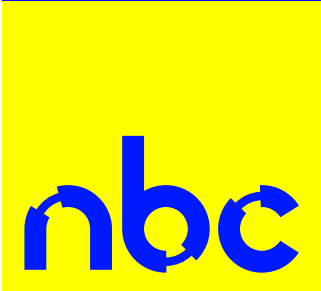




SPHERICAL ROLLER BEARING



flexible solutions

Overview

NBC Bearings a C.K. Birla group company has been a pioneer in the Indian Bearing Industry since 1946. Over the years, NBC Bearings has built strong trust among all the major OEMs and industries and has been delivering quality products and services. With a full range of Ball Bearings, Tapered Roller Bearings, Cylindrical Roller Bearings and Spherical Roller Bearings, NBC bearings thus offers a total solution to the bearing requirements of OEMs and industries.

Through its sheer commitment to quality and excellence, NBC Bearings has received international accolade by winning the prestigious Deming's Prize and is certified by ISO 9001, ISO 14001, TS 16949 and American Association of Railroads (AAR).



SPHERICAL ROLLER BEARING

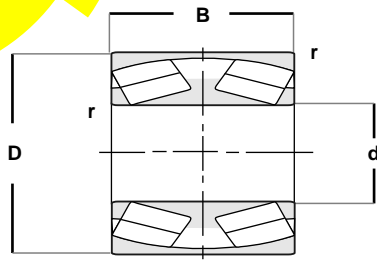
Applications :

- Industrial Applications (Cement, Mining, Paper, Ginning, Textile, Power etc), Crushers and Railway Coach/Wagongs.
- To counter High Vibrations and Misalignment.
- To accommodate Heavy Radial as well as Axial Load.

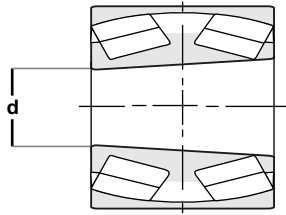
Advantages :

- Legacy: For last 60 Years, NBC Bearings is a trusted source of Spherical Roller Bearings to the Indian Railways for its Passenger Coaches and Wagons.
- Quality: At par with the industry standards, NBC Spherical Roller Bearings are manufactured and tested in a state-of-art manufacturing facility having all the modern technology ensuring precision and superior quality.
- Uniqueness: All of the NBC Spherical Bearings are fitted with high quality Machined Brass Cage ensuring light weight and longer life.
- Acceptance: Along with the Indian Railways, NBC Spherical Roller Bearings are widely used in applications like Cement, Mining, Crushers, Ginning & Textile Mills, Paper Mills, and Rice Mills etc.
- Availability: The large manufacturing facility of NBC Spherical Roller Bearings is equipped with advanced machinery and techniques ensuring adequate availability. Hence, you'll not account a long downtime of your precious machinery.
- Reach: NBC Bearings is having the largest network of dealers in Indian Bearing Industry. Thus, your bearing is available just near to you.
- Explore: NBC Bearings with a full range of Ball Bearings, Tapered Roller Bearings, Cylindrical Roller Bearings, and Spherical Roller Bearings, offers a 360° solution to all your bearing needs.

