

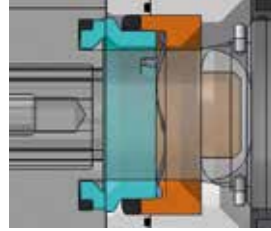
Rotary lobe pumps

iLobe Hygienic Design

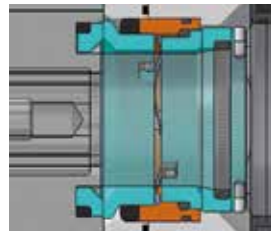


The iLobe

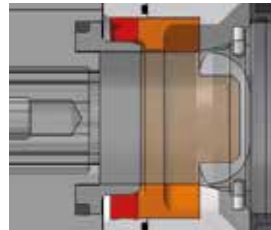
with integrated heat exchanger.



Single mechanical seal



Double mechanical seal



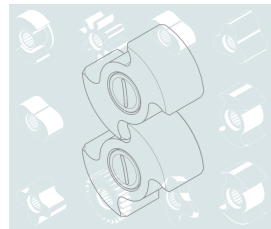
HPU-FDA lip seal



Hygienic pressure relief valve



iLOBE CCD – close-coupled



Biwing rotor

The conclusive concept for hygienic and non-hygienic applications – made in Germany – offers non-contacting pumping action in all operating situations.

The result: no product contamination at all from abraded material while offering the maximum working life, an ideal precondition for use in demanding processes. The use of 1.4404 or 1.4435 stainless steel, seals that conform to FDA standards in the area that is in contact with the product, and stainless steel gearbox covers are all standard. The modular structure of the shaft seals and the gearbox ensure non-stop availability and a wide variety of configuration options for individual customization to meet the toughest requirements. CIP/SIP cleaning processes can be performed without any restrictions. Further performance details: Capacities up to 70 m³/h, differential pressures of up to 15 bar, and able to handle temperatures of up to 150 °C, depending on the configuration.

Perfect Engineering:

We have done everything possible to ensure maximum functionality and performance. This ensures contact-free running under all operating conditions. The extremely robust design of the shafts and the gearbox minimize deflection of the shafts with the lowest possible thermal expansion. The direct arrangement of the bearings and shaft guides ensure the most precise possible positioning and concentricity of the rotors.

The extremely short shaft overhang makes exceptionally high differential pressures possible, especially in the case of the sx and sxx models. The shafts that are completely isolated from the product are made of a material with a very low degree of thermal expansion. The seating of the synchronization gears on the shafts ensures that there is no play, thus assuring maximum durability even under extreme loads. The synchronization can easily be set by a timing device.

Materials, surfaces and lubricants:

We use 1.4404, 1.4435, 1.4539, 1.4462 stainless steel and Hastelloy for all parts that are in contact with the product, with a surface roughness of Ra = 0.8 µm (inside) and Ra = 1.2 µm (outside). A surface finish of up to Ra <= 0.4 µm can be produced, with and without electro-polishing, according to the wishes of the customer. Lubricants conforming to NSF-H1 are standard.

Connections:

All the types of connectors that are currently standard can be produced. The usual ones are DIN 11851 milk pipe and Triclamp DIN 32676. Connectors in compliance with DIN 11864 and DIN EN 1092-1 can likewise be provided. The diameters can be either DIN or inch-based.

A number of configuration options:

- Heating and cooling channels and pockets
- Hygienic pressure relief valves, spring-load or compressed air-loaded
- Heatable pressure relief valves
- Profiled static seals for thorough cleaning without leaving any residues
- Gear rotors
- Drainage connectors at the front cover for full drainage when the pump connection is installed horizontally
- Individual adjustment of the pump feet to suit the specified dimensions

1 CIP/SIP
Thorough cleaning without leaving any residues when the pump connection is installed horizontally or vertically. Can be drained fully due to the bevelling of the pump housing. If the pump connection is installed horizontally then an additional drainage connector is required at the pump housing cover.

2 Torsion-free bearing and gearbox construction for perfect guiding of the pump shafts. The gears are located without any play and have an adjusting mechanism for maximum precision of synchronization.

3 Duplex shafts with an extremely short shaft overhang for maximum stiffness and the best possible temperature behaviour, especially during CIP/SIP.

4 Trilobe rotor, very suitable for pumping solids as well. Optionally available made of non-galling alloy.

5 Mechanical seals built into the rotor – a prerequisite for maximum hygiene and pump performance, plus uncritical behaviour at all temperatures. On-line ease of maintenance through front-loaded seals.





Type	Displacement	Displacement	Max. differential pressure	Max. differential pressure	Max. speed	Nominal size	Connection width	Weight	Weight	T _{OP}	T _{SP}	Q _{OP}
Unit	[l/rev.]	[USgal/rev.]	[bar]	[psi]	[U/min]	[DN]	[Zoll]	[kg]	[lbs]	[85...90 °C]	[120...130 °C]	@ 2bar [m³/h]
iL42i	0,03	0,008	12	174	1800	DN25	1	12	26	yes	yes	1,9
iL55sx	0,03	0,008	15	218	1400	DN15	1/2	16	35	yes	yes	1,4
iL55s	0,04	0,011	15	218	1400	DN20	3/4	16,5	36	yes	yes	2,1
L55i	0,06	0,016	15	218	1400	DN25	1	17	37	yes	yes	3,2
iL55li	0,075	0,020	15	218	1400	DN32	1 1/4	17,5	39	yes	yes	4,4
iL55i	0,094	0,025	8	116	1400	DN40	1 1/2	18	40	yes	yes	6,0
iL63s	0,09	0,024	15	218	1400	DN40	1 1/2	20	44	yes	yes	3,1
iL63i	0,12	0,032	15	218	1400	DN40	1 1/2	20	44	yes	yes	6,8
iL63l	0,174	0,046	15	218	1400	DN40	1 1/2	21	46	yes	yes	10,6
iL85s	0,21	0,055	15	218	1100	DN40	1 1/2	42	93	yes	yes	10,5
iL85i	0,28	0,074	15	218	1100	DN50	2	45	99	yes	yes	14,4
iL85l	0,35	0,092	15	218	1100	DN65	2 1/2	47	104	yes	yes	18,3
iL115s	0,55	0,145	15	218	900	DN50	2	108	238	yes	yes	24,4
iL115si	0,7	0,185	15	218	900	DN65	2 1/2	111	245	yes	yes	31,5
iL115l	0,95	0,251	15	218	900	DN80	3	114	251	yes	yes	42,6
iL115li	1,23	0,325	15	218	900	DN100	4	123	271	yes	yes	57,0



Feldmühlenweg 6-10 | D-49593 Bersenbrück
 Fon +49 (0) 54 39 - 80 921-0 | Fax +49 (0) 54 39 - 80 921-20
 info@pump-products.de | www.pump-products.de

All operating limits and all listed performance data are valid at contactless pumping action of the components. Contact us for professional consulting.

