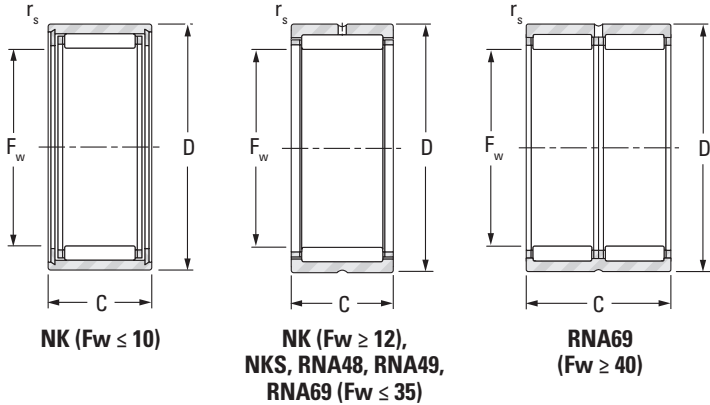




NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NK, NKS, RNA48, RNA49
RNA69 SERIES



Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
5 0.1969	5 0.1969	10 0.3937	10 0.394	0.2 0.006	NK5/10TN	2.18 490	1.71 384	0.260	31000	47000	0.004 0.009
	5 0.1969	10 0.3937	12 0.472	0.2 0.006	NK5/12TN	3.04 683	2.63 591	0.400	31000	47000	0.004 0.009
6 0.2362	6 0.2362	12 0.4724	10 0.394	0.2 0.006	NK6/10	3.19 717	2.9 652	0.420	29000	44000	0.005 0.011
	6 0.2362	12 0.4724	12 0.472	0.2 0.006	NK6/12TN	3.07 690	2.74 616	0.420	29000	44000	0.006 0.013
7 0.2756	7 0.2756	14 0.5512	10 0.394	0.3 0.012	NK7/10TN	2.74 616	2.44 549	0.370	28000	42000	0.007 0.015
	7 0.2756	14 0.5512	12 0.472	0.3 0.012	NK7/12TN	3.4 764	3.22 724	0.490	28000	42000	0.009 0.020
8 0.315	8 0.315	15 0.5906	12 0.472	0.3 0.012	NK8/12	4.57 1030	4.89 1 100	0.740	26000	41000	0.011 0.024
	8 0.315	15 0.5906	12 0.472	0.3 0.012	NK8/12ASR1	4.57 1030	4.89 1100	0.740	26000	41000	0.011 0.024
	8 0.315	15 0.5906	16 0.63	0.3 0.012	NK8/16	5.22 1170	5.78 1300	0.880	26000	41000	0.013 0.029
9 0.3543	9 0.3543	16 0.6299	12 0.472	0.3 0.012	NK9/12	4.27 960	4.6 1030	0.700	26000	40000	0.012 0.026
	9 0.3543	16 0.6299	16 0.63	0.3 0.012	NK9/16	5.57 1250	6.47 1450	0.980	26000	40000	0.015 0.033
10 0.3937	10 0.3937	17 0.6693	12 0.472	0.3 0.012	NK10/12	5.4 1210	6.43 1450	0.980	25000	39000	0.013 0.029
	10 0.3937	17 0.6693	16 0.63	0.3 0.012	NK10/16TN	5.3 1190	6.27 1410	0.940	25000	39000	0.015 0.033
12 0.4724	12 0.4724	19 0.748	12 0.472	0.3 0.012	NK12/12A	6.86 1540	7.6 1710	1.15	19000	30000	0.013 0.029
	12 0.4724	19 0.748	16 0.63	0.3 0.012	NK12/16	6.78 1520	9.03 2030	1.40	24000	37000	0.018 0.040
14 0.5512	14 0.5512	22 0.8661	13 0.512	0.3 0.012	RNA4900	9.39 2110	10.3 2320	1.55	16000	24000	0.018 0.040
	14 0.5512	22 0.8661	16 0.63	0.3 0.012	NK14/16A	12.4 2790	14.8 3330	2.25	16000	24000	0.023 0.051
	14 0.5512	22 0.8661	20 0.787	0.3 0.012	NK14/20A	14.7 3300	18.4 4140	2.90	16000	24000	0.028 0.060
15 0.5906	15 0.5906	23 0.9055	16 0.63	0.3 0.012	NK15/16A	12.4 2790	15 3370	2.30	15000	24000	0.024 0.053
	15 0.5906	23 0.9055	20 0.787	0.3 0.012	NK15/20A	14.7 3300	18.6 4180	2.95	15000	24000	0.031 0.068
16 0.6299	16 0.6299	24 0.9449	13 0.512	0.3 0.012	RNA4901	10.5 2360	12.3 2770	1.85	18000	28000	0.020 0.044
	16 0.6299	24 0.9449	16 0.63	0.3 0.012	NK16/16A	13 2920	16.2 3640	2.50	18000	28000	0.025 0.055

