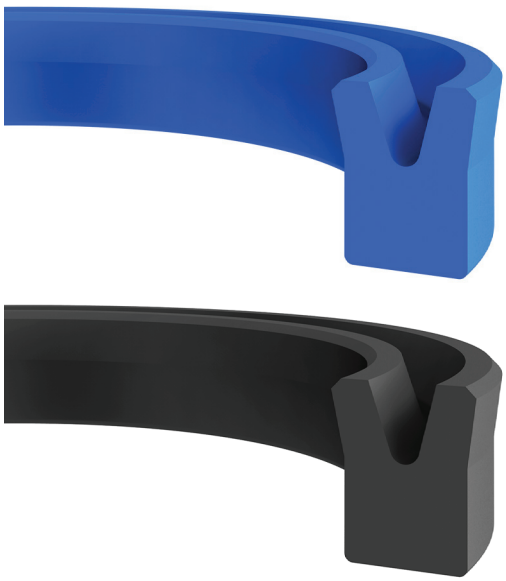
K21
Piston Rod Seal



K21 is a single-acting sealing element suitable for both piston and rod applications. It can be manufactured from polyurethane or elastomer materials and is recommended for use in light-duty hydraulic cylinders

Advantages
- Wide range of dimensions
- Economical sealing solution
- Good dynamic and static sealing
- Good locking feature

Application
- Standard industrial cylinders
- Agricultural 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 (speed, pressure, temperature) are maximum values, all cannot be used at the same time.
**It is recommended to use with back-up ring for systems at pressures 250 bar and above.*

Operating Conditions (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

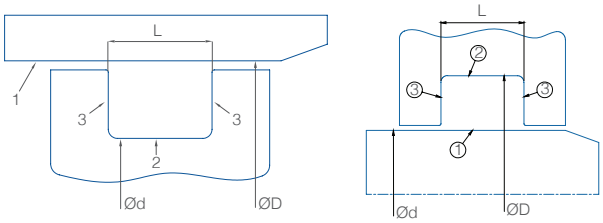
NOTE: The above values (speed, pressure, temperature) are maximum values, all cannot be used at the same time.
** It is recommended to use with back-up ring for systems at pressures 250 bar and above.*

Material Information

U-ring	Remarks
Polyurethane-PU9201	Standard produced material code
Elastomer-NB9001	
Elastomer-FK9001	It can be produced as FKM for applications above 100 ° C.

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

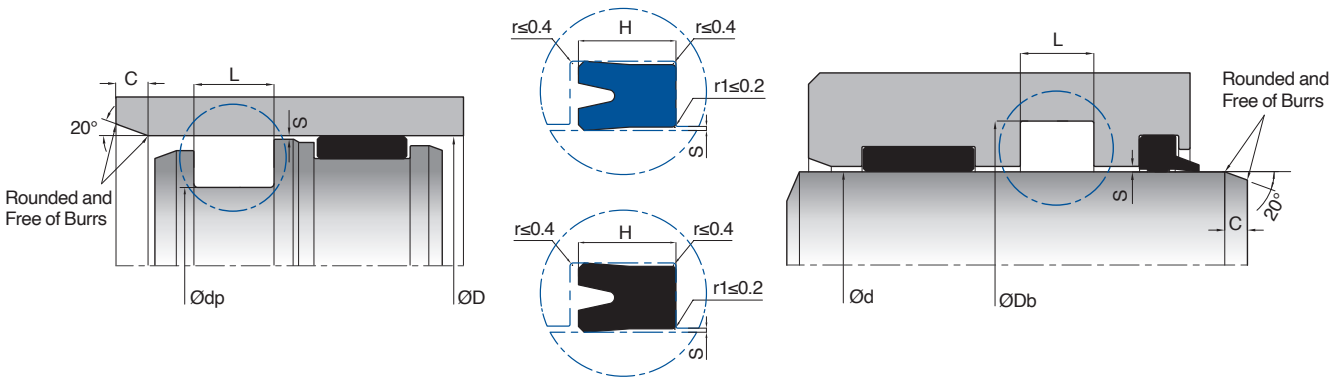


	1 (mil-boru)	2 (groove base)	3 (groove flanks)
Ra	0.1-0.4 µm	0.2-1.6 µm	0.2-3.2 µm
Rmax	< 3.2 µm	< 6.3 µm	< 16 µm
Rmr	When C = 0.25xRz on the dynamic work surface and reference line C_{ref} = 5% , the working surface contact area should be approximately between 50% and 70%.		

