

Plastic Pumps



Quality and Know How,

A Pump's Most Efficient Combination

Klaus Union is one of the leading manufacturers of pumps and valves specifically designed for the chemical industrial market. The professional production competence acquired over more than 40 years, a sophisticated and state-of-the-art fabrication process provide an excellent basis for finding optimum solutions to any special problems: versatile response to any specific requirement imposed by the user.



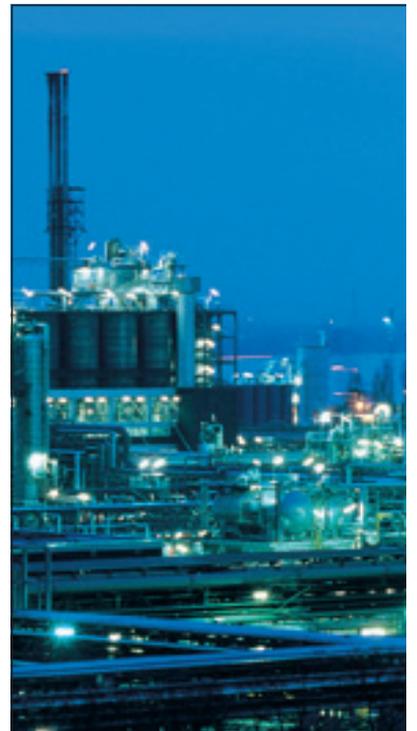
Pump and valve units supplied by Klaus Union are of superior quality and come up to the highest standard. They contribute to appreciably enhance both performance and safety of your installation and, besides, they cut pollution to the benefit of environment and mankind.



Klaus Union: We set the standard for pumps.

Characteristics of the KLAUS UNION/GEKO Plastic Pumps

The Klaus Union magnet drive pump is a PTFE-lined chemical centrifugal pump of GEKO design. The pump's dimensions and rated capacity correspond to DIN EN 22858. The plastic pump is almost universally resistant to corrosion. The pumped liquids merely get in contact with materials such as PTFE, oxide ceramics, zirconium oxide or silicon carbide. The Klaus Union plastic pump with magnet drive is used for applications where highly aggressive and dangerous fluids are to be pumped absolutely leak-free.



Construction

Glandless single-stage centrifugal pump process type with magnet drive. The closed impeller made of PTFE is arranged on a ceramic sleeve shaft. The shaft runs on double journal bearings made of silicon carbide. The isolation shell is made of carbon fiber composite (CFRP), lined with PTFE or zirconium oxide as an option. The axial thrust is absorbed by thrust bearings made of silicon carbide. A defined flushing system guar-

tees a perfect circulation of the fluid. Dry-running of the journal bearings is thus safely avoided. The slipless transmission of force is effected by a magnet drive. The concentric design of the coupling safely prevents any undesired radial and axial forces from acting on the journal bearings. The isolation shell safely separates the product chamber from the atmosphere. The pump is absolutely leak-free.



Service, reliability and highest quality: Klaus Union pumps are the heart of the chemical and petrochemical industries.



Casing:

Pump casing made of nodular graphite iron GGG 40.3 with 4 mm PTFE lining

Nozzle Positions:

Axial suction nozzle and radial discharge nozzle facing upwards. Flange connections to DIN 2501/1

Designation:

The pump sizes are designated to DIN EN 22858

Casing:

Dimensioning pressure is 16 bar at 100 °C

Working Temperature:

Max. 150 °C (higher temperatures on demand)

Impeller:

Closed or open construction made of PTFE with curved vanes

Isolation Shell:

- Carbon fiber composite material (CFRP), PTFE-lined
- Zirconium oxide

Journal Bearings:

Pure sintered silicon carbide (SSiC)

Magnet Drive:

The magnet drive consists of a PTFE-lined inner magnet (inner magnet carrier) and a motor-driven outer magnet (outer magnet carrier). The permanent magnets made of rare earth and cobalt are arranged rotationally symmetrical in alternating polarities.

