



FREERIDER

The next level of RTG

künz

FREERIDER: The next Level of RTG

The FUTURE of Container Handling

Decades of experience and continuous product improvement has led Kuenz to become an innovation leader in the container handling market. Kuenz crane components are designed and selected with a focus on safety, availability, reliability, and efficiency. As a result of these strengths, Kuenz has designed a Rubber Tired Gantry Crane which will lead a new path in the daily RTG Business.

More Efficient, Faster and Flexible.

The primary objective was to design an RTG Crane for more efficiency and faster container handling. A high level of flexibility in motion also leads to more convenience and increased safety for the operator.

Presenting the new FREERIDER RTG, Kuenz elevates the RTG design into the 21st century. Not only an update of popular concepts, as well as innovative solutions, results in:

- Kuenz FREERIDER: increased stiffness and reduced gantry structure weight
- Kuenz SPIDER: new, precise working, and faster hoist system, offering the most stable hoist and rope reeving in the market
- Kuenz ONE HAND: more accurate controls and more comfortable, ergonomic operator control

General crane design Kuenz FREERIDER:

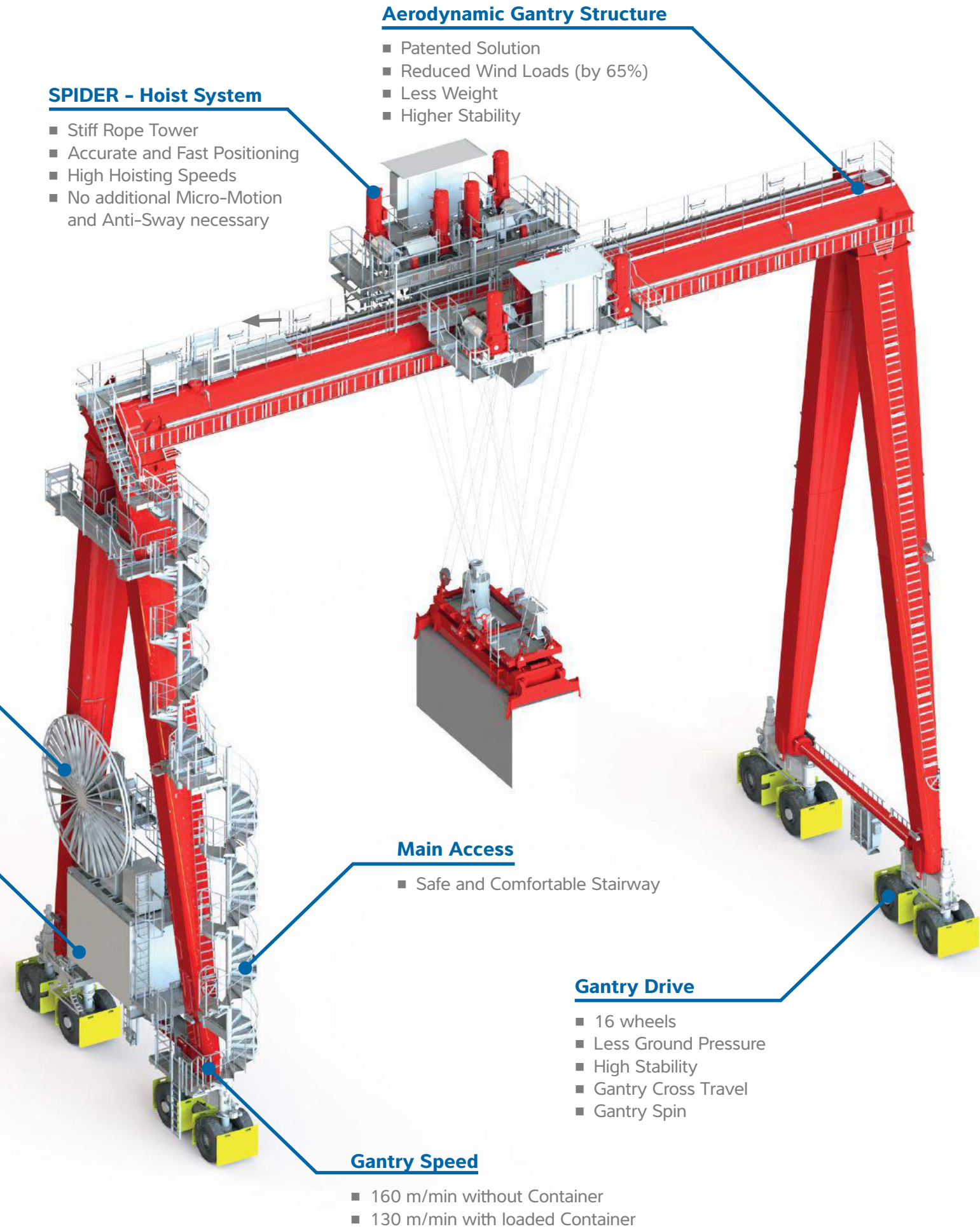
The crane’s gantry structure is an innovative, patented aerodynamic design and manufactured as a stiff and robust single girder with an aerodynamically shaped main girder and A-shaped posts. Four traveling gears, each consisting of four rubber tires, are equipped with a steering gear, which allows for different travel directions. The new patented hoist system, Kuenz SPIDER, consists of eight rope drums. A special 8x2 rope reeving system creates a rigid rope tower with a mechanical Anti-Sway in all directions and is able to move in trim, list, scew directions.

