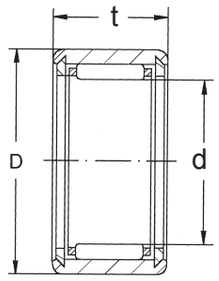
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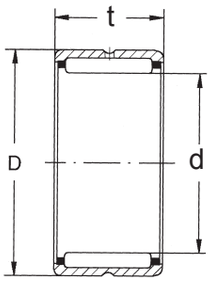
Ball & Roller Bearing

NK Series

Needle Roller Bearings



NK(Fw ⩽ 10mm)



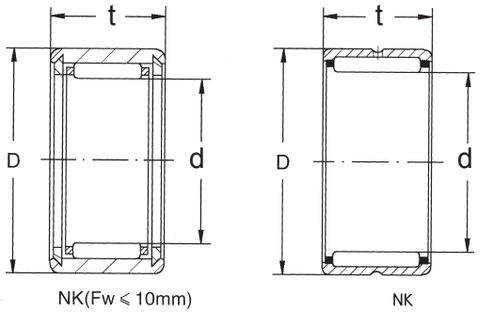
NK

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
10	NK10/12	10	17	12	4500	5100	19000	28000	10
	NK10/16	10	17	16	5450	6400	19000	28000	13
12	NK12/12	12	19	12	5000	6100	17000	26000	13
	NK12/16	12	19	16	6000	7700	17000	26000	16
	NKS12 TN	12	22	16	9600	10400	17000	26000	23
14	NK14/16	14	22	16	10300	11500	16000	24000	21
	NK14/20	14	22	20	13000	15600	16000	24000	26
	NKS14	14	25	16	14000	15000	16000	23000	29
15	NK15/16	15	23	16	10900	12700	15000	23000	22
	NK15/20	15	23	20	13000	17000	15000	23000	27
	NKS15	15	26	16	14400	15000	15000	23000	30
16	NK16/16	16	24	16	11000	14000	15000	23000	22
	NK16/20	16	24	20	14000	18000	15000	23000	28
	NKS16	16	28	16	15000	16000	14000	22000	35
17	NK17/16	17	25	16	12000	15000	15000	22000	24
	NK17/20	17	25	20	15000	20000	15000	21000	30
18	NK18/16	18	26	16	12500	16200	14000	21000	25
	NK18/20	18	26	20	15800	22000	14000	21000	31
	NKS18	18	30	16	16000	17000	13000	20000	37.9
19	NK19/16	19	27	16	13000	17400	14000	21000	26
	NK19/20	19	27	20	16000	22000	14000	21000	32
20	NK20/16	20	28	16	13000	17000	13000	20000	27
	NK20/20	20	28	20	16000	23000	13000	20000	34
22	NK22/16	22	30	16	14000	19000	12000	18000	30
	NK22/20	22	30	20	17000	27000	12000	18000	37
	NK22/20K	22	31	20	17700	27000	12000	18000	37.6
24	NK24/16	24	32	16	15000	22000	11000	17000	32
	NK24/20	24	32	20	18000	28000	11000	17000	40
25	NK25/16	25	33	16	15000	22000	11000	16000	33
	NK25/20	25	33	20	19000	30000	11000	16000	42
26	NK26/16	26	34	16	15000	23000	10000	15000	34
	NK26/20	26	34	20	19100	30000	10000	15000	42
28	NK28/20	28	37	20	22000	34000	9500	14000	52
	NK28/30	28	37	30	33000	57000	9500	14000	82
29	NK29/20	29	38	20	21900	34000	8500	14000	54
	NK29/30	29	38	30	27000	55000	8500	14000	84
30	NK30/20	30	40	20	22000	34000	8500	13000	65
	NK30/30	30	40	30	33000	57000	8500	13000	98
	NK30/17K	30	50	17	25000	32000	8500	13000	66
32	NK32/20	32	42	20	23500	37000	8500	13000	68
	NK32/30	32	42	30	34000	63000	8500	13000	102
35	NK35/20	35	45	20	24000	41500	7500	11000	74
	NK35/30	35	45	30	36000	69000	7500	11000	112
37	NK37/20	37	47	20	25000	43500	7500	11000	77
	NK37/30	37	47	30	37000	69500	7500	11000	113
38	NK38/20	38	48	20	25500	45000	7500	11000	79
	NK38/30	38	48	30	37500	73000	7500	11000	107
40	NK40/20	40	50	20	36000	47000	6500	10000	63
	NK40/30	40	50	30	39000	79000	6500	10000	125
42	NK42/20	42	52	20	26900	49000	6500	9500	86
	NK42/30	42	52	30	39000	79000	6500	9500	130
43	NK43/20	43	53	20	27500	50000	6500	9500	86
	NK43/30	43	53	30	40000	80000	6500	9500	133

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Needle Roller Bearings

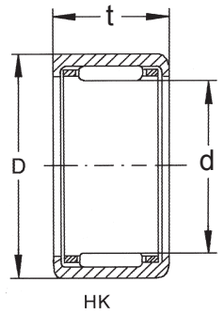


NK Series

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
45	NK45/20	45	55	20	27500	53000	6000	9000	91
	NK45/30	45	55	30	41000	88000	6000	9000	139
50	NK50/25	50	62	25	38000	74000	5500	8000	158
	NK50/35	50	62	35	50000	106000	5500	8000	221
55	NK55/25	55	68	25	41000	82000	5000	7500	193
	NK55/35	55	68	35	54000	118000	5000	7500	267
60	NK60/25	60	72	25	41000	85000	4300	6500	185
	NK60/35	60	72	35	57000	130000	4300	6500	258
65	NK65/25	65	78	25	44000	98000	4000	6000	221
	NK65/35	65	78	35	59000	140000	4000	6000	310
68	NK68/25	68	82	25	44500	89000	4000	6000	241
	NK68/35	68	82	35	63000	139000	4000	6000	338
70	NK70/25	70	85	25	45000	91500	3700	5500	275
	NK70/35	70	85	35	64000	144000	3700	5500	386
75	NK75/25	75	92	25	54000	104000	3700	5500	315
	NK75/35	75	92	35	77000	160000	3700	5500	492
80	NK80/25	80	95	25	56000	119000	3300	5000	301
	NK80/35	80	95	35	79000	184000	3300	5000	425
85	NK85/25	85	105	25	70500	123000	3100	4700	404
	NK85/35	85	105	35	100000	193000	3100	4700	517
90	NK90/25	90	110	25	72000	128000	2900	4400	426
	NK90/35	90	110	35	103000	208000	2900	4400	604
95	NK95/26	95	115	26	74500	137000	2800	4200	364
	NK95/36	95	115	36	108000	223000	2800	4200	652
100	NK100/26	100	120	26	73000	137000	2700	4000	487
	NK100/36	100	120	36	107000	223000	2700	4000	679
105	NK105/26	105	125	26	76500	147000	2500	3800	506
	NK105/36	105	125	36	111000	238000	2500	3800	713
110	NK110/30	110	130	30	97500	204000	2400	3600	612
	NK110/40	110	130	40	129000	292000	2400	3600	830
120	NK120/40	120	140	40	113000	268000	2200	3300	910
130	NK130/40	130	150	40	116000	283000	2100	3100	980
145	NK145/32	145	170	32	111000	238000	1900	2700	1120
	NK145/42	145	170	42	153000	360000	1900	2700	1490

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HK Series



HK

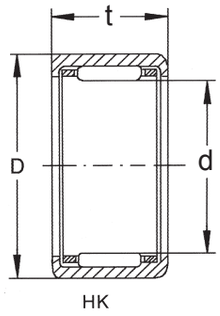
Drawn Cup Needle Roller Bearings

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
4	HK0408TN	4	8	8	1540	1070	24000	40000	1.6
5	HK0509TN	5	9	9	2200	1790	22000	36000	2
6	HK0608	6	10	8	1830	1550	20000	32000	2.1
	HK0609	6	10	9	2650	2400	18000	30000	2.2
7	HK0709	7	11	9	2800	2150	16000	27000	2.3
8	HK0808	8	12	8	2550	2400	13000	21000	2.7
	HK0814	8	12	10	3700	3450	13000	21000	3
9	HK0908	9	13	8	3650	4050	15000	25000	3
	HK0910	9	13	10	4050	4250	15000	25000	4
	HK0912	9	13	12	5000	6000	15000	25000	4.6
10	HK1010	10	14	10	3900	4800	11500	19000	4.1
	HK1012	10	14	12	5000	6300	11500	19000	4.8
	HK1015	10	14	15	6700	7800	11500	19000	6
12	HK1210	12	16	10	4150	5800	11500	19000	4.6
	HK1212	12	18	12	3800	5100	9000	15000	5.6
13	HK1312	13	19	12	6200	7100	11000	17000	8.9
14	HK1412	14	20	12	7800	7500	9600	16000	10.5
15	HK1512	15	21	12	7000	8400	8400	14000	11.1
	HK1516	15	21	16	9800	11400	8400	14000	15
	HK1522	15	21	22	10400	16500	8400	14000	20.4
16	HK1612	16	22	12	7100	9200	8400	14000	11.7
	HK1616	16	22	16	10100	14300	8400	14000	15.8
	HK1622	16	22	22	11100	17400	8400	14000	21.7
17	HK1712	17	23	12	6900	9300	7800	13000	12.2
	HK1714	17	23	14	6800	10200	6000	10000	14
	HK1718	17	23	18	9500	10600	6000	10000	19
18	HK1812	18	24	12	7100	9900	7200	12000	13.1
	HK1816	18	24	16	106500	15300	7200	12000	17.5
20	HK2010	20	26	10	5900	7200	6000	10000	11.8
	HK2012	20	26	12	7600	10100	6000	10000	14.1
	HK2014	20	26	14	9700	18100	5400	9000	15.7
	HK2016	20	26	16	11700	29100	6000	10000	19.3
	HK2018	20	26	18	7900	12800	5400	9000	23.3
	HK2020	20	26	20	13700	24000	6000	10000	24.1
	HK2025	20	26	25	9100	14800	6000	9900	28
	HK2030	20	26	30	21800	40000	6100	10100	34.7

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Drawn Cup Needle Roller Bearings

HK Series

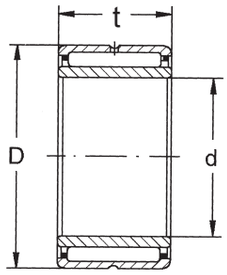


HK

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
22	HK2210	22	28	10	7200	9500	6000	10010	12.3
	HK2212	22	28	12	8100	10400	6000	10010	15
	HK2216	22	28	16	11400	18100	6000	10010	20.9
	HK2220	22	28	20	14500	25000	6000	10010	26.2
25	HK2512	25	32	12	10000	14200	5400	9000	22
	HK2514	25	32	14	13600	18700	5400	9000	21.9
	HK2516	25	32	16	13600	20000	5400	9000	27.2
	HK2518	25	32	18	17500	25800	5400	9000	28.2
	HK2520	25	32	20	17900	30000	5400	9000	34.1
	HK2525	25	32	25	22200	36700	5400	9000	40
	HK2526	25	32	26	22500	42000	5400	9000	44.8
	HK2538	25	32	38	30000	58000	5400	9000	64.7
28	HK2816	28	35	16	15400	22500	5220	8700	30.1
	HK2818	28	35	18	18500	29300	5220	8700	31.7
	HK2820	28	35	20	18900	32000	5220	8700	37.6
30	HK3012	30	37	12	10100	16200	4850	8100	24
	HK3016	30	37	16	15200	27000	4850	8100	32
	HK3018	30	37	18	19200	31500	4850	8100	33.6
	HK3020	30	37	20	19700	33500	4850	8100	40.1
	HK3026	30	37	26	24000	50000	4850	8100	52.9
	HK3038	30	37	38	32500	74000	4850	8100	76.1
32	HK3224	32	38	24	25500	52000	4300	7300	50.7
	HK3232	32	39	32	22600	54300	4300	7100	66.4
35	HK3512	35	42	12	12100	19300	4300	7100	27.2
	HK3516	35	42	16	15700	27500	4300	7100	36.9
	HK3520	35	42	20	20800	41000	4300	7100	46.1
40	HK4012	40	47	12	14000	24300	3800	6300	31.1
	HK4016	40	47	16	20000	38500	3800	6300	41.1
	HK4020	40	47	20	25500	52000	3800	6300	51.8
45	HK4512	45	52	12	12900	22500	3500	5800	34.8
	HK4516	45	52	16	19300	38000	3500	5800	50
	HK4520	45	52	20	22000	51000	3500	5800	56
50	HK5020	50	58	20	28000	60000	3500	5300	72
	HK5025	50	58	25	29500	80000	3500	5300	90
55	HK5520	55	63	20	33200	60000	2700	4500	107
	HK5528	55	63	28	39100	98000	2700	4500	111
60	HK6012	60	68	12	12400	29000	2400	4000	49.2
	HK6020	60	68	20	30500	72000	2400	4000	86
	HK6032	60	68	32	50000	131000	2400	4000	134

