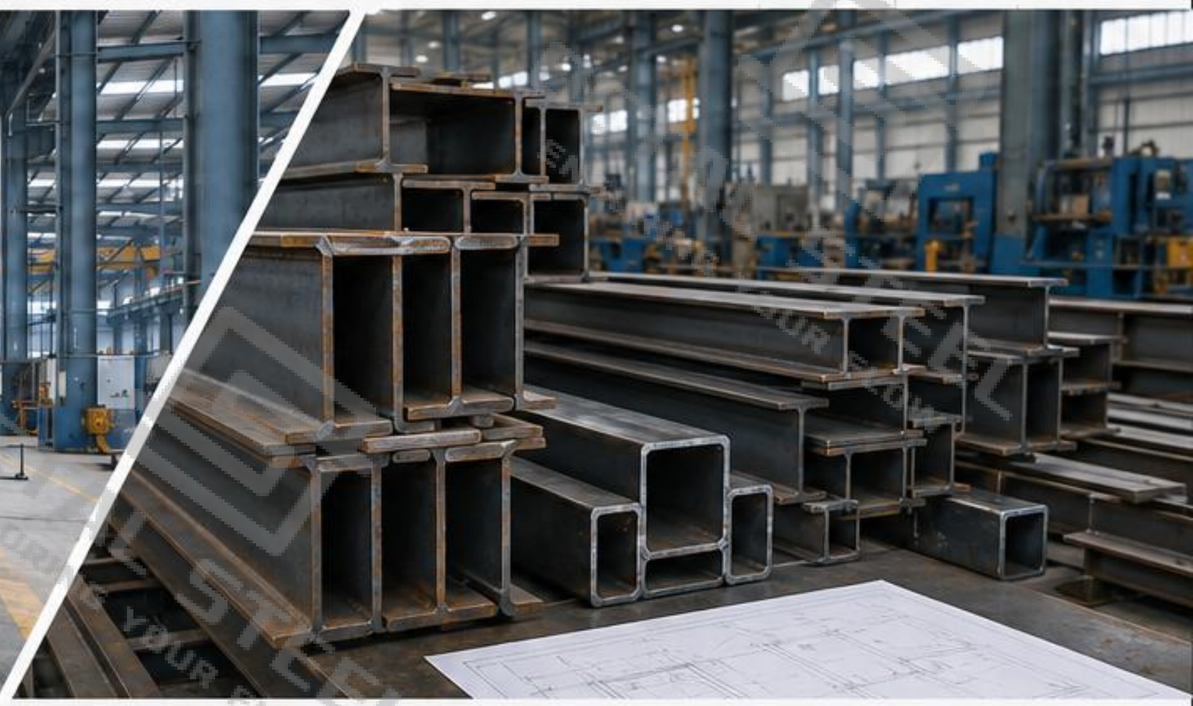
STRUCTURAL STEEL SUPPLIER EVALUATION AND PROCUREMENT GUIDE





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.



