



06

CYLINDRICAL ROLLER BEARING

The supporting roller has the thick-wall outer ring, by which the roller can be rolled directly at the rollway and withstand the large load. The supporting rollers made by our company include STO RSTO, NA222RS, RN222RS, NATR NARTPP, NATV NATVPP, NUTR NAST. Supporting Roller.

The curve roller is composed of a bolt, thrust collar, outer ring, needle and cage assembly or full complement rolling

body. It has the thick-wall outer ring with camber outside face, withstanding the high radial force.

The curve rollers made by our company include KR, KRE, KRV, KRVE, NUKR and NUKRE. Model KRPP, KREPP, KRVP, KRVEPP, NUKRPP curve roller



MODEL STO AND RSTO SUPPORT ROLLER BEARINGS

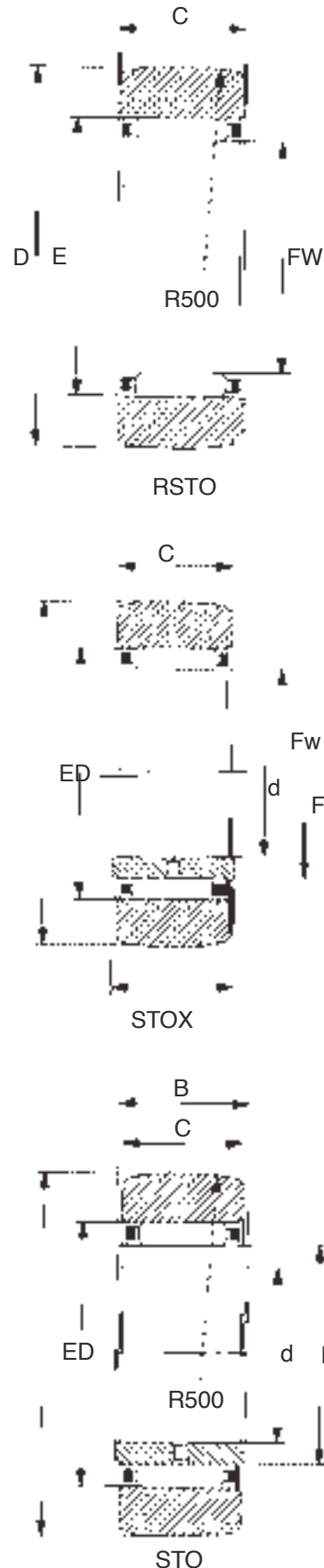
As for **Model STO** supporting roller needle bearing with inner ring and without shoulder, the outer ring of bearing is roller type with compact structure and thick wall. It can withstand large stock force in rotation with high abrasion-resistance. Because of no shoulder in the bearing, inner ring, needle, cage assembly and outer ring can be mounted respectively. If the surface of outer ring is cylinder face, the designation of bearing is **STOX**.

As for **Model RSTO** supporting roller needle bearing without inner and shoulder, the bearing has no inner ring, so it is requested that the surface hardness and surface of shaft journal fitted with it be matched with bearing. The performance of this bearing is same as that of **Model STO**. If the surface of outer ring is cylinder face, the designation of bearing is **RSTO2**. As for **Model STO** supporting roller needle bearing with inner ring and without shoulder, the outer

ring of bearing is roller type with compact structure and thick wall. It can withstand large stock force in rotation with high abrasion-resistance.

Because of no shoulder in the bearing, inner ring, needle, cage assembly and outer ring can be mounted respectively. If the surface of outer ring is cylinder face, the designation of bearing is **STOX**. (Model **STO** and **RSTO** support roller). As for **Model RSTO** supporting roller needle bearing without inner and shoulder, the bearing has no inner ring, so it is requested that the surface hardness and surface of shaft journal fitted with it be matched with bearing. The performance of this bearing is same as that of **Model STO**.

If the surface of outer ring is cylinder face, the designation of bearing is **RSTO...X**



SUPPORTING ROLLER BEARINGS

RSTO X STO



Shaft Diameter	Bearing Designation		Mass	Boundary Dimensions			Basic Load Ratings		Limiting Speed
	Current Code	Original Code		Approx	Fw	D	C	Dynamic	
			mm	g	mm			N	
16	RSTO5X		8.5	7	16	7.8	2800	2600	23000
	RSTO5TN			7	16	7.8	2800	2600	23000
	RSTO5XTN			7	16	7.8	2800	2600	23000
19	RSTO6		12.5	10	19	9.8	5200	6550	18000
	RSTO6TN			10	19	10	5200	6550	18000
	RSTO6XTN			10	19	10	5200	6550	18000
24	RSTO8		21	12	24	9.8	5600	7650	16000
	RSTO8X		21	12	24	9.8	5600	7650	16000
	RSTO8TN		21	12	24	10	5600	7650	16000
30	RSTO10		44	14	30	11.8	10000	10800	12000
	RSTO10X		44	14	30	11.8	10000	10800	12000
32	RSTO12		49	16	32	11.8	10600	12000	10000
	RSTO12X		49	16	32	11.8	10600	12000	10000
35	RSTO15		52	20	35	11.8	12500	15600	7000
	RSTO15X		52	20	35	11.8	12500	15600	7000
40	RSTO17		95	22	40	15.8	18300	23600	6300
	RSTO17X		95	22	40	15.8	18300	23600	6300
47	RSTO20		134	25	47	15.8	19000	26000	5300
	RSTO20X		134	25	47	15.8	19000	26000	5300
	RSTO25		155	25	47	15.8	19000	26000	5300
	RSTO25X		155	25	47	15.8	19000	26000	5300
62	RSTO30		258	38	62	19.8	31500	52000	3000
	RSTO30X		258	38	62	19.8	31500	52000	3000
	RSTO35		370	38	62	19.8	31500	52000	3000
	RSTO35X		370	38	62	19.8	31500	52000	3000
80	RSTO40		430	50	80	19.8	36500	68000	1800
	RSTO40X		430	50	80	19.8	36500	68000	1800
85	RSTO45		447	55	85	19.8	38000	75000	1600
	RSTO45X		447	55	85	19.8	38000	75000	1600
90	RSTO50		495	60	90	19.8	40000	80000	1500
	RSTO50X		495	60	90	19.8	40000	80000	1500
Non- Standard series									
39.67	RSO13.7 × 39.67 × 18.7			13.7	39.67	18.7			
30	RSTO18 × 30 × 35.2			18	30	35.2			



