



Competitive Reliability

OptiLobe Rotary Lobe Pump

Application

The OptiLobe range of rotary lobe pumps combines cost-effective simplicity with Alfa Laval quality and reliability. The OptiLobe range has been developed for general applications within the Dairy, Beverage and Food Industries.

The 'OptiLobe' pump range has been certified by EHEDG (European Hygienic Equipment Design Group) as fully CIP cleanable to their protocol, and therefore is ideally suited to applications where cleanability is paramount.

Also the OptiLobe pump range conforms to USA 3-A Sanitary Standard and all media contacting components are FDA compliant.

The pump features the "EasyFit" front loading seal which allows quick and easy inspection or replacement without the need for pipework disassembly.

The 'OptiLobe' pump range is compact, efficient and capable of flow rates up to 48 m³/h and pressures up to 8 bar.

Standard Design

Pump Gearbox

The 'OptiLobe' pump range has a universal gearbox design which gives the flexibility of mounting pumps with the inlet and outlet ports in either a vertical or horizontal plane by simply changing the foot position. A stainless steel gear canister and electro-less nickel plated bearing housing provides a clean, paint free corrosion resistant external finish.

Pump head Construction

The OptiLobe pump range has sanitary design full bore inlet and outlet ports to International Standards, maximising inlet and outlet port efficiency and NPSH characteristics. Pumps are fitted with tri-lobe rotors rated to 130°C facilitating use with CIP processes.



OptiLobe Rotary Lobe Pump

Materials of Construction

Gear canister - 304 stainless steel. Bearing housing - electroless nickel plated cast iron. Shafts - duplex stainless steel.
Pumphead - product wetted components in 316L .
Product wetted elastomers of EPDM, FPM all FDA conforming.

Weight

Pump Model	Bare Shaft Pump (kg)
22	20.5
23	21.5
32	33.5
33	34.5
42	60
43	63

Shaft Seal Options

- EasyFit type single or single flush/quench mechanical seals.

All sealing options are fully front loading and fully interchangeable. 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, Carbon/Silicon Carbide or Silicon Carbide/Silicon Carbide.

Pump Sizing

In order to correctly size a rotary lobe pump some essential information is required. Provision of this information listed below enables our Customer 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

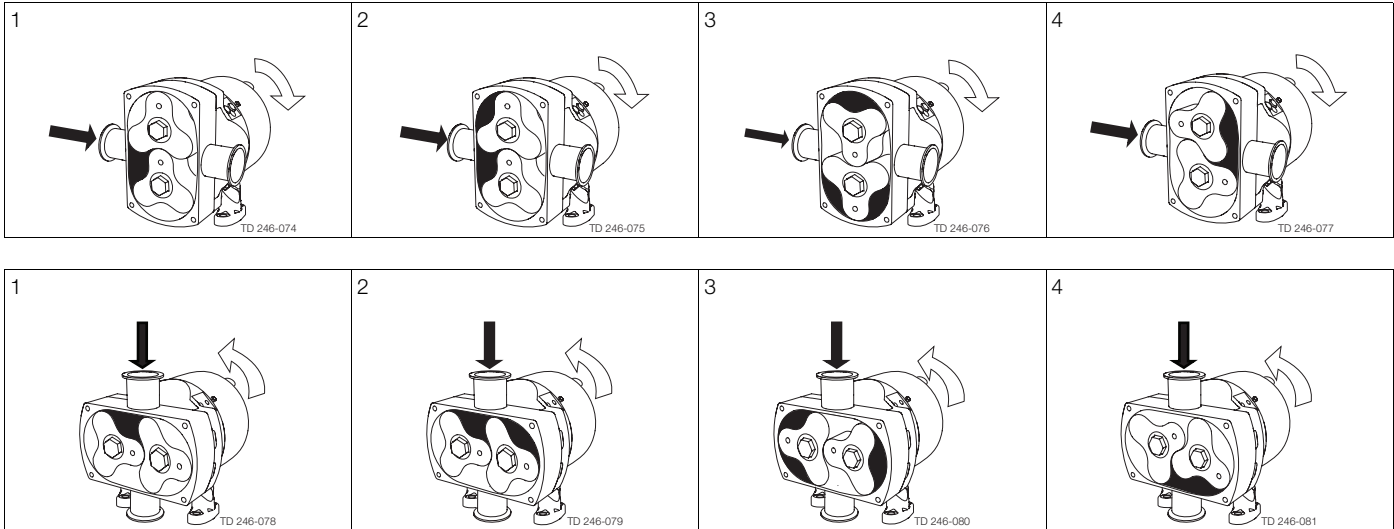
Standard Specification Options

- Specification of inlet and outlet ports (Screwed male to DIN11851 to BS 4825, SMS, ISS/IDF, RJT and Tri-clamp).
- 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)

Working Principle

The positive displacement of the OptiLobe pump is provided by non-contacting, contra rotating tri-lobe rotors within a fully swept pump chamber. All OptiLobe pumps are capable of bi-rotational flow without modification.

