

THE KONECRANES M-SERIES CRANE

# Heavy-duty process crane



# Heavy process lifting redefined

**The Konecranes M-series is a modern, compact open winch crane that can easily handle all of your heavy-duty lifting needs. Built with our Core of Lifting components, the modular design can adapt to almost any production process. The M-series delivers reliable performance and is designed for up to 2 million duty cycles.**

Based on cutting-edge design, secure connectivity and ease of use, the Konecranes M-series is packed with innovative options for increased material flow and a sustainable, long-term return on investment in your operations.

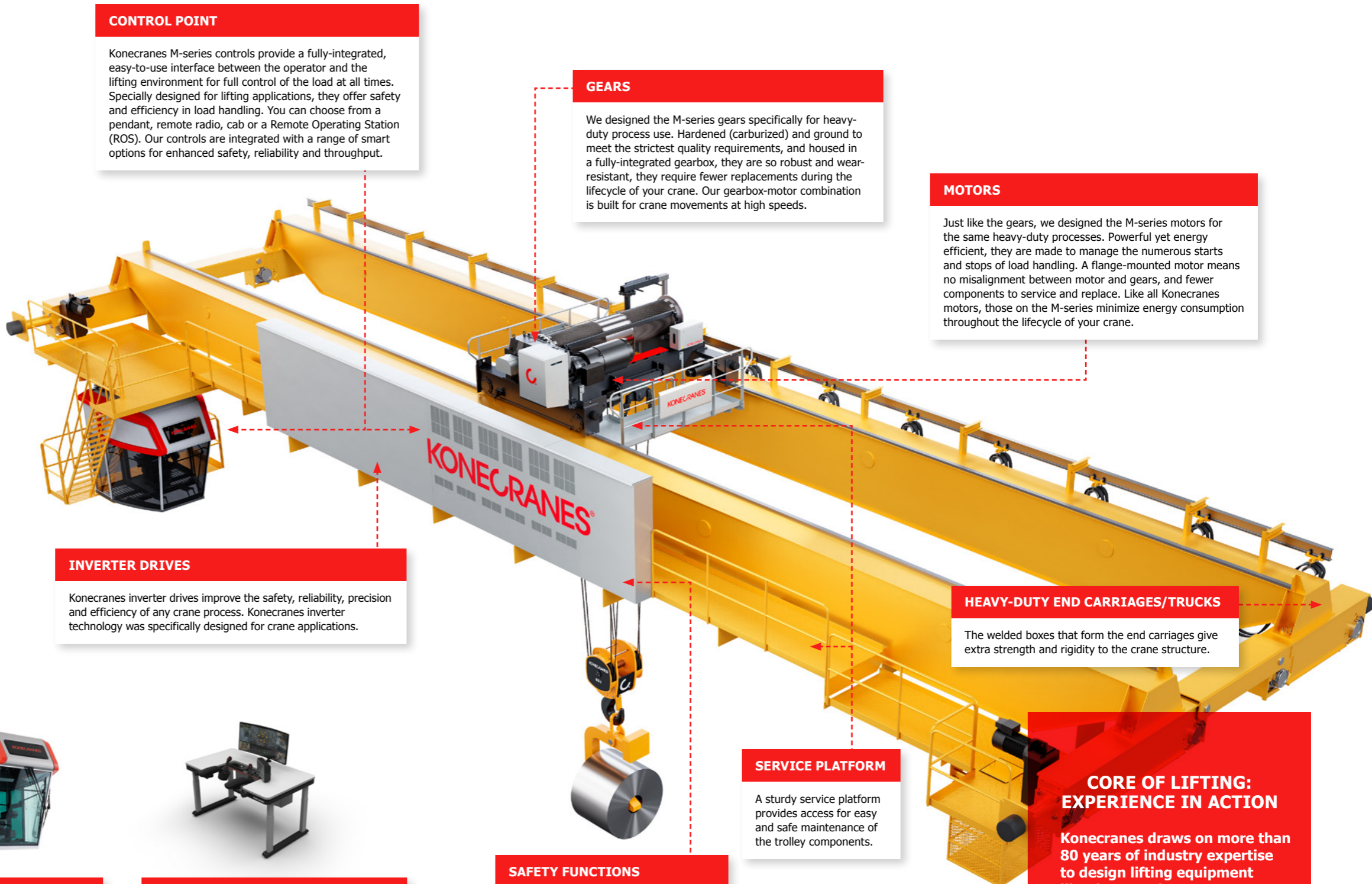
## The power of data

The M-series comes with TRUCONNECT Remote Monitoring to give you the power of IoT connectivity to help make your operations safer and more efficient. Remote Monitoring provides condition, usage and operating data and alerts of certain anomalies.

TRUCONNECT data can alert you to problems with your cranes before they give way to critical issues that can impair safety and performance, helping you plan and leaving less room for surprises. Analyzing TRUCONNECT data can also help you develop an operational baseline and identify opportunities for maintenance and process improvements.

## Ergonomic crane controls

Ergonomic and intuitive controls help operators work their shifts safely and productively. The M-series can be operated with basic radio controls, from an on-board cabin or even at a Remote Operating Station (ROS).



### CONTROL POINT

Konecranes M-series controls provide a fully-integrated, easy-to-use interface between the operator and the lifting environment for full control of the load at all times. Specially designed for lifting applications, they offer safety and efficiency in load handling. You can choose from a pendant, remote radio, cab or a Remote Operating Station (ROS). Our controls are integrated with a range of smart options for enhanced safety, reliability and throughput.

### GEARS

We designed the M-series gears specifically for heavy-duty process use. Hardened (carburized) and ground to meet the strictest quality requirements, and housed in a fully-integrated gearbox, they are so robust and wear-resistant, they require fewer replacements during the lifecycle of your crane. Our gearbox-motor combination is built for crane movements at high speeds.

