

USI TYPE

PACKINGS FOR BOTH PISTON
AND ROD 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	USI	10	18	5	
	└─ Type Sign		└─ Nominal Size of Packing described in order of inner diameter(d), outer diameter(D), and height(h)		
• Part Number	FU0064S0				

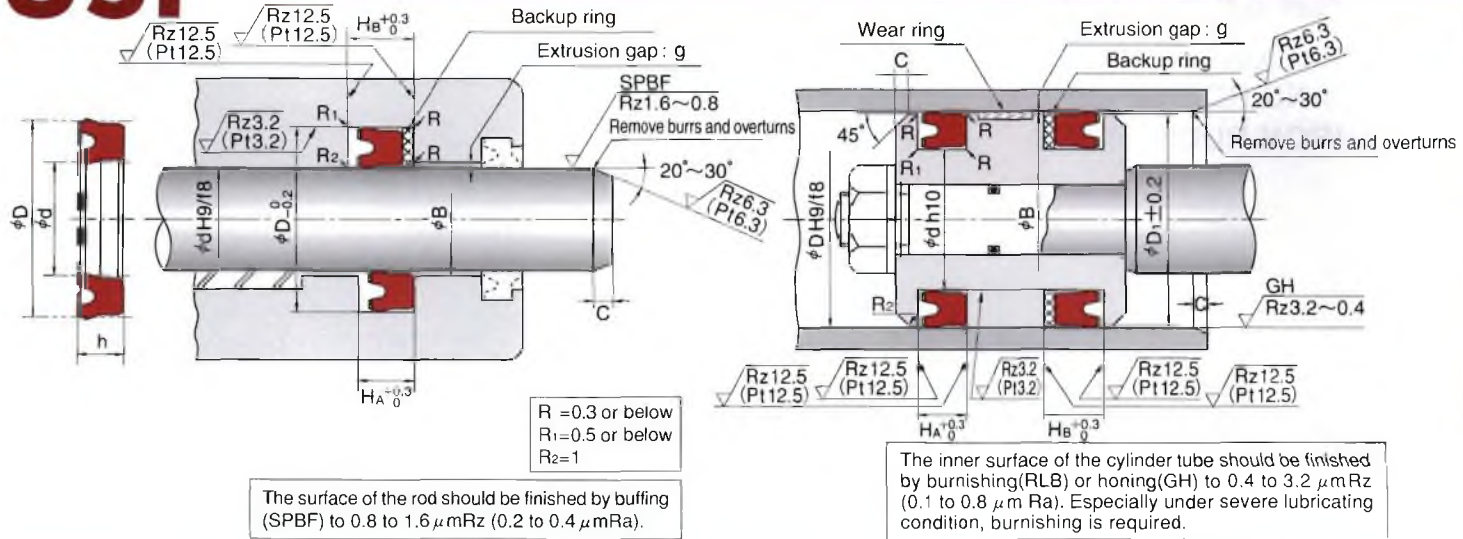
※ When placing orders for backup rings used in combination with packing, designate the NOK part number and the model size.

• Type Dimensions	BRT2	10	18	2	
	└─ Type Sign		└─ Nominal Size of Backup ring described in order of inner diameter(d), outer diameter(D), and thickness(t)*		
• Part Number	GN5418V0				*t = H _B - H _A (Housing dimensions)

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

Material	NOK U593
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USI TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS (INSTALLED WITH INTERNAL GROOVE)



