

Needle Roller Bearing



Needle roller bearings are roller bearings with cylindrical rollers which are thin and long in relation to their diameter. They are referred to as needle rollers. In spite of their low cross section the bearings have a high load carrying capacity and are thus extremely suitable for bearing arrangements where radial space is limited

Needle roller bearings have a high load carrying capacity in addition to their low cross-section and stiffness. They are especially suitable for bearing arrangements where radial space is limited. Because [needle roller bearings](#) only carry pure radial load and can not limit the axial displacement of shaft relative to the housing. It is important

to ensure that inner ring axis and outer ring axis must be aligned during mounting the bearings.

With the high-strength cage retaining and guiding the rollers, this design provides high speed and lubrication retention capability. A lubrication groove and hole in the O. D. Facilitate relubrication through the outer ring. These bearings can be used with or without a machined and ground inner ring depending on the suitability of the shaft as a raceway surface.

Typical Applications; Gear pumps, Sheaves, Automotive transmissions, Two-cycle engines

Shaft Diameter	Bearing Designation and Approx Mass				Boundary Dimensions						Basic Load Rating		Limiting Speed (rpm)
	Without IR	Mass	With IR	Mass	D	d	F / Fw	B	C	D1	Cr Dynamic	Cor Static	Grease
	mm	g	mm	g	mm						N	rpm	
19	RNA22/6 2RS	18	NA22/6 2RS	22	19	6	10	12	11.8	16	5000	4350	18000
	RNA22/6 2RSX	18	NA22/6 2RSX	22	19	6	10	12	11.8	16	5000	4350	18000
24	RNA22/8 2RS	29	NA22/8 2RS	34	24	8	12	12	11.8	18	5500	5200	14000
	RNA22/8 2RSX	29	NA22/8 2RSX	34	24	8	12	12	11.8	18	5500	5200	14000
30	RNA2200 2RS	52	NA2200 2RS	60	30	10	14	14	13.8	20	7600	8100	11000
	RNA2200 2RSX	52	NA2200 2RSX	60	30	10	14	14	13.8	20	7600	8100	11000
32	RNA2201 2RS	57	NA2201 2RS	67	32	12	16	14	13.8	22	8500	9700	9500
	RNA2201 2RSX	57	NA2201 2RSX	67	32	12	16	14	13.8	22	8500	9700	9500
35	RNA2202 2RS	60	NA2202 2RS	75	35	15	20	14	13.8	26	9600	12000	7000
	RNA2202 2RSX	60	NA2202 2RSX	75	35	15	20	14	13.8	26	9600	12000	7000
40	RNA2203 2RS	94	NA2203 2RS	112	40	17	22	16	15.8	28	12000	16500	6000
	RNA2203 2RSX	94	NA2203 2RSX	112	40	17	22	16	15.8	28	12000	16500	6000

47	RNA2204 2RS	152	NA2204 2RS	177	47	20	25	18	17.8	33	18500	21900	4600
	RNA2204 2RSX	152	NA2204 2RSX	177	47	20	25	18	17.8	33	18500	21900	4600
52	RNA2205 2RS	179	NA2205 2RS	209	52	25	30	18	17.8	38	20100	26000	3500
	RNA2205 2RSX	179	NA2205 2RSX	209	52	25	30	18	17.8	38	20100	26000	3500
62	RNA2206 2RS	284	NA2206 2RS	324	62	30	35	20	19.8	43	23000	28000	2800
	RNA2206 2RSX	284	NA2206 2RSX	324	62	30	35	20	19.8	43	23000	28000	2800
72	RNA2207 2RS	432	NA2207 2RS	505	72	35	42	23	22.7	50	29800	46300	2200
	RNA2207 2RSX	432	NA2207 2RSX	505	72	35	42	23	22.7	50	29800	46300	2200
80	RNA2208 2RS	530	NA2208 2RS	628	80	40	48	23	22.7	57	38200	57700	1700
	RNA2208 2RSX	530	NA2208 2RSX	628	80	40	48	23	22.7	57	38200	57700	1700
85	RNA2209 2RS	545	NA2209 2RS	655	85	45	52	23	22.7	62	40300	63800	1600
	RNA2209 2RSX	545	NA2209 2RSX	655	85	45	52	23	22.7	62	40300	63800	1600
90	RNA2210 2RS	563	NA2210 2RS	690	90	50	58	23	22.7	68	66000	26000	1300
	RNA2210 2RSX	563	NA2210 2RSX	690	90	50	58	23	22.7	68	66000	26000	1300

<http://www.bearing-fastener.com>