



Competitive Reliability

OptiLobe Rotary Lobe Pump

Application

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

Ideal for CIP operation, OptiLobe is fully 3A compliant and EHEDG (European Hygienic Equipment Design Group) certified. All product contact components are FDA compliant as well.

OptiLobe features front loading seals which allows quick and easy inspection or seal replacement without rotor case removal. With a compact design, it's an efficient PD pump capable of flow rates up to 211 US gallons/minute and pressures up to 115 psi.

Standard Design

Pump Gearbox

The OptiLobe pump range has a universal gearbox design with the flexibility of mounting 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

Pump head is design with full bore inlet and outlet ports, maximizing port efficiency and NPSH characteristics. Each pump is fitted with tri-lobe rotors and rated to 266°F.



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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 - FDA compliant, EPDM and FPM.

Weight

Pump Model	Bare Shaft Pump (lb)
22	45
23	47
32	74
33	76
42	132
43	139

Shaft Seal Options

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

All seals are designed as front loading, self-setting and self-adjusting for fast on-site seal changeability. Specialized mechanical seal setting is not required as the seal is dimensionally set on assembly.



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

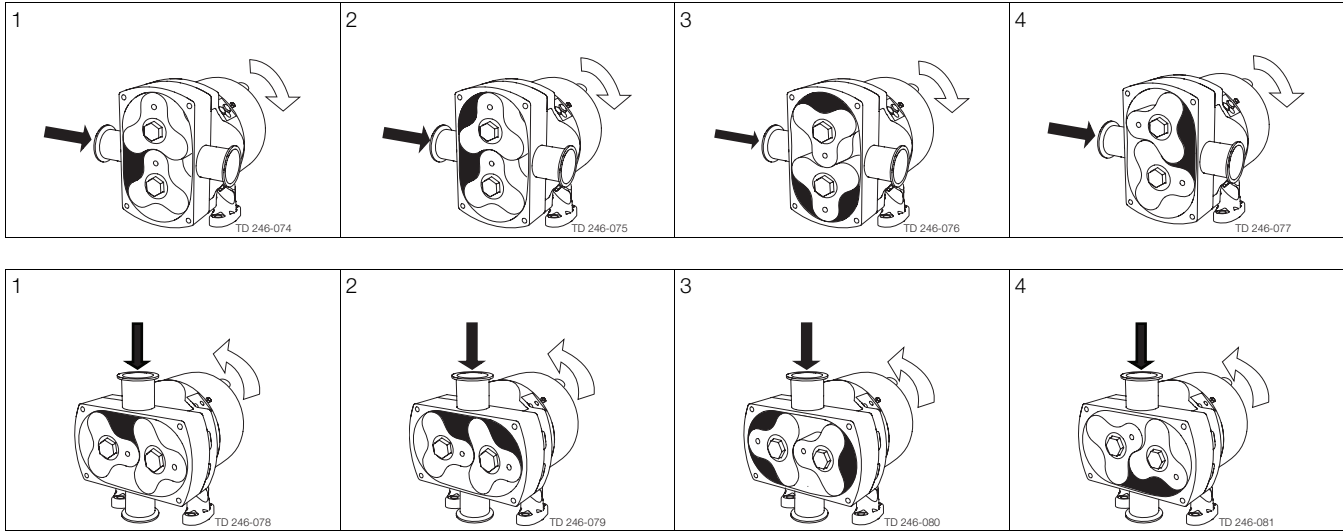
Standard Specification Options

- Specification of inlet and outlet ports (complete with Tri-Clamp connections).
- Available in bare shaft pump only.

