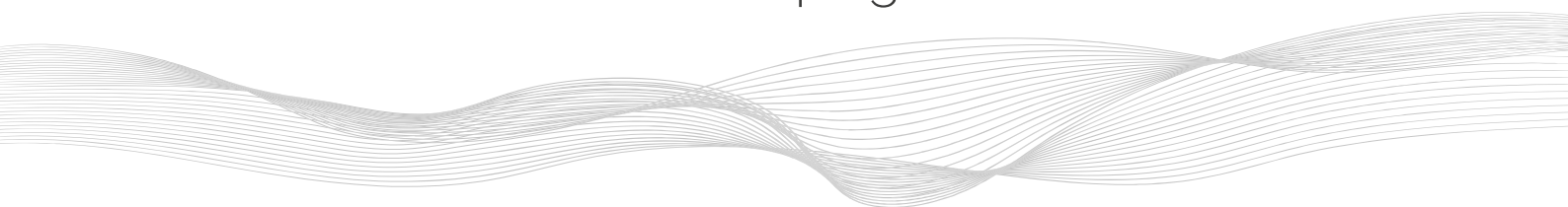
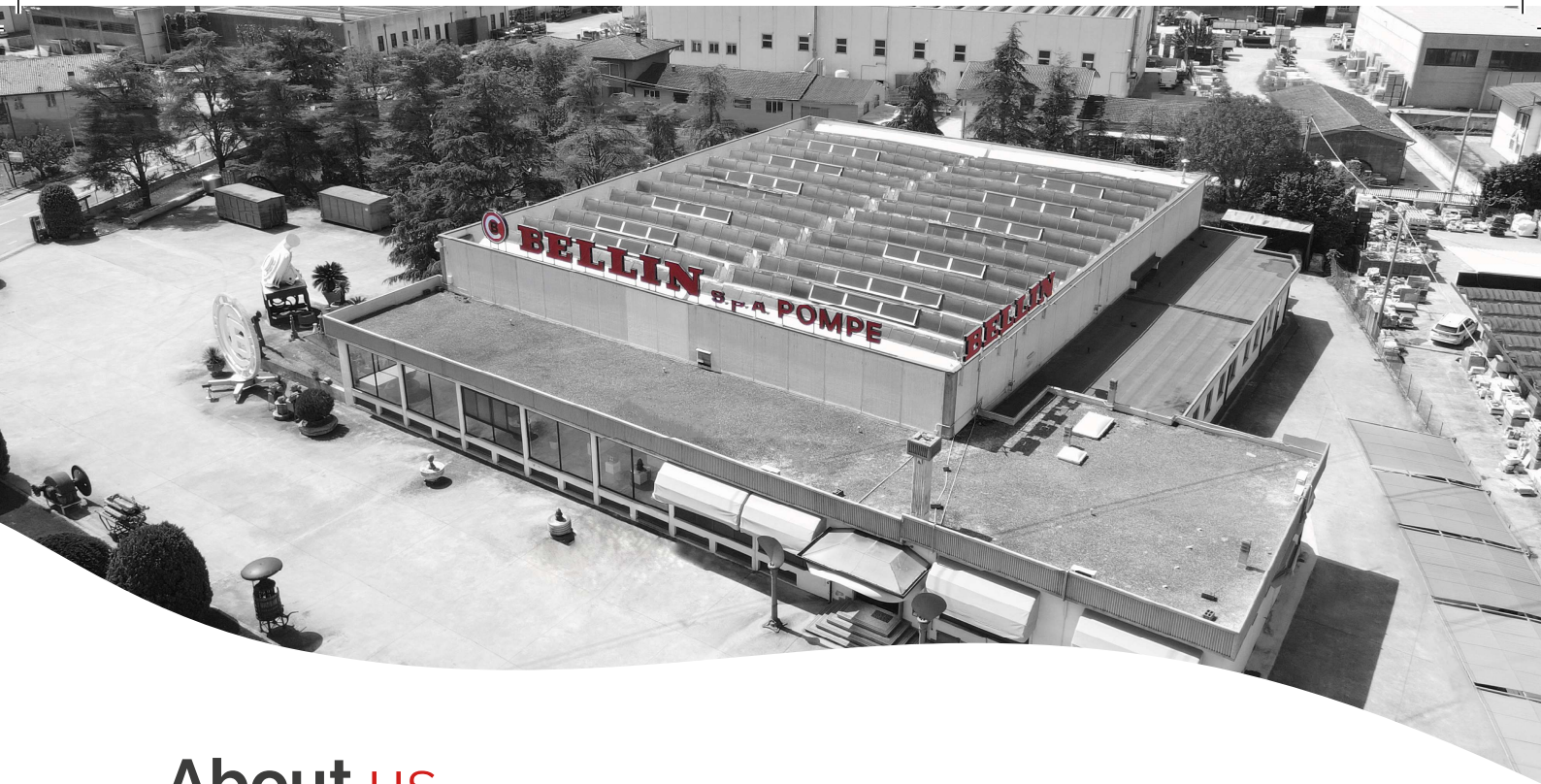