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NKI Series



NKI

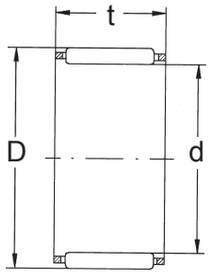
Needle Roller Bearings With Inner Ring

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
10	NKI 10/16	10	22	16	10000	11500	16000	24000	29.4
12	NKI 12/16	12	24	16	12000	13900	15000	23000	33
	NKI 12/20	12	24	20	14600	18800	15000	23000	42
15	NKI 15/16	15	27	16	13000	17000	14000	21000	38.8
	NKI 15/20	15	27	20	16000	22000	14000	21000	48.7
17	NKI 17/16	17	29	16	13700	18700	13000	19000	42
	NKI 17/20	17	29	20	17100	25500	13000	19000	53
20	NKI 20/16	20	32	16	15200	22300	11000	17000	49
	NKI 20/20	20	32	20	19500	30500	11000	17000	61
22	NKI 22/16	22	34	16	15600	23000	10000	15000	52
	NKI 22/20	22	34	20	19000	30000	10000	15000	65.4
25	NKI 25/20	25	38	20	22000	34000	9500	14000	79.4
	NKI 25/30	25	38	30	32500	57000	9500	14000	124
28	NKI 28/20	28	42	20	23000	37000	8500	13000	96
	NKI 28/30	28	42	30	34000	63000	8500	13000	146
30	NKI 30/20	30	45	20	24800	41500	7500	12000	112
	NKI 30/30	30	45	30	36000	66500	7500	12000	170
32	NKI 32/20	32	47	20	25000	43000	7500	11000	118
	NKI 32/30	32	47	30	36000	69500	7500	11000	180
35	NKI 35/20	35	50	20	26000	47000	6500	11000	127
	NKI 35/30	35	50	30	38000	76000	65000	10000	193
38	NKI 38/20	38	53	20	27500	51000	6500	9500	136
	NKI 38/30	38	53	30	40000	82000	6500	9500	207
40	NKI 40/20	40	55	20	28000	52000	6000	9000	142
	NKI 40/30	40	55	30	41000	85000	6000	9000	216
42	NKI 42/20	42	57	20	28800	55500	5500	9500	148
	NKI 42/30	42	57	30	42500	91500	5500	9500	222
45	NKI 45/25	45	62	25	38500	74500	5500	8500	229
	NKI 42/35	45	62	35	51000	106000	5500	8500	322
50	NKI 50/25	50	68	25	40000	82000	5000	7500	270
	NKI 50/35	50	68	35	54000	118000	5000	7500	379
55	NKI 55/25	55	72	25	41000	85000	4300	7500	271
	NKI 55/35	55	72	35	57000	130000	4300	7500	379
60	NKI 60/25	60	82	25	44500	89000	4000	7000	394
	NKI 60/35	60	82	35	63000	139000	4000	7000	553
65	NKI 65/25	65	90	25	54000	100000	3700	6500	467
	NKI 65/35	65	90	35	76000	156000	3700	6500	659
70	NKI 70/25	70	95	25	57000	119000	3300	6000	521
	NKI 70/35	70	95	35	79000	184000	3300	6000	737
75	NKI 75/25	75	105	25	71000	123000	3100	5000	641
	NKI 75/35	75	105	35	100000	193000	3100	5000	908
80	NKI 80/25	80	110	25	71000	128000	2900	4700	677
	NKI 80/35	80	110	35	104000	208000	2900	4700	959
85	NKI 85/26	85	115	26	74500	137000	2800	4500	743
	NKI 85/36	85	115	36	108000	223000	2800	4500	1040
90	NKI 90/26	90	120	26	73000	137000	2700	4400	778
	NKI 90/36	90	120	36	107000	223000	2700	4400	1090
95	NKI 95/26	95	125	26	76500	147000	2500	4000	816
	NKI 95/36	95	125	36	111000	238000	2500	4000	1145
100	NKI 100/30	100	130	30	97500	204000	2400	4000	990
	NKI 100/40	100	130	40	129000	290000	2400	4000	1330
110	NKI 110/44	110	150	40	131000	290000	2100	3700	2070

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Radial Needle Roller and Cage Assemblies



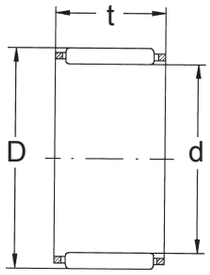
K

K Series

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
8	K8X11X8	8	11	8	3150	3000	21000	32000	1.1
	K8X11X10	8	11	10	4000	4100	21000	32000	1.3
	K8X11X13	8	11	13	4850	5200	21000	32000	2,6
	K8X12X10	8	12	10	4650	4150	21000	32000	2.0
	K8X12X12	8	12	12	5600	5300	21000	32000	3.4
	K8X12X13	8	12	13	5600	5300	21000	32000	3.6
9	K9X12X10	9	12	10	4550	5000	20000	30000	1.5
	K9X12X13	9	12	13	5500	6400	20000	30000	2.1
10	K10X13X10	10	13	10	4550	5100	19000	28000	1.6
	K10X13X13	10	13	13	5450	6450	19000	28000	3.1
	K10X14X10	10	14	10	5500	5450	19000	28000	3.4
	K10X14X8	10	14	8	4300	3950	19000	28000	2.7
	K10X14X13	10	14	13	6600	6900	19000	28000	4.4
	K10X16X12	10	16	12	7100	5950	19000	28000	6.6
11	K11X14X10	11	14	10	5000	6000	18000	27000	2.8
12	K12X15X9	12	15	9	4450	5250	17000	26000	2.7
	K12X15X10	12	15	10	5000	6100	17000	26000	3.3
	K12X15X12	12	15	12	6000	7700	17000	26000	3.8
	K12X15X20	12	15	20	8500	1200	17000	26000	5.9
	K12X16X13	12	16	13	7500	8500	17000	26000	5.5
	K12X17X13	12	17	13	9000	9400	17000	26000	7.5
	K12X18X12	12	18	12	8600	8000	17000	26000	8.4
14	K14X17X10	14	17	10	5400	7000	16000	24000	K14
	K14X18X13	14	18	13	8300	10000	16000	24000	6.3
	K14X18X15	14	18	15	9600	12000	16000	24000	7.6
	K14X18X17	14	18	17	10900	14400	16000	24000	8.1
	K14X19X13	14	19	13	8950	9650	16000	24000	8
	K14X20X12	14	20	12	9350	9150	16000	24000	9.5
	K14X20X17	14	20	17	13500	14600	16000	24000	14
15	K15X18X14	15	18	14	7850	11600	15000	23000	6
	K15X19X17	15	19	17	10900	14600	15000	23000	9
	K15X20X13	15	20	13	10100	11500	15000	23000	8.8
	K15X21X17	15	21	17	15100	17200	15000	23000	14
	K15X21X21	15	21	21	16500	19100	15000	23000	17
16	K16X20X13	16	20	13	9000	11800	15000	23000	7.1
	K16X20X17	16	20	17	11900	16800	15000	23000	9.2
	K16X22X13	16	22	13	12600	13900	15000	23000	11
	K16X22X16	16	22	16	14200	16000	15000	23000	14
	K16X22X20	16	22	20	16000	18800	15000	23000	17
17	K17X21X13	17	21	13	9400	12600	15000	22000	7.5
	K17X21X17	17	21	17	11800	16900	15000	22000	9.5
	K17X22X20	17	22	20	14700	19200	15000	22000	15
	K17X23X17	17	23	17	14000	16000	15000	22000	16
18	K18X22X13	18	22	13	8900	11900	14000	21000	7.7
	K18X22X17	18	22	17	11700	17000	14000	21000	11
	K18X23X20	18	23	20	14600	19000	14000	21000	15
	K18X24X13	18	24	13	11600	12800	14000	21000	13
	K18X24X20	18	24	20	17000	20900	14000	21000	19
	K18X25X17	18	25	17	18000	20400	14000	21000	19
	K18X25X20	18	25	20	22000	26600	14000	21000	24
19	K19X23X13	19	23	13	9600	13500	14000	21000	8.2
	K19X23X17	19	23	17	12700	19200	14000	21000	11

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K Series



K

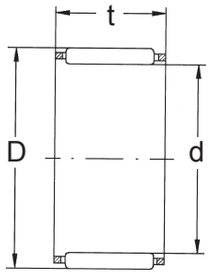
Radial Needle Roller and Cage Assemblies

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
20	K20X24X10	20	24	10	8300	11200	13000	20000	6.5
	K20X24X17	20	24	17	13200	20400	13000	20000	11
	K20X26X13	20	26	13	14000	16700	13000	20000	12
	K20X26X20	20	26	20	20600	27600	13000	20000	19
	K20X28X25	20	28	25	27000	32500	13000	20000	37
21	K21X25X13	21	25	13	10300	15000	13000	19000	9
	K21X25X17	21	25	17	13600	21500	13000	19000	12
22	K22X26X17	22	26	17	13500	21600	12000	18000	12
	K22X28X17	22	28	17	17700	23000	12000	18000	20
	K22X29X16	22	29	16	18700	22700	12000	18000	22
	K22X30X15	22	30	15	19300	21700	12000	18000	22
24	K24X28X13	24	28	13	10800	16800	11000	17000	10
	K24X28X17	24	28	17	14300	23900	11000	17000	13
	K24X29X13	24	29	13	12300	16900	11000	17000	12
	K24X30X17	24	30	17	18400	25000	11000	17000	22
25	K25X29X17	25	29	17	14200	24000	11000	16000	14
	K25X30X13	25	30	13	13200	18800	11000	16000	13
	K25X30X20	25	30	20	19400	31000	11000	16000	21
	K25X31X14	25	31	14	16500	22100	11000	16000	18
	K25X31X21	25	31	21	22500	33000	11000	16000	26
	K25X32X16	25	32	16	19500	24700	11000	16000	25
	K25X33X24	25	33	24	34500	47000	11000	16000	40
26	K26X30X17	26	30	17	15500	27400	10000	15000	15
	K26X34X22	26	34	22	24200	30000	10000	15000	41
28	K28X32X21	28	32	21	18700	35500	9500	14000	20
	K28X33X17	28	33	17	18300	29800	9500	14000	20
	K28X33X27	28	33	27	28300	52000	9500	14000	32
	K28X34X17	28	34	17	18000	25800	9500	14000	24
	K28X35X18	28	35	18	21500	28900	9500	14000	31
30	K30X35X20	30	35	20	21600	37500	8500	13000	25
	K30X35X27	30	35	27	29900	57000	8500	13000	33
	K30X36X14	30	36	14	18600	27400	8500	13000	22
	K30X37X18	30	37	18	23300	33000	8500	13000	34
	K30X37X20	30	37	20	26200	38000	8500	13000	38
	K30X38X18	30	38	18	25000	33000	8500	13000	36
32	K32X36X15	32	36	15	14300	26400	8500	13000	17
	K32X37X17	32	37	17	19200	33000	8500	13000	22
	K32X37X27	32	37	27	29600	57500	8500	13000	37
	K32X38X20	32	38	20	25100	41000	8500	13000	31
	K32X38X26	32	38	26	31500	54000	8500	13000	41
	K32X39X16	32	39	16	22600	32000	8500	13000	34
	K32X39X20	32	39	20	26800	40000	8500	13000	41
35	K35X40X17	35	40	17	20000	36000	7500	11000	25
	K35X41X15	35	41	15	20900	33500	7500	11000	27
	K35X42X20	35	42	20	28500	44500	7500	11000	41
	K35X42X30	35	42	30	39500	68000	7500	11000	62
37	K37X42X27	37	42	27	32500	67500	7500	11000	41
	K37X44X18	37	44	18	26300	41000	7500	11000	42
38	K38X43X27	38	43	27	32000	67500	7500	11000	43
	K38X46X20	38	46	20	34000	52000	7500	11000	46
	K38X46X32	38	46	32	54000	95500	7500	11000	73

