



When Higher Purity is the Issue

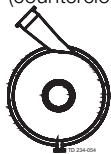
Alfa Laval LKH UltraPure Centrifugal Pump

Application

The LKH UltraPure pump is a highly efficient and economical centrifugal pump, which meets the requirements of the pharmaceutical industries. It provides gentle product treatment and is chemically resistant. LKH UltraPure is available in five sizes, LKH UltraPure-10, -20, -25, -35, and -40.

Standard design

As standard the LKH UltraPure is delivered with a 45° outlet (counterclockwise).



45° outlet

The pump is designed for CIP and SIP with emphasis on large internal roundings and cleanable seals.



TECHNICAL DATA

Materials

Product wetted steel parts: W. 1.4404 (316L) with material traceability 3.1 acc. to EN 10204

Other steel parts: Stainless steel.

Product wetted seals: EDPM - USP Class 6.

Finish, product wetted surface: Mech Ra ≤ 0.5.

Finish, pump casing, external surface: . . Fiber brushed.

Motor

Standard 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 - 22 kW.

60 Hz: 1.75 - 25 kW.

Warranty

Extended 3-years warranty on the LKH UltraPure Centrifugal Pump range. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

OPERATING DATA

Pressure

Max. inlet pressure: Static: 1000 kPa (10 bar).

Temperature

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

Noise level

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

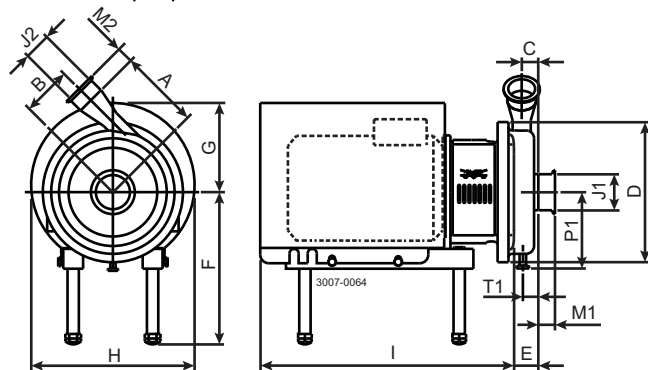
Double mechanical seal

Water pressure: Max. 500 kPa (5 bar).

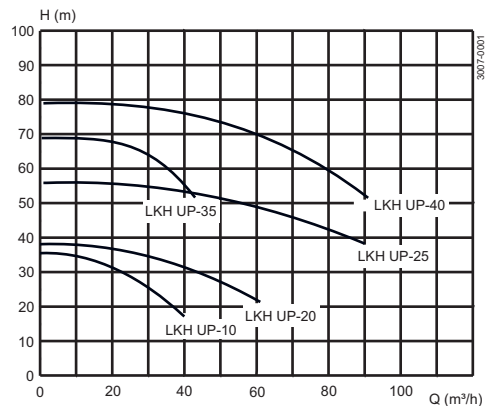
Water consumption: 0.25 - 0.5 l/min.



Dimensions (mm)



Flow chart



Pump specific measures

Pump Model	LKH UltraPure-10	LKH UltraPure-20	LKH UltraPure-25	LKH UltraPure-35	LKH UltraPure-40
A	142	180	193	193	212
B	87	88	106	119	126
C	23	27	32	23	28
D	247	253	303	303	329
E	51	63	69	54	64
P1	123	129	153	153	166
T1	23	23	24	26	24

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180
Motor kW	1.5/2.2	3.0	4.0	5.5/7.5	11/16/18.5	22
F(max)*	262	282	285	304	332	352
Q	126	137	136	164	208	222
H	200	250	250	300	351	350
I	386	454	453	547	642	784

*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	LKH UltraPure-10	LKH UltraPure-20	LKH UltraPure-25	LKH UltraPure-35	LKH UltraPure-40
Motor range (IEC)	IEC90-IEC112	IEC90-IEC132	IEC132-IEC160	IEC112-IEC160	IEC132-IEC180

Dimensional data are based on 2 pole, ABB motors.

Connections

Pump Model	LKH UltraPure-10 LKH UltraPure-20 LKH UltraPure-35	LKH UltraPure-25	LKH UltraPure-40
Clamp ISO 1127	M1	36	48
	M2	36	36
Clamp ASME BPE	M1	29	29
	M2	29	29
Clamp ISO 2037	M1	21	21
	M2	21	21
J1*	63.5 / 2.5"	76.1 / 3"	76.1 / 3"
J2*	51 / 2"	63.5 / 2.5"	51 / 2"

* Other dimensions available on request.

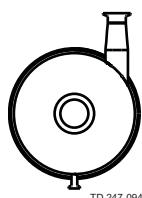
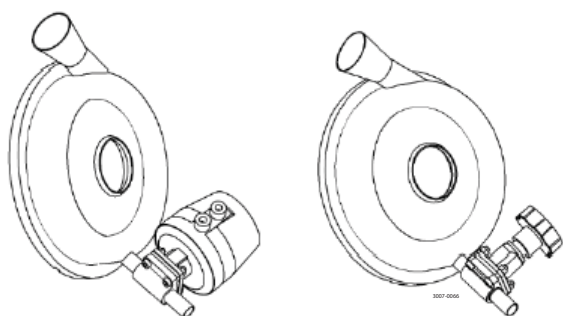
Drain diameter

	ISO 1127 Clamp	TC Clamp	ISO 2037 Clamp
1/2"	13.5	12.7	12.7
3/4"	17.2	19	19

ESE00269/8

Options

- A. Impeller with reduced diameter.
- B. Motor for other voltage and/or frequency.
- C. 1500 rpm. motor.
- D. Motor with increased safety/explosion proof motor.
- E. Double mechanical shaft seal.
- F. Pump with Adjustable Pads.
- G. No Drain
- H. Product wetted steel parts - ferrite max. 5%.
- I. Special flush arrangement with 1/2" DV-ST diaphragm valve, needle valve and flow meter.
- J. Finish product wetted surface Ra 0.8 μm
- K. Finish product wetted surface electropolished Ra ≤ 0.4
- L. Product wetted seals of FPM or FEP.
- M. Hydrostatic testing with certificate
- N. Passivation
- O. 0° outlet, see drawing below.
- P. Drain with 1/2" DV-ST valve welded directly to Casing, see drawing below.



0° outlet

Standard documentation package:

- 3.1 certificate according to EN10204
- FDA certificate of conformity for product wetted elastomers.
- USP class 6 certificate of conformity - EPDM only
- Pump performance test certificate

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.

Notel

For further details, see also IM 70831.

This product has EHEDG certificate