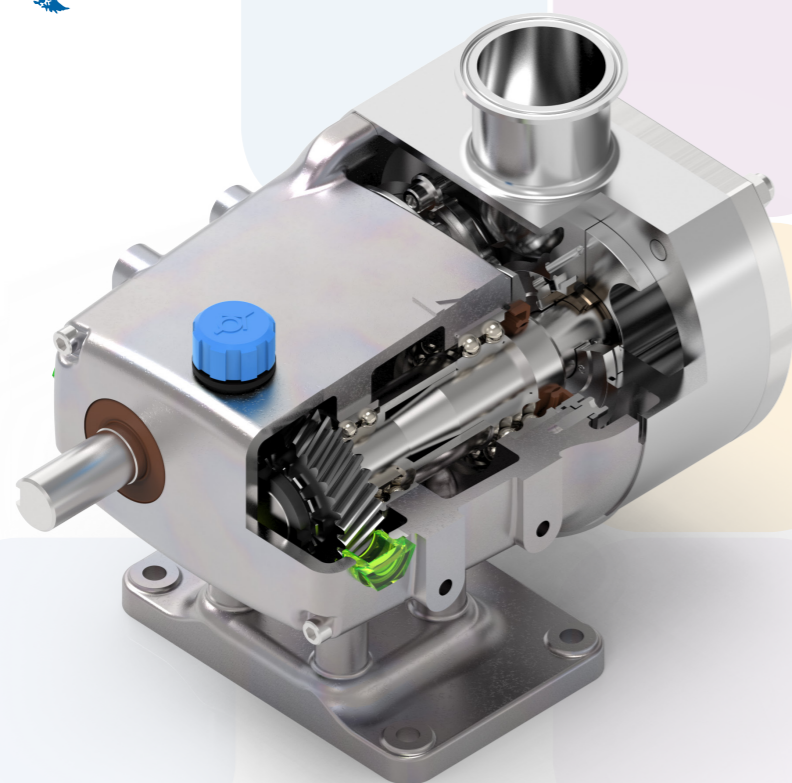


Packo

Hygienic rotary lobe pumps



Worldwide distribution network



'The' specialist in the field of hygienic stainless steel pumps

Starting in 1975, Packo has designed and constructed stainless steel pumps for various industries. Since this date, we have supplied more than 350,000 pumps and these for the most diverse applications. The first pumps that were developed by us were destined for the dairy industry, so from the outset hygiene and cleanability were a basic requirement for Packo pumps. The use of stainless steel and the standard applying of an electrochemical surface treatment (electropolishing), find their origin here. These are two factors that make Packo pumps stand out even today. Diversification and deepening of knowledge have led to Packo pumps being a market leader in various sectors today.

Since the summer of 2015 Packo belongs to the Verder group. Together we employ 2000 people worldwide spread over different production sites and sales offices. Our factory in Diksmuide manufactures both hygienic pumps and components. There is also an electropolishing division which gives our products a very high degree of finish.

The production plant in Diksmuide is good for a workforce of over 130 employees and manufacturing over 10,000 pump units a year! Packo pumps are actually worldwide distributed.

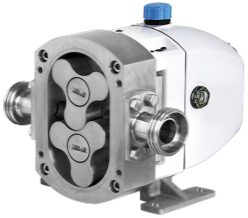


The company as well as the Packo pumps department has a sustainable organic growth, which we owe to the high quality of products and service, and the will to keep improving constantly.



Packo Hygienic Pumps

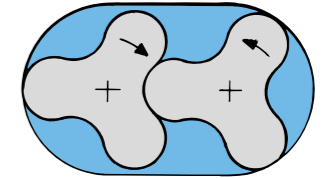
Packo rotor types

Packo rotary lobe pumps

Series	HY~LINE & HY~LINE+	55	ULTIMA
			
Max. flow rate (l/m)	1.809	67	685
Max. pressure (bar)	15	20	15
Surface roughness Ra (µm)	< 0.8	< 0.5	< 0.5

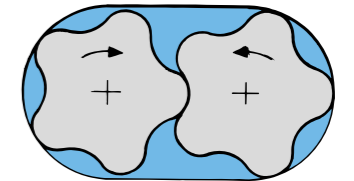
Tri-lobe

With this version you can pump viscous or 'shear' sensitive products, possibly in combination with whole parts such as fruit and vegetables. The pumps are equipped with a standard rotor case or with an adapted rotor case, eg hopper inlet, heating jacket. The tri-lobe version is used in the basic versions.