Progressing Cavity Pumps Rotary Lobe Pumps

“Global Solutions for Pumping Problems”





About us

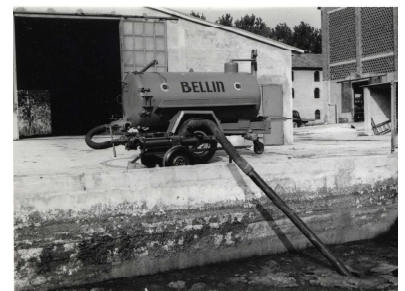
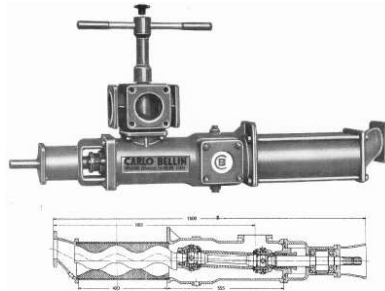
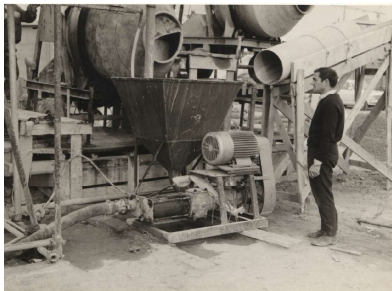
The Origins

BELLIN company was established closed to Berici Hills in Orgiano (Vicenza) in the 1950s thanks to the intuition and entrepreneurial vision of Giovanni Carlo Bellin. Initially, the company focus was the agricultural sector, with the production of tractor trailers and irrigation tankers.



Industrialization: Progressing Cavity Pumps

The real industrialization process of BELLIN took place at the end of the 1970s with the engineering and development of the progressing cavity pump (first in Italy), and the subsequent establishment of BELLIN S.p.A. From an initially agricultural application field, the company then extends its presence to industry, waste water treatment, wine and agri-food industries.



New Lobe Pumps

In the 90s the company, in search of more advanced technological innovations, designed and developed the new line of SERIES PL lobe pumps. This extension of the product range permitted to offer a wide range of solutions to various pumping problems, becoming BELLIN one of the few companies in the world to have these two types of complementary pumps.

Quality and Customer Service

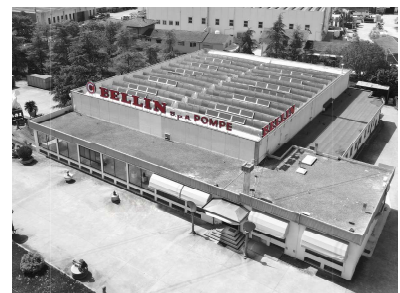
BELLIN grants a constant support to its customers to select the most suitable pump type for their specific requirements. The production process, starting from internal design, extends to the creation of every single component of the pump, with constant control of both "product" and "process" quality. The company make us of latest generation machine tools, such as Machining Center and CNC, in the different steps of the production process.

High investment in high volumes of wear parts, ensures their almost immediate availability. This approach allows BELLIN to quickly resolve its customers' problems, avoiding long and expensive plant downtime.



