K29
Buffer Seal



K29 is a buffer ring designed to operate as a tandem seal positioned ahead of the main seal in the rod gland of hydraulic cylinders. It consists of a specially profiled polyurethane sealing ring and a thermoplastic back-up ring. The K29 helps extend system service life by reducing pressure build-up on the primary seal and maintaining an optimal oil film layer for consistent sealing performance.

Advantages
- High extrusion resistance
- Simple installation
- Large dimension range
- Groove dimensions acc.ISO 7425-2
- High wear resistance

Application
- Medium and heavy duty cylinders
- Presses
- Construction machinery
- Mobile Cylinders
- Cranes

Operating Conditions

MOTION:	Linear		
PRESSURE (bar):	400 bar (max)		
SPEED (m/s):	0.5 m/s (max)		
TEMPERATURE (°C):	-40/+100 °C	+5/+50 °C	-30/+40 °C
MEDIA TYPE:	Mineral Oils	HFA/HFB	HFC

NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time. K29 cannot be used as a stand-alone sealing element in the system.

Material Information

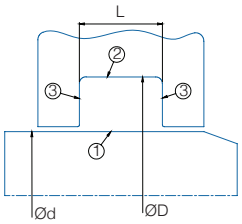
U-ring	Back-up Ring	Remarks
Polyurethane-PU9201	Thermoplastic-PM9901	Standard produced material code
Polyurethane-PU9411	Termoplastik-PA9910	Material code used for high temperatures

Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. You can refer to Table 2.10 for details or you can contact our sales department.



NOTE: K29 buffer seal is used in tandem hydraulic rod systems. Thanks to the improved design, there is no hydrodynamic pressure between the two sealing elements. It is recommended to be used in heavy duty cylinders in order to have a long service life for the main seal. K29 is not used in stand-alone systems.

Surface Rougness

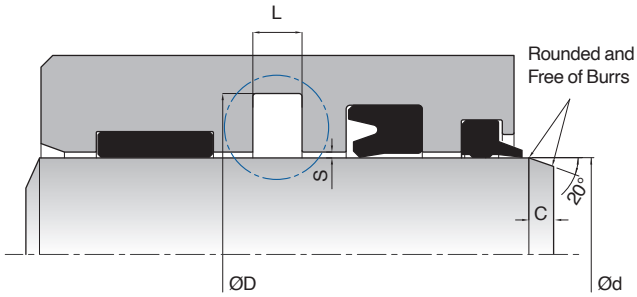


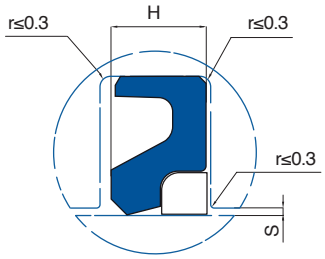
	1 (rod)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.4 μm	0.2-1.6 μm	0.2-3.2 μm
Rmaks	< 3.2 μm	< 6.3 μm	< 16 μm
Rmr	When C=0.25xRz on the dynamic work surface and reference line C_{ref} = 5%, the working surface contact area should be approximately between 50% and 70%.		

Installation Information

Easily assembled into closed grooves by the rod seal installation tools. PU uring should be mounted first nd then the POM backup ring. It is very important that the assembly tools must be of soft material and have no sharp edges. Before installation the sealing element must be oiled with system oil.

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Max. Permissible Sealing Gap Value "S_{max}" (mm) for K29	*S_{max} values are suitable for operating conditions up to 60°C. The S_{max} value should be calculated according to the formula on page 64 and it is recommended not to exceed the given S_{max} value*
0.4	

KASTAŞ NO	d (f8)	D (H10)	L (+0.2/-0)	H	C	KASTAŞ CODE
K29-030	30	40.7	4.2	3.9	5.5	10014962
K29-032	32	42.7	4.2	3.9	5.5	10014963
K29-035	35	45.7	4.2	3.9	5.5	10014964
K29-036	36	46.7	4.2	3.9	5.5	10014965
K29-038	38	48.7	4.2	3.9	5.5	10014966
K29-040	40	55.5	6.3	5.8	5.5	10014967
K29-040/1	40	50.7	4.2	3.9	5.5	10014968
K29-045	45	60.5	6.3	5.8	5.5	10014970
K29-045/1	45	55.7	4.2	3.9	5.5	10014972
K29-048	48	63.5	6.3	5.8	5.5	10014973
K29-050	50	65.5	6.3	5.8	5.5	10014974
K29-050/1	50	60.7	4.2	3.9	5.5	10014976
K29-055	55	70.5	6.3	5.8	5.5	10014977
K29-055/1	55	70.1	6.3	5.8	5.5	10014979
K29-056	56	71.1	6.3	5.8	5.5	10014980
K29-056/1	56	71.5	6.3	5.8	5.5	10014981
K29-060	60	75.5	6.3	5.8	5.5	10014982
K29-060/1	60	75.1	6.3	5.8	5.5	10014984
K29-063	63	78.5	6.3	5.8	5.5	10014986
K29-065	65	80.5	6.3	5.8	5.5	10014987
K29-070	70	85.5	6.3	5.8	6	10014989
K29-070/1	70	85.1	6.3	5.8	6	10014992
K29-075	75	90.5	6.3	5.8	6	10014993
K29-075/1	75	90.1	6.3	5.8	6	10014995
K29-078	78	93.1	6.3	5.8	6	10014996
K29-080	80	95.5	6.3	5.8	6	10014997
K29-085	85	100.5	6.3	5.8	6	10015002
K29-090	90	105.5	6.3	5.8	6	10015005
K29-095	95	110.5	6.3	5.8	6	10015007
K29-100	100	115.5	6.3	5.8	6	10015009
K29-105	105	120.5	6.3	5.8	6	10015011
K29-110	110	125.5	6.3	5.8	6	10015013
K29-115	115	130.5	6.3	5.8	6	10015015
K29-120	120	135.5	6.3	5.8	6	10015017
K29-125	125	140.5	6.3	5.8	6	10015019
K29-130	130	145.5	6.3	5.8	6	10015022
K29-140	140	155.5	6.3	5.8	6	10015026
K29-150	150	165.5	6.3	5.8	6	10015027