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		BRT2 (Biascut)	19YF
10	18	5			17		2	●FU0064S0	GN5418V0
12	20	5			19			●FU2464S0	GN5723V0
12.5	20	5			19			●FU2465S0	GN5724V0
14	22	5			21			○FU0116S0	GN5719V0
16	24	5			23			○FU0150S0	GN5720V0
17	25	5			24			○FU2466S0	GN5725V0
18	26	5			25			○FU0180S0	GN4778V0
20	28	5			27			○FU0212S0	GN4780V0
	30	6	7	9	29			○FU0214S0	GN4781V0
22	30	5			29			○FU2467S0	GN5726V0
22.4	30	5			29			○FU0260S0	GN4784V0
23.5	31.5	5	5.7	7.7	30.5			○FU0267S0	GN4786V0
24	32	5			31			○FU2468S0	GN5727V0
25	33	5			32			○FU0276S0	GN5019V1
	35	6	7	9	34			○FU0279S0	GN4787V0
26	34	5			33			○FU2469S0	GN5728V0
27	35	5			34		FU2470S0	GN5707V0	
28	35.5	5	5.7	8.7	34.5		FU0320S0	GN4791V0	
	36	5			35		FU0321S0	GN5715V0	
30	38	5			37		FU0355S0	GN5729V0	
	40	6			39		FU0357S0	GN4794V0	
31.5	41.5	6			40.5		FU0382S0	GN4796V0	
32	42	6			41		FU2055S0	GN5730V0	
33	43	6			42		FU2471S0	GN5731V0	
34	44	6			43		FU2263S0	GN5732V0	
35	45	6			44		FU0424S0	GN4799V0	
35.5	45	6	7	10	44		FU0451S0	GN4801V0	
	45.5	6			44.5	2.5	FU0452S0	GN5716V0	
36	46	6			45		FU2472S0	GN5733V0	
38	48	6			47		FU2240S0	GN5365V0	
40	50	6			49		FU0497S0	GN4050V0	
45	55	6			54		FU0567S0	GN4804V0	
	56	7	8	11	55		FU0572S0	GN4805V0	
46	56	6			55		FU2662S0	GN5709V0	
50	60	6			59		FU0619S0	GN4335V0	
53	63	6			62		FU0679S0	GN4693V0	
55	65	6	7	10	64		FU0694S0	GN4810V0	
56	66	6			65		FU0722S0	GN4766V0	
58	68	6			67		FU2473S0	GN5641V0	
60	70	6			69		FU0746S0	GN4676V0	
	71	7	8	11	70		FU0750S0	GN4812V0	

Remark) When using packings with mark ● as rod packing, provide separate grooves.
 When using packings with marks ●○ as piston packing, provide separate grooves.

HOW TO DETERMINE B DIMENSION

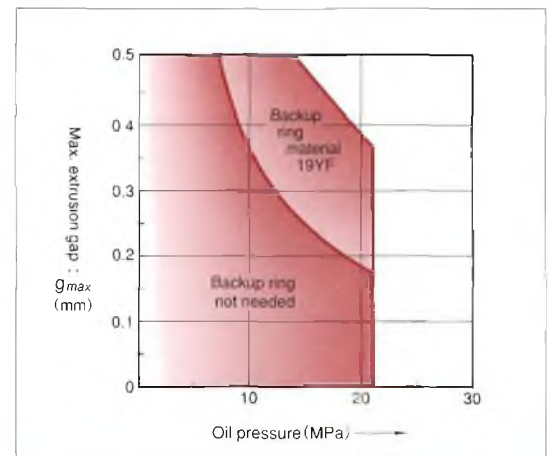
■ When using backup ring

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	
Material of Backup ring	19YF		
Dimension B	For rod	$B \geq \phi d + 1.0$	$B \geq \phi d + 0.5$
	For piston	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$

■ When not using backup ring

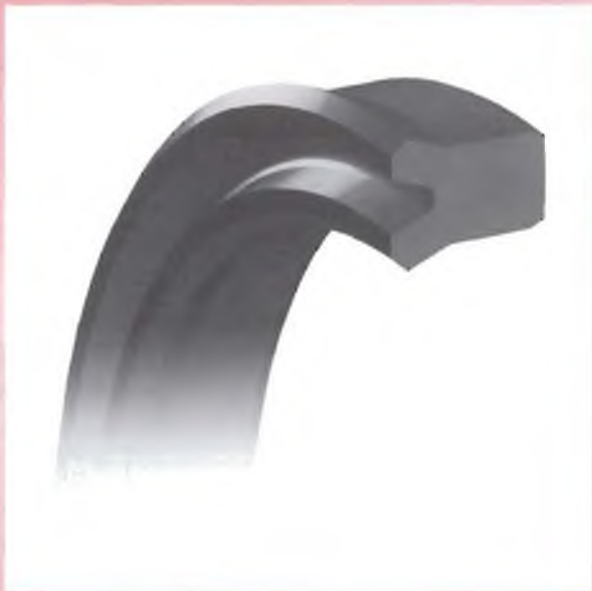
To determine B dimension, please refer to the graph in the right for the maximum extrusion gap (one side) considering the eccentricity of operating condition of the piston or rod.



