

## Konecranes Steel Warehousing SOLUTIONS FOR TOUGH APPLICATIONS

**Konecranes' solutions for steel warehousing provide reliability for your operation. Your processes are kept running by optimizing maintenance to minimize downtime.**

### When reliability is the key

Steel warehouses handling coil, plates, profile beams, structural shapes and tubing operate in a competitive marketplace where reliability and quality of outcome are vital.

The processes in this industry are some of the toughest material handling applications for cranes. Overhead cranes are used extensively in steel warehouses and they are an integral part of the overall operation. Consequently, they must be able to operate continuously without failure. Konecranes offers the industry state-of-the-art products that are unequalled in various terms of technology, performance and reliability.

### We will find the answer to your challenge

Konecranes provides a full range of cranes and hoists for all operations within a steel warehouse. With a variety of lifting attachments, we are able to offer an almost endless array of options for multi-tasking.

Whether you are running a massive steel service center or a smaller end business – or anything in between – our material handling engineers are able to design a solution for your operation.

### Competence that makes a difference

Konecranes has industry-specific know-how of the steel warehousing environment and processes. By applying a combination of our unique knowledge, advanced technology and flexible service solutions backed by our responsive service attitude, we are able to make a difference in productivity for your operation.



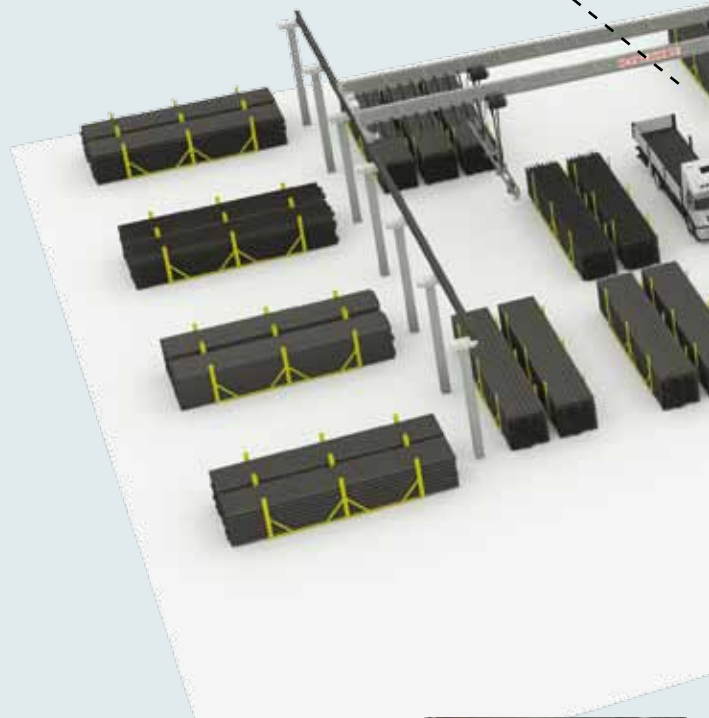
### Roll and coil handling

Cranes handling coils are fast, so accurate speed control is an important factor in avoiding damage to coils. Lifting devices can be a tong, magnet or C-hook. Automation is widely employed for the stacking of coils in stock.



### Tube handling

Dual hoist arrangement, which moves long tubes with C-hook or magnet spreader.



## NOT JUST LIFTING THINGS, BUT ENTIRE BUSINESSES

Konecranes is an industry-leading group of lifting businesses that offers a complete range of advanced lifting solutions to many different industries worldwide. We are committed to providing you with specialized lifting equipment and services that increase the value and effectiveness of your business.

When you choose Konecranes, you acquire a unique source of global experience and knowledge combined with local know-how to empower your lifting solution.





