Bearing Number Table

1st Digit = Bearing Type

Type Code	Bearing Description
1	Self-aligning ball bearing
2	Spherical roller bearing
3	Double row angular contact ball bearing
4	Double row ball bearing
5	Thrust ball bearing
6	Single row deep groove ball bearing
7	Single row angular contact bearing
8	Felt seal bearing
32/T	Tapered roller bearing
R	Inch bearing
N	Cylindrical roller bearing
NN	Double row roller bearing
NA	Needle roller bearing
BK	Needle roller bearing with closed ends
HK	Needle roller bearing with open ends
C	CARB toroidal roller bearing
K	Needle roller and cage thrust assembly
QJ	Four – point contact ball bearing

The first digit of a bearing signifies the type of bearing.

For Example:

6208: first digit being **‘6’** is a **Single Row Deep Groove Ball Bearing.**

Inch bearings: first digit will be **‘R’**. After **‘R’**, the size of the bearing will be given in **1/16th** of an inch.

For Example:

R6-2RS: **R6** means it is an inch bearing whose bore size is **6/16th** of an **inch** or **0.375 inches**.

Bearing Number Table

2nd Digit = Bearing Series

Series Code	Toughness Description
0	Extra light
1	Extra light thrust
2	Light
3	Medium
4	Heavy
8	Extra thin section
9	Very thin section

The **second digit** of a bearing number indicates the **Bearing Series** which denotes the toughness / strength of the bearing.

Bearing strength is the **maximum stress load** that the unit can take or hold before the structure fails.

It can be measured by **Tensile Strength**, **Tensile Elongation**, **Compressive Strength**, **Flexural Strength**, **Modulus** and **Hardness**.

Bearing Number Table

3rd and 4th Digit = Bore Size

Last Digits	Bore Size mm
00	10
01	12
02	15
03	17
04	(x5) = 20
05	(x5) = 25
06	(x5) = 30
Continue to Multiply Last Digits x 5 to give diameter in mm	
Note: 04 and Up: Multiply Last Two Numbers by 5 to get bore in mm	

3rd and 4th digit of a bearing number as indicated above refers to the bore size of the bearing.

It is the inner diameter of the bearing and is measured in millimetres.

From **'00'** to **'03'** the measurements are noted above.

From **'04'** onward the bore size is equal to **five** times the 3rd and 4th digit of bearing's last two numbers.

NOTE:

If there is no **4th** digit, then the **3rd** digit gives the bore size in mm.

Example:

62**5** 2RS, the bore will measure 5mm.

6210ZZ, the third and fourth digit '10' means the bearing's bore size is (10 x 5) = 50mm.

Bearing Number Table

Shield/ Seal Configuration

Shield/ Seal Code	Description
Z	Single Side Metal Shield
ZZ	Both Sides Metal Shield
RS	Single Rubber Seal
2RS	Both Sides Rubber Seal
V	Single Non-Contact Seal
VV	Double Non-Contact Seal
DDU	Double Contact Seal
NR	Snap Ring and Groove
M	Brass Cage
Z	Single Side Metal Shield
ZZ	Both Sides Metal Shield
RS	Single Rubber Seal
2RS	Both Sides Rubber Seal
V	Single Non-Contact Seal
VV	Double Non-Contact Seal
DDU	Double Contact Seal
NR	Snap Ring and Groove
M	Brass Cage

The letters after the bearing number indicates the presence / absence / type of shielding or sealing and any other specialties in the bearing.

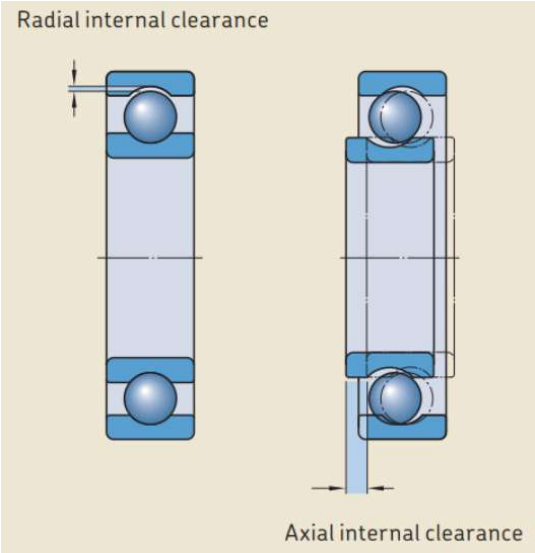
Example:

6208**ZZ**, (the last letters **‘ZZ’**) means the bearing has **‘Both Sides Metal Shield.’**

Bearing Number Table

Internal Bearing Clearance

Internal Clearance	Description
C1	Clearance smaller than C2
C2	Clearance smaller than normal
C0(CN)	Normal bearing clearance (not indicated)
C3	Clearance larger than normal
C4	Clearance larger than C3
C5	Clearance larger than C4



Bearing internal clearance means the total distance through which one bearing ring can be moved in relation to the other in the radial direction (**radial internal clearance**) or in the axial direction (**axial internal clearance**).

In almost all applications, the initial clearance in a bearing is greater than its running clearance. The difference is mainly caused by:

- The expansion of the inner ring or the compression of the outer ring reduces the internal clearance.
- Bearings generate heat in operation. Differential thermal expansion of the bearing and mating components influences the internal clearance.