

SPGC TYPE

**SPECIAL PACKINGS
FOR PISTON SEALS
RAREFLON (PTFE) +
NITRILE RUBBER (NBR)**



- Please designate NOK Part number and type & size on your order.

(Example) • Type Dimensions SPGC 3 6 2.3

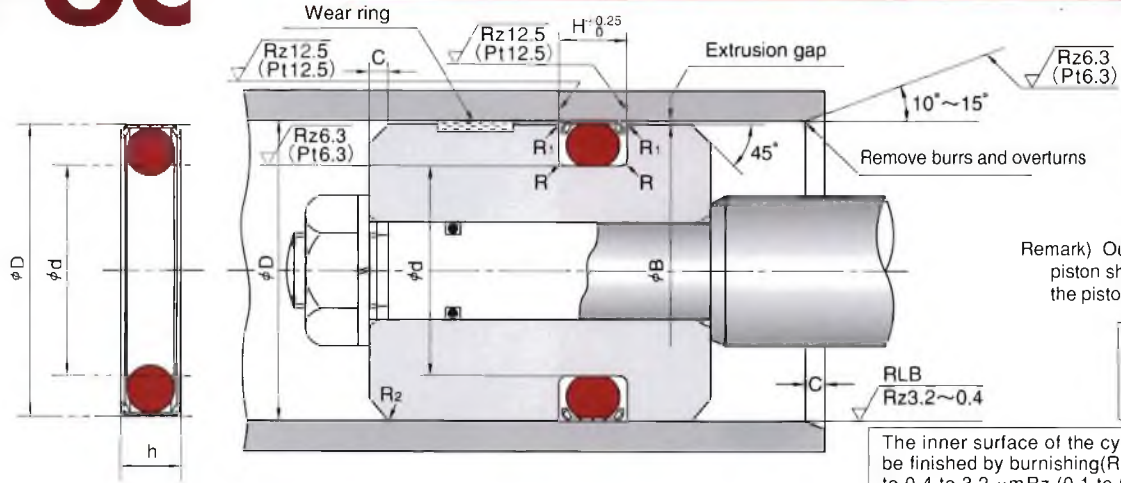
└─ Type Sign └─ Nominal Size of Packing
described in order of
inner diameter(d), outer diameter(D), and height(h)

• Part Number GS1000F0

- Please check the application range on pages 14 and 15 before selecting the type.

Material	NOK 31BF + NOK A305
-----------------	---------------------

SPGC TYPE SPECIAL PACKINGS FOR PISTON SEALS



Remark) Outer diameter of the piston should be ϕD_{18} when the piston is used as bearing.

R₁=0.3 or below
R₂=1
For R, please refer to the table below.

The inner surface of the cylinder tube should be finished by burnishing (RLB) or honing (GH) to 0.4 to 3.2 $\mu\text{m Rz}$ (0.1 to 0.8 $\mu\text{m Ra}$). Especially under severe lubricating condition, burnishing is required.

■ The roughness is JIS B 0601 : 2001.
When regulation length cannot be kept, apply Pt.

Nominal Number	Nominal Size of Packing			Housing dimensions								NOK Part Number			
				For general hydraulic use				For pneumatic and hydraulic low-friction applications					H	R	C
				d	D	h	ϕd	ϕD	ϕd	ϕD					
SPGC 6	3	6	2.3	3	6	2.5	6	2.5	0.3 or below	3~4	●GS1000F0				
7	4	7		4	7	3.5	7				●GS1001F0				
8	5	8		5	8	4.5	8				●GS1002F0				
9	6	9		6	9	5.5	9				●GS1003F0				
10	7	10		7	10	6.5	10				●GS1004F0				
11	8	11		8	11	7.5	11				●GS1005F0				
12	9	12		9	12	8.5	12				●GS1006F0				
13	10	13		10	13	9.5	13				●GS1007F0				
14	10	14		10	14	9.4	14				●GS1008F0				
15	11	15		11	15	10.4	15				●GS1009F0				
15.2	11.2	15.2	3	11.2	15.2	10.6	15.2	3.2	0.4 or below	4~5	●GS1010F0				
16	12	16		12	16	11.4	16				●GS1011F0				
16.5	12.5	16.5		12.5	16.5	11.9	16.5				●GS1012F0				
18	14	18		14	18	13.4	18				●GS1013F0				
19	15	19		15	19	14.4	19				●GS1014F0				
20	16	20		16	20	15.4	20				●GS1015F0				
22	18	22		18	22	17.4	22				●GS1016F0				
24	20	24		20	24	19.4	24				●GS1017F0				
25	21	25		21	25	20.4	25				●GS1018F0				
26	22	26		22	26	21.4	26				●GS1020F0				
28	22	28	4.4	22	28	21.4	28	4.7	0.7 or below	5~6	●GS1019F0				
28.4	22.4	28.4		22.4	28.4	21.8	28.4				●GS1021F0				
30	24	30		24	30	23.4	30				●GS1022F0				
31	25	31		25	31	24.4	31				●GS1023F0				
31.5	25.5	31.5		25.5	31.5	24.9	31.5				●GS1024F0				
32	26	32		26	32	25.4	32				●GS1025F0				
34	28	34		28	34	27.4	34				●GS1026F0				
35	29	35		29	35	28.4	35				●GS1027F0				
35.5	29.5	35.5		29.5	35.5	28.9	35.5				●GS1028F0				
36	30	36		30	36	29.4	36				●GS1029F0				
37	31	37	31	37	30.4	37	●GS1030F0								
37.5	31.5	37.5	31.5	37.5	30.9	37.5	●GS1031F0								
38	32	38	32	38	31.4	38	●GS1032F0								
40	34	40	34	40	33.4	40	●GS1033F0								
41	35	41	35	41	34.4	41	●GS1034F0								
41.5	35.5	41.5	35.5	41.5	34.9	41.5	●GS1035F0								
42	36	42	36	42	35.4	42	●GS1036F0								
44	38	44	38	44	37.4	44	●GS1037F0								
45	39	45	39	45	38.4	45	●GS1038F0								
46	40	46	40	46	39.4	46	●GS1039F0								

