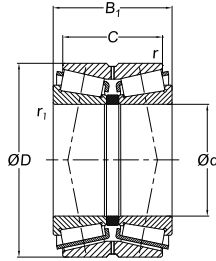
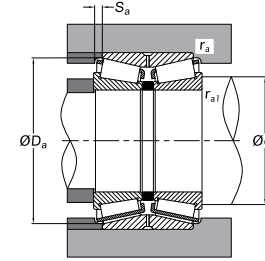


TDO Design • Metric Size d: 25 ~ 95 mm



Principal Dimensions (mm)						Bearing Designations	Basic Load Ratings (N)		
d	D	B ₁	C	r (min)	r ₁ (min)		Dynamic C _r	Static C _{0r}	
25	62	40	29.5	1.5	0.6	25KDE13	71000	90000	
30	72	45	31.5	1.5	0.6	30KDE13	89000	113000	
35	80	51	35.5	2	0.6	35KDE13	114000	149000	
40	80	45	37.5	1.5	0.6	40KBE02	109000	141000	
	80	55	43.5	1.5	0.6	40KBE22	134000	183000	
	90	56	45.5	2	0.6	40KBE03	156000	202000	
	90	56	39.5	2	0.6	40KDE13	138000	181000	
45	85	47	37.5	1.5	0.6	45KBE02	120000	163000	
	85	55	43.5	1.5	0.6	45KBE22	143000	205000	
	100	60	49.5	2	0.6	45KBE03	190000	250000	
	100	60	41.5	2	0.6	45KDE13	168000	224000	
50	90	49	39.5	1.5	0.6	50KBE02	136000	193000	
	90	55	43.5	1.5	0.6	50KBE22	152000	223000	
	110	64	51.5	2.5	0.6	50KBE03	222000	294000	
	110	64	43.5	2.5	0.6	50KDE13	194000	259000	
55	100	51	41.5	2	0.6	55KBE02	163000	226000	
	100	60	48.5	2	0.6	55KBE22	185000	275000	
	120	70	57	2.5	0.6	55KBE03	254000	340000	
	120	70	49	2.5	0.6	55KDE13	217000	297000	
60	110	53	43.5	2	0.6	60KBE02	178000	246000	
	110	66	54.5	2	0.6	60KBE22	226000	335000	
	130	74	59	3	1	60KBE03	297000	400000	
	130	74	51	3	1	60KDE13	259000	350000	
65	120	56	46.5	2	0.6	65KBE02	211000	296000	
	120	73	61.5	2	0.6	65KBE22	267000	400000	
	140	79	63	3	1	65KBE03	340000	465000	
	140	79	53	3	1	65KDE13	297000	410000	
70	125	59	48.5	2	0.6	70KBE02	229000	330000	
	125	74	61.5	2	0.6	70KBE22	270000	410000	
	150	83	67	3	1	70KBE03	390000	540000	
	150	83	57	3	1	70KDE13	345000	485000	
75	130	62	51.5	2	0.6	75KBE02	246000	365000	
	130	74	61.5	2	0.6	75KBE22	274000	440000	
	160	87	69	3	1	75KBE03	365000	600000	
80	140	64	51.5	2.5	0.6	80KBE02	270000	390000	
	140	78	63.5	2.5	0.6	80KBE22	310000	505000	
	170	92	73	3	1	80KBE03	400000	650000	
85	150	70	57	2.5	0.6	85KBE02	300000	465000	
	150	86	69	2.5	0.6	85KBE22	365000	560000	
	180	98	77	4	1	85KBE03	445000	740000	
90	160	74	61	2.5	0.6	90KBE02	335000	510000	
	160	94	77	2.5	0.6	90KBE22	420000	695000	
	190	102	81	4	1	90KBE03	450000	815000	
95	170	78	63	3	1	95KBE02	365000	570000	
	170	100	83	3	1	95KBE22	485000	780000	
	200	108	85	4	1	95KBE03	565000	890000	



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

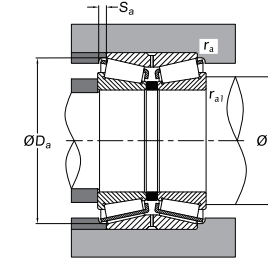
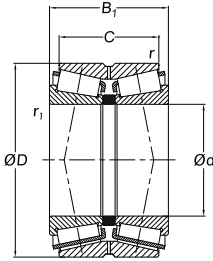
static

$$P_{0r} = F_r + Y_0 F_a$$

For values of e , Y_2 and Y_0 see the table below.

Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
32	59	1.5	0.6	0.83	0.82	1.22	0.80	0.505
37	68	1.5	0.6	0.83	0.82	1.22	0.80	0.755
44	76	2	0.6	0.83	0.82	1.22	0.80	1.04
47	75	1.5	0.6	0.37	1.80	2.68	1.76	0.900
47	75	1.5	0.6	0.37	1.80	2.68	1.76	1.12
49	82	2	0.6	0.35	1.96	2.91	1.91	1.52
49	86	2	0.6	0.83	0.82	1.22	0.80	1.43
52	80	15	0.6	0.40	1.67	2.48	1.63	1.02
52	80	15	0.6	0.40	1.67	1.48	1.63	1.21
54	93	2	0.6	0.35	1.96	2.91	1.91	1.99
54	95	2	0.6	0.83	0.82	1.22	0.80	1.88
57	85	15	0.6	0.42	1.61	2.39	1.57	1.14
57	85	15	0.6	0.42	1.61	2.39	1.57	1.31
60	102	2	0.6	0.35	1.96	2.91	1.91	2.56
60	104	2	0.6	0.83	0.82	1.22	0.80	2.41
64	94	2	0.6	0.40	1.67	2.48	1.63	1.48
64	94	2	0.6	0.40	1.67	2.48	1.63	1.77
65	111	2	0.6	0.35	1.96	2.91	1.91	3.31
65	113	2	0.6	0.83	0.82	1.22	0.80	3.13
69	102	2	0.6	0.40	1.67	2.48	1.63	1.88
69	102	2	0.6	0.40	1.67	2.48	1.63	2.38
72	120	2.5	1	0.35	1.96	2.91	1.91	4.10
72	123	2.5	1	0.83	0.82	1.22	0.80	3.87
74	113	2	0.6	0.40	1.67	2.48	1.63	2.37
74	112	2	0.6	0.40	1.67	2.48	1.63	3.15
77	130	2.5	1	0.35	1.96	2.91	1.91	5.06
77	133	2.5	1	0.83	0.82	1.22	0.80	4.77
79	118	2	0.6	0.42	1.61	2.39	1.57	2.63
79	117	2	0.6	0.42	1.61	2.39	1.57	3.37
82	140	2.5	1	0.35	1.96	2.91	1.91	6.08
82	142	2.5	1	0.83	0.82	1.22	0.80	5.74
84	124	2	0.6	0.44	1.55	2.31	1.52	2.90
84	123	2	0.6	0.44	1.55	2.31	1.52	3.54
87	149	2.5	1	0.35	1.96	2.91	1.91	7.23
90	132	2	0.6	0.42	1.61	2.39	1.57	3.52
90	132	2	0.6	0.42	1.61	2.39	1.57	4.37
92	159	2.5	1	0.35	1.96	2.91	1.91	8.62
95	141	2	0.6	0.42	1.61	2.39	1.57	4.45
95	140	2	0.6	0.42	1.61	2.39	1.57	5.57
99	167	3	1	0.35	1.96	2.91	1.91	10.3
100	150	2	0.6	0.42	1.61	2.39	1.57	5.39
100	150	2	0.6	0.42	1.61	2.39	1.57	6.98
104	177	3	1	0.35	1.96	2.91	1.91	11.9
107	159	2.5	1	0.42	1.61	2.39	1.57	6.45
107	158	2.5	1	0.42	1.61	2.39	1.57	7.92
109	186	3	1	0.35	1.96	2.91	1.91	13.9

TDO Design • Metric Size
d: 100 ~ 160 mm



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

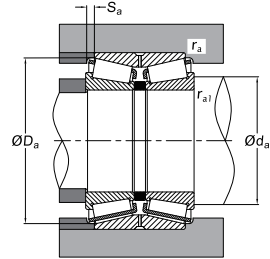
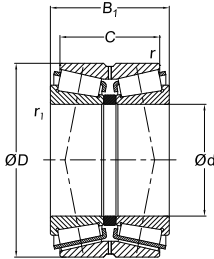
static

$P_{or} = F_r + Y_0 F_a$

For values of e , Y_2 and Y_0
see the table below.