Company Mission

We consider ourselves and we are a family company, and we believe this is still one of our great strengths. Now, the presence of the 3rd generation in the company is a sign of continuity in the tradition, but with a view to the future.



Applications



Waste Water Treatment

To feed centrifuges, belts press, filter presses, to dose lime milk, flocculants, to convey primary sludge, digested sludge, dewatered sludge (up to a dry content solids of 30-35%), waste water and much more.



Biogas, Agriculture and Livestock

To convey digestate, corn silage and biomass, for the evacuation of animal waste from stables and much more.



Disposal and recovery of Waste Oils

For collection and transfer of waste oils from industries, workshops, commercial activities and various collection centers.
They can be installed on trucks tank disposal.



Paper, Chemical and Ceramic industries

Pumping of clay sludge, lime, ceramic slip, acids, resins, caustic soda, soda lye, sulphates, cellulose, glues, patinas, kaolin, various types of starches and much more.



Mining, Building and Drilling industries

To transfer flotation sludge, lime milk, silt, settled and clarified sludge, aggregates, flocculants, mortar, light concrete, plaster, marble mud, cement slurry, drilling cooling water, raw bentonite and much more.



Sugar Processing

To convey beet and sugar cane products, molasses, alcohol, ethanol, for extracting various juices and much more.



Oenology

To convey wine and must, to feed filters, to transfer crushed and/or fermented grapes, or even for the transfer of whole grapes.



Olive Oil industry

To feed of crushed olive paste to decanters, for transferring second extraction pomace, biogas pomace waste, olive oil.



Various industries

Pumping of many different products such as bilge water, sea water, meat and fish waste and entrails, silage, vegetable oils, blood and much more.



ATEX

To transfer products in ATEX potentially explosive environments according to directive 2014/34/EU II2GD Ex h IIB T4 Gb.

Lobe Pumps

operating principle and advantages

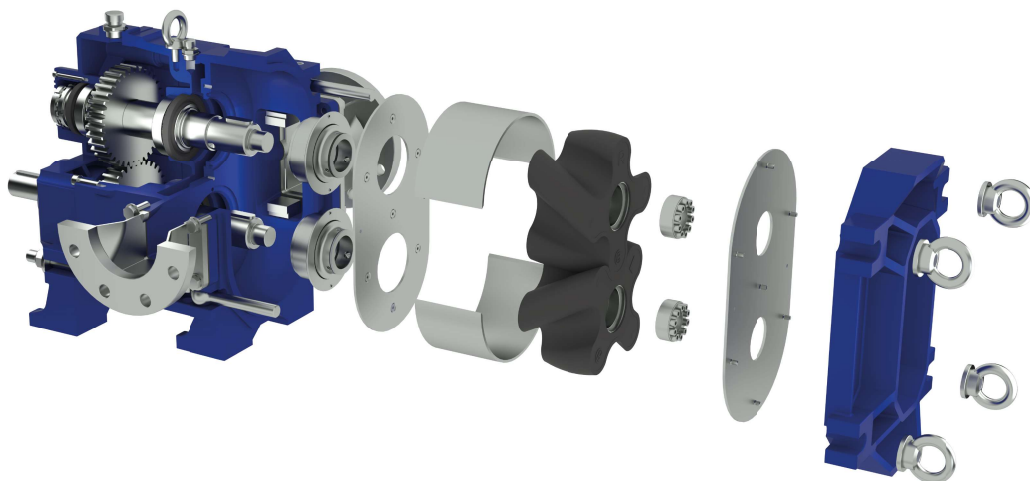


Operating principle

Lobe pumps are self priming positive displacement pumps. Operating principle consists on two synchronized counter-rotating lobes inside a pump casing.

Chambers are created between the lobe vanes and the casing surrounding them. Medium is displaced through the chambers from the inlet to the discharge side of the pump.

Through their symmetrical design, lobe pumps are reversible, allowing them to pump in both directions without restriction.



Why choose lobe pumps

Space saving

Maximum efficiency in minimal space. Their compact dimensions allow them to be installed in very limited spaces, while ensuring high performance.

High flow rate

Lobe pumps grants reach capacity up to 500 m³/h with extremely limited dimensions.

