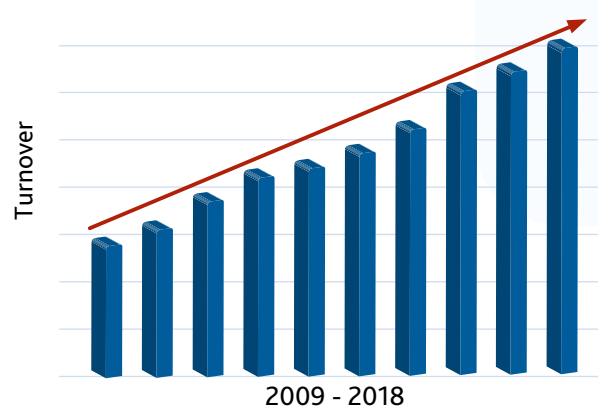


We optimize your flow

230846-ENG-091019

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

Turnover Packo Pumps from 2009 to 2018:
a steady and sustainable growth



Starting in 1975, Packo Pumps 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 Pumps belongs to the Verder group. Together we employ 1600 people worldwide spread over different production sites and sales offices. In the factory in Diksmuide we manufacture industrial pumps and hygienic 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 is actually worldwide distributed by more than 70 sales points. 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.

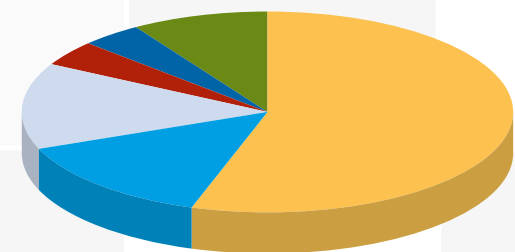
Worldwide distribution network



Our expertise in your market

On this and the following pages you will find a brief overview of the various domains in which Packo Pumps has built up considerable expertise. This overview does not strive for completeness, because each year new developments are brought into the market. Also industries in which Packo Pumps was not active before, ask us to work together to come up with new concepts and improve existing ones.

Market segmentation



- Food
- Pharma & biotech
- General industry & textile
- Animal feed
- Water treatment & biogas
- After sales service

Presence in food industry



- Brewery & beverages
- Vegetables & potatoes
- Food, dairy & derivatives
- Meat, fish, frying oil

Dairy and general food industry

Packo Pumps has unrivalled experience in this sector. E.g. we have developed the first pumps for the dairy industry and have continuously improved them with our customers. Although the industry puts high demands on the cleanability of the pumps, the standards are far exceeded by Packo Pumps. The basis for this is a well-considered design and the standard application of electropolishing as a final surface treatment. A number of EHEDG certified pumps were developed specifically for this sector. The pumps also meet European regulation 1935/2004 EC.

Typical applications:

Milk, whey, curd, brine, yeast, blood, CIP, etc.

Brewery and beverages

A perfect cleanability, high reliability, minimal product damage, low noise and extremely high pump efficiencies resulting in lower energy bills, are some of the most important properties for this field of application.

With a flow rate up to 1800 m³/h Packo Pumps offers just about the widest range of food grade pumps for this market segment. Packo Pumps is heading to become the norm in this market. The fact that the Packo pump for wine and beer filtration became a standard, is the strongest evidence for this. The pumps also meet European regulation 1935/2004 EC.

Typical applications:

Wine, beer and fruit juice filtration, gentle pumping of mash as well as handling trub, water, sugar solutions, syrups, extracts, CIP, etc.

Vegetables, potatoes, meat and fish, frying oil, ...

A significant part of our core business is realized in this sector. In this way, we may call ourselves specialists in this market segment. Whether it is about damage free pumping of potatoes, vegetables, seafood, etc. or pumping frying oil to 190 °C, in all these cases Packo Pumps provides you a reliable solution. A well thought out design ensures smooth and damage free pumping without losing track of the hygienic aspect, durability or reliability.

The pumps also meet European regulation 1935/2004 EC.

