

Packo

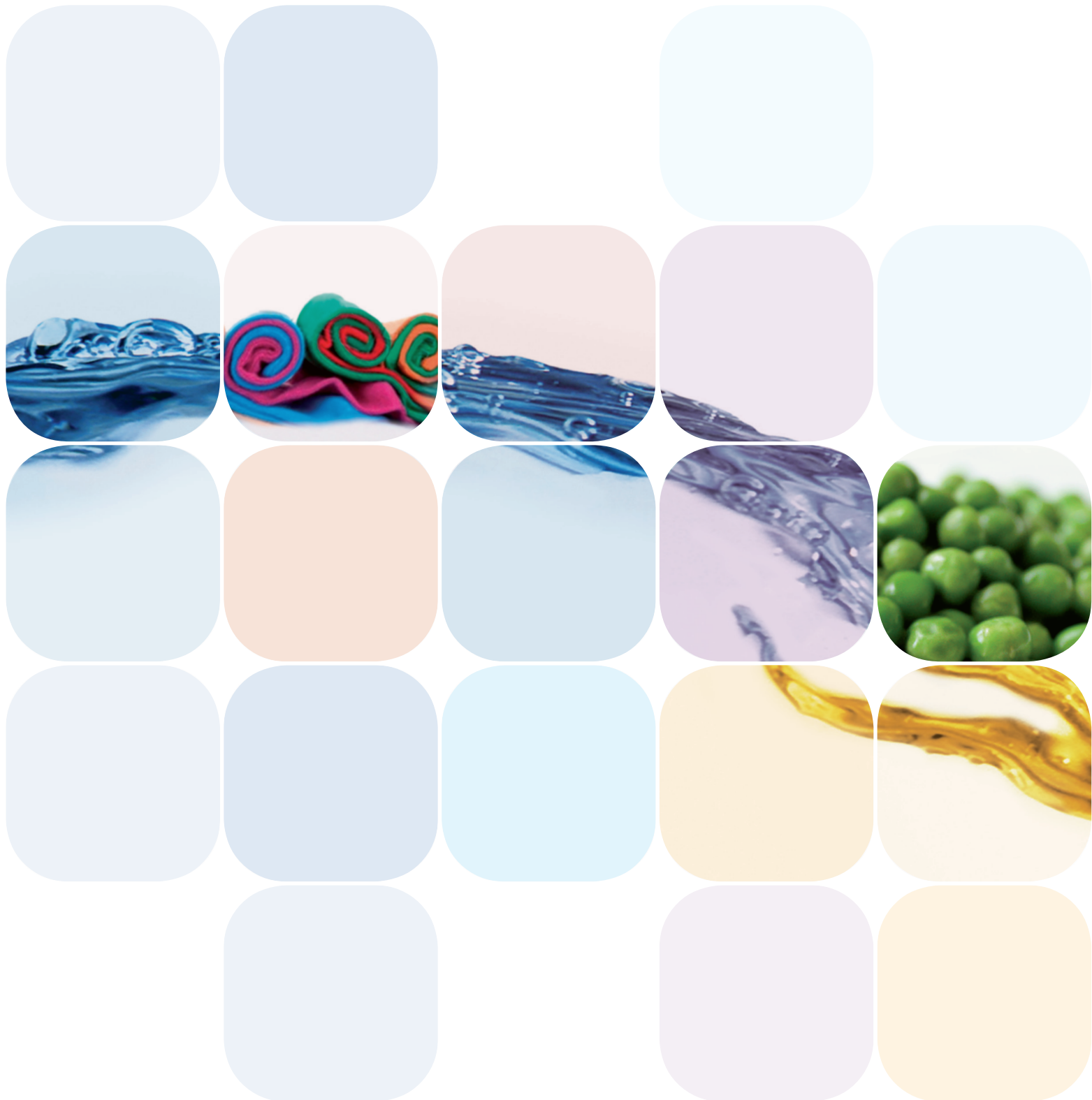
We optimize your flow



A **VERDER** COMPANY

www.packopumps.com





We optimize your flow

The importance of good functioning pumps in industrial processes cannot be neglected. The continuation of the production substantially depends on the operational safety and robustness of the pumps.

