



LaseLCPS-3D - Load Collision Prevention System -3D

Product module *CEWS* Container Logistics



The three-dimensional solution of the application LaseLCPS-3D - Load Collision Prevention System is a measurement system which works with two 3D laser scanners which are mounted under the trolley.

The specific LaseLCPS software application collects the scan data, does all needed calculations and sends the results to the machine PLC.

In order to measure all relevant stacks a 3D profile scan in trolley drive direction will be processed before the first move. An additional 3D scan will be done after the trolley has passed the highest point of the stack in order to detect shadow areas. A further collision prevention check by the dynamic surveillance cube has the function to avoid collisions between the empty spreader or container on the spreader and containers in the stacking area.

The position [cube center] is located in the middle of the spreader's lower edge. The expansion of the cube is depending on the adjusted length of the spreader [20', 40', 45'], height of container on the spreader, moving direction and the velocity of trolley and hoist.

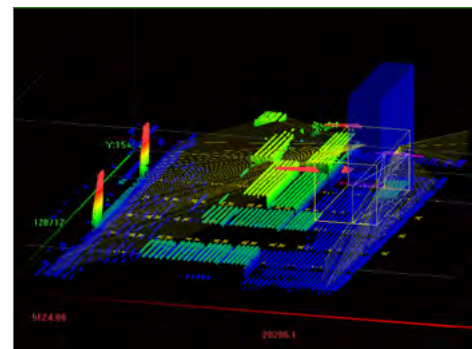
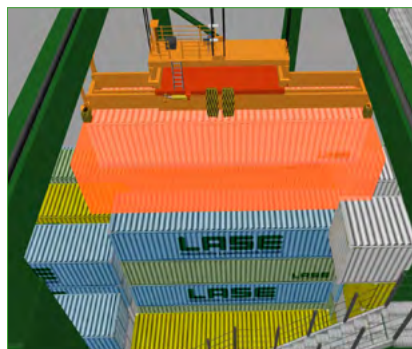
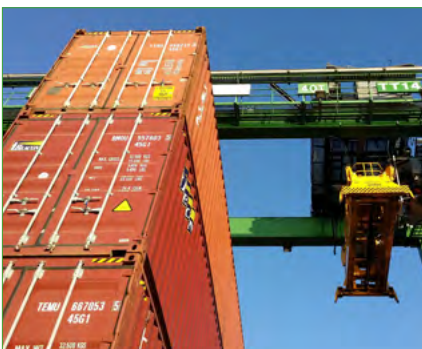
This intelligent and innovative solution is built to diminish the risk of collisions and accidents in container stacking areas. The measurement system by LASE is applicable for topography detection and collision prevention at RTGs and RMGs cranes.

Customer Benefits & Features:

- Stack height information for path optimisation
- Avoids collisions between load and stack
- Applicable for RMGs and RTGs
- Avoids collisions with adjacent stacks in gantry direction
- Gentle container handling through soft landings & less spreader wear
- Driver assistance
- 3D profile scan in trolley drive direction
- Reduction of container damage claims



Function principle





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Features and Benefits for LaseLCPS as 2D and 3D version in comparison:

Application type	LaseLCPS-2D	LaseLCPS-3D
HARDWARE*		
LASE 2000D-118	2	-
LASE 3000D-C2-118	-	2
LASE Control Unit	1	1
Accessories	1	1
SOFTWARE*		
LASE CEWS - Basic	1	1
LASE CEWS - Application Load Collision Prevention System 2D	1	-
LASE CEWS - Application Load Collision Prevention System 3D	-	1
FEATURES / BENEFITS		
Collision prevention in the operating bay	●	●
Collision Prevention for adjacent bays	●	●
Collision Prevention with other obstacles in the operation area	●	●
Soft-landing in the stack	●	●
Soft-landing on the trailer	●	●
Reduction of operating noise	●	●
Truck position verification in gantry and trolley drive direction	●	●
Reduction of spreader wear	●	●
Driver assistance	●	●
Reduction of container damage claims	●	●

*: Quantity per unit

Colour definitions: ● Full applicable
 ● Limited applicable
 ● No feature

LaseLCPS-2D and LaseLCPS-3D are specific laser measurement solutions to prevent collisions between load and stacks for RTG's and RMG's.



