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SARLIFT 2500

250TON



The SARLIFT system has been designed and built by the Sarens Special Project Department and is the result of years of investigation, analyzing, market research and testing of various solutions for the handling of heavy loads in specific situations and confined spaces, inaccessible to cranes. Systems with different capacities have been developed and have been operated successfully (*SARLIFT 750, SARLIFT 1000 and SARLIFT 2500*).



250TON

Algemene informatie Informations générales

The 'SARLIFT' lifting system has been developed as multi-functional gantry lifting system. The general set up of the system consists out of following elements:

- 4 columns with a certain height each equipped with a cylinder and 2 locking mechanisms. These columns are custom – built, reinforced profiles, foreseen of toothed rulers. The different elements of a column are bolted together;
- 2 longitudinal cross beams, linking 2 towers, positioned on the top locking mechanism (*the length* and size of the longitudinal cross beams varies with the actual configuration, a wide range of different lengths and sizes are available);
- 2 x 3 (or more) longitudinal bracings, to connect 2 towers (the length of the bracings varies with the actual configuration, all longitudinal bracings have designed following a modular concept of standard head elements and different standard lengths of pipe and plates, all assembled and bolted together using flanges);
- 4 transversal top connection beams, connection the towers (*the length and size of the top beams varies with the actual configuration, a wide range of different lengths and sizes are available*);
- 2 (or more) transversal lifting beams, positioned on the top of the longitudinal cross beams. These beams will be equipped with lifting lugs or other means to gear up the load. These beams (the length and size of the transversal lifting beams varies with the actual configuration, a wide range of different lengths and sizes are available).

Depending on lifting arrangement, column height and load, other arrangements are possible: additional outside stay arrangements, stay arrangements in combination with extended transversal top connection beams, skidding systems on top of the longitudinal cross beams or the transversal lifting beams, mobile lifting gantry on top of transversal or/and longitudinal skidding systems,...



- <u>Step 1</u>: Both top and bottom anchor clamps are released/closed (*=blocking*), the cylinder completely retracted. The load is supported by the top anchor clamps;
- <u>Step 2</u>: The bottom anchor clamps are released/closed (= *blocking*), the cylinder is extended – transferring the load from the top anchor clamps to the bottom anchor clamps – until the top anchor clamps are set free and the top anchor clamps are actuated/opened (= *unblocking*). The cylinder is extended up to the maximum stroke;
- <u>Step 3</u>: The top anchor clamps are released/closed (= *blocking*), the cylinder is retracted transferring the load from the bottom anchor clamps to the top anchor clamps – until the bottom anchor clamps are free and the top anchor clamps are actuated/opened (= *unblocking*). The cylinder is retracted completely;
- <u>Step 4</u>: The bottom anchor clamps are released/closed (= *blocking*);Now the cylinder has climbed 1 stage higher, lifting up the load and the cycle from phase 1 can restart.





Kenmerken Caractéristiques

Lifting capacity/column:	250 t
Dimensions footprint/column:	1.000 mm x 1.000 mm
Standard height column element:	2.500 mm
Nett weight column element	2.000 Kg
Minimum (<i>starting</i>) height:	2.000 mm
Nett jack + grippers	2.000 Kg
Stroke:	500 mm
Maximum work pressure:	275 bar
Hydraulic power unit:	Electric (380 V – 63 A)

The complete system is designed in accordance to:

- DNV rules for planning and execution of marine operations
- EUROCODE 3, design rules for steel structures
- NS3472, design rules for steel structures

The complete system was tested in the Sarens facilities (certificate by notified body), every new system setup is recalculated and verified according to the local or applicable regulations.

