K18
Compact Piston Seal



K18 is a five-piece, double-acting compact piston seal set consisting of an elastomeric sealing element, thermoplastic elastomer backup rings, and thermoplastic guide rings. Its design provides excellent static and dynamic sealing performance with low friction, making it suitable for a wide range of hydraulic cylinder applications.

Advantages
- Good sealing effect
- Low friction
- Simple installation
- Large dimension range

Application
- Agricultural machinery
- Construction machinery
- Mobile machinery
- Loading platforms
- Forklifts

Operating Conditions

MOTION:	Linear		
PRESSURE (bar):	400 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

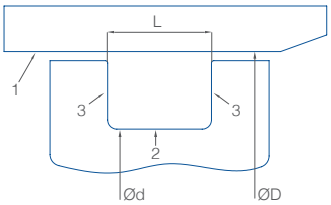
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Sealing Ring	Back-up Ring	Guide Ring	Remarks
Elastomer-NB8001	Thermoplastic elastomer-TP7301	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.

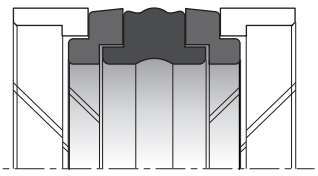
Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. Table 2.6 for details, you can refer to Table 2.7 and Table 2.8, or you can contact the sales department.

Surface Roughness



	1 (rod)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.4 μm	0.2-1.6 μm	0.2-3.2 μm
Rmax	< 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 55% and 80%.		

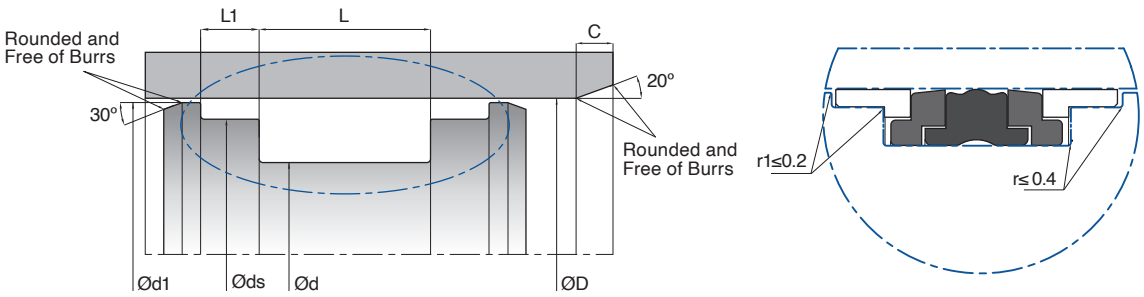
Installation Information



Easily assembled into one-piece piston because the back-up rings and guide rings are been produced in split forms. 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. The tube chamfers are important in order to avoid the deformation at guide rings. (See Installation instructions - Page 51-7)

NOTE: K518 and K518X are recommended at long stroke and high axial loaded cylinders.