High performance

- flow rates up to 500 m³/h.
- pressures up to 8 bar.
- self-priming up to 8 meters deep.
- possible short dry running.

Easy maintenance

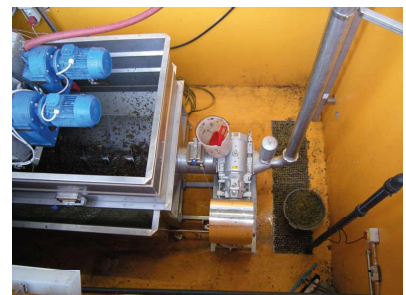
Easy maintenance without dismantling pipes. Replacement of wear parts is possible by the removable frontal cover, with immediate access to pump casing.

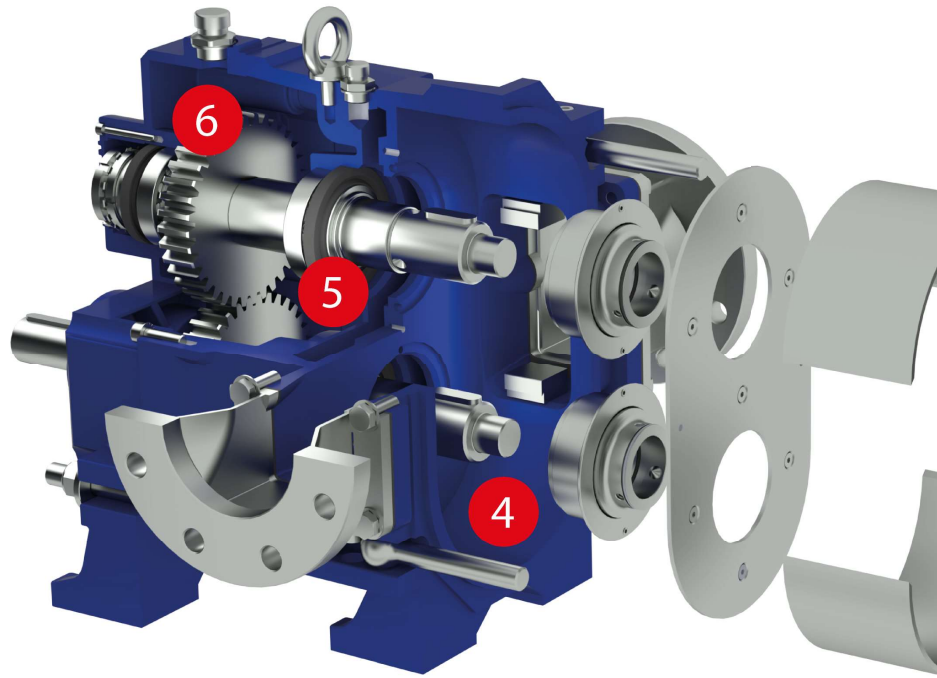
Reversible flow

The flow is reversible in both directions, therefore lobe pumps are best solutions for reversing operation.

Self-lubricated seal system

Self-lubricated mechanical seal system ensure cooling even if without pumped medium.





