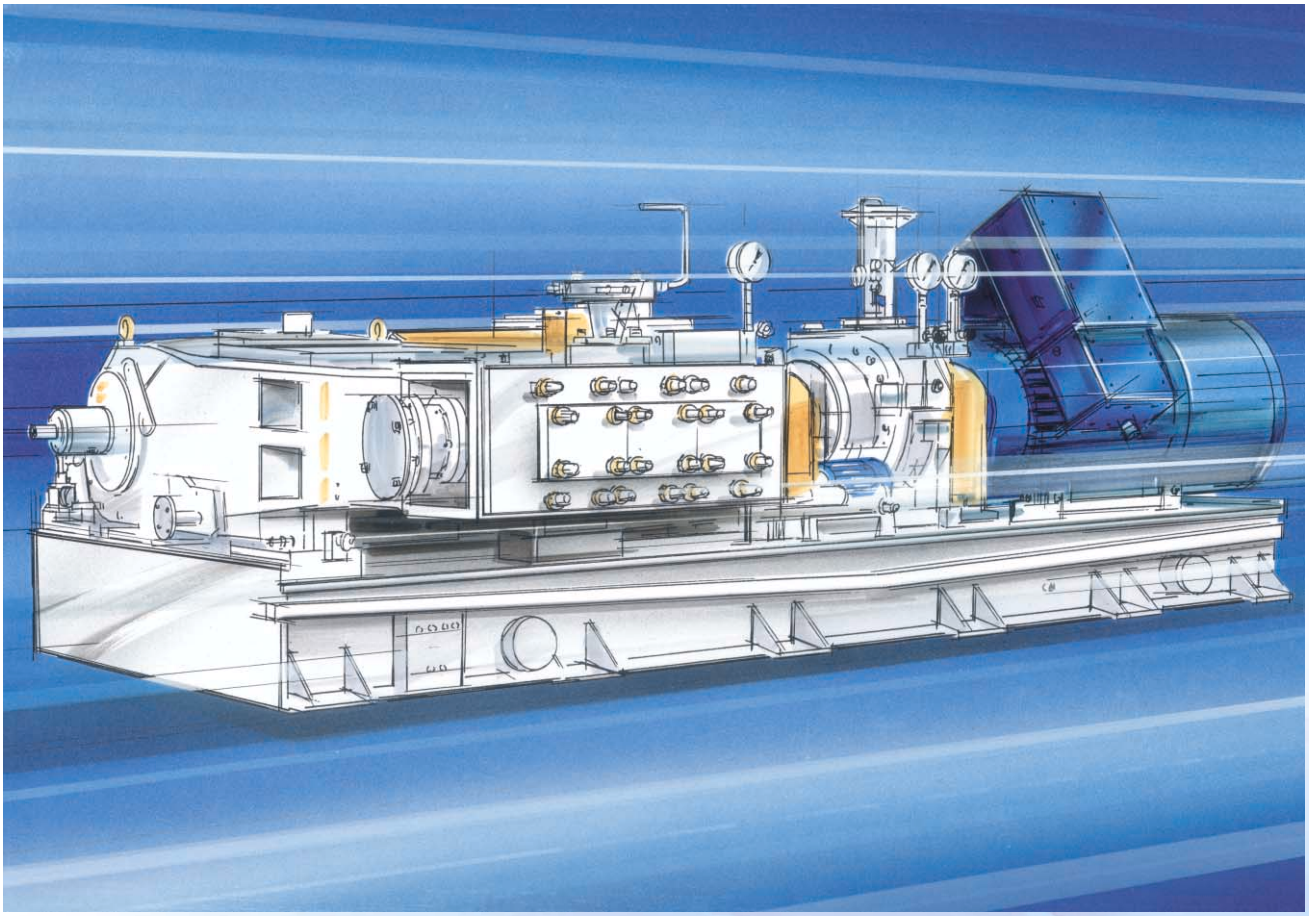
High pressure plunger pumps

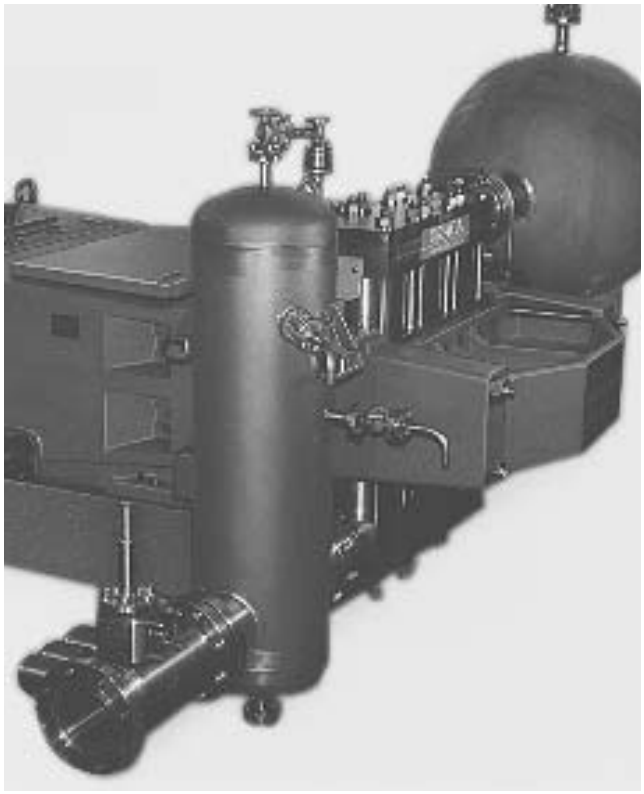
URACA



High pressure plunger pumps for use in extreme conditions

Reciprocating plunger pumps play a key role in almost all areas of process technology where fluids must be handled against high pressure. Possible fields of application and types of jobs are so varied that there is a constant need for new designs and materials in order to meet customer demands for new pump versions.

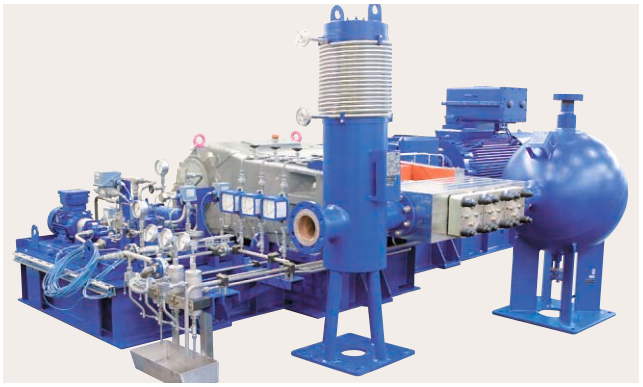
Plunger pumps are used in industry where there are high or maximum operating pressures. At a constant speed their capacity is virtually independent of operating pressure – an important feature in control operations. Capacity is proportional to speed. In all power ranges plunger pumps display high overall efficiency, which is as a rule above 90 %. This also applies to partial load operation. This is why plunger pumps are among the most economical machines – a major factor in view of rising energy costs.



Operative ranges	
Power	up to 2600 kW (3500 HP)
Capacities	up to 5000 l/min (1320 US-gal/min)
Pressure	up to 3000 bar (43500 psi)
Temperature	up to + 410°C (740°F)
Fluid properties	low or high viscosity, alkaline or acid, non-toxic or toxic, clear or abrasive

Uraca pumps are used worldwide.

Test pumps are used for hydrostatic pressure testing, including the testing of pipes, pipelines, vessels and containers, gas cylinders and many other high-pressure components. The units are also available for use in potentially explosive area zone 2 (equipment group II, equipment category 36 according to ATEX).