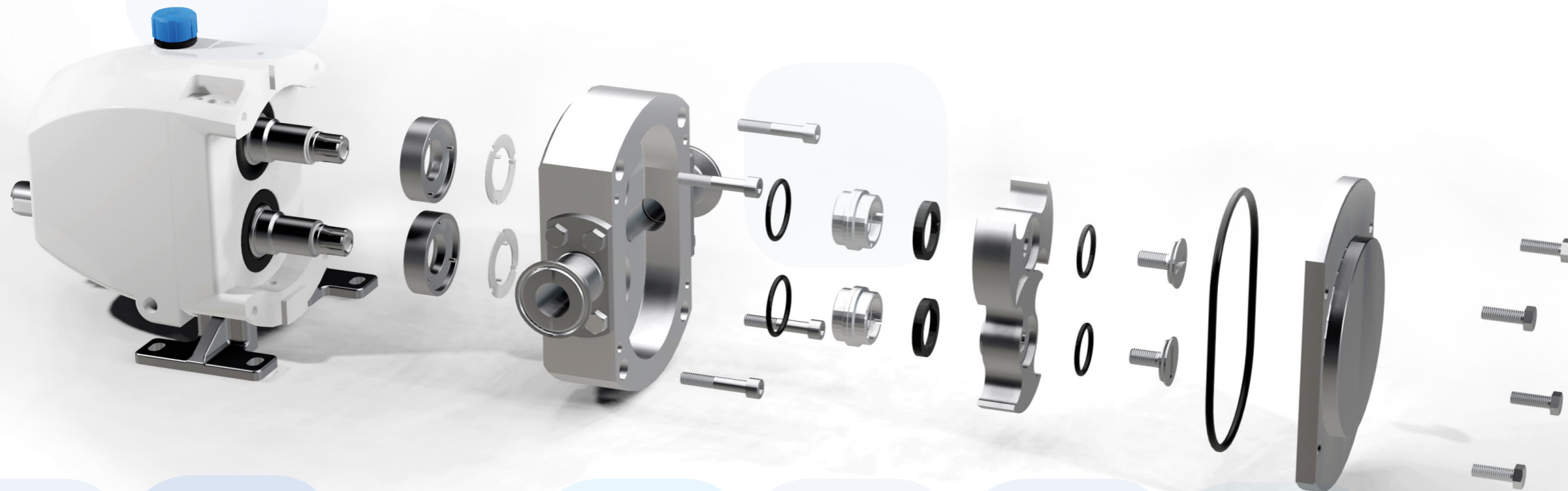
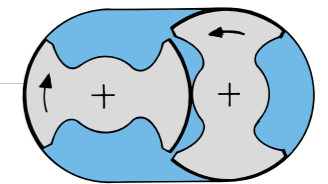
Multi-lobe

Specially developed for the ultra-hygienic 55 series. The use is the same as with the tri-lobe rotors. However, this version gives a much lower pulsation and low noise.



Bi-wing rotor

Known under the English term 'Scimitar'. A lobe pump in this version gives a low pulsation and a very high volumetric efficiency. Available in the Ultima series and Hy-Line pump series.



Where Packo pumps make the difference

Packo rotary lobe pumps include a variety of types and models, each representing the state of the art in its specific application. The pumps are available in a wide variety to suit your specific application.

