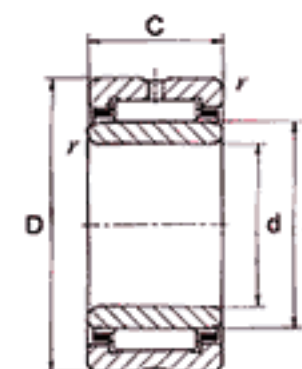


MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



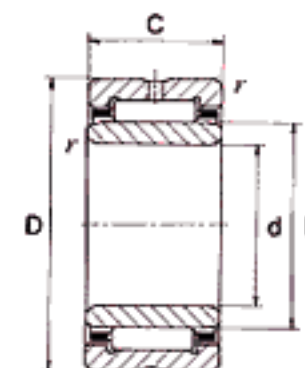
NA49, NA59, NKI, NA69 (d ≤ 30)

JNS: NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed ²⁾ rpm	Designation				Weight g
	D	C	¹⁾ r/min	F				NA 49	NA 59	NA 69	NKI	
5	15	12	0.3	8	5 100	4 700	32 000	—	—	—	NKI 5/12	11.9
	15	16	0.3	8	7 100	7 300	32 000	—	—	—	NKI 5/16	16.7
6	15	10	0.15	8	3 900	3 400	32 000	NA 496	—	—	—	9.1
	16	12	0.3	9	5 500	5 300	30 000	—	—	—	NKI 6/12	13
	16	16	0.3	9	7 600	8 200	30 000	—	—	—	NKI 6/16	17.5
7	17	10	0.15	9	4 500	3 600	30 000	NA 497	—	—	—	11.2
	17	12	0.3	10	5 900	6 000	28 000	—	—	—	NKI 7/12	14.3
	17	16	0.3	10	8 200	9 200	28 000	—	—	—	NKI 7/16	19.2
8	19	11	0.2	10	6 200	5 000	28 000	NA 498	—	—	—	15
9	19	12	0.3	12	6 600	7 300	26 000	—	—	—	NKI 9/12	16.7
	19	16	0.3	12	9 200	11 200	26 000	—	—	—	NKI 9/16	22.5
	20	11	0.3	12	6 600	6 300	26 000	NA 499	—	—	—	16.7
10	22	13	0.3	14	9 200	10 100	24 000	NA 4900	—	—	—	24
	22	16	0.3	14	11 800	13 700	24 000	—	—	—	NKI 10/16	30
	22	20	0.3	14	14 800	18 500	24 000	—	—	—	NKI 10/20	38
12	24	13	0.3	16	9 700	11 100	23 000	NA 4901	—	—	—	26.5
	24	16	0.3	16	12 300	15 100	23 000	—	—	—	NKI 12/16	33.5
	24	20	0.3	16	15 600	20 400	23 000	—	—	—	NKI 12/20	42.5
	24	22	0.3	16	17 100	23 000	23 000	—	—	NA 6901	—	44.5

1) Smallest permissible chamfer dimension.
 2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.
 • NKI type of 8mm or less bore diameter (d) is without oil holes.
 Oil hole on these small sizes is also available on request.

MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



NA49, NA59, NKI, NA69 (d ≤ 30)

