Piston Seals (Double Acting)

### KR, GRC (Metric Size)

KR

GRC
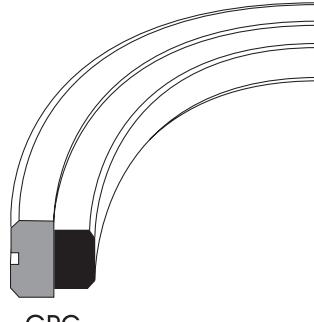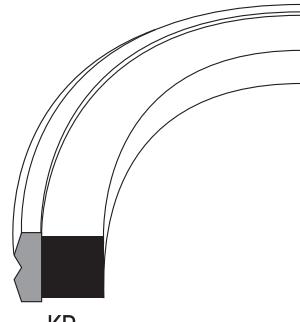
Material	Pressure (Bar)	Temp. (°c)	Speed (m/s)
PU - NBR	400	-35 +110	0.5

- High wear resistance.
- Low friction.
- Stability of the sliding ring under rapid pressure changes guaranteed by the rectangular expander.
- High extrusion resistance.

Installation Recommendation
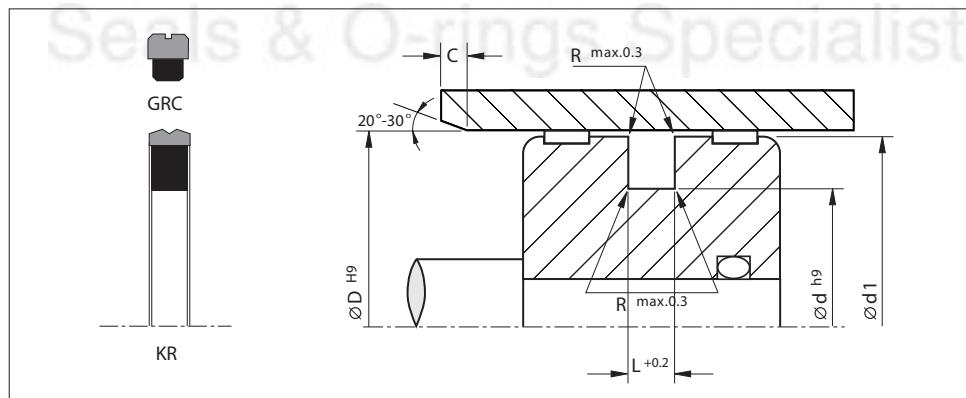
Surface roughness	Ra	Rt
Sliding surface	≤ 0.3 μm	≤ 4 μm
Surface of housing	≤ 1.8 μm	≤ 10 μm
Sides of housing	≤ 3.0 μm	≤ 16 μm

Chamfers	
D	C
< 60	4.0
60-120	5.0
120-180	6.5
180-250	7.5
250-400	9.0

Piston Sealing Set

(Metric Size)

Bore Dia.	Groove Dia.	Groove Width	Piston Dia.	Prefix No.	Reference (For order processing)	Reference (For order processing)
D	d	L	D1			
16.0	8.5	3.2	15.7			GRC 016-008.5-03.2
16.0	11.0	2.2	15.7			GRC 016-011-02.2
18.0	10.5	3.2	17.7			GRC 018-010.5-03.2
20.0	12.5	3.2	19.7	0020	KR 020-012.5-03.2	GRC 020-012.5-03.2
20.0	15.0	2.2	19.7			GRC 020-015-02.2
25.0	17.5	3.2	24.7	0025	KR 025-017.5-03.2	GRC 025-017.5-03.2
25.0	14.0	4.2	24.7			GRC 025-014-04.2
30.0	22.5	3.2	29.7	0030	KR 030-022.5-03.2	GRC 030-022.5-03.2
32.0	24.5	3.2	31.7	0032	KR 032-024.5-03.2	GRC 032-024.5-03.2
32.0	21.0	4.2	31.7	1032	KR 032-021-04.2	GRC 032-021-04.2
35.0	27.5	3.2	34.7	0035	KR 035-027.5-03.2	GRC 035-027.5-03.2
36.0	28.5	3.2	35.7			GRC 036-028.5-03.2
40.0	32.5	3.2	39.7	3040	KR 040-032.5-03.2	
40.0	29.0	4.2	39.7	0040	KR 040-029-04.2	GRC 040-029-04.2
40.0	24.5	6.3	39.6	1040	KR 040-024.5-06.3	
40.0	27.0	6.3	39.6	2040	KR 040-027-06.3	
45.0	34.0	4.2	44.7	0045	KR 045-034-04.2	GRC 045-034-04.2
45.0	32.0	6.3	44.6	1045	KR 045-032-06.3	
50.0	39.0	4.2	49.7	0050	KR 050-039-04.2	
50.0	34.5	6.3	49.6	1050	KR 050-034.5-06.3	GRC 050-034.5-06.3
50.0	37.0	6.3	49.6	2050	KR 050-037-06.3	
50.0	39.0	4.2	49.7			GRC 050-039-04.2
55.0	44.0	4.2	54.7	0055	KR 055-044-04.2	GRC 055-044-04.2
55.0	39.5	6.3	54.6	1055	KR 055-039.5-06.3	
58.0	45.0	6.3	57.6	0058	KR 058-045-06.3	
60.0	49.0	4.2	59.7	0060	KR 060-049-04.2	
60.0	44.5	6.3	59.6	1060	KR 060-044.5-06.3	GRC 060-044.5-06.3
60.0	49.0	4.2	59.7			GRC 060-049-04.2
63.0	52.0	4.2	62.7	0063	KR 063-052-04.2	
63.0	53.0	5.0	62.7	1063	KR 063-053-05	
63.0	47.5	6.3	62.6	2063	KR 063-047.5-06.3	GRC 063-047.5-06.3
63.0	50.0	6.3	62.6	3063	KR 063-050-06.3	
63.0	52.0	4.2	62.7			GRC 063-052-04.2
65.0	52.0	6.3	64.6	0065	KR 065-052-06.3	
65.0	54.0	4.2	64.7			GRC 065-054-04.2
65.0	54.0	6.3	64.6	1065	KR 065-054-06.3	
70.0	59.0	4.2	69.7	0070	KR 070-059-04.2	GRC 070-059-04.2
70.0	54.5	6.3	69.6	1070	KR 070-054.5-06.3	
70.0	57.0	6.3	69.6	2070	KR 070-057-06.3	
75.0	64.0	4.2	74.7	1075	KR 075-064-04.2	GRC 075-064-04.2