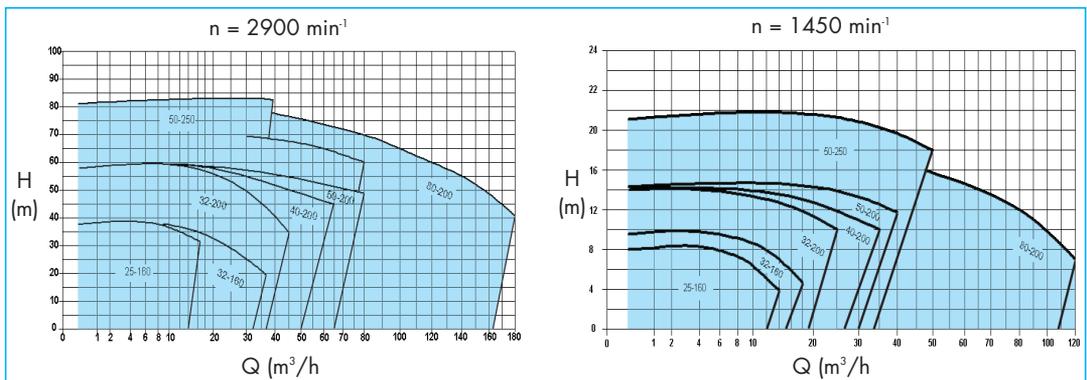
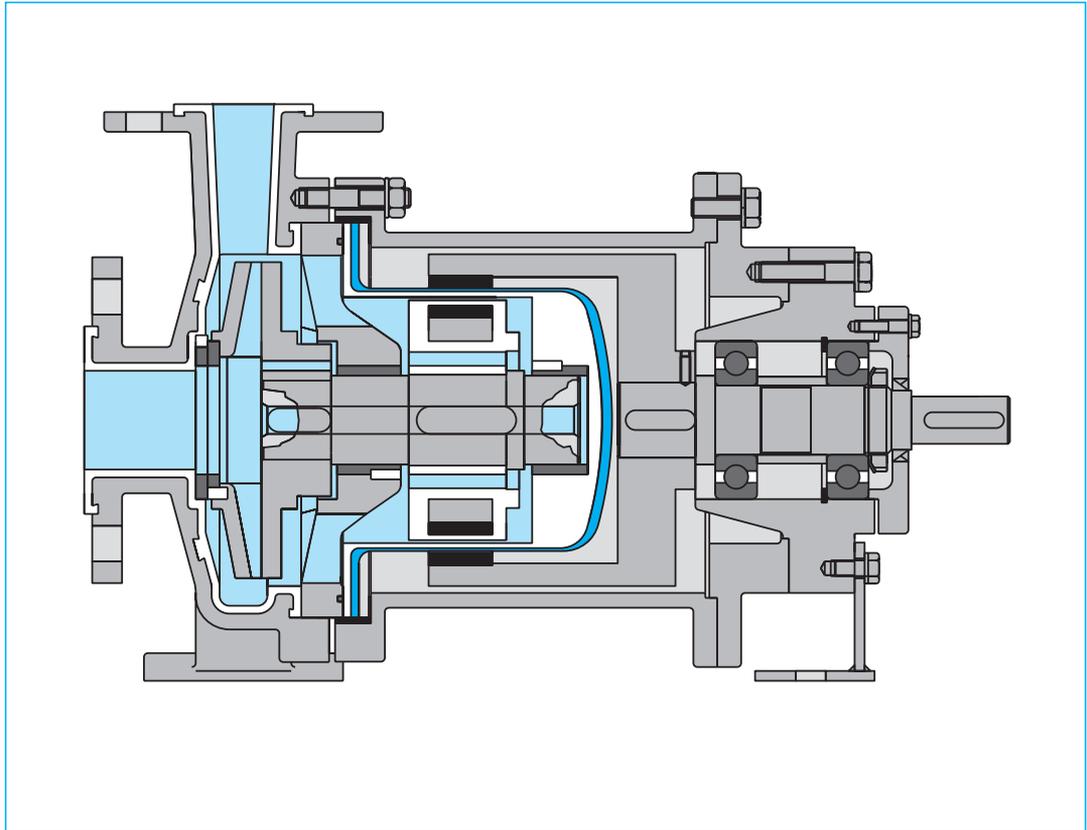
Standard Motors:

