

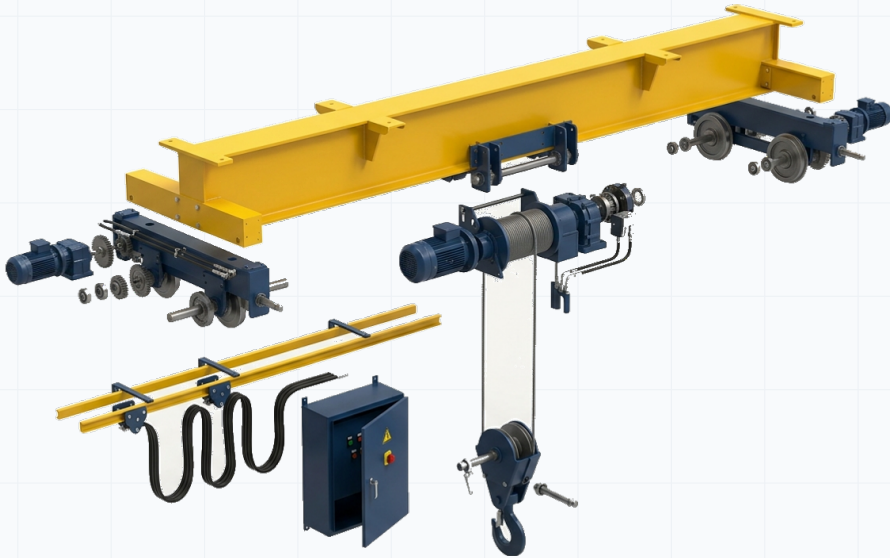
INDUSTRIAL HEAVY-DUTY EQUIPMENT

Rev 2.6 - 2026 Series

EOT CRANE - SINGLE GIRDER

MODEL SERIES: INDUCT-EOT-SG-2026 | DOCUMENT: TECHNICAL DATASHEET

3D ISOMETRIC ENGINEERING SCHEMATIC



Engineered & Manufactured in India by Induct Crane System Pvt. Ltd. | Standard: IS 3177 / IS 807 / FEM 2m

CAPACITY RANGE

500 kg - 15 Tons

SPAN WIDTH

5m - 35m

LIFTING HEIGHT

6m - 24m

DUTY CLASS

FEM 2m | ISO M5

EXECUTIVE OVERVIEW

Induct Crane Single Girder Overhead Travelling (EOT) Cranes are engineered for efficient, high-reliability workshop and warehouse material handling. Featuring a lightweight yet torsionally-stiff single box or rolled I-beam girder with an underslung low-headroom wire rope hoist, this system minimizes deadweight loads on building columns while delivering maximum hook coverage.

1. PRODUCT OVERVIEW & DESIGN CHARACTERISTICS

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TYPICAL APPLICATION & PURPOSE

Medium-duty manufacturing, fabrication shops, warehouse dispatch bays, machine shop tool handling, and maintenance workshops.

OPERATING ENVIRONMENT

Indoor manufacturing facilities, fabrication shops, and industrial warehouses (-10 deg C to +50 deg C).

2. STRUCTURAL CONFIGURATIONS & ENGINEERING VARIANTS

SINGLE GIRDER BOX CONSTRUCTION (SG)

Fabricated torsion-resistant single box girder with internal diaphragms and underslung low-headroom wire rope hoist.

Capacity: 500 kg to 15 Tons | Span: 5m to 35m | Lift Height: 6m to 24m

SINGLE GIRDER ROLLED I-BEAM PROFILE

Standard rolled I-beam bridge section with compact monorail motorized hoist for cost-efficient lighter duty bays.

