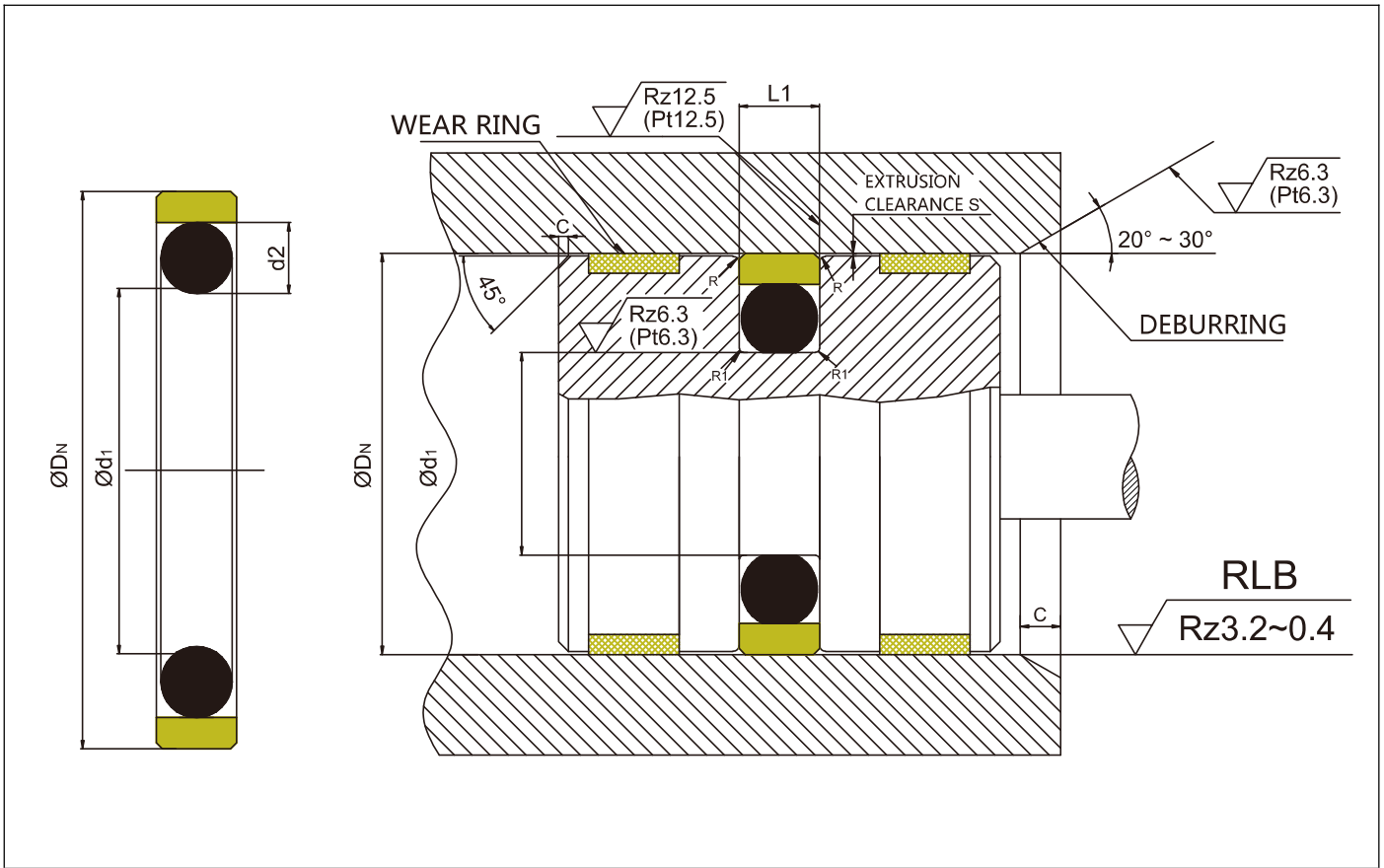




1. Installation Recommendation



2. Installation Sizes

Bore Diameter D _N H9			Groove Diameter	Groove Width	Radius	Radial Clearance S max.			O-Ring Cross- Section
Standard Application	Light Application	Heavy Duty Application	d ₁ h9	L ₁ +0.2	R ₁	10MPa	20MPa	40MPa	d ₂
8-14.9	15-39.9	-	D _N -4.9	2.2	0.4	0.3	0.20	0.15	1.78
15-39.9	40-79.9	-	D _N -7.5	3.2	0.6	0.4	0.25	0.15	2.62
40-79.9	80-132.9	15-39.9	D _N -11.0	4.2	1.0	0.4	0.25	0.20	3.53
80-132.9	133-329.9	40-79.9	D _N -15.5	6.3	1.3	0.5	0.30	0.20	5.33
133-329.9	330-699.9	80-132.9	D _N -21.0	8.1	1.8	0.6	0.35	0.25	7.00
330-669.9	670-99.9	133-329.9	D _N -24.5	8.1	1.8	0.6	0.35	0.25	7.00
670-999.9	≥1000	330-669.9	D _N -28.0	9.5	2.5	0.7	0.50	0.30	8.40
≥1000	≥1000	≥1000	D _N -38.0	13.8	3.0	1.0	0.70	0.60	12.00



3. Application and properties

Standard double acting seal. Suitable for reciprocating motion, allowing larger extrusion clearances, has wide application. Dynamic and static sealing property are excellent, be able to work in dusty condition. Low friction, simple groove, strong adaptability to work conditions.

4. Standard materials

