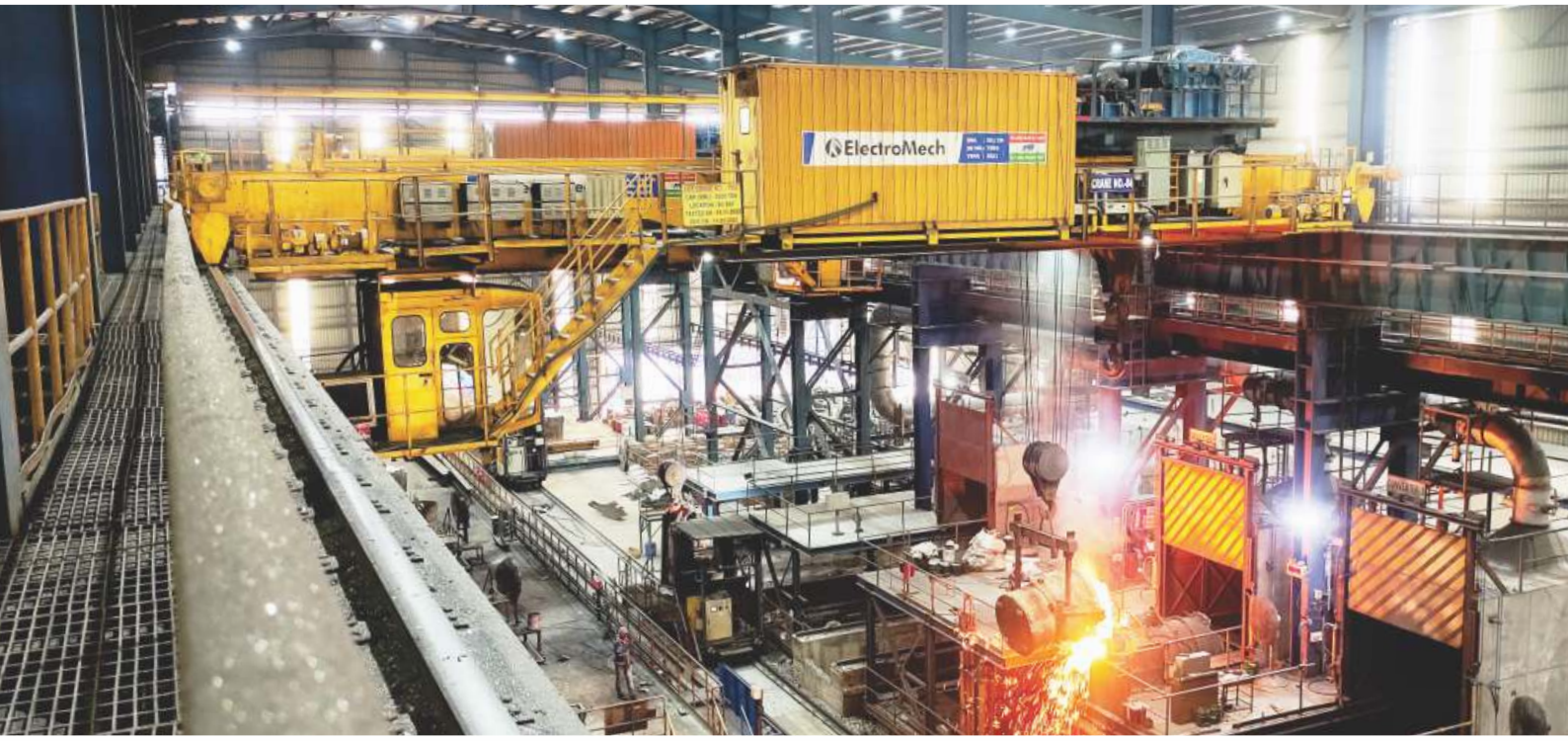
ElectroMech

Solutions | Service | Satisfaction |



Material Handling Solutions for Steel & Metal Industry



Handling in a METAL plant Trust our SOLUTIONS

Material Handling Solutions for Steel & Metal Industry

About ElectroMech

ElectroMech is a USD 100 million, multinational group in Material Handling with its global headquarters in Pune and having a presence in 60 countries. We have manufacturing plants in the UAE, Indonesia and Saudi Arabia with the Global Design & Development Centre and Asia's largest overhead crane manufacturing facility in Pune, India.

We are an innovation-led, customer-centric, technology-driven, fast-progressing global group, which offers advanced Material Handling Solutions to a wide spectrum of industries for the most challenging applications. Our customers across the world rely on us for our design capability, high manu-facturing standards and service excellence.