Heavy-Duty Needle Roller Bearings

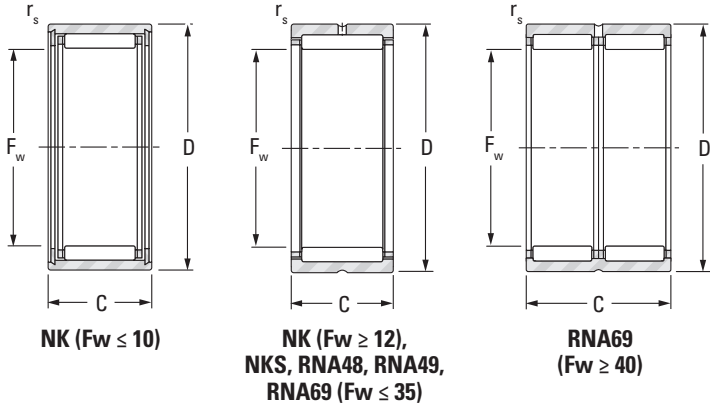
Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
16 0.6299	16 0.6299	24 0.9449	20 0.787	0.3 0.012	NK16/20A	15.4 3460	20.2 4540	3.20	18000	28000	0.036 0.079
	16 0.6299	24 0.9449	22 0.866	0.3 0.012	RNA6901	16.1 3620	21.3 4790	3.30	18000	28000	0.036 0.079
17 0.6693	17 0.6693	25 0.9843	16 0.63	0.3 0.012	NK17/16A	13.6 3060	17.5 3930	2.70	17000	27000	0.027 0.060
	17 0.6693	25 0.9843	20 0.787	0.3 0.012	NK17/20A	15.4 3460	20.4 4590	3.25	17000	27000	0.034 0.075
18 0.7087	18 0.7087	26 1.0236	16 0.63	0.3 0.012	NK18/16A	13.6 3060	17.7 3980	2.70	16000	25000	0.028 0.062
	18 0.7087	26 1.0236	20 0.787	0.3 0.012	NK18/20A	16.1 3620	22.0 4950	3.50	16000	25000	0.035 0.077
	18 0.7087	30 1.1811	16 0.63	0.3 0.012	NKS18A	15.9 3570	16.2 3640	2.45	17000	26000	0.045 0.099
19 0.748	19 0.748	27 1.063	16 0.63	0.3 0.012	NK19/16A	14.1 3170	19.0 4270	2.90	15000	24000	0.029 0.064
	19 0.748	27 1.063	20 0.787	0.3 0.012	NK19/20A	18.8 4230	23.6 5310	3.75	15000	24000	0.037 0.082
20 0.7874	20 0.7874	28 1.1024	13 0.512	0.3 0.012	RNA4902	11.8 2650	15.3 3440	2.35	14000	22000	0.023 0.051
	20 0.7874	28 1.1024	16 0.63	0.3 0.012	NK20/16A	14.1 3170	19.1 4290	2.90	14000	22000	0.030 0.066
	20 0.7874	28 1.1024	20 0.787	0.3 0.012	NK20/20A	17.5 3930	25.3 5690	4.00	14000	22000	0.038 0.084
	20 0.7874	28 1.1024	23 0.906	0.3 0.012	RNA6902A	18.4 4140	26.9 6050	4.20	14000	22000	0.042 0.093
	20 0.7874	32 1.2598	20 0.787	0.6 0.024	NKS20A	24.4 5490	26.7 6000	4.30	15000	24000	0.058 0.128
21 0.8268	21 0.8268	29 1.1417	16 0.63	0.3 0.012	NK21/16A	15.3 3440	21.6 4860	3.30	14000	21000	0.032 0.071
	21 0.8268	29 1.1417	20 0.787	0.3 0.012	NK21/20A	18.1 4070	26.9 6050	4.25	14000	21000	0.040 0.088
22 0.8661	22 0.8661	30 1.1811	13 0.512	0.3 0.012	RNA4903	12.2 2740	16.4 3690	2.50	13000	20000	0.025 0.055
	22 0.8661	30 1.1811	16 0.63	0.3 0.012	NK22/16A	15.2 3420	21.7 4880	3.30	13000	20000	0.033 0.073
	22 0.8661	30 1.1811	20 0.787	0.3 0.012	NK22/20A	18 4050	27 6070	4.30	13000	20000	0.041 0.090
	22 0.8661	30 1.1811	23 0.906	0.3 0.012	RNA6903A	19.8 4450	30.6 6880	4.75	13000	20000	0.056 0.123
	22 0.8661	35 1.378	20 0.787	0.6 0.024	NKS22A	22.9 5150	27.1 6090	4.30	14000	21000	0.069 0.152
24 0.9449	24 0.9449	32 1.2598	16 0.63	0.3 0.012	NK24/16A	16.2 3640	24.3 5460	3.70	12000	18000	0.035 0.077
	24 0.9449	32 1.2598	20 0.787	0.3 0.012	NK24/20A	19.3 4340	30.3 6810	4.80	12000	18000	0.045 0.099
	24 0.9449	37 1.4567	20 0.787	0.6 0.024	NKS24A	29.1 6540	32.8 7370	5.30	13000	20000	0.073 0.161
25 0.9843	25 0.9843	33 1.2992	16 0.63	0.3 0.012	NK25/16A	16.1 3620	24.4 5490	3.75	11000	17000	0.037 0.082
	25 0.9843	33 1.2992	20 0.787	0.3 0.012	NK25/20A	19.1 4290	30.4 6830	4.80	11000	17000	0.047 0.104
	25 0.9843	37 1.4567	17 0.669	0.3 0.012	RNA4904	21.3 4790	25.5 5730	3.95	12000	18000	0.061 0.134
	25 0.9843	37 1.4567	30 1.181	0.3 0.012	RNA6904A	36.6 8230	51.0 11500	7.95	12000	18000	0.091 0.201