LaseLCPS-2D solution: 2-dimensional scan during trolley drive

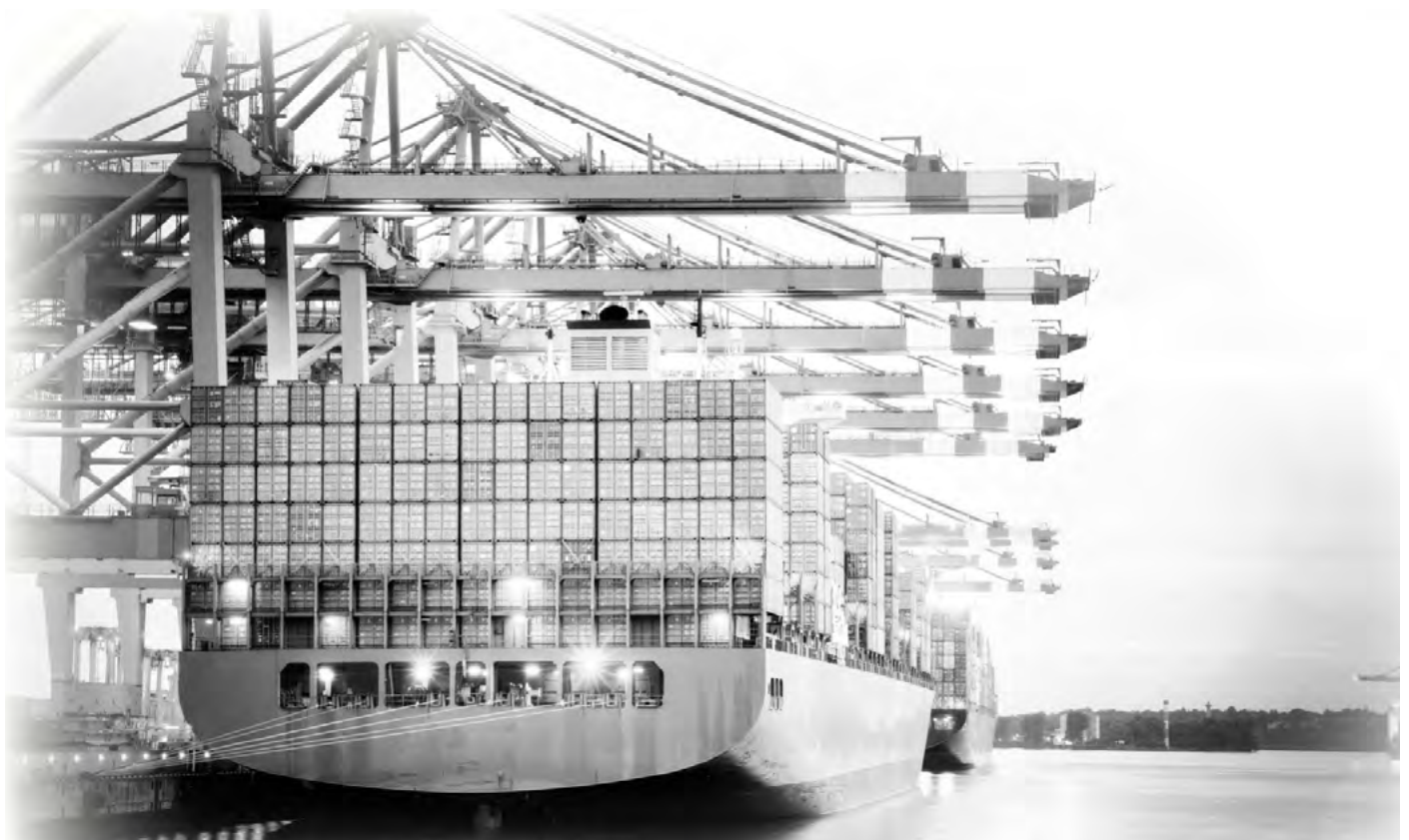


LaseLCPS-3D solution: virtual cube detects potential collision

LASE offers innovative and productive solutions by combining state-of-the-art laser hardware technology and sophisticated software applications. We deliver a broad range of precise and reliable 1D, 2D and 3D laser systems, which can be used for several measurement tasks.

We look to develop long-term relationships with our customers to drive projects forward and help improve safety and efficiency at a huge diversity of applications worldwide through working closely with them.

COMPETENCE, CREATIVITY AND PASSION lead us to be the ideal partner for your requirements. Convince yourselves of our broad portfolio of innovative products and solutions on our corporate website.



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Note:

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