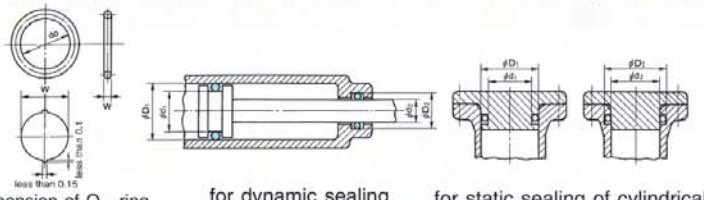
JASO F 404 cross – section Φ1. 9 series (for static sealing and dynamic sealing)

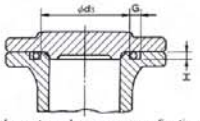
material	JASO symbol	Class 1 A	Class 2	Class 3	Class 4 C	Class 4 D	Class 4 E	Class 5	H*
	NOK symbol	A305	A122	R189	S503	F201	T767	E116	G607



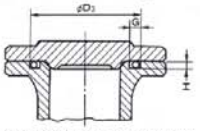
dimension of O – ring　　for dynamic sealing　　for static sealing of cylindrical surface

kindand dimension symbol	NOK part number material symbol Class1 A A305	Class 2 A122	Class 3 R189	Class4 C S503	Class 4 D F201	Class 4 E T767	Class 5 E116	H※ G607	NOK nominal size	dimension of O – ring thickness W	inner diameter do	inner diameter tolerance A305 (Class1 A) A122 (Class2) R189 (Class3)	S503(Class4 C) T767(Claa4 E) E116(Class5)	F201(Class4 D) G607(H＊)
CO 0000					S9	P2	S1	W0	1003		2. 8			
CO 0001					R4	G4	H1	W0	1004		3. 8			
CO 0002					S8	Z3	H1	X2	1005		4. 8			
CO 0003					T9	H4	Z1	W0	1006		5. 8			
CO 0004					T8	H4	O2	Q1	1007		6. 8			
CO 0005					U5	T3	R2	V1	1008		7. 8			
CO 0006					Q5	R3	U1	G0	1009		8. 8			
CO 0007					U9	S4	O1	Y0	1010		9. 8			
CO 0600	A	C	K	L	X0	G2	W0	R0	1011		11. 0	±0. 12	±0. 36	±0. 24
CO 0601					S0	G3	Z2	S1	1012		12. 3			
CO 0602					T0	G3	Y0	Z0	1013		13. 0			
CO 0604					P5	V1	H1	R0	1014		13. 8			
CO 0605					N4	H3	R1	Q0	1015		14. 8			
CO 0606					Q7	X2	N1	X0	1016		15. 8			
CO 0607					O3	Q1	Y0	U0	1017	1. 9 ±0. 07	16. 8			
CO 0609					N3	G3	Q1	R1	1018		17. 8			
CO 0610					N0	W1	V0	G0	1019		18. 8			
CO 0612					O3	H2	R1	V1	1020		19. 8			
CO 0613					N4	G2	T0	G0	1021		21. 0			
CO 0614					G0	H1	V0	R0	1022		22. 1			
CO 0616					N0	G2	Y0	T0	1023		23. 3			
CO 0618	A	C	K	L	U3	V0	S0	P0	1025		24. 7			
CO 0620					N0	G1	W0	Y0	1026		26. 2	±0. 15	±0. 45	±0. 30
CO 0622					SO	X0	T0	G0	1028		27. 7			
CO 0624					N0	U0	S0	O0	1030		29. 7			
CO 0626					H0	S0	P0	Q0	1031		31. 2			
CO 0628					O0	Z0	V0	W0	1033		33. 2			
CO 0630					H0	T0	Q0	R0	1035		35. 2			

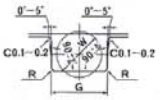
※H is the name of NOK material symbol.



for external pressure application



for internal pressure application



(note) chamfer is to be NOK suggested.

■Please specify NOK part number in placing your order.

