

ODI TYPE

SPECIAL PACKINGS
FOR PISTON SEALS
IRON RUBBER (AU)



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

(Example) Order for the packing as a single piece

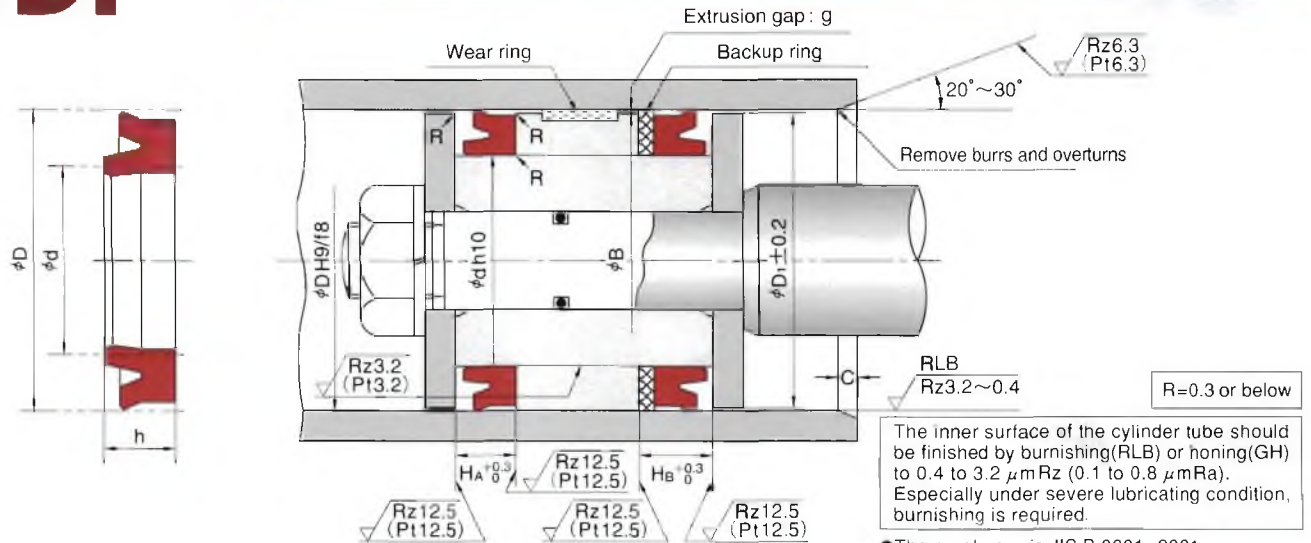
• Type Dimensions	ODI	18	8	7.5	
	└─ Type Sign	└─ Nominal Size of Packing described in order of outer diameter(D), inner diameter(d), and height(h)			
• Part Number	FU2150H0				

※ When placing orders for backup rings used in combination with packing, designate the NOK part number and the model size.

• Type Dimensions	BRT3	8	18	2	
	└─ Type Sign	└─ Nominal Size of Backup ring described in order of inner diameter(d), outer diameter(D), and thickness(t)*			
• Part Number	GN0725V0				*t = H _B - H _A (Housing dimensions)

