









K519

Heavy Duty Piston Seal

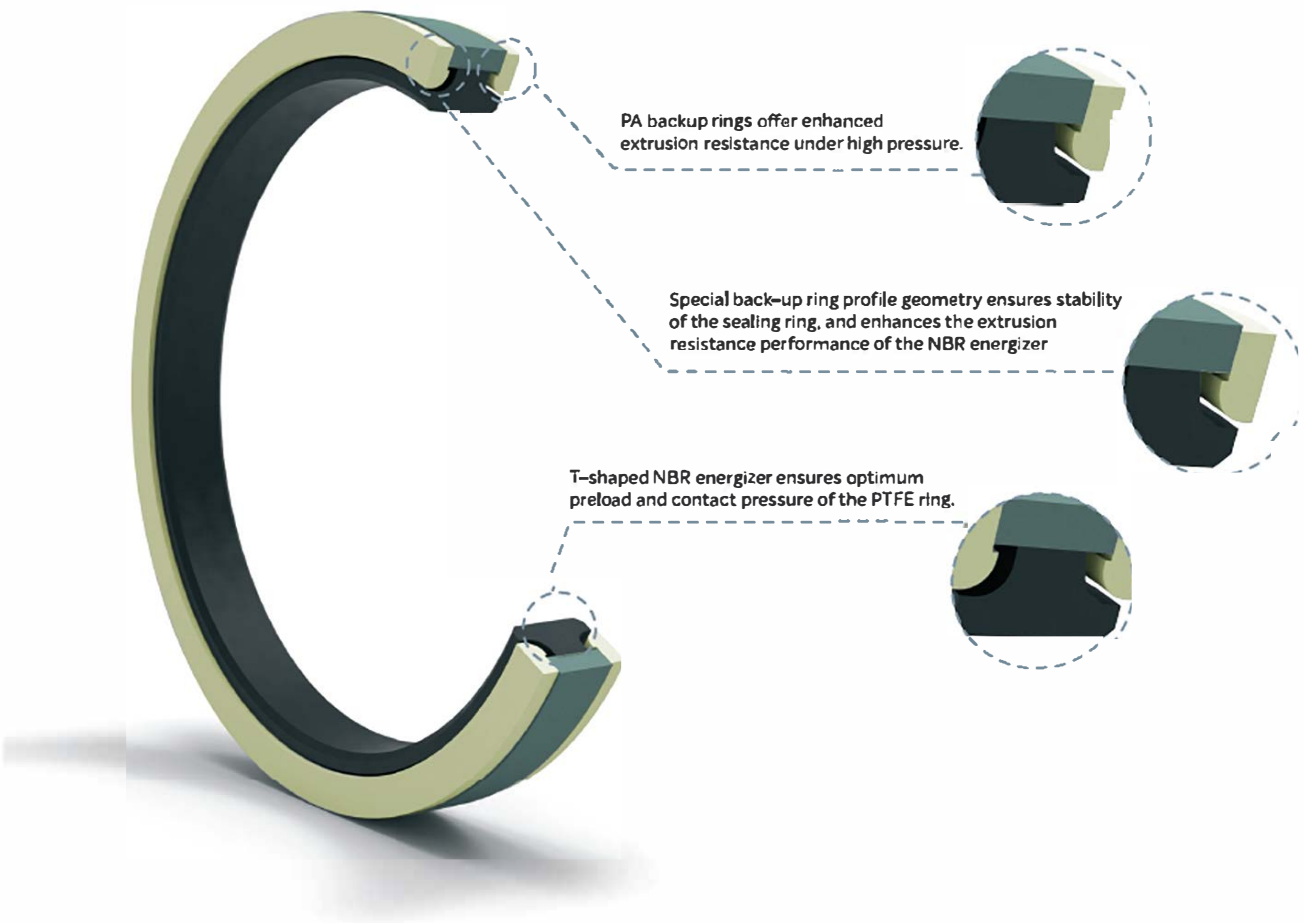
Kastas Sealing Technologies

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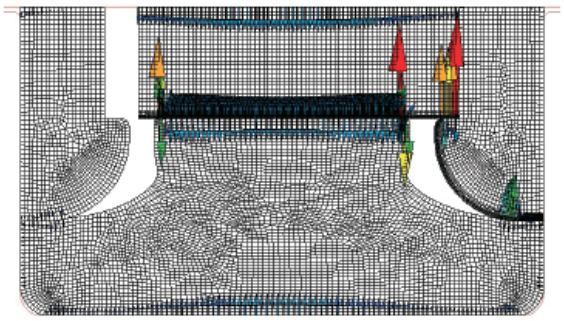
K519

Heavy Duty Piston Seal

K519 is a high-performance, double-acting piston seal developed for demanding heavy-duty hydraulic applications. Its advanced configuration—comprising a modified PTFE sealing ring, a low-temperature resistant NBR energizer, and two polyamid back-up rings- offers outstanding extrusion resistance and optimum friction. Designed to perform reliably under high pressure and temperature peaks up to 120°C, **K519** ensures long service life even in severe dynamic conditions.

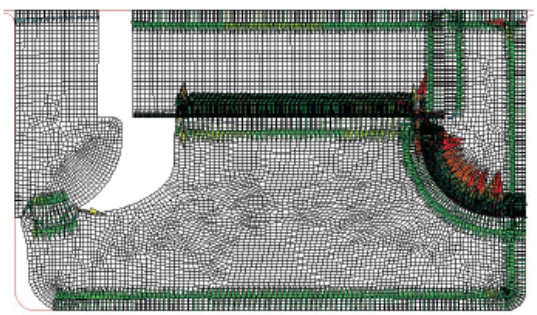


- **Excellent sealing performance**
- **Superior extrusion and wear resistance**
- **Reliable operation under high pressure**
- **Low friction, free of stick-slip**



normal stress

The K519 exhibits an optimized contact stress distribution during the installation phase, ensuring that the dynamic contact surface are fully and securely seated against the counter-surface.



normal stress 690 bar

The advanced contact pressure profile on the dynamic sealing surface prevents leakage even under extreme pressures of up to 690 bar, offering superior sealing performance.



cauchy stress installation

Cauchy stress analysis in the installation state demonstrates that the preload forces are evenly distributed across the cross-section, confirming the material is in its ideal form prior to operation.



cauchy stress 690 bar

The stress distribution under a 690 bar load shows that the structural support provided by the PA backup rings maintains the seal's integrity and maximizes extrusion resistance.

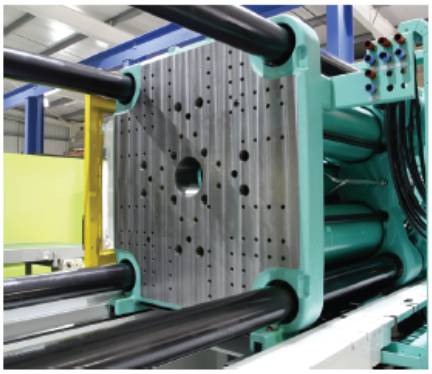
Areas of Application



Construction Machinery



Material Handling



Plastic Injection Moulding Machinery



Support Cylinders



Platform Lifts



Forklifts

K519

Heavy Duty Piston Seal

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