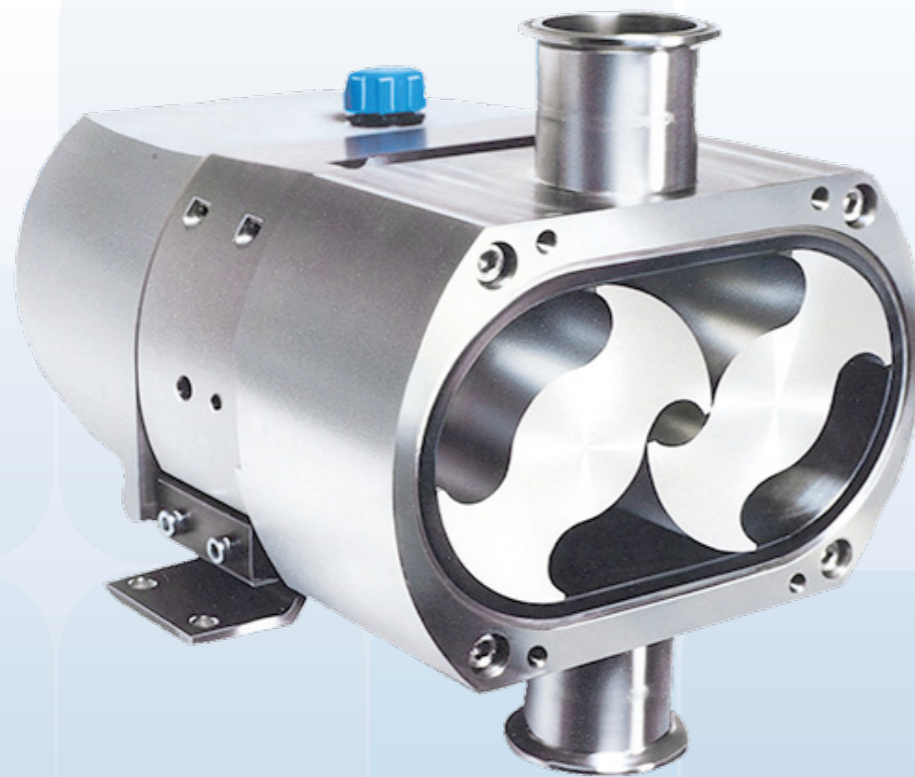
100% tested before delivery!

Most stringent hygienic standards

Flushed rotor fixing screws are sealed to prevent product ingress. Contoured rotor case internals for full drainability during SIP and shaft seals set up front in the area with full pumping action. Designed according to 3A & EHEDG standards.

Low maintenance cost

Front loaded single shaft seals are fully accessible from the front of the pump without disturbing the process pipework. Simple bearing assemblies easily pre-set using automotive technology. Bi-wing rotors require no timing adjustments. Even the rotor case is removable, a feature not normally associated with other bi-wing rotor pumps.