Technical details of lobe pump

1 Front cover

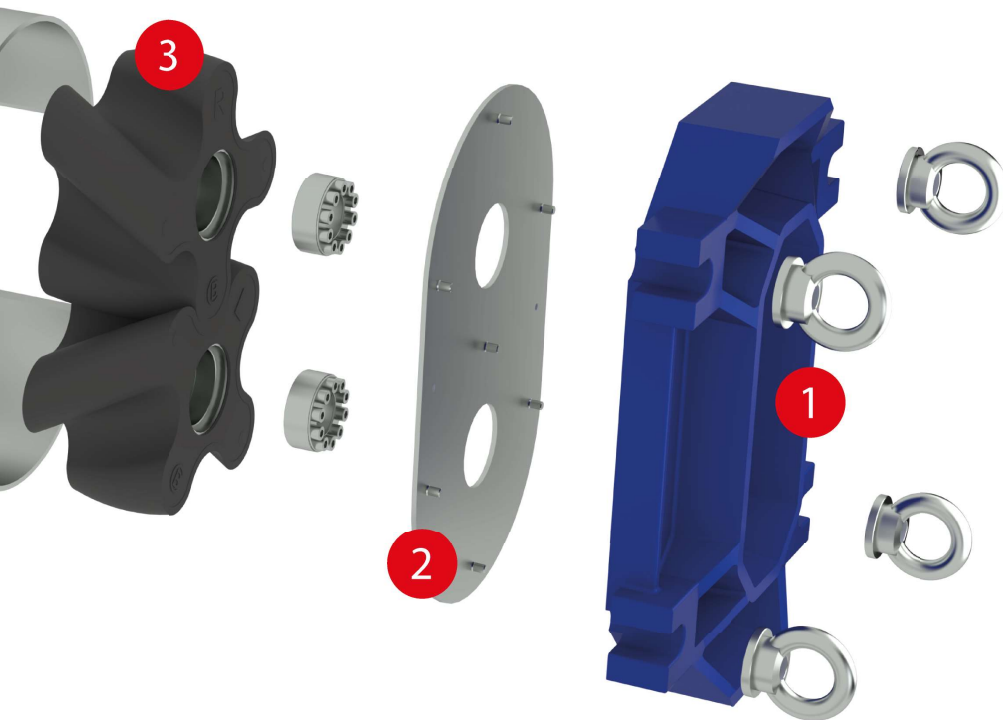
Lobes and wear plates can be easily replaced by removing the front cover, without dismantling pipe system and drive. The front cover can be supplied in cast iron or stainless steel.

2 Wear plates

Removable radial and frontal plates available in hard wear steel or AISI 316 stainless steel.

3 Lobes

Rubber coated lobes in a wide range of elastomers (NBR, EDPM, FPM). Available in linear trilobe or helical quadrilobe design.



4 Pump casing

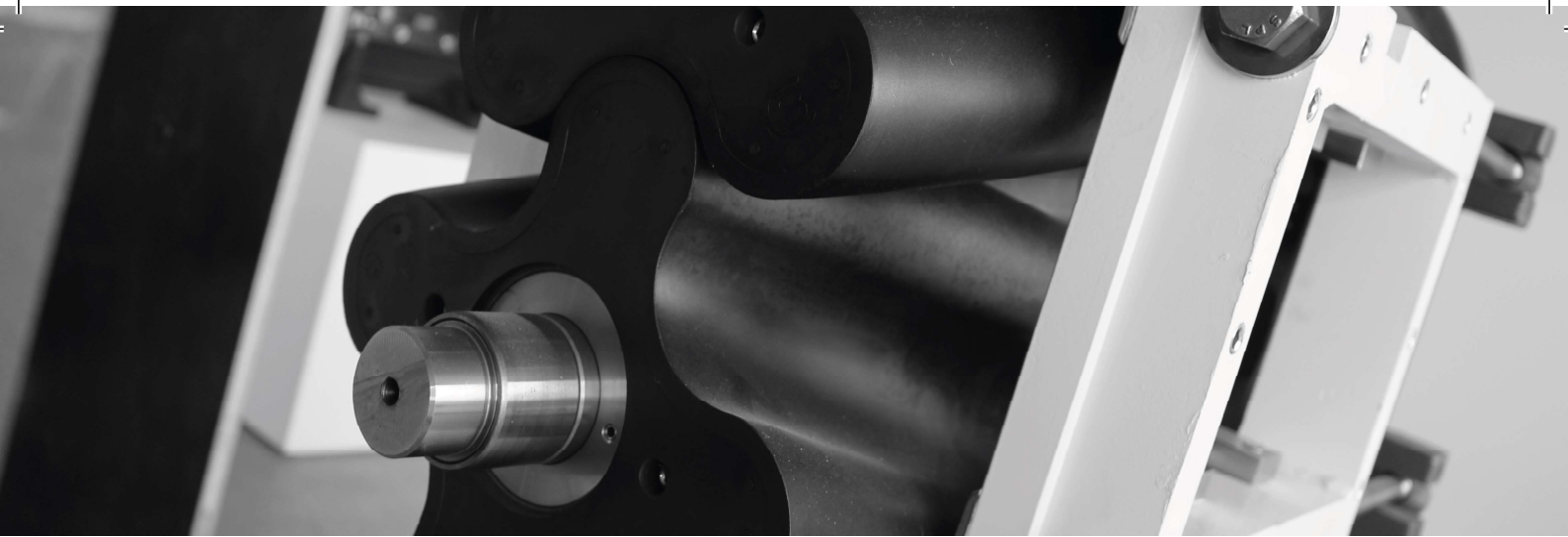
Different types of process connections are available according to international standards (EN, DIN, ANSI and others) or in special designs. The pump casing can be supplied in cast iron or AISI 316 stainless steel.