### MOTORS

Just like the gears, we designed the M-series motors for the same heavy-duty processes. Powerful yet energy efficient, they are made to manage the numerous starts and stops of load handling. A flange-mounted motor means no misalignment between motor and gears, and fewer components to service and replace. Like all Konecranes motors, those on the M-series minimize energy consumption throughout the lifecycle of your crane.

### INVERTER DRIVES

Konecranes inverter drives improve the safety, reliability, precision and efficiency of any crane process. Konecranes inverter technology was specifically designed for crane applications.

### HEAVY-DUTY END CARRIAGES/TRUCKS

The welded boxes that form the end carriages give extra strength and rigidity to the crane structure.

### SERVICE PLATFORM

A sturdy service platform provides access for easy and safe maintenance of the trolley components.

### SAFETY FUNCTIONS

Integrated safety functions like hoist overspeed supervision, hoist brake opening supervision, and hoist brake slip supervision help enable safe operation.

### REMOTE OPERATING STATION

A Remote Operating Station (ROS) features the same controls as a cabin, but allows the operator to work from a central control room, or even in an office. It provides a fully-functional and ergonomic work area for the M-series that improves safety, work conditions, and overall efficiency. High-speed camera views allow operation without a line of sight to the crane.

### CABIN

Below the main girder of the crane, with windows on all sides, the cabin provides operators with a clear view of the M-series working area. It offers comfortable seating, easy access to controls and low vibration. A tubular design maximizes strength, rigidity and durability.

### RADIO

Radio controls help improve safety by providing free movement for the operator and allows them to choose the safest place to operate the crane. M-series radios have easy to use push buttons and joysticks for improved load control. An optional integrated tablet provides crane performance parameters, safe feature options and camera views that elevate the user experience.



**CORE OF LIFTING: EXPERIENCE IN ACTION**  
 Konecranes draws on more than 80 years of industry expertise to design lifting equipment like the M-series crane to your critical lifting applications and demanding work environments. The key components of the M-series—gears, motors and controls, all of which we have designed and manufactured—work together seamlessly as the Core of Lifting.

