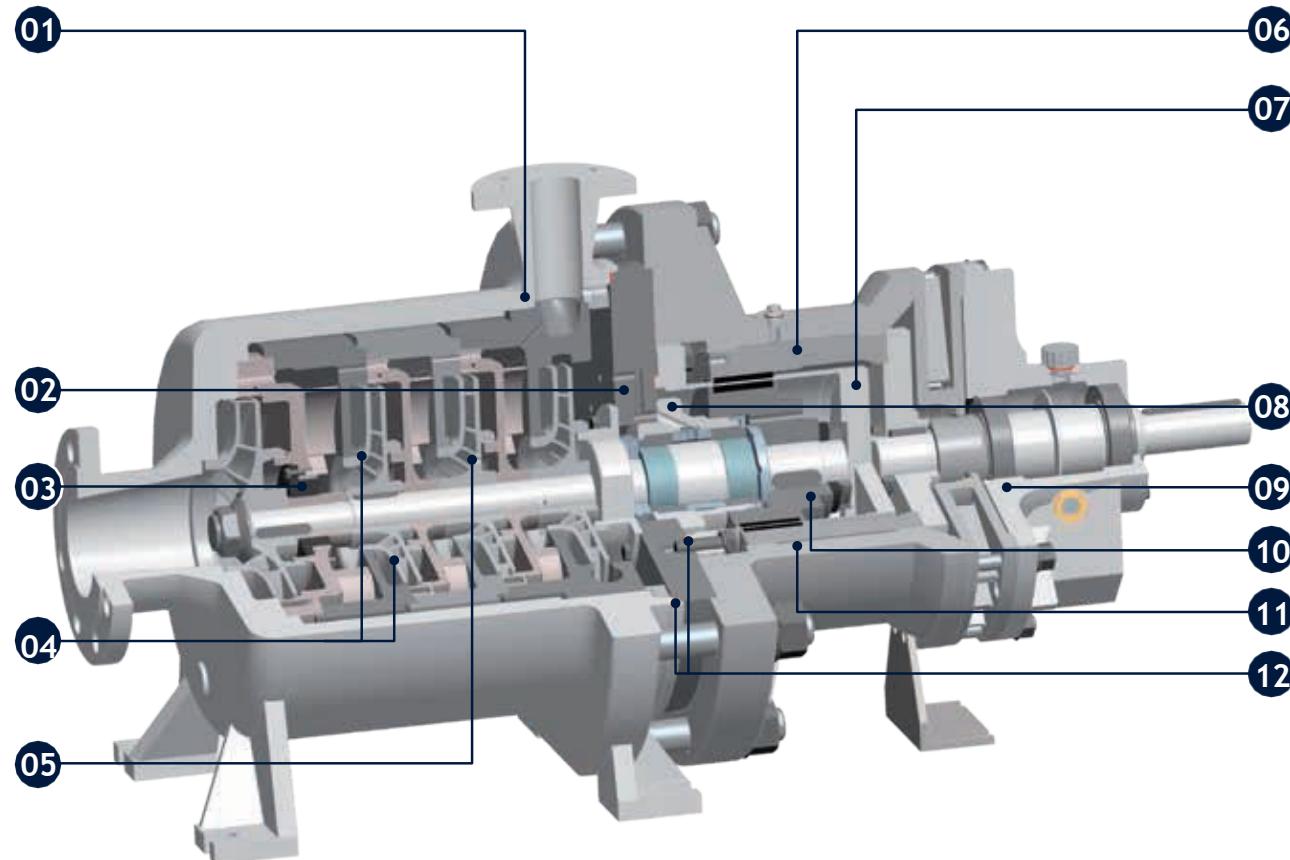


# DESIGN DETAILS SERIES SLM GV



→

Design  
ACC. TO  
DIN EN ISO 15783

01 **Barrel-type pump casing**

PN 40 / PN 63 at 120 °C;  
Suction nozzle with horizontal inlet  
Optional: heating jacket.

02 **Flushing System**

Pressurised to safely handle liquids close to boiling.

03 **Radial Journal Bearing**

Radial journal bearing behind the suction impeller.

04 **Impellers**

Arranged in series; First stage with suction impeller  
Optional: Suction inducer to reduce required NSPH.

