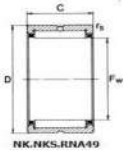


ENTITY BUSHED NEEDLE ROLLER BEARINGS

NK RNA NKS



NK.NKS.RNA49

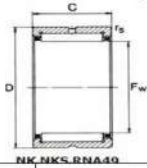
NK RNA NKS Needle roller bearings without inner ring

Shaft Diameter	Bearing Designation		Mass	Boundary Dimensions			Basic Load Rating		LimitingSpeeds
				Fw	D	C			Oil
	mm	Current Code	Original	g	mm			N	rpm
5	NK5/10TN		2.9	5	10	10	2100	1400	36780
	NK05/08			5	10	8			
	NK05/10TN-OH			5	10	12	2350	1920	39000
6	NK05/12TN		3.7	5	10	12	3000	2650	39000
	NK06/10			6	12	10	2600	2200	37000
	NK06/12TN		5.7	6	12	12	3350	3150	37000
7	RNA6X13X8TN			6	13	8			
	NK07/10		6.9	7	14	10	2850	2650	34000
	NK07/12		8.2	7	14	12	3650	3600	34000
7.8	RNA7.8169			7.8	16	9			
	NK8/12TN		8.3	8	15	12	3950	4100	32000
	NK08/12		8.7	8	15	12	3950	4100	32000
8	NK08/16		12	8	15	16	5100	5800	32000
	NK08/16TN			8	15	16	5100	5800	32000
	RNA8X19X9			8	19	9			
9	RNA8X14X8			8	14	8			
	RNA496			8	15	10			
	RNA8X15X10TN			8	15	10			
10	NK09/12		10.3	9	16	12			
	NK10/12TN	462409K	10	10	17	12	4750	5300	29000
		5624097	16.6	10	17	15	4860	7100	29000
12	NK10/10			10	17	10			
	NK10/12			10	17	12			
	NK10/16			10	17	16	6200	7800	29000
14	NK10/16TN			10	17	16	6200	7800	29000
	NKS10			10	19	13	5800	6000	29000
	NK12/12TN	644097	11.8	12	19	12	6000	6400	27000
15		5624098	15.4	12	19	15	6400	7100	27000
	NK12/16		16.8	12	19	16	8200	9800	27000
	NK14/16	4624900K	20.8	14	22	16	10100	11500	25000
16	NKS14		27	14	25	16	1400	13800	24000
	RNA4900	4624900	24.4	14	22	13	8500	9000	25000
	RNA6900	6634900	29.1	14	22	22	12800	15600	25000
18	NK14/12			14	22	12			
	NK14/20			14	22	20	12800	15600	25000
	NK15/12	644800K	18.5	15	23	12	8600	11000	21000
20	RNA152815		31.7	15	28	15	13600	17200	24000
		7948/15	16.1	15	22	12	8200	9800	8500

ENTITY BUSHED NEEDLE ROLLER BEARINGS

Needle bearing without inner ring

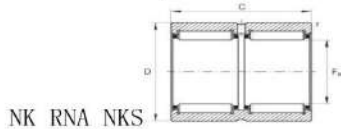
RNA49 RNA69 NK NKS



Shaft Diameter mm	Bearing Designation		Mass g	Boundary Dimensions mm			Basic Load Rating N		Limiting Speed rpm
	Current Code	Original Code		Fw	D	C			
15		644302	18.2	15	25	12	10600	13500	17000
	NK15/16		21.8	15	23	16	10700	12700	24000
	NK15/20		26.7	15	23	20	13600	17200	24000
	NK152312			15	23	12			
16	NK152512			15	25	12			
	NK16/16		20.8	16	24	16	11300	13900	23000
	NK16/20	624701	23.9	16	24	20	10400	16800	23000
	RNA4901	4624901	16.6	16	24	13	6400	8900	15500
	RNA6901	6634901	28.7	16	24	22	14000	18600	15500
	NKS16		30	16	28	16	14900	15000	20000
17	NK162516			16	25	16			
	NK162616			16	26	16			
18	NK17/16	644903K	21.5	17	25	16	9000	13500	14000
	NK17/20	RNA172520	30	17	25	20	15000	20000	23000
19	NK18/20		30.5	18	26	20	15500	19800	22000
	NK18/16			18	26	16	12500	16200	22000
20	NK19/16			19	27	16	13000	17000	22000
	NK20/16	644802	25.7	20	28	16	10500	13800	21000
	NK20/20	624802	29.3	20	28	20	11500	21800	21000
	NK20*26*16		20.8	20	26	16	9600	10800	21000
	NK202620			20	26	20	9600	10800	21000
	NKS20		46.8	20	32	20	20000	23000	20000
	NK203312SX		29.1	20	33	12	13000	18000	11000
		6624101	24.3	20	28	25	13000	17500	11000
	RNA4902	4624902	20.5	20	28	13	11000	12900	12000
	RNA6902	6634902	35.4	20	28	23	10800	12800	12000
21	NK20/16			20	32	16	13000	25000	12000
	RNA5902			20	28	18			
	NK21/12			21	29	12			
22	NK21/16			21	29	16	13500	18700	21000
	NK21/20			21	29	20			
	NK22/16	NK223016	29.2	22	30	16	13500	18000	11500
22		NK223516	34.6	22	35	16	18600	20800	11500
	NKS22		60.2	22	35	20	21500	25000	17000
	RNA4903	4644903	20.7	22	30	13	12000	16800	16300
	RNA5903			22	30	18			
	RNA6903	6634903	39.8	22	30	23	14000	19900	16300
		624703	53	22	35	25	24500	28000	14100
	634704L	42.5	22	30	30	17700	27000	16500	

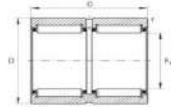
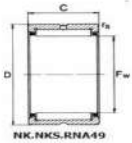
ENTITY BUSHED NEEDLE ROLLER BEARINGS

Needle Roller Bearings Without Inner Ring NK RNA NKS



Shaft Diameter mm	Bearing		Mass Approx g	Boundary			Dynamic	Static	Oil		
	Current Code	Original Code		Fw	D	C				N	rpm
				mm							
		644704	27.4	22	28	16	10500	15000	16500		
22		NK223516	49.4	22	35	16	18600	20800	16500		
	NK22/20			22	30	20					
23		634704KA	37.5	23	30	30	18600	29000	15000		
24	NK24/16			24	32	16					
	NK24x33.5x			24	33.5	7.5					
	NK25/16	624904	30	25	33	16	12900	20400	15000		
	NK25/20	644804	38.4	25	33	20	16800	28500	15000		
	RNA4904	4644904	50.8	25	37	17	11900	16500	15000		
	RNA6904	6634904	97.7	25	37	30	26000	43000	15000		
	NKS25		65	25	38	20	25800	31000	16300		
		624704	100.1	25	35	25	14900	22400	16500		
	NK25/30	644804K	63	25	33	30	18800	30500	165000		
25	NK253326			25	33	26					
	NK253422			25	34	22					
	NK253425			25	34	25					
	NK253820			25	38	20					
	NK253825			25	38	25					
	NK254517.5			25	45	17.5					
	NK26/16		30	26	34	16	15000	23000	16300		
26	NK26/20		40	26	34	20	17000	30000	16300		
27	NK27x40 x25			27	40	25					
	RNA283833		99.8	28	38	33	33000	57000	12000		
		F3833	99.8	28	38	33	33000	57000	12000		
28	NKS28		80	28	42	20	25900	33500	15000		
	NK28/20		53	28	37	20	22000	34000	16500		
	NK28/30			28	37	30	33000	57000	12000		
	RNA69/22	63549/22		28	39	30					
29	NK29/20			29	38	20	21900	34000	15000		
	NK29/30			29	38	30	32500	57000	15000		
	NK30/20	644805	57.9	30	40	20	20600	32000	15000		
	NK30/30		95	30	40	30	31500	50000	15000		
	RNA4905	4624905	57	30	42	17	23600	31500	14000		
	RNA6905	6634905	106.5	30	42	30	39000	59000	14000		
30		624905	68	30	42	20	20000	32000	15000		
	NK304013			30	40	13					
	NK304430			30	44	30					
	NK304630			30	46	30					
	NK305017			30	50	17					

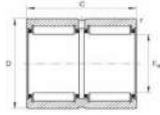
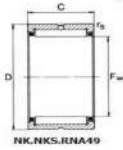
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle roller bearings without inner ring NK RNA NKS

Shaft Diameter	Bearing Designation		Mass	Boundary			Basic Load		Limiting Speed	
				Fw	D	C				
mm	Current Code	Original	g	mm			N		rpm	
30	NKS30			30	45	17	32000	40000	14000	
	RNA305225			30	52	25				
30.5	NK30.5 x 50 x 16			30.5	50	16				
	NK30.5 x 50 x 17			30.5	50	17				
31	NK31.75 x 44.45			31.75	44.45	22				
32	NK32/20	624705	75.4	32	42	20	22600	33500	15000	
	RNA49/28	46449/28K	80	32	45	17	17400	30000	13000	
	NAS32		100	32	47	22	31000	40000	13000	
	RNA69/28		125	32	45	30	39500	61300	13000	
		644906	42	32	38	11	10750	30500	12000	
		644706	193	32	50	35	40500	63000	12000	
		NKS32		100	32	47	22	31000	40000	12000
		NK32/30			32	42	30	33500	60000	12000
34	RNA324527			32	45	27				
	NK345034			34	50	34				
35	NK345035			34	50	35				
	NK35/20	644806	70	35	45	20	13800	26900	12000	
	RNA4906	4624906	62.8	35	47	17	17000	30500	12000	
	RNA6906	6634906	116	35	47	30	35000	67000	12000	
		644907	161	35	51		43500	71000	12000	
		NK354512			35	45	12			
		NK354830			35	48	30			
		NK355034			35	50	34			
		NK355236			35	52	36			
		RNA354527			35	45	27			
		RNA5906	108	35	47	23				
	36	RNA355730			35	57	30			
RNA355734				35	57	34				
37	NK365225			36	52	25				
37		624706	154	37	52	22	28500	45500	9000	
	NK37/20			37	47	20	24900	43500	12000	
38	NK37/30			37	47	30	37000	73000	12000	
	NK38/20			38	48	20	25500	45000	12000	
40	NK38/30			38	48	30	38000	76000	12000	
	NK40/20		78.9	40	50	20	26500	43000	11000	
40	NK40/30		120	40	50	30	37500	79000	11000	
	NK404815			40	48	15				
	NK405530			40	55	30				
	NKS40			40	55	22	38000	54000	11000	

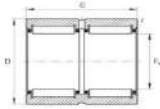
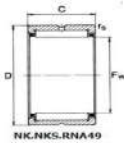
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle roller bearings without inner ring NK RNA NKS

Shaft Diameter	Bearing Designation		Mass g	Boundary			Basic Load		Limiting Speed rpm
	Current Code	Original		Fw	D	C	N	Oil	
mm	Current Code	Original	g	mm			N		rpm
40	RNA49/32			40	52	20			
	RNA69/32	66349/32	147	40	52	36	25500	6850	8500
	RNA405422			40	54	22			
	RNA40X55X20			40	55	20			
42	NK42/20		83	42	52	20	23900	45000	10000
	NK42/30		125	42	52	30	27000	49000	10000
	RNA4907	4624907	99.3	42	55	20	19800	41500	8700
	RNA5907			42	55	27			
	RNA6907	6634907	160	42	55	36	26000	60500	8700
		644708	148	42	65	22	31500	51000	8700
43	RNA425622			42	56	22			
	NK43/20		84	43	53	20	25700	75000	10000
45	NK43/30		126	43	53	30	39000	75000	10000
	NK45/20	644808	81.5	45	55	20	19800	46500	7650
		624708	75.3	45	55	22	20500	49600	7650
		46449/38	80	45	58	20	21600	50500	7650
	NK45/30			45	55	30	41000	88000	7650
	NKS45			45	60	22	40500	60000	7650
47	RNA456227K			45	62	27			
	NK47/20			47	57	20	28500	56000	7650
48	NK47/30			47	57	30	43000	94000	7650
	RNA4908	4644908	132	48	62	22	31000	63000	8120
	RNA5908		225	48	62	30	31000	63000	8120
	RNA6908	6634908	238	48	62	40	64000	11200	8120
50	RNA50/25		167	50	62	25	28000	67000	8140
	RNA50/35		236	50	62	35	32000	70100	8140
		624708K	328	50	65	34	40000	62000	8140
	NK50/14			50	64	14	32000	70100	8140
	NK50/15			50	65	15	40000	62000	8140
	NK50/27YA	644810	257	50	67	27			
	NKS50			50	65	22			
52	NK506825			50	68	25			
	RNA4909	4624909	163	52	68	22	37000	69500	7600
	RNA5909		232	52	68	30			
	RNA6909	6634909	308	52	68	40	61500	12350	7600
55	NK55/25		167	55	68	25	30600	60800	7600
		624709	210	55	68	25	36000	68000	7600
	NK55/30			55	68	30	48000	63000	7600
	NK55/35			55	68	35	55000	74000	7600

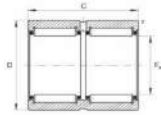
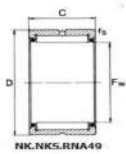
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle roller bearings without inner ring NK RNA NKS

Shaft mm	Bearing		Mass g	Fw	D	C	N		Oil rpm
	Current	Original							
55	NKS55			55	72	22	45000	74000	7600
58	RNA4910	4644910	161	58	72	22	41000	72000	7500
	RNA6910	6634910	296	58	72	40	68000	135000	7500
60	NK60/25		154	60	72	25	39000	86000	7000
	NK60/35			60	72	35	56000	130000	7000
	NKS60			60	80	28	63000	98000	7000
63	RNA4911	4644911	241	63	80	25	50600	96580	7000
	RNA6911	6634911	430	63	80	45	82560	172000	7000
65	NK65/25			65	78	25	44000	98000	7000
	NK65/35			65	78	35	59000	142000	7000
	NKS65			65	85	28	67000	108000	7000
68	RNA4912	4644912	257	68	85	25	52800	91050	7000
	RNA5912		408	68	85	34			
	RNA6912	6634912	436	68	85	45	88500	186000	7000
	NK68/25			68	82	25	43500	89000	7000
70	NK70/25			70	85	25	44500	92000	6500
	NK70/35			70	85	35	63000	144000	6500
72	RNA4913	4644913	300	72	90	25	57500	110500	6500
	RNA6913	6634913	571	72	90	45	87600	194500	6500
75	NK75/25		315	75	92	25	54000	104000	6000
	NK75/35		445	75	92	35	77000	162000	6000
80	RNA4914	4644914	400	80	100	30	79000	154000	5500
	RNA6914	6634914	815	80	100	54	12100	263000	5500
	NK80/25			80	95	25			
85	NK80/35			80	95	35			
	RNA4915	4644915	472	85	105	30	82000	158000	5500
	RNA5915		745	85	105	40			
	RNA6915	6634915	923	85	105	54	12800	272000	5500
	NK85/25			85	105	25	69000	123000	5500
90	NK85/35			85	105	35	98000	193000	5500
	RNA4916	4644916	496	90	110	30	81000	170500	5000
	RNA6916	6634916	978	90	110	54	13050	280600	5000
	NK90/35			90	110	30	10300	20800	5000
95	NK95/26			95	115	26	73000	137000	4800
	NK95/36			95	115	36	10700	223000	4800
96		SG-421	496	96	115	29	73000	137000	4600
100	RNA4917	4644917	608	100	120	35	98000	207000	4600
	RNA6917	6634917	1112	100	120	63	16100	337000	4600
	NK100/30			100	120	30			

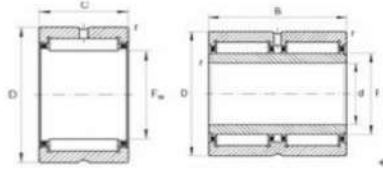
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle roller bearings without inner ring NK RNA NKS

Shaft Diamete mm	Bearing		Mass g	Fw	D	C	Dynamic N	Statc N	LimtingSpeed Oil rpm
	Current Code	Original Code		mm					
100	NK100/36			100	120	36	111000	23700	4600
105	RNA4918	4644918	713	105	125	35	98500	23900	4000
	RNA6918	6634918	1250	105	125	63	174000	38000	4000
	NK105/26			105	125	26	78000	15500	4000
	NK105/36			105	125	36	114000	25000	4000
110	RNA4919	4644919	685	110	130	35	112000	24500	3870
	RNA6919	6634919	1325	110	130	63	196000	40000	3870
	NK110/30			110	130	30	98000	21000	4200
	NK110/40			110	130	40	127000	29000	4200
115	NKS115			115	135	32			
	RNA4920	4624920	1006	115	140	40	120000	26400	3700
	NK115/12			115	140	12	91000	204000	4000
	NK115/15			115	140	15			
120	NK120/40			120	140	40	113000	275000	3900
	RNA4822			120	140	30	94000	216000	3900
125	RNA4922	6634922	1200	125	150	40	124000	27000	3300
130	RNA4824			130	150	30	99000	239000	3600
135	RNA4924	4644924	1760	135	165	45	174000	38600	2900
145	RNA4826			145	165	35	118000	310000	3200
150	RNA4926			150	180	50	203000	470000	3100
155	NK155/32			155	180	32	114000	260000	3000
	RNA4828			155	175	35	120000	325000	3000
160	RNA4928	4644928	2350	160	190	50	200000	46000	2900
165	RNA4830			165	190	40	152000	400000	2800
175	RNA4832			175	200	40	160000	435000	2700
185	RNA4834			185	215	45	185000	510000	2500
195	RNA4836			195	225	45	194000	550000	2400
210	RNA4838			210	240	50	227000	690000	2300
220	RNA4840			220	250	50	230000	720000	2200
240	RNA4844			240	270	50	243000	790000	2000
265	RNA4848			265	300	60	355000	1080000	1800
285	RNA4852			285	320	60	370000	1160000	1700
305	RNA4856			305	350	69	450000	1300000	1500
330	RNA4860			330	380	80	620000	1770000	1400

