



**Expert services
for all makes of overhead cranes**



ElectroMech

| Solutions | Service | Satisfaction |



Cranedge at a glance

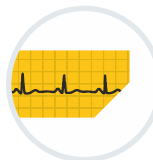
Services for a range of EOT Cranes

- Overhead cranes
- Gantry / Goliath cranes
- Hazardous area cranes
- Steel duty cranes
- Nuclear plant cranes
- Waste-to-energy cranes

Broad categories of services

- Annual Maintenance Contracts
- Equipment Health Check
- Repairs & Relocation
- Overhauling
- Modifications
- Modernisation / Upgradation
- Erection & Commissioning
- Safety Certification
- Operator Training
- Products for Advanced Safety
- IoT & Remote Diagnostics

Your advantages with us



▲ **Increased
Asset Life**



▲ **Higher
ROI**



▲ **Enhanced
Safety**



▼ **Reduced
Downtime**



▼ **Lower Cost of
Maintenance**



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cranedge

Services By ElectroMech

#AnyMake
#AnyWhere

Cranedge – an ElectroMech group company

Cranedge is a service arm of ElectroMech and provides complete aftersales services for a range of EOT cranes. Introduced in 2009, Cranedge stands on a foundation built with more than 40 years' experience of most successful crane manufacturer, ElectroMech.

ElectroMech is a global material handling solutions provider and has supplied over 10000 crane solutions to a wide spectrum of industries in close to 60 countries across the world. Headquartered in Pune, India, the ElectroMech manufacturing facility is spread over 120,000sq.m, making it one of the largest dedicated overhead crane manufacturing facilities in the world. ElectroMech adopts a solutions approach to meet challenges faced by its customers, and enjoys excellent customer satisfaction.

Cranedge was born out of the commitment to provide trouble-free crane ownership experience to all our customers. We believe in going the extra mile, and our scope does not end at supply, but we ensure our unmatched services throughout the life cycle of your equipment.

Technical expertise empowered with technology



Cranedge is a team of over 200 specialists possessing in-depth knowledge of various types of cranes of different makes. The team, while rendering services to different customers, has also meticulously compiled data of over 35000 cranes of different makes, transforming it into a vast 'Knowledge Bank'. All our team members are equipped with tabs connected to the central CMMS server. They can quickly access the required data while on the site anywhere in the world. Thus, they are empowered better to serve you efficiently and in the most precise manner.

Fastest turnaround time – that's our commitment



Our scientific approach, expert team and vast experience ensure efficient services to our customers. We are the only company in this domain to assure a resolution commitment of 48 hours for cranes under warranty. Our customers experience 24x7 fitness of their cranes with the efficient backing of our team. In case of crane failure, our ability to diagnose the problems correctly and quickly helps us to ensure that the downtime is kept to minimum. Our well-laid processes, healthy inventory of spares, excellent logistics and large team, all support our commitment to ensure the highest uptime of your cranes.



Our commitment

- Resolution within 48 hours
- Any make, anywhere in the world

Crane Life Cycle Services

Health assessment is
essential for equipment
which are:

Crane Health Assessment

Overhead cranes experience tremendous wear and tear during its life cycle.

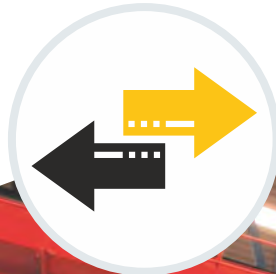
Preventive health check-ups are important for a long and healthy life of the crane to ensure high productivity and avoid operational risks.

A Cranedge health assessment report, along with recommendations from our technical experts, will empower you with the right information about the condition of your crane. This enables you to reach an informed decision and select the most appropriate plan of action to enhance safety and longevity. These assessments cover every crane component for its integrity and compliance to the industry and safety standards. Cranedge has experience of assessment of thousands of cranes of different makes.