Standard three phase electric motor DIN 42673 explosion-proof EExe II T3

Special constructions are available.

SLM NKN

Glandless centrifugal pump equipped with permanent magnet drive DIN EN 22858 standard or close-coupled construction



Technical Data

Q up to 80 m³/h
 H up to 90 m L.C.
 t from -20 °C up to +150 °C
 p up to PN 16

Special constructions on demand

Use

Pumping:
 acids
 lyes
 highly aggressive and toxic liquids

Construction

- horizontal centrifugal pump
- magnet drive
- separation of liquid chamber/atmosphere by means of an isolation shell
- axial and radial journal bearings made of silicon carbide (SSiC)
- bearing of outer magnet system (outer magnet carrier): deep groove ball bearings

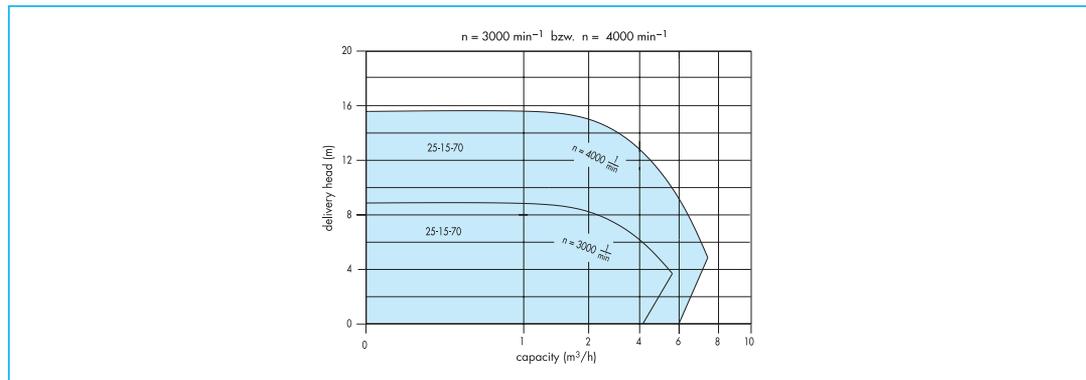
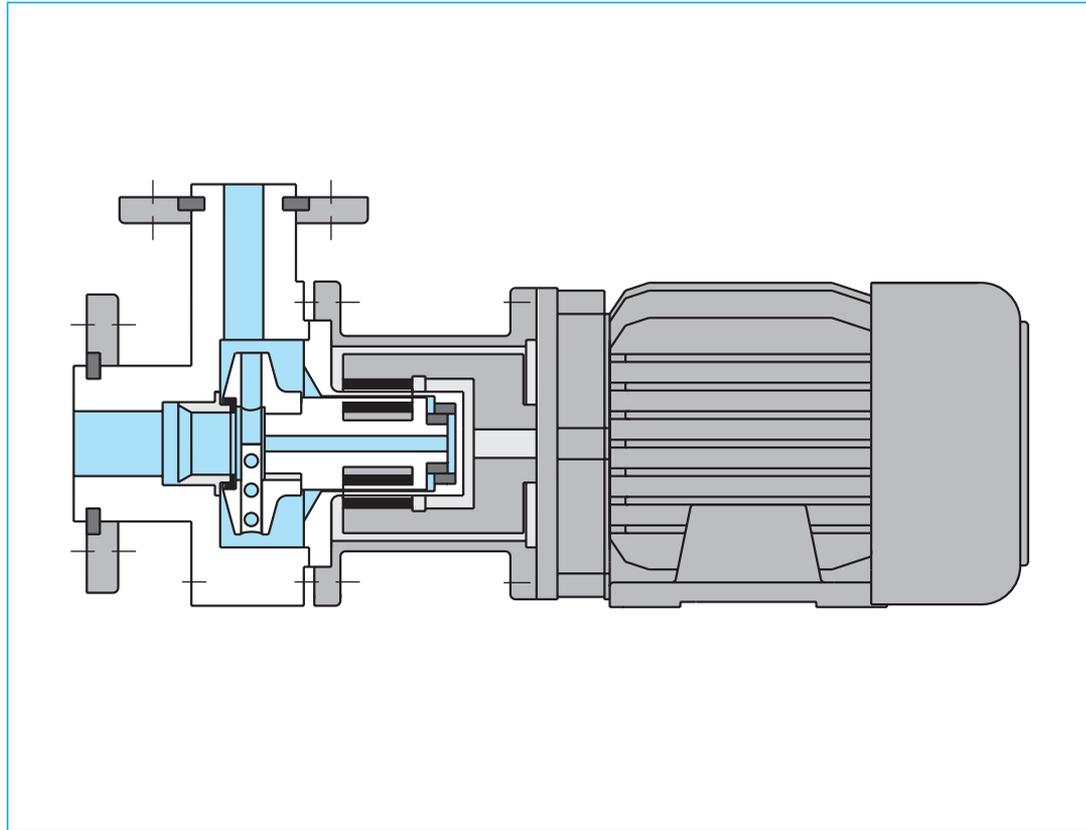
Materials

