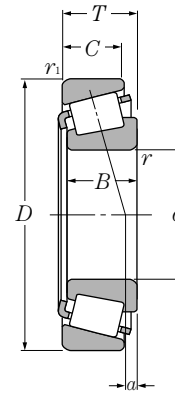


# Tapered Roller Bearings

NTN

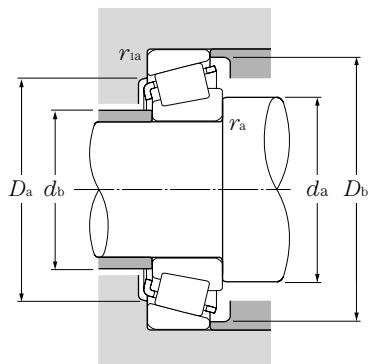
Inch system sizes  
J system series



*d* 95.250 ~  
109.538mm

<i>d</i>	Boundary dimensions				Basic load ratings				Limiting speeds	
	<i>D</i>	<i>T</i>	<i>B</i>	<i>C</i>	dynamic	static	dynamic	static	grease	oil
					mm		kN	kgf		
95.250	130.175	20.638	21.433	16.670	81.0	147	8,300	15,000	2,500	3,300
	146.050	33.338	34.925	26.195	163	266	16,700	27,100	2,400	3,100
	147.638	35.717	36.322	26.192	180	279	18,300	28,400	2,300	3,100
	148.430	28.575	28.971	21.433	138	215	14,100	21,900	2,300	3,100
	152.400	39.688	36.322	30.162	180	279	18,300	28,400	2,300	3,100
	157.162	36.512	36.116	26.195	188	305	19,200	31,000	2,200	2,900
	168.275	41.275	41.275	30.162	222	340	22,700	35,000	2,100	2,800
190.500	57.150	57.531	46.038	445	610	45,000	62,000	1,900	2,600	
96.838	148.430	28.575	28.971	21.433	138	215	14,100	21,900	2,300	3,100
	188.912	50.800	46.038	31.750	281	365	28,700	37,000	1,800	2,400
98.425	157.162	36.512	36.116	26.195	188	305	19,200	31,000	2,200	2,900
	168.275	41.275	41.275	30.162	222	340	22,700	35,000	2,100	2,800
99.974	212.725	66.675	66.675	53.975	575	810	58,500	82,500	1,700	2,300
100.000	155.000	36.000	35.000	28.000	192	310	19,600	31,500	2,200	2,900
100.012	157.162	36.512	36.116	26.195	188	305	19,200	31,000	2,200	2,900
101.600	157.162	36.512	36.116	26.195	188	305	19,200	31,000	2,200	2,900
	168.275	41.275	41.275	30.162	222	340	22,700	35,000	2,100	2,800
	180.975	47.625	48.006	38.100	285	430	29,100	44,000	2,000	2,700
	190.500	57.150	57.531	44.450	380	555	38,500	56,500	2,000	2,600
	190.500	57.150	57.531	46.038	445	610	45,000	62,000	1,900	2,600
	190.500	57.150	57.531	46.038	445	610	45,000	62,000	1,900	2,600
	212.725	66.675	66.675	53.975	475	695	48,500	71,000	1,800	2,300
212.725	66.675	66.675	53.975	575	810	58,500	82,500	1,700	2,300	
104.775	180.975	47.625	48.006	38.100	285	430	29,100	44,000	2,000	2,700
107.950	158.750	23.020	21.438	15.875	102	166	10,400	17,000	2,100	2,800
	159.987	34.925	34.925	26.988	167	320	17,100	33,000	2,100	2,800
	165.100	36.512	36.512	26.988	191	315	19,500	32,000	2,100	2,700
	212.725	66.675	66.675	53.975	475	695	48,500	71,000	1,800	2,300
109.538	158.750	23.020	21.438	15.875	102	166	10,400	17,000	2,100	2,800

Note: 1. With regard to the chamfer dimensions on the back face of the inner and outer rings, installation dimensions  $r_{is}$  and  $r_{os}$  are larger than the maximum value.  
2. For the inner bore diameter of bearings with bearing numbers marked "+" (inner ring) or "++" (outer ring), this value applies only to high precision class types, Class 4 and 2.