Nearing the end
of their design life



Subjected to
rigorous duty cycles

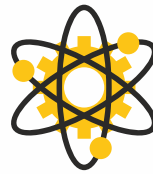


Victims of a
serious accident



Facing frequent
breakdowns





Annual Maintenance Contracts (AMC)

In addition to regular health checks, your cranes require a structured preventive maintenance plan. It will ensure that they provide trouble-free operation while being in a healthy condition. Annual Maintenance Contracts from Cranedge have been developed based on our experience with over 10000 installations across the globe in almost every conceivable industry.

Our AMC cover all components of your cranes to ensure their integrity and ability to perform at all levels of use. Moreover, covering your cranes under a Cranedge AMC gives you timely inputs on the health of worn out parts, so that you can be well prepared for replacements, rather than being caught off guard and suffer production downtime. Planning your spares inventory also becomes much more convenient, saving your

time and money. You can define your own performance parameters which will be analysed by Cranedge to give a detailed crane performance report. This will ensure identification and elimination of problems at an early stage. An AMC is an assurance of maximum possible uptime and it ensures high levels of productivity.



Other Services

Cranedge has built a valuable knowledge base in the material handling domain to keep your cranes running optimally. This is a culmination of our hands-on experience across varied applications and on all major makes of cranes.

Our specialists will be happy to help you customise from an exhaustive range of services designed for different work environments and workplace demands.





MORE for Your Cranes

Your business needs are likely to change over time and it is not always possible to predict them when you buy equipment. Similarly, you should be able to reap the benefits of technological advancements during the life cycle of the equipment, without incurring additional capex.

Cranedge has developed a range of services that strikes a balance between getting MORE out of your equipment and meeting the demands of highly competitive business environments.

**Cost-effective
ways to keep your
cranes up to date**



Modernisation

Cranedge offers quick and cost-effective ways to keep your cranes up to date. Be it retrofitting VFD drives or radio remote controls, ask Cranedge how to best simplify modernisation of existing cranes with the latest technology.



**Improve
service life**



Overhauling

A thorough technical assessment by Cranedge experts allows for accurate identification of the measures to be taken to improve the service life of the equipment.

Overhauling involves complete refurbishment or replacement of electrical components, drives and other critical components. Cranedge certifies your rejuvenated cranes for use.



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Bring back your cranes to original condition



Repairs

Cranedge is equipped to carry out all types of electrical, mechanical or structural repairs of any make of crane. Our workshop can handle any sort of job which requires a large space and consumes time for structural repairs. This is carried out by a team specialised in designing and manufacturing cranes.

Technical backing by the ElectroMech experts gives us an insight into the best practices to bring back your cranes to OEM (or better) specifications.

Enhance capacity as your business expands



Enhancing Capacity

As your business expands, the existing infrastructure may need to be upgraded and equipment replaced. At Cranedge, we help you achieve this while keeping your budget in check.

We evaluate your existing cranes for the possibility to increase their capacity with engineering interventions. We go beyond not simply enhancing the capacity of your cranes, but also helping allocate and relocate them to best suit the workflow or enhance the plant capacity.



Upkeep & Upgrade

As with all machinery, your cranes may require replacement of parts or wear & tear items. Cranedge helps you identify, and install the best quality spare parts.

Considering the volume of cranes under our care, we maintain a healthy stock of spares, so that you are never left waiting for a vital component.

Moreover, our team of experts helps you develop parts that are not available in the market or required specifically for your application.

Cranedge also supplies a wide range of accessories for safety and ease of handling that makes owning, running and maintaining your cranes simpler.

Training

Proper training of the crane operator who is the ultimate user of the crane, goes a long way in ensuring its safe and reliable operations.

Our commitment to keeping your cranes productive does not end with servicing them.

Our specially designed training programmes enable operators to make optimal use of your cranes, ensure safe operations and perform periodic audio & visual checks to identify areas that require attention.

Beyond training your end users, Cranedge can help you with performance planning, development of crane KPIs and performance reporting.





ROMON

Rope Condition Monitoring

Selection of an appropriate wire rope and maintenance of its health are of prime importance for long service performance of your crane. A wire rope usually weakens with overuse and can pose a threat of an accident. It can break while handling loads or may result in uneven lifting. This makes periodic inspections a part of routine check-up.

