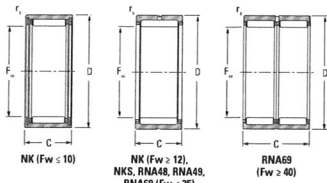


NEEDLE ROLLER BEARINGS

NEEDLE ROLLER BEARINGS WITHOUT INNER RINGS

METRIC SERIES  
NK, NKS, RNA48, RNA49  
RNA69 SERIES



Shaft Dia. mm in	F <sub>w</sub> mm in	D mm in	C mm in	r <sub>max</sub> mm in	Bearing Designation	Load Ratings			Fatigue Load Limit C <sub>10</sub> kN lbf	Speed Ratings		Approx. Wt. kg lbf
						Dynamic		Static		Grease	Oil	
						C	C <sub>0</sub>					
5	5	10	10	0.2	NK5/10TN	2.18	450	1.71	0.260	21000	47000	0.004
0.1969	0.1969	0.3937	0.394	0.008								0.009
6	6	12	12	0.2	NK6/12TN	3.04	583	2.63	0.400	31000	43000	0.004
0.2362	0.2362	0.4724	0.394	0.008								0.009
6	6	12	12	0.2	NK6/12	3.19	583	2.58	0.400	29000	44000	0.005
0.2362	0.2362	0.4724	0.394	0.008								0.013
6	6	12	12	0.2	NK6/12TN	3.07	583	2.74	0.400	29000	44000	0.006
0.2362	0.2362	0.4724	0.394	0.008								0.013
7	7	14	14	0.3	NK7/14TN	2.74	616	2.44	0.370	28000	42000	0.002
0.2756	0.2756	0.5512	0.554	0.012								0.015
7	7	14	14	0.3	NK7/14	3.4	754	3.22	0.450	28000	42000	0.009
0.2756	0.2756	0.5512	0.554	0.012								0.020
8	8	15	12	0.3	NK8/12	4.52	1050	4.89	0.740	26000	41000	0.011
0.315	0.315	0.5906	0.472	0.012								0.024
8	8	15	12	0.3	NK8/12ASR1	4.52	1050	4.89	0.740	26000	41000	0.011
0.315	0.315	0.5906	0.472	0.012								0.024
8	8	15	16	0.3	NK8/16	5.22	1170	5.78	0.890	26000	41000	0.013
0.315	0.315	0.5906	0.63	0.012								0.029
8	8	15	12	0.3	NK8/12	4.27	890	4.6	0.700	26000	40000	0.012
0.315	0.315	0.5906	0.472	0.012								0.026
8	8	15	16	0.3	NK8/16	5.52	1250	6.42	0.980	26000	40000	0.015
0.315	0.315	0.6299	0.63	0.012								0.033
10	10	17	12	0.3	NK10/12	5.4	1210	6.43	0.980	25000	39000	0.013
0.3937	0.3937	0.6889	0.472	0.012								0.029
10	10	17	16	0.3	NK10/16TN	5.5	1190	6.27	0.940	25000	39000	0.015
0.3937	0.3937	0.6889	0.63	0.012								0.033
12	12	19	12	0.3	NK12/12A	6.86	1540	7.6	1.14	19000	30000	0.012
0.4724	0.4724	0.7481	0.472	0.012								0.029
12	12	19	16	0.3	NK12/16	6.78	1500	9.03	1.40	24000	37000	0.018
0.4724	0.4724	0.7481	0.63	0.012								0.040
14	14	22	13	0.3	RNA48/20	9.39	2110	10.3	1.55	18000	24000	0.018
0.5512	0.5512	0.8661	0.512	0.012								0.040
14	14	22	16	0.3	NK14/16A	12.4	2790	14.8	2.25	18000	24000	0.023
0.5512	0.5512	0.8661	0.63	0.012								0.051
14	14	22	20	0.3	NK14/20A	14.7	3350	16.4	2.50	18000	24000	0.028
0.5512	0.5512	0.8661	0.787	0.012								0.060
15	15	23	16	0.3	NK15/16A	12.4	2790	15	2.20	15000	24000	0.024
0.5906	0.5906	0.9055	0.63	0.012								0.053
15	15	23	20	0.3	NK15/20A	14.7	3350	18.6	2.56	15000	24000	0.031
0.5906	0.5906	0.9055	0.787	0.012								0.068
16	16	24	13	0.3	RNA49/21	10.9	2360	12.3	1.85	18000	28000	0.020
0.6299	0.6299	0.9449	0.512	0.012								0.044
16	16	24	16	0.3	NK16/16A	13	2950	16.2	2.50	18000	26000	0.025
0.6299	0.6299	0.9449	0.63	0.012								0.055