※NOK part number is shown as following:

CO 0000 A

- Material symbol (JASO Class 1 A; NOK A 305)
- Kind and dimension symbol

※ Example 1: When booking JASO F 404, cross-section Φ1.9 series O-rings, and the material is Class 1 A, CO 0607A

Example 2: When booking JASO F 404, cross-section Φ1.9 series O-rings, and the material is Class 4 C, CO 0607L

for static sealing of flat surface — shape of groove

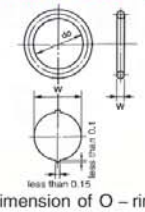
(unit: mm)

groove dimension										
d_2 d_3	d_1	tolerance to d_1 and d_2	D_1	D_2	D_3	tolerance to D_1 and D_2	G	H	R	MAX eccentricity (TIR) between D_3 and d_1, and between D_3 and d_3 in dynamic sealing and cylindrical surface static sealing
							$G^{+0.25}_{0}$	H ±0.05	MAX	
3	3.1	0 −0.05	6	5.9	6.3	+0.05 0	2.5	1.4	0.4	0.05
4	4.1		7	6.9	7.3					
5	5.1		8	7.9	8.3					
6	6.1		9	8.9	9.3					
7	7.1		10	9.9	10.3					
8	8.1		11	10.9	11.3					
9	9.1		12	11.9	12.3					
10	10.1		13	12.9	13.3					
11.2	11.3	0 −0.06	14.2	14.1	14.4	+0.06 0				
12.5	12.6		15.5	15.4	15.7					
13.2	13.3		16.2	16.1	16.4					
14	14.1		17	16.9	17.2					
15	15.1		18	17.9	18.2					
16	16.1		19	18.9	19.2					
17	17.1		20	19.9	20.2					
18	18.1		21	20.9	21.2					
19	19.1		22	21.9	22.2					
20	20.1		23	22.9	23.2					
21.2	21.3		24.2	24.1	24.4					
22.4	22.5	0 −0.08	25.4	25.3	25.5	+0.08 0				
23.6	23.7		26.6	26.5	26.7					
25	25.1		28	27.9	28.1					
26.5	26.6		29.5	29.4	29.6					
28	28.1		31	30.9	31.1					
30	30.1		33	32.9	33.1					
31.5	31.6		34.5	34.4	34.6					
33.5	33.6		36.5	36.4	36.6					
35.5	35.6		38.5	38.4	38.6					

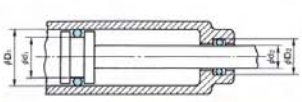
(Note) if backup ring is used, please discuss with NOK.

JASO F 404 cross – section Φ2. 4 series (for static sealing and dynamic sealing)

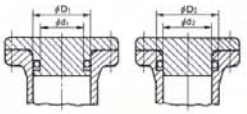
material	JASO symbol	Class 1 A	Class 2	Class 3	Class 4 C	Class 4 D	Class 4 E	Class 5	H*
	NOK symbol	A305	A122	R189	S503	F201	T767	E116	G607



dimension of O – ring



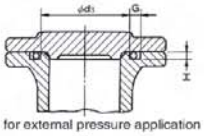
for dynamic sealing



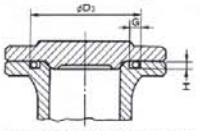
for static sealing of cylindrical surface

kind and dimension symbol	NOK part number: material symbol: Class 1 A A305	Class 2 A122	Class 3 R189	Class 4 C S503	Class 4 D F201	Class 4 E T767	Class 5 E116	H* G607	NOK nominal size	dimension of O – ring: thickness W	inner diameter do	inner diameter tolerance: A305 (Class 1 A) A122 (Class 2) R189 (Class 3)	S503 (Class 4 C) T767 (Class 4 E) E116 (Class 5)	F201 (Class 4 D) G607 (H*)
CO 0008	A	C	K	L	X9	G5	Y1	T0	2010	2.4 ±0.07	9.8	±0.12	±0.36	±0.24
CO 0010					U3	T1	H1	S0	2011		11.0			
CO 0012					Q0	G2	G1	T0	2012		12.3			
CO 0603					H0	T0	P0	Q0	2013.		13.0			
CO 0013					X0	G3	G2	Q1	2014		13.8			
CO 0014					U3	G4	Y1	Z0	2015		14.8			
CO 0015					V9	P3	Z1	X0	2016		15.8			
CO 0608					P5	X0	P0	H0	2017		16.8			
CO 0016					T9	R2	G1	X0	1018		17.8			
CO 0611	A	C	K	L	O2	G2	X0	Z0	2019		18.8	±0.15	±0.45	±0.30
CO 0017					R7	T2	Z1	G0	2020		19.8			
CO 0018					S6	G3	Y1	G0	2021		20.8			
CO 0615					H0	Y0	V0	W0	2022		22.1			
CO 0617					P0	P1	U0	H0	2023		23.3			
CO 0619					U3	H1	Z0	G0	2025		24.7			
CO 0621					N3	H2	W0	R0	2026		26.2			
CO 0623					O3	P2	S1	P1	2028		27.7			
CO 0625					U3	Z0	V0	T0	2030		29.7			
CO 0627					H0	H1	X0	Y0	2031		31.2			
CO 0629					O6	Z0	U0	W0	2033		33.2			
CO 0631					N3	Z0	V0	Y1	2035		35.2			
CO 0632					R0	Y0	T0	U0	2037		37.2			
CO 0633					U3	G2	Z0	G1	2040		39.7			
CO 0634	A	C	K	L	Q4	Z0	V0	W0	2042		42.2	±0.25	±0.75	±0.50
CO 0635					O0	Y0	U0	H0	2045		44.7			
CO 0636					P3	Z0	U0	X0	2047		47.2			
CO 0637					G0	X0	T0	U0	2050		49.7			
CO 0638					X0	H1	Z0	H0	2053		52.6			
CO 0640					U0	H1	Y0	G1	2056		55.6			
CO 0642					N1	U0	S0	T0	2060		59.6			
CO 0644					G0	R0	P0	Q0	2063		62.6			
CO 0646					G0	Z0	S0	P0	2067		66.6			
CO 0648	A	C	K	L	P0	V0	U0	S0	2071		70.6	±0.40	±1.20	±0.80

