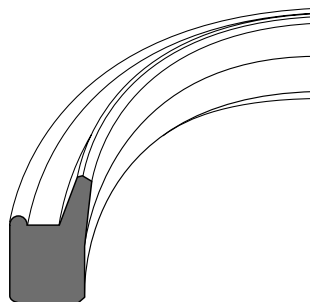


Wipers

SA, PW, GHK

(Metric Size)

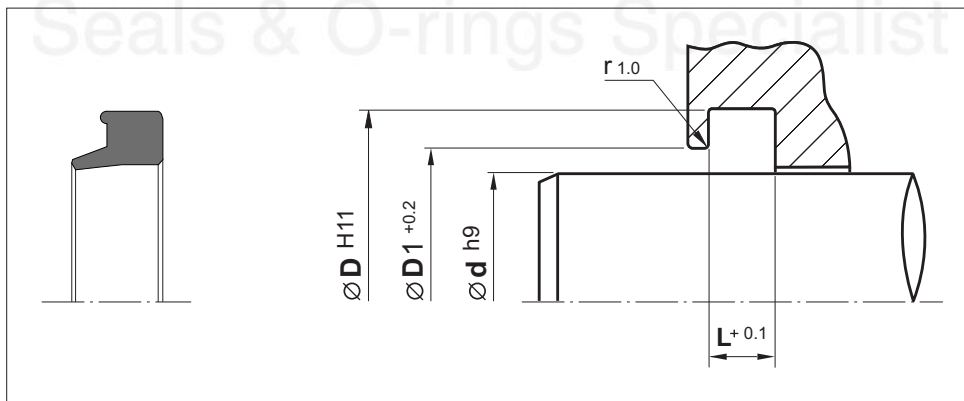


SA, PW, GHK

Material	Temp. (°c)	Speed (m/s)
PU	-30 +80	1

- High wear resistance.
- Good prevention against external fluid intrusion.
- Easy installation.
- Space-saving construction.

Installation Recommendation



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

Wiper - SA

(Metric Size)

Rod Dia.	Groove Dia.	Seal Height	Bore Dia.	Reference (For order processing)	Reference (For order processing)	Reference (For order processing)
d	D	L	D1			
4.0	12.0	3.0	9.0	SA 004-012-3	PW 004-012-3	
5.0	12.0	2.8	9.0	SA 005-012-2.8	PW 005-012-2.8	
6.0	12.0	3.0	9.0	SA 006-012-3	PW 006-012-3	
8.0	14.6	3.8	11.0	SA 008-014.6-3.8	PW 008-014.6-3.8	
9.0	13.0	2.5	12.0	SA 009-013-2.5	PW 009-013-2.5	
10.0	15.0	1.0	13.0	SA 010-015-1	PW 010-015-1	
10.0	16.6	3.8	13.0	SA 010-016.6-3.8	PW 010-016.6-3.8	
12.0	18.6	3.8	15.0	SA 012-018.6-3.8	PW 012-018.6-3.8	
14.0	20.6	3.8	17.0	SA 014-020.6-3.8	PW 014-020.6-3.8	
15.0	21.6	3.8	18.0	SA 015-021.6-3.8	PW 015-021.6-3.8	
15.0	27.0	5.0	24.0	SA 015-027-5	PW 015-027-5	
16.0	22.5	3.0	19.0	SA 016-022.5-3	PW 016-022.5-3	
16.0	22.6	3.8	19.0	SA 016-022.6-3.8	PW 016-022.6-3.8	GHK 16-22-3.8/5
18.0	24.6	3.8	21.0	SA 018-024.6-3.8	PW 018-024.6-3.8	GHK 18-24-3.8/5
20.0	26.0	3.4	23.0	SA 020-026-3.4	PW 020-026-3.4	
20.0	28.6	5.3	23.0	SA 020-028.6-5.3	PW 020-028.6-5.3	GHK 20-28-5/7
20.0	30.0	5.4	27.0	SA 020-030-5.4	PW 020-030-5.4	
22.0	30.6	2.2	25.0	SA 022-030.6-2.2	PW 022-030.6-2.2	
22.0	30.6	5.3	25.0	SA 022-030.6-5.3	PW 022-030.6-5.3	GHK 22-30-5/7
24.0	32.6	2.2	27.0	SA 024-032.6-2.2	PW 024-032.6-2.2	
24.0	32.6	5.3	27.0	SA 024-032.6-5.3	PW 024-032.6-5.3	
25.0	33.6	5.3	28.0	SA 025-033.6-5.3	PW 025-033.6-5.3	GHK 25-33-5/7
28.0	36.6	5.3	31.0	SA 028-036.6-5.3	PW 028-036.6-5.3	GHK 28-36-5/7
30.0	38.6	5.3	33.0	SA 030-038.6-5.3	PW 030-038.6-5.3	GHK 30-38-5/7
30.0	40.0	3.0	34.5	SA 030-040-3	PW 030-040-3	
32.0	40.0	3.7	35.0	SA 032-040-3.7	PW 032-040-3.7	
32.0	40.6	5.3	35.0	SA 032-040.6-5.3	PW 032-040.6-5.3	GHK 32-40-5/7
35.0	40.0	3.7	37.0	SA 035-040-3.7	PW 035-040-3.7	
35.0	43.6	5.0	38.0	SA 035-043.6-5	PW 035-043.6-5	
35.0	43.6	5.3	38.0	SA 035-043.6-5.3	PW 035-043.6-5.3	GHK 35-43-5/7
35.0	45.0	4.0	39.0	SA 035-045-4	PW 035-045-4	
36.0	44.6	5.3	39.0	SA 036-044.6-5.3	PW 036-044.6-5.3	GHK 36-44-5/7
38.0	46.6	5.3	41.0	SA 038-046.6-5.3	PW 038-046.6-5.3	GHK 38-46-5/7
38.0	48.5	4.8	41.0	SA 038-048.5-4.8	PW 038-048.5-4.8	
40.0	48.6	5.3	43.0	SA 040-048.6-5.3	PW 040-048.6-5.3	GHK 40-48-5/7
42.0	50.6	5.3	45.0	SA 042-050.6-5.3	PW 042-050.6-5.3	GHK 42-50-5/7
45.0	53.6	5.3	48.0	SA 045-053.6-5.3	PW 045-053.6-5.3	GHK 45-53-5/7
45.0	55.6	5.3	48.0	SA 045-055.6-5.3	PW 045-055.6-5.3	GHK 45-55-5/7
45.0	60.0	4.2	53.0	SA 045-060-4.2	PW 045-060-4.2	
46.0	54.6	5.3	49.0	SA 046-054.6-5.3	PW 046-054.6-5.3	GHK 46-54-5/7