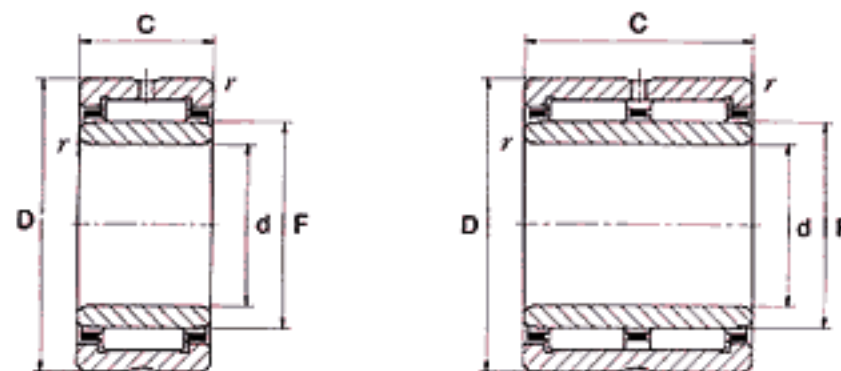
JNS: NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed ²⁾ rpm	Designation				Weight g
	D	C	¹⁾ r min	F				NA 49	NA 59	NA 69	NKI	
15	27	16	0.3	19	14 000	18 700	21 000	—	—	—	NKI 15/16	39.5
	27	20	0.3	19	17 700	25 300	21 000	—	—	—	NKI 15/20	50
	28	13	0.3	20	10 900	13 800	20 000	NA 4902	—	—	—	35
	28	18	0.3	20	14 100	19 100	20 000	—	NA 5902	—	—	52
	28	23	0.3	20	19 300	28 700	20 000	—	—	NA 6902	—	61
17	29	16	0.3	21	14 400	20 000	19 000	—	—	—	NKI 17/16	43.5
	29	20	0.3	21	18 200	27 100	19 000	—	—	—	NKI 17/20	54
	30	13	0.3	22	11 800	15 600	18 000	NA 4903	—	—	—	39
	30	18	0.3	22	15 200	21 700	18 000	—	NA 5903	—	—	56
	30	23	0.3	22	20 800	32 500	18 000	—	—	NA 6903	—	67
20	32	16	0.3	24	15 300	22 600	17 000	—	—	—	NKI 20/16	48.5
	32	20	0.3	24	19 400	30 500	17 000	—	—	—	NKI 20/20	61
	37	17	0.3	25	21 000	25 000	16 000	NA 4904	—	—	—	78.5
	37	23	0.3	25	28 400	37 000	16 000	—	NA 5904	—	—	115
	37	30	0.3	25	35 400	48 800	16 000	—	—	NA 6904	—	136
22	34	16	0.3	26	16 300	24 900	15 000	—	—	—	NKI 22/16	52
	34	20	0.3	26	20 600	33 700	15 000	—	—	—	NKI 22/20	67.5
	39	17	0.3	28	21 400	28 800	14 000	NA 49/22	—	—	—	87
	39	23	0.3	28	26 400	37 500	14 000	—	NA 59/22	—	—	134
	39	30	0.3	28	36 300	56 900	14 000	—	—	NA 69/22	—	152

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



NA49, NA59, NKI, NA69 (d ≤ 30)

NA69

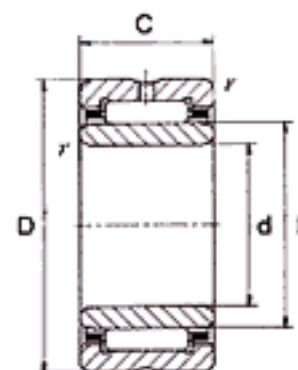
JNS: NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed ²⁾ rpm	Designation				Weight g
	D	C	¹⁾ r/s min	F				NA 49	NA 59	NA 69	NKI	
25	38	20	0.3	29	21 600	37 200	14 000	—	—	—	NKI 25/20	82
	38	30	0.3	29	30 900	59 000	14 000	—	—	—	NKI 25/30	123
	42	17	0.3	30	23 700	30 700	13 000	NA 4905	—	—	—	92.5
	42	23	0.3	30	30 500	43 000	13 000	—	NA 5905	—	—	139
	42	30	0.3	30	42 100	64 200	13 000	—	—	NA 6905	—	160
28	42	20	0.3	32	25 700	42 200	13 000	—	—	—	NKI 28/20	96.5
	42	30	0.3	32	36 900	67 100	13 000	—	—	—	NKI 28/30	145
	45	17	0.3	32	24 500	32 700	13 000	NA 49/28	—	—	—	101
	45	23	0.3	32	32 000	45 500	13 000	—	NA 59/28	—	—	142
	45	30	0.3	32	41 800	64 700	13 000	—	—	NA 69/28	—	176
30	45	20	0.3	35	27 000	46 200	11 000	—	—	—	NKI 30/20	112
	45	30	0.3	35	38 600	73 500	11 000	—	—	—	NKI 30/30	171
	47	17	0.3	35	25 200	34 700	11 000	NA 4906	—	—	—	106
	47	23	0.3	35	32 500	48 500	11 000	—	NA 5906	—	—	152
	47	30	0.3	35	43 100	69 000	11 000	—	—	NA 6906	—	184
32	47	20	0.3	37	28 200	50 100	11 000	—	—	—	NKI 32/20	121
	47	30	0.3	37	40 500	79 800	11 000	—	—	—	NKI 32/30	180
	52	20	0.6	40	31 300	47 900	10 000	NA 49/32	—	—	—	165
	52	27	0.6	40	38 000	61 000	10 000	—	NA 59/32	—	—	241
	52	36	0.6	40	53 500	95 700	10 000	—	—	NA 69/32	—	295

