

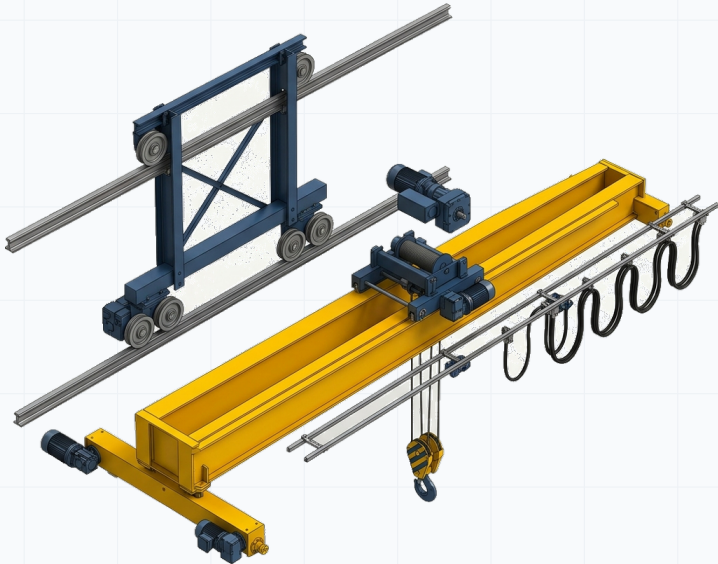
INDUSTRIAL HEAVY-DUTY EQUIPMENT

Rev 2.4 - 2026 Series

# WALL TRAVELLING CANTILEVER CRANE

MODEL SERIES: INDUCT-WALL-TRAVELLING-CRANE | 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

1 Ton - 15 Tons

ARM REACH

3m - 6m

LIFTING HEIGHT

4m - 10m

DUTY CLASS

FEM 2m | ISO M5

## EXECUTIVE OVERVIEW

Induct Crane Wall Travelling Cranes operate on a multi-tier runway rail system mounted directly to structural building columns beneath primary overhead EOT cranes. Providing dedicated horizontal and vertical lifting coverage along workstation lines, they eliminate crane bottlenecks and streamline component assembly lines.

1. PRODUCT OVERVIEW & DESIGN CHARACTERISTICS

Induct Crane Wall Travelling Cranes operate on a multi-tier runway rail system mounted directly to structural building columns beneath primary overhead EOT cranes. Providing dedicated horizontal and vertical lifting coverage along workstation lines, they eliminate crane bottlenecks and streamline component assembly lines.

TYPICAL APPLICATION & PURPOSE

Workstation lifting along bays, CNC machine loading, sub-assembly handling, and welding stations under main EOT cranes.

OPERATING ENVIRONMENT

Indoor industrial workshops, heavy machinery manufacturing plants, and structural fabrication bays.

2. STRUCTURAL CONFIGURATIONS & ENGINEERING VARIANTS

SINGLE GIRDER WALL CANTILEVER

Cantilevered rolled I-beam or fabricated box boom running along column-mounted rails. Perfect for workstation tool loading.

Capacity: 1 Ton to 5 Tons | Cantilever Reach: 3m to 6m | Lift Height: 4m to 10m

DOUBLE GIRDER WALL CANTILEVER

Reinforced twin cantilever girders supporting heavy top-running or underslung hoists for heavier fabrication bays.

Capacity: 5 Tons to 15 Tons | Cantilever Reach: 3m to 6m | Lift Height: 4m to 10m