Capacity: 500 kg to 5 Tons | Span: 5m to 20m | Lift Height: 6m to 18m

3. CODIFIED DESIGN STANDARDS & COMPLIANCE

IS 3177: 1999	Code of Practice for Electric Overhead Travelling Cranes and Gantry Cranes
IS 807: 2006	Design, Manufacture, Erection and Testing of Cranes and Hoists
FEM 9.511 / 2m	Federation Europeenne de la Manutention Rules for the Design of Hoisting Appliances
ISO 4301 / M5-M6	Cranes and Lifting Appliances Classification of Duty Cycles and Mechanisms

4. COMPREHENSIVE TECHNICAL SPECIFICATIONS

ENGINEERING PARAMETER	MANUFACTURING SPECIFICATION / VALUE RANGE
Lifting Capacity Range	500 kg - 15 Tons (Standard Configured Range)
Span Width (m)	5m - 35m (Engineered to Exact Bay Width)
Lifting Height (m)	6m - 24m (Customized Hook Travel)
Structural Configuration	Single Box Girder / High-Grade Rolled Steel I-Beam
Duty Classification	FEM 2m ISO M5 IS 3177 Class II, III
Hoisting Speed	4.0 / 0.8 m/min (Dual-Speed Inverter Controlled)
Cross Travel Speed	5 - 20 m/min (Inverter VFD Controlled)
Long Travel Speed	10 - 30 m/min (VFD Soft-Start Acceleration)
Power Supply Voltage	415V +-10%, 50Hz, 3-Phase AC (Shrouded Conductor DSL)
Control System	Wireless Radio Remote & Independent Push-Button Pendant
Braking System	Fail-Safe AC/DC Disc Brakes on Hoist & Travel Motors
Hoist Trolley Type	Low-Headroom Underslung Motorized Wire Rope Hoist
Hook Block Assembly	Forged Alloy Steel Shank Hook (IS 3815, 360 deg Swivel)
Building Load Reaction	Minimal Wheel Load Impact on Roof & Foundation Columns

5. MAJOR ENGINEERING COMPONENTS & NUMBERED BREAKDOWN

01 SINGLE MAIN GIRDER Torsionally-stiff welded single box girder with internal diaphragms and camb	02 END CARRIAGES Heavy-duty rectangular hollow section with line-bored wheel housings and gea
03 UNDERSLUNG HOIST Compact low-headroom wire rope hoist maximizing vertical hook approach under	04 LONG TRAVEL DRIVE Synchronized dual-drive geared motors with VFD soft acceleration and electro
05 ELECTRICAL PANEL IP55 dust/moisture proof panel with Siemens/Schneider switchgear and C-rail	06 WIRE ROPE & DRUM High-tensile galvanized steel wire rope with precision machined grooved drum
07 HOOK BLOCK ASSEMBLY Forged alloy steel hook with safety latch and enclosed roller bearing sheave	

6. APPLICATIONS & INDUSTRIES SERVED

- Engineering Workshops & Toolrooms
- Warehouses & Logistics Centers
- Automotive Component Assembly
- Light-to-Medium Fabrication Bays
- Plastic Molding & Stamping Plants

7. SAFETY & PROTECTION SYSTEMS

- [+] Electronic Overload Limiter with Auto Cutoff
- [+] Rotary Geared Upper/Lower Hoisting Limit Switch
- [+] Long Travel & Cross Travel End Rubber Bumpers
- [+] Optical Anti-Collision Sensors for Multi-Crane Bays
- [+] Emergency Stop Buttons on Pendant and Remote Control

8. ENGINEERING & PROJECT CUSTOMIZATION

- [*] Low Headroom Configuration: Maximizes hook travel in buildings with low roof truss clearances.
- [*] Dual Speed & VFD Control: Smooth stepless micro-positioning down to 0.1 m/min for precision machine loading.
- [*] Radio Remote System: Ergonomic wireless remote with transmitter emergency stop and rechargeable battery dock.
- [*] Outdoor / Open-Bay Execution: Epoxy protective coating and rain canopies for semi-covered loading bays.

9. TECHNICAL & SITE INSTALLATION NOTES

- Single girder cranes impose substantially lower wheel loads, reducing civil structure and runway beam costs.
- All structural steel is shot-blasted to SA 2.5 and finished with high-build epoxy primer and polyurethane enamel.
- Runway rail dimensions and electrical busbar ampacity are confirmed per site survey data.

REQUEST A TECHNICAL QUOTATION & GA DRAWING

Contact our application engineering team for site-specific general arrangement (GA) drawings and quotations:

RAJKOT HEAD OFFICE & MANUFACTURING

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Contact our engineering team for project-specific technical requirements.