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

Material	NOK U801
-----------------	----------



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)	BRN3(Endless)
								19YF	80NP
18	8	7.5	8.5	10.5	17	2.5	FU2150H0	GN0725V0	GN9101O1
19.2	11.2	5	5.7	7.7	18.2		※FU0202H0	GN7236V0	GN9792O0
20	10	6	7	9	19		※FU0205H0	GN0733V0	GN9102O1
	10	7.5	8.5	10.5	19		FU0206H0	GN0733V0	GN9102O1
	10	8	9	11	19		FU0207H0	GN0733V0	GN9102O1
	12	5	5.7	7.7	19		※FU0208H0	GN7237V0	GN9793O0
22	14	5	5.7	7.7	21	3.5	※FU0242H0	GN7238V0	GN9794O0
24	14	7.5	8.5	10.5	23		FU2151H0	GN0745V0	GN9103O1
25	15	6	7	9	24		※FU0273H0	GN0749V0	GN9738O1
	15	8	9	11	24		FU0274H0	GN0749V0	GN9738O1
	17	5	5.7	7.7	24		※FU0275H0	GN7239V0	GN9795O0
26	16	7.5	8.5	10.5	25		FU2152H0	GN0751V0	GN9105O1
28	18	5	5.7	7.7	25	※FU0310H0	GN6377V0	GN9106O1	
	15	10	11	13	27	FU2153H0	GN6445V0	GN9104O1	
30	20	5	5.7	7.7	27	2	※FU2138H0	GN6447V0	GN9108O1
	20	5	5.7	7.7	29	3.5	※FU0351H0	GN0762V0	GN9109O1
	20	6	7	9	29		※FU0352H0	GN0762V0	GN9109O1
	20	8	9	11	29		FU0353H0	GN0762V0	GN9109O1
		22.4	5	5.7	7.7	29	2	※FU2139H0	GN6450V0
31	18	10	11	13	30	3.5	FU2154H0	GN6446V0	GN9107O1
31.5	18.5	8	9	11	30.5		FU0377H0	GN7240V0	GN9796O0
	18.5	10	11	13	30.5		FU0378H0	GN7240V0	GN9796O0
	21.5	6	7	9	30.5		※FU0379H0	GN0767V0	GN9797O0
	21.5	8	9	11	30.5		FU0380H0	GN0767V0	GN9797O0
	23.5	5	5.7	7.7	30.5		2	※FU0381H0	GN6452V0
33	20	10	11	13	32	3.5	FU2155H0	GN6448V0	GN9110O1
	25	5	5.7	7.7	32	2	※FU2140H0	GN6665V0	GN9786O1
35	22	10	11	13	34	3.5	FU2156H0	GN6449V0	GN9111O1
	25	6	7	9	34		※FU0418H0	GN0781V0	GN9115O1
	25	8	9	11	34		FU0419H0	GN0781V0	GN9115O1
35.4	22.4	10	11	13	34.4		FU2157H0	GN6017V0	GN9798O0
35.5	22.5	8	9	11	34.5	3.5	FU0446H0	GN7241V0	GN9799O0
	22.5	10	11	13	34.5		FU0447H0	GN7241V0	GN9799O0
	25.5	6	7	9	34.5		※FU0448H0	GN6454V0	GN9117O1
	25.5	8	9	11	34.5		FU0449H0	GN6454V0	GN9117O1
38	25	10	11	13	37	3.5	FU0466H0	GN6453V0	GN9116O1
40	25	9	10	12	39		FU0485H0	GN6591V0	GN9800O0
	25	10	11	13	39		FU0486H0	GN6591V0	GN9800O0
	27	8	9	12	39		FU0488H0	GN6455V0	GN9118O1
	27	10	11	14	39		FU0489H0	GN6455V0	GN9118O1
	30	8	9	12	39		FU0491H0	GN6361V0	GN9122O1
41	28	10	11	14	40			FU2158H0	GN6458V0

HOW TO DETERMINE B DIMENSION

■ When using backup ring

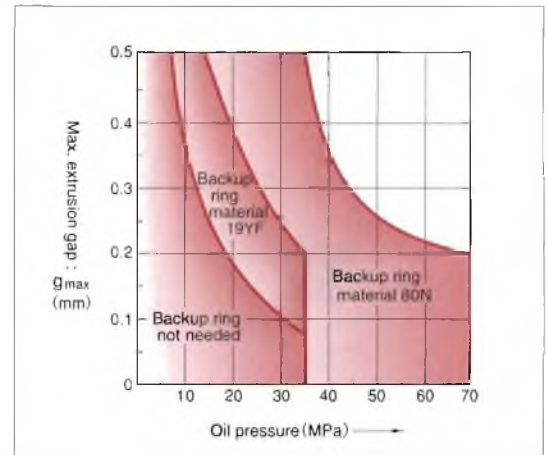
Please determine B dimension according to the table below. If you require smaller B dimension because of the cylinder configuration, please consult NOK.