We are serving clients from various sectors such as automotive, railways, shipbuilding, aerospace, energy, metal, nuclear, defence, heavy engineering, process plants, food & beverages, pharmaceuticals, construction, infrastructure, warehousing and logistics.



End-to-End Solutions for Metal Industry

ElectroMech offers a complete range of material handling solutions across the entire value chain of the metal industry, both in metal making and metal processing, and extending further to shipping and distribution.

Our design team specialises in engineering customised, state-of-the-art, heavy-duty process cranes for applications in both ferrous and non-ferrous metal industries.

Developed with over 45 years of experience in the industry, our solutions cover applications right from ore processing plants to stockyards and are known for their reliable performance, safe operations and efficient working. These cranes are designed to withstand demanding operating conditions for handling metals such as steel, cast iron, copper, aluminium, lead and for applications such as pouring and charging where ambient temperature is high or extremely fluctuating. Such applications demand a high level of safety and functional reliability.

For steel plants, ElectroMech offers a range of double-girder overhead travelling cranes that are tailored to meet specific application and process requirements. These cranes are available in duty classes ranging up to M8, ensuring their suitability for various heavy-duty operations. The innovative design incorporated in these cranes enables efficient overhead transport tasks and precise handling of ladles containing molten materials. Our cranes can be designed and manu-factured as per Indian standards as well as DIN-FEM standards, depending on the requirement.



Solutions

Scrap Handling Cranes

These are heavy-duty, high-speed cranes used to handle scrap in the yard and also to load scrap into buckets / ladles for transporting to the melt shop. They are available in a lifting capacity of up to 40t and are equipped with lifting magnets, hydraulic grabs or both together to move scrap from one place to another.



Solutions

Ladle Handling Cranes

These cranes transport ladles containing molten metal to the Basic Oxygen Furnace (BOF) or molten steel from the BOF and electric arc furnace to the continuous casting machine. They are also used for teeming and casting. As the cranes are used to transport molten steel, their safety and reliability are extremely important. These cranes are designed specially to address the unique challenges of hazardous environments of extreme heat, choking dust, hot metal and uncovered flames.



Solutions

Slab / Billet Handling Cranes

These heavy-duty cranes are used to handle hot slabs, billets and blooms from the continuous casting machine or conveyor and transport them onward to the storage area or feed them to the rolling mill.



Solutions

Plate Handling Cranes

These cranes are used to transport bars and plates in the rolling and storage area. These high-speed cranes can be equipped with a variety of lifting devices depending on the material to be handled.



Solutions

Long Product Handling Cranes

These are double girder cranes, provided with a rotating crab / beam and electromagnet, to handle high temperature billets / bundles and stack them conveniently and safely. Additionally, the orientation can be changed through 90° to reach to the next process station or for loading / unloading. The crane can be of EOT or gantry type when the shopfloor structure does not have adequate load considerations. To handle long, heavy pipes or rebars, two cranes of identical configuration are synchronised for tandem operation.



Solutions

Coil Handling Cranes

These cranes are used to handle coils in the rolling area and stock yards. These high-speed cranes can be equipped with a variety of lifting devices, depending on the material to be handled.



Patented Control Technology

tyton™ – Electric RTG Cranes

Single & Double Girder RTG Cranes

Working of tyton™ – Electric RTG Crane and constructional features

tyton™ is an innovative material handling solution making lifting and handling operations safe across a range of industries.

- Self-propelled equipment driven by electric motors with VFD controllers ensures optimised power consumption.
- Powered by EM Steersense - Independent, synchronized, variable steering control
- Designed to operate on gradients and various other surfaces adds the all-important feature of flexibility required in material handling equipment.
- The rigid structure is designed to take dynamic loads, making it sturdier and safer.
- Components can be easily accessed for routine maintenance.
- Can be easily assembled and disassembled for quick relocation.

tyton™ can move loads easily in all directions and on various surfaces. These features make it the perfect choice for industrial, infrastructure, wind energy and other sectors to competently address various load-handling challenges.