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Radial Needle Roller and Cage Assemblies



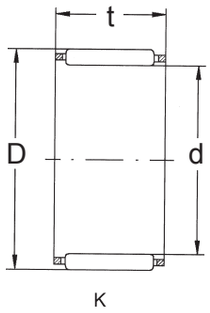
K

K Series

Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
40	K40X45X17	40	45	17	21800	41500	6500	10000	27
	K40X45X21	40	45	21	26700	54000	6500	10000	37
	K40X45X27	40	45	27	33500	72500	6500	10000	44
	K40X46X17	40	46	17	24600	43000	6500	10000	30
	K40X47X20	40	47	20	31000	51500	6500	10000	48
	K40X48X20	40	48	20	33000	51000	6500	10000	52
	K40X48X25	40	48	25	42500	71000	6500	10000	65
42	K42X47X27	42	47	27	34000	75500	6500	9500	47
	K42X48X17	42	48	17	25700	46000	6500	9500	36
	K42X50X20	42	50	20	34000	53500	6500	9500	54
43	K43X48X17	43	48	17	22000	43000	6500	9500	29
	K43X48X27	43	48	27	34000	75500	6500	9500	46
	K43X50X18	43	50	18	29100	49000	6500	9500	49
45	K45X50X27	45	50	27	34500	78000	6000	9000	50
	K45X52X18	45	52	18	29700	51000	6000	9000	51
	K45X52X21	45	52	21	32000	56500	6000	9000	61
	K45X53X20	45	53	20	36000	59000	6000	9000	62
	K45X53X25	45	53	25	46500	82000	6000	9000	77
	K45X53X28	45	53	28	49500	90000	6000	9000	78
47	K47X52X27	47	52	27	35500	83000	5500	8500	51
48	K48X54X19	48	54	19	31000	61000	5500	8500	44
50	K50X55X20	55	55	20	27900	62000	5500	8000	42
	K50X55X27	50	55	27	37000	88500	5500	8000	53
	K50X55X30	50	55	30	39500	97000	5500	8000	59
	K50X57X18	50	57	18	31500	57000	5500	8000	53
	K50X58X20	50	58	20	38500	67500	5500	8000	65
	K50X58X25	50	58	25	48500	90000	5500	8000	81
55	K55X60X20	55	60	20	28800	66500	5000	7500	45
	K55X60X30	55	60	30	42000	108000	5000	7500	69
	K55X61X20	55	61	20	33000	69500	5000	7500	54
	K55X61X30	55	61	30	48000	113000	5000	7500	81
	K55X62X18	55	62	18	33500	63000	5000	7500	54
	K55X63X20	55	63	20	39000	70000	5000	7500	73
	K55X63X25	55	63	25	50500	97500	5000	7500	88
	K55X63X30	55	63	30	61000	125000	5000	7500	117
58	K58X64X19	58	64	19	34000	73500	4700	7000	52
60	K60X65X20	60	65	20	29800	71500	4300	6500	51
	K60X65X30	60	65	30	43500	116000	4300	6500	71
	K60X66X20	60	66	20	33500	73500	4300	6500	56
	K60X66X30	60	66	30	49000	119000	4300	6500	84
	K60X68X20	60	68	20	40000	75000	4300	6500	77
	K60X68X23	60	68	23	44500	85000	4300	6500	92
	K60X68X25	60	68	25	52000	105000	4300	6500	97
61	K61X66X20	61	66	20	29700	71500	4300	6500	54
	K61X66X30	61	66	30	43500	116000	4300	6500	73
65	K65X70X20	65	70	20	30500	75000	4000	6000	55
	K65X70X30	65	70	30	45000	124000	4000	6000	83
	K65X73X23	65	73	23	47000	94000	4000	6000	100
	K65X73X30	65	73	30	61000	132000	4000	6000	126
68	K68X74X20	68	74	20	36000	83500	4000	6000	65
	K68X74X30	68	74	30	51500	133000	4000	6000	97
	K68X75X21	68	75	21	45500	101000	4000	6000	77

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K Series



K

Radial Needle Roller and Cage Assemblies

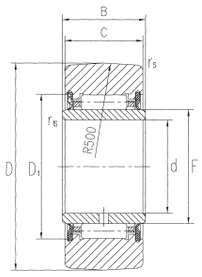
Shaft Diameter (mm)	Bearing Number	Dimensions(mm)			Basic Load Ratings(N)		Limiting Speeds(rpm)		Weight (g)
		d	D	t	Dynamic	Static	Grease	Oil	
70	K70X76X20	70	76	20	36500	86000	3700	5500	70
	K70X76X30	70	76	30	53000	139000	3700	5500	100
	K70X77X21	70	77	21	45000	101000	3700	5500	80
	K70X78X23	70	78	23	49500	103000	3700	5500	107
	K70X78X30	70	78	30	65500	149000	3700	5500	136
75	K75X81X20	75	81	20	40500	100000	3700	5500	64
	K75X81X30	75	81	30	56000	152000	3700	5500	108
	K75X82X21	75	82	21	46000	106000	3700	5500	88
	K75X83X23	75	83	23	50500	109000	3700	5500	113
	K75X83X30	75	83	30	67500	157000	3700	5500	147
80	K80X86X20	80	86	20	39000	98000	3300	5000	77
	K80X86X30	80	86	30	57000	159000	3300	5000	110
	K80X88X20	80	88	20	53000	118000	3300	5000	125
	K80X88X26	80	88	26	61000	142000	3300	5000	131
	K80X88X30	80	88	30	69000	166000	3300	5000	151
82	K82X89X20	82	89	20	55000	12000	3300	5000	130
85	K85X92X20	85	92	20	47500	115000	3100	4700	83
	K85X92X30	85	92	30	66000	176000	3100	4700	142
	K85X93X27	85	93	27	64000	153000	3100	4700	145
	K85X93X30	85	93	30	71000	175000	3100	4700	160
84	K84X92X20	84	92	20	55000	12000	3300	5000	126
90	K90X97X20	90	97	20	46000	113000	2900	4400	103
	K90X97X30	90	97	30	67800	184000	2900	4400	151
	K90X98X26	90	98	26	64000	157000	2900	4400	148
	K90X98X27	90	98	27	64000	157000	2900	4400	150
	K90X98X30	90	98	30	72500	184000	2900	4400	172
95	K95X102X20	95	102	20	48000	122000	2800	4200	115
	K95X102X30	95	102	30	70500	199000	2800	4200	172
	K95X103X27	95	103	27	65500	165000	2800	4200	159
	K95X103X30	95	103	30	74000	193000	2800	4200	165
99	K99X107X20	99	107	20	74000	20000	2700	4000	112
100	K100X107X21	100	107	21	49000	127000	2700	4000	120
	K100X107X31	100	107	31	71500	207000	2700	4000	173
	K100X108X27	100	108	27	6100	153000	2700	4000	176
	K100X108X30	100	108	30	7600	201000	2700	4000	198
101	K101X109X20	101	109	20	77000	22000	2700	4000	182

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Needle Roller Bearings

NA22 Series

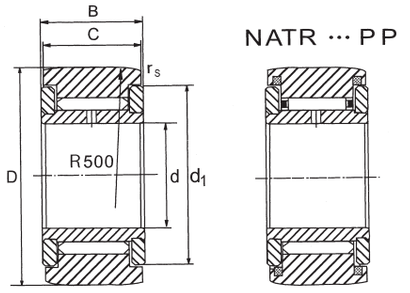


NA22

Bearing Number	Dimensions (mm)								Basic Load Ratings (N)		Limiting Speed Grease	Weight g
	D	d	$F^{1)}$ F^{w}	B	C	r_s min.	r_{1s}	D^{t}	*Cr*	*Cor*	min^{-1}	
NA 2200.2RS	30	10	14	14	13.8	0.6	0.3	20	7800	8300	11000	60
NA 2201.2RS	32	12	16	14	13.8	0.6	0.3	22	8700	9900	9500	67
NA 2202.2RS	35	15	20	14	13.8	0.6	0.3	26	9800	12300	7000	75
NA 2203.2RS	40	17	22	16	15.8	0.6	0.3	28	12200	16700	6000	112
NA 2204.2RS	47	20	25	18	17.8	1	0.3	33	18900	22300	4600	117
NA 2205.2RS	52	25	30	18	17.8	1	0.3	38	21100	27000	3500	209
NA 2206.2RS	62	30	35	20	19.8	1	0.3	43	23300	32000	2800	324
NA 2207.2RS	72	35	42	23	22.7	1.1	0.6	50	30000	46500	2200	505
NA 2208.2RS	80	40	48	23	22.7	1.1	0.6	57	38500	58000	1700	628
NA 2209.2RS	85	45	52	23	22.7	1.1	0.6	62	40500	64000	1600	655
NA 2210.2RS	90	50	58	23	22.7	1.1	0.6	68	42500	70000	1300	690

Yoke Type Track Rollers With Axial Guidance

NATV Series



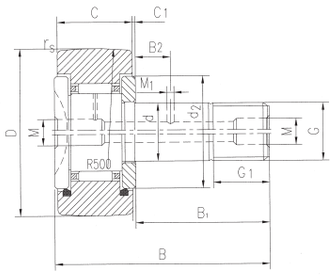
NATV NATV ··· PP

Outside Diameter mm	Item Number		Dimensions (mm)						Basic Load Ratings (N)		Limiting Speed[1] n_1 oil ≈	Weight g
			d	D	B	C	r_s	d_1 min	*Cr*	*Cor*	min^{-1}	
16	**NATV5**	**NATV5PP**	5	16	12	11	0.15	12	3800	3750	*22000	14
19	**NATV6**	**NATV6PP**	6	19	12	11	0.15	14	7300	10800	7000	21
24	**NATV8**	**NATV8PP**	8	24	15	14	0.3	19	10400	15600	5500	42
30	**NATV10**	**NATV10PP**	10	30	15	14	0.6	23	12200	19000	4500	65
32	**NATV12**	**NATV12PP**	12	32	15	14	0.6	25	13200	21700	3900	72
35	**NATV15**	**NATV15PP**	15	35	19	18	0.6	27	18300	35000	3400	105
40	**NATV17**	**NATV17PP**	17	40	21	20	1	32	21000	39500	2900	152
47	**NATV20**	**NATV20PP**	20	47	25	24	1	37	28000	59000	2600	254
52	**NATV25**	**NATV25PP**	25	52	25	24	1	42	31000	72000	2100	285
62	**NATV30**	**NATV30PP**	30	62	29	28	1	51	48500	108000	1700	481
72	**NATV35**	**NATV35PP**	35	72	29	28	1.1	58	53000	127000	1400	647
80	**NATV40**	**NATV40PP**	40	80	32	30	1.1	66	66000	159000	1300	890
90	**NATV50**	**NATV50PP**	50	90	32	30	1.1	76	72000	191000	1000	990