Cranedge has developed an innovative method to check wire rope for its strength, rotational stability, flexibility, structural ability and spooling behaviour. A portable, non-destructive inspection equipment using magnetisation technique for wire rope allows quick identification of any deterioration before it becomes a hazard. Our expert team checks the wire rope through ROMON and suggests corrective actions for:

Strength

Flexibility

Resistance to
abrasion, crushing,
fatigue, rotation and
corrosion



RAMON

Rail Monitoring

For safe and smooth operation of your cranes, perfect levels, track straightness and parallelism of the tracks are extremely important. Tracks ensure longer life and safe operations of cranes and their components.

Cranedge offers a specialised and technologically advanced crane rail monitoring system – RAMON for smooth crane installations.

Benefits

Periodic rail monitoring helps avoid situations like:

- Premature wear & tear of wheels and shafts
- Unpredicted crane downtime
- Cost-driven repairs or replacements

It helps to ensure that crane components and sub-components have increased reliability and endurance, resulting in maximum availability of your equipment.

RAMON is used to check alignment of rails in terms of span and water levels and identify misalignment. This advanced technique eliminates human error arising out of manual intervention, saving valuable resources like time and money. It enables supervisors to take precise readings at close intervals along with graphical interpretation of reports, which can be presented immediately.

Cranedge offers a complete solution for both, the rail system, using RAMON as well as the correction required.





Modified crane being used at the world's largest irrigation project, preventing the need for additional capex

- Span increased from 18.7m to 50m
- SWL limited to 25t using load limiter

Modification & Relocation

In the capital goods industry, it is a common practice to write-off assets once a particular project is over. Engineering interventions can enhance the life of the equipment and make it suitable for reuse in another project.

Cranedge carries out such modification and relocation projects that save our customers additional capex, time and efforts in procuring new equipment.

Typical modification projects include:

- Enhancing SWL of existing cranes
- Altering crane span (increasing or reducing)
- Modification for adjustable height

After such modifications, the crane can be reused for another project, at a different location while restricting investment.



Erection & Commissioning

Cranedge complements the design and manufacturing experience of ElectroMech with flawless erection and commissioning expertise.

We engage with our customers right from the review of blueprints and floor plans till the cranes are handed over for use. Hassle-free, safe, time-bound and cost-effective installation is our prime concern for both, first-time customers as well as customers with prior experience of crane erection and commissioning.

Our large team of crane specialists possess experience to install cranes in difficult terrains and climatic conditions. With such experience, they are able to overcome site challenges to ensure time-bound completion.



Products for safety and ease of handling

Cranedge has an array of products and services that help ensure safe, smooth and hassle-free operations of your cranes. These products can be easily fitted to your existing cranes to experience many new advanced features. They allow the operator to master complete control of the equipment and enhance its performance.

Sway Control



The Sway Control prevents the swinging of the load and ensures that it remains stable while lifting and traversing. This prevents any hazard to assets, people and the load itself while reducing time spent in stabilising the load. The Sway Control from Cranedge is a must-have feature for your cranes to function optimally and safely.

Anti-collision Device and Human Sensors



In several factories, multiple cranes are used in the same bay and are operated simultaneously. This poses a danger of two cranes colliding due to error of judgement of the operator. To avoid such a situation, Cranedge offers the Anti-collision Device. It uses proximity sensors that trip off the switches if the safe distance limit is crossed. This automatically ensures that a safe distance is always maintained between two cranes.

Anchoring System for Outdoor Gantry Cranes



Outdoor cranes often have to face nature's wrath such as heavy winds and storms. A reliable anchoring system firmly holds the entire crane structure at the job site, thus preventing the crane from toppling and avoiding major accidents and loss of life and property.

Radio Remote Control for Added Flexibility



Usually, cranes are provided with a fixed pendant control that poses a limitation while operating them. Cranedge offers added flexibility in operation by suitably incorporating RRC, Cabin and Human Machine Interface (HMI). Radio Remote Control allows the operator to easily operate the crane from a distance. It reduces operator fatigue, enhances productivity and ensures swift control on crane operations. Our RRCs adhere to various European safety standards, assuring high levels of safety, and incorporate advanced features.