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NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NK, NKS, RNA48, RNA49
RNA69 SERIES



Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
25 0.9843	25 0.9843	38 1.4961	20 0.787	0.6 0.024	NKS25A	29.1 6540	33 7420	5.30	12000	19000	0.076 0.168
26 1.0236	26 1.0236	34 1.3386	16 0.63	0.3 0.012	NK26/16A	16.6 3730	25.7 5780	3.95	11000	17000	0.039 0.086
	26 1.0236	34 1.3386	20 0.787	0.3 0.012	NK26/20A	19.7 4430	32 7190	5.05	11000	17000	0.048 0.106
28 1.1024	28 1.1024	37 1.4567	20 0.787	0.3 0.012	NK28/20A	22.6 5080	34.4 7730	5.50	10000	16000	0.057 0.126
	28 1.1024	37 1.4567	30 1.181	0.3 0.012	NK28/30A	29 6520	53.8 12100	8.30	10000	16000	0.088 0.194
	28 1.1024	39 1.5354	17 0.669	0.3 0.012	RNA49/22	23.3 5240	29.6 6650	4.55	10000	16000	0.059 0.130
	28 1.1024	39 1.5354	30 1.181	0.3 0.012	RNA69/22A	30.6 6880	50.7 11400	3.95	10000	16000	0.107 0.236
	28 1.1024	42 1.6535	20 0.787	0.6 0.024	NKS28A	30.3 6810	38.4 8630	6.15	11000	16000	0.094 0.207
29 1.1417	29 1.1417	38 1.4961	20 0.787	0.3 0.012	NK29/20A	23.4 5260	36.4 8180	5.80	9800	15000	0.059 0.130
	29 1.1417	38 1.4961	30 1.181	0.3 0.012	NK29/30A	29.8 6700	56.4 12700	8.70	9700	15000	0.090 0.198
30 1.1811	30 1.1811	40 1.5748	20 0.787	0.3 0.012	NK30/20A	24.2 5440	38.3 8610	6.10	9500	15000	0.071 0.157
	30 1.1811	40 1.5748	30 1.181	0.3 0.012	NK30/30A	34.7 7800	61 13700	9.45	9500	15000	0.107 0.236
	30 1.1811	42 1.6535	17 0.669	0.3 0.012	RNA4905	24.3 5460	31.7 7130	4.90	9700	15000	0.071 0.157
	30 1.1811	42 1.6535	30 1.181	0.3 0.012	RNA6905A	39.7 8920	59.6 13400	9.30	9700	15000	0.127 0.280
	30 1.1811	45 1.7717	22 0.866	0.6 0.024	NKS30A	34.3 7710	42.8 9620	6.85	9900	15000	0.114 0.251
32 1.2598	32 1.2598	42 1.6535	20 0.787	0.3 0.012	NK32/20A	24.8 5580	40.4 9080	6.45	8800	14000	0.074 0.163
	32 1.2598	42 1.6535	30 1.181	0.3 0.012	NK32/30A	35.6 8000	64.3 14500	9.95	8800	14000	0.112 0.247
	32 1.2598	45 1.7717	17 0.669	0.3 0.012	RNA49/28	25.1 5640	33.8 7600	5.20	9000	14000	0.080 0.176
	32 1.2598	45 1.7717	30 1.181	0.3 0.012	RNA69/28A	43.2 9710	62.5 14100	9.75	9100	14000	0.140 0.309
	32 1.2598	47 1.8504	22 0.866	0.6 0.024	NKS32A	36 8090	46.2 10400	7.40	9200	14000	0.120 0.265
35 1.378	35 1.378	45 1.7717	20 0.787	0.3 0.012	NK35/20A	26.1 5870	44.4 9980	7.05	8000	12000	0.081 0.179
	35 1.378	45 1.7717	30 1.181	0.3 0.012	NK35/30A	37.4 8410	70.6 15900	11.0	8000	12000	0.122 0.269