Installation Information

If the installation will be done on an one piece piston, the selection should be made according to Table 3.2. (See. Page 47). In cases other than these values, split piston head or split gland cap design should be preferred. Products should be installed after lubricating with system oil. To avoid damage the sealing lips while installing, chamfers should be according to the given catalogue values. It is recommended to use appropriate installation tools. (See. Installation Information - Page 51-57)

K21 Piston Rod Seal



Cross Section (mm)	Max. Permissible Sealing Gap Value "S_{max}" (mm) for K21 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 K21 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(f7) dp(h11)	Db(H10)	D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-003/5	3	8		5	4.5	3	10010062	-
K21-004	4	10		6	5	3.5	10010075	-
K21-004/1	4	12		6.5	5.5	4.5	10010077	10010078
K21-004/2	4	12		4.5	4	4.5	10010079	-
K21-004/3	4	10		4.5	4	3.5	10010082	10010085
K21-004/4	4	7.5		3.5	3	2.5	10010086	-
K21-004/6	4	10		7	6	3.5	10010092	10010093
K21-005/2	5	11		6	5	3.5	10010109	10010111
K21-005/3	5	10		4.5	4	3	10010112	10010113
K21-005/4	5	10		6	5	3	10010114	10010116
K21-005/5	5	9		2.9	2.4	2.5	10010117	-
K21-005/6	5	12		6	5	4	10010118	10010121
K21-005/8	5	12		4.5	4	4	10010125	-
K21-006	6	9		2.5	2	2	10010138	-
K21-006/1	6	12		7	6	3.5	10010140	10010142
K21-006/2	6	12		8	7	3.5	10010159	10010161
K21-006/3	6	10		3.5	3	2.5	10010162	10010164
K21-006/6	6	12		4.5	4	3.5	10010174	10010178
K21-006/9	6	13		6.5	5.5	4	10010183	10010184
K21-006/14	6	12		6	5	3.5	10010153	-
K21-007/5	7	12		4.5	4	3	10010205	-
K21-008	8	18		9	8	5.5	10010220	10010223
K21-008/1	8	14		7	6	3.5	10010224	10010226
K21-008/2	8	16		7	6	4.5	10010249	10010251
K21-008/3	8	16		9	8	4.5	10010255	10010257
K21-008/5	8	14		4.5	4	3.5	10010258	10010261
K21-008/8	8	12		6	5	2.5	10010265	-
K21-008/10	8	15		7	6	4	10010228	-
K21-008/16	8	12		4.5	4	2.5	10010243	10010245
K21-009/1	9	19		7	6	5.5	10010280	10010282
K21-009/2	9	16		4.5	4	4	10010283	10010286
K21-010	10	20		9	8	5.5	10010308	10010312
K21-010/4	10	18		7	6	4.5	10010357	10010361
K21-010/6	10	16		4.5	4	3.5	10010366	10010370
K21-010/7	10	25		9	8	6	10010371	-
K21-010/10	10	15		4.5	4	3	10010313	10010315