Shaft Diameter	Bearing Designation		Mass	Boundary Dimensions				Basic Load Rating		Limiting Speed
	Current Code	Original Code		Approx	d	D	B	C	Dynamic	
			mm	g	mm				N	
19	STO6		18	6	19	10	9.8	5200	6550	18000
	STO6X		18	6	19	10	9.8	5200	6550	18000
24	STO8		28	8	24	10	9.8	5600	7650	16000
	STO8X		28	8	24	10	9.8	5600	7650	16000
30	STO10		51	10	30	12	11.8	10000	10800	12000
	STO10X		51	10	30	12	11.8	10000	10800	12000
32	STO12		57	12	32	12	11.8	10600	12000	10000
	STO12X		57	12	32	12	11.8	10600	12000	10000
35	STO15		64	15	35	12	11.8	12500	15600	7000
	STO15X		64	15	35	12	11.8	12500	15600	7000
40	STO17		114	17	40	16	15.8	18300	23600	6300
	STO17X		114	17	40	16	15.8	18300	23600	6300
47	STO20		156	20	47	16	15.8	19000	26000	5300
	STO20X		156	20	47	16	15.8	19000	26000	5300
	STO20ZZ			20	47	20	19.8	19000	26000	5300
	STO25		182	25	47	16	15.8	19000	26000	5300
	STO25X		182	25	47	16	15.8	19000	26000	5300
62	STO30		325	30	62	20	19.8	31500	26000	5300
	STO30X		325	30	62	20	19.8	31500	52000	3000
	STO30ZZ			30	62	20	19.8	31500	52000	3000
72	STO35		435	35	72	20	19.8	31500	52000	3000
	STO35X		435	35	72	20	19.8	31500	52000	3000
	STO35ZZ			35	72	20	19.8	31500	52000	3000
80	STO40		540	40	80	20	19.8	36500	68000	1800
	STO40X		540	40	80	20	19.8	36500	68000	1800
	STO40ZZ			40	80	26	28.5	36500	68000	1800
85	STO45		580	45	85	20	19.8	38000	75000	1600
	STO45X		580	45	85	20	19.8	38000	75000	1600
90	STO50		650	50	90	20	19.8	40000	80000	1500
	STO50X		650	50	90	20	19.8	40000	80000	1500

SUPPORTING ROLLER BEARINGS

NA22 2RS
RNA22 2RS

MODEL STO AND RSTO SUPPORT ROLLER BEARINGS

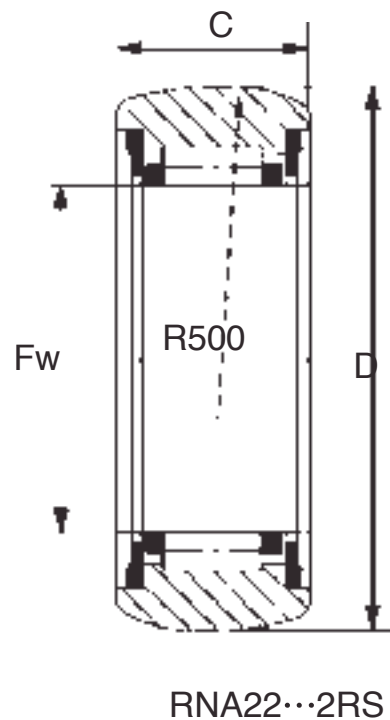
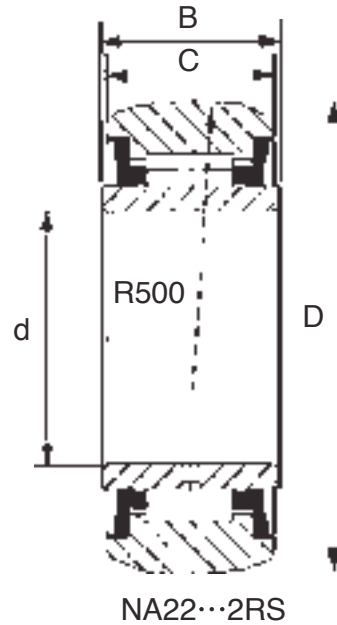
As for **Model STO** supporting roller needle bearing with inner ring and without shoulder, the outer ring of bearing is roller type with compact structure and thick wall. It can withstand large stock force in rotation with high abrasion-resistance. Because of no shoulder in the bearing, inner ring, needle, cage assembly and outer ring can be mounted respectively. If the surface of outer ring is cylinder face, the designation of bearing is **STOX**.

As for **Model RSTO** supporting roller needle bearing without inner and shoulder, the bearing has no inner ring, so it is requested that the surface hardness and surface of shaft journal fitted with it be matched with bearing. The performance of this bearing is same as that of **Model STO**. If the surface of outer ring is cylinder face, the designation of bearing is **RSTO2**. As for **Model STO** supporting roller needle bearing with inner ring and without shoulder, the outer

ring of bearing is roller type with compact structure and thick wall. It can withstand large stock force in rotation with high abrasion-resistance.

Because of no shoulder in the bearing, inner ring, needle, cage assembly and outer ring can be mounted respectively. If the surface of outer ring is cylinder face, the designation of bearing is **STOX**. (Model **STO** and **RSTO** support roller). As for **Model RSTO** supporting roller needle bearing without inner and shoulder, the bearing has no inner ring, so it is requested that the surface hardness and surface of shaft journal fitted with it be matched with bearing. The performance of this bearing is same as that of **Model STO**.

If the surface of outer ring is cylinder face, the designation of bearing is **RSTO...X**





Shaft Diameter	Bearing Designation and Approx Mass				Boundary Dimensions					Basic Load Rating		Limiting Speed
	Without IR	Mass	With IR	Mass	d	FW	D	B	C	Dynamic	Static	Grease
		g		g	mm					N		rpm
19	RNA22/6 2RS	18	NA22/6 2RS	22	6	10	19	12	11.8	5000	4350	18000
	RNA22/6 2RSX	18	NA22/6 2RSX	22	6	10	19	12	11.8	5000	4350	18000
24	RNA22/8 2RS	29	NA22/8 2RS	34	8	12	24	12	11.8	5500	5200	14000
	RNA22/8 2RSX	29	NA22/8 2RSX	34	8	12	24	12	11.8	5500	5200	14000
30	RNA2200 2RS	52	NA2200 2RS	60	10	14	30	14	13.8	7600	8100	11000
	RNA2200 2RSX	52	NA2200 2RSX	60	10	14	30	14	13.8	7600	8100	11000
32	RNA2201 2RS	57	NA2201 2RS	67	12	16	32	14	13.8	8500	9700	9500
	RNA2201 2RSX	57	NA2201 2RSX	67	12	16	32	14	13.8	8500	9700	9500
35	RNA2202 2RS	60	NA2202 2RS	75	15	20	35	14	13.8	9600	12000	7000
	RNA2202 2RSX	60	NA2202 2RSX	75	15	20	35	14	13.8	9600	12000	7000
40	RNA2203 2RS	94	NA2203 2RS	112	17	22	40	16	15.8	12000	16500	6000
	RNA2203 2RSX	94	NA2203 2RSX	112	17	22	40	16	15.8	12000	16500	6000
47	RNA2204 2RS	152	NA2204 2RS	177	20	25	47	18	17.8	18500	21900	4600
	RNA2204 2RSX	152	NA2204 2RSX	177	20	25	47	18	17.8	18500	21900	4600
52	RNA2205 2RS	179	NA2205 2RS	209	25	30	52	18	17.8	20100	26000	3500
	RNA2205 2RSX	179	NA2205 2RSX	209	25	30	52	18	17.8	20100	26000	3500
62	RNA2206 2RS	284	NA2206 2RS	324	30	35	62	20	19.8	23000	28000	2800
	RNA2206 2RSX	284	NA2206 2RSX	324	30	35	62	20	19.8	23000	28000	2800
72	RNA2207 2RS	432	NA2207 2RS	505	35	42	72	23	22.7	29800	46300	2200
	RNA2207 2RSX	432	NA2207 2RSX	505	35	42	72	23	22.7	29800	46300	2200
80	RNA2208 2RS	530	NA2208 2RS	628	40	48	80	23	22.7	38200	57700	1700
	RNA2208 2RSX	530	NA2208 2RSX	628	40	48	80	23	22.7	38200	57700	1700
85	RNA2209 2RS	545	NA2209 2RS	655	45	52	85	23	22.7	40300	63800	1600
	RNA2209 2RSX	545	NA2209 2RSX	655	45	52	85	23	22.7	40300	63800	1600
90	RNA22010 2RS	563	NA22010 2RS	690	50	58	90	23	22.7	66000	86000	1300
	RNA22010 2RSX	563	NA22010 2RSX	690	50	58	90	23	22.7	66000	86000	1300



