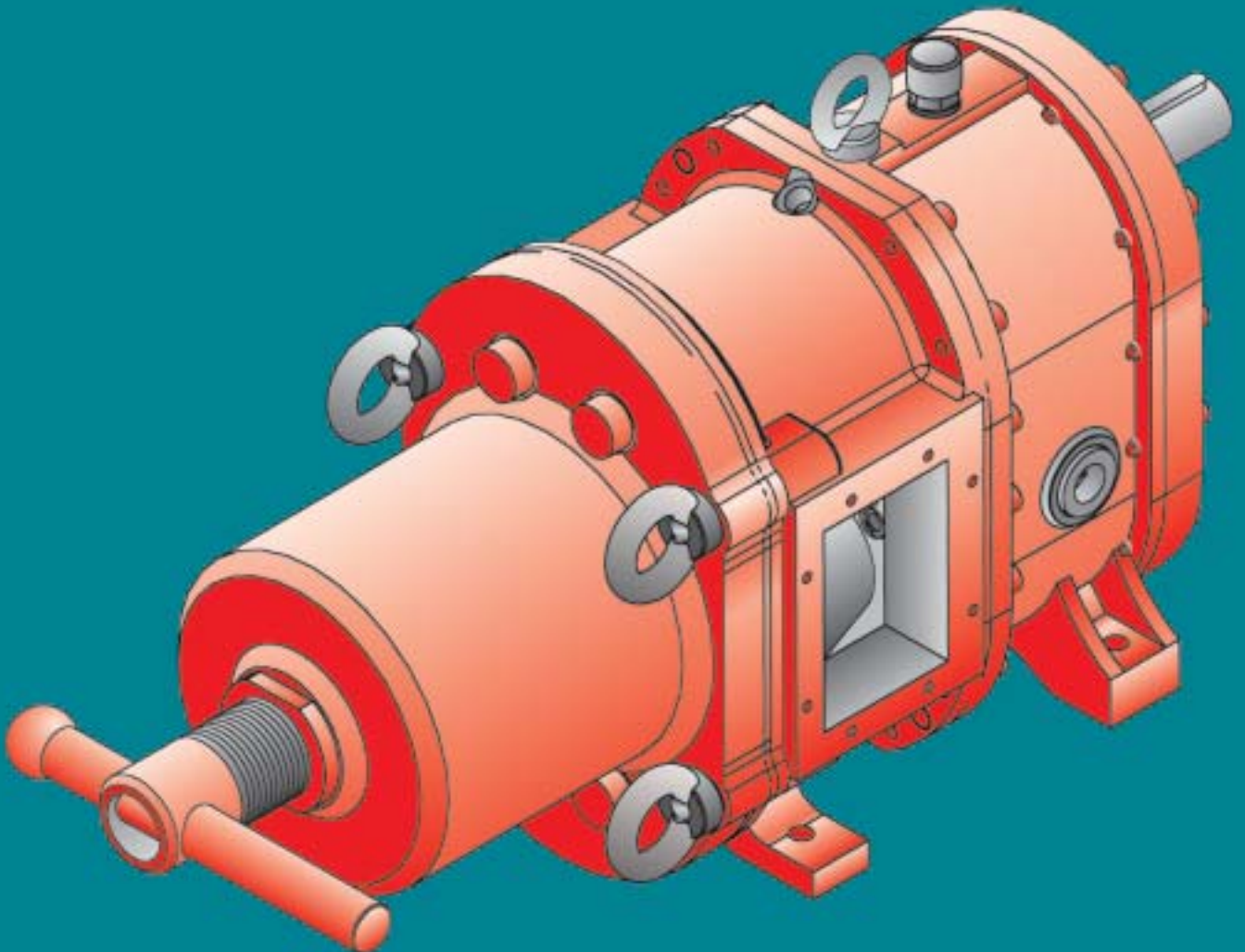
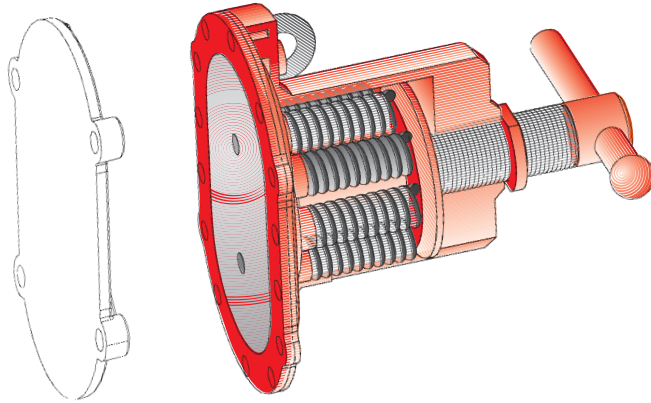


BÖRGER®

Variocap -
Integrated Pressure Relief
and Control Device



Operational safety with integrated pressure relief valve VARIOCAP Smart ideas by BOERGER



The pump discharge pressure generates a force on the pump cover, which is constructed from an outer ring and an inner, spring-loaded plate. As long as the spring force is larger than the pressure force, the inner plate maintains its position and seals suction and discharge side. If the pressure force exceeds the spring force, the inner plate moves axially and the developing clearance between rotor and inner plate enables slip from the suction to the discharge side. The rotor / inner plate clearance closes with decreasing discharge pressure.

An elastic diaphragm seal between inner plate and outer ring encapsulates all other parts of the VARIOCAP from the pumped fluid.

Advantages of the VARIOCAP | Typical pressure relief valves are installed in the discharge main. The inlet is typically smaller than the main pipe diameter. With suspension fluids there is a risk of sedimentation of solids. If a typical pressure relief valve opens, there is a risk of blockages of the valve seats or the springs. The valve cannot close properly and it fails. These risks are eliminated with the VARIOCAP, which opens and closes as an integrated part of the pump with the springs separated from the fluid.

Reversible pump operation with the VARIOCAP | A Rotary Lobe Pump has no preferred rotation direction. The flow can be either way and can be reversed quickly and easily. This is an advantage for tank loading / unloading applications or in filtration processes.

The VARIOCAP is a pressure relief system, which operates in either direction and minimizes switching time for rotation direction changes.

Uncontrolled pressure peaks | A production plant operates various pumps. The pipe systems are often complex. Some processes require short cycles of operation against closed valves resulting in pressure peaks. The VARIOCAP opens and closes without noise and ensures a continuous, trouble-free operation.

Efficient filling with the VARIOCAP | A Rotary Lobe Pump with VARIOCAP needs to fill up drums consistently and as fast as possible in a filling station. The first 90% of the drum volume are filled with full pump capacity. The closing process of the dosing nozzle increases the discharge pressure, which opens the VARIOCAP accordingly. The flow reduces to zero when the nozzle closes completely, with the pump still rotating.

The full drum gets replaced with an empty one, the dosing nozzle opens and the pump flow immediately increases to full capacity.

BÖRGER®

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