Sealing ring: filled PTFE

O-Ring: NBR / FKM

5. Working Conditions

Working Conditions				
Diameter Range	Pressure Range	Temperature Range	Speed	Medium
8 - 1600mm	0 - 60MPa	-45°C +200°C	15 m/s	hydraulic oil, flame retardant liquid, water and others

6. Installation Dimensions

Bore Dia.	Groove Dia.	Groove Width	Order No.	O-Ring Dimensions
D _N H9	d ₁ h9	L ₁ +0.2		
8	3.1	2.2	GSF8*3.1*2.2	2.90*1.78
10	5.1	2.2	GSF10*5.1*2.2	4.80*1.8
12	7.1	2.2	GSF12*7.1*2.2	6.70*1.8
14	9.1	2.2	GSF14*9.1*2.2	8.75*1.8
15	10.1	2.2	GSF15*10.1*2.2	7.59*2.62
15	7.5	3.2	GSF15*7.5*3.2	8.75*1.8
16	11.1	2.2	GSF16*11.1*2.2	10.82*1.78
16	8.5	3.2	GSF16*8.5*3.2	7.59*2.62
18	13.1	2.2	GSF18*13.1*2.2	12.42*1.78
18	10.5	3.2	GSF18*10.5*3.2	9.19*2.62
20	15.1	2.2	GSF20*15.1*2.2	14.00*1.78
20	12.5	3.2	GSF20*12.5*3.2	12.37*2.62
24	19.1	2.2	GSF24*19.1*2.2	18.77*1.78
24	16.5	3.2	GSF24*16.5*3.2	15.54*2.62
25	17.5	3.2	GSF25*17.5*3.2	17.12*2.62
25	14	4.2	GSF25*14*4.2	13.87*3.53
28	20.5	3.2	GSF28*20.5*3.2	20.29*2.62
28	17	4.2	GSF28*17*4.2	15.47*3.53
30	22.5	3.2	GSF30*22.5*3.2	21.89*2.62
30	19	4.2	GSF30*19*4.2	26.70*1.78
32	24.5	3.2	GSF32*24.5*3.2	23.47*2.62