SUPPORTING ROLLER BEARINGS

NATR NATR PP
NATV

SUPPORTING ROLLER BEARING

Model NATR, NATRPP Supporting Roller Bearing

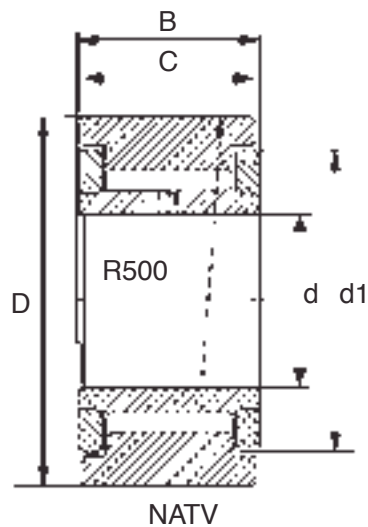
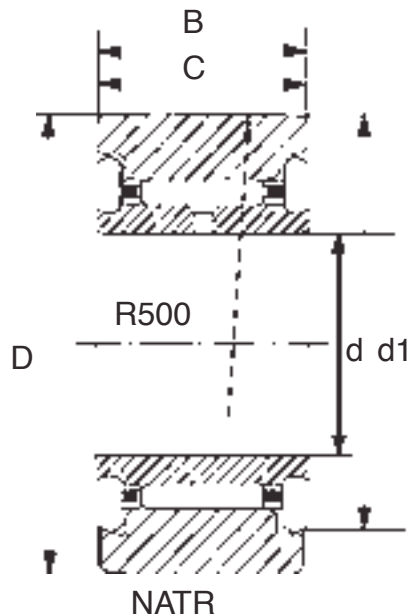
Model NATV, NATVPP Supporting Roller Bearing

Model NATR supporting roller bearing includes outer ring, inner ring, needle cage assembly and baffle ring pressed and fixed in both sides of inner ring.

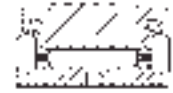
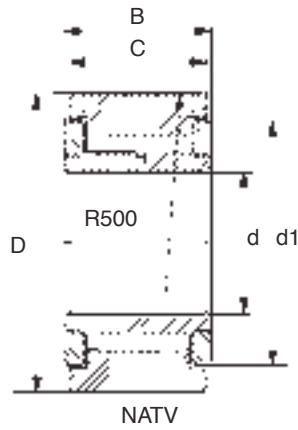
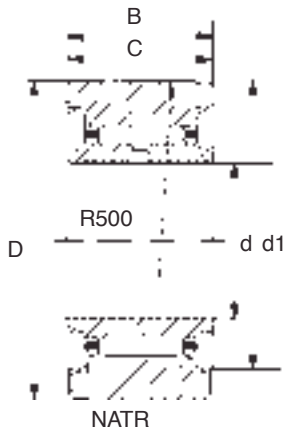
Model NATRPP support roller bearing has the seal ring. It has a large grease-storage space and can be used for a long time without adding lubricating grease.

The structure of **Model NATV** supporting roller bearing is same as that of **Model NATR**. **Model NATV** is the bearing with full of needles. It can withstand heavy load under the low speed. However it is necessary to add the lubricating grease at regular intervals. **Model NATVPP** supporting roller needle bearing has the seal ring structure.

If the surface of outer ring is cylinder face, the letter X shall be added after designation of bearing.



