

INDUSTRIAL CRANES
NUCLEAR CRANES
PORT CRANES
HEAVY-DUTY LIFT TRUCKS
SERVICE
MACHINE TOOL SERVICE

PRODUCTS FOR HAZARDOUS ENVIRONMENTS

KONECRANES®
Lifting Businesses™

CRANES AND HOISTS FOR HAZARDOUS ENVIRONMENTS





SAFETY WITH A FULL SOLUTION

See our cranes in action and get to know the EX product range by watching an introduction video.



In developing our product range for hazardous environments, we combined our long experience in explosion-proof applications with our proven capacity for technological innovation. This R&D process has led to a competitive and comprehensive range of explosion-proof cranes and components available today. It includes industrial cranes and jib cranes, as well as electric and manual hoists with lifting capacities from 125 kg to 160 tons.

All crane components are selected to ensure the high level of safety required for the hazardous atmospheres in chemical and petrochemical plants, oil refineries, gas power plants, wastewater treatment plants, paint shops and other industrial sites. Our cranes have been designed and built to provide years of reliable and safe operation. With global service and an after-sales network spanning the world, we want that your cranes and other lifting equipment are operational when you need them. We provide full solution of spare parts and maintenance services that get to you fast.



We have been building cranes for more than 80 years. We intend to stay leaders in the lifting business for the next 80 years and beyond.

OVER 450,000

items of equipment under maintenance contract

HUNDREDS OF EX CRANES

and hoists delivered around the world in the last four decades



OVER 600

service locations worldwide

ALMOST 12,000

employees in 626 locations around the world, and active in nearly 50 countries



WE UNDERSTAND YOUR BUSINESS

Customers operating in explosive atmospheres have different needs for their lifting equipment. Requirements related to lifting processes cover everything from standard products to highly advanced solutions. So we have tailored our products to be optimized for your specific and unique lifting needs.

CUSTOMER AREAS

- Oil & gas refineries
- Chemical
- Solar energy equipment factories
- Woodworking
- Waste water treatment
- Paint spray
- Gas power plants
- Printing
- Alcohol distilleries



CERTIFICATIONS

Quality is especially important in hazardous environments, where safety and efficiency are key. Multiple certifications prove the quality of our products: IECEx for the world, ATEX for Europe, TRCU for Russia, CSA US for the United States and INMETRO for Brazil. For example, the ATEX directive gives strict rules for constant production and product quality follow-up. The certificate proves that Konecranes follows these regulations.





ENVIRONMENTS

DEFINITION FOR HAZARDOUS LOCATIONS ACCORDING TO ATEX:

EX ZONES – GAS ENVIRONMENT

Zone 1

A place in which an explosive atmosphere consisting of a mixture with air or flammable substances in the form of gas, vapour or mist is likely to occur in normal operation occasionally.

Zone 2

A place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

EX ZONES – DUST ENVIRONMENT

Zone 21

A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation occasionally.

Zone 22

A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

DEFINITION FOR HAZARDOUS LOCATIONS IN NORTH AMERICA:

Class I

A location made hazardous by the presence of flammable gases or vapors that may be present in the air in quantities sufficient to produce an explosive or ignitable mixture

Division 2

A location where a classified hazard does not normally exist but is possible to appear under abnormal conditions

Zone 2

An area in which an explosive gas atmosphere does not normally exist



Suitability for gas / dust environment

	Zone 2 / Zone 22	Zone 1 / Zone 21	Zone 0 / Zone 20	Class I / Div 2	Read more on pages
EXCXT wire rope hoist crane	✓	✓	✗	✓	8-9
EXCXT wire rope hoist	✓	✓	✗	✓	10-11
EXN electric chain hoist crane	✓	✓	✗	✗	12-13
EXN electric chain hoist	✓	✓	✗	✗	14-15
EKM2 manual hoist	✓	✓	✗	✗	17
EXXM and EXXA workstation cranes	✓	✓	✗	✗	18-19
EX jib crane	✓	✓	✗	✗	20
EXATB AirBalancer	✓	✗	✗	✗	21

In order to find the right solution for each environment, we need to know the EX markings our customers require.