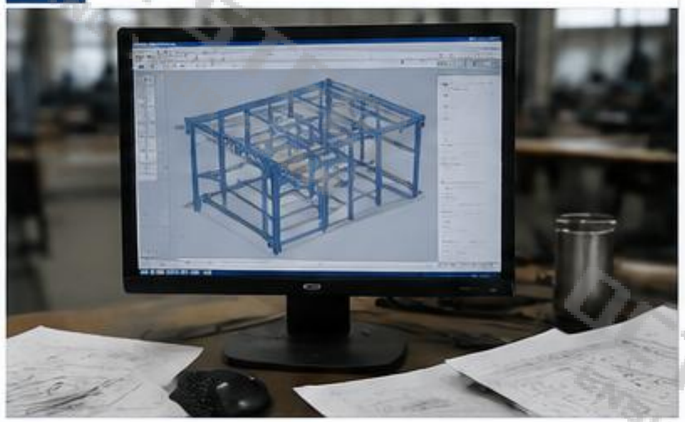
6 Delivery Support

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



Manufacturing Capability Assessment

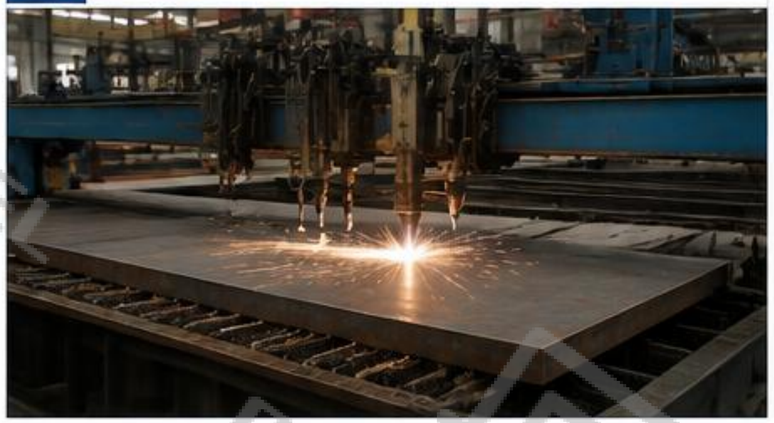
1 Engineering Review



2 Material Preparation



3 Cutting



4 Machining



5 Assembly



6 Welding



7 Inspection



8 Surface Treatment



9 Packing



MATERIAL STANDARDS AND TRACEABILITY

Controlled materials, verified documentation, and recorded processes ensure every structural steel component is traceable from raw material to final delivery.

1 Raw Steel Material



Raw materials are sourced to required standards with clear heat numbers, batch codes, and grade markings.



Steel Plate Marking | Section Identification | Batch Tag and Label

2 Material Certificate



Mill test certificates verify chemical composition, mechanical properties, and compliance with relevant standards.



Chemical Composition | Mechanical Properties | Standards Compliance

3 Fabrication Record



Each fabrication operation is recorded and linked to material batch, drawings, and process steps for full production traceability.



Route Card / Traveler | Heat No. Marking on Component | Process Execution

4 Inspection Record



Inspections and tests are performed and recorded to ensure dimensional accuracy, weld quality, and overall compliance.



Dimensional Check | Weld Visual Inspection | NDT / UT Testing

5 Finished Component



Finished components are identified and tagged, linking back to all records for traceability throughout project delivery.



Component Tag | Identification Tracking | Ready for Delivery

KEY MESSAGE

Effective traceability links material certificates, fabrication records, inspection results, and finished structural components throughout the supply process.

MATERIAL COMPLIANCE
Verified materials meet specified standards.

RECORD CONTROL
Accurate documentation at every stage.

TRACEABILITY
Complete visibility from raw material to final component.

PROJECT VERIFICATION
Reliable data supports quality and successful project delivery.

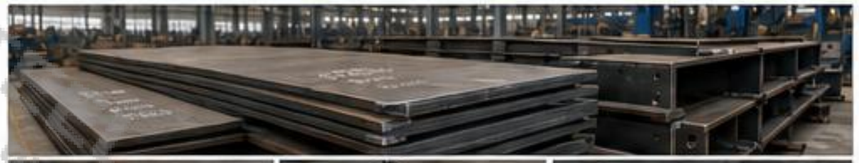
QUALITY CONTROL AND DOCUMENTATION MANAGEMENT

Inspection procedures and complete records ensure structural steel components meet engineering requirements before delivery.

QUALITY CONTROL PROCESS

1 Material Inspection

- Steel grade verification
- Material thickness checking
- Heat number identification
- Material certificate review



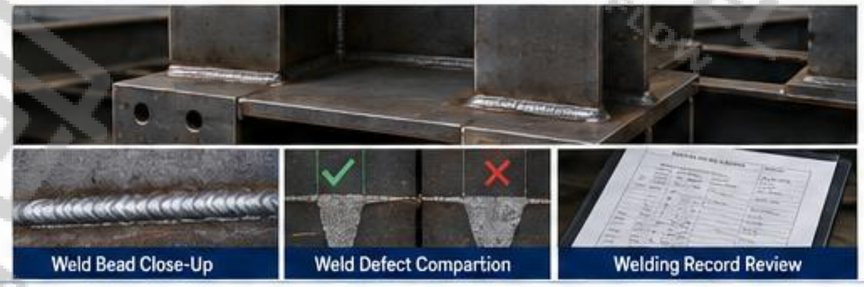
2 Fabrication Inspection

- Component dimensions
- Structural geometry
- Hole position accuracy
- Assembly tolerance verification



3 Welding Inspection

- Weld appearance inspection
- Welding procedure compliance
- Weld penetration checking
- Connection quality verification