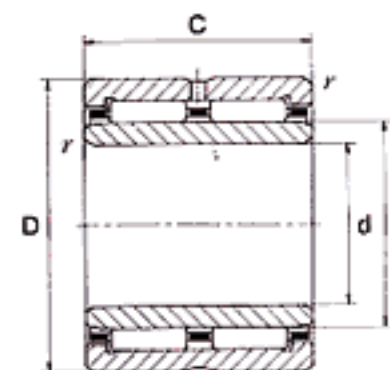
1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



NA49, NA59, NKI



NA69

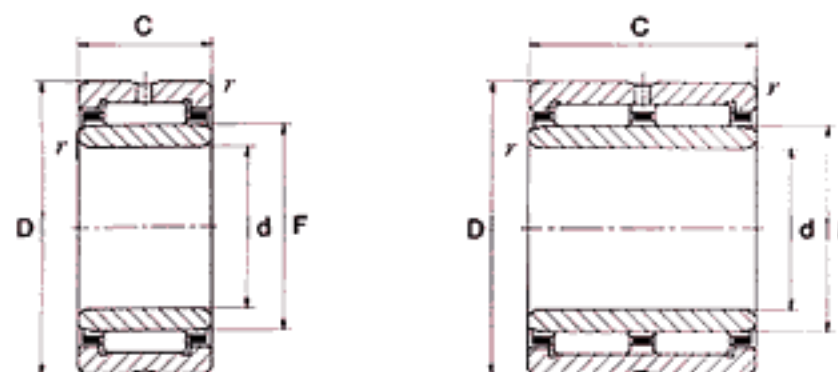
JNS: NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm ²⁾	Designation				Weight g
	D	C	r_s min ¹⁾	F				NA 49	NA 59	NA 69	NKI	
35	50	20	0.3	40	29 400	54 100	10 000	—	—	—	NKI 35/20	129
	50	30	0.3	40	42 300	86 100	10 000	—	—	—	NKI 35/30	192
	55	20	0.6	42	32 000	50 200	9 500	NA 4907	—	—	—	178
	55	27	0.6	42	39 000	64 500	9 500	—	NA 5907	—	—	256
	55	36	0.6	42	54 800	100 000	9 500	—	—	NA 6907	—	320
38	53	20	0.3	43	30 500	58 100	9 500	—	—	—	NKI 38/20	136
	53	30	0.3	43	43 700	92 500	9 500	—	—	—	NKI 38/30	205
40	55	20	0.3	45	31 100	60 100	9 000	—	—	—	NKI 40/20	143
	55	30	0.3	45	44 500	95 700	9 000	—	—	—	NKI 40/30	215
	62	22	0.6	48	41 600	67 400	8 500	NA 4908	—	—	—	245
	62	30	0.6	48	53 000	92 500	8 500	—	NA 5908	—	—	348
	62	40	0.6	48	71 300	134 400	8 500	—	—	NA 6908	—	440
42	57	20	0.3	47	31 500	62 300	8 500	—	—	—	NKI 42/20	149
	57	30	0.3	47	45 200	99 000	8 500	—	—	—	NKI 42/30	225
45	62	25	0.6	50	43 000	85 200	8 000	—	—	—	NKI 45/25	230
	62	35	0.6	50	58 100	125 500	8 000	—	—	—	NKI 45/35	320
	68	22	0.6	52	43 500	73 400	7 500	NA 4909	—	—	—	285
	68	30	0.6	52	56 000	101 000	7 500	—	NA 5909	—	—	396
	68	40	0.6	52	74 600	147 100	7 500	—	—	NA 6909	—	520

