



## Alfa Laval LKHI Centrifugal Pump for 16 bar Inlet Pressure

### The Premium Pump for Higher Pressure

#### Application

The LKHI pump is a highly efficient and economical centrifugal pump, specially designed for inlet pressures up to 16 bar. LKHI meets the requirements of hygienic and gentle product treatment and chemical resistance, and is available in nine sizes, LKHI-10, -15, -20, -25, -35, -40, -45, -50, -60.

#### Standard Design

The LKHI pump is designed for CIP-cleaning with emphasis on large internal roundings and easily cleanable seals.

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

#### Shaft seals

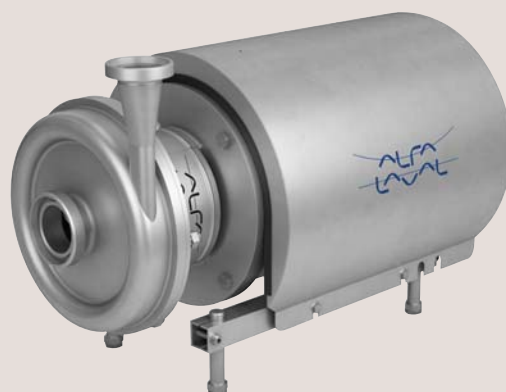
LKHI can be fitted with two types of mechanical seals:

- Single internal seal.
- Flushed seal.

Both seal types have stationary seal rings of silicon carbide and rotating seal rings of carbon or silicon carbide:

1. Silicon carbide/carbon for inlet pressure up to 10 bar.
2. Silicon carbide/silicon carbide for inlet pressure higher than 10 bar.

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



#### TECHNICAL DATA

Product wetted steel parts: . . . . . W. 1.4404 (316L).  
Other steel parts: . . . . . Stainless steel.  
Product wetted seals: . . . . . EPDM.  
Other O-rings: . . . . . EPDM.  
Finish: . . . . . Standard blasted

#### Connections for flushed shaft seal:

6 mm tube/Rp 1/8"

#### Motor

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

#### Motor types:

Inlet pressure 0-10 bar: .Standard motor with a fixed ball bearing on drive side.

Inlet pressure 10-16 bar .Special motor with a fixed angular-contact ball bearing on drive side.

#### Motor sizes

50 Hz: . . . . . 1.5 - 30.0 kW.  
60 Hz: . . . . . 1.75 - 35.0 kW

#### OPERATING DATA

##### Pressure

Max. inlet pressure: . . . . . 1600 kPa (16 bar).  
Water pressure: . . . . . Normally atmospheric.  
(max. 1 bar).

##### Temperature

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

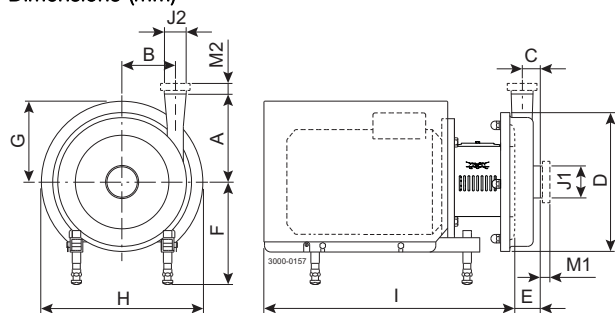
##### Water consumption

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

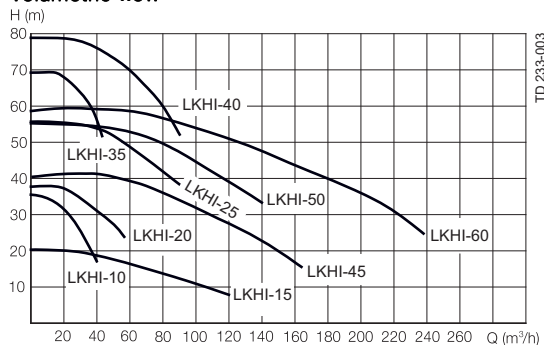
##### Noise

Noise level (at 1 m): . . . . . 60 - 80 dB (A).  
Noise level (at 3 ft.): . . . . . 60 - 80 dB (A).