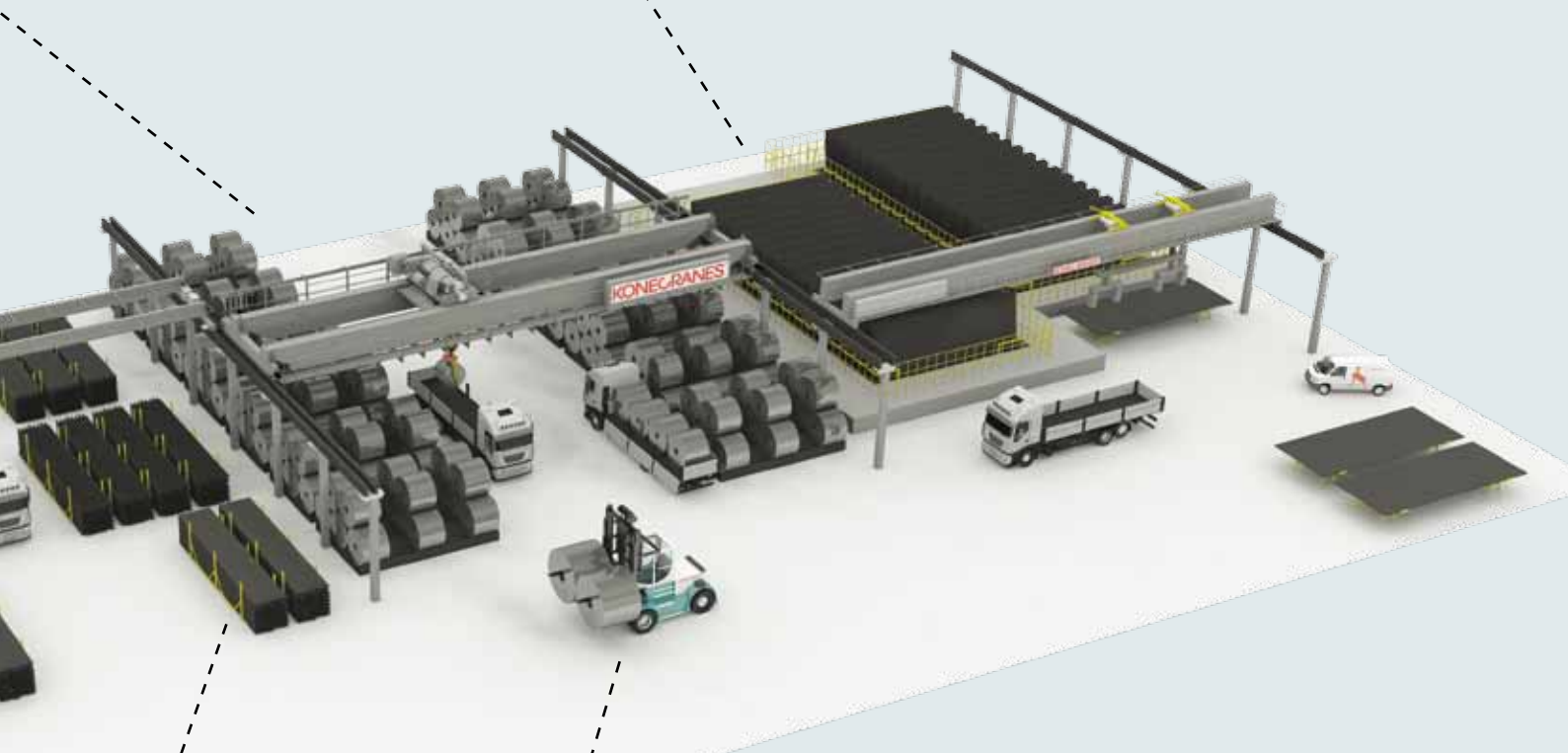
#### Plate handling

EOT cranes have been designed to handle heavy steel plates with a magnet beam or vacuum lifter. In case the beam must be horizontally rotated, slewing machinery is located in the spreader, a system which permits accurate load positioning.



