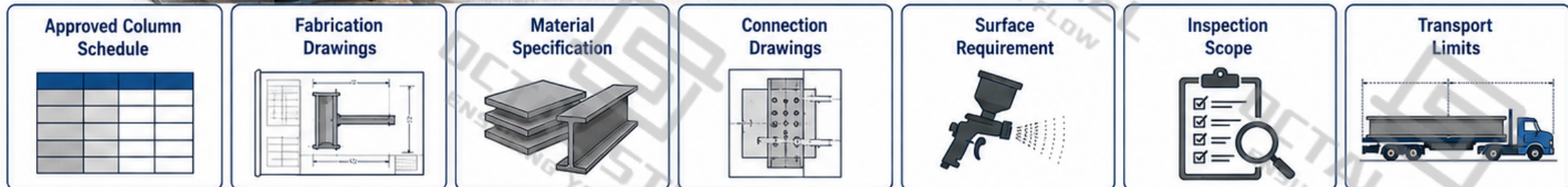
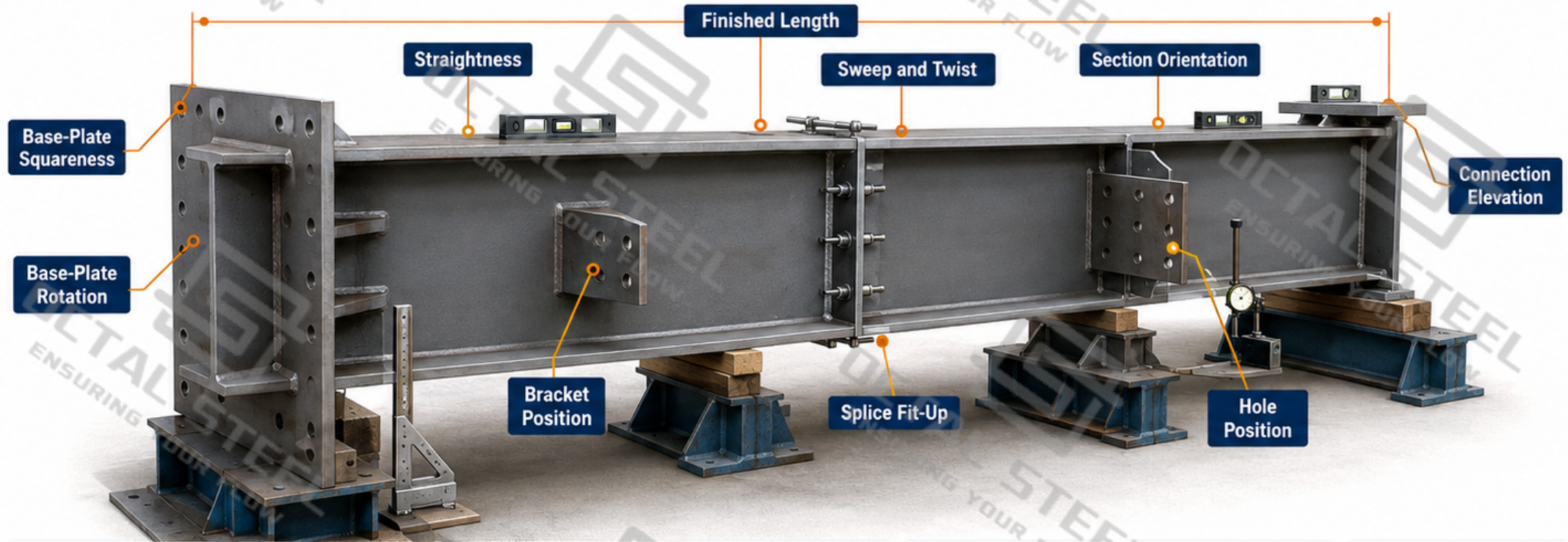


Steel Column Fabrication and Geometry Control



The workshop controls the complete finished geometry, not only the length of the steel section.



Final welding begins after column orientation, plate position and connection levels correspond with the approved fabrication drawings.

Information Required for Steel Column Fabrication

A column length is only one part of the enquiry. The quotation and fabrication scope also depend on the section, supported members, connection geometry, base arrangement and delivery form.

Information	What to Provide	How It Is Used
1. COLUMN SCHEDULE	Piece marks, quantities, complete section designations, grades, finished lengths and elevations	Used for material allocation, cutting, identification and quantity calculation.
2. FRAMING LAYOUT	Grid references, column orientation, beam levels, truss bearings and adjoining bracing	Used to position each connection on the correct column face and elevation.
3. DESIGN LOADS AND REACTIONS	Approved beam, truss, bracket and bracing reactions with restraint conditions	Used by the project designer to define the column section and connection duty.
4. BASE CONNECTION DRAWING	Base plate, anchor-hole pattern, stiffeners, grout interface and foundation references	Used to match the fabricated column to the approved anchor-rod layout.
5. BEAM, BRACKET AND BRACING DETAILS	Connection plates, hole patterns, welds, bracket elevations and adjoining member references	Used for shop fabrication and site fit-up.
6. COLUMN SPLICES	Approved splice level, matching plates, holes, welds and erection access	Used to divide the column into transportable and erectable segments.
7. INSPECTION AND SURFACE REQUIREMENTS	Dimensional checks, weld inspection, specified NDT, coating and documentation	Used to define the release scope before packing.
8. TRANSPORT AND ERECTION INFORMATION	Maximum shipping size, site access, lifting sequence and delivery grouping	Used to plan segmentation, supports, packing and erection identification.

