K23
Piston Seal



K23 is a single-acting piston seal featuring a precision-cut sealing lip that supports the formation of a thin oil film on the cylinder surface. This design ensures consistent lubrication, reduces friction, and enhances sealing performance, especially in low-pressure applications.

Advantages
- Good sealing effect
- Large dimension range
- Economical solution

Application
- Agricultural machinery
- Presses
- Construction machinery
- Loading platforms
- Injection moulding machines
- Forklifts
- Standard industrial cylinders

Operating Conditions (PU9201)

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 are the values given for the PU9201 material and (speed, pressure, temperature) cannot be used at the maximum values at the same time. * It is recommended to use with back-up ring for systems at pressures 250 bar and above.*

Operating Conditionsı (NB9001)

MOTION:	Linear		
PRESSURE (bar):	150 bar (max)		
SPEED (m/s):	0.5 m/s (max)		
TEMPERATURE (°C):	-30/+105 °C	+5/+60 °C	-30/+60 °C
MEDIA TYPE:	Mineral Oils	HFA/HFB	HFC

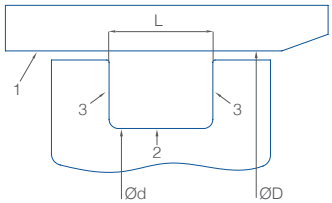
NOTE: The are the values for PTFE ring with PT5505 material and elastomer ring NB8001 material. The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.

Material Information

Nutring	Remarks
Polyurethane-PU9201	Standard produced material code
Elastomer-NB9001	
Elastomer-FK9001	It can be produced from FKM material for use at high temperatures.

Note: In the special application conditions (temperature, media, etc.) Can be produced from different materials. You can refer to Table 2.6 and Table 2.10 for details or you can contact our sales department.

Surface Roughness

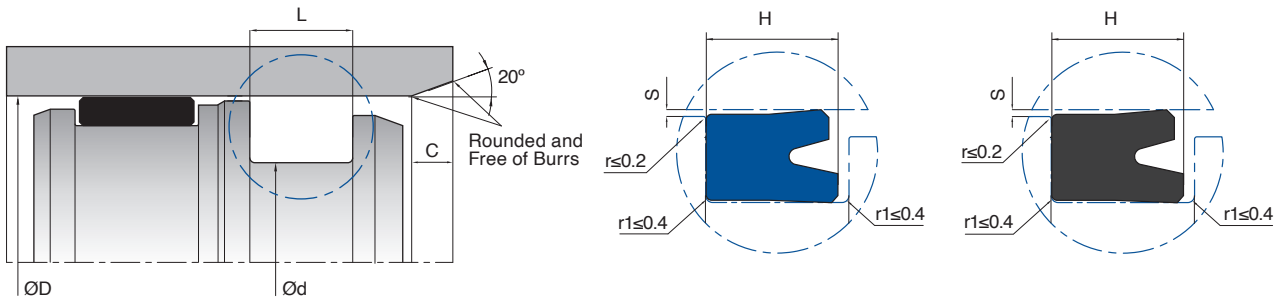


	1 (rod)	2 (groove base)	3 (kanal yan yüzleri)
Ra	0.1-0.4 µm	0.2-1.6 µm	0.2-3.2 µm
Rmaks	< 3.2 µm	< 6.3 µm	< 15 µm
Rmr	On the dynamic work surface and when the reference line is taken as C_{ref} = 5%, the working surface contact area should be approximately between 50% -70% and C = 0.25xRz.		

Installation Information

Easily assembled into closed grooves according to the minimum diameter values that are given in the table 3.2 (See page 51). Open grooves are recommended for the values that are outside this table. It is very important that the assembly tools must be of soft material and have no sharp edges. Before installation the rod seal must be oiled with system oil. (See Installation instructions - Page 51-57)

K23 Piston Seal



Cross Section (mm)	Max. Permissible Sealing Gap Value "S_{max}" (mm) for K23 NBR		
	50 bar	100 bar	150 bar
≤5	0.40	0.20	0.10
>5	0.45	0.25	0.15

Cross Section (mm)	Max. Permissible Sealing Gap Value "S_{max}" (mm) for K23 PU	
	150 bar	250 bar
≤5	0.30	0.20
>5	0.35	0.25

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.