#### Workstation cranes

We improve your processes by moving loads ergonomically and safely with our modular workstation cranes up to 2 ton. Product offering includes e.g. airbalancers, chain hoists, jib cranes and light crane systems. Typical applications are workshops, machining cells and different maintenance applications.



#### Lift trucks

To deliver a fitted lift truck for your application, our trucks can be equipped with various lift attachments, such as grabs and magnets for slabs, blooms, billets and plates; adapted fork carriages; and coil C-hooks.

**Wall Console Cranes** are used individually or as auxiliary devices for bridge and/or gantry cranes when a maximum amount of floor area is needed. They are especially competitive against gantry or semi-gantry cranes since Wall Console Cranes do not require a heavy leg structure. The same proven components are used in Wall Console Cranes as in other Konecranes EOT Cranes to deliver the best quality and productivity to material handling.

## Smoother operation and better productivity

- We design a customized solution for each customer that makes a difference in productivity.
- State-of-the-art control systems increase efficiency and safety by helping operators move loads quickly with minimal damage.
- Our large and global service organization provides localized service and spare parts availability with swift response – across the wide range of makes and models of cranes.
- Optimized maintenance promotes reliability by protecting ongoing production and minimizing downtime.

**Case Ferrocot, Australia****OUTSTANDING  
SAFETY AND  
EFFICIENCY SERVED  
ON A PLATE****Order for enhanced productivity**

One of South Australia's leading steel profile cutters, Ferrocot, boosted its efficiency and enhanced operators' safety by installing Konecranes CXT overhead cranes at its new factory and warehouse complex in the Techport Australia industry hub near Adelaide. Ferrocot supplies cut steel plates from its new facility to a broad range of industry customers, including engineering, infrastructure and mining groups as well as processing ship plates for Australia's largest defense shipbuilding organization.

**Nothing less than the utmost performance**

The factory was equipped with six new CXT cranes to lift and transport steel plates and cut steel parts. The CXT industrial cranes have Konecranes' most advanced safety, ergonomic, and reliability technologies built-in into their high performance. They have excellent hook approaches at both ends and the headroom requirement is minimal.

Some of the cranes in the Ferrocot factory were equipped with innovative anti-sway controls. Two of the cranes were fitted with Trunninger plate magnets, facilitating easy lifting and moving of large loads.

**Stepping up the safety**

The cranes provided for Ferrocot have many safety enhancing qualities. The dual hoists on the production cranes allow lifting the steel plates from two points instead of one. This keeps the plates from rotating, resulting in safer and more efficient handling. The anti-sway feature prevents load sway during travel, which is a big safety issue.

In addition to safety improvements, the solution also increases efficiency. The cranes with electro-magnets are efficient and increase productivity, because chains are not needed to lift the plates.



Ferrocot, Australia



“ We chose Konecranes overhead cranes after speaking to other users, and because of the Konecranes reputation and quality. They've been very good – their operation is nice and smooth. ”

Ferrocot  
Emile Ellens, Equipment Manager



## BlueScope Steel, Australia

# AN INTELLIGENT CRANE SOLUTION FOR THE STEEL INDUSTRY

Co-operation between Australian BlueScope Steel and Konecranes started in December 2009 when significant failures of components were found in one of the cranes at Wingfield steel distribution center. It was inevitable that the 20-ton crane needed replacement.

### Replacement process

"The crane operates in the coil storage area, loading the coil into processing. The amount of dispatches is approximately 100,000 tons per year and working hours 38 per week in two shifts. If the crane stops operating, the entire production is immediately interrupted," describes Mr. Peter Terrison, Maintenance Supervisor at the Wingfield steel distribution center.

The design and make-up of the new crane, utilization requirements and possible future needs of the plant were determined. Also, a RailQ was carried out to discover issues with the rail. Based on the survey, subcontractors were commissioned to realign existing rail and raise columns to best fit possible. Issues with runway beams were also identified and subsequent bracing made to rectify these.