Example Column Schedule (Generic)



Piece Mark	Section	Grade	Quantity	Finished Length	Grid	Orientation	Drawing Reference	Surface Condition



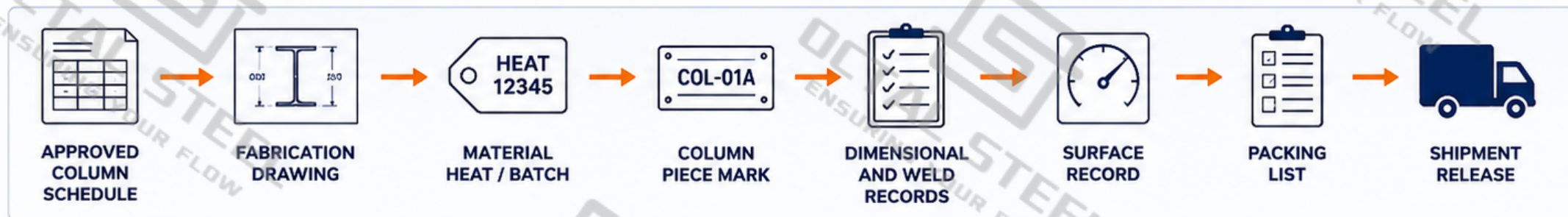
Example Fabricated Steel Column (Generic)



Available framing drawings may support quotation. Final approved fabrication and connection drawings are required before production.

Steel Column Inspection and Traceability

1 MATERIAL IDENTIFICATION  Confirm section, grade, heat or batch reference and material-document link.	2 SECTION AND FINISHED LENGTH  Verify the complete section designation and finished fabrication length.	3 STRAIGHTNESS AND ALIGNMENT  Check sweep, twist, out-of-plane alignment and overall shaft condition.	4 COLUMN ORIENTATION  Confirm flange, web or HSS face orientation against the framing plan.
5 BASE PLATE AND ANCHOR HOLES  Check plate position, rotation, flatness and anchor-hole arrangement.	6 CONNECTION ELEVATIONS  Verify beam plates, brackets, bracing attachments and splice levels.	7 WELD AND ATTACHMENT CONDITION  Review joint preparation, weld continuity and profile; perform NDT where required by the approved ITP.	8 PIECE MARKING AND RECORDS  Confirm the piece mark links the column to drawings, inspection records and packing documents.



 Material Verified Material section, grade and heat or batch are identified and verified against documents.	 Geometry Accepted Dimensions, length, straightness and alignment meet the requirements of the final fabrication drawing.	 Connections Confirmed Base plate, holes, attachments and splice elevations are inspected and accepted.	 Piece Mark Visible The piece mark is clear and matches the drawing reference and packing information.	 Records Complete Inspection, test and packing records are complete and ready for review.
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i A column is released against the final fabrication drawing, not only against its nominal section size.

Surface Protection, Packing and Shipment Release

MILL FINISH



Untreated mill surface where specified.

BLASTED SURFACE



Prepared steel surface before the specified coating system.

SHOP-PRIMED



Workshop-applied primer compatible with the project coating requirements.

COATED OR GALVANIZED WHERE SPECIFIED



Final protection selected for exposure, geometry and maintenance conditions.

Atmospheric Exposure



Moisture and Chemicals



Drainage and Water Traps



Connection and Crevice Access



Maintenance and Fire-Protection Interface



CAUTION

Coating or galvanizing does not correct poor drainage, inaccessible crevices or damaged site areas.



FIRE-PROTECTION NOTE

Fire resistance requires an approved fire-protection system coordinated with connections and erection access. Structural steel should not be described as inherently fireproof.



Surface Preparation



Surface Inspection Where Applicable



Geometry and Piece-Mark Check



Accessory Matching



Packing-List Verification



Shipment Release



Base Plates Protected

Base plates are protected against damage and anchorage surfaces are preserved.



Brackets Protected

All protruding brackets and connection items are protected against abrasion and impact.



Piece Marks Visible

Piece marks are clear, legible and visible from the handling and erection side.



Splice Components Grouped

Splice plates, bolts and accessories are grouped, labeled and packed by location.



Packing Matches Erection Sequence

Members are packed in erection sequence to support efficient offloading and erection.



A structurally correct column can still delay erection if its connection orientation, anchor-hole pattern, splice identification or packing sequence is incorrect.