# Smart Features

These software-based add-ons for your M-series crane help improve safety, cycle time and load positioning through partial automation. Smart Features gives you precision movement and lower the risk of collision with personnel or equipment.

## Default Smart Features

**Extended Speed Range** – ESR allows the hoist to run at up to double nominal speed, improving cycle times by up to 20% and boosting overall production volume.

**Load Floating** keeps the load in position after hoisting movement stops, so the brake is applied less frequently and experiences less wear. It also allows faster and smoother hoisting restart and better load control.

**Shock Load Prevention** gives you smooth load pickups and reduces mechanical stress by automatically reducing hoist speed if a load is picked up too fast.

## Smart Features for improved safety and productivity

Smart Features such as Active Sway Control, Hook Centering and Snag Prevention can be added to the M-series crane to improve the safety and productivity of load handling.

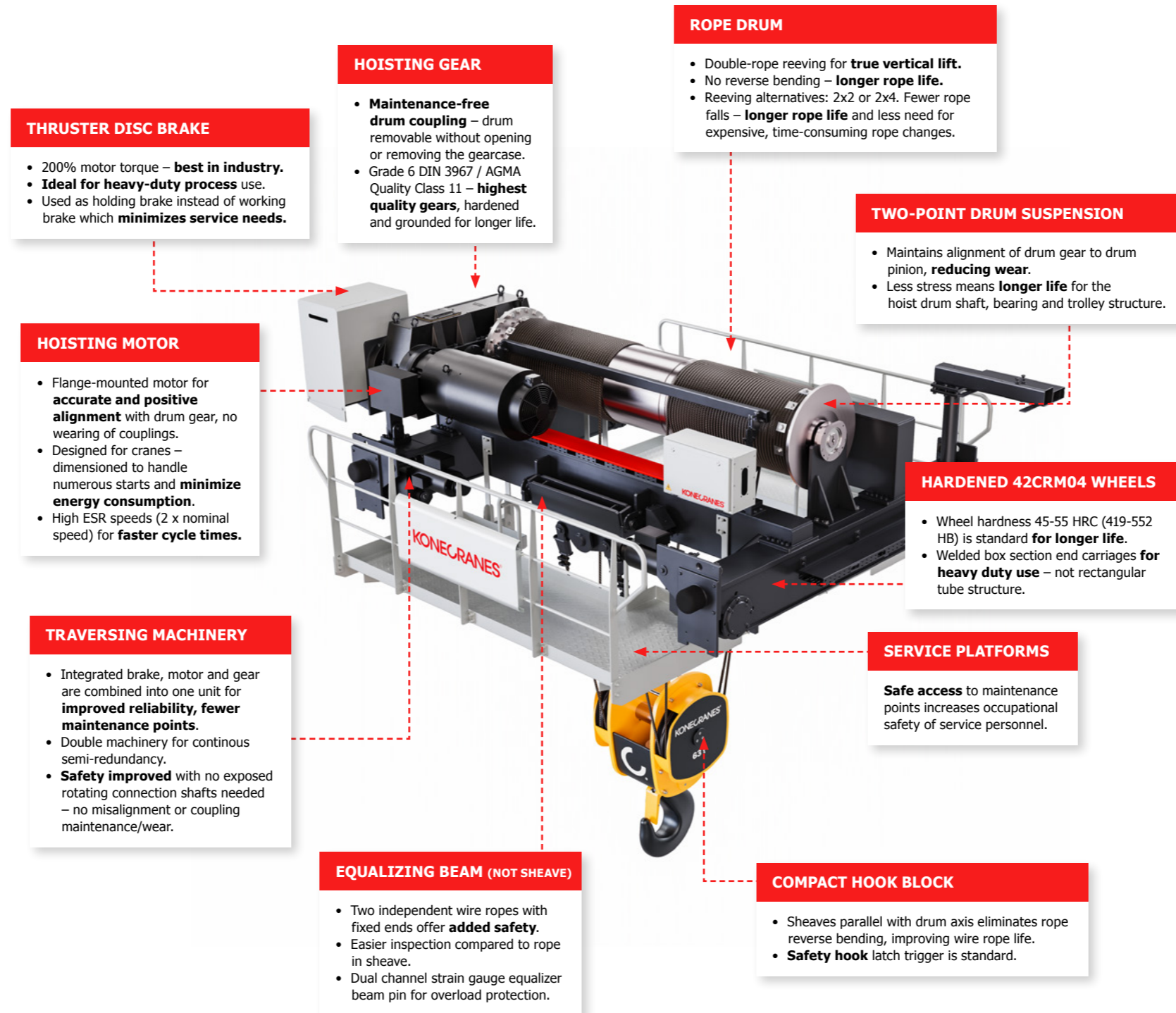
## Semi-automation

Optional Smart Features such as Target Positioning, Protected Areas and End Positioning enable semi-automated control.

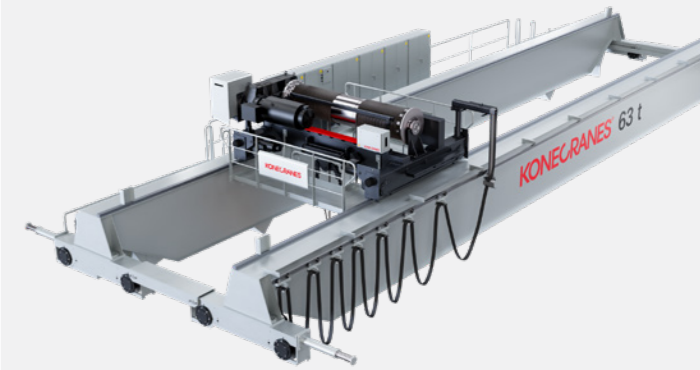
## Full automation

Our modern digital platform allows you to fully automate the M-series and integrate it into plant-level systems. Automation improves process speed, quality, and ultimately, the efficiency of your production processes.

# M-series process duty trolley



# M-series specifications



FEATURES	SPECIFICATIONS
<b>Lifting capacity</b>	Up to 70 tons in one trolley Up to 140 tons with two trolleys
<b>Span</b>	Up to 45 meters
