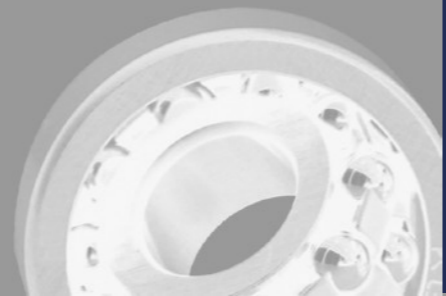




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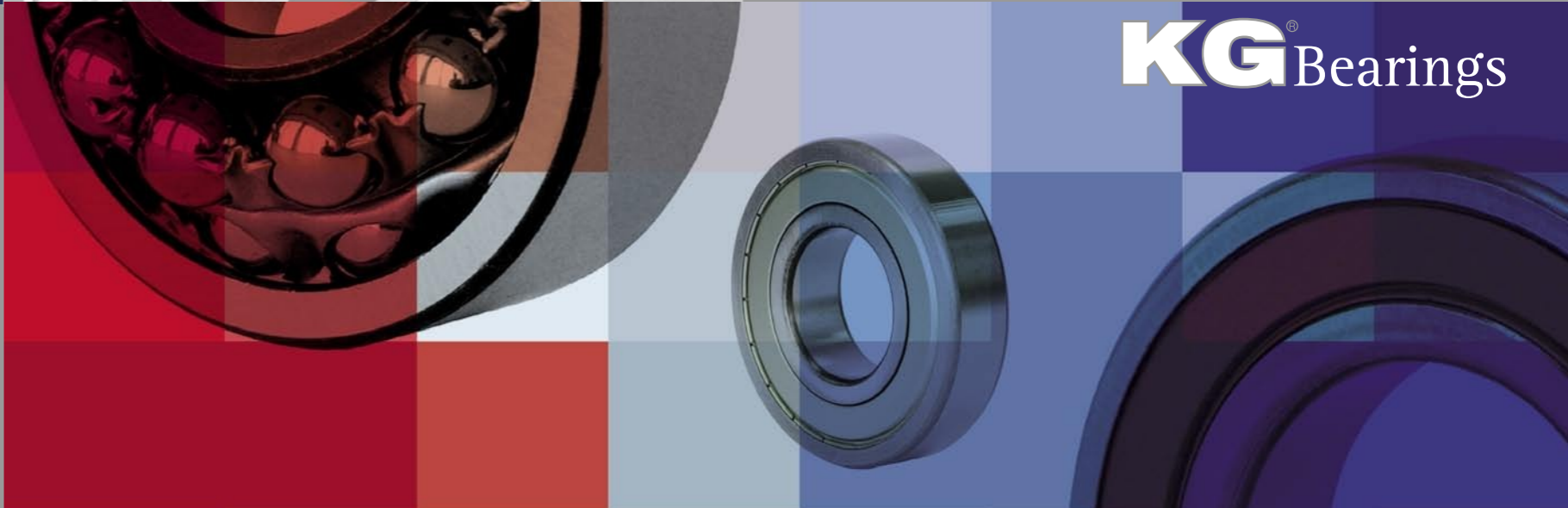


KG Bearings



www.kginternational.com

KG Bearings



Product Catalogue

Version: FRPC/2007

THE BEARING PEOPLE



Product Catalogue
 Version: FRPC/2007

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An ISO 9001 : 2000 Company



CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

KG International FZCO
P.O Box 17122, Dubai
United Arab Emirates

has been approved by Lloyd's Register Quality Assurance
to the following Quality Management System Standards:

ISO 9001:2000

The Quality Management System is applicable to:

**Global Marketing and Effective Supply Chain Management
of All Kinds and Types of Bearings in KG and Other Brands.**

Approval
Certificate No. MEA1106316

Original Approval: 9 July 2006

Current Certificate: 9 July 2006

Certificate Expiry: 8 July 2009

Issued by: LRQA Dubai



This document is subject to the provision on the reverse
71 Fenchurch Street, London EC3M 4Bs United Kingdom. Registration number 1879370
This approval is carried out in accordance with LRQA assessment and certification procedures and monitored by LRQA.
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KG[®]

001

*We at KG international are committed
to make our valued customers
more Productive, more Competitive, and more Profitable.*

*We accomplish this by continuously striving
to achieve higher level of professionalism internally,
customer focused product development,
enhanced service & support, and
by continuously improving our business process*

Kedar Gupta
Founder & Chairman, KG International FZCO














KG Corporate Head Office,
Jebel Ali, Dubai



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KG[®]

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We lead the market, because we serve!

For almost four decades now, our motivation has been our desire to continuously outperform & exceed expectations. Our goals have always been high, our ambitions challenging & ethics demanding, as our focus continues to be our customers. From technical support & guidance, to on time deliveries, all our systems are aligned to meet our customer's specific requirements.

In appreciation of our operational standards & quality management systems, we were awarded ISO 9002 certification as far back as 1999. In 2002, we upgraded to the improved ISO 9001:2000 standards, which was further endorsed by the world famous Lloyd's International, in the year 2006.

Our commitment to perfection has yielded exceptional results. Today, we are amongst the world's leading Bearing companies, and this does not happen overnight. It has to be strived for, and earned the harder way. The secret to success is our straight forward policy, which we never deviate from, i.e. service without compromise.



KG[®]



ISO Certification

A movement, gathering momentum!

We believe that global competitiveness is the result of investments in modern technology, infrastructure, people, and systems. To ensure seamless workflow & management of our business processes, we have automated, integrated & centralized independent activities into a single operation.

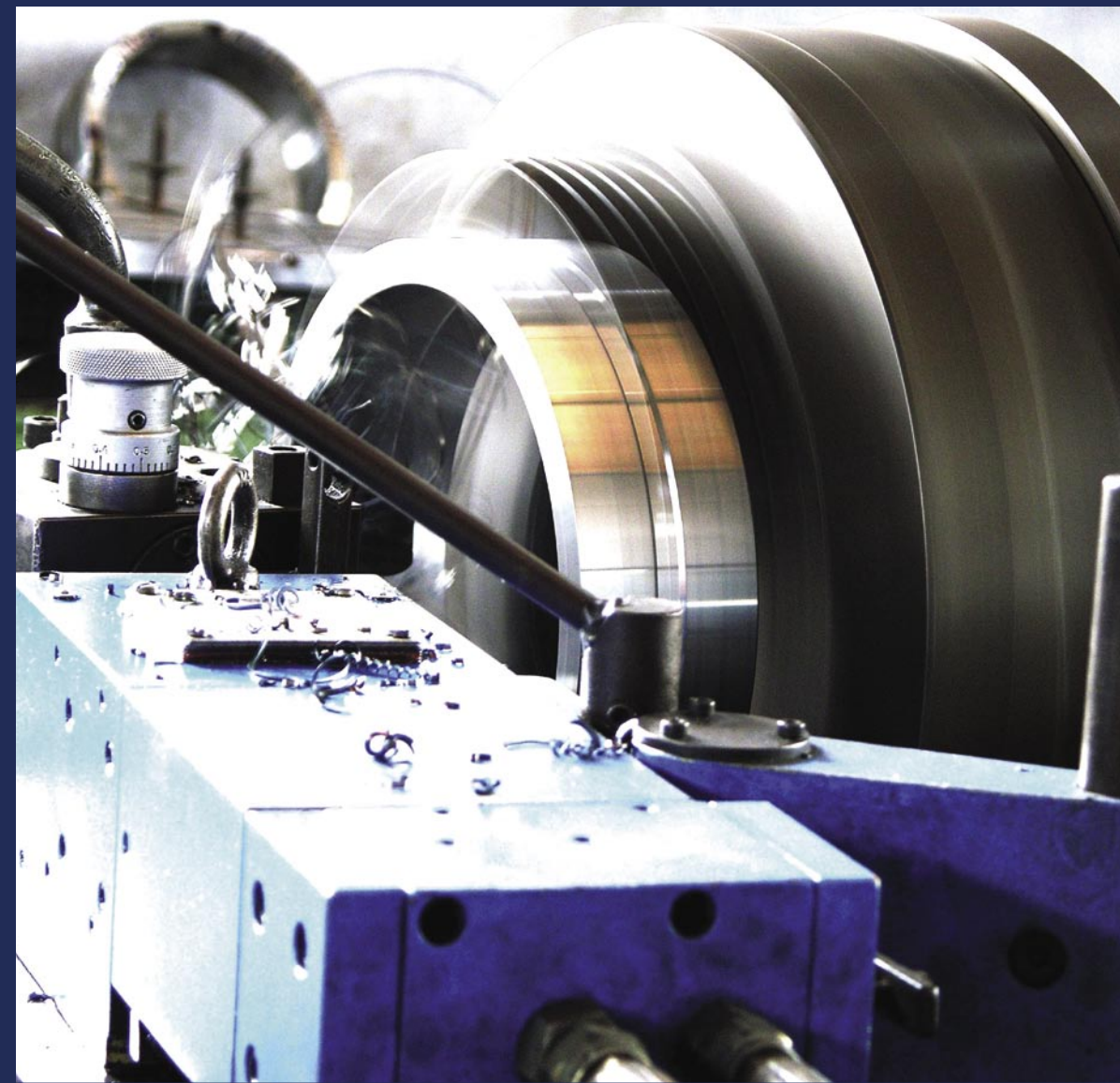
At our extremely modern & high tech Bearing manufacturing facility, spread over 90,000 sqm in India, quality control at every stage of production is a norm. Over 200 skilled & semi skilled workers combine KG's expertise with American technology, to produce millions of Bearings every year.

Our in-house R&D and Quality Control procedures ensure that KG Bearings are produced strictly in accordance with international standards. Regular on the job training & skill enhancement programs ensure that KG team is always up to date with the latest in technology & business practices.



KG[®]

007



Manufacturing Process

A global family, growing stronger!

We choose to be a relationships company, and prefer to work on long term basis with all our associates. By adding value through our knowledge based expertise, we generate synergy through near partner like associations, not only with our customers, but also with our vendors.

We have set examples for others to follow; be it exploring new markets, or developing innovative strategies to service our customer's requirements. For us, customer service goes beyond mere development of required products; we provide reliable solutions.

Our belief in our values is further reinforced by the trust gained over the years, from our associates, spread worldwide. However, our greatest reward is our expanding global network of happy customers & vendors. While we seek new associations, strengthening existing relationships is our priority.



KG[®]



Global Presence

Every customer is important, every shipment critical!

With an operation that spans the entire globe, serving a growing diverse demand is a challenge that we must overcome daily. For us it is just not enough to sell quality Bearings; it is more important to make them available at the right time & at the right place.

Our 300,000 sq. ft. central logistics hub at Jebel Ali Free Zone, Dubai, has brought us closer to our customers. Being located at the cross roads of world's major trade routes has helped us to achieve quicker deliveries, and shorter turn around times. Our computerized warehouse & logistics management systems have helped us further in aligning our infrastructure to service our customers' growing demands.

We serve worldwide, in more than 60 countries, and the corner stone of our success is our ability to meet our customer's requirements from diverse business environments. At KG the view is different, definitely global!



KG[®]



KG Central Logistics Hub
Dubai, UAE

Our pursuit of excellence is an ongoing process, and there are no intentions of slowing at any time.

We believe tomorrow is another day, and it will come with new challenges & brighter horizons.

At KG, this is our way of life!

Rohit Gupta
CEO, KG International FZCO

The logo for KG International, featuring the letters 'KG' in a bold, blue, sans-serif font with a registered trademark symbol (®) to the upper right.

Aerial View
KG Corporate Head Office
Dubai, UAE



Disclaimer

Due care has been taken in compiling together all words, diagrams, and data tables in this catalogue. The following pages contain information which is meant only for users having requisite technical knowledge Et skill in Bearing selection. Actual conditions for usage are beyond the scope of this work. The selected Bearing's suitability with the intended application must be reviewed by user's engineering personnel or approved by KG's customer support department.

All information provided hereafter is without warranty/guarantee of any kind. KG International FZCO reserves the right to update or change the information herein at any time without notification. KG International FZCO assumes no liability whatsoever for any direct, indirect, incidental, special or consequential losses or damages, arising due to information contained in this catalogue.

The exhaustive range of Bearings included in this catalogue is current at the time of going to print. However, this information might not necessarily be complete, or updated as on the day viewed by the user. Users are advised to contact KG International FZCO for more updated information, or clarifications.

Please note all weights given in the following pages are for reference only.



Bearing's Introduction



History of Bearings

The idea of using a Rolling Element to move heavy items dates back to ancient Egyptians, who used logs to roll their large stone blocks closer to their Pyramid construction sites.

The earliest Bearings were manufactured using Lignum Vitae, a very heavy, hard & natural oily wood, native to Central America and the West Indies. This wood's natural oil assisted the manufacturing process by acting as a cutting fluid. These Bearings found use in "wet" applications such as propeller driven vessels, water wheels, and pumps etc. Lubrication was done using tallow or other animal fats.

The Industrial Revolution of 18th century brought about widespread usage of Iron in industrial processes. It also introduced steam engine as a practical source of power, and created a demand for new types of machinery, which in turn required specialized Bearings. These were the reasons that forced the industry then, to look for alternative materials to produce Bearings that could match performance requirements.

In the latter half of 19th century, Henry Bessemer developed a new steel making process, which was more economical. As a result, this period saw a greater reliance on steel as a raw material for production of better quality Bearings.

The 20th century has been witness to a Bearings' Revolution, which was brought about by modern day inventions, such as motorcars, domestic appliances, agricultural & industrial machinery, robotics & computers, etc. Bearing industry has kept pace by adapting new technology & materials, to produce more precise, durable, and specialized Bearings.

Classification & Types of Rolling Bearings

Rolling Contact Bearings can be categorized in many ways. One is based on the end use of Bearing e.g., Agricultural, Automotive, Industrial etc. However, considering technical parameters & construction, there are two ways to classify Rolling Contact Bearings.

On the basis of their design for specific load management

- Radial Bearings
Designed for mainly radial load applications, i.e., when load direction is perpendicular to the shaft axis.
- Thrust Bearings
Capable of supporting mainly thrust loads, i.e. when load direction is parallel to the shaft axis.