KASTAŞ NO	d(f7)	dp(h11)	Db(H10)	D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-010/11	10		16		7	6	3.5	10010317	10010319
K21-010/12	10		16		6	5	3.5	10010320	10010322
K21-010/13	10		20		8	7	5.5	10010323	10010326
K21-010/16	10		14		4	3.5	2.5	10010330	-
K21-010/22	10		18		6.5	5.5	4.5	10010350	-
K21-012	12		22		9	8	5.5	10010399	10010403
K21-012/1	12		20		9	8	4.5	10010404	10010406
K21-012/2	12		22		7	6	5.5	10010431	10010433
K21-012/5	12		18		7	6	3.5	10010458	10010462
K21-012/6	12		22		6	5	5.5	10010463	10010465
K21-012/7	12		18		4.5	4	3.5	10010466	10010471
K21-012/8	12		18		6	5	3.5	10010472	10010473
k21-012/9	12		20		6.5	5.5	4.5	10010475	10010478
K21-012/10	12		18		3.5	3	3.5	10010407	-
K21-012/11	12		20		6	5	4.5	10010410	10010412
K21-012/14	12		24		7	6	5.5	10010416	10010418
K21-012/16	12		16		3.5	3	2.5	10010421	-
K21-012/27	12.7		19.05		3.5	3.18	4	10010449	10010451
K21-014	14		24		9	8	5.5	10010503	10010505
K21-014/1	14		22		6	5	4.5	10010508	10010510
K21-014/3	14		24		7	6	5.5	10010526	10010528
K21-014/6	14		20		6	5	3.5	10010535	10010537
K21-014/8	14		20		4.5	4	3.5	10010541	10010543
K21-014/9	14		22		4.5	4	4.5	10010544	10010546
K21-014/11	14		22		7	6	4.5	10010513	10010515
K21-015	15		25		9	8	5.5	10010557	10010559
K21-015/4	15		25		6	5	5.5	10010590	10010593
K21-015/5	15		22		4.5	4	4	10010594	-
K21-015/7	15		20		3.5	3	3	10010600	10010602
K21-015/10	15		21		4	3.5	3.5	10010560	10010562
K21-015/11	15		22		6	5	4	10010563	-
K21-015/16	15		25		7	6	5.5	10010578	-
K21-015/17	15		22		6.5	5.5	4	10010580	10010583
K21-016	16		26		9	8	5.5	10010618	10010622
K21-016/1	16		22		6	5	3.5	10010623	10010628
K21-016/2	16		26		7	6	5.5	10010655	10010659
K21-016/5	16		24		4.5	4	4.5	10010664	-
K21-016/6	16		22		3.5	3	3.5	10010665	10010668
K21-016/8	16		26		6	5	5.5	10010671	10010673
K21-016/9	16		22		4.5	4	3.5	10010674	10010676
K21-016/10	16		25		6	5	5	10010630	10010632
K21-016/11	16		24		6.5	5.5	4.5	10010634	-
K21-016/13	16		24		7	6	4.5	10010636	10010639
K21-016/14	16		22		11	10	3.5	10010641	10010643
K21-016/16	16		28		7	6	5.5	10010645	10010647
k21-018	18		28		9	8	5.5	10010703	10010705
K21-018/2	18		30		8.5	7.5	5.5	10010725	10010727
K21-018/5	18		25		6.5	5.5	4	10010734	-
K21-018/7	18		25		6	5	4	10010737	10010740
K21-018/8	18		24		4.5	4	3.5	10010741	-
K21-018/9	18		26		6	5	4.5	10010743	10010746
K21-018/11	18		24		9	8	3.5	10010711	10010712
K21-018/12	18		26		4.5	4	4.5	10010713	10010715
K21-018/13	18		26		7	6	4.5	10010716	10010718
K21-018/15	18		26		6.5	5.5	4.5	10010721	-
K21-020	20		30		9	8	5.5	10010775	10010778