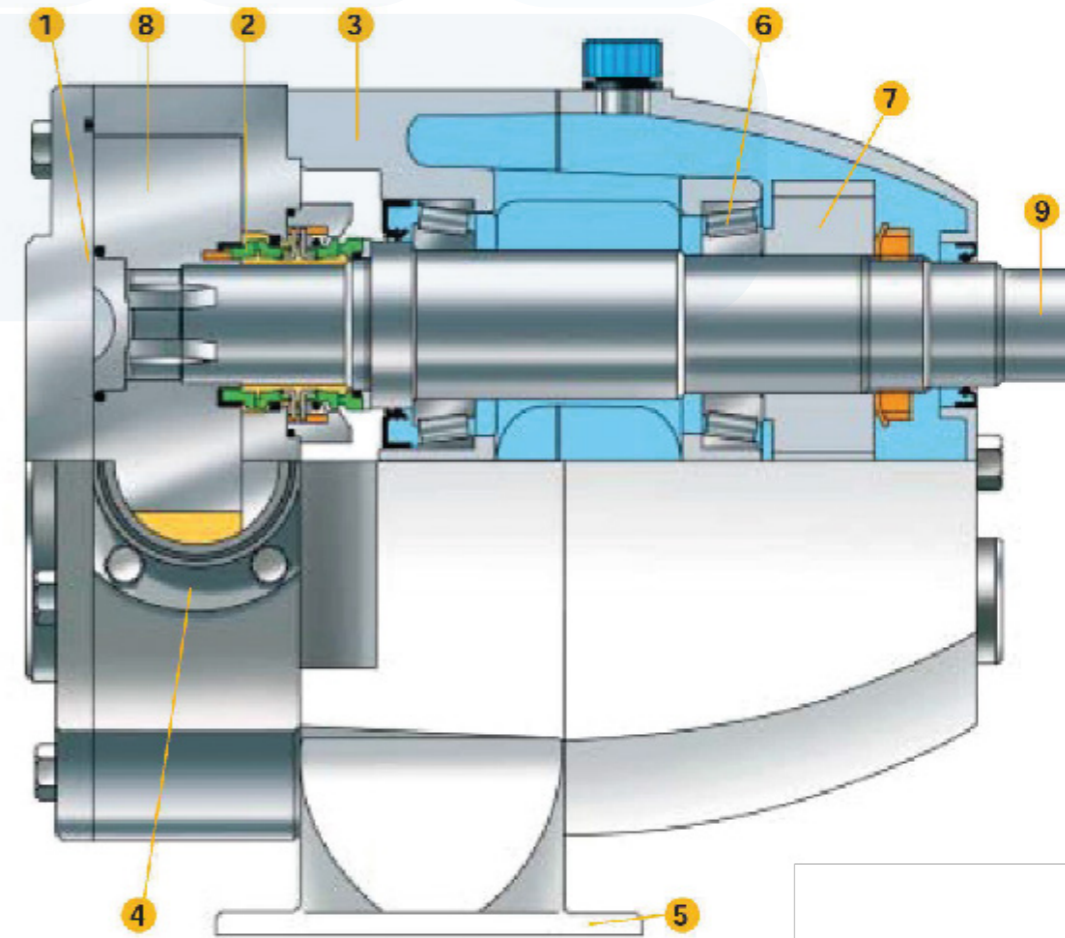


High volumetric efficiency

The bi-wing rotors incorporate the low viscosity efficiency associated with circumferential piston pumps with the viscous product handling capability of tri-lobe and bi-lobe rotor pumps at an affordable price.

Robust design

Packo pumps have extremely large shaft diameters mounted in high specification taper roller bearings, fitted into an extremely rigid central pillar. All enclosed in an oil filled housing made from alloy. These avoid premature pump failure due to overpressure or other abuse.



Features

- 1 Flush fitting, sealed rotor retaining screws avoid buildup of stagnant product as no end cover recesses are required and no product can get into the rotor drive.
- 2 Front mounted shaft seals for easy replacement and full accessibility of CIP liquids.
- 3 Rugged, high grade alloy bearing pedestal and housing for low weight and high strength, completely encased in epoxy coating.
- 4 Hy-Line+ has detachable ports for maximum flexibility in connection type and size (Not on 3 size).
- 5 Removable feet allow quick change for pump mounting in the ideal orientation.
- 6 High specification taper roller bearings give over one million hours life on a typical duty.
- 7 Precision cut spur gears for high load capability and ease of maintenance.
- 8 Fully interchangeable bi-wing rotors can be fitted without the need to re-time thus reducing downtime and allows pump to cope with a higher level of abuse.
- 9 Heavy duty shafts for high pressure capability.

Pump series HY~LINE & HY~LINE+

Characteristics

The Hy-line & Hy-line+ series are perfectly cleanable with a rotor case that promotes self-drainage. Specific variants for special applications are available.



Seal options

- Front loaded single mechanical seals of hygienic design. (Carbon, stainless steel and silicon carbide).
- Low pressure flushed seals utilize the same single mechanical seal with an additional housing. A low pressure flush liquid washes away crystallizing products or liquids which 'skin over'.
- Double mechanical seals utilizing all the components from single seals. (For hazardous, toxic, highly abrasive or sterile products).
- Front loaded single O-Ring seals (low cost seal option for self-lubricating products/non-abrasive products).
- Front loaded double O-Ring seals - (for pressurized grease or flushing with a suitable liquid to enable low cost sealing of high sugar confectionery and bakery products).

Certifications



Connections

Hy-Line+ has detachable ports for maximum flexibility in connection type and size. (Not on 3 size).

Elastomers

Nitrile, Viton, EPDM and PTFE product contact seals with FDA approval.