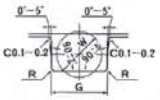
※H is the name of NOK material symbol.



for external pressure application



for internal pressure application



(note) chamfer is to be NOK suggested.

■Please specify NOK part number in placing your order.

※NOK part number is shown as following:

CO 0008 A
- Material symbol (JASO Class 1 A; NOK A 305)
- Kind and dimension symbol

※ Example 1: When booking JASO F 404, cross – section Φ2. 4 series O – rings, and the material is Class 1 A, CO 0016A

Example 2: When booking JASO F 404, cross – section Φ2. 4 series O – rings, and the material is Class 4 C, CO 0016L

for static sealing of flat surface — shape of groove

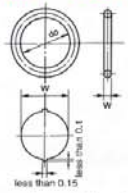
(unit: mm)

groove dimension										
d_2 d_3	d_1	tolerance to d_1 and d_2	D_1	D_2	D_3	tolerance to D_1 and D_2	G	H	R	MAX eccentricity (TIR) between D_3 and d_1, and between D_3 and d_3 in dynamic sealing and cylindrical surface static sealing
							$G^{+0.25}_{0}$	H ±0. 05	MAX	
10	10. 2		14	13. 8	14. 1					
11. 2	11. 4		15. 2	15	15. 3					
12. 5	12. 7		16. 5	16. 3	16. 6					
13. 2	13. 4		17. 2	17	17. 3					
14	14. 2		18	17. 8	18. 1					
15	15. 2	0	19	18. 8	19. 1	+0. 06				
16	16. 2	−0. 06	20	19. 8	20. 1	0				
17	17. 2		21	20. 8	21. 1					
18	18. 2		22	21. 8	22. 1					
19	19. 2		23	22. 8	23. 1					
20	20. 2		24	23. 8	24. 1					
21	21. 2		25	24. 8	25. 1					
22. 4	22. 6		26. 4	26. 2	26. 4					
23. 6	23. 8		27. 6	27. 4	27. 6					
25	25. 2		29	28. 8	29					
26. 5	26. 7		30. 5	30. 3	30. 5					
28	28. 2		32	31. 8	32					
30	30. 2		34	33. 8	34					
31. 5	31. 7		35. 5	35. 3	35. 5					
		0				+0. 08				
33. 5	33. 7	−0. 08	37. 5	37. 3	37. 5	0				
35. 5	35. 7		39. 5	39. 3	39. 5					
37. 5	37. 7		41. 5	41. 3	41. 5		3. 2	1. 8	0. 4	0. 05
40	40. 2		44	43. 8	44					
42. 5	42. 7		46. 5	46. 3	46. 5					
45	45. 2		49	48. 8	49					
47. 5	47. 7		51. 5	51. 3	51. 5					
50	50. 2		54	53. 8	54					
53	53. 2		57	56. 8	57					
56	56. 2		60	59. 8	60					
60	60. 2	0	64	63. 8	64	+0. 10				
63	63. 2	−0. 10	67	66. 8	67	0				
67	67. 2		71	70. 8	71					
71	71. 2		75	74. 8	75					

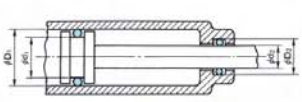
(Note) if backup ring is used, please discuss with NOK.