5 Shaft seals

Mechanical seals replaceable on-site without dismantling pump casing and pipes: in ceramic or tungsten carbide, oil self-lubricated system ensure the possibility of dry running operation for short periods.

6 Gearbox

Synchronised precision gears with a 1:1 ratio allow concentric counter-rotation of the lobes. Pairs of high-strength tapered roller bearings. Depending on the version, there is the option of having a separation chamber between the pump compartment and the gearbox, eliminating the possibility of any product contamination and allowing constant lubrication of the mechanical seals.



Industrial lobe pumps

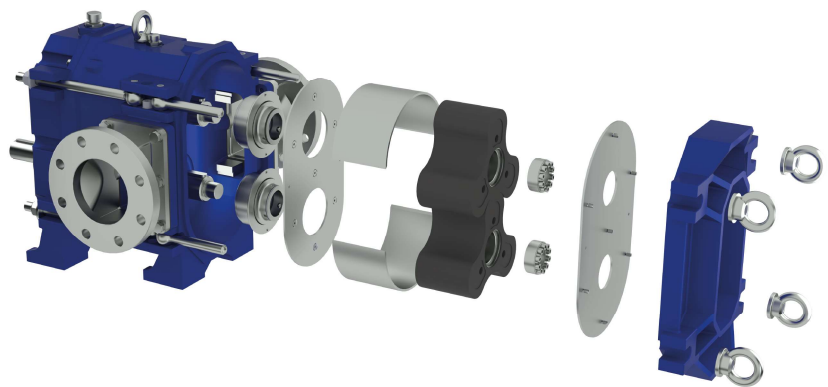
Industrial lobe pumps are the perfect solution to transfer almost any kind of fluids. The compact dimensions allow to be installed in small spaces.

High interference lobes design permits a "dry" self-priming valvless up to 7 meters deep.

Reversible sense of rotation in both directions and easy maintenance without dismantling the pipework or disconnecting the drive. Self-lubricated mechanical seals allow dry running for short periods.

SERIES PLG

linear trilobe



Applications

Applications in waste water treatment, biogas and agriculture, mining, building and drilling, waste oil disposal and recovery.

Performance

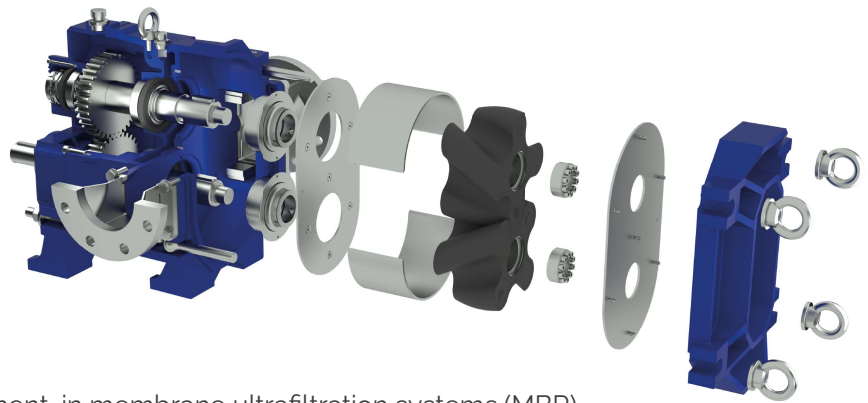
Flow rates up to 132 m³/h and pressures up to 8 bar.

Technical features

Compact dimensions space saving, easy replacement of wear parts without dismantling pipes, tolerance of dry running, self-priming valvless, reversible operation.