Principal Dimensions (mm)						Bearing Designations	Basic Load Ratings (N)			Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d	D	B ₁	C	r (min)	r ₁ (min)		Dynamic Cr	Static Cor		d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
100	180	83	67	3	1	100KBE02	410000	660000		112	168	2.5	1	0.42	1.61	2.39	1.57	7.74
	180	107	87	3	1	100KBE22	545000	935000		112	168	2.5	1	0.42	1.61	2.39	1.57	10.2
	215	112	87	4	1	100KBE03	625000	990000		114	200	3	1	0.35	1.96	2.91	1.91	16.9
105	190	88	70	3	1	105KBE02	460000	730000		117	178	2.5	1	0.42	1.61	2.39	1.57	9.19
	190	115	95	3	1	105KBE22	605000	1020000		117	178	2.5	1	0.42	1.61	2.39	1.57	12.2
	225	116	91	4	1	105KBE03	655000	1070000		119	209	3	1	0.35	1.96	2.91	1.91	19.1
110	180	70	56	2.5	0.6	110KBE031	286000	500000		120	168	2	0.6	0.35	1.92	2.86	1.88	6.47
	180	56	50	2.5	0.6	110KBE131	246000	380000		120	169	2	0.6	0.35	1.95	2.90	1.91	3.36
	200	92	74	3	1	110KBE02	500000	830000		122	188	2.5	1	0.42	1.61	2.39	1.57	10.7
	200	121	101	3	1	110KBE22	595000	940000		122	188	2.5	1	0.42	1.61	2.39	1.57	14.3
	240	118	93	4	1	110KBE03	680000	1180000		124	222	3	1	0.35	1.96	2.91	1.91	22.3
120	180	58	46	2.5	0.6	120KBE030	221000	375000		130	170	2	0.6	0.35	1.95	2.90	1.91	4.43
	180	46	41	2.5	0.6	120KBE130	186000	295000		130	171	2	0.6	0.35	1.95	2.90	1.91	3.90
	200	78	62	2.5	0.6	120KBE031	405000	710000		130	186	2	0.6	0.35	1.95	2.90	1.91	9.10
	200	62	55	2.5	0.6	120KBE131	295000	455000		130	185	2	0.6	0.35	1.95	2.90	1.91	7.48
	215	97	78	3	1	120KBE02	515000	880000		132	203	2.5	1	0.44	1.55	2.31	1.52	12.9
	215	132	109	3	1	120KBE22	720000	1270000		132	203	2.5	1	0.44	1.55	2.31	1.52	17.8
	260	128	101	4	1	120KBE03	795000	1340000		134	239	3	1	0.35	1.96	2.91	1.91	28.3
130	200	65	52	2.5	0.6	130KBE030	300000	525000		140	189	2	0.6	0.35	1.95	2.90	1.91	6.37
	200	52	46	2.5	0.6	130KBE130	285000	490000		140	187	2	0.6	0.35	1.95	2.90	1.91	5.66
	210	80	64	2.5	0.6	130KBE031	380000	670000		140	195	2	0.6	0.36	1.87	2.79	1.83	9.91
	210	64	57	2.5	0.6	130KBE131	310000	500000		140	196	2	0.6	0.36	1.87	2.79	1.83	8.20
	230	98	78.5	4	1	130KBE02	560000	960000		144	218	3	1	0.44	1.55	2.31	1.52	14.7
	230	145	117.5	4	1	130KBE22	825000	1560000		144	218	3	1	0.44	1.55	2.31	1.52	22.1
	280	137	107.5	5	1.5	130KBE03	915000	1620000		148	258	4	1.5	0.35	1.96	2.91	1.91	35.1
140	210	66	53	2.5	0.6	140KBE030	310000	560000		150	198	2	0.6	0.47	1.43	2.12	1.40	6.86
	210	53	47	2.5	0.6	140KBE130	252000	425000		150	199	2	0.6	0.33	2.03	3.02	1.98	6.12
	225	84	68	3	1	140KBE031	420000	720000		152	213	2.5	1	0.35	1.95	2.90	1.91	11.09
	225	68	61	3	1	140KBE131	400000	705000		152	212	2.5	1	0.35	1.95	2.90	1.91	9.94
	250	102	82.5	4	1	140KBE02	640000	1070000		154	237	3	1	0.44	1.55	2.31	1.52	18.2
	250	153	125.5	4	1	140KBE22	960000	1820000		154	237	3	1	0.44	1.55	2.31	1.52	27.8
	300	145	115.5	5	1.5	140KBE03	1020000	1660000		158	277	4	1.5	0.35	1.96	2.91	1.91	42.5
150	225	70	56	3	1	150KBE030	345000	565000		162	213	2.5	1	0.33	2.03	3.02	1.98	8.35
	225	56	50	3	1	150KBE130	262000	430000		162	215	2.5	1	0.33	2.03	3.02	1.98	7.42
	250	100	80	3	1	150KBE031	570000	1050000		162	235	2.5	1	0.35	1.95	2.90	1.91	18.2
	250	80	71	3	1	150KBE131	520000	905000		162	233	2.5	1	0.35	1.95	2.90	1.91	15.1
	270	109	87	4	1	150KBE02	735000	1220000		164	255	3	1	0.44	1.55	2.31	1.52	22.9
	270	164	130	4	1	150KBE22	1050000	1980000		164	255	3	1	0.44	1.55	2.31	1.52	35.1
	320	154	120	5	1.5	150KBE03	1170000	1840000		168	295	4	1.5	0.35	1.96	2.91	1.91	51.2
160	240	75	60	3	1	160KBE030	385000	675000		172	227	2.5	1	0.33	2.03	3.02	1.98	10.2
	240	60	53	3	1	160KBE130	315000	495000		172	229	2.5	1	0.33	2.03	3.02	1.98	9.05
	270	108	86	3	1	160KBE031	675000	1160000		172	254	2.5	1	0.35	1.95	2.90	1.91	23.3
	270	86	76	3	1	160KBE131	530000	890000		172	253	2.5	1	0.35	1.95	2.90	1.91	19.2
	290	115	91	4	1	160KBE02	785000	1180000		174	275	3	1	0.44	1.55	2.31	1.52	28.0
	290	178	144	4	1	160KBE22	1220000	2210000		174	275	3	1	0.44	1.55	2.31	1.50	44.2
	340	160	126	5	1.5	160KBE03	1350000	2040000		178	311	4	1.5	0.36	1.90	2.80	1.80	59.9

TDO Design • Metric Size
d: 170 ~ 300 mm



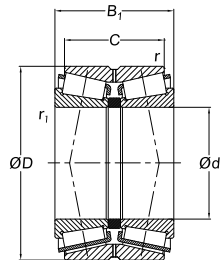
Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$
 $\frac{F_a}{F_r} \leq e$ $\frac{F_a}{F_r} > e$

X	Y	X	Y
1	Y ₁	0.67	Y ₂

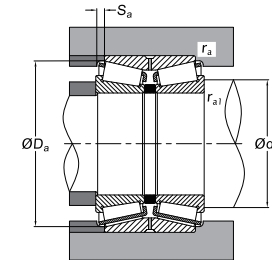
static
 $P_{0r} = F_r + Y_0 F_a$
For values of e , Y_2 and Y_0
see the table below.

