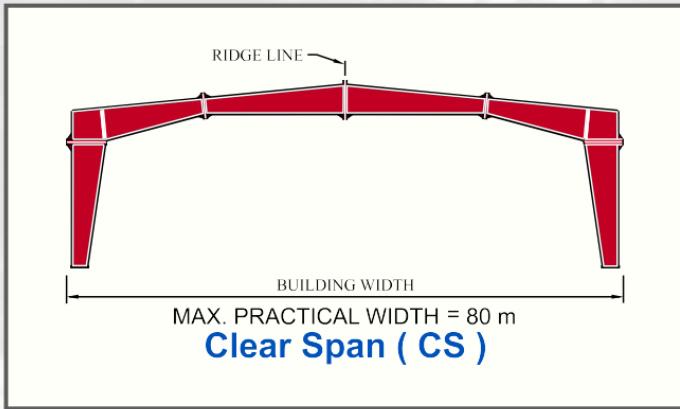
Hibuild Steel provides comprehensive solutions for designing, manufacturing, and supplying a wide range of buildings and structures across various construction sectors, including:

- Warehouses
- Logistics Centers
- Factories
- Cold Storage Facilities
- Mill Buildings
- Shopping Centers
- Office Buildings
- Schools
- Recreation Centers and Swimming Pools
- Car Parking Structures
- Food Processing Plants
- Process Structures
- Parking Shelters
- Aircraft Hangar Structures



Our versatile offerings ensure we meet the unique needs of each project with precision and expertise

The most common Framing systems are shown below:



DEPARTMENTS

1.Sales Department

Hibuild Steel is headquartered in Umm Al Quwain, with additional branches in Dubai, reflecting our extensive network across the Emirates. We manage projects throughout the region, ensuring that each quotation received at our sales offices is meticulously processed and presented with precision. Our detailed proposals include comprehensive offers and precise drawings, guaranteeing optimal weight and accurate pricing. From the initial stages of quoting to the final handover of projects, our sales department is committed to providing exceptional support to our clients. Furthermore, Hibuild Steel is a prominent supplier of buildings for export, with a strong focus on the MENA region, delivering quality structures to international markets.

2. Estimation And Engineering Department

At Hibuild steel, our team excels in estimating, design, and detailing with a high level of expertise. Each quote is meticulously analyzed to ensure our proposals align precisely with client requirements. Once a project is approved, we compile a detailed approval package that includes design calculations and drawings, all in accordance with relevant codes and specifications. For complex projects, we use Staad Pro to perform 3D analysis, ensuring accurate and reliable outcomes. After approval, we generate detailed phase plans and provide clients with erection drawings and a comprehensive bill of materials. Each estimate and design is created by a qualified engineer, reviewed by a senior engineer, and ultimately approved by the department head. We maintain a detailed checklist for every job

3. Design and Detailing Softwares

For our design processes, we utilize STAAD PRO and IDEASTATICA to ensure precision and efficiency in structural analysis and design. For detailing, we rely on TEKLA and AUTOCAD to produce accurate and detailed drawings, enhancing the overall quality and clarity of our projects.

4. Quality Control Department

Our quality control department implements an extensive array of measures to ensure excellence at every stage of the PEB manufacturing process. Here's a detailed overview:

- **Raw Material Inspection:** We conduct thorough inspections of all incoming raw materials, including steel and other structural components, to ensure they meet required specifications and standards. This includes verifying chemical compositions and mechanical properties.

Digital ultrasonic flaw detector



Using a Digital Ultrasonic Flaw Detector in Pre-Engineered Building (PEB) manufacturing can significantly enhance the quality control process by ensuring the integrity of the structural components. Here's how you can utilize this equipment in your PEB manufacturing process:

Applications in PEB Manufacturing

1. Weld Inspection:

Purpose: Ensuring the quality and strength of welds is crucial in PEB structures, as they often bear significant loads.

How: The ultrasonic flaw detector can be used to inspect welded joints for internal defects such as cracks, incomplete fusion, or porosity. The device can detect flaws that are not visible on the surface, ensuring that the welds meet the required standards.

2. Raw Material Inspection:

Purpose: Before fabricating steel components, it's essential to check the raw materials (such as steel plates and beams) for internal defects.

How: Ultrasonic testing can detect laminations, inclusions, and other internal defects in steel plates and beams, preventing defective materials from being used in the construction process.

3. Inspection of Fabricated Components:

Purpose: After fabrication, components such as columns, rafters, and beams should be inspected for internal flaws.

How: Use the ultrasonic flaw detector to inspect these components for any internal cracks, voids, or discontinuities that could compromise their strength and durability.

4. Thickness Measurement:

Purpose: Ensuring uniform thickness in steel components is critical for structural integrity.