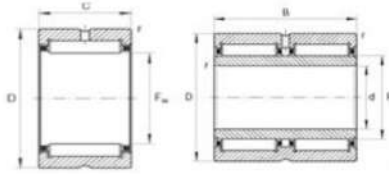
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle Roller Bearings With Inner Ring NA NKI NKI

Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions				Basic Load		Limitingspeed Oil
	Current Code	Original Code		d	Fw	D	B			
mm			g	mm				N		rpm
5	NA495		7	5		13	10	2670	2350	34000
	NA495TN		7	5		13	10	2670	2350	34000
6	NA496		9	6		15	10	3150	3000	32000
7	NA497		12	7		17	10	3600	3650	30000
8	NKI 8/16			8	14	25	16	12400	11300	21500
	NA498		16	8		19	11	4300	3950	28000
	NKI 9/12		16.6	9	12	19	12	6200	7000	21700
9	NA499		17	9		20	11	4850	4900	26000
	NKI 9/16		21.9	9		19	16			
	NKI 10/16		27.3	10	14	22	16	9800	10500	19650
10	NA4900	4524900	21	10	14	22	13	8000	9000	23700
	NA6900	6534900	38.4	10	14	22	22	9000	11000	23700
	NA4901	4524901	25.1	12	16	24	13	9000	10800	20000
	NKI 12/20		39	12	16	24	20	14000	18400	21000
12	NA6901	6534901	44.5	12	16	24	22	6000	21600	20000
	NKIS12		58	12	18	30	16	16000	17000	20000
	NA12X32X15V			12		32	15			
	NKI 15/16		38	15	19	27	16	8800	12800	19100
	NKI 15/20		45.7	15	19	27	20	12300	19000	19100
	NA4902	4924902	32	15	20	28	13	6400	9000	18000
	NA6902	6534902	61.6	15	20	28	23	13100	20900	18000
	NKIS15		90	15	22	35	20	23500	24000	17000
15	NA5902		52	15	20	28	18			
	NA153212			15		32	12			
	74802			15		36	25.4			
16	NKIS16			16		28	16	13000	17400	22000
	NA16X36X24			16		36	24			
	NKI 17/16		41.1	17	21	29	16	13000	18200	20000
	NA4903	4544903	32.8	17	22	30	13	7000	10000	17000
17	NA6903	6534903	68.2	17	22	30	23	14400	24900	17000
	NA5903		56	17	22	30	18	15200	21700	18000
	NA17			17		37	20			
	NKI 20/16		48.5	20	24	32	16	10800	17000	16700
	NA4904	4524904	70.2	20	25	37	17	21000	25000	17000

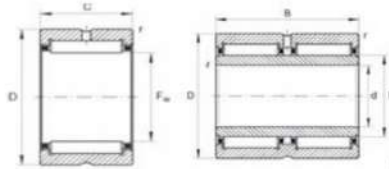
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle Roller Bearings With Inner Ring NA NKI NKI

Shaft mm	Bearing		Mass g	Boundary				Limiting		
	Current	Original		d	Fw	D	B	Oil		
				mm				rpm		
20	NKIS20		119	20	28	42	20	28000	35500	15000
	NA6904	6254904		20	25	37	30	36000	51000	17000
	NA5904			20	25	37	23			
22	NKI 22/16		50	22	26	34	16	15300	23600	17000
	NA49/22		76	22	28	39	17	22000	29500	15000
	NA69/22		130	22	28	39	30	37500	55000	15000
	NA223934			22	28	39	34			
23	NA2020			23		42	22			
25	NKI 25/30		115	25	29	38	30	31500	56000	14000
	NA4905	4524905	76	25	30	42	17	23600	31500	14000
	NA6905	6534905	138	25	30	42	30	29000	59000	14000
	NKIS25		160	25	32	47	22	32000	55000	13000
		F-208277		25	32	47	22			
	NKI 25/20			25	29	38	20	21900	34000	15000
	NA5905		139	25	30	42	23	30500	43000	13000
28	NA49/28	45449/28	98	28	32	45	17	24000	33500	14000
	NA69/28		170	28	32	45	30	40500	63000	14000
	NKI 28/20			28	32	42	20	23000	37500	14000
30	NA4906	4544906	115	30	35	47	17	25000	35500	13000
	NA5906	6534906	152	30	35	47	23			
	NA6906			30	35	47	30	43500	71000	13000
	NKI 30/20			30	35	45	20	24000	42500	13000
	NKI 30/30			30	35	45	30	36500	69000	13000
32	NK132/20			32	37	47	20	24900	43900	12000
		TAFI3247		32	37	47	20	24900	43500	12000
	NA49/32	45449/32	150	32	40	52	20	24900	43500	12000
	NA69/32	66349/32	272	32	40	52	36	10000	10000	11000
35	NKI 35/30		165	35	40	50	30	39000	79000	11000
	NA4907	4524907	151	35	42	55	20	19800	41500	11000
	NA6907	6534907	301	35	42	55	36	26000	60500	11000
	NKIS35		220	35	43	58	22	33000	56000	9500
	NA5907		256	35	42	55	27			
40	NKI 40/20		124	40	45	55	20	22000	48000	10000
	NKI 40/30		184	40	45	55	30	35000	86000	10000
	NA4908	4544908	240	40	48	62	22	42000	65000	8500

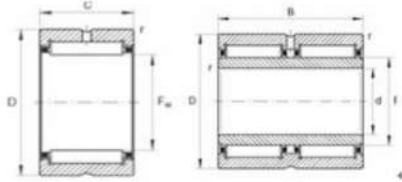
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle Roller Bearings With Inner Ring NA NKI NKI

Shaft Diameter	Bearing Designation		Mass	Boundary Dimensions				Basic Load		Limiting Speed Oil
	Current	Original		d	Fw	D				
mm	Current	Original	g	mm				N		rpm
40	NA6908		401	40	48	62	40	64000	11200	8500
	NA5908		348	40	48	62	30	53000	92500	8500
42	NKI 42/20		138	42	47	57	20	26000	52500	9500
45	NKI 45/25		218	45	50	62	25	36000	70000	8500
	NKI 45/35		289	45	50	62	35	41500	10200	8500
	NA4909	4544909	260	45	50	68	22	37000	96500	8000
	NA6909	6534909	479	45	50	68	40	61500	12350	8000
	NKIS45		306	45	55	72	22	43000	71000	7500
	NA5909		396	45	50	68	30			
50	NKI 50/25	TAF15068	262	50	55	68	25	32000	78000	7500
	NA4910	4544910	264	50	58	72	22	41000	72000	7500
	NA5910			50	58	72	30			
	NA6910	6534910	457	50	58	72	40	68000	13500	7500
	NKIS50		510	50	60	80	28	60000	95000	7500
55	NKI 50/35	TAF15068		50	55	68	35	53000	11800	7500
	NKI 55/35		357	55	60	72	35	48000	12680	7500
	NA4911	4544911	386	55	63	80	25	50600	96580	7500
	NA5911			55	63	80	34			
60	NA6911	6534911	790	55	63	80	45	82560	17200	7500
	NKI 60/25		388	60	68	82	25	35500	85000	7000
	NA4912	4544912	412	60	68	85	25	52800	11050	6500
	NA5912		614	60	68	85	34			
	NA6912	6534612	798	60	68	85	45	88500	18600	6500
65	NKIS60		550	60	70	90	28	65000	11000	6500
	NA4913	4544913	435	65	72	90	25	57500	11050	6500
	NA6913	6534913	821	65	72	90	45	87600	19450	6500
	NKI 65/25			65	73	90	25	53000	10000	6500
	NKI 65/35			65	73	90	35	75000	15600	6500
70	NA4914	4544914	712	70	80	100	30	79000	15400	5500
	NA6914	6534914	1326	70	80	100	54	12100	26300	5500
	NKI 70/35			70	80	95	35	78000	18400	5500
75	NA4915	4544915	765	75	85	105	30	82000	15800	5500
	NA5915		1130	75	85	105	40			
	NA6915	6534915	1429	75	85	105	54	12800	27200	5500
	NA4916	4544916	870	80	90	110	30	81000	17050	5500

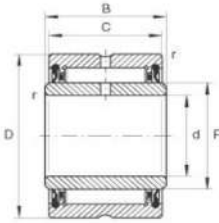
ENTITY BUSHED NEEDLE ROLLER BEARINGS



Needle Roller Bearings With Inner Ring NA NKI NKI

Shaft mm	Bearing		Mass g	Boundary						Oil rpm
	Current	Original		d	Fw	D	B	N		
80	NA6916	6534916	1510	80	90	110	54	13050	28060	5000
	NKI 80/35			80	90	110	35	10300	20800	5000
	NKI 85/26			85	95	115	26	73000	13700	4800
85	NKI 85/36		1040	85	95	115	36	10700	22300	4800
	NA4917	4544917	1250	85	100	120	35	11100	23700	4600
	NA6917	6534917	2200	85	100	120	63	16600	40000	4600
90	NKI 90/26			90	100	120	26	26000	14600	4600
	NA4918	4544918	1312	90	105	125	35	11400	25000	4600
	NA6918	6534918	2310	90	105	125	63	17200	42500	4600
95	NA4919	4544919	1371	95	110	130	35	11600	26000	4200
	NA6919	6534919	2500	95	110	130	63	17400	44000	4200
	NKI 95/26			95	105	125	26	78000	115000	4200
100	NKI 95/36			95	105	125	36	11400	25000	4200
	NA4920	4544920	1900	100	115	140	40	12000	27400	4000
110	NKI100/30			100	110	130	30	98000	21000	4000
	NA4922	4544922	2070	110	125	150	40	13200	29000	3700
120	NA4822		1080	110	120	140	30	94000	21600	3900
	NA4924	4544924	2860	120	135	165	45	18100	89000	3400
130	NA4824		1170	120	130	150	30	99000	23900	3600
	NA4926	4544926	3900	130	150	180	50	22300	47000	3100
	NA4826		1810	130	145	165	35	11800	31000	3200
140	NA4928	4544928	4150	140	160	190	50	20900	50000	2900
	NA4828		1920	140	155	175	35	12000	32500	3000
150	NA4830		2720	150	165	190	40	15200	40000	2800
160	NA4832		2890	160	175	200	40	16000	43500	2700
170	NA4834		3960	170	185	215	45	18500	51000	2500
180	NA4836		4200	180	195	225	45	19400	55000	2400
190	NA4838		5600	190	210	240	50	22700	69000	2300
200	NA4840		5840	200	220	250	50	23000	72000	2200
220	NA4844		6380	220	240	270	50	24300	79000	2000
240	NA4848		10000	240	265	300	60	35500	108000	1800
260	NA4852	4524852	11300	260	285	320	60	37000	116000	1700

ENTITY BUSHED NEEDLE ROLLER BEARINGS



NA49. RS NA49. 2RS

Seal Ring Needle Roller Bearings With Inner Ring or Without Inner Ring

Shaft mm	Bearing		Boundary							Limiting Speed	
	Current	Original Code	d	F	W	D	C	B	Oil		
			mm							rpm	
without IR											
14	RNA4900RS	RNA4900-2RS	16		14	22	13		4560	4660	13000
16	RNA4901RS	RNA4901-2RS	18		16	24	13		4950	5800	12000
20	RNA4902RS	RNA4902-2RS	21.5		20	28	13		5980	9500	10000
22	RNA4903RS	RNA4903-2RS	23		22	30	13		6050	10100	9000
25	RNA4904RS	RNA4904-2RS	56		25	37	17		14900	17500	7500
30	RNA4905RS	RNA4905-2RS	60		30	42	17		16300	21500	6500
35	RNA4906RS	RNA4906-2RS	69		35	47	17		20050	24900	5500
42	RNA4907RS	RNA4907-2RS	107		42	55	20		22500	37000	4800
48	RNA4908RS	RNA4908-2RS	154		48	62	22		33050	50900	4200
52	RNA4909RS	RNA4909-2RS	157		52	68	22		34800	56800	3900
58	RNA4910RS	RNA4910-2RS	160		58	72	22		37800	61500	3500
10	NA4900RS	NA4900-2RS	24.5	10	14	22	13	14	4560	4660	13000
12	NA4901RS	NA4901-2RS	27.5	12	16	24	13	14	4950	5800	12000
15	NA4902RS	NA4902-2RS	37	15	20	28	13	14	5980	9500	10000
17	NA4903RS	NA4903-2RS	40	17	22	30	13	14	6050	10100	9000
20	NA4904RS	NA4904-2RS	80	20	25	37	17	18	14900	17500	7500
25	NA4905RS	NA4905-2RS	89.5	25	30	42	17	18	16300	21500	6500
30	NA4906RS	NA4906-2RS	104	30	35	47	17	18	20050	24900	5500
35	NA4907RS	NA4907-2RS	175	35	42	55	20	21	22500	37000	4800
40	NA4908RS	NA4908-2RS	252	40	48	62	22	23	33050	50900	4200
45	NA4909RS	NA4909-2RS	290	45	52	68	22	23	34800	56800	3900
50	NA4910RS	NA4910-2RS	295	50	58	72	22	23	37800	61500	3500
55	NA4911RS	NA4911-2RS		55		80	24	25			
60	NA4912RS	NA4912-2RS		60		85	25	26			
70	NA4914RS	NA4914-2RS		70		100	31	32			

ENTITY BUSHED NEEDLE ROLLER BEARINGS

NAV RNAV

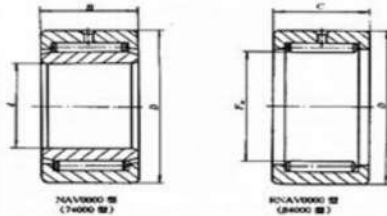
No inner ring or the full complement needle roller bearings with inner ring NAV RNAV

Shaft mm	Bearing		Mass g	d	D	C			Oil rpm
	Current	Original		mm			N		
15	NAV4902	4074902E		15	28	13			
	NAV4002	4074102	76	15	32	17	10800	29800	4500
		74802	100	15	36	24.55	8900	11200	4400
17	NAV4903	4074903E		17	30	13			
	NAV4003	4074103	98	17	35	18	12000	17000	3400
		74703	126	17	35	24.5	8700	10800	4200
20	NAV4904	4074904E		20	37	17			
	NAV4004	4074104	175	20	42	22	14500	29600	3000
	NAV203620.5			20	36	20.5			
	NAV204			20	47	14			
24	NAV24668.1			24	66	8.1			
25	NAV4905	4074905E		25	42	17			
	NAV4005	4074105	201	25	47	22	23000	34600	2600
	NAV205			25	52	15			
30	NAV4906	4074906E		30	47	17			
	NAV4006	4074106	311	30	55	25	25800	46900	2000
35	NAV4907	4074907E		35	55	20			
	NAV4007	4074107	418	35	62	27	33000	59900	1800
40	NAV4908	4074908E		40	62	22			
	NAV4008	4074108	498	40	68	28	35900	67000	1700
45	NAV4909	4074909E		45	68	22			
	NAV4009	4074109	637	45	75	30	41000	74000	1500
50	NAV4910	4074910E		50	72	22			
	NAV4010	4074110	702	50	80	30	42800	88900	1400
55	NAV4911	4074911	1030	55	90	35	48900	10900	1300
60	NAV4912	4074912E		60	85	25			
	NAV4012	4074112	1125	60	95	35	50700	11600	1100
65	NAV4013	4074113	1200	65	100	35	59800	12600	1000
70	NAV4914	4074914E		70	100	30			
	NAV4014	4074114	1700	70	110	40	72400	15500	950
75	NAV4015	4074115	1810	75	115	40	7280	1800	900
	NAV4916	4074916E		80	110	30			
80	NAV4016	4074116	2470	80	125	45	76000	19500	850
	NAV4017	4074117	2580	85	130	45	74000	19200	800
90	NAV4918	4074918E	1507	90	125	35			
95	NAV4919	4074919E	1537	95	130	35			
100	NAV4920	4074920E	2240	100	140	40			
160	NAV4832	4074832		160	200	40			
190	NAV190x245x42			190	245	42			

ENTITY BUSHED NEEDLE ROLLER BEARINGS

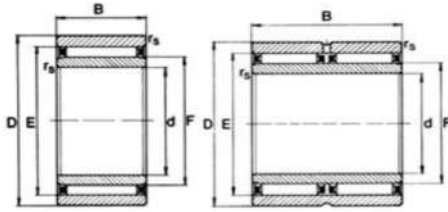
NAV RNAV

No inner ring or the full complement needle roller bearings with inner ring NAV RNAV



Shaft mm	Bearing		Mass g	Boundary			N		rpm
	Current	Original		FW	D	C			
20	RNAV4902	4084902E		20	28	13	10800	29800	4500
21.87	RNAV4002	4084102	45	21.87	32	17			
22	RNAV4903	4084903E		22	30	13			
24.3	RNAV4003	4084103	62	24.3	35	18	17900	37900	4300
25	RNAV4904	4084904E		25	37	17			
28.7	RNAV4004	4084104	114	28.7	42	22	28150	60900	3900
30	RNAV4905	4084905E		30	42	17			
33.5	RNAV4005	4084105	129	33.5	47	22	33800	70800	3700
35	RNAV4906	4084906E		35	47	17			
40.1	RNAV4006	4084106	193	40.1	55	25	49900	96500	3500
42	RNAV4907	4084907E		42	55	20			
45.9	RNAV4007	4084107	259	45.9	62	27	47600	12280	3100
48	RNAV4908	4084908E		48	62	22			
51.6	RNAV4008	4084108	304	51.6	68	28	49900	13790	2700
52	RNAV4909	4084909E		52	68	22			
57.4	RNAV4009	4084109	390	57.4	75	30	52500	15350	2600
58	RNAV4910	4084910E		58	72	22			
62.1	RNAV4010	4084110	426	62.1	80	30	55700	16600	2500
69.8	RNAV4011	4084111	645	69.8	90	35	68500	22580	2300
68	RNAV4912	4084912E		68	85	25			
74.6	RNAV4012	4084112	677	74.6	95	35	75400	23900	2100
80.3	RNAV4013	4084113	692	80.3	100	35	79500	25690	1900
80	RNAV4914	4084914E		80	100	30			
88	RNAV4014	4084114	950	88	110	40	98800	35490	1700
93.7	RNAV4015	4084115	1000	92.7	115	45	10180	37290	1600
90	RNAV4916	4084916E		90	110	30			
100.3	RNAV4016	4084116	1400	100.3	125	45	10290	37350	1500
104.8	RNAV4017	4084117	1540	104.8	130	45	10380	37480	1400
105	RNAV4918	4084918E		105	125	35			
110	RNAV4919	4084919E		110	130	35			
115	RNAV4920	4084920E		115	140	40			

