

## 2. 로울러 베어링



### 원통로울러 베어링

- 원통 로울러 베어링은 케이지 없이 로울러 팍찬형의 베어링을 제외하고 분리가능하다. 따라서 조립 및 해체가 용이하다.

### 테이퍼 로울러 베어링

- 테이퍼 로울러 베어링은 분리 가능하다. 콘에는 로울러와 케이지가 결합되어 있고, 컵을 분리 조립된다. 한쪽 방향만의 축방향 하중을 받을수 있으므로 통상 두개의 베어링을 반대방향으로 조립 사용한다.

### 니들 로울러 베어링

- 작은 단면을 갖는 니들로울러 베어링은 직경에 비하여 길이가긴 니들 로울러는 높은 하중 전달능력을 갖고 있다.

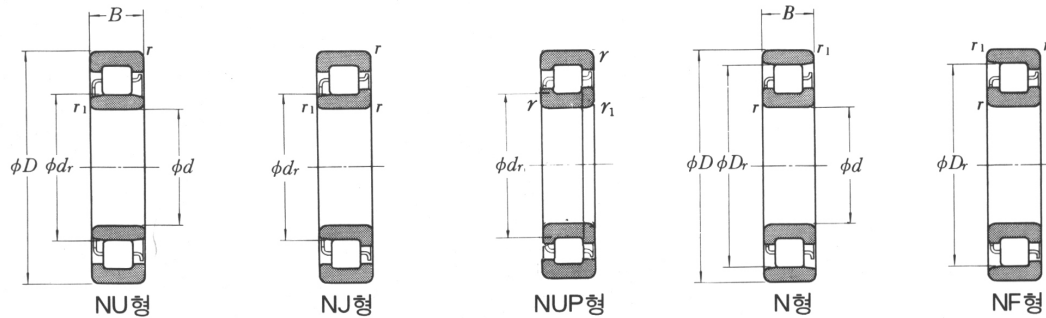
### 스러스트 볼베어링

- 단식 및 복식구조의 설계가 모두 가능하다. 높은 축방향 하중만을 받을수 있고 정방향 하중은 받을 수 없다.

### 트랙 로울러 베어링

- 두꺼운 두개의 외륜을 가지며 트랙상에서 직접 회전한다. 이 베어링은 높은 하중을 전달한다.

내경 20~35mm

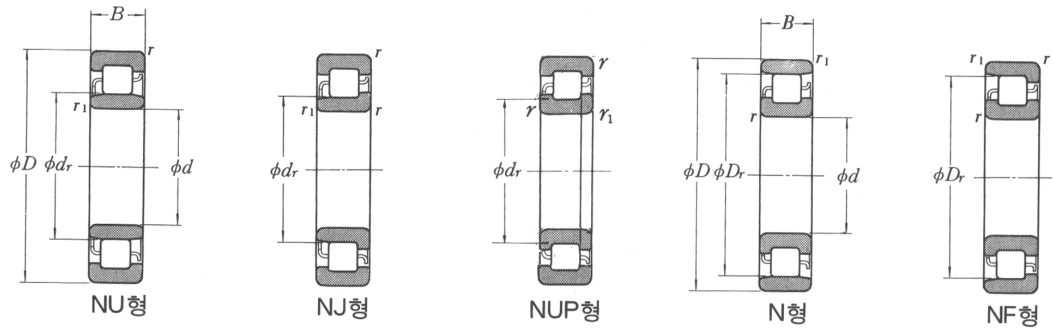


주요 치수 (mm)							호칭 번호 <sup>(1)</sup>					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(2)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
20	47	14	1	0.6	27	40	NU 204	NJ	NUP	N	NF	15 400	12 700
	47	14	1	0.6	26.5	-	NU 204ET	NJ	NUP	—	—	25 700	22 600
	47	18	1	0.6	27	-	NU2204	NJ	NUP	—	—	20 700	18 400
	47	18	1	0.6	26.5	-	NU2204ET	NJ	NUP	—	—	30 500	28 300
	52	15	1.1	0.6	28.5	44.5	NU 304	NJ	NUP	N	NF	21 400	17 300
	52	15	1.1	0.6	27.5	-	NU 304ET	NJ	NUP	—	—	31 500	26 900
	52	21	1.1	0.6	28.5	-	NU2304	NJ	NUP	—	—	30 500	27 200
	52	21	1.1	0.6	27.5	-	NU2304EM	NJ	NUP	—	—	42 000	39 000
	47	12	0.6	0.3	30.5	-	NU1005	—	—	—	—	14 300	13 100
	52	15	1	0.6	32	45	NU 205	NJ	NUP	N	NF	17 700	15 700
	52	15	1	0.6	31.5	-	NU 205ET	NJ	NUP	—	—	29 300	27 700
	52	18	1	0.6	32	-	NU2205	NJ	NUP	—	—	23 700	22 800
25	52	18	1	0.6	31.5	-	NU2205ET	NJ	NUP	—	—	35 000	34 500
	62	17	1.1	1.1	35	53	NU 305	NJ	NUP	N	NF	29 300	25 200
	62	17	1.1	1.1	34	-	NU 305ET	NJ	NUP	—	—	41 500	37 500
	62	24	1.1	1.1	35	-	NU2305	NJ	NUP	—	—	42 500	41 000
	62	24	1.1	1.1	34	-	NU2305EM	NJ	NUP	—	—	57 000	56 000
	80	21	1.5	1.5	38.8	62.8	NU 405	NJ	—	N	NF	46 500	40 000
	55	13	1	0.6	36.5	48.5	NU1006	—	—	N	—	19 700	19 600
	62	16	1	0.6	38.5	53.5	NU 206	NJ	NUP	N	NF	23 500	21 500
	62	16	1	0.6	37.5	-	NU 206ET	NJ	NUP	—	—	39 000	37 500
	62	20	1	0.6	38.5	-	NU2206	NJ	NUP	—	—	33 000	33 000
	62	20	1	0.6	37.5	-	NU2206ET	NJ	NUP	—	—	49 000	50 000
	72	19	1.1	1.1	42	62	NU 306	NJ	NUP	N	NF	38 500	35 000
30	72	19	1.1	1.1	40.5	-	NU 306ET	NJ	NUP	—	—	53 000	50 000
	72	27	1.1	1.1	42	-	NU2306	NJ	NUP	—	—	51 500	51 000
	72	27	1.1	1.1	40.5	-	NU2306EM	NJ	NUP	—	—	74 500	77 500
	90	23	1.5	1.5	45	73	NU 406	NJ	NUP	N	NF	62 500	55 000
	62	14	1	0.6	42	55	NU1007	—	—	N	—	22 600	23 200
	72	17	1.1	0.6	43.8	61.8	NU 207	NJ	NUP	N	NF	33 500	31 500
	72	17	1.1	0.6	44	-	NU 207ET	NJ	NUP	—	—	50 500	50 000
	72	23	1.1	0.6	43.8	-	NU2207	NJ	NUP	—	—	49 000	51 000
	72	23	1.1	0.6	44	-	NU2207ET	NJ	NUP	—	—	61 500	65 000
	80	21	1.5	1.1	46.2	68.2	NU 307	NJ	NUP	N	NF	49 500	47 000
	80	21	1.5	1.1	46.2	68.2	NU 307	NJ	NUP	N	NF	49 500	47 000
	80	21	1.5	1.1	46.2	68.2	NU 307	NJ	NUP	N	NF	49 500	47 000

주 1) 호칭번호 끝에 ET가 붙은 베어링은 Polyamide 리테이너를 사용한 것임. 통상 사용최고온도는 120℃임.

2) L형 축칼라를 끼우면 NH형으로 됨.

내경 35~50mm

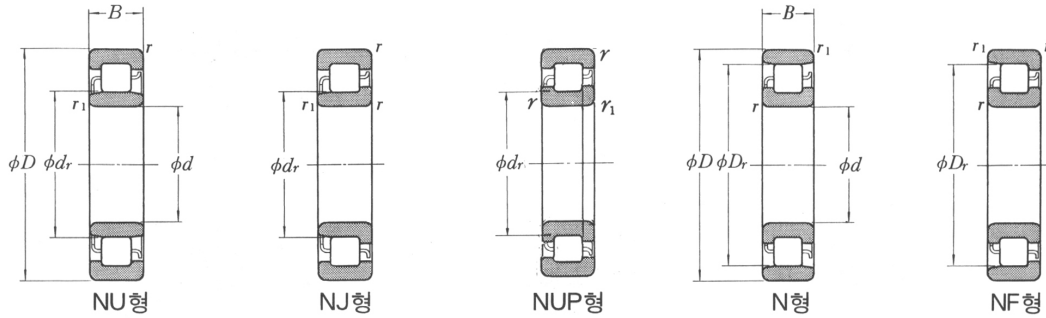


주요 치수 (mm)							호칭번호 <sup>(1)</sup>					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(2)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
35	80	21	1.5	1.1	46.2	—	NU 307ET	NJ	NUP	—	—	66 500	65 500
	80	31	1.5	1.1	46.2	—	NU2307	NJ	NUP	—	—	60 500	60 000
	80	31	1.5	1.1	46.2	—	NU2307EM	NJ	NUP	—	—	93 000	101 000
	100	25	1.5	1.5	53	83	NU 407	NJ	NUP	N	NF	75 500	69 000
40	68	15	1	0.6	47	61	NU1008	—	—	N	—	27 300	29 000
	80	18	1.1	1.1	50	70	NU 208	NJ	NUP	N	NF	43 500	43 000
	80	18	1.1	1.1	49.5	—	NU 208ET	NJ	NUP	—	—	55 500	55 500
	80	23	1.1	1.1	50	—	NU2208	NJ	NUP	—	—	58 000	62 000
	80	23	1.1	1.1	49.5	—	NU2208ET	NJ	NUP	—	—	72 500	77 500
	90	23	1.5	1.5	53.5	77.5	NU 308	NJ	NUP	N	NF	58 500	57 000
	90	23	1.5	1.5	52	—	NU 308ET	NJ	NUP	—	—	83 000	81 500
	90	33	1.5	1.5	53.5	—	NU2308	NJ	NUP	—	—	82 500	88 000
	90	33	1.5	1.5	52	—	NU2308EM	NJ	NUP	—	—	114 000	122 000
	110	27	2	2	58	92	NU 408	NJ	NUP	N	NF	95 500	89 000
45	75	16	1	0.6	52.5	67.5	NU1009	—	—	N	—	32 500	35 500
	85	19	1.1	1.1	55	75	NU 209	NJ	NUP	N	NF	46 000	47 000
	85	19	1.1	1.1	54.5	—	NU 209ET	NJ	NUP	—	—	63 000	66 500
	85	23	1.1	1.1	55	—	NU2209	NJ	NUP	—	—	61 500	68 000
	85	23	1.1	1.1	54.5	—	NU2209ET	NJ	NUP	—	—	76 000	84 500
	100	25	1.5	1.5	58.5	86.5	NU 309	NJ	NUP	N	NF	74 000	71 000
	100	25	1.5	1.5	58.5	—	NU 309ET	NJ	NUP	—	—	97 500	98 500
	100	36	1.5	1.5	58.5	—	NU2309	NJ	NUP	—	—	99 000	104 000
	100	36	1.5	1.5	58.5	—	NU2309EM	NJ	NUP	—	—	129 000	141 000
	120	29	2	2	64.5	100.5	NU 409	NJ	NUP	N	NF	107 000	102 000
50	80	16	1	0.6	57.5	72.5	NU1010	—	—	N	—	32 000	36 000
	90	20	1.1	1.1	60.4	80.4	NU 210	NJ	NUP	N	NF	48 000	51 000
	90	20	1.1	1.1	59.5	—	NU 210ET	NJ	NUP	—	—	69 000	76 500
	90	23	1.1	1.1	60.4	—	NU2210	NJ	NUP	—	—	64 000	73 500
	90	23	1.1	1.1	59.5	—	NU2210ET	NJ	NUP	—	—	83 500	97 000
	110	27	2	2	65	95	NU 310	NJ	NUP	N	NF	87 000	86 000
	110	27	2	2	65	—	NU 310ET	NJ	NUP	—	—	110 000	113 000
	110	40	2	2	65	—	NU2310	NJ	NUP	—	—	121 000	131 000
	110	40	2	2	65	—	NU2310EM	NJ	NUP	—	—	163 000	187 000
	130	31	2.1	2.1	70.8	110.8	NU 410	NJ	NUP	N	NF	129 000	124 000

주 1) 호칭번호 끝에 ET가 붙은 베어링은 Polyamide 리테이너를 사용한 것임. 통상 사용최고온도는 120℃임.

2) L형 축칼라를 끼우면 NH형으로 됨.

내경 55~65mm



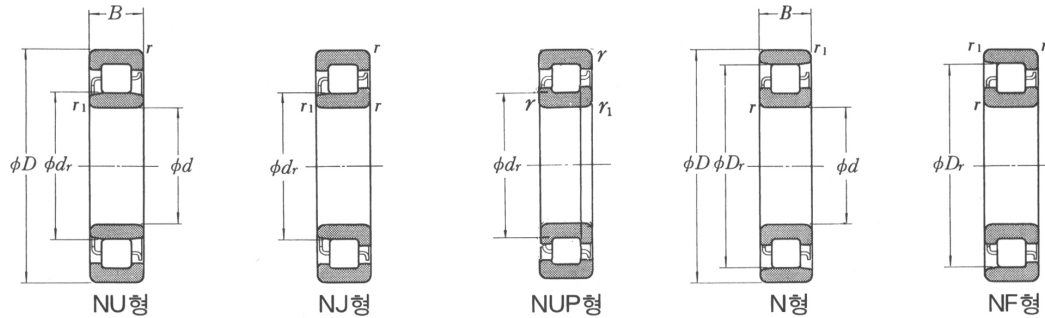
주요 치수 (mm)							호칭번호 <sup>(1)</sup>					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(2)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
55	90	18	1.1	1	64.5	80.5	NU1011	—	—	N	—	37 500	44 000
	100	21	1.5	1.1	66.5	88.5	NU 211	NJ	NUP	N	NF	58 000	62 500
	100	21	1.5	1.1	66	—	NU 211ET	NJ	NUP	—	—	86 500	98 500
	100	25	1.5	1.1	66.5	—	NU2211	NJ	NUP	—	—	75 500	87 000
	100	25	1.5	1.1	66	—	NU2211ET	NJ	NUP	—	—	101 000	122 000
	120	29	2	2	70.5	104.5	NU 311	NJ	NUP	N	NF	111 000	111 000
	120	29	2	2	70.5	—	NU 311ET	NJ	NUP	—	—	137 000	143 000
	120	43	2	2	70.5	—	NU2311	NJ	NUP	—	—	148 000	162 000
	120	43	2	2	70.5	—	NU2311EM	NJ	NUP	—	—	189 000	215 000
	140	33	2.1	2.1	77.2	117.2	NU 411	NJ	NUP	N	NF	139 000	138 000
	95	18	1.1	1	69.5	85.5	NU1012	—	—	N	—	40 000	48 500
	110	22	1.5	1.5	73.5	97.5	NU 212	NJ	NUP	N	NF	68 500	75 000
	110	22	1.5	1.5	72	—	NU 212ET	NJ	NUP	—	—	97 500	107 000
	110	28	1.5	1.5	73.5	—	NU2212	NJ	NUP	—	—	96 000	116 000
	110	28	1.5	1.5	72	—	NU2212ET	NJ	NUP	—	—	131 000	157 000
	130	31	2.1	2.1	77	113	NU 312	NJ	NUP	N	NF	124 000	126 000
60	130	31	2.1	2.1	77	—	NU 312ET	NJ	NUP	—	—	150 000	157 000
	130	46	2.1	2.1	77	—	NU2312	NJ	NUP	—	—	169 000	188 000
	130	46	2.1	2.1	77	—	NU2312EM	NJ	NUP	—	—	222 000	262 000
	150	35	2.1	2.1	83	127	NU 412	NJ	NUP	N	NF	167 000	168 000
	100	18	1.1	1	74.5	90.5	NU1013	—	—	N	—	41 000	51 000
	120	23	1.5	1.5	79.6	105.6	NU 213	NJ	NUP	N	NF	84 000	94 500
	120	23	1.5	1.5	78.5	—	NU 213ET	NJ	NUP	—	—	108 000	119 000
	120	31	1.5	1.5	79.6	—	NU2213	NJ	NUP	—	—	120 000	149 000
	120	31	1.5	1.5	78.5	—	NU2213ET	NJ	NUP	—	—	149 000	181 000
	140	33	2.1	2.1	83.5	121.5	NU 313	NJ	NUP	N	NF	135 000	139 000
	140	33	2.1	2.1	82.5	—	NU 313ET	NJ	NUP	—	—	181 000	191 000
	140	48	2.1	2.1	83.5	—	NU2313	NJ	NUP	—	—	188 000	212 000
	140	48	2.1	2.1	82.5	—	NU2313EM	NJ	NUP	—	—	233 000	265 000
	160	37	2.1	2.1	89.3	135.3	NU 413	NJ	NUP	N	NF	182 000	186 000
	160	37	2.1	2.1	89.3	135.3	NU 413	NJ	NUP	N	NF	182 000	186 000

주 1) 호칭번호 끝에 ET가 붙은 베어링은 Polyamide 리테이너를 사용한 것임. 통상 사용최고온도는 120℃임.

2) L형 축칼라를 끼우면 NH형으로 됨.

# 30 / 원통 로울러 베어링

내경 70~85mm



주요 치수 (mm)							호칭번호 <sup>(1)</sup>					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(2)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
70	110	20	1.1	1	80	100	NU1014	—	—	N	—	58 500	70 500
	125	24	1.5	1.5	84.5	110.5	NU 214	NJ	NUP	N	NF	83 500	95 000
	125	24	1.5	1.5	83.5	—	NU 214ET	NJ	NUP	—	—	119 000	137 000
	125	31	1.5	1.5	84.5	—	NU2214	NJ	NUP	—	—	119 000	151 000
	125	31	1.5	1.5	83.5	—	NU2214EM	NJ	NUP	—	—	156 000	194 000
	150	35	2.1	2.1	90	130	NU 314	NJ	NUP	N	NF	158 000	168 000
	150	35	2.1	2.1	89	—	NU 314ET	NJ	NUP	—	—	205 000	222 000
	150	51	2.1	2.1	90	—	NU2314	NJ	NUP	—	—	223 000	262 000
	150	51	2.1	2.1	89	—	NU2314ET	NJ	NUP	—	—	274 000	325 000
	180	42	3	3	100	152	NU 414	NJ	NUP	N	NF	228 000	236 000
	115	20	1.1	1	85	105	NU1015	—	—	N	—	60 000	74 500
	130	25	1.5	1.5	88.5	116.5	NU 215	NJ	NUP	N	NF	96 500	111 000
	130	25	1.5	1.5	88.5	—	NU 215EM	NJ	NUP	—	—	125 000	148 000
	130	31	1.5	1.5	88.5	—	NU2215	NJ	NUP	—	—	130 000	162 000
75	130	31	1.5	1.5	88.5	—	NU2215EM	NJ	NUP	—	—	162 000	207 000
	160	37	2.1	2.1	95.5	139.5	NU 315	NJ	NUP	N	NF	179 000	189 000
	160	37	2.1	2.1	95	—	NU 315ET	NJ	NUP	—	—	240 000	263 000
	160	55	2.1	2.1	95.5	—	NU2315	NJ	NUP	—	—	258 000	300 000
	160	55	2.1	2.1	95	—	NU2315EM	NJ	NUP	—	—	310 000	365 000
	190	45	3	3	104.5	160.5	NU 415	NJ	—	N	NF	262 000	274 000
	125	22	1.1	1	91.5	113.5	NU1016	—	—	N	—	72 500	90 500
	140	26	2	2	95.3	125.3	NU 216	NJ	NUP	N	NF	106 000	122 000
	140	26	2	2	95.3	—	NU 216EM	NJ	NUP	—	—	139 000	167 000
	140	33	2	2	95.3	—	NU2216	NJ	NUP	—	—	147 000	186 000
80	140	33	2	2	95.3	—	NU2216EM	NJ	NUP	—	—	186 000	243 000
	170	39	2.1	2.1	103	147	NU 316	NJ	NUP	N	NF	190 000	207 000
	170	39	2.1	2.1	101	—	NU 316ET	NJ	NUP	—	—	256 000	282 000
	170	58	2.1	2.1	103	—	NU2316	NJ	NUP	—	—	274 000	330 000
	170	58	2.1	2.1	101	—	NU2316EM	NJ	NUP	—	—	355 000	430 000
	200	48	3	3	110	170	NU 416	NJ	—	N	NF	299 000	315 000
	130	22	1.1	1	96.5	118.5	NU1017	—	—	N	—	74 000	95 500
	150	28	2	2	101.8	133.8	NU 217	NJ	NUP	N	NF	120 000	140 000
	150	28	2	2	100.5	—	NU 217ET	NJ	NUP	—	—	167 000	199 000
	150	36	2	2	101.8	—	NU2217	NJ	NUP	—	—	170 000	218 000
85	150	36	2	2	100.5	—	NU2217EM	NJ	NUP	—	—	217 000	279 000
	180	41	3	3	108	156	NU 317	NJ	NUP	N	NF	212 000	228 000

주 1) 호칭번호 끝에 ET가 붙은 베어링은 Polyamide 리테이너를 사용한 것임. 통상 사용최고온도는 120℃임.

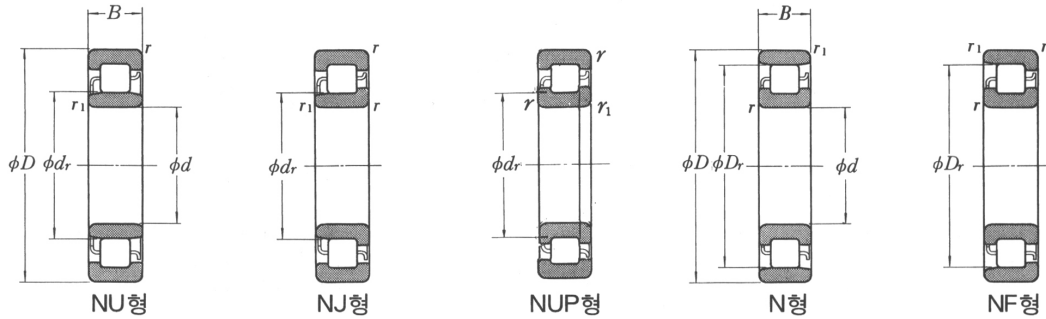
2) L형 축칼라를 끼우면 NH형으로 됨.