How: The ultrasonic flaw detector can also function as a thickness gauge, measuring the thickness of steel components to ensure they meet design specifications.

5. Corrosion Detection:

Purpose: Over time, corrosion can reduce the strength of steel components. Detecting corrosion early is essential for maintaining the safety and longevity of PEB structures.

How: The detector can identify areas of corrosion or thinning in steel components, even in hard-to-reach areas, allowing for timely maintenance or replacement.

6. Quality Assurance Documentation:

Purpose: Documenting the quality of each component is essential for traceability and compliance with industry standards.

How: The digital ultrasonic flaw detector can store inspection data, which can be used to generate reports that document the quality of the welds and materials. This documentation is essential for quality assurance and can be provided to clients as part of the project handover.



Testing methods used for welding

Welding Procedures: We follow stringent welding procedures and ensure that welding activities are carried out by certified welders. Detailed welding procedure specifications (WPS) and procedure qualification records (PQR) are maintained and followed.

Our methodology in the welding process, particularly for Shielded Metal Arc Welding (SMAW), we follow the steps below to create a detailed and comprehensive Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR). These documents are included in our quality control documentation.

Our Step-by-Step Method for WPS

1. Base Material Identification

Material Type: Specify the material grades and their corresponding standards (e.g., ASTM, ASME).

- **Thickness Range:** Include the allowable thickness range for the welding procedure.

2. Welding Process

Process Description: Clearly state that the welding process used is SMAW.

Electrode Type: Specify the type and classification of the electrode (e.g., E7018).

Polarity and Current: Detail the type of current (AC or DC) and the electrode polarity.

3. Joint Design

Joint Configuration: Provide drawings or diagrams of the joint types, such as butt, fillet, or groove joints.

Weld Details: Specify dimensions such as root gap, bevel angle, and joint clearance.

4. Position of Welding

Welding Position: Identify the allowed positions for welding, such as 1G (flat), 2G (horizontal), 3G (vertical), and 4G (overhead).

5. filler Material

Electrode Specification: List the specific electrodes to be used, including diameter and classification.

Storage Conditions: Describe the storage requirements to prevent moisture absorption.

6. Welding Parameters

Amperage and Voltage: Provide a range for the amperage and voltage settings.

Travel Speed: Suggest the optimal travel speed for the welder.

Heat Input: Calculate and document the acceptable heat input range to ensure weld quality.

7. Preheat and Interpass Temperature

Preheat Requirements: Include any necessary preheating instructions based on material thickness.

Interpass Temperature: Specify the maximum interpass temperature to avoid defects like cracking.

8. Welding Technique

Bead Technique: State whether a stringer or weave bead should be used.

Multiple Passes: Indicate the required number of passes for the weld.

Cleaning Between Passes: Describe the necessary cleaning method between passes (e.g., wire brushing, grinding).

9. Post-Weld Heat Treatment (PWHT)

PWHT Requirements: If applicable, detail the temperature and duration for any post-weld heat treatment.

10. Inspection and Testing

Visual Inspection: Describe the criteria for visual inspection, including acceptance standards for defects.

NDT Methods: Specify the non-destructive testing (NDT) methods to be used, such as ultrasonic or radiographic testing.

Destructive Testing: Include procedures for tensile, bend, and impact testing if required.

11. Acceptance Criteria

Code Compliance: Reference the applicable welding codes and standards, such as ASME Section IX, AWS D1.1, or others relevant to your work.

Defect Limits: Define the limits for acceptable defects, like porosity, undercut, or slag inclusions.

12. WPS Approval

Approval Process: Outline the approval process, including signatures from the welding engineer and any necessary third-party inspectors.

Revision History: Maintain a log of revisions with dates and changes made.

Step-by-Step Method for PQR

1. Test Information

Test Date and Location: Document when and where the procedure qualification test was conducted.

Welding Process: Reiterate that the process tested is SMAW.

2. Base Material Used

Material Specification: Detail the material type, grade, and thickness used for the test.

Joint Configuration: Provide information on the joint type and preparation used during the test.

3. Filler Material

Electrode Type: Specify the electrode classification and size used.

Electrode Manufacturer: Include the manufacturer's details if required by the customer.

4. Welding Parameters

Actual Amperage and Voltage: Record the exact amperage and voltage used during the test.

Travel Speed: Document the travel speed employed during the welding.

Preheat and Interpass Temperature: Record the actual temperatures measured during the test.

5. Test Results

Visual Inspection Results: Include any visual inspection results and notes on weld appearance.

Destructive Test Results: Provide the results from tensile, bend, and impact tests, with detailed measurements and outcomes.

NDT Results: Include any non-destructive testing outcomes, like radiographic film interpretations.