On the basis of the type of Rolling Elements

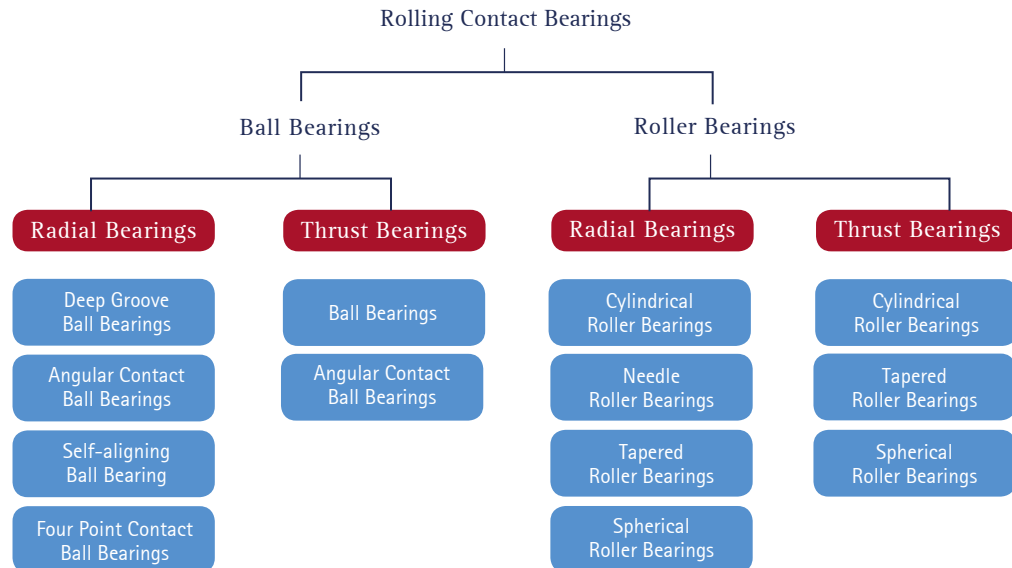
- Ball Bearings
Probably the most common type of Bearings, they find usage in numerous applications, that may range from in-line skates to computer hard drives. Since, these Bearings can handle both radial and thrust loads, they find maximum usage in applications that involve relatively small loads.

Ball Bearings are classified into Deep Groove, Angular Contact or Thrust Bearings. They can be further categorized on the basis of number of rows, i.e. Single Row or Double Row. Specifically for Thrust Ball Bearings, specific classification is done on the basis of directional usage, i.e. Single Direction or Double Direction. At times, Ball Bearings are also categorized on the basis of relationship between the Bearing Rings & Rolling Elements, the shape of Bearing Rings, or on the basis of used accessories.

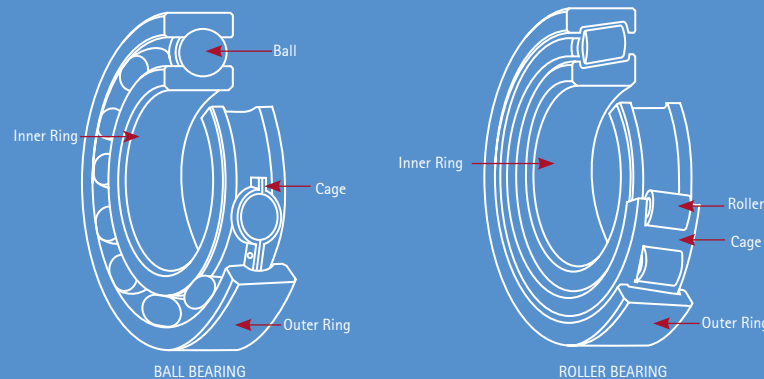
- Roller Bearings
These Bearings are more suitable for applications involving relatively higher loads, and can handle both types of loads i.e., radial & thrust.

Roller Bearings can be classified according to the shape of Rollers used, as Spherical Roller, Tapered Roller, Cylindrical Roller or Needle Roller Bearings.

Bearing's Classification on the basis of Rolling Elements



Design and Features of Rolling Contact Bearings



Generally, Rolling Contact Bearings comprise of an Inner Ring, an Outer Ring, Rolling Elements (Balls or Rollers) and a Rolling Element Retainer (Cage). It is the Rolling Elements & Rings that bear the applied load (at the contact points of Rolling Elements & Raceways); the Cage does not bear any direct load. It's function is to hold the Rolling Elements at an equal distance from each other, and prevent their fall out.

To achieve optimal performance from any Bearing, it is important to properly define & understand the application requirements very judiciously.

Deep Groove Ball Bearings

Deep Groove Ball Bearings offer multiple options that serve a wide range of applications.

They typically consist of an Inner Ring, Outer Ring, Balls and Cage. Variants are available with Steel Shields, Rubber Seals (Contact/Non-Contact type), Snap-ring Grooves with Snap-rings, and a variety of Cage types.

Deep Groove Ball Bearings are mainly of two types

- Single Row
- Double Row

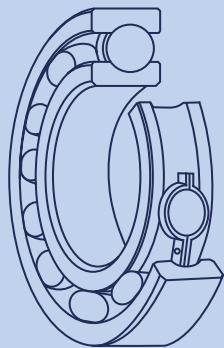
These Bearings are designed for radial, axial, and also composite load applications.

Deep Groove Ball Bearings offer

- uni or bi-directional load carrying capability
- very high speed rotation
- very good running accuracy
- low noise and low friction torque

Deep Groove Ball Bearings are also classified as

- Miniature Ball Bearings
Bearings with an outside diameter less than 9 mm.
- Extra Small Bearings
Bearings with an outer diameter equal to or more than 9 mm, but with bore diameter less than 10 mm.



DEEP GROOVE BALL BEARING

Angular Contact Ball Bearings

The Raceway of both Inner & Outer Rings of Angular Contact Ball Bearings are designed to maintain a specific contact angle between the Balls and Raceways, in the radial plane.

Standard Cage materials for this type are pressed Steel, high strength Brass or Synthetic Resin. In comparison to a Deep Groove Ball Bearing, Angular Contact type generally carries more number of Rolling Elements (Balls), and are capable of sustaining radial, axial or composite loads.



Angular Contact Ball Bearings are classified into three sub-categories

- Single Row
They have 3 different contact angle classifications

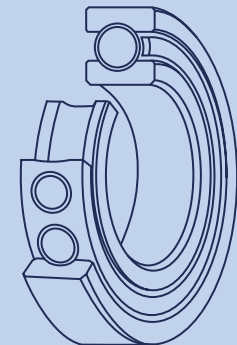
Contact Angle Symbol	Contact Angle
A	30 degrees
B	40 degrees
C	15 degrees

- Double Row
They have 2 different contact angle classifications

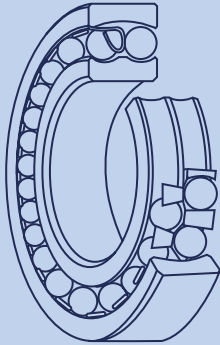
Contact Angle Symbol	Contact Angle
None	20 degrees
A	30 degrees

- Combination Type
Generally, Single Row Angular Contact Ball Bearings are used in combination of two or more units. Three different combinations are available

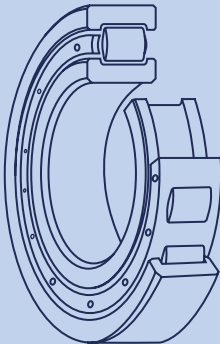
Configuration	Load Capability
Back – to – Back	Bi-directional axial
Face – to – Face	Bi-directional axial
Tandem	Uni-directional axial



ANGULAR CONTACT BALL BEARING

SELF-ALIGNING BALL BEARING



CYLINDRICAL ROLLER BEARING



Self-aligning Ball Bearings

Self-aligning Ball Bearings are designed to contain Inner Ring & Ball Assembly in Outer Ring with a spherical Raceway. Due to its special construction, these Bearings can tolerate small angular mis-alignment of Shaft upto 2.5 - 3 degrees. This mis-alignment could either be due to usage, or it could be due to a mounting error.

Cylindrical Roller Bearings

Cylindrical Roller Bearings probably have the most simple construction in Roller Bearing's category. These Bearings are suitable for carrying relatively higher loads, at high-speed applications.

There is a linear contact between the Rolling Elements & Bearing Rings. This comparatively larger contact surface area enables Cylindrical Roller Bearings to handle much greater radial load, compared to a Ball Bearing. However, their axial load bearing capacity is limited. Numerous variants of this Bearing type are available to match specific application requirements.

Compared to Single Row type, Double Row Cylindrical Roller Bearings are used for higher speed & greater accuracy applications eg., in machining centres etc.

These Bearings are suitable for applications involving light axial loads, specifically where accurate alignment of shaft is difficult. Cylindrical Roller Bearings are generally used along with Plummer Blocks, and are available with two bore types i.e., cylindrical and taper. Their Cages are made of either pressed Steel or Polyamide Resin.



Tapered Roller Bearings

As the name implies, the Rolling Elements and Raceways (of Outer & Inner Rings) of these Bearing are made with a tapered profile. These Bearings can be separated into components, i.e. Outer Ring (Cup), and the combined Inner Ring & Roller Assembly (Cone).

Tapered Roller Bearings are further classified into

- **Single Row**

A Single Row Tapered Roller Bearing can support combined radial & axial load. However, if an application has bi-directional axial load, then two Single Row Tapered Roller Bearings can be used together in a back-to-back or face-to-face mounting pattern.

- **Double Row**

Double Row Tapered Roller Bearings are specially made to sustain radial & bi-directional axial loads.

- **Four Row**

Four Row Tapered Roller Bearings can support much heavier radial and impact loads, in addition to standard capabilities of a Double Row Tapered Roller Bearings.

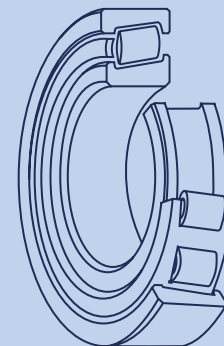
Spherical Roller Bearings

In Spherical Roller Bearings, the Raceway of Outer Ring is designed to have a spherical profile, whose centre coincides with Bearing's centre point.

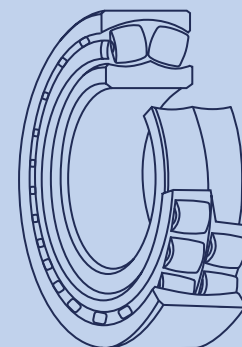
This type of Bearing is self-aligning type, hence can be used for applications where a mis-alignment of Shaft may arise either due to an erroneous mounting or due to Shaft deflections. The outer ring generally has lubrication holes & grooves. These Bearings are suitable for very high radial impact load applications, and a moderately high level of bi-directional axial load.

Spherical Roller Bearings are available in two bore types

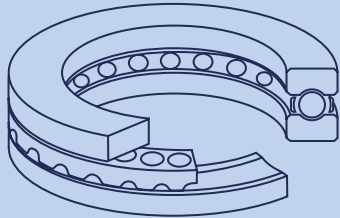
- Cylindrical Bore
- Tapered Bore



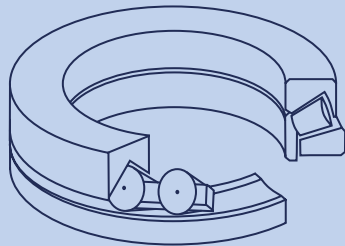
TAPERED ROLLER BEARING



SPHERICAL ROLLER BEARING



THRUST BALL BEARING



THRUST ROLLER BEARING

Thrust Ball Bearings

Thrust Ball Bearings are designed to handle axial loads only. They should not be used for any radial load applications.

Bearing Ring mounted on the Shaft is called Shaft Washer, and the one mounted on the Housing is called Housing Washer.

Thrust Ball Bearings are of two types

- Single Direction type
Suitable for handling only uni-directional axial loads.
- Double Direction type
Suitable for handling bi-directional axial loads.

Thrust Ball Bearings are not suitable for high speed applications. At high speeds, sliding movement between Balls and Raceways can occur, which may result in smearing. Further at high speeds, centrifugal forces expel lubricating oil, this fact alone restricts acceptability of Thrust Ball Bearings for high speed applications.

Thrust Roller Bearings

Thrust Roller Bearings are preferred for axial load applications, as they provide higher rigidity in comparison to other types.

Thrust Roller Bearings are of three types

- Thrust Cylindrical Roller Bearings
- Thrust Tapered Roller Bearings
- Spherical Roller Thrust Bearings

Spherical Roller Thrust Bearing is a self-aligning Bearing. In service, it allows a maximum Shaft mis-alignment of about 2 degrees. The contact angle helps this type of Bearing to handle a small amount of radial load.

Lubrication of these Bearings needs to be done carefully, since large sliding contact area results in smearing. Care should be taken to maintain atleast rated minimum load on this Bearing, to avoid smearing.



Types, Construction and Features of Rolling Contact Bearings

BEARING TYPES			CHARACTERISTICS	Load Carrying Capacity	High Speed Suitability	Rigidity	Mis-alignment Permissibility	Quiet Operation
Deep Groove Ball Bearings								
Type	Cross Sections	Bearing Series						
Without Filling Slot		67-68-69-60-62 63-64-RLS-RMS-16000						
Without Filling Slot (for Bearing Units)		UC-UE-UK-AEL-SB						
With Filling Slot		42-43						
Angular Contact Ball Bearings								
Type	Cross Sections	Bearing Series						
Non-Seperable		79-70-72-73-74 ALS-AMS						
Without Filling Slot		52-53						
With Filling Slot		32-33						
Self-aligning Ball Bearings								
Type	Cross Sections	Bearing Series						
Double Row		12-13-22-23						
Four Point Contact Ball Bearings								
Type	Cross Sections	Bearing Series						
Single Row		QJ2-QJ3						
Thrust Ball Bearings								
Type	Cross Sections	Bearing Series						
Single Direction Flat Back Face		511-512-513-514						
Single Direction Spherical Back Face		532-533-534						
Double Direction Flat Back Face		522-523-524						
Double Direction Spherical Back Face		542-543-544						

BEARING TYPES			CHARACTERISTICS		Load Carrying Capacity	High Speed Suitability	Rigidity	Mis-alignment Permissibility	Quiet Operation
Thrust Angular Contact Ball Bearing									
Type	Cross Sections	Bearing Series							
Single Direction									
Double Direction									
Cylindrical Roller Bearings									
Type	Cross Sections	Bearing Series							
Inner Ring without Rib on one side		NJ2-NJ22-NJ3-NJ23-NJ4							
Inner Ring with loose Rib on one side		NH2-NH22-NH3 NH23-NH4							
Inner Ring without Rib on both sides		NU10-NU2-NU22 NU3-NU23-NU4							
Outer Ring without loose Rib on one side		NF2-NF3-NF4							
Outer Ring without Rib on both sides		N10-N2-N3-N4							
Inner Ring without Ribs on both sides (2 rows of Rollers)		NNU49							
Outer Ring without Ribs on both sides (2 rows of Rollers)		NN30							
Needle Roller Bearings									
Type	Cross Sections	Bearing Series							
Inner Ring without Rib		NA48-NA49							
Without Inner Ring		RNA48-RNA49							

LEGENDS

Single Direction Axial Load

Double Direction Axial Load

Thick Arrow Denotes Higher Capacity

Radial Load

Very Good

Normal

Good

Limited

Not Suitable

BEARING TYPES			CHARACTERISTICS			Load Carrying Capacity	High Speed Suitability	Rigidity	Mis-alignment Permissibility	Quiet Operation
Tapered Roller Bearings										
Type	Cross Sections	Bearing Series								
Single Row		320-302-322-303-303D 323-329-330-331-332								
Double Row (Inward type)		DRT								
Double Row (Outward type)		DRTO								
Four Row Roller (Separable)		FRTR								
Spherical Bearings										
Type	Cross Sections	Bearing Series								
Double Row Roller		239-230-240-231-241 222-232-231-223								
Plain		GE								
Roller Thrust		292-293-294								
Thrust Cylindrical Bearings										
Type	Cross Sections	Bearing Series								
Roller (Flat Back)										
Thrust Tapered Bearings										
Type	Cross Sections	Bearing Series								
Roller (Flat Back)										

LEGENDS

- Single Direction Axial Load
- Double Direction Axial Load
- Thick Arrow Denotes Higher Capacity
- Radial Load
- Very Good
- Good
- Normal
- Limited
- Not Suitable

Selection of Rolling Contact Bearings

Performance and service life of any machine or equipment is directly related to the performance of Bearings used in it. There is no standard rule of Bearings selection for different applications. To avoid unnecessary costs & loss of machine time, a systematic effort must be made to consider maximum parameters for selecting most suitable Bearing for an application.