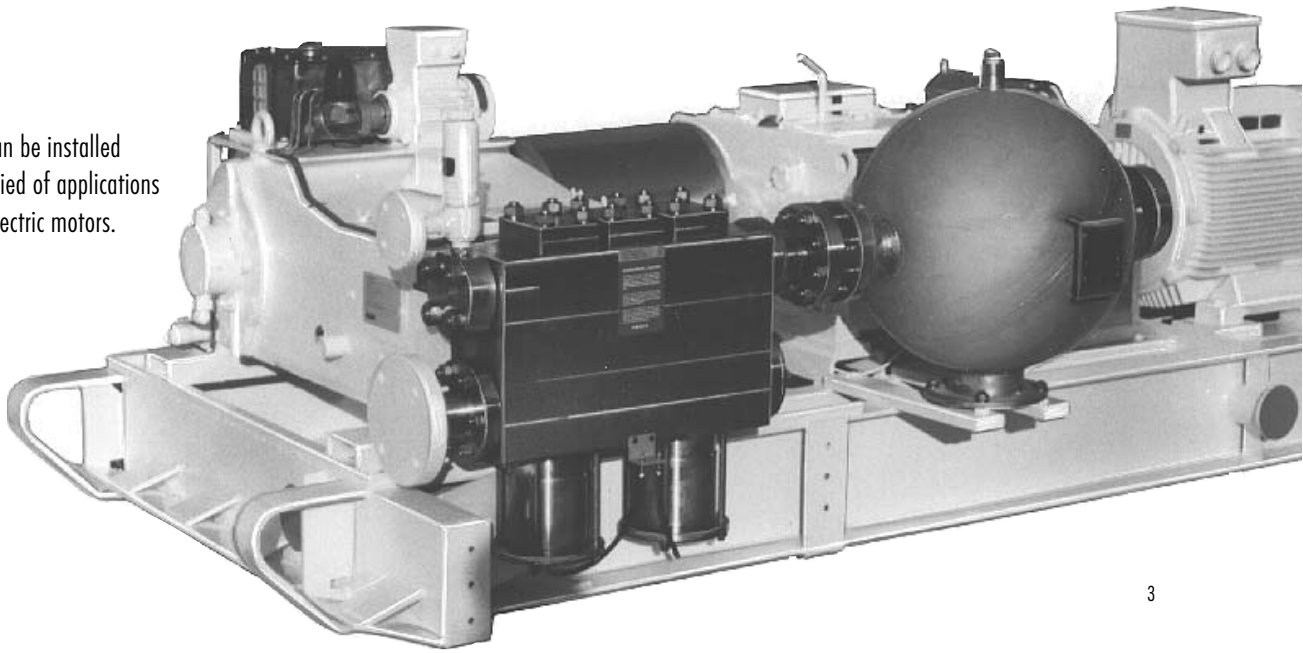
Industrial pumps can be used in virtually all industrial areas, including heavy industry, energy technology, the oil industry as well as in the food and textile industry.

The pumps are used mainly as drives for rolling mills, boiler feed pumps, pumps for hydrostatic bearing lubrication, for descaling as well as for cleaning with high-pressure water.

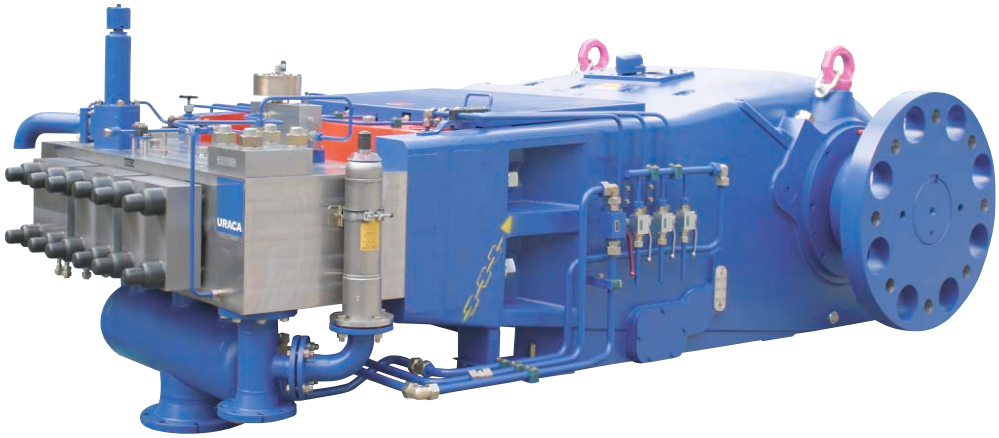
Chemical and process pumps are used for hot, aggressive, abrasive, toxic agents as well as for liquid gases.

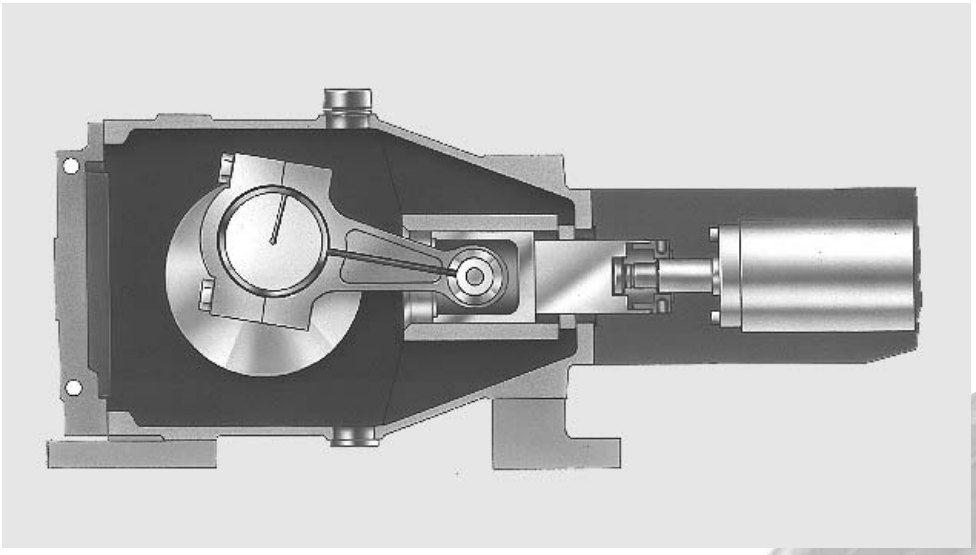
The areas of application are mainly in the chemical and petrochemical industry, but also in the manufacture of detergents, the recycling of plastics and oil residues as well as injection and the extraction of oil from coal.