JASO F 404 cross – section Φ3. 1 series (for static sealing and dynamic sealing)

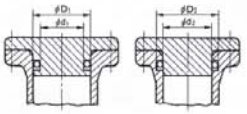
material	JASO symbol	Class 1 A	Class 2	Class 3	Class 4 C	Class 4 D	Class 4 E	Class 5	H*
	NOK symbol	A305	A122	R189	S503	F201	T767	E116	G607



dimension of O – ring



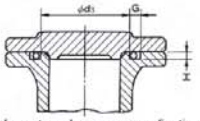
for dynamic sealing



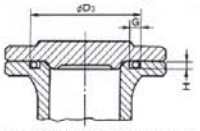
for static sealing of cylindrical surface

kind and dimension symbol	NOK part number: material symbol Class 1 A A305	Class 2 A122	Class 3 R189	Class 4 C S503	Class 4 D F201	Class 4 E T767	Class 5 E116	H* G607	NOK nominal size	dimension of O – ring: thickness W	inner diameter do	inner diameter tolerance: A305 (Class 1 A) A122 (Class 2) R189 (Class 3)	S503 (Class 4 C) T767 (Class 4 E) E116 (Class 5)	F201 (Class 4 D) G607 (H*)
CO 0200	A	C	K	L	R7	N2	R1	T0	3025 S	3. 1 ±0. 10	24. 4	±0. 15	±0. 45	±0. 30
CO 0201					U0	X1	S1	G0	3030 S		29. 4			
CO 0202					U3	W1	P1	H0	3035 S		34. 4			
CO 0203	A	C	K	L	U3	X1	V1	G1	3040 S		39. 4	±0. 25	±0. 75	±0. 50
CO 0204					U3	T1	Z0	Y0	3045 S		44. 4			
CO 0205					U0	H2	Y1	P1	3050 S		49. 4			
CO 0206					R9	U2	X1	W1	3055 S		54. 4			
CO 0207					U0	N1	X1	W1	3060 S		59. 4			
CO 0208					Q7	G2	Z1	X1	3065 S		64. 4			
CO 0209					U3	O2	S1	Z1	3070 S		69. 4			
CO 0210	A	C	K	L	U3	Q2	P2	X1	3075 S		74. 4	±0. 40	±1. 20	±0. 80
CO 0211					U3	X1	W1	Q1	3080 S		79. 4			
CO 0212					Q1	T2	Z1	G1	3085 S		84. 4			
CO 0213					U3	S1	G1	H0	3090 S		89. 4			
CO 0214					U3	P2	G1	Z0	3095 S		94. 4			
CO 0215					U3	G2	S1	Y0	3100 S		99. 4			
CO 0216					U3	R1	Q1	G0	3105 S		104. 4			
CO 0217					U3	H2	H1	Q1	3110 S		109. 4			
CO 0218					U3	Q1	W1	G0	3115 S		114. 4			
CO 0219					R0	U1	T1	O1	3120 S		119. 4			
CO 0220					U3	Q1	X0	G1	3125 S		124. 4			
CO 0221	A	C	K	L	U3	G2	N1	S1	3130 S		129. 4	±0. 60	±1. 80	±1. 20
CO 0222					U3	Y1	X1	V1	3135 S		134. 4			
CO 0223					X0	S1	X1	H1	3140 S		139. 4			
CO 0224					U3	Q1	H1	P1	3145 S		144. 4			

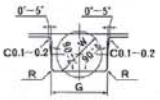
※H is the name of NOK material symbol.



for external pressure application



for internal pressure application



for static sealing of flat surface

(note) chamfer is to be NOK suggested.

shape of groove

■Please specify NOK part number in placing your order.