6. Acceptance Criteria

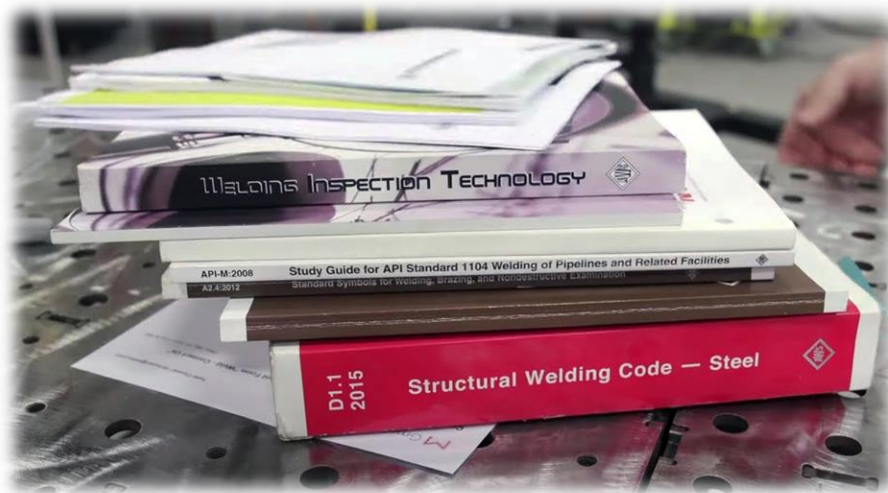
Code Compliance: Confirm that the weld meets the acceptance criteria of the applicable codes and standards.

7. PQR Approval

Approval Signatures: Ensure the PQR is signed by a qualified welding inspector, and if required, by a third-party authority.

Revision Log: Keep a record of any revisions to the PQR document.

Welding codes which we incorporate our welding procedure



AWS D1.1 Structural Welding Code – Steel: This is one of the most widely used codes for creating WPS and PQR documents.

ASME Section IX – Welding, Brazing, and Fusing Qualifications: Provides comprehensive guidelines for qualifying welding procedures

ISO 15614-1 – Specification and Qualification of Welding Procedures for Metallic Materials: Another key reference that can be used depending on your customers' requirements.

By following these steps, our WPS and PQR documents will be clear, thorough, and tailored to meet the quality expectations of our customers' QC terms

Various welding tests carried out by our QC Team

1. Visual Inspection

Surface Condition: Examine the weld area for surface defects like cracks, porosity, undercut, or spatter.

Weld Profile: Check the weld's shape and size against the specified weld profile (e.g., fillet, groove). Look for proper bead width, reinforcement, and smooth transitions.

Discoloration: Inspect for any signs of overheating or oxidation, indicated by discoloration around the weld.

2. Dimensional Checks

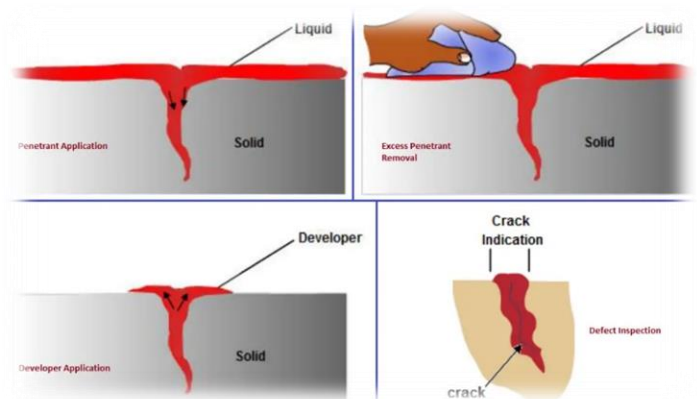
Weld Size Measurement: Use a weld gauge to measure the size of the weld (leg length, throat thickness) and ensure it meets the design specifications.

Joint Alignment: Check the alignment of the weld joint before and after welding. Misalignment can cause stress concentrations.

Root Penetration: Inspect the root of the weld (especially in butt welds) to ensure there is adequate penetration.

3. Non-Destructive Testing (NDT) Methods

Dye Penetrant Testing (DPT): Apply a dye penetrant to the surface of the weld, wipe off the excess, and then apply a developer. Cracks and surface defects will be highlighted as the dye bleeds out of them.



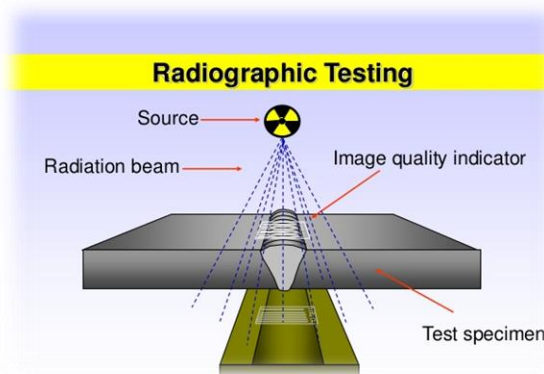
Magnetic Particle Inspection (MPI): For ferromagnetic materials, apply magnetic particles to the weld area. Surface and near-surface discontinuities will cause the particles to gather, making them visible.



