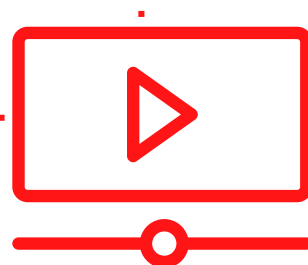
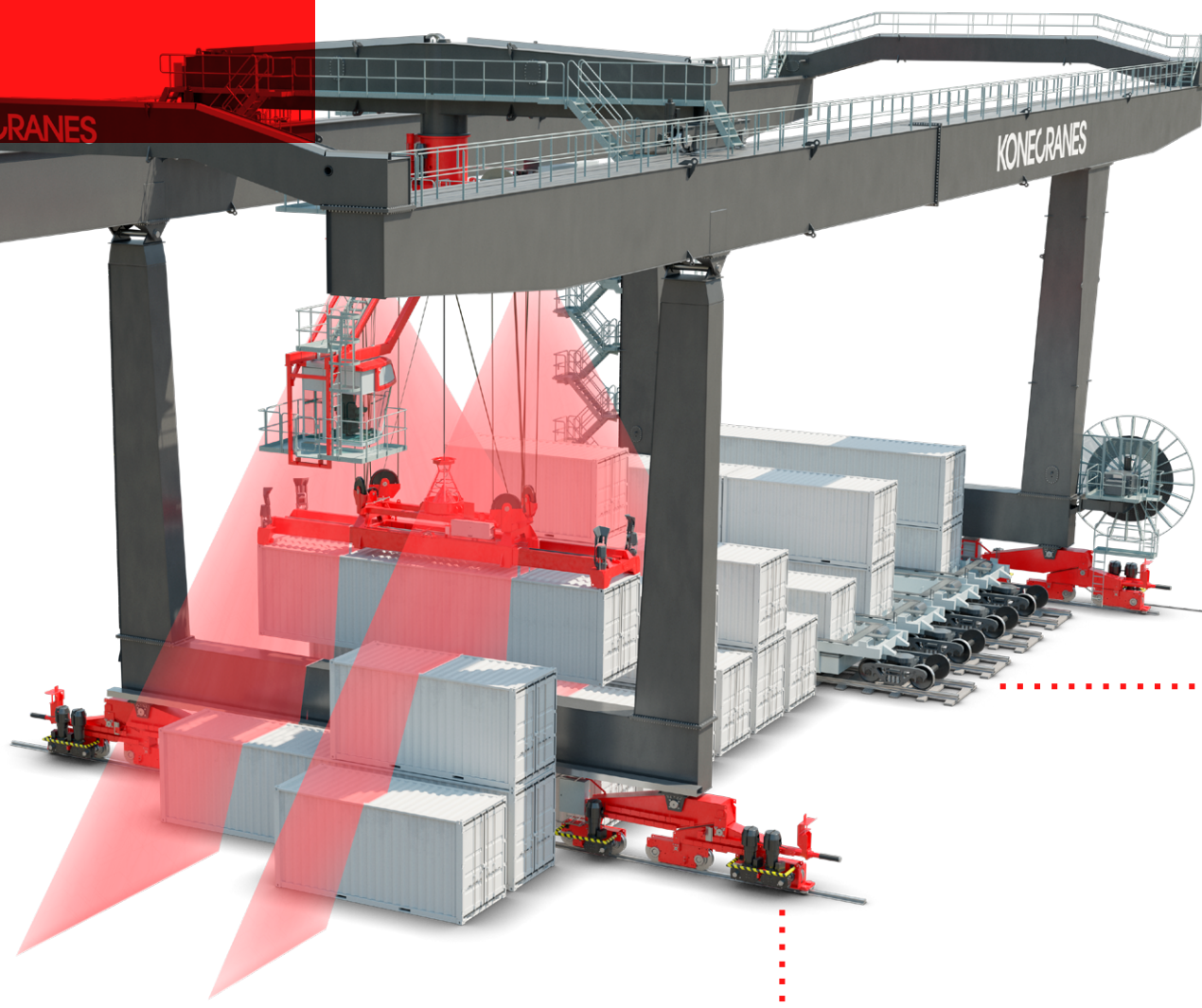