But also the food safety and as a consequence the cleanability are of major importance. Furthermore energy efficiency, so your electricity cost, becomes a distinctive factor more often.

As you will discover at a later stage in this brochure, Packo Pumps unites an intensive know-how, with a profound knowledge of the company processes. We aim not only to improve the flow in the pump but also the cleanability, reliability and energy efficiency.

Whether it is the most hygienic applications, pumping contaminated liquids or pumping vegetables, mash or curd without damage, Packo Pumps is the reliable partner for improving the overall business process.

"We optimize your flow" is not an empty slogan but a mission that all our staff is aware of.



Packo Pumps

wants to be the strongest link in the chain

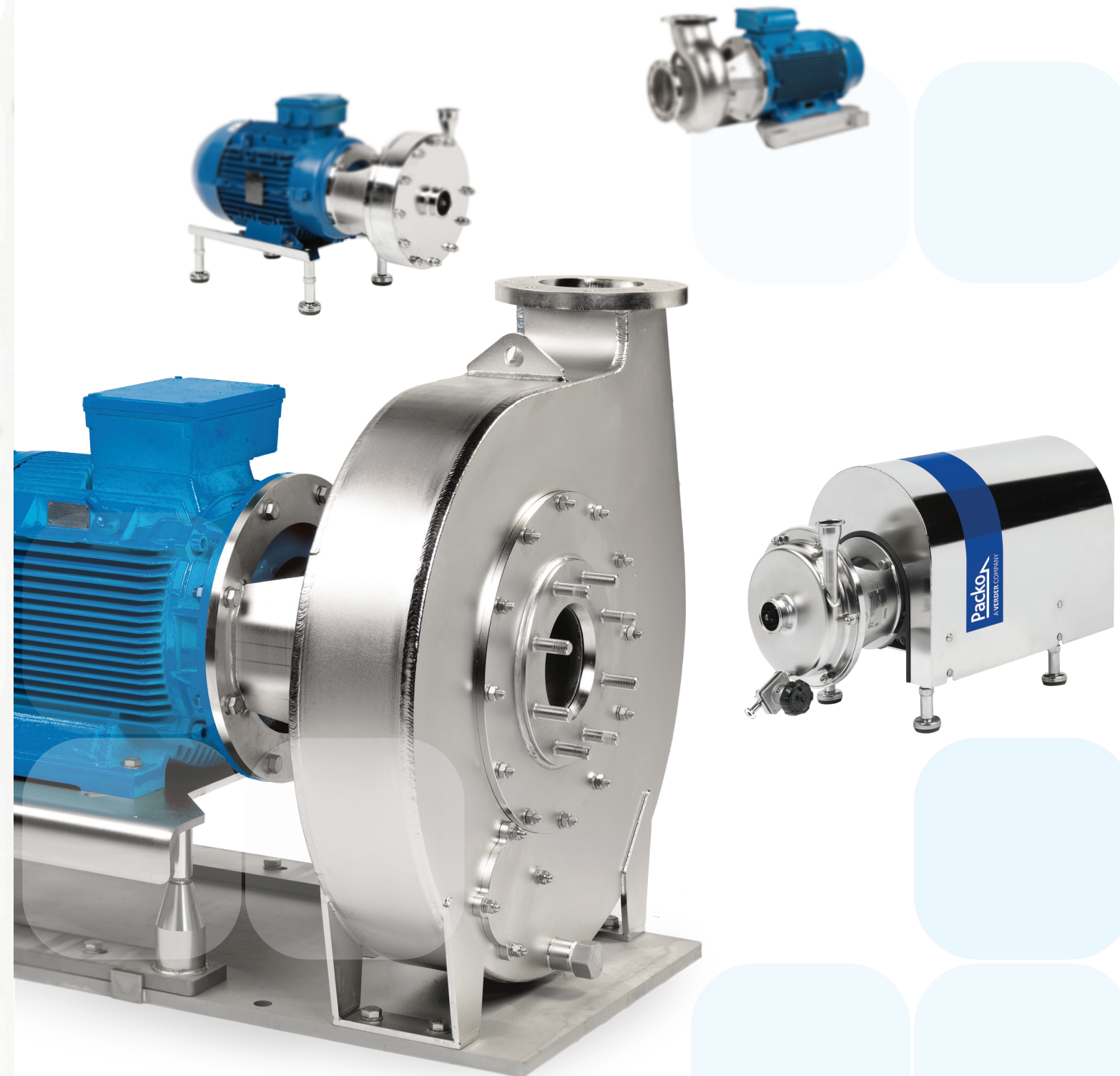
Suppliers of machines and equipment for the food and other highly demanding industries are under increasing pressure. Whether it involves R&D and design engineers at industrial equipment manufacturers or project engineers involved with the installation of a new production line, they all face similar challenges. On the one hand they are trying to increase the production capacity of their clients while optimizing their own processes and reducing costs. On the other hand, on behalf of their clients they are under increasing social and legal pressure to comply with the stringent hygiene standards and reduce their environmental burden (energy, water, waste, etc.). Packo Pumps wants to help by offering pumps and services that perform better in all these areas, so that the companies who work with Packo Pumps can cope with the future challenges. Packo's ambition is to be the strongest in the chain of business processes.

