

INDUSTRIAL CRANES
 NUCLEAR CRANES
 PORT CRANES
 HEAVY-DUTY LIFT TRUCKS
 SERVICE
 MACHINE TOOL SERVICE

PAPER ROLL STORAGE

KONECRANES[®]
 Lifting Businesses™

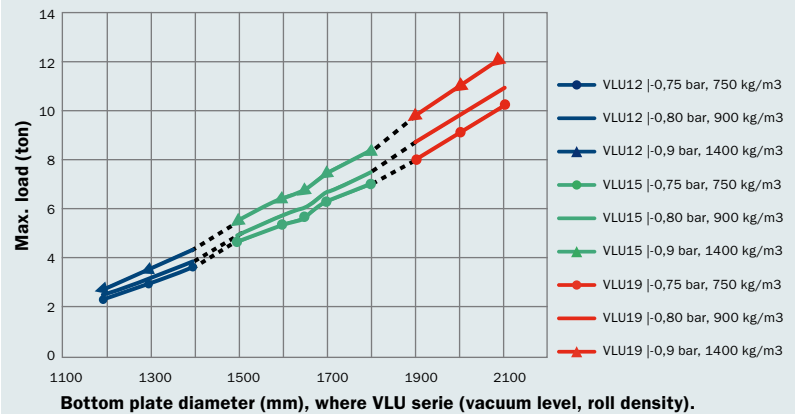
Product Sheet

PAPER ROLL VACUUM LIFTERS



VACUUM LIFTER UNIT'S LIFTING CAPACITY

Statistic safety factor 2.0 according to EN 13155.



KONECRANES 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: VLU12, VLU15 and VLU19**
- **Series with different bottom plate sizes**
- **Reeving will be either lifting beam or pulleys**

KONECRANES VACUUM LIFTERS' MAIN DIMENSIONS

	VLU 12	VLU15	VLU19
D (mm)	1200-1500	1500-1800	1900-2100
Roll D min (mm)	600-700	750-1000	1100-1300
Roll D max (mm)	1500	1500-1800	1900-2100
H (mm)	2300	2000	2100
h ₁ (mm)	240	240	240
d ₁ (mm)	165	165	165/(304)
Weight (kg)	1700	2100	3200