In summary, the Kuenz FREERIDER is an overall stiff product which allows for changes to the future of RTG operation.

Drive with full loaded Container:

The stiff aerodynamic gantry structure and the robust rope tower of the patented Kuenz SPIDER allow for a significantly higher travel speed, even with a fully loaded container.

Travel Speed	Kuenz FREERIDER
Gantry Drive without Load	0 - 160 m/min
Gantry Drive loaded Container	0 - 130 m/min



Accurate and Faster Container Positioning

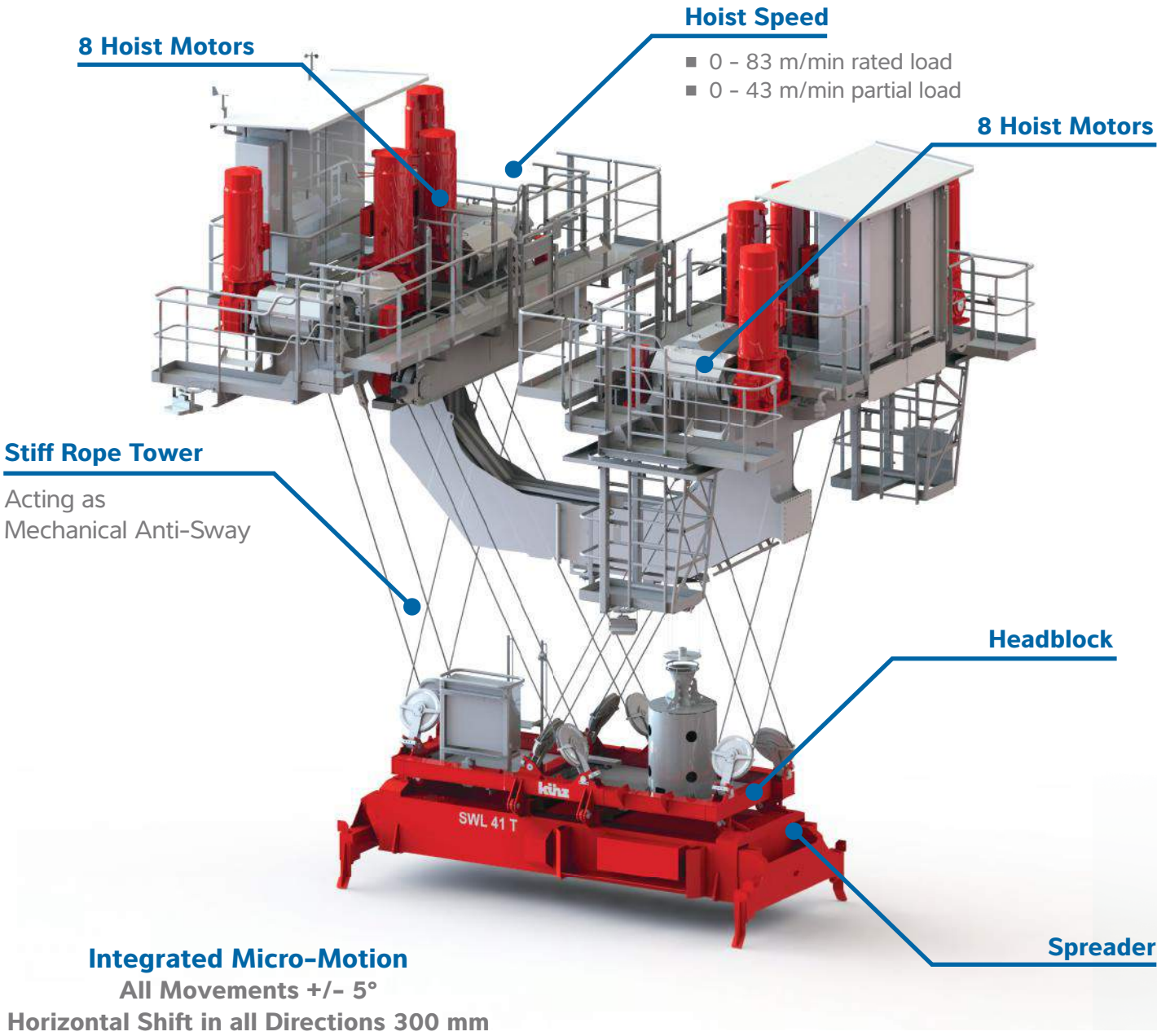
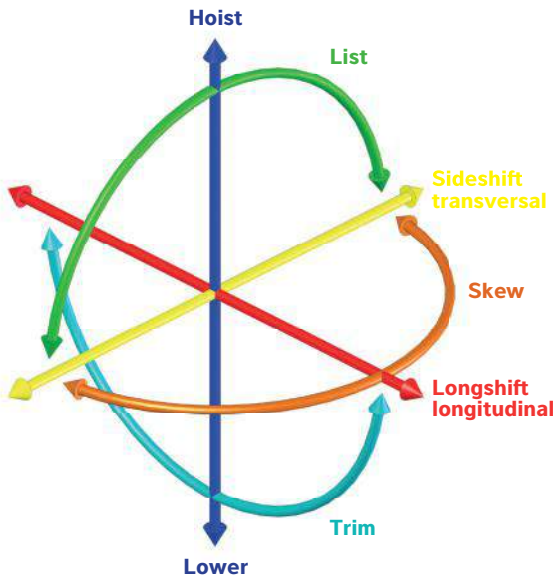
Kuenz SPIDER: Easy Handling in Perfection



