

# what do skf bearing suffixes mean

SKF is one of the world's leading manufacturers of bearings and seals. The company's product line includes bearings, seals and lubrication systems for all applications.

In [SKF's bearing](#) line-up, there are more than 3600 different types of bearings, including radial, angular contact and deep groove ball bearings; cylindrical roller bearings; tapered roller bearings; needle roller bearings; spherical roller bearings; needle roller thrust bearings; self-aligning ball bearings; cylindrical roller thrust bearings; tapered roller thrust bearings.

SKF uses a three-letter suffix code to identify the product type and material grade used in its high performance rolling bearing range.

## **Suffixes for radial ball bearings (D) BB1-BB30, standard open and sealed bearings.**

Bearing suffixes describe the basic size of a radial ball bearing. In addition to the basic size designation, they also indicate the bore diameter, outside diameter and width of a bearing.

The basic size number is the first digit in the series. It indicates the outside diameter of a bearing in millimeters. The second digit indicates the bore diameter of a bearing in millimeters. The last two digits indicate the width of a bearing in millimeters. Thus for example B20x25x11 means an outside diameter of 20mm, a bore diameter of 25mm, and a width of 11mm.

Radial ball bearings are an economical choice for high speed applications. They can be single direction or double direction. The suffix code is the same for both single and double direction units with the exception of the last two characters: DD = double direction; SD = single direction.

The first two digits indicate the bore diameter. The last digit indicates the number of balls in the bearing, which is always even, except when a suffix letter is used (A).

## **Suffixes for thin section ball bearings (E, EC, EK) CC, CCJA and EYA, standard open and sealed bearings.**

EJ – Standard open bearing with cylindrical rollers with a cage (also called a needle roller bearing). The cage consists of two circular rings that are separated axially by an internal ring (called a preload ring). In order to achieve zero end play, one or more preload rings may be included in the design.

EC – Standard open bearing with cylindrical rollers without a cage (also called a needle roller bearing). The cylindrical rollers have only minimal axial play so that they can be moved axially by applying force at the outer ring. This enables them to accommodate thermal expansion or contraction of the shaft and housing halves.

EK – Standard open bearing with tapered roller and cage assembly (also called a double direction rolling bearing).

CC: Cylindrical closed. These bearings are supplied without housing seals but can be supplied with seals in the same series. The bearing is suitable for radial load only but can be used for angular contact thrust loads if it is not loaded

beyond its limit values.

CCJA: Cylindrical closed, radial internal clearance greater than 0.2 mm (0.008 in.).

CJMA: Radial internal clearance greater than 0.2 mm (0.008 in.), limited axial displacement of the shaft relative to the housing of less than 10 mm (0.039 in.). This design combines the advantages of a radial clearance bearing with those of a journal bearing having an internal diameter close to that of the shaft; it is particularly suitable for applications where it is necessary to maintain alignment between shaft and housing at all times over long periods of operation under heavy load conditions or during frequent start-ups/stops.

## **Suffixe for angular contact ball bearings (C, CA, CD) 718(ACD), 700(ACA) series standard open and sealed bearings.**

The suffix C means that the bearing has an internal clearance of 0.025 mm or less. The suffix CD means that the bearing has an internal clearance of 0.20 mm or less. The suffix CA means that the bearing has an internal clearance of 0.15 mm or less.

Suffixes for angular contact ball bearings (C4, C5) 718(ACD4)\*\*, 700(ACA4) series standard open and sealed bearings with a shield ring on both sides of the inner ring raceway.

## **T suffixes for ISO bearing dimension series 1/2, 11/12 and**

## **21/711.**

The T suffix on bearings is a standard feature that indicates that the bearing has been produced with a special surface treatment called "Thermal Topcoat" (T-Coating). The primary goal of thermal topcoating is to reduce friction between the rolling elements and raceways by increasing the lubricant film thickness. The secondary goal is to provide lubrication for life, due to better protection against corrosion.

## **Suffixes for super-precision angular contact ball bearings (EX, QE) 70 and 72 series standard open and sealed bearings.**

70 series: E (extra precision). It is used to describe bearings made by cutting the raceway surfaces with a higher degree of accuracy than those of other series, to get high-speed performance. The inner ring raceway surface was not cut, but precision grinding was done after heat treatment.

72 series: QE (Quadruple extra precision). It is used to describe bearings made by cutting the raceway surfaces with a higher degree of accuracy than those of other series, to get high-speed performance. The inner ring raceway surface was not cut, but precision grinding was done after heat treatment.

## **Suffixes for super-precision cylindrical roller bearings (N) 10 series standard open and sealed bearings with a snap ring groove.**

(N) 10 series standard open and sealed bearings with a snap

ring groove have the same outer diameter as other rollers of the same type but have a higher basic load rating than their standard counterparts. They are available in various designs, some of which include shields, shields and shields. These bearings can be used under heavy loads at high speeds and have an excellent performance life history.

## **Suffixes are key to understanding the exact model of a SKF bearing.**

SKF bearings are designed to last. And, as a result, they have a rather long life cycle. The date code on each bearing indicates when it was manufactured and the type of lubricant used during production.

SKF has developed standard suffixes for most of its bearings to indicate the year of manufacture, type of lubricant and operating temperature. This information enables you to easily identify the exact model number of your SKF bearing.

The information above should help you understand what the common suffixes of SKF bearings mean and how they differ.