The EXCXT crane offers a new level of safety and a higher level of productivity.



EXCXT WIRE ROPE HOIST CRANE

In your everyday work, you must be able to rely on the tools you use. Konecranes industrial crane for hazardous environments is ready for even the most challenging tasks. Once equipped with an EXCXT wire rope hoist, the crane offers a new level of safety and even higher level of productivity.

Excellent performance

- Up to 80 tons lifting capacity
- Sturdy steel structure and reliable EXCXT wire rope hoist
- Service-friendly “DE” technology with separate flameproof “D” section
- Access to maintenance points is easy so it reduces downtime

Safety

- Safety-oriented features designed for the hoist
- All components EX-certified

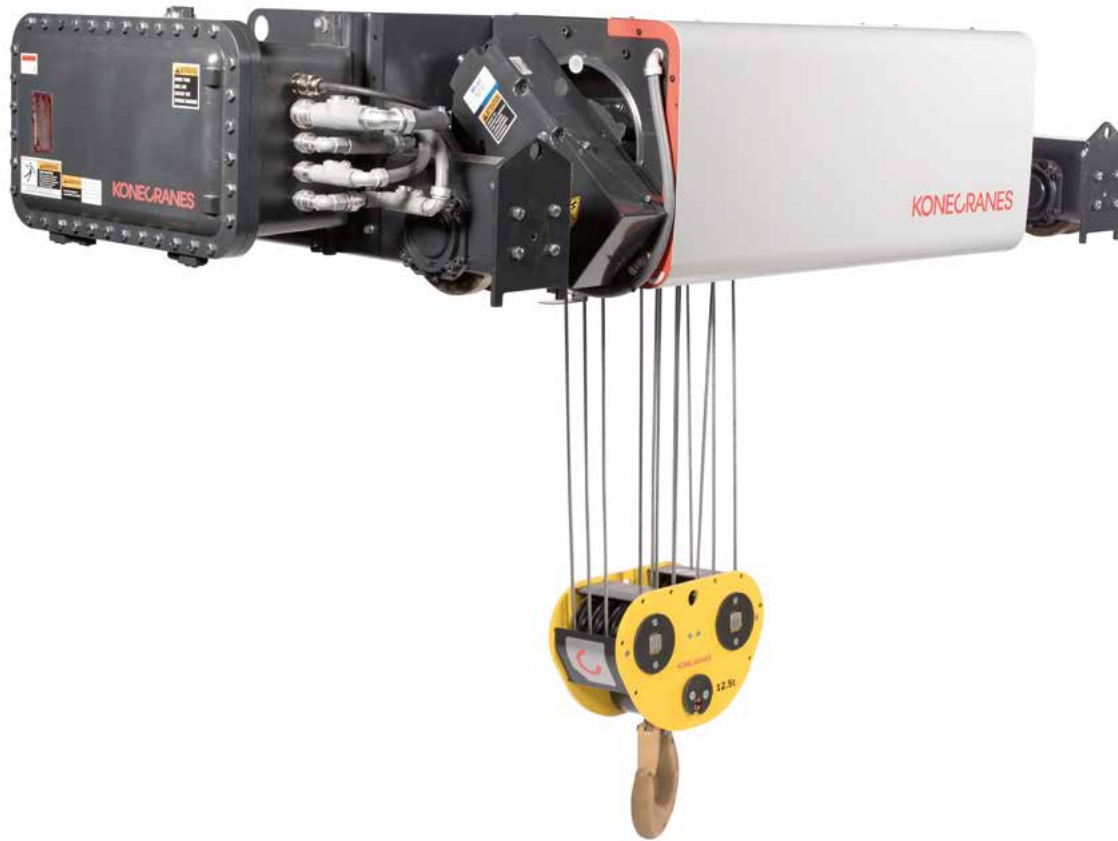
Ergonomics

- Ergonomic user interface allows the operator to fully focus on lifting
- Large rope drum diameter keeps hoist dimensions compact and minimizes hook approaches





Suitability for gas / dust environment			
Zone 2 / Zone 22	Zone 1 / Zone 21	Zone 0 / Zone 20	Class I / Div 2
✓	✓	✗	✓



CSA approved EXCXT

EXCXT WIRE ROPE HOIST

EXCXT electric wire rope hoists represent the highest levels of safety and quality within the lifting equipment industry. An innovative mechanical configuration that prevents sparking, plus state-of-the-art speed control and motor technology, have made the EXCXT hoist an industry benchmark.