The new patented hoist system SPIDER is currently the most innovative and advanced hoisting gear concept on the market.

8-Motor Hoist for Fine Positioning

The rope tower is the key function of the Kuenz FREERIDER and consists of eight rope drums. Eight individually controlled motors are able to move the head block and the load in all six degrees of freedom simultaneously. This ensures optimum, precise, and safe container handling. Auxiliary ropes are not required for the fine positioning. Furthermore, no additional anti-sway or micro-motion is necessary for a smooth operation.



The intuitive Way to Control.

Kuenz ONE HAND

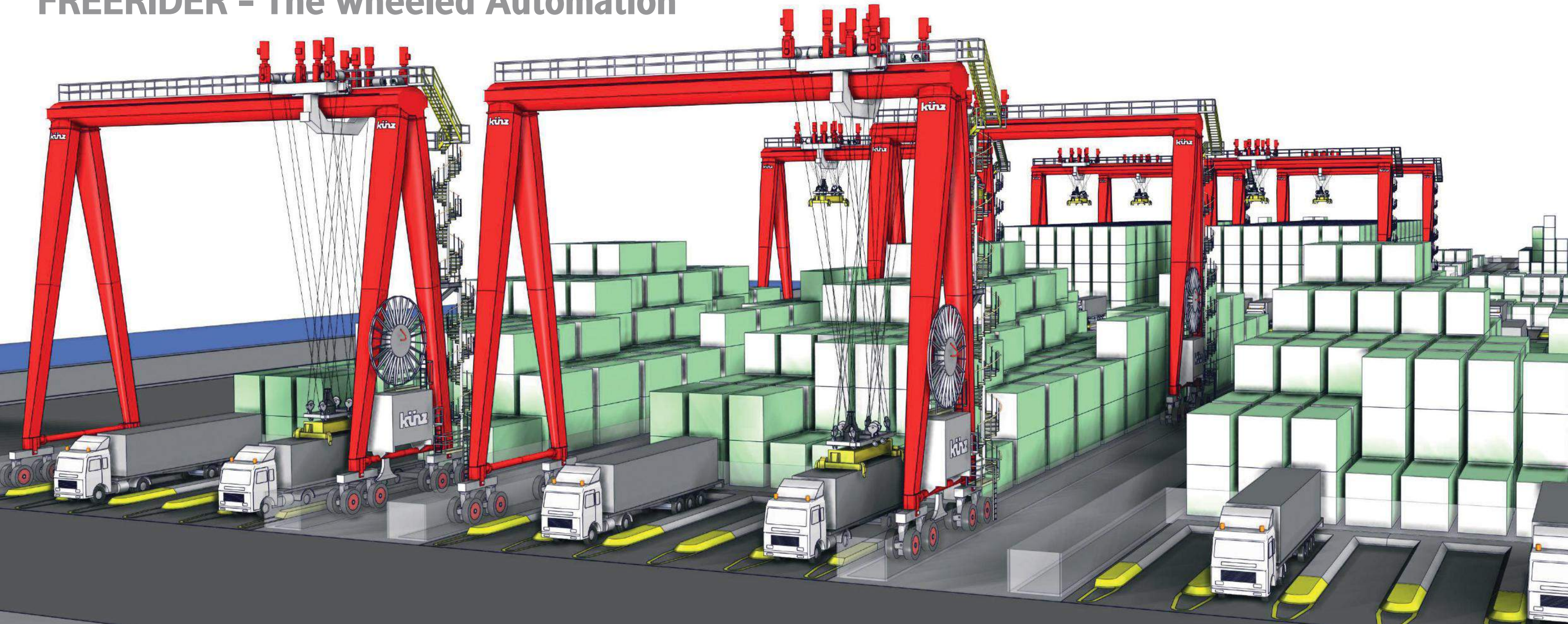
The patented Kuenz ONE HAND control desk allows for an easy and intuitive operation of cranes using only one hand.

- Accurate and smooth crane movements in all directions and all six freedom degrees
- New ergonomic control unit
- More comfort for the operator
- Can be integrated on all Kuenz cranes and remote stations



We change the traditional way of RTG Operation.

FREERIDER – The wheeled Automation



Is your traditional RTG Terminal looking for...

- ...increased productivity
- ...increased safety
- ...reduced operational costs
- ...having a fully automated container handling

How can we support you?

Kuenz is able to apply its FREERIDER to a fully automated end loaded block. With its sophisticated patented solutions, the Kuenz FREERIDER is most suitable as a result of:

- the highest gantry speed on the market
- gantry drive even with loaded container up to 130 m/min
- the patented SPIDER hoist system and ONE HAND control desk for accurate, faster and safer container handling
- a fully automation concept.

How can you change your operation in an easy way?

- Converting your RTG Brown Field to an end loaded block
- Step by step modification without effects on your daily terminal operation
