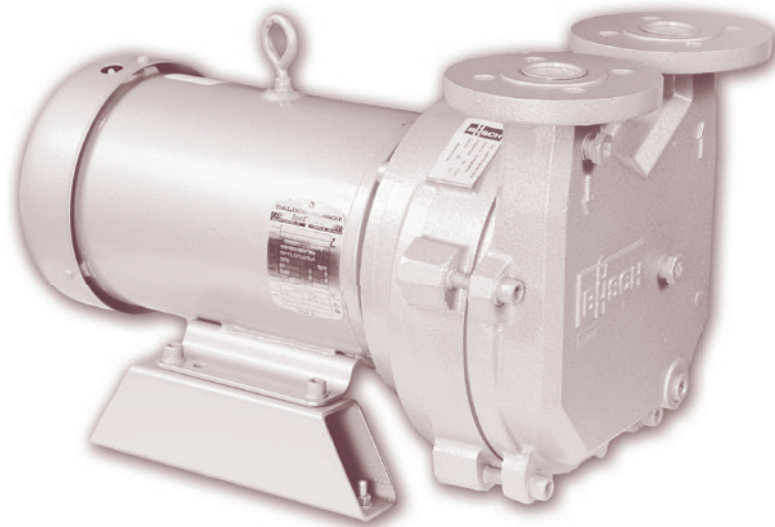


Dolphin LX 0030 B - LX 0180 B Dolphin LX 0260 A - LX 0430 A



LX 0110 B

Description

Busch LX series liquid ring vacuum pumps are of a compact, motor-mounted design; ideal for a wide range of wet or corrosive process applications. The small footprint and minimal connections make them easy to install or adapt into any system, machine or process where a liquid ring pump is preferred.

All pumps are of a single-stage, high-efficiency, variable port design that provides end vacuum capability comparable to most two-stage pumps.

Quiet running and requiring minimal maintenance, LX pumps are an economical alternative to traditional close-coupled, separate-drive or base-mounted liquid ring configurations.

Features

- Ultimate pressure of 25 Torr (29" Hg Vac)
- Compact, single-stage design
- Low service liquid requirements
- Rugged and reliable
- Only one moving part
- Low maintenance
- Low vibration and noise levels
- Low heat emission

Standard Equipment

All Models

- TEFC motor with mounting feet
- NPT inlet/outlet connections (LX 0030 and LX 0055)
- ANSI inlet/outlet flanges (LX 0110 and larger)
- Variable discharge port
- Mechanical shaft seal
- Liquid drain port

B Models Only

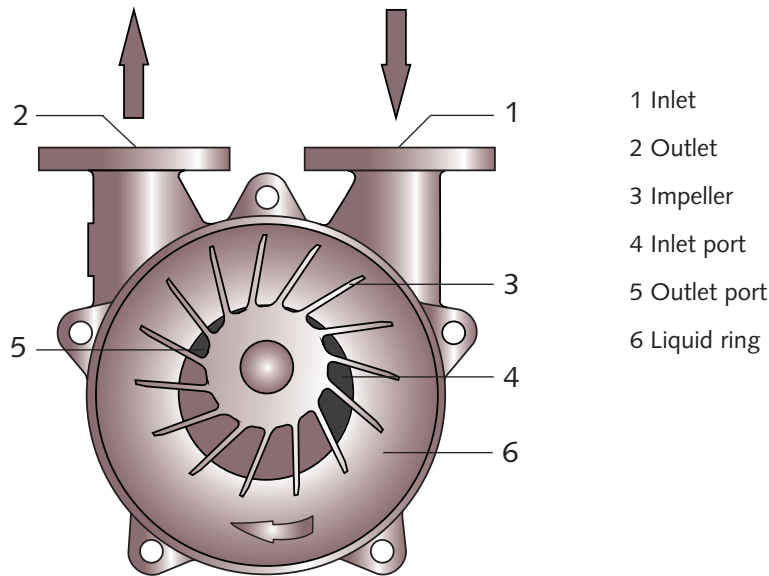
- Cast iron housing, with 316 stainless steel impeller
- Replaceable port plate
- O-ring sealed

A Models Only

- Cast iron housing, with bronze impeller
- Access cover for easy internal inspections

Liquid ring vacuum pumps

Operating Principle



Operating Principle

Liquid ring vacuum pumps operate with only one moving part, the impeller shaft assembly. The impeller is mounted eccentrically relative to its casing. The liquid ring is formed by the service liquid (normally water) rotating concentrically in its casing.