Heavy-Duty Needle Roller Bearings

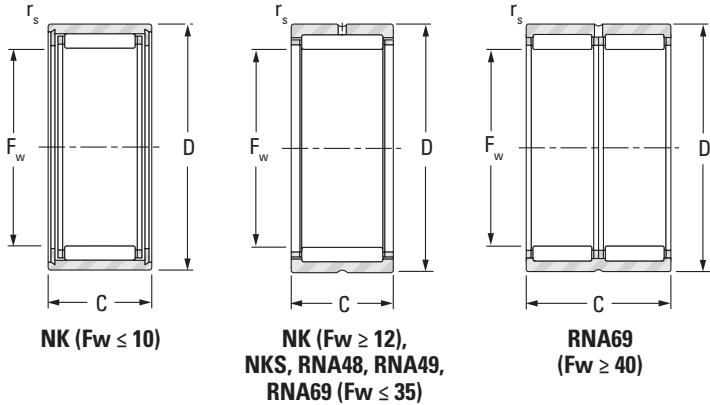
Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
35 1.378	35 1.378	47 1.8504	18 0.709	0.3 0.012	RNA4906	25.9 5820	36 8090	5.55	8200	13000	0.081 0.179
	35 1.378	47 1.8504	30 1.181	0.3 0.012	RNA6906A	42.6 9580	68.2 15300	10.6	8200	13000	0.148 0.326
	35 1.378	50 1.9685	22 0.866	0.6 0.024	NKS35A	37.5 8430	49.9 11200	8.00	8400	13000	0.130 0.287
37 1.4567	37 1.4567	47 1.8504	20 0.787	0.3 0.012	NK37/20A	26.6 5980	46.4 10400	7.40	7600	12000	0.084 0.185
	37 1.4567	47 1.8504	30 1.181	0.3 0.012	NK37/30A	38.2 8590	73.9 16600	11.5	7600	12000	0.128 0.282
	37 1.4567	52 2.0472	22 0.866	0.6 0.024	NKS37A	39 8770	53.4 12000	8.55	7900	12000	0.134 0.295
38 1.4961	38 1.4961	48 1.8898	20 0.787	0.3 0.012	NK38/20A	21.7 4880	40.9 9190	6.40	7300	11000	0.087 0.192
	38 1.4961	48 1.8898	30 1.181	0.3 0.012	NK38/30A	31.9 7170	67 15100	10.4	7300	11000	0.131 0.289
40 1.5748	40 1.5748	50 1.9685	20 0.787	0.3 0.012	NK40/20A	27.8 6250	50.4 11300	8.05	7000	11000	0.089 0.196
	40 1.5748	50 1.9685	30 1.181	0.3 0.012	NK40/30A	40 8990	80.2 18000	12.4	7000	11000	0.137 0.302
	40 1.5748	52 2.0472	20 0.787	0.6 0.024	RNA49/32	32 7190	49.3 11100	7.85	7100	11000	0.100 0.220
	40 1.5748	52 2.0472	36 1.417	0.6 0.024	RNA69/32A	48.6 10900	84.5 19000	26.1	7100	11000	0.185 0.408
	40 1.5748	55 2.1654	22 0.866	0.6 0.024	NKS40A	40.3 9060	57 12800	9.15	7200	11000	0.140 0.309
42 1.6535	42 1.6535	52 2.0472	20 0.787	0.3 0.012	NK42/20A	28.3 6360	52.4 11800	8.35	6600	10000	0.085 0.187
	42 1.6535	52 2.0472	30 1.181	0.3 0.012	NK42/30A	40.7 9150	83.5 18800	13.0	6600	10000	0.141 0.311
	42 1.6535	55 2.1654	20 0.787	0.6 0.024	RNA4907	32.8 7370	51.7 11600	8.25	6700	10000	0.114 0.251
	42 1.6535	55 2.1654	36 1.417	0.6 0.024	RNA6907A	49.9 11200	88.7 19900	13.7	6700	10000	0.218 0.481
43 1.6929	43 1.6929	53 2.0866	20 0.787	0.3 0.012	NK43/20A	29 6520	54.4 12200	8.65	6400	9900	0.096 0.212
	43 1.6929	53 2.0866	30 1.181	0.3 0.012	NK43/30A	41.6 9350	86.6 19500	13.4	6400	9900	0.134 0.295
	43 1.6929	58 2.2835	22 0.866	0.6 0.024	NKS43A	41.6 9350	60.7 13600	9.75	6700	10000	0.150 0.331
45 1.7717	45 1.7717	55 2.1654	20 0.787	0.3 0.012	NK45/20A	29.5 6630	56.4 12700	9.00	6100	9400	0.100 0.220
	45 1.7717	55 2.1654	30 1.181	0.3 0.012	NK45/30A	42.3 9510	89.8 20200	13.9	6100	9400	0.151 0.333
	45 1.7717	60 2.3622	22 0.866	0.6 0.024	NKS45A	43 9670	64.2 14400	10.3	6400	9800	0.156 0.344
47 1.8504	47 1.8504	57 2.2441	20 0.787	0.3 0.012	NK47/20A	30 6740	58.5 13200	9.30	5900	9000	0.104 0.229
	47 1.8504	57 2.2441	30 1.181	0.3 0.012	NK47/30A	43 9670	93.1 20900	14.4	5900	9000	0.158 0.348
48 1.8898	48 1.8898	62 2.4409	22 0.866	0.6 0.024	RNA4908	44.2 9940	67.8 15200	10.9	5900	9100	0.154 0.340
	48 1.8898	62 2.4409	40 1.575	0.6 0.024	RNA6908A	70.8 15900	124 27900	19.8	5900	9100	0.300 0.661
50 1.9685	50 1.9685	62 2.4409	25 0.984	0.3 0.012	NK50/25A	40.7 9150	79.3 17800	12.5	5500	8500	0.171 0.377