<b>Lifting height</b>	Up to 45 meters
<b>Runway length</b>	No limit
<b>Hoist speed control</b>	Inverter hoisting with Extended Speed Range (ESR)
<b>Crane control options</b>	Radio remote control with tablet, cabin, or Remote Operating Station (ROS)
<b>Girder design</b>	Box girder
<b>Trolley Supply</b>	Flat cables or energy chain
<b>Compliance</b>	EN A6 to A9/ CMAA class D, E & F
<b>Certifications</b>	CE, RoHS, CSA
<b>Temperature range</b>	-20° C to +60° C
<b>Integrated safety functions</b>	<ul style="list-style-type: none"> <li>• Hoisting safety limit switch</li> <li>• Overload protection</li> <li>• Hoisting motor thermal protection</li> <li>• Hoist overspeed supervision</li> <li>• Hoist brake opening supervision (with SCM)</li> <li>• Hoist brake slip supervision (with SCM)</li> </ul>
<b>Integrated Smart Features</b>	<ul style="list-style-type: none"> <li>• Extended speed range (ESR)</li> <li>• Load Floating for hoisting</li> <li>• Shock Load Prevention</li> </ul>
<b>Environment</b>	Indoor or Outdoor
<b>Standard features</b>	<ul style="list-style-type: none"> <li>• Hardened trolley and bridge wheels to 45-55 Rc</li> <li>• Hoist brake is 200% motor torque as standard for safety</li> <li>• Condition Monitoring Unit</li> </ul>



## Suitable for a wide range of applications

**The M-series is a highly flexible process duty crane that is an ideal choice for a wide range of applications in many different industries.**

### Automotive

The M-series is adaptable to almost any automotive application and can provide optimized material handling in critical processes.

- Die handling
- Die gripper/grab (semi or fully-automated)
- Coil handling

### Paper

The M-series adapts to many different paper handling applications.