Maximum Service Pressure	14MPa	21MPa	35MPa
Material of Backup ring	19YF		
B Dimension	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$	$B \geq \phi D - 0.2$

Maximum Service Pressure	35MPa	42MPa	70MPa
Material of Backup ring	80NP		
B Dimension	$B \geq \phi D - 0.8$	$B \geq \phi D - 0.4$	$B \geq \phi D - 0.2$

■ When not using backup ring

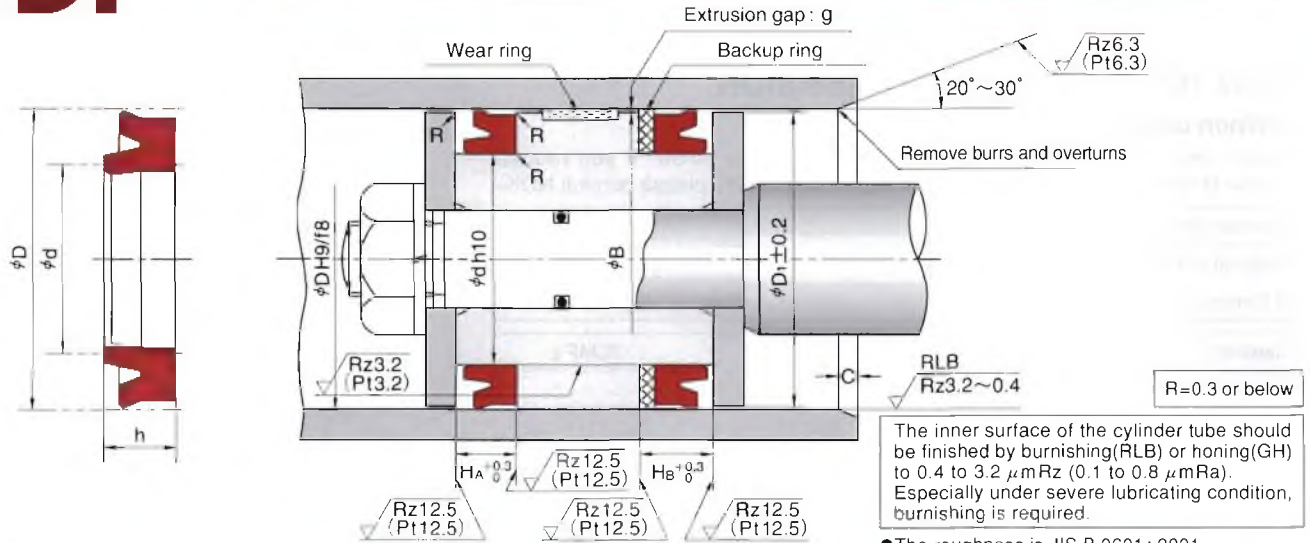
To determine B dimension, please refer to the graph in the right for the maximum extrusion gap (one side) considering the eccentricity of operating condition of the piston.



