

KRANZ



COMPRESSOR **components**



History and development

KRANZ-PACKUNGEN Kuhrmeier GmbH was founded in 1906. Since that time we have been involved with the design and production of piston rod packings for compressor manufacturers and operators at home and abroad.

Our high-pressure packing type K was developed and patented in connection with the introduction of high-pressure syntheses, particularly the various ammonia syntheses. These packings are illustrated in many technical reference books as classic examples for the state-of-the-art at that time. Since then, the quality standard of our packings has received worldwide recognition.

Our type G packing with different sealing element shapes formed the basis for the next stages in development: Solution of the sealing problems in non-lubricated compressors, increased use of plastics and seals for high-pressure compressors, increased use of plastics and seals for high-pressure compressors with operating pressures up to 3500 bar.

On the basis of these many years of experience and the constant further development of design and the materials used, we are able to offer a solution to your sealing problems for practically all operating conditions.

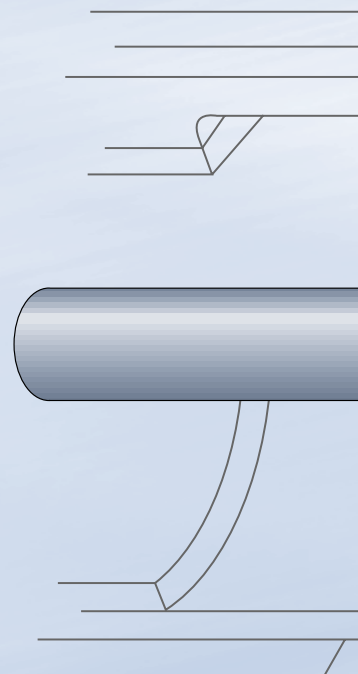
Our range of delivery:

- Packings for lubricated operation with seals made of metal, PTFE and other plastics
- Dry-running packings with seals made of PTFE, carbon and plastics such as polyamides, polyimides
- High-pressure packings up to 3500 bar

- Compressor valves for all applications
- Oil scraper packings and oil scraper rings
- Accessoires such as flanges, guide bushes, cooling jackets etc.
- Piston and rider rings made of PTFE, other plastics and metal
- Piston rods made from various steels, untreated, surface hardened or coated with corrosion-proof and wear-proof materials, such as nickel-chromium alloys, ceramics, metal-oxide and metal-carbide alloys

Our Service offer:

- Repair and reconditioning of packings, valves and piston rods, even from other manufacturers
- Advising and technical support



COMPRESSOR
components

■ Oil Scraper Packings

are designed to prevent crankcase lubrication carryover into the packings and cylinder via the piston rod. This is particularly important in dry-running compressors. The oil scraper rings are also combined with sealing rings in order to seal off crankcase air pulsations or the distance piece gas pressure



