

Alfa Laval SolidC

Centrifugal pumps

Introduction

The Alfa Laval SolidC Centrifugal Pump is designed for basic transport of fluids in hygienic applications. It provides reliable, low-maintenance operation. With its hygienic design, cost-effective operation and quick, easy maintenance, the SolidC offers excellent value for money.

Applications

Designed for Cleaning-in-Place (CIP), the Alfa Laval SolidC is ideal for basic duties across the dairy, food, beverage and personal care industries in which hygienic treatment is required. Typical applications are pumping of CIP solutions, utilities, cooling or heating water, and other simple transport duties.

The SolidC pump is available in four sizes to handle capacities up to 75 m³/hour and differential pressures up to 8 bar at 50Hz.

Benefits

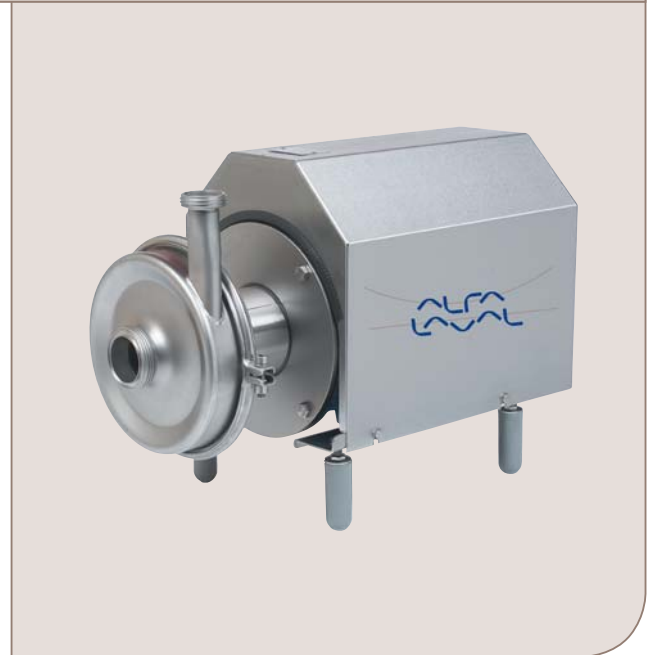
- Hygienic: designed according to international hygienic design standards and with verified effective CIP cleanability.
- Cost-effective operation: consistent performance ensured.
- Quick and easy maintenance: wear parts changed in just a few minutes.

Standard design

All media contacting steel components like pump casing, impeller, impeller nut and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

The semi-open impeller with a special vane design and balance holes enhance circulation around the shaft seal and reduce axial forces. This maximizes cleanability while minimizing wear on the shaft seal and motor bearings.

As standard, the SolidC pump is equipped with a single mechanical shaft seal, but is also available with a single flushed mechanical shaft seal. The secondary seal of the flushed seal is a long-lasting lip seal. The front-loading shaft seal, with the spring and washers mounted on the atmospheric side, makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.



TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Ratary seal face:	Carbon
Stationary seal face:	Silicon Carbide

Motor

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, 4 poles = 1500/1800 rpm at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.

Motor sizes

50Hz:	1.5 - 22 kW
60Hz:	1.5 - 22 kW

Min/max motor speed

2 poles:	900 - 4000 rpm
4 poles:	900 - 2200 rpm

Warranty

Extended 3-years warranty on SolidC pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

OPERATING DATA

Max inlet pressure

SolidC 1 - 4:	400kPa (4 bar)
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Temperature

Temperature range:	-10°C to +120°C (EPDM)
Flush media:	Max 70°C

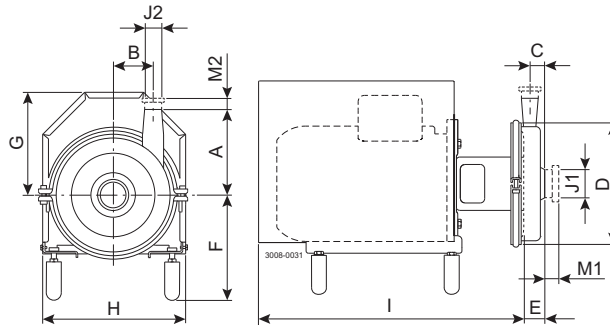
Flushed shaft seal

Water pressure inlet:	Max. 1 bar
Water consumption:	0.25 -0.5 l/min

Connections for flushed shaft seal

SolidC 1 - 4:	1/8" G
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Dimensions (mm)



Pump specific measures

Pump Model	SolidC-1	SolidC-2	SolidC-3	SolidC-4
A	180	200	210	230
B	67	94	121	120
C	28	35	31	27
D	238	227	311	333
E	40	47	44	44

Motor specific measures

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160
Motor kW	1.5/2.2	3.0	4.0	5.5/7.5	11/15/18.5/22
F(max)*	246	256	259	279	307
G	197	200	229	240	292
H	235	285	284	334	384
I	490	528	511	643	771

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

Motor overview

Pump Model	SolidC-1	SolidC-2	SolidC-3	SolidC-4
Motor range (IEC)	IEC90-IEC112	IEC100-IEC160	IEC132-IEC160	IEC132-IEC160

Dimensional data are based on 2 pole, WEGmotors.

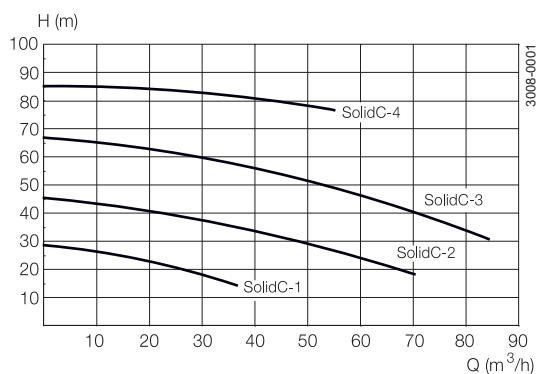
Connections

Pump Model		SolidC-1	SolidC-2	SolidC-3	SolidC-4
Clamp ISO 2037	M1	21	21	21	21
	M2	21	21	21	21
Union ISO(IDF)	M1	21	21	21	21
	M2	21	21	21	21
Union DIN/ISO	M1	23	61	61	61
	M2	22	22	22	23
Union SMS	M1	20	24	24	24
	M2	20	20	20	20
Union (BS)RJT	M1	27	27	27	27
	M2	27	27	27	27
Union DS	M1	20	24	24	24
	M2	20	20	20	20
J1*		51 / 2"	63,5 / 2,5"	76,1 / 3"	76,1 / 3"
J2*		38 / 1,5"	38 / 1,5"	38 / 1,5"	51 / 2"

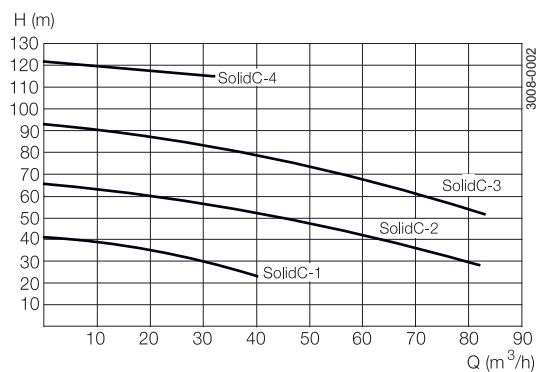
* Other dimensions available on request.

Flow chart

Frequency: 50 Hz Speed (synchr): 3000 rpm



Frequency: 60 Hz Speed (synchr): 3600 rpm



Options

- A. Impeller with reduced diameter.
- B. Flushed shaft seal.
- C. Rotating seal face of Silicon Carbide.
- D. Product wetted elastomers NBR or FPM.
- E. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu\text{m}$.
- F. Surface finish measurement with certificate ($Ra \leq 0.8 \mu\text{m}$).
- G. Motor for other voltage and/or frequency.
- H. Half speed motor.

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 ESE00797.

Alfa Laval LKH Prime

Centrifugal pumps

Introduction

Based on the market-leading Alfa Laval LKH pump, the Alfa Laval LKH Prime Centrifugal Pump is a versatile, highly efficient self-priming pump for use in hygienic applications, especially tank emptying and CIP return applications. With its combination of air-screw technology and advanced design, the pump can remove air from the suction pipe. Precision-engineered, the LKH Prime delivers greater energy efficiency than similar pumps. Its optimized design, premium motor, tight tolerances and advanced impeller and airscrew design minimize recirculation and reduce energy consumption.

Application

The LKH Prime pump is designed to meet the stringent hygienic requirements across the food, dairy, beverage, and home-personal care industries. It is ideal for tank emptying and CIP return applications. With verified and effective CIP cleanability, the LKH Prime can be used as a product pump as well.

The LKH Prime is available in three sizes to handle capacities up to 100 m³/h and differential pressures up to 7.5 bar at 50 Hz.

Benefits

- Energy efficient: superior efficiency resulting in reduced energy consumption and CO₂ footprint.
- Hygienic: designed according to the most stringent hygienic design standards and with verified and effective CIP cleanability.
- Quiet: operates very quietly compared to other self-priming pumps improving the working environment.
- Reduced capital investment: designed for Cleaning-in-Place (CIP) duties containing entrained air but can also pump product reducing need for additional pump.

Standard design

All media contacting steel components like pump casing, impeller, airscrew, front cover, recirculation pipe and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

A compression coupling securely attaches the stub shaft to the motor shaft with precision alignment, and the semi-open impeller with a special vane design ensures efficient handling of the product as it moves through the pump.

As standard, the LKH prime pump is equipped with a single mechanical shaft seal but is also available with a double mechanical shaft seal. The front-loading shaft seal, with the spring and washers mounted on the atmospheric side, makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.



Working principle

On applications where the pumped media contains a mixture of air and liquid in the suction line, airscrew rotation causes the formation of a continuous liquid ring within the canister. Due to the eccentric position of the canister relative to the airscrew, an air chamber forms between the liquid ring and the airscrew, which separates into air pockets between the air-screw vanes.

The continuous rotation of the air-screw forces air pockets through the canister into the suction stage of the impeller which are then pumped out via the discharge.

Liquid is returned from the discharge via the recirculation pipe into the canister to ensure the liquid ring is maintained at all times. When there is no air present, the canister and recirculation loop have no function and are fully filled with liquid. The liquid passes through the canister into the suction stage of the impeller, allowing the pump to act as a traditional centrifugal pump.

TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Ratary seal face:	Carbon
Stationary seal face:	Silicon Carbide

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

50Hz:	1.5 - 45 kW
60Hz:	1.8 - 45 kW

Min/max motor speed

Air evacuation:	2800 - 3600 rpm
Pumping product (no air):	900 - 3600 rpm

Warranty

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

OPERATING DATA

Max inlet pressure

LKH Prime 10 - 40:	500kPa (5 bar)
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Air release time

LKH Prime 10 - 40:	Max 15 min.
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Temperature

Temperature range:	-10°C to +140°C (EPDM)
Flush media:	Max 70°C

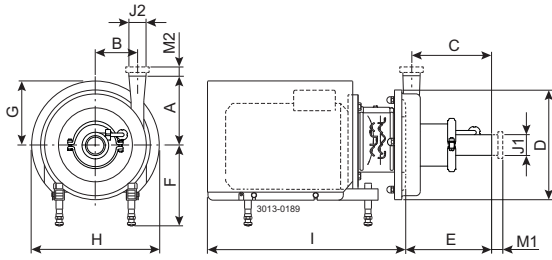
Double mechanical shaft seal

Water pressure inlet, LKH Prime 10 - 40:	Max. 500 kPa (5 bar)
Water consumption:	0.25 - 0.5 l/min

Connections for flushed and double mechanical shaft seal

LKH Prime 10 - 40:	1/8" G
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Dimensions (mm)



Pump specific measures

Pump Model	LKH Prime 10	LKH Prime 20	LKH Prime 40
A	174	187	259
B	85	92	126
C	222	248	271
D	247	253	329
E	245	280	301

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	11-18.kw	22	30/37/45
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	LKH Prime 10	LKH Prime 20	LKH Prime 40
Motor range (IEC)	IEC90-IEC132	IEC100-IEC160	IEC132-IEC200
Motor range (kW)	1.5-5.5	3.0-11	5.5-45kw

Dimensional data are based on 2 pole, ABB motors.

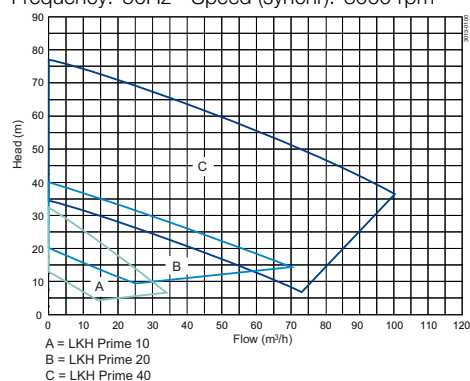
Connections

Pump Model		LKH Prime 10	LKH Prime 20	LKH Prime 40
Clamp ISO 2037	M1	21	21	21
	M2	21	21	12
Union ISO(IDF)	M1	21	21	21
	M2	21	21	21
Union DIN/ISO	M1	22	25	30
	M2	22	22	27
Union SMS	M1	20	24	24
	M2	20	20	24
Union (BS)RJT	M1	27	27	27
	M2	27	27	22
Union DS	M1	20	24	24
	M2	20	20	21
Union DIN/DIN	M1	22	25	30
	M2	22	22	27
J1*		51 / 2"	63,5 / 2,5"	76,1 / 3"
J2*		51 / 2"	51 / 2"	63,5 / 2,5"

* Other dimensions available on request.

Flow chart

Frequency: 50Hz - Speed (synchr): 3000 rpm



Options

- A. Impeller with reduced diameter.
- B. Double mechanical shaft seal.
- C. Rotating seal face of Silicon Carbide.
- D. Product wetted elastomers NBR or FPM.
- E. ½" vertical drain connections (two connections).
- F. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu\text{m}$.
- G. Adjustable pads.
- H. Motor for other voltage and/or frequency.
- I. Motor with increased safety/flame proof motor.

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.

