

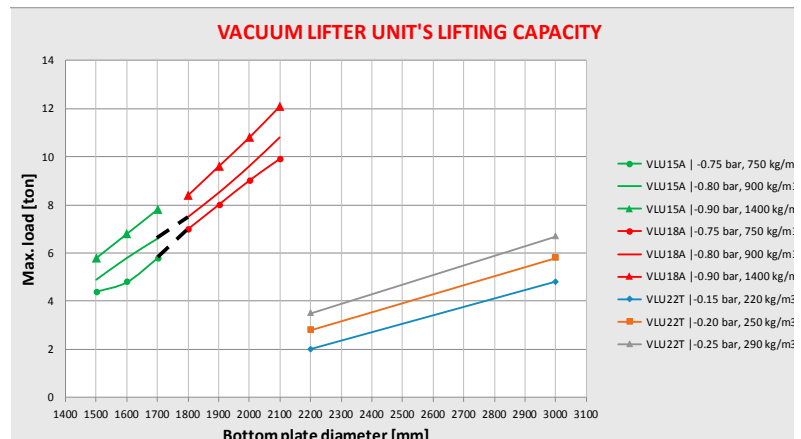
INDUSTRIAL CRANES  
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 HEAVY-DUTY LIFT TRUCKS  
 SERVICE  
 MACHINE TOOL SERVICE

PAPER ROLL STORAGE

**KONECRANES**<sup>®</sup>  
 Lifting Businesses™

PRODUCT SHEET

# PAPER ROLL VACUUM LIFTERS





# VACUUM LIFTERS

## Design

The paper roll vacuum lifters are designed for automatic, safe, and gentle handling of a large variety of different paper grades and roll sizes. Purpose built bottom seal rings between the narrow suction areas and mechanical touch-valves ensure tight contact also to more porous roll ends.

## Safety

The lifter contains two independent vacuum pumps one of which fulfills the required vacuum generation need and the second works as a back-up or for extra suction capacity needed. Vacuum lifter's own processor calculates the needed vacuum level of each roll for > 2,0 safety factor to start the lifting motion. Continuous monitoring of vacuum level, suction time trends with weighing and hardwired interlocking with the environment aim to maximize the general safety.

For the case of cut off in the external power, the system has either a UPS power supply or a generator back-up, and of course the lifter's vacuum chamber, which offer the necessary time frame to take the roll down to the nearest available space.

## Positioning

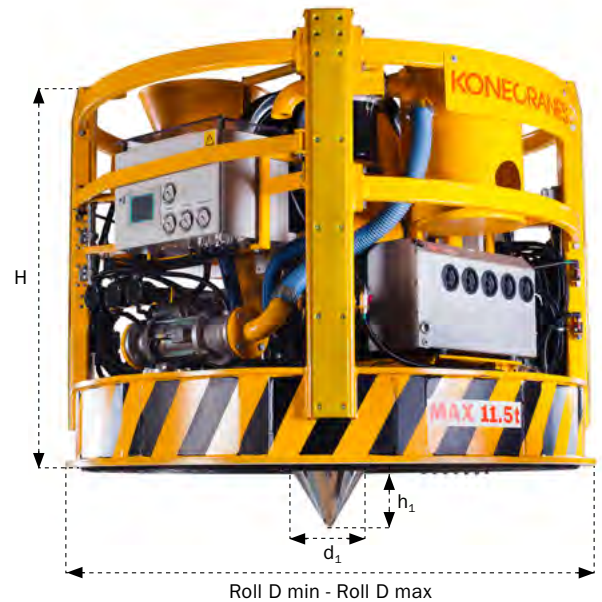
Collision avoidance in full automatic operation is ensured by distance sensors in the vacuum lifter bottom and position sensors in the center cone. For manual operation in special cases the position sensors make it possible to pickup a roll following the indication lights. Should there be a misalignment in the conveyor pickup point, the crane automation makes a corrective action following the position sensors guidance.

## Intelligent Functions

- Wireless data transmission reduces the need of wearing parts like cables, yet the hardwired interlocking assures the vacuum generation and helps to prevent errors in manual drive during maintenance stops.
- Detection of two roll gripping, when narrow and porous rolls are picked up from the piles.
- Fast gripping function for small roll weights reduce the work cycle time
- "Jumbo roll" handling function for moving rolls larger than the usual size.
- Vacuum trend monitoring during gripping and transportation helps to optimize the maintenance works

## Easy Maintenance

Hinged electric boxes enable easy access to other components. Plug-fitted vacuum pumps fastened on sledge for easier maintenance. The pumps and the main valve are plug fitted and the tubes protected. Each vacuum lifter is delivered with a maintenance stand which also functions as packing and protection during transportation.



- **Three series: VLU15A, VLU18A and VLU22T**
- **Series with different bottom plate sizes**
- **Reeving will be either lifting beam or pulleys**

KONECRANES VACUUM LIFTERS' MAIN DIMENSIONS			
	VLU15A	VLU18A	VLU22T
Roll D min (mm)	800-1000	850-1100	1400
Roll D max (mm)	1500-1700	1800-2100	2200-3000
H (mm)	2000	2100	1550
h <sub>1</sub> (mm)	240	240	990
d <sub>1</sub> (mm)	165	165/304	460
Weight (kg)	2100	2100	4400

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