KASTAŞ NO	d(f7)	dp(h11)	Db(H10)	D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-020/1	20		28		6	5	4.5	10010780	10010783
K21-020/2	20		30		7	6	5.5	10010811	10010813
K21-020/3	20		30		11	10	5.5	10010839	10010842
K21-020/4	20		35		11	10	6	10010845	10010847
K21-020/5	20		40		11	10	6.5	10010848	10010849
K21-020/7	20		36		9	8	6	10010852	10010854
K21-020/8	20		28		4.5	4	4.5	10010855	10010857
K21-020/9	20		25		3.5	3	3	10010860	10010862
K21-020/10	20		25		4	3.5	3	10010785	10010787
K21-020/12	20		26		7	6	3.5	10010790	-
K21-020/15	20		36		11	10	6	10010797	10010799
K21-020/17	20		32		8.5	7.5	5.5	10010802	10010804
K21-020/21	20		28		9	8	4.5	10010816	10010818
k21-020/23	20		28		7	6	4.5	10010822	10010824
K21-020/26	20		27		6	5	4	10010828	10010830
K21-020/29	20		26		6	5	3.5	10010836	10010838
K21-022	22		32		9	8	5.5	10010885	10010887
K21-022/1	22		32		8	7	5.5	10010888	10010890
K21-022/5	22		30		7	6	4.5	10010914	10010918
K21-022/8	22		32		7	6	5.5	10010925	10010927
K21-022/11	22		30		6	5	4.5	10010891	10010894
K21-022/13	22		32		11	10	5.5	-	10010897
K21-022/14	22		32		6	5	5.5	10010898	10010900
K21-024	24		34		6	5	5.5	10010953	10010954
K21-024/1	24		32		4.5	4	4.5	10010956	10010958
K21-024/2	24		40		9	8	6	10010959	10010962
K21-025	25		40		11	10	6	10010975	10010977
K21-025/2	25		33		6	5	4.5	10011008	10011012
K21-025/3	25		35		6	5	5.5	10011038	10011040
K21-025/4	25		35		8	7	5.5	10011046	10011048
K21-025/5	25		35		9	8	5.5	10011049	10011054
K21-025/6	25		37		8	7	5.5	10011055	10011058
K21-025/8	25		45		11	10	6.5	10011061	10011063
K21-025/9	25		32		8	7	4	10011064	10011066
K21-025/11	25		33		4.5	4	4.5	10010980	10010982
K21-025/12	25		38		8	7	5.5	10010983	10010984
K21-025/14	25		38		11	10	5.5	10010988	10010989
K21-025/16	25		32		4.5	4	4	10010993	10010996
K21-025/17	25		33		8	7	4.5	10010998	10011000
K21-025/19	25		35		7	6	5.5	10011004	10011006
K21-025/20	25		40		8.5	7.5	6	10011013	-
K21-025/22	25		32		6	5	4	10011017	10011020
K21-025/23	25		35		11	10	5.5	10011021	10011023
K21-025/29	25		33		7	6	4.5	-	10011037
K21-026/2	26		35		9	8	5	10011079	10011080
K21-027	27		35		4.5	4	4.5	10011096	10011100
K21-027/1	27		38		7	6	5.5	10011101	10011103
K21-028/1	28		40		11	10	5.5	10011123	10011127
K21-028/4	28		35		7	6	4	10011148	10011150
K21-028/5	28		36		7	6	4.5	10011151	10011156
K21-028/6	28		36		6	5	4.5	10011157	10011159
K21-028/7	28		35.5		6	5	4.5	10011160	10011162
K21-028/10	28		38		6	5	5.5	10011128	10011130
K21-028/14	28		40		7	6	5.5	10011139	10011141
K21-030	30		45		11	10	6	10011187	10011190
K21-030/1	30		40		11	10	5.5	10011195	10011197



