



NOVAlobe

SANITARY ROTARY LOBE PUMPS



REVOLUTIONARY DESIGN FOR VISCOUS MEDIA

Grundfos adds rotary lobe pump to its sanitary range.

The NOVALobe range is specifically designed for viscous media – and for applications where gentle pumping or dosing is required.

NOVALobe is part of a complete range of sanitary pumps from Grundfos.

Hygienic design

The NOVALobe pumps are designed to meet the strictest hygienic requirement on the market today - and in the future.

The NOVALobe were designed on the basis of the recommendations laid down in the 3A sanitary standard, the QHD and the recommendations of the European Hygienic Engineering Design Group (EHEDG).

Robustness

All pumps are designed with an optimum for robust construction, minimising the shaft overhang and any play in the pump.

All pumps are designed for differential pressure up to 16 bar, which minimises the risk of galling to an absolute minimum.

Unique rotor mounting design

Special unique designed rotor mounting arrangement, incorporating precision ground cylinders as drive and rotor location device.

This makes the connection between the rotor and the shaft very accurate and eliminates any play.



Service-friendly

The NOVALobe pump is designed to minimise downtime for easy service. The seal is front-loaded and mounted on a replaceable shaft sleeve in a cartridge arrangement. The cylinders in the rotor also ensure that the rotor fits the shaft in only 1 position. Adjustable feet in height also make installation easy.

Flexibility

The flexibility of the NOVALobe remains unmatched. You can combine the standard component to customise the pump to meet every requirement.

Applications

Food and beverage

- Dairy industry (e.g. yoghurt, butter, cheese curd)
- Food processing plants (e.g. sauces, soups, dressings)
- Soft drink applications (e.g. syrup, juice concentrate)
- Confectionary and sugar (e.g. jam, caramel, chocolate)
- Meat industry (e.g. meat, sausage meat, pet food)
- Brewery industry (e.g. yeast)

Pharmaceuticals, biotechnology and personal care

- Pharmaceuticals (e.g. fermentation, glucose, emulsions, blood products)
- Biotechnology (e.g. enzymes, bacteria)
- Personal care (e.g. soap, shampoo, toothpaste, lotion, cosmetics)

Other industrial applications

- Paper (e.g. coating, polymer dosing)
- Textile industry (e.g. textile dye)
- Chemical industry (e.g. paint, wax, oil, glycerine, paraffin, rubber additive)



CUSTOMISED SOLUTIONS

NOVAlobe

with geared motor on a folded base plate.
Other base plate on request.

Option Bare shaft pump without geared motor.



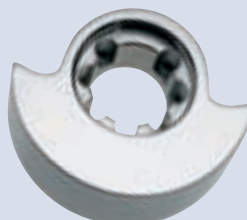
Horizontally and vertically mounted ports

The NOVAlobe pump can be installed both vertically and horizontally depending on your system, - however, mounted vertically, the pumps comply with sterile specifications to ensure full drainability.

ROTOR DESIGNS

Uni-wing rotors

offer particular advantages for gentle solids handling and doughy products.



Standard bi-wing rotors

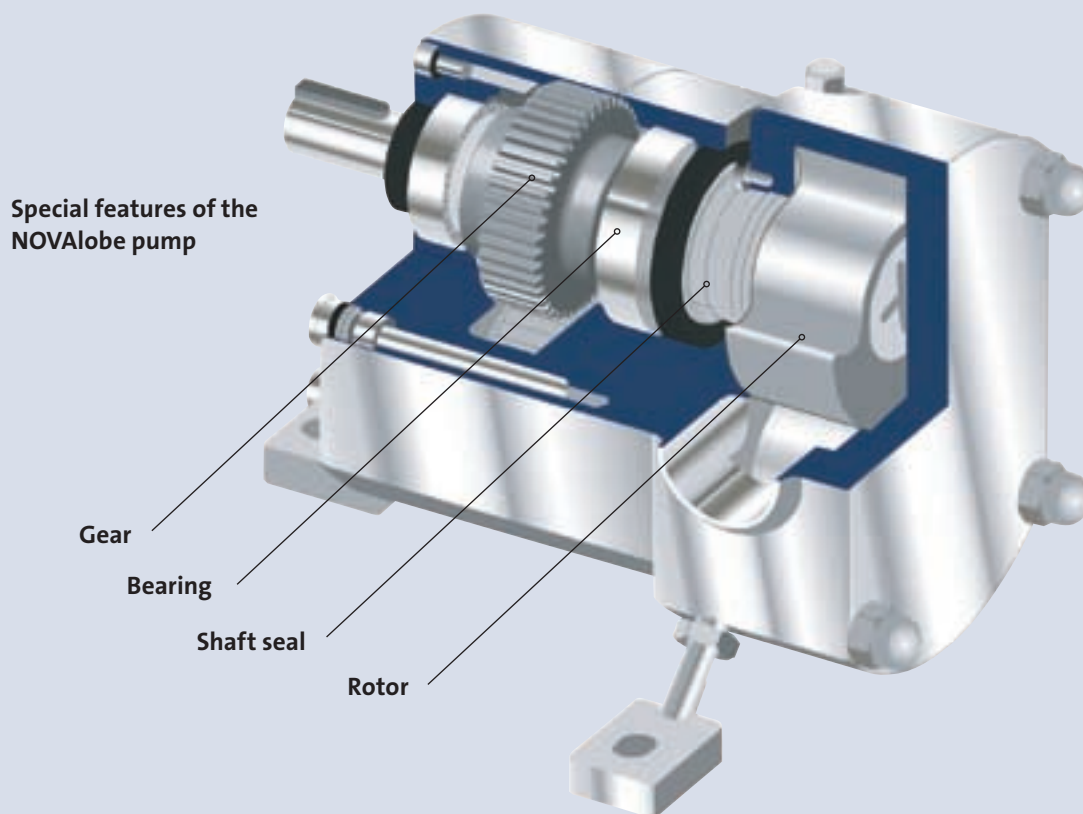
are a robust and popular choice for most applications.