- Automated roll storage (ASRS)
- Wet and dry end paper machine
- Reel handling

### Metals production

Specialized magnets, clamps, grabs and other attachments allow your M-series crane to perform in the most demanding applications.

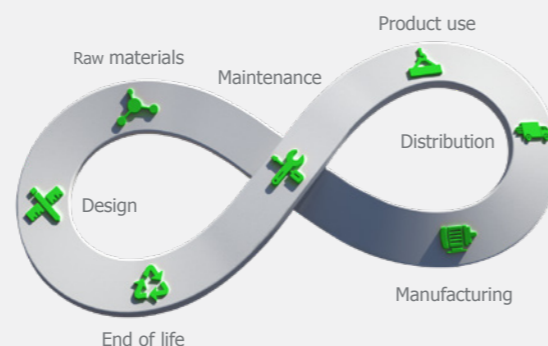
- Scrap yards
- Coil handling
- Bar handling
- Billet/ingot handling
- Plate handling
- Metal warehouse cranes

### General manufacturing

Control options on the M-series crane offer high-precision load handling, while its robust and reliable performance helps maintain a constant process flow through your facility.

## Sustainable benefits

**Sustainability at every stage of the crane's lifecycle**



- 98% of the materials used to make the hoist are steel because it has a lower carbon footprint than metals such as copper and aluminum. Steel is also fully recyclable at the end of its life.
- Variable-speed electric drives are default in M-series cranes due to their extremely high energy efficiency.
- Specially designed regenerative braking gives significant energy savings during the lifecycle of the crane.
- LED lights help reduce the energy consumption of equipment lighting.
- Regular maintenance supports efficiency, safety and performance and extends the life span of the crane. Konecranes Service provides maintenance and spare parts.
- Predictive maintenance and Remote Monitoring provide vital information for optimal maintenance planning and component replacement and helps reduce downtime.

## Services to maximize lifecycle value

Konecranes Service can help you maintain your M-series crane—as well as any other crane in your fleet. We have the largest and most extensive service network in the industry giving you the advantage of local inspectors and technicians with access to a wealth of knowledge gained from servicing hundreds of thousands of assets of all makes and models in a wide range of industries.

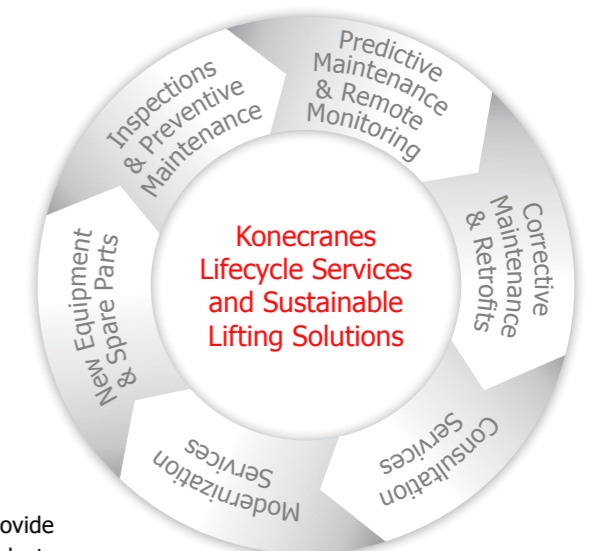
You can maximize the lifecycle value of your cranes with a Konecranes service program that is tailored to your requirements. A program of regular inspections and preventive plus predictive maintenance supports compliance and helps identify risks and opportunities for improvement.

At Konecranes we take a comprehensive and systematic approach to managing

customer assets throughout our Lifecycle Services. We don't just drop off a report on the way out, we consult with you to help guide your decision making. We share our findings, provide recommendations based on our industry-leading expertise and discuss how each action impacts your operations and the entire health of your business.