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)	BRN3(Endless)
								19YF	80NP
43	30	10	11	14	42	3.5	FU2159H0	GN6459V0	GN912301
44.5	31.5	10	11	14	43.5		FU2160H0	GN6461V0	GN912501
45	30	9	10	13	44		FU0559H0	GN7061V0	GN980100
		10	11	14	44		FU0560H0	GN7061V0	GN980100
	32	8	9	12	44		FU0561H0	GN7242V0	GN980200
		10	11	14	44		FU0562H0	GN7242V0	GN980200
50	35	8	9	12	44		FU0564H0	GN6463V0	GN912701
		10	11	14	49		FU0608H0	GN6462V0	GN912601
	34	12	13	16	49		FU0609H0	GN6462V0	GN912601
		9	10	13	49		FU0610H0	GN0816V0	GN912801
	35	10	11	14	49		FU0611H0	GN0816V0	GN912801
		12	13	16	49		FU2161H0	GN0816V0	GN912801
40	8	9	12	49	FU0614H0	GN6465V0	GN913101		
		12	13	16	50.5	FU2162H0	GN6330V0	GN913001	
51.5	35.5	12	13	16	50.5	FU2162H0	GN6330V0	GN913001	
55	40	9	10	13	54	FU0689H0	GN6759V0	GN994800	
		10	11	14	54	FU0690H0	GN6759V0	GN994800	
	45	8	9	12	54	FU0693H0	GN6467V0	GN913301	
56	40	10	11	14	55	FU0716H0	GN6466V0	GN913201	
		12	13	16	55	FU0717H0	GN6466V0	GN913201	
	41	9	10	13	55	FU0718H0	GN0835V0	GN994900	
		10	11	14	55	FU0719H0	GN0835V0	GN994900	
		8	9	12	55	FU0721H0	GN7243V0	GN978201	
60	45	9	10	13	59	FU0740H0	GN0845V0	GN995000	
		10	11	14	59	FU0741H0	GN0845V0	GN995000	
	50	8	9	12	59	FU0743H0	GN6302V0	GN913801	
		12	13	16	60	FU2163H0	GN6469V0	GN913501	
61	45	12	13	16	60	FU2163H0	GN6469V0	GN913501	
63	47	10	11	14	62	FU0779H0	GN6471V0	GN913701	
		12	13	16	62	FU0780H0	GN6471V0	GN913701	
	48	9	10	13	62	FU0781H0	GN0853V0	GN995100	
		10	11	14	62	FU0782H0	GN0853V0	GN995100	
		8	9	12	62	FU0785H0	GN6413V0	GN914001	
65	50	9	10	13	64	FU0804H0	GN6439V0	GN995200	
		10	11	14	64	FU0805H0	GN6439V0	GN995200	
	55	8	9	12	64	FU0808H0	GN6472V0	GN914101	
66	50	12	13	16	65	FU2164H0	GN6329V0	GN913901	
69	53	12	13	16	68	FU0836H0	GN7008V0	GN980300	
70	50	12	13	16	69	FU0842H0	GN6592V0	GN952900	
		9	10	13	69	FU0844H0	GN6408V0	GN980400	
	55	10	11	14	69	FU0845H0	GN6408V0	GN980400	
		8	9	12	69	FU0847H0	GN6444V0	GN914401	