KASTAŞ NO	D (H10)	d (h11)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K23-016/4	16	10	9	8	3	10013558	10013559
K23-016/5	16	8	6.5	5.5	4	10013560	10013562
K23-016/6	16	10	3.05	2.55	3	10013563	-
K23-016/7	16	11	4	3.5	3	-	10013564
K23-017	17.46	12.05	3.5	3.17	3	10013565	10013568
K23-019	19.05	12.7	3.5	3.17	3	10013569	10013570
K23-020	20	14	6.5	5.5	3	10013572	10013575
K23-020/1	20	14	4.7	4.2	3	10013576	10013578
K23-020/2	20	14	3.2	2.7	3	10013579	-
K23-020/3	20	12	6.5	5.5	4	10013581	10013582
K23-020/4	20.63	14.28	7	6.35	3	10013583	10013584
K23-022	22	13	8	7	4	10013585	10013586
K23-022/1	22	10	9	8	5	10013587	10013588
K23-022/2	22.22	12.7	7	6.35	4	10013589	10013590
K23-022/3	22	16	6.5	5.5	3	10013591	10013592
K23-022/4	22	16	4.5	4	3	10013593	10013594
K23-025/1	25	18	6	5	3.5	10013597	-
K23-025/2	25	19	3.5	3	3	10013599	10013602
K23-025/3	25	19	7	6	3	10013603	10013605
K23-025/4	25.4	15.87	7	6.35	4	10013607	-
K23-025/5	25	15	6	5	4.5	10013609	10013611
K23-025/6	25	17	6.5	5.5	4	10013613	10013616
K23-026	26	18	8	7	4	10013617	10013619
K23-026/2	26	18	6.5	5.5	4	10013621	10013623
K23-026/3	26.99	17.46	7	6.35	4	10013624	10013625
K23-028	28	16	10	9	5	10013626	10013627
K23-028/1	28.57	19.05	7	6.35	4	10013628	10013629
K23-030	30	22	7	6	4	10013630	10013634
K23-030/1	30	20	8	7	4.5	10013635	10013636
K23-030/2	30	15	11	10	5.5	10013638	10013639
K23-031/1	31.75	19.05	7	6.35	6	10013643	10013644
K23-031/2	31.75	19.05	8.7	7.93	6	10013645	10013646
K23-032	32	24	6.5	5.5	4	10013648	10013651
K23-032/1	32	22	8	7	4.5	10013654	10013656
K23-032/2	32	22	6	5	4.5	10013657	10013658
K23-034	34.92	22.22	7	6.35	6	10013659	10013660
K23-035	35	25	7.5	6.5	4.5	10013661	10013664
K23-035/1	35	25	8	7	4.5	10013665	10013667