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NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NK, NKS, RNA48, RNA49
RNA69 SERIES



Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
50 1.9685	50 1.9685	62 2.4409	35 1.378	0.6 0.024	NK50/35A	55 12400	117 26300	18.2	5500	8500	0.242 0.534
	50 1.9685	65 2.5591	22 0.866	1 0.039	NKS50A	45.5 10200	71.3 16000	11.4	5700	8700	0.170 0.375
52 2.0472	52 2.0472	68 2.6772	22 0.866	0.6 0.024	RNA4909	46.8 10500	74.8 16800	12.0	5400	8400	0.201 0.443
	52 2.0472	68 2.6772	40 1.575	0.6 0.024	RNA6909A	74.7 16800	137 30800	21.7	5400	8400	0.392 0.864
55 2.1654	55 2.1654	68 2.6772	25 0.984	0.6 0.024	NK55/25A	46.1 10400	87.3 19600	13.9	5000	7800	0.207 0.456
	55 2.1654	68 2.6772	35 1.378	0.6 0.024	NK55/35A	62.3 14000	129 29000	20.0	5000	7800	0.293 0.646
	55 2.1654	72 2.8346	22 0.866	1 0.039	NKS55A	47.9 10800	78.4 17600	12.6	5100	7900	0.225 0.496
	58 2.2835	72 2.8346	22 0.866	0.6 0.024	RNA4910	48.9 11000	82 18400	13.2	4800	7400	0.179 0.395
	58 2.2835	72 2.8346	40 1.575	0.6 0.024	RNA6910A	75.7 17000	144 32400	22.8	4800	7400	0.364 0.802
60 2.3622	60 2.3622	72 2.8346	25 0.984	0.6 0.024	NK60/25A	44.3 9960	94 21100	14.9	4400	7000	0.202 0.445
	60 2.3622	72 2.8346	35 1.378	0.6 0.024	NK60/35A	59.9 13500	139 31200	21.5	4400	7000	0.286 0.631
	60 2.3622	80 3.1496	28 1.102	1.1 0.043	NKS60A	66.9 15000	103 23200	16.5	4800	7300	0.337 0.743
63 2.4803	63 2.4803	80 3.1496	25 0.984	1 0.039	RNA4911	62 13900	107 24100	17.1	4500	6900	0.285 0.628
	63 2.4803	80 3.1496	45 1.772	1 0.039	RNA6911A	94.2 21200	172 38700	27.8	4500	6900	0.540 1.190
65 2.5591	65 2.5591	78 3.0709	25 0.984	0.6 0.024	NK65/25A	48.2 10800	97.7 22000	15.5	4200	6500	0.257 0.567
	65 2.5591	78 3.0709	35 1.378	0.6 0.024	NK65/35A	65.2 14700	144 32400	22.4	4200	6500	0.298 0.657
	65 2.5591	85 3.3465	28 1.102	1.1 0.043	NKS65A	71 16000	114 25600	18.3	4200	6700	0.362 0.798
68 2.6772	68 2.6772	82 3.2283	25 0.984	0.6 0.024	NK68/25A	49 11000	101 22700	16.1	4000	6200	0.287 0.633
	68 2.6772	82 3.2283	35 1.378	0.6 0.024	NK68/35A	66.2 14900	149 33500	23.2	4000	6200	0.350 0.772
	68 2.6772	85 3.3465	25 0.984	1 0.039	RNA4912	64.8 14600	116 26100	18.6	4100	6300	0.304 0.670
	68 2.6772	85 3.3465	45 1.772	1 0.039	RNA6912A	99.3 22300	189 42500	30.5	4100	6300	0.546 1.204
70 2.7559	70 2.7559	85 3.3465	25 0.984	0.6 0.024	NK70/25A	43.6 9800	87.9 19800	16.6	3900	6000	0.298 0.657

