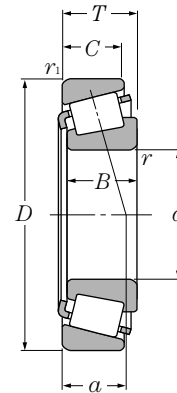


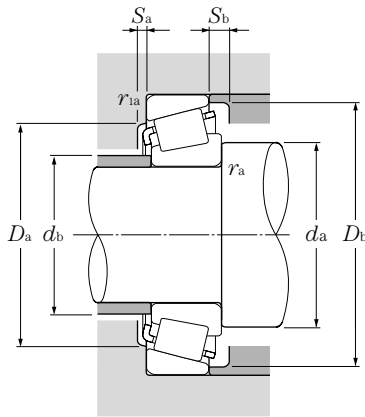
Metric system sizes



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 [®] |
| 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 [®] |
| | 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 | d_a min | d_b 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 | | | |
| 5FD | 38.5 | 37 | 63.5 | 57 | 68 | 2 | 5.5 | 1.5 | 1.5 | 23 | 0.55 | 1.10 | 0.60 | 0.592 | | | |
| 5FD | 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 | | | |
| 5DC | 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 | | | |
| 2FB | 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 | | | |
| 2FB | 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 | | | |