Packo Pumps core values

- Trustworthy
- Result oriented
- Passionate

Markets in which we are at home

- Agriculture
- Animal feed
- Beverages
- Breweries
- Chemical industry
- Cosmetics
- Dairy industry
- Energy saving solutions
- Environmental solutions
- Fish
- Pharmaceutical industry
- Textile
- Vegetables
- Water treatment
- And a lot more...



Worldwide distribution network



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

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.

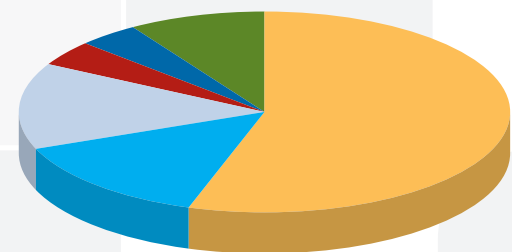
Since the summer of 2015 Packo Pumps belongs to the Verder group. Together we employ 1600 people worldwide spread over different production sites and sales offices. In the factory in Diksmuide we manufacture industrial pumps and hygienic components. There is also an electropolishing division which gives 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.



Our expertise in your market

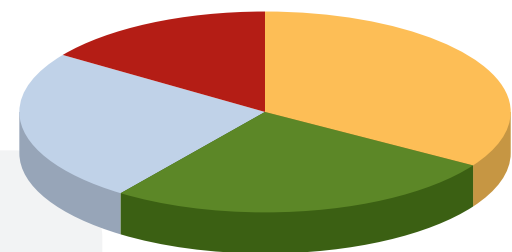
On this and the following pages you will find a brief overview of the various domains in which Packo Pumps has built up considerable expertise. This overview does not strive for completeness, because each year new developments are brought into the market. Also industries in which Packo Pumps was not 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

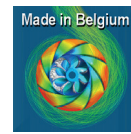
Think of wastewater streams from food and pharmaceutical companies, but also of fluid treatment for gas washers, generating biogas from fruit and vegetable waste, etc. A lower energy bill, a robust execution and ease of maintenance are some typical characteristics of the Packo pumps for this market segment. 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.



Perfectly cleanable construction. EHEDG and 3A certificate available for food pumps, pharmaceutical pumps and also for CIP return pumps.



Standard product designed by a team of engineers by using the most sophisticated software such as CFD (Computational Fluid Dynamics).

Easy, modular, maintenance friendly and robust concept.

Where Packo pumps make the difference

Packo pumps perform better in many ways than their competitors. The design, choice of materials, service, knowledge of the market and a high level of finishing make this difference. These are some distinctive features that make our competitors jealous.



Hydraulic high quality product with the highest pump efficiencies and lowest NPSH values. Lower energy bills thanks to Packo Pumps!

All pumps are electropolished, which provides an increased resistance against corrosion and improved cleanability. Additionally, this also ensures a better visual effect.

Standardized motor dimensions to IEC. Available in accordance with local motor laws.



Standardized mechanical seals to EN12756. Limited number of dimensions for the full Packo pump range.



Before shipping all pumps are subjected to a thorough automated testing procedure. Performance and hydrostatic pressure tests, as well as a vibration test and control of the main dimensions are part of the standard test procedure. 100% final inspection!