(Metric Size)

Rod Dia.	Groove Dia.	Seal Height	Bore Dia.	Reference (For order processing)	Reference (For order processing)	Reference (For order processing)
d	D	L	D1			
47.0	55.6	5.3	50.0	SA 047-055.6-5.3	PW 047-055.6-5.3	GHK 47-55-5/7
50.0	58.6	5.3	53.0	SA 050-058.6-5.3	PW 050-058.6-5.3	GHK 50-58-5/7
50.0	60.6	5.3	53.0	SA 050-060.6-5.3	PW 050-060.6-5.3	GHK 50-60-5/7
50.0	65.5	4.2	58.0	SA 050-065.5-4.2	PW 050-065.5-4.2	
53.0	61.6	5.3	56.0	SA 053-061.6-5.3	PW 053-061.6-5.3	
55.0	63.6	5.3	58.0	SA 055-063.6-5.3	PW 055-063.6-5.3	GHK 55-63-5/7
55.0	65.6	5.3	58.0	SA 055-065.6-5.3	PW 055-065.6-5.3	GHK 55-65-5/7
56.0	64.6	5.3	59.0	SA 056-064.6-5.3	PW 056-064.6-5.3	GHK 56-64-5/7
56.0	66.6	5.3	59.0	SA 056-066.6-5.3	PW 056-066.6-5.3	GHK 56-66-5/7
60.0	68.6	5.3	63.0	SA 060-068.6-5.3	PW 060-068.6-5.3	GHK 60-68-5/7
60.0	70.6	5.3	63.0	SA 060-070.6-5.3	PW 060-070.6-5.3	GHK 60-70-5/7
60.0	70.6	5.5	66.5	SA 060-070.6-5.5	PW 060-070.6-5.5	
63.0	71.6	5.3	66.0	SA 063-071.6-5.3	PW 063-071.6-5.3	GHK 63-71-5/7
65.0	73.6	5.3	68.0	SA 065-073.6-5.3	PW 065-073.6-5.3	GHK 65-73-5/7
65.0	75.6	5.3	68.0	SA 065-075.6-5.3	PW 065-075.6-5.3	GHK 65-75-5/7
65.0	76.6	6.0	71.5	SA 065-076.6-6	PW 065-076.6-6	
67.0	76.6	5.5	71.0	SA 067-076.6-5.5	PW 067-076.6-5.5	
70.0	78.6	5.3	73.0	SA 070-078.6-5.3	PW 070-078.6-5.3	GHK 70-78-5/7
70.0	80.0	5.0	74.0	SA 070-080-5	PW 070-080-5	
70.0	80.6	5.3	73.0	SA 070-080.6-5.3	PW 070-080.6-5.3	GHK 70-80-5/7
70.0	80.0	7.0	74.0	SA 070-080-7	PW 070-080-7	
70.0	82.6	7.1	76.0	SA 070-082.6-7.1	PW 070-082.6-7.1	
73.0	81.6	5.3	76.0	SA 073-081.6-5.3	PW 073-081.6-5.3	
73.0	83.6	7.3	76.0	SA 073-083.6-7.3	PW 073-083.6-7.3	
75.0	83.6	5.3	78.0	SA 075-083.6-5.3	PW 075-083.6-5.3	GHK 75-83-5/7
75.0	87.2	7.1	81.0	SA 075-087.2-7.1	PW 075-087.2-7.1	GHK 75-87-7/12
78.0	86.0	5.0	81.0	SA 078-086-5	PW 078-086-5	
78.0	88.6	5.5	84.5	SA 078-088.6-5.5	PW 078-088.6-5.5	
78.0	92.2	7.1	85.0	SA 078-092.2-7.1	PW 078-092.2-7.1	
80.0	88.6	5.3	83.0	SA 080-088.6-5.3	PW 080-088.6-5.3	GHK 80-88-5/7
80.0	92.2	7.1	86.0	SA 080-092.2-7.1	PW 080-092.2-7.1	GHK 80-92-7/12
80.0	92.6	7.1	86.0	SA 080-092.6-7.1	PW 080-092.6-7.1	
85.0	93.6	5.3	88.0	SA 085-093.6-5.3	PW 085-093.6-5.3	GHK 85-93-5/7
85.0	97.2	7.1	91.0	SA 085-097.2-7.1	PW 085-097.2-7.1	GHK 85-97-7/12
90.0	98.6	5.3	93.0	SA 090-098.6-5.3	PW 090-098.6-5.3	GHK 90-98-5/7
90.0	100.0	7.0	94.0	SA 090-100-7	PW 090-100-7	
90.0	102.0	6.0	94.0	SA 090-102-6	PW 090-102-6	
90.0	102.2	7.1	96.0	SA 090-102.2-7.1	PW 090-102.2-7.1	GHK 90-102-7/12
92.0	103.6	5.5	97.0	SA 092-103.6-5.5	PW 092-103.6-5.5	
93.0	101.0	5.0	96.0	SA 093-101-5	PW 093-101-5	