NATR...PP



NATR...PP

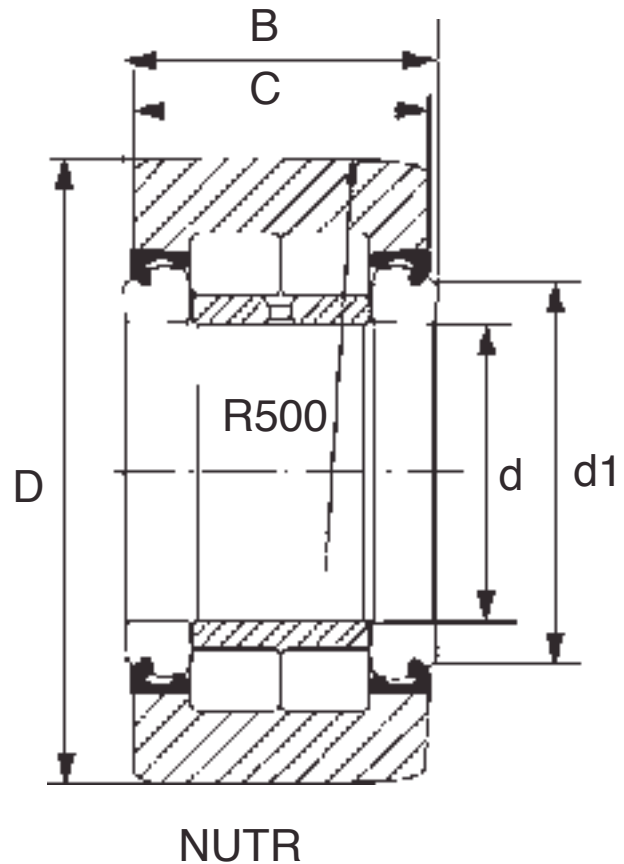
Shaft Diameter	Bearing Designation		Boundary Dimensions						Basic Load Rating				Limiting Speed rpm
	Without inner ring	With inner ring	d	D	B	C	d1	rs	Dynamic	Static	As yoke type track rollers		
			mm						min	N			
16	NATR 5	NATR 5 PP	5	16	12	11	12	0.15	3800	3750	3150	3300	*22000
	NATV 5	NATV 5 PP	5	16	12	11	12	0.15	6400	8500	4850	6500	8500
19	NATR 6	NATR 6 PP	6	19	12	11	14	0.15	4250	4600	3500	3900	*20000
	NATV 6	NATV 6 PP	6	19	12	11	14	0.15	7300	10800	5500	7900	7000
24	NATR 8	NATR 8 PP	8	24	15	14	19	0.3	6800	7700	5500	6400	*15000
	NATV 8	NATV 8 PP	8	24	15	14	19	0.3	10400	15600	7800	11400	5500
30	NATR 10	NATR 10 PP	10	30	15	14	23	0.6	8100	9700	6800	8400	11000
	NATV 10	NATV 10 PP	10	30	15	14	23	0.6	12200	19000	9500	14600	4500
32	NATR 12	NATR 12 PP	12	32	15	14	25	0.6	8700	11000	6900	8800	9000
	NATV 12	NATV 12 PP	12	32	15	14	25	0.6	13200	21700	9700	15400	3900
35	NATR 15	NATR 15 PP	15	35	19	18	27	0.6	12900	19000	9700	14100	7000
	NATV 15	NATV 15 PP	15	35	19	18	27	0.6	18300	35000	12800	23000	3400
40	NATR 17	NATR 17 PP	17	40	21	20	32	1	14200	20400	10900	15500	6000
	NATV 17	NATV 17 PP	17	40	21	20	32	1	21000	39500	14800	26500	2900
47	NATR 20	NATR 20 PP	20	47	25	24	37	1	19500	32000	15500	25500	4900
	NATV 20	NATV 20 PP	20	47	25	24	37	1	28000	59000	20600	42000	2600
52	NATR 25	NATR 25 PP	25	52	25	24	42	1	21200	38000	15400	26500	3600
	NATV 25	NATV 25 PP	25	52	25	24	42	1	31000	72000	20500	44000	2100
62	NATR 30	NATR 30 PP	30	62	29	28	51	1	34000	59000	23600	38500	2600
	NATV 30	NATV 30 PP	30	62	29	28	51	1	48500	108000	30500	63000	1700
72	NATR 35	NATR 35 PP	35	72	29	28	58	1.1	37000	69000	25500	44500	2000
	NATV 35	NATV 35 PP	35	72	29	28	58	1.1	53000	127000	33000	73000	1400
80	NATR 40	NATR 40 PP	40	80	32	30	66	1.1	49000	94000	33000	59000	1700
	NATV 40	NATV 40 PP	40	80	32	30	66	1.1	66000	159000	41000	90000	1300
85	NATR 45	NATR 45 PP	45	85	32	30	72	1.1	51000	101000	32500	59000	1500
90	NATR 50	NATR 50 PP	50	90	32	30	76	1.1	52000	108000	32000	59000	1300
	NATV 50	NATV 50 PP	50	90	32	30	76	1.1	72000	191000	40500	93000	1000

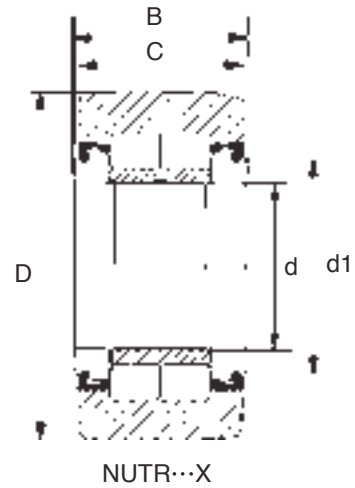
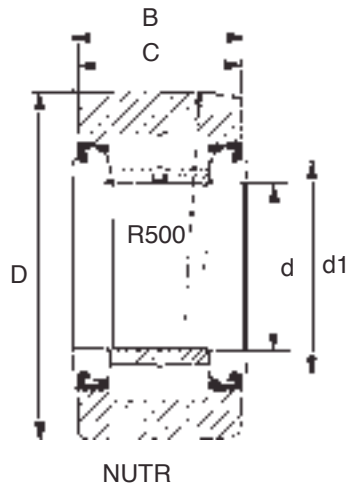
SUPPORTING ROLLER BEARINGS

NUTR X

MODEL NUTR SUPPORTING ROLLER

Model NUTR supporting roller is the double-row roller bearing with full of needles. The outer ring is guided by shoulder. All parts of bearing is enclosed by the seal cover pressed in outer ring to form a complete unit. The seal cover and thrust baffle ring constitute the high-efficient gas seal. This kind of **Model NUTR** supporting roller needle bearing can withstand heavy load. Because of axial guide in rolling body, it can withstand the stock axial load even in the high speed. If the surface of outer ring is cylinder face, the designation of bearing is **NUYTX**.



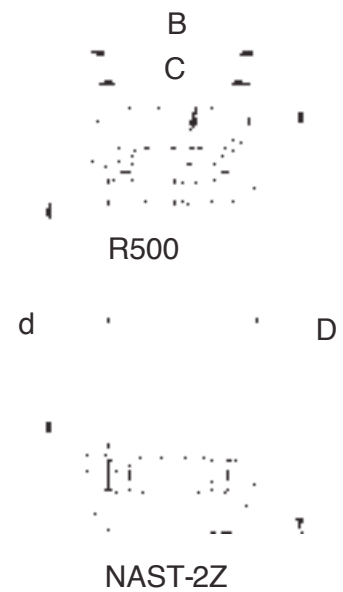
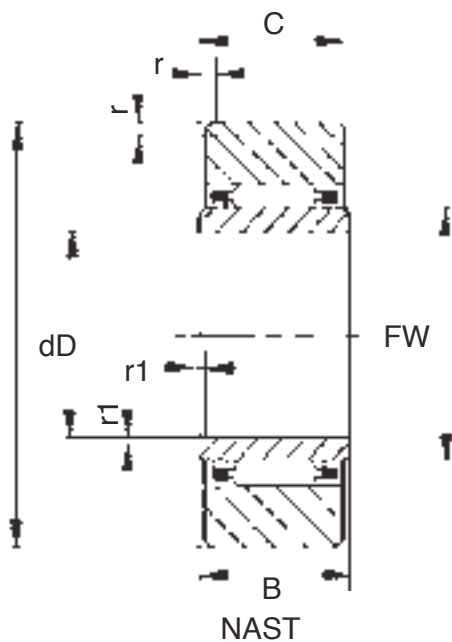


