



The Premium Evaporator Pump

LKH Evap Centrifugal Pump

Applications

The LKH Evap pump is a highly efficient and economical centrifugal pump, which meets the requirements of sanitary and gentle product treatment and chemical resistance. LKH Evap is specially designed for use in the evaporation industry covering applications as liquid concentration and powder processing solutions as well as dewatering plant and equipment for the international dairy, food and beverage, ethanol, starch, pharmaceutical, chemical, alcohol and brewery industries.

LKH Evap is available in ten sizes, LKH Evap-10,-15, -20, -25, -35, -40, -45, -50, -60 and -70.

Standard design

The LKH Evap pump is designed for CIP with emphasis on large internal radii and cleanable seals for use in the Evaporator industry and can be delivered with Clear Flow Impeller as an option. The Clear Flow Impeller is to be used in applications where there is a risk of building up a hard layer of product between impeller and backplate. The LKH Evap has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable stainless steel legs.

Shaft seals

The LKH Evap pump is equipped with either an external single or a flushed shaft seal. Both have stationary seal rings in stainless steel AISI 329 with sealing surface in silicon carbide and rotating seal rings in carbon. The secondary seal of the flushed seal is a long lasting lip seal. The pump may also be equipped with a double mechanical shaft seal.

TECHNICAL DATA

Materials

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

Other steel parts: Stainless steel.

Finish: Semi bright.

Product wetted seals: EPDM rubber.

Connections for FSS and DMSS:

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 sizes

50 Hz: 1.5 - 75 kW.

60 Hz: 1.75 - 86 kW.

Warranty

Extended 3-years warranty on LKH Evap 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: LKH Evap-10/-70: 1000kPa (10 bar).

Temperature

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

Flushed shaft seal:

Water pressure inlet: Max. 1 bar.

Water consumption: 0.25 -0.5 l/min.

Double mechanical shaft seal:

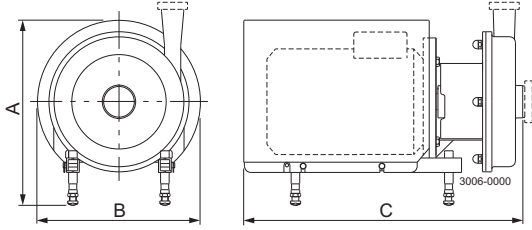
Water pressure inlet, LKH Evap-10/-60: Max. 500 kPa (5 bar).

Water pressure inlet, LKH Evap-70: . . . Max. 300 kPa (3 bar).

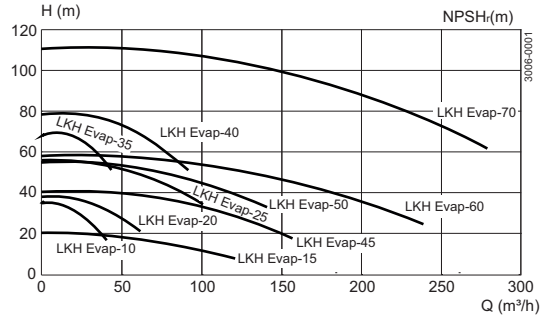
Water consumption: 0.25 -0.5 l/min.



Dimensions (mm)



Flow chart



Note: If Clear Flow impeller is mounted the performance can be up to 10% lower than shown on the curves above

	LKHevap-10				LKHevap-15			LKHevap-20				
Motor kW	1.5	2.2	3	4	3	4	5.5	1.5	2.2	3	4	5.5/7.5
A min.	346	346	357	383	357	383	380	346	346	357	383	380
A max.	432	432	467	496	467	492	513	432	432	467	496	513
B	288	288	323	359	323	359	383	288	288	323	359	383
C	483	483	538	548	574	584	662	496	496	550	560	638

	LKHevap-25		LKHevap-35		LKHevap-40			LKHevap-45			
Motor kW	5.5/7.5	11/15	4	5.5/7.5	11/15	7.5	11/15/18.5	22	4	5.5/7.5	11/15
A min.	380	490	383	380	490	380	490	546	383	380	490
A max.	513	607	496	513	607	513	607	671	496	513	607
B	383	485	359	383	485	383	485	534	359	383	485
C	644	845	551	629	830	639	840	905	580	658	859

	LKHevap-50			LKHevap-60				LKHevap-70				
Motor kW	5.5/7.5	11/15/18.5	22	5.5/7.5	11/15/18.5	22	30	5.5/7.5	11/15/18.5	22	30/37/45	55/75
A min.	380	490	546	380	490	546	661	380	490	546	661	811
A max.	513	607	671	513	607	671	786	513	607	671	786	872
B	383	485	534	383	485	534	673	383	485	534	673	753
C	652	853	917	681	882	946	1084	671	865	930	1068	1306

Options

- A. Impeller with reduced diameter.
- B. Motor for other voltage and/or frequency.
- C. Motor with increased safety/flame proof motor.
- D. Inducer (only LKH Evap 10 to -50).
- E. Flushed shaft seal.
- F. Double mechanical shaft seal.
- G. Clear Flow Impeller. Special designed impeller for applications where there is a risk of building up a hard layer of product between impeller and backplate.
- H. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu m$.
- I. Product wetted seals of Nitrile (NBR), Fluorinated rubber (FPM) or FEP.
- J. Rotating seal ring of Silicon Carbide.

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!

For further details, see also instruction manual.

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