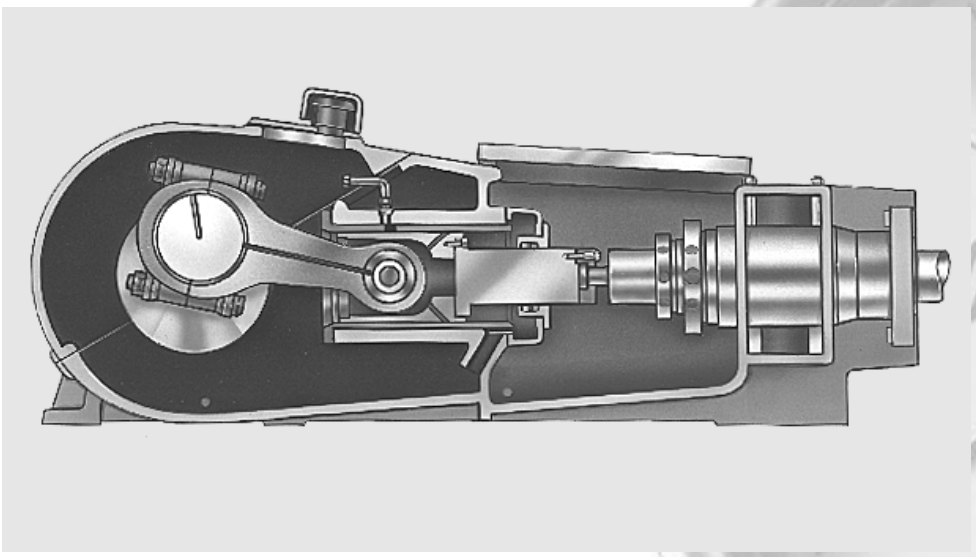
Pump units can be installed for the most varied of applications with diesel or electric motors.



Perfection in detail







Power ends

URACA's power ends are used worldwide. Every day they prove themselves in continuous operation to the satisfaction of our customers. The fields of application range from the polar circle to the tropical climate zones. High operating safety and above-average service life are typical URACA features.

Power ends for higher power requirements are equipped with oil cooling and forced oil lubrication. Power ends for lower power requirements have centrifugal lubrication. The various series cover a power range of up to approx. 2600 kW.

The power ends for series KD 600 and KD 700 are compact and have a low weight coefficient. Power end and liquid end are separated by an intermediate chamber and special crosshead seals, preventing any liquid from entering the power end.

The power ends of the big pump series KD 800 have an incline-divided power end for easier installation and for easier maintenance of the crank mechanism. The power ends are equipped with a bridge for centering of long stuffing boxes.

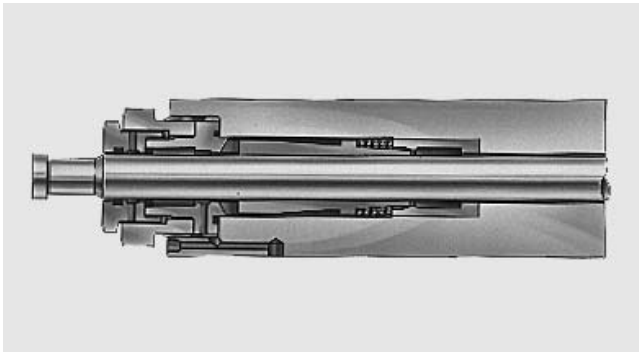
The new generation of the P-series has a crankshaft with multiple slide bearings and features three power groups with 3, 5 and 7 plungers.