With diversification in Bearing designs, their application range has also expanded. With so much choice available, to make best selection, it becomes mandatory to study both Bearing & it's application parameters. Generally, Shaft diameter is known before hand, hence the focus should be on application parameters. The flow chart on following page shows a sample selection procedure.

Major Bearing selection parameters are

- load types (i.e., radial, axial, or moment)
- magnitude of these loads on the Bearing
- limiting speed
- noise & torque levels
- rigidity & chances of mis-alignmer
- Bearing life
- accuracy





Material for Rolling Contact Bearings

Under operative conditions, Rolling Elements roll & slide between Bearing's Outer & Inner Rings, subjecting the contact areas to high & repetitive stress, leading to material fatigue after some usage. This fatigue can lead to an eventual Bearing failure.

Material for Rings & Rolling Elements

The choice of material to be used in Bearing Rings & Rolling Elements depends on the typical design & application requirements.

Basic desirable characteristics of material

- higher hardness
- good wear resistance
- higher rolling contact fatigue resistance
- dimensional stability
- good mechanical strength

Bearing performance is greatly influenced by the material used in its construction. Generally, material for Bearing Ring & Rolling Elements is selected according to the application conditions. To meet higher hardness requirements, High Carbon-chrome Bearing Steel is used. For a corrosive atmosphere, Stainless Steel is preferred. If good tolerance to high temperature is required, then High-speed Steel is preferred. Similarly Ceramic Bearings are used for certain special applications.



The material for KG Rolling Bearings is normally high Carbon, thorough-hardened Chromium Steel with a good degree of cleanliness. For special applications that involve shock loads and reverse bending stresses, certain Bearings made with case-hardened Steel are also available.

Chemical Composition for Various Types of Bearing Steels

High Carbon Chrome Bearing Steel

Standard	Symbol	Chemical Composition (%)						
		C	Si	Mn	P	S	Cr	Mo
SAE	52100	0.98~1.10	0.15~0.35	≤ 0.25~0.45	≤ 0.025	≤ 0.025	1.30~1.60	≤ 0.10

Case Hardening Steel

Standard	Symbol	Chemical Composition (%)							
		C	Si	Mn	P	S	Ni	Cr	Mo
SAE	8620	0.18~0.23	0.15~0.35	0.70~0.90	≤ 0.035	≤ 0.040	0.40~0.70	0.40~0.60	0.15~0.25
	4320	0.17~0.22	0.15~0.35	0.45~0.65	≤ 0.035	≤ 0.040	1.65~2.00	0.40~0.60	0.20~0.30

Stainless Steel

Symbol	Chemical Composition (%)						
	C	Si	Mn	P	S	Cr	Mo
SUS440C	0.95~1.20	≤ 1.00	≤ 1.00	≤ 0.040	≤ 0.030	16.00 ~ 18.00	≤ 0.75

Material for Cages

Similar to the desirable characteristics of material for Rolling Elements, the material used in fabrication of Bearing Cages should also possess certain desirable properties.

Desirable Cage properties

- good wear resistance
- dimensional stability
- good mechanical strength

There are three standard types of Cages

- Pressed Cages, that use cold-rolled Steel
- Machined Cages, that use high tensile strength Brass Castings or Carbon Steels
- Polyamide Cages, that use Polyamide Resins

Cold Rolled Steel Strip and Cold Rolled Steel Sheet & Plate for Pressed Cage

Symbol	Chemical Composition (%)				
	C	Si	Mn	P	S
SPB1	≤ 0.10	≤ 0.04	0.25~0.45	≤ 0.030	≤ 0.030
SPB2	0.13~0.20	≤ 0.04	0.25~0.60	≤ 0.030	≤ 0.030
SPCC	≤ 0.12	-----	≤ 0.50	≤ 0.040	≤ 0.045

Steel for Machined Cages

Symbol	Chemical Composition (%)				
	C	Si	Mn	P	S
S25C	0.22~0.28	0.15~0.35	0.30~0.60	≤ 0.030	≤ 0.035

Once again, the choice of material for Bearing Cages is made according to the operating conditions. For instance, Brass Cages should not be used in environments with Ammonia, or at temperatures above 300° centigrade, as this may cause season cracking. Similarly, Polyamide Cages should only be used in the temperature range of - 40° to +120° Centigrade. They should not be used in vacuum, as the resin may become brittle due to dehydration.

High Tensile Strength Brass Casting for Machined Cage

Symbol	Chemical Composition (%)									
	Cu	Zn	Mn	Fe	Al	Sn	Ni	Pb	Si	Others
HBsCR	55.0~62.0	33.0~37.0	2.0~4.0	0.5~1.5	0.1~1.0	0.1~1.0	≤1.0	0.1~1.0	≤0.2	≤1.0
HBsC1	55.0~60.0	33.0~42.0	0.1~1.5	0.5~1.5	0.5~1.5	≤1.0	≤1.0	≤0.4	≤0.1	-
HBsC2	55.0~60.0	30.0~42.0	0.1~3.5	0.5~2.0	0.5~2.0	≤1.0	≤1.0	≤0.4	≤0.1	-

Lubrication

Bearing Rings, Rolling Elements and Cage are subjected to high levels of rolling and sliding friction. This friction may damage the Bearing, and eventually reduce its service life. Use of correct lubricant can reduce frictional damages & extend a Bearing's productive life.

Lubricants separate rolling & sliding surfaces with a very thin film of oil. The applied load is carried by pressure generated within the fluid; frictional resistance to motion arises entirely from the shearing of the viscous lubricating fluid. Bearing's performance and service life largely depend on appropriate selection of lubricants, which can vary with type of application.

When in use, friction due to moving parts may generate heat, which reduces the viscosity of lubricant. This viscosity loss leads to deterioration and subsequent evaporation of lubricant.

Selection of both i.e., proper lubricant & the correct lubrication method is critical to Bearing's performance & operational life. Generally, Rolling Bearings use either an oil based or a grease based lubricant. Some applications may call for more specialized lubricants such as Graphite, PTFE or Molybdenum Disulfide based varieties.

Essentially, lubricants have following roles to play

- reduce rolling friction between Rolling Elements & Raceways
- minimize sliding friction between
 - the rolling end & guide faces of Bearing
 - the Rolling Elements and Cage
 - the Cage & Raceway guiding surfaces
- prevent foreign particle contamination
- prevent rust and corrosion
- remove heat from Bearing
- uniformly distribute stress to the Rolling contact surfaces
- provide some relief from impact loads

Desirable characteristics of a good Bearing lubricant are

- nill moisture content
- non-reactive properties with Bearing materials
- nill impurities
- good temperature stability
- non-corrosivity
- good wear & friction resistance
- high mechanical stability
- load pressure resistance

Guide to Selecting Oil and Grease Lubricants

Application Conditions	Grease	Oil
Temperature	Not suitable for high temperature (100° to 120° C)	Suitable for high temperature (with circulating cooling)
Speed	Low to medium speeds	Suitable for high speeds (depends on lubrication method)
Load	Light to medium loads	Suitable for high loads
Housing design maintenance	Simple	Complicated (need to consider oil leak prevention)
Centralized lubrication	Possible	Easy
Dust filtration	Not possible	Possible (circulating lubrication provides a filter to trap dust)
Rolling resistance	Large	Small (correct oil quantity must be maintained)

Lubricating Oil

Since it is only a thin oil film that separates the contacting surfaces, it is important for this film to have correct viscosity. Emphasis is on correct viscosity, as both lower or higher viscosity of lubricating medium at operating temperatures can damage the Bearing.

Low viscosity can cause the lubricating film to break, leading to a lubrication failure. At the same time, higher viscosity increases the operational torque, which results in power loss and an abnormal rise in temperature.

Viscosity in itself changes with temperature. Higher the temperature, lower will be the viscosity. This relationship between viscosity & temperature is an important criterion for selection of lubricating oil for a particular application.

For correct lube oil selection, apart from viscosity, solidification temperature & flash point (temperature) are also important considerations. This information is critical for determining & maintaining the correct operating temperature, for the selected lubricating oil.

In order to maintain optimum lubrication and good service performance of Bearings, lubricating oil samples must be tested at regular intervals. Lubricating oil should be changed, if any alteration in color or viscosity is noticed, or presence of impurities is observed.

Bearing Types and Proper Viscosity of Lubricating Oils

Bearing Type	Viscosity at Operating Temperature
Ball Bearings, Cylindrical Roller Bearings	Over 13 mm ² /s
Tapered Roller Bearings, Spherical Roller Bearings	Over 20 mm ² /s
Spherical Roller Thrust Bearings	Over 32 mm ² /s

Lubricating Grease

Grease is generally the preferred lubricant for Rolling Bearings. The reason is simple, no special sealing devices are required to prevent drain off at standstill, or even otherwise. But grease increases Bearing wear, due to its tendency to accumulate of abrasive particles that maybe generated during normal Bearing usage.

Grease is made using three components

- base oil
- thickener
- additives

The actual lubricant is the base oil, thickener gives it consistency and additives impart performance enhancing characteristics. All three are important for every Bearing application.

Usually, mineral oils are used as base oils for grease. For improved heat resistance and stability, synthetic oils, like Silicone & Diester are used. Generally, grease with low viscosity base oil is good for low loads and low temperature applications, whereas for high temperature & heavy load applications, grease with high viscosity base oil is preferred.

Thickeners are added to base oils for imparting consistency to the blend, and together they account for 80%-90% of grease content. Essentially, it is a sponge like structure, with weak bonding of fine fibers or particles.

Additives are added to impart performance enhancing properties to grease. Extreme pressure additives may improve load and impact resistance, while anti-oxidant additives protect grease from oxidation and thermal deterioration. Likewise, rust prevention additives enhance rust resistance capabilities.

The amount of grease to be used for lubrication varies with Bearing size; other parameters like operating speed & temperature, type & amount of load, ambient conditions etc, are also important considerations. Generally, a minimum level of 30%, and on the upper side up to 50% of Bearing's internal volume (free space) should be filled with grease. If Lithium based greases are being used, then up to 90% of available space can be filled up.

Typical Lubricating Greases for Bearings

Name of Grease	Grease Maker	Base Oil	Thickener	Penetration	Dropping point (°C)	Operating Temp. range (°C)	Color
Daphne Eponech No. 2	Idemitsu Kosan	Hydrodesulfurized wax	Lithium	280	197	-40~130	Tan
Beacon 325	Exxon Mobil	Diester Oil	Lithium	280	193	-54~120	Light Grey
Polyrex EM	Exxon Mobil	Mineral Oil	Polyurea	285	300	-20~180	Blue
Mobilgrease 28	Exxon Mobil	Diester Oil+Mineral+Oil +Synthetic Hydrocarbon	Microgel	270	270	-62~177	Red
Mobilux 2a	Exxon Mobil	Mineral Oil	Lithium	270	178	0~125	Brown
Temprex N3	Exxon Mobil	Mineral Oil	Lithium Complex	235	300	-30~150	Green
Barrierta IMI	NOK Kluber	Flourine	PTFE	280	None	-50~220	White
Isoflex NBU15	NOK Kluber	Diester+Mineral Oil	Barium Complex	280	250	-40~130	Beige
Isoflex NCA15	NOK Kluber	Synthetic Ester Mineral Blend	Calcium Complex	280	180	-50~120	Beige
Isoflex LDS18SA	NOK Kluber	Ester Oil	Lithium	280	190	-60~130	Yellow
NOXLUB BN2420P	NOK Kluber	PFPE Oil	Special Thickner	280	None	-35~220	White
NOXLUB BN4020	NOK Kluber	PFPE Oil	Special Thickner	280	None	-35~260	White
Stabrag NBU 8 EP	NOK Kluber	Mineral Oil	Barium Complex	280	220	-35~150	Beige
Multemp LRL3	Kyodo Yushi	Polyolester	Lithium	235	208	-50~150	Peach White
Multemp PS2	Kyodo Yushi	Diester Oil+Mineral Oil	Lithium	275	190	-55~130	White
Multemp SRL	Kyodo Yushi	Tetraester	Lithium	245	191	-40~150	Light Yellow
Alvania Grease 2S	Shell	Mineral Oil	Lithium	276	185	-25~120	Tan
Alvania Grease 3S	Shell	Mineral Oil	Lithium	240	185	-20~135	Tan
AeroShell Grease 7	Shell	Mineral Oil	Microgel	285	268	-73~150	Light Brown
Alvania EP Grease 2	Shell	Mineral Oil	Lithium	285	185	-15~110	Reddish Brown
Darina 2	Shell	Mineral Oil	Microgel	285	260	-25~150	Light Yellowish Brown
Retinax LX No. 2	Shell	Mineral Oil	Lithium Complex	270	250	-15~150	Light Brown
SH44M (DC44M)	Dow Corning Toray	Silicone Oil	Lithium	260	210	-40~180	Brown
NIGACE WR-S	Nippon Grease	Synthetic Oil	Urea	240	290	-30~150	Light Yellow
Hangu		Mineral Oil	Lithium	280	196	-20~120	Light Yellow



	Properties				
	Water Resistance	High Speed Rotation	Noise	Grease Life at High Temp.	Torque at Low Temp.
	●				
	●	●			●
	●	●			
	●				
	●				
	●	●			
	●	●			●
	●	●			
	●	●			
	●	●			●
					●
	●		●	●	●
	●	●			
	●		●	●	●
	●		●		
	●			●	
	●	●		●	●
	●			●	
	●			●	
	●			●	●
	●			●	●
	●			●	
	●			●	
	●			●	

Remarks

- When grease is to be used near the high or low end of the recommended operating temperature, please contact KG International FZCO
- Please be careful, when you use grease with Ester Oil base, as it may damage Polyacrylic Rubber or ABS Resin
- Do not mix different types of greases
- If Sodium thickner grease is mixed with water, it will soften Et may leak

Handling of Bearings

Rolling Bearings are machined elements that work in a high precision environment; their correct handling is critical to obtain an optimal performance.

