

**Well-engineered
solutions for
the galvanising
industry**



ElectroMech

| Solutions | Service | Satisfaction |

WHO WE ARE?

Established in 1979, ElectroMech is the largest manufacturer of industrial overhead cranes in India. Having experience of close to 40 years, our customers advocate ElectroMech as a solution provider they can count on every single time. Efficient, trusted solutions and commitment have made customers come back to us time and again.

ElectroMech has supplied more than 6500 cranes worldwide, which were fabricated at the manufacturing plant based in Pirangut near Pune. This state-of-the-art manufacturing plant is one of the largest EOT crane manufacturing facilities in India, capable of delivering 1500 cranes annually adhering to international standards, HSE and quality assurance practices. The facility is spread over 85,000 sq.m with a covered area of 20,000 sq.m and can accommodate cranes of various types and sizes. An excellent design office with a team of 30+ designers & developers and an equally efficient sales team of 50+ application engineers make ElectroMech the first choice of customers.

Multitude of products and solutions like Overhead Cranes, Gantry Cranes, Stacker Cranes, Workshop Cranes, Explosion protected Hoists & Cranes, Metal Production Cranes, Coker Cranes, Process Cranes, Port Crane, Tower Cranes & Construction Hoists, Forklifts & Lift trucks, Rollers, Pushers and Push-Pull & Manoeuvre in partnership with globally renowned manufacturers viz. ABUS, Stahl, Zoomlion, Taim Weser, Hyster Yale & Easy Mover make ElectroMech a one stop shop for all your material handling needs.



WHAT IS GALVANISING ?

Galvanising involves deposition of a thick, robust layer of zinc on iron or steel to protect corrosion and improve the longevity of the metal. It protects the metal from corrosion in two ways –

- a. By obstructing corrosive substances from contacting the metal directly
- b. Zinc gets corroded first if the metal gets exposed to corrosive environment

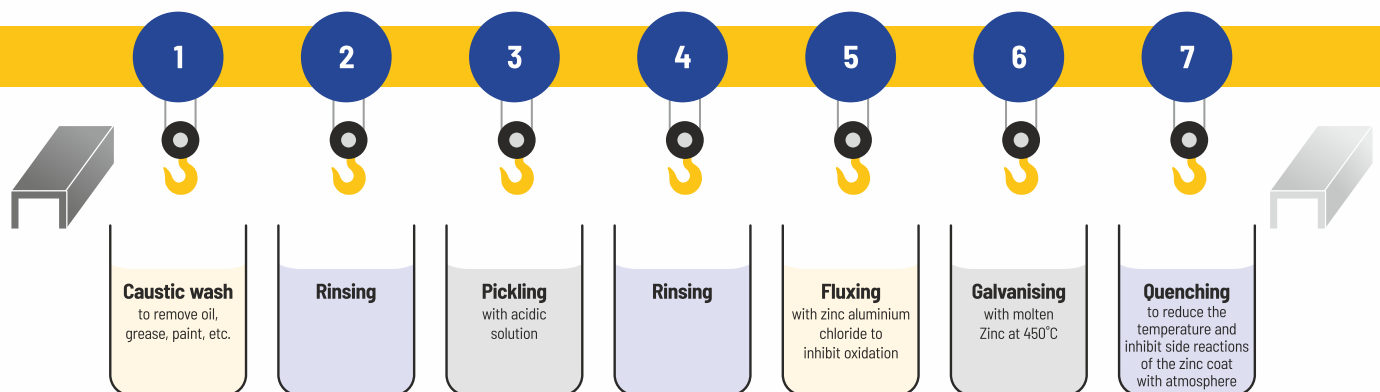
Galvanised metal can last for many decades along with some supplementary conditions like protective paint coatings or sacrificial anodes.

Galvanising finds application in many sectors namely, construction and infrastructure, chemical processing, steel and alloys, steel furniture, electrical utilities, telecommunication – transmission & distribution, hardware, automobile, marine, industrial equipment, etc.

Galvanising is important for the long life of public structures and safety of public using them.



Typical 7 Tank Galvanising Process



Process Conditions

- 450° C temperature in the zinc bath
- Acid concentration 10-12%
- Extremely corrosive atmosphere
- Need for continuous operation
- Hazardous environment



ELECTROMECH'S SOLUTION TO GALVANISING INDUSTRY

ElectroMech, always at the forefront to provide the most challenging and innovative solutions has served the industry at every possible opportunity. We have crafted more than 100 customised EOT cranes for the Galvanising industry combining safety, reliability and longevity of the cranes suited to the process.

Hazardous environment with fumes, dynamic loading pattern of loads and extreme atmospheres of the galvanising process; demand safe, robust and reliable material handling solutions. It is the customised process cranes that move the material from one stage to another through a series of line equipment viz. dipping tanks, filtration system and furnaces.

The metal is suspended from lifting beams attached to the crane hooks and is immersed in a series of chemical solutions depending on the process demands. The cranes too, get exposed directly to the harsh process conditions. Safety of man and material is of prime concern while designing equipment for such demanding applications.

Selection of hoisting/lowering speed is one of the most important criteria while designing cranes for galvanising, depending on the process configuration. To get just the required thickness of zinc coating, the crane must always operate at an optimum hoisting/lowering speed. This ensures that the metal remains dipped in the zinc bath for an adequate time without resulting in too thin a layer of zinc or causing quality giveaway due to excess deposition.