Principal Dimensions (mm)						Bearing Designations	Basic Load Ratings (N)			Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d	D	B ₁	C	r (min)	r ₁ (min)		Dynamic Cr	Static Cor		d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
170	260	84	67	3	1	170KBE030	530000	1000000		182	244	2.5	1	0.33	2.03	3.02	1.98	13.8
	260	67	60	3	1	170KBE130	350000	585000		182	246	2.5	1	0.33	2.03	3.02	1.98	12.2
	280	110	88	3	1	170KBE031	705000	1240000		182	262	2.5	1	0.33	2.06	3.06	2.01	24.8
	280	88	78	3	1	170KBE131	545000	935000		182	264	2.5	1	0.33	2.06	3.06	2.01	20.5
	310	125	97	5	1.5	170KBE02	885000	1430000		188	290	4	1.5	0.44	1.55	2.31	1.52	35.0
	310	192	152	5	1.5	170KBE22	1420000	2610000		188	295	4	1.5	0.44	1.55	2.31	1.52	54.7
180	280	93	74	3	1	180KBE030	555000	975000		192	262	2.5	1	0.33	2.03	3.02	1.98	18.1
	280	74	66	3	1	180KBE130	450000	650000		192	265	2.5	1	0.33	2.03	3.02	1.98	16.0
	300	120	96	4	1.5	180KBE031	805000	1460000		194	281	3	1.5	0.33	2.06	3.06	2.01	31.5
	300	96	85	4	1.5	180KBE131	660000	1130000		194	281	3	1.5	0.33	2.06	3.06	2.01	26.1
	320	127	99	5	1.5	180KBE02	875000	1350000		198	301	4	1.5	0.45	1.5	2.23	1.47	37.0
	320	192	152	5	1.5	180KBE22	1480000	2720000		198	305	4	1.5	0.45	1.5	2.23	1.47	57.0
190	290	94	75	3	1	190KBE030	585000	1120000		202	273	2.5	1	0.33	2.03	3.02	1.98	19.1
	290	75	67	3	1	190KBE130	485000	850000		202	276	2.5	1	0.32	2.12	3.15	2.07	17.0
	320	130	104	4	1.5	190KBE031	1030000	1960000		204	296	3	1.5	0.35	1.95	2.90	1.91	39.3
	320	104	92	4	1.5	190KBE131	750000	1280000		204	298	3	1.5	0.35	1.95	2.90	1.91	32.5
	340	133	105	5	1.5	190KBE02	975000	1600000		208	319	4	1.5	0.44	1.55	2.31	1.52	440
	340	204	160	5	1.5	190KBE22	1580000	2880000		208	330	4	1.5	0.44	1.55	2.31	1.52	68.8
200	310	103	82	3	1	200KBE030	705000	1270000		212	295	2.5	1	0.33	2.03	3.02	1.98	54.5
	310	82	73	3	1	200KBE130	530000	880000		212	295	2.5	1	0.32	2.12	3.15	2.07	21.7
	340	140	112	4	1.5	200KBE031	1030000	1770000		214	318	3	1.5	0.35	1.95	2.90	1.91	48.2
	340	112	100	4	1.5	200KBE131	1000000	1770000		214	316	3	1.5	0.35	1.95	2.90	1.91	39.9
	360	142	110	5	1.5	200KBE02	1090000	1760000		218	336	4	1.5	0.44	1.55	2.31	1.52	53.0
	360	218	174	5	1.5	200KBE22	1830000	3450000		218	340	4	1.5	0.41	1.66	2.47	1.62	82.8
220	340	113	90	4	1.5	220KBE031	815000	1620000		234	320	3	1.5	0.32	2.12	3.15	2.07	32.2
	340	90	80	4	1.5	220KBE130	650000	1170000		234	325	3	1.5	0.32	2.12	3.15	2.07	28.5
	370	150	120	5	1.5	220KBE031	1240000	2400000		238	348	4	1.5	0.35	1.95	2.90	1.91	60.5
	370	120	107	5	1.5	220KBE131	955000	1640000		238	347	4	1.5	0.35	1.95	2.90	1.91	50.0
	400	158	122	5	1.5	220KBE02	1410000	2480000		238	374	4	1.5	0.40	1.70	2.50	1.60	73.4
	360	115	92	4	1.5	240KBE030	850000	1780000		254	340	3	1.5	0.32	2.12	3.15	2.07	35.1
240	360	92	82	4	1.5	240KBE130	680000	1230000		254	345	3	1.5	0.32	2.12	3.15	2.07	31.2
	400	160	128	5	1.5	240KBE031	1480000	2850000		258	372	4	1.5	0.35	1.95	2.90	1.91	74.6
	400	128	114	5	1.5	240KBE131	1160000	2130000		258	377	4	1.5	0.35	1.95	2.90	1.91	61.8
	400	130	104	5	1.5	260KBE030	1100000	2160000		278	383	4	1.5	0.32	2.12	3.15	2.07	50.9
	400	104	92	5	1.5	260KBE130	835000	1520000		278	382	4	1.5	0.33	2.03	3.02	1.98	45.3
	440	180	144	5	1.5	260KBE031	1910000	3750000		278	409	4	1.5	0.35	1.95	2.90	1.91	103
260	440	144	128	5	1.5	260KBE131	1350000	2540000		278	415	4	1.5	0.35	1.95	2.90	1.91	85.5
	420	133	106	5	1.5	280KBE030	1240000	2580000		298	396	4	1.5	0.33	2.03	3.02	1.98	55.3
	420	106	94	5	1.5	280KBE130	905000	1670000		298	403	4	1.5	0.33	2.03	3.02	1.98	48.9
	460	183	146	6	1.5	280KBE031	1960000	3950000		302	429	5	2	0.35	1.95	2.90	1.91	111
	460	146	130	6	2	280KBE131	1530000	3000000		302	434	5	2	0.35	1.95	2.90	1.91	91.6
	460	148	118	5	1.5	300KBE030	1520000	3150000		318	437	4	1.5	0.32	2.12	3.15	2.07	76.3
300	460	118	105	5	1.5	300KBE130	1060000	2030000		318	436	4	1.5	0.32	2.12	3.15	2.07	67.6
	500	200	160	6	2	300KBE031	2100000	4100000		322	474	5	2	0.35	1.95	2.90	1.91	146
	500	160	142	6	2	300KBE131	1780000	3050000		322	471	5	2	0.35	1.95	2.90	1.91	121

TDO Design • Metric Size d: 320 ~ 500 mm



Principal Dimensions (mm)						Bearing Designations	Basic Load Ratings (N)		
d	D	B ₁	C	r (min)	r ₁ (min)		Dynamic Cr	Static Cor	
320	480	151	121	6	1.5	320KBE030	1560000	3200000	
	480	121	108	5	1.5	320KBE130	1330000	2680000	
	540	220	176	6	2	320KBE031	2530000	5050000	
	540	176	157	6	2	320KBE131	2150000	3850000	
340	520	165	133	6	2	340KBE030	1890000	3950000	
	520	133	118	6	2	340KBE130	1600000	3150000	
	580	238	190	6	2	340KBE031	2100000	6250000	
	580	190	169	6	2	340KBE131	2460000	4600000	
360	540	169	134	6	2	360KBE030	1980000	4400000	
	540	134	120	6	2	360KBE130	1460000	2800000	
	600	240	192	6	2	360KBE031	3200000	6650000	
	600	192	171	6	2	360KBE131	2830000	5600000	
380	560	171	135	6	2	380KBE030	2000000	4550000	
	560	135	122	6	2	380KBE130	1700000	3550000	
	620	243	194	6	2	380KBE031	3350000	7100000	
	620	194	173	6	2	380KBE131	2900000	5900000	
400	600	185	148	6	2	400KBE030	2430000	5350000	
	600	148	132	6	2	400KBE130	2020000	4200000	
	650	250	200	6	3	400KBE031	3550000	7650000	
	650	200	178	6	3	400KBE131	3100000	6400000	
420	620	188	150	6	2	420KBE030	3400000	5450000	
	620	150	134	6	2	420KBE130	1870000	3950000	
	700	280	224	6	3	420KBE031	4350000	9250000	
	700	224	200	6	3	420KBE131	3900000	7950000	
440	650	196	157	6	3	440KBE030	2730000	6150000	
	650	157	140	6	3	440KBE130	2200000	4650000	
	720	283	226	6	3	440KBE031	4450000	9750000	
	720	226	201	6	3	440KBE131	4000000	8350000	
460	680	204	163	6	3	460KBE030	3300000	8150000	
	680	163	145	6	3	460KBE130	2420000	5150000	
	760	300	240	7.5	4	460KBE031	5050000	11100000	
	760	240	214	7.5	4	460KBE131	4550000	9600000	
480	700	206	165	6	3	480KBE030	3050000	7050000	
	700	165	147	6	3	480KBE130	2200000	4750000	
	790	310	248	7.5	4	480KBE031	5100000	11000000	
	790	248	221	7.5	4	480KBE131	4800000	10100000	
500	720	209	167	6	3	500KBE030	3150000	7400000	
	720	167	149	6	3	500KBE130	2520000	5550000	
	830	330	264	7.5	4	500KBE031	5750000	12500000	
	830	264	235	7.5	4	500KBE131	5200000	11000000	



Equivalent bearing load
dynamic
 $P_d = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

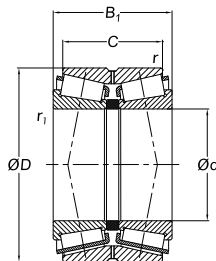
static

$P_{or} = F_r + Y_0 F_a$

For values of e , Y_2 and Y_0
see the table below.

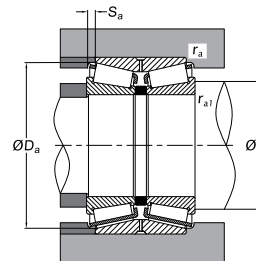
Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
338	455	5	1.5	0.32	2.12	3.15	2.07	81.9
338	453	4	1.5	0.32	2.12	3.15	2.07	73.0
342	499	5	2	0.35	1.95	2.90	1.91	190
342	502	5	2	0.35	1.95	2.90	1.91	157
362	488	5	2	0.32	2.12	3.15	2.07	108
362	489	5	2	0.32	2.12	3.15	2.07	97.2
362	537	5	2	0.35	1.95	2.90	1.91	239
362	540	5	2	0.35	1.95	2.90	1.91	198
382	514	5	2	0.32	2.12	3.15	2.07	116
382	511	5	2	0.32	2.12	3.15	2.07	102
382	558	5	2	0.39	1.74	2.90	1.70	252
382	559	5	2	0.35	1.94	2.59	1.91	208
402	532	5	2	0.39	1.74	2.59	1.70	123
402	531	5	2	0.32	2.12	3.15	2.07	108
402	578	5	2	0.35	1.95	2.90	1.91	266
402	579	5	2	0.39	1.74	2.59	1.71	219
422	566	5	2	0.32	2.12	3.15	2.07	157
422	566	5	2	0.32	2.12	3.15	2.07	139
428	607	5	2.5	0.35	1.95	2.90	1.91	299
428	608	5	2.5	0.35	1.95	2.90	1.91	247
442	585	5	2	0.39	1.74	2.59	1.70	166
442	582	5	2	0.33	2.03	3.02	1.98	147
448	652	5	2.5	0.39	1.74	2.59	1.70	400
448	651	5	2.5	0.39	1.74	2.59	1.70	331
468	614	5	2.5	0.39	1.74	2.59	1.70	190
468	615	5	2.5	0.33	2.03	3.02	1.98	169
468	572	5	2.5	0.40	1.68	2.51	1.65	419
468	654	5	2.5	0.40	1.70	2.60	1.70	346
488	648	5	2.5	0.39	1.74	2.59	1.70	217
488	642	5	2.5	0.37	1.83	2.72	1.78	193
490	707	6	3	0.39	1.74	2.59	1.70	500
496	709	6	3	0.39	1.70	2.60	1.70	414
508	662	5	2.5	0.33	2.03	3.02	1.98	227
508	665	5	2.5	0.33	2.03	3.02	1.98	202
516	736	6	3	0.39	1.74	2.59	1.70	556
516	737	6	3	0.39	1.74	2.59	1.70	460
528	683	5	2.5	0.42	1.62	2.41	1.58	238
528	684	5	2.5	0.40	1.71	2.54	1.67	211
536	752	6	3	0.39	1.70	2.60	1.70	660
536	774	6	3	0.39	1.70	2.60	1.70	546

