

Dolphin

Liquid Ring Vacuum Pumps LM 0100–0270 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 LM is the new generation of liquid ring vacuum pumps from Busch, with all the advantages of proven technology plus additional refinements.

Dolphin LMs are single-stage vacuum pumps for rough vacuum applications from atmospheric pressure to 100 Torr ultimate pressure. The Dolphin LM series is available in a total of five 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 LM 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 LM technology uses the proven liquid ring principle, with contact-free internal components and virtually isothermal compression.

The LM 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 LM –
robust principle,
modern design.**



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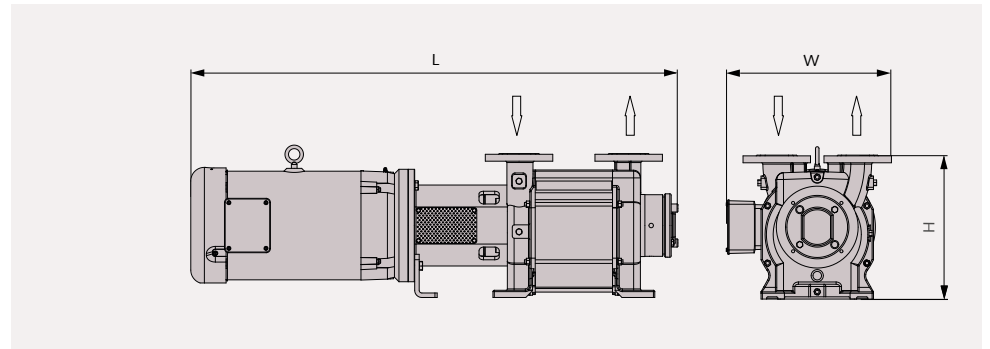
Technical specifications

The Dolphin LM is a series of single-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. Dolphin LM 0100–0270 A are the three smallest vacuum pumps in a series that comes in a total of five sizes.

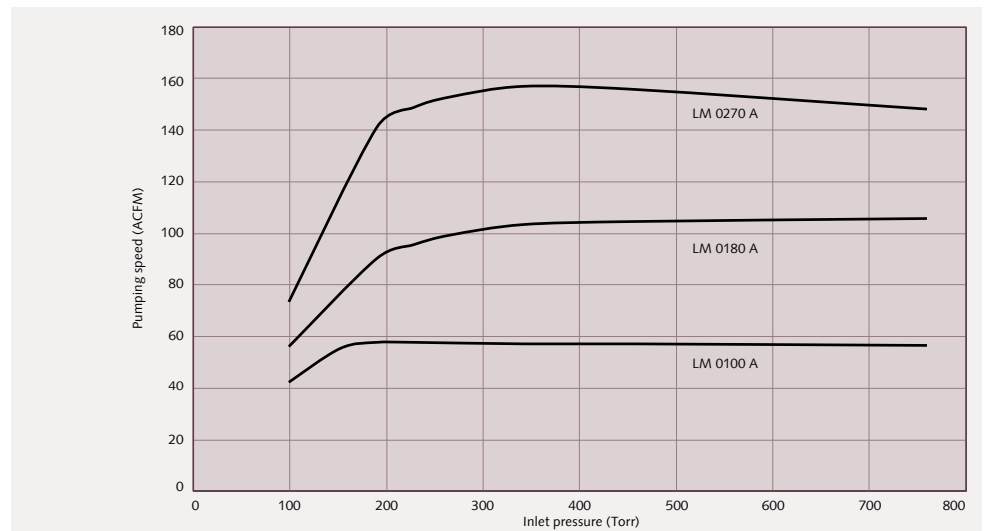
Accessories / Technical options

- 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

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



Technical data		LM 0100 A	LM 0180 A	LM 0270 A
Max. pumping speed	ACFM	58	106	157
Ultimate pressure	Torr	100	100	100
Max. pressure	PSIG	12	22	22
Nominal motor rating	HP	5	7.5	10
Nominal motor speed	RPM	1800	1800	1800
Sound level (ISO 2151)	dB(A)	71	71	71
Approximate weight	Lbs.	275	349	374
Dimensions (L x W x H)	inches	36 x 13 3/8 x 12 5/8	39 3/16 x 14 7/16 x 12 5/8	42 5/8 x 14 5/16 x 12 5/8
Gas inlet		DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 10K	DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 10K	DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 10K
Gas outlet		DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 10K	DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 10K	DN 40 PN 10 / ANSI 1 1/2" / 150 lbs / JIS 40 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 DOLPHINLM01000270A USenus 01/2018 8Aa