※NOK part number is shown as following:

CO 0200 A

- Material symbol (JASO Class 1 A; NOK A 305)
- Kind and dimension symbol

※ Example 1: When booking JASO F 404, cross – section Φ3. 1 series O – rings, and the material is Class 1 A, CO 0210A

Example 2: When booking JASO F 404, cross – section Φ3. 1 series O – rings, and the material is Class 4 C, CO 0210L

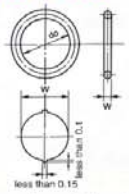
(unit: mm)

groove dimension										
d_2 d_3	d_1	tolerance to d_1 and d_2	D_1	D_2	D_3	tolerance to D_1 and D_2	G	H	R	MAX eccentricity (TIR) between D_3 and d_1, and between D_3 and d_3 in dynamic sealing and cylindrical surface static sealing
							$G^{+0.25}_{0}$	H ±0. 05	MAX	
25	25. 3	0 −0. 08	30. 3	30. 1	30. 3	+0. 08 0	4. 3	2. 4	0. 5	0. 06
30	30. 3		35. 3	35. 1	35. 3					
35	35. 3		40. 3	40. 1	40. 3					
40	40. 3		45. 3	45. 1	45. 3					
45	45. 3		50. 3	50. 1	50. 3					
50	50. 3	0 −0. 10	55. 3	55. 1	55. 3	+0. 10 0				
55	55. 3		60. 3	60. 1	60. 3					
60	60. 3		65. 3	65. 1	65. 3					
65	65. 3		70. 3	70. 1	70. 3					
70	70. 3		75. 3	75. 1	75. 3					
75	75. 3		80. 3	80. 1	80. 3					
80	80. 3		85. 3	85. 1	85. 3					
85	85. 3		90. 3	90. 1	90. 3					
90	90. 3		95. 3	95. 1	95. 3					
95	95. 3		100. 3	100. 1	100. 3					
100	100. 3		105. 3	105. 1	105. 3					
105	105. 3		110. 3	110. 1	110. 3					
110	110. 3		115. 3	115. 1	115. 3					
115	115. 3		120. 3	120. 1	120. 3					
120	120. 3		125. 3	125. 1	125. 3					
125	125. 3		130. 3	130. 1	130. 3					
130	130. 3		135. 3	135. 1	135. 3					
135	135. 3		140. 3	140. 1	140. 3					
140	140. 3		145. 3	145. 1	145. 3					
145	145. 3		150. 3	150. 1	150. 3					

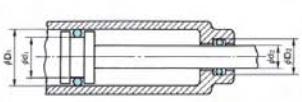
(Note) if backup ring is used, please discuss with NOK.

JASO F 404 cross – section Φ3. 5 series (for static sealing and dynamic sealing)

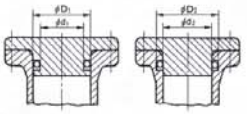
material	JASO symbol	Class 1 A	Class 2	Class 3	Class 4 C	Class 4 D	Class 4 E	Class 5	H*
	NOK symbol	A305	A122	R189	S503	F201	T767	E116	G607



dimension of O – ring



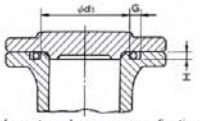
for dynamic sealing



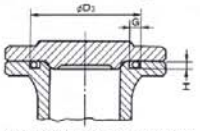
for static sealing of cylindrical surface

kind and dimension symbol	NOK part number: material symbol Class 1 A A305	Class 2 A122	Class 3 R189	Class 4 C S503	Class 4 D F201	Class 4 E T767	Class 5 E116	H* G607	NOK nominal size	dimension of O – ring: thickness W	inner diameter do	inner diameter tolerance: A305 (Class 1 A) A122 (Class 2) R189 (Class 3)	S503 (Class 4 C) T767 (Class 4 E) E116 (Class 5)	F201 (Class 4 D) G607 (H*)
CO 0021					G0	Y0	R0	S0	3022		22. 1			
CO 0022					U3	H2	V1	Z0	3024		23. 7			
CO 0023					Q0	G2	G1	P1	3025		24. 7			
CO 0025					N5	H3	G1	Y0	3026		25. 7			
CO 0026					U3	H2	N1	Z0	3028		27. 7			
CO 0029					S0	G2	G1	G0	3030		29. 7			
CO 0031	A	C	K	L	U3	W0	H0	P0	3031		31. 2	±0. 15	±0. 45	±0. 30
CO 0033					R0	G3	N1	W1	3034		33. 7			
CO 0035					U3	V0	Q0	R0	3035		35. 2			
CO 0037					Q0	H1	U1	V0	3038		37. 7			
CO 0038					U3	G2	X0	G0	3039		38. 7			
CO 0039					W0	G2	P1	Z0	3040		39. 7			
CO 0041					U3	S1	P1	X1	3042		41. 7			
CO 0042					U3	G3	G1	G0	3044		43. 7			
CO 0043					P4	G2	S1	G1	3045		44. 7			
CO 0046					X0	G3	H1	Y1	3048		47. 7			
CO 0049					Q6	G2	T1	X1	3050		49. 7			
CO 0639	A	C	K	L	H0	R0	P0	Q0	3053	3. 5 ±0. 10	52. 6	±0. 25	±0. 75	±0. 50
CO 0641					U3	V0	R0	U0	3056		55. 6			
CO 0643					O3	S0	Q0	R0	3060		59. 6			
CO 0645					U3	V0	S0	O0	3063		62. 6			
CO 0647					G0	U0	R0	S0	3067		66. 6			
CO 0649					U3	V0	Q0	R0	3071		70. 6			
CO 0650					G0	W0	U0	V0	3075		74. 6			
CO 0651					H0	G1	W0	Y0	3080		79. 6			
CO 0652					O2	U0	S0	T0	3085		84. 6			
CO 0653					U3	W0	U0	V0	3090		89. 6			
CO 0654	A	C	K	L	Q0	U0	S0	T0	3095		94. 6	±0. 40	±1. 20	±0. 80
CO 0655					G0	T0	R0	S0	3100		99. 6			
CO 0656					G0	T0	P0	Q0	3106		105. 6			
CO 0657					G0	Q0	N0	P0	3112		111. 6			
CO 0658					N0	P0	O0	G0	3118		117. 6			
CO 0659					G0	R0	P0	Q0	3125		124. 6			
CO 0660					H0	S0	P0	Q0	3132		131. 6			
CO 0661	A	C	K	L	H0	T0	R0	S0	3140		139. 6	±0. 60	±1. 80	±1. 20
CO 0662					H0	S0	Q0	R0	3150		149. 6			