Heavy-Duty Needle Roller Bearings

Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
70 2.7559	70 2.7559	85 3.3465	35 1.378	0.6 0.024	NK70/35A	62.2 14000	139 31200	24.0	3900	6000	0.411 0.906
	70 2.7559	90 3.5433	28 1.102	1.1 0.043	NKS70A	72.6 16300	120 27000	19.3	4000	6200	0.383 0.844
72 2.8346	72 2.8346	90 3.5433	25 0.984	1 0.039	RNA4913	66 14800	121 27200	19.4	3900	5900	0.346 0.763
	72 2.8346	90 3.5433	45 1.772	1 0.039	RNA6913A	107 24100	213 47900	34.5	3900	5900	0.679 1.497
73 2.874	73 2.874	90 3.5433	25 0.984	0.6 0.024	NK73/25A	61.5 13800	119 26800	19.0	3800	5800	0.320 0.705
	73 2.874	90 3.5433	35 1.378	0.6 0.024	NK73/35A	82.5 18500	173 38900	27.1	3800	5800	0.450 0.992
75 2.9528	75 2.9528	92 3.622	25 0.984	0.6 0.024	NK75/25A	43.7 9820	90.2 20300	19.0	3600	5600	0.364 0.802
	75 2.9528	92 3.622	35 1.378	0.6 0.024	NK75/35A	60.9 13700	138 31000	27.1	3600	5600	0.518 1.142
	75 2.9528	95 3.7402	28 1.102	1.1 0.043	NKS75A	76.5 17200	132 29700	21.1	3700	5800	0.413 0.911
80 3.1496	80 3.1496	95 3.7402	25 0.984	1 0.039	NK80/25A	65 14600	131 29400	21.0	3400	5300	0.331 0.730
	80 3.1496	95 3.7402	35 1.378	1 0.039	NK80/35A	79.7 17900	184 41400	28.7	3400	5300	0.380 0.838
	80 3.1496	100 3.937	30 1.181	1 0.039	RNA4914	86.3 19400	157 35300	25.1	3500	5400	0.502 1.107
	80 3.1496	100 3.937	54 2.126	1 0.039	RNA6914A	137 30800	286 64300	45.7	3500	5400	0.946 2.086
85 3.3465	85 3.3465	105 4.1339	25 0.984	1 0.039	NK85/25A	76.4 17200	137 30800	22.2	3300	5000	0.506 1.116
	85 3.3465	105 4.1339	30 1.181	1 0.039	RNA4915	92.4 20800	175 39300	28.0	3300	5000	0.528 1.164
	85 3.3465	105 4.1339	35 1.378	1 0.039	NK85/35A	108 24300	214 48100	34.7	3300	5000	0.610 1.345
	85 3.3465	105 4.1339	54 2.126	1 0.039	RNA6915A	143 32100	308 69200	49.3	3300	5000	1.020 2.249
90 3.5433	90 3.5433	110 4.3307	25 0.984	1 0.039	NK90/25A	79.5 17900	147 33000	23.8	3100	4700	0.450 0.992
	90 3.5433	110 4.3307	30 1.181	1 0.039	RNA4916	91.5 20600	176 39600	28.1	3100	4700	0.556 1.226
	90 3.5433	110 4.3307	35 1.378	1 0.039	NK90/35A	113 25400	230 51700	36.1	3100	4700	0.745 1.642
	90 3.5433	110 4.3307	54 2.126	1 0.039	RNA6916A	126 28300	320 71900	50.8	3100	4700	1.050 2.315
95 3.7402	95 3.7402	115 4.5276	26 1.024	1 0.039	NK95/26A	49.3 11100	114 25600	24.6	2800	4400	0.572 1.261
	95 3.7402	115 4.5276	36 1.417	1 0.039	NK95/36A	114 25600	238 53500	37.3	2900	4500	0.803 1.770
100 3.937	100 3.937	120 4.7244	26 1.024	1 0.039	NK100/26A	83.6 18800	163 36600	25.8	2800	4200	0.530 1.168
	100 3.937	120 4.7244	35 1.378	1.1 0.043	RNA4917	110 24700	230 51700	36.0	2800	4200	0.715 1.576
	100 3.937	120 4.7244	36 1.417	1 0.039	NK100/36A	118 26500	254 57100	39.1	2800	4200	0.658 1.451
	100 3.937	120 4.7244	63 2.48	1.1 0.043	RNA6917A	150 33700	416 93500	63.0	2800	4200	1.350 2.976
105 4.1339	105 4.1339	125 4.9213	26 1.024	1 0.039	NK105/26A	52.2 11700	127 28600	19.9	2600	3900	0.595 1.312

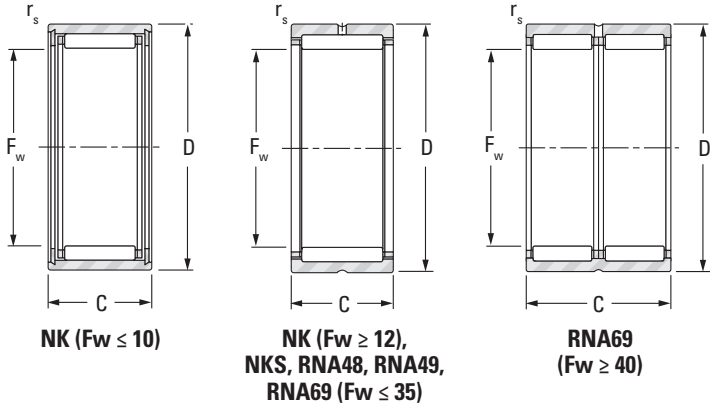
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NEEDLE ROLLER BEARINGS

NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NK, NKS, RNA48, RNA49
RNA69 SERIES