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KR Series

KR



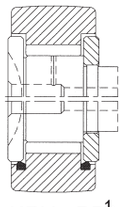
KR...PP

Stud Type Track Rollers

Outside Diameter mm	Item Number	Dimensions (mm)													Nut Tighening Torque M_A N_m	Basic Load Ratings (N)		Limiting Speed min^{-1}	Weight g
		D	d	C	r_s min	B	B_1	B_2	G	G_1	M	M_1	C_1	d_2		*Cr*	*Cor*		
16	**KR16PP**	16	6	11	0.15	28	16	-	M6	8	4[5]	-	0.6	12	3	3800	3750	16000	18
19	**KR19PP**	19	8	11	0.15	32	20	-	M8	10	4[5]	-	0.6	14	8	4250	4600	14000	28
22	**KR22PP**	22	10	12	0.3	36	23	-	M10X1	12	4	-	0.6	17	15	5700	6500	11000	44
26	**KR26PP**	26	10	12	0.3	36	23	-	M10X1	12	4	3	0.6	17	15	5700	6500	11000	58
30	**KR30PP**	30	12	14	0.6	40	25	6	M12X1.5	13	6	3	0.6	23	22	8100	9700	8300	87
32	**KR32PP**	32	12	14	0.6	40	25	6	M12X1.5	13	6	3	0.8	27	22	8100	9700	8300	98
35	**KR35PP**	35	16	18	0.6	52	32.5	8	M16X1.5	17	6	3	0.8	27	58	12900	19000	7000	169
40	**KR40PP**	40	18	20	1	58	36.5	8	M18X1.5	19	6	3	0.8	32	87	14200	20400	6000	247
47	**KR47PP**	47	20	24	1	66	40.5	9	M20X1.5	21	8	4	0.8	37	120	19500	32000	4900	386
52	**KR52PP**	52	20	24	1	66	40.5	9	M20X1.5	21	8	4	0.8	37	120	19500	32000	4900	461
62	**KR62PP**	62	24	29	1	80	29.5	11	M24X1.5	25	8	4	0.8	44	220	30500	53000	3800	790
72	**KR72PP**	72	24	29	1.1	80	49.5	11	M24X1.5	25	8	4	0.8	44	220	30500	53000	3800	1040
80	**KR80PP**	80	30	35	1.1	100	63	15	M30X1.5	32	8	4	1	53	450	45000	85000	2600	1550
85	**KR85PP**	85	30	35	1.1	100	63	15	M30X1.5	32	8	4	1	53	450	45000	85000	2600	1740
90	**KR90PP**	90	30	35	1.1	100	63	15	M30X1.5	32	8	4	1	53	450	45000	85000	2600	1950

KRV

KRV Series



KRV···PP[1])

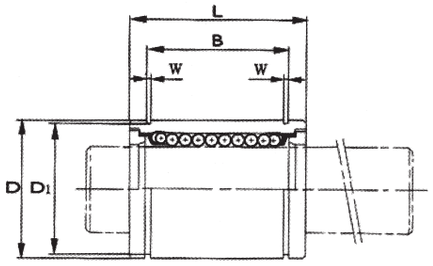
Stud Type Track Rollers

Outside Diameter mm	Item Number	Dimensions (mm)													Nut Tighening Torque M_A N_m	Basic Load Ratings (N)		Limiting Speed min^{-1}	Weight g
		D	d	C	r_s min	B	B_1	B_2	G	G_1	M	M_1	C_1	d_2		*Cr*	*Cor*		
16	**KRV16PP**	16	6	11	0.15	28	16	-	M6	8	4[5]	-	0.6	12	3	6400	8500	8500	20
19	**KRV19PP**	19	8	11	0.15	32	20	-	M8	10	4[5]	-	0.6	14	8	7300	10800	7000	32
22	**KRV22PP**	22	10	12	0.3	36	23	-	M10X1	12	4	-	0.6	17	15	8600	12900	6000	45
26	**KRV26PP**	26	10	12	0.3	36	23	-	M10X1	12	4	3	0.6	17	15	8600	12900	6000	61
30	**KRV30PP**	30	12	14	0.6	40	25	6	M12X1.5	13	6	3	0.6	23	22	12200	19000	4500	89
32	**KRV32PP**	32	12	14	0.6	40	25	6	M12X1.5	13	6	3	0.8	27	22	12200	19000	4500	100
35	**KRV35PP**	35	16	18	0.6	52	32.5[4]	8	M16X1.5	17	6	3	0.8[4]	21[4]	58	23000	27000	6500	164
40	**KRV40PP**	40	18	20	1	58	36.5[4]	8	M18X1.5	19	6	3	0.8[4]	23[4]	87	24800	31000	5500	242
47	**KRV47PP**	47	20	24	1	66	40.5	9	M20X1.5	21	8	4	0.8	37	120	28000	59000	2600	390
52	**KRV52PP**	52	20	24	1	66	40.5	9	M20X1.5	21	8	4	0.8	37	120	28000	59000	2600	465
62	**KRV62PP**	62	24	29	1	80	29.5	11	M24X1.5	25	8	4	0.8	44	220	41500	91000	2200	802
72	**KRV72PP**	72	24	29	1.1	80	49.5	11	M24X1.5	25	8	4	0.8	44	220	41500	91000	2200	1045
80	**KRV80PP**	80	30	35	1.1	100	63	15	M30X1.5	32	8	4	1	53	450	60000	142000	1700	1561
90	**KRV90PP**	90	30	35	1.1	100	63	15	M30X1.5	32	8	4	1	53	450	60000	142000	1700	1970

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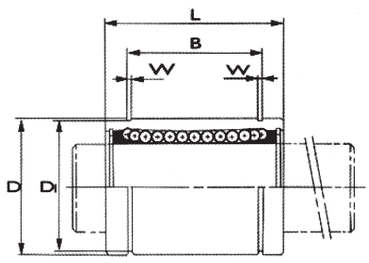
Linear Motion Bearings



LM Series Built-in Synthetic Resin Retainer

Nominal Part No.							Nominal Shaft Diameter(mm)
Standard	Type	Seal Type	Ball Circuit	Weight g	Adjustable Type	Open Type	dr
LM	5	LM 5UU	4	4	–	–	5
LM	6	LM 6UU	4	8	LM 6-AJ	–	6
LM	8S	LM 8SUU	4	11	LM 8S-AJ	–	8
LM	8	LM 8UU	4	16	LM 8-AJ	–	8
LM	10	LM 10UU	4	30	LM 10-AJ	–	10
LM	12	LM 12UU	4	31.5	LM 12-AJ	LM 12-OP	12
LM	13	LM 13UU	4	43	LM 13-AJ	LM 13-OP	13
LM	16	LM 16UU	5	69	LM 16-AJ	LM 16-OP	16
LM	20	LM 20UU	5	87	LM 20-AJ	LM 20-OP	20
LM	25	LM 25UU	6	220	LM 25-AJ	LM 25-OP	25
LM	30	LM 30UU	6	250	LM 30-AJ	LM 30-OP	30
LM	35	LM 35UU	6	390	LM 35-AJ	LM 35-OP	35
							38
LM	40	LM 40UU	6	585	LM 40-AJ	LM 40-OP	40
LM	50	LM 50UU	6	1580	LM 50-AJ	LM 50-OP	50
LM	60	LM 60UU	6	2000	LM 60-AJ	LM 60-OP	60

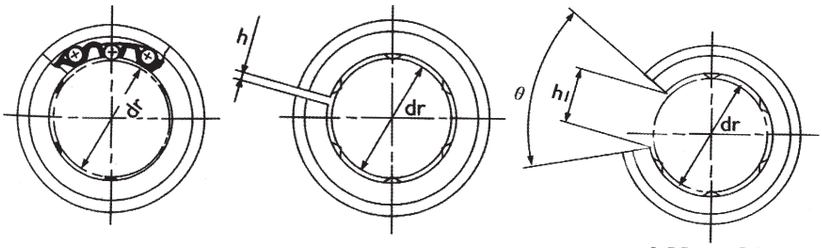
Linear Motion Bearings



LME Series Built-in Synthetic Resin Retainer

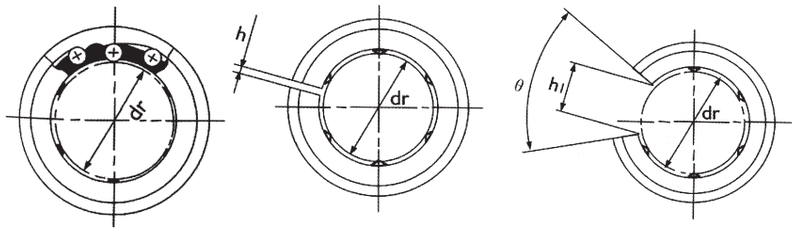
Nominal Part No.							Nominal Shaft Diameter(mm)
Standard	Type	Seal Type	Ball Circuit	Weight g	Adjustable Type	Open Type	dr
LME	5	LME 5UU	3	11	LME 5-AJ		5
LME	8	LME 8UU	4	20	LME 8-AJ		8
LME	12	LME 12UU	4	41	LME 12-AJ	LME 12-OP	12
LME	16	LME 16UU	5	65	LME 16-AJ	LME 16-OP	16
LME	20	LME 20UU	5	91	LME 20-AJ	LME 20-OP	20
LME	25	LME 25UU	6	215	LME 25-AJ	LME 25-OP	25
LME	30	LME 30UU	6	325	LME 30-AJ	LME 30-OP	30
LME	40	LME 40UU	6	705	LME 40-AJ	LME 40-OP	40
LME	50	LME 50UU	6	1130	LME 50X-AJ	LME 50-OP	50
LME	60	LME 60UU	6	2220	LME 60-AJ	LME 60-OP	60

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LM　　LM. . . AJ　　LM. . . OP

Major Dimensions and Tolerance (mm)								Eccentricity (max)	Radial Clearance (max)	Basic Load Ratings		Nominal Part No.
D	L	B	W	D_1	h	h_1	Temp			C kgf	Cor kgf	
10	15	10.2	1.1	9.6	–	–	–	8	-3	17	21	LM 5
12	19	13.5	1.1	11.5	1	–	–	12	-5	21	27	LM 6
15	17	11.5	1.1	14.3	1	–	–	12	-5	18	23	LM 8S
15	24	17.5	1.1	14.3	1	–	–	12	-5	27	41	LM 8
19	29	22	1.3	18	1			12	-5	38	56	LM 10
21	30	23	1.3	20	1.5	8	80°	12	-5	42	61	LM 12
23	32	23	1.3	22	1.5	9	80°	12	-7	52	79	LM 13
28	37	26.5	1.6	27	1.5	11	60°	12	-7	79	120	LM 16
32	42	30.5	1.6	30.5	1.5	11	60°	15	-9	88	140	LM 20
40	59	41	1.85	38	2	12	50°	15	-9	100	160	LM 25
45	64	44.5	1.85	43	2.5	15	50°	15	-9	160	280	LM 30
52	70	49.5	2.1	49	2.5	17	50°	20	-13	170	320	LM 35
60	80	60.5	2.1	57	3	20	50°	20	-13	220	410	LM 40
80	100	74	2.6	76.5	3	25	50°	20	-13	390	810	LM 50
90	110	85	3.15	86.5	3	30	50°	25	-16	480		LM 60



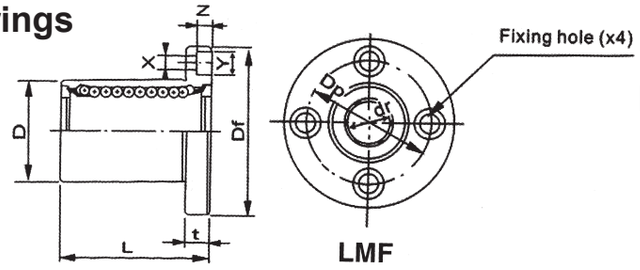
LME　　LME. . . AJ　　LME. . . OP

Major Dimensions and Tolerance (mm)								Eccentricity (max)	Radial Clearance (max)	Basic Load Ratings		Nominal Part No.
D	L	B	W	D_1	h	h_1	Temp			C kgf	Cor kgf	
12	22	14.5	1.1	11.5	1			12	-5	21	27	LME 5
16	25	16.5	1.1	15.2	1			12	-5	27	41	LME 8
22	32	22.9	1.3	21	1.5	7.5	78°	12	-7	52	79	LME 12
26	36	24.9	1.3	24.9	1.5	10	78°	12	-7	59	91	LME 16
32	45	31.5	1.6	30.3	2	10	60°	15	-9	88	140	LME 20
40	58	44.1	1.85	37.5	2	12.5	60°	15	-9	100	160	LME 25
47	68	52.1	1.85	44.5	2	12.5	50°	15	-9	160	280	LME 30
62	80	60.6	2.15	59	3	16.8	50°	17	-13	220	410	LME 40
75	100	77.6	2.65	72	3	21	50°	17	-13	390	810	LME 55
90	125	101.7	3.15	86.5	3	27.2	54°	20	-16	480	1020	LME 60

