

Alfa Laval LKH Centrifugal Pump

The Premium Pump

Applications

The LKH pump is a highly efficient and economical centrifugal pump, which meets the requirements of hygienic and gentle product treatment and chemical resistance.

LKH is available in the following sizes, LKH-5, -10, -15, -20, -25, -35, -40, -45, -50, -60, -70, -75, and -90

Standard design

LKH series is designed to deliver safe and hygienic products with fast and economic cleaning to accommodate 3A requirements.

Shaft seals

The LKH pump is equipped with either an external single or a flushed shaft seal. Both have stationary seal rings made from acid-resistant SS steel, AISI 329. The pump may also be equipped with a double mechanical shaft seal. The static seal face is silicon carbide and the rotary seal face is carbon as standard and optional silicon carbide. The flush seal has a secondary, long life, lip seal.



TECHNICAL DATA

Materials

Product wetted steel parts: Acid-resistant steel AISI 316L and AISI 329.

Other steel parts: Stainless steel AISI 304.

Finish, product wetted surface: Polished $\leq 32\text{Ra}$. and 3A approved.

Product wetted elastomers, std: EPDM rubber.

Optional NBR, FPM, FEP.

Single seal SSS Sic/c or sic/sic.

Double seal DMSS: Primary sic/c or sic/sic.

Double seal DMSS: Secondary sic/c.

Noise level (at 3.3 ft.): 60 - 85 dB (A).

Connections for FSS and DMSS:

R 1/8" (BSP) male thread

Motor

Standard C-faced, foot mounted motor according to NEMA standard. 3500 RPM or 1750 RPM. Premium efficiency, Class F. Note different frame sizes.

LKH-75 and -90 only low speed (1750 RPM).

Voltage and frequency

3 phase, 60 HZ, 230/460V standard. Other voltages and frequencies available upon request.

OPERATING DATA

Pressure

Max. inlet pressure (dynamic)

LKH-5 87 PSI

LKH-10 - LKH-60 145 PSI

LKH-70 - LKH-90 72.52 PSI

Note: Max 5 bar (72psi) inlet pressure allowed if the pump is mounted on an explosion proof motor Exd or Exde, type WEG W21

Temperature

Temperature range 14°F to +284° F (EPDM)

Flushed shaft seal:

Water pressure inlet: Max. 14.5 PSI.

Water consumption: 4-8 usgph

Double mechanical shaft seal:

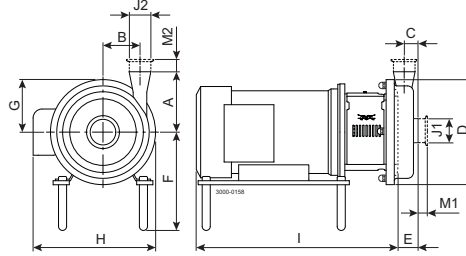
Water pressure inlet, LKH-5 to -60: . . . Max. 72.5 PSI.

Water pressure inlet, LKH-70 to -90: . . . Max. 43.5 PSI.

Water consumption: 4-8 usgph



Dimensions (in)



Pump specific measures

Pump Model	LKH-5	LKH-10	LKH-15	LKH-20	LKH-25	LKH-35	LKH-40	LKH-45	LKH-50	LKH-60	LKH-70	LKH-75	LKH-90
A	6.220	5.591	6.535	7.087	7.598	7.598	8.346	8.346	8.071	10.276	10.000	10.197	12.205
B	2.756	3.425	2.598	3.465	4.173	4.685	4.961	4.961	4.646	4.016	5.787	6.929	9.843
C	0.866	0.906	1.693	1.063	1.260	0.906	1.102	1.102	1.378	2.441	0.984	1.890	2.559
D	7.441	9.724	9.724	9.961	11.929	11.929	12.953	12.953	12.953	12.953	16.063	18.425	19.843
E	1.654	2.008	3.425	2.480	2.706	2.126	2.520	2.520	3.031	4.173	2.992	3.622	3.740

Motor specific measures

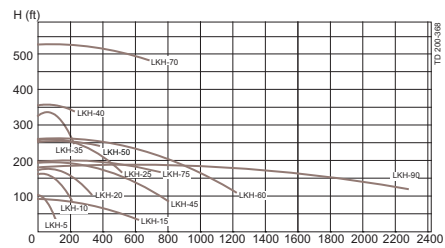
Motor TC/TSC	56TC	143TC	145TC	182TC	184TC	213TC	215TC	254TC	256TC	284TSC	286TSC	324TSC	326TSC	364TSC	365TSC
Motor HP	1.0	1.5	2.0	3.0	5.0	7.5	10.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0	75.0
F(max)*	8.110	8.110	8.110	9.094	9.094	9.843	9.843	10.866	10.866	11.614	11.614	12.598	12.598	13.622	13.622
G	3.307	3.504	3.543	4.488	4.488	5.394	5.394	6.772	6.772	7.677	7.677	8.425	8.504	9.331	9.331
H	8.937	9.094	9.094	11.102	11.102	13.071	13.071	17.795	17.795	20.945	20.945	23.346	23.346	26.811	26.811
I (LKH-5)	13.307	14.843	-	18.268	-	-	-	-	-	-	-	-	-	-	-
I (LKH-10 to LKH-60)	-	14.843	15.118	17.992	18.150	21.024	21.024	26.063	27.835	28.583	30.039	33.071	34.646	34.449	-
I (LKH-70 to LKH-90)	-	-	-	-	-	21.811	21.811	26.575	28.346	29.094	30.551	33.583	35.157	34.961	38.346

Motor overview

Pump Model	LKH-5	LKH-10	LKH-15	LKH-20	LKH-25	LKH-35	LKH-40	LKH-45	LKH-50	LKH-60	LKH-70	LKH-75	LKH-90
Motor range (TC/TSC)	56TC- 182TC	56TC- 254TC	145TC- 154TC	145TC- 256TC	145TC- 286TSC	182TC- 286TSC	182TC- 286TSC	182TC- 286TSC	182TC- 324TSC	213TC- 364TSC	213TC- 405TSC	254TC- 326TSC	286TSC- 405TSC

Connections

Pump Model		LKH-5	LKH-10 LKH-20 LKH-35	LKH-15 LKH-45 LKH-50 LKH-70	LKH-25	LKH-40	LKH-60 LKH-70	LKH-60 LKH-70	LKH-90
TRI-Clamp	M1	1.13	1.13	1.13	1.13	1.13	1.13	1.5	1.5
	M2	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.5
	J1*	2.00"	2.50"	4.00"	3.00"	3.00"	4.00"	6.00"	6.00"
	J2*	1.50"	2.00"	3.00"	2.50"	2.00"	4.00"	4.00"	6.00"

Technical Data**Volumetric Flow****Options**

- A. Impeller with reduced diameter.
- B. Motor enclosures: washdown, TEFC, explosion proof, inverter duty and others upon request.
- C. Inducer (only LKH-10 to -50).
- D. Flushed shaft seal.
- E. Double mechanical shaft seal.
- F. Counter flanges, seal rings and bolts for flanged connections (industrial version).
- G. Standard clearance is 0.02" (0.04" for LKH-70 to LKH-90) and can be made up to 0.098").

Material grades

- H. Product wetted seals of Buna (NBR), Fluoroelastomer (FPM) or FEP.
- I. Rotating seal ring of silicon carbide.

Ordering

Please state the following when ordering:

- Pump size.
- Version, hygienic or industrial.
- Connections.
- Seal and Elastomer Type
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure and temperature.
- Density and viscosity of the product.
- Options.