TDO Design • Inch Size
d: 139.700~228.600mm



Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)		
d	D	B ₁	C		Dynamic Cr	Static Cor	
139.700	307.975	200.025	155.575	HH234031/HH234011D	1740	2780	
152.400	307.975	200.025	146.050	EE450601/451215D	1510	2620	
	307.975	200.025	155.575	HH234048/HM234011D	1740	2780	
160.325	288.925	142.875	111.125	HM237532/HM237510D	1160	2140	
165.100	288.925	142.875	111.125	94649/94114D	940	1900	
	288.925	142.875	111.125	HM237535/HM237510	1160	2140	
174.625	288.925	142.875	111.125	94687/94114D	940	1900	
	288.925	142.875	111.125	HM237542/HM237510D	1160	2140	
177.800	288.925	142.875	111.125	94700/94114D	940	1900	
	288.925	142.875	111.125	HM237545/HM237510D	1160	2140	
	320.675	185.738	138.112	EE222070/222127D	1300	2480	
	320.675	185.738	138.112	H239640/H239612D	1590	2790	
187.325	282.575	107.950	79.375	87737/87112D	625	1230	
	320.675	185.738	138.112	H239649/H239612D	1590	2790	
190.500	282.575	107.950	79.375	87750/87112D	625	1230	
	317.500	146.050	111.125	93750/93127D	1060	2310	
	368.300	193.675	136.525	EE420751/421451D	1670	3200	
193.675	282.575	107.950	79.375	87762/87112D	625	1230	
200.025	292.100	125.415	101.600	M241543/M241510D	915	2070	
	317.500	146.050	111.125	93787/93727D	1060	2310	
	384.175	238.125	193.675	H247535/H247510	2500	5450	
203.200	276.225	90.485	73.025	LM241149/LM241110D	585	1380	
	282.575	101.600	82.550	67983/67920D	620	1570	
	292.100	125.415	101.600	M241547/M241510D	915	2070	
	317.500	146.050	111.125	93800/93127D	1060	2310	
	368.300	193.675	136.525	EE420801/421451D	1670	3200	
204.788	292.100	125.415	101.600	M241549/M241510D	915	2070	
206.375	282.575	101.600	82.550	67985/67920D	620	1570	
	336.550	211.138	169.862	H242649/H242610D	1900	4050	
209.550	282.575	101.600	82.550	67989/67920D	620	1570	
	317.500	146.050	111.125	93825/93127D	1060	2310	
212.725	285.750	98.425	76.200	LM742745/LM742710D	650	1640	
215.900	285.750	98.425	76.200	LM742749/LM742710D	650	1640	
	287.338	69.850	50.800	543085/543115D	355	810	
220.662	314.325	131.762	106.362	M244249/M244210D	1070	2450	
228.460	431.800	196.850	111.125	EE113091/113171D	1470	2480	
228.600	327.025	114.300	82.550	8573/8520D	815	1900	
	355.600	152.400	111.125	96900/96140D	1100	2540	
	355.600	152.400	111.125	EE130902/131401D	1230	2510	
	355.600	152.400	114.300	HM746646/HM746610D	1230	2490	

Note: Bearing chamfers r and r₁ should be larger than the max value of r_a and r_{a1}.



Equivalent bearing load
dynamic
 $P_d = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

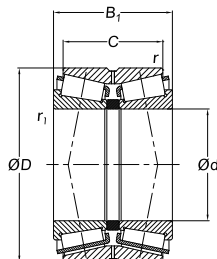
static

$$P_{0st} = F_r + Y_0 F_a$$

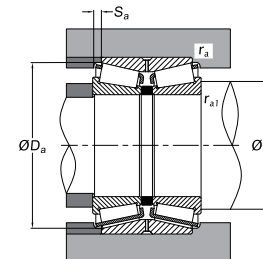
For values of e, Y₂ and Y₀ see the table below.

Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
180	285	9.7	2.3	0.33	2.07	3.08	2.02	65.9
189	275	9.7	2.3	0.33	2.07	3.08	2.02	62.6
191	285	9.7	2.3	0.33	2.07	3.08	2.02	62.6
192	271	7.0	1.5	0.32	2.12	3.15	2.07	36.1
197	272	7.0	1.5	0.47	1.44	2.15	1.41	35.1
195	271	7.0	1.5	0.32	2.12	3.15	2.07	35.1
204	272	7.0	1.5	0.47	1.44	2.15	1.41	33.1
202	271	7.0	1.5	0.32	2.12	3.15	2.07	33.1
207	272	7.0	1.5	0.47	1.44	2.15	1.41	32.4
205	271	7.0	1.5	0.32	2.12	3.15	2.07	32.4
204	298	3.5	1.5	0.40	1.68	2.50	1.64	57.8
202	301	3.5	1.5	0.32	2.12	3.15	2.07	57.8
207	267	3.5	1.5	0.42	1.62	2.42	1.59	21.2
214	301	5.5	1.5	0.32	2.12	3.15	2.07	55
209	267	3.5	1.5	0.42	1.62	2.42	1.59	20.6
218	300	4.3	1.5	0.52	1.29	1.92	1.26	41.2
227	334.4	6.4	1.5	0.40	1.68	2.50	1.64	84.1
211	267	3.5	1.5	0.42	1.62	2.42	1.59	20
219	279	3.5	1.5	0.33	2.03	3.02	1.98	24.8
225	300	4.3	1.5	0.52	1.29	1.92	1.26	38.8
241	362	6.4	1.5	0.33	2.03	3.02	1.98	112
220	267	3.5	0.8	0.32	2.12	3.15	2.07	13.8
222	275	3.5	0.8	0.51	1.33	1.97	1.30	17.1
221	279	3.5	1.5	0.33	2.03	3.02	1.98	24.1
227	300	4.3	1.5	0.52	1.29	1.92	1.26	37.1
230	334.4	3.3	1.5	0.40	1.68	2.50	1.64	79.9
246	374	6.4	3.3	0.80	0.85	1.26	0.83	107
223	279	3.5	1.5	0.33	2.03	3.02	1.98	23.8
224	275	3.5	0.8	0.51	1.33	1.97	1.30	16.5
231	318	3.3	1.5	0.33	2.03	3.02	1.98	65.2
227	275	3.5	0.8	0.51	1.33	1.97	1.30	16
233	300	4.3	1.5	0.52	1.29	1.92	1.26	36.3
230	279	3.5	0.8	0.48	1.40	2.09	1.37	15.7
233	279	3.5	0.8	0.48	1.40	2.09	1.37	15.1
232	276	3.5	0.8	0.38	1.77	2.64	1.73	11
245	300	6.4	1.5	0.33	2.03	3.02	1.98	28.9
274	397	6.4	3.3	0.88	0.77	1.14	0.75	116
255	313	6.4	1.5	0.41	1.66	2.47	1.62	27.3
260	334	7.0	1.5	0.59	1.14	1.70	1.12	49.4
257	330	6.8	1.5	0.33	2.04	3.04	2.00	49.4
258	339	6.4	1.5	0.47	1.43	2.12	1.40	49.4

