STRUCTURAL STEEL SUPPLIER EVALUATION AND PROCUREMENT GUIDE



Purpose: Evaluate supplier capability, quality control, documentation, and delivery reliability before cooperation.

- SUPPLIER CAPABILITY
- QUALITY CONTROL
- DOCUMENTATION COMPLIANCE
- DELIVERY RELIABILITY

Supplier Evaluation Overview

Structural Steel Supplier Evaluation

1 Manufacturing Capability

Evaluate fabrication process, equipment capacity, and production management ability.



2 Product Range

Check available steel sections, component types, and customization capability.



3 Material Control

Assess material sourcing, standards compliance, and traceability management.



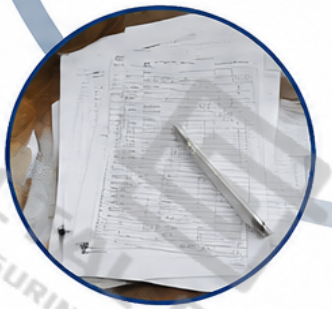
4 Quality Inspection

Review inspection process, quality records, and compliance with project requirements.



5 Documentation

Verify certifications, test reports, inspection records, and delivery documents.



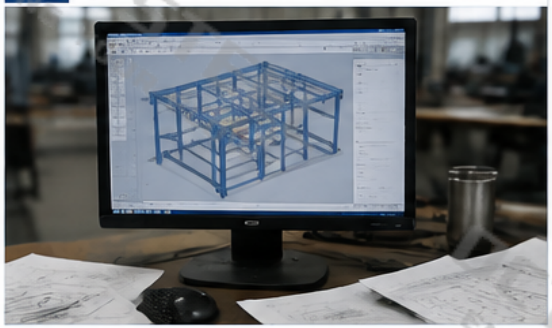
6 Delivery Support

Evaluate delivery planning, logistics coordination, and on-time performance.



Manufacturing Capability Assessment

1 Engineering Review



2 Material Preparation



3 Cutting



4 Machining



5 Assembly



6 Welding



7 Inspection



8 Surface Treatment



9 Packing



WELDING AND DIMENSIONAL CONTROL

Welding quality and dimensional accuracy directly affect the structural performance, installation efficiency, and overall project safety of steel components.

WELDING AREA

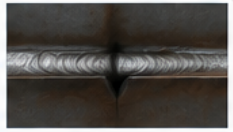
WELD QUALITY

- Proper welding procedure
- Complete weld penetration
- Uniform and smooth weld bead
- No cracks, pores, or slag inclusion
- Welding records and WPS control





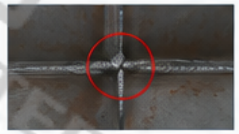
Good Weld Appearance



Full Penetration



Sound Fillet Weld



Unacceptable Defect (Crack)

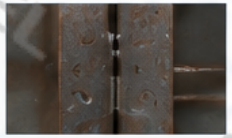
CONNECTION ACCURACY

- Accurate hole position and spacing
- Proper fit-up of connecting parts
- Controlled gap and alignment
- Ensures smooth on-site installation
- Reduces rework and construction risks





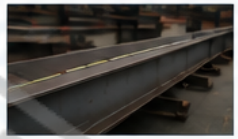
Accurate Hole Position



Proper Fit-up



Controlled Gap



Straight Alignment

INSPECTION

DIMENSION CHECKING

- Overall length measurement
- Cross-section dimension
- Hole position and spacing
- Edge straightness
- Flatness of component





Length Measurement



Cross-section Dimension



Hole Position Check



Straightness Check

GEOMETRY VERIFICATION

- Check camber and curvature
- Verify squareness
- Confirm verticality of web
- Validate overall geometry
- Ensure compliance with drawings





Camber / Curvature



Squareness Check



Verticality Check



Overall Geometry

KEY POINT

Proper welding and strict dimensional control ensure structural safety, reduce installation problems, and help the project meet required standards and performance.

STRUCTURAL SAFETY

HIGH ACCURACY

INSTALLATION EFFICIENCY

STANDARD COMPLIANCE

Surface Treatment and Component Identification

1 Surface Preparation



Remove rust, oil, scale, and contaminants to achieve a clean surface for protective coating.



Surface Cleaning



Rust Removal



Surface Preparation Quality

Target: Clean, dry, and uniformly prepared surface (Sa2.5 or project requirement).

2 Coating



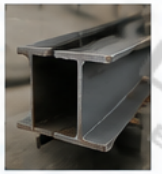
Apply protective coating to enhance corrosion resistance and extend service life.



Coating Application



Corrosion Protection



Coating Uniformity

Use approved coating systems and ensure uniform thickness according to project specification.

3 Component Marking



Identify each component to ensure traceability and correct installation on site.



Component Tags



Component Numbers



Drawing Reference

Clear marking reduces installation errors and improves project management efficiency.

4 Packing and Shipment Preparation



Proper packing and protection ensure components arrive safely and in good condition.



Packing Control



Component Protection



Shipment Preparation

Well-packed components prevent damage during transportation and handling.

KEY PURPOSE

Proper surface treatment and component identification help maintain corrosion protection, material traceability, and efficient installation during structural steel projects.

- CORROSION PROTECTION
- TRACEABILITY CONTROL
- INSTALLATION ACCURACY
- DELIVERY RELIABILITY

QUALITY CONTROL BEFORE DELIVERY

Comprehensive final inspection and documentation verification ensure structural steel components meet project requirements and arrive ready for installation.

1 Component Condition Verification



KEY CHECK POINTS

- Appearance condition and surface quality
- Fabrication completeness and accuracy
- Weld quality and connection integrity
- Component identification and markings



Weld & Connection Check | Surface Condition Check | Identification Check | Dimension Spot Check

2 Inspection Records Confirmation



KEY CHECK POINTS

- Material certificates and compliance
- Dimensional inspection results
- Welding and NDT inspection records
- Quality approval and release documents



Material Certificates | Dimension Report | Welding / NDT Records | QA Approval Document

3 Packing Condition Check



KEY CHECK POINTS

- Correct component grouping and tagging
- Protective packing and edge protection
- Clear identification and orientation marks
- Packing security and damage prevention



Edge Protection | Component Labeling | Proper Stacking & Support | Packing Security

4 Shipment Readiness Approval



KEY CHECK POINTS

- Quantity and part number confirmation
- Packing list and drawing reference verification
- Transportation arrangement and route check
- Delivery schedule and communication



Final Checklist Review | Packing List Verification | Loading Confirmation | Delivery Documents Ready

KEY MESSAGE

Final inspection before delivery ensures structural steel components meet project requirements and arrive ready for installation.

COMPONENT QUALITY
Ensure fabrication quality, weld integrity, and correct dimensions.

DOCUMENT CONTROL
Complete records and traceability support project compliance.

PACKING PROTECTION
Proper packing prevents damage and ensures safe transportation.

DELIVERY RELIABILITY
Systematic preparation ensures on-time delivery and smooth installation.