



Alfa Laval LKHP Filtration Centrifugal Pump for High Inlet Pressure

Strong and Reliable

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 hygienic 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 consists of a special motor, stub shaft, compression coupling, adaptor, back plate, impeller, impeller screw, pump casing and shaft seal. The LKHPF pump is designed for CIP-cleaning with an emphasis on large internal radii and easily cleanable seals, to accommodate 3A requirements.

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: Acid-resistant steel AISI 316L and AISI 329L.

Other steel parts: Stainless steel AISI 304..

Product wetted seals: EPDM rubber.

Optional: NBR (Buna); FPM (Viton)

Finish: Polished ≤ 32 Ra.

Connections for flushed shaft seal:

1/4 tube/Rp 1/8

Motor

Special high thrust bearing NEMA C-Face motor, foot mounted motor according to NEMA standards at 3500 RPM. Premium efficiency, TEFC, insulation Class F



OPERATING DATA

Pressure

Max. inlet pressure: 600 PSI.

Water pressure inlet: Max. 14.5 PSI (Flushed seal)

Temperature

Temperature range: 14° F to 284° F (EPDM).

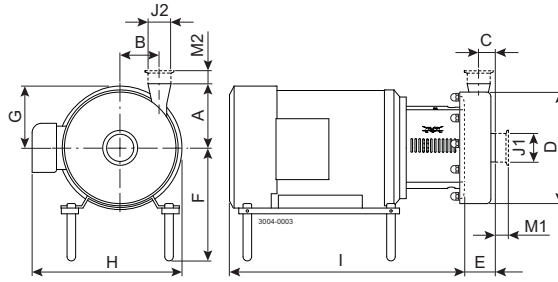
Water consumption

Water consumption: 4-8 usgph (Flushed seal)

Noise

Noise level (at 3 ft.): 60 - 80 dB (A).

Dimensions (in)



Pump specific measures

| Pump Model | LKHPF-10 | LKHPF-20 | LKHPF-25 | LKHPF-35 | LKHPF-40 | LKHPF-45 | LKHPF-50 | LKHPF-60 | LKHPF-70 |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A | 5.591 | 7.087 | 7.598 | 7.598 | 8.346 | 7.598 | 8.071 | 10.315 | 10.000 |
| B | 3.425 | 3.425 | 4.173 | 4.685 | 4.961 | 3.819 | 4.646 | 4.016 | 5.787 |
| C | 1.142 | 1.693 | 1.496 | 1.102 | 1.339 | 1.693 | 1.654 | 1.654 | 1.102 |
| D | 9.724 | 9.961 | 11.929 | 11.929 | 12.953 | 11.929 | 12.953 | 12.953 | 16.063 |
| E | 2.520 | 3.071 | 3.228 | 2.598 | 3.031 | 3.661 | 3.583 | 3.661 | 3.661 |

Motor specific measures

| Motor TC/TSC | 213TC | 215TC | 254TC | 256TC | 284TSC | 286TSC | 324TSC | 326TSC | 364TSC | 365TSC |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Motor HP | 7.5 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 40.0 | 50.0 | 60.0 | 75.0 |
| F(max)* | 9.843 | 9.843 | 10.866 | 10.866 | 11.614 | 11.614 | 12.598 | 12.598 | 13.622 | 13.622 |
| G | 5.394 | 5.394 | 6.772 | 6.772 | 7.677 | 7.677 | 8.425 | 8.504 | 9.331 | 9.331 |
| H | 13.071 | 13.071 | 17.795 | 17.795 | 20.945 | 20.945 | 23.346 | 23.346 | 26.811 | 26.811 |
| I (LKHPF-10 to LKHPF-60) | 21.024 | 21.024 | 26.063 | 27.835 | 28.583 | 30.039 | 33.071 | 34.646 | 34.449 | - |
| I (LKHPF-70) | 21.811 | 21.811 | 26.575 | 28.346 | 29.094 | 30.551 | 33.583 | 35.157 | 34.961 | 38.346 |

*Possible to reduce dimension F by min. XX mm for all pump models. For smaller models it will be possible to reduce dimension F even further.

Motor overview

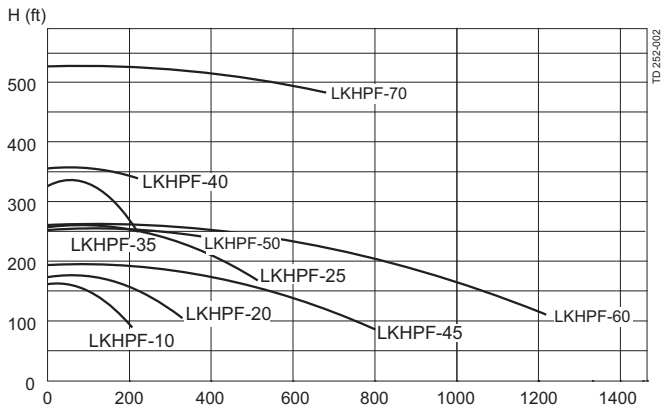
| Pump Model | LKHPF-10 | LKHPF-20 | LKHPF-25 | LKHPF-35 | LKHPF-40 | LKHPF-45 | LKHPF-50 | LKHPF-60 | LKHPF-70 |
|----------------------|----------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|-------------------|
| Motor range (TC/TSC) | 213TC | 213TC- 215TC | 213TC- 256TC | 213TC- 256TC | 215TC- 286TSC | 213TC- 256TC | 213TC- 286TSC | 213TC- 286TSC | 234TSC- 405TSC |

Dimensional data are based on 2 pole, Sterling motors.

Connections

| Pump Model | | LKHPF-10 LKHPF-20 LKHPF-35 | LKHPF-25 | LKHPF-40 | LKHPF-45 LKHPF-50 LKHPF-70 | LKHPF-60 |
|------------|----|----------------------------------|----------|----------|----------------------------------|----------|
| Tri-Clamp | M1 | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 |
| | M2 | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 |
| J1* | | 2.50" | 3.00" | 3.00" | 4.00" | 4.00" |
| J2* | | 2.00" | 2.50" | 2.00" | 3.00" | 4.00" |

* Other dimensions available on request.



Ordering

Please state the following when ordering:

- Pump size.
- Connections.
- Impeller diameter.
- Motor size.
- Single or flushed shaft seal.
- Elastomer type
- Optional extras.

Material grades

- Surface roughness, product wetted parts: unpolished, 32Ra, micro inches (0.8 mm), or higher finishes.
- Seals in Nitrile (NBR/Buna) or Fluorinated rubber (FPM/Viton).

Options

- A. Impeller with reduced diameter.
- B. Motor for other voltage and/or frequency.
- C. Flushed shaft seal.
- D. Cauder connection.

Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.us to access the information direct.