For industrial cranes, solo hoist or monorail applications, or for upgrading existing hoisting equipment, EXCXT wire rope hoists give a good return on your investment.

EXCXT hoists offer

- High performance
- Easy load handling
- Improved ergonomics and safety
- Compact dimensions

Suitability for gas / dust environment

Zone 2 / Zone 22

Zone 1 / Zone 21

Zone 0 / Zone 20

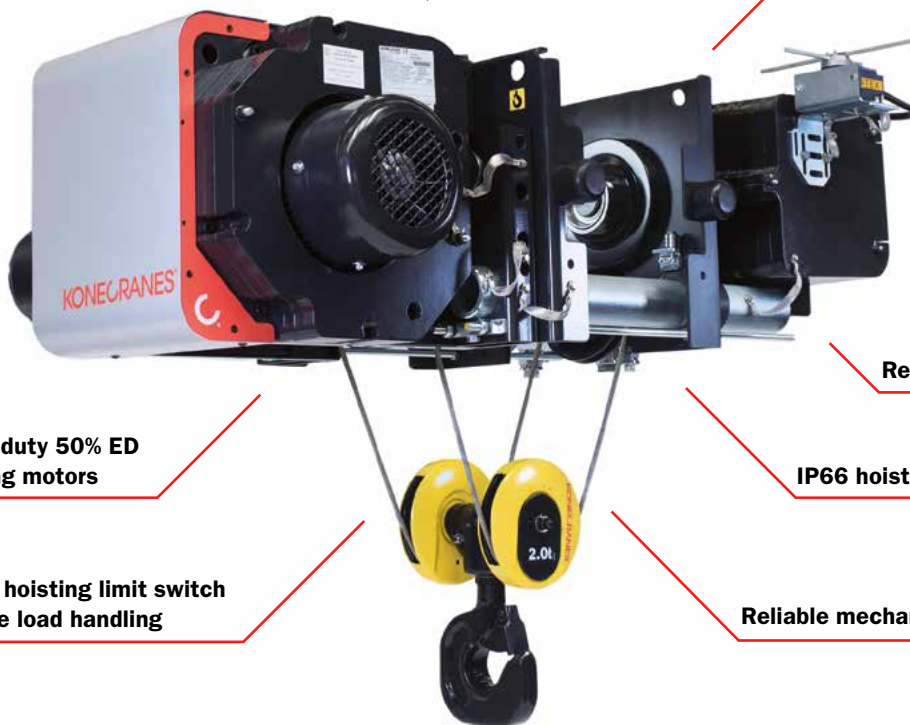
Class I / Div 2





Dual-speed hoisting with 6:1 speed ratio enables easy and accurate load handling

Very compact hoist dimensions due to large rope drum diameter



Heavy-duty 50% ED hoisting motors

Reliable contactor controls

IP66 hoisting and travelling motors

2-step hoisting limit switch for safe load handling

Reliable mechanical overload protection



EXN ELECTRIC CHAIN HOIST CRANE

Konecranes EXN chain hoist cranes are suitable for many different applications in hazardous environments. With a lifting capacity of up to 5 tons, the EXN chain hoist crane offers you reliability, ease of use and a high level of safety. It can meet your lifting needs – from any standard lift to the most advanced.

Reliability

- Up to 5 tons lifting capacity, with its sturdy steel structure and reliable EXN chain hoist
- Core components, such as gears and motors, designed specially for crane use

Safety

- Safety-oriented features designed for the hoist
- All components EX certified

Ergonomics

- Ergonomic user interface allows the operator to fully focus on lifting
- EXN hoist's compact size optimizes approach dimensions

Suitability for gas / dust environment

Zone 2 / Zone 22

Zone 1 / Zone 21

Zone 0 / Zone 20





The EXN chain hoist crane can meet your lifting needs – from standard lifts to the most advanced ones.