In August 2010, two months before the final delivery of the project, the customer conducted a site visit at Konecranes Sydney workshop to check the cabin meets requirements and the status of the project. The crane was delivered in October and the replacement of the rail was performed during shutdown in December 2010.

### Professional approach

"Throughout the project, Konecranes had a very professional approach, I am truly happy about the product, service and expertise provided. The project has been followed by other companies in Australia due to the known challenges, technology and high quality. The crane is so smart, it is beyond our dreams," Terrison praises.



# THE FORERUNNER IN TECHNOLOGY

## Exceptional performance

- Konecranes' high quality components including new, high performance motors with cooling characteristics improve reliability and increase performance for temporary peak usage situations.
- Smooth inverter controlled traveling movements shorten material handling times and boost productivity.
- The revolutionary compact design of hoists makes them smaller in size and lighter in weight; reduced hook approaches create more usable workspace and minimal headroom requirements.

## Easy and effective load handling

- The hoists offer smooth movements and fast load positioning. Inverter control for trolley traveling minimizes load sway. Acceleration and braking ramps are adjustable.
- The sway prevention is attained with Konecranes' electronic anti-sway prevention system, which is integrated into the DynAFamily inverter controls.

## Safety and long-lasting reliability

- Safety and reliability are built into all hoists.
- Compared to conventional designs, the lifting ropes may be expected to wear multiple lifetimes due to the large rope drum diameter and rope angles, which reduce stress and bending forces.
- High performance brakes have an adjustment-free and dust-proof construction.
- Gears are manufactured with extreme accuracy, which combined with hardened and ground gear fabrication means trouble-free operation even after years of intensive use.

## Monitoring system for hoist safety and performance control

- Monitoring systems include overload protection, thermal protection of hoisting motors, soft start and stop control for hoisting.
- Calculation of Safe Working Period (FEM 9.755)
  - Versatile performance monitoring counters: operating hours, starts, number of hoisting cycles, average load, remaining life of hoisting brake.
  - Sum Load monitoring when the crane has multiple hoists.





## **KONECRANES SERVICE – ON A LEVEL SUITED TO YOU**

Our five service levels define the relationship and cooperation with you and they all aim at raising total life cycle value. From first CONTACT, to our professional evaluation of the CONDITION of your equipment, to preventive maintenance and consultation services for optimal CARE, Konecranes will tailor a program to lift your business.

When a mutual COMMITMENT to performance-based maintenance or COMPLETE material handling outsourcing is required, Konecranes has the experience and resources to help you meet your business objectives.

### **Care**

A selection of inspection and preventive maintenance services.

### **Commitment**

Full-scale maintenance operations with set common targets.

### **Complete**

Full responsibility of crane operations, with equipment, maintenance and personnel.

## **THE FUTURE OF MAINTENANCE IS HERE TODAY WITH TRUCONNECT® REMOTE SERVICES**

**TRUCONNECT®** Remote Monitoring and Reporting service monitors the real usage of your equipment through a remote connection. Using the available usage data we provide you with information that can help you increase the safety of your crane usage, optimize your maintenance spending, and plan and budget your crane fleet's modernization needs in advance.





INDUSTRIAL  
CRANES



NUCLEAR  
CRANES



PORT  
CRANES



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 OMX Helsinki Ltd (symbol: KCR1V). With over 11,500 employees at more than 600 locations in almost 50 countries we have the resources, technology and determination to deliver on the promise of Lifting Businesses™.

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**INDUSTRIAL CRANES**

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HEAVY-DUTY LIFT TRUCKS  
SERVICE  
MACHINE TOOL SERVICE

**STEEL WAREHOUSING**

**KONECRANES®**  
Lifting Businesses™

**Steel Warehousing**  
**SOLUTIONS FOR RELIABLE**  
**AND EFFICIENT OPERATION**