Shaft Diameter	Bearing Designation	Boundary Dimensions							Basic Load Rating						Limiting Speed rpm
		d	D	B	C	d1	rs	ris	Dynamic	Static	As yoke type track rollers		Fr perm	For perm	
		mm					min	min	N						
35	NUTR 15	15	35	19	18	20	0.6	0.3	23000	27000	16000	18300	8300	16400	6500
40	NUTR 17	17	40	21	20	22	1	0.3	24800	31000	18500	22800	13200	22800	5500
42	NUTR 15 42	15	42	19	18	20	0.6	0.3	23000	27000	19400	23800	23900	23900	6500
47	NUTR 17 47	17	47	21	20	22	1	0.3	24800	31000	21300	28000	28000	28000	5500
	NUTR 20	20	47	25	24	27	1	0.3	39000	50000	28000	35000	16500	33000	4200
52	NUTR 20 52	20	52	25	24	27	1	0.3	39000	50000	31500	41000	38500	41000	4200
	NUTR 25	25	52	25	24	31	1	0.3	43500	60000	29000	37500	17300	34500	3400
62	NUTR 25 62	25	62	25	24	31	1	0.3	43500	60000	35500	50000	50000	50000	3400
	NUTR 30	30	62	29	28	38	1	0.3	59000	79000	40000	51000	23600	47000	2600
72	NUTR 30 72	30	72	29	28	38	1	0.3	59000	79000	48000	65000	65000	65000	2600
	NUTR 35	35	72	29	28	44	1.1	0.6	65000	93000	45000	61000	32000	61000	2100
80	NUTR 35 80	35	80	29	28	44	1.1	0.6	65000	93000	51000	72000	72000	72000	2100
	NUTR 40	40	80	32	30	51	1.1	0.6	90000	134000	56000	76000	30500	60000	1600
85	NUTR 45	45	85	32	30	55	1.1	0.6	95000	147000	56000	79000	31500	61000	1400
90	NUTR 40 90	40	90	32	30	51	1.1	0.6	90000	134000	66000	96000	84000	96000	1600
	NUTR 50	50	90	32	30	60	1.1	0.6	10000	161000	57000	81000	32000	63000	1300
100	NUTR 45 100	45	100	32	30	55	1.1	0.6	95000	147000	72000	10800	106000	108000	1400
110	NUTR 50 110	50	110	32	30	60	1.1	0.6	10000	161000	76000	121000	121000	121000	1300

MODEL NAST SUPPORTING ROLLER

This bearing has the axial guide. Its performance is same as that of **Model NATR** bearing.

Model NAST22 is the roller needle bearing with flat baffle ring and dust-protection cover.





Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions mm				Basic Load Rating N		Limiting Speed rpm
	Current Code	Original Code		d	D	B	C	Dynamic	Static	
							N			
6	NAST6		17.8	6	19	10	9.8	5200	4900	18000
	NAST6-ZZR		24	6	19	14	13.8	5200	4900	18000
	NAST6-2Z		24	6	19	14	13.8	5200	4900	18000
8	NAST8		28	8	24	10	9.8	5600	7650	16000
	NAST8-ZZR		40	8	24	14	13.8	5600	7650	16000
	NAST8-2Z		40	8	24	14	13.8	5600	7650	16000
10	NAST10		49.5	10	30	16	15.8	10000	10800	12000
	NAST10-ZZR		65	10	30	16	15.8	10000	10800	12000
	NAST10-2Z		65	10	30	16	15.8	10000	10800	12000
	NAST10X28X12		10	28	12	11.8	10000	10800	12000	
12	NAST12		58	12	32	12	11.8	10600	12000	10000
	NAST12-ZZR		75	12	32	16	15.8	10600	12000	10000
	NAST12-2Z		75	12	32	16	15.8	10600	12000	10000
15	NAST15-ZZR		83	15	35	16	15.8	12500	15600	7000
	NAST15-2Z		83	15	35	16	15.8	12500	15600	7000
17	NAST17		135	17	40	20	19.8	18300	23600	6300
	NAST17-2Z		135	17	40	20	19.8	18300	23600	6300
20	NAST20-ZZR		195	20	47	20	19.8	19000	26000	5300
	NAST20-2Z		195	20	47	20	19.8	19000	26000	5300
25	NAST25-2Z		225	25	52	20	19.8	21200	31500	4300
	NAST25-ZZR		225	25	52	20	19.8	21200	31500	4300
30	NAST30-ZZR		400	30	62	25	24.8	31500	52000	3000
	NAST30-2Z		400	30	62	25	24.8	31500	52000	3000
35	NAST 35-ZZR		550	35	72	25	24.8	32000	54000	2400
	NAST35-2Z		550	35	72	25	24.8	32000	54000	2400
40	NAST40-2Z		710	40	80	26	25.8	36500	68000	1800
45	NAST45-ZZR		760	45	85	26	25.8	38000	75000	1600
	NAST45-2Z		760	45	85	26	25.8	38000	75000	1600
50	NAST50-2Z		830	50	90	26	25.8	39500	87000	1400



CURVE ROLLER

Model KR, KR PP Curve Roller

In Model KR, KR PP curve roller, the rolling body is guided by cage and the outer is axially guided by the baffle ring on the bolt. It is suitable for heavy load and middle rotational speed. Since the bearing has a large grease-storage space, it has a long-term lubrication cycle. Model KR PP curve roller has the contact-type seal structure.

Model KRV, KRV PP Curve Roller

The structure of Model KRV, KRV PP curve roller bearing is same with that of Model KR, KR PP curve roller bearing. Model KRV, KRV PP curve roller bearing is the full complement needle roller bearing. This curve roller bearing can withstand heavy load under the low speed. However it is necessary to add the lubricating grease at regular intervals.

Model NUKR Curve Roller

Model NUKR curve roller bearing has the double-row roller structure. As same as parallel roller bearing, the

outer ring is guided axially by rolling body. The cover pressed in outer ring and the shoulder constitutes the high-efficient gas seal.

This kind of curve roller bearing can withstand the heavy load and the shock axial load because it is guided axially by roller.

KRE KRE PP Model KREVKREV PP NUKRE Curve Roller

Model KRE, KRE PP, KREV, KREV PP and NUKRE curve roller

bearings are the special-purposed

bearings in order to meet the supporting requirement of main

machine. The outer ring has roller structure and

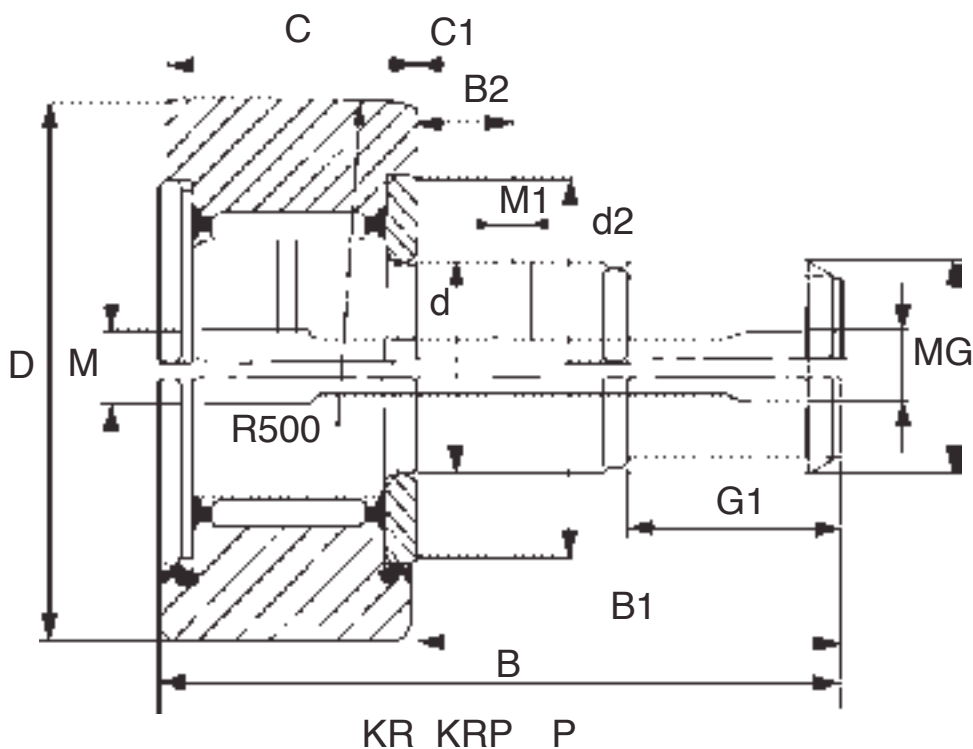
the bolt shaft substitutes the inner ring. It has compact