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		BRT2(Biascut)	19YF	
61	71	6	7	10	70	2.5	FU2474S0	GN4629V0		
63	73	6			72		FU0786S0	GN4814V0		
65	75	6			74		FU0809S0	GN4816V0		
67	77	6			76		FU0828S0	GN4697V0		
70	80	6			79		FU0849S0	GN4651V0		
71	80	6			79		FU0879S0	GN4818V0		
75	85	6			84		FU0901S0	GN4692V0		
80	90	6			89		FU0939S0	GN4820V0		
	95	9			10		13	94	FU0942S0	GN5023V0
85	95	6			7		10	94	FU2475S0	GN4757V0
	100	9	10	13	99	FU0984S0	GN4687V0			
86	100	8.5	9.5	12.5	99	FU2476S0	GN4982V1			
89	104	9	10	13	103	FU2372S0	GN5734V0			
90	100	6	7	10	99	FU1021S0	GN5735V0			
	105	9			104	FU1024S0	GN4698V0			
95	110	9	10	13	109	FU1051S0	GN4822V0			
96	111	9			110	FU2477S0	GN5736V0			
98	112	8.5	9.5	12.5	111	FU1067S0	GN4824V0			
100	115	9	10	13	113	FU1082S0	GN4512V0			
105	120	9	10	13	118	FU1125S0	GN5198V0			
106	120	8.5	9.5	12.5	118	FU1135S0	GN4826V0			
110	125	9			123	FU1157S0	GN4480V0			
112	125	9	10	13	123	FU1179S0	GN4827V0			
115	130	9			128	FU1195S0	GN4593V0			
118	132	8.5	9.5	12.5	130	FU1204S0	GN5414V0			
125	140	9	10	13	138	FU1252S0	GN4481V0			
132	145	8.5	9.5	12.5	143	FU1291S0	GN5737V0			
136	150	8.5			148	FU1306S0	GN4830V0			
145	160	9	10	13	158	FU1343S0	GN4551V0			

UPH TYPE

PACKINGS FOR BOTH PISTON
AND ROD SEALS
NITRILE RUBBER (NBR)
FLUORORUBBER (FKM)



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

(Example) Order for the packing as a single piece

• Type Dimensions	UPH	6.3	16.3	7.5	
	└─ Type Sign	└─ Nominal Size of Packing described in order of inner diameter(d), outer diameter(D), and height(h)			
• Part Number	CU3308D0				

