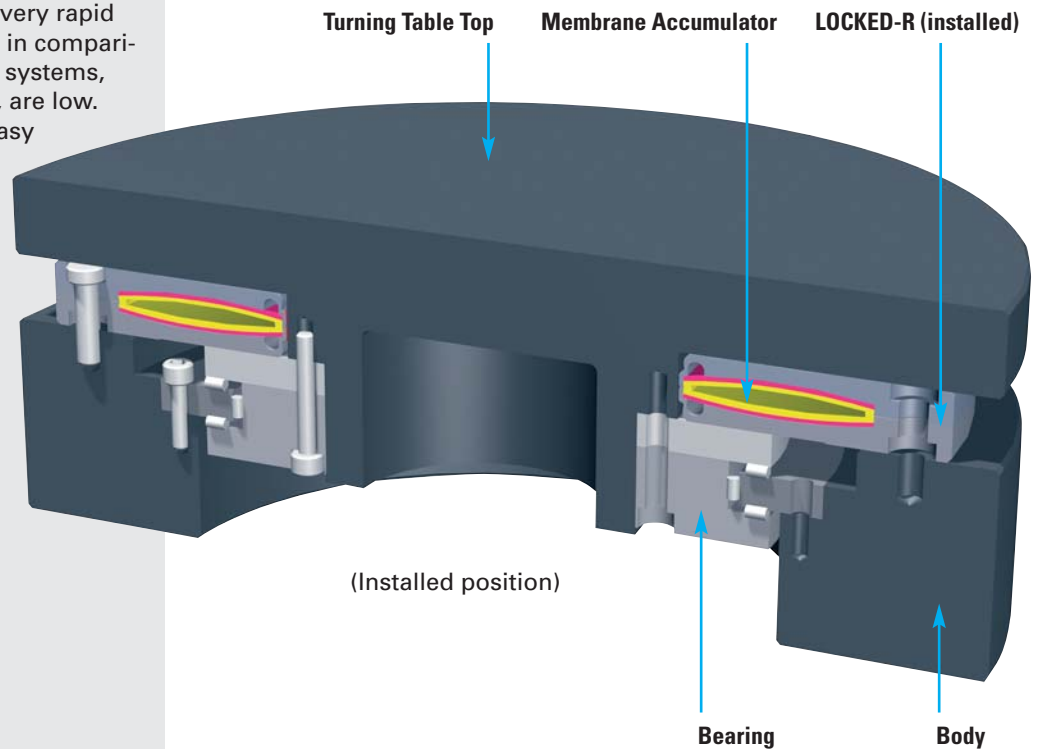


ACE's innovative pneumatic clamping elements of the LOCKED-Series R offer highest forces and holding for clamping of rotational movements directly on the shaft. They are available in standard sizes for shaft diameters of 50 to 340 mm. Due to the spring-brake actuator principle, energy failure is immediately followed by **safety clamping**.

Due to the use of pneumatics, very short reaction times are reached. The use of Piezo valves directly at the clamping point allows for very rapid clamping times. The costs in comparison to hydraulic clamping systems, including safety clamping, are low. Despite its compact and easy to install design, values of hydraulic clamping are equivalent to or even exceeded.



Shaft diameter: 50 to 340 mm (on request up to 460 mm)

Maximum holding: 4300 Nm (up to 7800 Nm with additional compressed air)

Material: Clamping body hardened, inner bore ground.

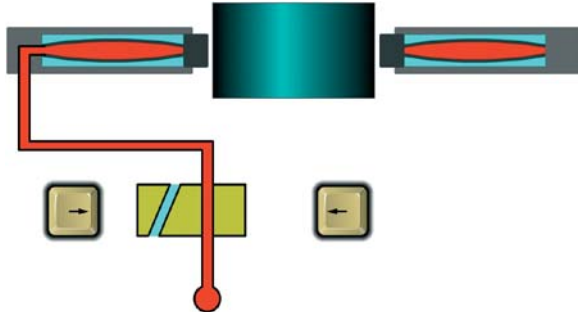
Optionally fitting shaft flange: C45 standard or steel coated (Sliding fit)

Operating pressure: 5.5 to 6.5 bar (other values on request)

Pressure medium: Dried filtered air.



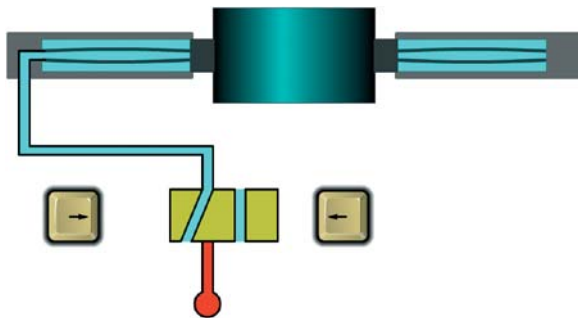
Operational Principle



LOCKED-R Released

The chamber between the two ring-shaped spring steel membranes is filled with compressed air and the inside ring is thereby elastically expanded. Due to the resulting shape and the fact that the membranes are radially slotted outwardly at the inner diameter, the clamping can spring back to its original (released) position.

The enlargement of the diameters frees the shaft, and movement without resistance is possible. The increased diameter results from the tolerance between shaft and the LOCKED-R element.



LOCKED-R Engaged

The air pressure in the chamber between both ring-shaped diaphragms is released. The diaphragms' return force presses the clamping surface back into contact with the shaft. The spring-brake actuator affects the clamping and needs no additional energy.