KASTAŞ NO	D (H10)	d (h11)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K23-035/2	35	27	11	10	4	10013668	10013671
K23-035/3	35	25	9	8	4.5	10013672	10013673
K23-035/4	35	20	11	10	5.5	10013674	10013675
K23-035/6	35	27	6	5	4	-	10013676
K23-036	36	28	8	7	4	10013678	10013680
K23-036/2	36	24	7	6	5	10013681	10013683
K23-036/3	36.51	25.4	7	6.35	5	10013684	10013685
K23-038	38.1	25.4	8.7	7.93	6	10013688	10013689
K23-038/1	38	28	8	7	4.5	10013690	10013691
K23-039	39	32	6	5	3.5	10013693	10013694
K23-039/2	39.69	26.99	7	6.35	6	10013695	10013696
K23-040/2	40	30	8	7	4.5	10013698	10013702
K23-040/3	40	30	7	6	4.5	10013704	10013706
K23-040/4	40	28	11	10	5	10013709	10013711
K23-040/5	40	28	10	9	5	10013712	10013715
K23-040/6	40	30	6	5	4.5	10013716	10013718
K23-040/7	40	32	6	5.5	4	10013720	10013722
K23-040/8	40	32	3.5	3.25	4	10013723	10013724
K23-041	41.27	30.16	7	6.35	5	10013727	10013728
K23-042	42.86	30.16	10.5	9.52	6	10013729	10013730
K23-043	43	35	10	9	4	10013731	10013732
K23-043/1	43	38	4.3	3.8	2.5	10013733	10013735
K23-044	44.45	28.57	10.5	9.52	6	10013736	10013737
K23-044/1	44.45	34.92	8	7	4	10013738	10013739
K23-045	45	38	7	6	3.5	10013740	10013742
K23-045/1	45	37	8	7	4	10013743	10013744
K23-045/2	45	35	7	6	4.5	10013745	10013748
K23-045/3	45	38	9	8	3.5	-	10013750
K23-045/4	45	35	8	7	4.5	10013751	-
K23-047	47.62	31.75	8.7	7.93	6	10013753	10013754
K23-049	49.21	35.23	10.5	9.52	5.5	10013756	10013757
K23-050/3	50	40	8	7	4.5	10013758	10013761
K23-050/4	50	40	6	5	4.5	10013764	10013768
K23-050/5	50	38	7	6	5	10013770	10013772
K23-050/6	50	42	11	10	4	10013773	10013774
K23-050/7	50.8	41.27	5.3	4.76	4	10013776	10013778
K23-050/8	50	40	7	6	5	10013779	10013781
K23-050/9	50.8	41.27	7.8	7.14	4	10013784	10013785
K23-052	52	42	6	5	4.5	10013786	10013787
K23-053/1	53.97	38.1	10.5	9.52	6	10013788	10013789
K23-053/2	53.97	41.27	10.5	9.52	6	10013790	10013791
K23-055	55	45	8	7	4.5	10013792	10013795
K23-055/1	55	45	11	10	4.5	10013796	10013797
K23-055/2	55	45	8.5	7.5	4.5	10013798	10013799
K23-055/3	55	45	7	6	4.5	-	10013800
K23-055/4	55	47	9	8	4.5	-	10013802
K23-056	56	46	8	7	4.5	10013804	10013807
K23-057/1	57.15	41.27	10.5	9.52	6	10013809	10013810
K23-057/2	57.15	44.45	7	6.35	6	10013811	10013812
K23-060/1	60	44	13	12	6	10013815	10013816
K23-060/2	60	50	11	10	4.5	10013818	10013819
K23-060/3	60	50	8	7	4.5	10013820	10013823
K23-060/4	60	50	8.3	7.3	4.5	10013825	10013826
K23-060/5	60.32	47.62	7	6.35	6	10013827	10013828
K23-060/6	60	50	7	6	4.5	10013829	10013830
K23-062/1	62	52	8	7	4.5	10013833	10013834