05 **Balancing Holes**

Optimized thrust loads over the entire operating  
range via hydraulic measures.

06 **Outer Magnet Carrier**

Two piece with rub ring on the intermediate lantern.

07 **Containment Shell**

Self-venting and fully drainable; Vortex breaker.

08 **Journal Bearings**

Double bearing made of SSiC;  
Counter centred combination for universal utilisation  
over a wide temperature range.

09 **Bearing Support**

Bearing Bracket with Oil- or Greased-for-Life  
Anti-Friction Bearings  
Optional: Close-coupled design

10 **Inner Magnet Carrier**

With rub ring on the journal bearing bush.

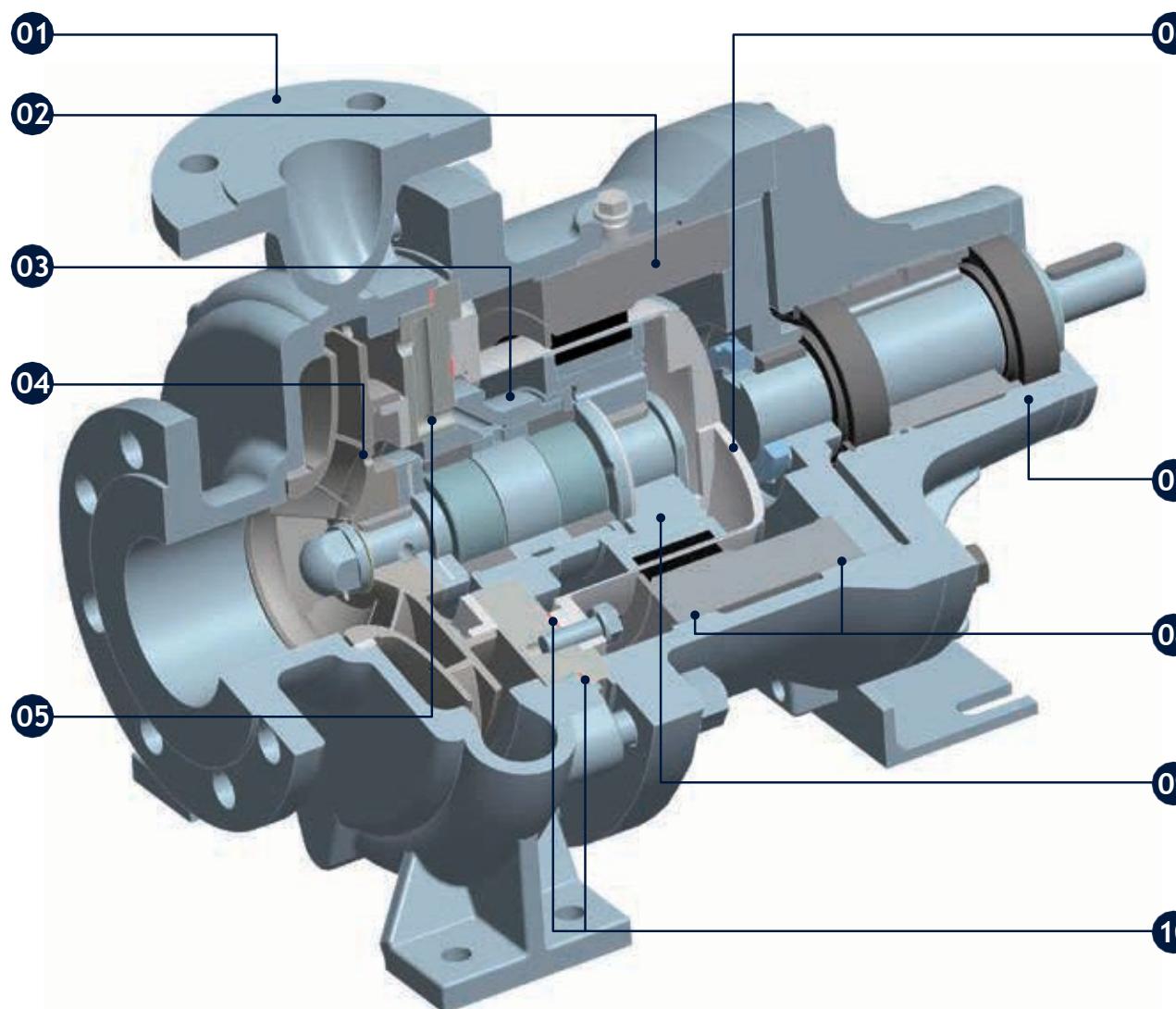
11 **Intermediate Lantern**

With outer magnet carrier rub ring and assembly/  
disassembly guidance.