Remarks) When using the packing with ●, provide separate grooves.

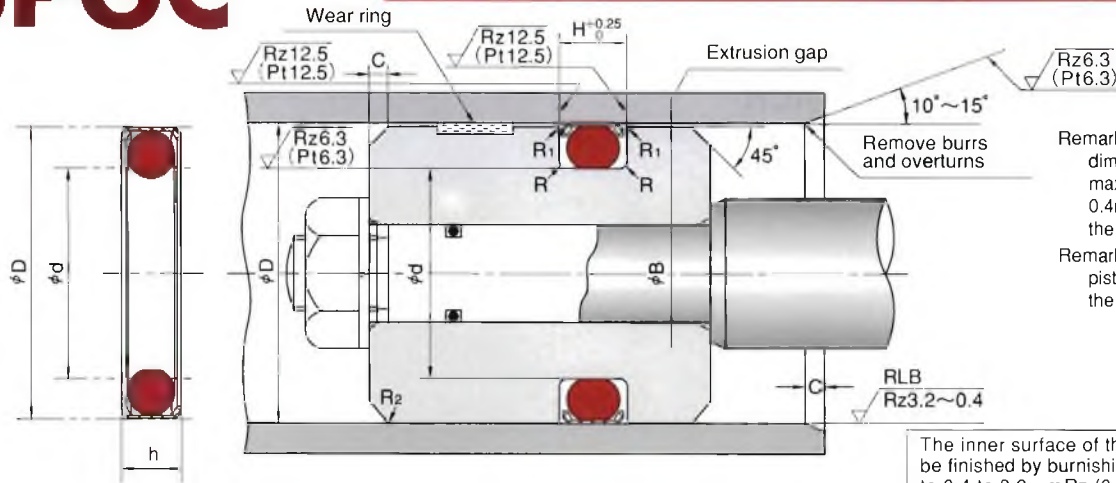
HOW TO DETERMINE B DIMENSION

To determine B dimension, please make the maximum extrusion gap 0.4mm or below considering the eccentricity of piston.

Nominal Number	Nominal Size of Packing			Housing dimensions								NOK Part Number
				For general hydraulic use				For pneumatic and hydraulic low-friction applications				
	d	D	h	ϕd	ϕD	ϕd	ϕD	H	R	C		
SPGC 47	41	47	4.4	41	47	40.4	47	4.7	0.7 or below	5~6	●GS1040F0	
48	42	48		42	48	41.4	48				●GS1041F0	
50	44	50		44	50	43.4	50				GS1042F0	
51	45	51		45	51	44.4	51				GS1043F0	
52	46	52		46	52	45.4	52				GS1044F0	
54	48	54		48	54	47.4	54				GS1046F0	
55	49	55		49	55	48.4	55				GS1047F0	
56	50	56		50	56	49.4	56				GS1049F0	
58	48	58		48	58	47.4	58				GS1045F0	
60	50	60		50	60	49.4	60				GS1048F0	
62	52	62		52	62	51.4	62				GS1050F0	
63	53	63		53	63	52.4	63				GS1051F0	
65	55	65		55	65	54.4	65				GS1052F0	
66	56	66		56	66	55.4	66				GS1053F0	
68	58	68	58	68	57.4	68	GS1054F0					
70	60	70	60	70	59.4	70	GS1055F0					
72	62	72	62	72	61.4	72	GS1056F0					
73	63	73	63	73	62.4	73	GS1057F0					
75	65	75	65	75	64.4	75	GS1058F0					
77	67	77	67	77	66.4	77	GS1059F0					
80	70	80	70	80	69.4	80	GS1060F0					
81	71	81	71	81	70.4	81	GS1061F0					
85	75	85	75	85	74.4	85	GS1062F0					
90	80	90	80	90	79.4	90	GS1063F0					
95	85	95	7	85	95	84.4	95	7.5	0.8 or below	6~8	GS1064F0	
100	90	100	90	100	89.4	100	GS1065F0					
105	95	105	95	105	94.4	105	GS1066F0					
110	100	110	100	110	99.4	110	GS1067F0					
112	102	112	102	112	101.4	112	GS1068F0					
115	105	115	105	115	104.4	115	GS1069F0					
120	110	120	110	120	109.4	120	GS1070F0					
122	112	122	112	122	111.4	122	GS1071F0					
125	115	125	115	125	114.4	125	GS1072F0					
130	120	130	120	130	119.4	130	GS1073F0					
135	125	135	125	135	124.4	135	GS1074F0					
140	130	140	130	140	129.4	140	GS1075F0					
142	132	142	132	142	131.4	142	GS1076F0					
145	135	145	135	145	134.4	145	GS1077F0					
150	140	150	140	150	139.4	150	GS1078F0					
155	145	155	145	155	144.4	155	GS1079F0					
160	150	160	150	160	149.4	160	GS1081F0					