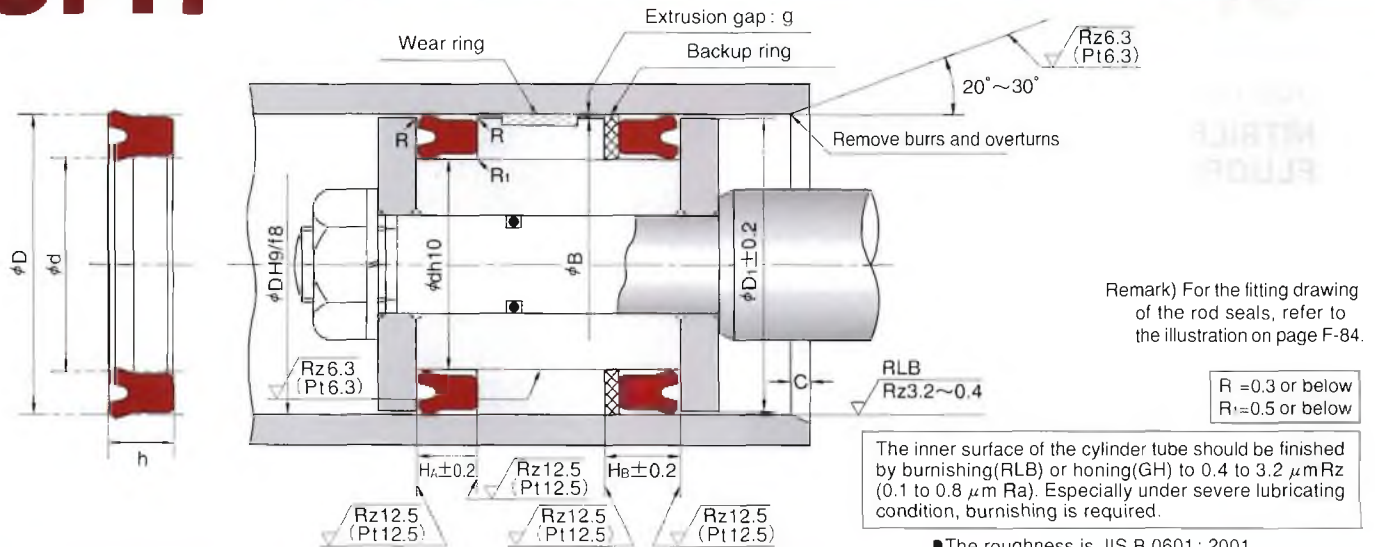
※ When placing orders for backup rings used in combination with packing, designate the NOK part number and the model size.

• Type Dimensions	BRT3	6.3	16.3	2	
	└─ Type Sign	└─ Nominal Size of Backup ring described in order of inner diameter(d), outer diameter(D), and thickness(t)*			
• Part Number	GN0720V0				*t = H _B - H _A (Housing dimensions)

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

Material	Standard : NOK A505 Heat resistant type : NOK F357
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UPH TYPE PACKINGS FOR BOTH PISTON AND ROD SEALS



Remark) For the fitting drawing of the rod seals, refer to the illustration on page F-84.

