



The Rigid Pump

LKHP Filtration Centrifugal Pump for High Inlet Pressure

Application

The LKHPF pump is a highly efficient and economical centrifugal pump, specially designed for high inlet pressures, e.g. for use in filtration systems. The LKHPF pump meets the requirements of sanitary and gentle product treatment and chemical resistance, and is available in nine sizes, LKHPF-10, -20, -25, -35, -40, -45, -50, -60, -70.

Standard Design

The LKHPF pump is designed for CIP-cleaning with an emphasis on large internal radii and easily cleanable seals.

The LKHPF pump is a sanitary pump with a stainless steel shroud for protection of the motor. The complete unit is supported on four adjustable stainless steel legs.

Shaft Seals

The LKHPF pump can be fitted with two types of mechanical seal:

- Single internal seal.
- Flushed seal.

Both seal types have a stationary seal ring and rotating seal ring in silicon carbide.

The secondary seal of the flushed seal is a long lasting lip seal.



TECHNICAL DATA

Materials

Product wetted steel parts: W. 1.4404 (316L).

Other steel parts: Stainless steel.

Product wetted seals: EPDM rubber.

Finish: Semi bright.

Connections for flushed shaft seal:

6 mm tube/Rp 1/8".

Motor Sizes

50 Hz: 1.5 - 75.0 kW.

60 Hz: 1.75 - 86.0 kW.

Motor

Foot-flanged special motor with a fixed angular contact bearing according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, IP 55 (with drain hole sealed with labyrinth plug), insulation class F.

Warranty

Extended 3-year warranty on LKHPF pumps. The warranty covers all non- wear parts on the condition that genuine Alfa Laval spare parts are used.

OPERATING DATA

Pressure

Max. inlet pressure: 4000 kPa (40 bar).

Water pressure: Max. 100 kPa (1 bar).
(Flushed seal)

Temperature

Temperature range: -10°C to +140°C (EPDM).

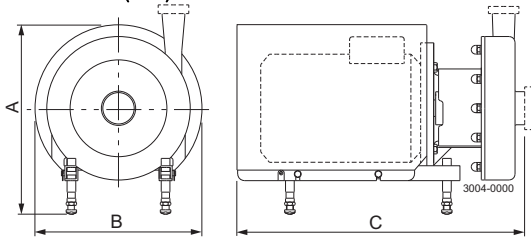
Water consumption

Water consumption: Approx. 0.25-0.5 l/min.
(Flushed seal)

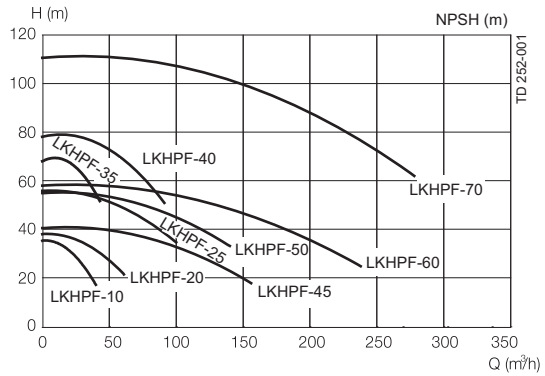
Noise

Noise level (at 1 m): 60 - 80 dB (A).

Dimensions (mm)



Flow chart



Frequency: 50 Hz, Speed (Synchr.): 3000 rpm

	LKHP-10			LKHP-15		LKHP-20		
Motor kW	1.5	2.2	4	4	5.5	2.2	4	5.5/7.5
A min.	346	346	383	383	380	346	383	380
A max.	432	432	496	492	513	432	496	513
B	288	288	359	359	383	288	359	383
C	494	494	559	590	668	508	573	651

	LKHP-25			LKHP-35		LKHP-40		
Motor kW	5.5/7.5	11/15	4	5.5/7.5	11/15	7.5	11/15/18.5	22
A min.	380	490	383	380	490	380	490	546
A max.	513	607	496	513	607	513	607	671
B	383	485	359	383	383	383	485	533
C	655	856	561	639	840	650	851	915

	LKHP-45			LKHP-50		LKHP-60				LKHP-70			
Motor kW	4	5.5/7.5	11/15	5.5/7.5	11/15/18.5	22	5.5/7.5	11/15/18.5	22	30	22	30/37/45	55/75
A min.	383	380	490	380	490	546	380	490	546	661	671	786	872
A max.	496	513	607	513	607	671	513	607	671	786	383	407	488
B	359	383	485	383	485	534	383	485	534	673	534	673	753
C	588	666	867	664	865	929	666	867	932	1019	935	1035	1323

Options

- A. Impeller with reduced diameter.
- B. Impeller screw.
- C. Motor for other voltage and/or frequency.
- D. Flushed shaft seal.
- E. Seals in Nitrile (NBR) or Fluorinated rubber (FPM).
- F. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu m$

Ordering

- Please state the following when ordering:
- Pump size.
 - Connections.
 - Impeller diameter.
 - Motor size.
 - Voltage and frequency.
 - Flow, pressure and temperature.
 - Density and viscosity of the product.
 - Options.

Note!

- The curves for LKHPF are identical to those for LKH.
- For further details, see also ESE01950.

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