

Production range pumps:

Pumps with magnet drive

- ▶ Centrifugal pumps according to DIN EN 22858
- ▶ Centrifugal pumps according to ANSI B73.3
- ▶ Centrifugal pumps for refinery and petrochemical applications according to API 685
- ▶ Centrifugal pumps for high pressure applications
- ▶ Centrifugal pumps for high temperature applications
- ▶ Centrifugal pumps for liquid containing solids
- ▶ Centrifugal pumps, self-priming
- ▶ Multistage pumps, tension-rod or barrel-type construction
- ▶ Side channel pumps, self-priming
- ▶ Screw pumps
- ▶ Submerged centrifugal pumps
- ▶ Double suction centrifugal pumps

Pumps with shaft sealing

- ▶ Centrifugal pumps according to DIN EN 22858
- ▶ Multistage pumps, tension-rod or barrel-type construction
- ▶ Horizontal and vertical propeller pumps
- ▶ Bottom-flange propeller pumps
- ▶ Submerged centrifugal pumps
- ▶ Double-suction chemical pumps

Production range valves:

- ▶ Valves, T-pattern
- ▶ Valves, Y-pattern
- ▶ Gate valves, isomorphous construction series
- ▶ Gate valves, wedge or wedge plates
- ▶ Relief valves
- ▶ Check valves
- ▶ Sight glasses
- ▶ Strainers
- ▶ Filters
- ▶ Bottom valves

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**CHEMICAL STANDARD PUMP
TYPE NOV TO DIN EN 22858
AND DIN ISO 5199
WITH SHAFT SEAL**



Safety and environmental protection

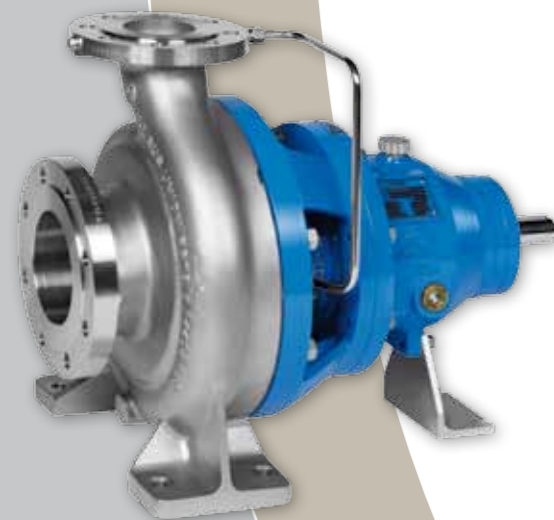
Chemical standard pump NOV with shaft seal

Here comes more evidence of our product capability: The chemical standard pump type NOV with shaft seal supplements our well-proven modular pump series SLM NV with magnet drive.

It has been developed for applications in the chemical and petrochemical industries. This pump type is handling clean, coalesced and aggressive liquids. Its major dimensions and its performance range conform to DIN EN 22858 and DIN ISO 5199.

This dimensional interchangeability means that you can easily use them for replacement of standard pump sizes of other manufacturer.

Supplementary pump sizes outside the standard are available if required to satisfy pumping requirements of up to 3000 m³/h. A wide range of materials and available pressure ratings of the pump hydraulic allow for almost universal use of the pump within the chemical and petrochemical industries. Our construction provides for any shaft seals such as mechanical seals to EN 12756 (DIN 24960) and stuffing box packings.



Quality assurance

A major component of our Company ethos is to ensure the highest quality of our products. Existing quality assurance procedures with our suppliers are constantly monitored from order placement, goods inward through to final assembly. This quality assurance system, developed on modern principles, complies with the requirements of international regulations. Klaus Union is a DIN EN ISO 9001 certified Company.

