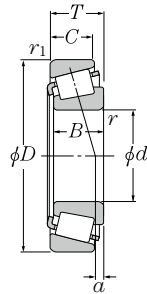


# Tapered Roller Bearings



Inch series  
J series

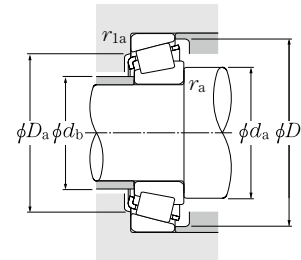


a 47.625 ~ 50.800mm

d	Boundary dimensions				Basic load rating		Allowable speed	
	mm				dynamic C <sub>r</sub> kN	static C <sub>0r</sub>	Grease lubrication min <sup>-1</sup>	Oil lubrication
	D	T	B	C				
47.625	104.775	30.162	30.958	23.812	144	169	3 500	4 700
	111.125	30.162	26.909	20.638	115	136	3 200	4 200
	123.825	36.512	32.791	25.400	171	188	2 900	3 900
48.412	95.250	30.162	29.370	23.020	120	147	4 000	5 300
	95.250	30.162	29.370	23.020	120	147	4 000	5 300
49.212	93.264	30.162	30.302	23.812	113	134	4 000	5 300
	103.188	43.658	44.475	36.512	193	232	3 800	5 000
	104.775	36.512	36.512	28.575	153	189	3 600	4 800
	114.300	44.450	44.450	34.925	206	225	3 600	4 800
	114.300	44.450	44.450	36.068	226	261	3 500	4 700
49.987	82.550	21.590	22.225	16.510	77.5	94.0	4 300	5 700
	92.075	24.608	25.400	19.845	93.0	116	4 000	5 300
	114.300	44.450	44.450	36.068	226	261	3 500	4 700
50.000	82.000	21.500	21.500	17.000	77.5	94.0	4 300	5 700
	84.000	22.000	22.000	17.500	77.5	94.5	4 300	5 700
	88.900	20.638	22.225	16.513	85.0	90.5	4 100	5 500
	88.900	20.638	22.225	16.513	85.0	90.5	4 100	5 500
	90.000	28.000	28.000	23.000	118	141	4 100	5 400
	105.000	37.000	36.000	29.000	153	189	3 600	4 800
	110.000	22.000	21.996	18.824	99.5	120	3 200	4 300
50.800	82.550	21.590	22.225	16.510	77.5	94.0	4 300	5 700
	85.000	17.462	17.462	13.495	55.0	65.0	4 200	5 600
	88.900	17.462	17.462	13.495	55.0	65.0	4 200	5 600
	88.900	20.638	22.225	16.513	85.0	90.5	4 100	5 500
	88.900	20.638	22.225	16.513	85.0	90.5	4 100	5 500
	90.000	20.000	22.225	15.875	85.0	90.5	4 100	5 500
	92.075	24.608	25.400	19.845	93.0	116	4 000	5 300
	93.264	30.162	30.302	23.812	113	134	4 000	5 300
	93.264	30.162	30.302	23.812	113	134	4 000	5 300
	95.250	27.783	28.575	22.225	119	139	3 900	5 200
	95.250	30.162	30.302	23.812	113	134	4 000	5 300
	96.838	21.000	21.946	15.875	86.5	96.5	3 700	5 000
	97.630	24.608	24.608	19.446	98.0	128	3 700	4 900
	98.425	30.162	30.302	23.812	113	134	4 000	5 300

Note: Chamfer dimensions on the back face of the inner and outer rings of the bearing are larger than the maximum values of installation-related dimensions  $r_{1a}$  and  $r_{1as}$ .  
1) As for the maximum value for inner ring bore diameters of bearings whose bearing numbers are marked with "T" (inner ring), the precision class is an integer for class 4 and class 2 bearings only.

# Tapered Roller Bearings



Dynamic equivalent radial load

$$P_r = X F_r + Y F_a$$

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

Static equivalent radial load

$$P_{0r} = 0.5 F_r + Y_0 F_a$$

When  $P_{0r} < F_r$  use  $P_{0r} = F_r$ .

