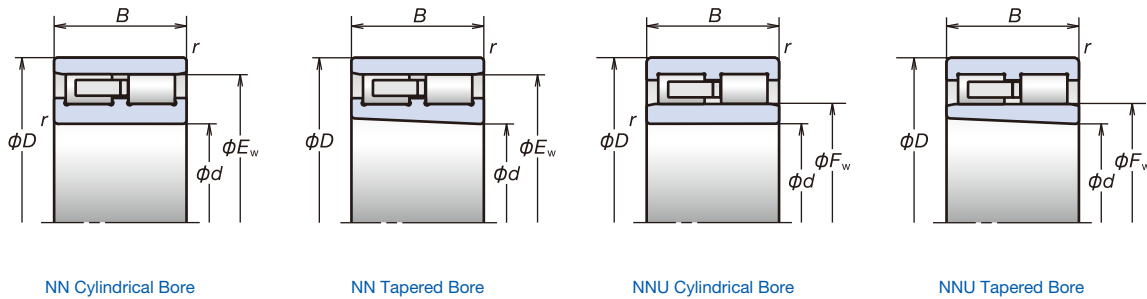


2. Cylindrical Roller Bearings

Bore Diameter 70-105mm

Double-Row Cylindrical Roller Bearings



Bearing Numbers ⁽¹⁾ (²)	Boundary Dimensions (mm)				Basic Load Ratings (kN)		E _w (F _w in case of NNU type) (mm) (reference)	Mass (kg) (approx.)	Limiting Speeds ⁽³⁾ (min ⁻¹)	
	d	D	B	r (min.)	C _r (Dynamic)	C _{0r} (Static)			Grease	Oil
*NN3014MBKR	70	110	30	1.1	112	148	100	1.23	8 000	10 000
*NN3014TBKR	70	110	30	1.1	112	148	100	0.925	9 500	11 200
*NN3014ZTBKR	70	110	30	1.1	66.5	74.0	100	0.809	9 900	13 200
*NN3015MBKR	75	115	30	1.1	111	149	105	1.28	7 900	9 500
*NN3015TBKR	75	115	30	1.1	111	149	105	0.964	9 000	10 600
*NN3015ZTBKR	75	115	30	1.1	66.0	74.5	105	0.848	9 400	12 500
*NN3016MBKR	80	125	34	1.1	137	186	113	1.77	7 400	8 800
*NN3016TBKR	80	125	34	1.1	137	186	113	1.35	8 300	9 800
*NN3016ZTBKR	80	125	34	1.1	81.5	93.0	113	1.19	8 800	11 700
*NN3017MBKR	85	130	34	1.1	144	201	118	1.87	7 000	8 400
*NN3017TBKR	85	130	34	1.1	144	201	118	1.42	8 000	9 400
*NN3017ZTBKR	85	130	34	1.1	85.5	101	118	1.25	8 400	11 100
*NN3018MBKR	90	140	37	1.5	164	228	127	2.38	6 600	7 900
*NN3018TBKR	90	140	37	1.5	164	228	127	1.82	7 400	8 700
*NN3018ZTBKR	90	140	37	1.5	97.5	114	127	1.61	7 800	10 300
*NN3019MBKR	95	145	37	1.5	173	246	132	2.51	6 300	7 500
*NN3019TBKR	95	145	37	1.5	173	246	132	1.91	7 100	8 400
*NN3019ZTBKR	95	145	37	1.5	103	123	132	1.68	7 500	9 900
NN3920MBKR	100	140	30	1.1	122	182	130	1.32	6 300	7 500
NN4920MBKR	100	140	40	1.1	178	295	130	1.76	6 300	7 500
NNU4920MBKR	100	140	40	1.1	178	295	112	1.75	6 300	7 500
*NN3020MBKR	100	150	37	1.5	180	265	137	2.63	6 000	7 200
*NN3020TBKR	100	150	37	1.5	180	265	137	2.00	6 800	8 000
*NN3020ZTBKR	100	150	37	1.5	107	133	137	1.76	7 200	9 500
NN3921MBKR	105	145	30	1.1	127	194	135	1.50	6 000	7 200
NN4921MBKR	105	145	40	1.1	185	315	135	1.91	6 000	7 200
NNU4921MBKR	105	145	40	1.1	185	315	117	1.83	6 000	7 200
*NN3021MBKR	105	160	41	2	228	320	146	3.40	5 700	6 800
*NN3021TBKR	105	160	41	2	228	320	146	2.52	6 500	7 600
*NN3021ZTBKR	105	160	41	2	135	161	146	2.17	6 800	9 000