F DIMENSION

ODI TYPE SPECIAL PACKINGS FOR PISTON SEALS



Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number	
D	d	h	H _A	H _B	#D ₁	C		BRT3(Endless) 19YF	BRN3(Endless) 8ONP
71	51	12	13	16	70	5	FU0872H0	GN0862V0	GN9805O0
	55	10	11	14	70		FU0873H0	GN6473V0	GN9142O1
	55	12	13	16	70		FU0874H0	GN6473V0	GN9142O1
	56	9	10	13	70		FU0875H0	GN7247V0	GN9806O0
	56	10	11	14	70		FU0876H0	GN7247V0	GN9806O0
	61	8	9	12	70		FU0878H0	GN7248V0	GN9783O1
75	55	12	13	16	74		FU0894H0	GN7249V0	GN9807O0
	60	9	10	13	74		FU0895H0	GN6363V0	GN9808O0
	60	10	11	14	74		FU0896H0	GN6363V0	GN9808O0
	65	8	9	12	74		FU0898H0	GN6479V0	GN9149O1
76	60	12	13	16	75		FU2165H0	GN6476V0	GN9146O1
80	60	12	13	16	79		FU0929H0	GN0886V1	GN9953O0
	64	10	11	14	79		FU0931H0	GN6478V0	GN9148O1
	64	12	13	16	79		FU0932H0	GN6478V0	GN9148O1
	65	9	10	13	79		FU0933H0	GN6364V0	GN9754O1
	65	10	11	14	79		FU0934H0	GN6364V0	GN9754O1
	70	8	9	12	79		FU0937H0	GN6362V1	GN9092O1
85	65	12	13	16	84		FU0974H0	GN0899V0	GN9810O0
	70	9	10	13	84		FU0977H0	GN6442V0	GN9411O0
	70	10	11	14	84		FU0978H0	GN6442V0	GN9411O0
	75	8	9	12	84		FU0980H0	GN6729V0	GN9241O1
90	70	12	13	16	89		FU1014H0	GN0910V0	GN9151O1
	70	15	16	19	89		FU1015H0	GN0910V0	GN9151O1
	75	9	10	13	89		FU1017H0	GN6443V0	GN9757O1
	75	10	11	14	89	FU1018H0	GN6443V0	GN9757O1	
	80	8	9	12	89	FU1020H0	GN6483V0	GN9155O1	
95	75	12	13	16	94	FU1045H0	GN0920V0	GN9154O1	
	75	15	16	19	94	FU1046H0	GN0920V0	GN9154O1	
	80	9	10	13	94	FU1047H0	GN6898V0	GN9582O0	
	80	10	11	14	94	FU1048H0	GN6898V0	GN9582O0	
100	80	12	13	16	98	FU1072H0	GN0927V0	GN9156O1	
	80	15	16	19	98	FU1074H0	GN0927V0	GN9156O1	
	85	10	11	14	98	FU1079H0	GN6484V0	GN9091O1	
105	85	15	16	19	103	FU2166H0	GN0932V0	GN9157O1	
110	90	12	13	16	108	FU1149H0	GN0939V0	GN9159O1	
	90	15	16	19	108	FU1150H0	GN0939V0	GN9159O1	
	95	10	11	14	108	FU1153H0	GN6486V0	GN9160O1	
112	92	12	13	16	110	FU1174H0	GN0940V0	GN9811O0	
	92	15	16	19	110	FU1175H0	GN0940V0	GN9811O0	
	97	9	10	13	110	FU1176H0	GN7250V0	GN9812O0	
	97	10	11	14	110	FU1177H0	GN7250V0	GN9812O0	

F DIMENSION ODI

HOW TO DETERMINE B DIMENSION

■ When using backup ring

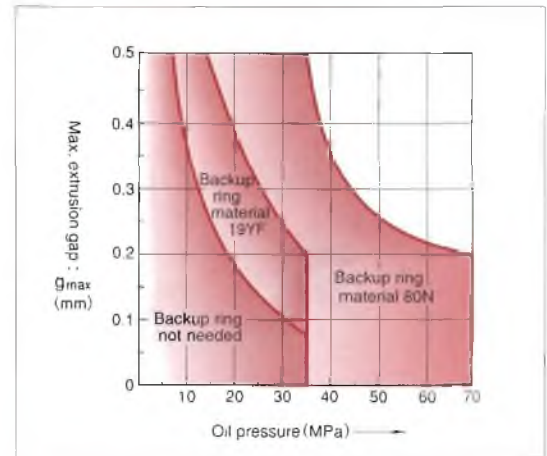
Please determine B dimension according to the table below. If you require smaller B dimension because of the cylinder configuration, please consult NOK.

Maximum Service Pressure	14MPa	21MPa	35MPa
Material of Backup ring	19YF		
B Dimension	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$	$B \geq \phi D - 0.2$

