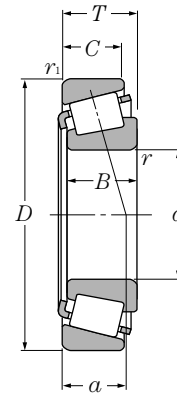


# Tapered Roller Bearings

NTN

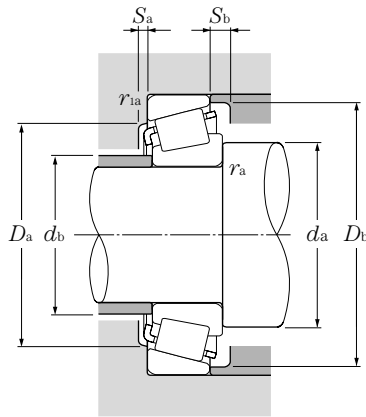
## Metric system sizes



### d 30 ~ 45mm

d	Boundary dimensions						Basic load ratings				Limiting speeds		Bearing numbers
	D	T	mm			dynamic	static	dynamic	static	rpm			
			B	C	$r_{s \min}$ ①	$r_{ls \min}$ ①	kN	$C_{or}$	kgf	$C_{or}$	grease	oil	
30	72	20.75	19	15	1.5	1.5	58.5	58.5	6,000	5,950	5,500	7,300	4T-30306CA
	72	20.75	19	14	1.5	1.5	48.5	51.5	4,950	5,250	5,000	6,700	4T-30306D
	72	28.75	27	23	1.5	1.5	81.0	90.0	8,250	9,150	5,700	7,600	4T-32306
	72	28.75	27	23	1.5	1.5	79.0	94.0	8,050	9,550	5,500	7,300	* 4T-32306C
	72	28.75	27	23	1.5	1.5	70.0	88.5	7,150	9,050	5,500	7,300	4T-32306CR <sup>®</sup>
32	58	17	17	13	1	1	37.0	46.5	3,750	4,750	6,600	8,700	4T-320/32X
	65	26	26	20.5	1	1	70.5	85.0	7,200	8,650	6,000	8,000	4T-332/32
	75	29.75	28	23	1.5	1.5	84.0	102	8,600	10,400	5,200	6,900	4T-323/32C
35	55	14	14	11.5	0.6	0.6	27.4	37.5	2,790	3,850	6,800	9,000	32907XU
	62	18	18	14	1	1	41.5	52.5	4,250	5,350	6,100	8,100	4T-32007X
	62	21	21	17	1	1	50.5	66.5	5,150	6,800	6,100	8,100	4T-33007
	72	18.25	17	15	1.5	1.5	55.5	61.5	5,650	6,250	5,500	7,400	4T-30207
	72	24.25	23	19	1.5	1.5	72.5	87.0	7,400	8,900	5,500	7,400	4T-32207
	72	24.25	23	19	1.5	1.5	68.0	85.5	6,950	8,750	5,300	7,100	4T-32207C
	72	24.25	23	18	1.5	1.5	62.0	78.5	6,300	8,000	5,300	7,100	4T-32207CR <sup>®</sup>
	72	28	28	22	1.5	1.5	87.5	109	8,900	11,200	5,500	7,400	4T-33207
	80	22.75	21	18	2	1.5	75.0	77.0	7,650	7,900	5,000	6,600	4T-30307
	80	22.75	21	17	2	1.5	66.5	68.5	6,750	7,000	4,800	6,400	4T-30307C
	80	22.75	21	15	2	1.5	63.5	70.0	6,450	7,100	4,400	5,800	4T-30307D
40	80	32.75	31	25	2	1.5	101	115	10,300	11,700	5,000	6,600	4T-32307
	80	32.75	31	25	2	1.5	93.0	117	9,500	12,000	4,800	6,400	4T-32307C
	62	15	15	12	0.6	0.6	32.5	48.0	3,350	4,900	5,900	7,800	32908XU
	68	19	19	14.5	1	1	50.0	65.5	5,100	6,650	5,300	7,100	4T-32008X
	68	22	22	18	1	1	59.5	82.5	6,050	8,400	5,300	7,100	4T-33008
	75	26	26	20.5	1.5	1.5	79.5	103	8,100	10,500	5,200	6,900	4T-33108
	80	19.75	18	16	1.5	1.5	61.0	67.0	6,250	6,850	4,900	6,600	4T-30208
	80	24.75	23	19	1.5	1.5	79.5	93.5	8,100	9,550	4,900	6,600	4T-32208
	80	32	32	25	1.5	1.5	103	132	10,500	13,400	4,900	6,600	4T-33208
	85	33	32.5	28	2.5	2	118	144	12,000	14,700	4,600	6,200	4T-T2EE040
	90	25.25	23	20	2	1.5	91.5	102	9,350	10,400	4,400	5,900	4T-30308
45	90	25.25	23	19	2	1.5	83.0	87.0	8,450	8,900	4,200	5,600	4T-30308C
	90	25.25	23	17	2	1.5	77.0	85.5	7,850	8,700	3,900	5,200	4T-30308D
	90	35.25	33	27	2	1.5	122	150	12,500	15,300	4,400	5,900	32308U
	90	35.25	33	27	2	1.5	110	140	11,300	14,300	4,200	5,600	4T-32308C
	68	15	15	12	0.6	0.6	33.5	51.5	3,450	5,250	5,300	7,000	* 32909XU

① Minimal allowable dimension for chamfer dimension  $r$  or  $r_1$ . ② This bearing does not incorporate the subunit dimensions.  
 Note: When selecting bearings with bearing numbers marked with "\*", please consult NTN Engineering.