Ultrasonic Testing (UT): Use an ultrasonic probe to inspect the internal structure of the weld. This method can detect subsurface defects like porosity, lack of fusion, or inclusions.



Radiographic Testing (RT): Use X-rays or gamma rays to capture an image of the weld's internal structure. This method is effective for detecting internal flaws like voids or inclusions.



4. Destructive Testing (if applicable)

Macro Etching: Cut a sample of the weld and polish it. Then etch it with acid to reveal the weld's internal structure for examination under a microscope.

Bend Tests: Perform bend tests (face bend, root bend, side bend) on weld samples to evaluate the ductility and soundness of the weld.



5. Documentation

Record Findings: Document all inspection results, including any defects found, their locations, and the steps taken to rectify them. Photos and diagrams can be very helpful.

Ensure Traceability: Keep records of the welders, materials, and procedures used for each weld to maintain traceability.

6. Follow-Up

Corrective Actions: If any defects are found, ensure that proper corrective actions are taken, and the weld is re-inspected. We conduct weld tests according to client requirement, otherwise we will do the standard testing only.

Final Inspection: Conduct a final inspection after any repairs to ensure that the weld meets all required standards.

Sand Blasting testing:

For testing procedures related to sandblasting and surface preparation, including porosity measurement and surface profile inspection, Elcometer offers several specialized instruments. Here are some key Elcometer products that we are commonly used for these purposes:

Elcometer 224 Digital Surface Profile Gauge



Purpose: This tool measures the surface profile (or roughness) after sandblasting. Ensuring the correct surface profile is essential for proper coating adhesion.

Key Features:

Fast and Accurate: Provides immediate and precise readings of surface roughness.

Memory and Data Logging: Stores up to 150,000 readings in up to 2,500 batches.

Durable: Built to withstand tough environments, suitable for use in the field.

Salinity test :

For testing the salinity of abrasives, we use a specific tool designed for this purpose from brand elcometer:

Elcometer 130 SSP Soluble Salt Profiler



Purpose: The Elcometer 130 SSP is specifically designed to measure the level of soluble salts on surfaces, including abrasive media used in sandblasting. This device ensures that the abrasive material does not contribute to surface contamination that could affect coating adhesion.

Key Features:

Direct Reading: Provides a direct measurement of salt contamination on abrasives in $\mu\text{g}/\text{cm}^2$.

Fast Testing: Capable of quickly analyzing the salinity level, which is critical for ensuring the cleanliness of abrasives before use.

Easy to Use: Simple operation with a clear display, making it user-friendly for field operators.

Monitoring environmental conditions for surface preparation

The PosiTector DPM (Dew Point Meter), particularly the DPM1-E model, is a crucial tool in Pre-Engineered Building (PEB) manufacturing, especially when it comes to surface preparation and coating processes. Here's how it is used:



Purpose and Use in PEB Manufacturing:

1. Monitoring Environmental Conditions for Surface Preparation:

Dew Point Measurement: The PosiTector DPM measures the dew point, which is the temperature at which moisture in the air will condense on a surface. In PEB manufacturing, this is critical because if the surface temperature falls below the dew point during or after blasting and before coating, moisture can condense on the steel surface, leading to flash rusting or contamination that can affect coating adhesion.

Surface Temperature: It also measures the temperature of the steel surface to ensure it is above the dew point temperature. This ensures that the surface is dry and free from condensation before applying any coating, thereby preventing defects in the coating process.

2. Humidity and Air Temperature Monitoring:

Relative Humidity (RH): High humidity levels can increase the risk of condensation on surfaces. The PosiTector DPM monitors RH, allowing workers to determine if conditions are suitable for blasting and coating operations.

Air Temperature: Ensuring that the air temperature is within acceptable limits for coating application is essential. Coating manufacturers typically specify a range of temperatures within which their products can be applied effectively.

3. Ensuring Coating Integrity:

By monitoring dew point, surface temperature, air temperature, and humidity, the PosiTector DPM helps ensure that the coating is applied under optimal conditions, preventing common issues such as blistering, poor adhesion, and premature coating failure.

It also assists in complying with industry standards and specifications, which often require documentation of environmental conditions during coating application.

Key Benefits in PEB Manufacturing:

Quality Assurance: Ensures that the coating process is carried out under the right environmental conditions, leading to better quality and longer-lasting coatings.

Preventing Rework: By avoiding conditions that could lead to coating defects, it reduces the need for costly rework and repairs.

