

HOW TO IDENTIFY A BEARING

How to identify or measure your bearing. Most bearings will contain identifying marks, and these are usually a series of numbers and sometimes letters. Identifying a bearing can be complicated at times but this page is designed to help simplify the process.

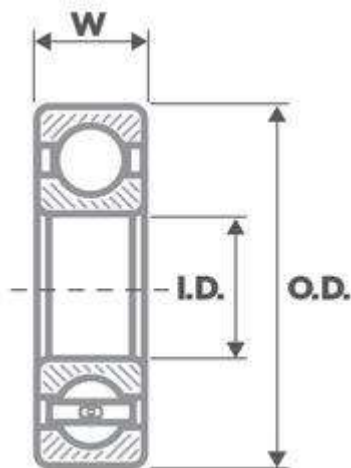
There are **two main types of bearing** and both consist of an **inner race way**, **outer race way** and the **rolling element**. Bearings are typically used to limit the radial and axial movements of rotating and reciprocating equipment whilst facilitating minimal friction against rotation.

Type 1: Ball bearings: Are great at dealing with radial loads and come in a few varieties, Deep Groove, Angular Contact, Self-Aligning and Thrust bearings.

Type 2: Roller bearings: Consisting of Tapered Roller bearings which are great for axial loads due to their shape, Needle Roller Bearings, Spherical and Cylindrical.

Measuring your bearing:

Most bearings are measured in three ways, the inside diameter or (ID), the outside diameter or (OD) and the width or (W).



It is important to note that our bearing measurements are all done in the following order:

Inside diameter (ID) x Outside diameter (OD) x Width (W).

You will also need to know what clearance you require. There are **two main** clearances which are:

1. **Normal clearance** with no **suffix**
2. **C3** greater than normal clearance.

C3 clearance will allow faster running speeds and higher temperatures without failure.

There are also several shield and seal options that protect the friction surfaces from debris or contaminants; these include (**2RS**) denoting two rubber seals and (**ZZ**) which denotes two metal shields.

Both the metal shields and rubber seals can be used individually protecting just one side of the bearing or both depending the application.

Shields and Seals:

ZZ or 2Z: 2 Metal Shields

2RS, 2RS1, 2RSR: 2 Rubber Seals

Clearances:

Standard clearance will appear with no prefix or suffix

C2: Less than standard

C3: Greater clearance

C4: Greater than C3

Taper Roller Bearings:

These are different in that they are tapered to with stand axial radial loads. These bearings do not come in shielded or sealed options and are roller rather than ball bearings.

They are made up of cups and cones and are available in both metric and imperial sizes. Taper roller bearings are still measured in the same way:

ID x OD x Width

and are also identified again buy a set of numbers and sometimes letters depending on the manufacturer.