• 문의 사항 : (주)수덕베어링

T. 042) 625-6904

F. 042) 673-4807

내경 85~100mm

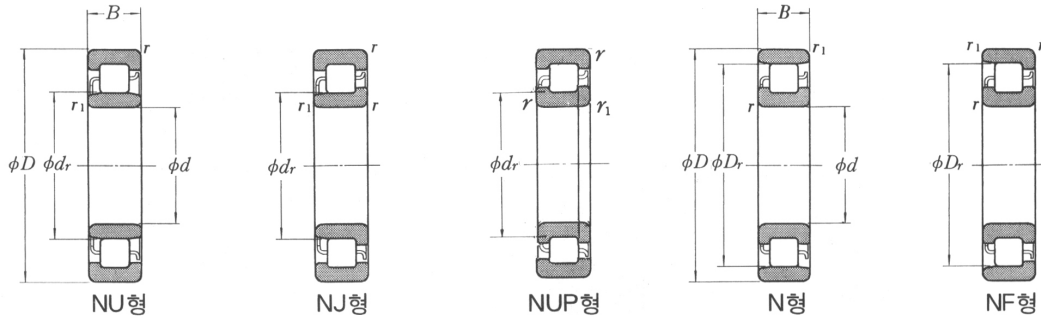


주요 치수 (mm)							호칭 번호					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(1)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
85	180	41	3	3	108	—	NU 317ET	NJ	NUP	—	—	291 000	330 000
	180	60	3	3	108	—	NU2317	NJ	NUP	—	—	315 000	380 000
	180	60	3	3	108	—	NU2317EM	NJ	NUP	—	—	350 000	415 000
	210	52	4	4	113	177	NU 417	NJ	—	N	NF	335 000	350 000
90	140	24	1.5	1.1	103	127	NU1018	—	—	N	—	88 000	114 000
	160	30	2	2	107	143	NU 218	NJ	NUP	N	NF	152 000	178 000
	160	30	2	2	107	—	NU 218EM	NJ	NUP	—	—	182 000	217 000
	160	40	2	2	107	—	NU2218	NJ	NUP	—	—	207 000	265 000
	160	40	2	2	107	—	NU2218EM	NJ	NUP	—	—	242 000	315 000
	190	43	3	3	115	165	NU 318	NJ	NUP	N	NF	240 000	265 000
	190	43	3	3	113.5	—	NU 318EM	NJ	NUP	—	—	335 000	380 000
	190	64	3	3	115	—	NU2318	NJ	NUP	—	—	325 000	395 000
	190	64	3	3	113.5	—	NU2318EM	NJ	NUP	—	—	435 000	535 000
	225	54	4	4	123.5	191.5	NU 418	NJ	—	N	—	375 000	400 000
	145	24	1.5	1.1	108	132	NU1019	—	—	N	—	90 500	120 000
	170	32	2.1	2.1	113.5	151.5	NU 219	NJ	NUP	N	NF	158 000	183 000
95	170	32	2.1	2.1	112.5	—	NU 219EM	NJ	NUP	—	—	211 000	249 000
	170	43	2.1	2.1	113.5	—	NU2219	NJ	NUP	—	—	230 000	298 000
	170	43	2.1	2.1	112.5	—	NU2219EM	NJ	NUP	—	—	273 000	350 000
	200	45	3	3	121.5	173.5	NU 319	NJ	NUP	N	NF	259 000	289 000
	200	45	3	3	121.5	—	NU 319EM	NJ	NUP	—	—	335 000	385 000
	200	67	3	3	121.5	—	NU2319	NJ	NUP	—	—	370 000	460 000
	200	67	3	3	121.5	—	NU2319EM	NJ	NUP	—	—	460 000	585 000
	240	55	4	4	133.5	—	NU 419	NJ	—	—	—	400 000	445 000
	150	24	1.5	1.1	113	137	NU1020	—	—	N	—	93 000	126 000
	180	34	2.1	2.1	120	160	NU 220	NJ	NUP	N	NF	183 000	217 000
	180	34	2.1	2.1	119	—	NU 220EM	NJ	NUP	—	—	249 000	305 000
	180	46	2.1	2.1	120	—	NU2220	NJ	NUP	—	—	246 000	315 000
100	180	46	2.1	2.1	119	—	NU2220EM	NJ	NUP	—	—	335 000	445 000
	215	47	3	3	129.5	185.5	NU 320	NJ	NUP	N	NF	299 000	335 000
	215	47	3	3	127.5	—	NU 320EM	NJ	NUP	—	—	380 000	425 000
	215	73	3	3	129.5	—	NU2320	NJ	NUP	—	—	410 000	505 000
	215	73	3	3	127.5	—	NU2320EM	NJ	NUP	—	—	570 000	715 000
	250	58	4	4	139	211	NU 420	NJ	—	N	NF	450 000	500 000
	150	24	1.5	1.1	113	137	NU1020	—	—	N	—	93 000	126 000
	180	34	2.1	2.1	120	160	NU 220	NJ	NUP	N	NF	183 000	217 000
	180	34	2.1	2.1	119	—	NU 220EM	NJ	NUP	—	—	249 000	305 000
	180	46	2.1	2.1	120	—	NU2220	NJ	NUP	—	—	246 000	315 000

주 1) L형 축칼라를 끼우면 NH형으로 됨.

## 32 / 원통 로울러 베어링

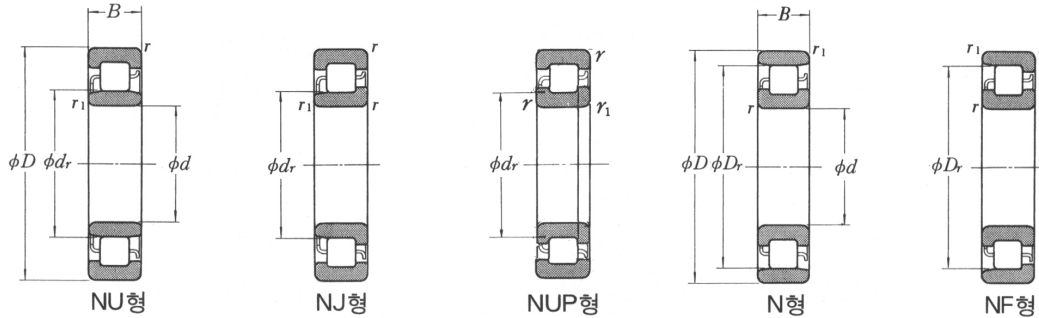
내경 105~130mm



주요 치수 (mm)							호칭 번호					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(1)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
105	160	26	2	1.1	119.5	145.5	NU1021	—	—	N	—	109 000	149 000
	190	36	2.1	2.1	126.8	168.8	NU 221	NJ	NUP	N	NF	201 000	241 000
	225	49	3	3	135	195	NU 321	NJ	NUP	N	NF	320 000	360 000
	260	60	4	4	144.5	—	NU 421	NJ	—	—	—	495 000	555 000
110	170	28	2	1.1	125	155	NU1022	—	—	N	—	131 000	174 000
	200	38	2.1	2.1	132.5	178.5	NU 222	NJ	NUP	N	NF	229 000	272 000
	200	38	2.1	2.1	132.5	—	NU 222EM	NJ	NUP	—	—	293 000	365 000
	200	53	2.1	2.1	132.5	—	NU2222	NJ	NUP	—	—	320 000	415 000
	200	53	2.1	2.1	132.5	—	NU2222EM	NJ	NUP	—	—	385 000	515 000
	240	50	3	3	143	207	NU 322	NJ	NUP	N	NF	360 000	400 000
	240	50	3	3	143	—	NU 322EM	NJ	NUP	—	—	450 000	525 000
	240	80	3	3	143	—	NU2322	NJ	NUP	—	—	570 000	735 000
	240	80	3	3	143	—	NU2322EM	NJ	NUP	—	—	640 000	815 000
	280	65	4	4	155	—	NU 422	NJ	—	—	—	550 000	620 000
120	180	28	2	1.1	135	165	NU1024	—	—	N	—	139 000	191 000
	215	40	2.1	2.1	143.5	191.5	NU 224	NJ	NUP	N	NF	248 000	299 000
	215	40	2.1	2.1	143.5	—	NU 224EM	NJ	NUP	—	—	335 000	420 000
	215	58	2.1	2.1	143.5	—	NU2224	NJ	NUP	—	—	350 000	460 000
	215	58	2.1	2.1	143.5	—	NU2224EM	NJ	NUP	—	—	450 000	620 000
	260	55	3	3	154	226	NU 324	NJ	NUP	N	NF	450 000	510 000
	260	55	3	3	154	—	NU 324EM	NJ	NUP	—	—	530 000	610 000
	260	86	3	3	154	—	NU2324	NJ	NUP	—	—	710 000	920 000
	260	86	3	3	154	—	NU2324EM	NJ	NUP	—	—	795 000	1 030 000
	310	72	5	5	170	260	NU 424	NJ	—	N	—	675 000	770 000
130	200	33	2	1.1	148	182	NU1026	—	—	N	—	172 000	238 000
	230	40	3	3	156	204	NU 226	NJ	NUP	N	NF	258 000	520 000
	230	40	3	3	153.5	—	NU 226EM	NJ	NUP	—	—	345 000	425 000
	230	64	3	3	156	—	NU2226	NJ	NUP	—	—	380 000	530 000
	230	64	3	3	153.5	—	NU2226EM	NJ	NUP	—	—	530 000	735 000
	280	58	4	4	167	243	NU 326	NJ	NUP	N	NF	500 000	570 000
	280	58	4	4	167	—	NU 326EM	NJ	NUP	—	—	615 000	735 000
	280	93	4	4	167	—	NU2326	NJ	NUP	—	—	840 000	1 130 000
	280	93	4	4	167	—	NU2326EM	NJ	NUP	—	—	920 000	1 230 000
	340	78	5	5	185	—	NU 426	NJ	—	—	—	825 000	955 000

주 1) L형 축칼라를 끼우면 NH형으로 됨.

내경 140~170mm



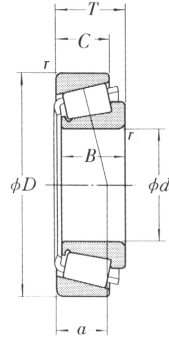
주요 치수 (mm)							호칭 번호					기본정격하중(N)	
d	D	B	r (최소)	r <sub>1</sub> (최소)	d <sub>r</sub>	D <sub>r</sub>	NU형	NJ형 <sup>(1)</sup>	NUP형	N형	NF형	C <sub>r</sub> (동)	C <sub>or</sub> (정)
140	210	33	2	1.1	158	192	NU1028	—	—	N	—	176 000	250 000
	250	42	3	3	169	221	NU 228	NJ	NUP	N	NF	297 000	375 000
	250	42	3	3	169	—	NU 228EM	NJ	NUP	—	—	395 000	515 000
	250	68	3	3	169	—	NU2228	NJ	NUP	—	—	445 000	635 000
	250	68	3	3	169	—	NU2228EM	NJ	NUP	—	—	550 000	790 000
	300	62	4	4	180	260	NU 328	NJ	NUP	N	NF	550 000	640 000
	300	62	4	4	180	—	NU 328EM	NJ	NUP	—	—	665 000	795 000
	300	102	4	4	180	—	NU2328	NJ	NUP	—	—	920 000	1 250 000
	300	102	4	4	180	—	NU2328EM	NJ	NUP	—	—	1 020 000	1 380 000
	360	82	5	5	198	302	NU 428	NJ	—	N	—	875 000	1 020 000
	225	35	2.1	1.5	169.5	205.5	NU1030	—	—	N	—	202 000	294 000
	270	45	3	3	182	238	NU 230	NJ	NUP	N	NF	345 000	435 000
	270	45	3	3	182	—	NU 230EM	NJ	NUP	—	—	450 000	595 000
	270	73	3	3	182	—	NU2230	NJ	NUP	—	—	500 000	710 000
150	270	73	3	3	182	—	NU2230EM	NJ	NUP	—	—	635 000	930 000
	320	65	4	4	193	277	NU 330	NJ	NUP	N	NF	590 000	690 000
	320	65	4	4	193	—	NU 330EM	NJ	NUP	—	—	715 000	855 000
	320	108	4	4	193	—	NU2330	NJ	NUP	—	—	1 020 000	1 400 000
	320	108	4	4	193	—	NU2330EM	NJ	NUP	—	—	1 160 000	1 600 000
	380	85	5	5	213	—	NU 430	NJ	—	—	—	930 000	1 120 000
	240	38	2.1	1.5	180	220	NU1032	—	—	N	—	238 000	340 000
	290	48	3	3	195	255	NU 232	NJ	NUP	N	NF	430 000	570 000
	290	48	3	3	195	—	NU 232EM	NJ	NUP	—	—	500 000	665 000
	290	80	3	3	195	—	NU2232	NJ	NUP	—	—	630 000	940 000
	290	80	3	3	193	—	NU2232EM	NJ	NUP	—	—	810 000	1 190 000
	340	68	4	4	208	292	NU 332	NJ	NUP	N	NF	700 000	875 000
	340	68	4	4	204	—	NU 332EM	NJ	NUP	—	—	860 000	1 050 000
	340	114	4	4	208	—	NU2332	NJ	NUP	—	—	1 070 000	1 520 000
160	340	114	4	4	204	—	NU2332EM	NJ	NUP	—	—	1 310 000	1 820 000
	260	42	2.1	2.1	193	237	NU1034	—	—	N	—	287 000	415 000
	310	52	4	4	208	272	NU 234	NJ	NUP	N	NF	475 000	635 000
	310	52	4	4	207	—	NU 234EM	NJ	NUP	—	—	605 000	800 000
	310	86	4	4	208	—	NU2234	NJ	NUP	—	—	715 000	1 080 000
	310	86	4	4	205	—	NU2234EM	NJ	NUP	—	—	925 000	1 330 000
	360	72	4	4	220	310	NU 334	NJ	NUP	N	NF	795 000	1 010 000
	360	120	4	4	220	—	NU2334	NJ	NUP	—	—	1 220 000	1 750 000

주 1) L형 축칼라를 끼우면 NH형으로 됨.



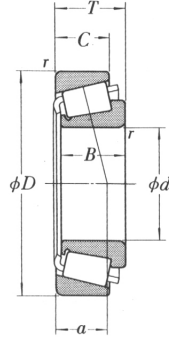
# 34 / 테이퍼 로울러 베어링

내경 17~25mm



주요 치 수 (mm)							호칭번호	ISO 355 치수계열 (참고)	기본정격하중(N)		허용회전수(rpm)	
d	D	T	B	C	r(최소)				C <sub>r</sub> (동정격)	C <sub>or</sub> (정정격)	그리스 윤활	오 윤활
					내륜	외륜						
17	40	13.25	12	11	1	1	30203 J	2DB	20 700	20 600	9 500	13 000
	40	17.25	16	14	1	1	32203	—	22 700	23 300	9 500	13 000
	47	15.25	14	12	1	1	30303 J	2FB	29 200	26 700	8 500	12 000
20	42	15	15	12	0.6	0.6	32004 XJ	3CC	25 200	28 300	9 000	12 000
	47	15.25	14	12	1	1	30204 C	—	23 900	24 000	8 000	11 000
	47	15.25	14	12	1	1	30204 J	2DB	29 000	29 800	8 000	11 000
	47	19.25	18	15	1	1	32204	—	37 000	40 000	8 500	11 000
	47	19.25	18	15	1	1	32204 J	2DD	37 000	40 000	8 500	11 000
	52	16.25	16	12	1.5	1.5	30304 C	—	33 500	32 000	7 500	10 000
	52	16.25	15	13	1.5	1.5	30304 J	2FB	36 000	34 500	7 500	10 000
	52	22.25	21	17	1.5	1.5	32304 C	—	42 000	44 500	7 500	10 000
	52	22.25	21	18	1.5	1.5	32304 J	2FD	46 000	48 000	8 000	11 000
	52	22.25	21	18	1.5	1.5	32304 J	2FD	46 000	48 000	8 000	11 000
22	44	15	15	11.5	0.6	0.6	320/22 XJ	3CC	25 600	29 400	8 500	11 000
	50	15.25	14	12	1	1	302/22	—	30 000	32 000	7 500	10 000
	50	19.25	18	15	1	1	322/22	—	36 500	40 500	7 500	11 000
	56	17.25	16	14	1.5	1.5	303/22	—	33 000	31 500	7 100	9 500
25	47	15	15	11.5	0.6	0.6	32005 XJ	4CC	28 100	34 200	8 000	11 000
	47	17	17	14	0.6	0.6	33005 J	2CE	32 500	40 500	8 000	11 000
	52	16.25	15	12	1	1	30205 C	—	28 100	31 500	6 700	9 500
	52	16.25	15	13	1	1	30205 J	3CC	32 000	35 000	7 100	10 000
	52	19.25	18	15	1	1	32205	—	38 500	44 000	7 500	10 000
	52	19.25	18	15	1	1	32205 C	—	35 000	42 000	7 100	9 500
	52	22	22	18	1	1	33205 J	2DE	48 000	57 000	7 500	10 000
	62	18.25	17	14	1.5	1.5	30305 C	—	42 500	45 000	6 000	8 500
	62	18.25	17	13	1.5	1.5	30305 D	—	39 500	41 500	6 000	8 000
	62	19.7	18.45	13	1.5	1.5	30305 DX	—	39 000	41 500	6 000	8 000
	62	18.25	17	15	1.5	1.5	30305 J	2FB	47 500	46 500	6 300	8 500
	62	25.25	24	20	1.5	1.5	32305 C	—	55 500	69 500	6 300	8 500
	62	25.25	24	20	1.5	1.5	32305 J	2FD	61 500	64 500	6 300	8 500

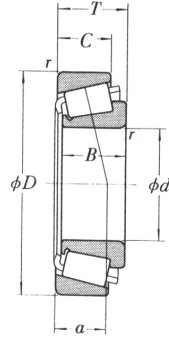
내경 28~35mm



주요 치 수 (mm)							호칭번호	ISO 355 치수계열 (참고)	기본정격하중(N)		허용회전수(rpm)		
d	D	T	B	C	r(최소)				C <sub>r</sub> (동정격)	C <sub>or</sub> (정정격)	그리스 윤활	오 윤	일 활
					내륜	외륜							
28	52	16	16	12	1	1	320/28 XJ	4CC	34 000	40 500	7 100	9 500	
	58	17.25	16	14	1	1	302/28	—	39 500	41 500	6 300	9 000	
	58	17.25	16	12	1	1	302/28 C	—	37 000	41 000	6 300	8 500	
	58	20.25	19	16	1	1	322/28	—	45 500	52 000	6 300	9 000	
	68	19.75	18	15	1.5	1.5	303/28	—	55 000	55 500	6 000	8 000	
	68	19.75	18	14	1.5	1.5	303/28 C	—	53 500	53 500	5 600	7 500	
	30	55	17	17	13	1	1	32006 XJ	4CC	36 000	44 500	6 700	9 000
62		17.25	16	12	1	1	30206 C	—	35 500	37 000	5 600	7 500	
62		17.25	16	14	1	1	30206 J	3DB	43 000	47 500	6 000	8 000	
62		21.25	20	16	1	1	32206 C	—	51 500	59 000	6 000	8 000	
62		21.25	20	17	1	1	32206 J	3DC	55 500	65 500	6 000	8 500	
72		20.75	19	14	1.5	1.5	30306 C	—	57 500	56 500	5 300	7 100	
72		20.75	19	14	1.5	1.5	30306 DJ	7FB	52 000	56 500	5 000	7 100	
72		20.75	19	16	1.5	1.5	30306 J	2FB	60 000	61 000	5 300	7 500	
72		28.75	27	23	1.5	1.5	32306 J	2FD	77 000	84 000	5 600	7 500	
32	58	17	17	13	1	1	320/32 XJ	4CC	37 500	47 000	6 300	8 500	
	65	18.25	17	15	1	1	302/32	—	48 500	54 000	5 600	8 000	
	65	22.25	21	18	1	1	322/32	—	56 500	65 500	6 000	8 000	
	75	21.75	20	17	1.5	1.5	303/32	—	65 000	69 500	5 300	7 100	
	35	62	18	18	14	1	1	32007 XA	—	39 500	52 500	5 600	8 000
62		21	21	14	1	1	33007 XJ	4CC	43 500	56 000	5 600	8 000	
72		18.25	17	13	1.5	1.5	30207 C	—	47 000	54 500	5 000	6 700	
72		18.25	17	15	1.5	1.5	30207 J	3DB	55 000	61 000	5 300	7 100	
72		24.25	23	18	1.5	1.5	32207 C	—	60 500	71 500	5 000	7 100	
72		24.25	23	19	1.5	1.5	32207 J	3DC	70 500	84 000	5 300	7 100	
80		22.75	21	16	2	1.5	30307 C	—	68 500	71 500	4 800	6 300	
80		22.75	21	15	2	1.5	30307 DJ	7FB	63 000	69 500	4 300	6 000	
80		22.75	21	18	2	1.5	30307 J	2FB	77 000	80 000	4 800	6 700	
80		32.75	31	24	2	1.5	32307 C	—	89 000	110 000	4 800	6 300	
80		32.75	31	25	2	1.5	32307 J	2FE	98 500	111 000	5 000	6 700	

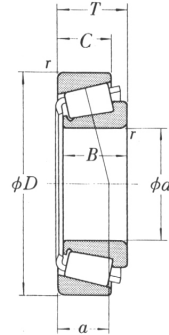
# 36 / 테이퍼 로울러 베어링

내경 40~55mm



주요 치수 (mm)							호칭번호	ISO 355 치수계열 (참고)	기본정격하중(N)		허용회전수(rpm)	
d	D	T	B	C	r(최소)				C <sub>r</sub> (동정격)	C <sub>or</sub> (정정격)	그리스 윤활	오일 윤활
					내륜	외륜						
40	68	19	19	14.5	1	1	32008 XJ	3CD	51 500	67 000	5 300	7 100
	80	19.75	18	14	1.5	1.5	30208 C	—	59 500	69 000	4 500	6 000
	80	19.75	18	16	1.5	1.5	30208 J	3DB	64 000	71 000	4 800	6 300
	80	24.75	23	19	1.5	1.5	32208 J	3DC	78 000	91 500	4 800	6 300
	90	25.25	23	18	2	1.5	30308 C	—	84 500	93 500	4 300	5 600
	90	25.25	23	17	2	1.5	30308 DJ	7FB	81 500	92 000	3 800	5 300
	90	25.25	23	20	2	1.5	30308 J	2FB	96 000	109 000	4 300	5 600
	90	35.25	33	25	2	1.5	32308 C	—	107 000	129 000	4 300	5 600
	90	35.25	33	27	2	1.5	32308 J	2FD	120 500	147 000	4 300	6 000
45	75	20	20	15.5	1	1	32009 XJ	3CC	58 500	78 000	4 500	6 300
	85	20.75	19	15	1.5	1.5	30209 C	—	63 000	78 500	4 300	5 600
	85	20.75	19	16	1.5	1.5	30209 J	3DB	70 500	82 500	4 300	6 000
	85	24.75	23	19	1.5	1.5	32209 J	3DC	79 000	95 500	4 300	6 000
	100	27.25	25	19	2	1.5	30309 C	—	103 000	117 000	3 600	5 000
	100	27.25	25	18	2	1.5	30309 D	—	83 500	90 000	3 400	4 800
	100	27.25	25	18	2	1.5	30309 DJ	7FB	93 500	106 000	3 400	4 800
	100	27.25	25	22	2	1.5	30309 J	2FB	114 000	129 000	3 800	5 300
	100	38.25	36	28	2	1.5	32309 C	—	133 000	168 000	3 800	5 000
100	38.25	36	30	2	1.5	32309 J	2FD	143 000	174 000	3 800	5 300	
50	80	20	20	15.5	1	1	32010 XJ	3CC	63 500	89 500	4 300	6 000
	90	21.75	20	16	1.5	1.5	30210 C	—	70 000	93 000	3 800	5 300
	90	21.75	20	17	1.5	1.5	30210 J	3DB	77 000	92 500	4 000	5 300
	90	24.75	23	19	1.5	1.5	32210 J	3DC	88 000	110 000	4 000	5 300
	110	29.25	27	20	2.5	2	30310 C	—	119 000	138 000	3 400	4 500
	110	29.25	27	19	2.5	2	30310 D	—	105 000	117 000	3 200	4 300
	110	29.25	27	19	2.5	2	30310 DJ	7FB	113 000	130 000	3 200	4 300
	110	29.25	27	23	2.5	2	30310 J	2FB	129 000	147 000	3 400	4 800
	110	42.25	40	33	2.5	2	32310 J	2FD	185 000	235 000	3 600	4 800
55	90	23	23	17.5	1.5	1.5	32011 XJ	3CC	81 500	119 000	3 800	5 300
	100	22.75	21	18	2	1.5	30211 J	3DB	96 000	115 000	3 600	5 000
	100	26.75	25	21	2	1.5	32211 J	3DC	111 000	138 000	3 600	5 000
	120	31.5	29	21	2.5	2	30311 DJ	7FB	131 000	153 000	2 800	4 000
	120	31.5	29	25	2.5	2	30311 J	2FB	149 000	170 000	3 200	4 300
	120	45.5	43	35	2.5	2	32311 J	2FD	204 000	257 000	3 200	4 300

