

Equivalent bearing load

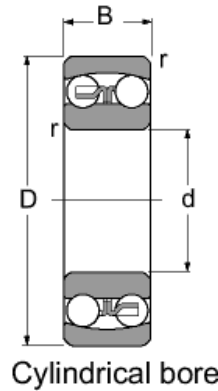
Dynamic

$P_r = X F_r + Y F_a$

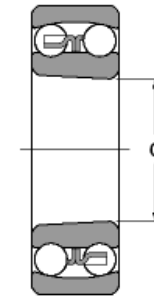
F _a / F _r ≤ e		F _a / F _r > e	
X	Y	X	Y
1	Y1	0.65	Y2

Static

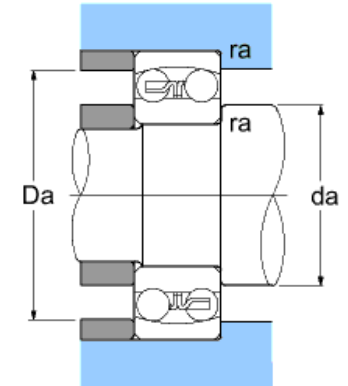
$P_{or} = F_r + Y_o F_a$



Cylindrical bore



Tapered bore
taper 1:12



[Dimensions in mm]

d	D	B	r	Cr [kN]	Cor [kN]	Straight bore	Tapered bore	da	Da	ras	e	Y1	Y2	Yo
10	30	9	0.6	5.55	1.19	1200S	-	14.0	26.0	0.6	0.32	2.00	3.10	2.10
	30	14	0.6	7.45	1.59	2200S	-	14.0	26.0	0.6	0.64	0.98	1.50	1.00
	35	11	0.6	7.35	1.62	1300S	-	14.0	31.0	0.6	0.35	1.80	2.80	1.90
	35	17	0.6	9.20	2.01	2300S	-	14.0	31.0	0.6	0.71	0.89	1.40	0.93
12	32	10	0.6	5.70	1.27	1201S	-	16.0	28.0	0.6	0.36	1.80	2.70	1.80
	32	14	0.6	7.75	1.73	2201S	-	16.0	28.0	0.6	0.58	1.10	1.70	1.10
	37	12	1	9.65	2.16	1301S	-	17.0	32.0	1	0.33	1.90	2.90	2.00
	37	17	1	12.10	2.73	2301S	-	17.0	32.0	1	0.60	1.10	1.60	1.10
15	35	11	0.6	7.60	1.75	1202S	-	19.0	31.0	0.6	0.32	2.00	3.10	2.10
	35	14	0.6	7.80	1.85	2202S	-	19.0	31.0	0.6	0.50	1.30	1.90	1.30
	42	13	1	9.70	2.29	1302S	-	20.0	37.0	1	0.33	1.90	2.90	2.00
	42	17	1	12.30	2.91	2302S	-	20.0	37.0	1	0.51	1.20	1.90	1.30
17	40	12	0.6	8.00	2.01	1203S	-	21.0	36.0	0.6	0.31	2.00	3.10	2.10
	40	16	0.6	9.95	2.42	2203S	-	21.0	36.0	0.6	0.50	1.30	1.90	1.30
	47	14	1	12.70	3.20	1303S	-	22.0	42.0	1	0.32	2.00	3.10	2.10
	47	19	1	14.70	3.55	2303S	-	22.0	42.0	1	0.51	1.20	1.90	1.30
20	47	14	1	10.00	2.61	1204S	1204SK	25.0	42.0	1	0.29	2.20	3.40	2.30
	47	18	1	12.80	3.30	2204S	2204SK	25.0	42.0	1	0.47	1.30	2.10	1.40
	52	15	1.1	12.60	3.35	1304S	1304SK	26.5	45.5	1	0.29	2.20	3.40	2.30
	52	21	1.1	18.50	4.70	2304S	2304SK	26.5	45.5	1	0.50	1.20	1.90	1.30
25	52	15	1	12.20	3.30	1205S	1205SK	30.0	47.0	1	0.28	2.30	3.50	2.40
	52	18	1	12.40	3.45	2205S	2205SK	30.0	47.0	1	0.41	1.50	2.40	1.60
	62	17	1.1	18.20	5.00	1305S	1305SK	31.5	55.5	1	0.28	2.30	3.50	2.40
	62	24	1.1	24.90	6.60	2305S	2305SK	31.5	55.5	1	0.47	1.40	2.10	1.40
30	62	16	1	15.80	4.65	1206S	1206SK	35.0	57.0	1	0.25	2.50	3.90	2.60
	62	20	1	15.30	4.55	2206S	2206SK	35.0	57.0	1	0.38	1.60	2.50	1.70
	72	19	1.1	21.40	6.30	1306S	1306SK	36.5	65.5	1	0.26	2.40	3.70	2.50
	72	27	1.1	32.00	8.75	2306S	2306SK	36.5	65.5	1	0.44	1.40	2.20	1.50
35	72	17	1.1	15.90	5.10	1207S	1207SK	41.5	65.5	1	0.23	2.70	4.20	2.80

