

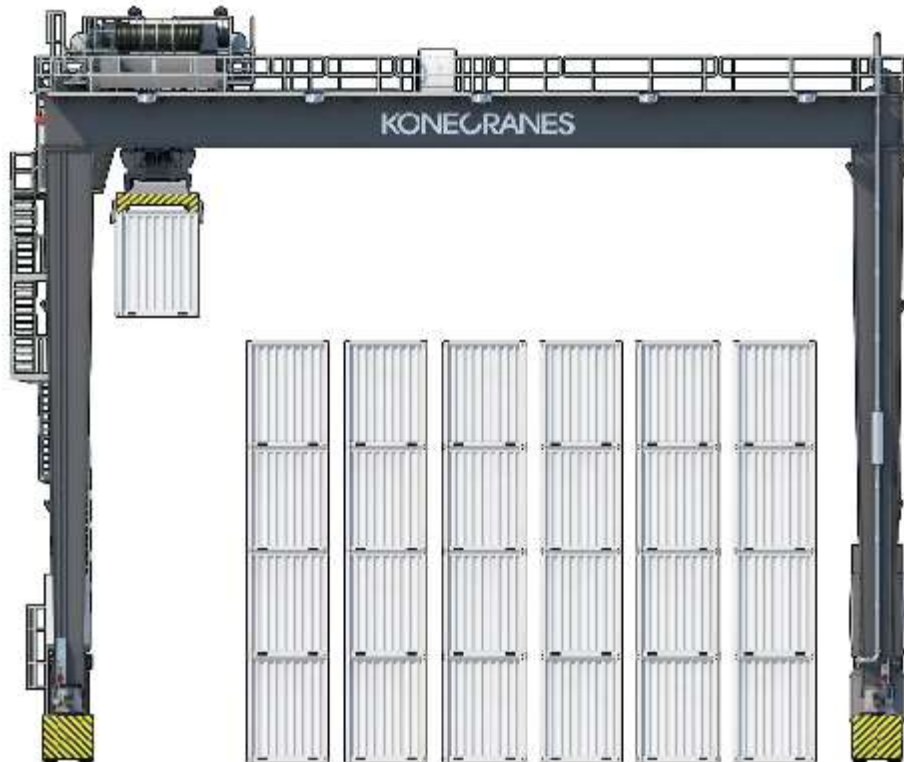
FEATURES AND TECHNICAL INFORMATION

Konecranes RTG: from the creator of the modern RTG



Konecranes RTG

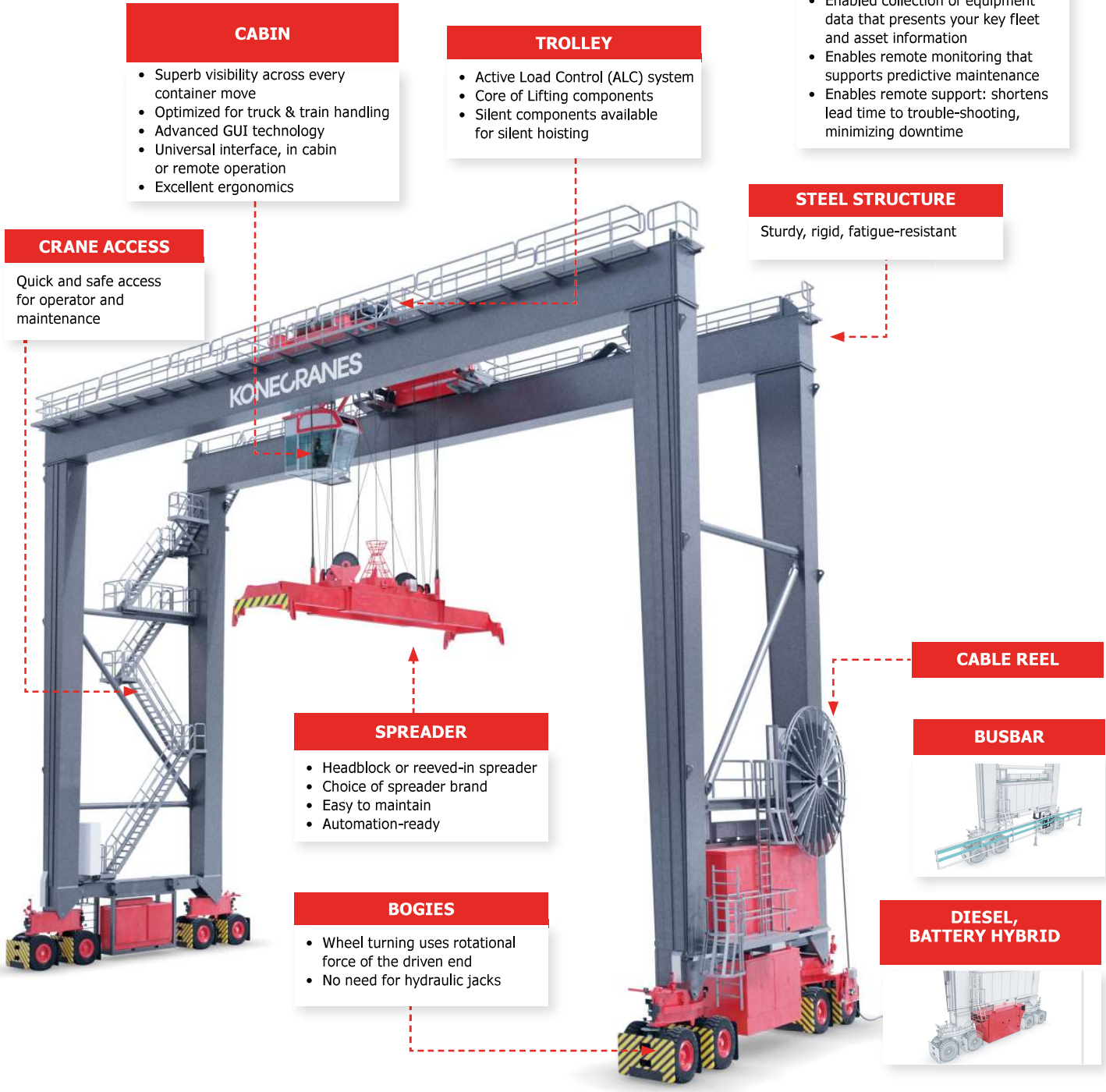
Typical dimensions



Width	Span, mm	Height	Lifting height, mm
5+lane	20,800	1-over-3	12,340
6+lane	23,600	1-over-4	15,240
7+lane	26,400	1-over-5	18,100
8+lane	29,200	1-over-6	21,000

Konecranes RTG

Main modules, all hydraulics-free



CABIN

- Superb visibility across every container move
- Optimized for truck & train handling
- Advanced GUI technology
- Universal interface, in cabin or remote operation
- Excellent ergonomics

TROLLEY

- Active Load Control (ALC) system
- Core of Lifting components
- Silent components available for silent hoisting

TRUCONNECT®

- TRUCONNECT® remote connection is pre-installed on new RTGs
- Enabled collection of equipment data that presents your key fleet and asset information
- Enables remote monitoring that supports predictive maintenance
- Enables remote support: shortens lead time to trouble-shooting, minimizing downtime

CRANE ACCESS

Quick and safe access for operator and maintenance

STEEL STRUCTURE

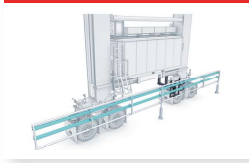
Sturdy, rigid, fatigue-resistant

SPREADER

- Headblock or reeved-in spreader
- Choice of spreader brand
- Easy to maintain
- Automation-ready

CABLE REEL

BUSBAR



BOGIES

- Wheel turning uses rotational force of the driven end
- No need for hydraulic jacks