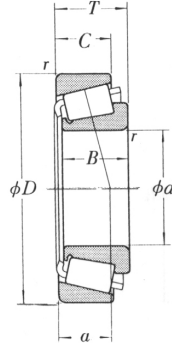
내경 60~75mm



주요 치 수 (mm)							호칭번호	ISO 355 치수계열 (참고)	기본정격하중(N)		허용회전수(rpm)	
d	D	T	B	C	r(최소)				C <sub>r</sub> (동정격)	C <sub>or</sub> (정정격)	그리스 윤활	오일 윤활
					내륜	외륜						
60	95	23	23	17.5	1.5	1.5	32012 XJ	4CC	86 000	128 000	3 600	5 000
	95	27	27	21	1.5	1.5	33012 J	2CE	101 000	159 000	3 600	5 000
	110	23.75	22	19	2	1.5	30212 J	3EB	105 000	125 000	3 400	4 500
	110	29.75	28	22	2	1.5	32212 C	—	105 000	130 000	3 200	4 500
	110	29.75	28	24	2	1.5	32212 J	3EC	131 000	167 000	3 400	4 500
	130	33.5	31	22	3	2.5	30312 DJ	7FB	150 000	175 000	2 600	3 800
	130	33.5	31	26	3	2.5	30312 J	2FB	176 000	204 000	3 000	4 000
	130	48.5	46	35	3	2.5	32312 C	—	196 000	249 000	2 800	3 800
	130	48.5	46	37	3	2.5	32312 J	2FD	235 000	299 000	3 000	4 000
65	100	23	23	17.5	1.5	1.5	32013 XJ	4CC	86 500	132 000	3 400	4 500
	100	27	26	21	1.5	1.5	33013	—	91 000	140 000	3 400	4 500
	120	24.75	23	20	2	1.5	30213 J	3EB	123 000	154 000	3 000	4 000
	120	32.75	31	27	2	1.5	32213	—	136 000	168 000	3 000	4 000
	120	32.75	31	27	2	1.5	32213 J	3EC	154 000	198 000	3 000	4 000
	140	36	33	23	3	2.5	30313 DJ	7GB	172 000	203 000	2 400	3 400
	140	36	33	28	3	2.5	30313 J	2GB	203 000	238 000	2 600	3 600
	140	51	48	39	3	2.5	32313 J	2GD	264 000	335 000	2 800	3 800
	70	110	25	25	19	1.5	1.5	32014 XJ	4CC	106 000	160 000	3 200
125		26.25	24	21	2	1.5	30214 J	3EB	130 000	160 000	2 800	4 000
125		33.25	31	27	2	1.5	32214 J	3EC	156 000	203 000	2 800	4 000
150		38	35	27	3	2.5	30314 C	—	201 000	236 000	2 400	3 400
150		38	35	25	3	2.5	30314 DJ	7GB	190 000	226 000	2 200	3 200
150		38	35	30	3	2.5	30314 J	2GB	229 000	272 000	2 400	3 400
150		54	51	39	3	2.5	32314 C	—	262 000	340 000	2 400	3 400
150		54	51	42	3	2.5	32314 J	2GD	299 000	385 000	2 600	3 400
75		115	25	25	19	1.5	1.5	32015 XJ	4CC	109 000	171 000	3 000
	130	27.25	25	22	2	1.5	30215 J	4DB	143 000	182 000	2 800	3 800
	130	33.25	31	27	2	1.5	32215 J	4DC	163 000	216 000	2 800	3 800
	160	40	37	26	3	2.5	30315 DJ	7GB	211 000	251 000	2 200	3 000
	160	40	37	31	3	2.5	30315 J	2GB	253 000	300 000	2 400	3 200
	160	58	55	45	3	2.5	32315 J	2GD	340 000	445 000	2 400	3 200

# 38 / 테이퍼 로울러 베어링

내경 80~100mm

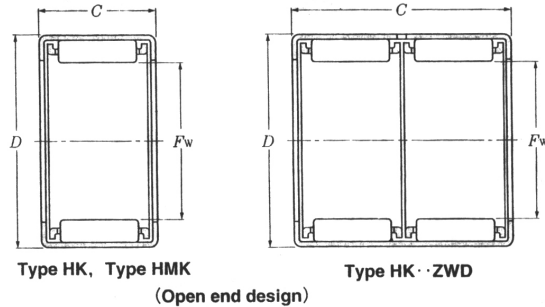


주요 치수 (mm)							호칭번호	ISO 355 치수계열 (참고)	기본정격하중(N)		허용회전수(rpm)		
d	D	T	B	C	r(최소)				C <sub>r</sub> (동정격)	C <sub>or</sub> (정정격)	그리스 윤활	오일 윤활	
					내륜	외륜							
80	125	29	29	22	1.5	1.5	32016 XJ	3CC	140 000	222 000	2 800	3 600	
	140	28.25	26	22	2.5	2	30216 J	3EB	157 000	195 000	2 600	3 400	
	140	35.25	33	28	2.5	2	32216 J	3EC	192 000	254 000	2 600	3 400	
	170	42.5	39	27	3	2.5	30316 DJ	7GB	235 000	283 000	2 000	2 800	
	170	42.5	39	33	3	2.5	30316 J	2GB	276 000	330 000	2 200	3 000	
	170	61.5	58	48	3	2.5	32316 J	2GD	385 000	505 000	2 200	3 000	
	85	130	29	29	22	1.5	1.5	32017 XJ	4CC	143 000	231 000	2 600	3 600
150		30.5	28	24	2.5	2	30217 J	3EB	184 000	233 000	2 400	3 200	
150		38.5	36	30	2.5	2	32217 J	3EC	227 000	305 000	2 400	3 200	
180		44.5	41	28	4	3	30317 DJ	7GB	261 000	315 000	1 900	2 600	
180		44.5	41	34	4	3	30317 J	2GB	310 000	375 000	2 000	2 800	
180		63.5	60	49	4	3	32317 J	2GD	410 000	535 000	2 000	2 800	
90		140	32	32	24	2	1.5	32018 XJ	3CC	170 000	273 000	2 400	3 200
	160	32.5	30	26	2.5	2	30218 J	3FB	201 000	256 000	2 200	3 000	
	160	42.5	40	34	2.5	2	32218 J	3FC	265 000	365 000	2 200	3 000	
	190	46.5	43	30	4	3	30318 DJ	7GB	264 000	315 000	1 800	2 400	
	190	67.5	64	53	4	3	32318 J	2GD	450 000	590 000	2 000	2 600	
95	145	32	32	24	2	1.5	32019 XJ	4CC	173 000	283 000	2 400	3 200	
	170	34.5	32	27	3	2.5	30219 J	3FB	223 000	286 000	2 200	2 800	
	170	45.5	43	37	3	2.5	32219 J	3FC	286 000	395 000	2 200	2 800	
	200	49.5	45	32	4	3	30319 DJ	7GB	310 000	375 000	1 700	2 400	
100	150	32	32	24	2	1.5	32020 XJ	4CC	176 000	294 000	2 200	3 000	
	180	37	34	29	3	2.5	30220 J	3FB	255 000	330 000	2 000	2 600	
	180	49	46	39	3	2.5	32220 J	3FC	325 000	450 000	2 000	2 600	
	215	77.5	73	60	4	3	32320 J	2GD	565 000	755 000	1 700	2 400	

Type HK, Type HK··ZWD

Type HMK

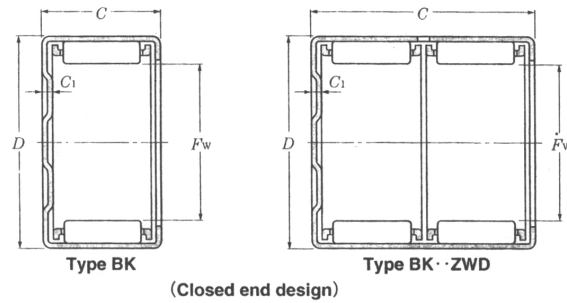
Type BK, Type BK··ZWD



$F_w$  3 ~ 10mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
$F_w$	mm			dynamic		static		rpm		open end design	closed end design	g (approx.)	(as a reference)
	$D$	$C$ 0 -0.2	$C_1$ max	N		kgf		grease	oil				
3	6.5	6	—	1 250	835	128	85	33 000	50 000	HK0306T2	—	0.6	—
	6.5	6	0.8	1 250	835	128	85	33 000	50 000	—	BK0306T2	0.7	—
4	8	8	—	1 770	1 270	180	129	30 000	45 000	HK00408T2	—	1.6	—
	8	8	1.6	1 770	1 270	180	129	30 000	45 000	—	BK0408T2	1.8	—
5	9	9	—	2 640	2 190	269	224	27 000	40 000	HK0509T2	—	1.9	—
	9	9	1.6	2 640	2 190	269	224	27 000	40 000	—	BK0509T2	2.1	—
6	10	9	—	2 660	2 280	272	233	25 000	37 000	HK0609T2	—	2.2	—
	10	9	1.6	2 660	2 280	272	233	25 000	37 000	—	BK0609T2	2.4	—
7	11	9	—	3 400	3 250	345	330	23 000	34 000	HK0709	—	2.5	—
	11	9	1.6	3 400	3 250	345	330	23 000	34 000	—	BK0709	2.7	—
8	12	10	—	3 850	3 950	395	400	20 000	30 000	HK0810C	—	3.2	IR 5× 8×12
	12	10	1.6	3 850	3 950	395	400	20 000	30 000	—	BK0810C	3.4	IR 5× 8×12
	15	10	—	3 800	2 870	390	293	20 000	30 000	HMK0810	—	6.7	IR 5× 8×12
	15	15	—	6 600	5 800	675	590	20 000	30 000	HMK0815	—	10	IR 5× 8×16
	15	20	—	9 050	8 750	925	890	20 000	30 000	HMK0820T2	—	13	—
9	13	10	—	4 600	5 050	465	515	18 000	27 000	HK0910	—	3.5	IR 6× 9×12
	13	10	1.6	4 600	5 050	465	515	18 000	27 000	—	BK0910	3.9	IR 6× 9×12
	13	12	—	5 650	6 650	575	680	18 000	27 000	HK0912	—	4.2	IR 6× 9×12
	13	12	1.6	5 650	6 650	575	680	18 000	27 000	—	BK0912	4.5	IR 6× 9×12
	16	12	—	5 300	4 450	540	455	18 000	27 000	HMK0912	—	8.7	IR 6× 9×16
	16	16	—	7 400	6 850	755	700	18 000	27 000	HMK0916	—	12	—
10	14	10	—	4 500	5 100	460	520	16 000	24 000	HK1010	—	3.8	IR 7×10×10.5
	14	10	1.6	4 500	5 100	460	520	16 000	24 000	—	BK1010	4.2	IR 7×10×10.5
	14	12	—	5 900	7 250	605	735	16 000	24 000	HK1012	—	4.5	IR 7×10×16
	14	12	1.6	5 900	7 250	605	735	16 000	24 000	—	BK1012	5.0	IR 7×10×16
	14	15	—	7 100	9 150	725	935	16 000	24 000	HK1015	—	5.6	IR 7×10×16
	14	15	1.6	7 100	9 150	725	935	16 000	24 000	—	BK1015	6.2	IR 7×10×16
	17	10	—	4 250	3 450	435	350	16 000	24 000	HMK1010	—	7.9	IR 7×10×10.5
	17	12	—	5 600	4 850	570	495	16 000	24 000	HMK1012	—	9.4	IR 7×10×16

NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.Example : **HK1012+IR7×10×16.5**



$F_w$  10 ~ 16mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
				dynamic	static	dynamic	static						
mm				N		kgf		rpm				g	
$F_W$	$D$	$C$ 0 -0.2	$C_1$ max	$C_r$	$C_{or}$	$C_r$	$C_{or}$	grease	oil	open end design	closed end design		
10	17	15	—	7 400	6 950	755	710	16 000	24 000	HMK1015	—	12	IR 7×10×16
	17	20	—	10 200	10 500	1 040	1 070	16 000	24 000	HMK1020	—	16	—
12	16	10	—	5 050	6 250	515	635	13 000	20 000	HK1210	—	4.6	IR 8×12×10.5
	16	10	1.6	5 050	6 250	515	635	13 000	20 000	—	BK1210	5.2	IR 8×12×10.5
	18	12	—	6 600	7 300	675	745	13 000	20 000	HK1212	—	9.1	IR 8×12×12.5
	18	12	2.7	6 600	7 300	675	745	13 000	20 000	—	BK1212	10	IR 8×12×12.5
	19	12	—	7 100	6 900	725	705	13 000	20 000	HMK1212	—	11	IR 8×12×12.5
	19	15	—	9 400	9 900	955	1 010	13 000	20 000	HMK1215	—	14	IR 9×12×16
	19	20	—	12 300	14 000	1 260	1 430	13 000	20 000	HMK1220	—	18	—
	19	25	—	15 300	18 600	1 560	1 890	13 000	20 000	HMK1225	—	23	—
13	19	12	—	7 300	8 450	745	865	12 000	18 000	HK1312	—	10	IR10×13×12.5
	19	12	2.7	7 300	8 450	745	865	12 000	18 000	—	BK1312	11	IR10×13×12.5
14	20	12	—	7 200	8 500	735	865	11 000	17 000	HK1412	—	11	IR10×14×13
	20	12	2.7	7 200	8 500	735	865	11 000	17 000	—	BK1412	12	IR10×14×13
	20	16	—	10 700	14 000	1 090	1 430	11 000	17 000	HK1416	—	15	—
	20	16	2.7	10 700	14 000	1 090	1 430	11 000	17 000	—	BK1416	16	—
	22	16	—	11 500	12 000	1 180	1 220	11 000	17 000	HMK1416	—	19	IR10×14×20
	22	20	—	14 600	16 200	1 490	1 650	11 000	17 000	HMK1420	—	24	—
15	21	12	—	7 500	9 100	765	930	11 000	16 000	HK1512	—	11	IR12×15×12.5
	21	12	2.7	7 500	9 100	765	930	11 000	16 000	—	BK1512	13	IR12×15×12.5
	21	16	—	10 700	14 400	1 090	1 470	11 000	16 000	HK1516	—	15	IR12×15×16.5
	21	16	2.7	10 700	14 400	1 090	1 470	11 000	16 000	—	BK1516	17	IR12×15×16.5
	21	22	—	12 900	18 200	1 310	1 860	11 000	16 000	HK1522ZWD	—	20	IR12×15×22.5
	21	22	2.7	12 900	18 200	1 310	1 860	11 000	16 000	—	BK1522ZWD	22	IR12×15×22.5
	22	10	—	6 100	6 000	620	610	11 000	16 000	HMK1510	—	11	IR10×15×12.5
	22	12	—	8 400	9 050	855	925	11 000	16 000	HMK1512	—	13	IR12×15×12.5
	22	15	—	10 900	12 700	1 120	1 300	11 000	16 000	HMK1515	—	16	IR12×15×16
	22	20	—	14 900	18 900	1 510	1 920	11 000	16 000	HMK1520	—	22	IR12×15×22.5
	22	25	—	18 500	25 000	1 880	2 550	11 000	16 000	HMK1525	—	27	—
16	22	12	—	7 750	9 700	795	990	10 000	15 000	HK1612	—	12	IR12×16×13

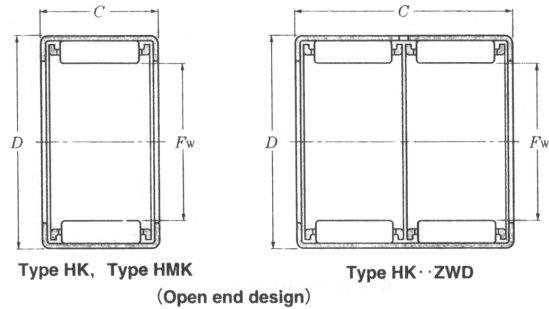
NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.

Example : **HK1312+IR10×13×12.5**

Type HK, Type HK··ZWD

Type HMK

Type BK, Type BK··ZWD

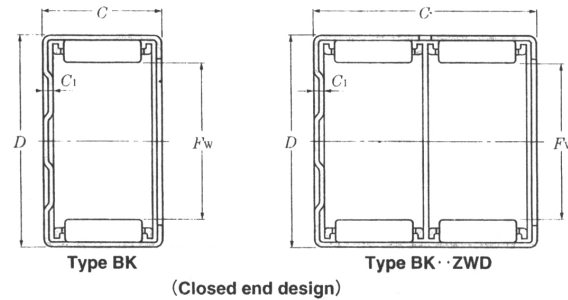


$F_w$  16 ~ 20mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
				dynamic	static	dynamic	static						
$F_W$	mm			N		kgf		rpm		open end design	closed end design	g (approx.)	(as a reference)
	$D$	$C$ 0 -0.2	$C_1$ max	$C_r$	$C_{or}$	$C_r$	$C_{or}$	grease	oil				
16	22	12	2.7	7 750	9 700	795	990	10 000	15 000	—	BK1612	14	IR12×16×13
	22	16	—	11 100	15 300	1 130	1 570	10 000	15 000	HK1616	—	16	IR12×16×20
	22	16	2.7	11 100	15 300	1 130	1 570	10 000	15 000	—	BK1616	18	IR12×16×20
	22	22	—	13 300	19 400	1 360	1 980	10 000	15 000	HK1622ZWD	—	22	—
	22	22	2.7	13 300	19 400	1 360	1 980	10 000	15 000	—	BK1622ZWD	23	—
	24	16	—	12 400	13 500	1 260	1 370	10 000	15 000	HMK1616	—	21	IR12×16×20
	24	20	—	15 600	18 200	1 590	1 860	10 000	15 000	HMK1620	—	27	IR12×16×22
17	23	12	—	8 500	11 100	865	1 130	9 500	14 000	HK1712	—	12	—
	23	12	2.7	8 500	11 100	865	1 130	9 500	14 000	—	BK1712	15	—
	24	15	—	12 100	15 000	1 230	1 530	9 500	14 000	HMK1715	—	18	IR14×17×17
	24	20	—	15 200	20 000	1 540	2 040	9 500	14 000	HMK1720C	—	24	IR12×17×20.5
	24	25	—	19 300	27 400	1 970	2 790	9 500	14 000	HMK1725	—	30	IR12×17×25.5
18	24	12	—	8 300	10 900	845	1 110	8 500	13 000	HK1812	—	13	IR15×18×12.5
	24	12	2.7	8 300	10 900	845	1 110	8 500	13 000	—	BK1812	15	IR15×18×12.5
	24	16	—	11 800	17 300	1 210	1 760	8 500	13 000	HK1816	—	18	IR15×18×16.5
	24	16	2.7	11 800	17 300	1 210	1 760	8 500	13 000	—	BK1816	20	IR15×18×16.5
	25	13	—	10 200	12 200	1 040	1 240	8 500	13 000	HMK1813	—	16	IR15×18×16
	25	15	—	12 000	15 100	1 220	1 540	8 500	13 000	HMK1815	—	19	IR15×18×16
	25	17	—	13 800	18 000	1 400	1 830	8 500	13 000	HMK1817	—	21	IR15×18×17.5
	25	19	—	15 500	20 900	1 580	2 130	8 500	13 000	HMK1819	—	24	IR15×18×20.5
	25	20	—	16 300	22 300	1 660	2 280	8 500	13 000	HMK1820	—	25	IR15×18×20.5
	25	25	—	20 300	29 600	2 070	3 000	8 500	13 000	HMK1825	—	31	IR15×18×25.5
19	27	16	—	13 900	16 300	1 410	1 660	8 500	13 000	HMK1916	—	25	IR15×19×20
	27	20	—	17 500	22 100	1 790	2 250	8 500	13 000	HMK1920	—	31	—
20	26	12	—	9 250	13 000	945	1 330	8 000	12 000	HK2012C	—	14	IR15×20×13
	26	12	2.7	9 250	13 000	945	1 330	8 000	12 000	—	BK2012	17	IR15×20×13
	26	16	—	13 000	20 100	1 320	2 050	8 000	12 000	HK2016	—	19	IR17×20×16.5
	26	16	2.7	13 000	20 100	1 320	2 050	8 000	12 000	—	BK2016	22	IR17×20×16.5
	26	20	—	16 400	27 100	1 670	2 760	8 000	12 000	HK2020C	—	24	IR17×20×20.5
	26	20	2.7	16 400	27 100	1 670	2 760	8 000	12 000	—	BK2020C	27	IR17×20×20.5

NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.Example : **HK1812+IR15×18×12.5**