Recommendations for storage

- store at a cool & dry place, away from direct sunlight & moisture
- store at a raised base (around 30 cm) above the floor, to avoid dust accumulation
- maintain stable temperature of storage area (around 20° C)
- maintain humidity levels (below 65%) to prevent rusting
- do not stack Bearings in many layers to avoid falling and consequential damage
- use Bearings on a first-in & first-out basis, to use older packs first
- take maximum care to save Bearings from impact shocks like dropping etc., as they can damage the Raceways, Rolling Elements or the Cage

Recommendations for transportation & handling

- protect Bearing from falling when transporting it
- handle heavy Bearing cases with forklift or hoist
- do not roll large Bearings to shift between places
- always cover Bearings with clean packing paper
- to avoid contamination, do not open the Bearing pack until just prior to installation
- avoid direct human contact with Bearing, use proper tools & wear gloves to protect them from rust or contamination

Mounting of Bearings

Bearing performance not only depends on a careful selection of good quality Bearing type, but also on its proper mounting.

Mounting Preparation

Before mounting, following precautions must be taken

- tools & equipment should be prepared, cleaned and checked for any cracks or breakage
- place for mounting should be clean & dry
- unpack Bearing just before mounting
- clean and check both Shaft & Housing for presence of nicks, burrs or any signs of physical damage
- measurements of Shaft & Housing size, roundness taper, surface finish, shoulder squareness etc., should be recorded & verified for conformity with design specifications

- incase of split housing, extreme care should be taken to avoid mis-alignment & deformation that maybe caused by tightening or over-tightening of mounting bolts
- lubricant & its applicators should be properly cleaned and closed
- method of cleaning Bearing & its relevant parts should be established and understood

As rust preventive oil is also a good lubricant, it should not be cleaned off, when Bearing is to be used for normal applications. If the Bearing is to be used for measuring equipment or at a high speed application, rust-preventive oil should be removed using a clean detergent oil. In any case, Bearing should not be left in open (especially after removing rust-preventive oil) for long time.

Bearing Mounting Methods

Generally, the following Bearing mounting methods are used in the industry

A. Press-fit Method

Depending on the application requirement, either Inner Ring (Fig. 1) or Outer Ring (Fig. 2) or both the Rings (as shown in Fig. 3) are Press-fit using jacks, hydraulic press, or mounting fixtures that have an end which matches the size of respective Ring(s). Plastic hammer should be used to drive the Bearing on the Shaft to minimize shock to Bearing.

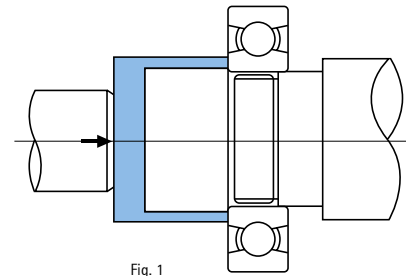


Fig. 1

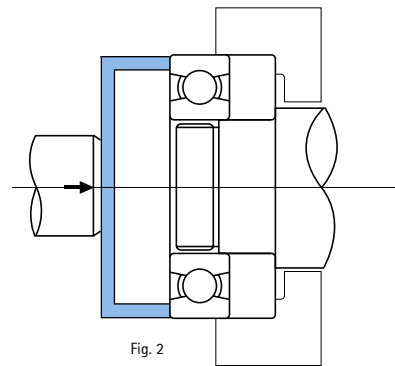


Fig. 2

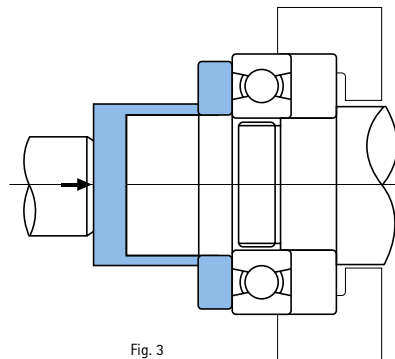


Fig. 3

B. Thermal Expansion Method

In this method, the Inner Ring is heated using an induction heater or heating tank. This process eliminates the need to apply undue stress on the Bearing, as a heated Bearing expands and it can easily slide on the Shaft. The heating temperature should not exceed 120° C, as it may reduce hardness of the Bearing Steel.

After mounting, the remaining procedure should be completed smoothly and quickly. Further, Bearing should not be allowed to develop any residual misalignment, as it is hard to correct once it cools down. Similarly, a clearance may develop between the Inner Ring & Shaft. To avoid this problem, clamping nut should be re-tightened while the Bearing is still hot, but cooling down.

Thermal Expansion Method is generally used to mount Bearings with a large bore size.

C. Adapter or Withdrawal Method

In this method, a Tapered Sleeve is inserted between Bearing's Tapered Bore and Cylindrical Shaft. Then using a locknut, the Bearing is driven up the Sleeve. This process is divided into several steps; Bearing's internal clearance, also known as Residual Clearance, should be measured each time. Before sliding the Sleeve, the measured internal clearance is called Initial Clearance. The difference between the Residual Clearance and the Initial Clearance determines the amount of interference.

Dismounting of Bearing

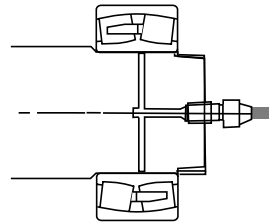
The choice of method for Bearing dismounting is largely dependant on the objective. For instance, if the Bearing has to be disposed, even a cutting torch can be used. However, if Bearing has to be re-used or a study has to be conducted on failure causes, it is pertinent to dismount without any damage to Bearing or it's parts, especially the Raceways & Rolling Elements.

Before dismounting, conditions of the rotating parts, interference, and lubricants should be checked & recorded to find out the possible causes of failure and the corrective measures required to solve the problem.

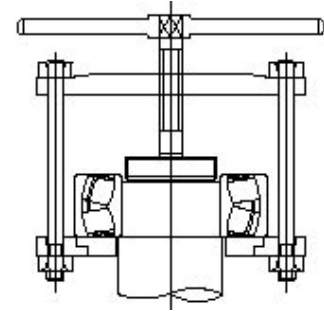
Precautions to be taken before dismounting

- decide dismounting method in advance
- dismount under an expert's supervision
- check, prepare & keep ready required dismounting tools & equipments

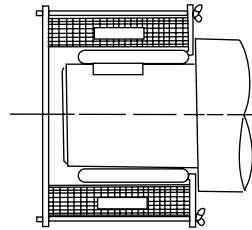
Common Dismounting Tools



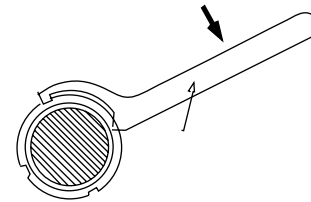
Dismounting Bearing with Oil Injector



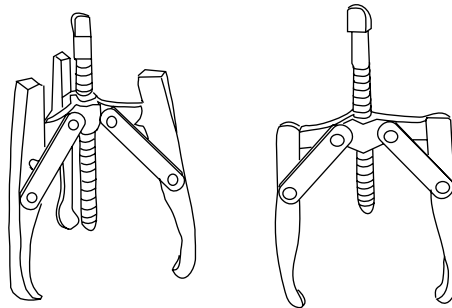
Dismounting Bearing with Special Puller



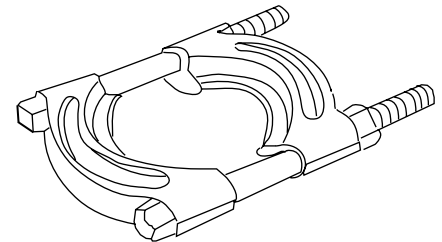
Inner Ring removal using Induction Heater



Dismounting Bearing with Spanner Wrench



Bearing Pullers



Puller Attachment

Bearing Failures

It is now a well established fact that Bearings do not break down abruptly. A diligent observant approach to identify warning signs of an imminent failure, can prevent machinery breakdowns & consequential losses.

At KG, we take due care to deliver Bearings that allow long storage life. Once Bearings arrive at consumer's warehouse, their proper storage is important. To a limited extent, rust preventive oil coat on Bearings can protect them from corrosion. However, high relative humidity levels, or even substantial day-night temperature variations can expose Bearings to moisture.

Normal use of Bearings is accompanied by

- minor vibrations
- operating noise
- slight increase in temperature due to operations
- electricity consumption
- lubricant deterioration over time

A sudden increase in general level of any of these parameters is a definite indication of an impending Bearing failure or seizure. Overlooking any of these faults can lead to serious problems. It could severely damage principal equipment or even lead to a fire.

Environmental Causes & Origins of Bearing Failures

Bearing failures occur due to many external causes, but they can be classified in 4 basic categories

Failures causes are classified into three categories

- failures due to environmental factors
negligence in mounting, dirty working conditions, inadequate lubrication, over-loading, vibrations, over-speeding, over-heating, pollution.
- failures due to mis-application
incorrect selection of type of Bearing, or improper mounting
- failures due to the quality of the Bearing itself
 - material fault
quality, structure or steel composition
 - design & production fault
internal geometry, Cage or seal quality

Following pages only outline the environmental factors that cause 90% of Bearing failures. Failures due to mis-application are more the concern of engineering departments; while those due to Bearing quality seldom occur, moreover their investigation & analysis require elaborate means of research and quality control.

Mounting conditions

- improper tools and mounting procedures
- dirty mounting conditions
- mounting shock loads
- improper manufacturing of components surrounding the Bearing: out of tolerance Shafts and housings, mis-alignment etc.

Operating conditions

- over-loading
- external vibrations
- over speeding
- Shaft deflection (Bowling)

Environmental conditions

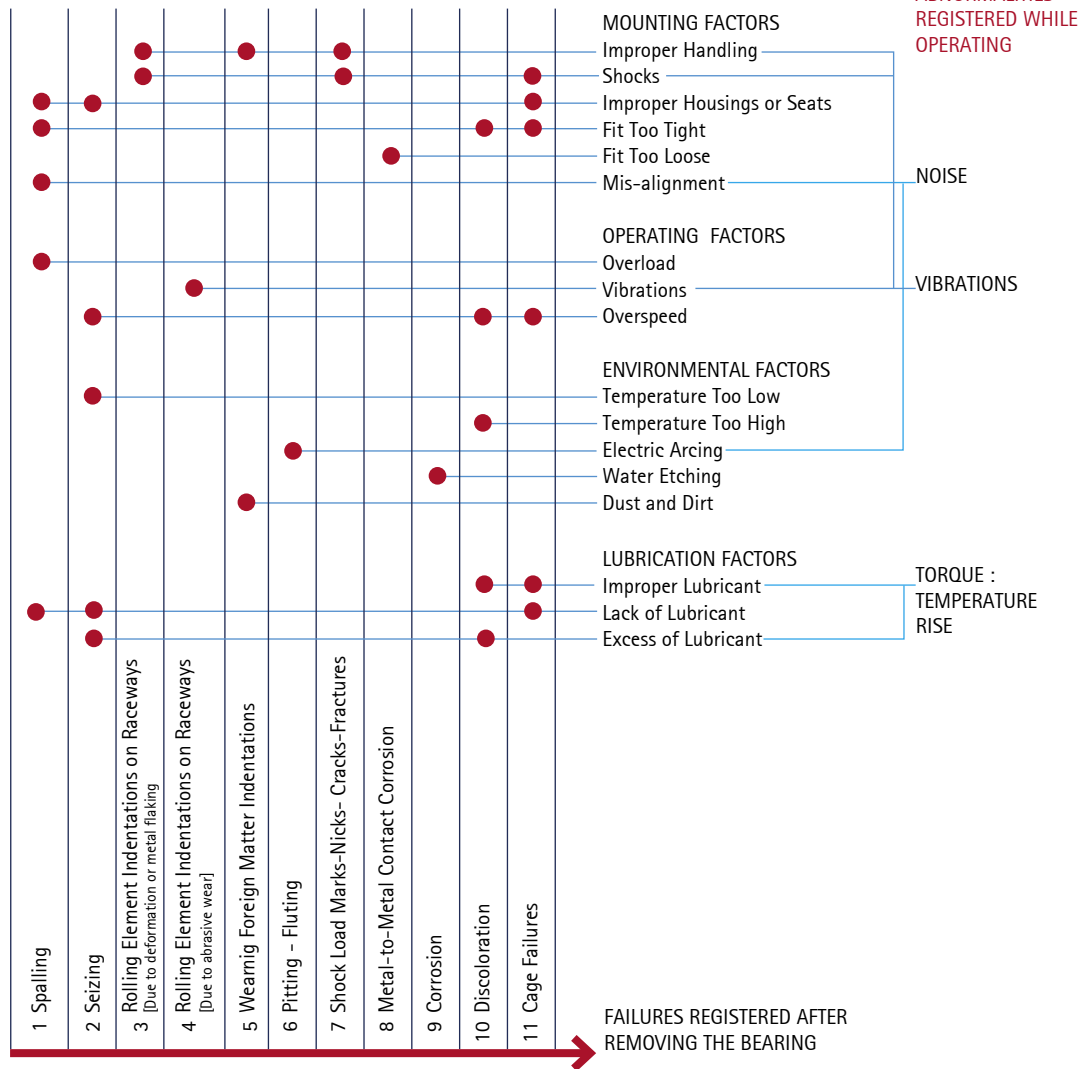
- too low or too high an ambient temperature
- electric arcing
- contamination from water, dust, chemicals, textile debris, etc.

Lubrication conditions

- improper lubricant
- inadequate supply of lubricant
- long re-lubrication interval

The chart on following page should guide the user in identifying the probable cause of failures, and also assist in better failure management.

Diagnosis of Bearing's Abnormal Operating Conditions



Detection of Bearing's Failure

Bearing users' main concern should be to detect the beginning of a failure, prior to equipment breakdown. Preventive maintenance is essentially the best remedy, but in certain cases the amount of time taken & high expenses involved in reaching the Bearing can be the deterrents. Though, for some applications preventive maintenance is a "must" (e.g., the aircraft industry, mine ventilation, etc.). Even though, the amount of fatigue in a Bearing is difficult to evaluate from external indications, however as a thumb rule, users should consider the approaching end to Bearing's useful life, once external indications become detectable.

External Indications of Damage

A Bearing rotating under functional conditions will exhibit certain "normal parameters" such as operating temperature, noise and vibrations. Their exact levels are dependent on several factors: load, speed, lubrication, type of Bearing etc. Abnormally high levels of "normal parameters" should be considered as warning of a probable failure.

Deviations from the "operating norms" established under "operating conditions" for any of the following, should signal the need for preventive maintenance or at least a close examination to ascertain the cause.

- **Vibrations**
These can be detected by hand or with electronic equipment (frequency or amplitude analyzer). An alert operator should stop the machine.
- **Noises**
Some abnormal noises can be heard immediately, such as those due to Rolling Element's indentations because of improper mounting; others increase progressively. Noise indicates an incipient failure, and varies in intensity & frequency with the extent of the damage. The damage due to unbalanced loads is generally inaudible since their frequency is identical to the rotating assembly's frequency.
- **Temperature rise**
All operating Bearings are subjected to temperatures above the ambient, which vary according to the type of mounting. Any rise beyond the normal level is an indication of the beginning of failure.
- **Increase of rotational torque**
All rotation systems (Shaft, wheel pulley etc.) produce a resistance torque, even when mounted on Bearings. An increase in this torque, is accompanied by an eventual temperature rise, which indicates an alteration in the Bearing performance.