Typical applications:

Transfer and blanching of potatoes, vegetables, fish, seafood, etc.; handling brine, batter and frying oil to 190 °C.

Pharmaceutical, cosmetic, biotech and semiconductor industry

Even if the requirements are driven to extremes, Packo Pumps offers a solution. Sterile stainless steel pumps, machined to the strictest quality surface (0.4 µm as a standard), along with a package of certificates provide peace of mind to the user. Thanks to our know-how, high pump efficiency (i.e. lower energy bill), the use of specific seals - and thus a high reliability - Packo Pumps recorded a remarkable growth in this sector.

Typical applications:

Purified water, WFI, CIP, etc.

General industry and textile

Packo Pumps offers a wide range of pumps for a variety of industrial applications including dyeing of textile, galvanization and powder paint manufacturing, but also for animal feed, biodiesel, bioethanol, etc. Needless to say these pumps can be supplied in accordance to the ATEX regulations. A robust execution, ease of construction and maintenance, along with high reliability ensure that Packo pumps make the difference.

Typical applications:

Dyeing of textile and wool, surface treatment, industrial cleaning equipment, biodiesel, bioethanol, solvents, animal feed, etc.

Water treatment and biogas

Think of wastewater streams from food and pharmaceutical companies, but also of fluid treatment for gas washers, generating biogas from fruit and vegetable waste, etc. A lower energy bill, a robust execution and ease of maintenance are some typical characteristics of the Packo pumps for this market segment. This market is in rapid evolution and often appeals to the expertise of Packo Pumps for the development and improvement of their pumping plant.

Typical applications:

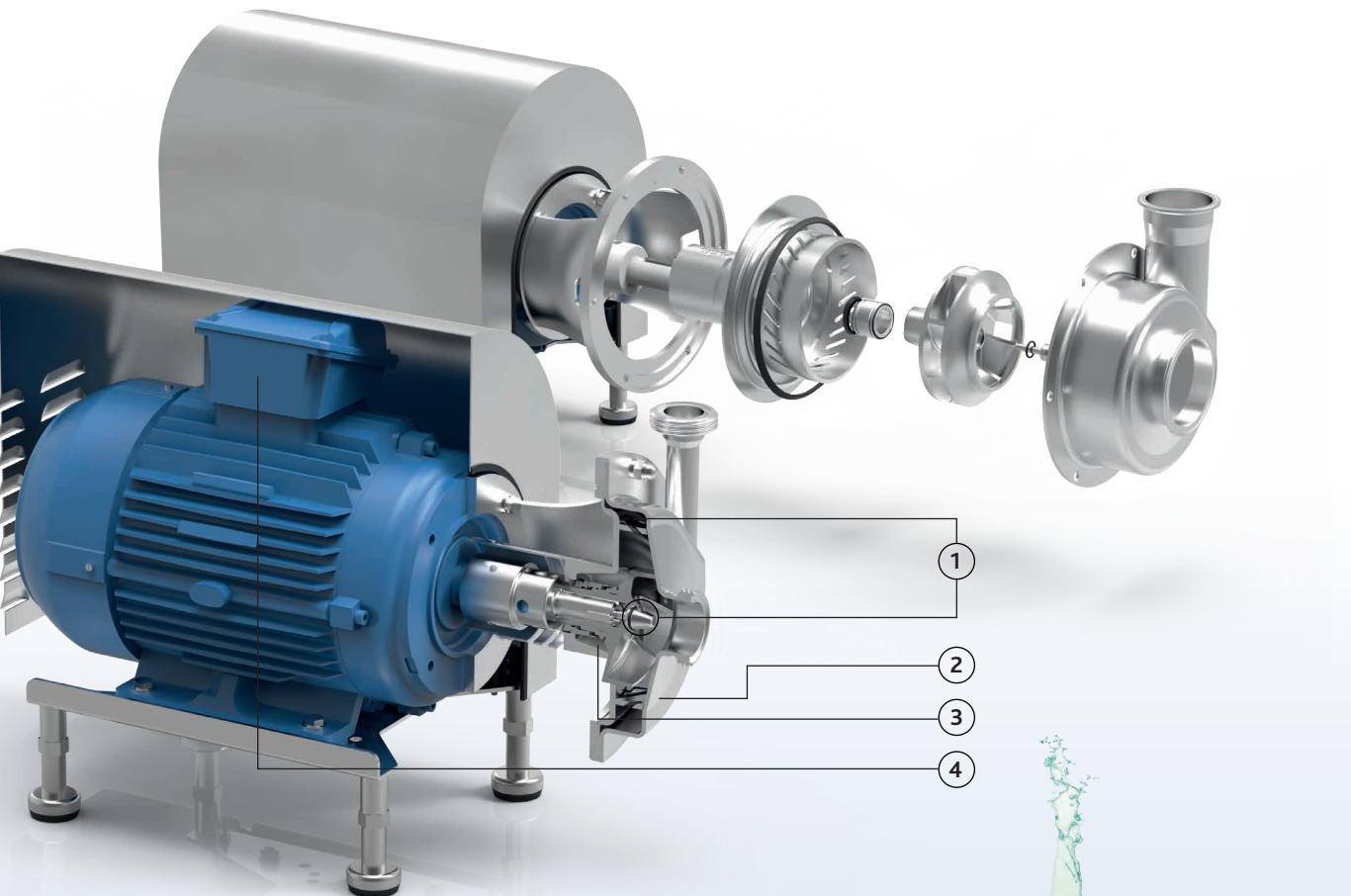
CIP waste, water effluent, water with particles and fibers, etc.

