AMCAL
INDUSTRIAL PUMP SOLUTIONS

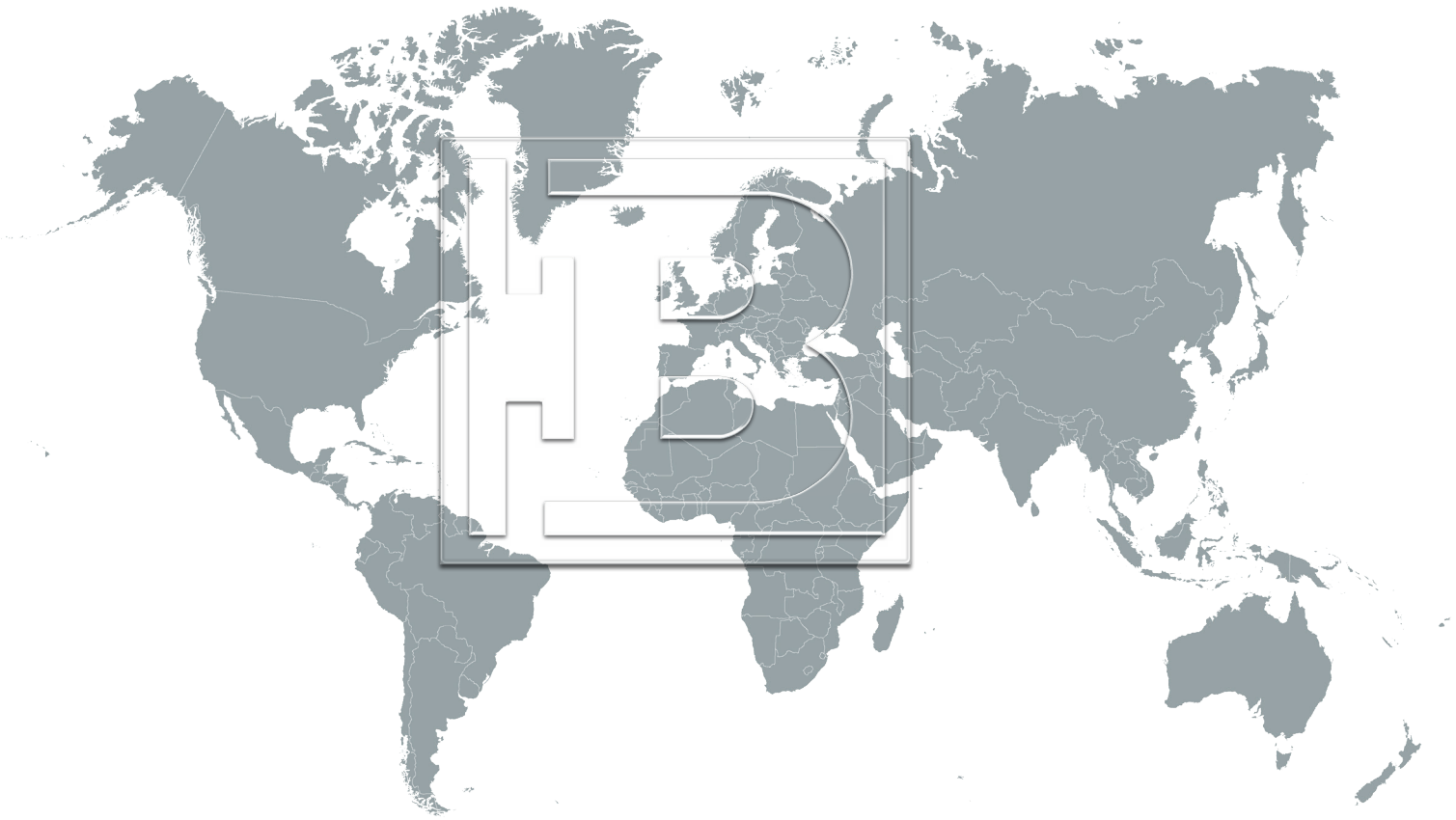
Bornemann Pumps

DATA BOOKLET

Hygienic Twin Screw Pumps SLH-5G



ITT Bornemann - The Pump Pioneer



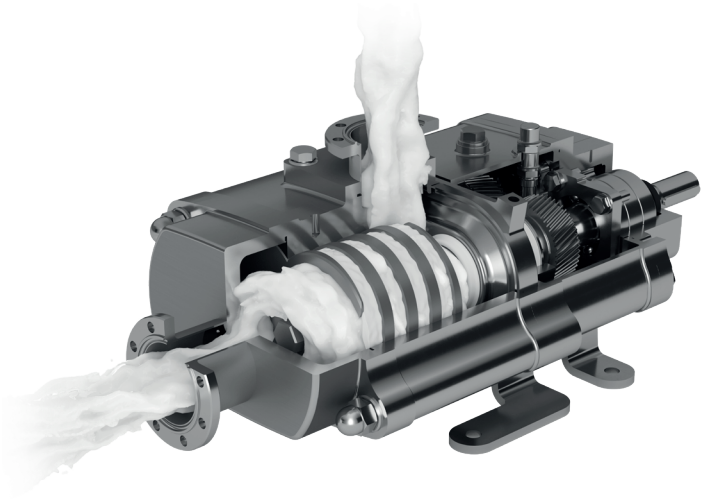
About Us

We are ITT Bornemann, the first to market German based supplier of Twin Screw Pumps and an established worldwide leader of numerous groundbreaking pump developments. Originally founded in 1853, we joined ITT Corporation in 2012, a diversified leader of highly engineered solutions for the energy, transportation and industrial markets.

Over 15,000 Successfully Installed Pumps Worldwide

In 2004, Bornemann introduced the hygienic SLH design of Twin Screw Pumps to the Food & Pharma industries. Its design is based on more than 165 years of proven technology of Bornemann Industrial Twin Screw Pumps, aligned with the special hygienic requirements of Food, Pharma and Chemical operations. It has been continuously improved to meet the requirements of our global customers.

Operational Excellence



The Operating Principle

SLH Twin Screw Pumps are rotary positive displacement pumps, using two screws to convey the product along the screw axis. The contact free intermeshing screws and the housing are forming closed chambers, constantly moving product from suctionto discharge.

Convey & Clean with One Pump Only

Bornemann SLH pumps combine advantages of a conventional positive displacement pump with the performances of a centrifugal pump. It conveys low and high viscous products and achieves the required flow velocity for cleaning. This eliminates the need for a second pump and reduces valves, piping and controls.

Product Integrity

The axial conveyance and the non-contact working principle protects the product and maintains its size, surface and visual integrity. Sheer sensitive handling of the product are major advantages of the SLH operating principle.

Operating Envelope

Different combinations of rotor diameter and pitch fit customer requirements. Bornemann SLH pumps operate at a wide range of speed, providing flexibility for different operating points including CIP parameters.

Dry Running

Due to non-contact working principle of the rotors and flushed seal configuration, Bornemann SLH is able to run dry for a defined period of time for increased system safety even at low tank levels.

Long Service Life

Bornemann SLH pumps feature no metal-to-metal contact between rotors and housing, which secures trouble-free conveyance even for abrasive product and minimized downtime.

Low Pulsation

Bornemann Twin Screw pumps operate nearly pulsation-free to avoid vibration of piping systems and to secure safe system layout, particularly for aseptic conditions.