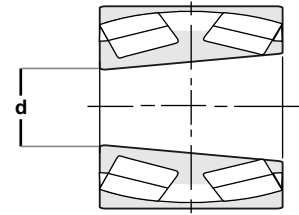
TECHNICAL DATA



Cylindrical Bore



**Tapered Bore (K)
(1:12)**



**Tapered Bore (K30)
(1:30)**

| BOUNDARY DIMENSION (mm) | | | | | BASIC LOAD RATING (N) | | LIMITING SPEED (MIN ⁻¹) | |
|-------------------------|-------------------|--------------------|---------------------|-----------------|-----------------------|-----------|-------------------------------------|------|
| d, BORE (mm) | D, O.D. SIZE (mm) | B, WIDTH SIZE (mm) | r, RADIUS min. (mm) | BEARING SIZE | DYNAMIC C | STATIC Co | GREASE | OIL |
| 40 | 80 | 23 | 1.1 | 22208, 22208K | 88000 | 98000 | 6000 | 7600 |
| 40 | 90 | 33 | 1.5 | 22308, 22308K | 140000 | 145000 | 4500 | 5900 |
| 45 | 85 | 23 | 1.1 | 22209, 22209K | 93000 | 105000 | 5300 | 6800 |
| 45 | 100 | 36 | 1.5 | 22309, 22309K | 165000 | 190000 | 4100 | 5300 |
| 50 | 90 | 23 | 1.1 | 22210, 22210K | 100000 | 120000 | 4900 | 6300 |
| 50 | 110 | 40 | 2 | 22310, 22310K | 190000 | 220000 | 3700 | 4800 |
| 55 | 100 | 25 | 1.5 | 22211, 22211K | 120000 | 140000 | 4500 | 5800 |
| 55 | 120 | 43 | 2 | 22311, 22311K | 230000 | 265000 | 3400 | 4400 |
| 60 | 110 | 28 | 1.5 | 22212, 22212K | 145000 | 175000 | 4000 | 5300 |
| 60 | 130 | 46 | 2.1 | 22312, 22312K | 238000 | 273000 | 3100 | 4000 |
| 65 | 120 | 31 | 1.5 | 22213, 22213K | 180000 | 220000 | 3800 | 5000 |
| 65 | 140 | 48 | 2.1 | 22313, 22313K | 305000 | 360000 | 2800 | 3700 |
| 70 | 150 | 51 | 2.1 | 22314, 22314K | 325000 | 380000 | 2700 | 3500 |
| 75 | 130 | 31 | 1.5 | 22215, 22215K | 190000 | 246000 | 3200 | 4200 |
| 75 | 160 | 55 | 2.1 | 22315, 22315K | 415000 | 520000 | 2500 | 3200 |
| 80 | 140 | 33 | 2 | 22216, 22216K | 210000 | 275000 | 3000 | 4000 |
| 80 | 170 | 58 | 2.1 | 22316, 22316K | 450000 | 550000 | 2300 | 3000 |
| 85 | 150 | 36 | 2 | 22217, 22217K | 250000 | 325000 | 2800 | 3800 |
| 85 | 180 | 60 | 3 | 22317, 22317K | 415000 | 510000 | 2200 | 2900 |
| 90 | 160 | 40 | 2 | 22218, 22218K | 256000 | 345000 | 2600 | 3500 |
| 90 | 190 | 64 | 3 | 22318, 22318K | 570000 | 730000 | 2100 | 2700 |
| 95 | 170 | 43 | 2.1 | 22219, 22219K | 340000 | 450000 | 2500 | 3300 |
| 100 | 180 | 46 | 2.1 | 22220, 22220K | 375000 | 500000 | 2400 | 3200 |
| 100 | 215 | 73 | 3 | 22320, 22320K | 605000 | 755000 | 1800 | 2400 |
| 110 | 200 | 53 | 2.1 | 22222, 22222K | 410000 | 570000 | 2200 | 2800 |
| 110 | 240 | 80 | 3 | 22322, 22322K | 870000 | 1160000 | 1700 | 2200 |
| 120 | 215 | 58 | 2.1 | 22224, 22224K | 560000 | 800000 | 2000 | 2600 |
| 120 | 260 | 86 | 3 | 22324, 22324K | 1010000 | 1340000 | 1500 | 2000 |
| 130 | 230 | 64 | 3 | 22226, 22226K | 660000 | 960000 | 1800 | 2400 |
| 130 | 230 | 80 | 3 | 23226, 23226K | 830000 | 1270000 | 1500 | 1900 |
| 130 | 280 | 93 | 4 | 22326, 22326K | 1000000 | 1290000 | 1400 | 1800 |
| 140 | 250 | 68 | 3 | 22228, 22228K | 730000 | 1080000 | 1700 | 2200 |
| 140 | 250 | 88 | 3 | 23228, 23228K | 880000 | 1380000 | 1300 | 1700 |
| 140 | 300 | 102 | 4 | 22328, 22328K | 1130000 | 1460000 | 1300 | 1700 |
| 150 | 225 | 75 | 2.1 | 24030, 24030K30 | 620000 | 1140000 | 1400 | 1800 |
| 160 | 240 | 80 | 2.1 | 24032, 24032K30 | 720000 | 1320000 | 1300 | 1700 |
| 170 | 310 | 86 | 4 | 22234, 22234K | 1170000 | 1750000 | 1400 | 1800 |

RANGE

| | | |
|-----------------|-----------------|-----------------|
| 22208 MB C3 W33 | 22222KMB C3 W33 | 22316KMB C3 W33 |
| 22208KMB C3 W33 | 22224 MB C3 W33 | 22317 MB C3 W33 |
| 22209 MB C3 W33 | 22224KMB C3 W33 | 22317KMB C3 W33 |
| 22209KMB C3 W33 | 22226 MB C3 W33 | 22318 MB C3 W33 |
| 22210 MB C3 W33 | 22226KMB C3 W33 | 22318KMB C3 W33 |
| 22210KMB C3 W33 | 22228 MB C3 W33 | 22319 MB C3 W33 |
| 22211 MB C3 W33 | 22228KMB C3 W33 | 22320 MB C3 W33 |
| 22211KMB C3 W33 | 22234 MB C3 W33 | 22320KMB C3 W33 |
| 22212 MB C3 W33 | 22308 MB C3 W33 | 22322 MB C3 W33 |
| 22212KMB C3 W33 | 22308KMB C3 W33 | 22322KMB C3 W33 |
| 22213 MB C3 W33 | 22309 MB C3 W33 | 22324 MB C3 W33 |
| 22213KMB C3 W33 | 22309KMB C3 W33 | 22324KMB C3 W33 |
| 22214 MB C3 W33 | 22310 MB C3 W33 | 22326 MB C3 W33 |
| 22215 MB C3 W33 | 22310KMB C3 W33 | 22326KMB C3 W33 |
| 22215KMB C3 W33 | 22311 MB C3 W33 | 22328 MB C3 W33 |
| 22216 MB C3 W33 | 22311KMB C3 W33 | 22328KMB C3 W33 |
| 22216KMB C3 W33 | 22312 MB C3 W33 | 23220 MB C3 W33 |
| 22217 MB C3 W33 | 22312KMB C3 W33 | 23226 MB C3 W33 |
| 22217KMB C3 W33 | 22313 MB C3 W33 | 23228 MB C3 W33 |
| 22218 MB C3 W33 | 22313KMB C3 W33 | 24030 MB C3 W33 |
| 22218KMB C3 W33 | 22314 MB C3 W33 | 24030KMB C3 W33 |
| 22219 MB C3 W33 | 22314KMB C3 W33 | 24032 MB C3 W33 |
| 22220 MB C3 W33 | 22315 MB C3 W33 | 24032KMB C3 W33 |
| 22220KMB C3 W33 | 22315KMB C3 W33 | |
| 22222 MB C3 W33 | 22316 MB C3 W33 | |



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