ISO 9001:2015
ISO 14001:2015



Thanks to the expertise of Packo Pumps in the field of centrifugal pumps, but also in terms of process knowledge, we strive for the best possible solution for your system. Support in your pump selection thanks to CAPDATA (Computer Aided Pump Selection Program).



According to applicable standards and legislations, particularly within Europe, but also outside.

Our wide range of stainless steel pumps

Standard Packo pump range

General industrial pumps



Pump Series NP60

Low cost industrial stainless steel centrifugal pump. Energy saving thanks to high efficiency. Easy concept and maintenance.

- Max. flow up to 40 m³/h
- Max. head 27 m
- Motor power up to 2.2 kW

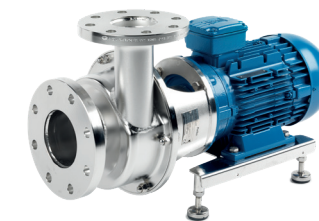


Pump Series ICP2 & ICP3

Robust execution in pressed stainless steel 316L. High efficiency and very low NPSH. Modular concept composed with standard components. Easy maintenance.

Available with hygienic fittings, pump series ICP+.

- Max. flow up to 320 m³/h
- Max. head. 220 m
- Motor power up to 90 kW



Vortex Pump Series IFF & MFF

Stainless steel vortex pump with recessed impeller. Ideal as a process pump for pumping liquids with a significant proportion of solids and / or long fibers. Available with hygienic fittings.

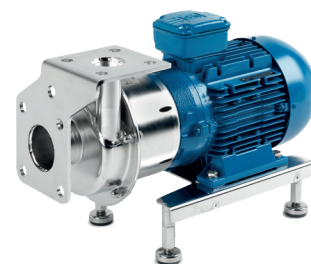
- Max. flow up to 750 m³/h
- Max. head 35 m
- Motor power up to 250 kW



Pump Series NMS

Multistage pump in an industrial design. Ideal for moderate flow rate and high pressures.

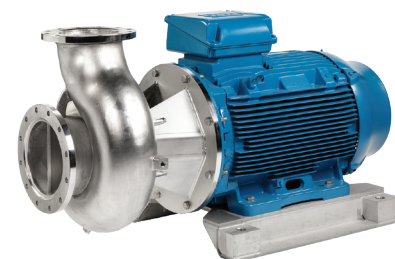
- Max. flow up to 50 m³/h
- Max. head 215 m
- Motor power up to 45 kW



Pump Series ICP1

The best 'value for money' industrial stainless steel centrifugal pump. Energy-saving with high efficiency. Modular concept built up with standard components. Easy maintenance.

- Max. flow up to 55 m³/h
- Max. head. 37 m
- Motor power to 5.5 kW



Pump Series MCP2 & MCP3

Robust design in cast stainless steel 316L. Extremely efficient thanks to optimum pump hydraulics. Modular concept composed with standard components. Easy maintenance.

- Max. flow up to 1800 m³/h
- Max. head 75 m
- Motor power up to 250 kW



Duplex Pump Series MWP2

Robust execution in wear resistant duplex material. Ideal for pumping erosive / abrasive products.

- Max. flow up to 50 m³/h
- Max. head 60 m
- Motor power up to 11 kW



Pump Series IPP2

High pressure pump suitable for system pressures up to 40 bar! Made of solid, machined stainless steel 316L. Especially for use in reverse osmosis applications. Available with hygienic fittings.

- Max. flow up to 110 m³/h
- Max. head 110 m
- Motor power up to 22 kW

General industrial pumps



Airhandling Pump Series IRP

Industrial air handling pump for CIP return applications as well as for truck and tank unloading, etc. High efficiency and low NPSH in comparison with a classic liquid ring pump.

Limited noise level.

Easy maintenance.

Available with hygienic fittings, pump series IRP+.