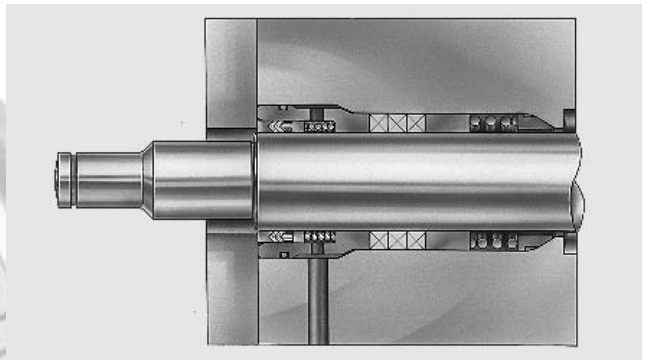
Stuffing boxes

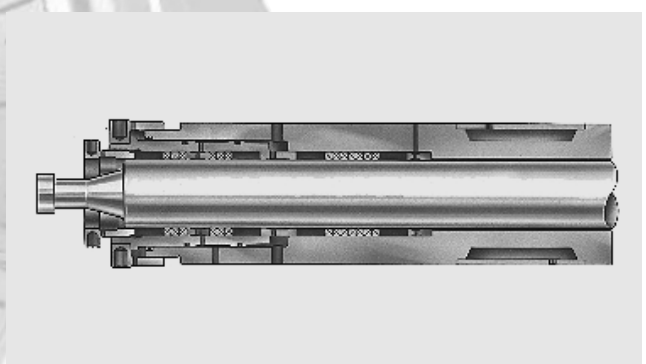
Due to the wide-range of applications for our plunger pumps, stuffing boxes and seals are designed to meet the requisites of the respective liquid. Easy-to-handle liquids, such as water, emulsions or similar, can be controlled with simple seals.

URACA will provide the best possible design to match the liquid you handle.

With fluids it is necessary, for example, to take special measures to reduce dead space or to install plunger guide bushes that are self-lubricating. The more demanding the liquid is, the more extensive the back up systems integrated in the stuffing boxes. Consequently, heating, cooling, synchronous injection, flushing or interlocking components can be installed.