12 **Static Gasket**

Merely two static gaskets on containment shell  
and casing.

# DESIGN DETAILS SERIES SLM NV



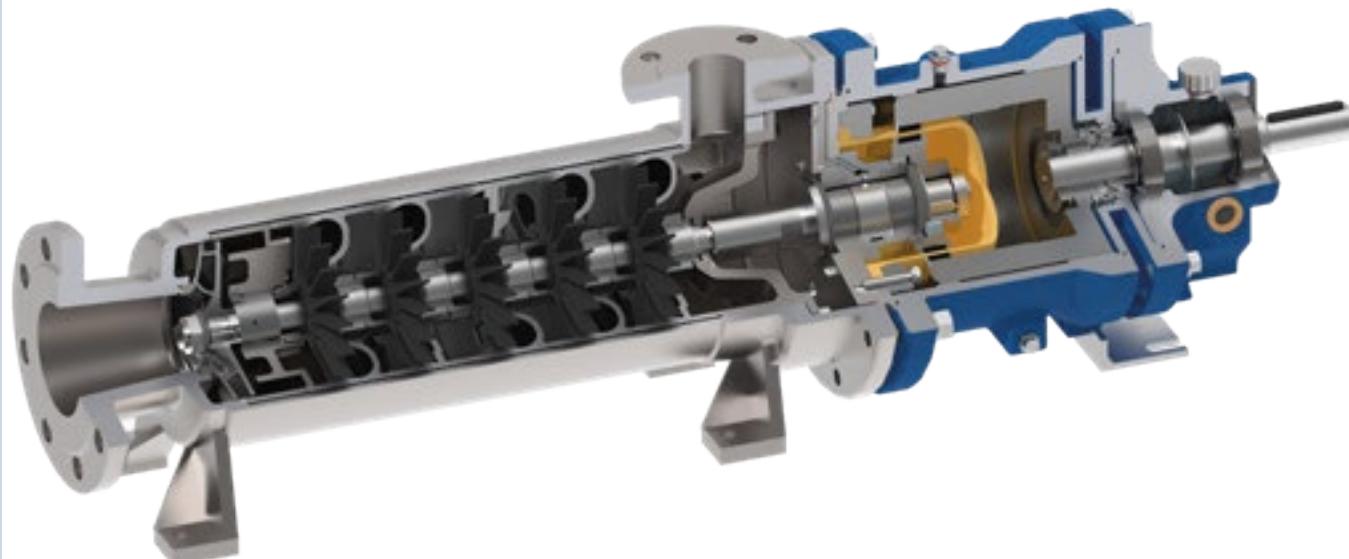
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Design  
ACC. TO  
DIN EN ISO 2858



- 01 **Pump Casing**  
PN 16 at 120 °C.
- 02 **Outer Magnet Carrier**  
Rub Zone on the Intermediate Lantern.
- 03 **Journal Bearings**  
Double Bearing made of SSiC;  
Counter Centred Combination for Universal  
Utilisation over a Wide Temperature Range.
- 04 **Balancing Holes**  
Optimized Thrust Loads over the entire  
Operating Range via Hydraulic Measures.
- 05 **Flushing System**  
Pressurised to Safely handle Liquids close to  
Boiling Point.
- 06 **Containment Shell**  
Self-Venting and Fully Drainable;  
Vortex Breaker.
- 07 **Bearing Support**  
Bearing Bracket with Oil- or Greased-for-Life  
Anti-Friction Bearings;  
Optional: Close-coupled design.
- 08 **Intermediate Lantern**  
With Outer Magnet Carrier Rub Ring  
and Assembly/Disassembly Guidance.
- 09 **Inner Magnet Carrier**  
With Rub Ring on the Journal Bearing Bush.
- 10 **Static Gaskets**  
Only two Static Gaskets at Containment Shell  
and Casing, Gaskets acc. to TA-Luft.