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	72	23	1.1	21.70	6.60	2207S	2207SK	41.5	65.5	1	0.37	1.70	2.60	1.80
	80	21	1.5	25.30	7.85	1307S	1307SK	43.0	72.0	1.5	0.26	2.50	3.80	2.60
	80	31	1.5	40.00	11.30	2307S	2307SK	43.0	72.0	1.5	0.46	1.40	2.10	1.40
	90	23	1.5	29.80	9.70	1308S	1308SK	48.0	82.0	1.5	0.24	2.60	4.00	2.70
	90	33	1.5	45.50	13.50	2308S	2308SK	48.0	82.0	1.5	0.43	1.50	2.30	1.50
40	80	18	1.1	19.30	6.50	1208S	1208SK	46.5	73.5	1	0.22	2.80	4.30	2.90
	80	23	1.1	22.40	7.35	2208S	2208SK	46.5	73.5	1	0.33	1.90	3.00	2.00
	90	23	1.5	29.80	9.70	1308S	1308SK	48.0	82.0	1.5	0.24	2.60	4.00	2.70
	90	33	1.5	45.50	13.50	2308S	2308SK	48.0	82.0	1.5	0.43	1.50	2.30	1.50
45	85	19	1.1	22.00	7.35	1209S	1209SK	51.5	78.5	1	0.21	3.00	4.70	3.10
	85	23	1.1	23.30	8.15	2209S	2209SK	51.5	78.5	1	0.30	2.10	3.20	2.20
	100	25	1.5	38.50	12.70	1309S	1309SK	53.0	92.00	1.5	0.25	2.60	4.00	2.70
	100	36	1.5	55.00	16.70	2309S	2309SK	53.0	92.0	1.5	0.41	1.50	2.40	1.60
50	90	20	1.1	22.80	8.10	1210S	1210SK	56.5	83.5	1	0.21	3.10	4.70	3.20
	90	23	1.1	23.30	8.45	2210S	2210SK	56.5	83.5	1	0.28	2.20	3.40	2.30
	110	27	2	43.50	14.10	1310S	1310SK	59.0	101.0	2	0.23	2.70	4.20	2.80
	110	40	2	65.00	20.20	2310S	2310SK	59.0	101.0	2	0.42	1.50	2.30	1.60
55	100	21	1.5	26.90	10.00	1211S	1211SK	63.0	92.0	1.5	0.20	3.20	4.90	3.30
	100	25	1.5	26.70	9.90	2211S	221 1 SK	63.0	92.0	1.5	0.28	2.30	3.50	2.40
	120	29	2	51.50	17.90	1311S	1311SK	64.0	111.0	2	0.23	2.70	4.20	2.80
	120	43	2	76.50	24.00	2311S	2311SK	64.0	111.0	2	0.41	1.50	2.40	1.60
60	110	22	1.5	30.50	11.50	1212S	1212SK	68.0	102.0	1.5	0.18	3.40	5.30	3.60
	110	28	1.5	34.00	12.60	2212S	2212SK	68.0	102.0	1.5	0.28	2.30	3.50	2.40
	130	31	2.1	57.50	20.80	1312S	1312SK	71.0	119.0	2	0.23	2.80	4.30	2.90
	130	46	2.1	88.50	28.30	2312S	2312SK	71.0	119.0	2	0.40	1.60	2.40	1.60
65	120	23	1.5	31.00	12.50	1213S	1213SK	73.0	112.0	1.5	0.17	3.70	5.70	3.80
	120	31	1.5	43.50	16.40	2213S	2213SK	73.0	112.0	1.5	0.28	2.30	3.50	2.40
	140	33	2.1	62.50	22.90	1313S	1313SK	76.0	129.0	2	0.23	2.70	4.20	2.90
	140	48	2.1	97.00	32.50	2313S	2313SK	76.0	129.0	2	0.39	1.60	2.50	1.70
70	125	24	1.5	35.00	13.80	1214S	-	78.0	117.0	1.5	0.18	3.40	5.30	3.60
	125	31	1.5	44.00	17.10	2214S	-	78.0	117.0	1.5	0.26	2.40	3.70	2.50
	150	35	2.1	75.00	27.70	1314S	-	81.0	139.0	2	0.22	2.80	4.40	3.00
	150	51	2.1	111.00	37.50	2314S	-	81.0	139.0	2	0.38	1.70	2.60	1.80
75	130	25	1.5	39.00	15.70	1215S	1215SK	83.0	122.0	1.5	0.17	3.60	5.60	3.80
	130	31	1.5	44.50	17.80	2215S	2215SK	83.0	122.0	1.5	0.25	2.50	3.90	2.60
	160	37	2.1	80.00	30.00	1315S	1315SK	86.0	149.0	2	0.22	2.80	4.40	2.90
	160	55	2.1	125.00	43.00	2315S	2315SK	86.0	149.0	2	0.38	1.60	2.50	1.70
80	140	26	2	40.00	17.00	1216S	1216SK	89.0	131.0	2	0.16	3.90	6.00	4.10
	140	33	2	49.00	19.90	2216S	221 6SK	89.0	131.0	2	0.25	2.50	3.90	2.70
	170	39	2.1	89.00	33.00	1316S	1316SK	91.0	159.0	2	0.22	2.90	4.50	3.10
	170	58 (59) ¹	2.1	130.00	45.00	2316S	2316SK	91.0	159.0	2	0.39	1.60	2.50	1.70
85	150	28	2	49.50	20.80	1217S	1217SK	94.0	141.0	2	0.17	3.70	5.70	3.80
	150	36	2	58.50	23.60	2217S	2217SK	94.0	141.0	2	0.25	2.50	3.90	2.60
	180	41	3	98.50	38.00	1317S	1317SK	98.0	167.0	2.5	0.21	2.90	4.60	3.10
	180	60	3	142.00	51.50	2317S	2317SK	98.0	167.0	2.5	0.37	1.70	2.60	1.80