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

Bearing number 1) 2)	Installation-related dimensions						Load center <sup>3)</sup> mm	Constant e	Axial load factors		Mass kg (approx.)
	mm								$Y_2$	$Y_0$	
	$d_a$	$d_b$	$D_a$	$D_b$	$r_{as}$ Max.	$r_{1as}$ Max.	a	e	$Y_2$	$Y_0$	
4T-45282/45220	63	57	93	99	3.5	3.3	7.9	0.33	1.80	0.99	1.33
4T-55187C/55437	69	62	92	105	3.5	3.3	-7.4	0.88	0.68	0.37	1.4
4T-72188C/72487	69	67	102	116	0.8	3.3	-1.5	0.74	0.81	0.45	2.16
4T-HM804848/HM804810	63	57	81	91	2.3	3.3	3.7	0.55	1.10	0.60	0.967
4T-HM804849/HM804810	66	57	81	91	3.5	3.3	3.7	0.55	1.10	0.60	0.965
4T-3781/3720	62	56	82	87.9	3.5	3.3	8.3	0.34	1.77	0.97	0.876
4T-5395/5335	66	60	89	97	3.5	3.3	16.1	0.30	2.02	1.11	1.75
4T-HM807044/HM807010	69	63	89	100	3.5	3.3	7.4	0.49	1.23	0.68	1.52
4T-65390/65320	70	60	97	107	3.5	3.3	12.5	0.43	1.39	0.77	2.23
4T-HH506348/HH506310	71	61	97	107	3.5	3.3	13.3	0.40	1.49	0.82	2.33
4T-LM104947A/LM104911	55	55	75	78	0.5	1.3	5.8	0.31	1.97	1.08	0.434
4T-28579/28521	60	56	83	87	2.3	0.8	4.6	0.38	1.59	0.87	0.718
4T-HH506349/HH506310	72	61	97	107	3.5	3.3	13.3	0.40	1.49	0.82	2.31
#4T-JLM104948/JLM104910	61	55	76	78	3	0.5	5.4	0.31	1.97	1.08	0.42
#4T-JLM704649/JLM704610	64	56	76	80	3.5	1.5	2.3	0.44	1.37	0.75	0.466
4T-365/362A	58	55	81	84	2	1.3	4.0	0.32	1.88	1.03	0.534
4T-366/362A	59	55	81	84	2.3	1.3	4.0	0.32	1.88	1.03	0.53
#4T-JM205149/JM205110	63	57	80	85	3	2.5	7.4	0.33	1.82	1.00	0.755
#4T-JHM807045/JHM807012	69	63	90	100	3	2.5	7.5	0.49	1.23	0.68	1.52
4T-396/394A	61	60	101	105	0.8	1.3	0.7	0.40	1.49	0.82	1.07
4T-LM104949/LM104911	63	56	75	78	3.5	1.3	5.8	0.31	1.97	1.08	0.418
4T-18790/18720	62	56	77	80	3.5	1.5	0.8	0.41	1.48	0.81	0.375
4T-18790/18724	62	56	78	82	3.5	1.5	0.8	0.41	1.48	0.81	0.431
4T-368/362A	58	56	81	84	1.5	1.3	4.0	0.32	1.88	1.03	0.524
4T-370A/362A	65	56	81	84	5	1.3	4.0	0.32	1.88	1.03	0.516
4T-368A/362	62	56	81	84	3.5	2	4.0	0.32	1.88	1.03	0.53
4T-28580/28521	63	57	83	87	3.5	0.8	4.6	0.38	1.59	0.87	0.703
4T-3775/3720	58	58	82	87.9	0.8	3.3	8.3	0.34	1.77	0.97	0.85
4T-3780/3720	64	58	82	87.9	3.5	3.3	8.3	0.34	1.77	0.97	0.846
4T-33889/33821	64	58	85	90	3.5	2.3	8.0	0.33	1.82	1.00	0.878
4T-3780/3726	64	58	83.1	88.9	3.5	3.3	8.3	0.34	1.77	0.97	0.899
4T-385A/382A	61	60	89	92	2.3	0.8	3.1	0.35	1.69	0.93	0.675
4T-28678/28622	65	58	88	92	3.5	0.8	3.3	0.40	1.49	0.82	0.854
4T-3780/3732	64	58	84.1	89.9	3.5	3.3	8.3	0.34	1.77	0.97	0.99

2) Bearing numbers marked with "#" designate J-series bearings. The tolerance of these bearings is listed in Table 6.8 on page A-66 to A-67.  
3) Dimensions with "-" indicate a load center at the outside on the end of an inner ring.