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

**MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING**



NA49, NA59, NKI

NA69

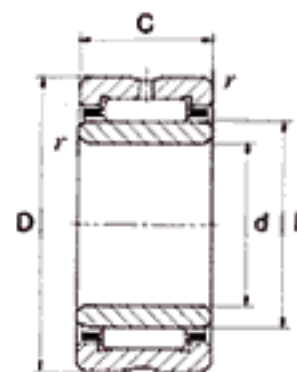
JNS:NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm ²⁾	Designation				Weight g
	D	C	r_s min ¹⁾	F				NA 49	NA 59	NA 69	NKI	
50	68	25	0.6	55	45 400	94 100	7 500	—	—	—	NKI 50/25	270
	68	35	0.6	55	61 300	138 300	7 500	—	—	—	NKI 50/35	365
	72	22	0.6	58	46 200	82 100	7 000	NA 4910	—	—	—	295
	72	30	0.6	58	58 000	110 000	7 000	—	NA 5910	—	—	498
	72	40	0.6	58	79 100	163 800	7 000	—	—	NA 6910	—	530
55	72	25	0.6	60	47 500	103 000	6 500	—	—	—	NKI 55/25	275
	72	35	0.6	60	64 100	151 000	6 500	—	—	—	NKI 55/35	380
	80	25	1	63	57 600	97 300	6 500	NA 4911	—	—	—	410
	80	34	1	63	76 500	140 000	6 500	—	NA 5911	—	—	559
	80	45	1	63	99 000	194 200	6 500	—	—	NA 6911	—	730
60	82	25	0.6	68	54 800	116 700	6 000	—	—	—	NKI 60/25	395
	82	35	0.6	68	72 100	165 700	6 000	—	—	—	NKI 60/35	560
	85	25	1	68	60 100	104 900	6 000	NA 4912	—	—	—	440
	85	34	1	68	80 500	153 000	6 000	—	NA 5912	—	—	614
	85	45	1	68	103 000	210 800	6 000	—	—	NA 6912	—	785
65	90	25	1	72	62 800	113 800	5 500	NA 4913	—	—	—	470
	90	34	1	72	84 000	165 000	5 500	—	NA 5913	—	—	655
	90	35	0.6	73	80 400	180 400	5 500	—	—	—	NKI 65/35	710
	90	45	1	72	107 900	226 500	5 500	—	—	NA 6913	—	840

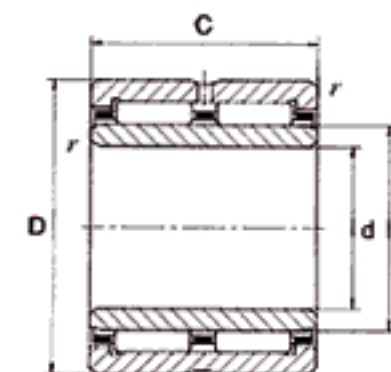
1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS WITH INNER RING



NA49, NA59, NKI



NA69

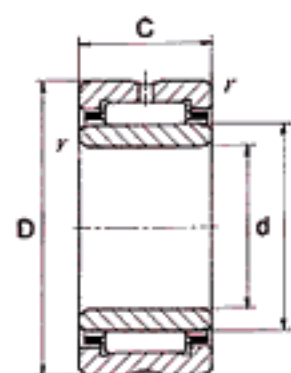
JNS:NA49, NA59, NA69, NKI TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm	Designation				Weight g
	D	C	γ s min ¹⁾	F				NA 49	NA 59	NA 69	NKI	
70	95	25	1	80	59 400	137 300	5 000	—	—	—	NKI 70/25	540
	95	35	1	80	78 100	194 200	5 000	—	—	—	NKI 70/35	755
	100	30	1	80	83 200	157 900	5 000	NA 4914	—	—	—	765
	100	40	1	80	103 000	187 000	5 000	—	NA 5914	—	—	1 060
	100	54	1	80	133 400	310 900	5 000	—	—	NA 6914	—	1 400
75	105	25	1	85	76 400	145 100	4 500	—	—	—	NKI 75/25	675
	105	30	1	85	86 200	169 700	4 500	NA 4915	—	—	—	810
	105	35	1	85	102 000	209 900	4 500	—	—	—	NKI 75/35	945
	105	40	1	85	109 000	205 000	4 500	—	NA 5915	—	—	1 130
	105	54	1	85	138 300	330 500	4 500	—	—	NA 6915	—	1 480
80	110	25	1	90	77 400	150 000	4 500	—	—	—	NKI 80/25	710
	110	30	1	90	87 400	174 600	4 500	NA 4916	—	—	—	855
	110	35	1	90	103 000	216 700	4 500	—	—	—	NKI 80/35	995
	110	40	1	90	115 000	223 000	4 500	—	NA 5916	—	—	1 150
	110	54	1	90	143 200	350 100	4 500	—	—	NA 6916	—	1 560
85	115	26	1	95	79 700	158 900	4 200	—	—	—	NKI 85/26	775
	115	36	1	95	106 900	230 500	4 200	—	—	—	NKI 85/36	1 080
	120	35	1.1	100	109 800	244 200	4 000	NA 4917	—	—	—	1 280
	120	46	1.1	100	137 000	290 000	4 000	—	NA 5917	—	—	1 760
	120	63	1.1	100	172 600	466 800	4 000	—	—	NA 6917	—	2 340