- Max. flow up to 150 m³/h
- Max. head 75 m
- Motor power up to 22 kW



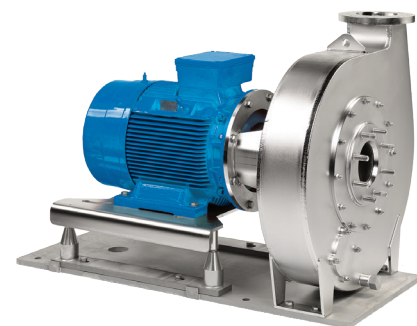
Selfpriming Pump Series MSP2

Robust execution in cast stainless steel 316L. Suitable for CIP return, truck unloading etc.

Ideal for pumping air containing liquids.

Available with hygienic fittings.

- Max. flow up to 70 m³/h
- Max. head 30 m
- Motor power up to 11 kW



Pump Series VPCP

Product pump in stainless steel AISI 304.

Thanks to its specially designed vane and large pump casing this pump is extremely suitable for soft and damage free pumping of e.g. potatoes, vegetables, mussels, shrimp, etc.

Extreme large passage.

Available up to outlet DN 250.

- Max. flow up to 1000 m³/h
- Max. head 20 m
- Motor power up to 55 kW
- Max. free passage 213 mm



Submersible Pump Series IML & IMXL

Available as cantilever pump series IML without mechanical seal or support bushing for insertion length of 0.5 m.

With support bushing for series IMXL with insertion length up to 1.5 m.

Particularly suitable for pumping liquids that are difficult to seal, such as paints, varnishes, galvanic coatings, hot frying oil, etc.

- Max. flow up to 1000 m³/h
- Max. head 60 m
- Motor power up to 132 kW

General industrial pumps



Pump series IMO

Cantilever IMO pump series designed specifically for pumping hot frying oil to 190°C.

Reliable design for handling hot frying oil as well as for handling aggressive cleaning liquids!

- Available up to 1000 m³/h
- Max. head 60 m
- Motor power up to 132 kW

Standard Packo pump range

Hygienic pumps



Pump Series FP60

Low cost hygienic pump executed in pressed stainless steel.

Energy saving thanks to high efficiency.

[Easy concept and maintenance.](#)

- Max. flow up to 40 m³/h
- Max. head 25 m
- Motor power up to 2.2 kW



Pump Series FP2 & FP3

Robust executed hygienic pump in stainless steel 316L. Energy saving and very low NPSH.

Modular concept composed with standard components.

[Easy maintenance.](#)

- Max. flow up to 320 m³/h
- Max. head 220 m
- Motor power up to 90 kW



Pump Series FP1

The best 'value for money' hygienic stainless steel centrifugal pump.

Energy-saving with high efficiency.

Modular concept built up with standard components.

[Easy maintenance.](#)

- Max. flow up to 55 m³/h
- Max. head 40 m
- Motor power to 5.5 kW



Pump Series FP2+

Robust hygienic pump in stainless steel 316L.

Energy saving and very low NPSH.

Modular concept built up with standard components.

[Easy maintenance.](#)

- Max. flow up to 110 m³/h
- Max. head 110 m
- Motor power up to 45 kW

Hygienic pumps



Pump Series MFP2 & MFP3

Hygienic execution in cast stainless steel 316L.

Extreme energy saving thanks to optimum pump hydraulics.

Modular concept composed with standard components.

[Easy maintenance.](#)

- Max. flow up to 1800 m³/h
- Max. head 70 m
- Motor power up to 250 kW



Pump Series FMS

Hygienic executed multistage pump.

[Ideal for working at moderate flow rate and high pressures.](#)

- Max. flow up to 50 m³/h
- Max. head 215 m
- Motor power up to 45 kW



Pump Series FPP2 & FPP3

Hygienic high pressure pump suitable for system pressures up to 40 bar!

Made of solid, machined stainless steel 316L.

[Especially for use in reverse osmosis applications.](#)

- Max. flow up to 200 m³/h
- Max. head 110 m
- Motor power up to 45 kW



Pump Series CRP

[CIP return pump.](#)

Unique air handling concept. High efficiency and low NPSH in comparison with a classic liquid ring pump.

[Limited noise level.](#)

[Easy maintenance.](#)

- Max. flow up to 120 m³/h
- Max. head 70 m
- Motor power up to 22 kW

Standard Packo pump range

Pharmaceutical pumps

Hygienic pumps



Pump Series CRP+

CIP return pump.
Unique air handling concept.
Limited noise level.
Easy maintenance.