Interpretation of External Indications

Vibration

- Spalling
- abrasive wear due to foreign particles
- corrosion
- unbalanced loads due to Bearing wear
- excessive clearance
- under-tightning of a Ring

Noise

- indentations of Rolling Element
- Spalling
- False Brinelling (indentations due to vibrations)
- foreign particles
- corrosion
- elimination of internal clearance due to excessive press fit
- Cage or Rolling Element failure

Temperature rise

- excess or lack of lubricant
- elimination of the internal clearance
- thrust overloading due to improper mounting

Abnormal running torque

- cage distortion
- lubricant deterioration
- seal damage or displacement

Preventive Control Procedures, and Means of Control

Frequency of control

It essentially depends upon the expected reliability, the material usage, and several other factors which maybe specific to each user. Sampling controls based on the Bearing life expectancy should be regularly performed.

External control means

Some control instruments that detect unusual vibrations are available, eg., "Sonic Meters". In any case, a "reference level" should be determined for random comparison, to detect variance.

Failure Identification

Failure identification

It is not always easy to detect failures; though the following steps can be helpful

- record significant facts noticeable on the Bearing, and its surrounding components
- identify all probable failure causes
- from the identified causes, select only those causes that match maximum abnormal performance parameters

Before removal

Carefully observe the following, before initiating

- presence of dirt
- temperature increase due to lubricant loss
- noise level
- torque level
- evolution of the Bearing deterioration
- orientation of Bearing in assembly

After removal

Examine the following before cleaning the Bearing; otherwise, a proper condition analysis maybe difficult.

- the condition of Cages and Rolling Elements
- wash Bearing, and strain liquid to check presence of particles
- keep lubricant, seals & shields for examination
- keep track of Bearing & Ring mounting location
- check Shaft and Housing fits
- examine the shoulders for out of shape squareness, or presence of debris, rust etc.

TYPES OF FAILURES

1. Spalling - Origin Aspects

Spalling can be found on Raceways as well as on Rolling Elements. It can be deep (Fatigue Spalling), or shallow. In both cases, causes and symptoms are different.

Fatigue Spalling

Bearings have a limited life expectancy. The operating loads to which they are subjected determine its fatigue life. When a correct Bearing is used and mounted properly, over a period of time the result of such a usage is Fatigue Spalling; which may occur within a Bearing's normal life span.

Spalling Fatigue Mechanism

When a Bearing is subjected to loads, pressures in the Raceway & Rolling Element contact area can be very high. Maximum value shearing forces develop at some thousandths of an inch below the contact surface. These repetitive stresses, caused by the continuous traveling of the Rolling Elements, initiate the Spalling process.

Small cracks may develop in the material, that start at the high stress point and progress to the surface. These cracks eventually join, and cause the metal to flake in a rapidly expanding area.

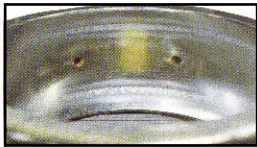
Spalling Aspects

Spalling is a progressive phenomenon that increases more or less rapidly after the appearance of the first cracks. Consequently, material Spalling must be detected at its early stages; if left unchecked it can lead to a premature Bearing failure.

Spalling Appearances

Beginning of Spalling

In the initial stages, Bearing surface may develop some jointless fractures. Even though the component profile may not change at this stage, but these cracks characterize an underlying fatigue.



Advanced Spalling

The fractures that had developed in initial stages start connecting together in a more advanced Spalling stage. The component profile may still not change, but the surface finish can get badly damaged. Some metal chips may flake & get mixed with the lubricant, and further accelerate destruction.



Final Spalling

In the final stages, the entire Bearing surface gets Spalled. Metal alterations caused by shearing forces get joined. Spalling destroys component profile, and effects Bearing performance.



Shallow Spalling

Shallow Spalling is typically characterized by spots that are more or less spread out in the load zone of the Raceway surface. A microscopic examination of the effected zone will show only superficial damage to metal.

Causes

Incorrect (insufficient or improper) lubrication is the basic cause of failure. Oil film may break due to the pressure created by the applied loads, thereby allowing contact between the Rolling Elements & Raceways. This contact causes spot temperatures to rise, resulting in micro-welding, which further causes thin & superficial metal flaking. Shallow Spalling is not material fatigue, it is a surface damage.

Spalling Locations

A. Load Zone

Identification

Spalling in the load zone affects most of the Raceway width in a Roller Bearing, the bottom of Race in a Deep Groove Ball Bearing, and both Raceways of a Double Row Ball or Roller Bearing.

Causes

- limited or constant overloading
- improper or inadequate lubricant supply

Preventive Measures

- check Bearing loads
- use an adequate supply of appropriate lubricant

B. Edge of Raceway

Identification

For Ball Bearings, the Ball path runs from one side of the Race to the other around the non-rotating Ring. The rotating Ring has a Ball path which is wider than usual. Cage fractures might occur in certain cases. For Tapered or Cylindrical Roller Bearings, fatigue areas can be detected on the edge of the Raceways. The contact areas vary from one Race edge to the other on both Rings, but are diametrically opposed on each Ring.

Causes

These failures are due to Shaft and Housing misalignment, that may get initiated either by an improper parallelism between the Shaft axis and the Housing bore generating line, or a wobble of the Housing or Shaft shoulders. This can also be observed from Shaft Bowing while operating. These faulty elements generate a heavy concentration of extra stresses leading to the development of premature Bearing fatigue failures in overloaded areas.

Preventive Measures

Shaft and Housing alignment should be carefully checked. Housings should be kept clean as some misalignments are due to the presence of foreign matter between the Bearing faces and their contact shoulders.



C. On Non-rotating Ring: Entire Raceways

Identification

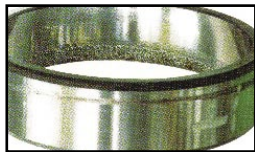
A highly visible Ball or Roller path, or evident Spalling even in the part opposite to the load zone, i.e., on the Ring stationary in relation to the load, is a definite indication of Spalling on entire Raceway.

In addition to premature Spalling, an excessive interference fit might generate Internal Ring stress. These unusual stresses, when added to the Hertz pressures due to the load they may generate cracks, and even cause Ring fractures

Causes

Generally, the Ring rotating in relation to the load should be mounted with a press fit. The fit tightness is dependent on the application requirements. The heavier the load, the tighter the fit. This is to prevent Ring from rotating on the Shaft or in the Housing.

Driving a Tapered Bore Self-aligning Ball or Spherical Roller Bearing too far up a Tapered Adapter Sleeve would lead to a Bearing distress as described above. This action over expands the Inner Ring, thus reducing or eliminating the internal clearance, and causing dangerous preloading of Bearing.



An excessive interference fit can reduce or eliminate the internal Bearing clearance, and cause a preload to develop in addition to normal operating loads. This will cause all Rolling Elements to come in contact with the Raceways.

Preventive Measures

Shaft guiding tolerances must be controlled, and gauges must be regularly checked against standards to eliminate chances of inaccurate measurements. When mounting Spherical Roller Bearings on Tapered Adapter Sleeves, a feeler gauge must be used to confirm proper internal clearance after mounting.

D. On Non-rotating Ring: Particular Areas

Identification

The following are obvious symptoms of Spalling on non-rotating Ring

- presence of intensive Raceway Spalling
highly visible Ball or Roller path in two diametrically opposite areas, and sometimes in several points of the Ring indicates intensive Raceway Spalling
- presence of extended Spalling around the Raceway's circumference

Spalling on one edge indicates that only this area has been working, hence it gets effected by an extended Spalling, all around the circumference

Causes

The causes of these types of failures are different from those already mentioned (off square Housing shoulders).

In the first case, distortion comes from de-shaping of Housing i.e., ovalization or triangulation. The Outer Ring follows the Housing shape, and visibly evidences an excessive load in areas corresponding to the squeeze. It can also be the result of foreign particles in the Housing, which locally distort the Rings. Self-aligning Ball Bearing Rings that are mounted in Cast Iron or Steel Housing Units, are more susceptible to this kind of failure.

In the second case, damage is characteristic of a tapered Housing, where only one Ring edge is stressed. For Tapered or Cylindrical Roller Bearings, Spalls are located in the highest squeezed area of the Ring. For Self-aligning Ball or Roller Bearings, only one row of Rolling Elements runs with over stresses, hence it gets effected by an extended Spalling around the Raceway circumference.

Spalling located on this Raceway can also be identified by "even fractures of Ring edge", which may develop longitudinally because of high Hertz pressures.

Similar faults on Inner Rings are extremely rare as the distortion amplitude of Shafts is not high enough to produce that type of damage.

Preventive Measures

Housings should be machined only when material is heat stabilized. Along with the dimensional check, a Housing geometrical check should also be conducted to detect any deformation (roundness, off taper etc)

2. Seizing

Identification

Shallow metal flaking and the appearance of dark areas are significant representatives of a superficial transfer of the metal; original grind or hone marks tend to completely disappear in effected areas.

Brown patterns represent local or generalized overheating. In more severe conditions, metal flaking, local melting & scoring, may deform Rolling Elements.

Causes

Inadequate lubricant causes Bearing Seizure, as it may lead to a rupture of oil film, allowing metal-to-metal contact between Rolling Elements & Raceways, which causes localized overheating & micro-welding.

Tapered Roller Bearings may Seize under excessive preloaded condition or due to improper lubrications. It primarily effects the large Roller End & the Cone Back Face Rib. Seizure often occurs when new equipment is started without appropriate lubrication.

If the Bearing fit tolerances on seats are too loose, the Shaft might rotate in Bore, or the Outer Ring might rotate in Housing. This also causes over heating, which could lead to Bearing Seizure.

High operating speeds can also cause Bearing Seizure. When the Bearing load is light, Rolling Elements may not rotate instantaneously, either because of their inertia, or because of a rotation slow down caused by

the lubricant. Friction due to rotation slow down leads to a temperature rise and consequential expansion leads to Seizure between the Rolling Elements and Raceways.

Seizing can also occur under a pure radial load, and more so when an excessively high viscosity lubricant is used. In Roller Bearings, the speed of Rollers which are not in the load zone decreases. They tend to skid, and eventually Seize due to overheating of Bearing.

Preventive Measures

Lubrication advice from equipment manufacturer, or the lubricant supplier, should be carefully followed; including lubrication at proper intervals.

Special care should be taken in greasing Tapered Roller Bearings. Lubricant must be introduced under the Cage, towards the large end of Rollers. For very high speed applications, only that lubricant which allows a prompt rotation of Rolling Elements should be used.

In some instances the use of a light preload might be required, at start up.

Other Preventive Measures

- investigate suitability of Bearing type
- study preload, Bearing clearance & fitting
- check precision of Shaft & mounting
- improve mounting methods



3. Rolling Element Indentation on Raceways due to Deformation or Metal Flaking

A. On Ball Bearings

Identification

This fault can be identified by presence of Ball Bearings indentations either all around the perimeter of the Races or on in an extended area. These indentations tend to be spaced according to the Ball spacing. Though the bottom of the dent is shiny, marks of original grind can also be seen.

Causes

This failure happens when Bearing is subjected to excessively high shock loads, especially when either of the two Rings (Inner or Outer) transfers this shock load to the other, through the Balls.

If the shock generates an instantaneous load, which exceeds the known material elasticity limit, Ball-Race contact points get permanently dented. These dents increase noise levels and initiate future Spalling.

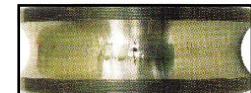
Shock loads can be caused by

- improper mounting method
untrained operators may erroneously mount the Bearing by hammering hard on one Ring, to install the opposite Ring
- dropping of Bearing on a hard surface
in this case, the shock load due to accidental dropping gets transferred from the Outer Ring to the Inner Ring, through the Balls

Preventive Measures

When mounting a Bearing Ring with a tight fit, impact force should not be applied to the other Ring. If the tight fit Ring is difficult to reach, it should be pressed with a tubular drift that has proper shoulder diameter, squareness, and appropriate length.

A tubular drift can also help guide the Ring during mounting process, and protect it from skewing & eventual damage to the Shaft end or Housing.



B. On Cylindrical Roller Bearings

Identification

The presence of thin & deep grooves on Raceways is considered as a general indication of this damage. More or less evenly spread, these grooves are parallel to their generating line, along with metal pick up marks which get spaced according to the Roller spacing.

Causes

When assembling, the small space between the diameter over (or under) the Rollers & the Race diameter of the opposite Ring, might cause a Pinching of these two elements.

Pinching causes mounting pressure & shock load that leaves scratches on the Raceway of the opposite Ring.

Preventive Measures

Never force one Ring into another. When setting up a Shaft with an installed Inner Ring, it is recommended to rotate this Shaft while mounting it into the Outer Ring. This rotation will help the Rollers to be properly located, thereby prevent their Pinching. Similar procedure should be followed while mounting an Outer Ring into a Casting.

Insufficient lubrication (by grease) causes Roller Pinching & Seizing. Hence, it is recommended to thoroughly grease these Bearings before assembly, especially if they have been cleaned prior to mounting.

C. On Tapered Roller Bearings

Tapered Roller Bearing components (Cup and Cone) are mounted separately. This procedure reduces the chances of Roller indentations. However, dents might appear if a Cone is used to install the Cup in its Housing.

4. Rolling Elements Indentations on Raceways due to Abrasive Wear

Identification

The presence of dark or shiny indentations on Bearing Rings, which are more or less spread out & spaced according to the Rolling Element spacing, is considered as an evidence of this kind of damage. At times, several dents maybe seen, which could be either superimposed or interrelated; irrespective, Rolling Element spacing is always noticeable on dents.

When examined under a microscope, indentations appear to be caused by a total removal rather than a back flow of material, since it occurs when shock loads are applied. In all cases, grinding marks disappear.

This failure is also called "False Brinelling".

Causes

In a stationary Bearing, False Brinelling is caused by vibrations or small amplitude oscillatory motion of Balls between the Races. However, it can also affect a rotating Bearing, when both Rings rotate simultaneously in total synchronism (ex. pilot Bearings).

Failure mechanism can be ascribed to

- both pressure & vibrations, which force lubricant out of the loading area causing metal-to-metal contact between Rolling Elements and Races
- vibration stress causes micro-welding or micro-seizings & flaking of metal chips; oxidation impregnates these chips causing abrasive corrosion



This type of failure can be found in Bearings

- are subjected to intensive vibrations, even when they are mounted on stationary machines
- when both Rings rotate at same speed & consequently remain stationary, in relation to each other

This type of failure can appear on

- emergency electrical generators, which are connected to the same platform as the operating generator
- on "off" electrical motors, when mounted on operating machines
- on emergency fans connected with operating fans
- when unbraced machines are transported, and they are subjected to vibrations

Heavier equipment has more intense vibrations, causing greater risk to the Bearings.