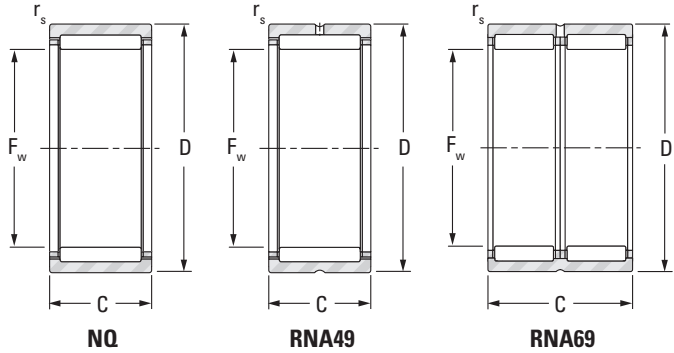


Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
105 4.1339	105 4.1339	125 4.9213	35 1.378	1.1 0.043	RNA4918	114 25600	245 55100	37.8	2600	4000	0.746 1.645
	105 4.1339	125 4.9213	63 2.48	1.1 0.043	RNA6918A	154 34600	437 98200	66.0	2600	4000	1.500 3.300
110 4.3307	110 4.3307	130 5.1181	30 1.181	1.1 0.043	NK110/30A	103 23200	220 49500	33.6	2500	3800	0.660 1.455
	110 4.3307	130 5.1181	35 1.378	1.1 0.043	RNA4919	115 25900	253 56900	38.4	2500	3800	0.777 1.713
	110 4.3307	130 5.1181	40 1.575	1.1 0.043	NK110/40A	132 29700	301 67700	45.7	2500	3800	0.900 1.984
	110 4.3307	130 5.1181	63 2.48	1.1 0.043	RNA6919A	158 35500	458 103000	68.8	2500	3800	1.470 3.241
115 4.5276	115 4.5276	140 5.5118	40 1.575	1.1 0.043	RNA4920	139 31200	296 66500	43.9	2400	3700	1.220 2.690
120 4.7244	120 4.7244	140 5.5118	30 1.181	1 0.039	RNA4822	90.3 20300	230 51700	33.7	2300	3500	0.785 1.731
125 4.9213	125 4.9213	150 5.9055	40 1.575	1.1 0.043	RNA4922	147 33000	325 73100	47.0	2200	3400	1.320 2.910
130 5.1181	130 5.1181	150 5.9055	30 1.181	1 0.039	RNA4824	94.1 21200	249 56000	35.7	2100	3200	0.850 1.874
135 5.315	135 5.315	165 6.4961	45 1.772	1.1 0.043	RNA4924	177 39800	407 91500	58.5	2000	3100	1.980 4.365
145 5.7087	145 5.7087	165 6.4961	35 1.378	1 0.039	RNA4826	112 25200	323 72600	44.8	1900	2900	1.100 2.425
150 5.9055	150 5.9055	180 7.0866	50 1.969	1.5 0.059	RNA4926	201 45200	495 111000	68.7	1800	2800	2.420 5.335
155 6.1024	155 6.1024	175 6.8898	35 1.378	1.1 0.043	RNA4828	116 26100	346 77800	47.1	1700	2700	1.170 2.579
160 6.2992	160 6.2992	190 7.4803	50 1.969	1.5 0.059	RNA4928	214 48100	549 123000	74.8	1700	2600	2.560 5.644
165 6.4961	165 6.4961	190 7.4803	40 1.575	1.1 0.043	RNA4830A	142 31900	402 90400	53.5	1600	2500	1.540 3.395
175 6.8898	175 6.8898	200 7.874	40 1.575	1.1 0.043	RNA4832A	146 32800	425 95500	55.6	1500	2400	1.910 4.211

Heavy-Duty Needle Roller Bearings

NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NQ, RNA49, RNA69 SERIES



Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
12 0.4724	12	19	12	0.3	NQ12/12AD	5.3	5.45	0.820	—	30000	0.012
	12	24	9.8	0.3	12NQ2410A	5.9	6.3	0.960	—	30000	0.023
13 0.5118	13	21	12	0.3	NQ132112	8.25	8.4	1.30	—	24000	0.015
14 0.5512	14	22	16	0.5	NQ14/16D	11.8	13.8	2.10	—	24000	0.021
15 0.5906	15	23	16	0.5	NQ15/16B	15.2	17.4	2.65	—	21000	0.021
	15	24	10	0.3	15NQ2410D	8.65	8.45	1.30	—	21000	0.016
	15	24	12	0.3	15NQ2412A	9.7	9.75	1.50	—	21000	0.019
	15	25	12	0.6	NQ152512	10.7	11.1	1.70	—	21000	0.022
	15	25	16	0.5	NQ152516 ⁽¹⁾	11.8	14	2.10	—	24000	0.032
	15	28	12	0.6	15NQ2812	10.7	11.1	1.70	—	21000	0.034
	15	28	12	0.6	NQ152812-1	10.7	11.1	1.70	—	21000	0.034
	15	28	15	1.0	15NQ2815	12.7	13.7	2.10	—	21000	0.042
16 0.6299	16	23	16	0.5	16NQ2316	13	16.2	2.50	—	23000	0.019
	16	23	22	0.5	16NQ2322A	17	22.9	3.55	—	23000	0.026
17 0.6693	17	25	16	0.5	NQ17/16D	11.4	16.2	2.45	—	26000	0.026
	17	30	13	0.3	17NQ3013D	10.2	10.8	1.65	—	27000	0.041
	17	32	16	0.6	17NQ3216D	18.5	17.1	2.65	—	29000	0.053
18 0.7087	18	29	25	0.3	NQ182925-1	24.2	27.5	4.30	—	26000	0.056
	18	34	20	0.3	18NQ3420AD	17.1	21.2	3.35	—	25000	0.090
20 0.7874	20	28	16	0.3	NQ20/16D	12.1	18.2	2.75	—	22000	0.030
	20	28	23	0.3	NQ202823	18.5	27.1	4.25	—	22000	0.040
	20	30	15	0.6	20NQ3015ED	11.4	15.4	2.35	—	22000	0.037