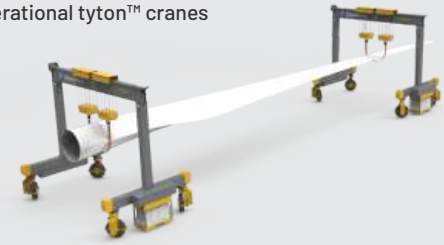
Pipe handling



Steel plate handling



Tandem operational tyton™ cranes







Traversers / Steerable Transfer Car

- Steering - 2WS / 4WS
- Suitable for outdoor application
- Rail mounted - suitable for curved track
- Rubber-tyred - suitable for concrete, asphalt, epoxy floor & gradient floor
- Battery-operated
- Operates on Radio Remote Control (RRC)



Application

- Ladle handling
- Fabrication yard
- Storage yard
  - Steel plates
  - TMT bars
  - Steel pipes
  - Angles / channels / tubes
- Pre-cast handling
- Transformer handling



Stacker Crane for Steel

The Stacker Crane is ideal choice for the quick storage and retrieval of small steel coils, bars and billets. These cranes can be customised for optimum space utilisation. ElectroMech's Stacker Crane is the perfect combination of an EOT crane and forklift, which uses vertical space and requires narrow aisles, thus providing efficient warehousing. The Stacker Crane is supported by racks and does not need an additional structure. This avoids the possibility of tipping over. Being electrically operated, it does not emit harmful fumes.



Salient Features for Additional Safety

- Air conditioned and ergonomic cabin providing improved visibility with 60% more window area
- Wireless communication with the factory control system as an add-on feature
- Reporting system with remote service capability as an add-on feature
- Reduced deflection and vibration with stiff box-type steel structure
- Programmable Logic Controller (PLC) as an add-on feature
- 'Sway Control and Slack Rope Prevention' available as an add-on feature
- Available with manual and semi-automated functions
- Multi-trolley or Dual Rope Drum arrangement available and can be connected mechanically
- Magnets, C-hooks and Hydraulic Tongs can also be attached to the hooks



Other Customised Solutions

Bulk Material Handling Solution



Furnace Loading Crane



Molten Metal Handling Cranes



Stockyard Crane



Billet Handling Crane



Galvanising & Pickling Area Crane



cranedge

upkeep • upgrade • upraise

Service

EMote

IoT Industry 4.0

Tech-enabled Solutions





Remote diagnostics of crane health, usage patterns and possible risks. Remote support for timely maintenance.







To know more about EMote, talk to our Service Engineer.

EMote - IoT Industry 4.0

- The information is available 'on the go' without physically going to the crane location
- Avoid unexpected crane failures
- Increase the life of assets through proactive maintenance
- Reorganise the process flow for higher throughput
- Know exactly what is wrong with the crane before calling a maintenance expert
- Ensure effective utilisation of existing crane assets before you order the new equipment
- Reallocate work schedules for enhancing productivity
- Save energy through an optimised process cycle
- Understand the need for operator training
- Reallocate manpower for even work distribution over shifts

Expert Services from Cranedge

Experience Unmatched Crane Services



CE-LIFE

CE-LIFE covers the One Time Health Checkup (OTHC) including in-depth evaluation of every critical component to understand its residual service life. It offers the following distinct benefits:

- Know the residual service life of your crane and its components
- Conduct safe operations and know the possible threats
- Extend asset life through refurbishment / modernisation
- Plan investments (CAPEX)



RAMON (Rail Monitoring)

- Maintain perfect levels, straightness and parallelism of tracks
- Ensure longer life and safe operations of cranes and rails
- Periodic rail monitoring helps avoid situations like
  - Premature wear & tear of wheels and shafts
  - Unpredicted crane downtime
  - Cost-driven repairs or replacements



Annual Maintenance Contracts (AMC)

- Covers all the crane components to enhance their ability to perform
- Provide timely inputs on the health of worn-out parts for replacement
- Include periodic visits for inspection



ROMON (Rope Condition Monitoring)

- Innovative method to check the wire rope for its strength, rotational stability, flexibility, structural ability and spooling behaviour
- A portable, non-destructive inspection equipment using magnetisation for wire rope allows quick identification of any deterioration before it becomes a hazard
- Our expert team checks the wire rope for strength, flexibility, resistance to abrasion, crushing, fatigue, rotation and corrosion and suggests corrective actions



MORE for your cranes

Modernisation - Quick and cost-effective ways to keep your cranes up to date

Overhauling - Complete refurbishment or replacement of electrical components, drives and other critical components

Repair - Bringing back your cranes to the original condition through a quick and reliable repair service