pump casing: nodular graphite iron GGG 40.3 with PTFE lining
 impeller: PTFE
 isolation shell: CFRP/PTFE
 inner magnet carrier: PTFE
 journal bearings: silicon carbide (SSiC)
 bearing lantern: 0.6025
 bearing casing: 0.6025

further material on demand

SLM GKB

Glandless centrifugal pump equipped with permanent magnet drive close-coupled construction



Technical Data

Q from 0.1 up to 8 m³/h
H up to 15 m L.C.
t from -20 °C up to +100 °C
p up to PN 3.5

Use

Pumping:
acids
lyes
highly aggressive and toxic liquids

Construction

- horizontal glandless centrifugal pump
- close-coupled construction with axial suction nozzle and radial discharge nozzle
- flange connections to DIN 2501/1
- separation of liquid chamber/atmosphere by means of an isolation shell
- axial and radial journal bearings made of PTFE/carbon compound or alternative materials

Materials

ring casing: PTFE
impeller: PTFE
isolation shell: PTFE
inner magnet carrier: PTFE lined
journal bearings: PTFE/carbon compound
bearing lantern: 0.6025

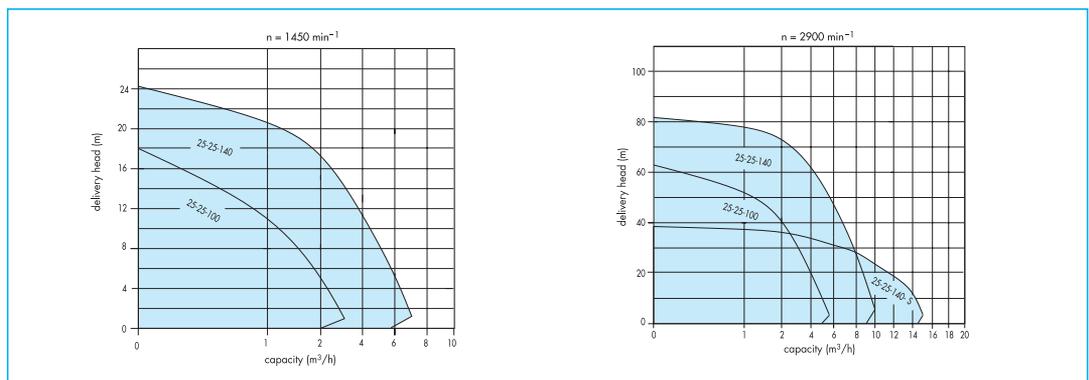
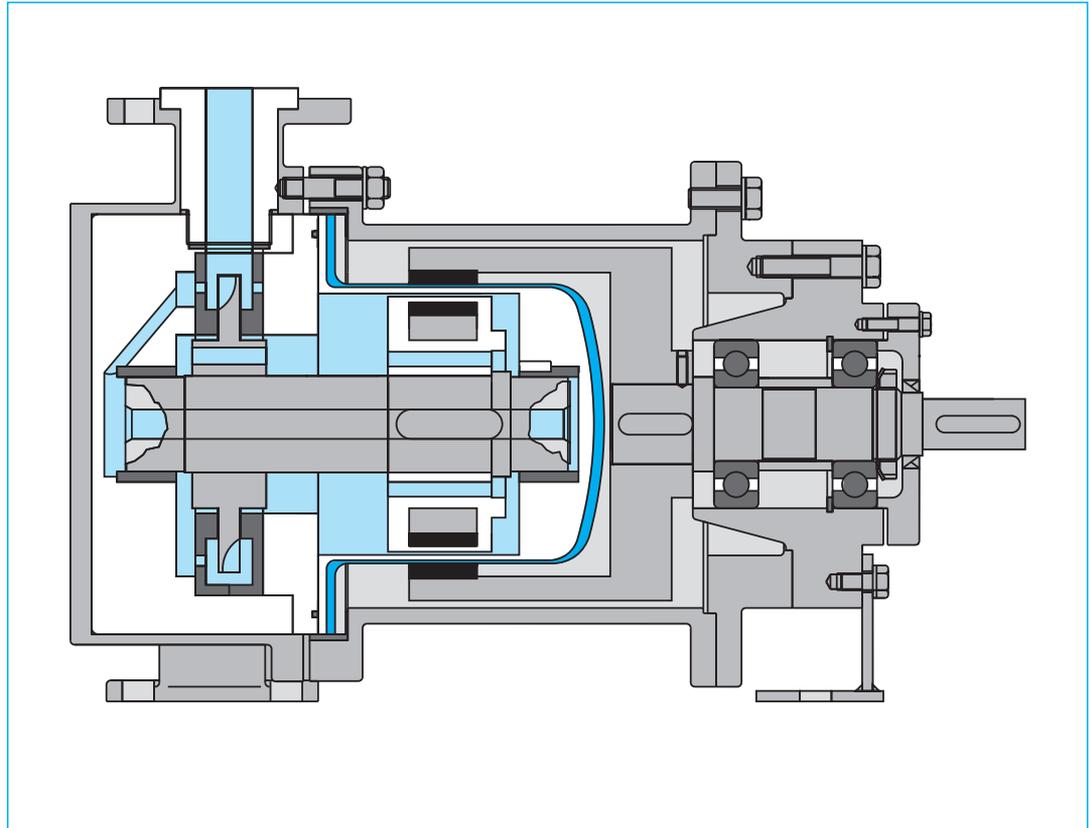
Standard Motors

Standard three phase electric motor
DIN 42677 explosion-proof
EExe II T3
size B3/B14
VIK construction

Special constructions are available

SLM PKN

Glandless peripheral pump equipped with permanent magnet drive bearing-support or close-coupled construction



Technical Data

Q from 0.05 up to 10 m³/h
H up to 80 m L.C.
t from -20 °C up to +150 °C
p up to PN 16