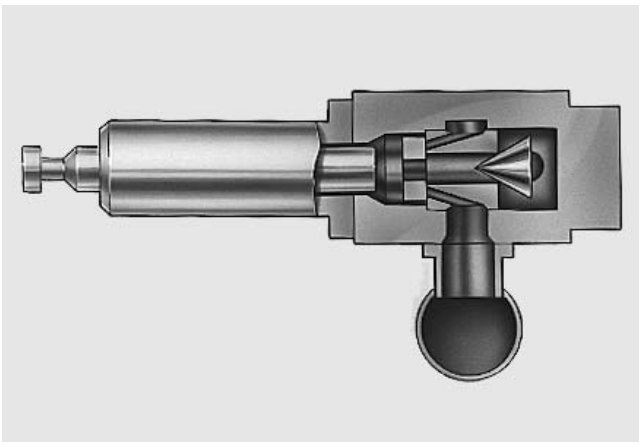


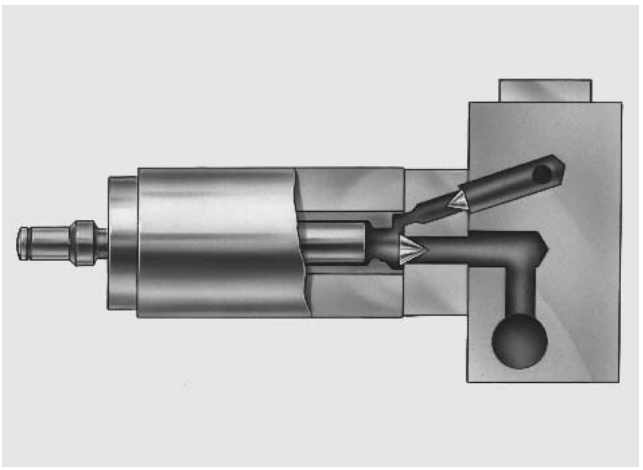


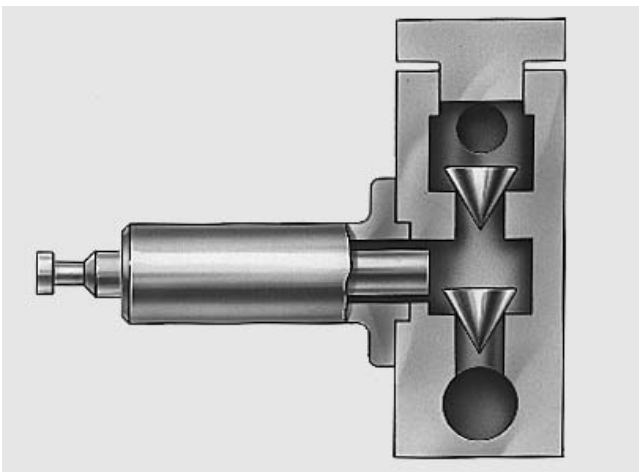


Valve blocks

The design of the valve blocks depends to a high degree on the properties of the respective liquid. Cone, plate and ball valves are available. What they have in common is high efficiency, low