CHESTERTON
Global Solutions, Local Service.

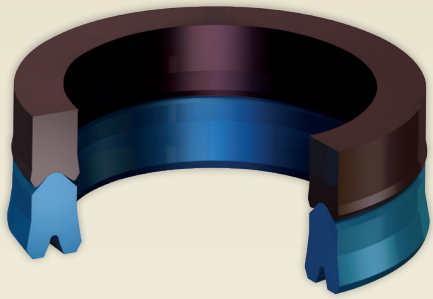
11K
Rod Seal

Patented simple dual component, split seal assembly for hydraulic sealing eliminating the need for equipment disassembly

The Chesterton® 11K Rod Seal is a single-acting, two-part unit recommended for use in hydraulic cylinders and presses. The unique, split design eliminates the need for equipment disassembly and shimming. The simplified design reduces friction and wear as observed in conventional elastomer V-ring assemblies. The net effect is an improvement in the life of the equipment.

The 11K has a negative rake lip profile to optimize operating performance while easing installation into the stuffing box cavity. The set is available in various material combinations to accommodate new or used equipment and can be supplied in split or solid designs. The bottom ring is the primary sealer while the top ring provides secondary sealing and works as an anti-extrusion ring.

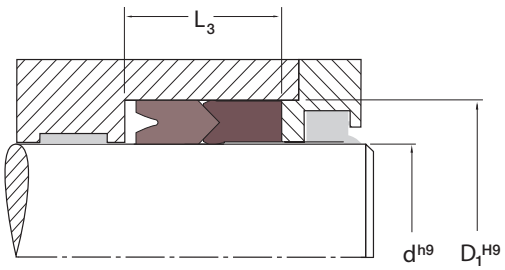
The 11K can be manufactured using a machining process which allows the flexibility to create any size based on equipment dimensions.



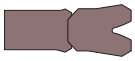
- Patented split design eliminates the need to disassemble equipment
- Negative lip profile optimizes operating performance and eases installation
- No shimming, reduces tedious calculations and future adjustments
- Dual material combination works on both new and worn equipment
- Sizes made to accommodate international standards including ISO and DIN

SPECIFICATIONS

Material (designation)	Size Range mm (inch)	Temperature °C (°F)	Pressure bar (psi)	Speed m/s (ft/min)
AWC704 (FKM)	6 to 305(1/4 to 12)	-30 to 200 (-20 to 400)	345 (5,000)	1.5 (300)
AWC800 (EU)	6 to 2540 (1/4 to 100)	-50 to 85 (-60 to 185)	1035 (15,000)	0.9 (185)
AWC825 (EU)	6 to 2540 (1/4 to 100)	-50 to 85 (-60 to 185)	1035 (15,000)	0.5 (100)
AWC830 (EU)	6 to 254 (1/4 to 10)	-35 to 75 (-30 to 165)	520 (7,500)	0.9 (185)
AWC860 (EU)	6 to 1397 (1/4 to 55)	-50 to 120 (-60 to 250)	1035 (15,000)	1.25 (250)



PRODUCT PROFILES



R11K

To place an order:

Product profile: _____

Material: _____

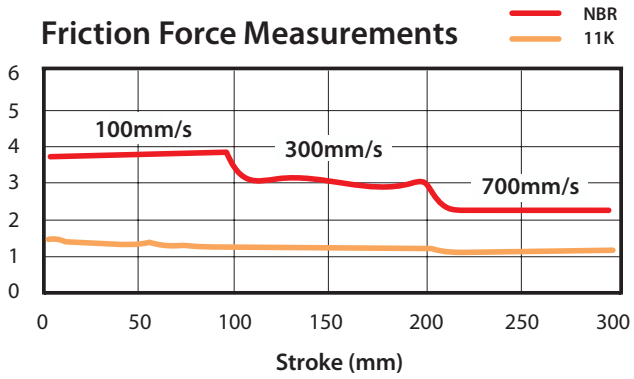
Rod or ram diameter (d): _____

Bore diameter (D_1): _____

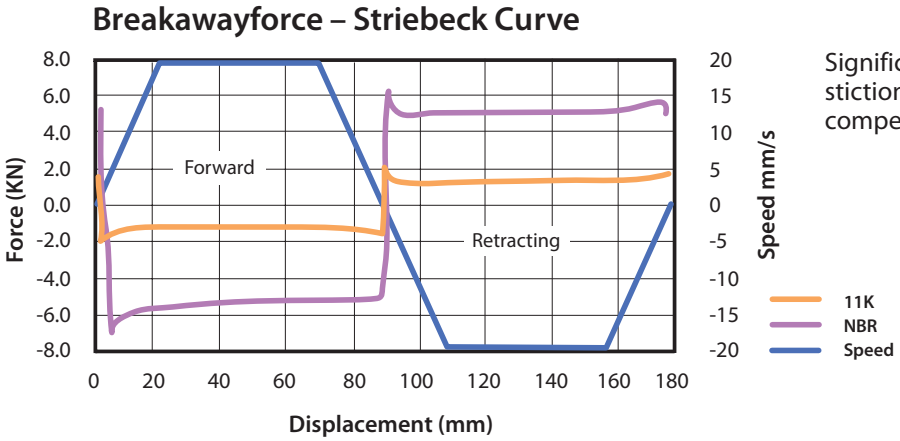
Groove height (L_3): _____

The 11K seal design has proven to have significantly less friction than a conventional rubber stack set of similar dimensions. This enables the 11K to improve the reliability of the cylinder by reducing the mean time between failures.

Chesterton has performed extensive laboratory testing to determine the static and dynamic friction behavior offered by a 11K seal assembly as shown below in the test results. A 50mm x 65mm x 20mm 11K seal assembly and a seal assembly of similar dimensions in NBR material were tested in an experimental test up to a pressure of 500bar and at various speeds (100mm/s, 300mm/s, 700mm/s). The 11K consistently measured less than a third of the running friction at all speeds vs. the rubber stack set. The static frictional forces were also significantly lower in the 11K requiring lesser force to displace the piston. The 11K did not score the surfaces of the cylinder bore as compared to the rubber stack set.



Speed (mm/s)	Frictional Force (kN)	
	NBR	11K
100	3.83	1.25
300	3.12	1.16
700	2.36	1.09



Significantly lower stiction force in 11K vs. competitive solution.

Chesterton ISO certificates available on chesterton.com/corporate/iso

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11K Product Data Sheet – English
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