Pumping of

- ▶ Acids
- ▶ Lyes
- ▶ Hydrocarbon
- ▶ Heat transfer liquids
- ▶ Liquid gas

Domains

- ▶ Chemical and petrochemical industries
- ▶ Refrigeration and heat
- ▶ Liquid gas plants
- ▶ Galvanic engineering
- ▶ Power stations
- ▶ Tank installations



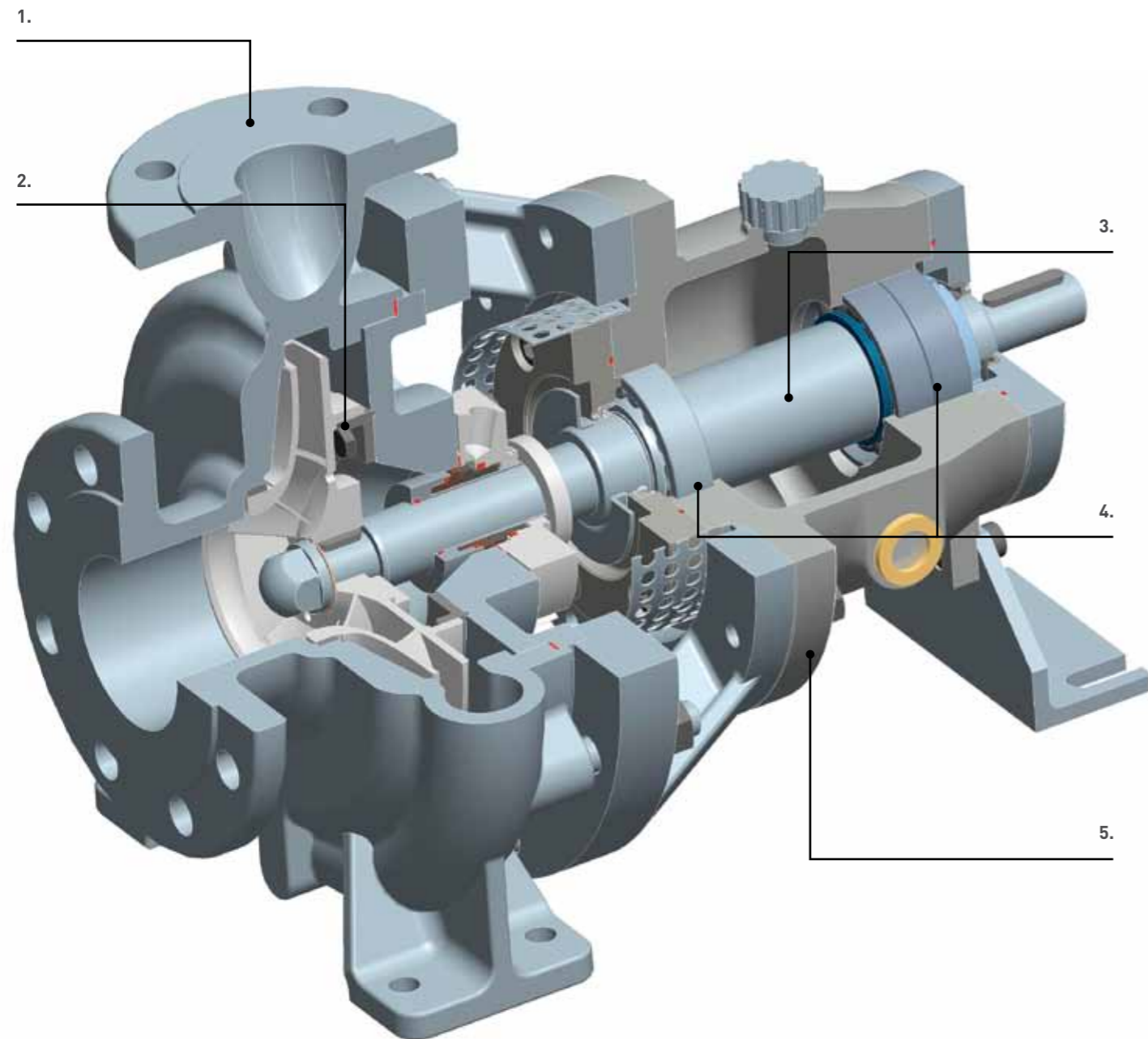
Performance range

Flow rate: Q = up to 3.500 m³/h
Delivery head: H = up to 200 m L. C.
Higher flow rates upon request

Pressure ratings/temperature ranges

Standard construction: PN 16 at 120 °C
Temperature range: -120 °C up to max. +300 °C
Pressure rating: up to PN 16
Higher pressure ratings upon request

Constructional details NOV



1. Casing
Horizontal pump with axially-split casing
foot-mounted;
Designed to PN 16 at 120 °C

2. Impeller
Single-stage closed radial impeller;
Hydraulic balancing of axial loads via throttle ring
and balancing holes;
Impeller fixed on the shaft by means of key and impeller
screwing with lock washer preventing counterclockwise rotation.