SERIES NPLG

helical quadrilobes



Applications

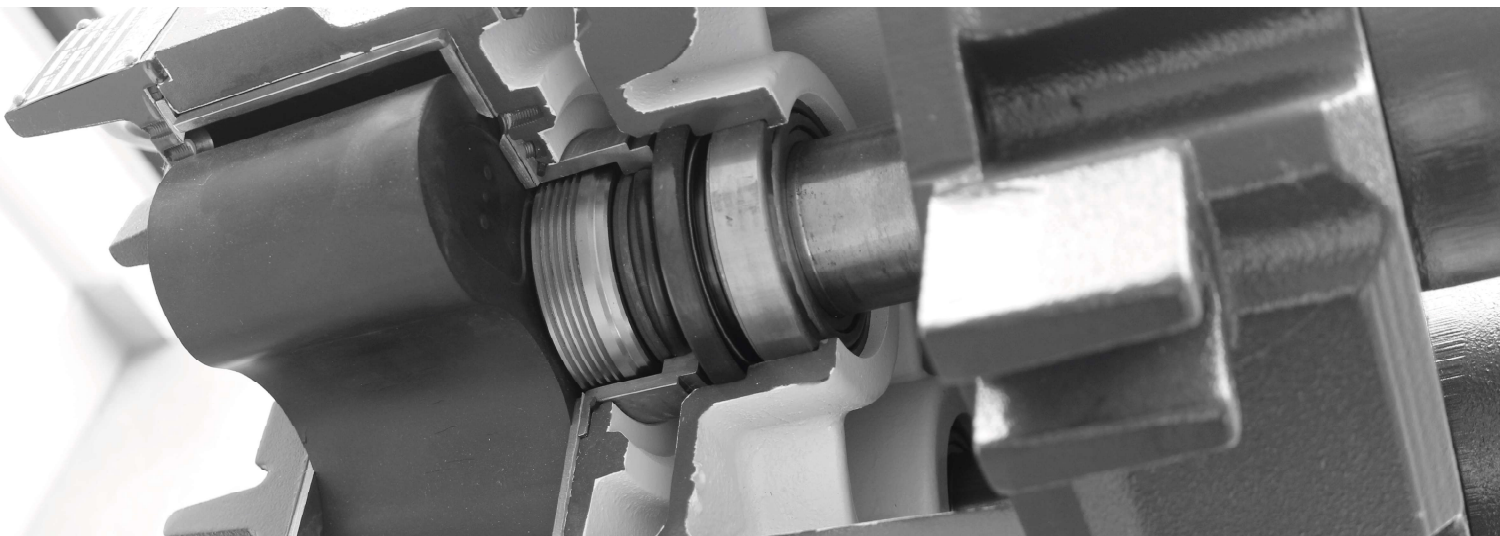
Applications in waste water treatment, in membrane ultrafiltration systems (MBR), biogas and agriculture, chemical, paper and ceramic industries, mining, building and drilling, waste oil disposal and recovery, sugar factories.

Performance

Flow rates up to 500 m³/h and pressures up to 8 bar.

Technical features

Compact dimensions space saving, easy replacement of wear parts without dismantling pipes, low pulsations design due to helical lobes geometry, tolerance of dry running, self-priming valvless, reversible operation.



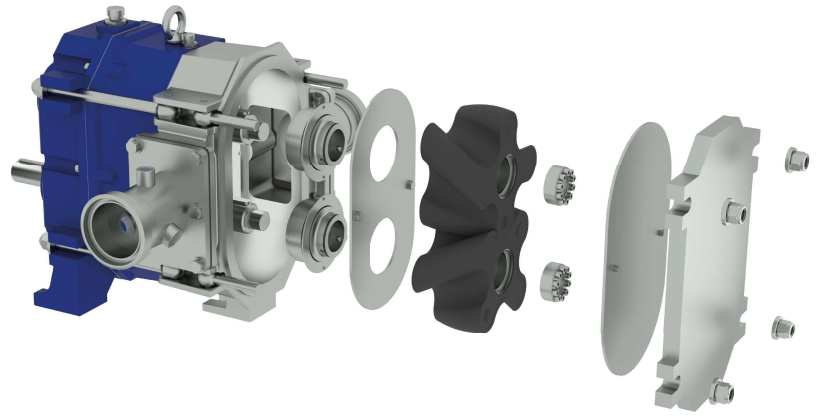
Agri-food lobe pumps

Agri-food lobe pumps SERIES NPLO and SERIES PLWX can be used to convey a wide range of liquid in wine industry and other food industries. Suitable for whole grapes, crushed grapes, fermented grapes, wine, must, olive paste, olive oil and others.