4 Final Inspection

- Final dimension confirmation
- Surface condition check
- Component identification
- Shipment approval



DOCUMENTATION CONTROL SYSTEM

Material Test Certificate

MILL TEST CERTIFICATE — EN 10204 3.1

Steel Grade	Q355B	Thickness (mm)	16
Product	PLATE		2510347

Chemical Composition

C	Si	Mn	P	S	Nb	V	Ti
0.16	0.25	1.45	0.015	0.005	0.02	0.07	0.01

Mechanical Properties

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)	Impact Test (J)
356	510	25	125

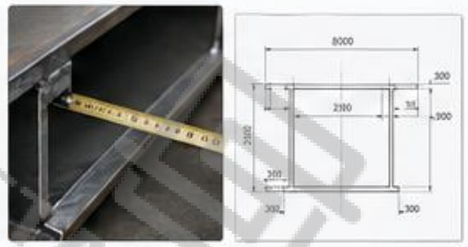


Inspection Report

DIMENSIONAL INSPECTION REPORT

Project: Date:
Component: Inspector:

Item	Description	Specification	Measured	Tolerance	Result
1	Overall Length	8000	8001	±3	PASS
2	Overall Width	2500	2501	±3	PASS
3	Web Depth	600	600	±2	PASS
4	Flange Width	300	300	±2	PASS
5	Hole Diameter	24	24.1	±0.5	PASS
6	Hole Position	150	150.3	±1.0	PASS



Welding Record

WELDING INSPECTION RECORD

WPS No.: WPS-01 Date:
Material: Q355B

Joint No.	Weld Size (mm)	Welder ID	Visual Inspection	NDT (UT/MT)	Result
W-01	8	WL-12	OK	UT	PASS
W-02	8	WL-12	OK	UT	PASS
W-03	10	WL-15	OK	UT	PASS
W-04	8	WL-12	OK	MT	PASS



Surface Treatment Report

COATING THICKNESS REPORT

Coating System: Epoxy Zinc Rich Primer Date:
DFT Specification: 80–120 µm

Location	Measurement Points			Average (µm)	Result
	Point 1	Point 2	Point 3		
Beam Web	92	88	94	91	PASS
Top Flange	90	93	89	91	PASS
Bottom Flange	87	85	90	87	PASS
Connection Plate	95	92	94	94	PASS



Final Quality Package

FINAL QUALITY RELEASE

Project: Contract No.:
Component: Total Weight: 125.60 TONS

We certify that the above components have been manufactured, inspected and tested in accordance with the contract requirements and approved drawings.

Result: APPROVED

QA PASSED

QA Manager: Date:



KEY PURPOSE

Complete quality records provide traceability from incoming materials to finished structural components, supporting project approval and installation reliability.

- MATERIAL COMPLIANCE
- FABRICATION ACCURACY
- QUALITY TRACEABILITY
- PROJECT DOCUMENTATION

DELIVERY AND FINAL SUPPLIER CHECKLIST

Delivery planning and final supplier evaluation help ensure structural steel components arrive correctly identified, properly documented, and ready for installation.

1 FACTORY / FABRICATION WORKSHOP



- Finished Components
- Component Identification
- Packing Preparation

2 CONTAINER OR TRUCK LOADING / LOGISTICS



- Packing Control
- Loading Arrangement
- Transport Protection

3 PROJECT SITE / INSTALLATION ARRIVAL



- Site Delivery
- Component Verification
- Installation Readiness

FINAL SUPPLIER CHECKLIST

1 FABRICATION CAPABILITY

Confirm the supplier can manufacture structural components according to approved drawings and project specifications.

2 MATERIAL TRACEABILITY

Verify that steel grades, heat numbers, and component identification can be traced from raw material to finished members.

3 INSPECTION RECORDS

Review dimensional, welding, and final inspection records to confirm fabrication quality.

4 DOCUMENTATION

Check material certificates, inspection reports, packing lists, and related project documents.

5 DELIVERY MANAGEMENT

Evaluate packing quality, shipment planning, logistics coordination, and on-time delivery control.

KEY MESSAGE

A reliable structural steel supplier should control fabrication, traceability, inspection, documentation, and delivery to support efficient project execution.

FACTORY CAPABILITY · TRACEABILITY · INSPECTION · DOCUMENTATION · DELIVERY RELIABILITY