Dimensions (mm)



Volumetric flow



## Pump specific measures

| Pump Model | LKHI-10 | LKHI-15 | LKHI-20 | LKHI-25 | LKHI-35 | LKHI-40 | LKHI-45 | LKHI-50 | LKHI-60 |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A          | 142     | 166     | 180     | 193     | 193     | 212     | 212     | 205     | 261     |
| B          | 87      | 66      | 88      | 106     | 119     | 126     | 126     | 118     | 102     |
| C          | 23      | 43      | 27      | 32      | 23      | 28      | 28      | 35      | 62      |
| D          | 247     | 247     | 253     | 303     | 303     | 329     | 329     | 329     | 329     |
| E          | 51      | 87      | 63      | 69      | 54      | 64      | 64      | 77      | 106     |

## Motor specific measures

| Motor IEC | IEC90   | IEC100 | IEC112 | IEC132  | IEC160     | IEC180 | IEC200 |
|-----------|---------|--------|--------|---------|------------|--------|--------|
| Motor kW  | 1.5/2.2 | 3.0    | 4.0    | 5.5/7.5 | 11/15/18.5 | 22     | 30     |
| F(max)*   | 262     | 282    | 285    | 304     | 332        | 352    | 372    |
| G         | 157     | 185    | 198    | 196     | 262        | 286    | 399    |
| H         | 288     | 325    | 359    | 383     | 485        | 533    | 670    |
| I         | 434     | 516    | 497    | 597     | 791        | 842    | 980    |

\*Possible to reduce dimension F by min. 59 mm for all pump models. For smaller models it will be possible to reduce dimension F even further.

## Motor overview

| Pump Model        | LKHI-10          | LKHI-15           | LKHI-20          | LKHI-25           | LKHI-35           | LKHI-40           | LKHI-45           | LKHI-50           | LKHI-60           |
|-------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Motor range (IEC) | IEC90-<br>IEC112 | IEC100-<br>IEC132 | IEC90-<br>IEC132 | IEC132-<br>IEC160 | IEC112-<br>IEC160 | IEC132-<br>IEC180 | IEC112-<br>IEC160 | IEC132-<br>IEC180 | IEC132-<br>IEC200 |

Dimensional data are based on 2 pole, ABB motors.

## Connections

| Pump Model     |    | LKHI-10<br>LKHI-20<br>LKHI-35 | LKHI-15<br>LKHI-45<br>LKHI-50 | LKHI-25     | LKHI-40     | LKHI-60    |
|----------------|----|-------------------------------|-------------------------------|-------------|-------------|------------|
| Clamp ISO 2037 | M1 | 21                            | 21                            | 21          | 21          | 21         |
|                | M2 | 21                            | 21                            | 21          | 12          | 21         |
| Union ISO(IDF) | M1 | 21                            | 21                            | 21          | 21          | 21         |
|                | M2 | 21                            | 21                            | 21          | 21          | 21         |
| Union DIN/ISO  | M1 | 25                            | 30                            | 30          | 30          | 30         |
|                | M2 | 22                            | 30                            | 25          | 27          | 30         |
| Union SMS      | M1 | 24                            | 35                            | 24          | 24          | 35         |
|                | M2 | 20                            | 24                            | 24          | 24          | 35         |
| Union (BS)RJT  | M1 | 27                            | 32                            | 27          | 27          | 32         |
|                | M2 | 27                            | 27                            | 27          | 22          | 32         |
| Union DS       | M1 | 24                            | 24                            | 24          | 24          | 24         |
|                | M2 | 20                            | 24                            | 24          | 21          | 24         |
| J1*            |    | 63.5 / 2.5"                   | 101.6 / 4"                    | 76.1 / 3"   | 76.1 / 3"   | 101.6 / 4" |
| J2*            |    | 51 / 2"                       | 76.1 / 3"                     | 63.5 / 2.5" | 63.5 / 2.5" | 101.6 / 4" |

\* Other dimensions available on request.

**Options**

- A. Impeller with reduced diameter.
- B. Impeller screw.
- C. Motor for other voltage and/or frequency.
- D. 1500 rpm. motor.
- E. Motor with increased safety/flame proof motor.
- F. Flushed shaft seal.
- G. Seals in Nitrile (NBR) or Fluorinated rubber (FPM).
- H. Surface roughness, product wetted parts:  $R_a \leq 0.8 \mu\text{m}$ .
- I. Seal faces in SIC/SIC (Silicon Carbide).

**Ordering**

Please state the following when ordering:

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

**Note!**

- The curves for LKHI are the same as those for LKH.
- For further details, see also Instruction Manual, ESE00700.

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

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**How to contact Alfa Laval**

Contact details for all countries  
are continually updated on our website.  
Please visit [www.alfalaval.com](http://www.alfalaval.com) to  
access the information direct.