Use

Pumping:
acids
lyes
highly aggressive and
toxic liquids

Construction

- single-stage side channel pump
- bearing-support or close-coupled construction
- PTFE ring casing with steel jacket (1.0037)
- insertion rings made of oxide ceramics
- flange connections DN 25, PN 16, DIN 2501/1
- impeller floating on the shaft
- separation of liquid chamber/atmosphere by means of an isolation shell
- axial and radial journal bearings made of silicon carbide (SSiC)

Materials

ring casing: PTFE/1.0037
connecting flanges: PTFE/1.0037
impeller: PTFE
isolation shell: CFRP/PTFE
inner magnet carrier: PTFE lined
journal bearings: PTFE/carbon compound
bearing lantern: 0.6025
bearing casing: 0.6025

Standard Motors

Standard three phase electric motor
DIN 42673 or 42677 (B3/B14)
explosion-proof EExe II T3
VIK construction

Special constructions are available



More than 50 years of experience, safety and reliability: Klaus Union has become established as a leading supplier of pumps and valves.

Our service and product support are not bad at all – all over the world

Faster, better, better value for your money: these are the objectives of any manufacturer today. Klaus Union will support you in achieving these objectives. With an exceptional customized and extensive service, the application of state-of-the-art technologies and a high degree of competence we spare no effort to give you good advice and to attend to your requirements quickly and comprehensively: Klaus Union is your partner for any questions about pumps and valves.

Experienced, thoroughly-trained service staff and highly specialized product experts are at your service all over the world in our companies, sales offices and agencies. Thus, we are always and everywhere in a position to find an individual solution to the pumping problems of any of our customers. Extensive spare parts stocks are globally located in strategic places so that Klaus Union may offer you an optimum service all over the world and as fast as possible.

Production Programme Pumps

SLM Pumps with Magnet Drive

- Chemical centrifugal pumps to DIN EN 22858
- Chemical centrifugal pumps of close-coupled design
- Multi-stage casing pumps
- Side channel pumps
- Vertical centrifugal pumps
- Submerged pumps
- Self-priming spiral casing pumps
- Screw pumps
- Special designs
- Agitators

Pumps

- Chemical centrifugal pumps to DIN EN 22858
- Multi-stage casing pumps
- Horizontal and vertical propeller pumps
- Bottom-flange propeller pumps
- Vertical centrifugal pumps (Nobox system)
- Submerged pumps
- Double-suction chemical pumps
- Special designs

Production Programme Pumps

SLM-Pumps with magnet drives

Oil refinery centrifugal pumps acc. to API 685

Chemical centrifugal pumps acc. to DIN EN 22858

Chemical centrifugal pumps in close coupled design

Multistage casing pumps

Side channel pumps

Vertical centrifugal pumps

Submerged pumps

Self-priming spiral casing pumps

Screw pumps

Special designs

SLM agitator drives

Plastic chemical pumps acc. to DIN EN 22858

SLM-CIP (cleaning in place) for food and pharmaceutical industry

SLM AVP/NVP API 685



Pumps

Chemical centrifugal pumps acc. to DIN EN 22858

Multistage casing pumps

Horizontal and vertical propeller pumps

Bottom flange propeller pumps

Vertical centrifugal pumps (Nobox system)