Heavy-Duty Needle Roller Bearings

Shaft Dia. mm in	F <sub>w</sub> mm in	D mm in	C mm in	r <sub>max</sub> mm in	Bearing Designation	Load Ratings			Fatigue Load Limit C <sub>10</sub> kN lbf	Speed Ratings		Approx. Wt. kg lbf
						Dynamic		Static		Grease	Oil	
						C	C <sub>0</sub>					
16	16	24	20	0.3	NK16/20A	15.4	3400	20.2	3.20	18000	28000	0.026
0.6299	0.6299	0.9449	0.787	0.012								0.059
16	16	24	22	0.3	RNA49/21	16.1	3620	21.3	3.30	18000	28000	0.026
0.6299	0.6299	0.9449	0.866	0.012								0.059
17	17	25	16	0.3	NK17/16A	13.6	3050	17.5	2.70	17000	27000	0.027
0.6693	0.6693	0.9843	0.63	0.012								0.060
17	17	25	20	0.3	NK17/20A	15.4	3400	20.4	3.25	17000	27000	0.028
0.6693	0.6693	0.9843	0.787	0.012								0.061
18	18	26	16	0.3	NK18/16A	13.6	3050	17.7	2.70	16000	25000	0.028
0.7087	0.7087	1.0236	0.63	0.012								0.062
18	18	26	20	0.3	NK18/20A	16.1	3620	22.0	3.50	16000	25000	0.029
0.7087	0.7087	1.0236	0.787	0.012								0.063
18	18	30	16	0.3	NK18/16A	15.9	3570	18.2	2.45	17000	26000	0.040
0.7087	0.7087	1.1811	0.63	0.012								0.089
18	18	30	20	0.3	NK18/20A	14.1	3130	19.0	2.90	15000	24000	0.029
0.7087	0.7087	1.1811	0.787	0.012								0.064
18	18	30	20	0.3	NK18/20A	18.8	4200	23.6	3.75	15000	24000	0.027
0.7087	0.7087	1.1811	0.787	0.012								0.062
20	20	28	13	0.3	RNA48/21	11.8	2650	15.3	2.28	14000	22000	0.023
0.7874	0.7874	1.1024	0.512	0.012								0.051
20	20	28	16	0.3	NK20/16A	14.1	3130	19.1	2.90	14000	22000	0.028
0.7874	0.7874	1.1024	0.63	0.012								0.060
20	20	28	20	0.3	NK20/20A	17.5	3900	25.3	4.00	14000	22000	0.028
0.7874	0.7874	1.1024	0.787	0.012								0.064
20	20	28	23	0.3	RNA49/22A	18.4	4100	26.9	4.20	14000	22000	0.042
0.7874	0.7874	1.1024	0.906	0.012								0.093
20	20	32	20	0.4	NK20/20A	24.4	5400	36.7	4.30	15000	24000	0.048
0.7874	0.7874	1.2598	0.787	0.014								0.108
21	21	29	16	0.3	NK21/16A	15.3	3400	21.6	3.30	14000	21000	0.032
0.8268	0.8268	1.1417	0.63	0.012								0.071
21	21	29	20	0.3	NK21/20A	18.1	4050	26.9	4.25	14000	21000	0.046
0.8268	0.8268	1.1417	0.787	0.012								0.100
22	22	30	13	0.3	RNA48/23	12.2	2740	16.4	2.40	13000	20000	0.026
0.8661	0.8661	1.1811	0.512	0.012								0.058
22	22	30	16	0.3	NK22/16A	19.2	4300	26.9	3.30	13000	20000	0.033
0.8661	0.8661	1.1811	0.63	0.012								0.073
22	22	30	20	0.3	NK22/20A	18	4000	27	4.30	13000	20000	0.041
0.8661	0.8661	1.1811	0.787	0.012								0.090
22	22	30	23	0.3	RNA49/23A	19.8	4400	30.6	4.75	13000	20000	0.056
0.8661	0.8661	1.1811	0.906	0.012								0.123
22	22	30	26	0.6	NK22/26A	22.9	5100	34.3	4.30	14000	21000	0.068
0.8661	0.8661	1.1811	0.787	0.024								0.150
24	24	32	16	0.3	NK24/16A	16.2	3640	22.1	3.70	12000	18000	0.026
0.9449	0.9449	1.2598	0.63	0.012								0.057
24	24	32	20	0.3	NK24/20A	19.3	4300	30.3	4.80	12000	18000	0.045
0.9449	0.9449	1.2598	0.787	0.012								0.099
24	24	32	20	0.6	NK24/20A	29.1	6500	32.8	5.30	13000	20000	0.079
0.9449	0.9449	1.2598	0.787	0.024								0.161
25	25	33	16	0.3	NK25/16A	16.1	3620	24.4	3.75	11000	17000	0.027
0.9843	0.9843											