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Linear Motion Bearings

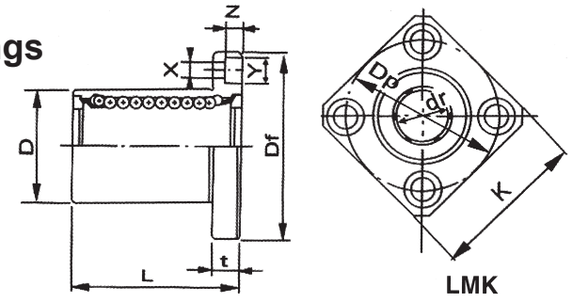


LMF Series Built-in Polyamide Retainer

Nominal Part No.					Major Dimensions and Tolerance (mm)											Eccentricity	Squareness	Basic Load Ratings		Nominal Part No.
Standard	Type	Seal Type	Ball Circuit	Weight g	dr	D	L	Flange										Dynamic CN	Static C_0N	
								Df	t	dP	X	Y	Z			μm	μm			
LMF	6	LMF 6UU	4	24	6	12	19	28	5	20	3.5	6	3.1			12	12	206	265	LMF 6
LMF	8S	LMF 6UU	4	32	8	15	17	32	5	24	3.5	6	3.1			12	12	176	216	LMF 8S
LMF	8	LMF 8SUU	4	37	8	15	24	32	5	24	3.5	6	3.1			12	12	274	392	LMF 8
LMF	10	LMF 10UU	4	72	10	19	29	40	6	29	4.5	7.5	4.1			12	12	372	549	LMF 10
LMF	12	LMF 12UU	4	76	12	21	30	42	6	32	4.5	7.5	4.1			12	12	510	784	LMF 12
LMF	13	LMF 13UU	4	88	13	23	32	43	6	33	4.5	7.5	4.1			12	12	510	784	LMF 13
LMF	16	LMF 16UU	4	120	16	28	37	48	6	38	4.5	7.5	4.1			12	12	774	1,180	LMF 16
LMF	20	LMF 20UU	5	180	20	32	42	54	8	43	5.5	9	5.1			15	15	882	1,370	LMF 20
LMF	25	LMF 25UU	5	340	25	40	59	62	8	51	5.5	9	5.1			15	15	980	1,570	LMF 25
LMF	30	LMF 30UU	6	470	30	45	64	74	10	60	6.6	11	6.1			15	15	1,570	2,740	LMF 30
LMF	35	LMF 35UU	6	650	35	52	70	82	10	67	6.6	11	6.1			20	20	1,670	3,140	LMF 35
LMF	40	LMF 40UU	6	1,060	40	60	80	96	13	78	9	14	8.1			20	20	2,160	4,020	LMF 40
LMF	50	LMF 50UU	6	2,200	50	80	100	116	13	98	9	14	8.1			20	20	3,820	7,900	LMF 50
LMF	60	LMF 60UU	6	3,000	60	90	110	134	18	112	11	17	11.1			25	25	4,700	10,000	LMF 60

SI Unit 1N=0.102kgf

Linear Motion Bearings



LMK Series Built-in Polyamide Retainer

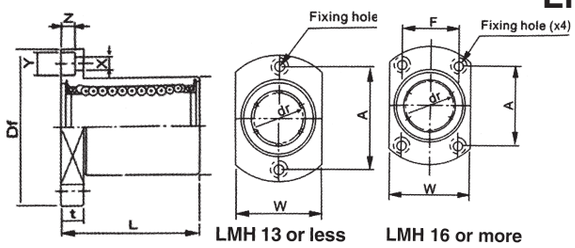
Nominal Part No.					Major Dimensions and Tolerance											Eccentricity	Squareness	Basic Load Ratings		Nominal Part No.
Standard	Type	Seal Type	Ball Circuit	Weight g	dr	D	L	Flange										Dynamic CN	Static C_0N	
								Df	K	t	DP	X	Y	Z		μm	μm			
LMK	6	LMK 6UU	4	24	6	12	19	28	22	5	20	3.5	6	3.1		12	12	206	265	LMK 6
LMK	8S	LMK 6UU	4	32	8	15	17	32	25	5	24	3.5	6	3.1		12	12	176	216	LMK 8S
LMK	8	LMK 8SUU	4	37	8	15	24	32	25	5	24	3.5	6	3.1		12	12	274	392	LMK 8
LMK	10	LMK 10UU	4	72	10	19	29	40	30	6	29	4.5	7.5	4.1		12	12	372	549	LMK 10
LMK	12	LMK 12UU	4	76	12	21	30	42	32	6	32	4.5	7.5	4.1		12	12	510	784	LMK 12
LMK	13	LMK 13UU	4	88	13	23	32	43	34	6	33	4.5	7.5	4.1		12	12	510	784	LMK 13
LMK	16	LMK 16UU	5	120	16	28	37	48	37	6	38	4.5	7.5	4.1		12	12	774	1,180	LMK 16
LMK	20	LMK 20UU	5	180	20	32	42	54	42	8	43	5.5	9	5.1		15	15	882	1,370	LMK 20
LMK	25	LMK 25UU	5	340	25	40	59	62	50	8	51	5.5	9	5.1		15	15	980	1,570	LMK 25
LMK	30	LMK 30UU	6	470	30	45	64	74	58	10	60	6.6	11	6.1		15	15	1,570	2,740	LMK 30
LMK	35	LMK 35UU	6	650	35	52	70	82	64	10	67	6.6	11	6.1		20	20	1,670	3,140	LMK 35
LMK	40	LMK 40UU	6	1,060	40	60	80	96	75	13	78	9	14	8.1		20	20	2,160	4,020	LMK 40
LMK	50	LMK 50UU	6	2,200	50	80	100	116	92	13	98	9	14	8.1		20	20	3,820	7,900	LMK 50
LMK	60	LMK 60UU	6	3,000	60	90	110	134	106		112	11	17	11.1		25	25	4,700	10,000	LMK 60

SI Unit 1N=0.102kgf

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LMH Series Built-in Polyamide Retainer

Linear Motion Bearings



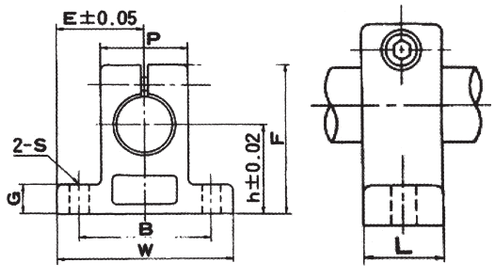
LMH 13 or less LMH 16 or more

Nominal Part No.					Major Dimensions and Tolerance											Eccentricity	Squareness	Basic Load Ratings		Nominal Part No.
Standard	Type	Seal Type	Ball Circuit	Weight g	dr	D	L	Flange										Dynamic CN	Static C_0N	
								Df	W	t	A	F	X	Y	Z	μm	μm			
LMH	6	LMH 6UU	4	21	6	12	19	28	18	5	20		3.5	6	3.1	12	12	206	265	LMH 6
LMH	8	LMH 8UU	4	33	8	15	24	32	21	5	24		3.5	6	3.1	12	12	274	392	LMH 8
LMH	10	LMH 10UU	4	64	10	19	29	40	25	6	29		4.5	7.5	4.1	12	12	372	549	LMH 10
LMH	12	LMH 12UU	4	68	12	21	30	42	27	6	32		4.5	7.5	4.1	12	12	510	784	LMH 12
LMH	13	LMH 13UU	4	88	13	23	32	43	29	6	33		4.5	7.5	4.1	12	12	510	784	LMH 13
LMH	16	LMH 16UU	5	112	16	28	37	48	34	6	31		4.5	7.5	4.1	12	12	774	1,180	LMH 16
LMH	20	LMH 20UU	5	167	20	32	42	54	38	8	36		5.5	9	5.1	15	15	882	1,370	LMH 20
LMH	25	LMH 25UU	6	325	25	40	59	62	46	8	40		5.5	9	5.1	15	15	980	1,570	LMH 25
LMH	30	LMH 30UU	6	388	30	45	64	74	51	10	49		6.6	11	6.1	15	15	1,570	2,740	LMH 30

SI Unit 1N=0.102kgf

Shaft Holder SK Series

Linear Motion Bearings



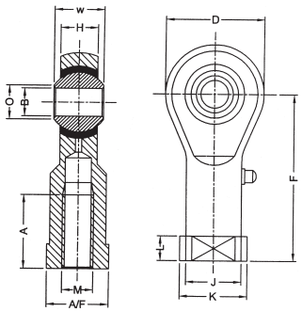
Unit：mm

Nominal Shaft Diameter	Part No.	Major Dimensions									Clamping bolt designation	Mounting bolt designation	Weight g
		h	E	W	L	F	G	P	B	S			
8	SK 8A	20	21	42	14	32.8	6	18	32	5.5	M4	M5	24
10	SK 10A	20	21	42	14	32.8	6	18	32	5.5	M4	M5	24
12	SK 12A	23	21	42	14	37.5	6	20	32	5.5	M4	M5	30
13	SK 13A	23	21	42	14	37.5	6	20	32	5.5	M4	M5	30
16	SK 16A	27	24	48	16	44	8	25	38	5.5	M4	M5	40
20	SK 20A	31	30	60	20	51	10	30	45	6.6	M5	M6	70
25	SK 25A	35	35	70	24	60	12	38	56	6.6	M6	M6	130
30	SK 30A	42	42	84	28	70	12	44	64	9	M6	M8	180
35	SK 35A	50	49	98	32	82	15	50	74	11	M8	M10	270
40	SK 40A	60	57	114	36	96	15	60	90	11	M8	M10	420
50	SK 50A	70	63	126	40	120	18	74	100	14	M12	M12	750
60	SK 60A	80	74	148	45	136	18	90	120	14	M12	M12	1,100

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Rod End



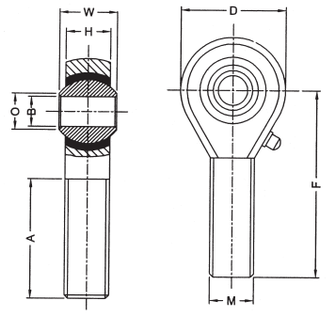
PHS Series

Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	J	L	A/F	A	Thread M	Permit of Angel α	Radial	Axial	
PHS 5 R/L H.	5	8	7.7	6	16	27	11	9	4	9	12	5X0.8	13	5.7	1.5	18
6	6	9	8.9	7	18	30	13	10	5	11	14	6X1.0	13	7	2	27
8F	8	12	10.4	9	22	36	16	12.5	5	14	17	8X1.0	13	11.6	3.5	46
8	8	12	10.4	9	22	36	16	12.5	5	14	17	8X1.25	13	11.6	3.5	46
10F	10	14	12.9	11	26	43	19	15	6.5	17	21	10X1.25	13	14.5	4.8	78
10	10	14	12.9	11	26	43	19	15	6.5	17	21	10X1.5	13	14.5	4.8	78
12F	12	16	15.4	12	30	50	22	17.5	6.5	19	24	12X1.25	13	17	6.5	115
12	12	16	15.4	12	30	50	22	17.5	6.5	19	24	12X1.75	13	17	6.5	115
14F	14	19	16,8	14	34	57	25	20	8	21	27	14X1.5	15	24	8.2	170
14	14	19	16.8	14	34	57	25	20	8	21	27	14X2.0	15	24	8.2	170
16F	16	21	19.3	15	38	64	27	22	8	22	33	16X1.5	15	28.5	10	230
16	16	21	19.3	15	38	64	27	22	8	22	33	16X2.0	15	28.5	10	230
18	18	23	21.8	17	42	71	31	25	10	27	36	18X1.5	15	35	12.5	320
20	20	25	24.3	18	46	77	34	27.5	10	30	40	20X1.5	15	40	15	420
22	22	28	25.8	20	50	84	37	30	12	32	43	22X1.5	15	52	18	540
25	25	31	29.6	22	56	94	42	33.5	12	48	48	24X2.0	15	60	23	750
30	30	37	34.8	26	67	110	50	40	15	56	56	30X2.0	15	81	30	1130

PHS 1/4 R/L H.	6.35	9	8.9	7	18	30	13	10	5	11	14	1/4-28UNF	13	7	2	27
5/15	7.94	12	10.4	9	22	36	16	12.5	5	14	17	5/16-24UNF	13	11.6	3.5	46
3/8	9.53	14	12.9	11	26	43	19	15	6.5	17	21	3/8-24UNF	13	14.5	4.8	78
1/2	12.70	16	15.4	12	30	50	22	17.5	6.5	19	24	1/2-20UNF	13	17	6.5	115
5/8	15.88	21	19.3	15	38	64	27	22	8	22	33	5/18-18UNF	15	28.5	10	230
3/4	19.05	23	21.8	17	42	71	31	25	10	27	36	3/4-16UNF	15	35	12.5	320