Compliance: Helps meet industry standards and client requirements for documentation of environmental conditions during critical manufacturing steps.

Testing methods for painting:

The PosiTector 6000-FS1 is a coating thickness gauge specifically designed to measure the thickness of non-magnetic coatings on ferrous (steel) substrates. In the context of Pre-Engineered Building (PEB) manufacturing, this device plays a crucial role in ensuring the quality and durability of coated steel components. Here's how it is used:



Purpose and Use in PEB Manufacturing:

1. Measuring Coating Thickness:

Quality Control: The PosiTector 6000-FS1 is used to measure the thickness of protective coatings, such as paint or galvanizing, applied to steel components in PEBs. Ensuring that the coating is applied at the correct thickness is essential for providing adequate protection against corrosion and wear.

Specification Compliance: Coating manufacturers and industry standards often specify a required thickness range for coatings. This device helps verify that the applied coating meets these specifications, ensuring compliance with client and regulatory requirements.

2. Ensuring Uniformity of Coating:

Consistent Protection: The PosiTector 6000-FS1 allows for spot checks across different areas of a steel component to ensure that the coating is uniformly applied. This uniformity is critical for consistent protection across the entire surface, preventing weak spots where corrosion could start.

Adjusting Coating Application: If the gauge indicates that the coating is too thin or too thick, adjustments can be made in the coating process to correct the application before the components are finalized.

3. Preventing Over-Coating and Under-Coating:

Cost Efficiency: Applying the correct amount of coating is also important from a cost perspective. Over-coating wastes material and increases costs, while under-coating can lead to premature failure of the coating, requiring costly repairs or rework.

Optimizing Performance: The correct coating thickness ensures that the coating performs as intended, providing the necessary durability and protection against environmental factors.

4. Documentation and Reporting:

Data Logging: The PosiTector 6000-FS1 typically comes with the ability to store measurement data, which can then be used to generate reports for quality assurance and documentation purposes. This is often required for project records and client satisfaction.

Key Benefits in PEB Manufacturing:

Enhanced Durability: Ensures that steel components have the right level of protection, increasing their longevity and resistance to environmental factors like corrosion.

Improved Quality Control: Provides a reliable, non-destructive method to check the quality of coatings applied to steel, ensuring that only components meeting the required standards are used.

Reduced Rework Costs: By verifying coating thickness during the manufacturing process, it helps prevent issues that could lead to rework, saving time and resources.

The Elcometer 106 Pull-Off Adhesion Tester



It is a device designed to measure the adhesive strength of coatings on various substrates. In Pre-Engineered Building (PEB) manufacturing, this tool is used to ensure that the coatings applied to steel components have sufficient adhesion to withstand environmental and mechanical stresses. Here's how it is typically used in PEB manufacturing:

Purpose and Use in PEB Manufacturing:

1. Testing Coating Adhesion:

Quality Assurance: The primary use of the Elcometer 106 Pull-Off Adhesion Tester in PEB manufacturing is to test the adhesion strength of coatings (such as paint, primers, or protective coatings) applied to steel surfaces. The test ensures that the coating is firmly bonded to the substrate, which is critical for the long-term durability of the coated component.

Adhesion Strength Measurement: The device measures the force required to pull a coating away from the substrate. This is expressed in MPa (Mega Pascals) or psi (pounds per square inch). The results indicate how well the coating will stay attached under various conditions, such as exposure to weather, chemicals, or mechanical stress.

2. Evaluating Surface Preparation:

Surface Preparation Validation: Proper surface preparation (such as sandblasting) is essential for good coating adhesion. The Elcometer 106 can help validate that the surface was prepared correctly by confirming that the coating adheres well. Poor surface preparation could lead to low adhesion values, indicating potential future coating failures.

Process Control: By testing adhesion at various stages of the manufacturing process, you can ensure that both the surface preparation and the coating application are performed consistently and meet required standards.

3. Ensuring Coating Integrity and Durability:

Preventing Coating Failures: Coatings that do not adhere properly can lead to peeling, flaking, and corrosion, which compromise the structural integrity and appearance of the PEB components. Regular testing with the Elcometer 106 helps prevent such issues.

Optimizing Coating Systems: If the pull-off test indicates poor adhesion, it may be necessary to adjust the coating system (e.g., change the primer or topcoat, alter application methods) to achieve better results.

4. Compliance with Industry Standards

Meeting Specifications: Many industry standards and project specifications require that coatings achieve a certain level of adhesion. The Elcometer 106 allows you to verify that your coatings meet these specifications, ensuring compliance and avoiding potential issues during inspections or audits.

Documentation for Clients: The results from the pull-off tests can be documented and provided to clients as proof that the coatings on their PEB structures meet the necessary adhesion standards.

Key Benefits in PEB Manufacturing:

Improved Durability: Ensures that coatings will remain intact and protect the steel structure over time, reducing maintenance and repair costs.