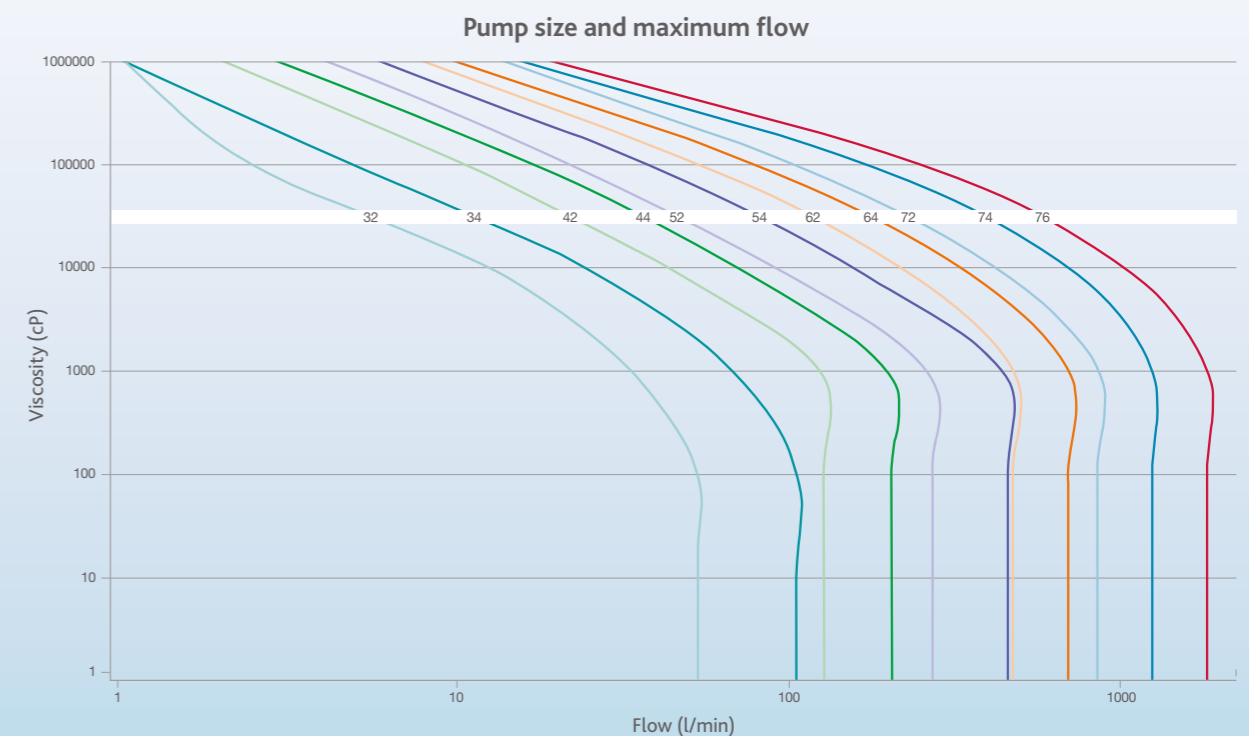
Your benefits

- The Hy-Line & Hy-Line+ series have bi-wing rotors (316L Stainless Steel) for good product handling, high efficiency, gentle pumping action, low to high viscous products, interchangeable, easy 'set-up', bi-directional operation
- Flat front covers minimize product entrapment and improve CIP
- Bolt-on feet allow vertical ports promoting self-drainage of thin liquids, encouraging product recovery and stimulating full CIP drainage
- Bearing housing and gearbox assembly: Large diameter shafts and rugged construction for long life, easy to service, bi-directional and easy external cleaning

Technical specifications

Series	HY~LINE+								HY~LINE		
Model	HP32	HP34	HP42	HP44	HP52	HP54	HP62	HP64	LH72	LH74	LH76
Port Sizes (mm)	19	25	25	38	38	50	63	76	76	125	127
Displacement (l/100 rev)	3.5	7	12.3	20.4	26.5	45.5	64	95	123	205	301.5
Max flow (l/min)	52	105	123	204	265	455	461	684	836	1230	1809
Max Pressure (bar)	15	8	15	8	15	8	15	8	15	8	5
Max Speed (RPM)	1500	1500	1000	1000	1000	1000	720	720	680	600	600
Bareshaft Weight (kg)	8	10	18	20	32	35	61	65	125	145	165
Temp (°C)	-30 to 140										
Viscosity (cP)	1 to 1 million										