Submerged pumps

Double-suction chemical pumps

Special designs

Production Programme Valves

Globe valves with stuffing box

Globe valves bellow sealed

Check valves

Gate valves

Swing check valves

Strainers

Sight glasses

Bottom valves

Relief valves

Control valves

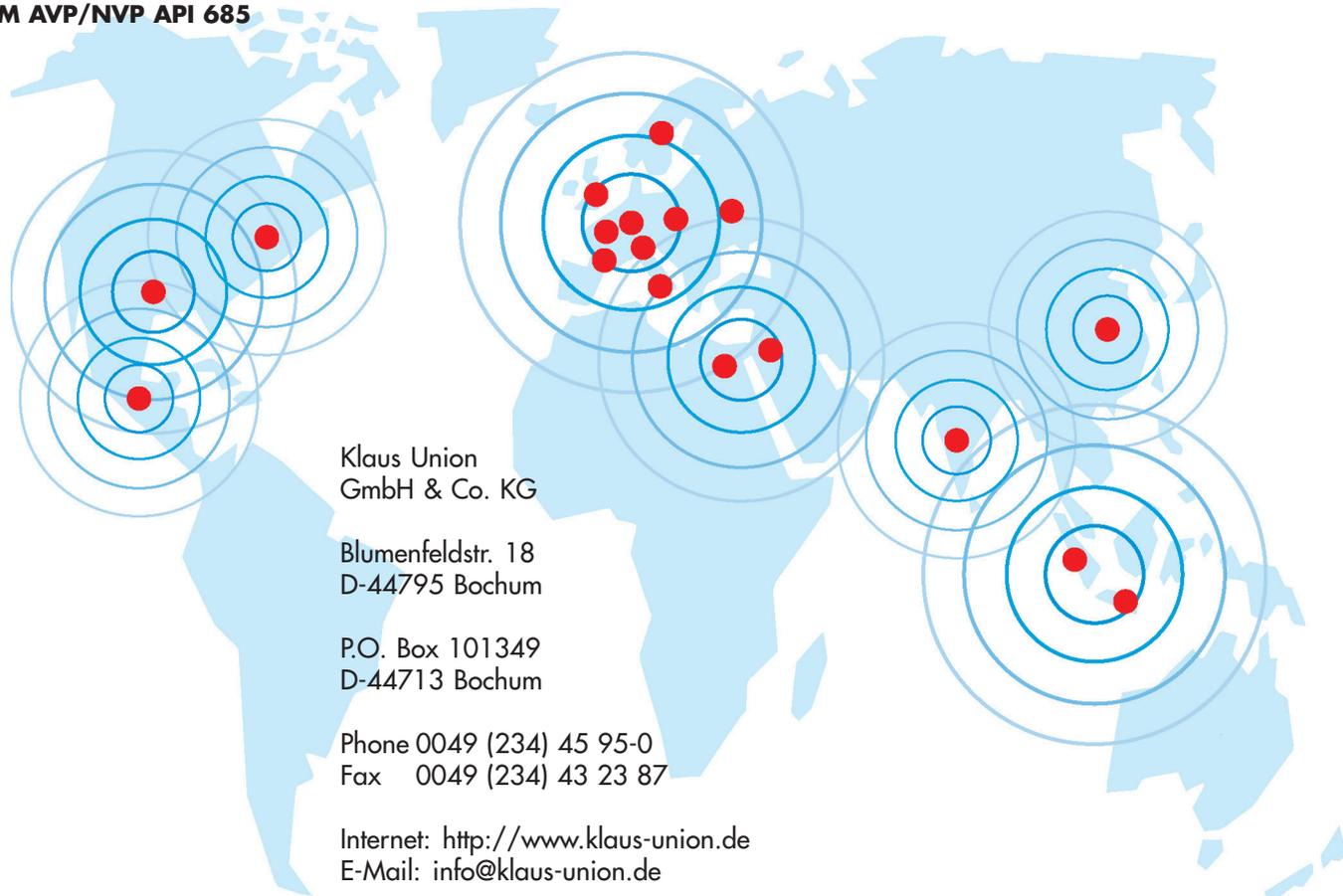
High pressure valves

Valves for cryogenics

Valves with electric or pneumatic drive

Our Service: Very close to customers – all over the world

This most unique drive system, a wide range of products in best quality as well as many years of experience have made KLAUS UNION a worldwide leading supplier of pumps with magnet drives and valves. All over the world we are represented with our own companies, sales offices and agencies. All over the world we are offering complete services from perfect proposals and advice up to technical after-sales service.



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