wear and tear and outstandingly easy maintenance.





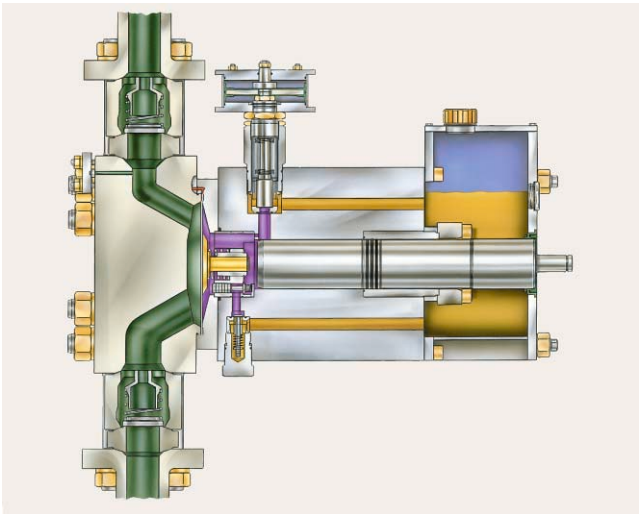


Leak-free handling

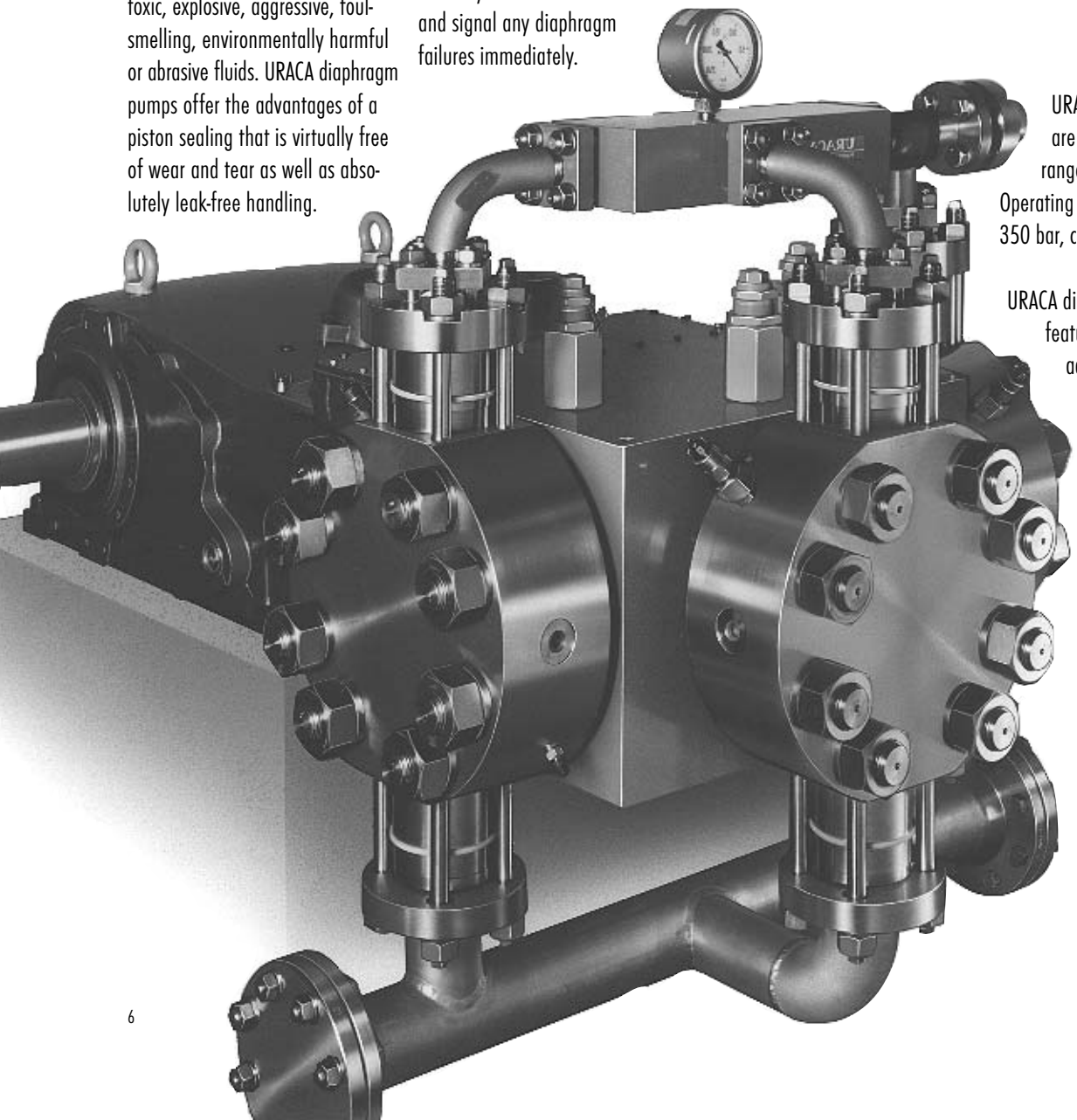
Heightened environmental awareness requires both the pump manufacturer and the operator to consider leak-free handling when designing and selecting the pumping equipment.