Alfa Laval LKHI

Centrifugal pumps

Introduction

The Alfa Laval LKHI Centrifugal Pump for 16 bar Inlet Pressure is a premium pump for use in hygienic applications with inlet pressures up to 16 bar. To increase process productivity, it is distinguished by high efficiency, gentle product treatment, chemical resistance, and a wide range of flow rates, pressures and options.

Precision-engineered, the LKHI pump delivers greater energy efficiency than similar premium pumps. Its optimized design, premium motor, tight tolerances and advanced impeller design minimize recirculation and reduce energy consumption.

Applications

Designed for inlet pressures up to 16 bar and for Cleaning-in-Place (CIP), the Alfa Laval LKHI is ideal for higher pressure hygienic applications within the dairy, food, beverage and personal care industries that require gentle product treatment and reliable operation.

The LKHI pump is available in nine sizes to handle capacities up to 240 m³/h and provide differential pressures up to 8 bar at 50 Hz.

Benefits

- Energy efficient: superior efficiency resulting in reduced energy consumption and CO₂ footprint.
- Hygienic: designed according to the most stringent hygienic design standards and with verified effective CIP cleanability.
- Wide performance envelope: reduce need for parallel and serial pump installations and ensure pump operating with high efficiency.
- High inlet pressure: designed for inlet pressures up to 16 bar and can therefore be used in systems with higher pressure rating.

Standard design

All media contacting steel components like pump casing, impeller, impeller nut and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

A compression coupling securely attaches the stub shaft to the motor shaft with precision alignment, and the semi-open impeller with a special vane design ensures efficient and gentle handling of the product as it moves through the pump.

As standard, the LKHI pump is equipped with an internal single mechanical shaft seal but is also available with a flushed shaft seal. The secondary seal of the flushed seal is a long-lasting lip seal. The front-loading shaft seal makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.



TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Rotary seal face:	Carbon
Stationary seal face:	Silicon Carbide

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

50Hz:	1.5 - 30 kW
60Hz:	1.2 - 34 kW

Min/max motor speed

2 poles: 1.5 - 30 kW:	900 - 4000 rpm
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Warranty

Extended 3-years warranty on LKHI pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

OPERATING DATA

Max inlet pressure

LKHI 10 - 60:	1600kPa (16 bar)
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Temperature

Temperature range:	-10°C to +140°C (EPDM)
Flush media:	Max 70°C

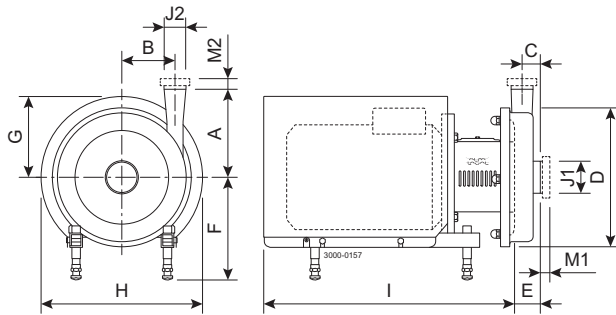
Flushed shaft seal

Water pressure inlet:	Max. 1 bar
Water consumption:	0.25 - 0.5 l/min

Connections for flushed mechanical shaft seal

LKHI 10 - 60:	1/8" G
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Dimensions (mm)



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- IEC112	IEC100- IEC132	IEC90- IEC132	IEC132- IEC160	IEC112- IEC160	IEC132- IEC180	IEC112- IEC160	IEC132- IEC180	IEC132- IEC200

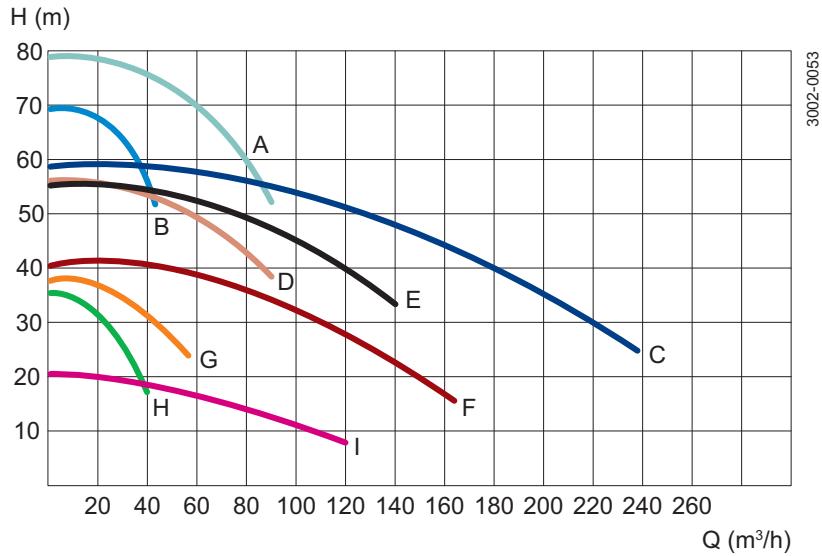
Dimensional data are based on 2 pole, ABB motors.

Connections

Pump Model		LKHI-10 LKHI-20 LKHI-35	LKHI-15 LKHI-45 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.

Flow chart



A = LKHI - 40 D = LKHI - 25 G = LKHI - 20
B = LKHI - 35 E = LKHI - 50 H = LKHI - 10
C = LKHI - 60 F = LKHI - 45 I = LKHI - 15

Options

- A. Impeller with reduced diameter.
- B. Flushed shaft seal.
- C. Rotating seal face of Silicon Carbide.
- D. Product wetted elastomers NBR or FPM.
- E. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu\text{m}$.
- F. Surface finish measurement with certificate ($Ra \leq 0.8 \mu\text{m}$).
- G. Adjustable pads.
- H. Motor for other voltage and/or frequency.

Ordering

Please state the following when ordering:

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

Notel

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

Alfa Laval LKHI

Centrifugal pumps

Introduction

The Alfa Laval LKHI Centrifugal Pump for 16 bar Inlet Pressure is a premium pump for use in hygienic applications with inlet pressures up to 16 bar. To increase process productivity, it is distinguished by high efficiency, gentle product treatment, chemical resistance, and a wide range of flow rates, pressures and options.

Precision-engineered, the LKHI pump delivers greater energy efficiency than similar premium pumps. Its optimized design, premium motor, tight tolerances and advanced impeller design minimize recirculation and reduce energy consumption.

Applications

Designed for inlet pressures up to 16 bar and for Cleaning-in-Place (CIP), the Alfa Laval LKHI is ideal for higher pressure hygienic applications within the dairy, food, beverage and personal care industries that require gentle product treatment and reliable operation.

The LKHI pump is available in nine sizes to handle capacities up to 240 m³/h and provide differential pressures up to 8 bar at 50 Hz.

Benefits

- Energy efficient: superior efficiency resulting in reduced energy consumption and CO₂ footprint.
- Hygienic: designed according to the most stringent hygienic design standards and with verified effective CIP cleanability.
- Wide performance envelope: reduce need for parallel and serial pump installations and ensure pump operating with high efficiency.
- High inlet pressure: designed for inlet pressures up to 16 bar and can therefore be used in systems with higher pressure rating.

Standard design

All media contacting steel components like pump casing, impeller, impeller nut and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

A compression coupling securely attaches the stub shaft to the motor shaft with precision alignment, and the semi-open impeller with a special vane design ensures efficient and gentle handling of the product as it moves through the pump.

As standard, the LKHI pump is equipped with an internal single mechanical shaft seal but is also available with a flushed shaft seal. The secondary seal of the flushed seal is a long-lasting lip seal. The front-loading shaft seal makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.



TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Rotary seal face:	Carbon
Stationary seal face:	Silicon Carbide

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

50Hz:	1.5 - 30 kW
60Hz:	1.2 - 34 kW

Min/max motor speed

2 poles: 1.5 - 30 kW:	900 - 4000 rpm
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Warranty

Extended 3-years warranty on LKHI pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

OPERATING DATA

Max inlet pressure

LKHI 10 - 60:	1600kPa (16 bar)
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Temperature

Temperature range:	-10°C to +140°C (EPDM)
Flush media:	Max 70°C

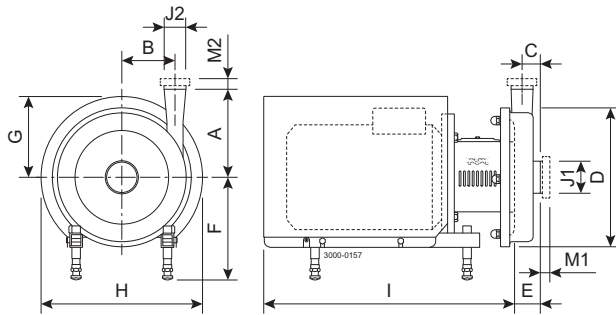
Flushed shaft seal

Water pressure inlet:	Max. 1 bar
Water consumption:	0.25 - 0.5 l/min

Connections for flushed mechanical shaft seal

LKHI 10 - 60:	1/8" G
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Dimensions (mm)



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- IEC112	IEC100- IEC132	IEC90- IEC132	IEC132- IEC160	IEC112- IEC160	IEC132- IEC180	IEC112- IEC160	IEC132- IEC180	IEC132- IEC200

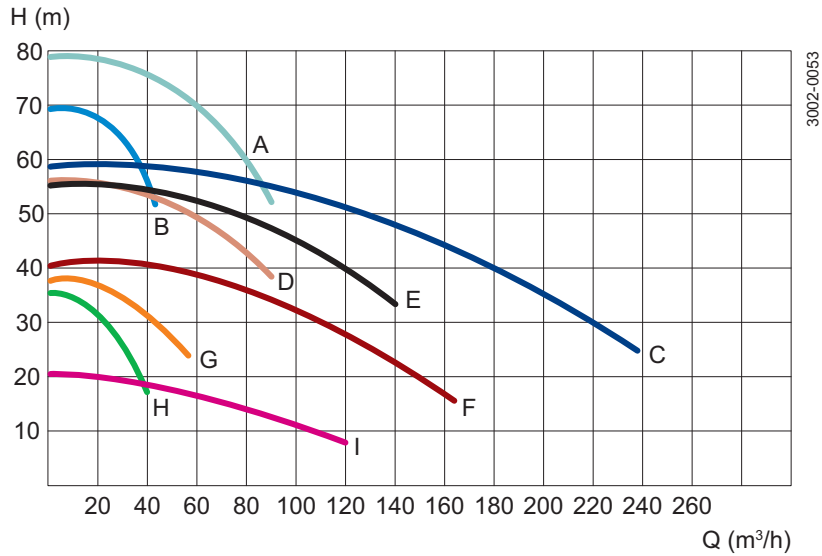
Dimensional data are based on 2 pole, ABB motors.

Connections

Pump Model		LKHI-10 LKHI-20 LKHI-35	LKHI-15 LKHI-45 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.

Flow chart



A = LKHI - 40 D = LKHI - 25 G = LKHI - 20
B = LKHI - 35 E = LKHI - 50 H = LKHI - 10
C = LKHI - 60 F = LKHI - 45 I = LKHI - 15

Options

- A. Impeller with reduced diameter.
- B. Flushed shaft seal.
- C. Rotating seal face of Silicon Carbide.
- D. Product wetted elastomers NBR or FPM.
- E. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu\text{m}$.
- F. Surface finish measurement with certificate ($Ra \leq 0.8 \mu\text{m}$).
- G. Adjustable pads.
- H. Motor for other voltage and/or frequency.

Ordering

Please state the following when ordering:

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

Notel

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

Alfa Laval LKH Evap

Centrifugal pumps

Introduction

The Alfa Laval LKH Evap Centrifugal Pump is a premium pump for use in hygienic applications. As a low-NPSHr, high-efficiency centrifugal pump, the LKH Evap is a tailored evaporator pump supported by strong and extensive documentation, including a comprehensive vacuum curve package. It features a special scraper impeller, ClearFlow, that solves the product buildup problem in high solids applications, which can prolong production time between cleaning.

Precision-engineered, the LKH Evap pump delivers greater energy efficiency than similar pumps. Its optimized design, premium motor, tight tolerances and advanced impeller design minimize recirculation and reduce energy consumption.

Applications

The LKH Evap Centrifugal Pump is designed for hygienic applications across the dairy, food, beverage, brewery, alcohol, ethanol, starch and chemical industries. It is ideal for use in evaporation duties for applications, such as liquid concentration and powder processing as well as plant and equipment dewatering.

The LKH Evap pump is available in 10 sizes to handle capacities up to 280 m³/h and differential pressures up to 11 bar at 50 Hz.

Benefits

- Energy efficient: superior efficiency resulting in reduced energy consumption and CO₂ footprint.
- Hygienic: designed according to the most stringent hygienic design standards and with verified and effective Cleaning-in-Place.
- Low NPSHr: reduced NPSHr enables optimized system designs.
- Maximized uptime and reduced maintenance costs: robust mechanical design and ease of maintenance with modular front-loading seals.

Standard design

All media contacting steel components like pump casing, impeller, impeller nut and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

A compression coupling securely attaches the stub shaft to the motor shaft with precision alignment, and the semi-open impeller with a special vane design ensures efficient and gentle handling of the product as it moves through the pump.

As standard, the LKH Evap pump is equipped with a single mechanical shaft seal but is also available with a single flushed or a double mechanical shaft seal. The front-loading shaft seal, with the spring and washers mounted on the atmospheric side, makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.

LKH Evap is available with the Clear Flow Impeller which is to be used in applications where there is a risk of building up a hard layer of product between impeller and backplate.



TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Ratary seal face:	Carbon
Stationary seal face:	Silicon Carbide

Motor

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, 4 poles = 1500/1800 rpm at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F

Motor sizes

50Hz:	1.5 - 75 kW
60Hz:	1.2 - 80 kW

Min/max motor speed

2 poles: 1.5 - 45kW:	900 - 4000 rpm
2 poles: 55 - 75 kW:	900 - 3600 rpm
4 poles: 1.5 - 75 kW:	900 - 2200 rpm

Warranty

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

OPERATING DATA

Max inlet pressure

LKH Evap 10 - 70:	1000kPa (10 bar)
LKH Evap 70, 60Hz:	500kPa (5 bar)

Temperature

Temperature range:	-10°C to +140°C (EPDM)
Flush media:	Max 70°C

Flushed shaft seal

Water pressure inlet:	Max. 1 bar
Water consumption:	0.25 - 0.5 l/min

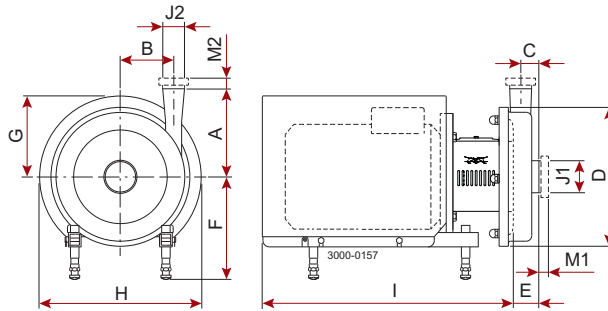
Double mechanical shaft seal

Water pressure inlet, LKH Evap 10 to 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

Connections for flushed and double mechanical shaft seal

LKHPF 10 - 70:	1/8" G
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Dimensions (mm)



Pump specific measures

Pump Model	LKHevap-10	LKHevap-15	LKHevap-20	LKHevap-25	LKHevap-35	LKHevap-40	LKHevap-45	LKHevap-50	LKHevap-60	LKHevap-70
A	142	166	180	193	193	212	212	205	261	254
B	87	66	88	106	119	126	126	118	102	147
C	23	43	27	32	23	28	28	35	62	25
D	247	247	253	303	303	329	329	329	329	408
E	51	87	63	69	54	64	64	77	106	76

Motor specific measures

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180	IEC200	IEC250
Motor kW	1.5/2.2	3.0	4.0	5.5/7.5	11/15/18.5	22	30/37/45	55/75
F(max)*	262	282	285	304	332	352	372	446
G	157	185	198	196	262	286	399	394
H	288	325	359	383	485	533	670	738
I (LKHevap-10 to -60)	434	516	497	597	791	842	980	-
I (LKHevap-70)	-	-	-	-	804	855	993	1051

*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	LKHevap-10	LKHevap-15	LKHevap-20	LKHevap-25	LKHevap-35	LKHevap-40	LKHevap-45	LKHevap-50	LKHevap-60	LKHevap-70
Motor range (IEC)	IEC90- IEC112	IEC100- IEC132	IEC90- IEC132	IEC132- IEC160	IEC112- IEC160	IEC132- IEC180	IEC112- IEC160	IEC132- IEC180	IEC132- IEC200	IEC132- IEC250

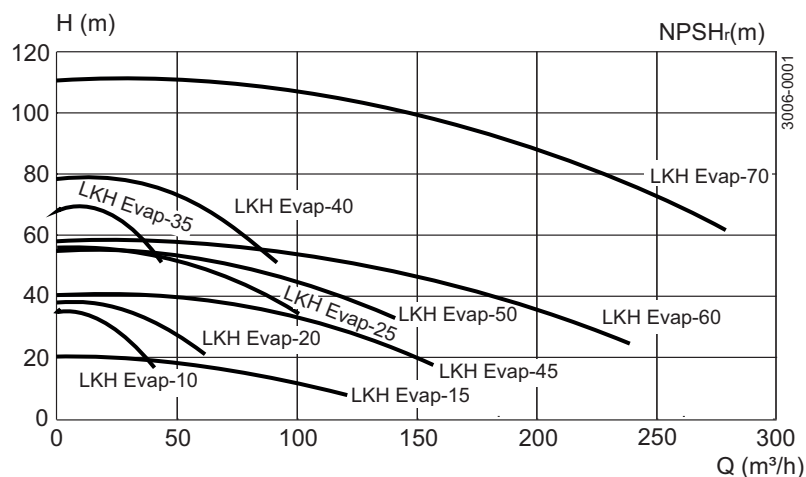
Dimensional data are based on 2 pole, ABB motors.

Connections

Pump Model	LKHevap-10	LKHevap-15	LKHevap-20	LKHevap-25	LKHevap-35	LKHevap-40	LKHevap-45	LKHevap-50	LKHevap-60	LKHevap-70
Clamp ISO 2037	M1	21	21	102	21	21	21	21	102	
	M2	21	21	21	21	12	21	21	21	
Union ISO(IDF)	M1	21	21	102	21	21	21	21	102	
	M2	21	21	21	21	21	21	21	21	
Union DIN/ISO	M1	25	30	111	30	30	30	30	111	
	M2	22	30	30	25	27	30	30	30	
Union SMS	M1	24	35	105	24	24	24	35	105	
	M2	20	24	24	24	24	24	35	35	
Union (BS)RJT	M1	27	32	108	27	27	27	32	108	
	M2	27	27	27	27	22	32	32	32	
Union DS	M1	24	24	105	24	24	24	24	105	
	M2	20	24	24	24	21	24	24	24	
Union DIN/DIN	M1	25	30	111	30	30	30	30	111	
	M2	22	30	30	25	27	30	30	30	
J1*		63,5 / 2,5"	101,6 / 4"	76,1 / 3"	76,1 / 3"	76,1 / 3"	76,1 / 3"	101,6 / 4"	76,1 / 3"	
J2*		51 / 2"	76,1 / 3"	76,1 / 3"	63,5 / 2,5"	63,5 / 2,5"	63,5 / 2,5"	101,6 / 4"	101,6 / 4"	

* Other dimensions available on request.

Flow chart



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

Options

- A. Impeller with reduced diameter.
- B. Flushed shaft seal.
- C. Double mechanical shaft seal.
- D. Rotating seal face of Silicon Carbide.
- E. Product wetted elastomers NBR, FPM or FEP.
- F. ½" vertical drain connection.
- G. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu\text{m}$.
- H. Surface finish measurement with certificate ($Ra \leq 0.8 \mu\text{m}$).
- I. Inducer (LKH Evap 10 to 50).
- J. Adjustable pads.
- K. Motor for other voltage and/or frequency.
- L. Half speed motor.
- M. Motor with increased safety/flare proof motor.

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 instruction manual.

Alfa Laval LKH

Centrifugal Pumps

Introduction

The Alfa Laval LKH Centrifugal Pump is a premium pump for use in hygienic applications. To increase process productivity, it is distinguished by high efficiency, gentle product treatment, chemical resistance, and a wide range of flow rates, pressures and options.

Precision-engineered, the LKH pump delivers greater energy efficiency than similar pumps. Its optimized design, premium motor, tight tolerances and advanced impeller design minimize recirculation and reduce energy consumption.

Application

Designed for Cleaning-in-Place (CIP), the Alfa Laval LKH is ideal for hygienic applications within the dairy, food, beverage and personal care industries that require gentle product treatment and reliable operation.

The LKH pump is available in 13 sizes to handle capacities up to 500 m³/hour and differential pressures up to 11 bar at 50 Hz.

Benefits

- Energy efficient: superior efficiency resulting in reduced energy consumption and CO₂ footprint.
- Hygienic: designed according to the most stringent hygienic design standards and with verified, effective CIP cleanability.
- Wide performance envelope: reduce need for parallel and serial pump installations and ensure pump operating with high efficiency.
- Maximized uptime and reduced maintenance costs: robust mechanical design and ease of maintenance with modular front-loading seals.

Standard design

All media contacting steel components like pump casing, impeller, impeller nut and backplate are in W. 1.4404 (AISI 316L). A stainless steel shroud protects the motor and four adjustable stainless steel legs support the complete unit.

A compression coupling securely attaches the stub shaft to the motor shaft with precision alignment, and the semi-open impeller with a special vane design ensures efficient and gentle handling of the product as it moves through the pump.

As standard, the LKH pump is equipped with a single mechanical shaft seal but is also available with a single flushed or a double mechanical shaft seal. The front-loading shaft seal, with the spring and washers mounted on the atmospheric side, makes maintenance fast, easy and inexpensive. It takes just a few minutes to replace the shaft seal. In addition, the balanced design minimizes the risk of seal opening during unforeseen pressure shock.



TECHNICAL DATA

Materials

Product wetted steel parts:	W. 1.4404 (316L)
Other steel parts:	Stainless steel
Inside surface finish:	Standard blasted
Product wetted elastomers:	EPDM
Rotary seal face:	Carbon
Stationary seal face:	Silicon Carbide

Motor

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm at 50/60 Hz, 4 poles = 1500/1800 rpm at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.

Motor sizes

50Hz:	0.75 - 110 kW
60Hz:	0.75 - 110 kW

Min/max motor speed

2 poles: 0.75 - 45 kW:	900 - 4000 rpm
2 poles: 55 - 110 kW:	900 - 3600 rpm
4 poles: 0.75 - 75 kW:	900 - 2200 rpm

Warranty

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

OPERATING DATA

Max inlet pressure

LKH-5:	600 kPa (6 bar)
LKH-10 - 70:	1000kPa (10 bar)
LKH-70, 60Hz:	500kPa (5 bar)
LKH-85 - 90:	500kPa (5 bar)

Temperature

Temperature range:	-10°C to +140°C (EPDM)
Flush media:	Max 70°C
Flush housing sterilization (pump not in operation):	Max 125°C

Flushed shaft seal

Water pressure inlet:	Max. 1 bar
Water consumption:	0.25 - 0.5 l/min

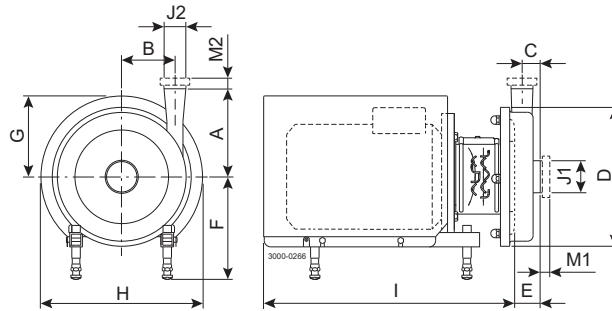
Double mechanical shaft seal

Water pressure inlet, LKH-5 to -60:	Max. 500 kPa (5 bar)
Water pressure inlet, LKH-70 to -90:	Max. 300 kPa (3 bar)
Water consumption:	0.25 - 0.5 l/min

Connections for flushed and double mechanical shaft seal

LKH-5 - 70, LKH-90:	1/8" G
LKH-85:	Ø6 tube

Dimensions (mm)



Pump specific measures

Pump Model	LKH-5	LKH-10	LKH-15	LKH-20	LKH-25	LKH-35	LKH-40	LKH-45	LKH-50	LKH-60	LKH-70	LKH-85	LKH-90
A	158	142	166	180	193	193	212	193	205	261	254	229	310
B	70	87	66	88	106	119	126	97	118	102	147	220	250
C	22	23	43	27	32	23	28	41	35	62	25	65	65
D	189	247	247	253	303	303	329	329	329	329	408	438	504
E	42	51	87	63	69	54	64	64	77	106	76	97	95

Motor specific measures

Motor IEC	IEC80	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180	IEC200	IEC250	IEC280
Motor kW	0.75/1.1	1.5/2.2	3.0	4.0	5.5/7.5	11/15/18.5	22	30/37/45	55/75	90/110
F(max)*	262	262	282	285	304	332	352	372	446	496
G	125	157	185	198	196	262	286	399	394	584
H	250	288	325	359	383	485	533	670	738	960
I (LKH-5)	400	441	-	-	-	-	-	-	-	-
I (LKH-10 to -60)	-	434	516	497	597	791	842	980	-	-
I (LKH-70 to -90)	-	-	-	-	-	804	855	993	1051	1271

*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-5	LKH-10	LKH-15	LKH-20	LKH-25	LKH-35	LKH-40	LKH-45	LKH-50	LKH-60	LKH-70	LKH-85	LKH-90
Motor range (IEC)	IEC80-IEC90	IEC90-IEC160	IEC90-IEC160	IEC90-IEC160	IEC90-IEC200	IEC90-IEC180	IEC90-IEC200	IEC100-IEC180	IEC100-IEC200	IEC112-IEC200	IEC160-IEC250	IEC200-IEC280	IEC180-IEC250

From LKH-5 to LKH-85 dimensional data are based on 2 pole, ABB motors.

For LKH-90 dimensional data are based on 4 pole, ABB motors.

Connections

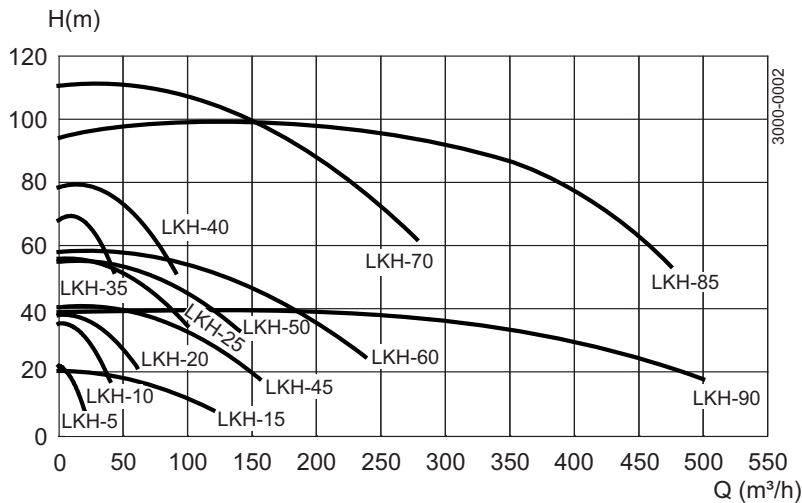
Pump Model		LKH-5	LKH-10 LKH-20 LKH-35	LKH-15 LKH-45 LKH-50 LKH-70	LKH-25	LKH-40	LKH-60	LKH-85 LKH-90
Clamp ISO 2037	M1	21	21	21	21	21	21	-
	M2	21	21	21	21	12	21	-
Union ISO(IDF)	M1	21	21	21	21	21	21	-
	M2	21	21	21	21	21	21	-
Union DIN/ISO	M1	22	25	30	30	30	30	-
	M2	22	22	30	25	27	30	-
Union SMS	M1	20	24	35	24	24	35	-
	M2	20	20	24	24	24	35	-
Union (BS)RJT	M1	27	27	32	27	27	32	-
	M2	27	27	27	27	22	32	-
Union DS	M1	20	24	24	24	24	24	-
	M2	20	20	24	24	21	24	-
Union DIN/DIN	M1	22	25	30	30	30	30	50
	M2	22	22	30	25	27	30	50
Clamp ASME BPE	M1	-	-	-	-	-	-	38
	M2	-	-	-	-	-	-	38
J1*		51 / 2"	63,5 / 2,5"	101,6 / 4"	76,1 / 3"	76,1 / 3"	101,6 / 4"	152,5 / 6"
J2*		38 / 1,5"	51 / 2"	76,1 / 3"	63,5 / 2,5"	63,5 / 2,5"	101,6 / 4"	152,5 / 6"

* Other dimensions available on request.