Enhanced Quality Control: Provides a reliable method to test and verify the adhesion strength of coatings, ensuring consistent quality across all components.

Reduced Risk of Coating Failures: Identifies potential adhesion problems before they lead to coating failures, which could compromise the integrity of the PEB structure.

Elcometer holiday detector & Pin Hole Detector

The Elcometer 270 Pinhole Detector is a low voltage holiday detector specifically designed for identifying pinholes, voids, and other discontinuities in non-conductive coatings on conductive substrates, such as steel. In the context of Pre-Engineered Building (PEB) manufacturing, this tool plays a vital role in ensuring the integrity of protective coatings applied to steel components. Here's how it is used:



Purpose and Use in PEB Manufacturing:

1. Detection of Coating Defects:

Pinhole Detection: The Elcometer 270 is used to detect very small defects in coatings, known as pinholes or holidays. These defects can expose the underlying steel to environmental elements, leading to corrosion, which can compromise the structural integrity of the PEB components.

Low Voltage Testing: This detector operates at a low voltage, making it ideal for testing thinner coatings without damaging them. It's especially useful for detecting flaws that may not be visible to the naked eye.

2. Ensuring Coating Quality:

Quality Assurance: In PEB manufacturing, steel components are often coated with protective layers such as paint or primers to prevent corrosion. The Elcometer 270 helps ensure that these coatings are applied correctly and are free from defects that could lead to premature coating failure.

Preventing Corrosion: By identifying and allowing the correction of any coating defects, the Elcometer 270 helps prevent the onset of corrosion, which is critical for maintaining the longevity and durability of the steel structures.

3. Compliance with Industry Standards:

Meeting Specifications: Many industry standards require that protective coatings be tested for pinholes and other defects. Using the Elcometer 270 ensures that the coatings applied in PEB manufacturing meet these standards, which is important for both regulatory compliance and customer satisfaction.

Documentation and Reporting: The results from the pinhole testing can be documented and provided as part of the quality assurance process, demonstrating that the coatings have been applied properly and meet the required specifications.

4. Application on Thin Coatings:

Ideal for Thin Coatings: The Elcometer 270 is particularly suitable for testing thin coatings, such as those applied to PEB steel components. Unlike high voltage detectors, it is less likely to damage these coatings during the inspection process, making it a safer and more appropriate choice for such applications.

5. User-Friendly Operation:

Ease of Use: The Elcometer 270 is designed to be easy to use, with straightforward controls and a clear indication of pinhole detection. This makes it a practical tool for on-site inspections during the PEB manufacturing process.

Key Benefits in PEB Manufacturing:

Enhanced Durability: Ensures that the protective coatings applied to steel components are free from defects, thereby extending the lifespan of the PEB structure by preventing corrosion.

Improved Quality Control: Provides a reliable method for detecting even the smallest coating defects, ensuring consistent quality across all components.

Reduced Risk of Coating Failures: Helps identify and rectify potential coating issues before the components are assembled or installed, reducing the likelihood of future coating failures.

- **Supplier Quality Assurance:** We evaluate and monitor our suppliers to ensure that they consistently provide materials that meet our quality standards. This involves regular audits and performance reviews.
- **Process Control:** Each manufacturing stage is closely monitored to maintain process consistency. This includes tracking temperature and environmental conditions during fabrication and welding to prevent defects.
- **Welding Procedures:** We follow stringent welding procedures and ensure that welding activities are carried out by certified welders. Detailed welding procedure specifications (WPS) and procedure qualification records (PQR) are maintained and followed.
- **Inspection Techniques:** In addition to standard non-destructive testing (NDT) methods, we utilize advanced techniques such as phased array ultrasonic testing (PAUT) and computed radiography for detecting defects that may not be visible through conventional methods.
- **Dimensional Accuracy:** All components undergo precise dimensional checks using advanced measurement tools and equipment, including laser scanning and coordinate measuring machines (CMM), to ensure they adhere to design specifications.
- **Assembly and Fit-Up Inspection:** Before final assembly, we perform fit-up inspections to verify that components align correctly and meet the required tolerances. This prevents issues during the final assembly phase.
- **Corrosion Protection:** We ensure that all components are properly treated for corrosion protection. This includes applying appropriate coatings and conducting adhesion tests to verify coating quality.
- **Structural Integrity Testing:** We conduct structural integrity tests, including load testing where applicable, to ensure that components and assemblies can withstand the anticipated loads and stresses.
- **Documentation and Traceability:** Detailed records are maintained for every stage of the manufacturing process, including inspection reports, material certifications, and test results. This ensures traceability and provides comprehensive documentation for each project.
- **Compliance Audits:** Regular internal and external audits are conducted to ensure compliance with industry standards, regulatory requirements, and client specifications. These audits help identify areas for improvement and ensure ongoing adherence to quality standards.
- **Training and Certification:** Our quality control personnel undergo continuous training and certification to stay updated with the latest industry practices, standards, and

technologies. This ensures they are equipped to handle the most current quality control challenges.