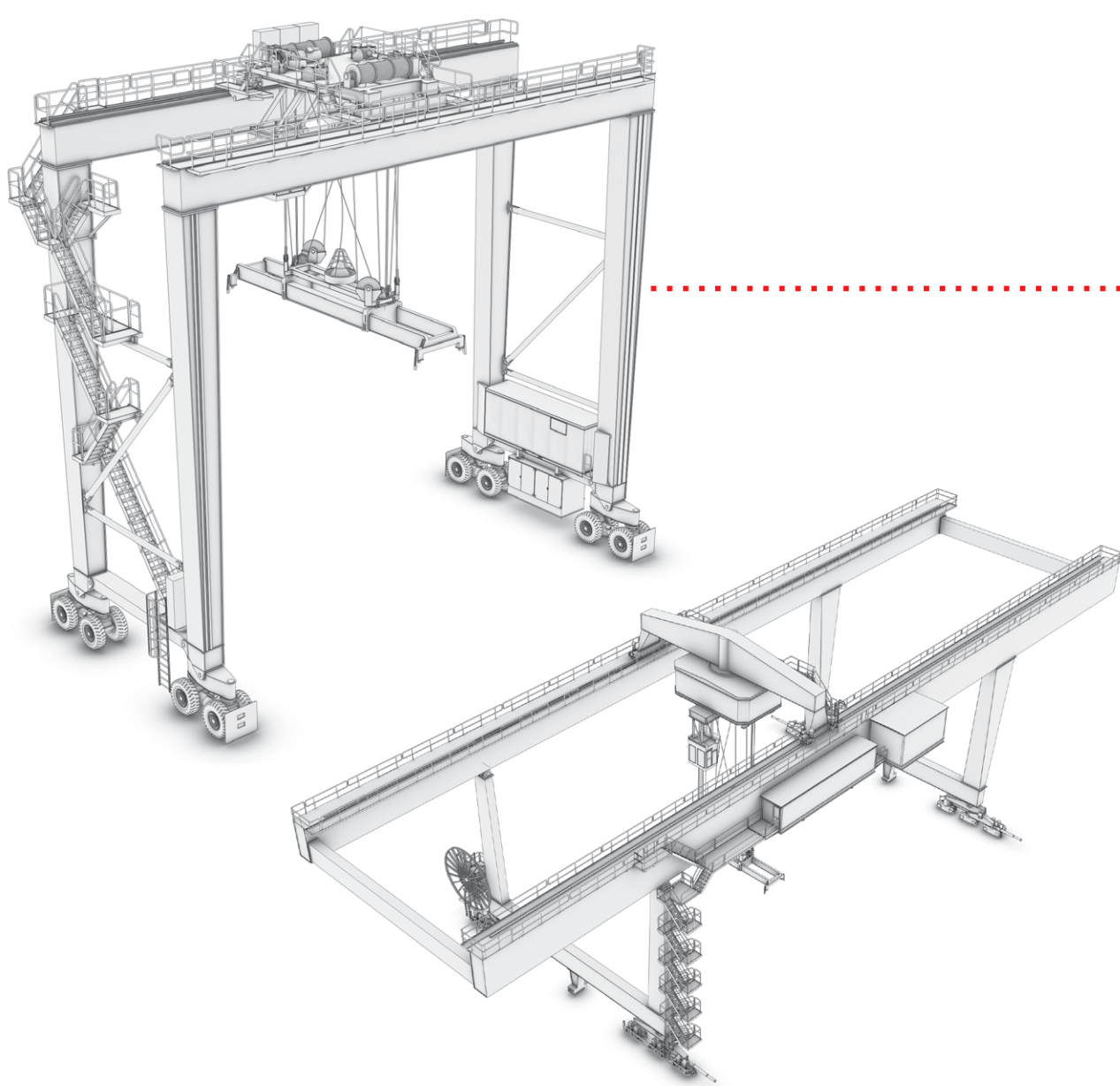
SAFETY-ASSIST RETROFITS

Stack Collision Prevention

Assists operators to lift, lower and place containers with a higher degree of safety and accuracy.