ESE00263/7

Flow chart

Frequency: 50 Hz Speed (synchr): 3000 rpm



Options

- A. Impeller with reduced diameter.
- B. Flushed shaft seal.
- C. Double mechanical shaft seal.
- D. Rotating seal face of Silicon Carbide.
- E. Product wetted elastomers NBR, FPM or FEP.
- F. ½" vertical drain connection.
- G. Product wetted surface finish mechanically polished to $Ra \leq 0.8 \mu m$.
- H. Surface finish measurement with certificate ($Ra \leq 0.8 \mu m$).
- I. Inducer (LKH-10 to -50).
- J. Adjustable pads.
- K. Motor for other voltage and/or frequency.
- L. Half speed motor.
- M. Motor with increased safety/flame proof motor.
- N. ATEX approved execution (LKHEx).

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 ESE00698.

The Pump for any application!

Alfa Laval i-CP2000 Centrifugal Pump

Applications

The Alfa Laval i-CP2000 pump is a highly efficient and economical centrifugal pump, which meets the requirements of sanitary and gentle product treatment and chemical resistance. The pump is available in six sizes, Alfa Laval i-CP2010, -20, -25, -35, -40, -50.

Standard design

The Alfa Laval i-CP2000 pump consists of a standard motor, stub shaft, mechanical compression coupling, adaptor, back plate, impeller, pump casing and shaft seal. The pump is designed for CIP with emphasis on large internal radii and easily cleanable seals. The pump has a stainless steel shroud for protection of the motor, and the complete unit is supported on four adjustable legs.

Shaft seals

The Alfa Laval i-CP2000 pump is equipped with an external single or double mechanical shaft seal. All have stationary seal rings in acid resistant steel AISI 316L with sealing surfaces in silicon carbide and rotating seal rings in carbon (optional silicon carbide). Double mechanical seal is equipped with a secondary mechanical seal.

Materials

Product wetted steel parts: AISI 316L.
 Other steel parts: AISI 304, surface treated carbon steel.
 Finish: Semi bright.
 Product wetted seals: EPDM elastomer (FDA).

Technical data

Max. inlet pressure: 500kPa (5 bar).
 Temperature range: -10°C to +140°C (EPDM).

Double mechanical shaft seal:

Water pressure inlet: Max. 500 kPa (5 bar).
 Water consumption: 0.25 -0.5 l/min.
 Temperature range 0°C to +140°C

Connections for DMSS:

R 1/8" (BSP) external thread.



The Alfa Laval i-CP2000 pump is designed, tested and approved according to EHEDG guidelines



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.

Voltage and frequency

3 ~, 50 Hz, 220-240V Δ/380-420VY	≤ 4 kW
3 ~, 60 Hz, 250-280V Δ/440-480VY	≤ 4.6 kW
3 ~, 50 Hz, 380-420V Δ/660-690VY	≥ 5.5 kW
3 ~, 60 Hz, 440-480V Δ	≥ 6.4 kW

Motor sizes

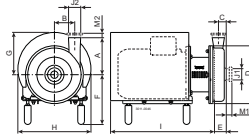
50 Hz: 1.5 - 2.2 - 3 - 4 - 5.5 - 7.5 - 11 - 15 - 18.5 - 22 kW.

60 Hz: 1.75 - 2.5 - 3.5 - 4.6 - 6.4 - 8.6 - 12.5 - 17 - 21 - 25 kW.

Warranty

Extended 3-years warranty on Alfa Laval i-CP2000 pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

Dimensions (mm)



Pump specific measures

Pump Model	ICP-10	ICP-20	ICP-25	ICP-35	ICP-40	ICP-50
A	142	180	193	193	212	205
B	87	88	106	119	186	118
C	23	27	32	23	28	35
D	247	253	303	303	329	329
E	69	54	77	64	63	51

Moter specific measures

Motor IEC	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180
Motor kW	1.5/2.2	3.0	4.0	5.5/7.5	11/15/18.5	22
F(max)*	246	256	259	279	307	
G	167	177	219	222	288	296
H	288	323	359	383	485	520
I	436	502	502	611	765	840

*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.

Moter overview

Pump Model	ICP-10	ICP-20	ICP-25	ICP-35	ICP-40	ICP-50
Motor range (IEC)	IEC90-IEC112	IEC90-IEC132	IEC132-IEC160	IEC112-IEC160	IEC132-IEC180	IEC132-IEC180

Dimensional data are based on 2 pole, TechTop motors.

Connections

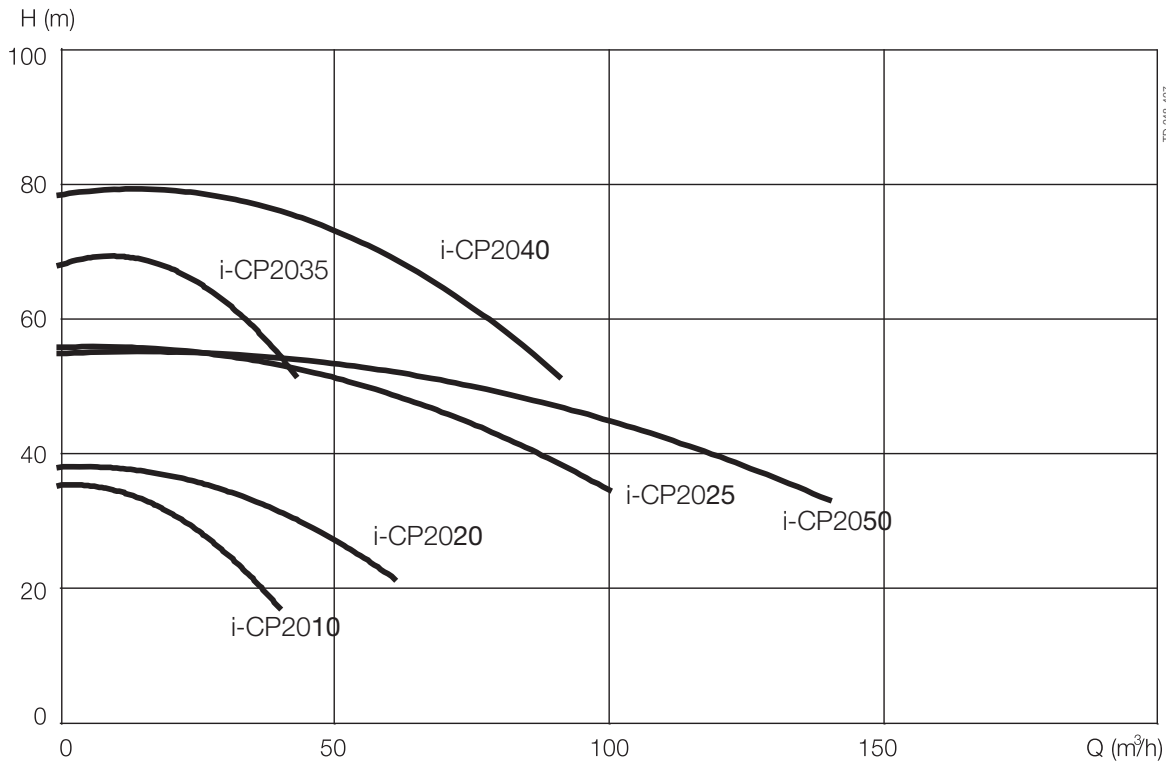
Pump Model		ICP-10	ICP-25	ICP-40	ICP-50
Clamp ISO 2037	M1	21	21	21	21
	M2	21	21	12	21
Union ISO(IDF)	M1	21	21	21	21
	M2	21	21	21	21
Union DIN/ISO	M1	25	30	30	30
	M2	22	25	27	30
Union SMS	M1	24	24	24	35
	M2	20	24	24	24
J1*		63,5 / 2,5"	76,1 / 3"	76,1 / 3"	101,6 / 4"
J2*		51 / 2"	63,5 / 2,5"	63,5 / 2,5"	76,1 / 3"

* Other dimensions available on request.

ESE00886/3

Flow chart

Frequency: 50 Hz Speed (synchr): 3000 rpm



Options

- A. Impeller with reduced diameter.
- B. 1500 rpm. motor.
- C. Double mechanical shaft seal.
- D. Surface roughness, product wetted parts: $R_a \leq 0.8 \mu\text{m}$.
- E. Product wetted seals of Nitrile (NBR) or Fluorinated rubber (FPM).
- F. 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 ESE00887.

This product has EHEDG certification



Alfa Laval Twin screw

Positive displacement pumps

Introduction

The Alfa Laval Twin Screw Pump combines process duties typically handled by positive displacement with Cleaning-in-Place (CIP) duties typically handled by centrifugal pumps. This provides a robust and reliable platform that offers greater process flexibility.

Designed for process flexibility, the Alfa Laval Twin Screw Pump is built on a robust, reliable platform that meets stringent hygienic standards. It is capable of handling both product transfer and CIP. Its low pulsation characteristics and excellent solids-handling capability reduce the risk of product damage, thereby improving product quality.

The pump is designed according to the most stringent hygienic design standards and with verified, effective CIP.

Applications

Designed for handling sensitive, abrasive and high and low viscosity fluids, the Alfa Laval Twin Screw Pump is ideal for use in hygienic applications across the dairy, food, beverage, and home and personal care industries. Quiet and virtually pulse-free, the pump provides smooth and gentle operation, making it an excellent choice for handling sensitive products.

Two-in-one operation provides easy handling of process media of varying viscosities as well as CIP fluids. This simplifies piping and pump control, cutting costs and minimizing contamination risks.

Superior suction performance with excellent lift capability and low NPSHr provides installation flexibility and increases product recovery.

The Alfa Laval Twin Screw Pump is available in twelve models based on four frame sizes. Each frame size is available with three different screw profiles for varying pressure, flow and solids-handling capabilities.

Benefits

- Greater process flexibility.
- Ease of service, increased process uptime.
- Robust reliable design, reducing cost of ownership and increasing process uptime.
- Improved product quality.
- Exceptional hygiene and cleanability.

Standard design

All media contacting steel components, like pump casing, front cover and feed screws are in W. 1.4404 (AISI 316L). Furthermore, the pump casing is diffusion hardened. A stainless steel gearbox, end cover and foot ensure increased life and assist in washdown.

The gearbox is designed with the timing gears located between the bearing sets, rather than external to them. This allows the bearing location to be optimized in order to provide maximum support to the shaft assembly, thereby providing a robust rigid design. The internal gearcase design optimizes oil circulation to both sets of bearings and the timing gears with an oil sump design. This improves the lubrication effect on both bearings and timing gears, minimizing the energy produced due to friction and thereby reducing heat generation within the pump gearbox.



The front-loading, self-setting cartridge design makes it easy to replace the shaft seal while the pump is in place. Single, single flush and double mechanical cartridge seals are available. All options are fully front-loading and interchangeable.

The Alfa Laval Twin Screw Pump can be supplied either as a bare shaft pump or mounted on a base plate complete with coupling, guard, shroud and a direct coupled motor or a gear motor for easy, plug-and-play installation.

Working principle

The Alfa Laval Twin Screw Pump is a positive displacement pump. As the pump rotates, the intermeshing of the two contra-rotating screws, along with the pump casing, form volumetric chambers. These chambers fill with the pumped fluid and move the fluid axially from the suction side of the pump to the higher pressure discharge side.

TECHNICAL DATA

Standard specification	
Pump casing:	W. 1.4404 (316L), diffusion hardened
Screws, front cover, seal housing:	W. 1.4404 (316L)
Inside surface finish:	Mech Ra ≤ 0.8
Gear box:	Stainless steel
Base plate:	Stainless steel
Coupling guard:	Stainless steel
Product wetted elastomers:	EPDM
Other elastomers:	FPM
Shaft seal:	Single flush
Rotary seal face:	Silicon Carbide
Stationary seal face:	Silicon Carbide

Shaft seals	
Single, Single flush and double mechanical cartridge seals available. All options are fully front loading and interchangeable.	
Max flush pressure, single flush:	0.5 bar
Max flush pressure, double mechanical:	16 bar (max 6 bar over product pressure)
Water consumption, single flush and double mechanical:	0.5 l/min
Flush connections, OS12-36:	G 1/4" or NPT 1/4"
Flush connections, OS42-46:	G 1/2" or NPT 1/2"

Pressure	
Max inlet pressure:	16 bar
Max discharge pressure:	16 bar

Temperature	
Max process temperature:	100°C
Max CIP/SIP temperature:	150°C

Motor	
Direct coupled motor, 4, 6 or 8 poles, or gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.	