### Equivalent bearing load dynamic

$$P_r = X F_r + Y F_a$$

$\frac{F_a}{F_r}$	$e$	$\frac{F_a}{F_r} > e$	
$X$	$Y$	$X$	$Y$
1	0	0.4	$Y_2$

### static

$$P_{or} = 0.5 F_r + Y_o F_a$$

When  $P_{or} < F_r$  use  $P_{or} = F_r$

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

Bearing numbers	Abutment and fillet dimensions						Load center mm	Constant	Axial load factors		Mass kg
	mm								$a$	$e$	
	$d_a$	$d_b$	$D_a$	$D_b$	$r_{as}$ max	$r_{1as}$ max					(approx.)
4T-L319249/L319210	103	101	122	125	1.5	1.5	-1.0 <sup>③</sup>	0.35	1.72	0.95	0.789
4T-47896/47820	110	103	131	140	3.5	3.3	0.6	0.45	1.34	0.74	1.95
4T-594A/592XE	113	104	135	142	5	0.8	2.6	0.44	1.36	0.75	2.09
4T-42375/42584	108	103	134	142	3	3	-3.0 <sup>③</sup>	0.49	1.22	0.67	1.75
4T-594/592A	110	104	135	144	3.5	3.3	2.6	0.44	1.36	0.75	2.51
4T-52375/52618	112	105	142	152	3.5	3.3	0.6	0.47	1.26	0.69	2.76
4T-683/672	113	106	149	160	3.5	3.3	3.0	0.47	1.28	0.70	3.72
4T-HH221440/HH221410	125	110	171	179	8	3.3	14.4	0.33	1.79	0.99	7.5
4T-42381/42584	110	104	134	142	3.5	3	-3.0 <sup>③</sup>	0.49	1.22	0.67	1.69
4T-90381/90744	125	113	161	179	3.5	3.3	-12.9 <sup>③</sup>	0.87	0.69	0.38	5.67
4T-52387/52618	114	108	142	152	3.5	3.3	0.6	0.47	1.26	0.69	2.62
4T-685/672	116	109	149	160	3.5	3.3	3.0	0.47	1.28	0.70	3.56
4T-HH224334†/HH224310	124	120	192	202	3.5	3.3	18.9	0.33	1.84	1.01	11.5
#4T-JM720249/JM720210	115	109	140	149	3	2.5	-0.3 <sup>③</sup>	0.47	1.27	0.70	2.4
4T-52393/52618	116	109	142	152	3.5	3.3	0.6	0.47	1.26	0.69	2.55
4T-52400/52618	117	111	142	152	3.5	3.3	0.6	0.47	1.26	0.69	2.48
4T-687/672	118	112	149	160	3.5	3.3	3.0	0.47	1.28	0.70	3.4
4T-780/772††	119	113	161	168	3.5	3.3	8.1	0.39	1.56	0.86	5.11
4T-861/854	129	114	170	174	8	3.3	15.3	0.33	1.79	0.99	7
4T-HH221449/HH221410	131	116	171	179	8	3.3	14.4	0.33	1.79	0.99	7.06
4T-HH221449A/HH221410	122	116	171	179	3.5	3.3	14.4	0.33	1.79	0.99	7.06
4T-941/932	130	117	187	193	7	3.3	19.7	0.33	1.84	1.01	11.2
4T-HH224335/HH224310	132	121	192	202	7	3.3	18.9	0.33	1.84	1.01	11.3
4T-782/772††	122	116	161	168	3.5	3.3	8.1	0.39	1.56	0.86	4.92
4T-37425/37625	122	115	143	152	3.5	3.3	-14.0 <sup>③</sup>	0.61	0.99	0.54	1.37
4T-LM522546/LM522510	122	116	146	154	3.5	3.3	1.4	0.40	1.49	0.82	2.37
4T-56425/56650	123	117	149	159	3.5	3.3	-2.0 <sup>③</sup>	0.50	1.21	0.66	2.69
4T-936/932	137	122	187	193	8	3.3	19.7	0.33	1.84	1.01	10.7
4T-37431/37625	123	116	143	152	3.5	3.3	-14.0 <sup>③</sup>	0.61	0.99	0.54	1.33

Note: 3. Bearing numbers marked "# " designate **J-series** bearings. The tolerances of these bearings is listed in **Table 6.6** on **page A-40**.

③ " - " means that load center at outside on end of inner ring.