- **Client Communication:** We maintain open lines of communication with clients throughout the project to address any quality concerns or modifications promptly. Feedback from clients is used to enhance our quality control processes.
- **Final Inspection and Handover:** Before project completion, a final, comprehensive inspection is performed to ensure all aspects of the project meet the highest quality standards. This includes verifying that all specifications have been met and that the product is ready for handover.
- **Post-Completion Review:** After project handover, we conduct a post-completion review to assess the performance and quality of the delivered product. Any issues or feedback are analyzed to improve future projects and quality control processes.

These extensive quality control measures are designed to ensure that every project not only meets but exceeds industry standards, providing our clients with products of the highest quality and reliability.

5. Procurement and Inventory Management

Our procurement team sources materials exclusively from well-regarded mills, ensuring that each purchase is accompanied by a mill test certificate for verification. Before finalizing any purchase orders, they are thoroughly reviewed by our quality control department to ensure that all specifications are met. Additionally, inventory planning is promptly conducted for each project as soon as it is registered, ensuring that the necessary materials are available and allocated efficiently.

6. Financial Management and Coordination

The Finance Department manages client interactions regarding payments and guarantees, ensuring smooth financial transactions. They meticulously review and finalize all commercial terms and conditions, guaranteeing accuracy and compliance. Our skilled finance team handles a range of critical functions, including cash flow management, cost control, accounts payable and receivable, and budget planning. Their expertise ensures efficient financial operations and supports overall project success.

7. Manufacturing Operations

The Production Engineering team executes fabrication tasks based on detailed phase plans and shop drawings provided to the plant. Our production facilities are staffed with AWS-certified welders and highly skilled workers proficient in various processes, including welding, cutting, fitting, shot blasting, painting, and the cold-rolling of Z-sections, C-sections, and single-skin panels. All fabrication activities adhere to rigorous standards set by AWS, AISC, and MBMA codes. Our workforce is extensively trained to follow stringent safety protocols in line with international standards. Job planning and dispatch are coordinated closely with the requirements from the customer, as well as with input from the Finance and Sales departments, ensuring seamless operation and timely delivery.

8. Erection Services

Hibuild Steel boasts a specialized Erection Department committed to managing installation tasks. For intricate projects, our team provides the client with a detailed method statement outlining the erection process, ensuring clarity and precision throughout the installation phase.

FACTORY LOCATION

Our factory is located in New Industrial Area,Umm Dera,Umm Al Quwain

EQUIPMENT LIST

SL NO	EQUIPMENT	QUANTITY
1	AUTOMATIC WELDING LINE (H-BEAM LINE).	1
2	CNC PLAZMA & PUG CUTTING MACHINES.	2
3	ARC WELDING MACHINES	6
4	DRILLING MACHINES.	2
5	MIG WELDING MACHINES	4
6	MAGNETIC DRILL MACHINES.	2
7	IRON WORKER	1
8	AIRLESS SPRAY PAINT MACHINES	2
9	AIR COMPRESSOR	1
10	SAND BLAST MACHINE	1
11	BENDING MACHINE	1
12	SHEARING MACHINE	1
13	GANTRY CRANE	2
14	BEAM CUTTING MACHINES	1
15	FLAME CUTTING MACHINE	1
16	FORKLIFT	3

PROJECT LIST

SL no:	CLIENT / MAIN CONTRACTOR	DESCRIPTION	VALUE
1	Blue Pearl-Warehouse	Warehouse	2.6M
2	Azizi-Warehouse	Warehouse	2.5M
3	Dp World	Hall Extension	8M
4	Descon	Warehouse	3.3M
5	Majid Al Futtaim	Warehouse	6.7M
6	Mr RAJAT GHAMBHIR	Warehouse	9.3M
7	Al Manar Holding Group	Warehouse	7.8M
8	Nitty Gritty	Warehouse	5.5M
9	Koromberg & Schubert	Mezzanine	2.3M
10	Dubai Grand Hotel	Mezzanine	1.3M
11	Aims Construction	Mezzanine	800K
12	Fiver	Mezzanine	1.6 M
13	Al Mansory Mi	Mezzanine	2.3M
14	Aerr Design	Mezzanine	1.2M
15	Eco Filter	Mezzanine	500K
16	Eno Lube	Mezzanine	600K
17	Werk Motor	Mezzanine	700K
18	Sobha Facades	Warehouse Modification	1.2M