Working Principle

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

Fig. 1

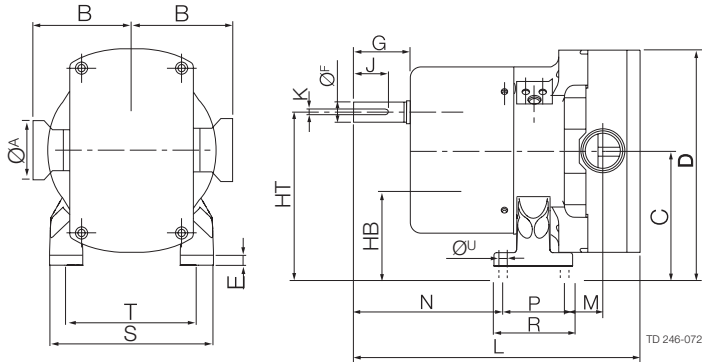


Flows/Pressures/Connections

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

Dimensions

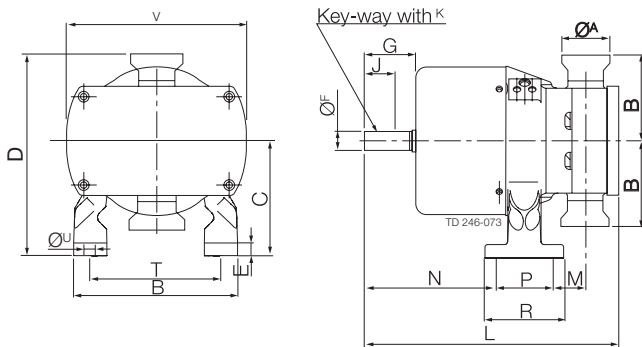
Horizontally ported



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	1.57	3.78	4.72	8.50	0.59	0.79	1.97	3.31	6.14	1.26	0.24	10.83	1.38	5.47	2.36	3.54	6.38	4.88	0.47	
23	1.57	3.78	4.72	8.50	0.59	0.79	1.97	3.31	6.14	1.26	0.24	11.26	1.73	5.47	2.36	3.54	6.38	4.88	0.47	
32	1.97	4.72	5.35	9.88	0.59	0.94	1.97	3.62	7.09	1.57	0.31	11.97	1.38	6.18	2.52	3.74	7.56	5.91	0.47	
33	1.97	4.72	5.35	9.88	0.59	0.94	1.97	3.62	7.09	1.57	0.31	12.44	1.85	6.18	2.52	3.74	7.56	5.91	0.47	
42	2.56	5.12	6.26	11.57	0.79	1.18	2.17	4.17	8.35	1.57	0.31	14.57	2.01	6.34	3.94	5.71	9.25	7.09	0.55	
43	3.15	5.43	6.26	11.57	0.79	1.18	2.17	4.17	8.35	1.57	0.31	15.20	2.36	6.34	3.94	5.71	9.25	7.09	0.55	

All dimensions in inch.

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	1.57	3.78	4.72	8.50	0.59	0.79	1.97	1.26	0.24	10.82	1.38	5.47	2.36	3.54	6.38	4.88	0.47	7.52		
23	1.57	3.78	4.72	8.50	0.59	0.79	1.97	1.26	0.24	11.26	1.73	5.47	2.36	3.54	6.38	4.88	0.47	7.52		
32	1.97	4.72	5.35	10.08	0.59	0.94	1.97	1.57	0.31	11.97	1.38	6.18	2.52	3.74	7.56	5.91	0.47	9.06		
33	1.97	4.72	5.35	10.08	0.59	0.94	1.97	1.57	0.31	12.44	1.85	6.18	2.52	3.74	7.56	5.91	0.47	9.06		
42	2.56	5.12	6.26	11.38	0.79	1.18	2.17	1.57	0.31	14.57	2.01	6.38	3.94	5.71	9.25	7.09	0.55	10.63		
43	3.15	5.43	6.26	11.69	0.79	1.18	2.17	1.57	0.31	15.20	2.36	6.38	3.94	5.71	9.25	7.09	0.55	10.63		

All dimensions in inch.

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The information contained herein is correct at the time of issue, but may be subject to change without prior notice.

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.