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90	160	30	2	57.50	23.50	1218S	1218SK	99.0	151.0	2	0.17	3.80	5.80	3.90
	160	40	2	70.50	28.70	2218S	2218SK	99.0	151.0	2	0.27	2.40	3.70	2.50
	190	43 (46)	3	117.00	44.50	1318S	1318SK	103.0	177.0	2.5	0.22	2.80	4.30	2.90
	190	64	3	154.00	57.50	2318S	2318SK	103.0	177.0	2.5	0.38	1.70	2.60	1.70
95	170	32	2.1	64.00	27.10	1219S	1219SK	106.0	159.0	2	0.17	3.70	5.80	3.90
	170	43	2.1	84.00	34.50	2219S	2219SK	106.0	159.0	2	0.27	2.40	3.70	2.50
	200	45 (49) ¹	3	129.00	51.00	1319S	1319SK	108.0	187.0	2.5	0.23	2.80	4.30	2.90
	200	67 (68) ¹	3	161.00	64.50	2319S	231 SSK	108.0	187.0	2.5	0.38	1.70	2.60	1.80
100	180	34	2.1	69.50	29.70	1220S	1220SK	111.0	169.0	2	0.17	3.60	5.60	3.80
	180	46	2.1	94.50	38.50	2220S	2220SK	111.0	169.0	2	0.27	2.40	3.70	2.50
	215	47 (53) ¹	3	140.00	57.50	1320S	1320SK	113.0	202.0	2.5	0.24	2.70	4.10	2.80
	215	73 (74)	3	187.00	79.00	2320S	2320SK	113.0	202.0	2.5	0.38	1.70	2.60	1.80
105	190	36	2.1	75.00	32.50	1221S	-	116.0	179.0	2	0.18	3.60	5.50	3.70
	190	50	2.1	109.00	45.00	2221S	-	116.0	179.0	2	0.28	2.30	3.50	2.40
	225	49 (55) ¹	3	154.00	64.50	1321S	-	118.0	212.0	2.5	0.23	2.70	4.20	2.90
	225	77 (78) ¹	3	200.00	87.00	2321S	-	118.0	212.0	2.5	0.38	1.70	2.60	1.70
110	200	38	2.1	87.00	38.50	1222S	1222SK	121.0	189.0	2	0.17	3.70	5.70	3.90
	200	53 (54) ¹	2.1	122.00	51.50	2222S	2222SK	121.0	189.0	2	0.28	2.20	3.50	2.30
	240	50 (56) ¹	3	161.00	72.00	1322S	1322SK	123.0	227.0	2.5	0.22	2.80	4.40	3.00
	240	80 (81) ¹	3	211.00	94.50	2322S	2322SK	123.0	227.0	2.5	0.37	1.70	2.60	1.80

¹ - Ball protrudes past edge of ring face. Number in parentheses includes ball protrusion.