- Max. flow up to 80 m³/h
- Max. head 70 m
- Motor power up to 22 kW



Pump Series GFP

Hygienic multi-phase pump. Combination of a standard centrifugal pump and a liquid ring pump both mounted together on 1 motor and 1 shaft.
Ideal for foaming liquids and (viscous) liquids containing gas.

- Max. flow up to 400 m³/h
- Max. head 30 m
- Motor power up to 45 kW



Pump Series PHP2

Construction in line with ASME BPE guidelines.
Parts in contact < 0.4 µm.
Material certificates and factory declarations.
Energy saving and very low NPSH.
Modular concept composed with standard components.
Easy maintenance.
Suitable for SIP.
Special seal configurations possible.

- Max. flow up to 100 m³/h
- Max. head 110 m
- Motor power up to 45 kW



Pump Series PRP2

CIP return pump / scavenge pump.
Parts in contact < 0.4 µm.
Material certificates and factory declarations.
Unique air handling concept.
High efficiency and low NPSH in comparison with classic liquid ring pump.
Limited noise level.
Easy maintenance.
Special seal configurations possible.

- Max. flow up to 80 m³/h
- Max. head 70 m
- Motor power up to 22 kW



Pump Series MSCP

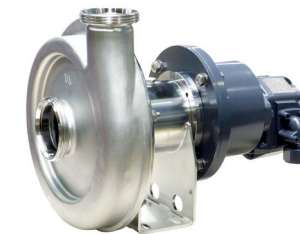
Self-priming side channel pump with exceptional suction power and air handling capacity.
Used in applications where air must be pumped in against a high back pressure in the discharge line.

- Max. flow up to 40 m³/h
- Max. head 75 m
- Motor power up to 15 kW

Packo pumps for OEMs & specific custom made solutions

Series for OEMs

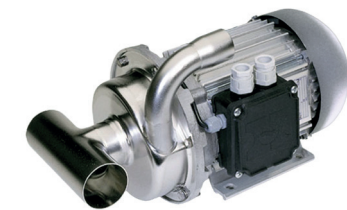
Packo Pumps offers custom made pumps for manufacturers of specific machines and installations. These pump series are based on the standard Packo pump range with options and adjustments.



Hygienic pump suitable for assembly on milk collecting trucks, built on stainless steel bearing housing. These pumps are available with hydraulic motor.



Pump executions foreseen with special motors such as stainless steel motors, motors without fan, etc.



Pump with special in- and outlet.



Coating in seal chamber for increased wear resistance.

Dispersing technologies



High Shear Pump Series SFP2 and SFP3

Based on the pump series FP2 with open impeller and pump series FP3 with closed impeller.

Specially with ANSYS CFD package designed stator (patented).

Efficiency improvement between 70 and 100% compared to current technologies available.

Very energy saving thanks to its high efficiency.

Quiet operation!

Very good cleanability.

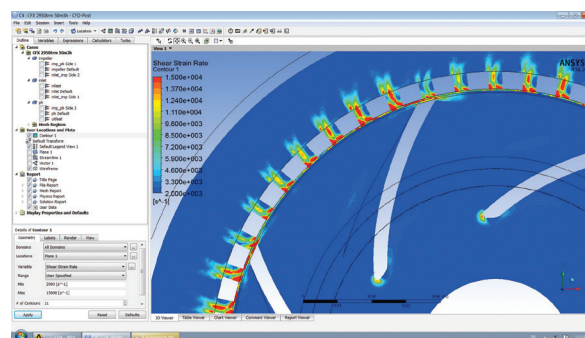
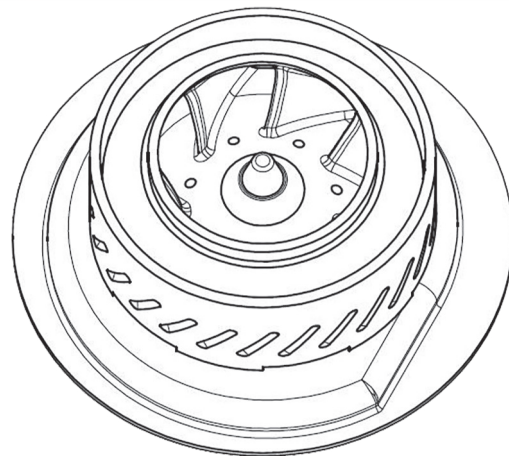
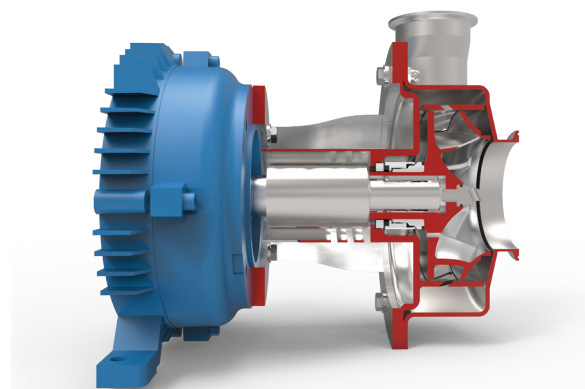
Easy installation and maintenance thanks to its user-friendly concept and the use of standardized components.