ENTITY BUSHED NEEDLE ROLLER BEARINGS

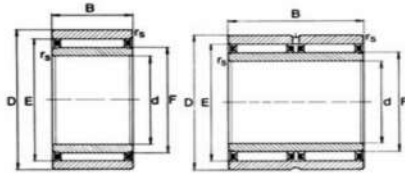


NAO RNAO

Needle Roller Bearing Without Shoulder

Shaft mm	Bearing Designation	Mass Approx g	Boundary			Dynamic N	Static	Oil rpm
			FW	D	C			
5	RNA05 x 10 x 8	2.8	5	10	8	2050	1720	27800
6	RNA06 x 13 x 8TN	6	6	13	8	2300	1880	30000
	RNA06 x 12 x 8TN	6	6	12	8	2600	2280	32000
7	RNA07 x 14 x 8TN	5	7	14	8	2250	1950	31000
	RNA07 x 14 x 8	7	7	14	8	2850	2650	31000
8	RNA08 x 15 x 10TN	7.8	8	15	10	3050	3920	28000
	RNA08 x 19 x 9		8	19	9			
10	RNA010 x 17 x 10FN	9.1	10	17	10	3960	4500	20000
12	RNA012 x 19 x 13.5TN	14	12	19	13.5	5400	7500	22000
	RNA012 x 22 x 12TN	17.9	12	22	12	8950	8000	23000
15	RNA015 x 23 x 13	18.5	15	23	13	6500	8900	21100
16	RNA016 x 24 x 13	19.8	16	24	13	6200	8400	21100
	ORNA016x 24 x20	29.7	16	24	20	10200	14800	21100
	RNA016 x 28 x 12	29.7	16	28	12	9500	10500	18000
17	RNA017 x 25 x 13	21	17	25	13	9400	11600	18000
	RNA017 x 35 x 10		17	35	10			
18	0 RNA018 x 30 x 24	65	18	30	24	12100	16500	17600
	RNA018 x 30 x 24K	69	18	30	24	21900	30000	20000
20	RNA020 x 28 x 13	24.5	20	28	13	7800	9600	16000
	0 RNA020 x 28 x 26	48.1	20	28	26	10080	20500	16000
	RNA020 x 32 x 12	36.6	20	32	12	10100	14100	16000
21	RNA021 x 29 x 30		21	29	30			
22	RNA022 x 35 x 16	58	22	35	16	10000	15500	16000
	RNA022 x 30 x 13	27	22	30	13	10400	15900	14000
	RNA022 x 30 x 26		22	30	26			
25	RNA025 x 35 x 17	49	25	35	17	10900	22000	15020
	0 RNA025 x 35 x 26	67.8	25	35	26	12400	25000	15020
	RNA025 x 37 x 16	59.2	25	37	16	15000	20900	12000
	0 RNA025 x 37 x 32	108	25	37	32	25000	38900	12000
	RNA025 x 35 x 16		25	35	16			
26	RNA026 x 39 x 13	59	26	39	13	87600	10200	15000
28	RNA028 x 40 x 16		28	40	16			
30	RNA030 x 40 x 17	59	30	40	17	12600	24000	10500
	0 RNA030 x 40 x 26	92	30	40	26	16000	32000	10500
	RNA030 x 42 x 16	49.9	30	42	16	13000	23200	10500
	0 RNA030 x 42 x 32	126	30	42	32	29500	47000	10500

ENTITY BUSHED NEEDLE ROLLER BEARINGS

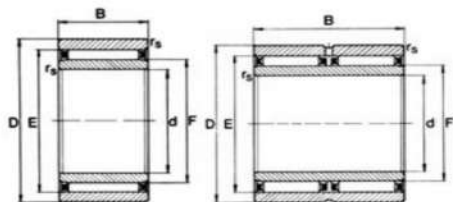


NAO RNAO

Needle Roller Bearing Without Shoulder

Shaft Diameter mm	Bearing Designation	Mass Approx g	Boundary			Dynamic	Static	Oil
			FW	D	C			
			mm			N		rpm
35	RNA035 x 45 x 13	50	35	45	13	10200	22000	10000
	O RNA035 x 45 x 17	60	35	45	17	17800	24500	10000
	RNA035 x 45 x 26	88	35	45	26	20500	40000	10000
	RNA035 x 47 x 16	75	35	47	16	20400	31500	10000
	RNA035 x 47 x 18	86	35	47	18	22500	35000	10000
	O RNA035 x 47 x 32	149	35	47	32	32000	55000	10000
37	RNA037 x 52 x 18	115	37	52	18	18900	35500	8800
	RNA037 x 47 x 13		37	47	13			
40	RNA040 x 50 x 17	72	40	20	17	15400	29880	8800
	O RNA040 x 50 x 34	151	40	20	34	25100	57200	11000
	RNA040 x 55 x 20	144	40	55	20	26300	46100	10000
	O RNA040 x 55 x 40	268	40	55	40	54700	87000	10000
42	RNA042 x 57 x 20	132	42	57	20	26700	43700	10000
45	RNA045 x 55 x 17	82.5	45	55	17	18000	36000	9000
	O RNA045 x 62 x 40	368	45	62	40	42200	85050	9000
50	RNA050 x 62 x 20	140	50	62	20	20600	46860	7500
	RNA050 x 65 x 20	162	50	65	20	23200	40540	7000
	O RNA050 x 65 x 40	321	50	65	40	39000	80600	7000
55	RNA055 x 68 x 20	157	55	68	20	22400	52000	6500
60	RNA060 x 78 x 20	253	60	78	20	28500	65300	5500
	O RNA060 x 78 x 40	368	60	78	40	45000	99000	5500
65	RNA065 x 85 x 30	394	65	85	30	37000	90900	4900
	O RNA065 x 85 x 60	464	65	85	60	57000	123000	6500
70	RNA070 x 90 x 30	488	70	90	20	40000	105000	5100
	O RNA070 x 90 x 60		70	90	60			
75	RNA075 x 95 x 60		75	95	60			
80	RNA080 x 100 x 30	527	80	100	30	52000	139000	4900
	O RNA080 x 95 x 56		80	95	56	52000	139000	4800
	RNA080 x 100 x 60		80	100	60			
85	RNA085 x 105 x 25	449	85	105	25	48600	106000	4900
90	RNA090 x 105 x 26	323	90	105	26	42500	129000	4900
	RNA090 x 110 x 30	600	90	110	30	58000	129000	4900
100	RNA0100 x 120 x 30	671	100	120	30	58100	152000	4900
130	RNA0130 x 150 x 24		130	150	24	50000	158000	3100

ENTITY BUSHED NEEDLE ROLLER BEARINGS

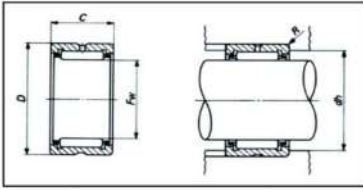


NAORNAO

Needle Roller Bearing Without Shoulder

Shaft Diameter	Bearing Designation	Mass	Boundary Dimensions					Basic Load		LimitingSpeed
			d	D	B	F	E			Oil
mm		g	mm					N		rpm
6	NA06 x 17 x 10TN	13	6	17	10	10	13	3950	5000	17080
8	NA08 x 19 x 10		8	19	10	12	15			
9	NA09 x 22 x 12TN	22	9	22	12	12	18	8800	7900	12090
12	NA012 x 24 x 13	29	12	24	13	16	20	8000	1600	15020
	NA012 x 24 x 20	43	12	24	20	16	20	10300	1680	20000
15	NA012 x 28 x 12	38.6	12	28	12	16	22	9850	1050	19000
	NA015 x 28 x 13	27.8	15	28	13	20	24	7800	1030	20600
17	NA015 x 32 x 12	48.1	15	32	12	20	26	10400	1402	20000
	NA017 x 30 x 13	39	17	30	13	22	26	9860	1500	20000
20	NA017 x 35 x 16	70	17	35	16	22	29	16800	2005	10090
	NA020 x 35 x 17	72	20	35	17	25	29	12600	2020	16000
25	NA020 x 37 x 16	81	20	37	16	25	32	10000	1800	12700
	NA025 x 40 x 17	78.9	25	40	17	30	35	10600	2400	10500
	NA025 x 42 x 16	83	25	42	16	30	37	13100	2350	10500
30	NA025 x 42 x 32	189	25	42	32	30	37	26500	4700	10500
	NA030 x 45 x 13	73	30	45	13	35	40	11200	2500	11200
	NA030 x 45 x 17	100	30	45	17	35	40	12800	2850	11200
	NA030 x 45 x 26	150	30	45	26	35	40	17500	3290	11200
	NA030 x 47 x 16	99.8	30	47	16	35	42	14400	1750	11200
35	NA030 x 47 x 18	109	30	47	18	35	42	20000	3300	11200
	NA030 x 52 x 18	172	30	52	18	37	44	18000	2550	10900
	NA035 x 50 x 17	103	35	50	17	40	45	20800	4050	10900
	NA035 x 55 x 20	175	35	55	20	40	47	28500	4100	10000
	NA035 x 57 x 20.5	206	35	57	20.5	42	50	26000	4900	10000
40	NA040 x 55 x 17	118	40	55	17	45	50	12500	3600	9000
	NA040 x 65 x 20	269	40	65	20	50	58	35000	6120	8000
50	NA050 x 68 x 20	219	50	68	20	55	60	24500	6200	7500
	NA050 x 78 x 20	400	50	78	20	60	68	33500	6500	6500
55	NA055 x 72 x 20		55	72	20	60	65			
65	NA065 x 95 x 30		65	95	30	75	83			
70	NA070 x 100 x 30	829	70	100	30	80	88	52600	1290	4000
75	NA075 x 105 x 25	676	75	105	25	85	93	42000	1060	39000
80	NA080 x 110 x 30	892	80	110	30	90	98	49000	1120	4200
90	NA090 x 120 x 30	1004	90	120	30	100	108	51000	1280	3900

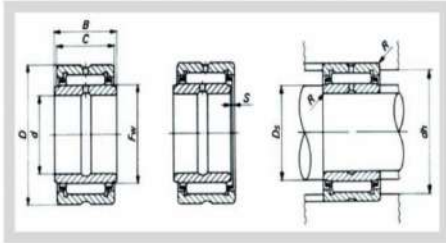
ENTITY BUSHED NEEDLE ROLLER BEARINGS



NEEDLE ROLLER BEARINGS WITHOUT INNER RING BR

Shaft Diameter	Bearing Designation	Boundary			Standard Mounting Dims		Dynamic	Static	rpm
		Fw	D	C	dh	R(2)			
		inch/mm			N				
15.875	BR101812	15.875	28.575	19.05	24.5	0.6	1930	2010	25000
19.05	BR122012	19.05	31.75	19.05	26.5	1	2220	2490	20000
	BR122016	19.05	31.75	25.4	26.5	1	2810	3380	20000
22.225	BR142212	22.225	34.925	19.05	29.7	1	2340	2770	18000
	BR142216	22.225	34.925	25.4	29.7	1	2970	3760	18000
25.4	BR162412	25.4	38.1	19.05	32.9	1	2580	3250	16000
	BR162416	25.4	38.1	25.4	32.9	1	3280	4420	16000
28.575	BR182616	28.575	41.275	25.4	36	1	3560	5090	14000
	BR182620	28.575	41.275	31.75	36	1	4410	6690	14000
31.75	BR202816	31.75	44.45	25.4	39.2	1	3670	5450	13000
	BR202820	31.75	44.45	31.75	39.2	1	4550	7180	13000
34.925	BR223016	34.925	47.625	25.4	42.4	1	3930	6120	11000
	BR223020	34.925	47.625	31.75	42.4	1	4870	8060	11000
38.1	BR243316	38.1	52.388	35.4	45.1	1.5	4460	6820	11000
	BR243320	38.1	52.388	31.75	45.1	1.5	5530	8980	11000
41.275	BR263516	41.275	55.562	25.4	48.3	1.5	4570	7230	9500
	BR263520	41.275	55.562	31.75	48.3	1.5	5670	9530	9500
44.45	BR283716	44.45	58.738	25.4	51.5	1.5	4850	7980	9000
	BR283720	44.45	58.738	31.75	51.5	1.5	6010	10500	9000
47.625	BR283820	44.45	60.325	31.75	53.1	1.5	6010	10500	9000
	BR303920	47.625	61.912	31.75	54.7	1.5	6130	11000	8500
50.8	BR324116	50.8	65.088	25.4	57.8	1.5	5200	9110	8000
	BR324120	50.8	65.088	31.75	57.8	1.5	6440	12000	8000
57.15	BR364824	57.15	76.2	38.1	69	1.5	9200	16100	7000
	BR364828	57.15	76.2	44.45	69	1.5	10700	19500	7000
63.5	BR405224	63.5	82.55	38.1	74.3	2	9640	17700	6500
	BR405228	63.5	82.55	44.45	74.3	2	11200	21400	6500
69.85	BR445624	69.85	88.9	38.1	80.7	2	10100	19300	5500
	BR445628	69.85	88.9	44.45	80.7	2	11700	23300	5500
76.2	BR486024	76.2	95.25	38.1	87	2	10700	21600	5500
	BR486028	76.2	95.25	44.45	87	2	12400	26100	5500
82.55	BR526828	82.55	107.95	44.45	99.7	2	14400	26400	5000
	BR526832	82.55	107.95	50.8	99.7	2	15700	29500	5000
88.9	BR567232	88.9	114.3	50.8	106.1	2	16500	32100	4500
95.25	BR607632	95.25	120.65	50.8	111.4	2.5	17200	34900	4000
101.6	BR648032	101.6	127	50.8	117.8	2.5	18000	37500	4000

ENTITY BUSHED NEEDLE ROLLER BEARINGS



NEEDLE ROLLER BEARINGS WITHOUT INNER RING BRI

mm	Bearing Designation	Boundary			Standard		Basic		Limiting Speed rpm
		Fw	D	C	dh	R(2)	N		
		inch/mm							
9.525	BRI61812	15.875	28.575	19.05	24.5	0.6	1930	2010	25000
12.7	BRI 82012	19.05	31.75	19.05	26.5	1	2220	2490	20000
	BRI 82016	19.05	31.75	25.4	26.5	1	2810	3380	20000
15.875	BR1102212	22.225	34.925	19.05	29.7	1	2340	2770	18000
	BR1102216	22.225	34.925	25.4	29.7	1	2970	3760	18000
19.05	BR1122412	25.4	38.1	19.05	32.9	1	2580	3250	16000
	BR1122416	25.4	38.1	25.4	32.9	1	3280	4420	16000
22.225	BRI142616	28.575	41.275	25.4	36	1	3560	5090	14000
	BRI142620	28.575	41.275	31.75	36	1	4410	6690	14000
25.4	BRI142620	31.75	44.45	25.4	39.2	1	3670	5450	13000
	BRI162816	31.75	44.45	31.75	39.2	1	4550	7180	13000
28.575	BRI162820	34.925	47.625	25.4	42.4	1	3930	6120	11000
	BRI183020	34.925	47.625	31.75	42.4	1	4870	8060	11000
31.75	BRI 203316	38.1	52.388	25.4	45.1	1.5	4460	6820	11000
	BRI 203320	38.1	52.388	31.75	45.1	1.5	5530	8980	11000
34.925	BRI 223516	41.275	55.562	25.4	48.3	1.5	4570	7230	9500
	BRI 223520	41.275	55.562	31.75	48.3	1.5	5670	9530	9500
38.1	BRI 243716	44.45	58.738	25.4	51.5	1.5	4850	7980	9000
	BRI 243720	44.45	58.738	31.75	51.5	1.5	6010	10500	9000
	BRI 243820	44.45	60.325	31.75	53.1	1.5	6010	10500	9000
	BRI 243920	47.625	63.125	31.75	54.7	1.5	6130	11000	8500
50.8	BRI 264116	50.8	65.088	25.4	57.8	1.5	5200	9110	8000
	BRI264120	50.8	65.088	31.75	57.8	1.5	6440	12000	8000
57.15	BRI 365624	69.85	88.9	38.1	80.7	2	10100	19300	5500
	BRI 365628	69.85	88.9	44.45	80.7	2	11700	23300	5500
63.5	BRI 406024	76.2	95.25	38.1	87	2	10700	21600	5500
	BRI 406028	76.2	95.25	44.45	87	2	12400	26100	5500
69.85	BRI 446828	82.55	107.95	44.45	99.7	2	14400	26400	5000
	BRI446832	82.55	107.95	50.8	99.7	2	15700	29500	5000
76.2	BRI 487232	88.9	114.3	50.8	106.1	2	16500	32100	4500
82.55	BRI 527632	95.25	120.65	50.8	111.4	2.5	17200	34900	4000
88.9	BRI 568032	101.6	127	50.8	111.4	2.5	18000	37500	4000

CAM FOLLOWER BEARINGS

KR KRE, KRV KRVE, NUKR NUKRE; KR...PP

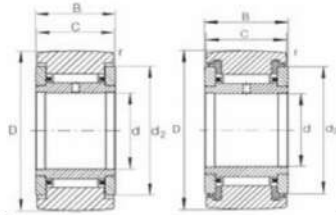
KRE...PP KRV... PP KRVE...PP NUKR...PP CF CR