$F_w$  20 ~ 25mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
$F_w$	mm			dynamic		static		rpm		open end design	closed end design	g (approx.)	(as a reference)
	$D$	$C$ 0 -0.2	$C_1$ max	N		kgf		grease	oil				
20	26	30	—	22 200	40 000	2 270	4 100	8 000	12 000	HK2030ZWD	—	35	IR17×20×30.5
	26	30	2.7	22 200	40 000	2 270	4 100	8 000	12 000	—	BK2030ZWD	37	IR17×20×30.5
	27	15	—	13 000	17 300	1 330	1 760	8 000	12 000	HMK2015	—	21	IR17×20×16.5
	27	20	—	17 700	25 600	1 800	2 610	8 000	12 000	HMK2020	—	27	IR17×20×20.5
	27	25	—	22 000	34 000	2 240	3 450	8 000	12 000	HMK2025	—	34	IR15×20×26
	27	30	—	26 100	42 000	2 660	4 300	8 000	12 000	HMK2030	—	41	IR17×20×30.5
21	29	16	—	15 300	19 100	1 560	1 940	7 500	11 000	HMK2116	—	27	IR17×21×20
	29	20	—	19 400	25 800	1 970	2 630	7 500	11 000	HMK2120	—	33	—
22	28	12	—	9 750	14 300	995	1 460	7 500	11 000	HK2212	—	13	IR17×22×13
	28	12	2.7	9 750	14 300	995	1 460	7 500	11 000	—	BK2212	15	IR17×22×13
	28	16	—	13 600	22 100	1 390	2 250	7 500	11 000	HK2216C	—	21	IR17×22×18
	28	16	2.7	13 600	22 100	1 390	2 250	7 500	11 000	—	BK2216	24	IR17×22×18
	28	20	—	17 200	29 800	1 760	3 050	7 500	11 000	HK2220C	—	26	IR17×22×20.5
	28	20	2.7	17 200	29 800	1 760	3 050	7 500	11 000	—	BK2220	30	IR17×22×20.5
	29	10	—	8 400	10 100	855	1 030	7 500	11 000	HMK2210	—	15	IR17×22×13
	29	15	—	13 400	18 500	1 370	1 890	7 500	11 000	HMK2215	—	22	IR17×22×16D
	29	20	—	18 200	27 400	1 860	2 790	7 500	11 000	HMK2220	—	30	IR17×22×20.5
	29	25	—	23 600	38 500	2 410	3 900	7 500	11 000	HMK2225	—	37	IR17×22×26
24	31	20	—	18 800	29 200	1 910	2 970	6 500	10 000	HMK2420	—	32	—
	31	28	—	26 000	44 500	2 650	4 500	6 500	10 000	HMK2428	—	45	IR20×24×28.5
25	32	12	—	11 800	16 300	1 200	1 660	6 500	9 500	HK2512C	—	21	IR20×25×12.5
	32	12	2.7	11 800	16 300	1 200	1 660	6 500	9 500	—	BK2512	23	IR20×25×12.5
	32	16	—	15 900	24 000	1 620	2 450	6 500	9 500	HK2516	—	27	IR20×25×17
	32	16	2.7	15 900	24 000	1 620	2 450	6 500	9 500	—	BK2516	31	IR20×25×17
	32	20	—	20 300	33 000	2 070	3 350	6 500	9 500	HK2520	—	34	IR20×25×20.5
	32	20	2.7	20 00	33 000	2 070	3 350	6 500	9 500	—	BK2520	39	IR20×25×20.5
	32	26	—	26 400	46 000	2 690	4 700	6 500	9 500	HK2526	—	45	IR20×25×26.5
	32	26	2.7	26 400	46 000	2 690	4 700	6 500	9 500	—	BK2526	49	IR20×25×26.5
	32	38	—	35 000	65 500	3 550	6 700	6 500	9 500	HK2538ZWD	—	65	IR20×25×38.5

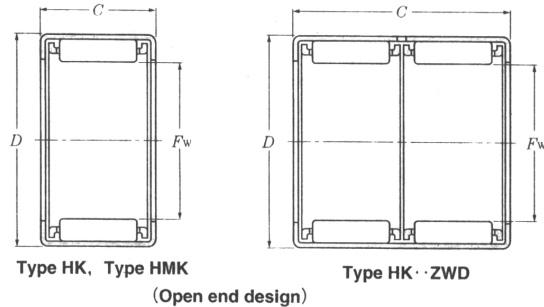
NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.

Example : **HK1812+IR15×18×12.5**

Type HK, Type HK··ZWD

Type HMK

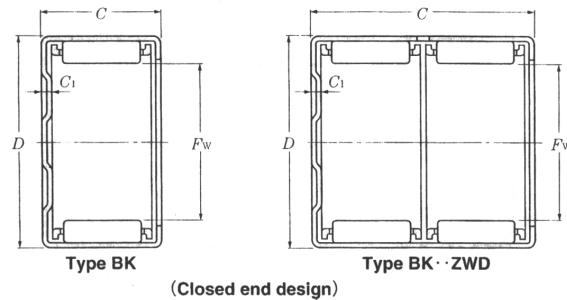
Type BK, Type BK··ZWD



$F_w$  25 ~ 30mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
$F_w$	mm			dynamic		static		rpm		open end design	closed end design	g (approx.)	(as a reference)
	$D$	$C$ 0 -0.2	$C_1$ max	N		kgf		grease	oil				
25	32	38	2.7	35 000	65 500	3 550	6 700	6 500	9 500	—	<b>BK2538ZWD</b>	69	IR20×25×38.5
	33	10	—	9 150	10 400	935	1 060	6 500	9 500	<b>HMK2510</b>	—	19	IR20×25×12.5
	33	15	—	15 200	19 900	1 550	2 030	6 500	9 500	<b>HMK2515C</b>	—	29	IR20×25×16
	33	20	—	21 800	31 500	2 220	3 200	6 500	9 500	<b>HMK2520</b>	—	39	IR20×25×20.5
	33	25	—	26 700	41 000	2 720	4 200	6 500	9 500	<b>HMK2525</b>	—	48	IR20×25×26.5
	33	30	—	32 500	53 000	3 300	5 400	6 500	9 500	<b>HMK2530</b>	—	58	IR20×25×32
26	34	16	—	17 100	23 400	1 740	2 390	6 000	9 000	<b>HMK2616</b>	—	32	IR22×26×20
	34	20	—	21 600	31 500	2 210	3 250	6 000	9 000	<b>HMK2620</b>	—	40	—
28	35	16	—	17 300	27 600	1 760	2 820	5 500	8 500	<b>HK2816</b>	—	30	IR22×28×17
	35	16	2.7	17 300	27 600	1 760	2 820	5 500	8 500	—	<b>BK2816</b>	34	IR22×28×17
	35	20	—	21 300	36 000	2 170	3 700	5 500	8 500	<b>HK2820</b>	—	38	IR22×28×20.5
	35	20	2.7	21 300	36 000	2 170	3 700	5 500	8 500	—	<b>BK2820</b>	43	IR22×28×20.5
	37	20	—	23 600	32 500	2 410	3 350	5 500	8 500	<b>HMK2820</b>	—	49	IR22×28×20.5
	37	30	—	35 000	54 500	3 600	5 550	5 500	8 500	<b>HMK2830</b>	—	73	—
29	38	20	—	24 600	35 000	2 510	3 550	5 500	8 500	<b>HMK2920</b>	—	50	—
	38	30	—	34 500	54 000	3 550	5 550	5 500	8 500	<b>HMK2930</b>	—	75	—
30	37	12	—	13 000	19 500	1 320	1 990	5 500	8 000	<b>HK3012</b>	—	24	IR25×30×12.5
	37	12	2.7	13 000	19 500	1 320	1 990	5 500	8 000	—	<b>BK3012</b>	28	IR25×30×12.5
	37	16	—	18 100	30 000	1 850	3 050	5 500	8 000	<b>HK3016C</b>	—	32	IR25×30×17
	37	16	2.7	18 100	30 000	1 850	3 050	5 500	8 000	—	<b>BK3016C</b>	37	IR25×30×17
	37	20	—	22 300	39 500	2 280	4 000	5 500	8 000	<b>HK3020</b>	—	40	IR25×30×20.5
	37	20	2.7	22 300	39 500	2 280	4 000	5 500	8 000	—	<b>BK3020</b>	47	IR25×30×20.5
	37	26	—	29 100	55 000	2 960	5 650	5 500	8 000	<b>HK3026</b>	—	53	IR25×30×26.5
	37	26	2.7	29 100	55 000	2 960	5 650	5 500	8 000	—	<b>BK3026</b>	59	IR25×30×26.5
	37	38	—	38 500	78 500	3 900	8 000	5 500	8 000	<b>HK3038ZWD</b>	—	76	IR25×30×38.5
	37	38	2.7	38 500	78 500	3 900	8 000	5 500	8 000	—	<b>BK3038ZWD</b>	83	IR25×30×38.5
	40	13	—	14 100	17 100	1 430	1 750	5 500	8 000	<b>HMK3013</b>	—	40	IR25×30×16
	40	15	—	17 100	22 100	1 750	2 250	5 500	8 000	<b>HMK3015</b>	—	44	IR25×30×16
	40	20	—	24 200	34 500	2 470	3 000	5 500	8 000	<b>HMK3020</b>	—	58	IR25×30×20.5
	40	25	—	31 000	47 000	3 150	4 800	5 500	8 000	<b>HMK3025</b>	—	73	IR25×30×26.5

NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.Example : **HK2820+IR22×28×20.5**



$F_w$  30 ~ 40mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
				dynamic	static	dynamic	static						
$F_W$	$D$	$C$ 0 -0.2	$C_1$ max	$C_r$	$C_{or}$	$C_r$	$C_{or}$	grease	oil	open end design	closed end design	g (approx.)	(as a reference)
30	40	30	—	36 000	57 500	3 700	5 850	5 500	8 000	HMK3030	—	87	IR25×30×32
32	42	20	—	27 500	64 500	2 800	3 850	5 000	7 500	HMK3220	—	62	—
	42	30	—	41 500	22 800	4 250	6 550	5 000	7 500	HMK3230	—	92	—
35	42	12	—	14 000	22 800	1 430	2 320	4 700	7 000	HK3512	—	28	—
	42	12	2.7	14 000	35 000	1 430	2 320	4 700	7 000	—	BK3512	33	—
	42	16	—	19 700	35 000	2 000	3 600	4 700	7 000	HK3516	—	37	—
	42	16	2.7	19 700	57 500	2 000	3 600	4 700	7 000	—	BK3516	44	—
	42	20	—	24 800	47 500	2 530	4 850	4 700	7 000	HK3520	—	46	—
	42	20	2.7	24 800	47 500	2 530	4 850	4 700	7 000	—	BK3520	55	—
	45	12	—	14 900	17 600	1 520	1 800	4 700	7 000	HMK3512	—	40	—
	45	15	—	20 200	26 200	2 060	2 670	4 700	7 000	HMK3515	—	50	—
	45	20	—	28 400	40 500	2 890	4 100	4 700	7 000	HMK3520	—	67	—
	45	25	—	36 000	54 500	3 650	5 550	4 700	7 000	HMK3525	—	83	—
	45	30	—	43 000	69 000	4 400	7 000	4 700	7 000	HMK3530	—	100	—
37	47	20	—	29 300	43 000	2 990	4 350	4 300	6 500	HMK3720	—	70	—
	47	30	—	44 500	73 000	4 550	7 450	4 300	6 500	HMK3730	—	105	—
38	48	15	—	21 700	29 300	2 210	2 990	4 300	6 500	HMK3815	—	54	—
	48	20	—	30 500	45 000	3 100	4 600	4 300	6 500	HMK3820	—	72	—
	48	25	—	38 500	61 000	3 900	6 250	4 300	6 500	HMK3825	—	90	—
	48	30	—	46 000	77 000	4 700	7 850	4 300	6 500	HMK3830	—	107	IR32×38×32
	48	45	—	62 000	113 000	6 300	11 500	4 300	6 500	HMK3845ZWD	—	161	—
40	47	12	—	15 100	26 000	1 540	2 660	4 000	6 000	HK4012	—	31	IR35×40×12.5
	47	12	2.7	15 100	26 000	1 540	2 660	4 000	6 000	—	BK4012	38	IR35×40×12.5
	47	16	—	21 100	40 000	2 150	4 100	4 000	6 000	HK4016	—	41	IR35×40×17
	47	16	2.7	21 100	40 000	2 150	4 100	4 000	6 000	—	BK4016	51	IR35×40×17
	47	20	—	25 900	52 500	2 650	5 350	4 000	6 000	HK4020	—	52	IR35×40×20.5
	47	20	2.7	25 900	52 500	2 650	5 350	4 000	6 000	—	BK4020	64	IR35×40×20.5
	50	15	—	23 100	32 500	2 350	3 300	4 000	6 000	HMK4015	—	56	IR35×40×17
	50	20	—	32 500	50 000	3 300	5 100	4 000	6 000	HMK4020	—	75	IR35×40×20.5
	50	25	—	41 000	67 500	4 150	6 900	4 000	6 000	HMK4025	—	94	IR35×40×27

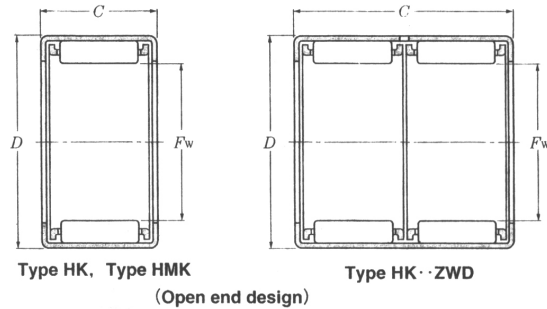
NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.

Example : **HK4012+IR35×40×12.5**

Type HK, Type HK··ZWD

Type HMK

Type BK, Type BK··ZWD

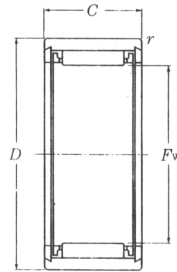
 $F_w$  40 ~ 50mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers		Mass	Appropriate <sup>1)</sup> inner ring
				dynamic	static	dynamic	static						
mm				N		kgf		rpm				g	
$F_W$	$D$	$C_0$ 0 -0.2	$C_1$ max	$C_r$	$C_{or}$	$C_r$	$C_{or}$	grease	oil	open end design	closed end design	(approx.)	(as a reference)
40	50	30	—	49 000	85 000	5 000	8 700	4 000	6 000	HMK4030	—	112	IR35×40×34
	50	40	—	58 500	107 000	5 950	10 900	4 000	6 000	HMK4040ZWD	—	150	—
45	52	16	—	21 600	43 000	2 210	4 400	3 700	5 500	HK4516	—	46	IR40×45×17
	52	16	2.7	21 600	43 000	2 210	4 400	3 700	5 500	—	BK4516	58	IR40×45×17
	52	20	—	27 600	59 000	2 810	6 000	3 700	5 500	HK4520	—	58	IR40×45×20.5
	52	20	2.7	27 600	59 000	2 810	6 000	3 700	5 500	—	BK4520	72	IR40×45×20.5
	55	20	—	33 000	53 000	3 350	5 400	3 700	5 500	HMK4520	—	83	IR40×45×20.5
	55	25	—	41 500	71 500	4 250	7 300	3 700	5 500	HMK4525	—	104	IR40×45×26.5
	55	30	—	49 500	90 000	5 050	9 150	3 700	5 500	HMK4530	—	125	IR40×45×34
	55	40	—	59 500	113 000	6 050	11 500	3 700	5 500	HMK4540ZWD	—	167	—
50	58	20	—	31 500	63 000	3 200	6 450	3 200	4 800	HK5020	—	72	IR40×50×22
	58	20	2.7	31 500	63 000	3 200	6 450	3 200	4 800	—	BK5020	87	IR40×50×22
	58	25	—	38 500	82 000	3 900	8 400	3 200	4 800	HK5025	—	90	IR45×50×25.5
	58	25	2.7	38 500	82 000	3 900	8 400	3 200	4 800	—	BK5025	109	IR45×50×25.5
	62	12	—	18 200	23 600	1 860	2 410	3 200	4 800	HMK5012	—	67	—
	62	15	—	25 900	37 000	2 650	3 800	3 200	4 800	HMK5015	—	84	—
	62	20	—	37 500	60 000	3 850	6 100	3 200	4 800	HMK5020	—	112	IR40×50×22
	62	25	—	48 000	82 500	4 900	8 450	3 200	4 800	HMK5025	—	140	IR45×50×25.5
	62	30	—	58 500	105 000	5 950	10 700	3 200	4 800	HMK5030C	—	168	IR45×50×32
	62	40	—	70 000	134 000	7 150	13 000	3 200	4 800	HMK5040ZWD	—	224	—
62	45	—	79 000	156 000	8 050	15 900	3 200	4 800	HMK5045ZWCD	—	252	—	

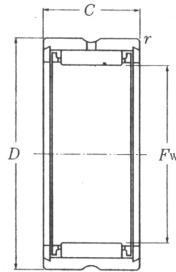
NOTE : 1) For bearing with inner ring, part number is clarified as **HK+IR**.Example : **HK4516+IR40×45×17**

## Without inner ring

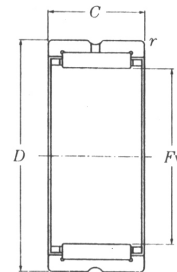
Type RNA49  
Type RNA59  
Type RNA69  
Type NK



Type NK  
( $F_w \leq 12\text{mm}$ )



Type RNA49 ( $F_w \leq 12\text{mm}$ )

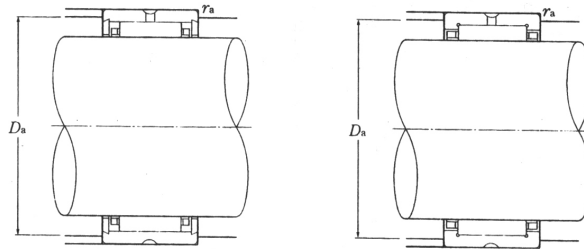


Type RNA49·R ( $F_w \geq 14\text{mm}$ )  
Type RNA59  
Type RNA69·R  
Type NK·R ( $F_w \geq 14\text{mm}$ )

$F_w$  5 ~ 16mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
				dynamic	static	dynamic	static						
mm				N		kgf		rpm		mm		g	
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	(approx.)
5 <sup>+0.018 +0.010</sup>	10	10	0.15	2 640	2 190	269	224	27 000	40 000	NK5/10T2	6.5	0.15	3.1
	10	12	0.15	2 720	2 250	277	230	27 000	40 000	NK5/12T2	6.5	0.15	3.7
6 <sup>+0.018 +0.010</sup>	12	10	0.15	2 660	2 280	272	233	25 000	37 000	NK6/10T2	7.5	0.15	4.7
	12	12	0.15	3 400	3 150	345	320	25 000	37 000	NK6/12T2	7.5	0.15	5.7
7 <sup>+0.022 +0.013</sup>	13	10	0.15	2 670	2 350	272	239	23 000	34 000	RNA495T2	8.5	0.15	5.5
	14	10	0.3	2 670	2 350	272	239	23 000	34 000	NK7/10T2	8.5	0.3	6.9
	14	12	0.3	3 400	3 200	345	330	23 000	34 000	NK7/12T2	8.5	0.3	8.2
8 <sup>+0.022 +0.013</sup>	15	10	0.15	3 150	3 000	320	305	21 000	32 000	RNA496	9.5	0.15	7.3
	15	12	0.3	4 000	4 100	410	420	21 000	32 000	NK8/12T2	9.5	0.3	8.7
	15	16	0.3	4 850	5 200	495	535	21 000	32 000	NK8/16T2	9.5	0.3	12
9 <sup>+0.022 +0.013</sup>	16	12	0.3	4 550	5 000	465	510	20 000	30 000	NK9/12T2	10.5	0.3	10
	16	16	0.3	5 500	6 400	560	650	20 000	30 000	NK9/16T2	10.5	0.3	13
	17	10	0.15	3 600	3 650	365	375	20 000	30 000	RNA497	10.5	0.15	9.5
10 <sup>+0.022 +0.013</sup>	17	12	0.3	4 550	5 100	460	520	19 000	28 000	NK10/12T2	11.5	0.3	10
	17	16	0.3	5 450	6 450	555	660	19 000	28 000	NK10/16	11.5	0.3	13
	19	11	0.3	4 300	3 950	435	405	19 000	28 000	RNA498	12	0.15	13
12 <sup>+0.027 +0.016</sup>	19	12	0.3	5 000	6 100	510	620	17 000	26 000	NK12/12	13.5	0.3	13
	19	16	0.3	6 000	7 700	615	785	17 000	26 000	NK12/16	13.5	0.3	16
	20	11	0.3	4 850	4 900	495	500	17 000	26 000	RNA499	14	0.3	13
14 <sup>+0.027 +0.016</sup>	22	13	0.3	8 600	9 200	875	935	16 000	24 000	RNA4900R	20	0.3	17
	22	16	0.3	10 300	11 500	1 050	1 170	16 000	24 000	NK14/16R	20	0.3	21
	22	20	0.3	13 000	15 600	1 330	1 590	16 000	24 000	NK14/20R	20	0.3	26
15 <sup>+0.027 +0.016</sup>	23	16	0.3	10 900	12 700	1 110	1 290	15 000	23 000	NK15/16R	21	0.3	22
	23	20	0.3	13 800	17 200	1 410	1 750	15 000	23 000	NK15/20R	21	0.3	27
16 <sup>+0.027 +0.016</sup>	24	13	0.3	9 550	10 900	975	1 110	15 000	23 000	RNA4901R	22	0.3	17
	24	16	0.3	12 200	14 900	1 240	1 520	15 000	23 000	NK16/16R	22	0.3	22
	24	20	0.3	14 600	18 800	1 490	1 920	15 000	23 000	NK16/20R	22	0.3	28
	24	22	0.3	15 400	20 000	1 570	2 040	15 000	23 000	RNA6901R	22	0.3	31

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .



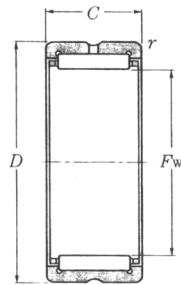
$F_W$  17 ~ 28mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
mm				dynamic	static	dynamic	static	rpm			mm		g
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	(approx.)
17 <sup>+0.027 +0.016</sup>	25	16	0.3	12 100	15 000	1 240	1 530	15 000	22 000	NK17/16R	23	0.3	24
	25	20	0.3	15 400	20 400	1 570	2 080	15 000	22 000	NK17/20R	23	0.3	30
18 <sup>+0.027 +0.016</sup>	26	16	0.3	12 700	16 200	1 300	1 650	14 000	21 000	NK18/16R	24	0.3	25
	26	20	0.3	16 100	22 000	1 640	2 250	14 000	21 000	NK18/20R	24	0.3	31
19 <sup>+0.033 +0.020</sup>	27	16	0.3	13 300	17 400	1 350	1 780	14 000	21 000	NK19/16R	25	0.3	26
	27	20	0.3	16 000	22 200	1 630	2 260	14 000	21 000	NK19/20R	25	0.3	32
20 <sup>+0.033 +0.020</sup>	28	13	0.3	10 300	12 800	1 050	1 310	13 000	20 000	RNA4902R	26	0.3	22
	28	16	0.3	13 200	17 500	1 340	1 790	13 000	20 000	NK20/16R	26	0.3	27
	28	18	0.3	14 100	19 100	1 440	1 950	13 000	20 000	RNA5902	26	0.3	33
	28	20	0.3	16 700	23 800	1 700	2 420	13 000	20 000	NK20/20R	26	0.3	34
	28	23	0.3	17 600	25 300	1 790	2 580	13 000	20 000	RNA6902R	26	0.3	40
21 <sup>+0.033 +0.020</sup>	29	16	0.3	13 700	18 700	1 400	1 910	13 000	19 000	NK21/16R	27	0.3	28
	29	20	0.3	18 300	27 100	1 860	2 760	13 000	19 000	NK21/20R	27	0.3	35
22 <sup>+0.033 +0.020</sup>	30	16	0.3	14 200	19 900	1 450	2 030	12 000	18 000	NK22/16R	28	0.3	34
	30	20	0.3	18 000	27 000	1 840	2 760	12 000	18 000	NK22/20R	28	0.3	37
	30	13	0.3	11 200	14 600	1 140	1 490	12 000	18 000	RNA4903R	28	0.3	22
	30	18	0.3	15 200	21 700	1 550	2 210	12 000	18 000	RNA5903	28	0.3	35
	30	23	0.3	18 200	27 200	1 850	2 770	12 000	18 000	RNA6903R	28	0.3	42
24 <sup>+0.033 +0.020</sup>	32	16	0.3	15 200	22 300	1 550	2 280	11 000	17 000	NK24/16R	30	0.3	32
	32	20	0.3	18 600	28 800	1 890	2 930	11 000	17 000	NK24/20R	30	0.3	40
25 <sup>+0.033 +0.020</sup>	33	16	0.3	15 100	22 400	1 540	2 280	11 000	16 000	NK25/16R	31	0.3	33
	33	20	0.3	19 200	30 500	1 960	3 100	11 000	16 000	NK25/20R	31	0.3	42
	37	17	0.3	21 300	25 500	2 170	2 600	11 000	16 000	RNA4904R	35	0.3	52
	37	23	0.3	28 400	37 000	2 900	3 750	11 000	16 000	RNA5904	35	0.3	84
	37	30	0.3	36 500	50 500	3 700	5 150	11 000	16 000	RNA6904R	35	0.3	100
26 <sup>+0.033 +0.020</sup>	34	16	0.3	15 600	23 600	1 590	2 410	10 000	15 000	NK26/16R	32	0.3	34
	34	20	0.3	19 100	30 500	1 940	3 100	10 000	15 000	NK26/20R	32	0.3	42
28 <sup>+0.033 +0.020</sup>	37	20	0.3	22 300	34 000	2 280	3 450	9 500	14 000	NK28/20R	35	0.3	52
	37	30	0.3	26 700	48 000	2 720	4 900	9 500	14 000	NK28/30R	35	0.3	82

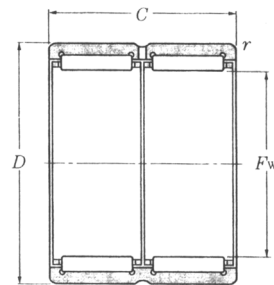
NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

## Without inner ring

Type RNA49  
Type RNA59  
Type RNA69  
Type NK



Type RNA49 · R  
Type RNA59  
Type RNA69 · R ( $F_w \leq 35\text{mm}$ )  
Type NK · R

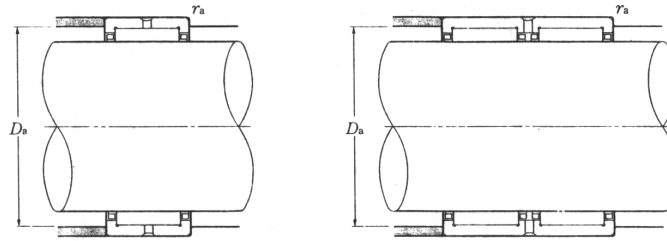


Type RNA69 · Type R ( $F_w \geq 40\text{mm}$ )

$F_w$  28 ~ 40mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
				dynamic	static	dynamic	static				mm		
mm				N		kgf		rpm					
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	
28 <sup>+0.033 +0.020</sup>	39	17	0.3	23 200	29 300	2 360	2 990	9 500	14 000	RNA4922R	37	0.3	50
	39	23	0.3	26 400	37 500	2 690	3 850	9 500	14 000	RNA59/22	37	0.3	92
	39	30	0.3	40 000	58 500	4 050	6 000	9 500	14 000	RNA69/22R	37	0.3	100
29 <sup>+0.033 +0.020</sup>	38	20	0.3	22 200	34 000	2 270	3 450	9 500	14 000	NK29/20R	36	0.3	54
	38	30	0.3	27 500	50 500	2 810	5 150	9 500	14 000	NK29/30R	36	0.3	84
30 <sup>+0.033 +0.020</sup>	40	20	0.3	22 100	34 000	2 260	3 500	8 500	13 000	NK30/20R	38	0.3	65
	40	30	0.3	33 000	57 000	3 350	5 800	8 500	13 000	NK30/30R	38	0.3	98
	42	17	0.3	24 000	31 500	2 450	3 200	8 500	13 000	RNA4905R	40	0.3	61
	42	23	0.3	30 500	43 000	3 150	4 350	8 500	13 000	RNA5905	40	0.3	101
	42	30	0.3	41 500	63 000	4 200	6 400	8 500	13 000	RNA6905R	40	0.3	112
32 <sup>+0.041 +0.025</sup>	42	20	0.3	23 500	37 500	2 400	3 850	8 500	13 000	NK32/20R	40	0.3	68
	42	30	0.3	34 000	60 500	3 450	6 150	8 500	13 000	NK32/30R	40	0.3	102
	45	17	0.3	24 800	33 500	2 530	3 400	8 500	13 000	RNA49/28R	43	0.3	73
	45	23	0.3	32 000	45 500	3 250	4 650	8 500	13 000	RNA59/28	43	0.3	108
	45	30	0.3	43 000	67 000	4 350	6 850	8 500	13 000	RNA69/28R	43	0.3	135
35 <sup>+0.041 +0.025</sup>	45	20	0.3	24 800	41 500	2 520	4 250	7 500	11 000	NK35/20R	43	0.3	74
	45	30	0.3	36 000	66 500	3 650	6 800	7 500	11 000	NK35/30R	43	0.3	112
	47	17	0.3	25 500	35 500	2 600	3 600	7 500	11 000	RNA4906R	45	0.3	69
	47	23	0.3	32 500	48 500	3 350	4 950	7 500	11 000	RNA5906	45	0.3	108
	47	30	0.3	42 500	67 500	4 300	6 900	7 500	11 000	RNA6906R	45	0.3	126
37 <sup>+0.041 +0.025</sup>	47	20	0.3	25 300	43 500	2 580	4 400	7 500	11 000	NK37/20R	45	0.3	77
	47	30	0.3	36 500	69 500	3 750	7 100	7 500	11 000	NK37/30R	45	0.3	107
38 <sup>+0.041 +0.025</sup>	48	20	0.3	25 900	45 000	2 640	4 600	7 500	11 000	NK38/20R	46	0.3	79
	48	30	0.3	37 500	73 000	3 850	7 400	7 500	11 000	NK38/30R	46	0.3	107
40 <sup>+0.041 +0.025</sup>	50	20	0.3	26 400	47 000	2 700	4 800	6 500	10 000	NK40/20R	48	0.3	83
	50	30	0.3	38 500	76 000	3 900	7 750	6 500	10 000	NK40/30R	48	0.3	125
	52	20	0.6	31 500	47 500	3 200	4 850	6 500	10 000	RNA49/32R	48	0.6	89
	52	27	0.6	38 000	61 000	3 850	6 250	6 500	10 000	RNA59/32	48	0.6	149
	52	36	0.6	47 500	82 000	4 850	8 350	6 500	10 000	RNA69/32R	48	0.6	162

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .



$F_W$  42 ~ 63mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
				dynamic	static	dynamic	static				mm		
mm				N		kgf		rpm					
$F_W$	$D$	$C$	$r_s$ mm <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	
42 +0.041 +0.025	52	20	0.3	26 900	49 000	2 750	5 000	6 500	9 500	NK42/20R	50	0.3	86
	52	30	0.3	39 000	79 000	4 000	8 050	6 500	9 500	NK42/30R	50	0.3	130
	55	20	0.6	32 000	50 000	3 300	5 100	6 500	9 500	RNA4907R	51	0.6	107
	55	27	0.6	39 000	64 500	3 950	6 550	6 500	9 500	RNA5907	51	0.6	176
	55	36	0.6	49 000	86 500	5 000	8 800	6 500	9 500	RNA6907R	51	0.6	193
43 +0.041 +0.025	53	20	0.3	27 500	51 000	2 810	5 200	6 500	9 500	NK43/20R	51	0.3	86
	53	30	0.3	40 000	82 000	4 100	8 400	6 500	9 500	NK43/30R	51	0.3	133
45 +0.041 +0.025	55	20	0.3	28 000	52 500	2 860	5 400	6 000	9 000	NK45/20R	53	0.3	92
	55	30	0.3	41 000	85 500	4 150	8 700	6 000	9 000	NK45/30R	53	0.3	139
47 +0.041 +0.025	57	20	0.3	28 800	55 500	2 940	5 650	5 500	8 500	NK47/20R	55	0.3	95
	57	30	0.3	42 500	91 500	4 350	9 350	5 500	8 500	NK47/30R	55	0.3	142
48 +0.041 +0.025	62	22	0.6	43 500	66 500	4 450	6 800	5 500	8 500	RNA4908R	58	0.6	140
	62	30	0.6	53 000	92 500	5 450	9 450	5 500	8 500	RNA5908	58	0.6	225
	62	40	0.6	67 000	116 000	6 850	11 800	5 500	8 500	RNA6908R	58	0.6	256
50 +0.041 +0.025	62	25	0.6	38 500	74 500	3 950	7 550	5 500	8 000	NK50/25R	58	0.6	158
	62	35	0.6	51 000	106 000	5 200	10 800	5 500	8 000	NK50/35R	58	0.6	221
52 +0.049 +0.030	68	22	0.6	46 000	73 000	4 700	7 450	5 000	7 500	RNA4909R	64	0.6	182
	68	30	0.6	56 000	101 000	5 700	10 300	5 000	7 500	RNA5909	64	0.6	232
	68	40	0.6	70 500	127 000	7 200	13 000	5 000	7 500	RNA6909R	64	0.6	273
55 +0.049 +0.030	68	25	0.6	41 000	82 000	4 150	8 400	5 000	7 500	NK55/25R	64	0.6	193
	68	35	0.6	54 000	118 000	5 500	12 000	5 000	7 500	NK55/35R	64	0.6	267
58 +0.049 +0.030	72	22	0.6	48 000	80 000	4 900	8 150	4 700	7 000	RNA4910R	68	0.6	163
	72	30	0.6	58 000	110 000	5 950	11 200	4 700	7 000	RNA5910	68	0.6	289
	72	40	0.6	74 000	139 000	7 500	14 200	4 700	7 000	RNA6910R	68	0.6	320
60 +0.049 +0.030	72	25	0.6	41 000	85 000	4 200	8 700	4 300	6 500	NK60/25R	68	0.6	185
	72	35	0.6	57 000	130 000	5 800	13 200	4 300	6 500	NK60/35R	68	0.6	258
63 +0.049 +0.030	80	25	1	58 500	99 500	6 000	10 100	4 300	6 500	RNA4911R	75	1	255
	80	34	1	76 500	140 000	7 800	14 300	4 300	6 500	RNA5911	75	1	367

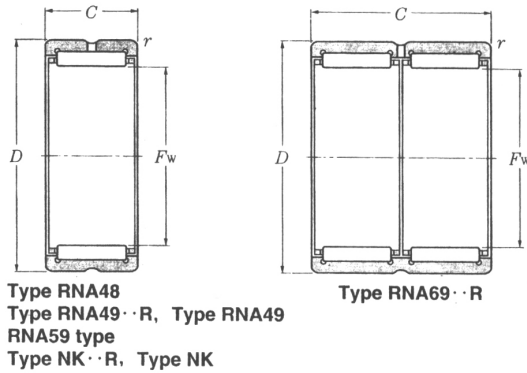
NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .



## 50 / Needle roller bearings

### Without inner ring

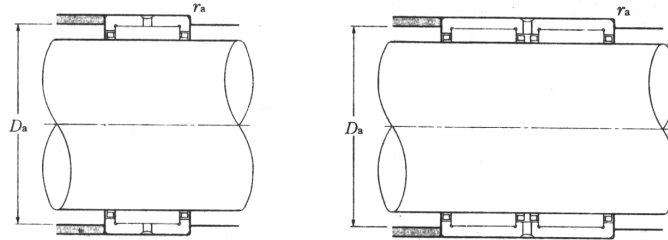
Type RNA48  
Type RNA59  
Type RNA69  
Type NK



$F_w$  63 ~ 85mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
				dynamic	static	dynamic	static				mm		
mm				N		kgf		rpm		D <sub>a</sub> max	r <sub>as</sub> max		
F <sub>W</sub>	D	C	r <sub>s</sub> min <sup>1)</sup>	C <sub>r</sub>	C <sub>or</sub>	C <sub>r</sub>	C <sub>or</sub>	grease	oil				
63 <sup>+ 0.049 + 0.030</sup>	80	45	1	94 000	183 000	9 600	18 600	4 300	6 500	RNA6911R	75	1	470
65 <sup>+ 0.049 + 0.030</sup>	78	25	0.6	45 000	98 000	4 550	10 000	4 000	6 000	NK65/25R	74	0.6	221
	78	35	0.6	60 000	142 000	6 100	14 400	4 000	6 000	NK65/35R	74	0.6	310
68 <sup>+ 0.049 + 0.030</sup>	82	25	1	44 500	89 000	4 500	9 050	4 000	6 000	NK68/25R	77	0.6	241
	82	35	0.6	63 000	139 000	6 400	14 200	4 000	6 000	NK68/35R	78	0.6	338
	85	25	1	61 500	108 000	6 250	11 000	4 000	6 000	RNA4912R	80	1	275
	85	34	1	80 500	153 000	8 200	15 600	4 000	6 000	RNA5912	80	1	408
	85	45	1	95 500	191 000	9 750	19 400	4 000	6 000	RNA6912R	80	1	488
70 <sup>+ 0.049 + 0.030</sup>	85	25	0.6	45 000	91 500	4 600	9 350	3 700	5 500	NK70/25R	81	0.6	275
	85	35	0.6	64 000	144 000	6 550	14 700	3 700	5 500	NK70/35R	81	0.6	386
72 <sup>+ 0.049 + 0.030</sup>	90	25	1	62 500	122 000	6 350	11 400	3 700	5 500	RNA4913R	85	1	312
	90	34	1	84 000	165 000	8 600	16 800	3 700	5 500	RNA5913	85	1	462
	90	45	1	97 000	198 000	9 900	20 200	3 700	5 500	RNA6913R	85	1	520
73 <sup>+ 0.049 + 0.030</sup>	90	25	0.6	54 000	100 000	5 500	10 200	3 700	5 500	NK73/25R	86	0.6	302
	90	35	0.6	76 500	156 000	7 800	16 000	3 700	5 500	NK73/35R	86	0.6	428
75 <sup>+ 0.049 + 0.030</sup>	92	25	0.6	55 000	104 000	5 600	10 600	3 700	5 500	NK75/25R	88	0.6	315
	92	35	0.6	78 000	162 000	7 950	16 500	3 700	5 500	NK75/35R	88	0.6	492
80 <sup>+ 0.049 + 0.030</sup>	95	25	1	57 000	119 000	5 800	12 200	3 300	5 000	NK80/25R	90	1	301
	95	35	1	79 500	184 000	8 150	18 700	3 300	5 000	NK80/35R	90	1	425
	100	30	1	85 500	156 000	8 750	15 900	3 300	5 000	RNA4914R	95	1	460
	100	40	1	103 000	187 000	10 500	19 100	3 300	5 000	RNA5914	95	1	706
	100	54	1	130 000	267 000	13 300	27 200	3 300	5 000	RNA6914R	95	1	857
85 <sup>+ 0.058 + 0.036</sup>	105	25	1	70 500	123 000	7 200	12 600	3 100	4 700	NK85/25R	100	1	404
	105	30	1	87 000	162 000	8 900	16 500	3 100	4 700	RNA4915R	100	1	489
	105	35	1	100 000	193 000	10 200	19 700	3 100	4 700	NK85/35R	100	1	517
	105	40	1	109 000	205 000	11 100	20 900	3 100	4 700	RNA5915	100	1	745
	105	54	1	132 000	277 000	13 500	28 300	3 100	4 700	RNA6915R	100	1	935

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .



$F_W$  90 ~ 130mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
mm				dynamic	static	dynamic	static						
				N		kgf		rpm			mm		g
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Gr}$	$C_r$	$C_{Gr}$	grease	oil		$D_a$ max	$r_{as}$ max	(approx.)
90 <sup>+0.058 +0.036</sup>	110	25	1	71 500	128 000	7 300	13 100	2 900	4 400	NK90/25R	105	1	0.426
	110	30	1	90 500	174 000	9 250	17 700	2 900	4 400	RNA4916R	105	1	0.516
	110	35	1	104 000	208 000	10 600	21 200	2 900	4 400	NK90/35R	105	1	0.604
	110	40	1	115 000	223 000	11 700	22 700	2 900	4 400	RNA5916	105	1	0.787
	110	54	1	137 000	298 000	14 000	30 500	2 900	4 400	RNA6916R	105	1	0.987
95 <sup>+0.058 +0.036</sup>	115	26	1	74 500	137 000	7 600	14 000	2 800	4 200	NK95/26R	110	1	0.364
	115	36	1	108 000	223 000	11 100	22 700	2 800	4 200	NK95/36R	110	1	0.652
100 <sup>+0.058 +0.036</sup>	120	26	1	73 500	137 000	7 500	14 000	2 700	4 000	NK100/26R	115	1	0.487
	120	35	1.1	112 000	237 000	11 500	24 200	2 700	4 000	RNA4917R	113.5	1	0.657
	120	36	1	107 000	223 000	11 000	22 800	2 700	4 000	NK100/36R	115	1	0.679
	120	46	1.1	137 000	290 000	14 000	29 600	2 700	4 000	RNA5917	113.5	1	1.00
	120	63	1.1	169 000	400 000	17 300	41 000	2 700	4 000	RNA6917R	113.5	1	1.20
105 <sup>+0.058 +0.036</sup>	125	26	1	76 500	147 000	7 800	14 900	2 500	3 800	NK105/26R	120	1	0.506
	125	35	1.1	116 000	252 000	11 900	25 700	2 500	3 800	RNA4918R	118.5	1	0.697
	125	36	1	111 000	238 000	11 400	24 300	2 500	3 800	NK105/36R	120	1	0.713
	125	46	1.1	143 000	310 000	14 600	32 000	2 500	3 800	RNA5918	118.5	1	1.04
	125	63	1.1	175 000	425 000	17 900	43 500	2 500	3 800	RNA6918R	118.5	1	1.33
110 <sup>+0.058 +0.036</sup>	130	30	1.1	97 500	204 000	9 950	20 800	2 400	3 600	NK110/30R	123.5	1	0.612
	130	35	1.1	118 000	260 000	12 000	26 500	2 400	3 600	RNA4919R	123.5	1	0.719
	130	40	1.1	129 000	292 000	13 100	29 700	2 400	3 600	NK110/40R	123.5	1	0.830
	130	46	1.1	149 000	335 000	15 200	34 000	2 400	3 600	RNA5919	123.5	1	1.13
	130	63	1.1	177 000	440 000	18 100	45 000	2 400	3 600	RNA6919R	123.5	1	1.46
115 <sup>+0.058 +0.036</sup>	140	40	1.1	127 000	260 000	12 900	26 500	2 300	3 500	RNA4920	133.5	1	1.15
	140	54	1.1	182 000	395 000	18 600	40 500	2 300	3 500	RNA5920	133.5	1	1.76
120 <sup>+0.058 +0.036</sup>	140	30	1	93 500	210 000	9 550	21 400	2 200	3 300	RNA4822	135	1	0.670
	140	40	1.1	113 000	268 000	11 500	27 300	2 200	3 300	NK120/40	133.5	1	0.910
125 <sup>+0.068 +0.043</sup>	150	40	1.1	131 000	279 000	13 300	28 400	2 100	3 200	RNA4922	143.5	1	1.24
	150	54	1.1	193 000	440 000	19 700	45 000	2 100	3 200	RNA5922	143.5	1	1.89
130 <sup>+0.068 +0.043</sup>	150	30	1	99 500	233 000	10 100	23 800	2 100	3 100	RNA4824	145	1	0.730

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

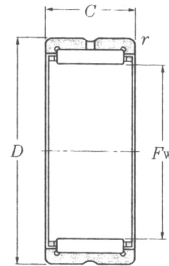
## Without inner ring

Type RNA49

Type RNA59

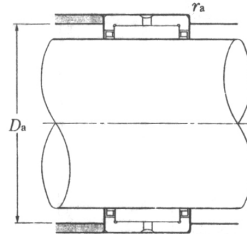
Type RNA69

Type NK


 $F_w$  130 ~ 220mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
				dynamic	static	dynamic	static						
mm				N		kgf		rpm		mm		g	
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	(approx.)
<b>130</b> <sup>+0.068</sup> <sub>+0.043</sub>	150	40	1.1	116 000	283 000	11 800	28 800	2 100	3 100	<b>NK130/40</b>	143.5	1	0.980
<b>135</b> <sup>+0.068</sup> <sub>+0.043</sub>	165	45	1.1	180 000	380 000	18 300	38 500	2 000	3 000	<b>RNA4924</b>	158.5	1	1.86
	165	60	1.1	245 000	525 000	25 000	53 500	2 000	3 000	<b>RNA5924</b>	158.5	1	2.67
<b>145</b> <sup>+0.068</sup> <sub>+0.043</sub>	165	35	1.1	118 000	305 000	12 100	31 000	1 900	2 800	<b>RNA4826</b>	158.5	1	0.950
	170	32	1.5	111 000	238 000	11 300	24 300	1 900	2 800	<b>NK145/32</b>	162.5	1.5	1.12
	170	42	1.5	153 000	360 000	15 600	36 500	1 900	2 800	<b>NK145/42</b>	162.5	1.5	1.49
<b>150</b> <sup>+0.068</sup> <sub>+0.043</sub>	180	50	1.5	202 000	455 000	20 600	46 500	1 800	2 700	<b>RNA4926</b>	172	1.5	2.21
	180	67	1.5	294 000	685 000	30 000	70 000	1 800	2 700	<b>RNA5926</b>	172	1.5	3.21
<b>155</b> <sup>+0.068</sup> <sub>+0.043</sub>	175	35	1.1	121 000	315 000	12 300	32 500	1 700	2 600	<b>RNA4828</b>	168.5	1	1.02
	180	32	1.5	114 000	252 000	11 600	25 700	1 700	2 600	<b>NK155/32</b>	172	1.5	1.20
	180	42	1.5	156 000	380 000	16 000	38 500	1 700	2 600	<b>NK155/42</b>	172	1.5	1.59
<b>160</b> <sup>+0.068</sup> <sub>+0.043</sub>	190	50	1.5	209 000	485 000	21 300	49 500	1 700	2 500	<b>RNA4928</b>	182	1.5	2.35
	190	67	1.5	310 000	755 000	31 500	77 000	1 700	2 500	<b>RNA5928</b>	182	1.5	3.48
<b>165</b> <sup>+0.068</sup> <sub>+0.043</sub>	190	32	1.5	117 000	265 000	11 900	27 000	1 600	2 400	<b>NK165/32</b>	182	1.5	1.42
	190	40	1.1	152 000	390 000	15 500	40 000	1 600	2 400	<b>RNA4830</b>	183.5	1	1.60
	190	42	1.5	160 000	400 000	16 300	40 500	1 600	2 400	<b>NK165/42</b>	182	1.5	1.66
<b>170</b> <sup>+0.068</sup> <sub>+0.043</sub>	210	60	2	261 000	610 000	26 600	62 500	1 600	2 400	<b>RNA4930</b>	201	2	2.98
<b>175</b> <sup>+0.068</sup> <sub>+0.043</sub>	200	40	1.1	160 000	425 000	16 300	43 500	1 500	2 300	<b>RNA4832</b>	193.5	1	1.70
<b>180</b> <sup>+0.068</sup> <sub>+0.043</sub>	220	60	2	270 000	650 000	27 600	66 500	1 500	2 200	<b>RNA4932</b>	211	2	3.10
<b>185</b> <sup>+0.079</sup> <sub>+0.050</sub>	215	45	1.1	185 000	495 000	18 800	50 500	1 500	2 200	<b>RNA4834</b>	208.5	1	2.54
<b>190</b> <sup>+0.079</sup> <sub>+0.050</sub>	230	60	2	279 000	690 000	28 500	70 500	1 400	2 100	<b>RNA4934</b>	221	2	3.22
<b>195</b> <sup>+0.079</sup> <sub>+0.050</sub>	225	45	1.1	195 000	540 000	19 800	55 000	1 400	2 100	<b>RNA4836</b>	218.5	1	2.68
<b>205</b> <sup>+0.079</sup> <sub>+0.050</sub>	250	69	2	375 000	890 000	38 500	90 500	1 300	2 000	<b>RNA4936</b>	241	2	4.48
<b>210</b> <sup>+0.079</sup> <sub>+0.050</sub>	240	50	1.5	227 000	680 000	23 200	69 000	1 300	1 900	<b>RNA4838</b>	232	1.5	3.21
<b>215</b> <sup>+0.079</sup> <sub>+0.050</sub>	260	69	2	390 000	945 000	40 000	96 500	1 300	1 900	<b>RNA4938</b>	251	2	4.53
<b>220</b> <sup>+0.079</sup> <sub>+0.050</sub>	250	50	1.5	231 000	705 000	23 600	71 550	1 200	1 800	<b>RNA4840</b>	242	1.5	3.35

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .



$F_W$  225 ~ 490mm

Boundary dimensions				Basic load ratings				Limiting speeds		Bearing numbers	Abutment dimensions		Mass
mm				dynamic	static	dynamic	static	rpm			mm		g
$F_W$	$D$	$C$	$r_s$ min <sup>1)</sup>	$C_r$	$C_{Or}$	$C_r$	$C_{Or}$	grease	oil		$D_a$ max	$r_{as}$ max	(approx.)
<b>225</b> <sup>+0.079 +0.050</sup>	280	80	2.1	505 000	1 180 000	51 500	120 000	1 200	1 800	<b>RNA4940</b>	269	2	7.20
<b>240</b> <sup>+0.079 +0.050</sup>	270	50	1.5	244 000	780 000	24 900	79 500	1 100	1 700	<b>RNA4844</b>	262	1.5	3.62
<b>245</b> <sup>+0.079 +0.050</sup>	300	80	2.1	525 000	1 270 000	53 500	129 000	1 100	1 600	<b>RNA4944</b>	289	2	7.81
<b>265</b> <sup>+0.088 +0.056</sup>	300	60	2	360 000	1 080 000	37 000	110 000	1 000	1 500	<b>RNA4848</b>	291	2	5.40
	320	80	2.1	540 000	1 350 000	55 000	138 000	1 000	1 500	<b>RNA4948</b>	309	2	8.40
<b>285</b> <sup>+0.088 +0.056</sup>	320	60	2	375 000	1 160 000	38 000	119 000	950	1 400	<b>RNA4852</b>	311	2	5.80
<b>290</b> <sup>+0.088 +0.056</sup>	360	100	2.1	805 000	1 900 000	82 000	193 000	950	1 400	<b>RNA4952</b>	349	2	15.9
<b>305</b> <sup>+0.088 +0.056</sup>	350	69	2	455 000	1 300 000	46 500	133 000	850	1 300	<b>RNA4856</b>	341	2	9.30
<b>310</b> <sup>+0.088 +0.056</sup>	380	100	2.1	835 000	2 030 000	85 000	207 000	850	1 300	<b>RNA4956</b>	369	2	16.7
<b>330</b> <sup>+0.098 +0.062</sup>	380	80	2.1	625 000	1 770 000	64 000	180 000	800	1 200	<b>RNA4860</b>	369	2	12.7
<b>340</b> <sup>+0.098 +0.062</sup>	420	118	3	1 080 000	2 640 000	110 000	269 000	800	1 200	<b>RNA4960</b>	407	2.5	24.0
<b>350</b> <sup>+0.098 +0.062</sup>	400	80	2.1	640 000	1 850 000	65 500	189 000	750	1 100	<b>RNA4864</b>	389	2	13.4
<b>360</b> <sup>+0.098 +0.062</sup>	440	118	3	1 120 000	2 820 000	114 000	288 000	750	1 100	<b>RNA4964</b>	427	2.5	25.2
<b>370</b> <sup>+0.098 +0.062</sup>	420	80	2.1	655 000	1 940 000	66 500	197 000	750	1 100	<b>RNA4868</b>	409	2	14.0
<b>380</b> <sup>+0.098 +0.062</sup>	460	118	3	1 160 000	3 000 000	118 000	305 000	750	1 100	<b>RNA4968</b>	447	2.5	26.5
<b>390</b> <sup>+0.098 +0.062</sup>	440	80	2.1	665 000	2 020 000	68 000	206 000	650	1 000	<b>RNA4872</b>	429	2	14.8
<b>400</b> <sup>+0.108 +0.068</sup>	480	118	3	1 200 000	3 200 000	122 000	325 000	650	1 000	<b>RNA4972</b>	467	2.5	28.2
<b>415</b> <sup>+0.108 +0.068</sup>	480	100	2.1	1 000 000	2 840 000	102 000	289 000	650	950	<b>RNA4876</b>	469	2	26.0
<b>430</b> <sup>+0.108 +0.068</sup>	520	140	4	1 400 000	3 750 000	143 000	385 000	650	950	<b>RNA4976</b>	504	3	38.6
<b>450</b> <sup>+0.108 +0.068</sup>	540	140	4	1 450 000	4 000 000	148 000	410 000	600	900	<b>RNA4980</b>	524	3	40.1
<b>470</b> <sup>+0.108 +0.068</sup>	560	140	4	1 500 000	4 250 000	153 000	430 000	550	850	<b>RNA4984</b>	544	3	51.6
<b>490</b> <sup>+0.108 +0.068</sup>	600	160	4	1 750 000	4 600 000	179 000	470 000	550	800	<b>RNA4988</b>	584	3	66.9

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

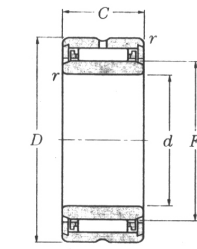
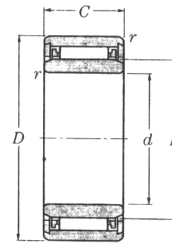
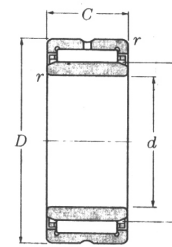
## With inner ring

Type NA49

Type NA59

Type NA69

Type NK+IR

Type NA49 ( $d \leq 9\text{mm}$ )Type NK+IR ( $d \leq 9\text{mm}$ )
 Type NA49 · R ( $d \geq 10\text{mm}$ )  
 Type NA59  
 Type NA69 · R  
 Type NK+IR ( $d \geq 10\text{mm}$ )
 $d$  5 ~ 17mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
mm						dynamic	static	dynamic	static			
						N		kgf		rpm		
<i>d</i>	<i>D</i>	<i>C</i>	<i>r</i> <sub>s min</sub> <sup>1)</sup>	<i>F</i>	<i>S</i> <sup>2)</sup>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	grease	oil	
5	13	10	0.15	7	—	2 670	2 350	272	239	23 000	34 000	NA495T2
	15	12	0.3	8	1.5	4 000	4 100	410	420	21 000	32 000	NK8/12T2+IR5×8×12
	15	16	0.3	8	2	4 850	5 200	495	535	21 000	32 000	NK8/16T2+IR5×8×16
6	15	10	0.15	8	—	3 150	3 000	320	305	21 000	32 000	NA496
	16	12	0.3	9	1.5	4 550	5 000	465	510	20 000	30 000	NK9/12T2+IR6×9×12
	16	16	0.3	9	2	5 500	6 400	560	650	20 000	30 000	NK9/16T2+IR6×9×16
7	17	10	0.15	9	—	3 600	3 650	365	375	20 000	30 000	NA497
	17	12	0.3	10	1.5	4 550	5 100	460	520	19 000	28 000	NK10/12T2+IR7×10×12
	17	16	0.3	10	2	5 450	6 450	555	660	19 000	28 000	NK10/16+IR7×10×16
8	19	11	0.15	10	—	4 300	3 950	435	405	19 000	28 000	NA498
9	19	12	0.3	12	1.5	5 000	6 100	510	620	17 000	26 000	NK12/12+IR9×12×12
	19	16	0.3	12	2	6 000	7 700	615	785	17 000	26 000	NK12/16+IR9×12×16
	20	11	0.3	12	—	4 850	4 900	495	500	17 000	26 000	NA499
10	22	13	0.3	14	0.5	8 600	9 200	875	935	16 000	24 000	NA4900R
	22	16	0.3	14	0.5	10 300	11 500	1 050	1 170	16 000	24 000	NK14/16R+IR10×14×16
	22	20	0.3	14	0.5	13 000	15 600	1 330	1 590	16 000	24 000	NK14/20R+IR10×14×20
12	24	13	0.3	16	0.5	9 550	10 900	975	1 110	15 000	23 000	NA4901R
	24	16	0.3	16	0.5	12 200	14 900	1 240	1 520	15 000	23 000	NK16/16R+IR12×16×16
	24	20	0.3	16	0.5	14 600	18 800	1 490	1 920	15 000	23 000	NK16/20R+IR12×16×20
	24	22	0.3	16	1	15 400	20 000	1 570	2 040	15 000	23 000	NA6901R
15	27	16	0.3	19	0.5	13 300	17 400	1 350	1 780	14 000	21 000	NK19/16R+IR15×19×16
	27	20	0.3	19	0.5	16 000	22 200	1 630	2 260	14 000	21 000	NK19/20R+IR15×19×20
	28	13	0.3	20	0.5	10 300	12 800	1 050	1 310	13 000	20 000	NA4902R
	28	18	0.3	20	0.5	14 100	19 100	1 440	1 950	13 000	20 000	NA5902
	28	23	0.3	20	1	17 600	25 300	1 790	2 580	13 000	20 000	NA6902R
17	29	16	0.3	21	0.5	13 700	18 700	1 400	1 910	13 000	19 000	NK21/16R+IR17×21×16
	29	20	0.3	21	0.5	18 300	27 100	1 860	2 760	13 000	19 000	NK21/20R+IR17×21×20
	30	13	0.3	22	0.5	11 200	14 600	1 140	1 490	12 000	18 000	NA4903R
	30	18	0.3	22	0.5	15 200	21 700	1 550	2 210	12 000	18 000	NA5903

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

2) These values are the possible axial displacement of the inner ring against outer ring.

Reference : 1. The material of the cage for bearings with the suffix **T2** is plastic and its maximum allowable temperature is 120°C for short term use and 100°C or below for continuous operation.2. The numbering system for inner ring (**IR**) is defined as **IR** bore dimension × outside diameter × width.

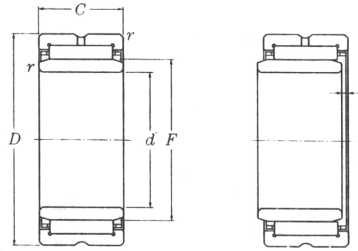
## With inner ring

Type NA49

Type NA59

Type NA69

Type NK+IR



Type NA49 · R  
Type NA59  
Type NA69 · R ( $d \leq 30\text{mm}$ )  
Type NK+IR

d 17 ~ 32mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
						dynamic	static	dynamic	static			
mm						N		kgf		rpm		
<i>d</i>	<i>D</i>	<i>C</i>	<i>r</i> <sub>s min</sub> <sup>1)</sup>	<i>F</i>	<i>S</i> <sup>2)</sup>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	grease	oil	
17	30	23	0.3	22	1	18 200	27 200	1 850	2 770	12 000	18 000	NA6903R
20	32	16	0.3	24	0.5	15 200	22 300	1 550	2 280	11 000	17 000	NK24/16R+IR20×24×16
	32	20	0.3	24	0.5	18 600	28 800	1 890	2 930	11 000	17 000	NK24/20R+IR20×24×20
	37	17	0.3	25	0.8	21 300	25 500	2 170	2 600	11 000	16 000	NA4904R
	37	23	0.3	25	0.8	28 400	37 000	2 900	3 750	11 000	16 000	NA5904
	37	30	0.3	25		36 500	50 500	3 700	5 150	11 000	16 000	NA6904R
22	34	16	0.3	26	0.5	15 600	23 600	1 590	2 410	10 000	15 000	NK26/16R+IR22×26×16
	34	20	0.3	26	0.5	19 100	30 500	1 940	3 100	10 000	15 000	NK26/20R+IR22×26×20
	39	17	0.3	28	0.8	23 200	29 300	2 360	2 990	9 500	14 000	NA49/22R
	39	23	0.3	28	0.8	26 400	37 500	2 690	3 850	9 500	14 000	NA59/22
	39	30	0.3	28	0.5	40 000	58 500	4 050	6 000	9 500	14 000	NA69/22R
25	38	20	0.3	29	1	22 200	34 000	2 270	3 450	9 500	14 000	NK29/20R+IR25×29×20
	38	30	0.3	29	1.5	27 500	50 500	2 810	5 150	9 500	14 000	NK29/30R+IR25×29×30
	42	17	0.3	30	0.8	24 000	31 500	2 450	3 200	8 500	13 000	NA4905R
	42	23	0.3	30	0.8	30 500	43 000	3 150	4 350	8 500	13 000	NA5905
	42	30	0.3	30	1	41 500	63 000	4 200	6 400	8 500	13 000	NA6905R
28	42	20	0.3	32	1	23 500	37 500	2 400	3 850	8 500	13 000	NK32/20R+IR28×32×20
	42	30	0.3	32	1.5	34 000	60 500	3 450	6 150	8 500	13 000	NK32/30R+IR28×32×30
	45	17	0.3	32	0.8	24 800	33 500	2 530	3 400	8 500	13 000	NA49/28R
	45	23	0.3	32	0.8	32 000	45 500	3 250	4 650	8 500	13 000	NA59/28
	45	30	0.3	32	1	43 000	67 000	4 350	6 850	8 500	13 000	NA69/28R
30	45	20	0.3	35	0.5	24 800	41 500	2 520	4 250	7 500	11 000	NK35/20R+IR30×35×20
	45	30	0.3	35	1	36 000	66 500	3 650	6 800	7 500	11 000	NK35/30R+IR30×35×30
	47	17	0.3	35	0.8	25 500	35 500	2 600	3 600	7 500	11 000	NA4906R
	47	23	0.3	35	0.8	32 500	48 500	3 350	4 950	7 500	11 000	NA5906
	47	30	0.3	35	1	42 500	67 500	4 300	6 900	7 500	11 000	NA6906R
32	47	20	0.3	37	0.5	25 300	43 500	2 580	4 400	7 500	11 000	NK37/20R+IR32×37×20
	47	30	0.3	37	1	36 500	69 500	3 750	7 100	7 500	11 000	NK37/30R+IR32×37×30
	52	20	0.6	40	0.8	31 500	47 500	3 200	4 850	6 500	10 000	NA49/32R

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

2) These values are the possible axial displacement of the inner ring against outer ring.

Reference : The numbering system for inner ring (IR) is defined as IR bore dimension × outside diameter × width.

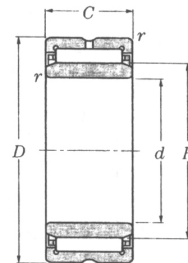
## With inner ring

Type NA49

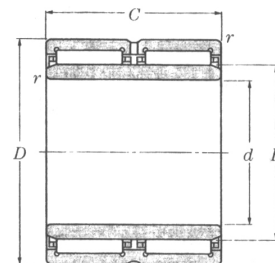
Type NA59

Type NA69

Type NK+IR



Type NA49 · · R  
Type NA59  
Type NK · · R+IR



Type NA69 · · R

d 32 ~ 55mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
						dynamic	static	dynamic	static			
mm						N	kgf			rpm		
<i>d</i>	<i>D</i>	<i>C</i>	<i>r</i> <sub>s min</sub> <sup>1)</sup>	<i>F</i>	<i>S</i> <sup>2)</sup>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	grease	oil	
32	52	27	0.6	40	0.8	38 000	61 000	3 850	6 250	6 500	10 000	NA59/32
	52	36	0.6	40	0.5	47 500	82 000	4 850	4 350	6 500	10 000	NA69/32R
35	50	20	0.3	40	0.5	26 400	47 000	2 700	4 800	6 500	10 000	NK40/20R+IR35×40×20
	50	30	0.3	40	1	38 500	76 000	3 900	7 750	6 500	10 000	NK40/30R+IR35×40×30
	55	20	0.6	42	0.8	32 000	50 000	3 300	5 100	6 500	9 500	NA4907R
	55	27	0.6	42	0.8	39 000	64 500	3 950	6 550	6 500	9 500	NA5907
	55	36	0.6	42	0.5	49 000	86 500	5 000	8 800	6 500	9 500	NA6907R
38	53	20	0.3	43	0.5	27 500	51 000	2 810	5 200	6 500	9 500	NK43/20R+IR38×43×20
	53	30	0.3	43	1	40 000	82 000	4 100	8 400	6 500	9 500	NK43/30R+IR38×43×30
40	55	20	0.3	45	0.5	28 000	52 500	2 860	5 400	6 000	9 000	NK45/20R+IR40×45×20
	55	30	0.3	45	1	41 000	85 500	4 150	8 700	6 000	9 000	NK45/30R+IR40×45×30
	62	22	0.6	48	1	43 500	66 500	4 450	6 800	5 500	8 500	NA4908R
	62	30	0.6	48	1	53 000	92 500	5 450	9 450	5 500	8 500	NA5908
	62	40	0.6	48	0.5	67 000	116 000	6 850	11 000	5 500	8 500	NA6908R
42	57	20	0.3	47	0.5	28 800	55 500	2 940	5 650	5 500	8 500	NK47/20R+IR42×47×20
	57	30	0.3	47	1	42 500	91 500	4 350	9 350	5 500	8 500	NK47/30R+IR42×47×30
45	62	25	0.6	50	1.5	38 500	74 500	3 950	7 550	5 500	8 000	NK50/25R+IR45×50×25
	62	35	0.6	50	2	51 000	106 000	5 200	10 800	5 500	8 000	NK50/35R+IR45×50×35
	68	22	0.6	52	1	46 000	73 000	4 700	7 450	5 500	7 500	NA4909R
	68	30	0.6	52	1	56 000	101 000	5 700	10 300	5 500	7 500	NA5909
	68	40	0.6	52	0.5	70 500	127 000	7 200	13 000	5 500	7 500	NA6909R
50	68	25	0.6	55	1.5	41 000	82 000	4 150	8 400	5 000	7 500	NK55/25R+IR50×55×25
	68	35	0.6	55	2	54 000	118 000	5 500	12 000	5 000	7 500	NK55/35R+IR50×55×35
	72	22	0.6	58	1	48 000	80 000	4 900	8 150	4 700	7 000	NA4910R
	72	30	0.6	58	1	58 000	110 000	5 950	11 200	4 700	7 000	NA5910
	72	40	0.6	58	0.5	74 000	139 000	7 500	14 200	4 700	7 000	NA6910R
55	72	25	0.6	60	1.5	41 000	85 000	4 200	8 700	4 300	6 500	NK60/25R+IR55×60×25
	72	35	0.6	60	2	57 000	130 000	5 800	13 200	4 300	6 500	NK60/35R+IR55×60×35
	80	25	1	63	1.5	58 500	99 500	6 000	10 100	4 300	6 500	NA4911R

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension r.

2) These values are the possible axial displacement of the inner ring against outer ring.

Reference : The numbering system for inner ring (IR) is defined as IR bore dimension × outside diameter × width.

