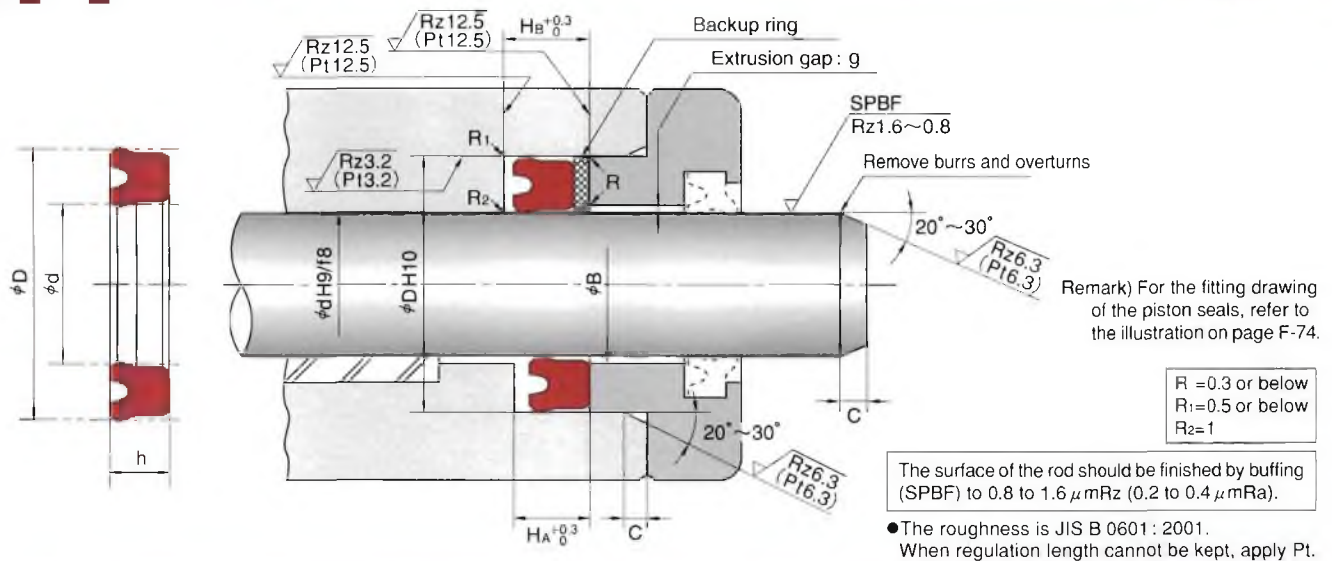


UPI TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS



Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number	
d	D	h	H _A	H _B	φD ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 80NP
6.3	16.3	8			15.3		FU0024D0	GN0720V0	GN9823O0
7.1	17.1	8			16.1		FU0030D0	GN0723V0	GN9868O0
8	18	8			17		FU0043D0	GN0725V0	GN9101O1
9	19	8			18		FU0054D0	GN0728V0	GN9826O0
10	20	8			19		FU0069D0	GN0733V0	GN9102O1
11.2	21.2	8	9	11	20.2	2.5	FU0081D0	GN0736V0	GN9828O0
12	25	8			24		FU0093D0	GN6005V0	GN9869O0
12.5	22.5	8			21.5		FU0102D0	GN0741V0	GN9830O0
14	24	8			23		FU0122D0	GN0745V0	GN9103O1
15	25	8			24		FU0135D0	GN0749V0	GN9738O1
16	26	8			25		FU0157D0	GN0751V0	GN9105O1
	32	10	11	13	31		FU0161D0	GN7288V0	GN9870O0
18	28	8	9	11	27		FU0182D0	GN0757V0	GN9833O0
	31	10	11	13	30		FU0186D0	GN6446V0	GN9107O1
20	30	8	9	11	29		FU0215D0	GN0762V0	GN9109O1
	33	10			32		FU0221D0	GN6448V0	GN9110O1
	35	10	11	13	34		FU0224D0	GN7289V0	GN9871O0
21.5	31.5	8	9	11	30.5		FU0239D0	GN0767V0	GN9797O0
22	32	8			31		FU0246D0	GN7290V0	GN9872O0
	35	10	11	13	34		FU0249D0	GN6449V0	GN9111O1
22.4	30	5	5.7	7.7	29		FU0260D0	GN6450V0	GN9112O1
	32.4	8			31.4		FU0263D0	GN0771V0	GN9834O0
25	35	8	9	11	34	3.5	FU0282D0	GN0781V0	GN9115O1
	38	8			37		FU0287D0	GN6453V0	GN9116O1
	40	10	11	13	39		FU0292D0	GN6591V0	GN9800O0