Preventive Measures

For stationary machinery

- when transporting engines, generators or similar equipment etc., Shafts should be blocked
- periodically rotate (even slow) stationary machines in a vibration area; it will allow lubricant to spread out and avoid exertion of loads at the same spot of the Raceways
- large Bearings should be stocked flat and kept out of vibration area (work stations)
- for infrequently operated machinery, it is prudent to use fluid lubricants; as they coat contact surfaces better, in comparison to more viscous lubricants

For operating machinery

- low viscosity greases (NLGI grades) should be preferred as they are more efficient
- best resistance to contact corrosion is obtained by using low viscosity lubricating oils
- Calcium and Lead-Calcium soaps are best to control "False Brinelling"

5. Wearing Foreign Matter Indentations

Identification

- by more or less intense development of a visible load path on Raceways and Rolling Elements; Raceways might show a continuous sectorial or longitudinal groove
- by excess clearance or by unbalanced loads and vibrations that might occur
- by wearing of Cage material
- by appearance of small dents on the Ring path, with slightly rounded edges, which signify material deflection
- abnormal noise levels

Causes

These failures come from a lack of protection, either when mounting or when operating the Bearing.

Often operators do not realise the extent of destruction dust can cause to Bearings. Regardless of its origin or texture, dust has a very high abrasive power, and with time, it can lead to excessive internal clearance and unbalanced loads which increase the rate of material fatigue.

Foreign matter indentations have same origin as wearing. Faulty protection lets foreign particles penetrate the Bearing. These particles constantly interfere between Rolling Elements and Raceways, and can initiate small indentations to make Bearing operation more noisy. The deterioration of Raceway and Rolling Element surface finish accelerates material fatigue.

Preventive Measures

- when mounting, clean Shafts & Housings
- ensure dust free working areas
- do not wash new Bearings
- protect Bearings from dust when stocking
- use clean lubricants; cover lubricant containers when not in use
- wrap any mechanical element, when not in use
- prevent entrance of debris (textile, straws, fibers) or dust (coal, sand, metal chips, chemical products) into the Bearing



6. Pitting and Fluting

Identification

- Pitting is represented by local metal smelting
Microscopic examination will show pits with sharp edges that are joined in a string.
- Fluting is a sequence of narrow areas that look like grooves
These grooves generally follow one another in Raceway zones that are subjected to load, and may also appear on Rollers
- low amperage current
Crossing by low amperage current causes alteration of metal surface texture, which appear as spaced grooves caused by rotation.
- debris caught in the lubricant
- exposure to ambient humidity
- poor lubrication

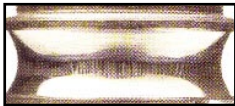
Causes

Pitting & Fluting might occur on rotating machines which equip machine tools (railroad equipment or engines), and the Bearing is crossed by a current when it happens to be the only "earthing" link.

- high amperage current
Because of the short distance between Raceways and Rolling Elements, crossing by high Amperage Current causes Arcing (even through lubricant). Arcing develops high temperature spots which melt metal.

Preventive Measures

- ensure that machinery and elements are earthed
- check insulation and clean motor connectors to prevent current leakage
- improve sealing to prevent lubricant loss



7. Shock Load Marks Nicks, Cracks & Fractures

Identification

This failure can be identified by presence of

- shock load & tool marks on flat surfaces, Rolling Elements, and radii
- Nicks & Fractures of shoulders and ribs

Causes

When a Bearing Ring is subjected to a shock load, i.e., a load over its metal elasticity limits, it may get permanently dented. Shocks can also generate other problems like Ring distortion and indentations. In some cases, shocks can cause Nicks, Cracks, or even Fractures.

Cracks are very insidious for they may not be easily visible at first but they gradually cause metal chips to flake, which may penetrate the Bearing and damage Raceways and Rolling Elements.

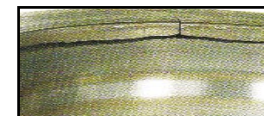
The Roller guiding elements of Cylindrical Roller Bearings are particularly sensitive to shocks, and consequently prone to this failure. In several cases, fractures have been noticed on Spherical Roller Bearings. When the Outer Ring swivels, one or several Rollers can get

dislocated in their Cage pockets. Re-positioning them is not easy, as after dislocation the Rollers tend to wedge, in between the external face of the Outer Ring & one shoulder of the Inner Ring. When the Rollers are dislocated, any shock load on the Outer Ring forcing it to swivel back gets transmitted by the Rollers to the shoulder of the Inner Ring.

Fractures occur very often, and typically their spacing corresponds to the exact Roller spacing.

Preventive Measures

- Rings and shoulders should not be hammered
- when mounting, always use a tubular drift between the hammer and Bearing to evenly distribute shock forces around the Ring circumference
- to mount Tapered, Cylindrical, or Spherical Roller Bearings on a Shaft using an interference fit, the Inner Ring should be first expanded by heating in an approved manner
- to relocate the swivelled Outer Ring of Spherical Roller Bearing, carefully rotate it while realigning the dislocated Rollers
- do not close Bearings forcefully



8. Ring Fractures

Identification

This fault is identified by fractures which maybe transverse or otherwise. These fractures can effect large Ring areas also.

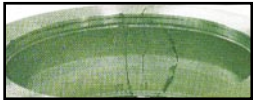
Causes

- due to the overloading of Outer Ring
internal clearance may get eliminated; an internal preload may develop due to an excessive press fit of Inner Ring on Shaft
- excessive radial stresses
it may result in multiple fractures of the Ring
- excessive interference fit
transverse fractures of Inner Rings are caused by metal over stress due to excessive interference fit

Preventive Measures

To avoid this type of Bearing Failure, while mounting a Bearing, care should be taken to

- ensure appropriate fitting tolerances
this is to avoid elimination of internal clearance, and prevent preloading of the Bearing
- use a Bearing with increased internal clearance
especially if heavy press fit method is employed to mount Bearing



9. Creep

Identification

The appearance of pink, brown or black spots on the Bore, or on the outside diameter or faces of Bearing indicates Creep.

Microscopic examination of the area shall show a deep attack on the surfaces. When rubbed, these spots leave rust marks. In cases of severe damage, Rings and Raceways get coated with a brown paste, which is a result of mixing of rust & lubricant. Deep corrosion can break thin Rings under load.

Causes

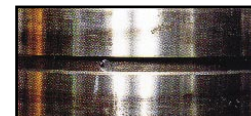
An interference fit is required for rotating Rings. Insufficient or non-existent fit will cause a slow turn of Shaft, in relation to the Inner Ring (or the Outer Ring of the Housing). This metal-to-metal motion picks up thin metal flakes from Bearing or Shaft (or Housing) and cause local Seizing.

Flake particles tend to oxidize rapidly, in absence of lubricant. Their combined abrasive power further accelerates this process. Rough & granular Housing surfaces are more prone to Creep.

When Bearings rotate or vibrate on their seats, contact corrosion also appears on their faces. This can happen when axial clamping is insufficient, or it loosens due to a shim collapse, or a lock nut release. The corresponding Bearing face tends to develop hollow wear mark of the shoulder.

Preventive Measures

- both the geometry and the fitting tolerances of Shafts & Housings must be controlled to provide adequate press fit
- ensure proper tightness of lock nuts, or Housing end caps whenever used for Bearing mounting
- re-work the Shaft surface as part of maintenance
- use special anti-seizing products on Bearing seats and shoulders



10. Corrosion

Identification

This fault is assumed to have set in when reddish or black spots appear, along with surface deterioration (including formation of cavities), due to a local or full oxidation of the Bearing, including Raceways, Rolling Elements, Cage, Face, Bore outside diameter.

Causes

- damage can be due to corrosive liquids or high humidity levels
- faulty sealing of the assembly

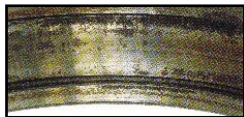
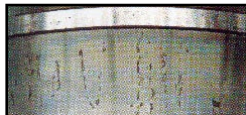
Corrosion can be systematic when Bearings operate in a very damp environment, and are subjected to frequent and long "on & off" operating cycles. When "on" Bearing's temperature rises, causing the air in Housing to expand and leak out. Long "off" period allows the Bearing temperature to reduce to ambient levels, and permits the humid air to flow back & cause condensation.

Repetitive "on & off" cycles progressively increase moisture deposits, which never get completely eliminated in the "on" phase. This moisture tends to mix with grease, and reduces the quality of lubrication. Eventually, corrosion spreads to all internal elements.

The results of corrosion are similar to those of abrasive dust. Oxides flake under the Rolling Element loads, and the abrasive tendency of this mixture further accelerates Bearing failure.

Preventive Measures

- use adequate shields or seals for improved protection
- control ambient conditions
- avoid direct exposure of seals & shields to liquid
- use lubricants that do not emulsify with water
- impart anti-rust treatment for extended periods of Bearing's non usage
- improve storage methods



11. Discoloration

Identification

This fault is identified by a brownish discoloration of the Rings and Rolling Elements.

Causes

The most common cause of this failure is superficial oxidation and polymerization of lubricant, at high temperature. Heating of Bearing expands Rings to facilitate mounting, however, overheating may cause the surface color to develop a brownish discoloration. This burn-out might also occur if the Bearing is heated by an open flame, or by a non adjustable temperature stove, or by an uncontrolled oil bath.

Rise in Bearing temperature & resultant Discoloration can happen either due to internal reasons or external heat sources.

Besides facilitating movement, Lubrication also maintains a thermal balance by evenly distributing internal heat; which eventually gets transferred to the external environment, through Bearing's body. An inadequate supply or incorrect choice of lubricant can lower the thickness of lubricant film between the rolling contact surfaces, leading to an internal thermal imbalance, and consequential rise in Bearing temperature.

Also, if there is an elimination of clearance because of excessive press fit of Rings in or on their seats, the preload increases assembly temperature.

Temperature rise can also happen under normal operating conditions, especially if excessive quantity of grease is forced into reduced spaces. Acting as a brake it slows the rotation, causing the Bearing to over heat.

An excessive rotating speed can also overheat the Bearing, and discolor the Steel.

Temperature rise can also happen due to external sources like dryer cylinders, foundry motors, furnace wagons etc. To maintain appropriate internal clearances, it is essential to consider these factors when deciding on type of lubricant or on mounting tolerances.

Preventive Measures

- do not excessively grease
- choose appropriate lubricant
- frequently check lubricant supply
- check fits to avoid abnormal preloading
- allow the Bearing to cool
- reduce external causes of temperature rise



12. Cage Failures

A. Distortion

Identification

Distortion of Cages, or squeezing of Cage pockets, or shock load marks are obvious failure signs. Identification of this failure is difficult, as sometimes symptoms are hidden by side effects such as over-heating, Cage scoring due to Rolling Element friction, Seizing etc.

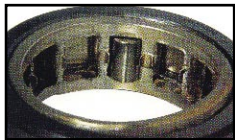
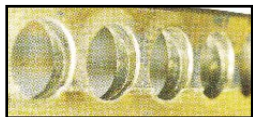
Causes

- premount exposure of Bearings to physical shocks
- improper mounting

A Ball Bearing Cage is very fragile; it is nearly flush with the Ring Faces and therefore prone to tool damage. A Tapered Roller Bearing Cage protrudes beyond the Cone front face, and use of improper installation tools can damage it. When Bearings are hammered for mounting, tools may slip and distort the Cage pockets, leading to Pinching of the corresponding Rolling Elements.

Preventive Measures

Use a press to install Bearing, whenever possible, to avoid severe impact and shock. When hammering cannot be avoided (for replacement essentially), use tubular drifts with the same shoulder diameter as the Ring to be fitted. This procedure is highly recommended for a press fit mounting of a Cone, especially when pushing on its front face.



B. Wearing

Identification

In this fault, Cage pockets and the inside & outside diameters develop severe wear characteristics.

Causes

Abrasive particles might penetrate while mounting, but the chances of this to happen are more under operating conditions. In Ball Bearings, abrasion enlarges Cage pockets, which leads to an increased clearance and consequential physical imbalance. This imbalance enhances pocket wear, as the outside diameter of the Cage now rubs against the Outer Ring, and its inside diameter rubs against the Inner Ring. In Tapered Roller Bearings, this imbalance may wear the Cage Bridge or even fracture it.

Preventive Measures

- carefully clean Bearing seat and its housing, to eliminate abrasive particles
- replace worn or damaged seals
- use special, and more efficient seals for Ball or Tapered Roller Bearings
- use clean lubricant, and store it only in covered containers when not in use

C. Fracture

Identification

Fractures can happen with or without scoring under Rolling Elements.

Causes

Cage fractures can be caused by

- severe Cage damage during mounting
- Seizure due to improper lubrication
- sudden accelerations or decelerations that lead to Cage pocket distortion
- Cage over-speeding (Ball Bearings)
- elimination of internal clearance from excessive press fit
- excessive differential temperatures between the Inner and Outer Ring
- constant change in direction caused by alternative or repetitive over turning moments on Ball Bearings
- differential speeds between Balls cause repetitive pulling stresses on Cages, leading to metal fatigue and eventual Fractures
- deformation of Housings caused by uncontrolled or unbalanced loads, etc.