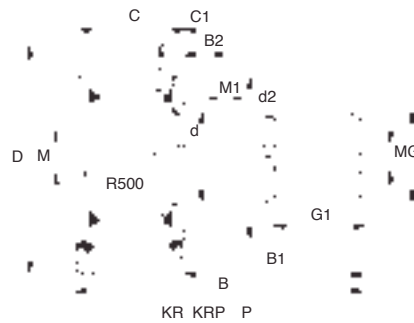
structure and can be equipped with eccentric-strap. The

roller can be adjusted by means of the slot at end of bolt. The

lubricating grease can be fed from both ends of

bolt.

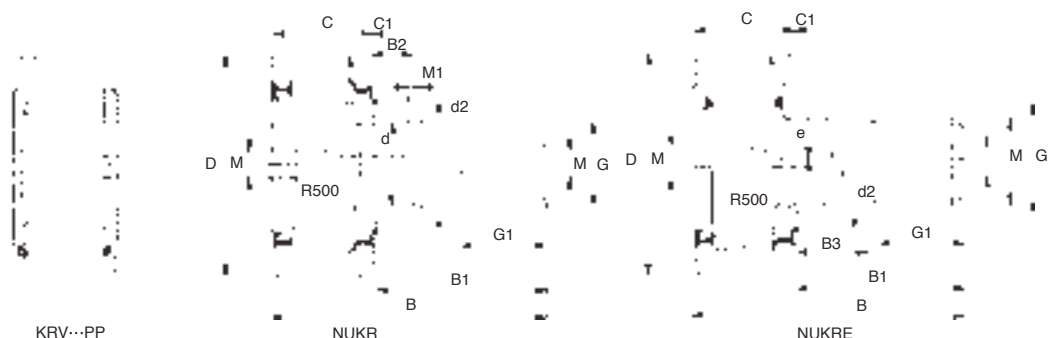




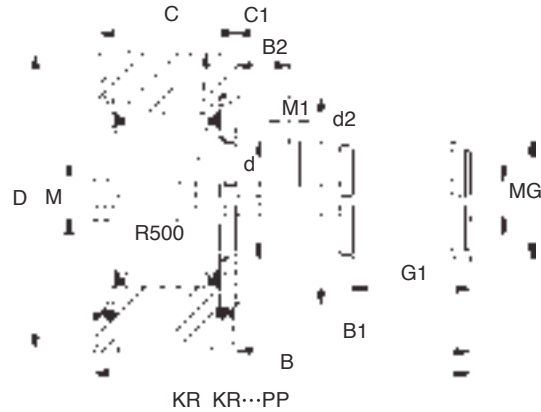
Shaft Diameter	Bearing Designation		Boundary Dimensions												
		With eccentric sleeve	D	d	C	ra	B	B1	B2	G	G1	M	Mn	C1	d2
			mm					min	mm						
16	KR 16	KRE 16	16	6	11	0.15	28	16		M6	8		4 ⁵⁾	0.6	12
	KR 16 PP	KRE 16 PP	16	6	11	0.15	28	16		M6	8		4 ⁵⁾	0.6	12
	KRV 16	KRVE 16	16	6	11	0.15	28	16		M6	8		4 ⁵⁾	0.6	12
	KRV 16 PP	KRVE 16 PP	16	6	11	0.15	28	16		M6	8		4 ⁵⁾	0.6	12
19	KR 19	KRE 19	19	8	11	0.15	32	20		M8	10		4 ⁵⁾	0.6	14
	KR 19 PP	KRE 19 PP	19	8	11	0.15	32	20		M8	10		4 ⁵⁾	0.6	14
	KRV 19	KRVE 19	19	8	11	0.15	32	20		M8	10		4 ⁵⁾	0.6	14
	KRV 19 PP	KRVE 19 PP	19	8	11	0.15	32	20		M8	10		4 ⁵⁾	0.6	14
22	KR 22	KRE 22	22	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KR 22 PP	KRE 22 PP	22	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KRV 22	KRVE 22	22	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KRV 22PP	KRVE 22PP	22	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
26	KR 26	KRE 26	26	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KR 26 PP	KRE 26 PP	26	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KRV 26	KRVE 26	26	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
	KRV 26 PP	KRVE 26 PP	26	10	12	0.3	36	23		M 10 × 1	12		4	0.6	17
30	KR 30	KRE 30	30	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KR 30 PP	KRE 30 PP	30	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KRV 30	KRVE 30	30	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KRV 30 PP	KRVE 30 PP	30	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
32	KR 32	KRE 32	32	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KR 32 PP	KRE 32 PP	32	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KRV 32	KRVE 32	32	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
	KRV 32 PP	KRVE 32 PP	32	12	14	0.6	40	25	6	M 12 × 1.5	13	3	6	0.6	23
35	KR 35	KRE 35	35	16	18	0.6	52	32.5	8	M 16 × 1.5	17	3	6	0.8	27
	KR 35 PP	KRE 35 PP	35	16	18	0.6	52	32.5	8	M 16 × 1.5	17	3	6	0.8	27
	KRV 35	KRVE 35	35	16	18	0.6	52	32.5	8	M 16 × 1.5	17	3	6	0.8	27
	KRV 35 PP	KRVE 35 PP	35	16	18	0.6	52	32.5	8	M 16 × 1.5	17	3	6	0.8	27
	NUKR 35	NUKRE 35	35	16	18	0.6	52	32.5	8	M 16 × 1.5	17	3	6	0.8	21
40	KR 40	KRE 40	40	18	20	1	58	36.5	8	M 18 × 1.5	19	3	6	0.8	32
	KR 40 PP	KRE 40 PP	40	18	20	1	58	36.5	8	M 18 × 1.5	19	3	6	0.8	32
	KRV 40	KRVE 40	40	18	20	1	58	36.5	8	M 18 × 1.5	19	3	6	0.8	32
	KRV 40 PP	KRVE 40 PP	40	18	20	1	58	36.5	8	M 18 × 1.5	19	3	6	0.8	32
	NUKR 40	NUKRE 40	40	18	20	1	58	36.5	8	M 18 × 1.5	19	3	6	0.8	23
47	KR 47	KRE 47	47	20	24	1	66	40.5	9	M 20 × 1.5	21	4	8	0.8	37
	KR 47 PP	KRE 47 PP	47	20	24	1	66	40.5	9	M 20 × 1.5	21	4	8	0.8	37
	KRV 47	KRVE 47	47	20	24	1	66	40.5	9	M 20 × 1.5	21	4	8	0.8	37
	KRV 47 PP	KRVE 47 PP	47	20	24	1	66	40.5	9	M 20 × 1.5	21	4	8	0.8	37
	NUKR 47	NUKRE 47	47	20	24	1	66	40.5	9	M 20 × 1.5	21	4	8	0.8	37