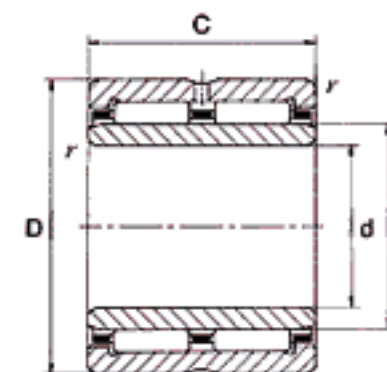
1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS WITH INNER RING



NA49, NA59, NKI



NA69

JNS: NA49, NA59, NA69, NKI TYPE

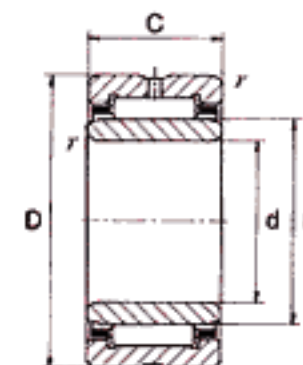
Dimensions (mm)					Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed 2) rpm	Designation				Weight g
d	D	C	γs min ¹⁾	F				NA 49	NA 59	NA 69	NKI	
90	120	26	1	100	82 500	168 700	4 000	—	—	—	NKI 90/26	820
	120	36	1	100	109 800	244 200	4 000	—	—	—	NKI 90/36	1 140
	125	35	1.1	105	112 800	257 900	3 800	NA 4918	—	—	—	1 350
	125	46	1.1	105	143 000	310 000	3 800	—	NA 5918	—	—	1 840
	125	63	1.1	105	177 500	490 300	3 800	—	—	NA 6918	—	2 460
95	125	26	1	105	84 700	177 500	3 800	—	—	—	NKI 95/26	860
	125	36	1	105	112 800	257 900	3 800	—	—	—	NKI 95/36	1 190
	130	35	1.1	110	116 700	270 700	3 600	NA 4919	—	—	—	1 420
	130	46	1.1	110	149 000	335 000	3 600	—	NA 5919	—	—	1 980
	130	63	1.1	110	182 400	514 800	3 600	—	—	NA 6919	—	2 580
100	130	30	1.1	110	105 900	239 300	3 600	—	—	—	NKI 100/30	1 040
	130	40	1.1	110	133 400	323 600	3 600	—	—	—	NKI 100/40	1 380

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS

WITH INNER RING



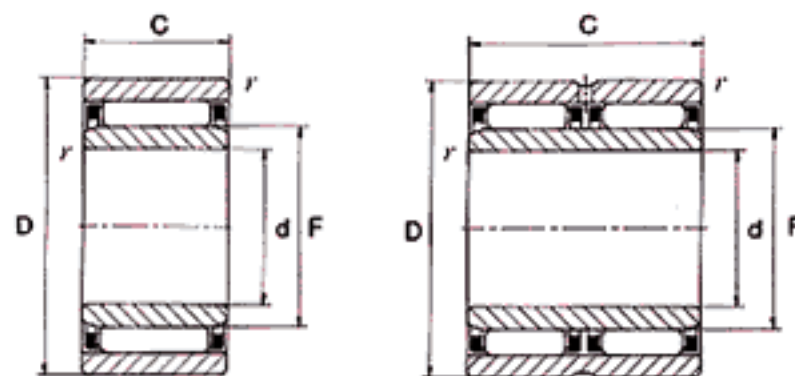
JNS:NA 4920 ~ NA 4928, NA 4822 ~ NA 4832