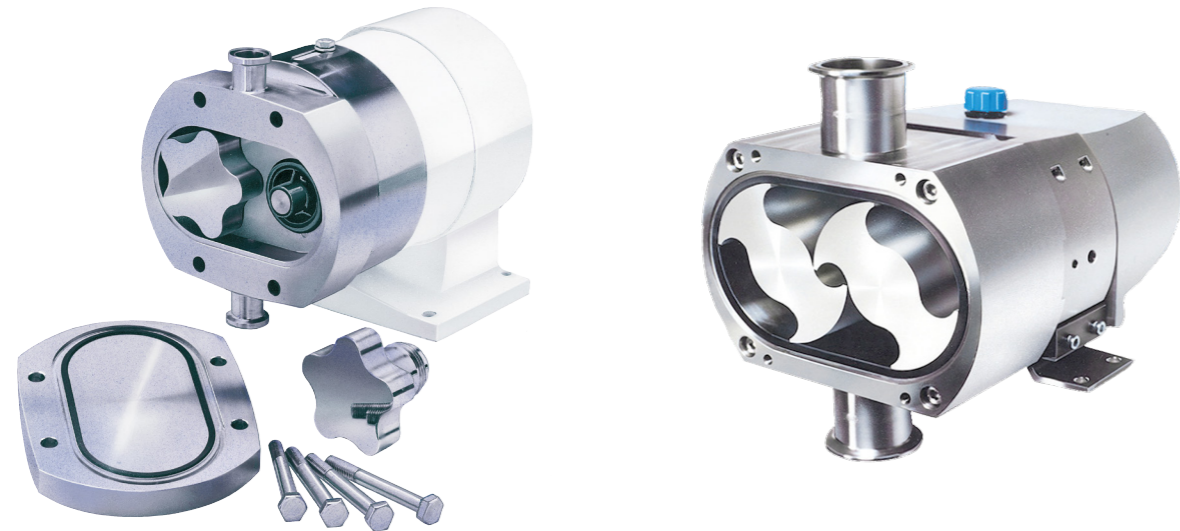
Performance curves



*For guidance purposes only. Contact Packo for a detailed proposal, tailored to your technical specifications.

Characteristics

The 55 and Ultima series are the perfect pump series for delicate, viscous and particle-laden fluids in biotechnology, pharmaceutical manufacture, high technology food processes and all applications where the very highest hygienic standards are required. Special features such as the front mounted shaft seals, the external rotor fixing, the hygienic end cover, and the gasket type joints make this pump perfectly cleanable.



Pump series 55 & ULTIMA

- Rapid de-contamination and product change-over
- Fully self-draining pump head: no hold-up of process liquid or cleaning agents
- External rotor fixing – no internal crevices
- Low-carbon 316L stainless-steel for maximum corrosion resistance
- Controlled-compression gasket-type joints and no O-rings in product contact
- Shaft seal design combines highest levels of containment with total product draining, no cavities, and front access for easy inspection and fast maintenance
- Standard surface finish: 0.5 µm (240 grit) and electropolished
- Optional steam/sterile fluid barriers on joints, for true aseptic processes
- High efficiency to minimise damage to shear-sensitive low viscosity fluids

Key features series 55 & ULTIMA

Aseptic operation

All unwanted micro-organisms are kept out of the fluid stream. This prevents spoiling of sensitive products and ensures that only the intended reactions take place in the process. High specification joints are used: Once the system has been cleaned and sterilized it will remain clean and sterilized.

High containment

Escape of pathogenic or other hazardous products is prevented by the specially developed pump head joints. Optional: steam or sterile fluid barriers.

High Hygiene

FDA and USP listed materials maintain hygiene inside and smooth contoured externals make the outside of the pump very easy to clean.