	45	12	13	15	44		FU0301D0	GN7291V0	GN9873O0
25.5	35.5	8	9	11	34.5		FU0309D1	GN6454V0	GN9117O1
28	35.5	5	5.7	8.7	34.5		FU0320D1	GN6456V0	GN9119O1
	40	10			39		FU0330D0	GN6457V0	GN9120O1
	43	10			42		FU0340D0	GN0791V0	GN9836O0
30	45	10			44		FU0368D0	GN7061V0	GN9801O0
	46	10	11	14	45		FU0369D0	GN7292V0	GN9874O0
	46.5	10			45.5		FU0387D0	GN0805V0	GN9837O0
32	46	10			45		FU0403D0	GN6035V0	GN9875O0
35	50	10			49		FU0437D0	GN0816V0	GN9128O1
35.5	45	6	7	10	44		FU0451D0	GN6464V0	GN9129O1
	50.5	10			49.5		FU0456D0	GN0820V0	GN9954O0
38	52	10			51	4	FU0470D0	GN6046V0	GN9876O0
40	55	10	11	14	54		FU0505D0	GN6759V0	GN9948O0
	56	10			55		FU0508D0	GN6466V0	GN9132O1
	60	12	13	16	59		FU0514D0	GN7293V0	GN9877O0
41	56	10	11	14	55		FU0523D0	GN0835V0	GN9949O0

HOW TO DETERMINE B DIMENSION

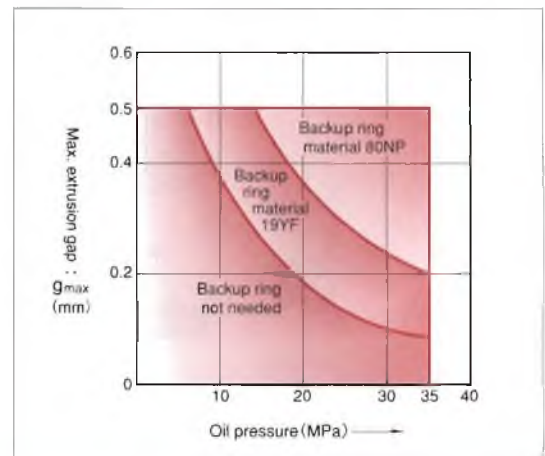
■ When using backup ring

Please determine B dimension according to the table below. If you require smaller B dimension (in case of piston seals) or larger B dimension (in case of rod seals) because of the cylinder configuration, please consult NOK.

Maximum Service Pressure	14MPa	21MPa	35MPa	35MPa	
Material of Backup ring	19YF			80NP	
Dimension B	For rod	$B \leq \phi d + 1.0$	$B \leq \phi d + 0.5$	$B \leq \phi d + 0.2$	$B \leq \phi d + 0.8$
	For piston	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$	$B \geq \phi D - 0.2$	$B \geq \phi D - 0.8$