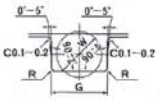
※H is the name of NOK material symbol.



for external pressure application



for internal pressure application



(note) chamfer is to be NOK suggested.

■Please specify NOK part number in placing your order.

※NOK part number is shown as following:

CO 0021 A
- A: Material symbol (JASO Class 1 A; NOK A 305)
- CO 0021: Kind and dimension symbol

※ Example 1: When booking JASO F 404, cross – section Φ3. 5 series O – rings, and the material is Class 1 A, CO 0035A

Example 2: When booking JASO F 404, cross – section Φ3. 5 series O – rings, and the material is Class 4 C, CO 0035L

for static sealing of flat surface — shape of groove

(unit: mm)

groove dimension										
d_2 d_3	d_1	tolerance to d_1 and d_2	D_1	D_2	D_3	tolerance to D_1 and D_2	G	H	R	MAX eccentricity (TIR) between D_3 and d_1, and between D_3 and d_3 in dynamic sealing and cylindrical surface static sealing
							$G^{+0.25}_{0}$	H ±0. 05	MAX	
22. 4	22. 7		28. 4	28. 1	28. 4					
24	24. 3		30	29. 7	30					
25	25. 3		31	30. 7	31					
26	26. 3		32	31. 7	32					
28	28. 3		34	33. 7	34					
30	30. 3		36	35. 7	36					
31. 5	31. 8		37. 5	37. 2	37. 5					
34	34. 3		40	39. 7	40					
35. 5	35. 8	0	41. 5	41. 2	41. 5	+0. 08				
38	38. 3	−0. 08	44	43. 7	44	0				
39	39. 3		45	44. 7	45					
40	40. 3		46	45. 7	46					
42	42. 3		48	47. 7	48					
44	44. 3		50	49. 7	50					
45	45. 3		51	50. 7	51					
48	48. 3		54	53. 7	54					
50	50. 3		56	55. 7	56					
53	53. 3		59	58. 7	59					
56	56. 3		62	61. 7	62		4. 7	2. 7	0. 7	0. 08
60	60. 3		66	65. 7	66					
63	63. 3		69	68. 7	69					
67	67. 3		73	72. 7	73					
71	71. 3		77	76. 7	77					
75	75. 3		81	80. 7	81					
80	80. 3		86	85. 7	86					
85	85. 3		91	90. 7	91					
90	90. 3	0	96	95. 7	96	+0. 10				
95	95. 3	−0. 10	101	100. 7	101	0				
100	100. 3		106	105. 7	106					
106	106. 3		112	111. 7	112					
112	112. 3		118	117. 7	118					
118	118. 3		124	123. 7	124					
125	125. 3		131	130. 7	131					
132	132. 3		138	137. 7	138					
140	140. 3		146	145. 7	146					
150	150. 3		156	155. 7	156					

(Note) if backup ring is used, please discuss with NOK.