K18 Compact Piston Seal



KASTAŞ NO	D (H8)	d (h9)	L (+0.2/-0)	ds (h8)	d1 (±0.1)	L1 (+0.2/-0)	C	KASTAŞ CODE
K18 020-011	20	11	13.5	17	19	2.1	4	10003121
K18 022-013	22	13	13.5	19	21	2.1	4	10003123
K18 025-015	25	15	16.4	21.45	23.5	6.35	4	10003124
K18 025-015/1	25	15	12	21	23	4	4	10003125
K18 025-015/2	25	15	12.5	22	24	4	4	10003126
K18 025-016	25	16	13.5	22	24	2.1	4	10003127
K18 025-017/1	25	17	13.5	21	24.4	3.2	4	10003130
K18 025-017/2	25	17	10	22	24	4	4	10003131
K18 028-019	28	19	13.5	25	27	2.1	4	10003133
K18 030-017	30	17	15.4	26.5	28.5	6.35	4	10003134
K18 030-021	30	21	13.5	27	29	2.1	4	10003136
K18 030-022	30	22	13.5	26	29.4	3.2	4	10003137
K18 032-019	32	19	15.4	28.5	30.7	6.35	4	10003138
K18 032-022	32	22	16.4	28.5	30.5	6.35	4	10003139
K18 032-022/1	32	22	15.5	28	31	2.6	4	10003140
K18 032-022/2	32	22	12.5	29	31	4	4	10003143
K18 032-024	32	24	15.5	28	31	3.1	4	10003145
K18 032-024/1	32	24	10	29	31	4	4	10003147
K18 035-025	35	25	16.4	31.4	33.5	6.35	4	10003149
K18 035-027	35	27	15.5	31	34.4	3.2	4	10003151
K18 038.1-025.4	38.1	25.4	15.87	34.54	37.08	6.35	4	10003153
K18 040-024	40	24	18.4	35.4	38.5	6.35	5	10003155
K18 040-026	40	26	15.5	36	39	2.6	4.5	10003158
K18 040-030	40	30	16.4	35.4	38.5	6.35	4	10003161
K18 040-030/1	40	30	12.5	37	39	4	4	10003164
K18 040-032	40	32	15.5	36	39.4	3.2	4	10003169
K18 040-032/1	40	32	10	37	39	4	4	10003171
K18 042-028	42	28	15.5	38	41	2.6	4.5	10003173
K18 044.45-028.57	44.45	28.57	19.05	39.85	43.12	6.35	5	10003174
K18 045-029	45	29	18.4	40.4	43.5	6.35	5	10003175
K18 045-031	45	31	15.5	41	44	2.6	4.5	10003177
K18 045-035	45	35	16.4	40.4	43.5	6.35	4	10003179
K18 045-037	45	37	15.5	41	44.4	3.2	4	10003182
K18 050-034	50	34	20.5	46	49	3.1	5	10003185
K18 050-034/1	50	34	18.4	45.41	48.66	6.35	5	10003188
K18 050-035	50	35	20	46	48.5	5	5	10003192
K18 050-038	50	38	20.5	46	49.4	4.2	4	10003194
K18 050-040	50	40	12.5	47	49	4	4	10003197
K18 050.8-034.92	50.8	34.92	19.05	46.23	49.48	6.35	5	10003183
K18 050.8-041.27	50.8	41.27	11.1	46.27	49.19	3.81	4	10003184
K18 055-039	55	39	20.5	51	54	3.1	5	10003200
K18 055-039/1	55	39	18.4	50.37	53.65	6.35	5	10003202
K18 055-045	55	45	12.5	52	54	4	4	10003205
K18 056-040	56	40	20.5	52	55	3.1	5	10003206