CURVE ROLLER BEARINGS

NUTR X



Boundary Dimensions			M Nm	Basic Load Rating				Limiting Speed rpm
d1	B3	e		Dynamic	Static	As yoke type track rollers		
mm						N		
9	7	0.5	3	3800	3750	3150	3300	22000
9	7	0.5	3	3800	3750	3150	3300	16000
9	7	0.5	3	6400	8500	4850	6500	8500
9	7	0.5	3	6400	8500	4850	6500	8500
11	9	0.5	8	4250	4600	3500	3900	20000
11	9	0.5	8	4250	4600	3500	3900	14000
11	9	0.5	8	7300	10800	5500	7900	7000
11	9	0.5	8	7300	10800	5500	7900	7000
13	10	0.5	15	5700	6500	4450	5200	16000
13	10	0.5	15	5700	6500	4450	5200	11000
13	10	0.5	15	8600	12900	6300	9100	6000
13	10	0.5	15	8600	12900	6300	9100	6000
13	10	0.5	15	5700	6500	5100	6200	16000
13	10	0.5	15	5700	6500	5100	6200	11000
13	10	0.5	15	8600	12900	7300	11300	6000
13	10	0.5	15	8600	12900	7300	11300	6000
15	11	0.5	22	8100	9700	6800	8400	11000
15	11	0.5	22	8100	9700	6800	8400	8300
15	11	0.5	22	12200	19000	9500	14600	4500
15	11	0.5	22	12200	19000	9500	14600	4500
15	11	0.5	22	8100	9700	7100	9000	11000
15	11	0.5	22	8100	9700	7100	9000	8300
15	11	0.5	22	12200	19000	10000	15800	4500
15	11	0.5	22	12200	19000	10000	15800	4500
20	14	1	58	12900	19000	9700	14100	7000
20	14	1	58	12900	19000	9700	14100	7000
20	14	1	58	18300	35000	12800	23000	3400
20	14	1	58	18300	35000	12800	23000	3400
20	14	1	58	23000	27000	16000	18300	6500
22	16	1	87	14200	20400	10900	15500	6000
22	16	1	87	14200	20400	10900	15500	6000
22	16	1	87	21000	39500	14800	26500	2900
22	16	1	87	21000	39500	14800	26500	2900
22	16	1	87	24800	31000	18500	22800	5500
24	18	1	120	19500	32000	15500	25500	4900
24	18	1	120	19500	32000	15500	25500	4900
24	18	1	120	28000	59000	20600	42000	2600
24	18	1	120	28000	59000	20600	42000	2600
24	18	1	120	39000	50000	28000	34500	4200

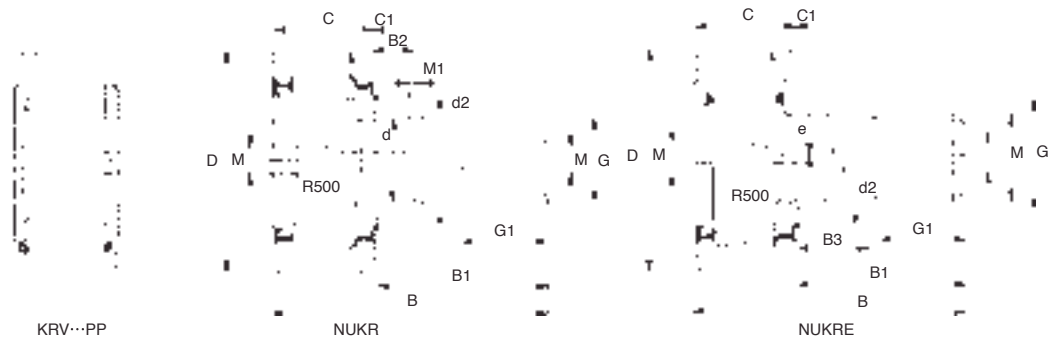


Shaft Diameter	Bearing Designation		Boundary Dimensions												
	mm	With eccentric sleeve	D	d	C	ra	B	B1	B2	G	G1	M	Mn	C1	d2
			mm						min	mm					
52	KR 52	KRE 52	52	20	24	1	66	40.5	9	M 20 × 1.5	21	8	4	0.8	37
	KR 52 PP	KRE 52PP	52	20	24	1	66	40.5	9	M 20 × 1.5	21	8	4	0.8	37
	KRV 52	KRVE 52	52	20	24	1	66	40.5	9	M 20 × 1.5	21	8	4	0.8	37
	KRV 52 PP	KRVE 52PP	52	20	24	1	66	40.5	9	M 20 × 1.5	21	8	4	0.8	37
	NUKR 52	NUKRE 52	52	20	24	1	66	40.5	9	M 20 × 1.5	21	8	4	0.8	31
62	KR 62	KRE 62	62	24	29	1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KR 62 PP	KRE 62 PP	62	24	29	1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KRV 62	KRVE 62	62	24	29	1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KRV 62 PP	KRVE 62PP	62	24	29	1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	NUKR 62	NUKRE 62	62	24	29	1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	38
72	KR 72	KRE 72	72	24	29	1.1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KR 72 PP	KRE 72 PP	72	24	29	1.1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KRV 72	KRVE 72	72	24	29	1.1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	KR V 72 PP	KRVE 72 PP	72	24	29	1.1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
	NUKR 72	NUKRE 72	72	24	29	1.1	80	49.5	11	M 24 × 1.5	25	8	4	0.8	44
80	KRV 80	KRE 80	80	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KR 80 PP	KRE 80 PP	80	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KRV 80	KRVE 80	80	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KRV 80 PP	KRVE 80 PP	80	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	NUKR 80	NUKRE 80	80	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	47
85	KR 85	KRE 85	85	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KR 85 PP	KRE 85 PP	85	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
90	KR90	KRE 90	90	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KR 90 PP	KRE 90 PP	90	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KRV 90	KRVE 90	90	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	KRV 90 PP	KRVE 90 PP	90	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	53
	NUKR 90	NUKRE 90	90	30	35	1.1	100	63	15	M 30 × 1.5	32	8	4	1	47