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, NA22—2RS, RN22.. 2RS, NATR NART.. PP, NATV NATV.. PP, 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 KR.. PP, KRE..PP, KRV..PP, KRVE..PP, NUKR..PP cure roller

CAM FOLLOWER BEARINGS

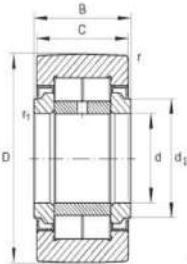
NATR NATR. PP NATV



YOKE TYPE TRACK ROLLERS

Diameter	Bearing		Boundary						Basic Load				Limiting Speed
	Without	With inner	d	D	B	C	d1	rs	Dynamic	Static	Cw	Cow	
			mm						min	N			
16	NATR 5	NATR 5 PP	5	16	12	11	12	0.1	3800	3750	3150	3300	22000
	NATV 5	NATV 5 PP	5	16	12	11	12	0.1	6400	8500	4850	6500	8500
19	NATR 6	NATR 6 PP	6	19	12	11	14	0.1	4250	4600	3500	3900	20000
	NATV 6	NATV 6 PP	6	19	12	11	14	0.1	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	NATR10 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	NATR12 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	NATR15 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	NATR17 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	10800	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	12700	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	15900	41000	90000	1300
85	NATR 45	NATR 45 PP	45	85	32	30	72	1.1	51000	10100	32500	59000	1500
90	NATR 50	NATR 50 PP	50	90	32	30	76	1.1	52000	10800	32000	59000	1300
	NATV 50	NATV 50 PP	50	90	32	30	76	1.1	72000	19100	40500	93000	1000

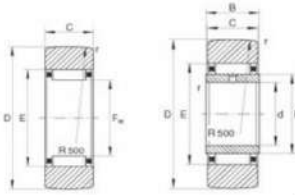
NUTR



YOKE TYPE TRACK ROLLERS WITH AXIAL GUIDING

Diameter	Bearing tion	Boundary Dimensions							Basic Load Rating					Limiting Speed rpm	
		d	D	B	C	dl	rs	ris		Dynamic	Stat	Cw	Fr perm		For perm
		mm							mi		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	12100	121000	121000	1300

CAM FOLLOWER BEARINGS

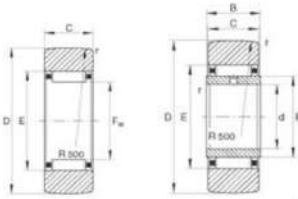


Supporting Roller Bearing STO RSTO

STO RSTO

Shaft Diameter	Bearing		Mass				Dynamic	Static	Oil
	Current Code	Original		Fw	D	C			
				mm					
mm			g	mm			N		rpm
16	RST05X		8.5	7	16	7.8	2800	2600	23000
	RST05TN			7	16	7.8	2800	2600	23000
	RST05XTN			7	16	7.8	2800	2600	23000
19	RST06		12.5	10	19	9.8	5200	6550	18000
	RST06TN			10	19	10	5200	6550	18000
	RST06XTN			10	19	10	5200	6550	18000
24	RST08		21	12	24	9.8	5600	7650	16000
	RST08X		21	12	24	9.8	5600	7650	16000
	RST08TN		21	12	24	10	5600	7650	16000
30	RST010		44	14	30	11.8	10000	10800	12000
	RST010X		44	14	30	11.8	10000	10800	12000
32	RST012		49	16	32	11.8	10600	12000	10000
	RST012X		49	16	32	11.8	10600	12000	10000
35	RST015		52	20	35	11.8	12500	15600	7000
	RST015X		52	20	35	11.8	12500	15600	7000
40	RST017		95	22	40	15.8	18300	23600	6300
	RST017X		95	22	40	15.8	18300	23600	6300
47	RST020		134	25	47	15.8	19000	26000	5300
	RST020X		134	25	47	15.8	19000	26000	5300
	RST025		155	25	47	15.8	19000	26000	5300
62	RST025X		155	25	47	15.8	19000	26000	5300
	RST030		258	38	62	19.8	31500	52000	3000
	RST030X		258	38	62	19.8	31500	52000	3000
	RST035		370	38	62	19.8	31500	52000	3000
80	RST035X		370	38	62	19.8	31500	52000	3000
	RST040		430	50	80	19.8	36500	68000	1800
85	RST040X		430	50	80	19.8	36500	68000	1800
	RST045		447	55	85	19.8	38000	75000	1600
90	RST045X		447	55	85	19.8	38000	75000	1600
	RST050		495	60	90	19.8	40000	80000	1500
	RST050X		495	60	90	19.8	40000	80000	1500
Non-Standard series									
39.67	RS013.7 x 39.67 x 18.7			13.7	39.67	18.7			
30	RST018 x 30 x 35.2			18	30	35.2			

CAM FOLLOWER BEARINGS

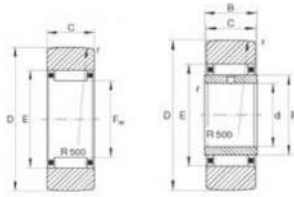


Supporting Roller Bearing STO RSTO

STO RSTO

Shaft Diameter	Bearing		Mass	Boundary				Dynamic	Static	Limiting Speed Oil
	Current Code	Original Code		Approx	d	D	B			
			mm		mm				N	rpm
19	ST06		18	6	19	10	9.8	5200	6550	18000
	ST06X		18	6	19	10	9.8	5200	6550	18000
24	ST08		28	8	24	10	9.8	5600	7650	16000
	ST08X		28	8	24	10	9.8	5600	7650	16000
30	ST010		51	10	30	12	11.8	10000	10800	12000
	ST010X		51	10	30	12	11.8	10000	10800	12000
32	ST012		57	12	32	12	11.8	10600	12000	10000
	ST012X		57	12	32	12	11.8	10600	12000	10000
35	ST015		64	15	35	12	11.8	12500	15600	7000
	ST015X		64	15	35	12	11.8	12500	15600	7000
40	ST017		114	17	40	16	15.8	18300	23600	6300
	ST017X		114	17	40	16	15.8	18300	23600	6300
47	ST020		156	20	47	16	15.8	19000	26000	5300
	ST020X		156	20	47	16	15.8	19000	26000	5300
	ST020ZZ			20	47	20	19.8	19000	26000	5300
	ST025		182	25	47	16	15.8	19000	26000	5300
	ST025X		182	25	47	16	15.8	19000	26000	5300
62	ST030		325	30	62	20	19.8	31500	26000	5300
	ST030X		325	30	62	20	19.8	31500	52000	3000
	ST030ZZ			30	62	20	19.8	31500	52000	3000
72	ST035		435	35	72	20	19.8	31500	52000	3000
	ST035X		435	35	72	20	19.8	31500	52000	3000
	ST035ZZ			35	72	20	19.8	31500	52000	3000
80	ST040		540	40	80	20	19.8	36500	68000	1800
	ST040X		540	40	80	20	19.8	36500	68000	1800
	ST040ZZ			40	80	26	28.5	36500	68000	1800
85	ST045		580	45	85	20	19.8	38000	75000	1600
	ST045X		580	45	85	20	19.8	38000	75000	1600
90	ST050		650	50	90	20	19.8	40000	80000	1500
	ST050X		650	50	90	20	19.8	40000	80000	1500

CAM FOLLOWER BEARINGS

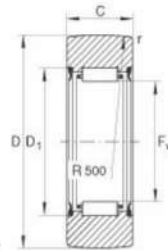


NAST

NATR, NAST. ZZ

Shaft Diameter mm	Bearing		Mass g	Boundary				Dynamic	Static	Oil rpm
	Current Code	Original Code		d	D	B	C			
				mm						
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
	NAST10X28X1			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

CAM FOLLOWER BEARINGS



RNA22..2RS NA22..2RS

Model RNA22-2RS, NA22-2RS Supporting Roller

Shaft Diameter mm	Bearing Designation and Approx Mass				Boundary Dimensions					Basic Load Rating		Limiting Speed
	Without IR		With IR		d	FW	D	B	C	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	NA22/6 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

Curve Roller

KRE、KRE...PP;KREV、KREV...PP;NUKRE


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.

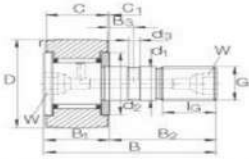
Model KRV, KRV..P Curve Roller

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 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.

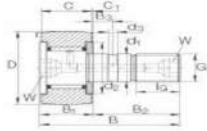
Model KRE, KRE...PP, KREV, KREV...PP and NUKRE curve roller bearings are the special-purposed bearings in order to meet the supporting requirement of main machine. The outer ring has roller structure and the bolt shaft substitutes the inner ring. It has compact structure and can be equipped with eccentric-strap. 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



KR KRV KRE KRVE Curve Roller

Diameter mm	Bearing		Boundary Dimensions														
		With eccentric	D	d	C	ra	B	B1	B2	G	G1	M	Mn	C1	d2		
			mm					min									
16	KR 16	KRE 16	16	6	11	0.1	28	16		M6	8		45	0.6	12		
	KR 16 PP	KRE 16 PP	16	6	11	0.1	28	16		M6	8		45	0.6	12		
	KRV 16	KRVE 16	16	6	11	0.1	28	16		M6	8		45	0.6	12		
	KRV 16 PP	KRVE 16 PP	16	6	11	0.1	28	16		M6	8		45	0.6	12		
19	KR 19	KRE 19	19	8	11	0.1	32	20		M8	10		45	0.6	14		
	KR 19 PP	KRE 19 PP	19	8	11	0.1	32	20		M8	10		45	0.6	14		
	KRV 19	KRVE 19	19	8	11	0.1	32	20		M8	10		45	0.6	14		
	KRV 19 PP	KRVE 19 PP	19	8	11	0.1	32	20		M8	10		45	0.6	14		
22	KR 22	KRE 22	22	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KR 22 PP	KRE 22 PP	22	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KRV 22	KRVE 22	22	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KRV 22PP	KRVE 22PP	22	10	12	0.3	36	23		M10x1	12		4	0.6	17		
26	KR 26	KRE 26	26	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KR 26 PP	KRE 26 PP	26	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KRV 26	KRVE 26	26	10	12	0.3	36	23		M10x1	12		4	0.6	17		
	KRV 26 PP	KRVE 26 PP	26	10	12	0.3	36	23		M10x1	12		4	0.6	17		
30	KR 30	KRE 30	30	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KR 30 PP	KRE 30 PP	30	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KRV 30	KRVE 30	30	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KRV 30 PP	KRVE 30 PP	30	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
32	KR 32	KRE 32	32	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KR 32 PP	KRE 32 PP	32	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KRV 32	KRVE 32	32	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
	KRV 32 PP	KRVE 32 PP	32	12	14	0.6	40	25	6	M12 x 1.5	13	3	6	0.6	23		
35	KR 35	KRE 35	35	16	18	0.6	52	32.5	8	M16 x 1.5	17	3	6	0.8	27		
	KR 35 PP	KRE 35 PP	35	16	18	0.6	52	32.5	8	M16 x 1.5	17	3	6	0.8	27		
	KRV 35	KRVE 35	35	16	18	0.6	52	32.5	8	M16 x 1.5	17	3	6	0.8	27		
	KRV 35 PP	KRVE 35 PP	35	16	18	0.6	52	32.5	8	M16 x 1.5	17	3	6	0.8	27		
40	NUKR 35	NUKRE 35	35	16	18	0.6	52	32.5	8	M16 x 1.5	17	3	6	0.8	27		
	KR 40	KRE 40	40	18	20	1	58	36.5	8	M18 x 1.5	19	3	6	0.8	32		
	KR 40 PP	KRE 40 PP	40	18	20	1	58	36.5	8	M18 x 1.5	19	3	6	0.8	32		
	KRV 40	KRVE 40	40	18	20	1	58	36.5	8	M18 x 1.5	19	3	6	0.8	32		
47	KRV 40 PP	KRVE 40 PP	40	18	20	1	58	36.5	8	M18 x 1.5	19	3	6	0.8	32		
	NUKR 40	NUKRE 40	40	18	20	1	58	36.5	8	M18 x 1.5	19	3	6	0.8	32		
	KR 47	KRE 47	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		
	KR 47 PP	KRE 47 PP	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		
47	KRV 47	KRVE 47	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		
	KRV 47 PP	KRVE 47 PP	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		
	NUKR 47	NUKRE 47	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		
	NUKR 47	NUKRE 47	47	20	24	1	66	40.5	9	M 20 x 1.5	21	4	8	0.8	37		

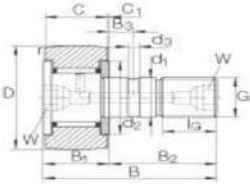
CAM FOLLOWER BEARING:



KR KRV KRE KRVE Curve Roller

Boundary Dimensions			M Nm	Basic Load Rating				Limiting Speed rpm
d1	B3	e		Dynamic	Static	As yoke		
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

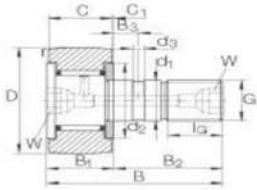
CAM FOLLOWER BEARINGS



KR KRV KRE KRVE Curve Roller

Shaft Diameter	Bearing		Boundary Dimensions												
		With eccentric sleeve	D	d	C	ra	B	B1	B2	G	G1	M	Mn	C1	d2
			mm					mi		mm					
52	KR 52	KRE 52	52	20	24	1	66	40	9	M 20 x 1.5	21	8	4	0.8	37
	KR 52 PP	KRE 52PP	52	20	24	1	66	40	9	M 20 x 1.5	21	8	4	0.8	37
	KRV 52	KRVE 52	52	20	24	1	66	40	9	M 20 x 1.5	21	8	4	0.8	37
	KRV 52 PP	KRVE 52PP	52	20	24	1	66	40	9	M 20 x 1.5	21	8	4	0.8	37
	NUKR 52	NUKRE 52	52	20	24	1	66	40	9	M 20 x 1.5	21	8	4	0.8	31
62	KR 62	KRE 62	62	24	29	1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KR 62 PP	KRE 62 PP	62	24	29	1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KRV 62	KRVE 62	62	24	29	1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KRV 62 PP	KRVE 62PP	62	24	29	1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	NUKR 62	NUKRE 62	62	24	29	1	80	49	11	M 24 x 1.5	25	8	4	0.8	38
72	KR 72	KRE 72	72	24	29	1.1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KR 72 PP	KRE 72 PP	72	24	29	1.1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KRV 72	KRVE 72	72	24	29	1.1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	KR V 72 PP	KRVE 72 PP	72	24	29	1.1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
	NUKR 72	NUKRE 72	72	24	29	1.1	80	49	11	M 24 x 1.5	25	8	4	0.8	44
80	KRV 80	KRE 80	80	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KR 80 PP	KRE 80 PP	80	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KRV 80	KRVE 80	80	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KRV 80 PP	KRVE 80 PP	80	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	NUKR 80	NUKRE 80	80	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	47
85	KR 85	KRE 85	85	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KR 85 PP	KRE 85 PP	85	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
90	KR90	KRE 90	90	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KR 90 PP	KRE 90 PP	90	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KRV 90	KRVE 90	90	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
	KRV 90 PP	KRVE 90 PP	90	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	53
		NUKRE 90	90	30	35	1.1	10	63	15	M 30 x 1.5	32	8	4	1	47

CAM FOLLOWER BEARINGS



KR KRV KRE KRVE Curve Roller

Boundary			M Nm	Basic Load				Limiting Speed rpm
d1	B3	e		Dynamic	Static	As yoke		
						Cow		
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

CAM FOLLOWER BEARINGS

CR CR..UUR

Curve Roller Bearings inch system CR CR..UUR

mm					mm					
					d1	D	C	B		
4. 826	CR 8 R	CR 8	CR 8 UUR	CR 8 UU	4. 826	12. 700	8. 731	9. 525		
	CR 8-1 R	CR 8-1	CR 8-1 UUR	CR 8-1 UU	4. 826	12. 700	9. 525	10. 319		
6. 350	CR 10 R	CR 10	CR 10 UUR	CR 10 UU	6. 350	15. 875	10. 319	11. 112		
	CR 10-1 R	CR 10-1	CR 10-1 UUR	CR 10-1 UU	6. 350	15. 875	11. 112	11. 906		
9. 525	CR 12 R	CR 12	CR 12 UUR	CR 12 UU	9. 525	19. 050	12. 700	13. 494		
	CR 14 R	CR 14	CR 14 UUR	CR 14 UU	9. 525	22. 225	12. 700	13. 494		
11. 112	CR 16 R	CR 16	CR 16 UUR	CR 16 UU	11. 112	25. 400	15. 875	16. 669		
	CR 18 R	CR 18	CR 18 UUR	CR 18 UU	11. 112	28. 575	15. 875	16. 669		
12. 700	CR 20 R	CR 20	CR 20 UUR	CR 20 UU	12. 700	31. 750	19. 050	19. 844		
	CR 22 R	CR 22	CR 22 UUR	CR 22 UU	12. 700	34. 925	19. 050	19. 844		
15. 875	CR 24 R	CR 24	CR 24 UUR	CR 24 UU	15. 875	38. 100	22. 225	23. 019		
	CR 26 R	CR 26	CR 26 UUR	CR 26 UU	15. 875	41. 275	22. 225	23. 019		
19. 050	CR 28 R	CR 28	CR 28 UUR	CR 28 UU	19. 050	44. 450	25. 400	26. 194		
	CR 30 R	CR 30	CR 30 UUR	CR 30 UU	19. 050	47. 625	25. 400	26. 194		
22. 225	CR 32 R	CR 32	CR 32 UUR	CR 32 UU	22. 225	50. 800	31. 750	32. 544		
	CR 36 R	CR 36	CR 36 UUR	CR 36 UU	22. 225	57. 150	31. 750	32. 544		
							C CO		rpm	
B1	g 1	g 2	G1	B3	r	mm	kgf. m	kgf		kgf
22. 225	3. 175	--	6. 350	--	0. 397	8. 334	0. 2	260	220	28000
26. 194	3. 175	--	6. 350	--	0. 397	8. 334	0. 2	260	220	28000
26. 988	3. 175	--	7. 938	--	0. 397	11. 509	0. 3	370	370	21000
30. 956	3. 175	--	7. 938	--	0. 397	11. 509	0. 3	370	370	21000
35. 719	4. 762	2. 381	9. 525	6. 350	0. 794	13. 494	1. 8	450	520	15000
35. 719	4. 762	2. 381	9. 525	6. 350	0. 794	15. 081	1. 8	490	590	14000
42. 063	4. 762	3. 175	12. 700	6. 350	1. 191	17. 859	2. 0	900	1100	13000
42. 063	4. 762	3. 175	12. 700	6. 350	1. 588	19. 050	2. 0	940	1180	12000
51. 594	4. 762	3. 175	15. 875	7. 938	1. 588	21. 828	2. 9	1450	1630	11000
51. 594	4. 762	3. 175	15. 875	7. 938	1. 588	21. 828	2. 9	1450	1630	11000
61. 119	4. 762	3. 969	19. 050	9. 525	1. 588	26. 196	6. 6	1890	2470	8500
61. 119	4. 762	3. 969	19. 050	9. 525	1. 588	26. 196	6. 6	1890	2470	8500
70. 644	4. 762	3. 969	22. 225	11. 112	1. 588	32. 543	12	2560	3900	7000
40. 644	4. 762	3. 969	22. 225	11. 112	1. 588	32. 543	12	2560	3900	7000
83. 344	4. 762	4. 762	25. 400	12. 700	1. 588	37. 306	19	3310	6510	5500
83. 344	4. 762	4. 762	25. 400	12. 700	1. 588	37. 306	19	3310	6510	5500

