K42
Compact Piston Seal



K42 is a five-piece double-acting compact piston seal consisting of an elastomeric sealing element, thermoplastic elastomer backup rings, and thermoplastic guide rings. Designed for high-performance in heavy-duty hydraulic applications, it ensures reliable sealing under variable and high-pressure conditions. Its robust structure supports excellent extrusion resistance and optimal guiding function throughout the stroke.

Advantages

- Good sealing effect
- High extrusion resistance
- Long service life
- Good sealing effect both at high and low pressure

Application

- Construction machinery
- Excavators
- Lifting platforms
- Heavy duty machinary

Operating Conditions

MOTION:	Linear		
PRESSURE (bar):	700 bar (max)		
SPEED (m/s):	0.5 m/s (max)		
TEMPERATURE (°C):	-30/+100 °C	+5/+60 °C	-30/+60 °C
MEDIA TYPE:	Mineral Oils	HFA/HFB	HFC

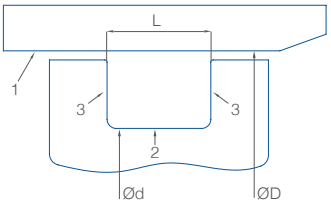
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Sealing Ring	Back-up Ring	Guide Ring	Remarks
Elastomer-NB8001	Thermoplastic elastomer-TP5501	Thermoplastic-PM9901	Standard produced material code
Elastomer-FK8001	PTFE-PT5501	PTFE-PT6003	In high temperature applications, the sealing ring can be produced as FKM, the bearing and support rings can be produced from PTFE materials.

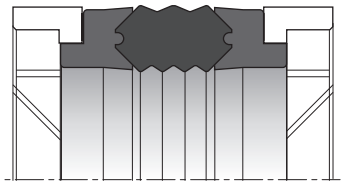
Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. Table 2.6 for details, you can refer to Table 2.7 and Table 2.8, or you can contact the sales department.

Surface Roughness



	1 (rod)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.2 µm	0.2-1.6 µm	0.2-3.2 µm
Rmax	< 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 55% and 80%.		

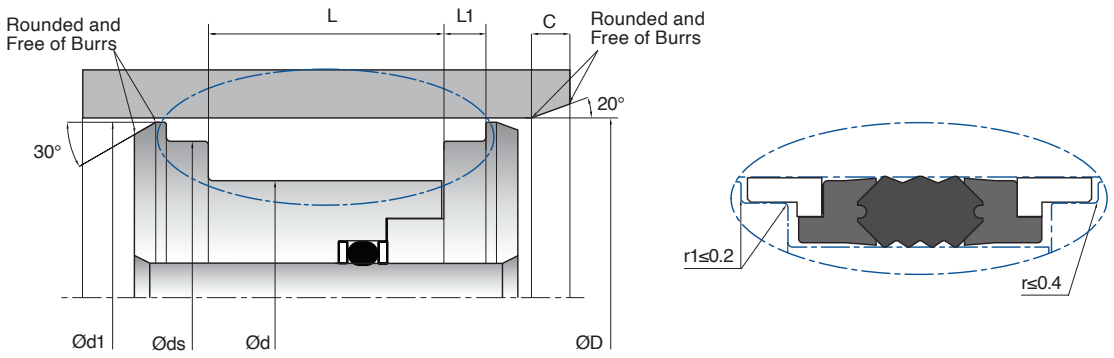
Installation Information



K42 compact seal must be used in open housing due to the non split form of the back-up ring produced from TPE material. If it is necessary to have a closed groove, backup rings should be cut with 45° angle in a way not to have any gap and installed afterwards. On this case after the assembly onto the piston the cut on the backup ring should be checked carefully and keep the system pressure lower than 320 bars. 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. (See Installation instructions - Page 51-57)

NOTE: Empowering the system by the composite guiding elements while the axial loads are high.

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KASTAŞ NO	D (H11)	d (h11)	L (+0.2/-0)	ds (h8)	d1 (±0.1)	L1 (+0.2/-0)	C	KASTAŞ CO
K42 050-034	50	34	32	43.77	49	6.35	5	10020575
K42 060-044	60	44	32	53.8	57.8	6.35	5	10020577
K42 063-047	63	47	32	56.74	60.8	6.35	5	10020579
K42 070-050	70	50	35	62.62	68.5	9.52	5	10020580
K42 080-060	80	60	35	72.62	77.5	9.52	5	10020581
K42 085-065	85	65	35	77.62	82.5	9.52	5	10020582
K42 090-070	90	70	35	82.58	87.8	9.52	5	10020583
K42 095-075	95	75	35	87.6	92.5	9.52	5	10020584
K42 100-080	100	80	35	92.6	97.5	9.52	7	10020585
K42 110-090	110	90	35	102.7	107.5	9.52	7	10020587
K42 120-100	120	100	35	112.8	117.5	9.52	7	10020588
K42 125-100	125	100	45	116.82	124	12.7	7	10020589
K42 130-110	130	110	35	122.7	127.3	9.52	7	10020590
K42 140-120	140	120	35	132.7	137.3	9.52	7	10020591
K42 150-120	150	120	44	143.85	148	9.5	7	10020593
K42 150-125	150	125	45	141.72	147.3	12.7	7	10020594
K42 160-135	160	135	45	151.72	157.1	12.7	7	10020595
K42 170-140	170	140	45	163	167.8	12.7	7	10020598
K42 180-155	180	155	45	171.6	177.1	12.7	7	10020599
K42 190-165	190	165	45	181.72	187.1	12.7	7	10020600
K42 200-175	200	175	45	191.72	197.1	12.7	10	10020601
K42 210-185	210	185	45	201.6	207.1	12.7	10	10020602
K42 220-195	220	195	45	211.6	217.6	12.7	10	10020603
K42 250-225	250	225	45	241.72	247.1	12.7	10	10020604
K42 280-255	280	255	45	271.72	277.1	12.7	10	10020608
K42 300-275	300	275	45	291.72	297.1	12.7	10	10020610
K42 320-295	320	295	45	311.72	317.1	12.7	10	10020612
K42 350-325	350	325	45	341.72	347.1	12.7	10	10020613
K42 360-335	360	335	45	351.76	357.33	12.7	10	10020615