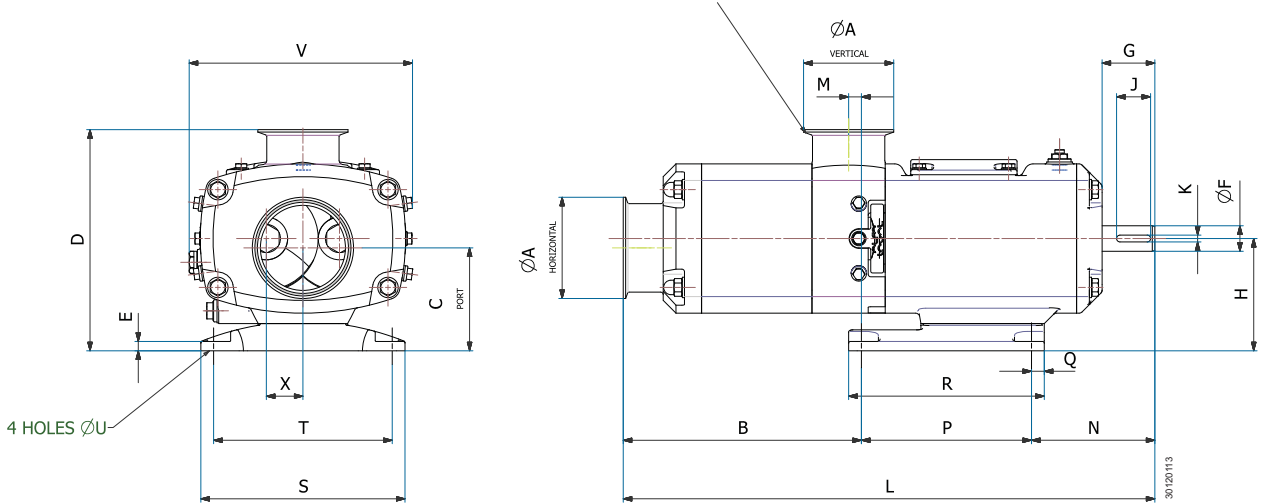
Warranty	
Extended 3-years warranty on Alfa Laval Twin Screw pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.	

Operating data

Model	Max Flow m ³ /h	Max Differential Pressure bar	Max speed		Max Particle Size mm
			Process rpm	CIP rpm	
OS12	6.1	16	2800	3300	6
OS14	10.4	12	2800	3300	11
OS16	16.0	8	2800	3300	17
OS22	18.2	16	2500	3300	12
OS24	24.3	12	2500	3300	16
OS26	36.5	8	2500	3300	24
OS32	34.8	16	2200	3000	16
OS34	46.6	12	2200	3000	21
OS36	69.9	8	2200	3000	32
OS42	66.8	16	1800	2800	21
OS44	89.5	12	1800	2800	29
OS46	134.3	8	1800	2800	43

Dimension

PUMP SHOWN WITH TRI-CLAMP, SUCTION AND DISCHARGE CONNECTIONS



Model	ØA Vertical mm	Inch	B mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	L mm	M mm	N mm	P mm	Q mm	R mm	S mm	T mm	U mm	V* mm	X mm	
OS12	25	1																				
OS14	40	1½	170	180	7	18	50	90	40	6	405	10	110	125	10	145	155	135	9	188,5	28	
OS16	50	2																				
OS22	40	1½																				
OS24	50	2	222,5	220	9	20	54,5	112	40	6	505	12,5	117,5	165	12,5	190	200	175	11	216	33	
OS26	65	2½																				
OS32	65	2½																				
OS34	65	2½	280	260	11	30	62	132	40	8	625	15	145	200	15	230	240	210	13	262,5	43	
OS36	80	3																				
OS42	80	3																				
OS44	80	3	360	350	15	45	87	180	70	14	790	20	180	250	20	290	320	280	17,5	346	58	
OS46	100	4																				

* Dimension 'V' is with flush plugs installed - NPT adaptors will increase this dimension by ~10mm

Model	ØA Horizontal		C			
			DIN11851 DIN 11864-2-A-A	DIN 11864-1-A-A	SMS	Tri-Clamp DIN 11864-1-A-C DIN 11864-2-A-C
	mm	Inch	mm	mm	mm	mm
OS12	40	1.5	72	70.75	70.4	70.45
OS14	50	2	78	77.25	76.75	76.8
OS16	65	2.5	86	83.15	83.1	83.15
OS22	50	2	90	89.3	88.75	88.8
OS24	65	2.5	98	95.15	95.10	95.15
OS26	80	3	105.5	101.45	101.45	101.5
OS32	80	3	111.5	107.45	107.45	107.5
OS34	80	3	111.5	107.45	107.45	107.5
OS36	100	4	121	119.8	119.7	119.8
OS42	100	4	148.5	147.3	147.2	147.3
OS44	100	4	148.5	147.3	147.2	147.3
OS46	150	6	173.5	-	171.93	-

Options

- A. Single mechanical shaft seal.
- B. Double mechanical shaft seal.
- C. Silicon Carbide/Carbon seal faces
- D. Product wetted elastomers in FPM or FFPM.
- E. Diffusion hardened screws.
- F. Heating jacket.
- G. Rectangular inlet.
- H. Hydrostatic testing with certificate.
- I. Reversed flow.
- J. Bottom inlet or outlet.
- K. Stainless steel shroud covering coupling and motor.
- L. Baseplate fitted with adjustable stainless steel ball feet.
- M. ATEX approval.

Pump sizing

In order to correctly size a twin screw pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection. Specific CIP data are important as well.

Product/Fluid Data

- Fluid to be pumped
- Viscosity
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

Note!

For further details, see also 100000817.

This product has EHEDG certificate

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.com to access the information direct.



Alfa Laval OptiLobe

Rotary lobe pumps

Introduction

The Alfa Laval OptiLobe Rotary Lobe Pump is a cost-effective alternative for general applications that require gentle product treatment and easy serviceability. Versatile, dependable and energy efficient, this hygienic positive displacement pump enhances both process flexibility and operational reliability.

The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place.

Applications

The OptiLobe Rotary Lobe Pump is designed for gentle product treatment in general applications across the dairy, food, beverage, home and personal care industries.

The OptiLobe pump is available with 10 different pump head displacements based on five different gearbox modules to handle flow rates up to 77 m³/h and differential pressures up to 8 bar.

Benefits

- Cost-effective, hygienic pump.
- Optimal product quality due to gentle, low-shear operation.
- Robust design for long service life.
- Easy maintenance due to self-setting, front-loading seals.
- Low total cost of ownership.

Standard design

All media contacting steel components, like the rotor case, front cover, rotors and rotor nuts, are in W. 1.4404 (AISI 316L). With stainless steel bearing housing, canister and feet, the OptiLobe pump has an all stainless steel exterior, making it corrosion resistant.

The pump features the Alfa Laval EasyFit front-loading seal, which allows quick and easy inspection or replacement without the need to disassemble pipework. Single and single-flushed shaft seals are available as options.

The Alfa Laval OptiLobe can be supplied either as a bare shaft pump or mounted on a base plate complete with coupling, guard, gear motor and shroud for easy, plug-and-play installation.

Working principle

A gear train in the pump gearbox drives the rotors and provides accurate synchronization of the tri-lobe rotors. The movement of the counter-rotating rotors creates a partial vacuum that allows atmospheric pressure or other external pressures to force fluid into the pump chamber. As the rotors revolve, an expanding cavity forms, filling with fluid. As the blades disengage, each dwell forms a cavity. As the rotor blades engage, the cavity diminishes and fluid is displaced into the outlet port.



TECHNICAL DATA

Standard specification

Product wetted steel parts:	W. 1.4404 (316L)
Inside surface finish:	Mech Ra ≤ 0.8
Gear canister:	Stainless steel
Base plate:	Stainless steel
Coupling guard:	Stainless steel
Rotor:	Tri-lobe
Product wetted elastomers:	EPDM
Other elastomers:	NBR
Shaft seal:	Single mechanical EasyFit
Rotary seal face:	Carbon
Stationary seal face:	Stainless steel

Shaft seals

EasyFit single and single flush available. All options are fully front loading

and interchangeable.

Max flush pressure, single flush:	0.5 bar
Water consumption, single flush:	0.5 l/min
Flush connections:	BSPT or NPT

Temperature

Max process and CIP temperature (dependent on rotor selection)	130°C
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Motor

Gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.

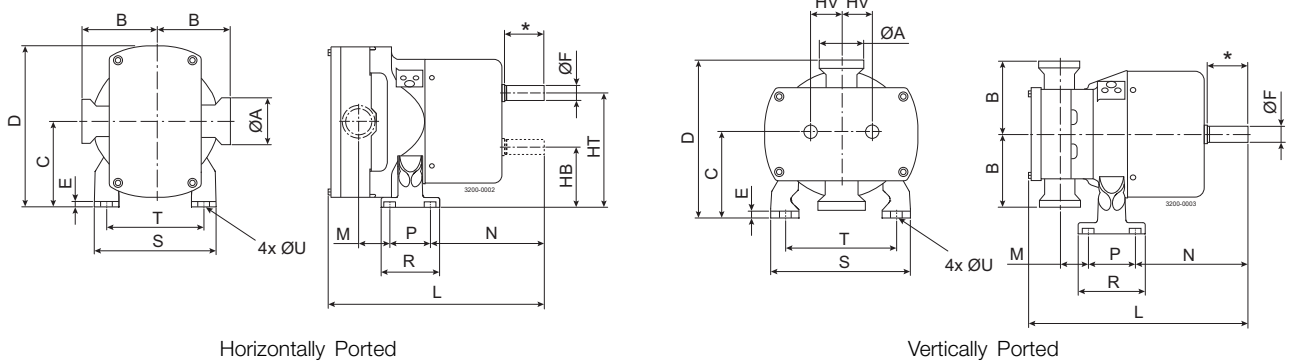
Warranty

Extended 3-years warranty on OptiLobe pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

Process data

	Displacement			Inlet/Outlet		Diff. Pressure		Max Speed
	Litres/ rev	Imp gal/ 100 rev	US gal/ 100 rev	mm	inch	bar	psi	rpm
OptiLobe 12	0.06	1.23	1.48	25	1	8	115	1000
OptiLobe 13	0.10	2.18	2.61	40	1.5	8	115	1000
OptiLobe 22	0.17	3.74	4.49	40	1.5	8	115	1000
OptiLobe 23	0.21	4.62	5.55	40	1.5	8	115	1000
OptiLobe 32	0.32	7.04	8.45	50	2	8	115	1000
OptiLobe 33	0.40	8.80	10.57	50	2	8	115	1000
OptiLobe 42	0.64	14.08	16.91	65	2.5	8	115	1000
OptiLobe 43	0.82	18.04	21.66	80	3	8	115	1000
OptiLobe 52	1.17	25.74	30.89	80	3	8	115	750
OptiLobe 53	1.72	37.84	45.41	100	4	8	115	750

Dimensions (mm)



Horizontally Ported

Vertically Ported

* Shaft length G; Key width K; Key length J.

	Pump Model	A (FLANGE <O>)	B (Port Width Dim)	C (Port Height Dim)	D (Overall Height)	E (Foot Thickness)	F (Shaft <O>)	G (Shaft Length)	HB (Btm Shaft Height)	HT (Top Shaft Height)	HV (SHAFT OFFSET)
10	12	25	86	95	171	11.5	16	40	68	122	27
	13	40	86	95	171	11.5	16	40	68	122	27
20	22	40	96	120	215.5	14.5	20	50	84	156	36
	23	40	96	120	215.5	14.5	20	50	84	156	36
30	32	50	120	136	251	14.5	24	50.5	92	180	44
	33	50	120	136	251	14.5	24	50.5	92	180	44
40	42	65	130	159	294	19.5	30	56	106	212	53
	43	80	138	159	294	19.5	30	56	106	212	53
50	52	80	162	196	366	20.5	45	89.5	132	260	64
	53	100	162	196	366	20.5	45	89.5	132	260	64

	Pump Model	J (Key Length)	K (Key Width)	L (Overall Length)	M (Front Bolt Hole to Port)	N (Back Bolt Hole to End of Shaft)	P (Bolt Hole Length)	R (Foot Length)	S (Foot Width)	T (Bolt Hole Width)	U (Bolt Hole <O>)
10	12	30	5	230.5	27.5	107.5	60	84	126	94	10
	13	30	5	243.5	34.5	107.5	60	84	126	94	10
20	22	32	6	277	35	139.5	60	90	162	124	12
	23	32	6	286	44	139.5	60	90	162	124	12
30	32	40	8	304	35	157	64	95	192	150	12
	33	40	8	316	47	157	64	95	192	150	12
40	42	40	8	371	51.3	161	100	145	235	180	14
	43	40	8	387	60.5	161	100	145	235	180	14
50	52	70	14	408.5	62	221	120	170	285	210	14
	53	70	14	508.5	79.5	221	120	170	285	210	14

Options

- A. Single mechanical shaft seal with flush.
- B. Silicon Carbide/Carbon seal faces.
- C. Silicon Carbide/Silicon Carbide seal faces.
- D. Product wetted elastomers in FPM.
- E. Heating and cooling front cover.
- F. Horizontal or vertical porting.
- G. Stainless steel shroud covering coupling and motor.
- H. Baseplate fitted with adjustable stainless steel ball feet.

Pump sizing

In order to correctly size a rotary lobe pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection.

Product/Fluid Data

- Fluid to be pumped
- Viscosity
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

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.com to
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Alfa Laval DuraCirc

Circumferential Piston Pump

Introduction

The Alfa Laval DuraCirc delivers the perfect balance of durability, reliability, high efficiency and superior hygienic performance. Combined with design features enabling simple service, the DuraCirc keeps process running. In addition to a class leading range of flow and pressure capabilities, DuraCirc comes with globally recognized hygienic certification. The innovative design also includes features that make cleaning and maintenance faster, easier and more dependable.

Applications

Designed for Cleaning-in-Place (CIP), the Alfa Laval DuraCirc is ideal for hygienic applications within the dairy, food, beverage, home and personal care industries. The highly efficient design is particularly suited to applications that are low in viscosity with medium to high discharge pressures and require equipment that can be cleaned in place.

The DuraCirc Circumferential Piston Pump is available with 13 different pump head displacements to handle flow rates up to 149 m³/h and differential pressures up to 40 bar.

Benefits

- High volumetric efficiency performance allowing for optimized pump selection, reducing capital cost, whilst improving process yield.
- Certified to both EHEDG and 3A, reducing both process cross contamination risk and CIP cycle time, maintaining process yield as well as cutting cleaning costs.
- Truly front-loading single seal, full component interchangeability without complicated maintenance procedures, long life bearing operation and one single long-life lubricant making service faster and easier, increasing process uptime.
- Robust, durable design via strong gearcase incorporating increased diameter shafts and optimally positioned heavy-duty bearings, minimizes risk of pump head contact, reducing service requirement, maintaining process continuity.
- DuraCirc Uni-Fit port option allows easy direct replacement of both Alfa Laval S CPP range and also other major brands into existing process systems, without changing pipework.