Cycloidal multi-lobe rotors

offer low shear and gentle product handling with the lowest pulsation levels achievable with lobe pumps.





Special features of the NOVAlobe pump

Technical data

NOVAlobe

Differential pressure: 16 bar (up to 30 bar on request)

Operating pressure: Up to 40 bar

Displacement: 0.03 - 1.90 litres/rev.

Operating temperature: 150°C (up to 300°C on request)

Max. viscosity: 1,000,000 cP

Pump model	Displacement litres/rev	Connections mm	Max. diff. pressure (bar)	Max. speed (rpm)
NOVAlobe 10/0.03	0.03	25	16	1500
NOVAlobe 10/0.06	0.06	25	16	1500
NOVAlobe 20/0.12	0.12	40	16	1500
NOVAlobe 30/0.22	0.22	50	16	1250
NOVAlobe 30/0.33	0.33	50	16	1250
NOVAlobe 40/0.45	0.45	65	16	1000
NOVAlobe 40/0.65	0.65	65	16	1000
NOVAlobe 50/0.95	0.95	80	16	800
NOVAlobe 50/1.29	1.29	80	16	800

Particle size

Max. particle size that can pass through the pump

NOVAlobe	10/0.03	10/0.06	20/0.12	30/0.22	30/0.33	40/0.45	40/0.65	50/0.95	50/1.29
Particle size (mm) (non-abrasive particles)	7	12	16	17	23	20	29	27	35



Shaft seals

Different seal types are available to cater to different applications and media.

- Single mechanical seal
- Single flush mechanical seal
- Double mechanical seal
- O-ring / lip seal

The mechanical seals used are single inboard seals placed in the optimal position in the pump media. This ensures easy lubrication and cooling as well as CIP and SIP in accordance with hygienic design criteria.

Seal face materials are selected to suit the media pumped. Standard materials: Solid silicon carbide/silicon carbide with EPDM elastomer (FDA-conforming).

Single mechanical seal with flush and lip seal

The single mechanical flushed seal is excellent for liquids that tend to crystallise, to cool the seal faces for extended seal lifetime, or to lubricate the seals when there is a risk of dry running.

Double mechanical seal

The double mechanical seal can be used with flush fluids at a pressure lower than the media pressure. This is excellent for e.g. sterile applications where high temperatures are required, or where liquids tend to crystallise.

The double mechanical seal can also run at pressures higher than the media in situations where a barrier is needed – e.g. when pumping hazardous media.

Surface finish

Standard surface: Ra ≤ 0.8 mm

Option surface: Ra ≤ 0.8 mm Fe<1%

Electro-polished Ra ≤ 0.4 mm

Electro-polished Ra ≤ 0.4 mm Fe<1%

Connections

- Threads to DIN 11851 PN25-40 (depending on nominal diameter)

Options

- Flanges to suit DIN EN 1092-1 (DIN 2642 PN10) (industrial applications only)
- Pipe threads to suit DIN ISO 228 PN10 (max.)
- Sterile threads to suit DIN 11864-1 PN16
- Sterile flanges to suit DIN 11864-2 PN16
- Other connections available on request. This includes SMS, RJT, clamp connections to DIN, ISO, Tri-Clover, etc., and special sterile threaded fittings and flanges

Additional options

Pressure relief valves

Positive displacement rotary lobe pumps will continue to build pressure when operating against a closed valve. With this in mind, it is very important to fit in a safety device to prevent accidental overpressurization and subsequent damage to the pump or system.

Thermal jackets

Thermal jackets are available for all pump sizes. Their primary use is to ensure that products which solidify at ambient temperature are kept in a liquid state by heating the pump chamber. Alternatively, the thermal jackets can be used to cool the pumped media where necessary.

Aseptic front cover

Combining the benefits of a circulating barrier fluid and double mechanical seals, the aseptic front cover greatly increases safety - ideal where high containment requirements apply.

The Grundfos sanitary range

Grundfos has developed and produced high-quality industrial pumps for more than half a century. Throughout our long history, our focus has always been on product performance and reliability. We strive to provide our customers with the best possible solution, regardless of application. This dedication to customer needs makes us the ideal pump partner for industry.

Grundfos' worldwide leading position now also includes Hilge's variety of sanitary pumps. Hilge was founded in 1862 and is famous for its customised and high-grade stainless steel sanitary pumps for the food, beverage and pharmaceutical industries.

Throughout history innovation and the desire to provide competitive pump solutions have been the driving force of Hilge. This is no different from Grundfos. Our history and tradition are built on that very same ambition. So, adding Hilge to Grundfos only means an even stronger desire to make state-of-the-art sanitary pumps. Given the vast development resources of Grundfos we are confident that the combination of two so similar traditions will only amplify our common effort to produce even better solutions for our customers.

Contact the Grundfos dealer closest to you for further information on the Grundfos sanitary range, or via www.grundfos.com