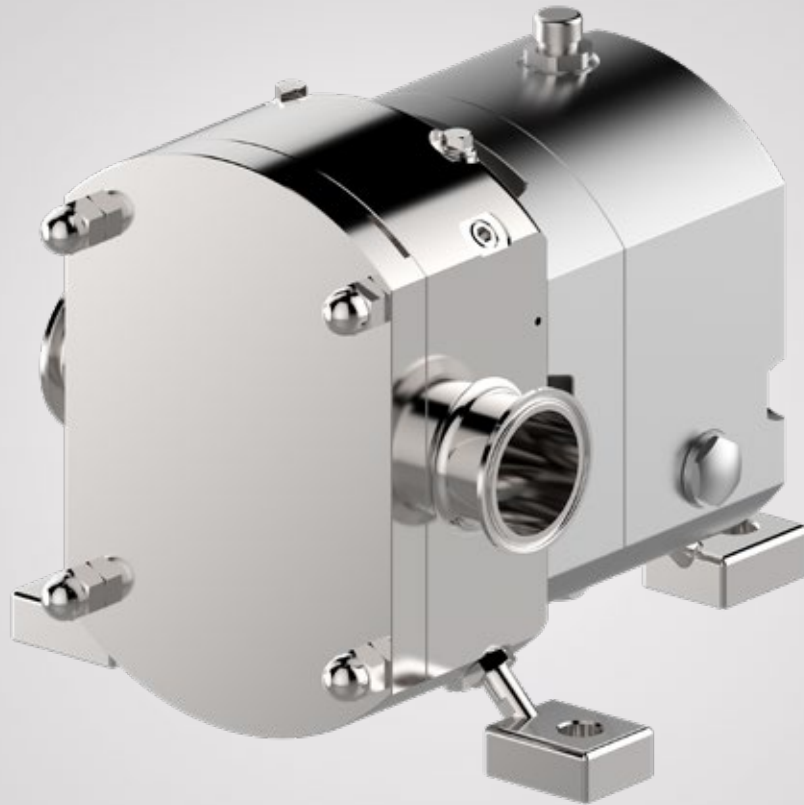


GEA VARIPUMP



GEA Hilge NOVALOBE

Rotary Lobe Pumps
for Advanced Applications

The Flexible Rotary Lobe Pump For Highly Viscous Media

The GEA Hilge NOVALOBE range in the GEA VARIPUMP line is specifically designed for viscous media and for applications where gentle pumping or dosing is required.

The GEA Hilge NOVALOBE pump range fulfills the highest hygienic requirements and ensures reliable production, based on the proven GEA design.

Robust Construction

The pump's compact design and the rigid shaft geometry prevent galling and wear and allow high differential pressure.

Unique Rotor Mounting Design

Precision-ground cylinders ensure the accurate connection of rotors and shaft, minimizing play and reducing vibrations as well as noise.

Flexible Rotor Profiles

The rotor housing can be equipped with various rotor profiles. This makes it possible to adapt the GEA Hilge NOVALOBE pump to specific applications for an optimum performance in different conditions.

A Variety of Applications

The GEA Hilge NOVALOBE pumps offer extremely reliable operation and gentle product handling to ensure product safety and high plant availability. The hygienic design and use of pore-free materials make the pumps suitable for a variety of applications, such as:

Dairy

- Cream Cheese
- Butter
- Yoghurt
- Sour Cream
- Ice Cream

Food

- Sugar solution
- Chocolate
- Sauces
- Soups
- Mayonnaise
- Pastes
- Oils & Fats
- Prepared Salads
- Pet Food

Beverage

- Smoothies
- Juice Concentrate
- Pre-mixes
- Brewing Yeast

Pharma & Biopharma

- Nutraceuticals
- Blood Products
- Vaccines
- Enzymes
- Cell cultures

Personal Care & Home Care

- Cosmetics
- Body & Skincare
- Fabric care
- Household Cleaners

*Uni-wing:
For gentle handling of
media with large solids
and dough-like products*



*Bi-wing:
Robust standard
variant for most
applications*



*Multilobe:
For low shear, low
pulsation and gentle
product handling*



YOUR ADVANTAGES AT A GLANCE

Hygienic Design

- All product-wetted materials are approved for food, beverage and pharmaceutical applications
- Proven cleanability ensures reliable and fast CIP, saving time and resources
- Version with vertical ports is fully drainable

Long-time Reliability

- Robust design prevents galling and wear and allows high differential pressures
- Integrated pressure relief valve (optional) ensures safe operation under extreme conditions

High Versatility

- Flexible pump configuration depending on application requirements
- Pump variants for demanding applications available (thermal jacket, rectangular inlet, aseptic front cover)
- Pump can easily be retrofitted to cover a different application

Ease of Installation and Service-friendliness

- Easy and fast alignment and installation of the pump
- Fast replacement of front-loaded mechanical seals
- Professional support throughout the whole life cycle