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POS Series



Rod End

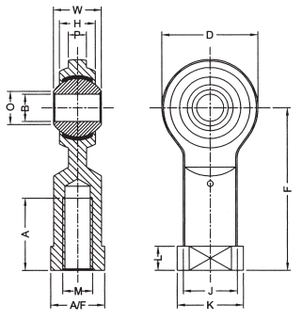
Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	J	L	A/F	A	Thread M	Permit of Angel α	Radial	Axial	
POS 5 R/L H.	5	8	7.7	6	16	33	-	-	-	-	20	5X0.8	13	5.7	1.5	14
6	6	9	8.9	7	18	36	-	-	-	-	22	6X1.0	13	7	2	21
8F	8	12	10.4	9	22	42	-	-	-	-	25	8X1.0	13	11.6	3.5	34
8	8	12	10.4	9	22	42	-	-	-	-	25	8X1.25	13	11.6	3.5	34
10F	10	14	12.9	11	26	48	-	-	-	-	29	10X1.25	13	14.5	4.8	58
10	10	14	12.9	11	26	48	-	-	-	-	29	10X1.5	13	14.5	4.8	58
12F	12	16	15.4	12	30	54	-	-	-	-	33	12X1.25	13	17	6.5	92
12	12	16	15.4	12	30	54	-	-	-	-	33	12X1.75	13	17	6.5	92
14F	14	19	16.8	14	34	60	-	-	-	-	36	14X1.5	15	24	8.2	135
14	14	19	16.8	14	34	60	-	-	-	-	36	14X2.0	15	24	8.2	135
16F	16	21	19.3	15	38	66	-	-	-	-	40	16X1.5	15	28.5	10	205
16	16	21	19.3	15	38	66	-	-	-	-	40	16X2.0	15	28.5	10	205
18	18	23	21,8	17	42	72	-	-	-	-	44	18X1.5	15	35	12.5	285
20	20	25	24.3	18	46	78	-	-	-	-	47	20X1.5	15	40	15	370
22	22	28	25.8	20	50	84	-	-	-	-	51	22X1.5	15	52	18	475
25	25	31	29.6	22	56	94	-	-	-	-	57	24X2.0	15	60	23	650
30	30	37	34.8	26	67	110	-	-	-	-	66	30X2.0	15	81	30	1070

POS 1/4 R/L H.	6.35	9	8.9	7	18	36	-	-	-	-	22	1/4-28UNF	13	7	2	46
5/16	7.94	12	10.4	9	22	42	-	-	-	-	25	5/16-24UNF	13	11.6	3.5	34
3/8	9.53	14	12.9	11	26	48	-	-	-	-	29	3/8-24UNF	13	14.5	4.8	58
1/2	12.70	16	15.4	12	30	54	-	-	-	-	33	1/2-20UNF	13	17	5.0	92
5/8	15.88	21	19.3	15	38	66	-	-	-	-	40	5/8-18UNF	15	28.5	10	205
3/4	19.05	23	21.8	17	42	72	-	-	-	-	44	3/4-16UNF	15	35	12.5	285

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FBJ®

Rod End



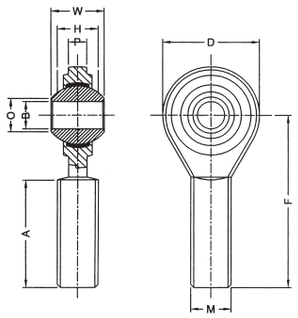
NHS Series

Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	J	P	A/F	A	Thread M	Permit of Angel α	Radial	Axial	
NHS 5 R/L H.	5	8	7.7	5.5	16	27	11	9	3	9	12	5X0.8	13	5.7	1.5	16
6	6	9	8.9	6	18	30	13	10	3.3	11	14	6X1.0	13	7	2	24
8F	8	12	10.4	8	22	36	16	12.5	4.5	14	17	8X1.0	13	11.6	3.5	41
8	8	12	10.4	8	22	36	16	12.5	4.5	14	17	8X1.25	13	11.6	3.5	41
10F	10	14	12.9	10	26	43	19	15	5.5	17	21	10X1.25	13	14.5	4.8	70
10	10	14	12.9	10	26	43	19	15	5.5	17	21	10X1.5	13	14.5	4.8	70
12F	12	16	15.4	11	30	50	22	17.5	6	19	24	12X1.25	13	17	6.5	104
12	12	16	15.4	11	30	50	22	17.5	6	19	24	12X1.75	13	17	6.5	104
14F	14	19	16.8	12	34	57	25	20	7	21	27	14X1.5	15	24	8.2	158
14	14	19	16.8	12	34	57	25	20	7	21	27	14X2.0	15	24	8.2	158
16F	16	21	19.3	13	38	64	27	22	7.5	22	33	16X1.5	15	28.5	10	258
16	16	21	19.3	13	38	64	27	22	7.5	22	33	16X2.0	15	28.5	10	200
18	18	23	21.8	15	42	71	31	25	8.5	27	36	18X1.5	15	35	12.5	288
20	20	25	24.3	16	46	77	34	27.5	9	30	40	20X1.5	15	40	15	372
22	22	28	25.8	18	50	84	37	30	10	32	43	22X1.5	15	52	18	475
25	25	31	29.6	20	56	94	42	33.5	12	36	48	24X2.0	15	60	23	680
30	30	37	34.8	24	67	110	50	40	15	41	56	30X2.0	15	81	30	1020

NHS 1/4 R/L H.	6.35	9	8.9	6	18	30	13	10	3.3	11	14	1/4-28UNF	13	7	2	24
5/16	7.94	12	10.4	8	22	36	16	12.5	4.5	14	17	5/16-24UNF	13	11.6	3.5	41
3/8	9.53	14	12.9	10	26	43	19	15	5.5	17	21	3/8-24UNF	13	14.5	4.8	70
1/2	12.70	16	15.4	11	30	50	22	17.5	6	19	24	1/2-20UNF	13	17	6.5	104
5/8	15.88	21	19.3	13	38	64	27	22	7.5	22	33	5/8-18UNF	15	28.5	10	200
3/4	19.05	23	21.8	15	42	71	31	25	8.5	27	36	3/4-16UNF	15	35	12.5	288

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NOS Series



Rod End

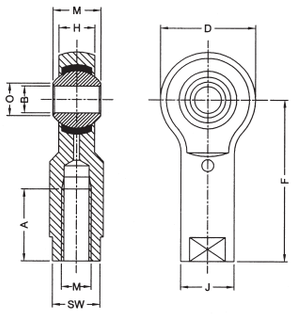
Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	P	L	A/F	A	Thread M	Permit of Angel α	Radial	Axial	
NOS 5 R/L H.	5	8	7.7	5.5	16	33	-	3	-	-	20	5X0.8	13	5.7	1.5	13
6	6	9	8.9	6	18	36	-	3.3	-	-	22	6X1.0	13	7	2	17
8F	8	12	10.4	8	22	42	-	4.5	-	-	25	8X1.0	13	11.6	3.5	33
8	8	12	10.4	8	22	42	-	4.5	-	-	25	8X1.25	13	11.6	3.5	33
10F	10	14	12.9	10	26	48	-	5.5	-	-	29	10X1.25	13	14.5	4.8	54
10	10	14	12.9	10	26	48	-	5.5	-	-	29	10X1.5	13	14.5	4.8	54
12F	12	16	15.4	11	30	54	-	6	-	-	33	12X1.25	13	17	6.5	85
12	12	16	15.4	11	30	54	-	6	-	-	33	12X1.75	13	17	6.5	85
14F	14	19	16.8	12	34	60	-	7	-	-	36	14X1.5	15	24	8.2	129
14	14	19	16.8	12	34	60	-	7	-	-	36	14X2.0	15	24	8.2	129
16F	16	21	19.3	13	38	66	-	7.5	-	-	40	16X1.5	15	28.5	10	181
16	16	21	19.3	13	38	66	-	7.5	-	-	40	16X2.0	15	28.5	10	181
18	18	23	21.8	15	42	72	-	8.5	-	-	44	18X1.5	15	35	12.5	250
20	20	25	24.3	16	46	78	-	9	-	-	47	20X1.5	15	40	15	333
22	22	28	25.8	18	50	84	-	10	-	-	51	22X1.5	15	52	18	430
25	25	31	29.6	20	56	94	-	12	-	-	57	24X12.0	15	60	23	610
30	30	37	34.8	24	67	110	-	13	-	-	66	30X2.0	15	81	30	990

NOS 1/4 R/L H.	6.35	9	8.9	6	18	36	-	3.3	-	-	22	1/4-28UNF	13	7	2	17
5/16	7.94	12	10.4	8	22	42	-	4.5	-	-	25	5/16-24UNF	13	11.6	3.5	33
3/8	9.53	14	12.9	10	26	48	-	5.5	-	-	29	3/8-24UNF	13	14.5	4.8	54
1/2	12.70	16	15.4	11	30	54	-	6	-	-	33	1/2-20UNF	13	17	6.5	85
5/8	15.88	21	19.3	13	38	66	-	7.5	-	-	40	5/8-18UNF	15	28.5	10	181
3/4	19.05	23	21	15	42	72	-	8.5	-	-	44	3/4-16UNF	15	35	12.5	250

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FBJ®

Female Rod End



SI-E Series

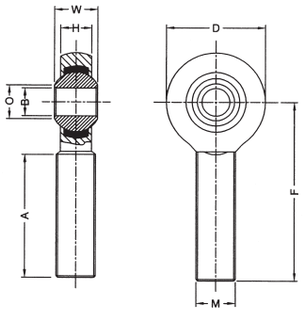
Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	J	L	SW	A	Thread M	Permit of Angel α	Radial	Axial	
SI 6E R/L H.	6	6	9	4	20	30	-	10	-	9	12	6X1.0	12	9	3	17
8E-F	8	8	10	5	23	36	-	13	-	11	16	8X1.0	12	15	5	31
8E	8	8	10	5	23	36	-	13	-	11	16	8X1.25	12	15	5	31
10E-F	10	9	12	6	28	43	-	16	-	14	20	10X1.25	14	20	7	54
10E	10	9	12	6	28	43	-	16	-	14	20	10X1.5	14	20	7	54
12F-F	12	10	15	7	32	50	-	19	-	17	22	12X1.25	14	25	8	86
12E	12	10	15	7	32	50	-	19	-	17	22	12X1.75	14	25	8	86
15ES-F	15	12	19	9	38	61	-	22	-	19	25	14X1.5	12	35	12	142
15ES	15	12	19	9	38	61	-	22	-	19	25	14X2.0	12	35	12	142
17ES-F	17	14	21	10	44	67	-	25	-	22	28	16X1.5	12	42	14	208
17ES	17	14	21	10	44	67	-	25	-	22	28	16X2.0	12	42	14	208
20ES	20	16	25	12	51	77	-	28	-	24	33	20X1.5	12	55	18	290
25ES	25	20	31	16	62	94	-	35	-	30	42	24X2.0	12	78	26	573

SI 1/4 E R/L H.	6.35	6	9	4	20	30	-	10	-	9	12	1/4-28UNF	12	9	3	17
5/16E	7.94	8	10	5	23	36	-	13	-	11	16	5/16-24UNF	12	15	5	31
3/8E	9.53	9	12	6	28	43	-	16	-	14	20	3/8-24UNF	14	20	7	54
1/2E	12.70	10	15	7	32	50	-	19	-	17	22	1/2-20UNF	14	25	8	86
5/8ES	15.88	14	21	10	44	67	-	25	-	22	28	5/8-18UNF	12	42	14	208
3/4ES	19.05	16	25	12	51	77	-	28	-	24	33	3/4-16UNF	12	55	18	290