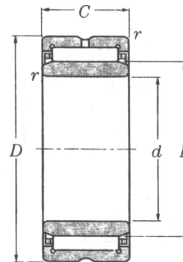
## With inner ring

Type NA49

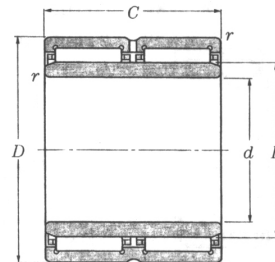
Type NA59

Type NA69

Type NK+IR



Type NA49 · · R  
Type NA59  
Type NK · · R+IR



Type NA69 · · R

d 55 ~ 85mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
						dynamic	static	dynamic	static			
mm						N	kgf			rpm		
<i>d</i>	<i>D</i>	<i>C</i>	<i>r</i> <sub>s min</sub> <sup>1)</sup>	<i>F</i>	<i>s</i> <sup>2)</sup>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>or</sub>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>or</sub>	grease	oil	
55	80	34	1	63	1.5	76 500	140 000	7 800	14 300	4 300	6 500	NA5911
	80	45	1	63	1.5	94 000	183 000	9 600	18 600	4 300	6 500	NA6911R
60	82	25	1	68	1	44 500	89 000	4 500	9 050	4 000	6 000	NK68/25R+IR60×68×25
	82	35	0.6	68	1	63 000	139 000	6 400	14 200	4 000	6 000	NK68/35R+IR60×68×35
	85	25	1	68	1.5	61 500	108 000	6 250	11 000	4 000	6 000	NA4912R
	85	34	1	68	1.5	80 500	153 000	8 200	15 600	4 000	6 000	NA5912
	85	45	1	68	1.5	95 500	191 000	9 750	19 400	4 000	6 000	NA6912R
65	90	25	0.6	73	1	54 000	100 000	5 500	10 200	3 700	5 500	NK73/25R+IR65×73×25
	90	25	1	72	1.5	62 500	112 000	6 350	11 400	3 700	5 500	NA4913R
	90	34	1	72	1.5	84 000	165 000	8 600	16 800	3 700	5 500	NA5913
	90	35	0.6	73	1	76 500	156 000	7 800	16 000	3 700	5 500	NK73/35R+IR65×73×35
	90	45	1	72	1.5	97 000	198 000	9 900	20 200	3 700	5 500	NA6913R
70	95	25	1	80	0.8	57 000	119 000	5 800	12 200	3 300	5 000	NK80/25R+IR70×80×25
	95	35	1	80	0.8	79 500	184 000	8 150	18 700	3 300	5 000	NK80/35R+IR70×80×35
	100	30	1	80	1.5	85 500	156 000	8 750	15 900	3 300	5 000	NA4914R
	100	40	1	80	1.5	103 000	187 000	10 500	19 100	3 300	5 000	NA5914
75	100	54	1	80	1	130 000	267 000	13 300	27 200	3 300	5 000	NA6914R
	105	25	1	85	1	70 500	123 000	7 200	12 600	3 100	4 700	NK85/25R+IR75×85×25
	105	30	1	85	1.5	87 000	162 000	8 900	16 500	3 100	4 700	NA4915R
	105	35	1	85	1	100 000	193 000	10 200	19 700	3 100	4 700	NK85/35R+IR75×85×35
	105	40	1	85	1.5	109 000	205 000	11 100	20 900	3 100	4 700	NA5915
80	105	54	1	85	1	132 000	277 000	13 500	28 300	3 100	4 700	NA6915R
	110	25	1	90	1	71 500	128 000	7 300	13 100	2 900	4 400	NK90/25R+IR80×90×25
	110	30	1	90	1.5	90 500	174 000	9 250	17 700	2 900	4 400	NA4916R
	110	35	1	90	1	104 000	208 000	10 600	21 200	2 900	4 400	NK90/35R+IR80×90×35
	110	40	1	90	1.5	115 000	223 000	11 700	22 700	2 900	4 400	NA5916
85	110	54	1	90	1.5	137 000	298 000	14 000	30 500	2 900	4 400	NA6916R
	115	26	1	95	1.5	74 500	137 000	7 600	14 000	2 800	4 200	NK95/26R+IR85×95×26
	115	36	1	95	1.5	108 000	223 000	11 100	22 700	2 800	4 200	NK95/36R+IR85×95×36

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

2) These values are the possible axial displacement of the inner ring against outer ring.

Reference : The numbering system for inner ring (IR) is defined as IR bore dimension × outside diameter × width.



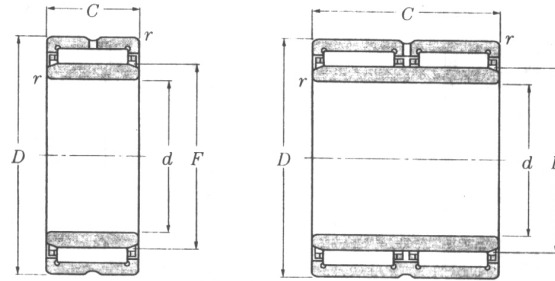
## With inner ring

Type NA49

Type NA59

Type NA69

Type NK+IR



Type NA49·R, Type NA49

Type NA59

Type NK·R+IR, Type NK+IR

Type NA69·R

d 85 ~ 130mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
						dynamic	static	dynamic	static			
mm						N	kgf			rpm		
<i>d</i>	<i>D</i>	<i>C</i>	<i>r</i> <sub>s min</sub> <sup>1)</sup>	<i>F</i>	<i>s</i> <sup>2)</sup>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	<i>C</i> <sub>r</sub>	<i>C</i> <sub>0r</sub>	grease	oil	
85	120	35	1.1	100	1	112 000	237 000	11 500	24 200	2 700	4 000	NA4917R
	120	46	1.1	100	1.5	137 000	290 000	14 000	29 600	2 700	4 000	NA5917
	120	63	1.1	100	1	169 000	400 000	17 300	41 000	2 700	4 000	NA6917R
90	120	26	1	100	1.5	73 500	137 000	7 500	14 000	2 700	4 000	NK100/26R+IR90×100×26
	120	36	1	100	1.5	107 000	223 000	11 000	22 800	2 700	4 000	NK100/36R+IR90×100×36
	125	35	1.1	105	1	116 000	252 000	11 900	25 700	2 500	3 800	NA4918R
	125	46	1.1	105	1	143 000	310 000	14 600	32 000	2 500	3 800	NA5918
	125	63	1.1	105	1	175 000	425 000	17 900	43 500	2 500	3 800	NA6918R
95	125	26	1	105	1.5	76 500	147 000	7 800	14 900	2 500	3 800	NK105/26R+IR95×105×26
	125	36	1	105	1.5	111 000	238 000	11 400	24 300	2 500	3 800	NK105/36R+IR95×105×36
	130	35	1.1	110	1	118 000	260 000	12 000	26 500	2 400	3 600	NA4919R
	130	46	1.1	110	1	149 000	335 000	15 200	34 000	2 400	3 600	NA5919
	130	63	1.1	110	1	177 000	440 000	18 100	45 000	2 400	3 600	NA6919R
100	130	30	1.1	110	1.5	97 500	204 000	9 950	20 800	2 400	3 600	NK110/30R+IR100×110×30
	130	40	1.1	110	2	129 000	292 000	13 100	29 700	2 400	3 600	NK110/40R+IR100×110×40
	140	40	1.1	115	2	127 000	260 000	12 900	26 500	2 300	3 500	NA4920
	140	54	1.1	115	2	182 000	395 000	18 600	40 500	2 300	3 500	NA5920
110	140	30	1	120	0.8	93 500	210 000	9 550	21 400	2 200	3 300	NA4822
	140	40	1.1	120	—	113 000	268 000	11 500	27 300	2 200	3 300	NK120/40+IR110×120×40
	150	40	1.1	125	2	131 000	279 000	13 300	28 400	2 100	3 200	NA4922
	150	54	1.1	125	2	193 000	440 000	19 700	45 000	2 100	3 200	NA5922
120	150	30	1	130	0.8	99 500	233 000	10 100	23 800	2 100	3 100	NA4824
	150	40	1.1	130	—	116 000	283 000	11 800	28 800	2 100	3 100	NK130/40+IR120×130×40
	165	45	1.1	135	2	180 000	380 000	18 300	38 500	2 000	3 000	NA4924
	165	60	1.1	135	2	245 000	525 000	25 000	53 500	2 000	3 000	NA5924
130	165	35	1.1	145	1	118 000	305 000	12 100	31 000	1 900	2 800	NA4826
	170	32	1.5	145	—	111 000	238 000	11 300	24 300	1 900	2 800	NK145/32+IR130×145×32
	170	42	1.5	145	—	153 000	360 000	15 600	36 500	1 900	2 800	NK145/42+IR130×145×42
	180	50	1.5	150	1.5	202 000	455 000	20 600	46 500	1 800	2 700	NA4926

NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension  $r$ .

2) These values are the possible axial displacement of the inner ring against outer ring.

Reference : The numbering system for inner ring (IR) is defined as IR bore dimension × outside diameter × width.

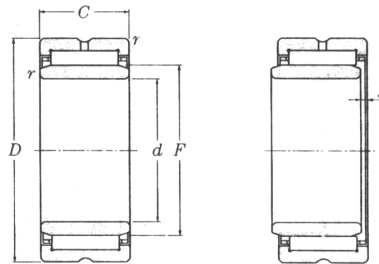
## With inner ring

Type NA49

Type NA59

Type NA69

Type NK+IR



d 130 ~ 280mm

Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
						dynamic	static	dynamic	static			
mm						N	kgf			rpm		
d	D	C	r <sub>s</sub> min <sup>1)</sup>	F	S <sup>2)</sup>	C <sub>r</sub>	C <sub>0r</sub>	C <sub>r</sub>	C <sub>0r</sub>	grease	oil	
130	180	67	1.5	150	1.5	294 000	685 000	30 000	70 000	1 800	2 700	NA5926
140	175	35	1.1	155	1	121 000	315 000	12 300	32 500	1 700	2 600	NA4828
	180	32	1.5	155	—	114 000	252 000	11 600	25 700	1 700	2 600	NK155/32+IR140×155×32
	180	42	1.5	155	—	156 000	380 000	16 000	38 500	1 700	2 600	NK155/42+IR140×155×42
	190	50	1.5	160	1.5	209 000	485 000	21 300	49 500	1 700	2 500	NA4928
	190	67	1.5	160	1.5	310 000	755 000	31 500	77 000	1 700	2 500	NA5928
150	190	32	1.5	165	—	117 000	265 000	11 900	27 000	1 600	2 400	NK165/32+IR150×165×32
	190	40	1.1	165	1.5	152 000	390 000	15 500	40 000	1 600	2 400	NA4830
	190	42	1.5	165	—	160 000	400 000	16 300	40 500	1 600	2 400	NK165/42+IR150×165×42
	210	60	2	170	1.5	261 000	610 000	26 600	62 500	1 600	2 400	NA4930
160	200	40	1.1	175	1.5	160 000	425 000	16 300	43 500	1 500	2 300	NA4832
	220	60	2	180	1.5	270 000	650 000	27 600	66 500	1 500	2 200	NA4932
170	215	45	1.1	185	1.5	185 000	495 000	18 800	50 500	1 500	2 200	NA4834
	230	60	2	190	1.5	279 000	690 000	28 500	70 500	1 400	2 100	NA4934
180	225	45	1.1	195	1.5	195 000	540 000	19 800	55 000	1 400	2 100	NA4836
	250	69	2	205	1.5	375 000	890 000	38 500	90 500	1 300	2 000	NA4936
190	240	50	1.5	210	1.5	227 000	680 000	23 200	69 000	1 300	1 900	NA4838
	260	69	2	215	1.5	390 000	945 000	40 000	96 500	1 300	1 900	NA4938
200	250	50	1.5	220	1.5	231 000	705 000	23 600	71 500	1 200	1 800	NA4840
	280	80	2.1	225	1.5	505 000	1 080 000	51 500	120 000	1 200	1 800	NA4940
220	270	50	1.5	240	1.5	244 000	780 000	24 900	79 500	1 100	1 700	NA4844
	300	80	2.1	245	1.5	525 000	1 270 000	53 500	129 000	1 100	1 600	NA4944
240	300	60	2	265	2	360 000	1 080 000	37 000	110 000	1 000	1 500	NA4848
	320	80	2.1	265	2	540 000	1 350 000	55 000	138 000	1 000	1 500	NA4948
260	320	60	2	285	2	375 000	1 160 000	38 000	119 000	950	1 400	NA4852
	360	100	2.1	290	2	805 000	1 900 000	82 000	193 000	950	1 400	NA4952
280	350	69	2	305	2.5	455 000	1 300 000	46 500	133 000	850	1 300	NA4856
	380	100	2.1	310	2.5	835 000	2 030 000	85 000	207 000	850	1 300	NA4956

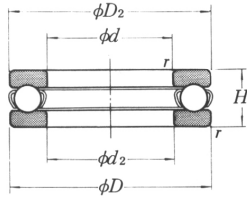
NOTE : 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) These values are the possible axial displacement of the inner ring against outer ring.

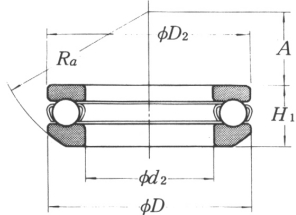
Reference : The numbering system for inner ring (IR) is defined as IR bore dimension × outside diameter × width.

## 60 / 스러스트 보올베어링

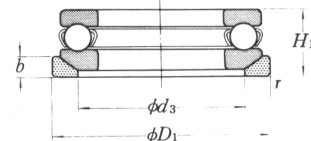
내경 10~50mm



평면자리형



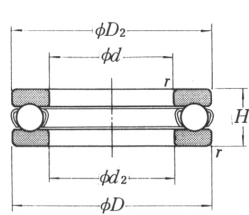
조심자리형



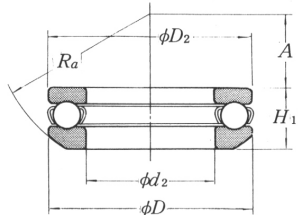
조심자리와서형

주요치수 (mm)						호칭번호			기본정격하중(N)		허용회전수(rpm)	
d	D	H	H <sub>1</sub> '	H <sub>1</sub>	r (최소)	평면자리형	조심자리형	조심자리와서형	C <sub>a</sub> (동)	C <sub>oa</sub> (정)	그리이스윤활	오일윤활
10	24	9	—	—	0.3	51100	—	—	10 100	14 000	6 700	10 000
	26	11	11.6	13	0.6	51200	53200	53200 U	12 800	17 100	6 000	9 000
12	26	9	—	—	0.3	51101	—	—	10 400	15 400	6 700	10 000
	28	11	11.4	13	0.6	51201	53201	53201 U	13 300	19 000	5 600	8 500
15	28	9	—	—	0.3	51102	—	—	10 600	16 800	6 300	9 500
	32	12	13.3	15	0.6	51202	53202	53202 U	16 700	24 800	5 000	7 500
17	30	9	—	—	0.3	51103	—	—	11 400	19 500	6 000	9 000
	35	12	13.2	15	0.6	51203	53203	53203 U	17 300	27 300	4 800	7 500
20	35	10	—	—	0.3	51104	—	—	15 100	26 600	5 300	8 000
	40	14	14.7	17	0.6	51204	53204	53204 U	22 500	37 500	4 300	6 300
25	42	11	—	—	0.6	51105	—	—	19 700	37 000	4 800	7 100
	47	15	16.7	19	0.6	51205	53205	53205 U	28 000	50 500	3 800	5 600
	52	18	19.8	22	1	51305	53305	53305 U	36 000	61 500	3 200	5 000
	60	24	26.4	29	1	51405	53405	53405 U	56 000	89 500	2 600	4 000
30	47	11	—	—	0.6	51106	—	—	20 600	42 000	4 300	6 700
	52	16	17.8	20	0.6	51206	53206	53206 U	29 500	58 000	3 400	5 300
	60	21	22.6	25	1	51306	53306	53306 U	43 000	78 500	2 800	4 300
	70	28	30.1	33	1	51406	53406	53406 U	73 000	126 000	2 200	3 400
35	52	12	—	—	0.6	51107	—	—	22 100	49 500	4 000	6 000
	62	18	19.9	22	1	51207	53207	53207 U	39 500	78 000	3 000	4 500
	68	24	25.6	28	1	51307	53307	53307 U	56 000	105 000	2 400	3 800
	80	32	34	37	1.1	51407	53407	53407 U	87 500	155 000	2 000	3 000
40	60	13	—	—	0.6	51108	—	—	27 100	63 000	3 600	5 300
	68	19	20.3	23	1	51208	53208	53208 U	47 500	98 500	2 800	4 300
	78	26	28.5	31	1	51308	53308	53308 U	70 000	135 000	2 200	3 400
	90	36	38.2	42	1.1	51408	53408	53408 U	103 000	188 000	1 700	2 600
45	65	14	—	—	0.6	51109	—	—	28 100	69 000	3 400	5 000
	73	20	21.3	24	1	51209	53209	53209 U	48 000	105 000	2 600	4 000
	85	28	30.1	33	1	51309	53309	53309 U	80 500	163 000	2 000	3 000
	100	39	42.4	46	1.1	51409	53409	53409 U	128 000	246 000	1 600	2 400
50	70	14	—	—	0.6	51110	—	—	29 000	75 500	3 200	4 800
	78	22	23.5	26	1	51210	53210	53210 U	49 000	111 000	2 400	3 600
	95	31	34.3	37	1.1	51310	53310	53310 U	97 500	202 000	1 800	2 800
	110	43	45.6	50	1.5	51410	53410	53410 U	147 000	288 000	1 400	2 200

내경 55~100mm



평면자리형



조심자리형

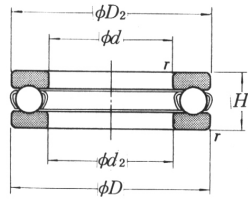


조심자리와서형

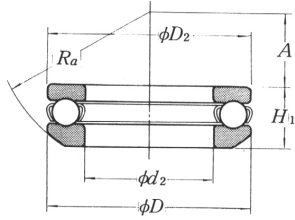
주요치수 (mm)						호칭번호			기본정격하중(N)		허용회전수(rpm)	
d	D	H	H <sub>1</sub> '	H <sub>1</sub>	r (최소)	평면자리형	조심자리형	조심자리와서형	C <sub>a</sub> (동)	C <sub>oa</sub> (정)	그리이스윤활	오일윤활
55	78	16	—	—	0.6	51111	—	—	35 000	93 000	2 800	4 300
	90	25	27.3	30	1	51211	53211	53211 U	70 000	159 000	2 200	3 200
	105	35	39.3	42	1.1	51311	53311	53311 U	115 000	244 000	1 600	2 400
	120	48	50.5	55	1.5	51411	53411	53411 U	181 000	350 000	1 300	1 900
60	85	17	—	—	1	51112	—	—	41 500	113 000	2 600	4 000
	95	26	28	31	1	51212	53212	53212 U	71 500	169 000	2 000	3 000
	110	35	38.3	42	1.1	51312	53312	53312 U	119 000	263 000	1 600	2 400
	130	51	54	58	1.5	51412	53412	53412 U	202 000	395 000	1 200	1 800
65	90	18	—	—	1	51113	—	—	42 000	117 000	2 400	3 800
	100	27	28.7	32	1	51213	53213	53213 U	75 500	189 000	1 900	2 800
	115	36	39.4	43	1.1	51313	53313	53313 U	123 000	282 000	1 500	2 400
	140	56	60.2	65	2	51413	53413	53413 U	234 000	495 000	1 100	1 700
70	95	18	—	—	1	51114	—	—	43 500	127 000	2 400	3 600
	105	27	28.8	32	1	51214	53214	53214 U	74 000	189 000	1 900	2 800
	125	40	44.2	48	1.1	51314	53314	53314 U	137 000	315 000	1 400	2 000
	150	60	63.6	69	2	51414	53414	53414 U	252 000	555 000	1 000	1 500
75	100	19	—	—	1	51115	—	—	43 500	131 000	2 200	3 400
	110	27	28.3	32	1	51215	53215	53215 U	78 000	209 000	1 800	2 800
	135	44	48.1	52	1.5	51315	53315	53315 U	159 000	365 000	1 300	1 900
	160	65	69	75	2	51415	53415	53415 U	254 000	560 000	950	1 400
80	105	19	—	—	1	51116	—	—	45 000	141 000	2 200	3 400
	115	28	29.5	33	1	51216	53216	53216 U	79 000	218 000	1 800	2 600
	140	44	47.6	52	1.5	51316	53316	53316 U	164 000	395 000	1 300	1 900
	170	68	72.2	78	2.1	51416	53416	53416 U	272 000	620 000	900	1 300
85	110	19	—	—	1	51117	—	—	46 500	150 000	2 200	3 200
	125	31	33.1	37	1	51217	53217	53217 U	96 000	264 000	1 600	2 400
	150	49	53.1	58	1.5	51317	53317	53317 U	207 000	490 000	1 100	1 700
	180	72	77	83	2.1	51417 X	53417 X	53417 XU	310 000	755 000	850	1 300
90	120	22	—	—	1	51118	—	—	60 000	190 000	1 900	3 000
	135	35	38.5	42	1.1	51218	53218	53218 U	114 000	310 000	1 400	2 200
	155	50	54.6	59	1.5	51318	53318	53318 U	214 000	525 000	1 100	1 700
	190	77	81.2	88	2.1	51418 X	53418 X	53418 XU	330 000	825 000	800	1 200
100	135	25	—	—	1	51120	—	—	86 000	268 000	1 700	2 600
	150	38	40.9	45	1.1	51220	53220	53220 U	135 000	375 000	1 300	2 000
	170	55	59.2	64	1.5	51320	53320	53320 U	239 000	595 000	1 000	1 500
	210	85	90	98	3	51420 X	53420 X	53420 XU	370 000	985 000	710	1 100

## 62 / 스러스트 보울베어링

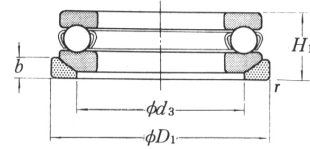
내경 110~190mm



평면자리형



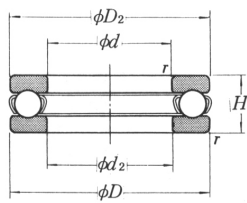
조심자리형



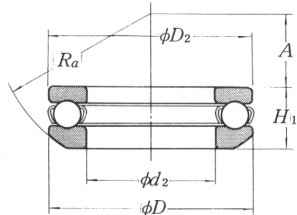
조심자리와서형

주요치수 (mm)						호칭번호			기본정격하중(N)		허용회전수(rpm)	
d	D	H	H <sub>1</sub> '	H <sub>1</sub>	r (최소)	평면자리형	조심자리형	조심자리 와서형	C <sub>a</sub> (동)	C <sub>oa</sub> (정)	그리이스 윤활	오일 윤활
110	145	25	—	—	1	51122	—	—	88 000	288 000	1 700	2 400
	160	38	40.2	45	1.1	51222	53222	53222 U	136 000	395 000	1 300	1 900
	190	63	67.2	72	2	51322 X	53322 X	53322 XU	282 000	755 000	900	1 300
	230	95	99.7	109	3	51422 X	53422 X	53422 XU	415 000	1 150 000	630	950
120	155	25	—	—	1	51124	—	—	90 000	310 000	1 600	2 400
	170	39	40.8	46	1.1	51224	53224	53224 U	141 000	430 000	1 200	1 800
	210	70	74.1	80	2.1	51324 X	53324 X	53324 XU	330 000	930 000	800	1 200
	250	102	107.3	118	4	51424 X	53424 X	53424 XU	480 000	1 400 000	600	900
130	170	30	—	—	1	51126	—	—	105 000	350 000	1 400	2 000
	190	45	47.9	53	1.5	51226 X	53226 X	53226 XU	183 000	550 000	1 100	1 600
	225	75	80.3	86	2.1	51326 X	53326 X	53326 XU	350 000	1 030 000	750	1 100
	270	110	115.2	128	4	51426 X	53426 X	53426 XU	525 000	1 590 000	530	800
140	180	31	—	—	1	51128 X	—	—	107 000	375 000	1 300	2 000
	200	46	48.6	55	1.5	51228 X	53228 X	53228 XU	186 000	575 000	1 000	1 500
	240	80	84.9	92	2.1	51328 X	53328 X	53328 XU	370 000	1 130 000	670	1 000
	280	112	117	131	4	51428 X	53428 X	53428 XU	550 000	1 750 000	530	800
150	190	31	—	—	1	51130 X	—	—	110 000	400 000	1 300	1 900
	215	50	53.3	60	1.5	51230 X	53230 X	53230 XU	238 000	735 000	950	1 400
	250	80	83.7	92	2.1	51330 X	53330 X	53330 XU	380 000	1 200 000	670	1 000
	300	120	125.9	140	4	51430 X	53430 X	53430 XU	620 000	2 010 000	480	710
160	200	31	—	—	1	51132 X	—	—	113 000	425 000	1 200	1 900
	225	51	54.7	61	1.5	51232 X	53232 X	53232 XU	249 000	805 000	900	1 400
	270	87	91.7	100	3	51332 X	53332 X	53332 XU	450 000	1 470 000	600	900
	320	130	135.3	150	5	51432 X	53432 X	53432 XU	650 000	2 210 000	450	670
170	215	34	—	—	1.1	51134 X	—	—	135 000	510 000	1 100	1 700
	240	55	58.7	65	1.5	51234 X	53234 X	53234 XU	280 000	915 000	850	1 300
	280	87	91.3	100	3	51334 X	53334 X	53334 XU	465 000	1 570 000	600	900
	340	135	141	156	5	51434 X	53434 X	53434 XU	715 000	2 480 000	430	630
180	225	34	—	—	1.1	51136 X	—	—	136 000	530 000	1 100	1 700
	250	56	58.2	66	1.5	51236 X	53236 X	53236 XU	284 000	955 000	800	1 200
	300	95	99.3	109	3	51336 X	53336 X	53336 XU	480 000	1 680 000	560	850
	360	140	148.3	164	5	51436 X	53436 X	53436 XU	750 000	2 730 000	400	600
190	240	37	—	—	1.1	51138 X	—	—	172 000	655 000	1 000	1 600
	270	62	65.7	73	2	51238 X	53238 X	53238 XU	320 000	1 110 000	750	1 100
	320	108	111	121	4	51338 X	53338 X	53338 XU	550 000	1 960 000	500	750