Process gas enters through the suction port. It then travels between the impeller blades and is compressed prior to exhausting through the discharge port, along with a quantity of service liquid.

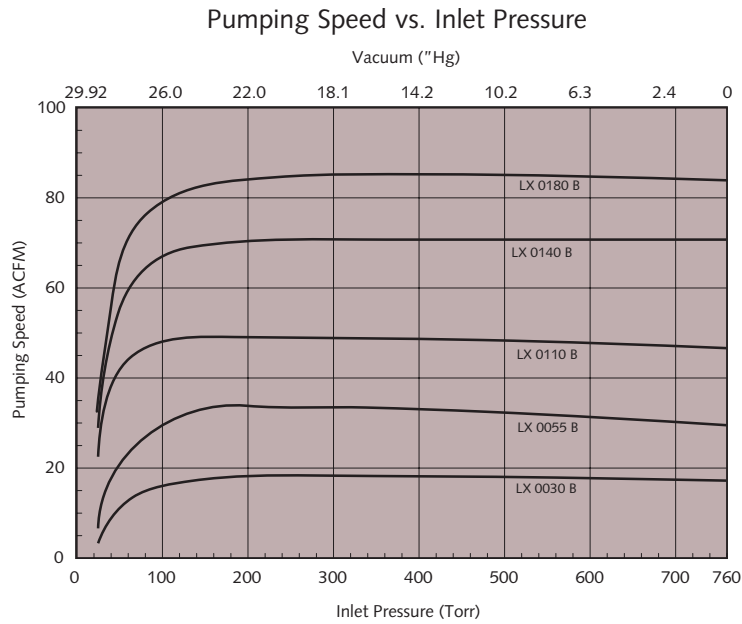
Accessories

- Air/water discharge separators
- Service liquid line components
- Check valves
- Vacuum relief valves
- Liquid separators
- Inlet filters
- Knock-out pots
- Control valves
- Gauges
- Transmitters and switches
- Motor starters
- Vacuum receivers

Applications

- Chemical
- Pharmaceutical
- Medical
- Laboratory
- Food processing
- Plastics
- Environmental
- Renewables
- Paper industry
- Packaging
- Distillation
- Solvent recovery
- De-aerating
- Filtration

Technical Data (B Model Pumps)



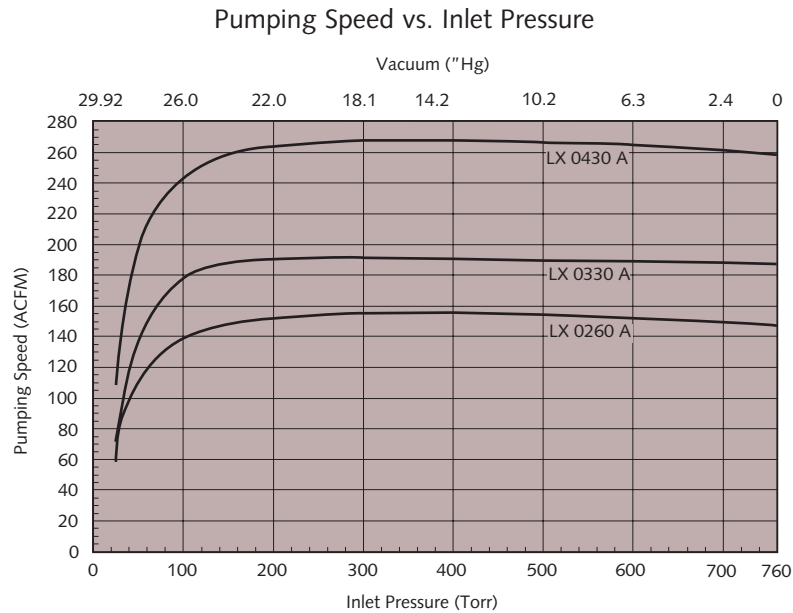
Technical Data		LX 0030 B	LX 0055 B	LX 0110 B	LX 0140 B	LX 0180 B
Nominal pumping speed	ACFM	18	34	49	71	85
Ultimate pressure	Torr	25	25	25	25	25
Motor size	kW (HP)	1.1 (1.5)	2.2 (3)	3 (4)	4 (5.4)	5.5 (7.4)
Nominal motor speed	RPM	3450	3450	1750	1750	1750
Typical service liquid flow	GPM	0.8	1.3	3.6	3.8	4.3
Maximum service liquid temperature	°F	104	104	104	104	104
Maximum gas inlet temperature	°F	176	176	176	176	176
Approximate weight	Lbs.	55	73	121	154	165
Sound rating*	dB(A)	70	70	70	70	70