KASTAŞ NO	d(f7) dp(h11)	Db(H10) D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-030/2	30	42	11	10	5.5	10011223	10011226
K21-030/3	30	50	11	10	6.5	10011235	10011238
K21-030/4	30	50	13	12	6.5	10011239	10011241
K21-030/5	30	40	6	5	5.5	10011242	10011244
K21-030/6	30	40	8	7	5.5	10011245	10011249
K21-030/7	30	38	4.5	4	4.5	10011250	10011253
K21-030/8	30	38	6.5	5.5	4.5	10011255	10011257
K21-030/9	30	40	7	6	5.5	10011258	10011260
K21-030/15	30	40	9	8	5.5	10011211	10011213
K21-030/21	30	38	9	8	4.5	10011231	10011233
K21-030/22	30	38	7	6	4.5	-	10011234
K21-031/2	31.5	41.5	7	6	5.5	10011272	10011273
K21-032	32	47	11	10	6	10011284	10011286
K21-032/1	32	40	9	8	4.5	10011287	10011290
K21-032/3	32	42	7	6	5.5	10011306	10011310
K21-032/4	32	45	11	10	5.5	10011312	10011314
K21-032/6	32	40	4.5	4	4.5	10011318	10011321
K21-032/7	32	40	6	5	4.5	10011322	10011324
K21-032/9	32	40	6.7	5.7	4.5	10011327	10011328
K21-032/10	32	52	11	10	6.5	10011291	10011292
K21-032/13	32	48	11	10	6	10011297	10011298
K21-032/14	32	40	11	10	4.5	10011300	10011301
K21-035	35	50	11	10	6	10011356	10011359
K21-035/2	35	45	11	10	5.5	10011370	10011373
K21-035/3	35	55	11	10	6.5	10011374	10011376
K21-035/5	35	43	7	6	4.5	10011380	10011383
K21-035/7	35	45	7	6	5.5	10011386	10011390
K21-035/9	35	50	8.5	7.5	6	10011393	10011395
K21-035/12	35	45	9	8	5.5	10011364	10011365
K21-036/3	36	46	8	7	5.5	10011405	10011407
K21-036/5	36	46	7	6	5.5	10011412	10011415
K21-038/1	38	55	11	10	6	10011431	10011433
K21-038/2	38	58	11	10	6.5	10011441	10011443
K21-038/3	38	50	7	6	5.5	10011445	10011448
K21-038/4	38	50	11	10	5.5	10011449	10011451
K21-038/7	38	45	7	6	4	10011456	10011458
K21-038/9	38	48	8.5	7.5	5.5	10011462	10011463
K21-038/12	38	50	8	7	5.5	10011438	10011439
K21-040	40	55	11	10	6	10011466	10011469
K21-040/1	40	50	7	6	5.5	10011471	10011473
K21-040/2	40	50	11	10	5.5	10011499	10011503
K21-040/4	40	60	11	10	6.5	10011513	10011515
K21-040/5	40	60	13	12	6.5	10011516	10011518
K21-040/6	40	50	10	9	5.5	10011519	10011522
K21-040/7	40	50	8	7	5.5	10011523	10011526
K21-040/10	40	50	6	5	5.5	10011474	10011476
K21-040/11	40	50	9	8	5.5	10011477	10011480
K21-040/14	40	48	12	11	4.5	10011486	10011487
K21-040/15	40	55	8	7	6	10011488	10011490
K21-040/16	40	52	7	6	5.5	10011491	10011492
K21-040/19	40	65	13	12	8	-	10011498
K21-042/1	42	50	6	5	4.5	10011536	10011540
K21-042/4	42	55	9	8	5.5	10011546	-
k21-042/5	42	50	9	8	4.5	10011547	10011549
K21-042/7	42	52	11	10	5.5	10011552	10011553
K21-042/8	42	50	7	6	4.5	10011554	10011556