$R = 0.3$ or below
 $R_1 = 0.5$ or below

Nominal Size of Packing, and Housing dimensions							Standard (A505)		Heat resistant type (F357)		Combustion Backup Ring Part Number
d	D	h	H _A	H _B	φD ₁	C	Packing Part Number	Nominal Number	Packing Part Number	Nominal Number	BRT3 (Endless) 19YF
6.3	16.3	7.5	8.5	10.5	15.3	2.5	CU3308D0	UPH-6.3			GN0720V0
	16.3	8	9	11	15.3		CU0024D0	UPH-6.3A			GN0720V0
7.1	17.1	7.5	8.5	10.5	16.1		CU3309D0	UPH-7.1			GN0723V0
	17.1	8	9	11	16.1		CU0030D0	UPH-7.1A			GN0723V0
8	18	7.5	8.5	10.5	17		CU0042D0	UPH-8			GN0725V0
	18	8	9	11	17		CU0043D1	UPH-8A	CU0043D2	UPH-8AF	GN0725V0
9	19	7.5	8.5	10.5	18		CU3310D0	UPH-9			GN0728V0
	19	8	9	11	18		CU0054D0	UPH-9A			GN0728V0
10	20	7.5	8.5	10.5	19		CU0068D0	UPH-10			GN0733V0
	20	8	9	11	19		CU0069D1	UPH-10A			GN0733V0
11.2	21.2	7.5	8.5	10.5	20.2		CU3311D0	UPH-11.2			GN0736V0
	21.2	8	9	11	20.2		CU0081D0	UPH-11.2A			GN0736V0
12	25	8	9	11	24		CU0093D0	UPH-12	CU0093D3	UPH-12F	GN6005V0
12.5	22.5	7.5	8.5	10.5	21.5		CU3312D0	UPH-12.5			GN0741V0
	22.5	8	9	11	21.5		CU0102D0	UPH-12.5A			GN0741V0
14	24	7.5	8.5	10.5	23		CU0121D0	UPH-14			GN0745V0
	24	8	9	11	23		CU0122D0	UPH-14A	CU0122D3	UPH-14AF	GN0745V0
15	25	8	9	11	24		CU0135D0	UPH-15A			GN0749V0
	28	10	11	13	27		CU0137D0	UPH-15			GN6445V0
16	26	7.5	8.5	10.5	25		CU0156D0	UPH-16	CU0156D2	UPH-16F	GN0751V0
	26	8	9	11	25		CU0157D1	UPH-16A			GN0751V0
	32	10	11	13	31		CU0161D0	UPH-16B			GN7288V0
18	28	8	9	11	27		CU0182D0	UPH-18A	CU0182D4	UPH-18AF	GN0757V0
	31	10	11	13	30		CU0186D0	UPH-18			GN6446V0
	33	10	11	13	32	CU2196D0	UPH-18B			GN7354V0	
18.5	31.5	10	11	13	30.5	CU3313D0	UPH-18.5	CU3313D1	UPH-18.5F	GN7240V0	
20	30	8	9	11	29	CU0215D1	UPH-20A	CU0215D2	UPH-20AF	GN0762V0	
	33	10	11	13	32	CU0221D0	UPH-20			GN6448V0	
	35	10	11	13	34	CU0224D0	UPH-20B			GN7289V0	
21.5	31.5	8	9	11	30.5	CU0239D0	UPH-21.5			GN0767V0	
22	35	10	11	13	34	CU0249D0	UPH-22			GN6449V0	
	35.4	8	9	11	31.4	CU0263D0	UPH-22.4A	CU0263D3	UPH-22.4AF	GN0771V0	
22.4	35.4	10	11	13	34.4	CU0265D1	UPH-22.4			GN6017V0	
	35	8	9	11	34	CU0282D2	UPH-25A	CU0282D3	UPH-25AF	GN0781V0	
	38	10	11	13	37	CU0288D0	UPH-25			GN6453V0	
25	40	10	11	13	39	CU0292D0	UPH-25B	CU0292D4	UPH-25BF	GN6591V0	
	45	12	13	15	44	CU0301D0	UPH-25C			GN7291V0	
	35.5	8	9	12	34.5	CU0309D0	UPH-25.5			GN6454V0	
27	40	10	11	14	39	CU2347D0	UPH-27			GN6455V0	
28	40	10	11	14	39	CU0330D2	UPH-28A	CU0330D6	UPH-28AF	GN6457V0	
	41	10	11	14	40	CU0335D0	UPH-28			GN6458V0	
	43	10	11	14	42	CU0340D0	UPH-28B			GN0791V0	

Remark) The Part number and the one stamped on the product might be different in case of heat resistant type.

HOW TO DETERMINE B DIMENSION

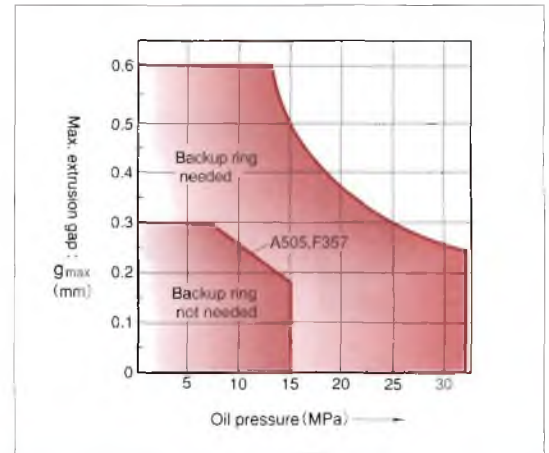
■ When using backup ring

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	15MPa	32MPa	
Material of Backup ring	19YF		
Dimension B	For rod	$B \leq \phi d + 1.0$	$B \leq \phi d + 0.5$
	For piston	$B \geq \phi D - 1.0$	$B \geq \phi D - 0.5$