KASTAŞ NO	D (H8)	d (h9)	L (+0.2/-0)	ds (h8)	d1 (±0.1)	L1 (+0.2/-0)	C	KASTAŞ CODE
K18 057.15-041.27	57.15	41.27	19.05	52.55	55.8	6.35	5	10003207
K18 060-044	60	44	20.5	56	59	3.1	5	10003209
K18 060-044/1	60	44	18.4	55.39	58.65	6.35	5	10003213
K18 060-048	60	48	20.5	56	58.98	4.2	4	10003217
K18 060.32-044.45	60.32	44.45	19.05	55.72	58.98	6.35	5	10003208
K18 063-047	63	47	20.5	59	62	3.1	5	10003222
K18 063-047/1	63	47	18.4	58.39	61.63	6.35	5	10003225
K18 063-047/2	63	47	19.4	58.47	61.5	6.35	5	10003228
K18 063-048	63	48	20	59	61.5	5	5	10003231
K18 063-051	63	51	20.5	59	62.4	4.2	4	10003234
K18 063-053	63	53	12.5	60	62	4	4	10003237
K18 063.5-047.62	63.5	47.62	19.05	58.9	62.12	6.35	5	10003219
K18 063.5-053.97	63.5	53.97	11.1	59.12	62.12	3.81	4	10003220
K18 063.5-053.97/1	63.5	53.97	11.1	58.92	61.9	3.81	4	10003221
K18 065-049	65	49	20.5	61	64	3.1	5	10003239
K18 065-050	65	50	18.4	60.41	63.64	6.35	5	10003242
K18 066.67-050.80	66.67	50.8	19.05	62.1	65.27	6.35	5	10003245
K18 067-051	67	51	18.4	62.4	65.6	6.35	5	10003246
K18 069.85-050.8	69.85	50.8	23.79	64.07	68.85	6.35	5	10003247
K18 070-050	70	50	22.4	64.18	68.34	6.35	6	10003248
K18 070-054	70	54	20.5	66	69	3.1	5	10003252
K18 070-055	70	55	20	66	68.5	5	5	10003257
K18 070-058	70	58	20.5	66	69.4	4.2	4	10003258
K18 075-055	75	55	22.4	69.2	73.3	6.35	6	10003261
K18 075-059	75	59	20.5	71	74	3.1	5	10003265
K18 076.2-057.15	76.2	57.15	24.21	70.38	74.5	6.35	5	10003267
K18 076.2-060.32	76.2	60.32	19.05	70.96	74.16	6.35	5	10003268
K18 076.2-066.67	76.2	66.67	11.1	71.62	74.6	3.81	4	10003269
K18 080-060	80	60	22.4	74.15	78.3	6.35	6	10003271
K18 080-060/1	80	60	35	72.62	77.54	9.52	6	10003275
K18 080-060/2	80	60	25	75	78	6.35	6	10003277
K18 080-062	80	62	22.5	76	79	3.6	5	10003280
K18 080-065	80	65	20	76	78.5	5	5	10003283
K18 080-066	80	66	22.4	76	79.4	5.2	4.5	10003285
K18 082.55-063.5	82.55	63.5	24.21	76.73	80.9	6.35	5	10003287
K18 085-065	85	65	22.4	79.15	83.3	6.35	6	10003288
K18 085-065/1	85	65	21.4	79.15	83.3	6.35	6	10003291
K18 085-075	85	75	20	81	83.35	4	4	10003293
K18 088.9-069.85	88.9	69.85	24.21	83.08	87.22	6.35	5	10003294
K18 088.9-069.85/1	88.9	69.85	30.15	82.16	87.29	6.35	5	10003295
K18 088.9-076.2	88.9	76.2	14.27	82.93	87.3	5.33	4	10003296
K18 090-070	90	70	22.4	84.15	88.3	6.35	6	10003297
K18 090-072	90	72	22.5	86	89	3.2	5	10003300
K18 090-072/1	90	72	22.5	86	89	3.6	5	10003302
K18 090-075	90	75	20	86	88.5	5	5	10003304
K18 090-076	90	76	22.4	86	89.4	5.2	4.5	10003305
K18 095-075	95	75	22.4	89.15	93.31	6.5	6	10003308
K18 095-081	95	81	22.4	91	94.4	5.2	4.5	10003309
K18 100-075	100	75	22.4	93.13	98	6.35	6	10003310
K18 100-080	100	80	25.4	95	98	6.35	6	10003314
K18 100-080/1	100	80	35	92.61	97.51	9.52	6	10003316
K18 100-080/2	100	80	25	95	98	6.35	6	10003318
K18 100-082	100	82	22.5	96	99	3.6	5	10003319
K18 100-085	100	85	20	96	98.5	5	5	10003322
K18 100-086	100	86	22.4	96	99.4	5.2	4.5	10003324
K18 101.6-082.55	101.6	82.55	23.81	95.76	100.07	6.35	5	10003327