High Shear pump series SFP2 & SFP3



Characteristics

High shear pump with open or closed impeller and patented stator for high flow and pressure. The shear is generated between the rotor and an innovative and optimized perforated stator. The shear can be optimized and increased by raising the speed of rotation. Shear rates up to 100.000 s⁻¹ can be achieved at a maximum speed of 3600 rpm.



SFP2 & SFP3

- 1 Electropolished, easy to clean construction, no bacteria traps and no small clearances in order to clean the area around the O-ring
- 2 Pressed stainless steel in 2B quality plate, extremely smooth
- 3 Large seal cavity to clean mechanical seal properly
- 4 Monobloc execution with std. IEC motors
- 5 Standardized mechanical seals to EN 12756
FDA approved bellow mechanical seals or sterile O-ring seals (spring not in contact with the liquid)
- 6 2 seal diameters for the entire range:
- SFP2: Ø 33 mm
- SFP3: Ø 43 mm



Your benefits

- Shear rates up to 100.000 s⁻¹
- Highest efficiency on the market, energy saving
- Use of std. components
- Self pumping
- Hygienic design, so easy to clean
- Easy installation and maintenance
- Very quiet operation

Application areas

The Packo shear mixer pump is mainly used for in-line mixing, homogenisation and dispergation applications.

- Mixing of two liquids:
- with a large different specific gravity,
 - having a large different viscosity or
 - that are difficult to mix.

- Also dispersing of:
- solids in liquids and
 - dispersion of gas in liquids.

Pump series	SFP2	SFP3
Performance		
max. flow rate	80 m ³ /h	200 m ³ /h
max. differential head	45 m	55 m
max. pressure	inlet: 10 bar	discharge: 10 bar
max. shear	100.000 s ⁻¹	60.000 s ⁻¹
max. liquid viscosity	1000 cP	
max. temperature	140°C	
impeller type	open	closed
max. motor power	22 kW	45 kW
max. speed	3600 rpm	
available frequency	50/60 Hz	
Technical specifications		
materials wetted parts	stainless steel 316L or similar	
mechanical seal configuration	single, quench, double	
available material O-ring	EPDM, FKM, FEP-FKM, FFKM or similar	
connections	hygienic fittings	
surface finish	hygienic quality, internal welds hand polished + electropolished (wetted 0.8 µm - impeller 3.2 µm)	
certificates & legislation		

Performance curves at 2900 rpm

SFP2 & SFP3