URACA diaphragm pumps offer a unique solution in the handling of dangerous fluids. They help in particular to increase the operating safety of production plants and to improve the working conditions of the operatives. Hermetically sealed plunger pumps are mainly used for toxic, explosive, aggressive, foul-smelling, environmentally harmful or abrasive fluids. URACA diaphragm pumps offer the advantages of a piston sealing that is virtually free of wear and tear as well as absolutely leak-free handling.

URACA diaphragm pump heads operate at a pressure range of up to 350 bar, while the temperatures of the fluid handled can be from -40 to +150° C. The PTFE-diaphragm, which is resistant to virtually all fluids, hermetically seals the fluid chamber. The selection of materials for the parts touched by the fluid as well as the design of the self-acting valves and the stroke frequency of the pump depend on the respective fluid.



Integrated monitoring systems prevent any overload of the unit and signal any diaphragm failures immediately.

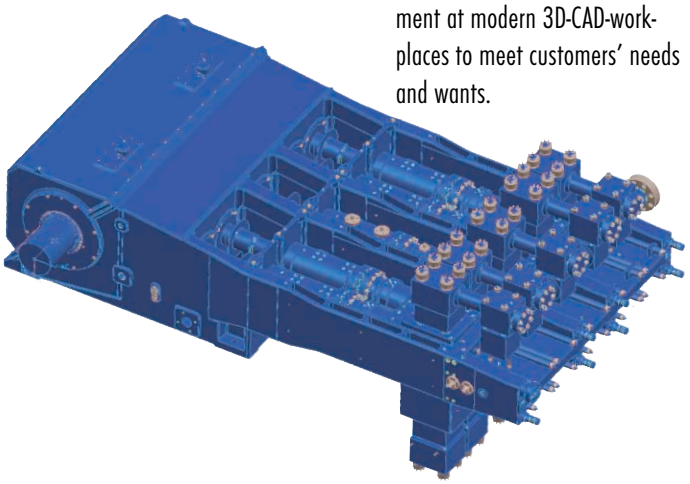


URACA diaphragm pumps are available in a power range of up to 250 kW. Operating pressure may be 350 bar, capacity up to 850 l/min.

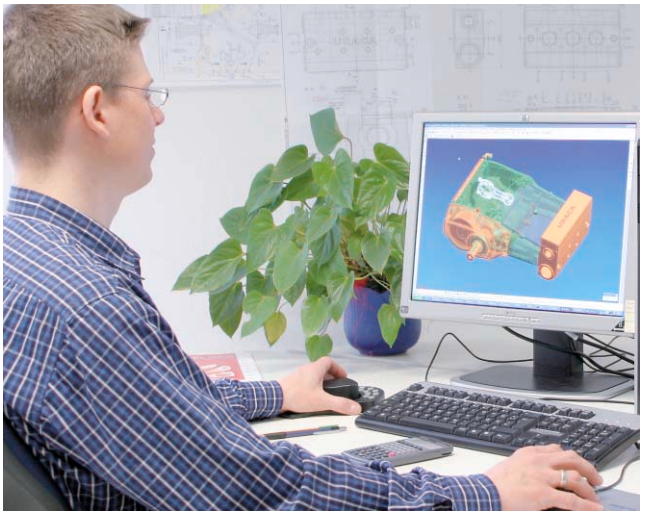
URACA diaphragm pumps feature the following specific advantages:

- Economy
- High operating safety
- High service quality
- Space-saving design
- Flexibility of drive

Consistent URACA quality – the basis of a mutually beneficial relationship



▶ Product research and development at modern 3D-CAD-workplaces to meet customers' needs and wants.

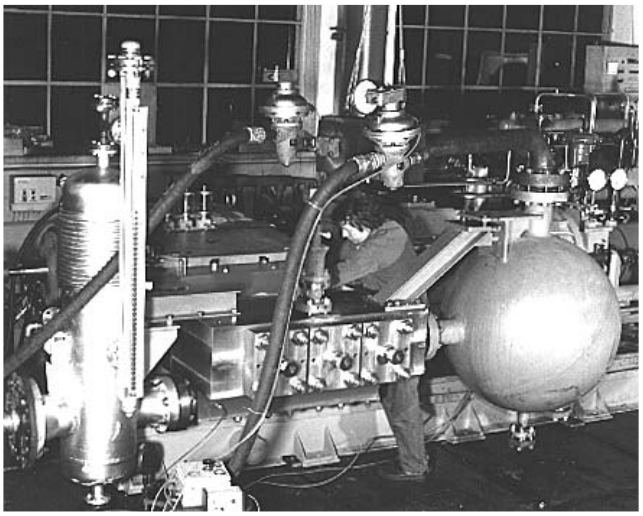


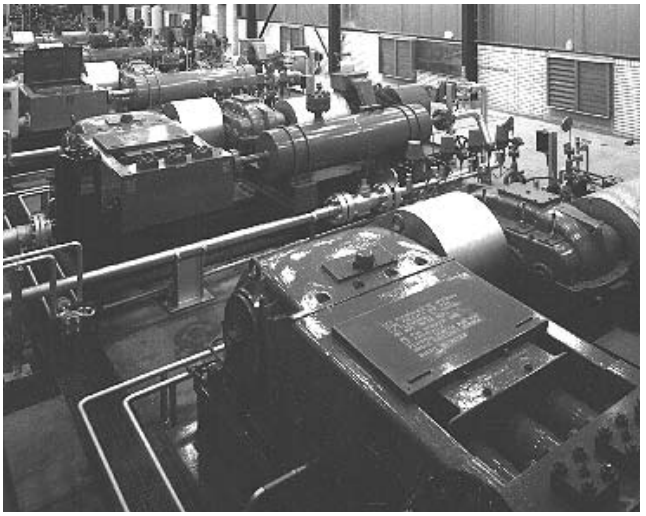
▶ Precision machining guarantees failure-free service life

▼ Meticulous assembly work by a highly trained and committed workforce

A trial run lasting several hours on the test bed as well as comprehensive test programs are a demonstration of guaranteed excellence.

▼ Many years of service life at the customer – the basis of a mutually beneficial relationship.





High Pressure – State of the Art Technology – Worldwide

URACA

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Certified acc. to:
- DIN EN ISO 9001: 2000 by LRQA
- VGB KTA 1401
- Gost

URACA is a leading manufacturer of high pressure plunger pumps and high pressure water jetting technology equipment. Since 1893 the company has been a global leader in the development of this technology.

URACA's core competency lies in the development, design, and manufacture of high pressure plunger pumps, pump units, and accessories for almost all industrial fields.

URACA offers leading technological know-how in the field of fully automated and process-integrated system technology.

The key focus is on two market segments:
- High-performance pump solutions for the CPI sectors and heavy industry.
- A universal and modular complete programme for high-pressure water jetting technology, especially for highly automated plants.

The German domestic market is covered by URACA sales centers and a network of service centers. Internationally, URACA has subsidiaries and agencies. Additionally numerous representatives underline the company's presence around the globe.

A high standard of research and development, plus a modern manufacturing facility stand for unsurpassed product quality. Ongoing market research and close attention to current market needs safeguards the company's technological leadership.

Each URACA customer profits from this comprehensive experience and technology and will find that URACA is a highly competent partner in the solution of their cleaning problems.

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