■ 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							Standard (A505)		Heat resistant type (F357)		Combination Backup Ring Part Number
d	D	h	H _A	H _B	φD ₁	C	Packing Part Number	Nominal Number	Packing Part Number	Nominal Number	BRT3 (Endless) 19YF
30	43	10	11	14	42	3.5	CU0364D0	UPH-30	CU0364D2	UPH-30F	GN6459V0
	45	10	11	14	44		CU0368D2	UPH-30A	CU0368D8	UPH-30AF	GN7061V0
31.5	44.5	10	11	14	43.5		CU0385D0	UPH-31.5			GN6461V0
	46.5	10	11	14	45.5		CU0387D1	UPH-31.5A			GN0805V0
32	45	10	11	14	44		CU2451D0	UPH-32			GN7242V0
	46	10	11	14	45		CU0403D0	UPH-32A			GN6035V0
	48	10	11	14	47		CU0404D0	UPH-32B			GN7356V0
34	50	12	13	16	49		CU0408D0	UPH-34			GN6462V0
35	50	10	11	14	49		CU0437D4	UPH-35B	CU0437D5	UPH-35BF	GN0816V0
	50	12	13	16	49		CU0438D0	UPH-35			GN0816V0
	51	12	13	16	50		CU0441D0	UPH-35A			GN7006V0
35.5	50.5	10	11	14	49.5		CU0456D2	UPH-35.5A	CU0456D6	UPH-35.5AF	GN0820V0
	51.5	12	13	16	50.5	CU0458D0	UPH-35.5	CU0458D2	UPH-35.5F	GN6330V0	
38	52	10	11	14	51	CU0470D1	UPH-38			GN6046V0	
40	55	10	11	14	54	CU0505D3	UPH-40A	CU0505D2	UPH-40AF	GN6759V0	
	56	10	11	14	55	CU0508D0	UPH-40B			GN6466V0	
	56	12	13	16	55	CU0509D0	UPH-40			GN6466V0	
	60	12	13	16	59	CU0514D0	UPH-40C			GN7293V0	
41	56	10	11	14	55	CU0523D0	UPH-41			GN0835V0	
45	60	10	11	14	59	CU0577D5	UPH-45A	CU0577D9	UPH-45AF	GN0845V0	
	60	12	13	16	59	CU0578D0	UPH-45B			GN0845V0	
	61	12	13	16	60	CU0580D0	UPH-45	CU0580D3	UPH-45F	GN6469V0	
47	63	12	13	16	62	CU0591D0	UPH-47			GN6471V0	
48	63	10	11	14	62	CU0601D1	UPH-48	CU0601D4	UPH-48F	GN0853V0	
50	65	10	11	14	64	CU0631D2	UPH-50A	CU0631D7	UPH-50AF	GN6439V0	
	66	12	13	16	65	CU0635D0	UPH-50	CU0635D3	UPH-50F	GN6329V0	
	70	12	13	16	69	CU0639D3	UPH-50B	CU0639D4	UPH-50BF	GN6592V0	
51	71	12	13	16	70	CU0669D0	UPH-51			GN0862V0	
53	69	12	13	16	68	CU3317D0	UPH-53			GN7008V0	
	73	12	13	16	72	CU0683D0	UPH-53A			GN0869V0	
55	71	12	13	16	70	CU0704D1	UPH-55			GN6473V0	
	75	12	13	16	74	CU0708D2	UPH-55A	CU0708D6	UPH-55AF	GN7249V0	
	80	15	16	19	79	CU0712D0	UPH-55B			GN6072V0	
56	72	12	13	16	71	CU0727D0	UPH-56	CU0727D2	UPH-56F	GN7009V0	
	76	12	13	16	75	CU0728D1	UPH-56A	CU0728D4	UPH-56AF	GN0877V0	
60	76	12	13	16	75	CU0757D1	UPH-60			GN6476V0	
	80	12	13	16	79	CU0761D1	UPH-60A	CU0761D6	UPH-60AF	GN0886V1	
63	79	12	13	16	78	CU0791D0	UPH-63			GN7010V0	
	83	12	13	16	82	CU0793D1	UPH-63A	CU0793D3	UPH-63AF	GN0893V1	
64	80	12	13	16	79	CU2123D1	UPH-64	CU2123D2	UPH-64F	GN6478V0	
65	81	12	13	16	80	CU3318D0	UPH-65			GN7011V0	
	85	12	13	16	84	CU0819D1	UPH-65A	CU0819D2	UPH-65AF	GN0899V0	

Remark) The Part number and the one stamped on the product might be different in case of heat resistant type.