Wiper - SA

(Metric Size)

Rod Dia.	Groove Dia.	Seal Height	Bore Dia.	Reference (For order processing)	Reference (For order processing)	Reference (For order processing)
d	D	L	D1			
93.0	123.0	5.0	115.0	SA 093-123-5	PW 093-123-5	
95.0	105.0	10.0	99.0	SA 095-105-10	PW 095-105-10	
95.0	107.2	7.1	101.0	SA 095-107.2-7.1	PW 095-107.2-7.1	GHK 95-107-7/12
97.0	105.0	5.0	100.0	SA 097-105-5	PW 097-105-5	
99.0	109.6	5.5	105.5	SA 099-109.6-5.5	PW 099-109.6-5.5	
100.0	112.2	6.0	104.0	SA 100-112.2-6	PW 100-112.2-6	
100.0	112.2	7.1	106.0	SA 100-112.2-7.1	PW 100-112.2-7.1	GHK 100-112-7/12
105.0	113.6	5.3	108.0	SA 105-113.6-5.3	PW 105-113.6-5.3	GHK 105-113-5/7
105.0	117.2	7.1	111.0	SA 105-117.2-7.1	PW 105-117.2-7.1	GHK 105-117-7/12
110.0	122.2	7.1	116.0	SA 110-122.2-7.1	PW 110-122.2-7.1	GHK 110-122-7/12
112.0	124.2	7.1	118.0	SA 112-124.2-7.1	PW 112-124.2-7.1	
115.0	127.0	10.0	121.0	SA 115-127-10	PW 115-127-10	
115.0	127.2	7.1	121.0	SA 115-127.2-7.1	PW 115-127.2-7.1	GHK 115-127-7/12
118.0	126.0	5.0	121.0	SA 118-126-5	PW 118-126-5	
120.0	128.6	5.3	123.0	SA 120-128.6-5.3	PW 120-128.6-5.3	GHK 120-128-5/7
120.0	130.6	5.5	126.5	SA 120-130.6-5.5	PW 120-130.6-5.5	
120.0	132.2	7.1	126.0	SA 120-132.2-7.1	PW 120-132.2-7.1	GHK 120-132-7/12
125.0	137.2	7.1	131.0	SA 125-137.2-7.1	PW 125-137.2-7.1	GHK 125-137-7/12
125.0	140.0	10.2	132.6			GHK 125-140-10/16
128.0	140.2	7.1	134.0	SA 128-140.2-7.1	PW 128-140.2-7.1	
130.0	142.2	7.1	136.0	SA 130-142.2-7.1	PW 130-142.2-7.1	GHK 130-142-7/12
135.0	147.2	7.1	141.0	SA 135-147.2-7.1	PW 135-147.2-7.1	GHK 135-147-7/12
140.0	148.6	6.0	143.0	SA 140-148.6-6	PW 140-148.6-6	
140.0	152.2	7.1	146.0	SA 140-152.2-7.1	PW 140-152.2-7.1	GHK 140-152-7/12
140.0	155.0	9.0	147.0	SA 140-155-9	PW 140-155-9	
140.0	155.0	10.2	147.6			GHK 140-155-10/16
141.0	151.6	5.5	147.5	SA 141-151.6-5.5	PW 141-151.6-5.5	
143.0	151.0	5.5	146.0	SA 143-151-5.5	PW 143-151-5.5	
145.0	157.2	7.1	151.0	SA 145-157.2-7.1	PW 145-157.2-7.1	GHK 145-157-7/12
145.0	160.0	8.0	152.0	SA 145-160-8	PW 145-160-8	
148.0	160.0	7.0	152.0	SA 148-160-7	PW 148-160-7	
150.0	162.2	7.1	156.0	SA 150-162.2-7.1	PW 150-162.2-7.1	GHK 150-162-7/12
150.0	165.0	7.5	156.0	SA 150-165-7.5	PW 150-165-7.5	
150.0	165.0	10.2	157.6			GHK 150-165-10/16
155.0	167.2	7.1	161.0	SA 155-167.2-7.1	PW 155-167.2-7.1	GHK 155-167-7/12
160.0	172.2	7.1	166.0	SA 160-172.2-7.1	PW 160-172.2-7.1	
160.0	175.0	10.2	167.6			GHK 160-175-10/16
160.0	175.2	10.1	168.0	SA 160-175.2-10.1	PW 160-175.2-10.1	
162.0	172.6	5.5	168.0	SA 162-172.6-5.5	PW 162-172.6-5.5	
163.0	175.2	7.1	169.0	SA 163-175.2-7.1	PW 163-175.2-7.1	