Hygienic Design

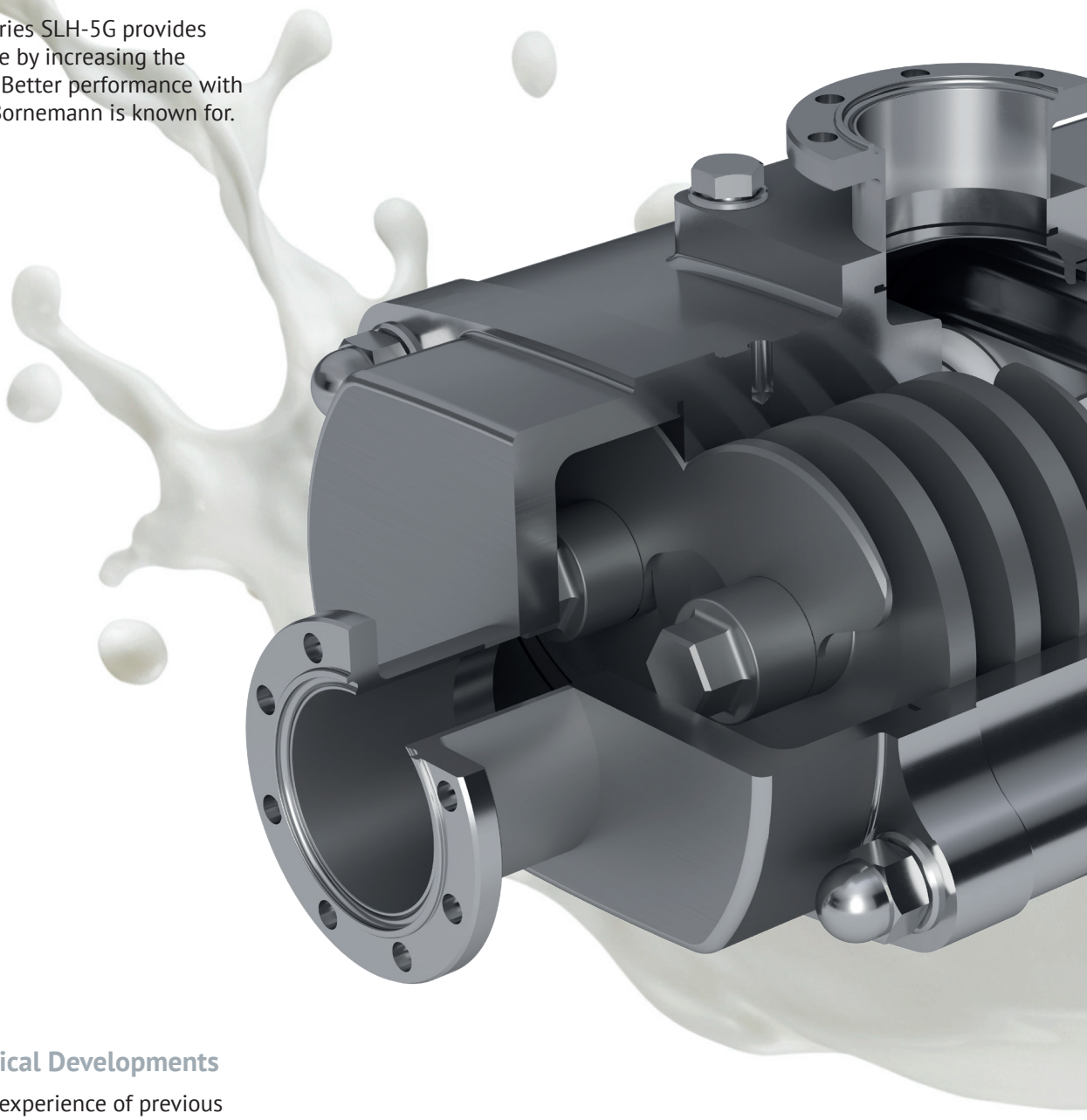
State of the art hygienic design with contactfree operation of the rotor, no dead ends and selfdraining design guarantee sanitary and aseptic standards and protect production and product.

Pump Features

Bornemann New SLH Series provides more flexibility and reduced life-cycle costs. The design options and the technical features are engineered to provide system compatibility under adjustable operating conditions while maintaining the high Bornemann quality and hygienic standards.

Performance Boost

Bornemann Pump Series SLH-5G provides enlarged performance by increasing the size of the hydraulic. Better performance with the same reliability Bornemann is known for.