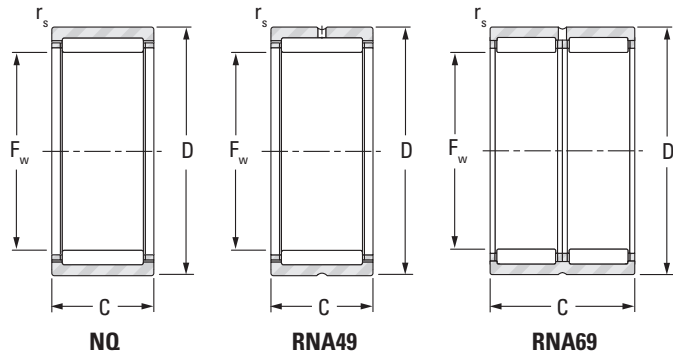
⁽¹⁾ With outer ring groove

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NEEDLE ROLLER BEARINGS
WITHOUT INNER RINGS

METRIC SERIES
NQ, RNA49, RNA69 SERIES



Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
20 0.7874	20	30	20	0.3	20NQ3020	19.9	26.4	4.10	—	23000	0.048
	20	32	12	0.3	20NQ3212	11.9	11.3	1.70	—	23000	0.033
	20	32	18	0.3	NQ203218	21.2	26.1	4.05	—	23000	0.053
	20	32	20	0.3	NQ203220	23	26.6	4.20	—	23000	0.057
	20	33	15	0.3	20NQ3315NE ⁽¹⁾	13.8	16.5	2.50	—	23000	0.053
	20	34	18	0.6	20NQ3418D	21.6	21.5	3.35	—	24000	0.060
22 0.8661	22	30	20	0.3	NQ22/20	15.3	25.6	3.95	—	20000	0.041
	22	35	20	0.3	NQS22/20D	21.8	25.4	4.05	—	21000	0.071
24 0.9449	24	32	20	0.3	NQ24/20AD	17.4	26.5	4.15	—	18000	0.041
25 0.9843	25	37	17	1.0	25NQ3717AD-1	19.4	22.5	3.45	—	18000	0.056
	25	37	17	0.9	RNA4904ARD	21.5	25.7	3.95	—	18000	0.057
28 1.1024	28	37	20	0.3	NQ283720D	20.7	34.9	5.40	—	15000	0.056
	28	39	17	0.3	RNA49/22R	22.2	30.3	4.80	—	16000	0.055
30 1.1811	30	42	30	0.6	NQ304230	40.6	61.2	9.60	—	15000	0.118
35 1.378	35	45	14	0.6	NQ354514	16.9	29	4.40	—	12000	0.055
	35	47	17	0.3	RNA4906D	20.2	31.9	4.85	—	12000	0.081
	35	47	30	0.3	RNA6906	43.1	69.3	10.8	—	13000	0.131
37 1.4567	37	47	20	0.3	NQ37/20D	26.3	45.7	7.10	—	12000	0.079
40 1.5748	40	48	20	0.3	NQ404820	21.2	40.4	6.20	—	11000	0.064
	40	50	15	0.3	NQ40/15AD	21.3	35.8	5.45	—	11000	0.063
	40	52	20	0.6	RNA49/32R-1 ⁽²⁾	32.4	50	7.85	—	11000	0.100
	40	60	25	1.0	NQ406025	54.2	66.8	10.7	—	11000	0.213

⁽¹⁾ With outer ring groove
⁽²⁾ Without outer ring lubrication holes

Shaft Dia.	F _w	D	C	r _s min.	Bearing Designation	Load Ratings		Fatigue Load Limit C _u	Speed Ratings		Approx. Wt.
						Dynamic	Static		Grease	Oil	
						C	C ₀				
mm in	mm in	mm in	mm in	mm in		kN lbf		kN	min ⁻¹		kg lbs
45 1.7717	45	58	20	0.6	RNA49/38R-1 ⁽²⁾	36.7	56.2	8.90	—	9700	0.116
48 1.8898	48	62	22	0.6	RNA4908R-2 ⁽²⁾	44.3	67.8	10.9	—	9100	0.142