TDO Design • Inch Size
d: 228.600~280.192mm



Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)		
d	D	B ₁	C		Dynamic Cr	Static Cor	
228.600	358.775	152.400	117.475	M249732/M249710D	1390	3300	
	400.050	187.325	136.525	EE430900/431576D	1620	3250	
	488.950	254.000	152.400	HH949549/HH949510DG2	2700	4550	
231.775	358.775	152.400	117.475	M249734/M249710D	1390	3300	
234.950	311.150	98.425	73.025	LM446349/LM446310D	695	1640	
	327.025	114.300	82.550	8575/8520D	815	1900	
	355.600	152.400	111.125	96925/96140D	1100	2540	
	384.175	238.125	193.675	H247549/H247510D	2500	5450	
237.330	358.775	152.400	117.475	M249736/M249710D	1390	3300	
241.300	327.025	114.300	82.550	8578/8520D	815	1900	
	349.148	127.000	101.600	EE127095/127136D	940	2010	
	368.300	120.650	85.725	EE170950/171450D	790	1630	
	393.700	157.162	109.538	EE275095/275156D	1340	2800	
	406.400	215.900	184.150	H249148/H249111D	2460	4750	
	444.500	209.550	158.750	EE923095/923176DG2	2380	4250	
244.475	381.000	171.450	127.000	EE126097/126151D	1300	2880	
247.650	368.300	120.650	85.725	EE170975/171451D	790	1630	
	406.400	247.650	203.200	HH249949/HH249910D	2830	6000	
249.250	381.000	171.450	127.000	EE126098/126151D	1300	2880	
254.000	323.850	63.500	50.800	29875/29820D	216	635	
	358.775	152.400	117.475	M249749/M249710D	1390	3300	
	365.125	130.175	98.425	EE134100/134144D	1050	2380	
	393.700	157.162	109.538	EE275100/275156D	1340	2800	
	422.275	178.592	139.700	HM252343/HM252310D	2000	3600	
	533.400	276.225	165.100	HH953749/HH953710D	2880	5200	
260.350	365.125	130.175	98.425	EE134102/134144D	1050	2380	
	400.050	155.575	107.950	EE221026/221576D	1220	2460	
	419.100	184.150	136.525	EE435102/435165D	1580	3250	
	422.275	178.592	139.700	HM252348/HM252310D	2000	3600	
	488.950	254.000	196.850	EE295102/295192D	3000	5950	
	263.525	355.600	127.000	LM451345/LM451310D	1070	2670	
266.700	323.850	63.500	50.800	29880/29820D	216	635	
	355.600	127.000	101.600	LM451349/LM451310D	1070	2670	
	393.700	157.162	109.538	EE275105/275156D	1340	2800	
	269.875	381.000	158.750	M252349/M252310D	1520	3600	
273.050	393.700	157.162	109.538	EE275180/275156D	1340	2800	
279.400	374.650	104.775	79.375	L555233/L555210D	810	2020	
	469.900	200.025	149.225	EE722110/722186D	2030	4350	
	488.950	254.000	196.850	EE295110/295192D	3000	5950	
279.982	380.898	139.700	107.950	LM654642/LM654610D	1140	3100	
280.192	406.400	149.225	117.475	EE128111/128160D	1310	3100	



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

static

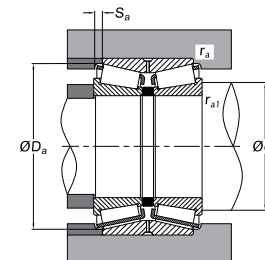
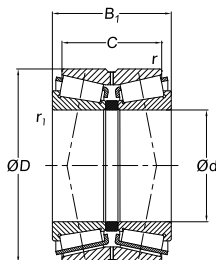
$P_{0r} = F_r + Y_0 F_a$

For values of e , Y_2 and Y_0
see the table below.

Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
256	343	3.5	1.5	0.33	2.03	3.02	1.98	50.9
271	367	10.5	1.5	0.44	1.54	2.29	1.50	88.3
297	456	6.4	1.5	0.94	0.72	1.07	0.70	207
263	343	6.4	1.5	0.33	2.03	3.02	1.98	50
252	301	3.5	0.8	0.36	1.86	2.77	1.82	17.9
259	313	6.4	1.5	0.41	1.66	2.47	1.62	25.9
265	334	7.0	1.5	0.59	1.14	1.70	1.12	47.5
269	362	6.4	1.5	0.33	2.03	3.02	1.98	96.2
267	343	6.4	1.5	0.33	2.03	3.02	1.98	48.2
264	313	6.4	1.5	0.41	1.66	2.47	1.62	24.3
267	329	6.4	1.5	0.35	1.91	2.85	1.87	35.4
269	337	6.4	1.5	0.36	1.85	2.76	1.81	40.8
278	378.1	6.4	1.5	0.40	1.68	2.50	1.64	66.5
273	385	6.4	1.5	0.33	2.03	3.02	1.98	101
277	407	6.4	1.5	0.34	2.00	2.98	1.96	128
275	358	6.4	1.5	0.52	1.31	1.95	1.28	64
274	337	6.4	1.5	0.36	1.85	2.76	1.81	39.2
284	383	6.4	1.5	0.33	2.03	3.02	1.98	112
279	358	6.4	1.5	0.52	1.31	1.95	1.28	62.2
267	312	1.5	0.8	0.35	1.95	2.90	1.91	11.2
274	343	3.5	1.5	0.33	2.03	3.02	1.98	42.8
281	347	6.4	1.5	0.37	1.80	2.69	1.76	39.2
287	378	6.4	1.5	0.40	1.68	2.50	1.64	62.2
287	400	6.8	1.5	0.33	2.03	3.02	1.98	88.9
328	496	6.4	1.5	0.94	0.71	1.06	0.70	266
286	347	6.4	1.5	0.37	1.80	2.69	1.76	37.3
296	372	9.7	1.5	0.39	1.71	2.54	1.67	62.7
295	395	6.4	1.5	0.61	1.11	1.66	1.09	86.8
292	400	6.8	1.5	0.33	2.03	3.02	1.98	86.3
299	451	6.4	1.5	0.31	2.16	3.22	2.12	190
283	343	3.5	1.5	0.36	1.87	2.79	1.83	31.7
277	312	1.5	0.8	0.35	1.95	2.90	1.91	9.37
285	343	3.5	1.5	0.36	1.87	2.79	1.83	30.7
296	378	6.4	1.5	0.40	1.68	2.50	1.64	57.6
296	364	6.4	1.5	0.33	2.03	3.02	1.98	52.3
301	378	6.4	1.5	0.40	1.68	2.50	1.64	55.3
300	362	3.5	1.5	0.40	1.68	2.50	1.64	28.5
321	433	9.7	1.5	0.38	1.78	2.65	1.74	125
303	451	1.3	1.5	0.31	2.16	3.22	2.12	179
302	368	3.5	1.5	0.43	1.56	2.33	1.53	40.7
309	384	6.8	1.5	0.39	1.75	2.61	1.71	56.5

Note: Bearing chamfers r and r_1 should be larger than the max value of r_a and r_{a1} .

TDO Design • Inch Size
d: 285.750~406.400mm



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

static

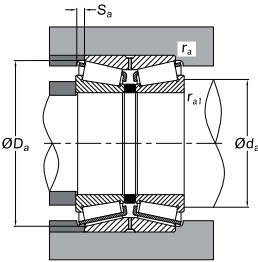
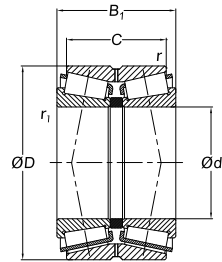
$$P_{0r} = F_r + Y_0 F_a$$

For values of e , Y_2 and Y_0
see the table below.

Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)			Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d	D	B ₁	C		Dynamic Cr	Static Cor		d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
285.750	358.775	76.200	53.975	545112/545142DA	450	1080		302	345	3.5	1.5	0.49	1.38	2.05	1.34	15.7
	380.898	139.700	107.950	LM654649/LM654610D	1140	3100		306	368	3.5	1.5	0.43	1.56	2.33	1.53	38.7
	501.650	203.200	120.650	EE147112/147198D	1960	3700		329	468	6.4	3.3	0.84	0.81	1.20	0.79	151
288.925	406.400	165.100	130.175	M255449/M255410DA	1740	4150		316	388	6.4	1.5	0.34	2.00	2.98	1.96	59
292.100	374.650	104.775	79.375	L555249/L555210D	810	2020		309	362	3.5	1.5	0.40	1.68	2.50	1.64	25.2
	469.900	200.025	149.225	EE722115/722186D	2030	4350		330	433	9.7	1.5	0.38	1.78	2.65	1.74	118
298.450	444.500	146.050	98.425	EE291175/291751D	1080	2300		332	414	8.0	1.5	0.38	1.78	2.65	1.74	69.3
299.974	495.300	301.625	247.650	HH258248/HH258210DG2	4200	9800		342	467	6.4	1.5	0.33	2.03	3.02	1.98	205
300.038	422.275	174.625	136.525	HM256849/HM256810DG2	1950	4800		328	403	6.4	1.5	0.34	2.00	2.99	1.96	67.4
304.800	393.700	107.950	82.550	L357049/L357010D	835	2070		329	380	6.4	1.5	0.36	1.87	2.79	1.83	29.3
	438.048	165.100	120.650	EE129120X/129120D	1380	3200		334	411	6.4	1.5	0.42	1.62	2.42	1.59	71.4
	444.500	146.050	98.425	EE291201/291751D	1080	2300		337	414	8.0	1.5	0.38	1.78	2.65	1.74	66.8
	495.300	196.850	146.050	EE724120/724196D	2120	4700		359	459	16.0	1.5	0.40	1.68	2.50	1.64	131
317.500	444.500	146.050	98.425	EE291250/291751D	1080	2300		346	414	8.0	1.5	0.38	1.78	2.65	1.74	61.8
	447.675	180.975	146.050	HM259049/HM259010D	1990	4800		341	428	3.5	1.5	0.33	2.02	3.00	1.97	78.8
	622.300	304.800	174.625	H961649/H961610DG2	3250	6250		410	582	14.3	3.3	0.95	0.71	1.06	0.70	382
330.200	482.600	133.350	88.900	EE161300/161901D	1200	2870		367	455	7.0	1.5	0.50	1.35	2.01	1.32	72.2
	482.600	177.800	127.000	EE526130/526191D	1640	3950		360	454	6.4	1.5	0.39	1.72	2.56	1.68	96.3
333.375	469.900	190.500	152.400	HM261049/HM261010DA	2320	5500		363	449	6.4	1.5	0.33	2.02	3.00	1.97	91.3
342.900	457.098	142.875	104.775	LM961548/LM961511D	1210	3300		367	443.1	3.3	1.5	0.71	0.95	1.41	0.93	57.1
	533.400	165.100	114.300	EE971354/972102D	1830	3450		373	996	4.8	1.5	0.33	2.03	3.02	1.98	120
346.075	482.600	133.350	88.900	EE161363/161901D	1200	2870		379	455	7.0	1.5	0.50	1.35	2.01	1.32	66
	488.950	200.025	158.750	HM262749/HM262710DG2	2540	6400		377	467	6.4	1.5	0.33	2.02	3.00	1.97	104
349.250	514.350	193.675	152.400	EE333137/333203D	2040	4550		382	478	6.4	1.5	0.36	1.85	2.76	1.81	121
355.600	444.500	136.525	111.125	L163149/L163110D	1120	3500		374	430	3.5	1.5	0.31	2.02	3.27	2.15	42.5
	482.600	133.350	88.900	EE161400/161901D	1200	2870		386	455	7.0	1.5	0.50	1.35	2.01	1.32	62.1
	501.650	155.575	107.950	EE231400/231976D	1550	3650		388	481	6.4	1.5	0.44	1.53	2.28	1.50	85.2
	514.350	193.675	152.400	EE333140/333203D	2040	4550		387	478	6.4	1.5	0.36	1.85	2.76	1.81	117
368.249	523.875	214.312	169.862	HM265049/HM265010DG2	2610	6550		400	499	6.4	1.5	0.33	2.03	3.02	1.98	142
371.475	501.650	155.575	107.950	EE231462/231976D	1550	3650		400	481	6.4	1.5	0.44	1.53	2.28	1.50	77.3
381.000	508.000	139.700	88.900	EE192150/192201D	920	2270		410	482	6.4	1.5	0.53	1.27	1.89	1.24	69
	546.100	222.250	177.800	HM266446/HM266410D	2950	7350		415	519	6.4	1.5	0.33	2.03	3.02	1.98	149
	590.550	244.475	193.675	M268730/M268710DG2	3650	9450		425	561	6.4	1.5	0.33	2.03	3.02	1.98	247
384.175	441.325	68.262	52.388	LL365340/LL365310D	360	1060		399	433	3.5	0.8	0.34	1.99	2.96	1.94	14.1
	546.100	222.250	177.800	HM266448/HM266410D	2950	7350		417	519	6.4	1.5	0.33	2.03	3.02	1.98	146
	546.100	222.250	177.800	HM266449/HM266410DG2	3150	8050		417	520	6.4	1.5	0.33	2.03	3.02	1.98	146
385.762	514.350	177.800	139.700	LM665949/LM665910D	2120	5550		415	495	6.4	1.5	0.42	1.61	2.40	1.58	90
396.875	539.750	142.875	101.600	EE234156/234213D	1330	3300		428	516	6.4	1.5	0.47	1.43	2.12	1.40	83.6
	546.100	158.750	117.475	EE234156/234216D	1330	3300		428	516	6.4	1.5	0.47	1.43	2.12	1.40	97.7
406.400	539.750	142.875	101.600	EE234160/234213D	1330	3300		435	518	6.4	1.5	0.47	1.43	2.12	1.40	78.8
	609.600	187.325	123.825	EE911600/912401D	2110	4650		443	570	6.8	1.5	0.38	1.76	2.62	1.72	169

Note: Bearing chamfers r and r₁ should be larger than the max value of r_a and r_{a1}.

TDO Design • Inch Size
d: 415.925~1270.000mm



Equivalent bearing load
dynamic
 $P_t = X F_r + Y F_a$
 $\frac{F_a}{F_r} \leq e$ | $\frac{F_a}{F_r} > e$

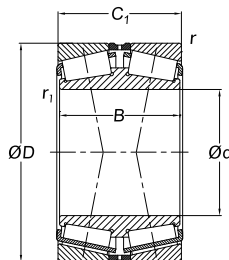
X	Y	X	Y
1	Y ₁	0.67	Y ₂

static
 $P_{or} = F_r + Y_0 F_a$
For values of e, Y₂ and Y₀
see the table below.

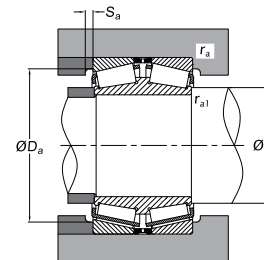
Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)			Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d	D	B ₁	C		Dynamic Cr	Static Cor		d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
415.925	590.550	244.475	193.675	M268749/M268710DG2	3650	9450		451	561	6.4	1.5	0.33	2.03	3.02	1.98	188
431.800	571.500	155.575	111.125	LM869448/LM869410D	1880	4950		457	549	3.3	1.5	0.55	1.24	1.84	1.21	95.3
	603.250	159.639	104.775	EE241701/242377D	1670	4100		446	561	6.4	1.5	0.53	1.28	1.91	1.25	124
447.675	673.100	192.639	127.000	EE571703/572651D	2560	5350		472	630	6.4	1.5	0.40	1.68	2.50	1.64	225
	635.000	257.175	206.375	M270749/M270710DAG2	4150	11100		484	606	6.4	1.5	0.33	2.03	3.02	1.98	228
457.200	596.900	165.100	120.650	EE244180/244236D	1670	4700		494	570	9.7	1.5	0.40	1.67	2.49	1.63	106
	730.148	254.000	177.800	EE671801/672875D	4350	8750		507	681	9.7	1.5	0.39	1.72	2.56	1.68	360
479.425	679.450	276.225	222.250	M272749/M272710DG2	4900	13000		516	648	6.4	1.5	0.33	2.03	3.02	1.98	310
	615.950	184.150	146.050	LM272249/LM272210DG2	2320	6700		513	597	6.4	1.5	0.33	2.03	3.02	1.98	118
482.600	634.873	177.800	142.875	EE243190/243251D	2000	6150		516	609	6.4	1.5	0.34	1.98	2.94	1.93	148
	634.873	180.975	136.525	LM772748/LM772710DA	2500	6950		522	613	6.4	1.5	0.47	1.43	2.12	1.40	130
488.950	660.400	206.375	158.750	EE640192/640261DG2	3150	8050		522	627	6.4	1.5	0.31	2.20	3.27	2.15	178
	489.026	634.873	177.800	EE243192/243251D	2000	6150		522	609	6.4	1.5	0.34	1.98	2.94	1.93	140
498.475	634.873	177.800	142.875	EE243196/243251D	2000	6150		528	609	6.4	1.5	0.34	1.98	2.94	1.93	129
	508.000	838.200	304.800	EE426200/426331D	5450	12800		564	768	9.7	3.3	0.48	1.41	2.09	1.37	592
533.400	812.800	269.875	187.325	EE626210/626321D	4450	10400		585	762	9.7	3.3	0.44	1.52	2.26	1.49	444
	536.575	761.873	311.150	M276449/M276410DG2	5900	15200		576	726	6.4	1.5	0.33	2.03	3.02	1.98	398
549.275	692.150	174.625	136.525	L476549/L476510D	2320	6950		579	666	6.4	1.5	0.38	1.79	2.67	1.75	135
	736.600	165.100	114.300	EE542220/542291D	2050	5400		594	705	6.4	3.3	0.51	1.32	1.96	1.29	166
558.800	736.600	187.328	138.112	EE843220/843291D	2500	6750		591	708	6.4	1.5	0.34	1.98	2.94	1.93	189
	736.600	225.425	177.800	LM377449/LM377410D	3150	8800		594	708	6.4	1.5	0.35	1.95	2.90	1.91	227
571.500	812.800	333.375	263.525	M278749/M278710DAG2	6950	18300		615	774	6.4	1.5	0.33	2.03	3.02	1.98	487
	609.600	787.400	206.375	EE649240/649311DG2	3750	10100		642	764	6.4	1.5	0.33	2.03	3.02	1.98	235
660.400	812.800	190.500	146.050	EE743240/743321D	2860	7850		645	765	6.4	3.3	0.33	2.06	3.06	2.01	241
	711.200	914.400	190.500	L281148/L281110DA	3250	10300		693	789	6.4	1.5	0.37	1.80	2.69	1.76	199
723.900	914.400	187.325	139.700	EE755280/755361DG2	3100	8950		750	876	6.4	3.3	0.38	1.77	2.64	1.73	275
	977.900	1130.300	139.700	EE755285/755361DG2	3100	8950		756	876	5.5	3.3	0.38	1.77	2.64	1.73	256
1270.000	1435.100	146.050	101.600	LL687949/LL687910D	2050	7200		1010	1100	6.4	3.3	0.44	1.54	2.30	1.51	196
				LL889049/LL889010D	2730	10100		1305	1400	6.4	3.3	0.58	1.17	1.75	1.15	285

Note: Bearing chamfers r and r₁ should be larger than the max value of r_a and r_{a1}.