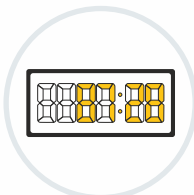
Slip Ring to Squirrel Cage Motors

Several conventional cranes, especially those more than a decade old, are fitted with slip ring type motors. Replacing them with squirrel cage motors offers several advantages. The most significant of them is that squirrel cage motors can be easily paired with VFD (Variable Frequency Drive). By using the VFD controller, you can experience the following advantages:

- Smooth start and stop
- Smooth acceleration and deceleration
- Flexibility in setting micro speed

- Jerk-free transition from micro speed to full speed
- Brakes are applied at almost zero speed
- Enhanced life of brakes and brake liners
- Ease of connection with other devices with universal communication protocol

Cranedge has replaced slip ring type motors of several cranes with squirrel cage motors and the customers are experiencing enhanced productivity apart from other benefits.



Load Limiter with Display

Load limiters are essential to avoid accidents and breakdowns due to overloads on EOT cranes, hoists and winches where tension in the wire rope needs to be monitored on a continual basis. A load limiter either blocks the hoisting movement or triggers an alarm if the safe working load limit of the crane is exceeded.





**Effective use of IoT
for maximising productivity
and minimising downtime**

Tech-enabled Solutions

Recognising the importance of fail-safe operations of cranes for higher productivity and safety, companies lay great emphasis on predictive and proactive maintenance. Cranedge has developed EMote while keeping this particular requirement in mind.

EMote is helpful in remote diagnostics of crane health and offers remote support for maintenance. Various sensors and condition monitoring devices fitted on the crane collect and transmit data in real time. Such data can be easily accessed by the customer and the Cranedge team through a portal to make an informed decision about maintenance. Promptly attending to such maintenance issues helps in improving productivity and workplace safety.

EMote generates real-time data on the operation and condition of cranes based on several parameters such as:

- Number of incidences of non-adherence to safety norms and crossing critical limits such as motor overheating, crane overloading, etc.

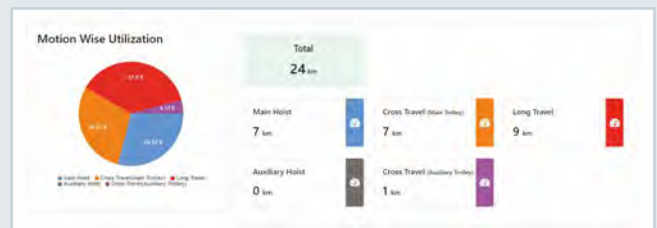
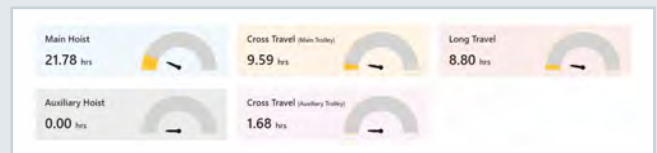
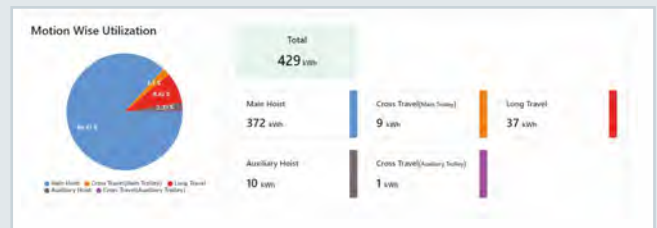


- Statistics related to crane operations such as number of operating hours, start-stops, etc.
- Time remaining for end-of-design-life of critical components and their current health status
- Pareto analysis of critical warnings and alerts

The information is displayed in easy-to-understand formats such as graphs and tables. Such data can be accessed, shared and analysed for proactive and preventive maintenance.

Critical alerts are sent via messages or emails to all stakeholders. EMote helps in effective maintenance of multiple cranes at different locations.

By using EMote, the Cranedge team is able to provide remote support for appropriate crane operations as well as for troubleshooting. This way, you have access to expert advice 24x7 and at any remote location.



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



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