KASTAŞ NO	D (H8)	d (h9)	L (+0.2/-0)	ds (h8)	d1 (±0.1)	L1 (+0.2/-0)	C	KASTAŞ CODE
K18 105-080	105	80	22.4	98.1	103	6.5	6	10003329
K18 105-080/1	105	80	22.4	98.1	103	6.35	6	10003331
K18 107.95-088.9	107.95	88.9	23.81	102.08	106.23	6.35	5	10003332
K18 110-085	110	85	22.4	103.1	108	6.35	6	10003333
K18 110-085/1	110	85	25.4	103.1	108	6.35	6	10003337
K18 110-090	110	90	35	102.6	107.51	9.52	6	10003338
K18 110-090/1	110	90	25.3	104.1	108.3	6.4	6	10003339
K18 110-092	110	92	22.5	106	109	3.6	5	10003340
K18 110-095	110	95	20	105	108	5	5	10003342
K18 110-096	110	96	22.4	106	109.4	5.2	4.5	10003343
K18 114.3-088.9	114.3	88.9	31.75	107.42	112.33	6.35	6	10003345
K18 115-090	115	90	22.4	108.1	113.02	6.35	6	10003346
K18 115-097	115	97	22.4	111	114	4.2	5	10003348
K18 115-097/1	115	97	22.5	111	114	3.6	5	10003350
K18 115-101	115	101	22.4	111	114.4	5.2	4.5	10003351
K18 120-095	120	95	22.4	113.1	118	6.35	6	10003353
K18 120-100	120	100	35	112.8	117.5	9.5	6	10003357
K18 120-106	120	106	22.4	116	119.4	5.2	4.5	10003358
K18 125-100	125	100	25.4	118.1	123	6.35	6	10003360
K18 125-100/1	125	100	45	116.82	122.33	12.7	6	10003363
K18 125-103	125	103	26.5	121	124	5.1	6	10003366
K18 125-105	125	105	25.4	120	123	6.35	6	10003368
K18 125-105/1	125	105	25	120	123	6.35	6	10003370
K18 125-108	125	108	26.5	121	124.4	7.2	5	10003372
K18 127-101.6	127	101.6	32.15	120.09	124.98	9.52	6	10003374
K18 130-105	130	105	25.4	123.1	128	6.35	6	10003376
K18 130-105/1	130	105	25.4	123.1	128	9.52	6	10003379
K18 130-105/2	130	105	25.4	122.6	118.4	9.52	6	10003381
K18 133.35-107.95	133.35	107.95	31.75	126.42	131.3	6.35	6	10003383
K18 135-110	135	110	25.4	127.6	132.5	9.52	6	10003384
K18 135-110/1	135	110	25.4	128.1	133	6.35	6	10003385
K18 139.7-114.3	139.7	114.3	31.75	132.4	137.2	9.5	6	10003386
K18 139.7-114.3/1	139.7	114.3	31.75	132.4	137.2	6.5	6	10003387
K18 140-115	140	115	25.4	132.6	137.5	6.35	6	10003388
K18 140-115/1	140	115	25.4	132.6	137.5	9.52	6	10003390
K18 140-115/2	140	115	25.4	133	138	6.35	6	10003393
K18 140-115/4	140	115	45	131.7	137.36	12.7	6	10003396
K18 140-115/5	140	115	32	134	138	10	6	10003397
K18 140-118	140	118	26.5	136	139	5.1	6	10003399
K18 140-120	140	120	25	135	138	6.35	6	10003402
K18 140-123	140	123	26.5	136	139.4	7.2	5	10003404
K18 145-120	145	120	25.4	137.6	142.5	9.52	6	10003406
K18 150-125	150	125	25.4	142.6	147.5	9.5	6	10003408
K18 150-125/1	150	125	25.4	143	148	6.35	6	10003410
K18 150-128	150	128	26.5	146	149	5.1	6	10003413
K18 150-130	150	130	25.4	144.1	148.3	6.35	6	10003415
K18 150-133	150	133	26.5	146	149.4	7.2	5	10003416
K18 152.4-127	152.4	127	31.75	145	149.91	9.52	6	10003417
K18 152.4-127/1	152.4	127	38.1	145.69	150.79	9.52	6	10003419
K18 155-130	155	130	25.4	148	153	6.35	6	10003420
K18 155-130/1	155	130	25.4	147.6	152.5	9.52	6	10003422
K18 160-130	160	130	25.4	153	157.5	6.35	6	10003424
K18 160-130/1	160	130	25.4	152.6	157.5	9.52	6	10003427
K18 160-130/2	160	130	25.4	153	157.5	9.52	6	10003428
K18 160-135	160	135	25.4	152.6	157.5	9.52	6	10003429
K18 160-135/1	160	135	45	151.72	157.1	12.7	6	10003431