GSF

Bore Dia.	Groove Dia.	Groove Width	Order No.	O-Ring Dimensions
D _N H9	d ₁ h9	L ₁ +0.2		
32	21	4.2	GSF32*21*4.2	20.22*3.53
35	27.5	3.2	GSF35*27.5*3.2	26.64*2.62
35	24	4.2	GSF35*24*4.2	23.40*3.53
36	28.5	3.2	GSF36*28.5*3.2	28.24*2.62
36	25	4.2	GSF36*25*4.2	23.39*3.53
38	30.5	3.2	GSF38*30.5*3.2	29.82*2.62
38	27	4.2	GSF38*27*4.2	25.86*3.53
40	32.5	3.2	GSF40*32.5*3.2	31.42*2.62
40	29	4.2	GSF40*29*4.2	28.17*3.53
45	37.5	3.2	GSF45*37.5*3.2	36.5*2.62
45	34	4.2	GSF45*34*4.2	32.92*3.53
48	40.5	3.2	GSF48*40.5*3.2	36.09*3.53
48	37	4.2	GSF48*37*4.2	36.09*3.53
50	39	4.2	GSF50*39*4.2	37.70*3.53
50	34.5	6.3	GSF50*34.5*6.3	32.69*5.33
52	41	4.2	GSF52*41*4.2	40.87*3.53
52	36.5	6.3	GSF52*36.5*6.3	35*5.33
55	44	4.2	GSF55*44*4.2	44.04*3.53
55	39.5	6.3	GSF55*39.5*6.3	38*5.33
56	45	4.2	GSF56*45*4.2	44.04*3.53
56	40.5	6.3	GSF56*40.5*6.3	39*5.33
60	49	4.2	GSF60*49*4.2	47.22*3.53
60	44.5	6.3	GSF60*44.5*6.3	42.5*5.33
63	52	4.2	GSF63*52*4.2	50.39*3.53
63	47.5	6.3	GSF63*47.5*6.3	46*5.33
64	53	4.2	GSF64*53*4.2	51.5*3.53
64	48.5	6.3	GSF64*48.5*6.3	46.99*5.33
65	54	4.2	GSF65*54*4.2	53.57*3.53
65	49.5	6.3	GSF65*49.5*6.3	48*5.33
70	59	4.2	GSF70*59*4.2	56.74*3.53
70	54.5	6.3	GSF70*54.5*6.3	53.34*5.33
75	64	4.2	GSF75*64*4.2	63.09*3.53
75	59.5	6.3	GSF75*59.5*6.3	56.52*5.33
80	69	4.2	GSF80*69*4.2	66.27*3.53
80	64.5	6.3	GSF80*64.5*6.3	62.87*5.33
85	74	4.2	GSF85*74*4.2	72.62*3.53
85	69.5	6.3	GSF85*69.5*6.3	69.22*5.33
90	79	4.2	GSF90*79*4.2	78.97*3.53
90	74.5	6.3	GSF90*74.5*6.3	72.39*5.33



Bore Dia.	Groove Dia.	Groove Width	Order No.	O-Ring Dimensions
D _N H9	d ₁ h9	L ₁ +0.2		
95	84	4.2	GSF95*84*4.2	82.14*3.53
95	79.5	6.3	GSF95*79.5*6.3	78.74*5.33
100	89	4.2	GSF100*89*4.2	88.49*3.53
100	84.5	6.3	GSF100*84.5*6.3	81.92*5.33
105	94	4.2	GSF105*94*4.2	91.67*3.53
105	89.5	6.3	GSF105*89.5*6.3	88.27*5.33
110	99	4.2	GSF110*99*4.2	98.02*3.53
110	94.5	6.3	GSF110*94.5*6.3	91.44*5.33
115	99.5	6.3	GSF115*99.5*6.3	97.79*5.33
120	104.5	6.3	GSF120*104.5*6.3	100.97*5.33
125	109.5	6.3	GSF125*109.5*6.3	107.32*5.33
125	104	8.1	GSF125*104*8.1	103*7.0
130	114.5	6.3	GSF130*114.5*6.3	113.67*5.33
130	109	8.1	GSF130*109*8.1	108*7.0
135	119.5	6.3	GSF135*119.5*6.3	118*5.33
135	114	8.1	GSF135*114*8.1	113.67*7.0
140	124.5	6.3	GSF140*124.5*6.3	123.19*5.33
140	119	8.1	GSF140*119*8.1	116.84*7.0
145	124	8.1	GSF145*124*8.1	123.19*7.0
150	129	8.1	GSF150*129*8.1	126.37*7.0
155	134	8.1	GSF155*134*8.1	132.72*7.0
160	139	8.1	GSF160*139*8.1	135.89*7.0
165	144	8.1	GSF165*144*8.1	142.24*7.0
170	149	8.1	GSF170*149*8.1	145.42*7.0
175	154	8.1	GSF175*154*8.1	151.77*7.0
180	159	8.1	GSF180*159*8.1	158.12*7.0
190	169	8.1	GSF190*169*8.1	164.47*7.0
200	179	8.1	GSF200*179*8.1	177.17*7.0
210	189	8.1	GSF210*189*8.1	183.52*7.0
220	199	8.1	GSF220*199*8.1	196.22*7.0
230	209	8.1	GSF230*209*8.1	208.9*7.0
240	219	8.1	GSF240*219*8.1	215.27*7.0
250	229	8.1	GSF250*229*8.1	227.97*7.0
260	239	8.1	GSF260*239*8.1	240.67*7.0
270	249	8.1	GSF270*249*8.1	240.67*7.0
275	254	8.1	GSF275*254*8.1	253.37*7.0
280	259	8.1	GSF280*259*8.1	253.37*7.0
290	269	8.1	GSF290*269*8.1	266.07*7.0
300	279	8.1	GSF300*279*8.1	278.77*7.0