With stainless steel AISI 316 casing they find application also in waste water treatment and chemical industry.

SERIES NPLO

helical quadrilobes



Applications

Applications in wine industry, sugar refineries, waste water treatment, chemical industry, waste oil disposal and recovery.

Performance

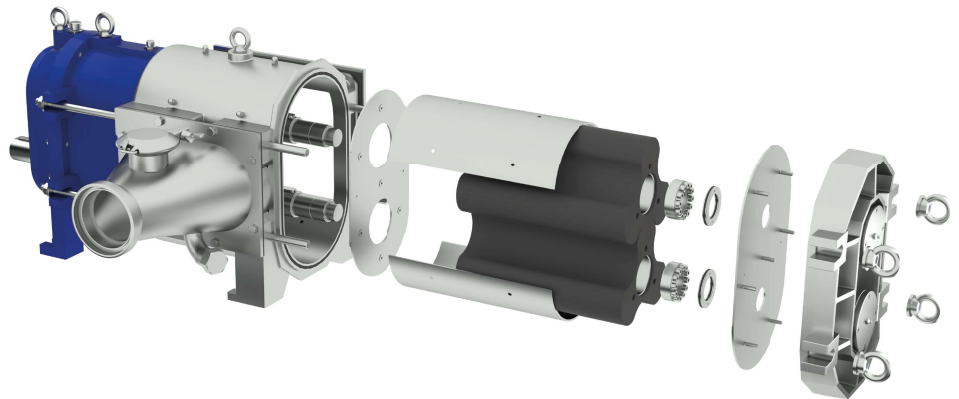
Flow rates up to 200 m³/h and pressures up to 8 bar.

Technical features

Gently transfer of medium due to low pulsations lobe design, compact dimensions space saving, easy replacement of wear parts without dismantling pipes, reversible operation.

SERIES PLWX

linear trilobe



Settori di impiego

Applications in wine industry.

Performance

Flow rates up to 140 t/h and pressures up to 3 bar.

Technical features

Gently transfer of medium, compact dimensions space saving, easy replacement of wear parts without dismantling pipes, reversible operation.

Performance of lobe pumps

With a wide range of sizes and executions, we are able to satisfy the most varied flow rate and working pressure requirements.

The greatest technical development was achieved on the SERIES NPL helical lobes, given to the requirement of high-capacity pumps from the market.

PERFORMANCE TABLE OF LOBE PUMPS PL			
MODELLO	Max flow rate @0 bar	Max pressure	Max speed
	m ³ /h	bar	r.p.m.
PL 500	35	8	550
PL 1500	80	8	500
PL 2500	132	8	500
PLWXF 4000	70	5	200
S_PLWXF 7000	140	5	200

PERFORMANCE TABLE OF LOBE PUMPS N_PL			
MODEL	Max flow rate @0 bar	Max pressure	Max speed
	m ³ /h	bar	r.p.m.
N_PL 500	34	8	600
N_PL 1500	78	8	550
N_PL 2500	130	8	550
N_PL 35	200	6	500
N_PL 50	260	5	450
N_PL 70	350	3	450
N_PL 100	500	5	450

Accessories for lobe pumps

Lobe pumps can be equipped with various accessories that guarantee high operating safety, avoiding costly and inconvenient plant downtime.

- **Temperature sensor** in the pump housing to avoid long periods of dry running;
- **Temperature sensor** in the gearbox;
- **On-board frequency converter** for independent management of pump speed;
- **"External" mechanical seal** to avoid contact with medium that tend to crystallize or stick, with external control tank;
- **Oblique suction/outlet connections;**