DIESEL, BATTERY HYBRID



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Operating concept

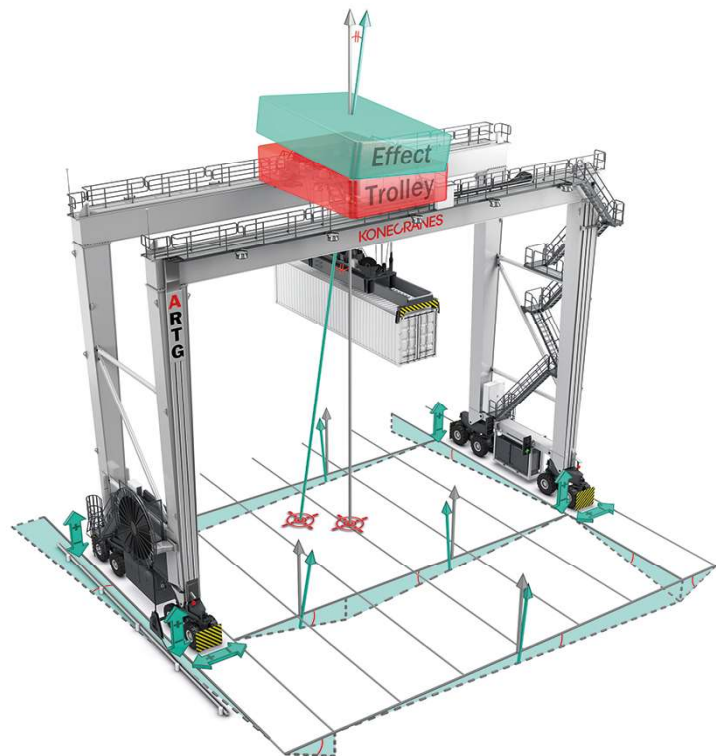


Smarter cabin and remote operation

The smarter cabin provides the operator with excellent visibility and comfort. The operating concept is consistent across cabin operation and remote operation, with a user interface that works identically across the two modes. It is remarkably easy to move to remote operation: the crane operators just move into an office working environment.

Better tolerance for uneven yard surfaces

- Bogies with pinned joints
- Steel structure with pinned diagonals
- Dual hoist machinery trolley
- Four-wheel trolley drive
- Tolerates even ± 1 ft (=30 cm) difference in ONE corner in static condition
- With Active Load Control, a prerequisite for successful automated operation



Konecranes RTG Trolley

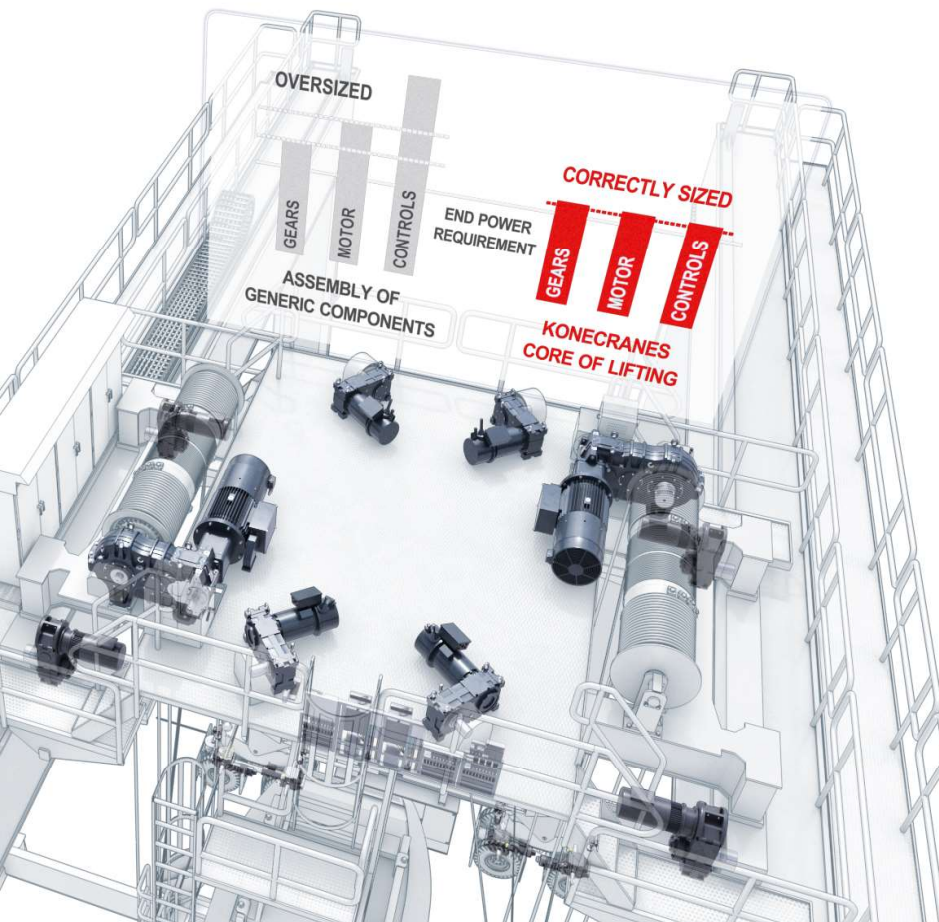
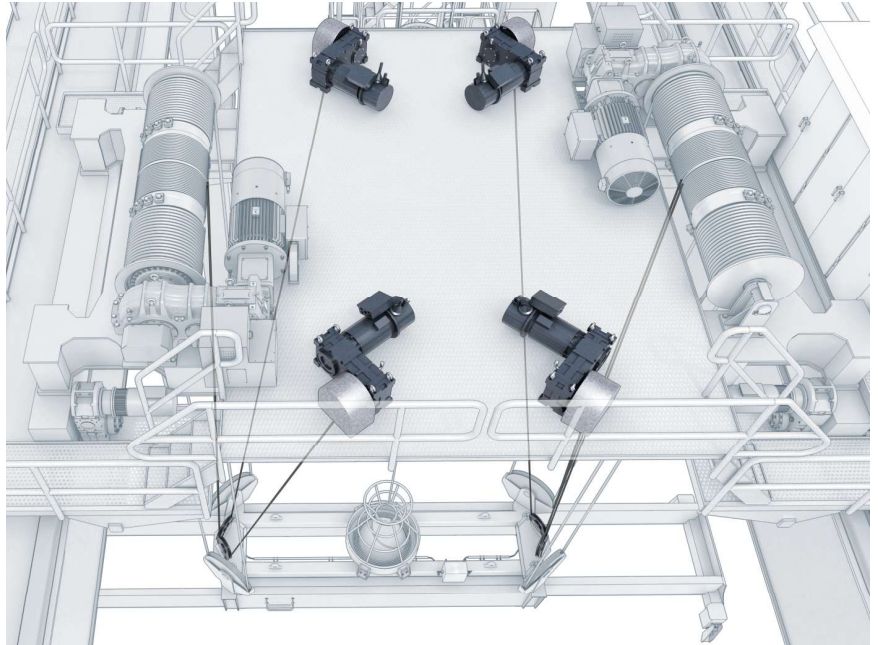
ACTIVE LOAD CONTROL (ALC) Integrated sway prevention and fine positioning system