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: 1T - 5T   DG: 5T - 15T                              |
| Arm Reach / Cantilever (m) | 3m - 6m (Outreach from Building Column Rails)           |
| Lifting Height (m)         | 4m - 10m (Under-Cantilever Clearance)                   |
| Structural Configuration   | Wall-Mounted Cantilever Single & Double Girder          |
| 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          | 5 - 20 m/min (Along Column Runway Rails)                |
| Power Supply Voltage       | 415V +-10%, 50Hz, 3-Phase AC (Enclosed Conductor Rail)  |
| Control System             | Wireless Radio Remote & Independent Push-Button Pendant |
| Wheel Configuration        | Upper Horizontal Guide Rollers + Lower Load Wheels      |
| Rail Guide Mechanism       | Multi-Wheel Vertical & Horizontal Anti-Derailment Guide |
| Hook Block Assembly        | Forged Alloy Steel Swivel Hook with Safety Latch        |
| Overturning Torque         | Absorbed via Column Multi-Tier Reaction Wheel Bogies    |

5. MAJOR ENGINEERING COMPONENTS & NUMBERED BREAKDOWN

|                                                                                                                                            |                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <div>01</div> <div>CANTILEVER MAIN GIRDER</div> <div>Rigid cantilever steel beam resisting combined vertical bending and dynamic</div>     | <div>02</div> <div>UPPER GUIDE ROLLERS</div> <div>Machined horizontal guide wheels absorbing cantilever reaction forces along</div>           |
| <div>03</div> <div>LOWER LOAD WHEEL CARRIAGE</div> <div>Heavy-duty forged steel wheel block supporting vertical deadweight along the</div> | <div>04</div> <div>HOIST &amp; TROLLEY ASSEMBLY</div> <div>Compact motorized wire rope / chain hoist travelling smoothly along the cant</div> |
| <div>05</div> <div>LONG TRAVEL DRIVE</div> <div>Inverter-driven geared motor providing smooth acceleration along the buildin</div>         | <div>06</div> <div>ELECTRICAL FESTOON</div> <div>Enclosed multi-conductor power rail or heavy C-rail festoon system along col</div>           |
| <div>07</div> <div>HOOK BLOCK ASSEMBLY</div> <div>Forged alloy steel swivel hook with 360 deg rotation and spring-loaded safet</div>       |                                                                                                                                               |

| 6. APPLICATIONS & INDUSTRIES SERVED                                                                                                                                                                                                                               | 7. SAFETY & PROTECTION SYSTEMS                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>- Machining &amp; CNC Tool Loading</li><li>- Fabrication &amp; Welding Workstations</li><li>- Assembly &amp; Sub-assembly Transfer</li><li>- Maintenance &amp; Repair Bays</li><li>- Multi-tier Production Plants</li></ul> | <ul style="list-style-type: none"><li>[+] Electronic Load Cell Overload Protection</li><li>[+] Dual-Level Travel End Limit Switches</li><li>[+] Upper / Lower Hoist Limit Switches</li><li>[+] Anti-Derailment Safety Brackets</li><li>[+] Emergency Stop Push Button</li></ul> |

## 8. ENGINEERING & PROJECT CUSTOMIZATION

- [\*] Custom Cantilever Length: Tailored reach to span exactly over machine beds without encroaching into center aisle.
- [\*] Multi-Crane Collision Interlock: Optical sensors preventing collision between adjacent wall travelling units.
- [\*] Low Headroom Hoist: Maximizes vertical hook travel beneath overhead EOT crane runway level.

## 9. TECHNICAL & SITE INSTALLATION NOTES

- Column reaction forces and moments are provided to structural consultants for building verification.
- Rail alignments must maintain strict vertical and horizontal tolerances to ensure smooth guide roller engagement.

### REQUEST A TECHNICAL QUOTATION & GA DRAWING

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

**RAJKOT HEAD OFFICE & MANUFACTURING**  
Plot No. 6, Shivam Ind. Zone 4, Lodhika GIDC, Rajkot, Gujarat - 360021  
**Phone:** +91 92658 85265, +91 99743 43099 | **Email:** sales@inductcranesystem.com

**NORTH INDIA SALES & SERVICE OFFICE**  
Unit-2, E-20, Chakeri-2 Industrial Area, Chakeri, Kanpur, Uttar Pradesh  
**Phone:** +91 75250 29204 | **Web:** <https://inductcranesystem.com>

Contact our engineering team for project-specific technical requirements.