GSF

Bore Dia.	Groove Dia.	Groove Width	Order No.	O-Ring Dimensions
D _N H9	d ₁ h9	L ₁ +0.2		
310	289	8.1	GSF310*289*8.1	278.77*7.0
320	299	8.1	GSF320*299*8.1	291.47*7.0
330	305.5	8.1	GSF330*305.5*8.1	304.17*7.0
340	315.5	8.1	GSF340*315.5*8.1	316.87*7.0
350	325.5	8.1	GSF350*325.5*8.1	316.87*7.0
360	335.5	8.1	GSF360*335.5*8.1	329.57*7.0
370	345.5	8.1	GSF370*345.5*8.1	342.27*7.0
380	355.5	8.1	GSF380*355.5*8.1	354.97*7.0
390	365.5	8.1	GSF390*365.5*8.1	365*7.0
400	375.5	8.1	GSF400*375.5*8.1	367.67*7.0
410	385.5	8.1	GSF410*385.5*8.1	387*7.0
420	395.5	8.1	GSF420*395.5*8.1	393.07*7.0
430	405.5	8.1	GSF430*405.5*8.1	405.26*7.0
440	415.5	8.1	GSF440*415.5*8.1	405.26*7.0
450	425.5	8.1	GSF450*425.5*8.1	417.96*7.0
460	435.5	8.1	GSF460*435.5*8.1	430.66*7.0
470	445.5	8.1	GSF470*445.5*8.1	443.36*7.0
480	455.5	8.1	GSF480*455.5*8.1	456.06*7.0
490	465.5	8.1	GSF490*465.5*8.1	462*7.0
500	475.5	8.1	GSF500*475.5*8.1	468.76*7.0
510	485.5	8.1	GSF510*485.5*8.1	480*7.0
520	495.5	8.1	GSF520*495.5*8.1	490*7.0
530	505.5	8.1	GSF530*505.5*8.1	498*7.0
540	515.5	8.1	GSF540*515.5*8.1	505*7.0
550	525.5	8.1	GSF550*525.5*8.1	515*7.0
560	535.5	8.1	GSF560*535.5*8.1	523*7.0
570	545.5	8.1	GSF570*545.5*8.1	533*7.0
580	555.5	8.1	GSF580*555.5*8.1	542*7.0
600	575.5	8.1	GSF600*575.5*8.1	557.66*7.0
610	585.5	8.1	GSF610*585.5*8.1	567*7.0
620	595.5	8.1	GSF620*595.5*8.1	576*7.0
630	605.5	8.1	GSF630*605.5*8.1	586*7.0
640	615.5	8.1	GSF640*615.5*8.1	608.08*7.0
650	625.5	8.1	GSF650*625.5*8.1	618*7.0
660	635.5	8.1	GSF660*635.5*8.1	633.48*7.0
670	642	9.5	GSF670*642*9.5	630*8.4
680	652	9.5	GSF680*652*9.5	650*8.4
700	672	9.5	GSF700*672*9.5	670*8.4
750	722	9.5	GSF750*722*9.5	720*8.4



Bore Dia.	Groove Dia.	Groove Width	Order No.	O-Ring Dimensions
D _N H9	d ₁ h9	L ₁ +0.2		
780	752	9.5	GSF780*752*9.5	750*8.4
800	772	9.5	GSF800*772*9.5	770*8.4
850	822	9.5	GSF850*822*9.5	820*8.4
900	872	9.5	GSF900*872*9.5	870*8.4
950	922	9.5	GSF950*922*9.5	920*8.4
1000	962	13.8	GSF1000*962*13.8	960*12.0