내경 200~360mm



평면자리형



조심자리형

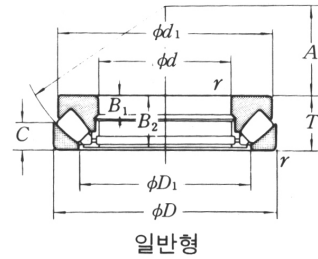
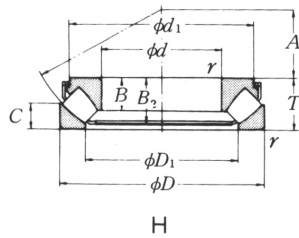


조심자리와서형

주요치수 (mm)						호칭번호			기본정격하중(N)		허용회전수(rpm)	
d	D	H	H <sub>1</sub> '	H <sub>1</sub>	r (최소)	평면자리형	조심자리형	조심자리와서형	C <sub>a</sub> (동)	C <sub>oa</sub> (정)	그리스윤활	오일윤활
200	250	37	—	—	1.1	51140 X	—	—	173 000	675 000	1 000	1 500
	280	62	65.3	74	2	51240 X	53240 X	53240 XU	315 000	1 110 000	710	1 100
	340	110	118.4	130	4	51340 X	53340 X	53340 XU	600 000	2 220 000	480	710
220	270	37	—	—	1.1	51144 X	—	—	179 000	740 000	950	1 500
	300	63	65.6	75	2	51244 X	53244 X	53244 XU	325 000	1 210 000	670	1 000
240	300	45	—	—	1.5	51148 X	—	—	229 000	935 000	850	1 200
	340	78	81.6	92	2.1	51248 X	53248 X	53248 XU	420 000	1 650 000	560	850
260	320	45	—	—	1.5	51152 X	—	—	233 000	990 000	800	1 200
	360	79	82.8	93	2.1	51252 X	53252 X	53252 XU	435 000	1 800 000	560	850
280	350	53	—	—	1.5	51156 X	—	—	315 000	1 310 000	710	1 000
	380	80	85	94	2.1	51256 X	53256 X	53256 XU	450 000	1 950 000	530	800
300	380	62	—	—	2	51160 X	—	—	360 000	1 560 000	600	900
	420	95	100.5	112	3	51260 X	53260 X	53260 XU	540 000	2 410 000	450	670
320	400	63	—	—	2	51164 X	—	—	365 000	1 660 000	600	900
	440	95	100.5	112	3	51264 X	53264 X	53264 XU	585 000	2 680 000	450	670
340	420	64	—	—	2	51168 X	—	—	375 000	1 760 000	560	850
	460	96	100.3	113	3	51268 X	53268 X	53268 XU	595 000	2 800 000	430	630
360	440	65	—	—	2	51172 X	—	—	385 000	1 860 000	560	800
	500	110	116.7	130	4	51272 X	53272 X	53272 XU	705 000	3 500 000	380	560

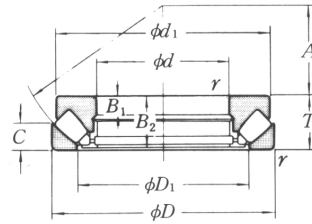
# 64 / 스러스트 자동조심 로울러 베어링

내경 60~200mm



주요치수 (mm)				호칭번호	기본정격하중(N)		허용회전수 (rpm) 오일윤활
d	D	T	r (최소)		Ca (동)	Coa (정)	
<b>60</b>	130	42	1.5	<b>29412 H</b>	330 000	885 000	2 600
<b>65</b>	140	45	2	<b>29413 H</b>	405 000	1 100 000	2 400
<b>70</b>	150	48	2	<b>29414 H</b>	450 000	1 240 000	2 400
<b>75</b>	160	51	2	<b>29415 H</b>	515 000	1 430 000	2 200
<b>80</b>	170	54	2.1	<b>29416 H</b>	575 000	1 600 000	2 000
<b>85</b>	150	39	1.5	<b>29317 H</b>	330 000	1 040 000	2 400
	180	58	2.1	<b>29417 H</b>	630 000	1 760 000	1 900
<b>90</b>	155	39	1.5	<b>29318 H</b>	350 000	1 080 000	2 200
	190	60	2.1	<b>29418 H</b>	695 000	1 950 000	1 800
<b>100</b>	170	42	1.5	<b>29320 H</b>	410 000	1 280 000	2 000
	210	67	3	<b>29420 H</b>	840 000	2 400 000	1 600
<b>110</b>	190	48	2	<b>29322 H</b>	530 000	1 710 000	1 800
	230	73	3	<b>29422 H</b>	1 010 000	2 930 000	1 500
<b>120</b>	210	54	2.1	<b>29324 H</b>	645 000	2 100 000	1 600
	250	78	4	<b>29424 H</b>	1 160 000	3 400 000	1 400
<b>130</b>	225	58	2.1	<b>29326 H</b>	740 000	2 450 000	1 500
	270	85	4	<b>29426 H</b>	1 330 000	3 900 000	1 200
<b>140</b>	240	60	2.1	<b>29328 H</b>	840 000	2 810 000	1 400
	280	85	4	<b>29428 H</b>	1 370 000	4 200 000	1 200
<b>150</b>	250	60	2.1	<b>29330 H</b>	870 000	2 900 000	1 400
	300	90	4	<b>29430 H</b>	1 580 000	4 900 000	1 100
<b>160</b>	270	67	3	<b>29332 H</b>	1 010 000	3 400 000	1 300
	320	95	5	<b>29432 H</b>	1 740 000	5 400 000	1 100
<b>170</b>	280	67	3	<b>29334 H</b>	1 050 000	3 500 000	1 200
	340	103	5	<b>29434</b>	1 680 000	5 800 000	1 000
<b>180</b>	300	73	3	<b>29336 H</b>	1 230 000	4 200 000	1 100
	360	109	5	<b>29436</b>	1 870 000	6 500 000	900
<b>190</b>	320	78	4	<b>29338 H</b>	1 370 000	4 700 000	1 100
	380	115	5	<b>29438</b>	2 100 000	7 450 000	850
<b>200</b>	280	48	2	<b>29240</b>	540 000	2 310 000	1 500
	340	85	4	<b>29340 H</b>	1 570 000	5 450 000	1 000
	400	122	5	<b>29440</b>	2 290 000	8 150 000	800

내경 220~420mm



주요치수 (mm)				호칭번호	기본정격하중(N)		허용회전수 (rpm) 오일윤활
d	D	T	r (최소)		Ca (동)	Coa (정)	
<b>220</b>	300	48	2	<b>29244</b>	560 000	2 500 000	1 400
	360	85	4	<b>29344</b>	1 340 000	5 200 000	950
	420	122	6	<b>29444</b>	2 350 000	8 650 000	800
<b>240</b>	340	60	2.1	<b>29248</b>	800 000	3 450 000	1 200
	380	85	4	<b>29348</b>	1 360 000	5 400 000	950
	440	122	6	<b>29448</b>	2 420 000	9 100 000	750
<b>260</b>	360	60	2.1	<b>29252</b>	855 000	3 850 000	1 200
	420	95	5	<b>29352</b>	1 700 000	6 800 000	800
	480	132	6	<b>29452</b>	2 820 000	10 700 000	710
<b>280</b>	380	60	2.1	<b>29256</b>	885 000	4 100 000	1 100
	440	95	5	<b>29356</b>	1 830 000	7 650 000	800
	520	145	6	<b>29456</b>	3 400 000	13 100 000	630
<b>300</b>	420	73	3	<b>29260</b>	1 160 000	5 150 000	950
	480	109	5	<b>29360</b>	2 190 000	9 100 000	710
	540	145	6	<b>29460</b>	3 500 000	13 700 000	630
<b>320</b>	440	73	3	<b>29264</b>	1 190 000	5 450 000	950
	500	109	5	<b>29364</b>	2 230 000	9 400 000	670
	580	155	7.5	<b>29464</b>	3 650 000	14 700 000	560
<b>340</b>	460	73	3	<b>29268</b>	1 230 000	5 750 000	900
	540	122	5	<b>29368</b>	2 640 000	11 200 000	630
	620	170	7.5	<b>29468</b>	4 400 000	17 400 000	530
<b>360</b>	500	85	4	<b>29272</b>	1 550 000	7 300 000	800
	560	122	5	<b>29372</b>	2 670 000	11 500 000	600
	640	170	7.5	<b>29472</b>	4 200 000	17 200 000	500
<b>380</b>	520	85	4	<b>29276</b>	1 620 000	7 800 000	800
	600	132	6	<b>29376</b>	3 300 000	14 500 000	560
	670	175	7.5	<b>29476</b>	4 800 000	19 500 000	480
<b>400</b>	540	85	4	<b>29280</b>	1 640 000	8 000 000	750
	620	132	6	<b>29380</b>	3 250 000	14 500 000	530
	710	185	7.5	<b>29480</b>	5 400 000	22 100 000	450
<b>420</b>	580	95	5	<b>29284</b>	2 010 000	9 800 000	670
	650	140	6	<b>29384</b>	3 500 000	15 700 000	500
	730	185	7.5	<b>29484</b>	5 650 000	23 500 000	450

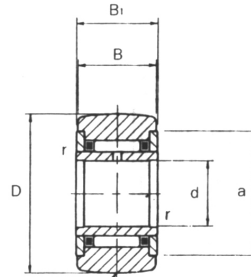
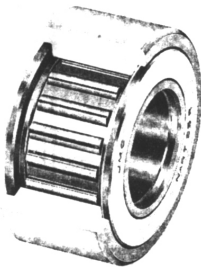


## YOKE TYPE TRACK ROLLERS

케이지형, mm치수

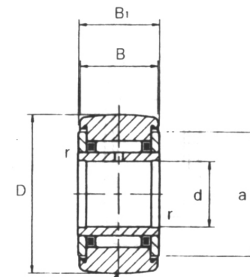
CAGE TYPE

METRIC DIMENSION



R500 (NART17 이하/To NART17)  
R1000 (NART20 이상/Over NART20)

NART



R500 (NART17 이하/To NART17)  
R1000 (NART20 이상/Over NART20)

NART...R

NART...UUR

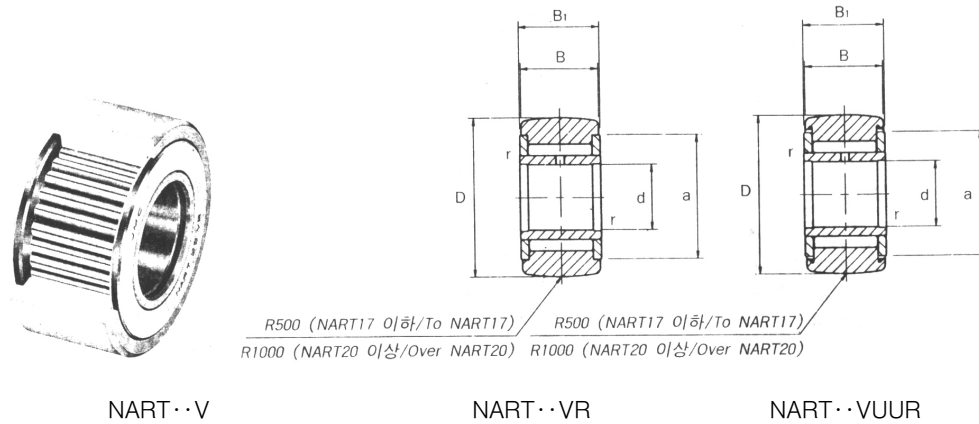
축 경 (Bore diameter) mm d	호 칭 번 호 (Bearing No.)				D
	케이 지 형 (Caged needle rollers)		총 진 형 (Full complement of needle rollers)		
	씰 없음 (Unsealed)	씰 부착 (Sealed)	씰 없음 (Unsealed)	씰 부착 (Sealed)	
5	NART 5R	NART 5UUR	NART 5VR	NART 5VUUR	16
6	NART 6R	NART 6UUR	NART 6VR	NART 6VUUR	19
8	NART 8R	NART 8UUR	NART 8VR	NART 8VUUR	24
10	NART 10R	NART 10UUR	NART 10VR	NART 10VUUR	30
12	NART 12R	NART 12UUR	NART 12VR	NART 12VUUR	32
15	NART 15R	NART 15UUR	NART 15VR	NART 15VUUR	35
17	NART 17R	NART 17UUR	NART 17VR	NART 17VUUR	40
20	NART 20R	NART 20UUR	NART 20VR	NART 20VUUR	47
25	NART 25R	NART 25UUR	NART 25VR	NART 25VUUR	52
30	NART 30R	NART 30UUR	NART 30VR	NART 30VUUR	62
35	NART 35R	NART 35UUR	NART 35VR	NART 35VUUR	72
40	NART 40R	NART 40UUR	NART 40VR	NART 40VUUR	80
45	NART 45R	NART 45UUR	NART 45VR	NART 45VUUR	85
50	NART 50R	NART 50UUR	NART 50VR	NART 50VUUR	90

## YOKE TYPE TRACK ROLLERS

충진형, mm치수

FULL COMPLEMENT OF NEEDLE ROLLER

METRIC DIMENSION



NART···V

NART···VR

NART···VUUR

주요 치수 (Dimensions) mm				질량 (Mass) gr.	기본 동정격 하중 (Basic dynamic load ratings) C/kgf	기본 정정격 하중 (Basic static load ratings) C/kgf	트랙 부하 용량 (Track capacity) kgf	허용 회전수 (Limiting speed) rpm
B	B <sub>1</sub>	a	r					
11	12	12	0.5	14.5 / 15.1	270 / 530	170 / 510	90	25,000 / 8,500
11	12	14	0.5	20.5 / 21.5	300 / 600	210 / 620	120	20,000 / 7,000
14	15	19	0.5	41.5 / 42.5	500 / 910	350 / 930	160	17,000 / 5,500
14	15	23.5	0.5	64.5 / 66.5	700 / 1,220	460 / 1,090	210	15,000 / 5,000
14	15	25.5	0.5	71 / 73	750 / 1,320	500 / 1,210	240	13,000 / 4,500
18	19	29	0.5	102 / 106	1,190 / 1,900	940 / 2,100	270	10,000 / 3,500
20	21	32.5	0.5	149 / 155	1,540 / 2,440	1,220 / 2,690	320	9,500 / 3,000
24	25	38	0.5	250 / 255	2,010 / 3,170	1,760 / 3,840	390	8,000 / 2,500
24	25	43	0.5	285 / 295	2,160 / 3,470	1,990 / 4,440	450	7,000 / 2,500
28	29	50.5	0.5	470 / 485	2,920 / 4,540	2,840 / 6,100	570	5,500 / 1,800
28	29	58	1	640 / 655	3,100 / 4,780	3,140 / 6,650	700	5,000 / 1,700
30	32	66	1	845 / 865	3,900 / 5,800	4,400 / 8,870	800	4,000 / 1,300
30	32	72	1	915 / 935	4,070 / 6,110	4,750 / 9,720	870	4,000 / 1,300
30	32	76	1	980 / 1,010	4,230 / 6,390	5,100 / 10,600	940	3,500 / 1,200

▶ 註 오일내에서 사용시는 약 130%의 성능을 가며, 썰이 있는 경우는 허용 회전수에서 약 40%가 감소합니다.

Limiting speed increases 30% in oil lubrication and in case of sealed types, the limiting speed drops about 40% from the tabular data.

▶ 註 중량, 기본 동정격(정정격) 하중, 허용 회전수에 관해서는 앞에 있는 수자값은 리테이너 형을 나타내며, 후자는 충진형을 보여줍니다.

Concerning weight, basic dynamic or static load ratings and limiting speed, the former shows the values of caged needle rollers and the latter, the values of full complement of needle rollers.

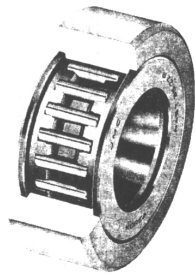
## YOKE TYPE TRACK ROLLERS

케이지형, mm치수, 내륜, 외륜 및 측판 분할형

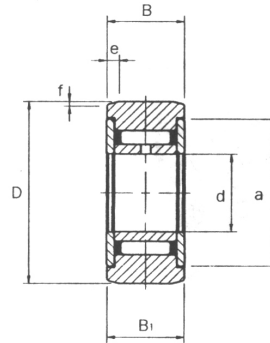
PRECISION CAGE TYPE

METRIC DIMENSION

SEPARABLE INNER AND OUTER RING AND RETAINING WASHER



NAST···ZZ



NAST···ZZ

축 경 (Bore diameter) mm d	호 칭 번 호 (Bearing No.)				D
	원통외륜 (Cylindrical outer ring)		구면외륜 (Crowned outer ring)		
	씰 없음 (Unsealed)	씰 부착 (Sealed)	씰 없음 (Unsealed)	씰 부착 (Sealed)	
6	NAST 6ZZ	NAST 6ZZUU	NAST 6ZZR	NAST 6ZZUUR	19
8	NAST 8ZZ	NAST 8ZZUU	NAST 8ZZR	NAST 8ZZUUR	24
10	NAST 10ZZ	NAST 10ZZUU	NAST 10ZZR	NAST 10ZZUUR	30
12	NAST 12ZZ	NAST 12ZZUU	NAST 12ZZR	NAST 12ZZUUR	32
15	NAST 15ZZ	NAST 15ZZUU	NAST 15ZZR	NAST 15ZZUUR	35
17	NAST 17ZZ	NAST 17ZZUU	NAST 17ZZR	NAST 17ZZUUR	40
20	NAST 20ZZ	NAST 20ZZUU	NAST 20ZZR	NAST 20ZZUUR	47
25	NAST 25ZZ	NAST 25ZZUU	NAST 25ZZR	NAST 25ZZUUR	52
30	NAST 30ZZ	NAST 30ZZUU	NAST 30ZZR	NAST 30ZZUUR	62
35	NAST 35ZZ	NAST 35ZZUU	NAST 35ZZR	NAST 35ZZUUR	72
40	NAST 40ZZ	NAST 40ZZUU	NAST 40ZZR	NAST 40ZZUUR	80
45	NAST 45ZZ	NAST 45ZZUU	NAST 45ZZR	NAST 45ZZUUR	85
50	NAST 50ZZ	NAST 50ZZUU	NAST 50ZZR	NAST 50ZZUUR	90

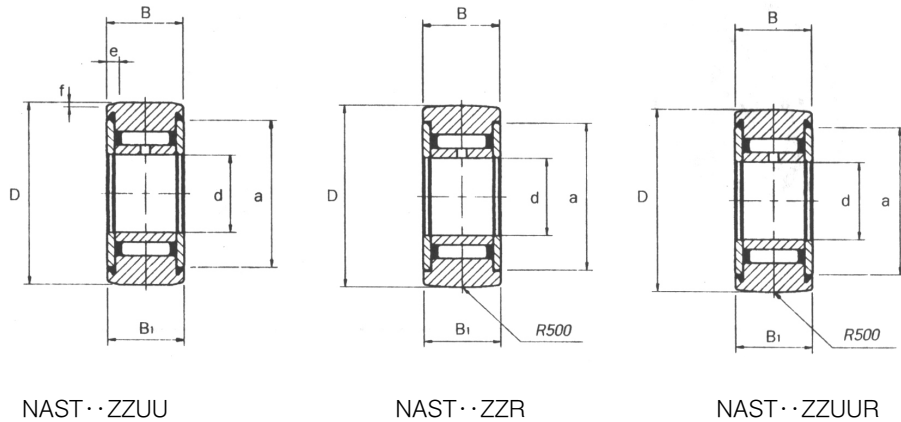
## YOKE TYPE TRACK ROLLERS

케이지형, mm치수, 내륜, 외륜 및 측판 분할형

PRECISION CAGE TYPE

METRIC DIMENSION

SEPARABLE INNER AND OUTER RING AND RETAINING WASHER



NAST··ZZUU

NAST··ZZR

NAST··ZZUUR

주요 치수 (Dimensions) mm					중량 (Weight) gr.	기본 동정격 하중 (Basic dynamic load ratings) C/kgf	기본 정정격 하중 (Basic static load ratings) C/kgf	트랙 부하 용량 (Track capacity) kgf	허용 회전수 (Limiting speed) rpm
B	B <sub>1</sub>	a	e	f					
13.8	14	14	2.5	0.8	24.5	370	290	320/120	20,000
13.8	14	19	2.5	0.8	39	510	380	410/160	17,000
15.8	16	23.5	2.5	0.8	65	880	640	630/210	15,000
15.8	16	25.5	2.5	0.8	75	940	710	670/240	13,000
15.8	16	29	2.5	0.8	83	1,110	920	730/270	10,000
19.8	20	32.5	3	1	135	1,580	1,340	1,070/320	9,500
19.8	20	38	3	1	195	1,740	1,560	1,260/390	8,500
19.8	20	43	3	1	225	1,870	1,790	1,390/450	7,000
24.8	25	50.5	4	1.2	400	2,740	2,850	2,020/570	5,500
24.8	25	58	4	1.2	550	2,910	3,170	2,340/700	5,000
25.8	26	66	4	1.2	710	3,220	3,800	2,760/800	4,000
25.8	26	72	4	1.2	760	3,360	4,110	2,930/870	4,000
25.8	26	76	4	1.2	830	3,500	4,430	3,100/940	3,500

▶ 註 “e” 및 “f”의 값은 원통 외륜에만 적용됩니다.  
The values of “e” and “f” apply to cylindrical outer rings only.

▶ 註 트랙 부하 용량에 관련해서는 앞에 있는 수치가 값은 원통 외륜을 나타내며 후자는 구면 외륜을 보여줍니다.  
With respect to track capacity, the former reveals the values of cylindrical outer rings and the latter, the values of crowned outer ring.