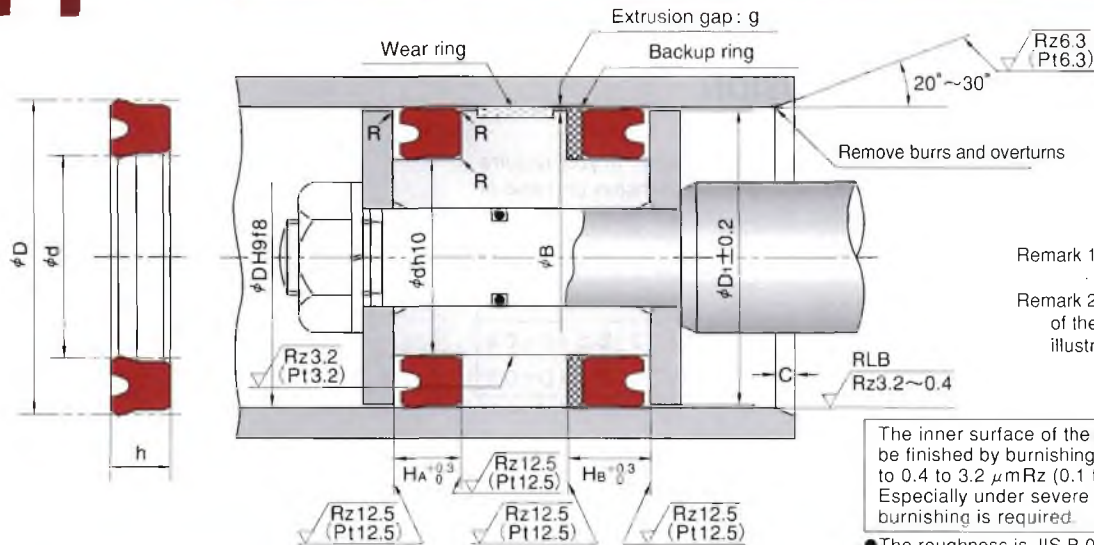
■ When not using backup ring

To determine B dimension, please refer to the graph in the right for the maximum extrusion gap (one side) considering the eccentricity of operating condition of the piston or rod.



Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number	
d	D	h	H _A	H _B	φD ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 80NP
45	56	7	8	11	55	4	FU0572D1	GN6468V0	GN9134O1
	60	10			59		FU0577D0	GN0845V0	GN9950O0
	61	10			60		FU0579D0	GN6469V0	GN9135O1
46	60	10	11	14	59		FU0588D0	GN7294V0	GN9878O0
48	63	10			62		FU0601D0	GN0853V0	GN9951O0
50	65	10			64		FU0631D0	GN6439V0	GN9952O0
	66	12	13	16	65		FU0635D0	GN6329V0	GN9139O1
	70	12			69		FU0639D0	GN6592V0	GN9529O0
51	71	12			70		FU0669D0	GN0862V0	GN9805O0
53	73	12	13	16	72		FU0683D0	GN0869V0	GN9879O0
55	71	12			70		FU0704D0	GN6473V0	GN9142O1
	75	12			74		FU0708D0	GN7249V0	GN9807O0
	80	15	16	19	79	FU0712D0	GN6072V0	GN9880O0	
56	72	12	13	16	71	FU0727D0	GN7009V0	GN9838O0	
	76	12			75	FU0728D0	GN0877V0	GN9839O0	
58	78	12			77	FU0736D0	GN7296V0	GN9881O0	
60	71	7	8	11	70	FU0750D0	GN6475V0	GN9145O1	
	80	12			79	FU0761D0	GN0886V1	GN9953O0	
62	82	12			13	16	81	FU0777D0	GN6371V0
63	83	12	82	FU0793D0			GN0893V1	GN9842O0	
65	85	12	84	FU0819D0			GN0899V0	GN9810O0	
67	87	12	7	10	86	FU0831D0	GN0904V0	GN9844O0	
70	90	12			89	FU0862D0	GN0910V0	GN9151O1	
71	80	6			79	FU0879D1	GN6481V0	GN9152O1	
	91	12	13	16	90	FU0884D0	GN0914V0	GN9846O0	
75	95	12			94	FU0910D0	GN0920V0	GN9154O1	
80	100	12			98	FU0948D0	GN0927V0	GN9156O1	
	100	15	16	19	98	FU0949D0	GN0927V0	GN9156O1	
85	100	9	10	13	98	FU0984D1	GN6484V0	GN9091O1	
	105	12	13	16	103	FU0989D0	GN0932V0	GN9157O1	
90	110	12			108	FU1030D0	GN0939V0	GN9159O1	
92	112	12			110	FU1042D0	GN0940V0	GN9811O0	
95	115	12	16	19	113	FU1056D0	GN0945V0	GN9161O1	
	120	15			118	FU1061D0	GN6716V0	GN9883O0	
98	112	9			10	13	110	FU1068D0	GN6487V0
100	120	12	13	16	118	FU1089D0	GN0952V0	GN9164O1	
	125	15	17	20	123	FU1096D0	GN7297V0	GN9884O0	
105	125	15			123	FU1129D0	GN0959V0	GN9165O1	
106	120	8.5			9.5	12.5	118	FU1135D1	GN6489V0
	126	15	17	20	124	FU1138D0	GN0961V0	GN9847O0	
110	130	15			128	FU1165D0	GN6790V0	GN9694O0	
112	132	15			130	FU1182D0	GN0970V0	GN9168O1	