DRAWN CUP NEEDLE ROLLER BEARINGS

The outer ring of drawn cup needle roller bearing is punched with the high-quality steel sheet. The outer ring has thin wall. The drawn cup needle roller bearing has the characteristics of small radial section area, large load carrying capacity, less inertia and economic manufacture. It is suitable for small section height, or when the housing bore isn't used for raceway, this type is recommended to use. The bearing is assembled into the housing bore under a certain pressure without further axial location. The drawn cup needle roller bearing generally takes its shaft diameter as the internal raceway. However, the proper LR type inner ring can be used in accordance with application condition. The drawn cup needle roller bearing has two structures - with retainer and with full of needles. They are divided into open-end type and close-end type. The structure with retainer has the single seal ring and double seal ring. The structure with full of needles has a large load carrying capacity.

Form the main structure

HK		Perforation type Drawn Cup Needle Roller Bearings
HK...RS		Perforation type Drawn Cup Needle Roller
HK...2RS		Keyhole Drawn Cup Needle Roller Bearings
BK		Sealing-type Drawn Cup Needle Roller Bearings
BK...RS		Drawn Cup Needle Roller Bearings-type
SCE SCH		Perforation type Drawn Cup Needle Roller Bearings
F FH		Drawn Cup Full Complement Needle Roller Bearings

Needle roller bearings without inner class in general. If you need to use the inner ring, the choice of IR-type inner ring.

(Recommended Tolerance of Shaft and Housing Bore) 1 (Table1)

Material of bearing housing (Rigid Housing)	Housing Bore	Shaft Tolerance (table - 1)	
		With inner ring	Without
Steel or Cast-iron	N6 (N7)	h5 (h6)	k5 (j6)
6mm Nonferrous metal or wall thickness of housing bore less than 6mm	R6 (R7)	h5 (h6)	k5 (j6)

DRAWN CUP NEEDLE ROLLER BEARINGS

- The correct measuring method for tolerance of inscribed circle diameter of needle roller:
- 1、 In measuring, the inspected bearing and standard part should be under same temperature. The standard temperature for inspection is 20^oC.
 - 2、 As for the inspection of single minor inside diameter deviation AFwmin for package bearing roller set, it shall be inspected with limit plug gauge.

Deviation of single minor inside diameter in package bearing roller set specified in Table 2

(Table 2)		Fw(mm)	A Fwnin=Fwnin-Fw	
(Over)		Upto	(Upper Deviation)	(LowerDeviation)
3		6	+28	+10
6		10	+31	+ 13
10		18	+34	+ 16
18		30	+41	+20
30		50	+50	+25
50			+60	+30

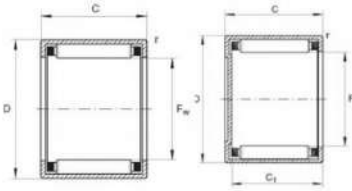
Bearing single width deviation is specified as 0/-0.25 mm and the tolerance of standard ring is shown as Table - 3

D(mm) Nominal Outside Diameter of Bearing		Nominal Inside Diameter of Bearing	Standardringtolerance	Standard ring wall thickness
(Over)	Upto			
6	10	D-0. 016	GB1957 Specified according to IT8 of GB1957Specified	More than or equal to 20
10	18	D-0. 020		
18	30	D-0. 024		
30	50	D-0. 028		
50	80	D-0. 033		

Insert Gauge according to the stipulation shown in Table 4

FW(mm) Nominal Outside Diameter of		Nominal Outside Diameter of Insert Gauge		Tolerance of Insert Gauge μm
(Over)	(Up to)	(Go-end)		
3	6	Fw+0. 010	FW+0. 030	GB1957 In accordance with tolerance shown in GB1957 IT 7
6	10	Fw+0. 013	FW+0. 033	
10	18	Fw+0. 016	FW+0. 036	
18	30	Fw+0. 020	FW+0. 043	
30	50	Fw+0. 025	FW+0. 052	
50		Fw+0. 030	FW+0. 062	

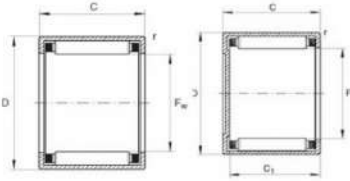
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil
	Current Code	Original		Fw	D	C	N		
mm			g	mm					rpm
3	HK0306TN			3	6.5	6	1320	950	6000
	BK0306TN			3	6.5	6	1320	950	6000
4	HK0408TN	37941/4	1.6	4	8	8	1540	1070	40000
	BK0408TN	5941/4	1.8	4	8	8	1540	1070	40000
5	HK0509TN			5	11	9	2200	1790	36000
	HK0509	47941/5	2	5	9	9	2200	1790	36000
	BK0509	45941/5	2.1	5	9	9	2200	1790	36000
	HK0510			5	9	10			
6	HK0606			6	10	6			
	HK0607	27941/6	1.8	6	10	7	1600	1400	30000
	HK0608	37941/6	2.1	6	10	8	1830	1550	32000
	BK0608	35941/6	2.2	6	10	8	1830	1550	32000
	HK0609	47941/6	2.2	6	10	9	2650	2400	30000
	BK0609	45941/6	2.6	6	10	9	2650	2400	30000
	HK0611		2.3	6	10	11	1700	1500	29000
	HK06X12X8	3941/6	2.5	6	12	8	2230	2010	33000
7	HK0708			7	11	8	2800	2150	27000
	HK0709	47941/9	2.3	7	11	9	2800	2150	27000
	BK0709	45941/9	2.9	7	11	9	2800	2150	27000
	HK0712			7	11	12			
	HK07X12X08		2.2	7	12	8	3300	3220	37000
8	HK07X12X09		2.4	7	12	9	3400	3150	37000
	HK0808	37941/8	2.7	8	12	8	2550	2400	21000
	BK0808	35941/8	3	8	12	8	2550	2400	21000
	HK0810	57941/8	3	8	12	10	3700	3450	21000
	BK0810	88941/8	3.4	8	12	10	3700	3450	21000
	HK0812	67941/8	3.2	8	12	12	3700	3450	21000
	HK08X14X10	27942/8	5.35	8	14	10	3800	3950	25000
	BK08X14X10	25942/8	5.8	8	14	10	3800	3950	25000
9	HK08X14X12	37942/8	6.6	8	14	12	4100	4320	25000
	HK0908	37941/9	3	9	13	8	3650	4050	25000
	BK0908	35941/9	3.4	9	13	8	3650	4050	25000
	HK0910	57941/9	4	9	13	10	4050	4250	25000
9	BK0910	55941/9	4.3	9	13	10	4050	4250	25000

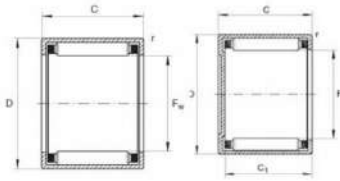
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft	Bearing Designation		Mass	Boundary Dimensions			Basic Load Rating		Limiting Speed
	Diameter			Approx	Fw	D	C		
mm	Current Code	Original	g	mm			N		rpm
9	HK0911		4.1	9	13	11	4300	4700	25000
	HK0912	67941/9	4.6	9	13	12	5000	6000	25000
	BK0912	65941/9	4.9	9	13	12	5000	6000	25000
	HK09X15X10	27942/9	5.6	9	15	10	5300	6300	25000
10	HK10X13X08		3.5	10	13	8	4100	4800	20000
	HKI010	57941/10	4.1	10	14	10	3900	4800	19000
	BKI010	55941/10	4.3	10	14	10	3900	4800	19000
	HKI012	67941/10	4.8	10	14	12	5000	6300	19000
	BKI012	65941/10	5	10	14	12	5000	6300	19000
	HKI015		6	10	14	15	6700	7800	19000
	BKI015		6.2	10	14	15	6700	7800	19000
	HK10X15X15	644900	6.5	10	15	15	6800	8800	18000
	HK10X16X10		6.5	10	16	10	6800	8800	18000
	BK10X16X10		6.8	10	16	10	6800	8800	18000
	HK10X16X12	DB1012	7.5	10	16	12	6800	8800	18000
	HK10X16X15	7942/10	11	10	16	15	6800	8800	19000
	HK10X17X15		11.5	10	17	15	7200	8000	19000
HK10X18X12		8.5	10	18	12	7200	8000	19000	
12	HK1208	37941/12	3.3	12	16	8	7200	8000	19000
	HK1210	57941/12	4.6	12	16	10	4150	5800	19000
	BK1210	55941/12	5.2	12	16	10	4150	5800	19000
	HK1212	67941/12	5.6	12	18	12	3800	5100	15000
	BK1212	65941/12	6.2	12	16	12	3800	5100	15000
	HK12X17X12	7941/12	7.5	12	17	12	5100	7000	15000
	HK12X17X15	7942/12	9.5	12	17	15	5100	7000	15000
	HK12X17X18	7943/12	11	12	17	18	5100	7000	15000
	HK12X18X12	37942/12	9.1	12	18	12	5500	6300	17000
	BK12X18X12	35942/12K	10.3	12	18	12	5500	6300	17000
	HK12X18X14	67942/12	10.6	12	18	14	6500	6300	15000
HK12X19X12		10	12	19	12	6800	7400	15000	
13	HK1311	HKI311	8.5	13	19	11	6300	6300	14000
	HK1312	HKI312	8.9	13	19	12	6200	7100	17000
13.5	HKI3.5X19X12			13.5	19	12	6200	7100	16000
	HKI3.5X20X12	7941/13.5	10.8	13.5	20	12	6250	7590	16000

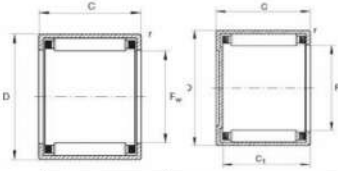
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions mm			Basic Load Rating N		Limiting Speed rpm Oil
	Current Code	Original		Fw	D	C			
14	HKI410	27941/14	8.3	14	20	10	6700	7000	16000
	BKI410	35941/14	12.1	14	20	10	6700	7000	16000
	HKI412	37941/14	10.5	14	20	12	6800	7500	16000
	HKI416	57941/14	13.9	14	20	16	7300	9000	14000
	HKI418			14	20	18	7300	9000	14000
15	HKI5X20X12	7941/15	8.4	15	20	12	5800	6000	14000
	HKI5X20X16	7942/15	11.4	15	20	16	6000	6200	14000
	HKI5X20X20	7943/15	13.8	15	20	20	6100	6400	14000
	HKI512	37941/15	11.1	15	21	12	7000	8400	14000
	BKI512	35941/15	12.7	15	21	12	7000	8400	14000
	HKI514	47941/15	12.7	15	21	14	8500	10400	13000
	HK1515		14.2	15	21	15	9100	11400	13000
	BK1515			15	21	15	9800	11400	14000
	TA1515			15	22	15		11400	
	TA1515Z			15	22	15		11400	
	HMK1515			15	22	15			
	HK1516	57941/15	15	15	21	16	9800	11400	14000
	BK1516	55941/15	16.5	15	21	16	9800	11400	14000
	HK1518			15	21	18			
	HK1520			15	21	20			
	HMK1520			15	22	20			
	HK1522	SZ-439	20.4	15	21	22	10400	16500	14000
	BK1522		22	15	21	22	10400	16500	14000
	HK15X22X12	7948/15	12.5	15	22	12	14300	18400	13000
HK15X22X12.5	7948/15K	13.5	15	22	12.5	14300	18400	13000	
16	HK16X21X06		5.5	16	21	6	4200	5300	12000
	HK16X21X09		7.5	16	21	9	4400	5600	12000
	HK1610	27941/16		16	22	10			
	HK1612	37941/16	11.7	16	22	12	7100	9200	14000
	BK1612	35941/16	13.8	16	22	12	7100	9200	14000
	HK1612K			16	22	12			
	HK1614	47941/16	14.4	16	22	14	8800	9900	12000
	HK1616	57941/16	15.8	16	22	16	10100	14300	14000
	BK1616	55941/16	17.6	16	22	16	10100	14300	14000
HK1616-ASI			16	22	16				

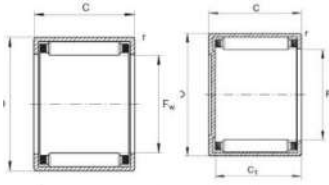
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft	Bearing Designation		Mass	Boundary Dimensions			Basic Load Rating		Limiting Speed
	Diameter			Approx	Fw	D	C		
mm	Current Code	Original	g	mm			N		rpm
16	HK1617	SZ-435	18	16	22	17	12900	17200	12000
	HK1620	77941/20		16	22	20			
	HK1622	87941/16	21.7	16	22	22	11100	17400	14000
17	BK1622	85941/16	23.4	16	22	22	11100	17400	14000
	HK17X21.5X15	17BTMI5	10	17	21	15	6300	8600	11000
	HK1712	37941/17	12.2	17	23	12	6900	9300	13000
	BK1712	35941/17	14.5	17	23	12	6900	9300	13000
	HK1714	7941/17	14	17	23	14	6800	10200	10000
	HK1716	57941/17	15.9	17	23	16	8500	12500	10000
	BK1716			17	23	16	8500	12500	10000
	HK1718	7942/17	19	17	23	18	9500	10600	10000
	HK1720			17	23	20	10000	11800	10000
	HK1722	7943/17	17	17	23	22			
	HK17X24X15		17	17	24	15	11200	12800	10000
	HK17X25X14	37942/17K	17.7	17	25	14	13100	14700	10000
HK17X25X15.5		20	17	25	15.5	9320	10400	10000	
HK17X25X18	57942/17K	23.5	17	25	18	9500	10600	11000	
18	HK1812	37941/18	13.1	18	24	12	7100	9900	12000
	BK1812	35941/18	14.9	18	24	12	7100	9900	12000
	HK1816	57941/18	17.5	18	24	16	10600	15300	12000
	BK1816	55941/18	19.9	18	24	16	10600	15300	12000
	HK18X24X20		18	18	24	20			
	HMK1825			18	25	25			
19	HK19X27X16	TA1916	23	19	27	16	8100	9500	10500
20	HK2010	27941/20	11.8	20	26	10	5900	7200	10000
	BK2010	25941/20	14	20	26	10	5900	7200	10000
	HK2011		12	20	26	11	7500	9200	9000
	HK2012	37941/20	14.1	20	26	12	7600	10100	10000
	BK2012	35941/20	16.7	20	26	12	7600	10100	10000
	HK2014	47941/20	15.7	20	26	14	9700	18100	9000
	HK2016	57941/20	19.3	20	26	16	11700	29100	10000
	BK2016	55941/20	22.3	20	26	16	11700	29100	10000
	HK2018	67941/20	23.3	20	26	18	7900	12800	9000
	HK2020	7942/20	24.1	20	26	20	13700	24000	10000
	BK2020	75941/20	27.1	20	26	20	13700	24000	10000

