

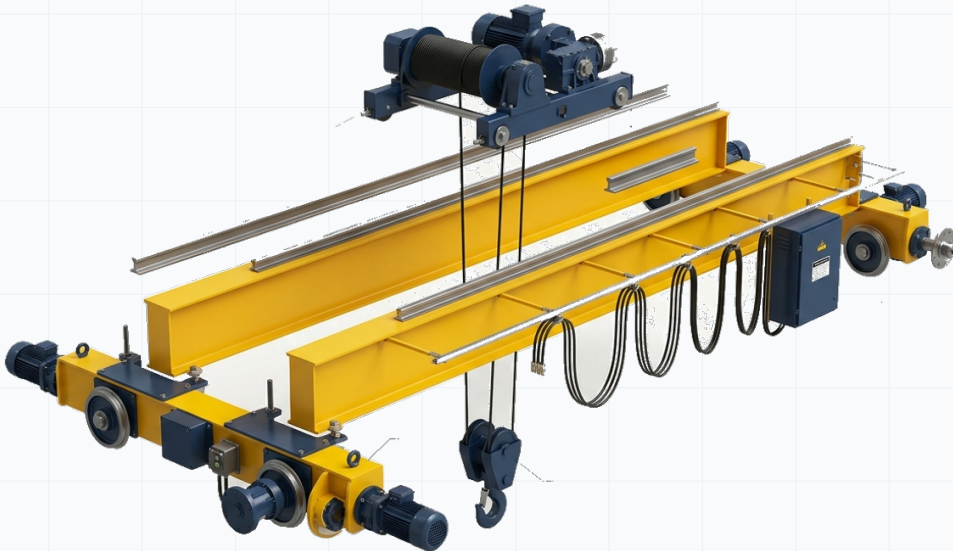
INDUSTRIAL HEAVY-DUTY EQUIPMENT

Rev 2.6 - 2026 Series

EOT OVERHEAD TRAVELLING CRANE

MODEL SERIES: INDUCT-EOT-CRANE-SG/DG | 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 - 100 T

SPAN WIDTH

5m - 40m

LIFTING HEIGHT

6m - 30m

DUTY CLASS

FEM 2m/3m | M5-M6

EXECUTIVE OVERVIEW

Induct Crane Overhead Electric Travelling (EOT) Cranes are engineered for continuous heavy industrial duty with maximum structural rigidity, low headroom clearance, and precision variable frequency drive (VFD) speed regulation. Available in Single Girder and Double Girder box-section configurations designed in accordance with IS 3177, IS 807, and FEM 2m/3m standards.

1. PRODUCT OVERVIEW & DESIGN CHARACTERISTICS

Induct Crane Overhead Electric Travelling (EOT) Cranes are engineered for continuous heavy industrial duty with maximum structural rigidity, low headroom clearance, and precision variable frequency drive (VFD) speed regulation. Available in Single Girder and Double Girder box-section configurations designed in accordance with IS 3177, IS 807, and FEM 2m/3m standards.

TYPICAL APPLICATION & PURPOSE

Heavy-duty workshop overhead material handling, billet/coil transport, mold handling, and heavy equipment maintenance.

OPERATING ENVIRONMENT

Indoor manufacturing bays, foundries, steel plants, power stations, and fabrication workshops (-10 deg C to +55 deg C).

2. STRUCTURAL CONFIGURATIONS & ENGINEERING VARIANTS

SINGLE GIRDER EOT CRANE (SG)

High rigidity rolled I-beam or fabricated box girder with underslung wire rope hoist. Ideal for medium bay widths and compact headroom.

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

DOUBLE GIRDER EOT CRANE (DG)

Torsionally-stiff twin box girders with top-mounted crab trolley and heavy-duty wire rope hoist. Designed for high capacity, severe duty cycles, and maintenance walkways.

Capacity: 5 Tons to 100 Tons | Span: 5m to 40m | Lift Height: 6m to 30m

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	SG: 500 kg - 15T DG: 5T - 100T
Span Width (m)	5m - 40m (Engineered to Exact Building Bay Width)
Lifting Height (m)	6m - 30m (Customized to Maximum Hook Approach)
Structural Configuration	Single Girder & Double Girder Box Construction
Duty Classification	FEM 2m / 3m ISO M5, M6 IS 3177 Class II, III, IV
Hoisting Speed	4.0 / 0.7 m/min (Dual-Speed Inverter Controlled)
Cross Travel Speed	5 - 20 m/min (Variable Frequency Drive)
Long Travel Speed	10 - 30 m/min (VFD Smooth Acceleration / Deceleration)
Power Supply Voltage	415V +-10%, 50Hz, 3-Phase AC (DSL Busbar System)
Control System	Wireless Radio Remote & Independent Push-Button Pendant
Braking System	Fail-Safe Electro-Hydraulic Thruster & DC Disc Brakes
Wire Rope Drum	Precision-Grooved Seamless Steel Drum with Heavy Core Rope
Hook Block Assembly	Forged Alloy Steel Shank Hook (IS 3815, 360 deg Swivel)
Ambient Temperature	-10 deg C to +55 deg C (High-Temp Heat Shield Option)

5. MAJOR ENGINEERING COMPONENTS & NUMBERED BREAKDOWN

01 MAIN GIRDERS Torsionally-stiff welded box girders with internal diaphragm stiffeners (DIN)	02 END CARRIAGES Heavy hollow section with precision line-bored housings, forged steel wheels
03 HOIST & CRAB TROLLEY Modular wire rope hoist or heavy-duty crab unit with hardened helical gearin	04 LONG TRAVEL DRIVE Dual synchronized drive units with VFD soft-start, planetary gear reducers,
05 ELECTRICAL SYSTEM IP55 dust/moisture proof control panel with Schneider/Siemens switchgear, PL	06 WIRE ROPE & DRUM High-tensile galvanized steel wire rope with precision machined grooved drum
07 HOOK BLOCK ASSEMBLY High-grade forged alloy steel hook with spring safety latch and enclosed rol	

6. APPLICATIONS & INDUSTRIES SERVED	7. SAFETY & PROTECTION SYSTEMS
- Steel Plants & Metal Processing - Foundries & Forge Shops - Heavy Fabrication Bays - Automotive Assembly Plants - Power Stations & Turbines - Warehouses & Logistics Hubs	[+] Electronic Overload Limiter with Digital Display [+] Rotary Geared Upper/Lower Hoisting Limit Switches [+] Optical Anti-Collision Sensors for Tandem Cranes [+] Polyurethane & Hydraulic Travel End Buffers [+] Dual Emergency Stop Buttons (Pendant + Remote) [+] Audible Siren with Flashing Strobe Beacon

8. ENGINEERING & PROJECT CUSTOMIZATION
- [*] Custom Span & Hook Approach: Tailored girder profiles for minimal dead zones near building columns.
 - [*] Variable Speed Control (VFD): Stepless micro-positioning down to 0.1 m/min for precision mold setting.
 - [*] Hazardous / Foundry Package: High-temperature motor insulation (Class H), heat shields, and flameproof electricals.
 - [*] Tandem / Synchronized Lifting: Smart PLC link for twin cranes handling extra-long structural loads.

9. TECHNICAL & SITE INSTALLATION NOTES
- All structural steel is shot-blasted to SA 2.5 and finished with high-build epoxy primer and polyurethane topcoat.
 - Wheel loads and runway rail profiles (CR 80 / CR 100 / ISCR 100) are engineered per civil foundation drawings.
 - Specifications are subject to project engineering confirmation and site survey measurements.

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.