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FBJ®

SA-E Series



Male Rod End

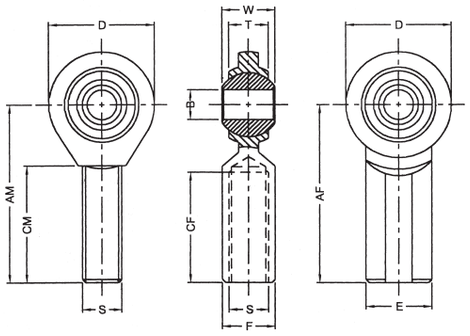
Model Number	Main Dimensions (mm)													Static load (kn)		Weight (g)
	B	W	O	H	D	F	K	J	L	SW	A	Thread M	Permit of Angel α	Radial	Axial	
SI 6E R/L H.	6	6	9	4	20	36	-	-	-	-	22	6X1.0	12	9	3	14
8E-F	8	8	10	5	23	42	-	-	-	-	25	8X1.0	12	15	5	24
8E	8	8	10	5	23	42	-	-	-	-	25	8X1.25	12	15	5	24
10E-F	10	9	12	6	28	48	-	-	-	-	29	10X1.25	14	20	7	41
10E	10	9	12	6	28	48	-	-	-	-	29	10X1.5	14	20	7	41
12F-F	12	10	15	7	32	54	-	-	-	-	33	12X1.25	14	25	8	67
12E	12	10	15	7	32	54	-	-	-	-	33	12X1.75	14	25	8	67
15ES-F	15	12	19	9	38	63	-	-	-	-	36	14X1.5	12	35	12	110
15ES	15	12	19	9	38	63	-	-	-	-	36	14X2.0	12	35	12	110
17ES-F	17	14	21	10	44	69	-	-	-	-	40	16X1.5	12	42	14	163
17ES	17	14	21	10	44	69	-	-	-	-	40	16X2.0	12	42	14	163
20ES	20	16	25	12	51	78	-	-	-	-	47	20X1.5	12	55	18	270
25ES	25	20	31	16	62	94	-	-	-	-	57	24X2.0	12	78	26	508

SA 1/4 E R/L H.	6.35	6	9	4	20	36	-	-	-	-	22	1/4-28UNF	12	9	3	14
5/16E	7.94	8	10	5	23	42	-	-	-	-	25	5/16-24UNF	12	15	5	24
3/8E	9.53	9	12	6	28	48	-	-	-	-	29	3/8-24UNF	14	20	7	41
1/2E	12.70	10	15	7	32	54	-	-	-	-	33	1/2-20UNF	14	25	8	67
5/8ES	15.88	14	21	10	44	69	-	-	-	-	40	5/8-18UNF	12	42	14	163
3/4ES	19.05	16	25	12	51	78	-	-	-	-	47	3/4-16UNF	12	55	18	270

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FBJ®

Stainless Steel Rod End



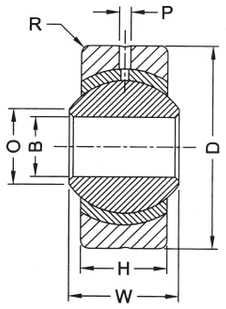
LM Series
LF Series

Inch Size

Model Number	Thread S	B	D	W	T	Ball Dia. ϕ	AM	AF	CM	CF	E ϕ	F	Permit of Angel α	Static load (LBS)	Weight (LBS)
LM3	UNF 3/16X10.32	0.1875	0.525	0.312	0.204	0.437	1.250	1.032	0.750	0.500	0.405	0.312	20°	1200	0.03
LF3															0.04
LM4	1/4-28UNF (M6X1)	0.2500 (M6)	0.760	0.375	0.250	0.500	1.562	1.242	1.000	0.625	0.468	0.375	20°	2000	0.05
LF4															0.06
LM5	5/16-24UNF (M8X12.5)	0.3125 (M8)	0.875	0.437	0.312	0.625	1.875	1.375	1.250	0.625	0.500	0.437	22°	3000	0.07
LF5															0.08
LM6	3/8-24UNF (M10X1.5)	0.375 (M10)	1.000	0.500	0.359	0.710	1.939	1.625	1.250	0.750	0.687	0.500	22°	4000	0.12
LF6															0.13
LM7	7/16-20UNF	0.4375	1.125	0.562	0.408	0.790	2.125	1.812	1.375	0.875	0.750	0.625	21°	5000	0.16
LF7															0.18
LM8	1/2-20UNF (M12X1.75)	0.5000 (M12)	1.1312	0.625	0.453	0.875	2.436	2.125	1.500	1.000	0.875	0.750	20°	6000	0.24
LF8															0.29
LM10	5/8-18UNF (M16X2.0)	0.625 (M16)	1.500	0.750	0.484	1.125	2.625	2.500	1.625	1.250	1.000	0.875	26°	8000	0.36
LF10															0.43
LM12	3/4-16UNF	0.7500	1.750	0.875	0.593	1.250	2.875	2.375	1.750	1.375	1.125	1.000	21°	10000	0.57
LF12															0.65

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PB Series



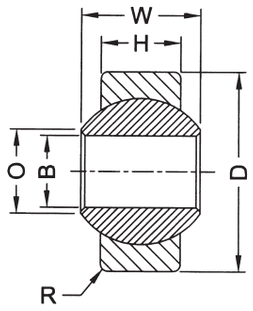
Spherical Plain Bearings

Model Number	Main Dimensions (mm)								Static load (kn)		Weight (g)
	B	W	O	H	D	P	R	Permit of Angel α	Radial	Axial	
PB 4	4	6	7.0	4.5	13	0.8	0.5	13	3	1	5
5	5	8	7.7	6	16	0.8	0.5	13	5.7	1.5	8.5
6	6	9	8.9	7	18	0.8	0.5	13	7	2	13
8	8	12	10.4	9	22	1.0	0.5	13	11.6	3.5	24
10	10	14	12.9	11	26	1.0	0.5	13	14.5	4	39
12	12	16	15.4	12	30	1.0	0.5	13	17	6.5	58
14	14	19	16.8	14	34	1.2	0.5	15	24	8.2	84
16	16	21	19.3	15	38	1.2	0.5	15	28.5	10	111
18	18	23	21.8	17	42	1.5	0.5	15	35	12.5	160
20	20	25	24.3	18	46	1.5	0.5	15	40	15	210
22	22	28	25.8	20	50	1.5	0.5	15	52	18	265
25	25	31	29.6	22	56	1.5	0.5	15	60	23	390

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FBJ®

Spherical Plain Bearings

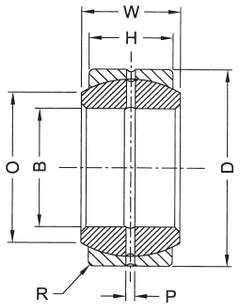


PC Series

Model Number	Main Dimensions (mm)								Static load (kn)		Weight (g)
	B	W	O	H	D	P	R	Permit of Angel α	Radial	Axial	
PC 4	4	6	7.0	4.5	12	-	0.5	13	3	1	3.5
5	5	8	7.7	6	13	-	0.5	13	5.7	1.5	6
6	6	9	8.9	7	15	-	0.5	13	7	2	9
8	8	12	10.4	9	18	-	0.5	13	11.6	3.5	17
10	10	14	12.9	11	22	-	0.5	13	14.5	4	27
12	12	16	15.4	12	26	-	0.5	13	17	6.5	41
14	14	19	16.8	14	30	-	0.5	15	24	8.2	59
16	16	21	19.3	15	34	-	0.5	15	28.5	10	78
18	18	23	21.8	17	38	-	0.5	15	35	12.5	112
20	20	25	24.3	18	42	-	0.5	15	40	15	147
22	22	28	25.8	20	46	-	0.5	15	52	18	186
25	25	31	29.6	22	50	-	0.5	15	60	23	273

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GE Series



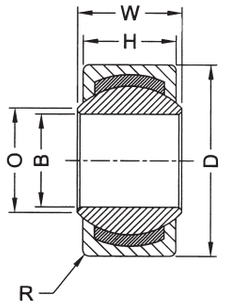
Spherical Plain Bearings

Model Number	Main Dimensions (mm)								Static load (kn)		Weight (g)
	B	W	O	H	D	P	R	Permit of Angel α	Radial	Axial	
GE 10	10	9	12	8	19	1.0	0.5	8	36	9	13
12	12	10	14	9	22	1.0	0.5	8	40	10	20
15	15	12	18	10	26	1.5	0.5	8	50	15	32
17	17	14	20	11	30	1.5	0.5	8	60	20	45
20	20	16	24	13	35	1.5	0.5	7	110	27	70
25	25	20	29	16	42	2	1.0	7	190	45	130
30	30	22	34	18	47	2	1.0	8	230	55	170
35	35	25	39	20	55	2	1.0	8	320	75	250
40	40	28	45	22	62	2.5	1.0	8	380	90	320
45	45	32	50	25	68	2.5	1.0	9	500	120	450
50	50	35	55	28	75	2.5	1.0	9	600	145	580
60	60	44	66	36	90	2.5	1.0	9	700	230	1100

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Spherical Plain Bearings



GE-C Series

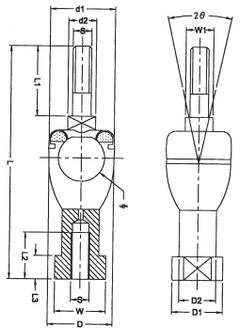
Model Number	Main Dimensions (mm)								Static load (kn)		Weight (g)
	B	W	O	H	D	P	R	Permit of Angel α	Radial	Axial	
GE 10C	10	9	12	8	19	-	0.5	8	80	20	13
12	12	10	14	9	22	-	0.5	8	100	25	20
15	15	12	18	10	26	-	0.5	8	120	30	32
17	17	14	20	11	30	-	0.5	8	160	40	45
20	20	16	24	13	35	-	0.5	7	200	50	70
25	25	20	29	16	42	-	1.0	7	380	90	130
30	30	22	34	18	47	-	1.0	8	450	100	170
35	35	25	39	20	55	-	1.0	8	650	150	250
40	40	28	45	22	62	-	1.0	8	850	200	320
45	45	32	50	25	68	-	1.0	9	1000	250	450
50	50	35	55	28	75	-	1.0	9	1200	300	580
60	60	44	66	36	90	-	1.0	9	2000	500	1100

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BI Series

Link Ball



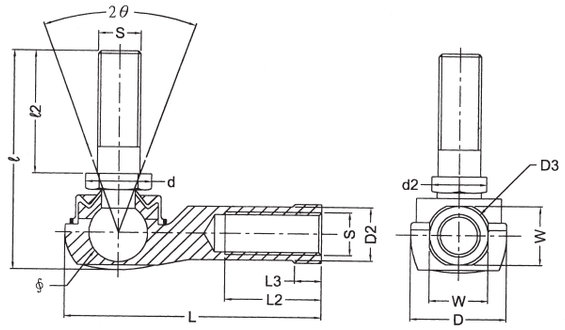
Model Number	Outline dimensions		Thread	Main Dimensions (mm)											Static load (kn)	Weight (g)
	L	D	S	L_1	L_2	L_3	D_1	D_2	W o -0.2	W o -0.2	d_1	d_2	Ball dia. ϕ	2 θ		
BI-5	50	17	M5X0.8	12	15	4.5	11	9	9	7	18	8	11.11	25°	25	25
BI-6	60	20	M6X1	17	18	5	13	10	11	8	21	10.5	12.7	25°	36	40
BI-8	68	24	M8X1.25	26	20	6	16	12.5	14	11	26	14	15.88	25°	50	75
BI-10F	85	28	M10X1.25	29	22	7	19	15	17	13	29	16	19.05	25°	75	125
BI-10	85	28	M10X1.5	29	22	7	19	15	17	13	29	16	19.05	25°	75	125
BI-12F	94	32	M12X1.25	30	25	7	22	17.5	19	14	33	18	22.22	25°	100	190
BI-12	94	32	M12X1.75	30	25	7	22	17.5	19	14	33	18	22.22	25°	100	190
BI-14F	108	36	M14X1.5	32	28	8	25	20	22	17	38	19	25.4	17°	120	280
BI-14	108	36	M14X2	32	28	8	25	20	22	17	38	19	25.4	17°	120	280
BI-16F	120	40	M16X1.5	34	30	8	27	22	22	19	44	21	25.4	17°	140	370
BI-16	120	40	M16X2	34	30	8	27	22	22	19	44	21	25.4	17°	140	370