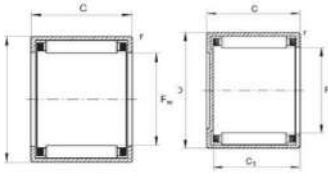
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft	Bearing Designation		Mass	Boundary Dimensions			Basic Load Rating		Limiting Speed	
				Fw	D	C			Oil	
Diameter	Current Code	Original	Approx	mm			N		rpm	
mm			g							
20	HK2025	7943/20	28	20	26	25	9100	14800	9900	
	HK2030		41	20	26	30	21800	40000	10100	
	BK2030		43	20	26	30	21800	40000	10100	
	HK20X27X18			20	27	18	26000	47200	9900	
	HK20X27X20				20	27	20	26300	47800	9900
	HK20X27X30				20	27	30	28500	48800	9900
	HK20X28X16	47942/20	28.5	20	28	16	29600	49800	9900	
HK20X29X18		41	20	29	18	30900	54600	9900		
22	HK22X28X7.5T		8.8	22	28	7.5	5200	7000	10100	
	HK2210	27941/22	12.3	22	28	10	7200	9500	10100	
	HK2212	37941/22	15	22	28	12	8100	10400	10100	
	BK2212	35941/22	18.1	22	28	12	8100	10400	10100	
	HK2216	57941/22	20.9	22	28	16	11400	18100	10100	
	BK2216	55941/22	24.3	22	28	16	11400	18100	10100	
	HK2220	77941/22	26.2	22	28	20	14500	25000	10100	
	BK2220	75941/22	29.9	22	28	20	14500	25000	10100	
	HMK2225			22	29	25				
	HK2230		32	22	28	30	17500	30400	9000	
	HK22X29X25		37	22	29	25	18100	31500	9000	
	HK22X25X30		43	22	29	30	19400	33100	9000	
HK22X30X14	37942/22	21.9	22	30	14	19800	34000	9000		
24	HK24X30X7.5T		10.6	24	30	7.5	5800	7200	10000	
25	HK2512	27941/25	20	25	32	12	10000	14200	9000	
	BK2512	25941/25	23.2	25	32	12	10000	14200	9000	
	HK2514	37941/25	21.9	25	32	14	13600	18700	9000	
	HK2516	7941/25	27.3	25	32	16	13600	20000	9000	
	BK2516	5941/25	31	25	32	16	13600	50000	9000	
	HK2518	57941/25	28.2	25	32	18	17500	25800	9000	
	HK2520	67941/25	34.1	25	32	20	17900	30000	9000	
	BK2520	65941/25	38.7	25	32	20	17900	30000	9000	
	HK2525	7943/25	40	25	32	25	22200	36700	9000	
	HK2526		44.8	25	32	26	22500	42000	9000	
	BK2526		49	25	32	26	22500	42000	9000	
	HK2538	87941/25	64.7	25	32	38	30000	58000	9000	

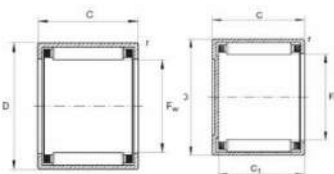
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft Diameter mm	Bearing Designation		Mass	Boundary Dimensions			Basic Load Rating		Limiting Speed	
	Current Code	Original	Approx g	Fw	D	C	N		Oil rpm	
25	HK2025	7943/20	28	20	26	25	9100	14800	9900	
	BK2538	85941/25	69	25	32	38	30000	58000	9000	
	HK25X33X10		17	25	33	10	34800	69600	9000	
	HK25X33X15		27.4	25	33	15	35700	70000	9000	
	HK25X35X20	57942/25	44.9	25	35	20	36100	78650	9000	
28	HK2812			28	35	12				
	HK2816	47941/28	30.1	28	35	16	15400	22500	8700	
	BK2816	45941/28	34.1	28	35	16	15400	22500	8700	
	HK2818	57941/28	31.7	28	35	18	18500	29300	8700	
	HK2820	67941/28	37.6	28	35	20	18900	32000	8700	
	BK2820	65941/28	43	28	35	20	18900	32000	8700	
	HK2825				28	35	25			
30	HK2830			28	35	30				
	HK2833			28	35	33				
	HK3012	27941/30	24	30	37	12	10100	16200	8100	
	BK3012	25941/30	27.9	30	37	12	10100	16200	8100	
	HK3016	47941/30	32	30	37	16	15200	27000	8100	
	BK3016	45941/30	37.1	30	37	16	15200	27000	8100	
	HK3018	57941/30	33.6	30	37	18	19200	31500	8100	
	HK3020	67941/30	40.1	30	37	20	19700	33500	8100	
	BK3020	65941/30	46.5	30	37	20	19700	33500	8100	
	HK3020-K				30	37	20			
	HMK3020				30	40	20			
	HK3024				30	37	24			
	HMK3025				30	40	25			
	HK3026			52.9	30	37	26	24000	50000	8100
	BK3026			59.4	30	37	26	24000	50000	8100
	HK3030				30	37	30			
	HMK3030				30	40	30			
HK3038			76.1	30	37	38	32500	74000	8100	
BK3038			82.5	30	37	38	32500	74000	8100	
HK30X38X12	27941/30K	28		30	38	12	38100	80000	8100	
HK30X38X16	7941/30	32.7		30	38	16	39000	82000	8100	
HK30X38X24	7942/30	49		30	38	24	39910	88800	8100	
HK30X38X32	7943/30	69		30	38	32	38890	88700	8100	

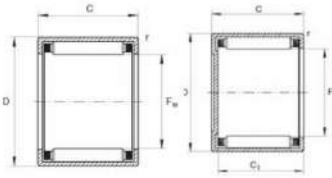
DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil
	Current Code	Original		Fw	D	C	N		
mm			g	mm					rpm
32	HK32X38X11		17	32	38	11	19700	43200	7800
	HMK3220			32	42	20			
	HK3224	77941/32	50.7	32	39	24	25500	52000	7300
	HK3232	97941/32	66.4	32	39	32	22600	54300	7100
35	HK3520	67941/35	46.1	35	42	20	20800	41000	7100
	BK3520	65941/35	54.8	35	42	20	20800	41000	7100
	HK3520/ASI			35	42	20			
	HK3524			35	42	24			
	BK3530			35	42	30			
	HK3530			35	42	30			
	HMK3520			35	45	20			
	HMK3525			35	45	25			
	HMK3530			35	45	30			
	HK35X42X16	7941/35	37	35	42	16	24200	47100	7100
	HK35X43X25	7942/35	60.5	35	43	25	24440	48200	6200
	HK35X43X32	7943/35	80	35	43	32	24870	48880	6200
HK35X45X12		31	35	45	12	24870	48880	6200	
36	HK36X42X12		23	36	42	12	15000	21000	6200
38	HK3818			38	45	18			
	HK38X48X30		102	38	48	30	16100	24100	6000
	HK4012	27941/40	31.1	40	47	12	14000	24300	6300
	BK4012	25941/40	38.2	40	47	12	14000	24300	6300
	HK4016	47941/40	41.4	40	47	16	20000	38500	6300
	BK4016	45941/40	51	40	47	16	20000	38500	6300
	HK4020	67941/40	51.8	40	47	20	25500	52000	6300
	BK4020	65941/40	62	40	47	20	25500	52000	6300
	HK4020/ASI			40	47	20			
	HK4026			40	47	26			
	HK4030			40	47	30			
	HMK4020			40	50	20			
	HMK4025			40	50	25			
	HMK4030			40	50	30			
	HK40X50X32	7942/40	114.3	40	50	32	23000	42000	6000
	HK40X50X38	7943/40	130.8	40	50	38	24100	43000	6000

DRAWN CUP NEEDLE ROLLER BEARINGS



HK BK Drawn cup needle roller bearings HK BK

Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil
	Current Code	Original		Fw	D	C	N	rpm	
mm			g	mm					
	HK3224	77941/32	50.7	32	39	24	25500	52000	7300
	HK4512	27941/45	34.8	45	52	12	12900	22500	5800
	BK4512	25941/45	45	45	52	12	12900	22500	5800
	HK4512-K			45	52	12			
	HK4516	47941/45	46.2	45	52	16	19300	38000	5800
	BK4516	45941/45	56	45	52	16	19300	38000	5800
	HK4520	67941/45	56	45	52	20	22000	51000	5800
	BK4520	65941/45	72	45	52	20	22000	51000	5800
	HK4520-ASI			45	52	20			
	HK4520-K			45	52	20			
	HK4520-YA			45	52	20			
	HMK4525			45	55	25			
	HMK4530			45	55	30			
	HMK4538			45	55	38			
	HK45X55X38	7943/45	135	45	55	38	27600	61000	5300
	HK50X57X16		51.2	50	57	16	15200	32500	5300
	HK5012	27941/50	44.2	50	58	12	23600	57200	5300
	HK5020	57941/50	72	50	58	20	28000	60000	5300
	BK5020	55941/50	87.3	50	58	20	28000	60000	5300
	HK5025		90.1	50	58	25	34500	80000	5300
	BK5025	5943/50	109	50	58	25	34500	80000	5300
	HK50X60X38	7943/50	140	50	60	38	27770	63100	4600
	HK5520	57941/55	78	55	63	20	29500	59900	4600
	BK5520	55941/55	93.8	55	63	20	29500	59900	4600
	HK5525	77941/55	109	55	63	25	33200	69980	4600
	HK5528	87941/55	111	55	63	28	39090	98000	4600
	BK5528	85941/55	132	55	63	28	39090	98000	4600
	HK6012		49.2	60	68	12	12400	29000	4100
	BK6012		77	60	68	12	12400	29000	4100
	HK6020	57941/60	86	60	68	20	30500	72000	4100
	BK6020	55941/60	105	60	68	20	30500	72000	4100
	HK6032	87941/60	136	60	68	32	50000	131000	4100
	BK6032	85941/60	164	60	68	32	50000	131000	4100

DRAWN CUP NEEDLE ROLLER BEARINGS

SCE

Drawn Cup Needle Roller Bearings (Inch series) SCE

Shaft Diameter	Bearing Designation		Mass	Boundary Dimensions			Basic Load		Limiting Speed Oil
	Current Code	Original		Fw	D	C			
mm			kg	mm			N		rpm
3.175	SCE 55		0.004	3.175	12.7	8.334			
3.97	SCE 21/24TN			3.97	7.15	6.35			
4.762	SCE 34TN			4.762	8.731	6.35			
6.35	SCE 47		0.004	6.35	11.112	11.13			
	SCE 49			6.35	11.112	14.287			
	SCE 49PP			6.35	11.112	14.29			
7.938	SCE 55	BCE55	0.0032	7.938	12.7	7.938	2892	2625	29000
	SCE 56P		0.006	7.938	12.7	9.52			
	SCE 57		0.006	7.938	12.7	11.11			
	SCE 59		0.003	7.938	12.7	14.29			
9.525	SCE 65	BCE65	0.004	9.525	14.288	7.94	2892	2417	25000
	SCE 66		0.006	9.525	14.288	9.52	3900	3950	29500
	SCE 68		0.0065	9.525	14.288	12.7			
	SCE 68K			9.525	14.288	9.271			
	SCE 69P		0.007	9.525	14.288	14.29			
	SCE 69		0.004	9.525	14.288	14.29			
11.112	SCE 610PP			9.525	14.288	15.88	3900	3950	29500
	SCE 78		0.005	11.112	15.875	12.7	6400	7800	25000
	SCE 85		0.0047	12.7	17.462	7.94			
	SCE 86		0.006	12.7	17.462	9.52			
	SCE 86A		0.007	12.7	17.462	9.52			
	SCE 87		0.006	12.7	17.462	11.11	7340	7800	22000
	SCE 88		0.009	12.7	17.462	12.7	6897	9033	19000
12.7	SCE 810ZOH		0.009	12.7	17.462	15.88	8811	12237	19000
	SCE 810PP		0.009	12.7	17.462	15.88	8811	12237	19000
	SCE 96		0.005	14.288	19.05	9.52	5162	6408	18000
	SCE 98		0.008	14.288	19.05	12.7	7698	10769	18000
	SCE 910		0.01	14.288	19.05	15.88	9434	14017	18000
	SCE 912		0.013	14.288	19.05	19.05	10724	16465	18000
14.288	SCE 105		0.0075	15.875	20.638	7.94	4300	5200	17600
	SCE 107-1/2		0.009	15.875	20.638	11.91	7100	10300	17600
	SCE108	BCE108	0.01	15.875	20.638	12.7	8743	12015	16000
	SCE109P			15.875	20.638	14.29	8743	12015	16000
	SCE1010		0.011	15.875	20.638	15.88	10368	16242	16000
	SCE1010PP		0.013	18.875	20.638	15.88	10368	16242	16000
	SCE1012		0.014	15.875	20.638	19.05	12015	19802	16000
	SCE1012PP		0.014	15.875	20.638	19.05	12015	19802	16000
17.462	SCE118		0.014	17.462	22.225	12.7	8600	13200	16000
	SCE1112		0.016	17.462	22.225	19.05	12400	21000	16000

DRAWN CUP NEEDLE ROLLER BEARINGS

SCE

Drawn Cup Needle Roller Bearings (Inch series) SCE

Shaft Diameter	Bearing Designation		Mass kg	Boundary Dimensions			Basic Load		Limiting Speed rpm
	Current Code	Original		Fw	D	C	N	Oil	
	SCE 128		0.013	19.05	25.4	12.7	9800	12500	14700
	SCE 120			19.05	34	14.5			
	SCE 129P		0.019	19.05	25.4	14.29	10000	13500	15200
19.05	SCE 1210PPR		0.017	19.05	25.45	15.88	12682	17577	13000
	SCE 1211(P)		0.018	19.05	25.4	17.46	15352	22250	13000
	SCE 1212		0.021	19.05	25.4	19.05	15352	22250	13000
	SCE 1214PP			19.05	25.4	22.22			
	SCE 1216		0.030	19.05	25.4	25.4			
20.638	SCE 1312		0.024	20.638	26.988	19.05	16020	23585	12000
	SCE 146		0.013	22.225	28.575	9.52	8200	10700	12600
	SCE 148		0.019	22.225	28.575	12.7	11125	15797	11000
22.225	SCE 148-OH		0.019	22.225	28.575	12.7	11125	15797	11000
	SCE 1412		0.028	22.225	28.575	19.05	16910	27145	11000
	SCE 1416		0.034	22.225	28.575	25.4	22100	38000	12600
	SCE 168		0.019	25.4	31.75	12.7	12682	19135	10000
	SCE 1612		0.027	25.4	31.75	19.05	18022	30260	10000
25.4	SCE 1614PP			25.4	31.75	22.22			
	SCE 1616		0.038	25.4	31.75	25.4	24920	45390	10000
	SCE 1616PP		0.038	25.4	31.75	25.4	24920	45390	10000
	SCE 1620		0.048	25.4	31.75	31.75			
	SCE 188		0.021	28.575	34.925	12.7	12905	20247	9000
28.575	SCE 1816	BCE1816	0.04	28.575	34.925	25.4	25810	49395	9000
	SCE 1820		0.053	28.575	34.925	31.75			
31.242	SCE 2020A			31.242	38.1	31.75			
	SCE 2010		0.03	31.75	38.1	15.88	21137	39605	8000
	SCE 2012		0.037	31.75	38.1	19.05	16500	29000	8000
	SCE 2016	BCE2016	0.045	31.75	38.1	25.4	27145	54735	8800
	SCE 2020		0.056	31.75	38.1	31.75			
34.925	SCE 228		0.025	34.925	41.275	12.7	13600	23700	8000
	SCE 2212		0.039	34.925	41.275	19.05	21360	42720	7500
	SCE 2216		0.058	34.925	41.275	25.4	27590	59185	7500
	SCE 2220		0.081	34.925	41.275	31.75	34000	77000	8000
38.1	SCE 2416		0.083	38.1	47.625	25.4	38715	66305	6500
	SCE 2420		0.105	38.1	47.625	31.75			
41.275	SCE 2620		0.11	41.275	50.8	31.75	51000	97000	6800
44.45	SCE 2812		0.082	44.45	53.975	19.05	31500	55000	6300
	SCE 2816	BCE2816	0.115	44.45	53.975	25.4	41385	75650	6000
	SCE 2824		0.163	44.45	53.975	38.1			
50.8	SCE 3216		0.102	50.8	60.33	25.4			
	SCE 321600H			50.8	60.38	25.4			
	SCE 3220		0.14	50.8	60.325	31.75	55180	115700	5000

DRAWN CUP NEEDLE ROLLER BEARINGS

This kind bearing consists of full of needles extending to outer raceway, thus bearing high load. It is applied to the situation where the devices mounted with needle roller bearings run in swinging operation with low and middle speed. Since the bearings are fed with lubricating grease when are delivered, it is unnecessary to add the lubricating grease in assembling.