Preventive Measures

- avoid Cage damage during mounting
- use proper lubricant
- ensure sufficient lubricant quantity
- control accelerations and decelerations
- check maximum rpm (speed) required from Bearing, and verify its design suitability
- check fitting tolerances & operating temperature
- use appropriate type of Cage, for alternating over turning moments,

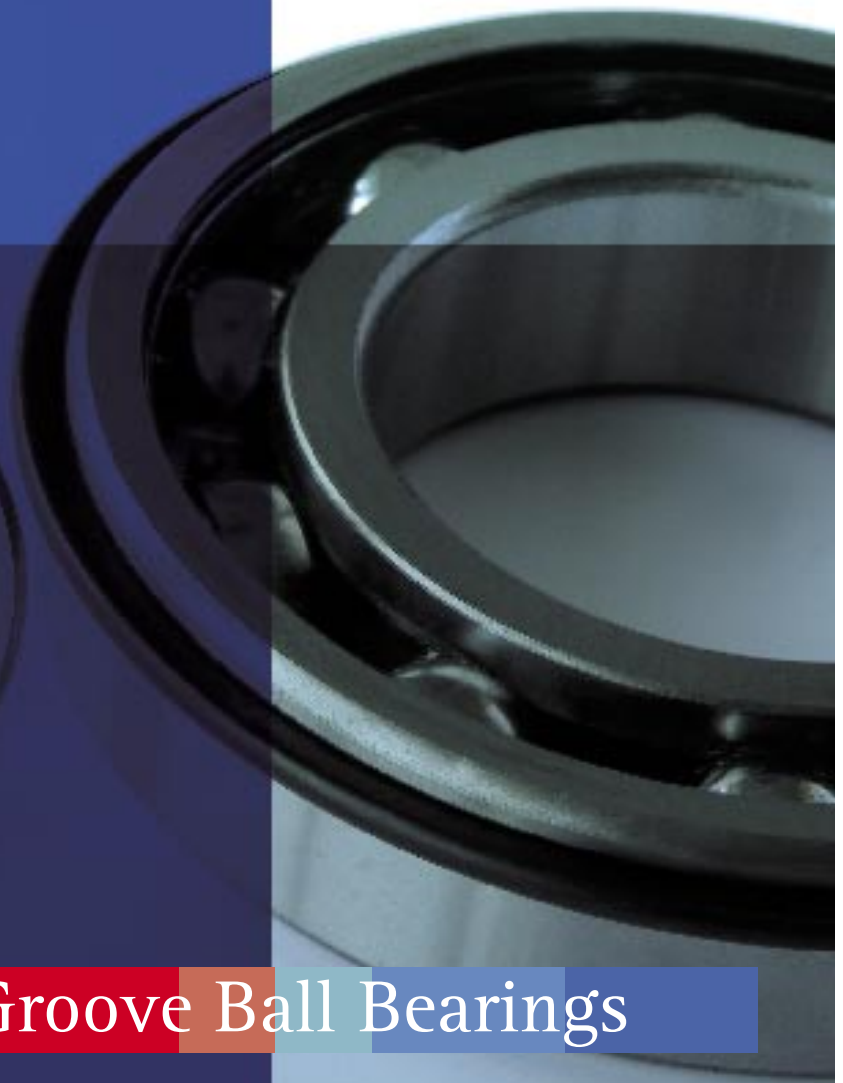




KG Bearing's Portfolio



Deep Groove Ball Bearings	071	
Miniature and Extra Small Bearings	089	
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KG[®]

Deep Groove Ball Bearings



KG[®]

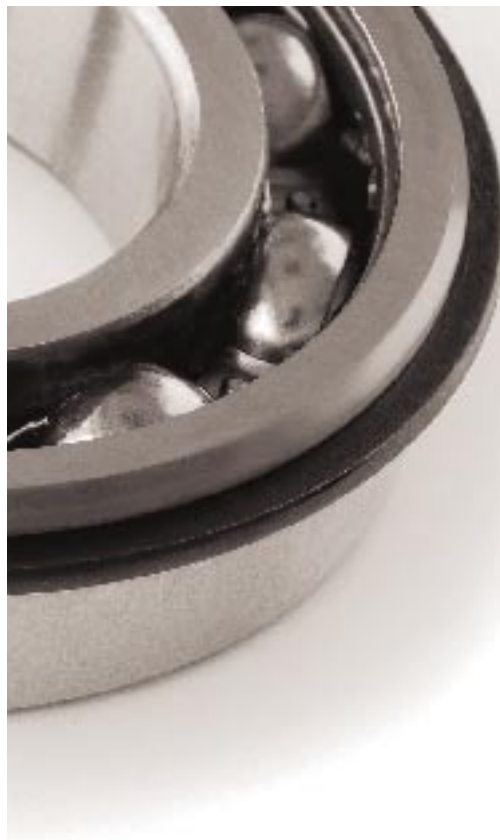
The versatility offered by Deep Groove Ball Bearings makes them most popular of all Bearing types. They are simple in design. KG Deep Groove Ball Bearings are available in a wide range, as defined by the ISO standard plan. These could also be made to meet customer's special dimensional requirements, but within some basic design limitations.

Deep Groove Ball Bearings are

- capable of carrying load in either direction, with relatively higher radial load carrying capacity
- suitable for low or medium load applications
- suitable for low, medium or even high speed applications; depending on the type & precision of selected Bearing
- well suited for applications that require high running accuracy
- suitable for low noise and low torque applications

KG can offer following variants

- Single and Double Row type
- open basic design type
- as Sealed types
- with Snap Ring groove
- with Snap Ring groove and Snap Ring
- with C2, CN, C3, C4 & C5 radial clearance
- standard precision grade (ISO Grade 0 - ABEC1) & higher precision grade (ISO Grade 1 - ABEC3)
- with extended Inner Ring
- pressed Steel, riveted, Plastic and machined Brass Cage



Apart from the list of items presented in the following pages, many other special type of KG Deep Groove Ball Bearings have been developed to meet specific application requirements. Technical information for such Bearings, is available on request.

KG standard suffixes for Deep Groove Ball Bearings

A	Modified internal design.
C2	Radial internal clearance less than normal.
CN	Normal radial internal clearance. Generally, no special suffix is used in KG Bearings for normal radial internal clearance.
C3	Radial internal clearance higher than normal.
C4	Radial internal clearance higher than C3.
C5	Radial internal clearance higher than C4.
E	Electric motor quality.
G1-G15	KG internal grease type codes. For details, please contact KG International FZCO.
J	Pressed Steel Cage.
K	Tapered bore, with taper of 1:12.
M	Machined Brass Cage.
N	Snap Ring groove in the Outer Ring.
NR	Snap Ring groove in the Outer Ring, with Snap Ring.
P	Plastic Cage.
P5	Dimensional and running accuracy confirming to ISO class 5.
P6	Dimensional and running accuracy confirming to ISO class 6.
Q1-Q8	KG internal reference codes. For details please contact KG International FZCO.
RS	Rubber Seal with Steel sheet reinforcement on one side of the Bearing.
RSL	Double lip type Rubber Seal with special groove in the Inner Ring, fixed only at one side of Bearing.
2RS	Rubber Seal with Steel sheet reinforcement on both sides of the Bearing.
2RSL	Double lip type Rubber Seal with special groove in the Inner Ring, fixed at both Bearing sides.
Z	Metallic shield on one side of the Bearing.
ZZ	Metallic shield on both sides of the Bearing.
F	Used as a prefix for a Flange on Outer Ring.

Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.



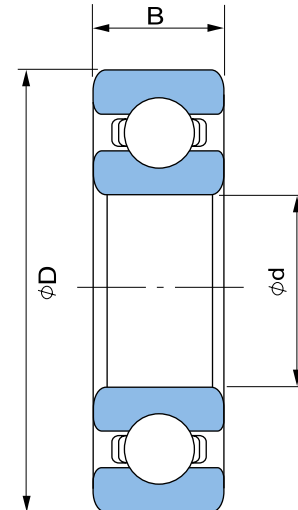
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Single Row Extra Thin Type Series : 6800

DG

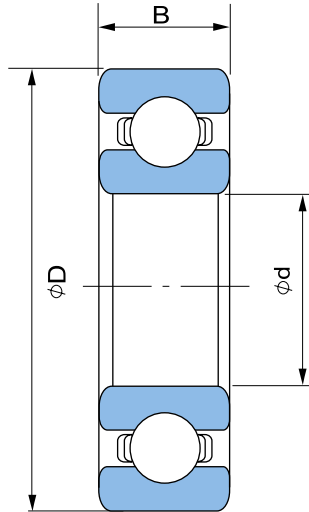
Deep Groove Ball Bearings

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6800	10.000	19.000	5.000	1647	832	34200	0.005
6801	12.000	21.000	5.000	1728	936	31500	0.006
6802	15.000	24.000	5.000	1872	1134	27900	0.007
6803	17.000	26.000	5.000	2529	1548	25200	0.008
6804	20.000	32.000	7.000	3600	2223	22500	0.019
6805	25.000	37.000	7.000	3870	2655	18900	0.022
6806	30.000	42.000	7.000	4230	3285	16200	0.026
6807	35.000	47.000	7.000	4410	3645	14400	0.029
6808	40.000	52.000	7.000	4590	3960	12600	0.033
6809	45.000	58.000	7.000	4851	4455	10800	0.040
6810	50.000	65.000	7.000	5940	5490	9900	0.052
6811	55.000	72.000	9.000	7920	7290	9000	0.083
6812	60.000	78.000	10.000	10350	9540	8460	0.106
6813	65.000	85.000	10.000	10440	9900	7830	0.128
6814	70.000	90.000	10.000	10890	10710	7290	0.137
6815	75.000	95.000	10.000	11250	11610	6840	0.145
6816	80.000	100.000	10.000	11430	11970	6390	0.154
6817	85.000	110.000	13.000	16830	17100	6030	0.270
6818	90.000	115.000	13.000	17100	17730	5670	0.285
6819	95.000	120.000	13.000	17370	18450	5310	0.300
6820	100.000	125.000	13.000	17640	19080	5040	0.313
6821	105.000	130.000	13.000	17820	19800	4860	0.330
6822	110.000	140.000	16.000	25920	28800	4590	0.515
6824	120.000	150.000	16.000	26010	29700	4230	0.555
6826	130.000	165.000	18.000	33300	36900	3870	0.800
6828	140.000	175.000	18.000	34650	40050	3600	0.850
6830	150.000	190.000	20.000	42750	49500	3330	1.160

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Single Row Thin Type Series : 6900

075

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6900	10.000	22.000	6.000	2430	1143	32400	0.009
6901	12.000	24.000	6.000	2601	1314	28800	0.011
6902	15.000	28.000	7.000	3690	1854	25200	0.016
6903	17.000	30.000	7.000	4185	2322	23400	0.018
6904	20.000	37.000	9.000	5760	3330	20700	0.036
6905	25.000	42.000	9.000	6345	4095	17100	0.042
6906	30.000	47.000	9.000	6525	4500	15300	0.048
6907	35.000	55.000	10.000	8595	6165	13500	0.074
6908	40.000	62.000	12.000	10980	8010	11700	0.110
6909	45.000	68.000	12.000	11790	9360	10800	0.128
6910	50.000	72.000	12.000	12060	10080	9900	0.132
6911	55.000	80.000	13.000	14400	11970	8640	0.180
6912	60.000	85.000	13.000	14760	12870	8010	0.193
6913	65.000	90.000	13.000	15660	14490	7380	0.206
6914	70.000	100.000	16.000	21330	19080	6930	0.334
6915	75.000	105.000	16.000	21960	20340	6480	0.353
6916	80.000	110.000	16.000	22410	21600	6030	0.373
6917	85.000	120.000	18.000	28800	26640	5670	0.536
6918	90.000	125.000	18.000	29700	28350	5400	0.554
6919	95.000	130.000	18.000	30150	30150	5130	0.579
6920	100.000	140.000	20.000	36900	35550	4770	0.785
6921	105.000	145.000	20.000	38250	37800	4590	0.816
6922	110.000	150.000	20.000	39150	40050	4320	0.849
6924	120.000	165.000	22.000	47700	48600	3960	1.150
6926	130.000	180.000	24.000	58500	60750	3690	1.520
6928	140.000	190.000	24.000	59850	64350	3420	1.620
6930	150.000	210.000	28.000	76500	81450	3150	2.470

Deep Groove Ball Bearings DG

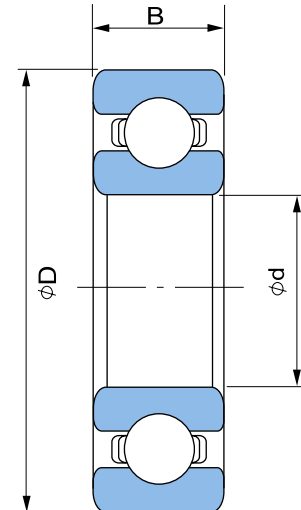
076

Single Row Thin Type Series : 16000

DG

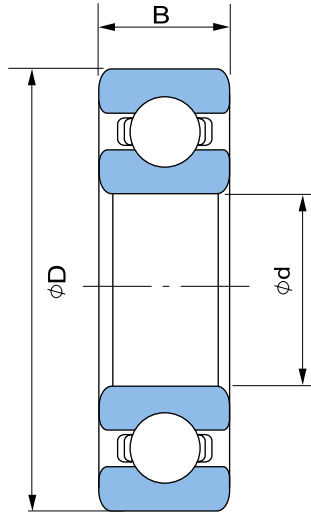
Deep Groove Ball Bearings

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
16100	10.000	28.000	8.000	3460	1470	28000	0.022
16101	12.000	30.000	8.000	3800	1770	27000	0.023
16002	15.000	32.000	8.000	5040	2547	23400	0.025
16003	17.000	35.000	8.000	6120	3015	21600	0.032
16004	20.000	42.000	8.000	7110	4050	18900	0.051
16005	25.000	47.000	8.000	7515	4590	16200	0.060
16006	30.000	55.000	9.000	10080	6615	13500	0.091
16007	35.000	62.000	9.000	10530	7380	12600	0.110
16008	40.000	68.000	9.000	11340	8685	10800	0.125
16009	45.000	75.000	10.000	11610	9450	9900	0.171
16010	50.000	80.000	10.000	11880	10170	8820	0.180
16011	55.000	90.000	11.000	16740	13770	8100	0.258
16012	60.000	95.000	11.000	18000	15750	7470	0.283
16013	65.000	100.000	11.000	18450	16830	6930	0.307
16014	70.000	110.000	13.000	21960	20340	6390	0.441
16015	75.000	115.000	13.000	22500	21600	6030	0.464
16016	80.000	125.000	14.000	22860	22590	5580	0.597
16017	85.000	130.000	14.000	23310	23580	5310	0.626
16018	90.000	140.000	16.000	30150	30150	5040	0.848
16019	95.000	145.000	16.000	31050	31500	4770	0.885
16020	100.000	150.000	16.000	31500	32850	4500	0.910
16021	105.000	160.000	18.000	46800	45450	4230	1.200
16022	110.000	170.000	19.000	51750	50850	4050	1.460
16024	120.000	180.000	19.000	56700	57150	3690	1.560
16026	130.000	200.000	22.000	72000	71550	3420	2.310
16028	140.000	210.000	22.000	73800	76500	3150	2.450
16030	150.000	225.000	24.000	86850	90900	2880	3.070

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Single Row Series : 6000

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6000	10.000	26.000	8.000	4095	1764	30600	0.019
6001	12.000	28.000	8.000	4590	2151	27000	0.021
6002	15.000	32.000	9.000	5040	2556	23400	0.030
6003	17.000	35.000	10.000	6120	3015	21600	0.039
6004	20.000	42.000	12.000	8460	4545	18900	0.069
6005	25.000	47.000	12.000	9090	5265	16200	0.080
6006	30.000	55.000	13.000	11880	7470	13500	0.116
6007	35.000	62.000	14.000	14400	9270	12600	0.155
6008	40.000	68.000	15.000	15120	10350	10800	0.190
6009	45.000	75.000	16.000	18900	13590	9900	0.237
6010	50.000	80.000	16.000	19620	14940	8820	0.261
6011	55.000	90.000	18.000	25470	19080	8100	0.388
6012	60.000	95.000	18.000	26550	20880	7470	0.414
6013	65.000	100.000	18.000	27450	22680	6930	0.421
6014	70.000	110.000	20.000	34200	27900	6390	0.604
6015	75.000	115.000	20.000	35550	30150	6030	0.649
6016	80.000	125.000	22.000	42750	36000	5580	0.854
6017	85.000	130.000	22.000	44550	38700	5310	0.890
6018	90.000	140.000	24.000	52200	44550	5040	1.020
6019	95.000	145.000	24.000	54450	48600	4770	1.080
6020	100.000	150.000	24.000	54000	48600	4500	1.150
6021	105.000	160.000	26.000	65250	58950	4230	1.590
6022	110.000	170.000	28.000	73800	65700	4050	1.960
6024	120.000	180.000	28.000	76500	71550	3690	2.070
6026	130.000	200.000	33.000	95400	90900	3420	3.160
6028	140.000	210.000	33.000	99000	98100	3150	3.350
6030	150.000	225.000	35.000	113400	113400	2880	4.080
6032	160.000	240.000	38.000	128700	129600	2700	5.050
6034	170.000	260.000	42.000	151200	154800	2520	6.760
6036	180.000	280.000	46.000	170100	179100	2430	8.800
6038	190.000	290.000	46.000	177300	193500	2250	9.180
6040	200.000	310.000	51.000	196200	218700	2160	11.900