EXN ELECTRIC CHAIN HOIST

The Konecranes EXN electric chain hoist is a durable lifting solution, featuring superior performance, and the high level of safety and reliability you need in an explosive atmosphere. The EXN chain hoist has the flexibility to be configured for a diverse range of hazardous environments, providing an ergonomic and safe daily work area for your operator.

Available with

- Hook suspended trolley
- Manual chain travel
- Normal headroom trolley
- Low headroom trolley
- Push trolley

Suitability for gas / dust environment

Zone 2 / Zone 22



Zone 1 / Zone 21



Zone 0 / Zone 20





High-performance 60% ED, 360 starts per hour hoisting motors

Slipping clutch protects against overload

Contactor controls for reliable performance

Access to maintenance points is easy so it reduces downtime



Accurate load positioning with 4:1 traveling speed ratio

Dual-speed hoisting with 6:1 speed ratio ensures easy and accurate load handling

Service-friendly "DE" technology with separate flameproof "D" section



EKM2 MANUAL HOIST

Konecranes EKM2 manual chain hoists and EKPT manual trolleys offer an optimal, cost-effective solution for your non-frequent lifting needs.

Safety features include

- Galvanized and calibrated load chain
- Stainless steel hand chain
- Copper-coated hooks and trolley wheels prevent sparks
- Hoists and trolleys powder painted for ultimate corrosion protection
- ISO hooks with safety latch eases load handling
- Overload limiter
- Rubber buffers to prevent possible collisions
- Chain collectors available
- Up to 20 tons lifting capacity

Suitability for gas / dust environment

Zone 2 / Zone 22

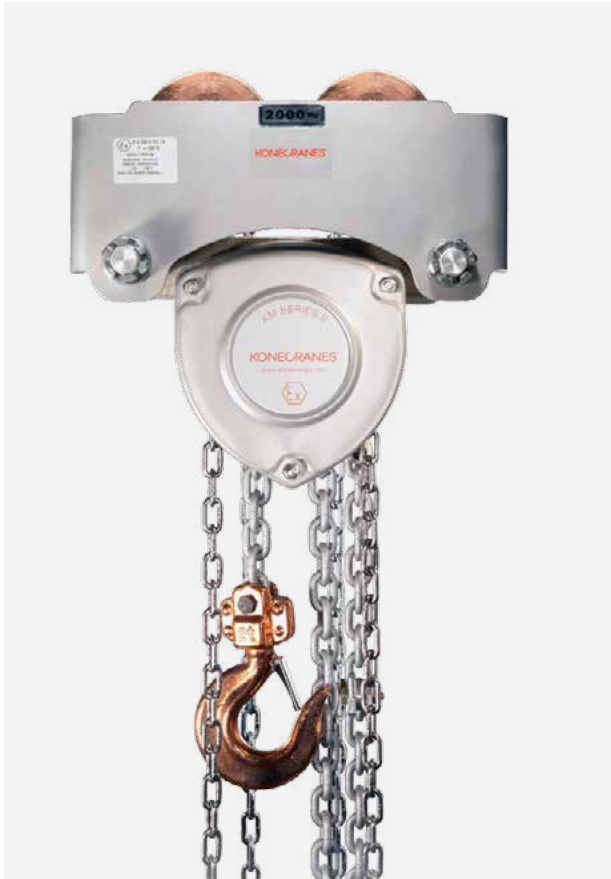


Zone 1 / Zone 21



Zone 0 / Zone 20





Konecranes manual hoists are an economical solution with wide load ranges and various features to enhance your work ergonomics.





EXXM AND EXXA WORKSTATION CRANES

With EX-certified electrics, a load capacity of up to 2,000 kg and an optimized working area below, our EX workstation cranes are ready to increase your productivity wherever you need to move loads in an explosive atmosphere. Machined brass wheels and high-quality bearings allow silent running to reduce noise, while the weld-free modular system makes the cranes easy to install, maintain, and modify.