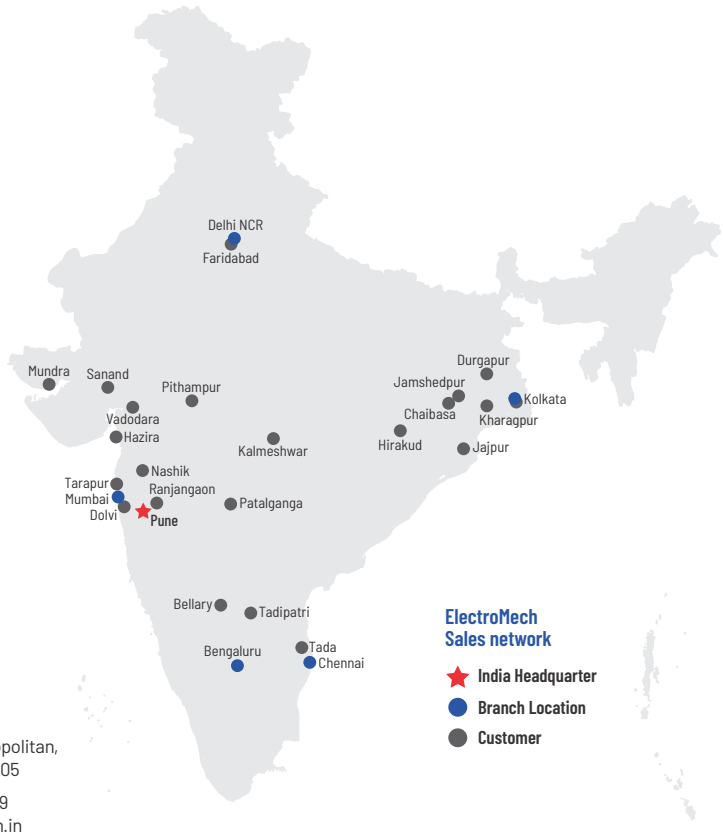
Enhancing Capabilities - Enhancing the crane's capacity as your business expands



Upkeep & Upgrade Spares & Accessaries

- We maintain a healthy stock of spares
- Our experts help you develop parts that are not available in the market or are required specifically for your crane

For more details,
Call: Toll-free 1800 209 0010



Bengaluru

No. 22, 3rd Floor, Above Bombay Dyeing Showroom, 5th Cross, 5th Block, Koramangala, **Bengaluru** 500 095

Cell: +91 72492 86076
E-mail: adamya@emech.in

Chennai

No. 10, 3rd Floor, C Wing, Gemini Parsn Manere, Anna Salai, **Chennai** 600 006 Tamil Nadu

Cell: +91 90032 60777
E-mail: cranes@emech.in

Delhi NCR

307, Wave Silver Tower, Sector 18, **Noida** 201 301, Uttar Pradesh

Cell: +91 98999 79629
E-mail: basant@emech.in

Kolkata

P - 106, 1st Floor, Metropolitan, Sector B, **Kolkata** 700 105

Cell: +91 98999 79629
E-mail: cranes@emech.in

Mumbai

1202, Daisy, Vardhman Gardens, Near TMC Office, Balkum Road, **Thane - West** 400 608

Cell: +91 75676 58433
E-mail: rizwan.khan@emech.in

ElectroMech FZE

LOB 19 1002, P. O. Box 263019, Jebel Ali Free Zone, **Dubai, UAE**

Tel.: +971-4-8857466
Fax: +971-4-8857655
E-mail: contactus@emech.ae

Pt. ElectroMech Manufacturing Industries

Jl. Jati Raya Blok J 10 No. 01B, Newton Techno Park, Desa Serang, Cikarang Selatan, Kab. Bekasi, **Jawa Barat** 17530, **Indonesia**

Tel.: +62 21 899 23111
E-mail: contactus@emech.id

ElectroMech Industry Company

Al Thabat Building, Office # 4, 2nd Floor, King Saud Street, Shamaliya, P. O. Box 20216, **Al Khobar**, Eastern Province, **Kingdom of Saudi Arabia**

Tel.: +966- 53 496 6487
E-mail: contactus@emech.sa

Electro Mech Equipment Trading LLC

Shop No. 8, Sector No. 44, Plot No. 13, Mussafah Industrial Area, **Abu Dhabi, UAE**

Tel.: +971-2-5588035
Fax: +971-2-5588235
E-mail: contactus@emech.ae

ElectroMech

Solutions | Service | Satisfaction |

ElectroMech Material Handling Systems (India) Pvt. Ltd.

Gat No. 316, At post Kasar Amboli, Tal. Mulshi, Dist. **Pune** 412 115 **INDIA**

Telefax: +91-20-6654 2222
E-mail: cranes@emech.in

Manufacturing Facilities & Offices

India | Indonesia | Saudi Arabia | UAE

Factory : **Pune**
Offices : **Bengaluru | Chennai | Delhi | Kolkata | Mumbai**

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