Standard design

Twin-wing piston rotors made of special non-galling alloy are standard. All other media contacting steel components, like



the rotor case, front cover and rotor nuts are in W. 1.4404 (AISI 316L). With stainless steel gear case and feet, the DuraCirc pump has an all stainless steel exterior, making it exceptional corrosion resistant.

The gearbox is as standard designed with duplex shafts and a strong, long life bearing arrangement. This provides for a very robust and rigid shaft assembly design – a prerequisite for the very high volumetric efficiency achieved.

With profiled defined compression elastomers and an optimised shaft seal location, the DuraCirc is designed according to the most stringent hygienic design standards and with verified and effective CIP cleanability.

The pump features a front-loading single mechanical seal, which allows quick and easy inspection or replacement without the need to disassemble pipework. Single flushed and double mechanical shaft seals as well as O-ring seals are available as options.

The Alfa Laval DuraCirc can be supplied either as a bare shaft pump or mounted on a base plate complete with coupling, guard, gear motor and shroud for easy, plug-and-play installation.

Working principle

The rotor pistons rotate around the circumference of the channel in the pump casing. This continuously generates a partial vacuum at the suction port as the rotors unmesh,

causing fluid to enter the pump. The fluid is transported around the channel by the rotor pistons, and is displaced as the rotor pistons re-mesh, generating pressure at the discharge port. The direction of flow is reversible.

Technical data

Standard specification

Piston rotors:	Non-Galling Alloy
Other product wetted steel parts:	W. 1.4404 (316L)
Inside surface finish:	Mech Ra ≤ 0.8
Shafts:	Duplex 1.4460 (329)
Gear box:	Stainless steel
Base plate:	Stainless steel
Coupling guard:	Stainless steel
Product wetted elastomers:	EPDM
Other elastomers:	FPM
Shaft seal:	Single mechanical
Rotary seal face:	Silicon Carbide
Stationary seal face:	Carbon

Shaft seals

Single mechanical, single mechanical with flush, double mechanical and single and flushed O-ring seal available.

Max process pressure, mechanical seal, SiC/Car:	15 bar
Max process pressure, mechanical seal, SiC/SiC:	Max pressure of pump
Max flush pressure, single flush:	0.5 bar
Max flush pressure, double mechanical seal, SiC/Car:	16 bar
Max flush pressure, double mechanical seal, SiC/SiC:	20 bar
Max process pressure, O-ring seal:	7 bar
Max flush pressure, O-ring seal:	0.5 bar
Flush water consumption:	30 l/hr
Flush connections, DuraCirc 32-43:	BSP/G 1/8" or NPT 1/8"
Flush connections, DuraCirc 52-74:	BSP/G 1/4" or NPT 1/4"

Temperature

Max process and CIP temperature:	150°C
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Motors

Gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.

Warranty

Extended 3-years warranty on DuraCirc pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

Process data

Pump Model	Displacement			Inlet/Outlet		Diff. Pressure		Max speed
	Litres/rev	Imp gall/100 rev	US gall/100 rev	mm	inch	Bar	PSI	rpm
32	0,03	0.66	0.79	25	1	25	362	1000
33	0,06	1.32	1.58	40	1½	25	362	1000
34	0,12	2.64	3.17	50	2	16	232	1000
42	0,23	5.06	6.07	50	2	20	290	750
43	0,29	6.38	7.66	50	2	13	188	750
52	0,38	8.36	10.03	50	2	37	536	750
53	0,59	12.97	15.57	65	2½	25	362	750
54	0,96	21.12	25.3	80	3	16	232	750
62	1,44	31.67	38.04	80	3	37	536	600
63	1,97	43.33	52.03	100	4	25	362	600
72	1,92	42.23	50.7	100	4	40	580	600
73	2,86	62.91	75.55	150	6	25	362	600
74	4,14	91.1	109.4	150	6	16	232	600

Dimensions

(mm)

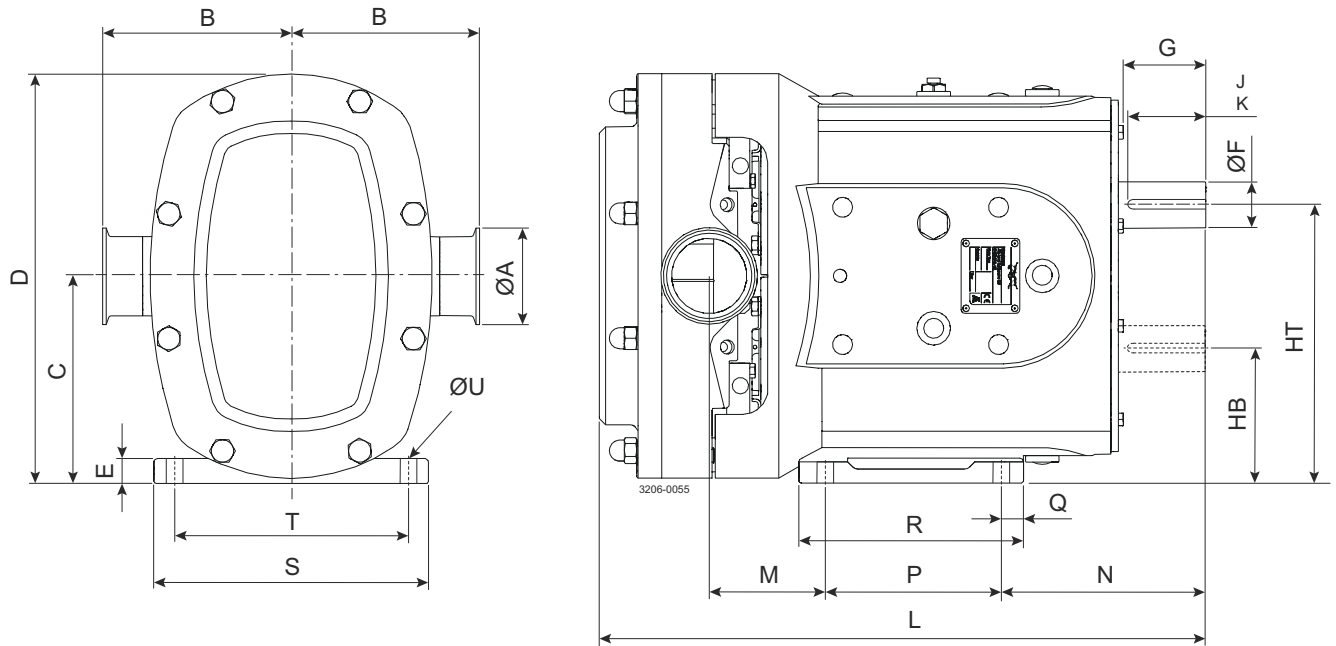


Figure 1. Horizontally ported

ØU = 4 Holes

J = Key Length

K = Key Width

DuraCirc Uni-Fit dimensions

Pump Model	A	B	C	D	E	F	G	HB	HT	J	K	L	M	N	P	Q	R	S	T	U
32	25	89	107	212	12	22	42	73	141	32	6	330	52	124	100	25	140	150	124	12
33	40	89	107	212	12	22	42	73	141	32	6	336	52	124	100	25	140	150	124	12
34	40	89	107	212	12	22	42	73	141	32	6	354	60	124	100	25	140	150	124	12
42	40	108	132	262	10	28	56	88	176	40	8	414	72	139	125	16	158	185	154	14
43	50	109	132	262	10	28	56	88	176	40	8	422	81	139	125	16	158	185	154	14
52	50	136	186	348	40	38	66	129	243	63	10	473	84	168	140	22	180	220	190	14
53	65	136	186	348	40	38	66	129	243	63	10	486	90	168	140	22	180	220	190	14
54	80	136	186	348	40	38	66	129	243	63	10	513	111	168	140	22	180	220	190	14
62	80	168	238	436	59	45	85	163	313	70	14	586	118	199	160	25	223	250	216	14
63	100	168	238	436	59	45	85	163	313	70	14	606	125	199	160	25	223	250	216	14
72	100	187	264	502	44	60	105	175	353	90	18	700	109	246	215	20	276	280	246	14
73	150	203	264	502	44	60	105	175	353	90	18	725	122	246	215	20	276	280	246	14
74	150	216	264	502	44	60	105	175	353	90	18	759	144	246	215	20	276	280	246	14



Note! DuraCirc Uni-Fit is an option to meet port to port and port height dimensions of equivalent SCPP bare shaft pump model.

DuraCirc standard dimensions

Pump Model	A	B	C	D	E	F	G	HB	HT	J	K	L	M	N	P	Q	R	S	T	U
32	25	105	115	220	12	22	42	81	149	32	6	330	52	124	100	25	140	150	124	12
33	40	105	115	220	12	22	42	81	149	32	6	336	52	124	100	25	140	150	124	12
34	50	105	115	220	12	22	42	81	149	32	6	354	60	124	100	25	140	150	124	12
42	50	125	132	262	10	28	56	88	176	40	8	414	72	139	125	16	158	185	154	14
43	50	125	132	262	10	28	56	88	176	40	8	422	81	139	125	16	158	185	154	14
52	50	151	163	325	17	38	66	106	220	63	10	473	84	168	140	22	180	220	190	14
53	65	151	163	325	17	38	66	106	220	63	10	486	90	168	140	22	180	220	190	14
54	80	159	163	325	17	38	66	106	220	63	10	513	111	168	140	22	180	220	190	14
62	80	185	200	398	21	45	85	125	275	70	14	586	118	199	160	25	223	250	216	14
63	100	185	200	398	21	45	85	125	275	70	14	606	125	199	160	25	223	250	216	14
72	100	203	242	480	22	60	105	153	331	90	18	700	109	246	215	20	276	280	246	14
73	150	203	242	480	22	60	105	153	331	90	18	725	122	246	215	20	276	280	246	14
74	150	203	242	480	22	60	105	153	331	90	18	759	144	246	215	20	276	280	246	14

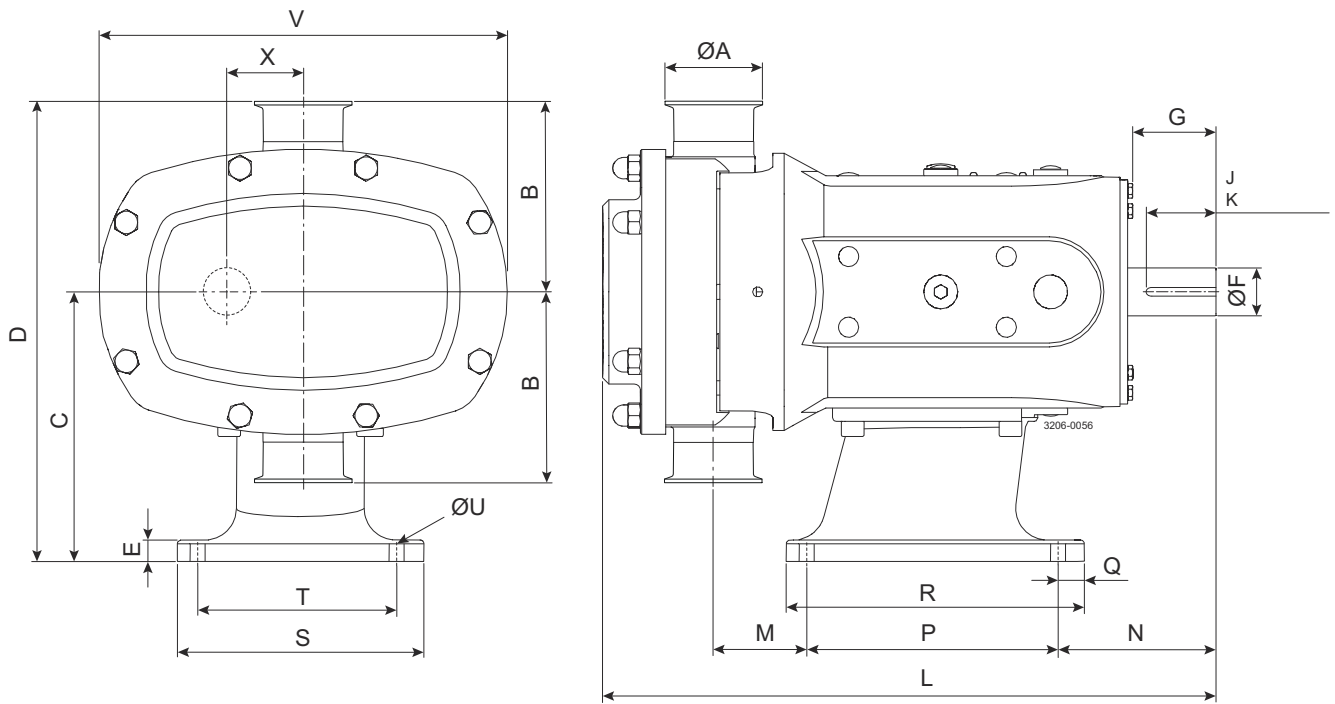


Figure 2. Vertically ported

ØU = 4 Holes

J = Key Length

K = Key Width

DuraCirc standard dimensions

Pump Model	A	B	C	D	E	F	G	J	K	L	M	N	P	Q	R	S	T	U	V	X
32	25	105	147	252	12	22	42	32	6	330	52	124	100	41	160	130	100	12	204	34
33	40	105	147	252	12	22	42	32	6	336	52	124	100	41	160	130	100	12	204	34
34	50	105	147	252	12	22	42	32	6	354	60	124	100	41	160	130	100	12	204	34
42	50	125	175	300	15	28	56	40	8	414	51	130	155	48	220	160	125	14	254	44
43	50	125	175	300	15	28	56	40	8	422	60	130	155	48	220	160	125	14	254	44
52	50	151	213	364	17	38	66	63	10	473	61	131	200	17	232	190	150	14	324	57
53	65	151	213	364	17	38	66	63	10	486	67	131	200	17	232	190	150	14	324	57
54	80	159	213	372	17	38	66	63	10	513	88	131	200	17	232	190	150	14	324	57
62	80	185	257	442	18	45	85	70	14	586	85	192	200	43	260	220	180	14	396	75
63	100	185	257	442	18	45	85	70	14	606	92	192	200	43	260	220	180	14	396	75
72	100	203	294	497	20	60	105	90	18	700	97	213	260	30	310	250	210	14	476	89
73	150	203	294	497	20	60	105	90	18	725	110	213	260	30	310	250	210	14	476	89
74	150	203	294	497	20	60	105	90	18	759	132	213	260	30	310	250	210	14	476	89

Options

- Silicon Carbide/Silicon Carbide mechanical seal faces.
- Single mechanical shaft seal with flush.
- Double mechanical shaft seal.
- EDPM or FPM O-ring seal, single and flushed.
- Product wetted elastomers in FPM or FFPM.
- Horizontal or vertical porting.
- DuraCirc Uni-Fit dimensions for retrofit port option.
- Heating and cooling jacket.
- Rectangular inlet.
- Aseptic option (see separate data sheet)
- Stainless steel shroud covering coupling and motor.
- Baseplate fitted with adjustable stainless steel ball feet.