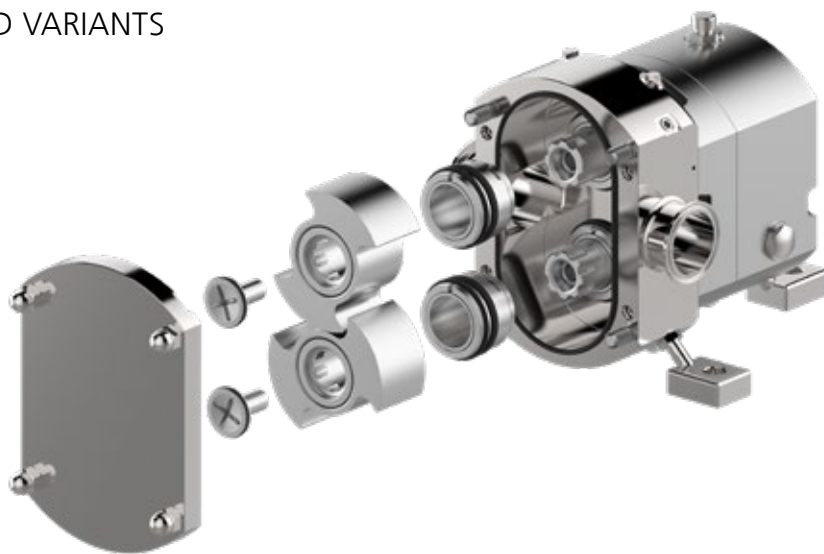
PROGRAM OVERVIEW

Pump model	NOVALOBE 10/0.06	NOVALOBE 20/0.12	NOVALOBE 30/0.33	NOVALOBE 40/0.65	NOVALOBE 50/1.29	NOVALOBE 60/2.1
Displacement (l/rev)	0.06	0.12	0.33	0.65	1.29	2.1
Differential pressure (bar)	16	16	16	16	16	10
Max. speed (rpm)	1,500	1,500	1,250	1,000	800	650
Max. liquid temperature	up to 95 °C, 150 °C (SIP)	up to 95 °C, 150 °C (SIP)	up to 95 °C, 150 °C (SIP)	up to 95 °C, 150 °C (SIP)	up to 95 °C, 150 °C (SIP)	up to 95 °C, 150 °C (SIP)
Rotor design	uni-wing bi-wing multilobe	uni-wing bi-wing multilobe	uni-wing bi-wing multilobe	uni-wing bi-wing multilobe	uni-wing bi-wing multilobe	bi-wing multilobe
Surface roughness R_a (µm)	≤ 0.8 / ≤ 0.4*	≤ 0.8 / ≤ 0.4*	≤ 0.8 / ≤ 0.4*	≤ 0.8 / ≤ 0.4*	≤ 0.8 / ≤ 0.4*	≤ 0.8
Connection size (mm)	25	40	50	65	80	100
Max. particle size (mm) (non-abrasive)	12	16	23	29	35	41
Max. viscosity (mPas)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

* optional



FEATURES AND VARIANTS



Mechanical Seals

To accommodate different applications and media, GEA Hilge NOVALOBE pumps are available with different seal types:

- Single mechanical seal
- Single-flushed mechanical seal
- Double mechanical seal
- O-ring seal

The mechanical seals are inboard seals placed in the optimum position in the pump to ensure outstanding lubrication and cooling. The front-loaded mechanical seals ensure fast and easy maintenance. They also comply with the hygienic design criteria in CIP and SIP processes up to 150 °C.

Seal face materials are carefully selected to suit the specific media. Standard materials are carbon/silicon carbide with EPDM elastomers (FDA-compliant).

Connections

- Threads to DIN 11851 (standard)
- Flanges to DIN EN 1092-1 / DIN 2633 PN 16
- Sterile threads to DIN 11864-1 / DIN 11853-1
- Sterile flanges to DIN 11864-2 / DIN 11853-2
- Other connections available upon request. This includes SMS, RJT, clamp connections to DIN, ISO, Tri-Clamp etc., and special sterile threads and flanges
- Rectangular inlet for improved inlet conditions

GEA Hilge NOVALOBE Variants

- With bare shafts
- With geared motor and coupling mounted on stainless steel base frame
- With stainless steel motor shroud
- Mounted on trolley
- With horizontal or vertical ports



GEA Hilge NOVALOBE
with geared motor on sterile base frame



GEA Hilge NOVALOBE
on sterile base frame with stainless steel shroud

ADDITIONAL OPTIONS

Thermal Jackets

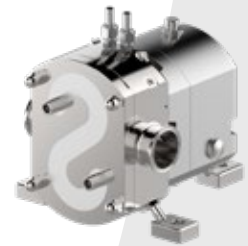
Thermal jackets make it possible to heat the pump chamber and to ensure that products which solidify at ambient temperature are kept liquid. Alternatively, the thermal jackets can be used to cool the pumped media where necessary. Thermal jackets for GEA Hilge NOVALOBE are available for the rotor case and the front cover. Due to the integrated design in the pump, it is a highly efficient system without any compromise in the hygienic design and cleanability.

Pressure Relief Valve

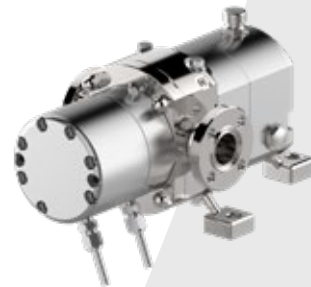
Positive-displacement rotary lobe pumps will continue to build up pressure when operating against a closed valve. With this in mind, it is very important to add in a safety device to prevent accidental over-pressurization and subsequent damage to the pump or system. GEA Hilge NOVALOBE pumps can be equipped with an integrated pressure relief valve to avoid these damages.

Aseptic Front Cover

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



GEA Hilge NOVALOBE with thermal jacket



GEA Hilge NOVALOBE with pressure relief valve



GEA Hilge NOVALOBE aseptic front cover



Registered for
recertification



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

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