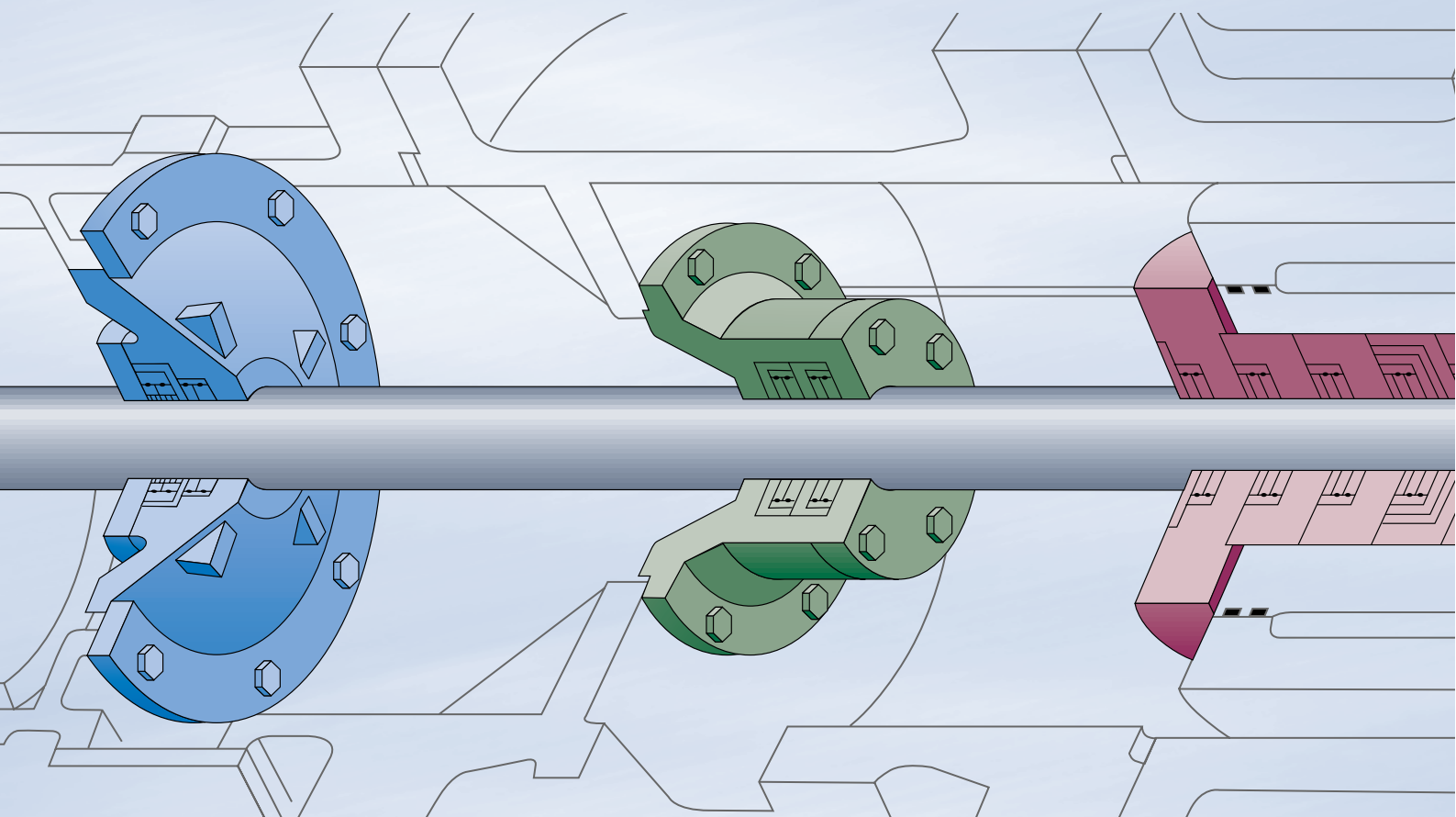
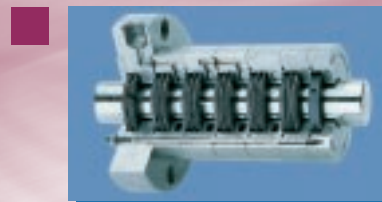
■ Intermediate Packings

prevent leakage of gas from the main packing or inert gas from the distance piece into the crankcase. In the case of explosive or toxic gases, additional purge or buffer gas must be introduced into the distance piece or into the intermediate packing.



■ Main Packings

serve to seal the cylinder area on the piston rod. The packings consist of self-sealing, floating sealing elements, packing housings and stuffing box flanges. Due to the different types of compressors available, it is necessary to produce application-specific designs and material compositions for the different operating conditions.



■ Valves

We supply suction and discharge valves for all known compressors in an extremely wide variety of sizes, designs and materials.

The quality of KRANZ products is renowned all over the world and is your guarantee that you will obtain the best possible solution for your valves.

The valves and materials are designed and selected according to the individual operating conditions.