- Max. flow up to 200 m³/h
- Max. head 50 m
- Motor power up to 45 kW
- Max. shear up to 100.000 s⁻¹

Typical applications:

- Mixing of two liquids having a large different specific gravity
- Mixing of two liquids having a large different viscosity
- Dispersing of solids in liquids

Shear mixer systems are available on request!



Specific custom made solutions

Looking for a specific custom made solution for your installation? Or looking for innovative improvements for the pump technology in your machine? Packo Pumps than also is your specialist for custom made stainless steel pumps!



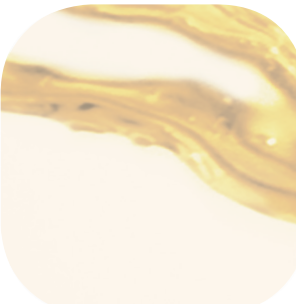
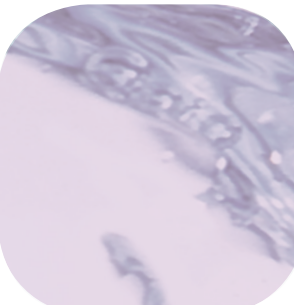
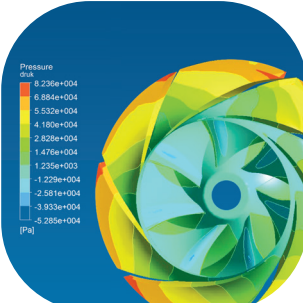
MCP pump driven by a hydraulic motor for an application within a fire brigade.

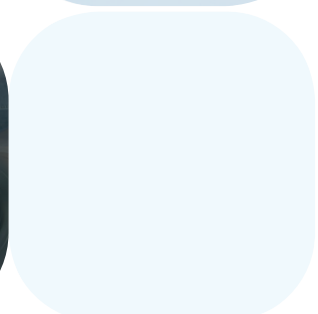
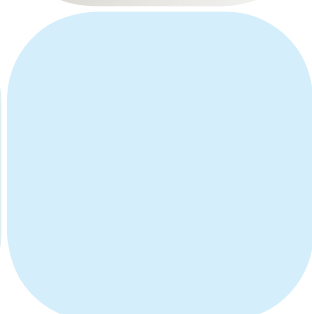
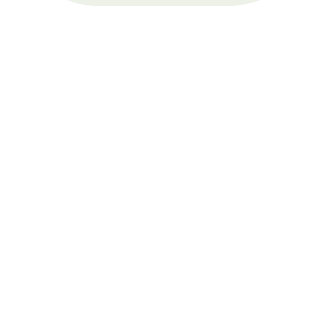
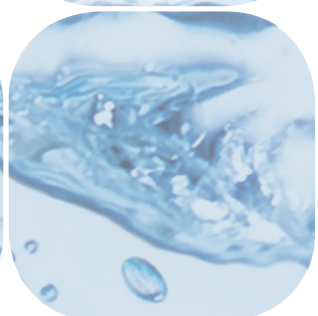


Axial pump specially designed for applications in the meat industry.



Vertical in-line pump.





Packo

We optimize your flow

A **VERDER** COMPANY

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Watch the Packo Pumps video.