KASTAŞ NO	D (H8)	d (h9)	L (+0.2/-0)	ds (h8)	d1 (±0.1)	L1 (+0.2/-0)	C	KASTAŞ CODE
K18 160-135/2	160	135	32	154	158	10	6	10003433
K18 160-138	160	138	26.5	156	159	5.1	6	10003434
K18 160-140	160	140	25	155	158	6.35	6	10003437
K18 160-143	160	143	26.5	156	159.4	7.2	5	10003439
K18 165-140	165	140	25.4	157.6	162.5	9.52	6	10003443
K18 165-143	165	143	26.5	161	163.5	5.25	6	10003444
K18 165.1-139.62	165.1	139.62	32.5	158.14	163	6.45	6	10003441
K18 165.1-139.7	165.1	139.7	31.9	157.82	162.6	6.45	6	10003442
K18 170-140	170	140	25.4	163	168	6.4	6	10003446
K18 170-145	170	145	25.4	161.72	167.1	12.7	6	10003447
K18 170-148	170	148	26.5	166	169	5.1	6	10003448
K18 175-150	175	150	25.4	166.72	172.1	12.7	6	10003449
K18 177.8-152.4	177.8	152.4	31.75	170.51	175.52	9.52	6	10003450
K18 177.8-152.4/1	177.8	152.4	31.75	170.52	175.52	6.45	6	10003451
K18 180-150	180	150	35.4	172.95	177.87	6.35	6	10003452
K18 180-150/1	180	150	36	172	177.87	12.5	6	10003454
K18 180-155	180	155	25.4	171.72	177.1	12.7	6	10003455
K18 180-158	180	158	26.5	176	179	5.1	6	10003457
K18 180-163	180	163	26.5	176	179.4	7.2	5	10003459
K18 185-160	185	160	25.4	176.72	182.1	12.7	6	10003461
K18 190-165	190	165	25.4	181.72	187.05	12.7	6	10003462
K18 195-170	195	170	25.4	187.1	192.05	12.7	6	10003464
K18 200-170	200	170	35.4	193	198	6.35	6	10003466
K18 200-170/1	200	170	36	192	197	12.5	6	10003469
K18 200-175	200	175	31.5	196	199	6.6	6	10003471
K18 200-175/1	200	175	25.4	191.62	197	12.7	6	10003474
K18 200-180	200	180	31.5	196	199.4	9.2	6	10003476
K18 203.2-171.45	203.2	171.45	38.1	195.09	201.17	8	6	10003479
K18 203.2-177.8	203.2	177.8	31.75	196.16	201.18	9.52	6	10003480
K18 203.2-177.8/1	203.2	177.8	31.75	196.16	201.1	6.35	6	10003481
K18 210-185	210	185	25.4	201.62	207	12.7	6	10003482
K18 220-190	220	190	35.4	212.7	217.9	6.35	6	10003483
K18 220-190/1	220	190	35.4	213.5	217.9	6.35	6	10003485
K18 220-195	220	195	25.4	211.62	217	12.7	6	10003486
K18 220-200	220	200	31.5	216	219.4	9.2	6	10003487
K18 225-195	225	195	35.5	218	223	6.35	6	10003489
K18 225-200	225	200	31.5	221	224	6.6	6	10003490
K18 225-200/1	225	200	25.4	216.6	223	12.7	6	10003491
K18 230-205	230	205	25.4	221.62	227	12.7	6	10003492
K18 240-215	240	215	25.4	231.62	237	12.7	6	10003493
K18 250-220	250	220	35.4	242.9	247.85	6.35	6	10003494
K18 250-225	250	225	25.4	241.62	247	12.7	6	10003496
K18 250-230	250	230	31.5	246	249.4	9.2	6	10003500
K18 260-235	260	235	35.4	252.9	257	12.7	6	10003502
K18 280-250	280	250	36.4	273	278	10	6	10003504
K18 280-250/1	280	250	35.4	272.9	277.85	9.52	6	10003506