ROBUST DESIGN

Girder

- The heavy-duty girder design with appropriate camber
- Provision of inbuilt lifting lugs for girder assembly & erection at sites

Hoist Shield

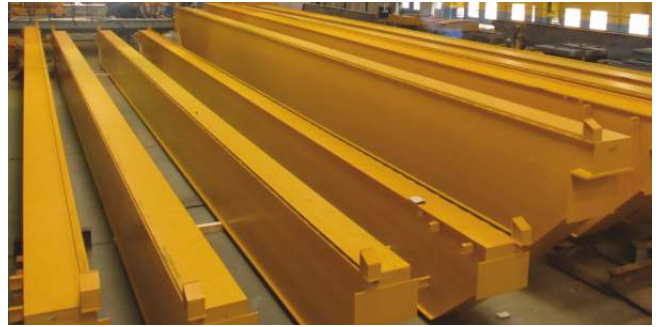
- Galvanised trolley / crab shield provided below the crab body as insulation
- Adds to the longevity of essential components on the trolley viz. motors / gearbox & crab body

Surface Preparation

- Shot blasted surface of grade SA 2 ½ using casting grits
- Increases adhesion of painting deployed on the crane, thereby increasing longevity of crane structure

Painting

- Epoxy primer base coat with 60 - 70 microns
- Polyurethane top coat 80-90 microns dry film thickness
- Total = 150 Microns DFT for corrosion resistance & hazardous environment giving an aesthetic appeal to cranes





UNMATCHED MECHANICAL DESIGN

Wire Rope

ElectroMech selects wire ropes with the highest safety factors as per standards by using galvanised steel core ropes for enhanced life of the components.

Drag Chain Guiding Trough

Powder coated guiding trough ensures that the drag chain does not get exposed to the direct fumes. The fire-retardant low smoke grade increases the life of cables in this extreme environment.

Long Shank Hook

Long shank hook design prevents the lower block from getting immersed in the zinc bath, making the dipping action perfectly safe and smooth. This inbuilt design of our cranes makes hooking and un-hooking of the lifting beams hassle-free.

Tandem Operation

Tandem operation is mandatory for the dipping action to achieve even hosting mechanism and hence, an adequate zinc coating without causing quality giveaway.

DEPENDABLE ELECTRICALS

Panels

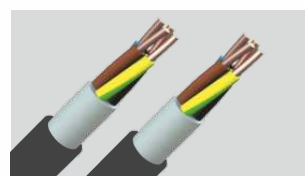
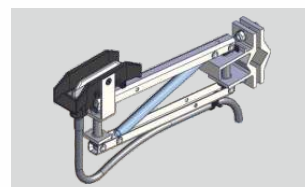
Trustworthy, specially designed panels with high-end panel enclosures add to the safe and uninterrupted operation of the crane. This also ensures that the fumes do not enter the panels & thus avoids damage to internal panel components.

Cables

Flame retardant, low smoke cables are fire resistant and of utmost importance for the safety of man and material.

Down Shop Leads (Bus Bars)

Shrouded, copper bus bars with SS strips & special current collector with SS body make it infallibly safe to operate the crane under the demanding conditions of galvanising process.



Experience

UNMATCHED SERVICES

ElectroMech is known for providing efficient service support for its cranes anywhere in the world through its subsidiary company, Cranedge.

Cranedge is a dedicated service organisation exclusively for providing post-sales services to overhead crane and other material handling system users. As a specialist service provider, we are equipped and backed by resources which are essential prerequisites for us to excel in service and ensure a high level of customer satisfaction.

Our experienced and competent team is strategically located across the nation, supported by a strong logistics and inventory management system with quick access to spares of almost all makes of cranes. We have a knowledge bank of all variety of cranes and applications, and a host of products to optimise crane efficiency.

The Cranedge team is well trained on various aspects to ensure a very high up time of your cranes and ensure safe operations. Once you engage Cranedge, your cranes are in safe hands.

Services partner

cranedge

Service Offerings

- Spares Sales
- Repairs, Services and Overhauling
- Annual Maintenance Contracts
- Crane Health Checks
- Modifications and Retrofits
- Relocation of Cranes
- Crane Safety Certification





Material Handling Solutions for

- Automotive
- Aerospace
- Bridges
- Cable manufacturing
- Cement
- Chemicals
- Cold Storage & Perishables
- Construction
- Construction Equipment
- Container Yards
- Defence
- Electrical
- EPC Contractors
- FMCG
- Foods & Beverages
- Galvanising
- General Engineering
- Glass Manufacturing
- Heavy Engineering
- Highways
- Hydro Power
- Infrastructure
- Logistics & Supply Management
- Manufacturing
- Medical Equipments
- Metro Rails
- Mining & Metal Processing
- Nuclear Power
- Oil & Gas
- Paper & Packaging
- Pharmaceuticals
- Plastics
- Ports
- Precast
- Railways
- Shipping
- Steel / Metal
- Thermal Power
- Tyres & Tubes
- Manufacturing
- Tunnel/Shaft Mucking
- Warehousing
- Waste to Energy
- White Goods
- Wind Power



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Our presence across the world



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