UPI TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS



Remark 1) For B dimension, refer to page F-53.
 Remark 2) For the fitting drawing of the rod seals, refer to the illustration on page F-72.

R = 0.3 or below

The inner surface of the cylinder tube should be finished by burnishing(RLB) or honing(GH) to 0.4 to 3.2 μmRz (0.1 to 0.8 μmRa). Especially under severe lubricating condition, burnishing is required.

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

Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number			
d	D	h	H _A	H _B	φD ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 8ONP		
115	135	15	17	20	133	5	FU1198D0	GN0974V0	GN9778O1		
118	132	9	17	20	130		FU1932D0	GN7298V0	GN9885O0		
	138	15			136		FU1207D0	GN0978V0	GN9849O0		
120	140	15			138		FU1224D0	GN0982V0	GN9169O1		
	145	15			143		FU1257D0	GN0986V0	GN9850O0		
130	150	15			148		FU1284D0	GN6925V0	GN9335O1		
132	152	15			150		FU1292D0	GN0994V0	GN9886O0		
135	155	15			153		FU1305D0	GN0998V0	GN9769O0		
136	150	9			10		13	148	FU1933D0	GN6493V0	GN9173O1
140	160	15			17		20	158	FU1327D0	GN1002V0	GN9668O0
	165	15				163		FU1330D0	GN6494V0	GN9174O1	
145	165	15	163	FU1344D0		GN1007V0		GN9887O0			
	170	15	168	FU1363D0		GN1011V0		GN9672O1			
150	175	15	173	FU1365D0		GN7014V0		GN9645O1			
	180	15	178	FU1391D0		GN1016V0		GN9179O1			
160	185	15	183	FU1413D0		GN1020V0		GN9181O1			
165	190	15	188	FU1431D0		GN1023V0		GN9815O0			
170	195	15	193	FU1448D0		GN1027V0		GN9852O0			
175	200	15	21	21		198		FU1461D0	GN1031V0	GN9186O1	
	205	15			203	FU1490D0	GN1035V0	GN9188O1			
185	210	15			208	FU1504D0	GN1039V0	GN9817O0			
190	215	15			213	FU1519D0	GN1042V0	GN9818O0			
199	224	15			222	FU1532D0	GN1047V0	GN9820O0			
200	225	15			223	FU1547D0	GN1050V0	GN9192O1			
	225	18			223	FU1549D0	GN1050V0	GN9192O1			
205	235	18			233	FU1565D0	GN7302V0	GN9888O0			
210	235	18			233	FU1579D0	GN1057V0	GN9854O0			
212	237	18			235	FU1584D0	GN1058V0	GN9665O1			
220	245	18	243	FU1599D0	GN1063V0	GN9670O0					
224	249	18	247	FU1612D0	GN7282V0	GN9856O0					
225	250	18	248	FU1625D0	GN1065V0	GN9045O1					
230	254	18	20	24	252	FU1639D0	GN7304V0	GN9890O0			
	255	18			253	FU1641D0	GN1069V0	GN9857O0			
236	261	18			259	FU1648D0	GN6191V0	GN9891O0			
	265	18			263	FU1662D0	GN1073V0	GN9858O0			
250	275	18			273	FU1682D0	GN1078V0	GN9200O1			
260	290	18			288	FU1706D0	GN1083V0	GN9431O1			
265	295	18			293	FU1713D0	GN1085V0	GN9892O0			
270	300	18			298	FU1722D0	GN1089V0	GN9206O1			
280	310	18			8	308	FU1735D0	GN1093V0	GN9859O0		
	290	18				318	FU1750D0	GN1098V0	GN9860O0		
300	330	18	328	FU1764D0		GN1103V0	GN9235O1				

F DIMENSION UPI

UPI TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS [Large size dimension table]

■ When using packings on this large size, please consult NOK.

Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number		
d	D	h	H _A	H _B	φD ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 80NP	
310	340	22	24	28	338	10	FU1773D0			
315	345	22	24	28	343		FU1775D0			
320	350	15	17	21	348		FU1778D0			
	350	18	20	24	348		FU1779D0			
	350	22	24	28	348		FU1780D0			
	360	25	27	31	358		FU1781D0			
323	355	24	26	30	353		FU1784D0			
330	360	20	22	26	358		FU1788D0			
	360	22	24	28	358		FU1789D0			
	370	28	30	34	368		FU1791D0			
340	370	22	24	28	368		FU1795D0			
350	380	22	30	34	378		FU1799D0			
	390	28	30	34	388		FU2016D0			
355	385	22	24	28	383		FU1801D0			
370	400	22			398		FU1809D0			
375	405	22			403		FU1812D0			
380	410	22			408		FU1816D0			
385	415	22			413		FU1993D0			
390	420	22			418		FU1818D0			
400	425	22			423		FU1822D0			
	430	22			428	FU1823D0				
405	440	25			27	32	438	FU1827D0		
410	445	25					443	FU1829D0		
	460	35	458	FU1830D0						
415	450	25	448	FU1831D0						
420	455	25	453	FU1833D0						
425	460	25	458	FU2223D0						
430	460	22	24	29			458	FU1977D0		
	465	25	27	32			463	FU2013D0		
431	457.2	18	20	25			455	FU1839D1		
435	470	25	27	32			468	FU1841D0		
440	470	19	21	26	468	FU1842D0				
440	475	28	30	35	473	FU1976D0				
445	480	25	27	32	478	FU2428D0				
450	485	25	27	32	483	FU1845D0				

Remark 1) Regarding the products of large size (the inner diameter (d) exceeding classification 300mm), contact NOK to check if we have them in stock.

Remark 2) When placing orders for backup ring on this large size (the inner diameter (d) exceeding classification 300mm), please consult NOK.

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UPI TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS

[Large size dimension table]

■ When using packings on this large size, please consult NOK.

Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number		
d	D	h	H _A	H _B	φD ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 80NP	
456	490	30	32	37	488	15	FU1847D1			
460	495	25	27	32	493		FU1849D0			
465	500	26.5	28.5	33.5	498		FU2648D0			
470	505	25	27	32	503		FU1851D0			
475	510	25			508		FU1854D0			
480	515	25			513		FU2025D0			
490	530	25			528		FU1855D0			
500	535	25			533		FU1856D0			
	540	25			538		FU1857D0			
507	547	28	30	35	545		FU1858D0			
525	565	28			563		FU2743D0			
530	570	25			27		32	568	FU2718D0	
540	575	23	25	30	573		FU2376D0			
560	600	28	30	35	598		FU1865D0			
595	640	28			638		FU1986D0			
600	650	32			34	39	648	FU2017D0		
650	690	25	27	32	688	FU2003D0				
660	700	32	20	20	698	FU1870D0				
680	720	32			34	39	718	FU1871D0		
695	745	32			743	FU2398D0				
700	750	35			37	42	748	FU1874D0		
730	750	30			32	37	748	FU2078D0		
755	800	32			34	39	798	FU1876D0		
800	830	20			22	27	828	FU1978D0		
	850	35			37	42	848	FU1881D0		
850	900	35					898	FU2219D0		
870	900	20			22	27	898	FU1979D0		
920	970	35	37	42	968	FU1888D1				
1050	1100	30	32	37	1098	FU2391D0				
1096	1146	30			1144	FU2558D0				
1150	1200	30			1198	FU2229D0				
1380	1430	30			1428	FU2392D0				

Remark) When placing orders for the backup ring on this large size (the inner diameter (d) exceeding classification 300mm), please consult NOK.