(Metric Size)

Rod Dia.	Groove Dia.	Seal Height	Bore Dia.	Reference (For order processing)	Reference (For order processing)	Reference (For order processing)
d	D	L	D1			
165.0	177.2	7.1	171.0			GHK 165-177-7/12
165.0	180.0	10.2	173.0			GHK 165-180-10/16
170.0	178.6	5.3	173.0	SA 170-178.6-5.3	PW 170-178.6-5.3	
170.0	185.0	10.2	178.0			GHK 170-185-10/16
170.0	185.2	10.1	178.0	SA 170-185.2-10.1	PW 170-185.2-10.1	
175.0	187.2	7.1	181.0			GHK 175-187-7/12
180.0	195.0	10.2	188.0			GHK 180-195-10/16
180.0	195.2	10.1	188.0	SA 180-195.2-10.1	PW 180-195.2-10.1	
180.0	200.0	7.0	188.0	SA 180-200-7	PW 180-200-7	
180.0	200.0	10.2	190.0			GHK 180-200-10/18
183.0	193.6	5.5	189.0	SA 183-193.6-5.5	PW 183-193.6-5.5	
188.0	200.2	7.1	194.0	SA 188-200.2-7.1	PW 188-200.2-7.1	
190.0	205.2	10.1	198.0	SA 190-205.2-10.1	PW 190-205.2-10.1	
190.0	210.0	10.1	200.0	SA 190-210-10.1	PW 190-210-10.1	
190.0	210.0	10.2	200.0			GHK 190-210-10/18
200.0	215.2	10.1	208.0	SA 200-215.2-10.1	PW 200-215.2-10.1	
200.0	220.0	10.2	210.0			GHK 200-220-10/18
210.0	225.2	10.1	218.0	SA 210-225.2-10.1	PW 210-225.2-10.1	
220.0	235.2	10.1	228.0	SA 220-235.2-10.1	PW 220-235.2-10.1	
220.0	240.0	10.1	228.0	SA 220-240-10.1	PW 220-240-10.1	
220.0	240.0	10.2	230.0			GHK 220-240-10/18
230.0	245.2	10.1	238.0	SA 230-245.2-10.1	PW 230-245.2-10.1	
240.0	255.2	10.1	248.0	SA 240-255.2-10.1	PW 240-255.2-10.1	
250.0	265.2	10.1	258.0	SA 250-265.2-10.1	PW 250-265.2-10.1	
250.0	270.0	10.2	260.0			GHK 250-270-10/18
257.0	267.6	5.5	264.0	SA 257-267.6-5.5	PW 257-267.6-5.5	
270.0	285.5	10.2	278.0	SA 270-285.5-10.2	PW 270-285.5-10.2	
280.0	300.0	10.2	290.0	SA 280-300-10.2	PW 280-300-10.2	