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Link Ball

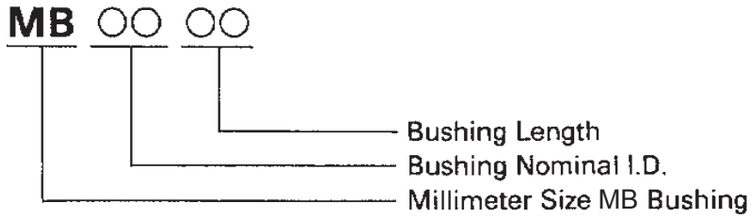
BL Series



Model Number	Outline dimensions			Thread											Static load (kn)	Weight (g)
	L	D		S	L_2	L_3	D_2	D_3	W o -0.2	d	$_2$	d_2	Ball dia. ϕ	2 θ		
BL-6	38	16	34	M6X1	16	5	10	13	11	8	16	7	11.11	40°	26	26
BL-8	46	19	41	M8X1.25	19	6	12.5	16	14	10.5	17	9	12.7	40°	50	49
BL-10F	56	25	52	M10X1.25	23	7	14.5	19	17	14	26	11	15.88	40°	75	90
BL-10	56	25	52	M10X1.5	23	7	14.5	19	17	14	26	11	15.88	40°	75	90
BL-12F	65	29	58	M12X1.25	26	8	17.5	22	19	16	29	13	19.05	40°	100	148
BL-12	65	29	58	M12X1.75	26	8	17.5	22	19	16	29	13	19.05	40°	100	148
BL-14F	74	34	75	M14X1.5	30	10	20	25	22	18	30	15	22.22	40°	120	245
BL-14	74	34	75	M14X2	30	10	20	25	22	18	30	15	22.22	40°	120	245
BL-16F	83	38	80	M16X1.5	34	11	22	27	24	19	32	17	22.22	30°	140	325
BL-16	83	38	80	M16X2	34	11	22	27	24	19	32	17	22.22	30°	140	325

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MB Bushing



Bushing I.D	Tolerances		Bushing Number and Bushing Length (mm)								
	Housing Dia.	Shaft Dia.	3	4	5	6	7	8	10	12	15
3	5H7 $^{+0.012}_{0}$	3 $^{-0.025}_{-0.035}$	MB0303	MB0304	MB0305	MB0306					
4	6 ”	4 $^{-0.025}_{0.037}$		MB0404		MB0406		MB0408			
5	7H7 $^{+0.015}_{0}$	5 ”		MB0504	MB0505	MB0506		MB0508			
6	8 ”	6 ”			MB0605	MB0606	MB0607	MB0608	MB0610		
7	9 ”	7 $^{-0.025}_{-0.040}$			MB0705		MB0707		MB0710	MB0712	
8	10 ”	8 ”			MB0805	MB0806	MB0807	MB0808	MB0810	MB0812	
9	11H7 $^{+0.018}_{0}$	9 ”							MB0910		
10	12 ”	10 ”				MB1006	MB1007	MB1008	MB1010	MB1012	MB1015
12	14 ”	12 $^{-0.025}_{-0.043}$				MB1206		MB1208	MB1210	MB1212	MB1215
13	15 ”	13 ”						MB1308	MB1310		MB1315
14	16 ”	14 ”							MB1410	MB1412	MB1415
15	17 ”	15 ”						MB1508	MB1510	MB1512	MB1515
16	18 ”	16 ”							MB1610	MB1612	MB1615
17	19H7 $^{+0.021}_{0}$	17 ”									MB1715
18	20 ”	18 ”							MB1810	MB1812	MB1815
19	22 ”	19 $^{-0.025}_{-0.046}$							MB1910		MB1915
20	23 ”	20 ”							MB2010	MB2012	MB2015
22	25 ”	22 ”							MB2210	MB2212	MB2215
24	27 ”	24 ”									MB2415
25	28 ”	25 ”							MB2510	MB2512	MB2515
26	30 ”	26 ”									MB2615
28	32H7 $^{+0.025}_{0}$	28 ”								MB2812	MB2815
30	34 ”	30 ”								MB3012	MB3015
31	35 ”	31 $^{-0.025}_{-0.050}$									MB3115
32	36 ”	32 ”									
35	39 ”	35 ”								MB3512	
38	42 ”	38 ”									
40	44 ”	40 ”								MB4012	MB4015
45	50 ”	45 ”									
50	55H7 $^{+0.030}_{0}$	50 ”									
55	60 ”	55 $^{-0.025}_{-0.055}$									
60	65 ”	60 ”									
65	70 ”	65 $^{+0.035}_{+0.005}$									
70	75 ”	70 ”									
75	80 ”	75 ”									
80	85H7 $^{+0.035}_{0}$	80 ”									
85	90 ”	85 $^{+0.035}_{0}$									
90	95 ”	90 ”									
100	105 ”	100 ”									
110	115 ”	110 ”									
120	125H7 $^{+0.040}_{0}$	120 ”									
130	135 ”	130 $^{+0.035}_{0.005}$									
140	145 ”	140 ”									
150	155 ”	150 ”									
160	165 ”	160 ”									

Note: For standard bushing, min. clearance is 0.025mm.

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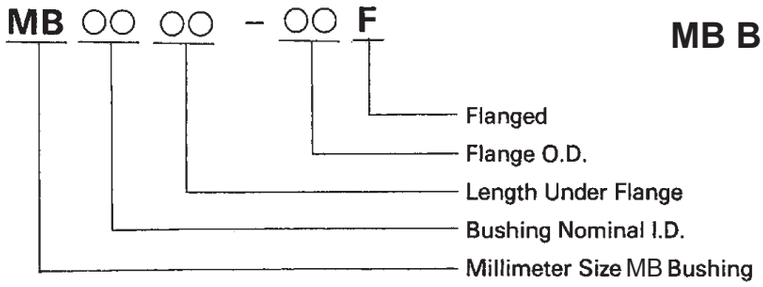
MB Bushing

Bushing Number and Bushing Length (mm)											
20	25	30	35	40	50	60	70	80	90	95	100
MB1020											
MB1220											
MB1420											
MB1520	MB1525										
MB1620	MB1625										
MB1820	MB1825										
MB2020	MB2025	MB2030									
MB2220	MB2225										
MB2420	MB2425	MB2430									
MB2520	MB2525	MB2530	MB2535								
MB2620		MB2630									
MB2820	MB2825	MB2830									
MB3020	MB3025	MB3030	MB3035	MB3040							
	MB3125			MB3140							
MB3220	MB3225	MB3230		MB3240							
MB3520	MB3525	MB3530	MB3535	MB3540	MB3550						
MB3820	MB3825	MB3830	MB3835	MB3840							
MB4020	MB4025	MB4030	MB4035	MB4040	MB4050						
MB4520	MB4525	MB4530	MB4535	MB4540	MB4550						
MB5020	MB5025	MB5030	MB5035	MB5040	MB5050	MB5060					
	MB5525	MB5530	MB5535	MB5540	MB5550	MB5560					
		MB6030	MB6035	MB6040		MB6060					
		MB6530		MB6540	MB6550	MB6560					
		MB7030	MB7035	MB7040	MB7050	MB7060		MB7080			
		MB7530	MB7535	MB7540	MB7550	MB7560		MB7580			
				MB8040	MB8050	MB8060		MB8080			
				MB8540	MB8550	MB8560		MB8580			
				MB9040		MB9060			MB9090		
					MB10050		MB10070			MB10095	
					MB11050		MB11070			MB11095	
					MB12050		MB12070			MB12095	
					MB13050			MB13080			
					MB14050			MB14080			MB140100
					MB15050			MB15080			MB150100
					MB16050			MB16080			MB160100

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MB Bushing-Flanged

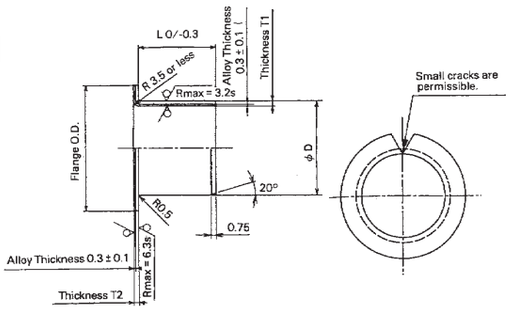


Bushing		Tolerances		Thickness		Bushing Number and Bushing Length (mm)				
I.D.	Flanged O.D.	Housing Dia.	Shaft Dia.	Bushing T1	Flanged T2	3	4	5	6	7
3	7	4.6H7 $^{+0.012}_{0}$	3 $^{-0.025}_{-0.035}$	0.8 $^{0}_{-0.25}$	0.8 $^{0}_{-0.15}$	MB0303-7F				
4	9	5.6	4 $^{-0.025}_{-0.037}$				MB0404-9F			
5	10	7H7 $^{+0.015}_{0}$	5	1.0 $^{0}_{-0.25}$	1.0 $^{0}_{-0.15}$		MB0504-10F	MB0505-10F		
6	12	8	6					MB0605-12F	MB0606-12F	MB0607-12F
7	13	9	7 $^{-0.025}_{-0.040}$					MB0705-13F		MB0707-13F
8	15	10	8						MB0806-15F	
10	18	12H7 $^{+0.018}_{0}$	10						MB1006-18F	MB1007-18F
12	20	14	12 $^{-0.025}_{-0.430}$						MB1206-20F	
14	22	16	14							
15	23	17	15							
16	24	18	16							
18	26	20H7 $^{+0.021}_{0}$	18							
20	31	23	20 $^{-0.025}_{-0.046}$	1.5 $^{0}_{-0.030}$	1.5 $^{0}_{-0.15}$					
22	33	25	22							
24	35	27	24							
25	36	28	25							
26	38	30	26	2.0 $^{0}_{-0.030}$	2.0 $^{0}_{-0.15}$					
28	40	32H7 $^{+0.025}_{0}$	28							
30	42	34	30							
31	45	35	31 $^{-0.025}_{-0.050}$							
32	46	36	32							
35	49	39	35							
38	52	42	38							
40	54	44	40							
45	60	50	45	2.5 $^{0}_{-0.040}$	2.5 $^{0}_{-0.15}$					
50	65	55H7 $^{+0.030}_{0}$	50							
55	70	60	55 $^{-0.025}_{-0.055}$							
60	75	65	65							

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MB Bushing-Flanged



Bushings of O.D. 10mm or under or bushing length 7mm or under are not chamfered.

Bushing Number and Bushing Length (mm)									
8	10	12	15	20	25	30	40	50	60
MB0608-12F	MB0610-12F								
	MB0710-13F	MB0712-13F							
MB0808-15F	MB0810-15F	MB0812-15F							
MB1008-18F	MB1010-18F	MB1012-18F	MB1015-18F						
MB1208-20F	MB1210-20F	MB1212-20F	MB1215-20F	MB1220-20F					
	MB1410-22F	MB1412-22F	MB1415-22F	MB1420-22F					
	MB1510-23F	MB1512-23F	MB1515-23F	MB1520-23F	MB1525-23F				
	MB1610-24F	MB1612-24F	MB1615-24F	MB1620-24F	MB1625-24F				
	MB1810-26F	MB1812-26F	MB1815-26F	MB1820-26F	MB1825-26F				
	MB2010-31F	MB2012-31F	MB2015-31F	MB2020-31F	MB2025-31F	MB2030-31F			
	MB2210-33F	MB2212-33F	MB2215-33F	MB2220-33F	MB2225-33F				
			MB2415-35F	MB2420-35F	MB2425-35F	MB2430-35F			
	MB2510-36F	MB2512-36F	MB2515-36F	MB2520-36F	MB2525-36F	MB2530-36F			
			MB2615-38F	MB2620-38F					
		MB2812-40F	MB2815-40F	MB2820-40F		MB2830-40F			
		MB3012-42F	MB3015-42F	MB3020-42F	MB3025-42F	MB3030-42F	MB3040-42F		
					MB3125-45F				
				MB3220-46F	MB3225-46F	MB3230-46F			
		MB3512-49F		MB3520-49F	MB3525-49F	MB3530-49F	MB3540-49F	MB3550-49F	
				MB3820-52F		MB3830-52F	MB3840-52F		
		MB4012-54F		MB4020-54F	MB4025-54F	MB4030-54F	MB4040-54F	MB4050-54F	
				MB4520-60F	MB4525-60F	MB4530-60F	MB4540-60F	MB4550-60F	
				MB5020-65F		MB5030-65F	MB5040-65F		MB5060-65F
						MB5530-70F	MB5540-70F		MB5560-70F
						MB6030-75F	MB6040-75F		MB6060-75F

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