### Equivalent bearing load

**dynamic**  
 $P_r = XF_r + YF_a$

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

**static**

$P_{or} = 0.5F_r + Y_oF_a$

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

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

Dimensions series to ISO	Abutment and fillet dimensions										Load center mm	Constant $e$	Axial load factors		Mass kg (approx.)		
	mm												$a$	$e$		$Y_2$	$Y_o$
	$d_a$ min	$d_b$ max	$D_a$ max	$D_b$ min	$S_a$ min	$S_b$ min	$r_{as}$ max	$r_{1as}$ max									
7FB	38.5	39.5	63.5	57	67	3	5.5	1.5	1.5	17.5	0.47	1.27	0.70	0.398			
2FD	38.5	39	63.5	55	68	3	6.5	1.5	1.5	23.5	0.83	0.73	0.40	0.398			
5FD	38.5	38	63.5	59	66	3	5.5	1.5	1.5	18.5	0.31	1.90	1.05	0.583			
	38.5	37	63.5	57	68	2	5.5	1.5	1.5	23	0.55	1.10	0.60	0.592			
	38.5	37	63.5	57	67.5	2	5.5	1.5	1.5	23	0.61	0.99	0.54	0.594			
4CC	37.5	38	52.5	50	55	3	4	1	1	14.5	0.45	1.32	0.73	0.181			
2DE	37.5	38	59.5	55	62	5	5.5	1	1	17	0.35	1.73	0.95	0.395			
5FD	40.5	39	66.5	61	71	3	6.5	1.5	1.5	23	0.55	1.10	0.60	0.659			
2BD	39.5	40	50.5	48	52.5	2.5	2.5	0.6	0.6	10.5	0.29	2.06	1.13	0.121			
4CC	40.5	40	56.5	54	59	4	4	1	1	15.5	0.45	1.32	0.73	0.224			
2CE	40.5	40.5	56.5	52	59	3	4	1	1	14	0.31	1.97	1.08	0.263			
3DB	43.5	44	63.5	62	67	3	3	1.5	1.5	15	0.37	1.60	0.88	0.344			
3DC	43.5	43	63.5	61	67	3	5	1.5	1.5	17.5	0.37	1.60	0.88	0.457			
5DC	43.5	42	63.5	59	68	3	6	1.5	1.5	21.5	0.58	1.03	0.57	0.461			
	43.5	42	63.5	59	68	3	6	1.5	1.5	20.5	0.55	1.10	0.60	0.461			
2DE	43.5	42	63.5	61	68	5	6	1.5	1.5	18.5	0.35	1.70	0.93	0.531			
2FB	45	45	71.5	70	74	3	4.5	2	1.5	17	0.31	1.90	1.05	0.540			
	45	44	71.5	63.5	75.5	3	5.5	2	1.5	20.5	0.55	1.10	0.60	0.517			
7FB	45	44	71.5	62	76.5	3	7.5	2	1.5	26	0.83	0.73	0.40	0.530			
2FE	45	43	71.5	66	74	3	7.5	2	1.5	20.5	0.31	1.90	1.05	0.787			
5FE	45	43	71.5	66	76	3	7.5	2	1.5	25	0.55	1.10	0.60	0.797			
2BC	44.5	45.5	57.5	54	58.5	3	3	0.6	0.6	11.5	0.29	2.07	1.14	0.161			
3CD	45.5	46	62.5	60	65	4	4.5	1	1	15	0.38	1.58	0.87	0.273			
2BE	45.5	46	62.5	60	64	2.5	4	1	1	15	0.28	2.12	1.17	0.312			
2CE	48.5	47	66.5	65	71	4	5.5	1.5	1.5	18	0.36	1.69	0.93	0.494			
3DB	48.5	49	71.5	69	75	3	3.5	1.5	1.5	16.5	0.37	1.60	0.88	0.435			
3DC	48.5	48	71.5	68	75	3	5.5	1.5	1.5	19	0.37	1.60	0.88	0.558			
2DE	48.5	47	71.5	67	76	5	7	1.5	1.5	21	0.36	1.68	0.92	0.728			
2EE	52	48	75	70	80	5	5	2	2	22.5	0.34	1.74	0.96	0.907			
2FB	50	52	81.5	77	82	3	5	2	1.5	19.5	0.35	1.74	0.96	0.769			
	50	50	80	72	85.5	3.5	6	2	1.5	23	0.55	1.10	0.60	0.728			
7FB	50	50	81.5	71	86.5	3	8	2	1.5	29.5	0.83	0.73	0.40	0.738			
2FD	50	50	81.5	73	82	3	8	2	1.5	23	0.35	1.74	0.96	1.08			
5FD	50	48	81.5	72	84	3	8	2	1.5	27.5	0.55	1.10	0.60	1.1			
2BC	50	50	63.5	59.5	64.5	3	3	0.6	0.6	12	0.32	1.88	1.04	0.188			