# DESIGN DETAILS SERIES SLM SV



Please see  
the description  
on the following page

Design  
ACC. TO  
DIN EN ISO

## DESIGN

- ⌚ Horizontal side channel pump, process design
- ⌚ Magnet drive based on DIN EN ISO 15783
- ⌚ Maximum number of stages: 8
- ⌚ Vanes made of duplex, with DLC coating
- ⌚ Self-priming
- ⌚ Barrel casing (just only two gaskets for sealing)
- ⌚ For handling of gas loaded liquids
- ⌚ Low-NPSH first stage for improved suction performance
- ⌚ Permanent & synchronous magnet drive
  - Maintenance-free
  - Separation of liquid chamber and atmosphere by means of containment shell
- ⌚ Pressurized partial flush flow (cooling of eddy current losses / lubrication of journal bearings)
- ⌚ Materials: steel, stainless steel, duplex steel, nickel-based materials
- ⌚ Bearing bracket with anti-friction bearings, oil-lubricated or greased-for-life
- ⌚ Product-lubricated journal bearings; made of silicon carbide (SSiC) or customized materials
- ⌚ Rub zones as per standard for increased safety

## OPTIONS

- ⌚ Centerline mounting (OH2)
- ⌚ Various containment shell executions (metallic / non-metallic, single / double shell)
- ⌚ Energy efficient design
- ⌚ Various design options when pumping critical liquids (e.g. liquids containing solids) and for interrupted suction flow (dry run)
- ⌚ Heavy duty design for improved solid resistance
- ⌚ Thermal barrier
- ⌚ Various heating designs
- ⌚ Secondary control / secondary control system / secondary containment system acc. API 685
- ⌚ Temperature protection system
- ⌚ Magnet drive acc. API 685
- ⌚ Bearing bracket with regreaseable or oil mist lubricated anti-friction bearings
- ⌚ Oil sump bottle for bearing housing
- ⌚ Close-coupled design (SLM SVB)
- ⌚ Retrofit

# THE MODULAR SYSTEM FOR MAGNET DRIVE PUMPS

Quality and  
Know-How



## THE MODULAR SYSTEM

Klaus Union's modular pump system consists of three different elements:

- ⌚ Pump Hydraulic
- ⌚ Magnet Coupling
- ⌚ Bearing Bracket

The combination of these components allows a large operating envelope with few differing parts. The parts are even interchangeable between the screw pump and centrifugal pump series. Over 100 different pump sizes and magnet drives cover operation parameters up to 3.500 m<sup>3</sup>/h and 400 bar. Interchangeability, stock size and servicing equipment are simplified for all users.