Abutment and Fillet Dimensions (mm)					Clearances in Bearings with Tapered Bores (μm)						Clearances in Bearings with Cylindrical Bores (μm)		E44 Specification Lubrication Holes Dimensions (mm)		
d _a (min.)	d _{1a} (min.)	D _a		r _a (max.)	CC9 ⁽⁴⁾		CC0		CC1		CC1		Hole Dia. dh	Oil Groove Width W	Number of Holes m
		(max.)	(min.)		min.	max.	min.	max.	min.	max.	min.	max.			
76.5	77	103.5	102	1	10	20	15	30	20	40	10	25	2	3.5	4
76.5	77	103.5	102	1	10	20	15	30	20	40	10	25	2	3.5	4
76.5	77	103.5	102	1	10	20	15	30	20	40	10	25	2	3.5	4
81.5	82	108.5	107	1	10	20	15	30	20	40	10	25	2	3.5	4
81.5	82	108.5	107	1	10	20	15	30	20	40	10	25	2	3.5	4
81.5	82	108.5	107	1	10	20	15	30	20	40	10	25	2	3.5	4
86.5	87	118.5	115	1	10	20	15	30	20	40	10	25	2.5	5	4
86.5	87	118.5	115	1	10	20	15	30	20	40	10	25	2.5	5	4
86.5	87	118.5	115	1	10	20	15	30	20	40	10	25	2.5	5	4
91.5	92	123.5	120	1	10	25	20	35	25	45	10	30	2.5	5	4
91.5	92	123.5	120	1	10	25	20	35	25	45	10	30	2.5	5	4
91.5	92	123.5	120	1	10	25	20	35	25	45	10	30	2.5	5	4
98	99	132	129	1.5	10	25	20	35	25	45	10	30	2.5	5	4
98	99	132	129	1.5	10	25	20	35	25	45	10	30	2.5	5	4
98	99	132	129	1.5	10	25	20	35	25	45	10	30	2.5	5	4
103	104	137	134	1.5	10	25	20	35	25	45	10	30	2.5	5	4
103	104	137	134	1.5	10	25	20	35	25	45	10	30	2.5	5	4
103	104	137	134	1.5	10	25	20	35	25	45	10	30	2.5	5	4
106.5	108	133.5	132	1	10	25	20	35	25	45	10	30	2	3.5	4
106.5	108	133.5	132	1	10	25	20	35	25	45	10	30	2.5	5	4
106.5	108	133.5	—	1	10	25	20	35	25	45	10	30	2.5	5	4
108	109	142	139	1.5	10	25	20	35	25	45	10	30	2.5	5	4
108	109	142	139	1.5	10	25	20	35	25	45	10	30	2.5	5	4
108	109	142	139	1.5	10	25	20	35	25	45	10	30	2.5	5	4
111.5	113	138.5	137	1	10	25	20	35	25	50	10	30	2	3.5	4
111.5	113	138.5	137	1	10	25	20	35	25	50	10	30	2.5	5	4
111.5	113	138.5	—	1	10	25	20	35	25	50	10	30	2.5	5	4
114	115	151	148	2	10	25	20	35	25	50	10	30	3	6	4
114	115	151	148	2	10	25	20	35	25	50	10	30	3	6	4
114	115	151	148	2	10	25	20	35	25	50	10	30	3	6	4

(¹) The suffix "K" or "KR" represents bearings with tapered bores (1 : 12). For the cylindrical bore type, eliminate the symbol and leave this symbol blank.
(²) GN gauge is available for the bearings denoted by an asterisk (*). For GN gauge, please refer to Page 180.
(³) For application of limiting speeds, please refer to Page 216.
(⁴) Clearance CC9 is applicable to cylindrical roller bearings with tapered bores in ISO Tolerance Classes 5 and 4.

For additional information:
● Dynamic equivalent load ······ P191
● Static equivalent load ······ P198
● Nozzle Position ······ P240
● Recommended Grease Quantities ··· P257