The container:

- Does not sway
- Can be fine-positioned in all directions without moving gantry or trolley
- Is fully controlled during the entire work cycle

You get:

- Faster and safer work cycles
- Reduced energy consumption
- Reduced crane wear



Core of Lifting

- Integrated package of gearbox, motor and controls that is designed and manufactured by Konecranes in-house specifically for cranes and lifting motions
- Used throughout the RTG: bogies, e-house, trolley
- Over 1,000,000 gearboxes made and delivered since 1933
- Over 2,000,000 motors made and delivered since 1933



NEW!
Silent components for
silent hoisting

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Technical data

Main parameters

Lifting capacity	40LT, 50LT
Performance	Up to 40+ containers/hr
Main dimensions, vertical	1-over-3 up to 1-over-6
Main dimensions, horizontal	5 + truck lane up to 8 + truck lane
Simultaneous movements	2 or 3 movements

Speeds

Active Load Control (ALC)

Electrical anti-sway

Lifting speed with full load	Up to 31 m/min	26 m/min
Lifting speed without load	62 m/min	52 m/min
Trolley travel speed with & without load	Up to 82 m/min	70 m/min
Gantry travel speed	Up to 135 m/min	Up to 130 m/min

Sway prevention system

Active Load Control (ALC)

Electrical anti-sway

Performance	40+ containers/hr	30+ containers/hr
Automation readiness	Full	Partial
Fine positioning	±250mm (4 directions)	Optional spreader side-shift
Trim	±5°	±5°
Skew	±5°	±5°

Bogies

16 wheels

8 wheels

Tire size / pressure, bar	14.00 x 24 / 10	18.00 x 25 / 10
Wheel load, tons, with	18.0	31.5
Runway width	Min. recommended 1.8m	Min. recommended 1.8m
Wheels driven	50% (8 wheels)	50% (4 wheels)

Main options

DGPS Auto-steering	Dual-antenna technology for accurate real-time heading info and rapid signal recovery. NOTE: pre-requisite for many of the Smart Features
Diesel Fuel Saver System	Two-step or variable speed application

Konecranes RTG

Smart Features, components, power options

Most common Smart Features

Auto-steering	Keeps RTG on a pre-programmed, straight path creating "virtual rails" +/-100mm
Auto-positioning	Automatically stops gantry & trolley over next container target slot based on "hold to run" approach (requires Auto-steering)
Auto-truck Guiding	Automatically guides the truck to position under the RTG in line with the bay, like entering a car wash
Stack Collision Prevention	Helps crane operator (or remote operator) prevent container collisions and knock-downs when a container is moved in bay direction
Truck Lift Prevention	Automatically stops hoisting motion if a truck lift is detected
Auto-path Optimizing	Increases container handling efficiency in the stack
Auto-TOS Reporting	Enables accurate yard inventory

Core of Lifting components*

16 wheels and 8 wheels

Motors*	Konecranes
Gear reducers*	Konecranes
Drive system*	Konecranes/Danfoss drives
Programmable Logic Controller (PLC)	Siemens