SPEC SEAL — Seals & O-rings Specialist

(Metric Size)

Bore Dia.	Groove Dia.	Groove Width	Piston Dia.	Prefix No.	Reference (For order processing)	Reference (For order processing)
D	d	L	D1			
75.0	59.5	6.3	74.6	0075	KR 075-059.5-06.3	
75.0	62.0	6.3	74.6	2075	KR 075-062-06.3	
80.0	69.0	4.2	79.7	4080	KR 080-069-04.2	
80.0	64.5	6.3	79.6	0080	KR 080-064.5-06.3	GRC 080-064.5-06.3
80.0	66.5	6.3	79.6	1080	KR 080-066.5-06.3	
80.0	59.0	8.1	79.5	2080	KR 080-059-08.1	GRC 080-059-08.1
80.0	59.0	10.5	79.5	3080	KR 080-059-10.5	
85.0	69.5	6.3	84.6			GRC 085-069.5-06.3
85.0	71.5	6.3	84.6	0085	KR 085-071.5-06.3	
90.0	74.5	6.3	89.6	0090	KR 090-074.5-06.3	GRC 090-074.5-06.3
90.0	69.0	8.1	89.5	1090	KR 090-069-08.1	GRC 090-069-08.1
90.0	69.0	10.5	89.5	2090	KR 090-069-10.5	
95.0	79.5	6.3	94.6	0095	KR 095-079.5-06.3	GRC 095-079.5-06.3
100.0	84.5	6.3	99.6	0100	KR 100-084.5-06.3	GRC 100-084.5-06.3
100.0	86.5	6.3	99.6	1100	KR 100-086.5-06.3	
100.0	79.0	8.1	99.5	2100	KR 100-079-08.1	GRC 100-079-08.1
105.0	84.5	6.3	104.6	2105	KR 105-084.5-06.3	
105.0	89.5	6.3	104.6	0105	KR 105-089.5-06.3	GRC 105-089.5-06.3
110.0	94.5	6.3	109.6	0110	KR 110-094.5-06.3	GRC 110-094.5-06.3
110.0	89.0	8.1	109.5	1110	KR 110-089-08.1	GRC 110-089-08.1
110.0	89.0	10.5	109.5	2110	KR 110-089-10.5	
115.0	94.0	8.1	114.5	0115	KR 115-094-08.1	
115.0	99.5	6.3	114.6			GRC 115-099.5-06.3
120.0	104.5	6.3	119.6	0120	KR 120-104.5-06.3	GRC 120-104.5-06.3
120.0	99.0	10.5	119.5	1120	KR 120-099-10.5	
125.0	109.5	6.3	124.6	0125	KR 125-109.5-06.3	GRC 125-109.5-06.3
125.0	104.0	8.1	124.5	1125	KR 125-104-08.1	GRC 125-104-08.1
125.0	104.0	10.5	124.5	2125	KR 125-104-10.5	
130.0	114.5	6.3	129.6			GRC 130-114.5-06.3
140.0	119.0	10.5	139.5	0140	KR 140-119-10.5	
140.0	119.0	12.5	139.5	1140	KR 140-119-12.5	
140.0	119.0	8.1	139.5	2140	KR 140-119-08.1	GRC 140-119-08.1
145.0	124.0	8.1	144.5			GRC 145-124-08.1
150.0	129.0	8.1	149.5			GRC 150-129-08.1
150.0	129.0	10.5	149.5	0150	KR 150-129-10.5	
155.0	134.0	8.1	154.5			GRC 155-134-08.1
160.0	144.5	6.3	159.5			GRC 160-144.5-06.3
160.0	139.0	8.1	159.5	0160	KR 160-139-08.1	GRC 160-139-08.1
170.0	149.0	8.1	169.5			GRC 170-149-08.1
180.0	159.0	8.1	179.5	0180	KR 180-159-08.1	GRC 180-159-08.1

Piston Sealing Set

(Metric Size)

Bore Dia.	Groove Dia.	Groove Width	Piston Dia.	Prefix No.	Reference (for order processing)	Reference (for order processing)
D	d	L	D1			
200.0	179.0	8.1	199.5	0200	KR 200-179-08.1	GRC 200-179-08.1
200.0	175.0	12.5	199.5	1200	KR 200-175-12.5	
220.0	199.0	8.1	219.5			GRC 220-199-08.1
250.0	225.5	8.1	249.5			GRC 250-225.5-08.1
250.0	229.0	8.1	249.5			GRC 250-229-08.1
320.0	299.0	8.1	319.5			GRC 320-299-08.1
320.0	295.5	8.1	319.5			GRC 320-295.5-08.1
400.0	375.5	8.1	399.4			GRC 400-375.5-08.1
400.0	370.0	12.5	399.4			GRC 400-370-12.5