Pump sizing

In order to correctly size a circumferential piston pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection.

Product/Fluid Data

- Fluid to be pumped
- Viscosity
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

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Alfa Laval SRU

Rotary lobe pump

Introduction

The Alfa Laval SRU Rotary Lobe Pump is a reliable positive displacement pump for the gentle handling of sensitive process fluids. The pump is carefully engineered to provide reliable performance, trouble-free operation and superior energy efficiency for demanding applications. It is an excellent choice for duties that require contamination-proof pumps to meet high standards of hygiene, low-shear and low-pulsation operation.

The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place.

Applications

The SRU Rotary Lobe Pump is designed for gentle handling of sensitive process fluids across the dairy, food, beverage, brewing, chemical, pharmaceutical, and home and personal care industries.

Its smooth, low-shear pumping action makes the pump suitable for handling media of varying viscosities, whether low or high-from creams, gels, emulsions, and aerated mixtures to delicate cells and organic solids in suspension.

The SRU Rotary Lobe Pump is available with 12 different pump head displacements based on six different gearbox modules to handle flow rates up to 106 m³/h and differential pressures up to 20 bar.

Benefits

- Consistent performance.
- Minimal risk of contamination.
- Low maintenance, increased process uptime.
- Modular design for greater flexibility to configure exactly the right solution for specific process requirements.

Standard design

All media contacting steel components, like the rotor case, front cover, rotors and rotor nuts, are in W. 1.4404 (AISI 316L). The robust cast iron gearbox provides maximum shaft rigidity and easy oil seal replacement. The gearbox design is universal, which enables the flexibility of mounting pumps with the inlet and outlet ports in either a vertical or horizontal plane by changing the foot and its position.

The standard Alfa Laval SRU Rotary Lobe Pump has tri-lobe rotors. Optional bi-lobe rotors for handling fluids containing large delicate solids are available. All rotors are available in three temperature ratings enabling the pump to be operated at maximum process temperatures of 70°C, 130°C and 200°C for both fluid pumped and CIP.

Single, single flushed, and double mechanical shaft seals as well as packed gland, unflushed or flushed, are available.

The Alfa Laval SRU can be supplied either as a bare shaft pump or mounted on a base plate complete with coupling, guard, gear motor and shroud for easy, plug-and-play installation.



Working principle

A gear train in the pump gearbox drives the rotors and provides accurate synchronization of the tri-lobe rotors. The movement of the counter-rotating rotors creates a partial vacuum that allows atmospheric pressure or other external pressures to force fluid into the pump chamber. As the rotors revolve, an expanding cavity forms, filling with fluid. As the blades disengage, each dwell forms a cavity. As the rotor blades engage, the cavity diminishes and fluid is displaced into the outlet port.

TECHNICAL DATA

Standard specification	
Product wetted steel parts:	W. 1.4404 (316L)
Inside surface finish:	Mech Ra ≤ 0.8
Gearbox:	Cast iron
Base plate:	Stainless steel
Coupling guard:	Stainless steel
Rotor:	Tri-lobe, 70°C
Product wetted elastomers:	EPDM
Other elastomers:	NBR
Shaft seal:	Single mechanical (R90)
Rotary seal face:	Carbon
Stationary seal face:	Stainless steel

Shaft seals

Single, single flush, double mechanical and packed gland, flushed and unflushed, available. For EHEDG compliance Hyclean type must be used.	
Max flush pressure, single flush:	0.5 bar
Max flush pressure, double mechanical:	1 bar over product pressure
Max flush pressure, packed gland, flushed:	1 bar over product pressure
Water consumption, flushed or double mechanical:	0.5 l/min
Flush connections:	BSPT or NPT

Temperature

Max process and CIP temperature (dependent on rotor selection)	70°C, 130°C or 200°C
--	----------------------

Motor

Gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.

Warranty

Extended 3-years warranty on SRU pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

Flows/Pressures/Connections

SRU Series	Build Selection			SRU Model	Displacement			Inlet and Outlet Connection				Differential Pressure (see note 1)		Maximum Speed rev/min		
	Pump Head Code	Gear-box	Shaft		Litres/rev	Imp gall/ 100 rev	US gall/ 100 rev	Size		mm	in	mm	in		bar	psi
								Hygienic	Enlarged							
1	005	L or H	D	SRU1/005/LD or HD	0.053	1.17	1.4	25	1	-	-	8	115	1000		
	008	L or H	D	SRU1/008/LD or HD	0.085	1.87	2.25	25	1	40	1.5	5	75	1000		
2	013	L or H	S	SRU2/013/LS or HS	0.128	2.82	3.38	25	1	40	1.5	10	145	1000		
	013	L or H	D	SRU2/013/LD or HD	0.128	2.82	3.38	25	1	40	1.5	15	215	1000		
	018	L or H	S	SRU2/018/LS or HS	0.181	3.98	4.78	40	1.5	50	2	7	100	1000		
	018	L or H	D	SRU2/018/LD or HD	0.181	3.98	4.78	40	1.5	50	2	10	145	1000		
3	027	L or H	S	SRU3/027/LS or HS	0.266	5.85	7.03	40	1.5	50	2	10	145	1000		
	027	L or H	D	SRU3/027/LD or HD	0.266	5.85	7.03	40	1.5	50	2	15	215	1000		
	038	L or H	S	SRU3/038/LS or HS	0.384	8.45	10.15	50	2	65	2.5	7	100	1000		
	038	L or H	D	SRU3/038/LD or HD	0.384	8.45	10.15	50	2	65	2.5	10	145	1000		
4	055	L or H	S	SRU4/055/LS or HS	0.554	12.19	14.64	50	2	65	2.5	10	145	1000		
	055	L or H	D	SRU4/055/LD or HD	0.554	12.19	14.64	50	2	65	2.5	20	290	1000		
	079	L or H	S	SRU4/079/LS or HS	0.79	17.38	20.87	65	2.5	80	3	7	100	1000		
	079	L or H	D	SRU4/079/LD or HD	0.79	17.38	20.87	65	2.5	80	3	15	215	1000		
5	116	L or H	S	SRU5/116/LS or HS	1.16	25.52	30.65	65	2.5	80	3	10	145	600		
	116	L or H	D	SRU5/116/LD or HD	1.16	25.52	30.65	65	2.5	80	3	20	290	600		
	168	L or H	S	SRU5/168/LS or HS	1.68	36.95	44.39	80	3	100	4	7	100	600		
	168	L or H	D	SRU5/168/LD or HD	1.68	36.95	44.39	80	3	100	4	15	215	600		
6	260	L or H	S	SRU6/260/LS or HS	2.60	57.20	68.70	100	4	100	4	10	145	600		
	260	L or H	D	SRU6/260/LD or HD	2.60	57.20	68.70	100	4	100	4	20	290	600		
	353	L or H	S	SRU6/353/LS or HS	3.53	77.65	93.26	100	4	150	6	7	100	600		
	353	L or H	D	SRU6/353/LD or HD	3.53	77.65	93.26	100	4	150	6	15	215	600		

L - Horizontal Porting

H - Vertical Porting

S - Stainless Steel

D - Duplex Stainless Steel

Note 1. These pressure ratings may vary for pumps with certain threaded connections.

Maximum Solid Size Capability

	Max. size of spherical solids			
	Bi-lobe rotors		Tri-lobe rotors	
	mm	in	mm	in
SRU1/005	8	0.31	6	0.24
SRU1/008	8	0.31	6	0.24
SRU2/013	8	0.31	6	0.24
SRU2/018	13	0.51	9	0.35
SRU3/027	13	0.51	9	0.35
SRU3/038	16	0.63	11	0.43
SRU4/055	16	0.63	11	0.43
SRU4/079	22	0.87	15	0.59
SRU5/116	22	0.87	15	0.59
SRU5/168	27	1.06	18	0.71
SRU6/260	27	1.06	18	0.71
SRU6/353	37	1.46	24	0.94

Weight

	Bare Shaft Pump (kg)	
	Horizontal porting	Vertical porting
SRU1/005	15	16
SRU1/008	17	18
SRU2/013	28	30
SRU2/018	29	31
SRU3/027	53	56
SRU3/038	56	59
SRU4/055	105	111
SRU4/079	110	116
SRU5/116	148	185
SRU5/168	156	193
SRU6/260	228	260
SRU6/353	233	265

Shaft Seal Options

- Single or single flush/quench.
R90 or Hyclean type mechanical seals.
- Double R90 type mechanical seal for flush (steam barrier for aseptic application).
- Packed gland (unflushed or flushed versions).

Note: EHEDG compliance only for Hyclean type mechanical seals.

Materials for Mechanical Seals

Carbon/Stainless steel, Tungsten Carbide/Tungsten Carbide, Silicon Carbide/Silicon Carbide or variations of these materials to suit fluid being pumped and/or application requirements. (N.B. Material variants are not available on all R90/Hyclean seal types)

Pump Sizing

In order to correctly size a rotary lobe pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection.

Product/Fluid Data

- Fluid to be pumped
- Viscosity
- SG/Density
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

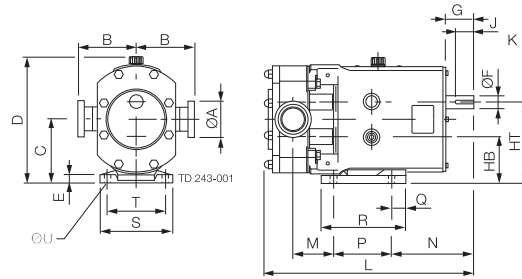
Standard Specification Options

- Specification of inlet and outlet ports (Screwed male to BSP, DIN11851, SMS, ISS/IDF, RJT, or Flanged to EN1092-1 B1 PN16, ASA/ANSI 150, BS10E and other standards).
- Rotorcase Cover with integral Pressure Relief Valve.
- Heating/Cooling Saddle Jackets for Rotorcase and Jacket for Rotorcase Cover (not available when relief valve fitted).
- Bi-lobe Rotors in stainless steel and non-galling alloy.
- Full material traceability on request to BS EN10204 3.1.
- ATEX compliance.
- Complete pump unit comprising: Pump + Baseplate (mild or stainless steel) + coupling with guard + Geared electric motor suitable for (or supplied with) frequency speed control or manual variable speed drive (advise motor enclosure and electrical supply).

Dimensions

Horizontally ported

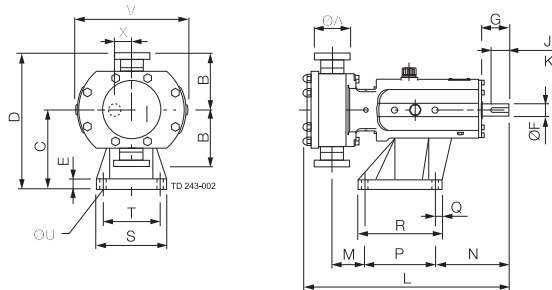
- A1 denotes hygienic port dimension
 A2 denotes enlarged port dimension



PUMP	A1	A2	B	C	D	E	F	G	HB	HT	J	K	L	M	N	P	Q	R	S	T	U
SRU1/005/L	25	-	95	90.5	189	10	16	40	68	113	30	5	284	42	124	80	10	100	100	80	10
SRU1/008/L	25	40	95	90.5	189	10	16	40	68	113	30	5	294	48	124	80	10	100	100	80	10
SRU2/013/L	25	40	105	115	233	16	22	50	85	145	32	6	339	60	131	100	19	132	124	100	12
SRU2/018/L	40	50	105	115	233	16	22	50	85	145	32	6	349	63.5	131	100	19	132	124	100	12
SRU3/027/L	40	50	125	137.5	272	18	28	60	100	175	40	8	439	82.5	176	125	30	181	154	125	14
SRU3/038/L	50	65	125	137.5	272	18	28	60	100	175	40	8	452	87	176	125	30	181	154	125	14
SRU4/055/L	50	65	150	163	325	20	38	80	115	211	63	10	541	101	224	150	35	202	184	150	14
SRU4/079/L	65	80	150	163	325	20	38	80	115	211	63	10	558	110	224	150	35	202	184	150	14
SRU5/116/L	65	80	175	195	382	22	45	110	135	255	70	14	629	96.5	279	180	35	240	210	180	14
SRU5/168/L	80	100	175	195	382	22	45	110	135	255	70	14	652	108	279	180	35	240	210	180	14
SRU6/260/L	100	-	190	225	436	22	48	110	155	295	70	14	748	124	267	260	20	300	220	190	14
SRU6/353/L	100	150	190	225	436	22	48	110	155	295	70	14	778	139.5	267	260	20	300	220	190	14

Vertically ported

- A1 denotes hygienic port dimension
 A2 denotes enlarged port dimension



PUMP	A1	A2	B	C	D	E	F	G	J	K	L	M	N	P	Q	R	S	T	U	V	X
SRU1/005/H	25	-	95	113	208	15	16	40	30	5	284	49	117	80	22	114	104	80	10	174	22.5
SRU1/008/H	25	40	95	113	208	15	16	40	30	5	294	55	117	80	22	114	104	80	10	174	22.5
SRU2/013/H	25	40	105	147	252	16	22	50	32	6	339	67	124	100	12	124	124	100	12	213	30
SRU2/018/H	40	50	105	147	252	16	22	50	32	6	349	70.5	124	100	12	124	124	100	12	213	30
SRU3/027/H	40	50	125	175	300	22	28	60	40	8	439	67.5	161	155	15	185	155	125	14	246	37.5
SRU3/038/H	50	65	125	175	300	22	28	60	40	8	452	72	161	155	15	185	155	125	14	246	37.5
SRU4/055/H	50	65	150	213	363	25	38	80	63	10	541	78	197	200	17	234	184	150	14	301	48
SRU4/079/H	65	80	150	213	363	25	38	80	63	10	558	87	197	200	17	234	184	150	14	301	48
SRU5/116/H	65	80	175	257	432	27	45	110	70	14	629	91.5	264	200	20	240	220	180	14	351	60
SRU5/168/H	80	100	175	257	432	27	45	110	70	14	652	103	264	200	20	240	220	180	14	351	60
SRU6/260/H	100	-	190	295	485	27	48	110	70	14	748	124	267	260	20	300	250	210	14	400	70
SRU6/353/H	100	150	190	295	485	27	48	110	70	14	778	139.5	267	260	20	300	250	210	14	400	70

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Alfa Laval SX

Rotary lobe pumps

Introduction

The Alfa Laval SX Rotary Lobe Pump is designed with optimized pump head geometry and multi-lobe rotors to ensure low-shear operation with minimum pulsation. This makes the SX the best choice for maintaining the integrity of delicate products.

