

Dolphin

Liquid Ring Vacuum Pumps LT 0320–0510 A



- › **Robust:**
proven technology, high vapor and particle tolerance
- › **Compact:**
directly flange mounted motor, no base frame required, integrated flow channel
- › **Flexible:**
application-oriented, operating fluids other than water are possible, ATEX certified version available (Cat. 1 (i) IIB, T4), corrosion-free stainless steel impeller, choice of cast iron (EN-GJL-200) or 316 grade stainless steel material housings

Dolphin LT is the new generation of liquid ring vacuum pumps from Busch, with all the advantages of proven technology plus additional refinements.

Dolphin LTs are two-stage vacuum pumps and operate from atmospheric pressure to 25 Torr. The Dolphin LT series is available in a total of eight sizes, allowing an exact match to every process.

The operating fluid is usually water, but other liquids may be used if required by the process conditions. Dolphin LT 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 allow these vacuum pumps to be perfectly adapted to many different industrial processes.

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

The LT series has been developed for continuous operation to support a wide range of processes in many industrial sectors, including the chemical and pharmaceutical industries.

**Dolphin LT –
robust principle,
modern design.**



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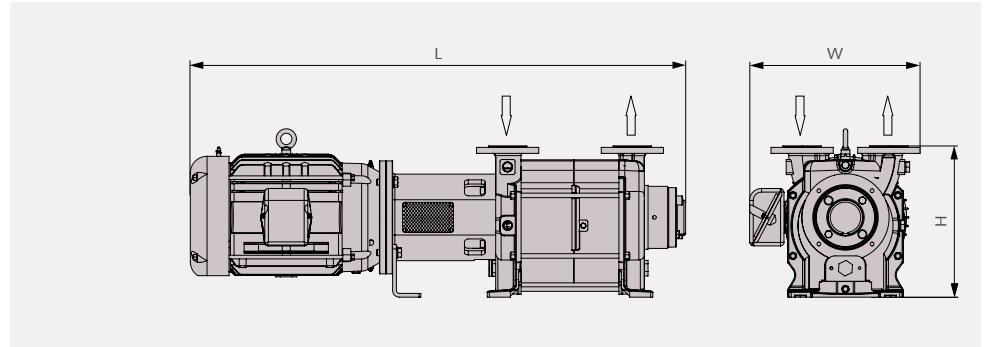
Technical specifications

The Dolphin LT 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 22 PSIG for the Dolphin LT 0320–0510 A models. These are the three intermediate sizes of vacuum pumps in a series that comes in a total of eight sizes.

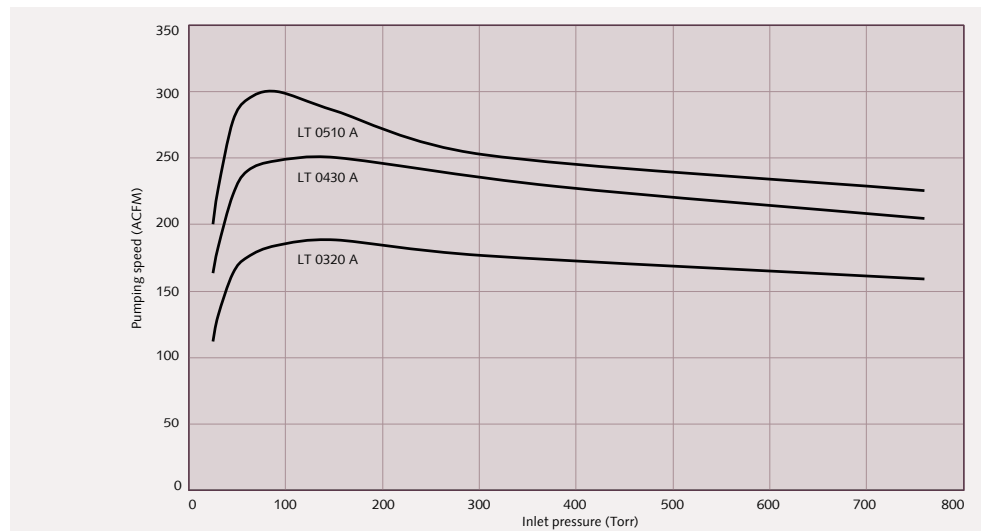
Accessories / Technical options

- 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

Dolphin LT 0320–0510 A



Pumping speed Air at 70 °F. Tolerance: ± 10%



| Technical data | | LT 0320 A | LT 0430 A | LT 0510 A |
|-------------------------|--------|--|---|--|
| Max. pumping speed | ACFM | 188 | 251 | 300 |
| Ultimate pressure | Torr | 25 | 25 | 25 |
| Max. pressure | PSIG | 22 | 19 | 16 |
| Nominal motor rating | HP | 15 | 20 | 20 |
| Nominal motor speed | RPM | 1800 | 1800 | 1800 |
| Sound level (ISO 2151) | dB(A) | 73 | 73 | 73 |
| Approximate weight | Lbs. | 677 | 737 | 803 |
| Dimensions (L x W x H) | inches | 51 ¹³ / ₁₆ x 17 ¹³ / ₁₆ x 15 ¹³ / ₁₆ | 53 ⁹ / ₁₆ x 17 ¹³ / ₁₆ x 15 ¹³ / ₁₆ | 56 ⁵ / ₈ x 17 ¹³ / ₁₆ x 15 ¹³ / ₁₆ |
| Gas inlet Gas outlet | | DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K | DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K | DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K DN 50 PN 10 / ANSI 2" / 150 lbs / JIS 50 10K |

All performance data is based on ambient conditions of 14.7 PSIA and 70 °F, and has a tolerance of ± 10%.

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Technical data is subject to change. Created in Germany. MG PL DOLPHINLT03200510A USenus 02/2018 8Aa