Remarks) When using the packing with ●, provide separate grooves.

SPGC TYPE SPECIAL PACKINGS FOR PISTON SEALS



Remark 1) To determine ϕB dimension, please make the maximum extrusion gap 0.4mm or below considering the eccentricity of piston.

Remark 2) Outer diameter of the piston should be $\phi D/8$ when the piston is used as bearing.

$R_1=0.3$ or below
 $R_2=1$
 For R, please refer to the table below.

The inner surface of the cylinder tube should be finished by burnishing (RLB) or honing (GH) to 0.4 to 3.2 $\mu\text{m Rz}$ (0.1 to 0.8 $\mu\text{m Ra}$). Especially under severe lubricating condition, burnishing is required.

●The roughness is JIS B 0601 : 2001.
 When regulation length cannot be kept, apply Pt.

Nominal Number	Nominal Size of Packing			Housing dimensions								NOK Part Number			
				For general hydraulic use				For pneumatic and hydraulic low-friction applications					H	R	C
				ϕd	ϕD	ϕd	ϕD	ϕd	ϕD	ϕd	ϕD				
SPGC 165	150	165		150	165	149.4	165							GS1080F0	
170	155	170		155	170	154.4	170							GS1082F0	
175	160	175		160	175	159.4	175							GS1083F0	
180	165	180		165	180	164.4	180							GS1084F0	
185	170	185		170	185	169.4	185							GS1085F0	
190	175	190		175	190	174.4	190							GS1086F0	
195	180	195		180	195	179.4	195							GS1087F0	
200	185	200		185	200	184.4	200							GS1088F0	
205	190	205		190	205	189.4	205							GS1089F0	
210	195	210		195	210	194.4	210							GS1090F0	
215	200	215		200	215	199.4	215							GS1091F0	
220	205	220		205	220	204.4	220							GS1092F0	
224	209	224		209	224	208.4	224							GS1093F0	
225	210	225		210	225	209.4	225							GS1094F0	
230	215	230		215	230	214.4	230							GS1095F0	
235	220	235		220	235	219.4	235							GS1096F0	
240	225	240		225	240	224.4	240							GS1097F0	
245	230	245		230	245	229.4	245							GS1098F0	
250	235	250		235	250	234.4	250							GS1099F0	
255	240	255		240	255	239.4	255							GS1100F0	
260	245	260	10.5	245 ^{-0.10}	260 ^{+0.10}	244.4 ^{-0.10}	260 ^{+0.10}		11.0	0.8 or below	8~12			GS1101F0	
265	250	265		250	265	249.4	265							GS1102F0	
270	255	270		255	270	254.4	270							GS1103F0	
275	260	275		260	275	259.4	275							GS1104F0	
280	265	280		265	280	264.4	280							GS1105F0	
285	270	285		270	285	269.4	285							GS1106F0	
290	275	290		275	290	274.4	290							GS1107F0	
295	280	295		280	295	279.4	295							GS1108F0	
300	285	300		285	300	284.4	300							GS1109F0	
305	290	305		290	305	289.4	305							GS1110F0	
310	295	310		295	310	294.4	310							GS1111F0	
315	300	315		300	315	299.4	315							GS1112F0	
330	315	330		315	330	314.4	330							GS1113F0	
335	320	335		320	335	319.4	335							GS1114F0	
350	335	350		335	350	334.4	350							GS1115F0	
355	340	355		340	355	339.4	355							GS1116F0	
370	355	370		355	370	354.4	370							GS1117F0	
375	360	375		360	375	359.4	375							GS1118F0	
390	375	390		375	390	374.4	390							GS1119F0	
400	385	400		385	400	384.4	400							GS1120F0	

F DIMENSION SPGC