TDI Design • Metric Size
d: 110 ~ 500 mm



Principal Dimensions (mm)						Bearing Designations	Basic Load Ratings (N)		
d	D	B	C ₁	r (min)	r ₁ (min)		Dynamic Cr	Static Cor	
110	180	56	56	2	2.5	110KBD031	300000	505000	
120	180	46	46	2	2.5	120KBD030	229000	424000	
	220	62	62	2	2.5	120KBD031	353000	598000	
130	200	52	52	2	2.5	130KBD030	300000	548000	
	210	64	64	2	2.5	130KBD031	412000	657000	
140	210	53	53	2	2.5	140KBD030	311000	564000	
	225	68	68	2.5	3	140KBD031	486000	807000	
150	225	56	56	2.5	3	150KBD030	355000	686000	
	250	80	80	2.5	3	150KBD031	593000	955000	
160	240	60	60	2.5	3	160KBD030	421000	705000	
	270	86	86	2.5	3	160KBD031	678000	1100000	
170	260	67	67	2.5	3	170KBD030	521000	956000	
	280	88	88	2.5	3	170KBD031	723000	1210000	
180	280	74	74	2.5	3	180KBD030	575000	1050000	
	300	96	96	3	4	180KBD031	860000	1370000	
190	290	75	75	2.5	3	190KBD030	599000	1130000	
	320	104	104	3	4	190KBD031	981000	1590000	
200	310	82	82	2.5	3	200KBD030	728000	1410000	
	340	112	112	3	4	200KBD031	1080000	1840000	
220	340	90	90	3	4	220KBD030	804000	1460000	
	370	120	120	4	5	220KBD031	1210000	2060000	
240	360	92	92	3	4	240KBD030	915000	1790000	
	400	128	128	4	5	240KBD031	1430000	2470000	
260	400	104	104	4	5	260KBD030	1140000	2120000	
	440	144	144	4	5	260KBD031	1890000	3440000	
280	420	106	106	4	5	280KBD030	1190000	2470000	
300	460	118	118	4	5	300KBD030	1610000	3150000	
	500	160	160	5	6	300KBD031	2120000	4240000	
320	480	121	121	4	5	320KBD030	1630000	3180000	
	540	176	176	5	6	320KBD031	2690000	5280000	
340	580	190	190	5	6	340KBD031	3290000	5470000	
360	540	134	134	5	6	360KBD030	2050000	3910000	
	600	192	192	5	6	360KBD031	3360000	6750000	
380	560	135	135	5	6	380KBD030	2060000	3790000	
	620	194	194	5	6	380KBD031	3070000	6360000	
400	600	148	148	5	6	400KBD030	2410000	4960000	
	650	200	200	6	6	400KBD031	3850000	7810000	
420	700	224	224	6	6	420KBD031	4710000	6380000	
440	650	157	157	6	6	440KBD030	2750000	5500000	
	720	226	226	6	6	440KBD031	4990000	9130000	
460	680	163	163	6	6	460KBD030	3000000	5660000	
480	700	165	165	6	6	480KBD030	3060000	6710000	
500	720	167	167	6	6	500KBD030	3430000	7350000	



Equivalent bearing load
dynamic
 $P_t = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

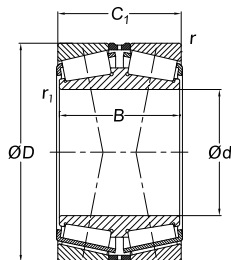
static

$P_{st} = F_r + Y_0 F_a$

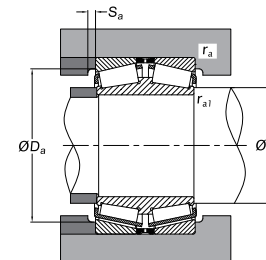
For values of e , Y_2 and Y_0
see the table below.

Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
128	160	2	2	0.35	1.95	2.90	1.91	5.40
138	163	2	2	0.26	2.55	3.80	2.50	4.08
142	178	2	2	0.35	1.95	2.90	1.91	7.92
152	179	2	2	0.27	2.47	3.67	2.41	5.96
153	185	2	2	0.36	1.87	2.79	1.83	8.41
159	188	2	2	0.27	2.47	3.67	2.41	6.45
160	210	2	2.5	0.40	1.68	2.50	1.64	10.0
174	203	2	2.5	0.26	2.55	3.80	2.50	7.78
179	220	2	2.5	0.35	1.95	2.90	1.91	15.5
184	217	2	2.5	0.24	2.79	4.15	2.73	9.22
193	237	2	2.5	0.35	1.95	2.90	1.91	19.8
195	233	2	2.5	0.31	2.21	3.29	2.16	12.4
201	247	2	2.5	0.33	2.03	3.02	1.98	21.6
208	250	2	2.5	0.28	2.43	3.61	2.37	16.8
210	263	2.5	3	0.35	1.95	2.90	1.91	26.5
219	260	2	2.5	0.26	2.55	3.80	2.50	17.7
224	280	2.5	3	0.35	1.95	2.90	1.91	34.0
234	280	2	2.5	0.26	2.55	3.80	2.50	22.9
244	300	2.5	3	0.35	1.95	2.90	1.91	41.9
259	306	2.5	3	0.28	2.43	3.61	2.37	28.5
263	324	3	4	0.35	1.95	2.90	1.91	50.8
271	325	2.5	3	0.32	2.12	3.15	2.07	32.2
286	354	3	4	0.35	1.95	2.90	1.91	65.4
302	360	3	4	0.25	2.74	4.08	2.68	48.1
313	386	3	4	0.35	1.95	2.90	1.91	92.2
321	370	3	4	0.25	2.69	4.00	2.63	51.9
350	418	3	4	0.25	2.74	4.08	2.68	78.5
356	440	4	5	0.35	1.95	2.90	1.91	129
368	434	3	4	0.26	2.55	3.80	2.50	77.8
378	474	4	5	0.32	2.12	3.15	2.07	167
401	515	4	5	0.32	2.12	3.15	2.07	202
408	488	4	5	0.32	2.12	3.15	2.06	101
419	528	4	5	0.32	2.12	3.15	2.06	228
428	510	4	5	0.27	2.47	3.67	2.41	112
445	545	4	5	0.32	2.12	3.15	2.07	234
452	545	4	5	0.33	2.03	3.02	1.98	143
458	580	5	5	0.39	1.74	2.59	1.70	265
488	623	5	5	0.39	1.74	2.59	1.70	352
500	592	5	5	0.28	2.43	3.61	2.37	182
506	642	5	5	0.39	1.74	2.59	1.70	367
510	616	5	5	0.39	1.74	2.59	1.70	197
531	625	5	5	0.40	1.68	2.50	1.64	215
545	645	5	5	0.39	1.74	2.59	1.70	222

TDI Design • Inch Size
d: 152.400~355.600mm



Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)		
d	D	B	C ₁		Dynamic Cr	Static Cor	
152.400	307.975	171.450	161.924	450900D/451212	1510	2620	
177.800	288.925	123.825	123.825	94706D/94113	940	1900	
	288.925	123.825	123.825	HM237546D/HM237510	1160	2140	
187.325	319.964	161.925	168.276	H239649D/H239610	1590	2790	
190.500	365.049	152.400	158.750	EE420750D/421437	1670	3200	
203.200	317.500	123.825	123.825	93800D/93125	1060	2310	
	365.049	152.400	158.750	EE420800D/421437	1670	3200	
206.375	336.550	184.150	180.976	H242649D/H242610	1900	4050	
215.900	285.750	85.725	85.725	LM742749D/LM742710	650	1640	
219.075	358.775	200.025	196.850	H244849D/H244810A	2130	4550	
220.662	314.325	115.888	115.886	M244249D/M244210	1070	2450	
228.600	400.050	139.700	139.700	EE529091D/529157	1500	2870	
241.478	349.148	107.950	107.950	EE127097D/127135	940	2010	
244.475	327.025	92.075	92.075	LM247748D/LM247710A	835	2050	
	381.000	146.050	146.050	EE126096D/126150	1300	2880	
247.650	406.400	219.075	215.900	HH249949D/HH249910	2830	6000	
254.000	358.775	130.175	130.175	M249748D/M249710	1390	3300	
	368.300	92.862	92.710	EE170975D/171450	790	1630	
260.350	400.050	114.300	119.060	EE221025D/221575	1220	2460	
266.700	355.600	109.538	107.950	LM451349D/LM451310	1070	2670	
269.875	381.000	136.525	136.525	M252349D/M252310	1520	3600	
276.225	393.700	130.175	130.175	EE275109D/275155	1340	2800	
279.400	393.700	127.000	127.000	EE135111D/135155	1130	2670	
	457.200	244.475	244.475	HH255149D/HH255110	3550	7900	
285.750	380.898	117.475	117.475	LM654648D/LM654610	1140	3100	
288.925	406.400	144.462	144.463	M255449D/M255410A	1740	4150	
300.038	422.275	150.812	150.813	HM256849D/HM256810G2	1950	4800	
304.648	438.048	131.762	131.762	EE329119D/329172	1440	3250	
304.800	419.100	130.175	130.175	M257149D/M257110	1400	3400	
	444.500	107.950	111.126	EE291200D/291750	1080	2300	
304.902	412.648	128.588	128.588	M257248D/M257210	1500	3700	
305.000	438.048	134.145	138.112	M757449D/M757410	1530	3450	
317.500	422.275	128.588	128.587	LM258648D/LM258610	1320	3500	
	447.675	158.750	158.750	HM259049D/HM259010	1990	4800	
333.375	469.900	166.688	166.688	HM261049D/HM261010	2320	5500	
343.052	457.098	122.238	122.238	LM761649D/HM261010A	1380	3450	
346.075	488.950	174.625	174.625	HM262749D/HM262710G2	2490	6150	
347.662	469.900	138.112	138.112	M262449D/M262410	1860	4550	
355.600	444.500	114.300	112.712	L163149D/L163110	1120	3500	
	457.200	120.650	120.650	LM263149D/LM263110	1440	3900	
	482.600	128.588	133.350	LM763449D/LM763410	1630	3850	