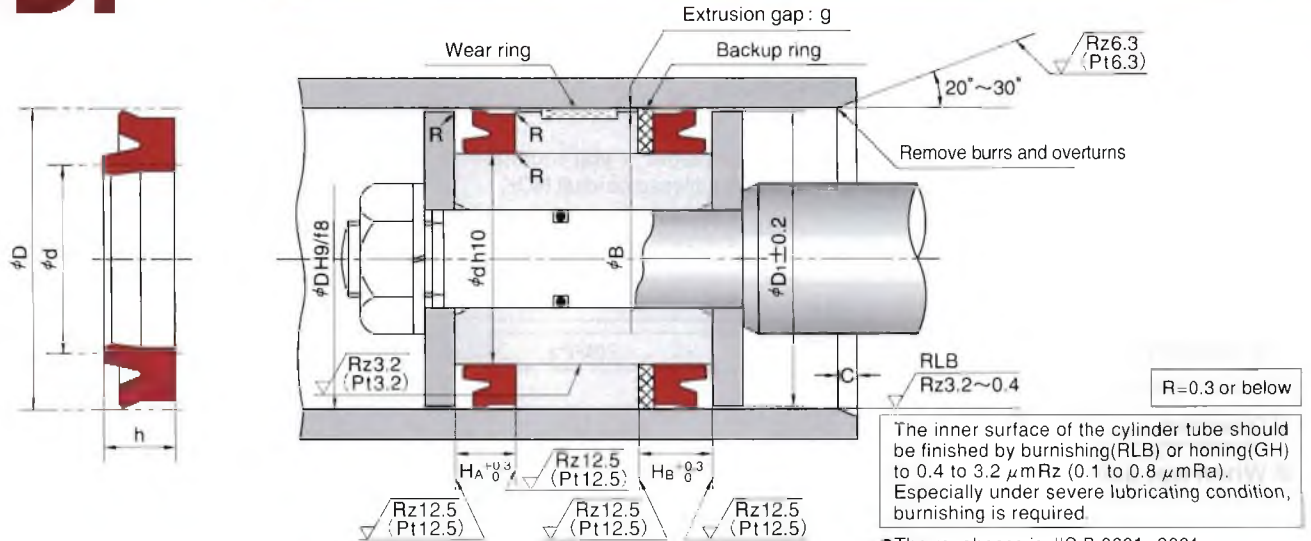
Maximum Service Pressure	35MPa	42MPa	70MPa
Material of Backup ring	80NP		
B Dimension	$B \geq \phi D - 0.8$	$B \geq \phi D - 0.4$	$B \geq \phi D - 0.2$

■ 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.



Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number	
D	d	h	H _A	H _B	φD _r	C		BRT3(Endless)	BRN3(Endless)
								19YF	80NP
115	95	15	16	19	113	5	FU2167H0	GN0945V0	GN9161O1
120	100	12	13	16	118		FU1210H0	GN0952V0	GN9164O1
	100	15	16	19	118		FU1211H0	GN0952V0	GN9164O1
125	105	10	11	14	118		FU1213H0	GN6684V0	GN9589O1
	105	12	13	16	123		FU1243H0	GN0959V0	GN9165O1
	105	15	16	19	123		FU1244H0	GN0959V0	GN9165O1
	105	16	17	20	123		FU1245H0	GN0959V0	GN9165O1
	110	9	10	13	123		FU1247H0	GN6761V0	GN9430O1
130	110	10	11	14	123		FU1248H0	GN6761V0	GN9430O1
	110	12	13	16	128		FU1274H0	GN6790V0	GN9694O0
	110	15	16	19	128		FU1275H0	GN6790V0	GN9694O0
	110	16	17	20	128		FU1276H0	GN6790V0	GN9694O0
	115	10	11	14	128	FU1279H0	GN6741V0	GN9274O1	
132	112	15	16	19	130	FU2168H0	GN0970V0	GN9168O1	
140	120	12	13	16	138	FU1316H0	GN0982V0	GN9169O1	
	120	15	16	19	138	FU1317H0	GN0982V0	GN9169O1	
	120	16	17	20	138	FU1318H0	GN0982V0	GN9169O1	
	125	10	11	14	138	FU1321H0	GN6491V0	GN9170O1	
150	125	19	20	23	148	FU2169H0	GN6135V0	GN9171O1	
	125	20	21	24	148	FU1351H0	GN6135V0	GN9171O1	
	130	12	13	16	148	FU1352H0	GN6925V0	GN9335O1	
	130	16	17	20	148	FU1354H0	GN6925V0	GN9335O1	
	135	10	11	14	148	FU1357H0	GN6666V0	GN9539O1	
157	132	20	21	24	155	FU1909H0	GN7013V0	GN9813O0	
160	135	19	20	23	158	FU2170H0	GN6492V0	GN9172O1	
	135	20	21	24	158	FU1398H0	GN6492V0	GN9172O1	
	140	12	13	16	158	FU1399H0	GN1002V0	GN9668O0	
	140	16	17	20	158	FU1402H0	GN1002V0	GN9668O0	
	145	10	11	14	158	FU1405H0	GN6495V0	GN9175O1	
165	140	19	20	23	163	FU1426H0	GN6494V0	GN9174O1	
	140	20	21	24	163	FU2186H0	GN6494V0	GN9174O1	
170	145	19	20	23	168	FU1436H0	GN6496V0	GN9176O1	
	145	20	21	24	168	FU1437H0	GN6496V0	GN9176O1	
	150	12	13	16	168	FU1438H0	GN1011V0	GN9672O1	
	150	16	17	20	168	FU1440H0	GN1011V0	GN9672O1	
	155	10	11	15	168	FU1442H0	GN6498V0	GN9178O1	
180	155	16	17	21	178	FU1475H0	GN1016V0	GN9179O1	
	155	19	20	24	178	FU2171H0	GN1016V0	GN9179O1	
	155	20	21	25	178	FU1476H0	GN1016V0	GN9179O1	
	160	12	13	17	178	FU1478H0	GN6905V0	GN9814O0	
	160	16	17	21	178	FU1479H0	GN6905V0	GN9814O0	
	165	10	11	15	178	FU1482H0	GN6500V0	GN9182O1	