SAFETY PROGRAMME

1. **Safety Inductions and Training:** All new employees and contractors must undergo a thorough safety induction program before beginning work. Regular refresher training sessions are also mandatory to keep everyone updated on safety practices and changes in regulations.
2. **Safety Audits and Inspections:** Regular safety audits and inspections are conducted to identify potential hazards and ensure compliance with safety standards. These audits are followed by corrective actions to address any identified issues.
3. **Incident Investigation:** All incidents, including near misses, are investigated to determine root causes and implement corrective measures to prevent recurrence. Detailed reports are generated and reviewed to enhance safety protocols.
4. **Emergency Response Drills:** Regular emergency response drills are conducted to ensure that all employees are prepared for various emergency scenarios, such as fires, chemical spills, or structural collapses. These drills help refine response procedures and improve overall preparedness.
5. **First Aid and Medical Response:** Designated first aid personnel are trained and available on-site. First aid kits are readily accessible, and emergency medical response procedures are in place to handle any health-related incidents promptly.
6. **Ergonomics and Manual Handling:** Training on ergonomics and proper manual handling techniques is provided to prevent musculoskeletal injuries. Equipment and tools are designed to minimize physical strain and enhance worker comfort.
7. **Equipment Maintenance and Safety Checks:** Regular maintenance schedules are established for all machinery and equipment to ensure they are in safe working condition. Safety checks are performed before equipment use to verify that all safety features are operational.
8. **Chemical and Hazardous Material Management:** Proper storage, handling, and disposal procedures for chemicals and hazardous materials are enforced. Safety Data Sheets (SDS) are available and accessible to all employees.
9. **Noise and Vibration Control:** Measures are implemented to control noise and vibration levels to protect workers' hearing and reduce the risk of vibration-related injuries. Hearing protection and vibration-reducing equipment are provided as necessary.
10. **Lighting and Ventilation:** Adequate lighting and ventilation are maintained in all work areas to ensure a safe and comfortable working environment. Poorly lit or poorly ventilated areas are promptly addressed.
11. **Workplace Safety Signage:** Clear and visible safety signage is displayed throughout the facility to communicate hazards, safety procedures, and emergency information. Signage is regularly updated to reflect current safety requirements.
12. **Job Hazard Analysis (JHA):** Job Hazard Analyses are conducted for high-risk tasks to identify potential hazards and implement controls to mitigate risks. JHAs are reviewed and updated as needed.
13. **Safety Committees and Feedback:** Safety committees comprised of employees from various departments are established to review safety policies, discuss concerns, and suggest improvements. Employee feedback is actively sought and addressed to enhance safety measures.

14. **Safety Performance Metrics:** Safety performance metrics, such as incident rates and compliance levels, are tracked and analyzed to assess the effectiveness of the safety program. Continuous improvement is pursued based on these metrics.
15. **Compliance with Local and International Standards:** All safety practices and procedures are designed to comply with local regulations and international safety standards, ensuring that the facility meets or exceeds legal and industry requirements.
16. **Behavior-Based Safety (BBS):** A behavior-based safety program is implemented to encourage safe practices and behaviors among employees. Observations and feedback are used to reinforce safe actions and address unsafe behaviors.

By implementing these comprehensive safety measures, Hibuild Steel ensures a safe working environment in our PEB manufacturing factory, protecting our employees and maintaining high standards of operational safety

HEALTH, SAFETY & ENVIRONMENTAL POLICY

At Hibuild, our dedication to safeguarding against risks and minimizing potential losses is unwavering. We are committed to a proactive approach in preventing, reducing, and eliminating undesired events to protect both our company's interests and those of our clients.

To achieve these goals, we have implemented a comprehensive risk management and safety program that spans all operational areas. The core objectives of this program are:

- **Accident Prevention:** Prioritizing the prevention of accidents that could harm individuals, damage property, or disrupt processes.
- **Accident Management:** Ensuring swift reporting and thorough investigation of any accidents to understand causes and prevent recurrence.
- **Safe Working Environment:** Creating and maintaining a work environment that is safe, healthy, and protective for all employees.
- **Property Protection:** Safeguarding our assets, equipment, and materials from damage or degradation due to incidents.
- **Safety Standards:** Providing and maintaining safe workspaces, tools, and equipment, and ensuring a healthy work environment.
- **Regulatory Compliance:** Adhering to all statutory requirements to ensure the health and safety of our employees and any other individuals impacted by our operations.
- **Occupational Health:** Upholding high standards of occupational health and safety to prevent human suffering and losses caused by unsafe practices.
- **Enforcement of Safety Rules:** Strictly enforcing safety and health regulations, with disciplinary measures in place for any violations.

All employees are expected to fully commit to these objectives by performing their tasks in accordance with our safety policies, procedures, standards, and managerial directives. Ensuring that every aspect of their work is executed safely is essential to achieving our safety and risk management goals.