Continuous Technical Developments

Bornemann uses the experience of previous generations and market developments to optimize the pump design in:
- Efficiency
- Thermal Shocks
- Flexibility in Connection
- Internal Feeding Solutions



Built-in Exchangeability

SLH-5G design allows a built-in exchange with all predecessor Bornemann SLH-Series pumps without additional adaptations. Enabling easy drop-in and replacement with previous generations and installed piping dimensions.

Excellent Maintenance Design

The newly patented Bornemann design without disassembly of the bearing unit for efficient maintenance.

The New Generation of Hygienic Pumps

User Advantages

Reliability without Compromise

Bornemann Pump Series SLH-5G provides safe and efficient operations for continuously increasing demands in hygienic environments. This allows Bornemann to offer you the ideal solution for every application.



Product Protective Procedure

To avoid any waste of the product, the reverse operation allows to empty the suction piping from the product, before starting the cleaning process.

Abrassive Conveying

Different material options allow for conveyance of abrassive products and avoid contamination of the product.

High Temperature Differences

The design and material choices allow maximum temperature differences from 4°C to 95°C, empowering a problem free, high temperature cleaning process subsequent to the conveying process.

Constant Flow

The optimized backflow screw selection guarantees constant flow rates for metering or feeding UHT to ensure a constant temperature level despite variation in pressure or viscosity.



Stable Temperature

Heating jackets provide a constant temperature of the product to allow for an efficient and gentle conveyance.

High Viscosity

The open suction layout allows a seamless alignment directly to the collection unit of the pumped product to provide the best possible reception of highly viscous products.

Highly Sterile

The conveying process with sterilized products is supported by a vapor barrier, designed to ensure the sterile condition of the product.

Design

Connection Standards
DIN 11851
DIN 11864-2
SMS 1146
DIN 32676
Open Suction
Rectangular Inlet
Individual Options







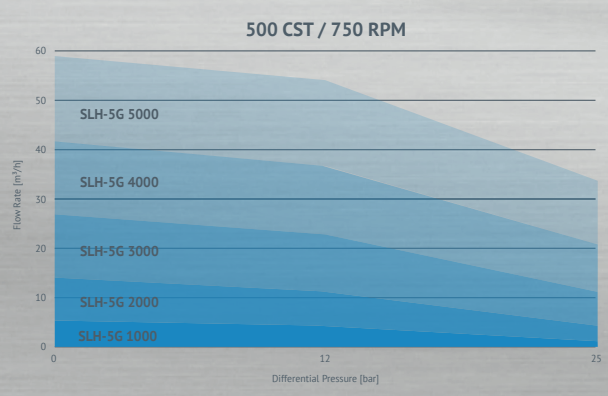
Material Options
Hardening for Abrasive Products
1.4462 / 318 LN
Surface Roughness <0.5