Dimensions (mm)					Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed 2) rpm	Designation		Weight g
d	D	C	1) γs min	F				NA 49	NA 48	
100	140	40	1.1	115	145 000	329 000	3 500	NA 4920	—	1 960
110	140	30	1.0	120	93 000	239 000	3 500	—	NA 4822	1 200
110	150	40	1.1	125	152 000	357 000	3 000	NA 4922	—	2 120
120	150	30	1.0	130	97 000	259 000	3 000	—	NA 4824	1 300
120	165	45	1.1	135	187 000	435 000	3 000	NA 4924	—	2 960
130	165	35	1.1	145	117 000	340 000	3 000	—	NA 4826	1 960
130	180	50	1.5	150	216 000	540 000	2 500	NA 4926	—	4 030
140	175	35	1.1	155	121 000	363 000	2 500	—	NA 4828	2 100
140	190	50	1.5	160	224 000	580 000	2 500	NA 4928	—	4 290
150	190	40	1.1	165	168 000	446 000	2 500	—	NA 4830	2 880
160	200	40	1.1	175	173 000	474 000	2 500	—	NA 4832	3 050

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 60% of this value.

**MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING**



NAF

NAFW

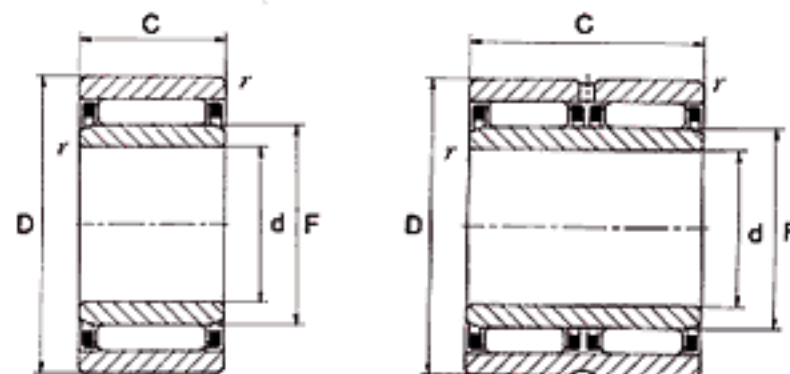
JNS:NAF(W) TYPE

Dimensions (mm)					Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm ²⁾	Designation NAF(W)	Weight g
d	D	C	r_s min ¹⁾	F					
6	17	10	0.3	10	4 100	4 500	28 000	NAF 61710	14
7	20	12	0.3	10	6 000	6 000	28 000	NAF 72012	23
9	22	12	0.3	12	9 000	8 400	26 000	NAF 92212	24
10	22	13	0.3	14	7 800	9 400	24 000	NAF 102213	26
	22	20	0.3	14	10 800	14 200	24 000	NAFW 102220	40
	26	12	0.3	14	9 800	9 700	24 000	NAF 102612	36
12	24	13	0.3	16	8 600	11 000	23 000	NAF 122413	30
	24	20	0.3	16	11 900	16 700	23 000	NAFW 122420	45
	28	12	0.3	16	10 500	10 900	23 000	NAF 122812	40
15	28	13	0.3	20	9 600	13 500	20 000	NAF 152813	37
	28	26	0.3	20	16 500	27 100	20 000	NAFW 152826	76
	32	12	0.3	20	12 400	14 300	20 000	NAF 153212	51
17	30	13	0.3	22	10 200	15 200	18 000	NAF 173013	43
	30	26	0.3	22	17 600	30 300	18 000	NAFW 173026	85
	35	16	0.3	22	17 600	20 900	18 000	NAF 173516	77
	35	32	0.3	22	30 200	41 900	18 000	NAFW 173532	155
20	35	17	0.3	25	17 300	26 600	16 000	NAF 203517	75
	35	26	0.3	25	22 500	37 200	16 000	NAFW 203526	114
	37	16	0.3	25	19 400	24 500	16 000	NAF 203716	80
	37	32	0.3	25	33 200	49 000	16 000	NAFW 203732	158

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 50% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