Performance data based on ambient conditions of 14.7 PSIA and dry air at 68° F, with 59° F water used as the sealing fluid. All data has a +/- 10% tolerance.

* DIN EN ISO 2151



Technical Data (A Model Pumps)



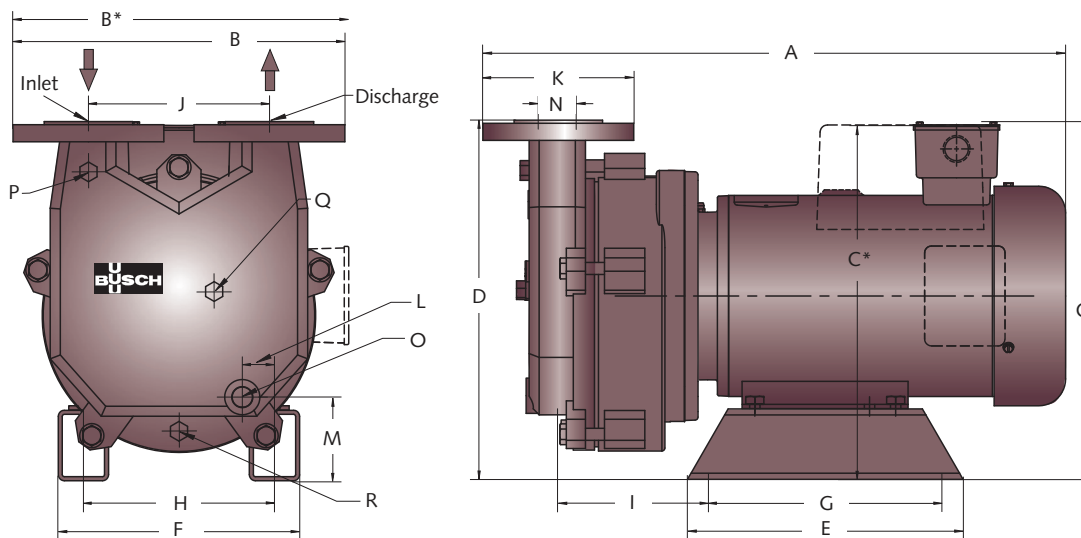
Technical Data		LX 0260 A	LX 0330 A	LX 0430 A
Nominal pumping speed	ACFM	155	191	268
Ultimate pressure	Torr	25	25	25
Motor size	kW (HP)	7.5 (10)	11 (15)	15 (20)
Nominal motor speed	RPM	1800	1800	1800
Typical service liquid flow	GPM	5	6.5	8
Maximum service liquid temperature	°F	104	104	104
Maximum gas inlet temperature	°F	176	176	176
Approximate weight	Lbs.	256	291	437
Sound rating*	dB(A)	72	72	72

Performance data based on ambient conditions of 14.7 PSIA and dry air at 68° F, with 59° F water used as the sealing fluid. All data has a +/- 10% tolerance.