3. Pump shaft
Designed to DIN EN ISO 5199: optimum dimensions
Rigid design to transmit pump power at minimum shaft
deflection over the entire operating range.

4. Anti-friction bearings
Oil-lubricated anti-friction bearings with large bearing
spacing for low-vibration operation;
The bearings consist of a cylindrical roller bearing to
accept radial loads and paired angular ball bearings to
accept axial loads.

5. Bearing support
Housing the pumps' anti-friction bearings and ensuring
safe transmission of any loads to the baseplate;
Connections for filling and venting of the oil sump and
monitoring of the oil level by an oil gauge or a constant
level oiler.

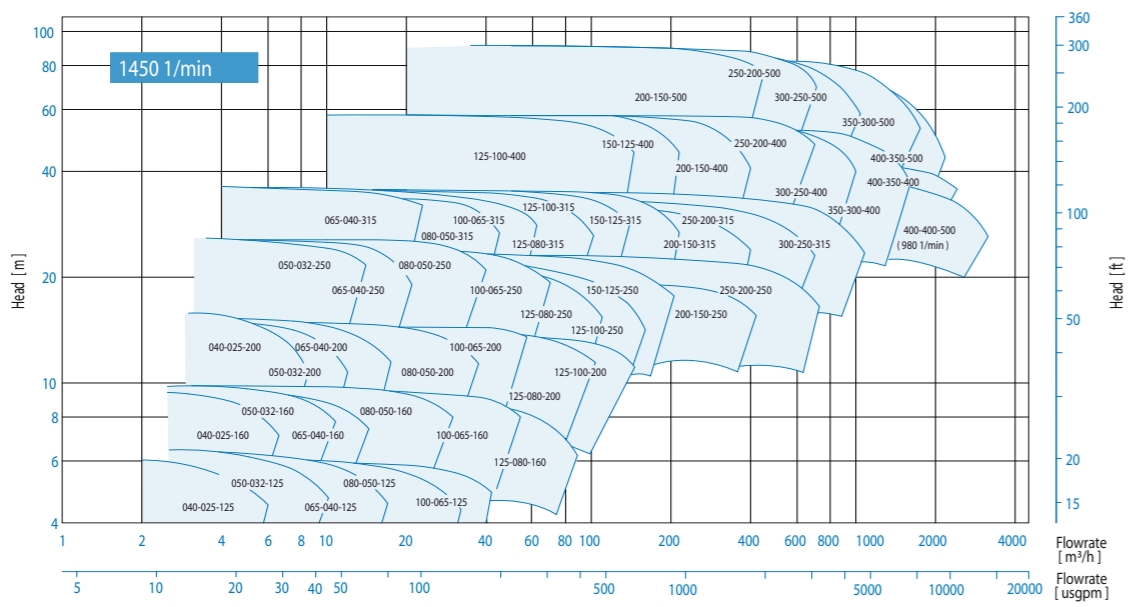
Optional designs

- ▶ Casing with centerline support
- ▶ Construction type with heating: jacketed casing "H1"
and / or stuffing box heating chamber "H2"
- ▶ Open impellers
- ▶ Inducer