KASTAŞ NO	D (H10)	d (h11)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K23-063	63	53	7	6	4.5	10013835	10013839
K23-063/1	63	53	4.8	4.3	4.5	10013842	10013845
K23-063/2	63	50	11	10	5	10013846	-
K23-063/3	63	53	8	7	4.5	10013848	10013851
K23-063/4	63	50	10	9	5	-	10013852
K23-063/5	63.5	53.97	7	6.35	4	10013853	10013854
K23-063/6	63.5	45.7	9.8	8.85	6	10013855	10013856
K23-063/7	63.5	47.62	10.5	9.52	6	10013857	10013858
K23-063/8	63	48	13.2	12	6	10013859	10013860
K23-063/9	63.5	47.63	14	12.7	6	-	10013861
K23-065	65	55	8	7	4.5	10013862	10013864
K23-065/1	65	55	7	6	4.5	-	10013865
K23-065/2	65	57	9	8	4	-	10013868
K23-066	66.67	50.8	9.8	8.85	6	10013870	10013871
K23-069	69.85	50.8	14	12.7	6	10013872	10013873
K23-069/1	69.85	53.97	8.7	7.93	6	10013874	10013875
K23-070/1	70	50	15	14	6	10013877	10013879
K23-070/2	70	60	11	10	4.5	10013880	10013882
K23-070/3	70	58	9.5	8.5	5	10013883	-
K23-070/4	70	62	9	8	4	10013886	10013888
K23-070/5	70	60	8	7	4.5	10013889	10013891
K23-070/6	70	60	7	6	4.5	-	10013893
K23-073	73.02	63.5	6	5.56	4	10013897	10013900
K23-075	75	65	8.5	7.5	4.5	10013901	10013903
K23-075/1	75	63	9.5	8.5	5	10013904	10013905
K23-075/2	75	65	7	6	4.5	-	10013907
K23-076/1	76.2	63.5	7	6.35	5.5	-	10013910
K23-076/2	76.2	58.04	9.6	8.73	6	10013911	10013912
K23-080/3	80	68	9.5	8.5	5	10013931	10013934
K23-080/4	80	70	8	7	4.5	10013936	10013937
K23-080/5	80	71	7.5	6.5	4	-	10013938
K23-080/6	80	72	13	12	4	10013940	10013943
K23-080/7	80	64	9	8	6	10013944	-
K23-080/9	80	70	13	12	4.5	-	10013948
K23-080/10	80	65	11	10	6	10013916	10013919
K23-080/11	80	70	7	6	4.5	-	10013922
K23-080/12	80	65	10	9	6	-	10013925
K23-080/13	80	60	13	12	6	-	10013928
K23-082	82	70	9	8	5	-	10013949
K23-085	85	73	9.5	8.5	5	10013953	-
K23-085/2	85	75	7	6	4.5	-	10013956
K23-088	88.9	76.2	7	6.35	5.5	-	10013959
K23-090	90	78	9.5	8.5	5	10013960	-
K23-090/1	90	80	7	6	4.5	-	10013963
K23-090/2	90	80	8	7	4.5	-	10013966
K23-090/3	90	75	10	9	6	-	10013967
K23-095	95.25	76.2	10.5	9.52	6	-	10013971
K23-095/2	95	80	10	9	6	-	10013973
K23-098	98.42	85.72	10.5	9.52	6	10013974	-
K23-100	100	85	10	9	5.5	10013977	10013979
K23-100/1	100	90	9.5	8.5	4.5	10013983	10013985
K23-100/3	100	88	9.5	8.5	5	10013989	10013992
K23-100/6	100	90	8	7.2	4.5	10013998	10013999
K23-100/7	100	85	13	12	5.5	10014000	10014004
K23-100/8	100	90	7.5	6.5	4.5	10014005	10014008
K23-100/9	100	90	4.8	4.3	4.5	10014009	-