* DIN EN ISO 2151



Dimensions (B Model Pumps)



*Denotes single-phase motor

Three-phase motor														
Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N
LX 0030 B	16	7 ⁷ / ₈	9 ¹ / ₂	8 ¹ / ₄	7 ¹ / ₁₆	6 ¹ / ₈	5 ⁷ / ₈	4 ¹⁵ / ₁₆	4 ³ / ₄	3 ¹⁵ / ₁₆	—	2 ⁷ / ₁₆	4 ⁵ / ₁₆	1" NPT
LX 0055 B	20 ¹ / ₄	7 ⁷ / ₈	9 ¹³ / ₁₆	8	7 ⁷ / ₈	6 ¹¹ / ₁₆	6 ⁷ / ₈	5 ¹ / ₂	8 ¹ / ₈	3 ¹⁵ / ₁₆	—	2 ³ / ₄	4 ¹ / ₁₆	1" NPT
LX 0110 B	22 ¹³ / ₁₆	13	14	14 ¹ / ₁₆	10 ¹³ / ₁₆	9 ⁷ / ₁₆	9 ¹ / ₈	7 ¹ / ₂	5 ⁷ / ₈	7 ¹ / ₁₆	5 ⁷ / ₈	1 ¹ / ₄	3 ¹ / ₄	1 ¹ / ₂ ANSI
LX 0140 B	22 ³ / ₁₆	13	14	14 ¹ / ₈	10 ¹³ / ₁₆	9 ⁷ / ₁₆	9 ¹ / ₈	7 ¹ / ₂	6 ¹ / ₄	7 ¹ / ₁₆	5 ⁷ / ₈	1 ¹ / ₄	3 ¹ / ₄	1 ¹ / ₂ ANSI
LX 0180 B	26 ³ / ₄	13	15 ⁷ / ₁₆	14 ⁷ / ₈	10 ¹³ / ₁₆	10 ¹ / ₂	9 ¹ / ₈	8 ¹ / ₂	9 ¹³ / ₁₆	7 ¹ / ₁₆	5 ¹⁵ / ₁₆	1 ³ / ₄	4 ¹ / ₈	1 ¹ / ₂ ANSI

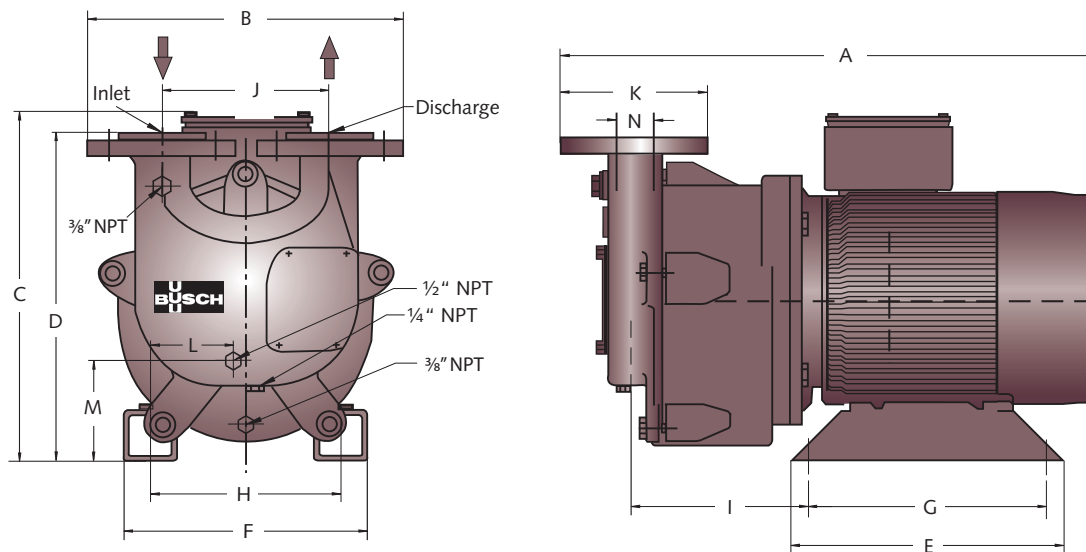
Single-phase motor*														
Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N
LX 0030 B	18 ³ / ₈	9 ¹ / ₂	9 ¹³ / ₁₆	8 ¹ / ₁₆	7 ⁷ / ₈	6 ¹¹ / ₁₆	6 ⁷ / ₈	5 ¹ / ₂	7 ¹ / ₁₆	3 ¹⁵ / ₁₆	—	2 ³ / ₄	4 ¹ / ₈	1" NPT
LX 0055 B	21 ⁵ / ₈	9 ¹ / ₂	9 ¹³ / ₁₆	8 ¹ / ₁₆	7 ⁷ / ₈	6 ¹¹ / ₁₆	6 ⁷ / ₈	5 ¹ / ₂	8 ¹ / ₈	3 ¹⁵ / ₁₆	—	2 ³ / ₄	4 ¹ / ₁₆	1" NPT
LX 0110 B	23 ¹ / ₄	12 ⁷ / ₁₆	13	13 ¹ / ₁₆	10 ¹ / ₁₆	8 ¹³ / ₁₆	8 ¹ / ₂	6 ¹⁵ / ₁₆	7 ¹ / ₈	6 ⁹ / ₁₆	5 ¹ / ₂	1 ³ / ₁₆	3 ¹ / ₁₆	1 ¹ / ₂ ANSI
LX 0140 B	25 ⁵ / ₁₆	13 ³ / ₈	14	14 ¹ / ₈	10 ¹³ / ₁₆	9 ⁷ / ₁₆	9 ¹ / ₈	7 ¹ / ₂	8	7 ¹ / ₁₆	5 ⁷ / ₈	1 ¹ / ₄	3 ¹ / ₄	1 ¹ / ₂ ANSI
LX 0180 B	28 ⁵ / ₁₆	13	16 ⁵ / ₈	14 ⁷ / ₈	10 ¹³ / ₁₆	10 ¹ / ₂	9 ¹ / ₈	8 ¹ / ₂	9 ¹³ / ₁₆	7 ¹ / ₁₆	5 ¹⁵ / ₁₆	1 ³ / ₄	4 ¹ / ₈	1 ¹ / ₂ ANSI