*Extended 5-year warranty available

Power supply options

Primary power source

Secondary power source

Diesel engine	X	X
Cable reel 3-phase, 50/60 Hz, 1-10kV	X	
Busbar, 460-500V	X	
Hybrid	X	
Battery pack		X
Auxiliary genset		X

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Mass (kg)

RTG Size	Steel structure	Walkways	Cableways	Total mass [kg]
1 over 5, 5+lane	58,000	6800	1240	64,800
1 over 5, 6+lane	61,500	7000	1400	68,500
1 over 5, 7+lane	64,000	7200	1560	71,200
1 over 6, 5+lane	66,500	6800	1240	73,300
1 over 6, 6+lane	70,000	7000	1400	78,400
1 over 6, 7+lane	73,500	7200	1560	82,260
16 W bogies				22,000
8 W bogies				25,000
Trolley Active Load Control (ALC)				22,500
Trolley (Dynapilot)				20,500
Spreader				8000
Headblock				2000
Diesel generator				6000
E-room				5000

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With diesel power generation

Hybrid (apply - 0.1 ton)
 Busbar (apply - 0.6 ton)
 Cable reel (apply + 0.6 ton)

RTG 16W Active Load Control		Wheel loads [t]					
Load [t]	Wind speed [m/s]	1-over-5			1-over-6		
		5+lane	6+lane	7+lane	5+lane	6+lane	7+lane
0	0	10.5	10.8	11.0	11.0	11.3	11.6
26	0	13.4	13.7	14.0	13.9	14.2	14.6
40.6	0	15.0	15.4	15.6	15.5	15.9	16.2
50.8	0	16.1	16.5	16.8	16.7	17.0	17.4
0	25	12.6	13.0	13.4	13.5	14.0	14.4
26	25	15.5	16.0	16.4	16.4	16.9	17.4
40.6	25	17.1	17.6	18.0	18.0	18.6	19.1
50.8	25	18.2	18.8	19.2	19.2	19.7	20.2

RTG 16W Electrical anti-sway		Wheel loads [t]					
Load [t]	Wind speed [m/s]	1-over-5			1-over-6		
		5+lane	6+lane	7+lane	5+lane	6+lane	7+lane
0	0	10.3	10.6	10.8	10.8	11.1	11.4
26	0	13.2	13.5	13.7	13.7	14.0	14.3
40.6	0	14.8	15.1	15.4	15.3	15.7	16.0
50.8	0	15.9	16.3	16.6	16.4	16.8	17.2
0	25	12.5	13.0	13.4	13.5	14.0	14.4
26	25	15.4	15.9	16.3	16.4	16.9	17.4
40.6	25	17.1	17.6	18.0	18.0	18.5	19.1
50.8	25	18.2	18.7	19.2	19.2	19.7	20.2

RTG 8W Electrical anti-sway		Wheel loads [t]					
Load [t]	Wind speed [m/s]	1-over-5			1-over-6		
		5+lane	6+lane	7+lane	5+lane	6+lane	7+lane
0	0	20.9	21.5	21.9	22.0	22.5	23.1
26	0	26.7	27.3	27.9	27.7	28.4	29.0
40.6	0	29.9	30.6	31.2	31.0	31.7	32.4
50.8	0	32.2	32.9	33.5	33.2	34.0	34.7
0	25	25.5	26.4	27.1	27.4	28.3	29.2
26	25	31.2	32.2	33.0	33.2	34.2	35.2
40.6	25	34.5	35.5	36.3	36.4	37.5	38.5
50.8	25	36.7	37.8	38.7	38.7	39.8	40.8

RTG 8W Active Load Control		Wheel loads [t]					
Load [t]	Wind speed [m/s]	1-over-5			1-over-6		
		5+lane	6+lane	7+lane	5+lane	6+lane	7+lane
0	0	21.3	21.9	22.4	22.4	23.0	23.6
26	0	27.1	27.8	28.3	28.2	28.9	29.5
40.6	0	30.4	31.1	31.6	31.4	32.2	32.8
50.8	0	32.6	33.4	34.0	33.7	34.5	35.2
0	25	25.6	26.5	27.2	27.5	28.4	29.3
26	25	31.4	32.3	33.1	33.2	34.2	35.2
40.6	25	34.6	35.6	36.4	36.5	37.5	38.5
50.8	25	36.9	37.9	38.8	38.7	39.8	40.8

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 2019, Group sales totaled EUR 3.33 billion. Including MHE-Demag, the Group has around 18,000 employees in 50 countries. Konecranes shares are listed on the Nasdaq Helsinki (symbol: KCR).

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