Nominal Size of Packing, and Housing dimensions							Packing Part Number	Combination Backup Ring Part Number	
D	d	h	H_A	H_B	ϕD_i	C		BRT3(Endless)	BRN3(Endless)
								19YF	80NP
185	160	19	20	24	183	6.5	FU2172H0	GN1020V0	GN9181O1
	160	20	21	25	183		FU2187H0	GN1020V0	GN9181O1
190	165	16	17	21	188		FU1507H0	GN1023V0	GN9815O0
	165	20	21	25	188		FU1508H0	GN1023V0	GN9815O0
	170	12	13	17	188		FU1509H0	GN6985V0	GN9816O0
	170	16	17	21	188		FU1510H0	GN6985V0	GN9816O0
	175	10	11	15	188		FU1512H0	GN6503V0	GN9185O1
200	175	16	17	21	198		FU1536H0	GN1031V0	GN9186O1
	175	19	20	24	198		FU2173H0	GN1031V0	GN9186O1
	175	20	21	25	198		FU1538H0	GN1031V0	GN9186O1
	180	16	17	21	198		FU1540H0	GN6372V0	GN9187O1
205	180	19	20	24	203		FU2174H0	GN1035V0	GN9188O1
	180	20	21	25	203		FU2188H0	GN1035V0	GN9188O1
210	185	16	17	21	208		FU1570H0	GN1039V0	GN9817O0
	185	20	21	25	208		FU1571H0	GN1039V0	GN9817O0
	190	16	17	21	208		FU1573H0	GN6505V0	GN9190O1
215	190	16	17	21	213		FU2260H0	GN1042V0	GN9818O0
220	195	16	17	21	218		FU1592H0	GN7253V0	GN9819O0
	195	20	21	25	218		FU1593H0	GN7253V0	GN9819O0
	200	16	17	21	218		FU1595H0	GN6276V0	GN9191O1
224	199	16	17	21	222		FU1604H0	GN1047V0	GN9820O0
	199	20	21	25	222		FU1605H0	GN1047V0	GN9820O0
	204	16	17	21	222		FU1607H0	GN6506V0	GN9193O1
225	200	16	17	21	223		FU1616H0	GN1050V0	GN9192O1
	200	19	20	24	223		FU2175H0	GN1050V0	GN9192O1
	200	20	21	25	223	FU1617H0	GN1050V0	GN9192O1	
	205	16	17	21	223	FU1619H0	GN7255V0	GN9784O1	
230	205	16	17	21	228	FU1632H0	GN1053V0	GN9557O1	
	205	19	20	24	228	FU1633H0	GN1053V0	GN9557O1	
	205	20	21	25	228	FU1634H0	GN1053V0	GN9557O1	
	210	16	17	21	228	FU1636H0	GN6352V0	GN9195O1	
240	215	16	17	21	238	FU1652H0	GN7256V0	GN9574O0	
	215	19	20	24	238	FU1653H0	GN7256V0	GN9574O0	
	215	20	21	25	238	FU1654H0	GN7256V0	GN9574O0	
	220	16	17	21	238	FU1656H0	GN6508V0	GN9196O1	
250	225	16	17	21	248	FU1671H0	GN1065V0	GN9045O1	
	225	19	20	24	248	FU1672H0	GN1065V0	GN9045O1	
	225	20	21	25	248	FU1673H0	GN1065V0	GN9045O1	
	230	16	17	21	248	FU1676H0	GN6510V0	GN9047O1	
260	235	16	17	21	258	FU1698H0	GN7257V0	GN9821O0	
	235	19	20	24	258	FU1699H0	GN7257V0	GN9821O0	
	240	16	17	21	258	FU1701H0	GN6511V0	GN9198O1	