NAF

NAFW

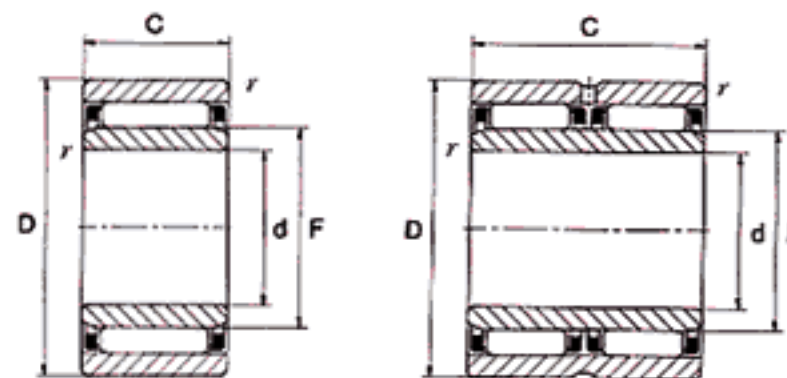
JNS:NAF(W) TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm ²⁾	Designation NAF(W)	Weight g
	D	C	r_s min ¹⁾	F					
25	40	17	0.3	30	18 600	31 100	13 000	NAF 254017	88
	40	26	0.3	30	24 200	43 400	13 000	NAFW 254026	136
	42	16	0.3	30	20 800	28 300	13 000	NAF 254216	94
	42	32	0.3	30	35 700	56 800	13 000	NAFW 254232	187
30	45	17	0.3	35	20 500	36 900	11 000	NAF 304517	100
	45	26	0.3	35	26 600	51 600	11 000	NAFW 304526	155
	47	16	0.3	35	23 000	33 800	11 000	NAF 304716	108
	47	32	0.3	35	39 500	67 800	11 000	NAFW 304732	215
35	50	17	0.3	40	22 200	42 700	10 000	NAF 355017	115
	50	34	0.3	40	38 000	85 300	10 000	NAFW 355034	230
	55	20	0.3	40	31 500	48 000	10 000	NAF 355520	188
	55	40	0.3	40	53 900	96 000	10 000	NAFW 355540	375
40	55	17	0.3	45	23 200	47 200	10 000	NAF 405517	129
	55	34	0.3	45	39 900	94 200	10 000	NAFW 405534	255
	62	20	0.3	45	33 200	53 300	9 000	NAF 406220	236
	62	40	0.3	45	57 000	106 900	9 000	NAFW 406240	475
45	62	20	0.3	50	27 100	59 300	8 000	NAF 456220	197
	62	40	0.3	50	46 400	118 700	8 000	NAFW 456240	389
	72	20	0.6	55	37 400	66 400	7 500	NAF 457220	340
	72	40	0.6	55	64 100	132 400	7 500	NAFW 457240	685

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 50% of this value.

MACHINED RING NEEDLE ROLLER BEARINGS
WITH INNER RING



NAF

NAFW

JNS:NAF(W) TYPE

d	Dimensions (mm)				Basic dynamic load rating Cr N	Basic static load rating Cor N	Limiting speed rpm ²⁾	Designation NAF(W)	Weight g
	D	C	r_s min ¹⁾	F					
50	68	20	0.6	55	28 500	66 000	7 500	NAF 506820	230
	68	40	0.6	55	48 900	132 400	7 500	NAFW 506840	465
	78	20	1	60	38 900	71 700	6 500	NAF 507820	390
	78	40	1	60	66 700	143 200	6 500	NAFW 507840	775
55	85	30	1	65	59 300	127 500	6 000	NAF 558530	680
	85	60	1	65	102 000	254 000	6 000	NAFW 558560	1 380
60	90	30	1	70	61 200	135 300	5 500	NAF 609030	740
	90	60	1	70	104 900	271 600	5 500	NAFW 609060	1 470
65	95	30	1	75	63 200	144 200	5 500	NAF 659530	800
	95	60	1	75	108 900	289 300	5 500	NAFW 659560	1 570
70	100	30	1	80	64 900	153 000	5 000	NAF 7010030	840
	100	60	1	80	111 800	306 000	5 000	NAFW 7010060	1 670
75	105	30	1	85	66 600	160 800	4 800	NAF 7510530	890
80	110	30	1	90	69 500	173 600	4 500	NAF 8011030	930
85	115	30	1	95	70 900	182 400	4 200	NAF 8511530	970
90	120	30	1	100	72 600	191 200	4 000	NAF 9012030	1 040

1) Smallest permissible chamfer dimension.

2) Suitable for oil lubrication. In case of grease lubrication, up to 50% of this value.