The pump is designed according to the most stringent hygienic design standards and with verified, effective Cleaning-in-Place (CIP) and Sterilization-in-Place (SIP).

Applications

The SX Rotary Lobe pump is designed for gentle transportation of process fluids in hygienic and ultra-clean applications in the biotechnology and pharmaceutical industries, in the home and personal care sector, and for demanding food applications.

The SX Rotary Lobe Pump is available with 14 different pump head displacements based on seven different gearbox modules to handle flow rates up to 115 m³/h and differential pressures up to 15 bar.

Benefits

- Low pulsation and very gentle pumping, making the pump ideal for sensitive products.
- Minimized shearing for protecting end-product quality.
- Low maintenance, increased process uptime.
- Maximized performance and minimized risk of contamination.

Standard design

All media contacting steel components, like the rotor case, front cover, rotors and rotor nuts, are in W. 1.4404 (AISI 316L). The robust cast iron gearbox provides maximum shaft rigidity and easy oil seal replacement. The gearbox design is universal which enables the flexibility of mounting pumps with the inlet and outlet ports in either a vertical or horizontal plane by changing the foot and its position.

The standard Alfa Laval SX has four-lobe rotors rated to 150°C, facilitating use with CIP and SIP processes.

Fully front-loading and fully interchangeable single, single flushed, and double mechanical shaft seals are available. All media contacting elastomers are controlled compression joints, the latest technology where static and dynamic elastomer seals are used to prevent leakage of pumped media to the atmosphere.

The Alfa Laval SX can be supplied either as a bare shaft pump or mounted on a base plate complete with coupling, guard, gear motor and shroud for easy, plug-and-play installation.



Working principle

A gear train in the pump gearbox drives the rotors and provides accurate synchronization of the multi-lobe rotors. The movement of the counter-rotating rotors creates a partial vacuum that allows atmospheric pressure or other external pressures to force fluid into the pump chamber. As the rotors revolve, an expanding cavity forms, filling with fluid. As the blades disengage, each dwell forms a cavity. As the rotor blades engage, the cavity diminishes, and fluid is displaced into the outlet port.

TECHNICAL DATA

Standard specification

Product wetted steel parts:	W. 1.4404 (316L)
Inside surface finish:	Mech Ra \leq 0.8
Gearbox:	Cast iron
Base plate:	Stainless steel
Coupling guard:	Stainless steel
Rotor:	Four-lobe
Product wetted elastomers:	EPDM
Other elastomers:	FPM
Shaft seal:	Single mechanical (R00)
Rotary seal face:	Carbon
Stationary seal face:	Stainless steel

Shaft seals

Single, single flush and double mechanical available. All options are fully front loading and interchangeable.

Max flush pressure, single flush:	0.5 bar
Max flush pressure, double mechanical:	1 bar over product pressure
Water consumption, flushed or double mechanical:	0.5 l/min
Flush connections:	BSPT or NPT

Temperature

Max process and CIP temperature:	150°C
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Motor

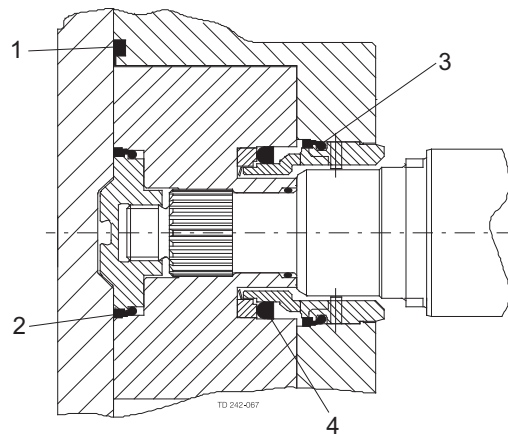
Gear motor, 4 poles, to IEC metric standard, 50/60 Hz, suitable for frequency conversion, IP55, insulation class F.

Warranty

Extended 3-years warranty on SX pumps. The warranty covers all non wear parts on the condition that genuine Alfa Laval Spare Parts are used.

Media contacting elastomers

All media contacting elastomers are controlled compression joints, the latest technology where static and dynamic elastomer seals are used to prevent pumped media leaking to atmosphere.



1. Front cover compression joint
2. Spline sealing cup seal
3. Cup seal
4. Squad ring

Flows/Pressures/Connections

SX Model	Displacement			Inlet and Outlet Connection Size		Differential Pressure (see note 1)		Maximum Speed rev/min
	Litre/rev	Imp gall/100 rev	US gall/100 rev	mm	in	bar	psi	
SX1/005	0.05	1.11	1.32	25	1	12	175	1200
SX1/007	0.07	1.54	1.85	40	1.5	7	100	1200
SX2/013	0.128	2.82	3.38	40	1.5	15	215	1000
SX2/018	0.181	3.98	4.78	50	2	7	100	1000
SX3/027	0.266	5.85	7.03	50	2	15	215	1000
SX3/035	0.35	7.70	9.25	65	2.5	7	100	1000
SX4/046	0.46	10.12	12.15	50	2	15	215	1000
SX4/063	0.63	13.86	16.65	65	2.5	10	145	1000
SX5/082	0.82	18.04	21.67	65	2.5	15	215	600
SX5/115	1.15	25.30	30.38	80	3	10	145	600
SX6/140	1.40	30.80	36.99	80	3	15	215	500
SX6/190	1.90	41.80	50.20	100	4	10	145	500
SX7/250	2.50	55.00	66.05	100	4	15	215	500
SX7/380	3.80	83.60	100.40	150	6	10	145	500

Note 1. These pressure ratings may vary for pumps with certain threaded connections.

Maximum Solid Size Capability

Pump sizes	Max. size of spherical solids (mm)
SX1	7
SX2	10
SX3	13
SX4	16
SX5	19
SX6	25
SX7	28

Weight

Model	Bare Shaft Pump (kg)	
	Horizontal porting	Vertical porting
SX1/005	15	16
SX1/007	16	17
SX2/013	32	33
SX2/018	33	34
SX3/027	57	59
SX3/035	59	61
SX4/046	107	110
SX4/063	113	116
SX5/082	155	155
SX5/115	165	165
SX6/140	278	278
SX6/190	290	290
SX7/250	336	344
SX7/380	358	366

Shaft Seal Options

- Single or single flush/quench (steam barrier for aseptic application) R00 type mechanical seals.
- Double R00 type mechanical seal for flush.

All sealing options are fully front loading and fully interchangeable without the need for additional housings or pump component changes. Specialised seal setting of the mechanical seal is not required as the seal is dimensionally set on assembly. This feature further enhances fast and efficient on-site seal interchangeability.

Materials for Mechanical Seals

Carbon/Stainless Steel, Silicon Carbide/Silicon Carbide or variations of these materials to suit fluid being pumped and/or application requirements. The seal seat and face material combinations are all EHEDG compliant.

Standard Specification Options

- Screwed male inlet and outlet ports to DIN11851, DIN11864, SMS, ISS/IDF, RJT or Tri-clamp.
- Heating/Cooling Jacket for Rotorcase Cover.
- ATEX compliance.
- Complete pump unit comprising: Pump + Baseplate (mild or stainless steel) + coupling with guard + Geared electric motor suitable for (or supplied with) frequency speed control or manual variable speed drive (advise motor enclosure and electrical supply).

Pump Sizing

In order to correctly size a rotary lobe pump some essential information is required. Provision of this information listed below enables our Technical Support personnel to obtain the optimum pump selection.

Product/Fluid Data

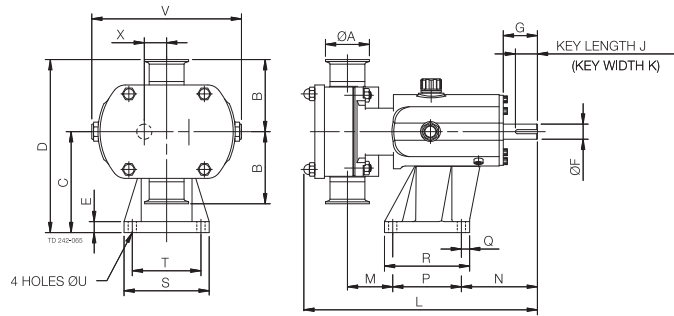
- Fluid to be pumped
- Viscosity
- SG/Density
- Pumping temperature, minimum, normal and maximum
- Cleaning in Place temperature(s), minimum, normal and maximum

Performance Data

- Flow rate, minimum, normal and maximum
- Discharge head/pressure (closest to pump outlet)
- Suction condition

Bareshaft Pump Dimensions

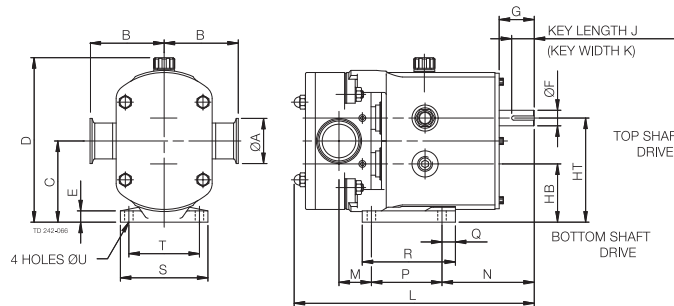
Vertically ported



All dimensions in mm

PUMP	A	B	C	D	E	F	G	J	K	L	M	N	P	Q	R	S	T	U	V	X
SX1/005	25	95	113	208	15	16	40	30	5	283	53.5	100	80	22	114	104	80	10	174	23.5
SX1/007	40	95	113	208	15	16	40	30	5	296	60	100	80	22	114	104	80	10	174	23.5
SX2/013	40	105	147	252	16	22	50	32	6	327	58.5	111	100	12	124	124	100	12	213	32.5
SX2/018	50	105	147	252	16	22	50	32	6	343	65.5	111	100	12	124	124	100	12	213	32.5
SX3/027	50	125	175	300	22	28	60	40	8	434	72.5	142	155	15	185	155	125	14	246	37.5
SX3/035	65	125	175	300	22	28	60	40	8	450	78	142	155	15	185	155	125	14	246	37.5
SX4/046	50	150	213	363	25	38	80	63	10	517	75	174	200	17	234	184	150	14	301	49.5
SX4/063	65	150	213	363	25	38	80	63	10	536	81.5	174	200	17	234	184	150	14	301	49.5
SX5/082	65	175	257	432	27	45	110	70	14	602	61	264	200	20	240	220	180	14	351	60
SX5/115	80	175	257	432	27	45	110	70	14	630	80.5	264	200	20	240	220	180	14	351	60
SX6/140	80	190	295	485	27	48	110	70	14	691	78	267	260	20	300	250	210	14	400	70
SX6/190	100	190	295	485	27	48	110	70	14	719	90	267	260	20	300	250	210	14	400	70
SX7/250	100	205	365	570	26	60	110	90	18	767	94	288	280	25	330	290	240	18	475	81.5
SX7/380	150	205	365	570	26	60	110	90	18	821	121	288	280	25	330	290	240	18	475	81.5

Horizontally ported



All dimensions in mm

PUMP	A	B	C	D	E	F	G	HB	HT	J	K	L	M	N	P	O	R	S	T	U
SX1/005	25	95	90.5	189	10	16	40	67	114	30	5	283	29.5	124	80	10	100	100	80	10
SX1/007	40	95	90.5	189	10	16	40	67	114	30	5	296	36	124	80	10	100	100	80	10
SX2/013	40	105	115	233	16	22	50	82.5	147.5	32	6	327	38.5	131	100	19	132	124	100	12
SX2/018	50	105	115	233	16	22	50	82.5	147.5	32	6	343	45.5	131	100	19	132	124	100	12
SX3/027	50	125	137.5	272	18	28	60	100	175	40	8	434	69.5	175	125	30	181	154	125	14
SX3/035	65	125	137.5	272	18	28	60	100	175	40	8	450	75	175	125	30	181	154	125	14
SX4/046	50	150	163	325	20	38	80	113.5	212.5	63	10	517	75	224	150	35	202	184	150	14
SX4/063	65	150	163	325	20	38	80	113.5	212.5	63	10	536	81.5	224	150	35	202	184	150	14
SX5/082	65	175	195	382	22	45	110	135	255	70	14	602	66	279	180	35	240	210	180	14
SX5/115	80	175	195	382	22	45	110	135	255	70	14	630	85.5	279	180	35	240	210	180	14
SX6/140	80	190	225	436	22	48	110	155	295	70	14	691	78	267	260	20	300	220	190	14
SX6/190	100	190	225	436	22	48	110	155	295	70	14	719	90	267	260	20	300	220	190	14
SX7/250	100	205	276.5	524	27	60	110	195	358	90	18	767	99	273	290	25	340	290	240	18
SX7/380	150	205	276.5	524	27	60	110	195	358	90	18	821	126	273	290	25	340	290	240	18

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.com to access the information direct.