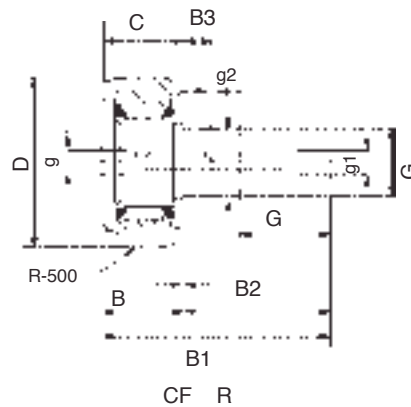


CURVE ROLLER BEARINGS

KRV PP NUKPE NUKR



Boundary Dimensions			M Nm	Basic Load Rating				Limiting Speed rpm
d1	B3	e		Dynamic	Static	As yoke type track rollers		
mm						N		
24	18	1	120	19500	32000	16800	38500	4900
24	18	1	120	19500	32000	16800	28500	4900
24	18	1	120	28000	59000	22500	48000	2600
24	18	1	120	28000	59000	22500	48000	2600
24	18	1	120	43500	60000	29000	37500	3400
28	22	1	220	30500	53000	26500	47500	3800
28	22	1	220	30500	53000	26500	47500	3800
28	22	1	220	41500	91000	34000	76000	2200
28	22	1	220	41500	91000	34000	76000	2200
28	22	1	220	59000	79000	40500	51000	2600
28	22	1	220	30500	53000	28000	53000	3800
28	22	1	220	30500	53000	28000	53000	3800
28	22	1	220	41500	91000	37000	85000	2200
28	22	1	220	41500	91000	37000	85000	2200
28	22	1	220	65000	93000	45000	61000	2100
35	29	1.5	450	45000	85000	39500	77000	2600
35	29	1.5	450	45000	85000	39500	77000	2600
35	29	1.5	450	60000	1420000	49500	1200000	1700
35	29	1.5	450	60000	142000	49500	120000	1700
35	29	1.5	450	95000	133000	67000	93000	1800
35	29	1.5	450	45000	85000	40500	80000	2600
35	29	1.5	450	45000	85000	40500	80000	2600
35	29	1.5	450	45000	85000	41500	83000	2600
35	29	1.5	450	45000	85000	41500	83000	2600
35	29	1.5	450	60000	142000	53000	130000	1700
35	29	1.5	450	60000	142000	53000	130000	1700
35	29	1.5	450	95000	133000	77000	110000	1800



Stud dia mm	Identification number				Weight (Ref.) g	Boundary Dimensions			
	Shoeld type		Sealed type			D	C	d1	G
	With crowned outer ring	With cylindrical outer ring	With crowned outer ring	With cylindrical outer ring					
6	CF 6 R	CF 6	CF 6 UUR	CF 6 UU	18.5	16	11	6	M6x1
8	CF 8 R	CF 8	CF 8 UUR	CF 8 UU	28.5	19	11	8	M8x1.25
10	CF 10 R	CF 10	CF 10 UUR	CF 10 UU	45	22	12	10	M10x1.25
	CF 10-1 R	CF 10-1	CF 10-1 UUR	CF 10-1 UU	60	26	12	10	M10x1.25
12	CF 12 R	CF 12	CF 12 UUR	CF 12 UU	95	30	14	12	M12x1.5
	CF 12-1 R	CF 12-1	CF 12-1 UUR	CF 12-1 UU	105	32	14	12	M12x1.5
16	CF 16 R	CF 16	CF 16 UUR	CF 16 UU	170	35	18	16	M16x1.5
18	CF 18 R	CF 18	CF 18 UUR	CF 18 UU	250	40	20	18	M18x1.5
20	CF 20 R	CF 20	CF 20 UUR	CF 20 UU	460	52	24	20	M20x1.5
	CF 20-1 R	CF 20-1	CF 20-1 UUR	CF 20-1 UU	385	47	24	20	M20x1.5
24	CF 24 R	CF 24	CF 24 UUR	CF 24 UU	815	62	29	24	M24x1.5
	CF 24-1 R	CF 24-1	CF 24-1 UUR	CF 24-1 UU	1140	72	29	24	M24x1.5
30	CF 30 R	CF 30	CF 30 UUR	CF 30 UU	1870	80	35	30	M30x1.5
	CF 30-1 R	CF 30-1	CF 30-1 UUR	CF 30-1 UU	2030	85	35	30	M30x1.5
	CF 30-2 R	CF 30-2	CF 30-2 UUR	CF 30-2 UU	2220	90	35	30	M30x1.5

CURVE ROLLER BEARINGS

CF UU



CF...UU

Boundary dimensions									Mounting dimension f Min. mm	Maximum tightening torque Kgf.m	Basic dynamic load rating C kgf	Basic static load rating Co kgf	Maximum allowable load kgf
G1	B	B1	B2	B3	C1	g1	g2	rsmin					
8 (9)	12.2max (12)	28.2max (28)	16		0.6 (0.5)	*4		0.3	11	0.3	370	370	200
10 (11)	12.2max (12)	32.2max (32)	20		0.6 (0.5)	*4		0.3	13	0.8	430	480	470
12 (13)	13.2max (13)	36.2max (36)	23		0.6 (0.5)	*4		0.3 (0.6)	16 (15)	1.2	550 (490)	700 (590)	700 (590)
12 (13)	13.2max (13)	36.2max (36)	23		0.6 (0.5)	*4		0.3 (0.6)	16 (15)	1.2	550 (490)	700 (590)	700 (590)
13 (14)	15.2max (15)	40.2max (42)	25	6	0.6 (0.5)	6	3	0.6 (1)	21	2.2	810	1000	1000
13 (14)	15.2max (15)	40.2max (42)	25	6	0.6 (0.5)	6	3	0.6 (1)	21	2.2	810	1000	1000
17 (18)	19.6max (19.5)	52.1max (52)	32.5	8	0.8	6	3	0.6 (1)	26 (25)	5.8	1230 (1180)	1870 (1760)	1870 (1760)
19 (20)	21.6max (21.5)	58.1max (58)	36.5	8	0.8	6	3	1	29	8.5	1500 (1600)	2570 (2770)	2570 (2710)
21 (22)	25.6max (25.5)	66.1max (66)	40.5	(10) 9	0.8	8	4	1	34 (37)	12	21110 (2200)	3530 (3850)	3280
21 (22)	25.6max (25.5)	66.1max (66)	40.5	(12) 9	0.8	8	4	1	34 (37)	12	21110 (2200)	3530 (3850)	3280
25	30.6max (30.5)	80.1max (80)	49.5	(12) 11	0.8	8	4	1	40	22	31110 (2930)	5370 (4980)	4550
25	30.6max (30.5)	80.1max (80)	49.5	(12)	0.8	8	4	1	40	22	31110 (2930)	5370 (4980)	4550
32	37max (37)	100max (100)	63	15	1	8	4	1 (1.5)	49 (47)	46	4630 (3410)	8680 (7380)	7510 (7380)
32	37max (37)	100max (100)	63	15	1	8	4	1 (1.5)	49 (47)	46	4630 (3410)	8680 (7380)	7510 (7380)
32	37max (37)	100max (100)	63	15	1	8	4	1 (1.5)	49 (47)	46	4630 (3410)	8680 (7380)	7510 (7380)