

Dolphin

Liquid Ring Vacuum Pumps
LB 0857 – 1757 A



› **Robust:**

proven technology, high particle and vapour tolerance

› **Flexible:**

application-oriented, operating fluids other than water are possible, ATEX certified version available (Cat. 1 (i) IIB, T4), wide range of construction materials, including cast iron (EN-GJL-200), many grades of stainless steel and even titanium

› **Efficient:**

low operating costs

Dolphin LB is a series of robust and reliable two-stage liquid ring vacuum pumps from Busch in a base plate design. Their proven operating principle enables them to be used in many industrial sectors.

The Dolphin series encompasses decades of experience in the manufacture and use of liquid ring vacuum pumps, offering perfect vacuum generation in challenging environments.

The operating fluid is usually water, but other liquids may be used if required by the process conditions. Dolphin LB liquid ring vacuum pumps may be operated as a simple continuous flow system, or as a partial or total recirculation system.

The precisely dimensioned range of sizes, extensive range of accessories and choice of construction materials, including cast iron

(EN-GJL-200), 316 grade stainless steel, and higher alloy steels, such as super duplex stainless steel, hastelloy grades or even titanium, allow these vacuum pumps to be perfectly adapted to many different industrial processes. Due to their modular design and a wide variety of shaft sealing options various assemblies are possible to suit many applications.

Dolphin LB technology uses the proven liquid ring principle, with contact-free internal components and virtually isothermal compression.

The LB series has been developed for continuous operation. Even demanding applications, such as the discharge of particle-laden gases or highly saturated vapours, can easily be carried out. Dolphin LB liquid ring vacuum pumps are also available in different ATEX versions.

**Dolphin LB – robust and flexible.
Ideal for demanding applications.**



Dolphin LB 1507 A

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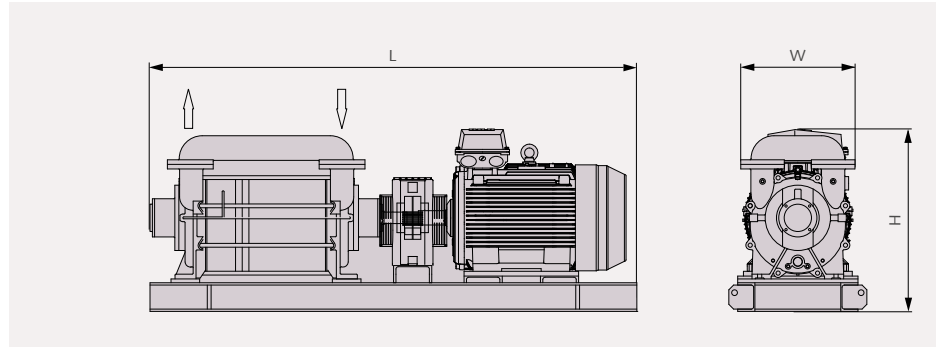
Technical specifications

Dolphin LB is a series of two-stage liquid ring vacuum pumps. An eccentrically mounted impeller rotates in a housing partially filled with operating fluid. The impeller blades dip into the fluid, and the centrifugal force exerted by their rotation forms a so-called liquid ring within the housing. The pumped medium is transported in the spaces between the blades and the liquid ring. The eccentric rotation of the impeller alters the volume of these spaces, causing gas to be drawn in, compressed and expelled. Operation as a compressor is possible up to 2.0 bar(g).

Accessories / Technical options

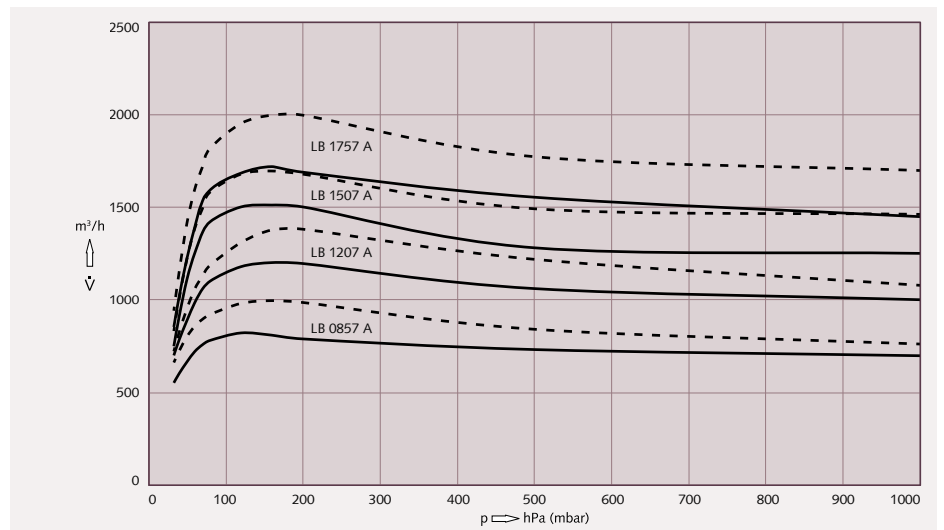
- Modular pumpsets, configured for partial or total recirculation of the operating fluid
- Liquid separator
- Cavitation protection
- Heat exchanger
- Gas ejector
- Wide selection of motors
- Non-return valves
- Vacuum relief valves

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Pumping speed

Dry air at 20 °C. Tolerance: - 10%, in accordance with HEI and Pneurop 6612 — 50 Hz 60 Hz



Technical data			LB 0857 A	LB 1207 A	LB 1507 A	LB 1757 A
Nominal pumping speed	50 Hz / 60 Hz	m ³ /h	850 / 1000	1200 / 1380	1500 / 1690	1750 / 2000
Ultimate pressure	50 Hz / 60 Hz	hPa (mbar)	33	33	33	33
Max. overpressure	50 Hz / 60 Hz	bar(g)	2	2	2	2
Nominal motor rating	50 Hz / 60 Hz	kW	30 / 37	37 / 55	45 / 75	75 / 90
Nominal motor speed	50 Hz / 60 Hz	min ⁻¹	960 / 1150	960 / 1150	960 / 1150	960 / 1150
Noise level (ISO 2151)	50 Hz / 60 Hz	dB(A)	76 / 77	76 / 77	76 / 77	76 / 77
Weight approx.		kg	510	600	685	770
Dimensions (L x W x H)		mm	(1096–1282) x 610 x 750	(1246–1432) x 610 x 750	(1346–1532) x 610 x 750	(1496–1682) x 610 x 750
Gas inlet / outlet			DN 100 PN 10	DN 100 PN 10	DN 100 PN 10	DN 100 PN 10