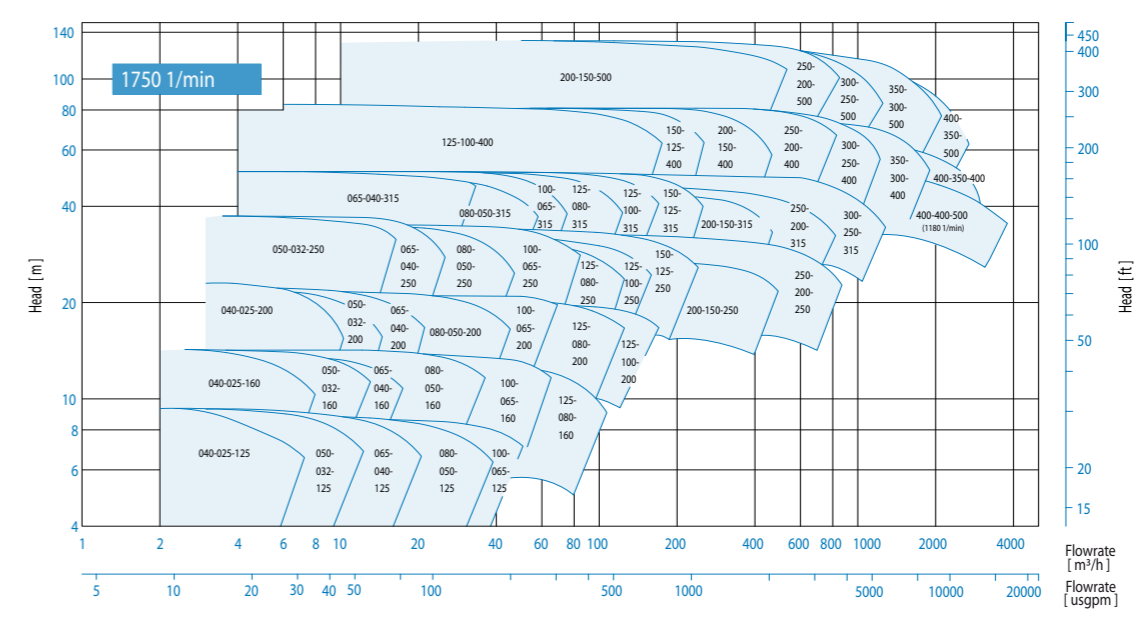


Performance curves NOV

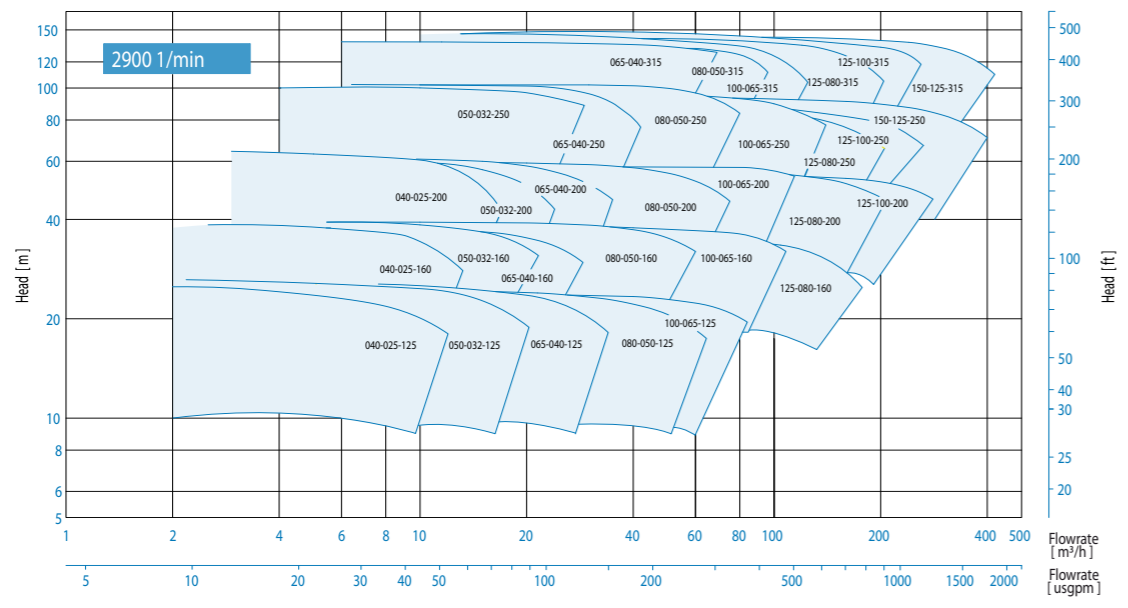
Performance curve 50 Hz



Performance curve 60 Hz



Performance curve 50 Hz



Performance curve 60 Hz