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

static

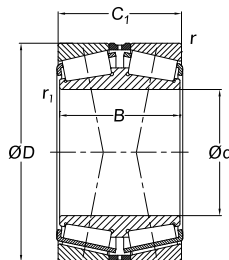
$$P_{0r} = F_r + Y_0 F_a$$

For values of e , Y_2 and Y_0 see the table below.

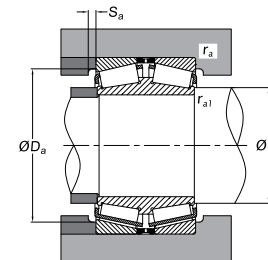
Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
187.5	269	9.7	6.8	0.33	2.07	3.08	2.02	60.5
195	259	1.5	3.3	0.47	1.44	2.15	1.41	31.6
194	266	1.5	3.3	0.32	2.12	3.15	2.07	31.6
209	293	3.3	4.8	0.32	2.12	3.15	2.07	53.7
221	329	3.3	3.3	0.40	1.68	2.50	1.64	72.8
222	286	1.5	3.3	0.52	1.29	1.92	1.26	36.3
230	329	3.3	3.3	0.40	1.68	2.50	1.64	69.0
227	306	1.5	3.3	0.33	2.03	3.02	1.98	64.1
229	266	2.3	3.3	0.48	1.40	2.09	1.37	14.8
242	323	1.5	6.4	0.33	2.03	3.02	1.98	79.5
235	293	1.5	3.3	0.33	2.03	3.02	1.98	28.6
256	367	3.3	3.3	0.31	2.18	3.24	2.13	74.2
258	325	1.5	3.3	0.35	1.91	2.85	1.87	33.8
257	310	1.5	3.3	0.32	2.09	3.11	2.04	21.4
269	343	3.3	4.8	0.52	1.31	1.95	1.28	61.4
278	366	3.3	6.4	0.33	2.03	3.02	1.98	112.0
273	335	3.3	3.3	0.33	2.03	3.02	1.98	41.2
269	340	1.5	3.3	0.36	1.85	2.76	1.81	32.5
290	366	6.4	6.4	0.39	1.71	2.54	1.67	52.0
281	335	1.5	3.3	0.36	1.87	2.79	1.83	29.9
290	356	3.3	3.3	0.33	2.03	3.02	1.98	48.6
294	366	1.5	6.4	0.40	1.68	2.50	1.64	50.5
297	368	1.5	6.4	0.40	1.68	2.50	1.64	48.1
309	412	1.5	6.4	0.33	2.03	3.02	1.98	158.0
302	356	1.5	3.3	0.43	1.56	2.33	1.53	36.7
310	379	3.3	3.3	0.34	2.00	2.98	1.96	58.1
322	394	3.3	3.3	0.34	2.00	2.99	1.96	65.6
327	410	3.3	3.3	0.33	2.04	3.04	2.00	64.3
322	392	1.5	6.4	0.33	2.03	3.02	1.98	53.1
337	416	7.9	1.5	0.38	1.78	2.65	1.74	55.7
325	388	3.3	3.3	0.32	2.12	3.15	2.07	49.0
328	407	3.3	4.8	0.47	1.43	2.12	1.40	65.3
334	398	1.5	3.3	0.32	2.10	3.13	2.06	49.1
340	418	3.3	3.3	0.33	2.02	3.00	1.97	77.9
357	439	3.3	3.3	0.33	2.02	3.00	1.97	90.1
361	432	1.5	3.3	0.47	1.43	2.12	1.40	55.0
371	456	3.3	3.3	0.33	2.02	3.00	1.97	103.0
369	443	3.3	3.3	0.33	2.03	3.02	1.98	68.0
370	422	1.5	3.3	0.31	2.20	3.27	2.15	40.1
372	434	1.5	3.3	0.32	2.12	3.15	2.07	49.1
375	453	1.5	3.3	0.47	1.43	2.14	1.40	67.4

Note: Bearing chamfers r and r_1 should be larger than the max value of r_a and r_{a1} .

TDI Design • Inch Size
d: 355.600~501.650mm



Principal Dimensions (mm)				Bearing Designations	Basic Load Ratings (kN)		
d	D	B	C ₁		Dynamic Cr	Static Cor	
355.600	488.950	153.988	153.988	M263349D/M263310	2030	5000	
	501.650	111.125	127.000	EE231401D/231975	1550	3650	
368.300	523.875	185.738	185.738	HM265049D/HM265010G2	2610	6550	
384.175	546.100	193.675	193.675	HM266449D/HM266410G2	3150	8050	
393.700	546.100	138.112	138.112	LM767745D/LM767710	1870	5100	
	546.100	138.112	138.112	LM767749D/LM767710	1870	5100	
406.400	590.550	193.675	193.674	EE833160XD/833232	2820	6800	
409.575	546.100	161.925	161.925	M667947D/M667910G2	2390	6350	
415.925	590.550	209.550	209.550	M268749D/M268710G2	3650	9450	
	571.500	133.350	136.526	LM869449D/LM869410	1880	4950	
431.800	571.500	161.925	161.925	LM769349D/LM769310	2160	5900	
447.675	635.000	223.838	223.838	M270749D/M270710AG2	4150	11100	
	596.900	133.350	136.525	L770847D/L770810AG2	2070	5200	
457.200	596.900	133.350	136.525	L770849D/L770810	2070	5200	
479.425	679.450	238.125	238.125	M272749D/M272710G2	4900	13000	
	615.950	158.750	158.750	LM272249D/LM272210G2	2320	6700	
482.600	647.700	201.612	201.612	M272647D/M272610G2	3700	10100	
489.026	634.873	153.988	153.988	LM772749D/LM772710A	2500	6950	
501.650	711.200	250.825	250.825	M274149D/M274110G2	5050	13700	



Equivalent bearing load
dynamic
 $P_r = X F_r + Y F_a$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	Y ₁	0.67	Y ₂

static

$$P_{or} = F_r + Y_0 F_a$$

For values of e , Y_2 and Y_0
see the table below.

Abutment and Fillet Dimensions (mm)				Calculation Factors				Weight (kg)
d _a (min)	D _a (max)	r _a (max)	r _{a1} (max)	e	Y ₁	Y ₂	Y ₀	
374	459	1.5	3.3	0.33	2.03	3.02	1.98	85.4
382	472	3.3	3.3	0.44	1.53	2.28	1.50	68.5
394	487	3.3	6.4	0.33	2.03	3.02	1.98	130.0
411	507	3.3	6.4	0.33	2.03	3.02	1.98	153.0
418	510	1.5	6.4	0.48	1.42	2.11	1.38	97.4
427	510	1.5	6.4	0.48	1.42	2.11	1.38	90.5
435	549	3.3	6.4	0.33	2.07	3.09	2.03	175.0
431	510	1.5	6.4	0.42	1.61	2.40	1.58	104.0
444	549	3.3	6.4	0.33	2.03	3.02	1.98	181.0
453	537	1.5	3.3	0.55	1.24	1.84	1.21	92.1
453	534	1.5	6.4	0.44	1.52	2.26	1.49	112.0
478	591	3.3	6.4	0.33	2.03	3.02	1.98	224.0
478	567	1.5	3.3	0.47	1.43	2.12	1.40	96.7
478	567	1.5	3.3	0.47	1.43	2.12	1.40	96.7
510	633	3.3	6.4	0.33	2.03	3.02	1.98	293.0
504	585	3.3	6.4	0.33	2.03	3.02	1.98	115.0
510	609	3.3	6.4	0.33	2.03	3.02	1.98	185.0
516	600	3.3	3.3	0.47	1.43	2.12	1.40	124.0
534	663	3.3	6.4	0.33	2.03	3.02	1.98	314.0

Note: Bearing chamfers r and r_1 should be larger than the max value of r_a and r_{a1} .