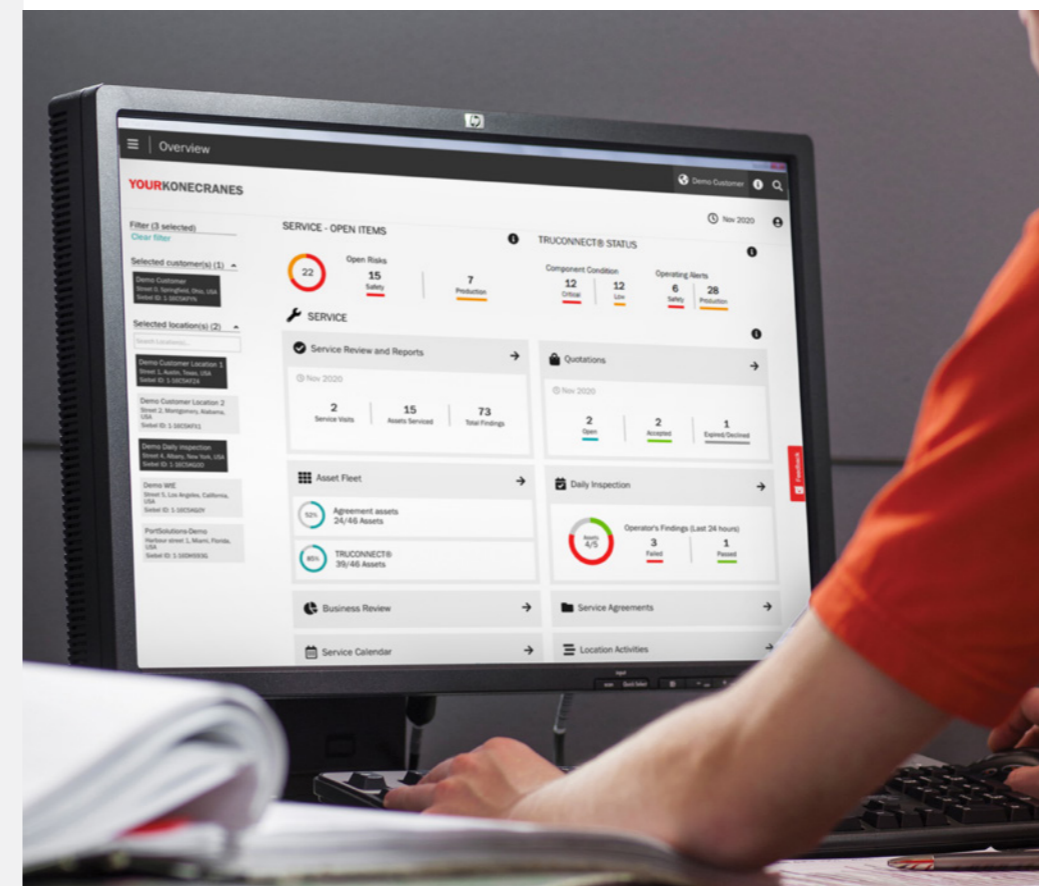
### Quick and easy access to crane information

When you have TRUCONNECT Remote Monitoring and/or a maintenance agreement with Konecranes you get access to the yourKONECRANES customer portal. The portal lets you quickly and easily see your crane maintenance information, asset



condition and usage data, as well as an overview of findings in your fleet.

The data on yourKONECRANES can be viewed, analyzed and shared quickly helping you make informed maintenance decisions. TRUCONNECT safety alerts and condition status is available any time, any place and the information can help you act quickly on potential safety issues and plan your maintenance with minimal disturbance to production.



### DATA SECURITY

**Konecranes is one of the first companies in the lifting equipment and service industry to certify its digital services with ISO/IEC 27001:2013 certification for information security management.**

**The ISO/IEC 27001 certificate demonstrates a commitment to proactively manage the information security of Konecranes digital services and ensure compliance with legal and customer requirements.**



**Konecranes is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity enhancing lifting solutions as well as services for lifting equipment of all makes. In 2021, Group sales totaled EUR 3.2 billion. The Group has around 16,600 employees in 50 countries. Konecranes shares are listed on the Nasdaq Helsinki (symbol: KCR).**

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