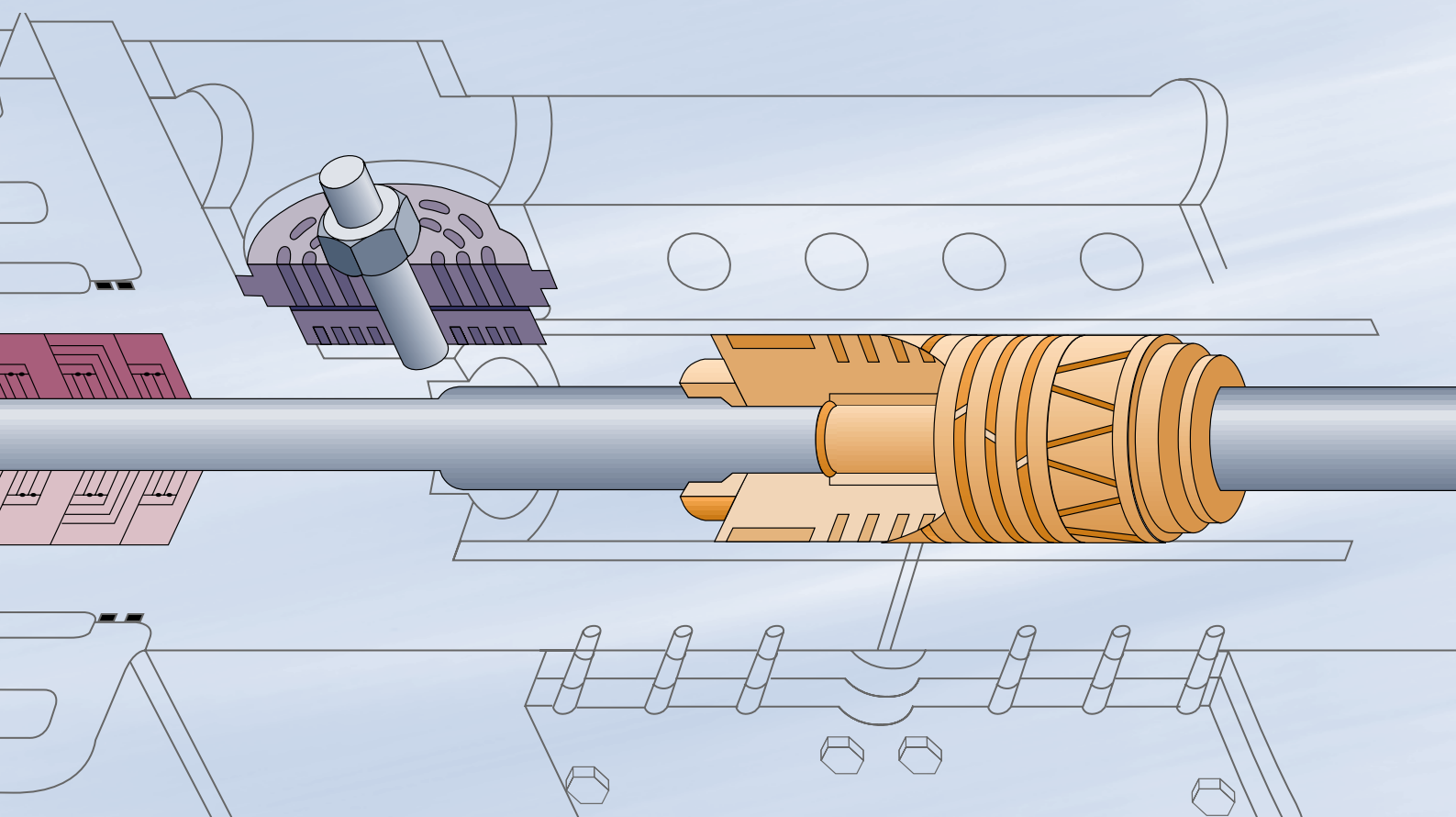
■ Piston- and Rider Rings

serve to seal and guide the piston.

We have a complete delivery range of ring shapes and different materials, both for dry running and lubricated operation. Piston- and rider rings can be supplied for all common cylinder diameters.



COMPRESSOR
components



■ Packings

for lubricated and non-lubricated compressors, for standard low-pressure air compressors up to special high-pressure packings for pressures even higher than 3000 bar.

The packings are designed for the different kinds of operating conditions and compressor types. Selection of the material for the sealing rings and the design of the housing, including flow cooling, are of decisive importance of the perfect working.

■ Sealing elements

of a packing consist of the actual sealing rings supplemented by back-up rings, pressure rings and throttle rings, depending on design and application.

The sealing rings are designed in various shapes, generally with radial and tangent cuts. The selection of material depends on the operating conditions. Plastics, especially PTFE with selected fillers, as well as sealing rings made of bronze alloys are most frequently used.

■ Oil scraper rings

are supplied in various shapes, generally with radial and tangent cuts. The different shapes of the scraper edges and the oil drain grooves are very important for the ring function. Oil scraper rings made of metal, PTFE and other plastics are supplied.

Oil scraper rings combined with sealing rings can also be installed.

■ Valves

are supplied for all known compressors in an extremely wide variety of sizes, designs and materials. The valves and materials are designed and selected according to the individual operating conditions.

Valve and damper plates are tailor-made for the specific application. Optimum efficiency and service life are of crucial importance in choosing the right design.



■ Piston- and Rider Rings

for gas compressors are mainly made from plastics today, particularly PTFE. Piston rings are generally designed with straight, angle or step cut joints. In addition, special designs such as pressure-relieved, gas-proof, trapped or multipart rings are also supplied, partly with expander springs. Rider rings are supplied with straight or angle joints and with relief grooves. Uncut rings made of PTFE are also used, depending on the design. We have developed specially designed piston rings made of special bronzes for application in LDPE high-pressure compressors. These piston rings have proved to be highly successful in this area of application throughout the world.

■ Piston Rods

made from a variety of steels, untreated, hardened or coated according to the latest coating processes are supplied by us. Surfaces with a very high wear resistance, even at higher temperatures, as well as resistance to erosion and corrosion can be obtained with these processes. These coating processes are also of particular importance for reconditioning worn piston rods.

■ Maintenance of Packings

The packing housings also wear the course of time. The sealing surfaces in particular no longer fulfill their function and have to be reconditioned. We will repair your packings, no matter what type or make they are. The packings are disassembled, cleaned, reconditioned and if necessary completed with individual housings. After lapping the sealing surfaces, the packing is reassembled with new sealing elements and you get back a packing as good as new.

■ Maintenance of Valves

and repair service is offered by us for all valves, irrespective of their type or origin. This service includes dismantling, cleaning, rectification and any necessary replacement of individual parts. The valves are then tested to ensure that they are working perfectly, using the latest test and inspection methods.