Fig. 1: Pump Hydraulic (Centrifugal Pump), 41 Sizes

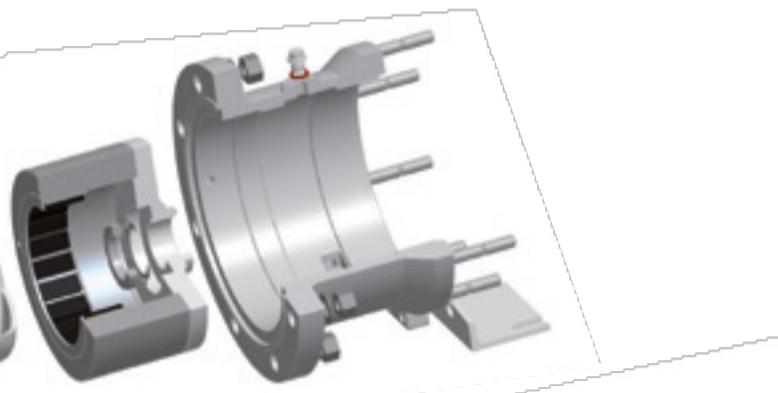


Fig. 2: Magnet Coupling, 216 Variants

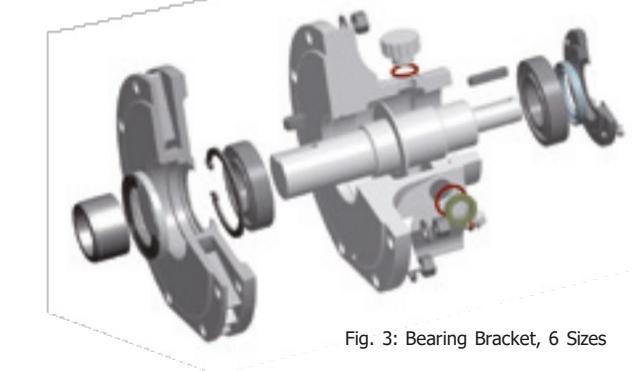


Fig. 3: Bearing Bracket, 6 Sizes

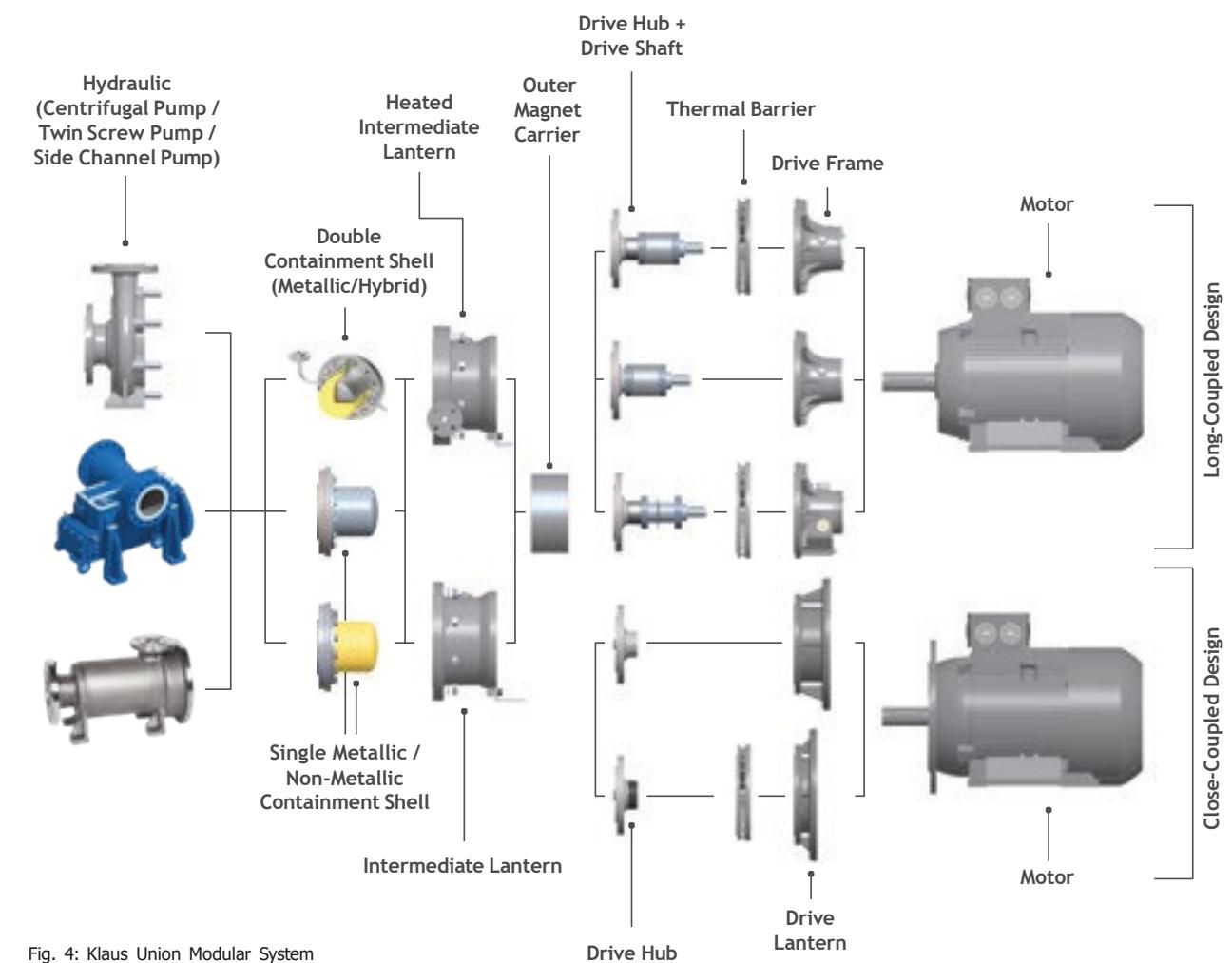


Fig. 4: Klaus Union Modular System