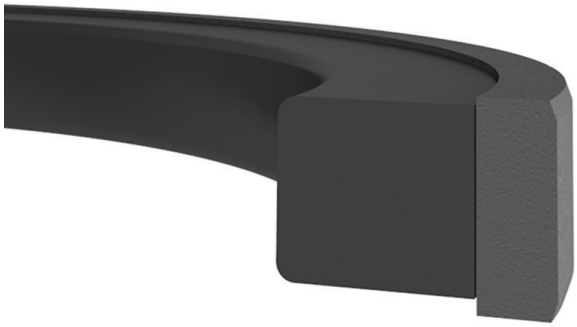
K501
Piston Seal



K501 is a double-acting piston seal consisting of a Z-cut thermoplastic sealing ring and a rectangular-shaped elastomer energizer. The rectangular elastomer ensures reliable sealing even at low pressures, while the Z-cut design maintains continuous contact with the cylinder bore under high and shock pressure conditions. Manufactured from glass fiber-reinforced thermoplastic material, the sealing ring offers high wear resistance and performs effectively in applications with large extrusion gaps—surpassing the performance of standard PTFE-based solutions.

Advantages
- High extrusion resistance
- High abrasion resistance
- Simple installation
- Groove dimensions acc.ISO 7425-1

Application
- Construction machinery
- Forklifts
- Heavy duty cylinders

Operating Conditions

MOTION:	Linear		
PRESSURE (bar):	500 bar (max)		
SPEED (m/s):	1 m/s (max)		
TEMPERATURE (°C):	-30/+105 °C	+5/+50 °C	-30/+50 °C
MEDIA TYPE:	Mineral Oils	HFA/HFB	HFC

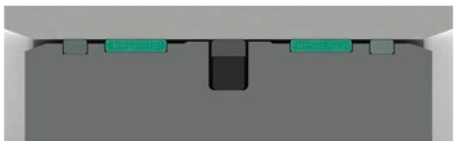
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Sealing Ring	Energizer Ring	Remarks
Thermoplastic-PA9904	Elastomer-NB7001	Standard produced material code

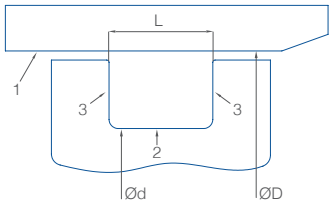
Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. You can refer to Table 2.6 and Table 2.7 for details or you can contact our sales department.

Sample Design



NOTES: In heavy duty applications, together with composite bearings at the piston head, it is recommended to add PTFE guide elements to both sides of the piston head to protect the main seal from foreign particles in the oil.

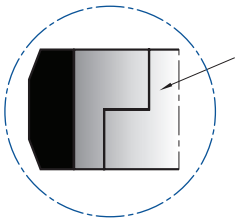
Surface Roughness



	1 (rod)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.4 µm	0.2-1.6 µm	0.2-3.2 µm
Rmax	< 3.2 µm	< 6.3 µm	< 15 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%.		

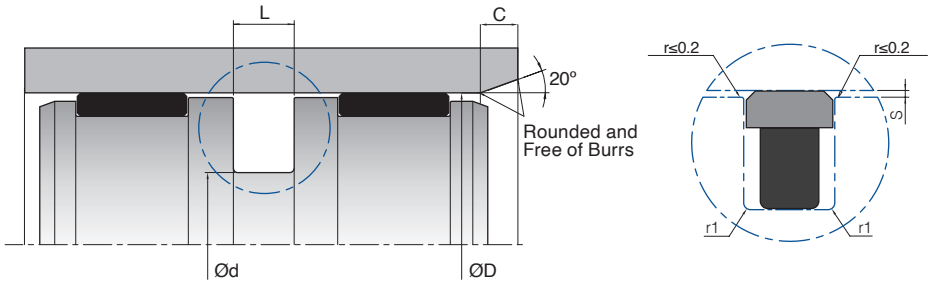
Installation Information

Chamfer values should be according to the catalogue values. High force may be needed during the installation into the bore, lubrication with suitable greases is recommended.



Easy installation to one piece piston head thanks to the cut structure.

K501 Piston Seal



L (mm)	Max. Permissible Sealing Gap Value "S_{max}" (mm) for K501
4.2	0.35
6.3	0.50
8.1	0.60

The S_{max} value given here should be calculated from the extrusion gap formula on page 64. It is recommended to select the extrusion gap value below S_{max} values.

KASTAŞ NO	D (H9)	d (h9)	L (+0.2/-0)	r1	C	KASTAŞ CODE
K501-040	40	29	4.2	1	6	10021395
K501-050	50	39	4.2	1	6	10021397
K501-060	60	44.5	6.3	1.3	8	10021399
K501-060/1	60	49	4.2	1	6	10021400
K501-063	63	47.5	6.3	1.3	8	10021401
K501-063/1	63	42	8.1	1.8	10.5	10021402
K501-063/2	63	52	4.2	1	6	10021403
K501-070/1	70	59	4.2	1	6	10021405
K501-075	75	54	8.1	1.8	10.5	10021408
K501-080	80	64.5	6.3	1.3	6	10021410
K501-080/1	80	59	8.1	1.8	10.5	10021412
K501-085	85	69.5	6.3	1.3	6	10021414
K501-090	90	74.5	6.3	1.3	10.5	10021415
K501-090/1	90	69	8.1	1.8	6	10021416
K501-095	95	74	8.1	1.8	10.5	10021417
K501-100	100	84.5	6.3	1.3	6	10021418
K501-100/1	100	79	8.1	1.8	10.5	10021419
K501-105	105	84	8.1	1.8	10.5	10021420
K501-105/1	105	89.5	6.3	1.3	6	10021421
K501-110	110	94.5	6.3	1.3	6	10021422
K501-110/1	110	89	8.1	1.8	10.5	10021423
K501-115	115	94	8.1	1.8	10.5	10021424
K501-120	120	99	8.1	1.8	10.5	10021425
K501-125	125	104	8.1	1.8	10.5	10021426
K501-125/1	125	110	6.3	1.3	10.5	10021427
K501-126	126	105	8.1	1.8	10.5	10021428
K501-130	130	109	8.1	1.8	10.5	10021429
K501-135	135	114	8.1	1.8	10.5	10021430
K501-135/1	135	119.5	6.3	1.3	10.5	10021431
K501-140	140	119	8.1	1.8	10.5	10021432
K501-145	145	124	8.1	1.8	10.5	10021433
K501-147	147	126	8.1	1.8	10.5	10021434
K501-150	150	129	8.1	1.8	10.5	10021436
K501-160	160	139	8.1	1.8	10.5	10021437
K501-165	165	144	8.1	1.8	10.5	10021438
K501-170	170	149	8.1	1.8	10.5	10021439
K501-175	175	154	8.1	1.8	10.5	10021441
K501-180	180	159	8.1	1.8	10.5	10021442



KASTAŞ NO	D (H9)	d (h9)	L (+0.2/-0)	r1	C	KASTAŞ CODE
K501-185	185	164	8.1	1.8	10.5	10021443
K501-190	190	169	8.1	1.8	10.5	10021444
K501-200	200	179	8.1	1.8	10.5	10021445
K501-210	210	189	8.1	1.8	10.5	10021447
K501-215	215	194	8.1	1.8	10.5	10021448
K501-220	220	199	8.1	1.8	10.5	10021449
K501-225	225	204	8.1	1.8	10.5	10021450
K501-230	230	209	8.1	1.8	10.5	10021451
K501-250	250	229	8.1	1.8	10.5	10021462
K501-280	280	255.5	8.1	1.8	10.5	10021465