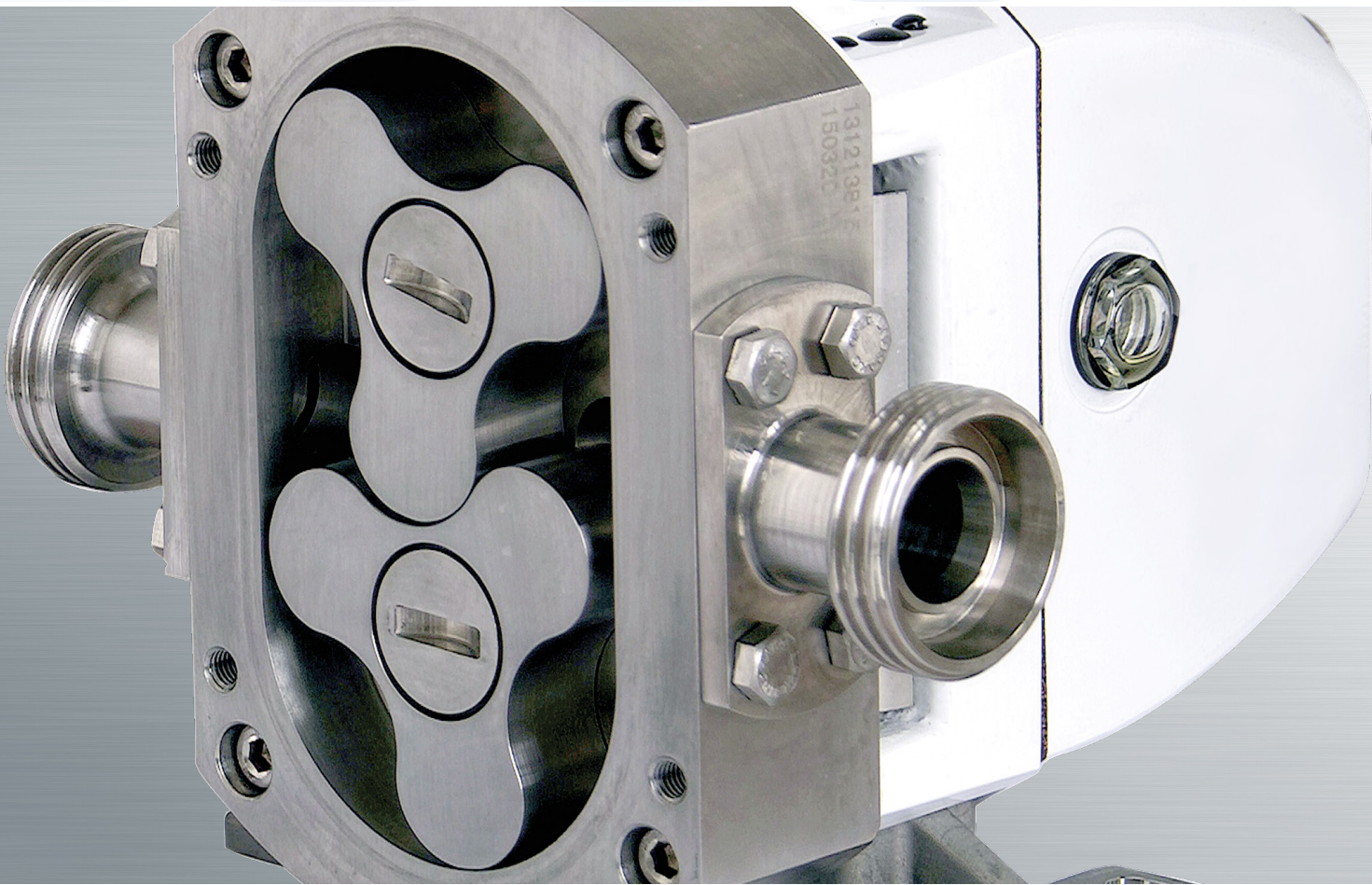
Technical specifications

Model	Series 55			Series ULTIMA					
	55210	55320	55420	LU42	LU44	LU52	LU54	LU62	LU64
Ports (mm)	12	19	25	25	38	38	50	65	80
Displacement (l/100 rev)	1.09	2.93	6.7	12.3	20.4	26.5	45.5	64	95
Max flow (l/min)	16	44	67	123	204	265	455	461	685
Max Pressure (bar)	14	20	20	15	8	15	8	15	8

Application areas for the Packo pump series

Packo rotary lobe pumps are used in a wide range of industries for hygienic applications. Varying from the pharmaceutical industry for a.o. cell slurries and bio-products, the health care industry for cosmetics and dietary products, a very broad range of applications in the food processing industry, and in the chemical industry for strong acids, emulsions and polymers.





Packo

A VERDER COMPANY

We optimize your flow

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