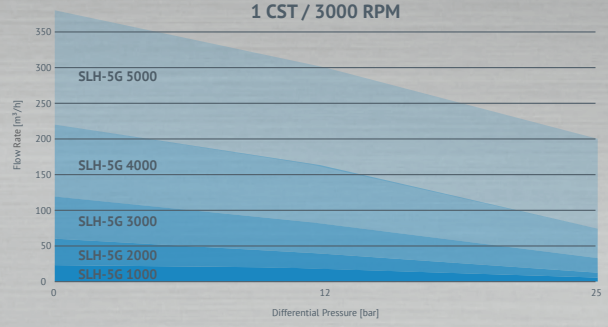


Pump Features
Heated Pump Casing
Handle at Pump Casing
I-Alert for Monitoring

Mechanical Seals
Single Seals
Dual Seals
Chocolate Seal
Knife-Edge Feature

Performance Overview





SLH-5G 5000

Flowrate	350 m³/h
Δ Pressure	25 bar
Temperature	175 °C

SLH-5G 4000

Flowrate	200 m³/h
Δ Pressure	25 bar
Temperature	175 °C

SLH-5G 3000

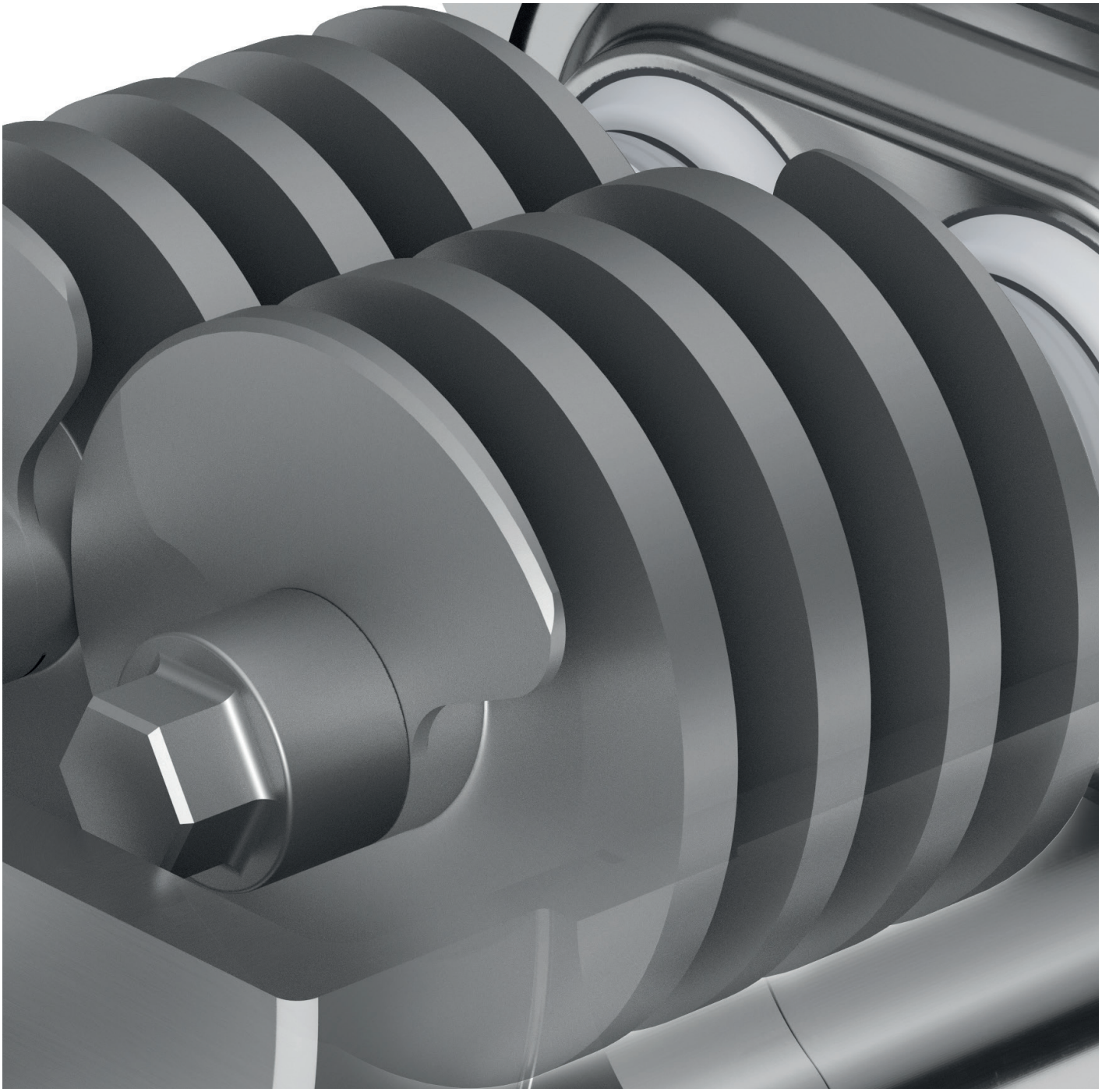
Flowrate	100 m³/h
Δ Pressure	25 bar
Temperature	175 °C

SLH-5G 2000

Flowrate	50 m³/h
Δ Pressure	25 bar
Temperature	175 °C

SLH-5G 1000

Flowrate	20 m³/h
Δ Pressure	25 bar
Temperature	175 °C



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