KASTAŞ NO	d(f7)	dp(h11)	Db(H10)	D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-045	45		60		11	10	6	10011565	10011567
K21-045/1	45		55		11	10	5.5	10011569	10011573
K21-045/3	45		63		13	12	6	10011597	10011599
K21-045/4	45		65		11	10	6.5	10011600	10011604
K21-045/5	45		65		13	12	6.5	10011605	10011607
K21-045/7	45		55		7	6	5.5	10011610	10011612
K21-045/8	45		53		8	7	4.5	10011613	10011615
K21-045/9	45		53		9	8	4.5	10011616	10011618
K21-045/10	45		63		11	10	6	10011575	10011577
K21-045/11	45		58		11	10	5.5	10011578	10011580
K21-045/13	45		55		9	8	5.5	10011582	10011584
K21-045/15	45		56		8	7	5.5	10011587	10011588
K21-048	48		63		13	12	6	10011630	10011632
K21-048/6	48		63		11	10	6	10011648	10011650
K21-050	50		65		11	10	6	10011652	10011655
K21-050/1	50		60		11	10	5.5	10011657	10011662
K21-050/2	50		62		10	9	5.5	10011687	10011689
K21-050/3	50		63		9	8	5.5	10011707	10011711
K21-050/4	50		63		10	9	5.5	10011713	10011717
K21-050/5	50		65		13	12	6	10011718	10011720
K21-050/7	50		70		9	8	6.5	10011723	10011725
K21-050/8	50		70		11	10	6.5	10011726	10011728
K21-050/9	50		70		13	12	6.5	10011729	10011732
K21-050/11	50		60		9	8	5.5	10011663	10011665
K21-050/12	50		58		9	8	4.5	10011666	10011668
K21-050/13	50		60		7	6	5.5	10011669	10011671
K21-050/14	50		60		13	12	5.5	10011672	10011673
K21-050/15	50		60		8	7	5.5	10011674	10011676
K21-050/17	50.8		63.5		10.52	9.52	5.5	10011679	10011681
K21-050/18	50		63		7	6	5.5	10011682	10011683
K21-050/20	50		60		6	5	5.5	10011690	10011692
K21-053/3	53		63		8.5	7.5	5.5	10011742	10011744
K21-053/5	53		63		7	6	5.5	10011746	10011748
K21-053/6	53		63		11	10	5.5	10011749	10011751
K21-054	54		63		9	8	5	10011754	-
K21-055	55		75		13	12	6.5	10011756	10011758
K21-055/1	55		70		11	10	6	10011759	10011762
K21-055/6	55		80		13	12	8	10011774	10011775
K21-055/7	55		65		6	5	5.5	10011776	10011779
K21-055/9	55		65		7	6	5.5	10011783	10011785
K21-056/5	56		70		13	12	6	10011797	10011799
K21-060	60		80		13	12	6.5	10011819	10011823
K21-060/1	60		80		11	10	6.5	10011824	10011826
K21-060/2	60		70		13	12	5.5	10011836	10011838
K21-060/4	60		75		13	12	6	10011840	10011842
K21-060/6	60		70		7	6	5.5	10011845	10011848
K21-060/7	60		70		8	7	5.5	10011851	10011855
K21-063/2	63		72		7	6	5	10011867	10011869
K21-063/4	63		78		9	8	6	10011871	-
K21-065	65		85		13	12	6.5	10011879	10011881
K21-065/1	65		80		13	12	6	10011882	10011886
K21-065/5	65		75		11	10	5.5	10011896	10011898
K21-065/6	65		75		7	6	5.5	10011899	10011901
K21-065/9	65		80		11	10	6	10011906	10011908
K21-068	68		80		13	12	5.5	10011912	-
K21-068/2	68		80		11	10	5.5	10011915	-



KASTAŞ NO	d(f7)	dp(h11)	Db(H10)	D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-070	70	90	13	12	6.5	10011917	10011920		
K21-070/1	70	80	13	12	5.5	10011921	10011923		
K21-070/2	70	85	9	8	6	10011931	10011934		
K21-070/4	70	85	13	12	6	10011936	10011938		
K21-070/7	70	90	11	10	6.5	10011942	10011944		
K21-070/8	70	80	8	7	5.5	10011945	10011947		
K21-070/9	70	80	7	6	5.5	10011948	10011950		
K21-070/12	70	85	10.5	9.5	6	10011926	-		
K21-072	72	80	11	10	4.5	10011955	-		
K21-075	75	95	13	12	6.5	10011961	10011963		
K21-075/5	75	95	11	10	6.5	10011973	-		
K21-075/7	75	100	16	15	8	10011976	-		
K21-075/8	75	85	7	6	5.5	10011977	10011979		
K21-080	80	100	13	12	6.5	10011986	10011989		
K21-080/1	80	95	9	8	6	10011990	10011992		
K21-080/2	80	95	10	9	6	10012007	10012009		
K21-080/3	80	95	13	12	6	10012010	10012012		
K21-080/5	80	100	11	10	6.5	10012015	10012017		
K21-080/7	80	90	8	7	5.5	10012020	10012022		
K21-080/8	80	100	16	15	6.5	10012023	-		
K21-080/10	80	90	7	6	5.5	10011994	10011996		
K21-080/11	80	90	6	5	5.5	10011998	10012000		
K21-084	84	103	15	14	6	10012038	-		
K21-085/2	85	100	13	12	6	10012047	10012049		
K21-085/4	85	105	16	15	6.5	10012054	-		
K21-085/5	85	105	11	10	6.5	10012055	-		
K21-085/7	85	110	16	15	8	10012058	-		
K21-085/8	85	100	10	9	6	10012060	10012064		
K21-090	90	110	13	12	6.5	10012071	10012074		
k21-090/2	90	100	9	8	5.5	10012086	10012088		
K21-090/3	90	110	11	10	6.5	10012089	10012091		
K21-090/13	90	100	6	5	5.5	10012081	10012082		
K21-095/5	95	125	16	15	9.5	10012114	-		
K21-095/6	95	110	10	9	6	10012116	10012118		
K21-100	100	125	16	15	8	10012123	10012125		
K21-100/1	100	120	13	12	6.5	10012126	10012129		
K21-100/2	100	120	16	15	6.5	10012134	10012136		
K21-100/4	100	120	11	10	6.5	10012140	-		
K21-100/5	100	110	6	5	5.5	10012143	10012145		
K21-100/9	100	115	10	9	6	10012150	10012152		
K21-110/2	110	125	13	12	6	10012176	10012178		
K21-112	112	125	10	9	5.5	10012185	10012187		
K21-115	115	140	19	18	8	10012191	10012193		
K21-115/2	115	125	9	8	5.5	10012194	10012196		
K21-115/3	115	135	16	15	6.5	10012197	10012198		
K21-115/5	115	130	11	10	6	10012201	10012203		
K21-120/1	120	150	16	15	9.5	10012210	10012212		
K21-120/5	120	140	15	14	6.5	10012220	-		
K21-125/1	125	150	19	18	8	10012228	10012230		
K21-125/7	125	140	10	9	6	10012239	10012244		
K21-130	130	150	16	15	6.5	10012252	10012254		
K21-130/1	130	160	19	18	9.5	10012255	10012256		
K21-130/3	130	160	16	15	9.5	10012258	-		
K21-135/2	135	165	16	15	9.5	10012270	10012271		
K21-136	136	150	10	9	5.5	10012275	10012277		
K21-140/2	140	160	9	8	6.5	10012285	10012287		