Watch video at this link



EQUIPMENT

This technology can be applied to the following Konecranes equipment and **any other crane brand**.

Installation of laser sensor and PLC connection may vary when implementing system to other brands.

AB

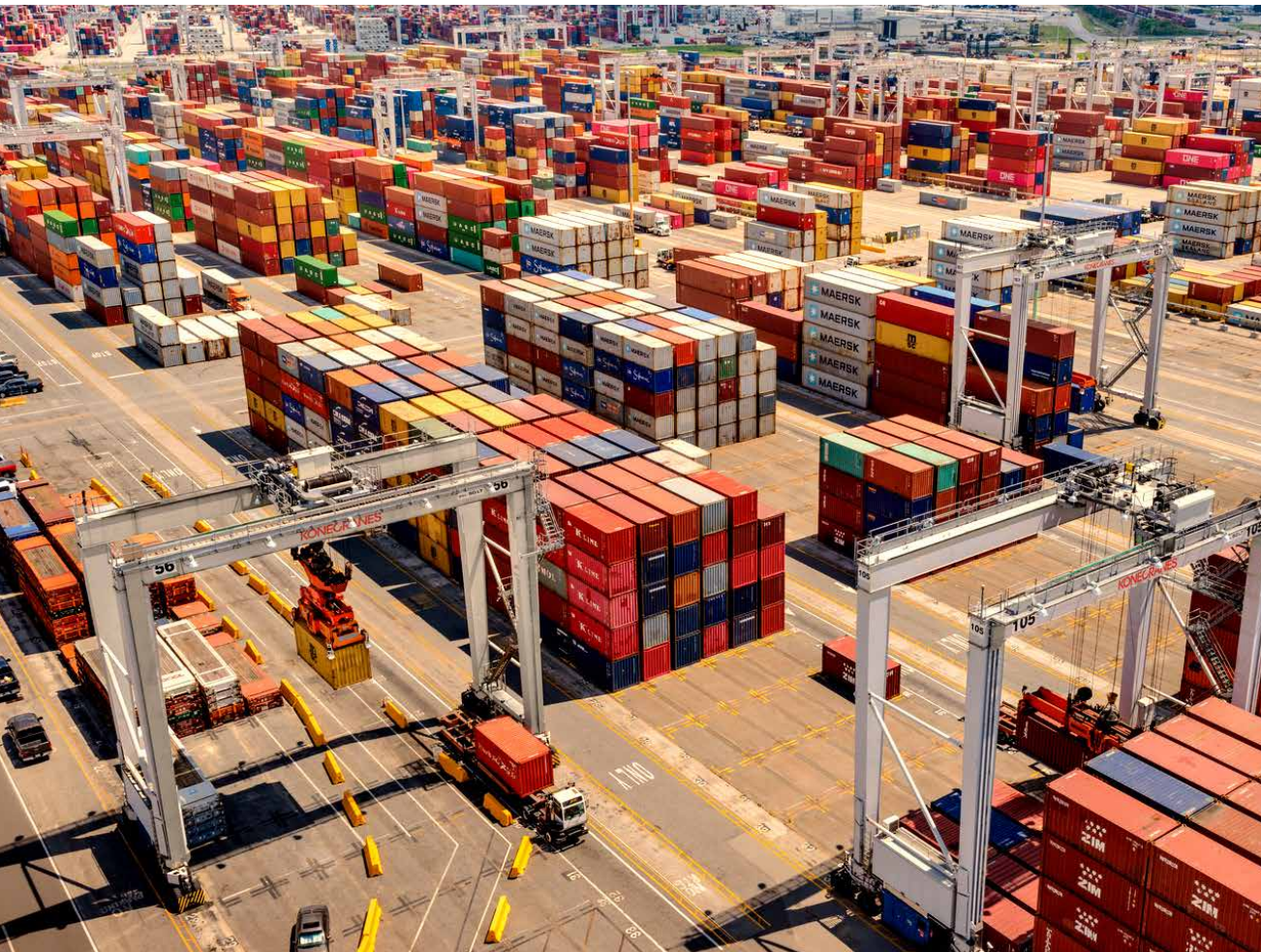
Any Brand

RTG

Rubber-Tyred Gantry

RMG

Rail-Mounted Gantry

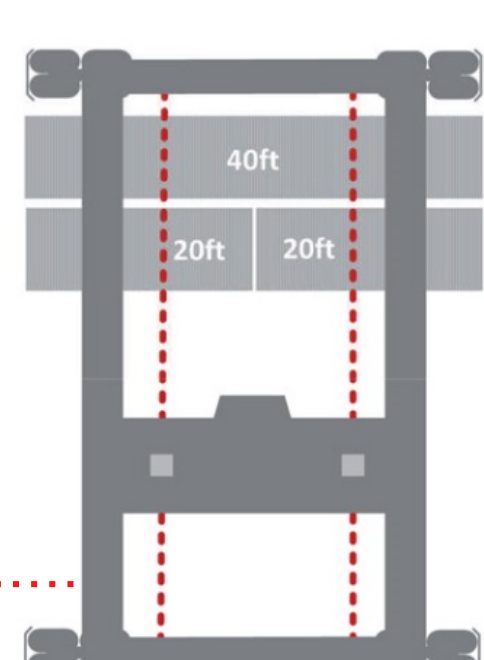
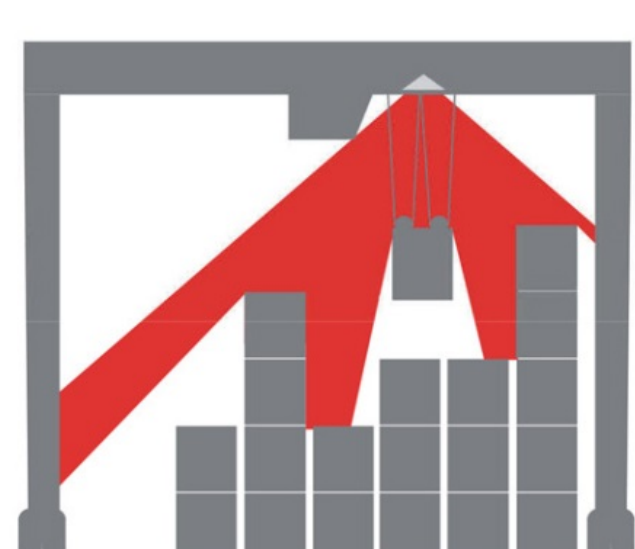


BENEFITS

- Prevents container collisions and knock-downs as the trolley moves towards the bay
- Prevents unsafe loading in the mixed bays
- Works with both loaded and empty spreaders
- Allows for fine positioning
- Operator can navigate container in bad weather and around stacks of uneven height
- Easy to use and maintain: only uses electrical components so only sensor cleaning is required.

HOW IT WORKS

- Two laser scanners constantly check the running bay when the trolley is in motion
- Trolley movement is free until the hoist moves below a predefined safe zone
- If an obstacle appears in one of the pre-programmed safety zones, the crane's PLC decreases the speed of the trolley towards the obstacle
- The system also detects both 20-foot and 40-foot containers in the same bay
- For increased safety, both laser scanners operate independently.



WHAT YOU NEED TO KNOW

- The system cannot monitor the container stack profiles of adjacent bays
- Stack collision prevention is a mandatory step in the conversion to remote operation
- Turn-key project delivery with all required hardware and software plus training
- Site works and commissioning: 2 days per crane
- Customer needs to ensure prompt availability of cranes to ensure the above timelines
- Customer needs to provide safe location where installation and commissioning can be completed.


SELECTED REFERENCES



Year	Customer/Location	Quantity
2020	Gemalink / Cai Mep	18
2020	MSC / Valencia	7
2020	PHA / Houston	17
2016	APC / Ashdod	24



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. The Group has more than 16,000 employees at 600 locations in 50 countries. Konecranes shares are listed on the Nasdaq Helsinki (symbol: KCR).

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