Model F, FH open-end drawn cup needle roller bearing with full of needles

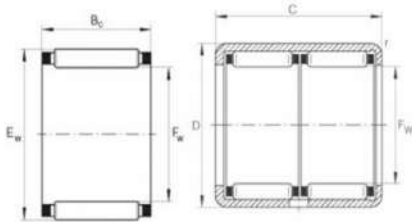
Shaft Diameter	Bearing Designation		Mass g	Boundary			BasicLoadRating		LimitingSpe Oil
	Current Code	OriginalCode		Fw	D	C	N		
mm				mm					rpm
6	F-0608	30941/6	2.5	6	10	8	3080	5800	12000
6.35	F6.35X11.11X	B-47	3.2	6.35	11.11	11.13	3500	6050	12000
	MF6.35X11.11	M-471	4.1	6.35	11.11	11.13	3500	6050	12000
8	F-0810	50941/8	3.7	8	12	10	4050	7150	13000
	FH-0810	941/8	7	8	14	10	5200	7150	7400
	FH-0812	942/8	9	8	14	12	4550	7150	7400
9	F-0910	50941/9	4	9	13	10	4900	8050	12000
	F-091510	941/9	6	9	15	10	8000	11500	7100
	F-091513	942/9	8	9	15	13	8560	12800	7100
9.52	F-9.52X14.29	B-68	7.5	9.52	14.29	12.70	9000	13300	7100
	F-1010	50941/10	4.2	10	14	10	5700	9350	11000
10	FH-1010	941/10	6.5	10	16	10	6350	10800	11000
	F-101615	942/10	12	10	16	15	6890	11500	7100
		943/10		10	16	17	6500	11000	7000
12	F-1212	60941/12	6	12	16	12	6380	10900	7100
	F-121712	941/12	8	12	17	12	8400	11900	7100
	F-121715	942/12	10.5	12	17	15	9000	12500	7100
	F-121718	943/12	13	12	17	18	9800	13500	7100
	F-15X20X12	941/15	10	15	20	12	8400	11900	7100
15	F-15X20X16	942/15	13.6	15	20	16	9500	12800	7100
	F-15X20X20	943/15	17.2	15	20	20	10500	16000	7100
	F-15X20X20	Y152020	20	15	20	20	10500	16000	7100
16	F-1512	30941/15	12	15	21	12	9700	15900	8100
	F-1616	50941/16	17	16	22	16	14100	25900	7700
	F-1712	30941/17	13	17	23	12	10600	21600	7300
17	F-1714	941/17	15	17	23	14	12500	22500	7300
	F-1718	942/17	21	17	23	18	13800	24800	7300
	F-1722	943/17		17	23	22	13500	24000	7100
18	F-1816	50941/18	18	18	24	16	15000	29100	6900
	F-2014	941/20	17	20	26	14	15800	40500	6900
20	F-2020	942/20	26	20	26	20	18800	42500	6900
	F-20X26X25	943/20	33	20	26	25	20500	35500	6300
	F-2212	30941/22	14	22	28	12	9000	13300	5800
22	F-2216	50941/22	22	22	28	16	17000	33000	5800

DRAWN CUP NEEDLE ROLLER BEARINGS

Drawn cup full complement needle bearing F FH

Shaft Diameter	Bearing Designation		Mass g	Boundary			BasicLoadRating		LimitingSpe
	Current Code	OriginalCode		Fw	D	C	N	rpm	
				mm					
22	F-2220	70941/22	29	22	28	20	20300	47200	5800
25	F-2516	941/25	28	25	32	16	18700	37900	5100
	F-2522	942/25	40	25	32	22	11000	16500	5100
	F-25X32X25	943/25	43	25	32	25	11500	18500	5100
	F-25X33X08	Y253308	16.7	25	33	8	12200	16800	4300
	F-2512	20941/25	17	25	32	12	5250	6000	5100
	F-2520	60941/25	43	25	32	20	22800	46000	5100
28	F-2820	60941/28	118	28	35	20	25700	58300	4600
	F-2812	20941/28	31.7	28	35	12	16500	38600	4600
	F-2816	40941/28	36	28	35	16	20200	42900	4600
30	F-3020	60941/30	42	30	37	20	26800	62500	4300
	MF-3020	65941/30	48	30	37	20	26800	62500	4300
	F-30X38X16	941/30	37.5	30	38	16	25500	57500	4600
	F-30X38X24	942/30	37.5	30	38	24	28800	64500	4300
	F-30X38X32	943/30	81.5	30	38	32	34500	78900	4300
	F-3014	30941/30	37	30	37	14	19600	41200	4600
	F-3016	4094/30	40	30	37	16	21700	46500	4300
	F-3026		58.5	30	37	26	35000	74000	4300
32	F-32X39X32	943/32		32	39	32	35000	74000	4300
	F-3216	40941/32	35	32	39	16	25800	61500	4300
35	F-3520	60941/35	49	35	42	20	24000	69100	3700
	F-35X43X16	941/35	41	35	43	16	23500	68000	3700
	F-35X43X25	942/35	72	35	43	25	38700	86200	3200
	F-35X43X32	943/35	90	35	43	32	40500	98700	3200
	F-3512	20941/35	36	35	42	12	19000	59000	3700
40	F-4020	60941/40	56	40	47	20	30300	52600	3300
	FH-4032	942/40	88	40	50	32	42500	108000	2600
	MFH-4032	86942/40	95	40	50	32	42500	108000	2600
	FH-40X50X38	943/40	105	40	50	38	44800	118500	2600
	F-4016	40941/40	51	40	47	16	26500	62000	3300
	F-4520		62	45	52	20	30400	30400	2900
45	FH45X55X38	943/45	140	45	55	38	45800	45800	2900
	F-4516	40941/45	49	45	52	16	23800	65900	2900
	F-5020	50941/50	78	50	58	20	35800	98000	2600
50	FH-50X60X38	943/50	145	50	60	38	50500	145800	2600
	F-5520	50941/55	97	55	63	20	39500	102000	2600
60	F-60X68X38	943/60	185	60	68	38	50200	145000	2600

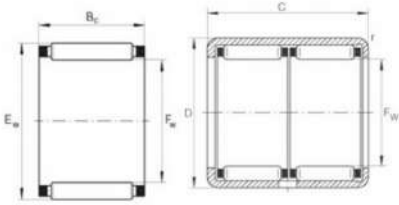
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass g	Boundary			BasicLoadRating		LimitingSpeed rpm
	Current Code	OriginalCode		Fw	Ew	Bc	Oil		
mm	Current Code	OriginalCode	g	mm			N		rpm
3	K3 x 5 x 7TN		0.3	3	5	7	1.54	1.29	50000
	K3 x 5 x 9TN		0.4	3	5	9	1.71	1.48	
	K3 x 6 x 7TN		0.4	3	6	7	1.43	0.97	47000
4	K4 x 7 x 7TN		0.5	4	7	7	2.33	1.84	43000
	K4 x 7 x 10TN		0.7	4	7	10	2.35	1.92	39000
5	K5 x 8 x 8TN	29241/5	0.7	5	8	8	2300	1880	37000
	K5 x 8 x 10TN	39241/5	0.9	5	8	10	2800	2450	37000
6	K6 x 9 x 8TN	29241/6	0.8	6	9	8	25600	2240	35000
	K6 x 9 x 10TN	39241/6	1	6	9	10	3300	3100	35000
	K6 x 10 x 13TN	19241/6	1.3	6	10	13	3500	2800	33000
7	K7 x 10 x 8TN	29241/7	0.9	7	10	8	2750	2550	32000
	K7 x 10 x 10TN	39241/7	1.1	7	10	10	3350	3400	32000
8	K8 x 11 x 8TN	29241/8	1.1	8	11	8	3000	2900	30000
	K8 x 11 x 10TN	39241/8	1.7	8	11	10	3830	3950	30000
	K8 x 11 x 13TN	49241/8	1.8	8	11	13	5000	5700	30000
	K8 x 12 x 10TN	29242/8	1.3	8	12	10	4900	4600	30000
9	K9 x 12 x 10TN	39241/9	1.5	9	12	10	4200	4700	30000
	K9 x 12 x 13TN	19241/9	1.9	9	12	13	5500	6700	30000
10	K10 x 13 x 10TN	39241/10	1.6	10	13	10	4500	5250	27000
	K10 x 13 x 13TN	39241/10	2.1	10	13	13	6000	7600	27000
	K10 x 13 x 16TN		2.2	10	13	16	6300	7800	27000
	K10 x 14 x 10TN	29242/10	2.9	10	14	10	7000	7900	27000
	K10 x 14 x 13TN	3922/10	4.3	10	14	13	8000	9100	26000
	K10 x 16 x 12TN	19244/10	3.7	10	16	12	7000	9300	27000
12	K12 x 15 x 9TN		2.7	12	15	9	4120	5210	25000
	K12 x 15 x 10TN	39241/12	1.9	12	15	10	4320	5730	25000
	K12 x 15 x 13TN	49241/12	2.4	12	15	13	6000	8100	25000
	K12 x 16 x 8TN	19242/12	2.9	12	16	8	1200	4700	25000
	K12 x 16 x 10TN	29242/12	3.4	12	16	10	6000	6900	25000
	K12 x 16 x 13TN	39242/12	3.8	12	16	13	7900	9200	25000
	K12 x 17 x 13TN	59242/12	4.4	12	17	13	9300	10000	24000
	K12 x 18 x 12TN	19244/12	5	12	18	12	9800	8000	24000
	K12 x 15 x 20TN	K12 x 15 x 20TN	3.8	12	15	20	8200	12000	25000

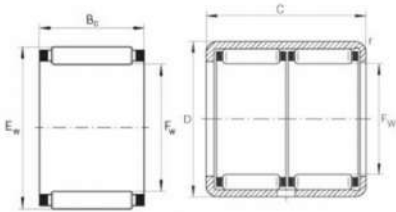
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass	Boundary			BasicLoadRating		LimitingSpeed Oil
	Current Code	OriginalCode		Fw	Ew	Bc			
mm			g	mm			N		rpm
14	K14 x 17 x 10		4	14	17	10	5100	6800	23000
	K14 x 17 x 17		6.8	14	17	17	9300	14000	23000
	K14 x 18 x 10	29242/14	4.8	14	18	10	6800	8300	23000
	K14 x 18 x 13	39242/14	6.3	14	18	13	8100	9800	23000
	K14 x 18 x 14		6.8	14	18	14	9200	12000	23000
	K14 x 18 x 15	49242/14	7.3	14	18	15	10000	13000	23000
	K14 x 18 x17	59242/14	8.1	14	18	17	10500	13900	23000
	K14 x 20 x12	19243/14	8.6	14	20	12	9900	10500	22000
15	K15 x 18 x14		5.3	15	18	14	7500	11000	23000
	K15 x 18 x17		6.4	15	18	17	9600	15900	23000
	K15 x 19 x10	29242/15	5.1	15	19	10	7200	9000	22000
	K15 x 19 x13	39241/15	7	15	19	13	8300	9800	22000
	K15 x 19 x17	59241/15	8.8	15	19	17	10300	15000	22000
	K15 x 19 x24ZW	79241/15	10.5	15	19	24	12800	20100	22000
	K15 x 22 x13	29242/15	8.9	15	22	13	9700	11000	22000
	K15 x 22 x12	19243/15	10	15	22	12	10000	13000	22000
16	K15 x 21 x15	39242/15	13	15	21	15	13800	16000	22000
	K15 x 21 x21		18.2	15	21	21	18000	24000	22000
	K16 x 20 x10	29241/16	5.7	16	20	10	7600	9700	22000
	K16 x 20 x13	39241/16	7.1	16	20	13	8700	11300	22000
	K16 x 20 x17	59241/16	9.2	16	20	17	11200	16300	22000
	K16 x 21 x10	19242/16	3.7	16	21	10	9000	12000	22000
	K16 x 22 x12	19243/16	10.4	16	22	12	11000	12000	21000
	K16 x 22 x13		11.9	16	22	13	12000	13400	21000
17	K16 x 22 x16		13.7	16	22	16	14300	17000	21000
	K16 x 22 x20	49243/16	16.7	16	22	20	18000	22300	21000
	K16 x 23 x14	19244/16	20	16	23	14	19000	21000	19000
	K16 x 24 x20	19245/16	24.9	16	24	20	21100	23000	20000
	K17 x 21 x10	29241/17	5.6	17	21	10	7900	10100	21000
	K17 x 21 x13	39241/17	7.5	17	21	13	10000	14100	21000
	K17 x 21 x17	59241/17	9.5	17	21	17	12000	17400	21000
	K17 x 23 x14	29243/17	11.5	17	23	14	11000	15000	21000
18	K18 x 22 x10	29241/18	6.1	18	22	10	8200	9900	20000
	K18 x 22 x13	39241/18	7.7	18	22	13	9000	12100	20000

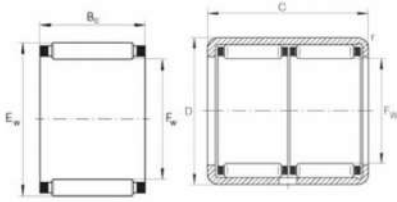
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass	Boundary			BasicLoadRating		LimitingSpeed
				Fw	Ew	Bc			Oil
mm	Current Code	OriginalCode	g	mm			N		rpm
18	K18 x 22 x 17	59241/18	10.8	18	22	17	11900	17600	20000
	K18 x 24 x 12	19243/18	11.6	18	24	12	11200	12900	20000
	K18 x 24 x 13		12.6	18	24	13	12900	14900	20000
	K18 x 24 x 13.5		13	18	24	13.5	12900	14900	20000
	K18 x 24 x 20	49243/18	19	18	24	20	20000	26500	20000
	K18 x 25 x 14		14.9	18	25	14	16500	18800	20000
	K18 x 25 x 22		24.3	18	25	22	22900	28400	20000
	K18 x 26 x 14		19	18	26	14	18000	20000	18000
19	K18 x 28 x 16	19244/18	24	18	28	16	19000	18400	19000
	K19 x 23 x 13		8.2	19	23	13	9300	13000	20000
20	K19 x 23 x 17		11.1	19	23	17	12000	18600	20000
	K20X24X10	29241/20	6.5	20	24	10	8700	12100	19000
	K20X24X12		8	20	24	12	9600	13800	19000
	K20X24X13	39241/20	8.9	20	24	13	9600	13800	19000
	K20X24X17	59241/20	11.2	20	24	17	12400	20000	19000
	K20X26X12	19243/20	13.2	20	26	12	13100	15700	19000
	K20X26X16	K9249/20	17.5	20	26	16	18000	25000	18500
	K20X26X17	39243/20	18.2	20	26	17	18700	25500	19000
	K20X26X20	49243/20	22	20	26	20	20600	28500	19000
	K20X28X20	19245/20	26.8	20	28	20	23400	28000	18000
21	K20X28X25	29245/20	36.2	20	28	25	30000	28500	18000
	K20X30X30	39245/20	56	20	30	30	35000	41000	18000
	K21X25X13		9	21	25	13	9600	14500	19000
22	K21X25X17		12	21	25	17	12800	21000	19000
	K22X26X10	29241/22	7.1	22	26	10	8700	12900	18000
	K22X26X13	39241/22	9.4	22	26	13	10000	15400	18000
	K22X26X17	59241/22	12.1	22	26	17	13100	22100	18000
	K22X27X13	29242/22	10.8	22	27	13	14000	23000	18000
	K22X28X17	39243/22	19.7	22	28	17	19000	26500	18000
	K22X28X23	59243/22	26	22	28	23	20000	27000	19000
	K22X29X16	19244/22	22.2	22	29	16	19500	25000	17000
	K22X30X15TN		14.4	22	30	15	19600	22900	17000
	K22X30X20	19245/22	28	22	30	20	21000	23500	18900
	K22X32X24		43.4	22	32	24	33500	39500	16000

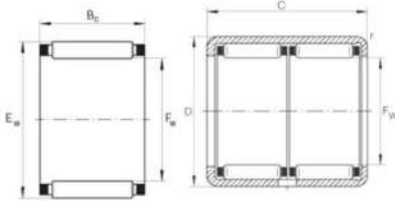
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass g	Boundary			BasicLoadRating		LimitingSpeed Oil rpm
	Current Code	OriginalCode		Fw	Ew	Bc	N		
23	K23X35X16TN		30	23	35	16	2400	23400	15000
24	K24X28X10		8.1	24	28	10	9400	14300	17000
	K24X28X13		10.1	24	28	13	10500	17000	17000
	K24X29X13		13.5	24	29	13	13100	19100	16000
	K24X30X17		21.5	24	30	17	19000	27000	16000
	K24X30X31		39.1	24	30	31	27000	43000	16000
25	K25X29X10	29241/25	8.3	25	29	10	9700	14900	16000
	K25X29X13	39241/25	10.4	25	29	13	10800	17900	16000
	K25X29X17	59241/25	13.7	25	29	17	14500	25500	16000
	K25X30X13	29242/25	12.9	25	30	13	14100	21300	16000
	K25X30X20	59242/25	20.5	25	30	20	21100	28000	16000
	K25X30X25		21	25	30	25	21700	40400	15000
	K25X30X26	52.436	21.6	25	30	26	20100	26500	15000
	K25X31X17	39243/25	21.8	25	31	17	19000	28000	16000
	K25X31X21	39243/25	26.2	25	31	21	24100	37500	16000
	K25X32X16	19244/25	24.5	25	32	16	20500	27500	15000
	K25X33X20	19245/25	32	25	33	20	28000	37500	15000
	K25X33X24	29245/25	38.7	25	33	24	33900	46500	15000
	K25X34X18		32	25	34	18	48000	67000	15000
K25X35X30	39245/25	65.5	25	35	30	46500	61500	14000	
K25X30X26 ZW		27	25	30	26	21000	35000	14000	
26	K26X30X10		9	26	30	10	9500	15500	16000
	K26X30X13		11.4	26	30	13	11100	18700	16000
	K26X30X17		15	26	30	17	14700	27000	16000
	K26X31X13		9.9	26	31	13	12400	18400	15000
	K26X30X22		12.3	26	30	22	15200	28000	16000
27	K27X32X17		29	27	32	27	16000	34000	17000
28	K28X32X16.5		16	28	32	16.5	15000	32400	14000
	K28X32X17	9242/28	18.2	28	32	17	15000	32400	14000
	K28X33X13	29241/25	15.2	28	33	13	14800	23600	14000
	K28X33X17	49241/28	19.5	28	33	17	19100	33000	14000
	K28X33X27 TN	79241/28	19	28	33	27	22800	40500	14000
	K28X34X17	39242/28	24.2	28	34	17	21300	35000	14000
	K28X35X16	19243/28	26	28	35	16	21000	29000	14000
K28X35X18		31	28	35	18	23500	33500	14000	

