

Hydraulic Seals



Hydraulic cylinders operate in a variety of applications and environmental conditions, including exposure to dust, debris or outside weather conditions.

Piston seals maintain sealing contact between the piston and the cylinder bore. The pressure acting on the piston seal increases contact forces between the piston seal and cylinder surface. The surface properties of the sealing surfaces are therefore critical to proper seal performance.

Piston seals are typically classified into single-acting (pressure acting on one side only) and doubleacting (pressure acting on both sides) seals.

Rod seals maintain sealing contact in sliding motion between the cylinder head and the piston rod. A rod sealing system can consist of a rod seal and a buffer seal or a rod seal only.

Wiper seals maintain a seal with the piston rod in both static and dynamic positions. Without a wiper seal, the retracting piston rod could transport contaminants into the cylinder seal.

They also assist in preventing moisture or particles from entering around the outside of the wiper seal.

Heavy duty applications typically consist of a combination of both seal types. Rod seals also provide a thin lubrication film on the piston rod that lubricates themselves and the wiper seals, helping to prevent corrosion of the piston rod surface.

UK Seals can also supply seals for telescopic cylinders. Telescopic cylinders are available in single acting, a single acting / double acting combination, or a double acting design. A double acting Telescopic cylinder is a more complex design and involves additional sealing within the internal body of the cylinder to seal off the different stages.

Although the price of a seal is relatively inexpensive, choosing the wrong seal / material for use in a telescopic cylinder can prove costly should it fail. It's for these reasons that it's important to ensure you select a high quality seal that is the right material.

UK Seals supply a range of Rod seals for use in one piece gland that are specifically designed for sealing in telescopic cylinders.

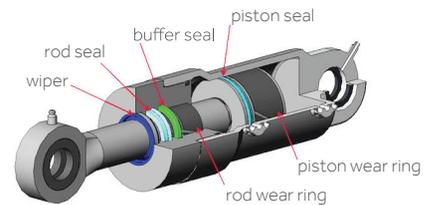
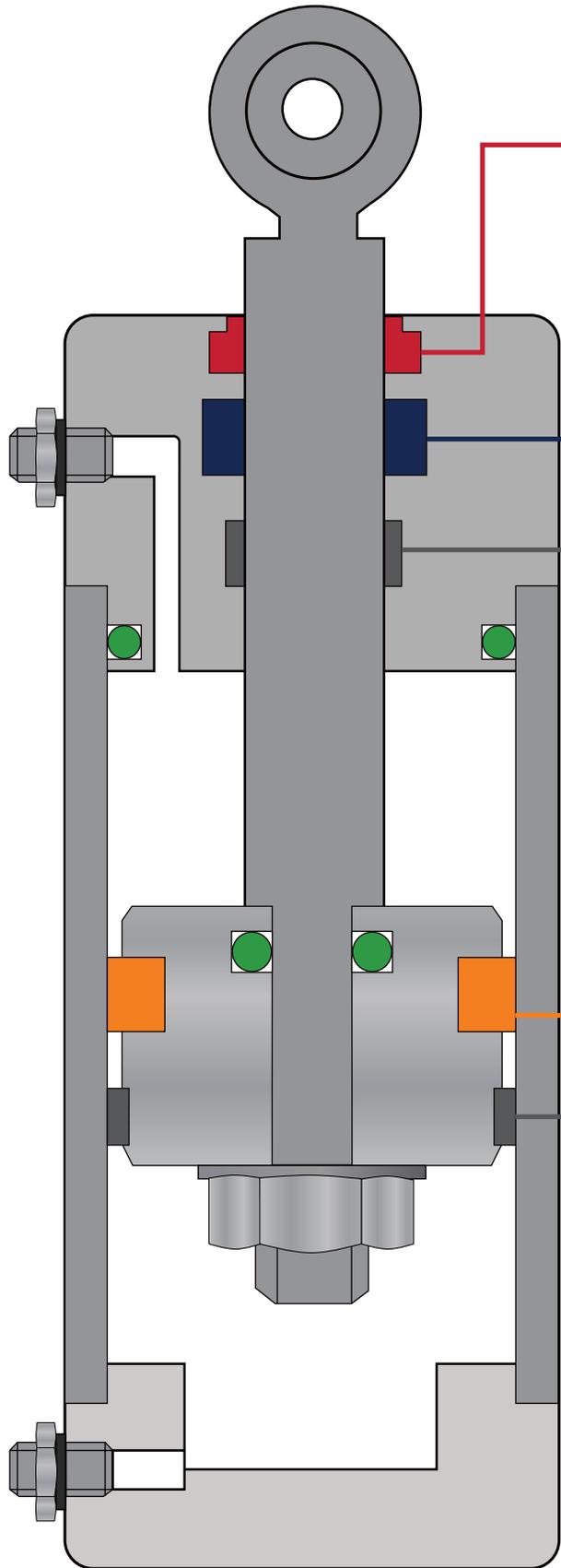


Fig 1.1 Hydraulic seal types (see diagram overleaf for more details)

“ Our Hydraulic Seals ensure **maximum durability** and **performance** with minimum maintenance. ”

Hydraulic Seals



ROD WIPERS



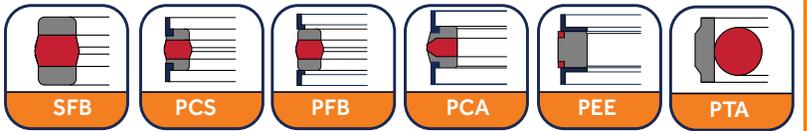
ROD SEALS (SINGLE ACTING)



PISTON SEALS (SINGLE ACTING)



PISTON SEALS (DOUBLE ACTING)



WEARINGS / BEARINGS

Materials available:

Acetal	Filled PTFEs
Phenolic	PEEK
Fabric / Polyester Resin	

UK Seals supply a wide range of Hydraulic seals including; PTFE seals, U Seals, fabric seals, compact seals, cup seals and V packs. Our products range from standard hydraulic seals to heavy duty, large diameter, custom solutions.

Contact UK Seals for additional profiles. Non-standard sizes are our strength.

