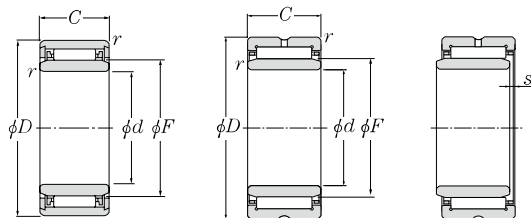


Needle Roller Bearings

NTN

Machined-ring needle roller bearings
with an inner ring

NA49 type
NA59 type
NA69 type
NK+IR type



NA49···R type
NA59 type
NA69···R type
NK···R+IR type

d 17 ~ 32mm

Boundary dimensions mm						Basic load rating		Fatigue load limit N C _u	Allowable speed		Number
	d	D	C	r _s min ¹⁾	F s ²⁾	d _r	N		min ⁻¹ Grease lubrication	Oil lubrication	
17	30	18	0.3	22	0.5	15 200	21 700	2 650	12 000	18 000	NA5903
	30	23	0.3	22	1	18 200	27 200	3 300	12 000	18 000	NA6903R
20	32	16	0.3	24	0.5	15 200	22 300	2 720	11 000	17 000	NK24/16R+IR20×24×16
	32	20	0.3	24	0.5	18 600	28 800	3 500	11 000	17 000	NK24/20R+IR20×24×20
	37	17	0.3	25	0.8	21 300	25 500	3 100	11 000	16 000	NA4904RCT
	37	23	0.3	25	0.8	28 400	37 000	4 500	11 000	16 000	NA5904
	37	30	0.3	25	1	36 500	50 500	6 150	11 000	16 000	NA6904R
22	34	16	0.3	26	0.5	15 600	23 600	2 880	10 000	15 000	8E-NK26/16RCT+IR22×26×16
	34	20	0.3	26	0.5	19 100	30 500	3 700	10 000	15 000	NK26/20R+IR22×26×20
	39	17	0.3	28	0.8	23 200	29 300	3 600	9 500	14 000	NA49/22R
	39	23	0.3	28	0.8	26 400	37 500	4 600	9 500	14 000	NA59/22
	39	30	0.3	28	0.5	40 000	58 500	7 150	9 500	14 000	NA69/22R
25	38	20	0.3	29	1	22 200	34 000	4 150	9 500	14 000	NK29/20R+IR25×29×20
	38	30	0.3	29	1.5	27 500	50 500	6 150	9 500	14 000	NK29/30R+IR25×29×30
	42	17	0.3	30	0.8	24 000	31 500	3 800	8 500	13 000	NA4905R
	42	23	0.3	30	0.8	30 500	43 000	5 200	8 500	13 000	NA5905
	42	30	0.3	30	1	41 500	63 000	7 650	8 500	13 000	NA6905R
28	42	20	0.3	32	1	23 500	37 500	4 600	8 500	13 000	NK32/20R+IR28×32×20
	42	30	0.3	32	1.5	34 000	60 500	7 350	8 500	13 000	NK32/30R+IR28×32×30
	45	17	0.3	32	0.8	24 800	33 500	4 050	8 500	13 000	NA49/28RCT
	45	23	0.3	32	0.8	32 000	45 500	5 550	8 500	13 000	NA59/28
	45	30	0.3	32	1	43 000	67 000	8 150	8 500	13 000	NA69/28R
30	45	20	0.3	35	0.5	24 800	41 500	5 050	7 500	11 000	NK35/20RCT+IR30×35×20
	45	30	0.3	35	1	36 000	66 500	8 100	7 500	11 000	NK35/30R+IR30×35×30
	47	17	0.3	35	0.8	25 500	35 500	4 300	7 500	11 000	NA4906R
	47	23	0.3	35	0.8	32 500	48 500	5 950	7 500	11 000	NA5906
	47	30	0.3	35	1	42 500	67 500	8 250	7 500	11 000	NA6906R
32	47	20	0.3	37	0.5	25 300	43 500	5 300	7 500	11 000	NK37/20R+IR32×37×20
	47	30	0.3	37	1	36 500	69 500	8 500	7 500	11 000	NK37/30R+IR32×37×30
	52	20	0.6	40	0.8	31 500	47 500	5 800	6 500	10 000	NA49/32R

1) Smallest allowable dimension for chamfer dimension r.

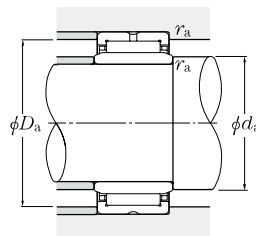
2) Allowable axial movement amount of the inner ring with respect to the outer ring.

3) Largest allowable dimension for fillet radius r_s of housing and shaft.

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Needle Roller Bearings

NTN



Installation-related dimensions mm			Mass kg (approx.)
d _a Min.	D _a Max.	r _{as} 3) Max.	
19	28	0.3	0.056
19	28	0.3	0.069
22	30	0.3	0.049
22	30	0.3	0.061
22	35	0.3	0.074
22	35	0.3	0.115
22	35	0.3	0.141
24	32	0.3	0.046
24	32	0.3	0.064
24	37	0.3	0.080
24	37	0.3	0.134
24	37	0.3	0.154
27	36	0.3	0.079
27	36	0.3	0.123
27	40	0.3	0.088
27	40	0.3	0.139
27	40	0.3	0.162
30	40	0.3	0.096
30	40	0.3	0.146
30	43	0.3	0.098
30	43	0.3	0.142
30	43	0.3	0.179
32	43	0.3	0.112
32	43	0.3	0.171
32	45	0.3	0.101
32	45	0.3	0.152
32	45	0.3	0.185
34	45	0.3	0.117
34	45	0.3	0.170
36	48	0.6	0.157

Note: The number of inner rings (IR) is composed of the IR inner diameter dimension × outer diameter dimension × width dimension.