F DIMENSION ODI

HOW TO DETERMINE B DIMENSION

■ When using backup ring

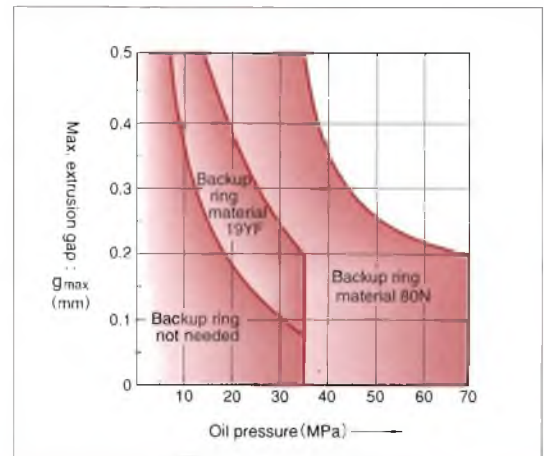
Please determine B dimension according to the table below. If you require smaller B dimension because of the cylinder configuration, please consult NOK.

Maximum Service Pressure	14MPa	21MPa	35MPa
Material of Backup ring	19YF		
B Dimension	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$	$B \geq \phi D - 0.2$

Maximum Service Pressure	35MPa	42MPa	70MPa
Material of Backup ring	80NP		
B Dimension	$B \geq \phi D - 0.8$	$B \geq \phi D - 0.4$	$B \geq \phi D - 0.2$

■ 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.



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
270	245	16	17	21	268	6.5	FU1715H0	GN7258V0	GN9675O0
	245	19	20	24	268		FU1716H0	GN7258V0	GN9675O0
	250	16	17	21	268		FU1718H0	GN6512V0	GN9199O1
275	250	19	20	24	273	7.5	FU2176H0	GN1078V0	GN9200O1
	250	20	21	25	273		FU2189H0	GN1078V0	GN9200O1
280	250	19	20	24	278	7.5	FU1729H0	GN6197V0	GN9432O1
	255	19	20	24	278		FU1731H0	GN6513V0	GN9201O1
290	260	19	20	24	288	7.5	FU1744H0	GN1083V0	GN9431O1
	265	19	20	24	288		FU1746H0	GN6318V0	GN9203O1
297	265	24	25	29	295	7.5	FU2177H0	GN6515V0	GN9204O1
	265	25	26	30	295		FU2190H0	GN6515V0	GN9204O1
300	270	19	20	24	298	7.5	FU1758H0	GN1089V0	GN9206O1
	270	24	25	29	298		FU2178H0	GN1089V0	GN9206O1
	270	25	26	30	298		FU1759H0	GN1089V0	GN9206O1
	275	19	20	24	298		FU1761H0	GN6517V0	GN9207O1
312	280	24	25	29	310	7.5	FU2193H0	GN6519V0	GN9209O1
332	300	24	25	29	330	7.5	FU2194H0	GN6522V0	GN9212O1