KASTAŞ NO	d(f7) dp(h11)	Db(H10) D(H10)	L (+0.2/-0)	H	C	KASTAŞ CODE NBR	KASTAŞ CODE PU
K21-140/6	140	155	10	9	6	10012292	10012293
K21-145	145	160	9	8	6	10012294	10012300
K21-145/3	145	165	16	15	6.5	10012305	10012306
K21-145/4	145	160	10	9	6	10012307	10012309
K21-145/6	145	160	11	10	6	10012310	-
K21-150	150	180	19	18	9.5	10012312	10012314
K21-150/4	150	180	16	15	9.5	10012317	10012318
K21-150/5	150	170	11	10	6.5	10012319	-
K21-160	160	190	23	22	9.5	10012329	10012331
K21-160/1	160	180	16	15	6.5	10012332	10012334
K21-160/7	160	180	11	10	6.5	10012342	-
K21-165/3	165	180	10	9	6	10012350	-
K21-170	170	200	16	15	9.5	10012354	10012356
K21-170/1	170	200	23	22	9.5	10012357	10012359
K21-180/3	180	200	13	12	6.5	10012377	10012379
K21-185/1	185	200	10	9	6	10012384	10012387
K21-190/2	190	215	21	20	6.5	10012393	-
K21-200	200	230	23	22	9.5	10012403	10012405
K21-210/2	210	250	21	20	12.5	10012422	-
K21-220	220	250	21	20	9.5	10012426	10012428
K21-225	225	250	19	18	8	10012431	-
K21-240	240	260	17	16	6.5	10012441	10012443
K21-270/1	270	300	23	22	9.5	10012464	-
K21-280/2	280	300	15	14	6.5	10012470	-
K21-290/1	290	307	15	14	6	10012476	-
K21-300/1	300	320	16	15	6.5	10012484	10012485
K21-320	320	350	16	15	9.5	10012493	10012496
K21-320/1	320	340	13	12	6.5	10012497	-
K21-340/1	340	380	21	20	12.5	10012503	-
K21-360/3	360	400	21	20	12.5	10012510	-
K21-375	375	395	13	12	6.5	10012514	10012515
K21-390	390	406	15	14	6	10012518	-
K21-400	400	420	16	15	6.5	10012520	-
K21-450	450	480	16	15	9.5	10012526	-
K21-475	475	507	25	24	10	10012529	-
K21-500	500	532	25	24	10	10012532	-