EXXM steel profile systems – strong and durable

- Long suspension distances minimize steel structures and reduce overall costs
- High-quality finish and unique hollow profile ensures smooth traveling
- Longer lifetime and reduced maintenance costs with dust and dirt protection
- Profiles with bolt connections allow easy extensions

EXXA aluminum profile systems – light with a low rolling resistance

- Anodized aluminium surface optimal for clean environments
- About 50% lighter than steel
- Smooth running on high-quality joint connections
- High structural stiffness minimizes dead weights
- Lifetime protection against corrosion
- Easy recycling



Suitability for gas / dust environment

Zone 2 / Zone 22



Zone 1 / Zone 21



Zone 0 / Zone 20







EX JIB CRANE

Konecranes jib cranes are very easy to install and operate. Used almost everywhere, you will find jib cranes in small workshops, big factory assembly lines, manufacturing plants and harbors. Their application can be adapted to almost whatever and used wherever you need to lift.

- Main disconnect switch as a standard feature to increase safety
- Separate emergency stop button on hoist pendant
- Easy and fast installation
- Precision adjustment with two speed hoisting
- Low deadweight reduces structural stress



Suitability for gas / dust environment

Zone 2 / Zone 22

Zone 1 / Zone 21

Zone 0 / Zone 20





EXATB AIRBALANCER

Fast, precise, and safe load handling is of utmost importance when working in a hazardous environment. With its speed and flexibility, the Konecranes EXATB AirBalancer is a great alternative to hoists. Its unique technology enables you to easily manipulate items by hand, with air pressure as the power source. A wide variety of control systems and optional features gives you precise handling and full control over your load.

The AirBalancer features:

- Ergonomic 3D load movement without buttons or handles
- 350 kg of almost weightless lifting
- Smooth movement, load weight compensation as standard
- Centrifugal brake and wear-free overload protection
- Low maintenance costs
- No motor means a clean and quiet working environment
- Extremely heavy-duty with 100% duty cycle



Suitability for gas / dust environment

Zone 2 / Zone 22

Zone 1 / Zone 21

Zone 0 / Zone 20





SAFETY IS ONE OF OUR HIGHEST PRIORITIES

We provide specialized maintenance services and spare parts for all types and makes of industrial cranes, hoists, machine tools and port equipment – from a single piece of equipment to complete maintenance and material handling outsourcing services. Our objective is to improve the safety and productivity of our customers' operations.

Our approach to crane maintenance

Lifecycle Care results in higher lifecycle value – maximizing the productivity of uptime and minimizing the cost of downtime.

Konecranes service programs

From the first CONTACT, to our professional evaluation of the CONDITION of your equipment, to preventive maintenance and consultation services that provide optimal CARE, Konecranes will tailor a service program to lift your business. When a mutual COMMITMENT to maintenance outsourcing or COMPLETE maintenance and

material handling outsourcing is required, Konecranes has the experience and resources to help you meet your business objectives.

EX crane modernizations

Modernizations can provide a complete transformation of your existing crane as an alternative to replacing it. When modernizing their lifting equipment for hazardous environments, our customers most often replace hoists, trolleys, traveling machinery to achieve increased capacity, speed, duty and load control. Upgrading to a higher EX classification is also common.

Spare parts for Konecranes EX equipment

Our global spare parts network offers an excellent availability of parts for all lifting equipment for hazardous environments, wherever you are located.



**Read more about
our service
programs**



WHY CHOOSE KONECRANES SERVICES?

- One of the largest service networks in the industry
- 600 locations worldwide
- 1.75 million annual service calls
- 6,000 remote connections
- 450,000 pieces of equipment under maintenance contract



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CRANES



NUCLEAR
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HEAVY-DUTY
LIFT TRUCKS




SERVICE



MACHINE
TOOL
SERVICE



Konecranes is a world-leading group of Lifting Businesses™ offering lifting equipment and services that improve productivity in a wide variety of industries. The company is listed on Nasdaq Helsinki Ltd (symbol: KCR1V). With approximately 12,000 employees at 600 locations in nearly 50 countries we have the resources, technology and determination to deliver on the promise of Lifting Businesses™.

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