KASTAŞ NO	D (H10)	d (h11)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K23-100/10	100	85	12.4	11.4	5.5	-	10013986
K23-100/11	100	80	13	12	6	-	10013987
K23-101	101.6	88.9	10.5	9.52	6	10014011	-
K23-110	110	95	11	10	5.5	10014020	10014022
K23-110/2	110	100	8	7	4.5	-	10014025
K23-112	112	98	10	9	5.5	-	10014027
K23-115	115	100	7	6	5.5	-	10014029
K23-115/1	115	95	13	12	6	-	10014030
K23-120	120	105	11	10	6	10014032	-
K23-120/1	120	110	13	12	4.5	-	10014033
K23-120/2	120	100	13	12	6	-	10014034
K23-120/3	120	105	10	9	6	-	10014036
K23-120/5	120	95	16	15	7	-	10014039
K23-125	125	105	13	12	6	10014041	10014045
K23-125/3	125	110	11	10	5.5	10014049	10014054
K23-125/5	125	115	8.2	7.2	4.5	10014056	10014059
K23-125/6	125	105	16	15	6	10014060	10014062
K23-125/8	125	110	10	9	6	-	10014064
K23-127	127	113	11	10	5.5	-	10014068
K23-130	130	110	13	12	6	10014072	10014073
K23-130/2	130	115	10	9	6	-	10014075
K23-135	135	120	10	9	6	-	10014076
K23-140	140	120	17	16	6	10014077	10014079
K23-140/1	140	125	16	15	5.5	-	10014081
K23-140/2	140	120	16	15	6	-	10014082
K23-140/3	140	125	10	9	5.5	-	10014085
K23-140/4	140	125	11	10	5.5	10014088	-
K23-140/6	140	120	13	12	6	-	10014093
K23-145	145	130	11	10	6	10014094	10014095
K23-150	150	135	9	8	5.5	10014099	10014101
K23-150/1	150	135	10	9	5.5	-	10014102
K23-152	152	130	16	15	7	-	10014105
K23-152/1	152	130	11	10	7	-	10014106
K23-154	154	138	9	8	6	-	10014110
K23-160	160	140	15	14	6	10014113	10014118
K23-160/1	160	145	15	14	5.5	10014120	10014122
K23-160/2	160	145	10	9	5.5	-	10014124
K23-160/3	160	145	11	10	5.5	10014126	-
K23-170	170	148	16	15	7	10014128	10014129
K23-170/1	170	145	20	19	7	-	10014130
K23-170/2	170	150	16	15	6	-	10014131
K23-170/3	170	155	10	9	6	-	10014132
K23-175	175	155	15	14	6	10014134	10014135
K23-180	180	160	10	9	6	10014137	10014139
K23-180/1	180	160	15	14	6	10014140	10014143
K23-180/2	180	165	10	9	5.5	-	10014144
K23-180/3	180	160	13	12	6	-	10014146
K23-180/4	180	160	17	16	5	-	10014148
K23-190/1	190	170	15	14	6	10014151	-
K23-190/2	190	170	17	16	6	-	10014153
K23-200	200	175	17	16	7	10014154	10014156
K23-200/1	200	180	15	14	6	10014157	10014161
K23-200/3	200	170	19	18	8	-	10014167
K23-203	203	184	16	15	6	-	10014169
K23-210	210	185	17	16	7	-	10014170
K23-215	215	197	8.3	7.3	6	-	10014175



KASTAŞ NO	D (H10)	d (h11)	L (+0.2/-0)	H	C	KASTAŞ KODE NBR	KASTAŞ CODE PU
K23-220	220	195	17	16	7	-	10014177
K23-220/1	220	200	16	15	6	-	10014178
K23-230	230	205	17	16	7	-	10014184
K23-250	250	230	15	14	6	10014190	10014195
K23-250/1	250	238	15	14	5	-	10014196
K23-250/2	250	230	16	15	6	-	10014197
K23-260	260	240	17	16	6	-	10014200
K23-260/1	260	235	17	16	7	-	10014201
K23-280	280	250	19	18	8	-	10014203
K23-280/1	280	245	21	19	8.5	-	10014204
K23-300	300	270	13	12	8	10014209	10014210
K23-300/1	300	288	15	14	5	-	10014212
K23-300/2	300	270	16	15	8	-	10014213
K23-310	310	278	20	18	8	-	10014214
K23-320	320	290	21	20	8	-	10014215
K23-320/1	320	295	19	18	7	-	10014217
K23-320/2	320	295	18	17	7	10014218	-
k23-350	350	320	21	20	8	10014220	-
K23-360	360	330	21	20	8	10014222	10014223
K23-360/1	360	320	24	23	10	-	10014224
K23-375	375	351	16	15	7	10014226	-
K23-380	380	345	21	20	9	-	10014227
K23-380/1	380	350	27	26	8	-	10014228
K23-430	430	400	27	26	8	-	10014230
K23-450	450	420	23	22	8	-	10014233