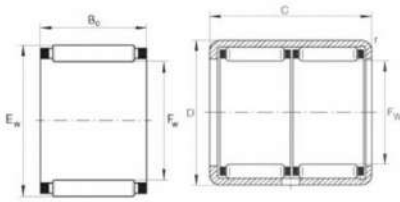
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass	Boundary			BasicLoadRating		LimitingSpeed Oil
	Current Code	OriginalCode		Fw	Ew	Bc	N		
mm			g	mm					rpm
28	K28X35X20	29243/28	35	28	35	20	24000	34000	14000
	K28X35X27		47	28	35	27	34500	54500	14000
	K28X36X16		40	28	36	16	34000	47000	11000
	K28X40X18		50	28	40	18	33000	36500	12000
	K28X40X25		71	28	40	25	45000	54500	12000
30	K30X33X10			30	33	10			
35	K35X45X49		120	35	45	49	81500	13400	10000
	K35X40X30 ZW		48	35	40	30	31500	65500	11000
	K35X42X20 ZW	29243/35	41	35	42	20	29500	48500	11000
36	K36X41X30		52	36	41	30	23000	43000	11000
	K36X42X16		50	36	42	16	24000	42000	11000
37	K37X42X17		25.8	37	42	17	21900	42500	10000
	K37X42X27		40.7	37	42	27	31500	67500	10000
	K37X45X26		60.5	37	45	26	43500	73500	10000
38	K38X43X17	49241/38	26.9	38	43	17	20000	38000	10000
	K38X43X27	49241/38	43.2	38	43	27	31000	67500	10000
	K38X46X20	19244/38	46	38	46	20	35000	56500	10000
	K38X46X32		72.7	38	46	32	54500	98500	10000
39	K39X44X24		38	39	44	24	28000	58500	10000
	K39X44X26 ZW		29.5	39	44	26	27000	55500	10000
40	K40x44x13		20	40	44	13	13500	28000	10000
	K40x45x13	29241/40	21.5	40	45	13	17100	32000	10000
	K40x45x17	49241/40	27.4	40	45	17	20900	41000	10000
	K40x45x21		36.5	40	45	21	24400	49500	10000
	K40x45x27	19241/40	46	40	45	27	32500	72500	10000
	K40x46x17	39242/40	30	40	46	17	24500	44500	9000
	K40x47x18		45.2	40	47	18	29000	49500	9000
	K40x47x20	29243/40	42	40	47	20	32000	56500	9000
	K40x48x20	19244/40	57.7	40	48	20	35500	58500	9000
42	K40x45x30 ZW		48	40	45	30	26000	53500	9000
	K42x47x13	29241/42	22.5	42	47	13	17300	33000	9000
	K42x47x17	49241/42	31.1	42	47	17	21100	42500	9000
	K42x47x25 TN		25.4	42	47	25	27000	57500	9000
	K42x47x27	79241/42	46.6	42	47	27	33000	74500	9000
	K42x48x35	79242/42	60	42	48	35	35000	76000	9000

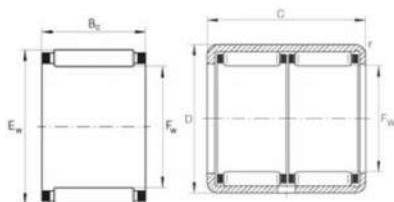
NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass	Boundary			BasicLoadRating		LimitingSpeed Oil
	Current Code	OriginalCode		Fw	Ew	Bc	N		
mm			g	mm			N		rpm
42	K42x50x18		53	42	50	18	31000	49500	9000
	K42x50x20	19244/42	54	42	50	20	34500	56500	9000
	K42x47x30 ZW		54	42	47	30	31000	75500	9000
43	K43x48x17		29.3	43	48	17	21000	42500	9000
	K43x48x27		45.7	43	48	27	33000	74500	9000
	K43x50x18	9249/43	48.5	43	50	18	30500	53500	8000
45	K45x49x19		27	45	49	19	17500	40000	8000
	K45x50x17	49241/45	25.5	45	50	17	22000	45000	8000
	K45x50x27	19241/45	50	45	50	27	34000	79500	8000
	K45x50x32		45	45	50	32	38000	90500	8000
	K45x52x18		51	45	52	18	31000	56500	8000
	K45x52x21		32.9	45	52	21	39500	57500	8000
	K45x53x20		62.2	45	53	20	38500	66500	8000
	K45x53x21		65	45	53	21	38000	66500	8000
	K45x53x22		68.4	45	53	22	42000	66500	8000
	K45x59x18		60.5	45	59	18	43500	53500	7000
47	K47x52x17		195	45	59	36	75500	108500	7000
	K47x52x17		32	47	52	17	22800	48500	8000
	K47x52x27		50.7	47	52	27	34500	82500	8000
	K47x53x25		53	47	53	25	38000	81500	8000
48	K48x54x19	39242/48	62.4	47	55	28	52500	99500	7500
	K48x54x25	59242/48	44	48	54	19	30000	60500	7500
50	K50x55x13.5		55	48	54	25	31000	91000	7500
	K50x55x17	49241/50	31	50	55	13.5	17500	36000	7500
	K50x55x20	59241/50	35	50	55	17	21400	46500	7500
	K50x55x30	9243/50	39.4	50	55	20	26000	59500	7500
	K50x57x18		59.4	50	55	30	38500	96500	7500
	K50x58x20	19244/50	53.4	50	57	18	33000	62500	7000
52	K50x58x25	29244/50	64.9	50	58	20	35000	61500	7000
	K52x57x12		81	50	58	25	43500	80500	7000
55	K55x60x20		24	52	57	12	17500	36000	7000
	K55x60x27		43.4	55	60	20	28000	65500	6500
	K55x60x30		60.5	55	60	27	37500	96500	6500
			68.6	55	60	30	40500	10300	6500

NEEDLE ROLLER CAGE ASSEMBLIES

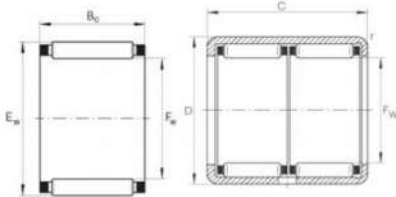


K K..ZW

Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass g	Boundary			BasicLoadRating		LimitingSpeed Oil
	Current Code	OriginalCode		Fw	Ew	Bc	N		
mm				mm					rpm
55	K55x61x20		56	55	61	20	41000	11000	6500
	K55x62x18		58.4	55	62	18	35000	69500	6500
	K55x63x15		53	55	63	15	245000	40500	6500
	K55x63x20	19243/55	73.3	55	63	20	39500	73500	6500
	K55x63x25	29243/55	88	55	63	25	49500	99500	6500
	K55x63x32		117	55	63	32	61500	129500	6500
56	K55x60x40ZW		96.5	55	60	40	48000	132000	6500
56	K56x61x20		45	56	61	20	27000	64500	6500
58	K58x65x18		52	58	65	18	34500	69500	6000
60	K58x65x38ZW		106	58	65	38	48500	106500	6000
	K60x65x20	49241/60	50.5	60	65	20	29000	71500	6000
	K60x65x30	69241/60	71.2	60	65	30	42000	115500	6000
	K60x68x20	19243/60	79	60	68	20	43000	84500	5500
	K60x68x23		94	60	68	23	49000	100500	5500
	K60x68x25	29243/60	97	60	68	25	52500	110500	5500
	K60x68x27		98	60	68	27	59000	120500	6000
	K60x75x42		240	60	75	42	11300	19200	5500
	K60x66x33ZW		104	60	66	33	45500	111500	6000
	K60x66x40ZW		116	60	66	40	57500	150500	5500
62	K60x68x30ZW		136	60	68	30	44000	87500	5500
	K60x68x34ZW		140	60	68	34	47500	95500	5500
62	K62x70x40ZW		147.5	62	70	40	65500	145500	5500
63	K63x70x21		75	63	70	21	45000	100500	5500
64	K64x70x16		53	64	70	16	27500	59500	5500
65	K65x70x20	49241/65	49	65	70	20	30000	76500	5500
	K65x70x30		83	65	70	30	43500	93500	5500
	K65x73x23		100	65	73	23	45500	93500	5000
	K65x73x30	39243/65	126	65	73	30	56500	122500	5000
68	K68x74x20	49241/68	65	68	74	20	35000	83500	5000
	K68x74x30	69241/68	97	68	74	30	46000	117500	5000
	K68x74x35 ZW	79241/68	116	68	74	35	48000	124500	5000
	K68x75x20		120	68	75	20	53500	127500	4500
70	K70x76x20	49241/70	70	70	76	20	35500	85500	4500
	K70x76x30	69241/70	100	70	76	30	51500	138500	4500
	K70x78x25	29243/70	115	70	78	25	51500	111500	4500

NEEDLE ROLLER CAGE ASSEMBLIES



Needle roller cage assemblies K K..ZW

Shaft Diameter	Bearing Designation		Mass	Boundary			BasicLoadRating		LimitingSpeed
	Current Code	OriginalCode		Fw	Ew	Bc	N		
mm			g	mm					Oil
									rpm
70	K70x78x30	39243/70	136	70	78	30	59500	134500	4500
	K70x80x30	29244/70	150	70	80	30	72500	147500	4500
	K70x78x46 ZW		230	70	78	46	77500	18800	4500
72	K72x80x20	19243/72	94	72	80	20	41000	84500	4500
73	K73x79x20		69	73	79	20	36500	99500	4500
75	K75x81x20	49241/75	72	75	81	20	37000	93500	4500
	K75x81x30	69241/75	106	75	81	30	51500	142000	4500
	K75x83x23		113	75	83	23	49500	108000	4000
	K75x83x30	39243/75	147	75	83	30	91500	142000	4000
	K75x83x35 ZW	49243/75	165	75	83	35	62500	146500	4000
	K75x83x40 ZW	59243/75	190	75	83	40	72500	176500	4000
	K80x86x20	49241/80	76	80	86	20	38000	97500	4000
	K80x86x30	69241/80	114	80	86	30	55500	158500	4000
	K80x88x30	39243/80	141	80	88	30	71500	178500	4000
	K80x88x40 ZW	59243/80	204	80	88	40	75500	191500	4000
	K80x88x46 ZW	69243/80	235	80	88	46	87500	23000	4000
	K85x92x20	29241/85	96	85	92	20	44000	107500	3500
	K90x97x20	29241/90	103	90	97	20	44500	112500	3000
	K90x98x27		150	90	98	27	60500	149500	3000
	K90x98x30	39242/90	172	90	98	30	67500	171500	3000
	K95x102x20	29241/95	110	95	102	20	45500	122500	2900
	K95x103x30 ZW	39242/95	177	95	103	30	68500	179500	2900
	K95x103x40 ZW	59242/95	250	95	103	40	82500	227500	2900
	K100x107x21		120	100	107	21	47500	126500	2700
	K100x108x27		176	100	108	27	56500	142500	2700
	K100x108x30	39242/100	190	100	108	30	70500	187500	2700
	K105x112x21		123	105	112	21	47000	126500	2500
	K105x113x30	39242/105	198	105	113	30	71500	196500	2500
	K110x117x24		146	110	117	24	55500	157500	2300
	K110x118x30	39244/110	217	110	118	30	77500	218500	2300
	K115x123x27		200	115	123	27	63000	17000	4100
	K115x125x35			115	125	35	63000	17000	4100
	K115x125x40			115	125	40	65000	17500	4100
	K120x127x24		165	120	127	24	59000	17400	4000
	K125x133x35		275	125	133	35	86000	26000	3800

DRAWN CUP NEEDLE ROLLER CLUTCH

The drawn cup needle roller clutch is the overriding clutch (one-way clutch), composed of the outer ring punched with the high-quality steel sheet, plastic retainer, spring and needles, used for transferring one-way torque. The drawn cup needle roller clutch has not the load carrying feature by itself. However it can play the action in combination with Model HK and BK drawn cup needle roller bearing. The drawn cup needle roller clutch is the block bearing either withstanding the radial load or transferring torque

Switching frequency and Conversion Accuracy

Because the radial cross-section thin, needle roller clutch moment of inertia is small, each needle has a separate spring support to maintain the shaft, needle roller, stamping outside the circle of constant contact between the inclined plane, so it allowed a higher switching frequency and conversion accuracy. In addition to the level of conversion accuracy and conversion frequency dependent, but also with the lubrication, with the choice of the. Adjacent pieces of elastic deformation and the driving force through the shaft or the outer ring to pass. At high frequencies, the driving force generally pass through the shaft.

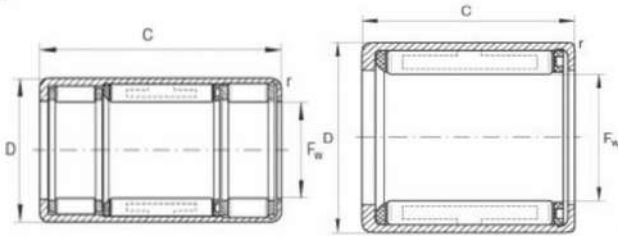
Performance test

The clutch outer ring of the stamping plant test is to use a seat belt hole and shaft tolerance N6/h5 the upper and lower limits of the plug and ring at the same time to withstand the torque of about 0.15Md perm using ring is hardened steel ring, pore size made of precision grinding, the minimum wall thickness of 20mm.

Operating temperature and lubrication

Drawn Cup Needle Roller Clutch, such as proper lubrication can be -30 degrees Celsius to 120 degrees Celsius temperature range, long-term operation, to temperatures below -10 degrees Celsius or a high speed with the $0.7 * n_j$, when, in order to ensure the JH Drawn Cup Needle Roller Clutch normal function should use the recommended lubricant consultation. Grease lubrication in most applications is sufficient, so the factory has been pre-populated with the national standard of high quality lithium based grease, its application temperature of -10 degrees Celsius to 70 degrees Celsius. For temperatures over 70 degrees Celsius conditions, recommended oil lubrication.

DRAWN CUP NEEDLE ROLLER CLUTCH

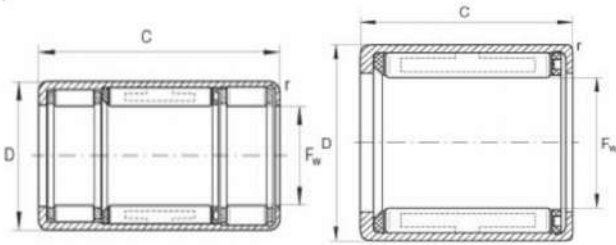


HF HFL RC RCB

Drawn Cup Needle Roller Clutch HF HFL RC RCB

Shaft Diameter	Bearing Designation	Weight	Boundary Dimensions			Basic Load		Limiting Speed		Transmission torque N. m
			Fw	D	C	Dynami	Static	Grease	Oil	
mm		g	mm			N		Rpm		
3	HF0306	0.9	3	6.5	6			36000	17000	0.2
4	HF0406	1	4	8	6			34000	14000	0.34
6	HF0612	3	6	10	12			23000	13000	1.76
8	HF0810	3.2	8	12	10			16000	12000	3
	HF0812	3.5	8	12	12			17000	12000	3.15
	HF081410	3.6	8	14	10			15000	11000	4.6
	HF081610	4.1	8	16	10			15000	11000	5.5
	HF081412	4	8	14	12			16000	12000	5
10	HF1012	4	10	14	12			14000	11000	5.3
12	HF1216	11.6	12	18	16			11000	8000	12.2
14	HF1416	13	14	20	16			9500	8000	17.3
16	HF1616	14	16	22	16			8500	7500	20.5
18	HF1816	15.5	18	24	16			7500	7500	24.1
20	HF2016	17	20	26	16			7000	6500	28.1
25	HF2520	30.9	25	32	20			5500	5500	66
30	HF3020	36	30	37	20			4500	4500	90
35	HF3520	40	35	42	20			3900	3900	121
3	HFL0308	3	3	6.5	8					
4	HFL0408	1.6	4	8	8			34000	14000	0.34
6	HFL0615	4	6	10	15	4050	4650	23000	13000	1.76
8	HFL0822	6.3	8	12	22	4300	4650	17000	12000	3.15
10	HFL1022	7.4	10	14	22	6300	6500	14000	11000	5.3
12	HFL1226	18	12	18	26	7100	7700	11000	8000	12.2
14	HFL1426	20.3	14	20	26	7300	8400	9500	8000	17.3
16	HFL1626	22	16	22	26	8300	10300	8500	7500	17.3
18	HFL1826	24.4	18	24	26	8200	10400	7500	7500	20.5
20	HFL2026	27	20	26	26	10900	14100	7000	6500	28.5
25	HFL2530	44	25	32	30	12600	17600	5500	5500	66
30	HFL3030	51	30	37	30	13000	19300	4500	4500	90
35	HFL3530	58	35	42	30			3900	3900	121

DRAWN CUP NEEDLE ROLLER CLUTCH



HF HFL RC RCB

Drawn Cup Needle Roller Clutch HF HFL RC RCB

Bearing Designation		Mass				Limiting Speed	Transmission torque
			Fw	D	C		
		g	mm	mm	mm	rpm	N. m
—	R2-02	2	3.18	7.14	6.35	50000	2.86
—	FC-4	1	4	8	6	50000	2.78
FCS-6	—	3.5	6	10	12	39300	18.6
—	RC-040708	3.5	6.35	11.1	12.7	38000	17.2
FCL-8-K	—	4.7	8	12	12	28700	28.7
FC-8	—	4	8	14	12	30500	35.8
RC-061008-FS	RC-061008	4.7	9.52	15.8	12.7	25300	45.4
FCL-10-K	—	4	10	14	12	22700	39.1
FC-10	—	4.8	10	16	12	23700	50.4
FC-12	—	11	12	18	16	19300	118
RC-081208-FS	RC-081208	9.2	12.7	19.0	12.7	18700	73.6
RC-101410-FS	RC-101410	14.5	15.8	22.2	15.8	14700	143
FC-16	—	14	16	22	16	14000	182
RS-121610-FS	—	17	19.0	25.4	15.8	11300	196
FC-20	RC-162110	17	20	26	16	10700	274
FC-25	—	30	25	32	20	8570	605
RC-162110-FS	—	25.4	25.4	33.3	15.8	8670	412
FC-30	—	36	30	37	20	7330	845
FCS-35	—	40	35	42	20	6130	913
FCBL-8-K	—	—	8	12	22	28700	29.0
FCB-8	—	10	8	14	20	30500	35.8
RCB-061014-FS	RCB-061014	12	9.52	15.88	22.22	25300	45.4
FCB-10	—	15	10	16	20	23700	50.4
FCB-12	—	18	12	18	26	19300	118
RCB-081214-FS	RCB-081214	16	12.7	19.05	22.22	18700	73.6
RCB-101416-FS	RCB-101416	21.3	15.8	22.22	25.40	14700	143
FCB-16	—	22	16	22	26	14000	182
RCB-121616-FS	RCB-11616	26.5	19.0	25.40	25.4	11300	196
FCB-20	—	27	20	26	26	10700	274
FCB-25	—	44	25	32	30	8670	605
RCB-162117-FS	RCB-162117	44.8	25.4	33.34	27	8670	412
FCB-30	—	51	30	37	30	7300	845