- Existing RTG tracks can be reused
- No change in stacking capacity
- No significant civil works required, except for the electrification, enclosure, and building of the transfer zone
- Increased safety due to container handling in a fenced area
- Step by step move to remote and automation using existing TOS interface

All in all, you will be able to cut your annual operating costs by 40 %

Technical Data.

FREERIDER

Track Width	1 + 5 - 1 + 9
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Lifting Height Total	1 over 4 - 1 over 6
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Working Speeds:

Gantry Drive without Container	0 - 160 m/min
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Gantry Drive loaded Container	0 - 130 m/min
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Acceleration	0,3 m/s
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SPIDER

Capacity	42 t
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Lifting Height Total	1 over 4 - 1 over 7
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Movement in all 6 Freedom Degrees:
Trim, List, Skew +/- 5°, Horizontal Shift 300 mm

Working Speeds:

Hoist's Rated Load	0 - 45 m/min
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Hoist with Partial Load	0 - 83 m/min
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Trolley Drive	0 - 80 m/min
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Acceleration	0,3 m/s
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No additional Micro Motion and Anti-Sway necessary

The Künz logo is displayed in a large, bold, blue font. The letters are stylized, with the 'ü' having a unique shape. The logo is positioned in the bottom right corner of the image, partially overlapping the background photograph of the industrial equipment.

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