Service Connections	LX 0030 - LX 0055	LX 0110 - LX 0180
O Service liquid connection	3 ³ / ₈ " NPT	1 ¹ / ₂ " NPT
P Cavitation protection (plugged)	1 ¹ / ₄ " NPT	3 ³ / ₈ " NPT
Q Center line drain connection (plugged)	—	3 ³ / ₈ " NPT
R Drain connection (plugged)	1 ¹ / ₄ " NPT	3 ³ / ₈ " NPT

All dimensions in inches unless otherwise noted.

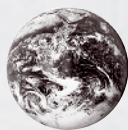


Dimensions (A Model Pumps)



Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N
LX 0260 A	26 ⁹ / ₁₆	14 ³ / ₈	14 ¹⁵ / ₁₆	14 ¹ / ₁₆	12 ³ / ₁₆	10 ¹ / ₂	10 ⁵ / ₈	8 ¹ / ₂	9 ⁵ / ₈	7 ⁷ / ₈	6 ¹ / ₂	3 ¹³ / ₁₆	4 ⁵ / ₁₆	2" ANSI
LX 0330 A	27 ¹ / ₂	14 ³ / ₈	14 ¹⁵ / ₁₆	14 ¹ / ₁₆	12 ³ / ₁₆	10 ¹ / ₂	10 ⁵ / ₈	8 ¹ / ₂	10 ⁵ / ₈	7 ⁷ / ₈	6 ¹ / ₂	3 ¹³ / ₁₆	4 ⁵ / ₁₆	2" ANSI
LX 0430 A	32 ¹ / ₁₆	16 ³ / ₄	20 ¹ / ₁₆	17 ⁵ / ₁₆	18 ⁵ / ₁₆	13 ¹ / ₈	15 ¹⁵ / ₁₆	10	11 ¹ / ₄	9 ⁷ / ₁₆	7 ¹ / ₄	4 ⁵ / ₈	6 ¹ / ₁₆	2 ¹ / ₂ ANSI

All dimensions in inches unless otherwise noted.



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Models and specifications are subject to change without notice

04-04/11