Fig. 1

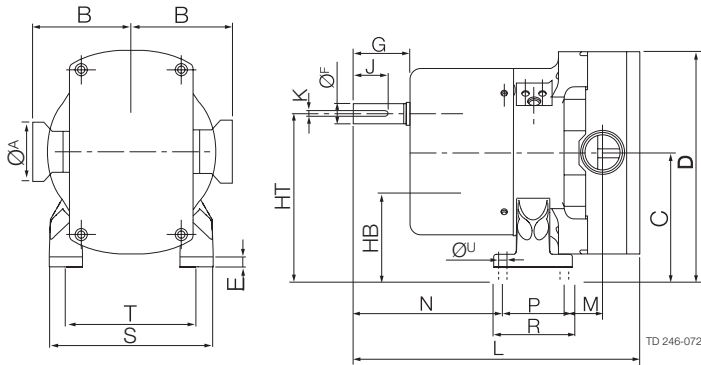


Flows/Pressures/Connections

OptiLobe Model	Displacement			Inlet and Outlet Connection Size		Differential Pressure		Maximum Speed rev/min
	Litres/rev	Imp gall/ 100 rev	US gall/ 100 rev	mm	in	bar	psi	
22	0.17	3.74	4.49	40	1.5	8	115	1000
23	0.21	4.62	5.55	40	1.5	8	115	1000
32	0.32	7.04	8.45	50	2	8	115	1000
33	0.40	8.80	10.57	50	2	8	115	1000
42	0.64	14.08	16.91	65	2.5	8	115	1000
43	0.82	18.04	21.66	80	3	8	115	1000

Dimensions

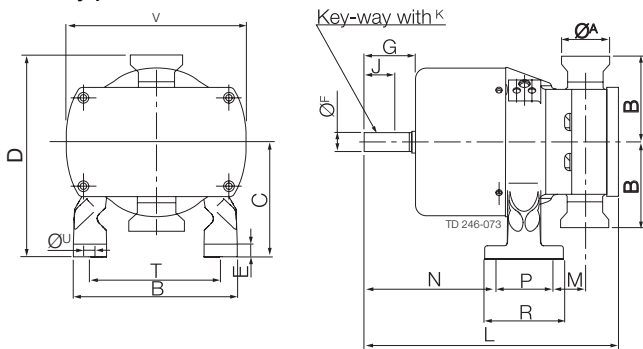
Horizontally ported



Pump model	Nominal Connection Size																			
	A	B	C	D	E	F	G	HB	HT	J	K	L	M	N	P	R	S	T	U	
22	40	96	120	216	15	20	50	84	156	32	6	275	35	139	60	90	162	124	12	
23	40	96	120	216	15	20	50	84	156	32	6	286	44	139	60	90	162	124	12	
32	50	120	136	251	15	24	50	92	180	40	8	304	35	157	64	95	192	150	12	
33	50	120	136	251	15	24	50	92	180	40	8	316	47	157	64	95	192	150	12	
42	65	130	159	294	20	30	55	106	212	40	8	370	51	161	100	145	235	180	14	
43	80	138	159	294	20	30	55	106	212	40	8	386	60	161	100	145	235	180	14	

All dimensions in mm.

Vertically ported



Pump model	Nominal Connection Sizes																			
	A	B	C	D	E	F	G	J	K	L	M	N	P	R	S	T	U	V		
22	40	96	120	216	15	20	50	32	6	275	35	139	60	90	162	124	12	191		
23	40	96	120	216	15	20	50	32	6	286	44	139	60	90	162	124	12	191		
32	50	120	136	256	15	24	50	40	8	304	35	157	64	95	192	150	12	230		
33	50	120	136	256	15	24	50	40	8	316	47	157	64	95	192	150	12	230		
42	65	130	159	289	20	30	55	40	8	370	51	161	100	145	235	180	14	270		
43	80	138	159	297	20	30	55	40	8	386	60	161	100	145	235	180	14	270		

All dimensions in mm.

ESE00527EN 0802

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.

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