



# The Compact Pump

## LKH-110 and LKH-120/P Multi-Stage Centrifugal Pump

### Application

LKH-110 and -120/P are highly efficient and economical multistage centrifugal pumps, which meet the requirements of sanitary and gentle product treatment and chemical resistance. Both the LKH-110 and the LKH-120/P are available in 3 sizes, LKH-112, -113, -114 and LKH-122/P, -123/P, -124/P respectively, for 2, 3 and 4 stages.

### Standard design

The pumps are designed for CIP with emphasis on large internal roundings and cleanable seals. The sanitary versions of LKH-110 and -120/P have stainless steel shrouds for protection of the motor, and the complete unit is supported on four adjustable stainless steel legs.

### Shaft seals

The pumps can be fitted with two types of mechanical seals:

- Single internal seal.
- Flushed seal.
- Sic/C material combination, outlet pressure up to 20 bar
- Sic/Sic material combination, outlet pressure up to 40 bar

Both seal types have stationary seal rings of silicon carbide and rotating seal rings of carbon or 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) and Duplex steel  
 Other steel parts: . . . . . Stainless steel.  
 Product wetted seals: . . . . . EPDM.  
 Other O-rings: . . . . . EPDM.  
 Finish: . . . . . Semi-bright.

#### Connctions for FSS:

6mm 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 type, LKH-110:

- Standard motor with a fixed ball bearing on drive side.

#### Motor types, LKH-110/P and LKH-120/P:

- Special motor with special bearings.

#### Motor sizes, LKH-110

50 Hz: . . . . . 2.2 - 18.5 kW.

60 Hz: . . . . . 4.6 - 21 kW.

#### Motor sizes, LKH-120/P

50 Hz: . . . . . 30 - 45 kW.

60 Hz: . . . . . 35 - 87 kW.

### OPERATING DATA

#### Technical data

#### Max. outlet pressure, LKH-110/P, LKH-120/P:

- Limited by the strength of the pump casing: 4000 kPa (40 bar) temperature < 40°C.
- Limited by the strength of the pump casing: 2000 kPa (20 bar) temperature > 40°C.

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

Water pressure: . . . . . Normally atmospheric, max. 1 bar (flushed seal).

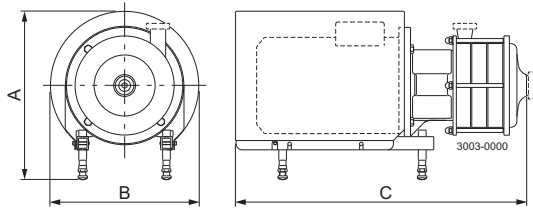
Water consumption: . . . . . 0.25 -0.5 l/min. (flushed seal)

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

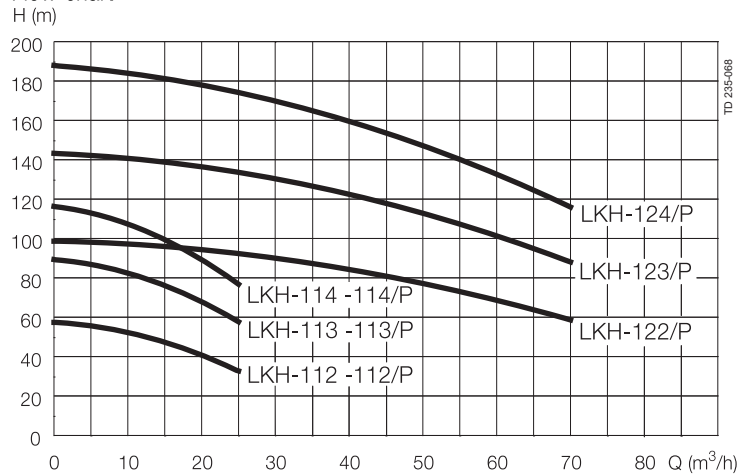
#### Versions

	LKH-110	LKH-110/P	LKH-120/P
Inlet pressure	<10 bar	>10 bar	-
Motor	Standard	Special	Special
Back Plate	Standard	Reinforced	Standard
Shaft seal	C/SIC or SIC/SIC	SIC/SIC	SIC/SIC or SIC/C

### Dimensions (mm)



### Flow chart



	LKH-112				LKH-113			LKH-114	
Motor kW	2.2	3	4	5.5	4	5.5/7.5	11	5.5/7.5	11/15
A min.	346	353	378	376	378	376	486	376	486
A max.	432	463	492	509	492	509	603	509	603
B	288	323	359	383	359	383	485	383	485
C	524	579	589	667	631	709	910	750	951

	LKH-122/P	LKH-123/P		LKH-124/P	
Motor kW	30/37/45	30/37/45		55/75	
A min.	661	661		811	
A max.	786	786		872	
B	673	673		753	
C	1088	1146		1397	

### Options

- A. Special motor for inlet pressure higher than 10 bar (only LKH- 110).
- B. Motor for other voltage and/or frequency (only LKH-110).
- C. Motor with increased safety/flame proof motor.
- D. Flushed shaft seal.
- E. Impeller with reduced diameter.
- F. Counter flanges, seal rings and bolts for flanged connections (industrial version).
- G. Product wetted seals of Nitrile (NBR), or Fluorinated rubber (FPM).
- H. Rotating seal ring of Silicon Carbide.

### Notel

For further details, see also IM 70777.

### Ordering

Please state the following when ordering:

- If the inlet pressure is higher than 10 bar it is necessary to order a special version with a modified motor and a stronger backplate. Use the following designation:
  - LKH-110: Inlet pressure (0-10 bar)
  - LKH-110/P: Inlet pressure > 10 bar
- Pump size.
- Version, sanitary or industrial.
- Connections.
- Impeller diameter.
- Motor size.
- Voltage and frequency.
- Flow, pressure and temperature.
- Density and viscosity of the product.
- Options.

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### How to contact Alfa Laval

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