Deep Groove Ball Bearings

DG

077

078

DG

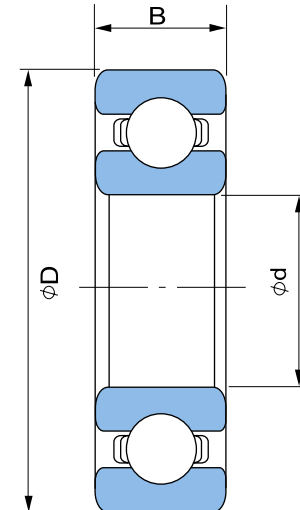
Deep Groove Ball Bearings

Single Row

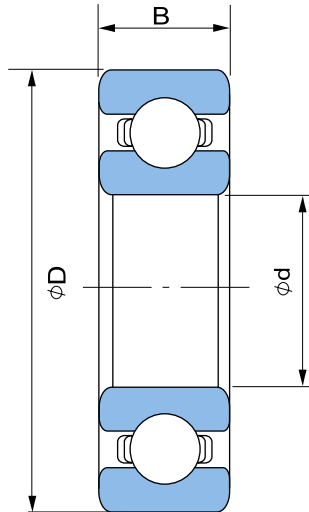
Series : 6200

KG®

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6200	10.000	30.000	9.000	4590	2151	27000	0.032
6201	12.000	32.000	10.000	5490	2475	23400	0.037
6202	15.000	35.000	11.000	6975	3240	20700	0.045
6203	17.000	40.000	12.000	8640	4140	18900	0.066
6204	20.000	47.000	14.000	11520	5985	16200	0.106
6205	25.000	52.000	15.000	12600	7065	13500	0.128
6206	30.000	62.000	16.000	17550	10170	11700	0.199
6207	35.000	72.000	17.000	23130	13770	9900	0.288
6208	40.000	80.000	18.000	26190	16020	9000	0.366
6209	45.000	85.000	19.000	29250	18360	8280	0.398
6210	50.000	90.000	20.000	31500	20880	7470	0.454
6211	55.000	100.000	21.000	39150	26280	6840	0.601
6212	60.000	110.000	22.000	47250	32400	6300	0.783
6213	65.000	120.000	23.000	51750	36000	5850	0.990
6214	70.000	125.000	24.000	55800	39600	5400	1.070
6215	75.000	130.000	25.000	59400	44550	5040	1.180
6216	80.000	140.000	26.000	65250	47700	4770	1.400
6217	85.000	150.000	28.000	75150	57600	4500	1.790
6218	90.000	160.000	30.000	86400	64350	4230	2.150
6219	95.000	170.000	32.000	98100	73800	3960	2.620
6220	100.000	180.000	34.000	109800	83700	3780	3.140
6221	105.000	190.000	36.000	119700	94500	3600	3.700
6222	110.000	200.000	38.000	129600	105300	3420	4.360
6224	120.000	215.000	40.000	139500	117900	3060	5.150
6226	130.000	230.000	40.000	150300	131400	2790	5.820
6228	140.000	250.000	42.000	149400	135000	2610	7.570
6230	150.000	270.000	45.000	158400	151200	2430	9.410
6232	160.000	290.000	48.000	166500	167400	2250	11.700
6234	170.000	310.000	52.000	190800	200700	2160	14.500
6236	180.000	320.000	52.000	204300	216900	1980	15.100
6238	190.000	340.000	55.000	229500	252900	1890	18.200
6240	200.000	360.000	58.000	242100	279000	1800	21.600

***Note:**

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***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Single Row Series : 6300

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6300	10.000	35.000	11.000	7380	3150	24300	0.053
6301	12.000	37.000	12.000	8730	3780	21600	0.060
6302	15.000	42.000	13.000	10260	4905	18900	0.082
6303	17.000	47.000	14.000	12150	5895	17100	0.115
6304	20.000	52.000	15.000	14310	7110	15300	0.144
6305	25.000	62.000	17.000	19080	9810	12600	0.232
6306	30.000	72.000	19.000	24030	13500	10800	0.360
6307	35.000	80.000	21.000	30150	17190	9000	0.457
6308	40.000	90.000	23.000	36450	21600	8280	0.630
6309	45.000	100.000	25.000	47700	28800	7380	0.814
6310	50.000	110.000	27.000	55800	34650	6750	1.070
6311	55.000	120.000	29.000	64350	40500	6120	1.370
6312	60.000	130.000	31.000	73800	46800	5670	1.730
6313	65.000	140.000	33.000	83250	54000	5220	2.080
6314	70.000	150.000	35.000	93600	61200	4860	2.520
6315	75.000	160.000	37.000	101700	69300	4500	3.020
6316	80.000	170.000	39.000	110700	77850	4230	3.590
6317	85.000	180.000	41.000	119700	87300	4050	4.230
6318	90.000	190.000	43.000	128700	96300	3780	4.910
6319	95.000	200.000	45.000	137700	107100	3510	5.670
6320	100.000	215.000	47.000	155700	126900	3330	7.000
6321	105.000	225.000	49.000	165600	137700	3240	8.050
6322	110.000	240.000	50.000	184500	161100	3060	9.540
6324	120.000	260.000	55.000	186300	166500	2790	12.400
6326	130.000	280.000	58.000	206100	192600	2520	15.300
6328	140.000	300.000	62.000	227700	221400	2340	18.500
6330	150.000	320.000	65.000	246600	255600	2160	22.000
6332	160.000	340.000	68.000	250200	257400	2070	26.000
6334	170.000	360.000	72.000	292500	319500	1890	30.700
6336	180.000	380.000	75.000	319500	364500	1800	35.600
6338	190.000	400.000	78.000	319500	373500	1710	41.000
6340	200.000	420.000	80.000	369000	450000	1620	46.300

Deep Groove Ball Bearings

079

DG

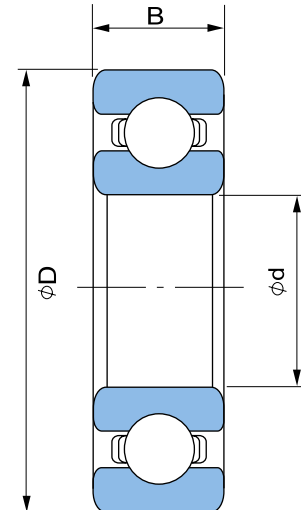
080

Single Row Heavy Duty Type Series : 6400

DG

Deep Groove Ball Bearings

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
6403	17.000	62.000	17.000	20610	9720	13500	0.270
6404	20.000	72.000	19.000	27630	13500	11700	0.400
6405	25.000	80.000	21.000	32220	17370	9900	0.530
6406	30.000	90.000	23.000	39240	21240	9000	0.740
6407	35.000	100.000	25.000	49770	27900	7650	0.950
6408	40.000	110.000	27.000	57330	32850	7200	1.250
6409	45.000	120.000	29.000	68490	40500	6300	1.550
6410	50.000	130.000	31.000	78390	46800	5670	1.900
6411	55.000	140.000	33.000	89550	55800	5400	2.300
6412	60.000	150.000	35.000	97200	62550	5040	2.750
6413	65.000	160.000	37.000	107100	70200	4770	3.300
6414	70.000	180.000	42.000	128700	93600	4050	4.850
6415	75.000	190.000	45.000	137700	102600	3870	6.800
6416	80.000	200.000	48.000	146700	112500	3600	8.000
6417	85.000	210.000	52.000	156600	123300	3420	9.500
6418	90.000	225.000	54.000	167400	135000	3240	11.500

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

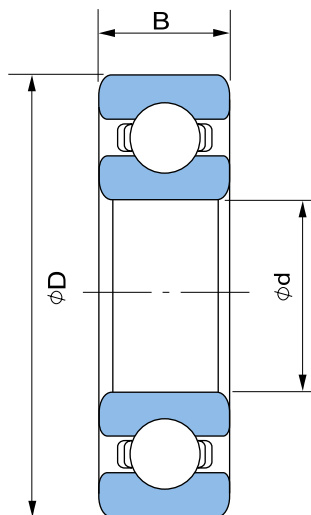


KG®

Single Row Series : 62200

081

DG



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
62200	10.000	30.000	14.000	5100	2390	30000	0.044
62201	12.000	32.000	14.000	6100	2750	26000	0.053
62202	15.000	35.000	14.000	7750	3600	23000	0.065
62203	17.000	40.000	16.000	9600	4600	21000	0.096
62204	20.000	47.000	18.000	12800	6650	18000	0.150
62205	25.000	52.000	18.000	14000	7850	15000	0.178
62206	30.000	62.000	20.000	19500	11300	13000	0.215
62207	35.000	72.000	23.000	25700	15300	11000	0.310
62208	40.000	80.000	23.000	29100	17800	10000	0.406
62209	45.000	85.000	23.000	32500	20400	9200	0.455
62210	50.000	90.000	23.000	35000	23200	8300	0.496
62211	55.000	100.000	25.000	43500	29200	7600	0.810
62212	60.000	110.000	28.000	52500	36000	7000	1.030
62214	70.000	125.000	31.000	62000	44000	6000	1.392

Deep Groove Ball Bearings

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



082

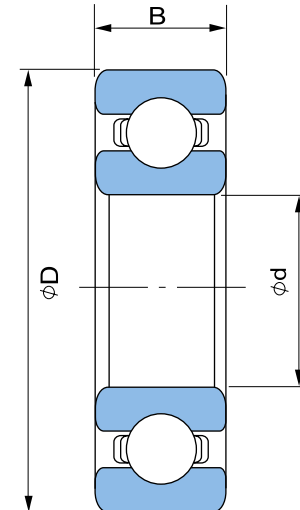
DG

Deep Groove Ball Bearings

Single Row

Series : **62300****KG**[®]

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
62300	10.000	35.000	17.000	8200	3500	27000	0.073
62301	12.000	37.000	17.000	9700	4200	24000	0.814
62302	15.000	42.000	17.000	11400	5450	21000	0.105
62303	17.000	47.000	19.000	13500	6550	19000	0.146
62304	20.000	52.000	21.000	15900	7900	17000	0.195
62305	25.000	62.000	24.000	21200	10900	14000	0.306
62306	30.000	72.000	27.000	26700	15000	12000	0.478
62307	35.000	80.000	31.000	33500	19100	10000	0.647
62308	40.000	90.000	33.000	40500	24000	9200	0.885
62309	45.000	100.000	36.000	53000	32000	8200	1.156
62310	50.000	110.000	40.000	62000	38500	7500	1.498
62311	55.000	120.000	43.000	71500	45000	6800	1.918
62312	60.000	130.000	46.000	82000	52000	6300	2.422
62314	70.000	150.000	51.000	104000	68000	5400	3.630

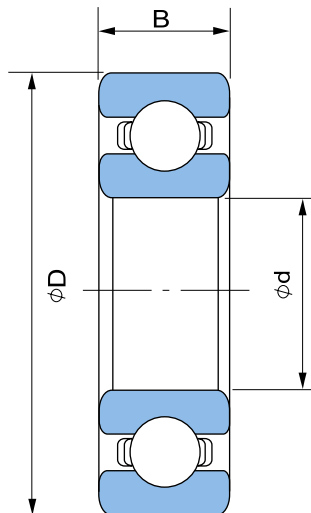
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Row Series : **63000**

083



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
63001	12.000	28.000	12.000	5100	2390	30000	0.031
63002	15.000	32.000	13.000	5600	2840	26000	0.043
63003	17.000	35.000	14.000	6800	3350	24000	0.056
63004	20.000	42.000	16.000	9400	5050	21000	0.098
63005	25.000	47.000	16.000	10100	5850	18000	0.114
63006	30.000	55.000	19.000	13200	8300	15000	0.162
63007	35.000	62.000	20.000	16000	10300	14000	0.214
63008	40.000	68.000	21.000	16800	11500	12000	0.265

Deep Groove Ball Bearings

DG

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



084

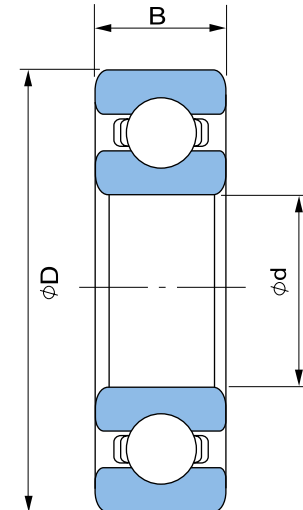
DG

Deep Groove Ball Bearings

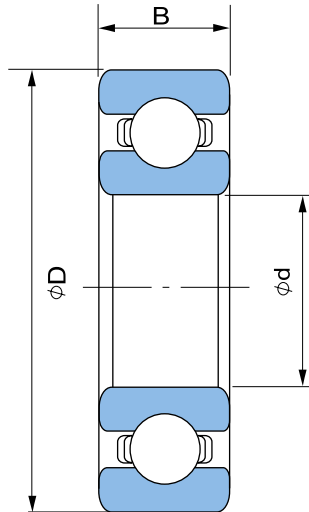
Single Row

Series : **RLS****KG**[®]

Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (Kg)
	d	D	B	N		
				Dynamic	Static	
RLS4	12.700	33.338	9.525	4903	2196	0.041
RLS5	15.875	39.688	11.112	7649	3844	0.068
RLS6	19.050	47.625	14.288	10277	5334	0.113
RLS7	22.225	50.800	14.288	11140	6158	0.122
RLS8	25.400	57.150	15.875	14278	7727	0.177
RLS9	28.575	63.500	15.875	15533	9022	0.227
RLS10	31.750	69.850	17.462	15612	9335	0.300
RLS11	34.925	76.200	17.462	16710	10669	0.350
RLS12	38.100	82.550	19.050	23300	14278	0.450
RLS13	41.275	88.900	19.050	26124	16239	0.520
RLS14	44.450	95.250	20.638	28086	18593	0.660
RLS15	47.625	101.600	20.638	31302	21182	0.740
RLS16	50.800	101.600	20.638	31302	21182	0.700
RLS18	57.150	114.300	22.225	41972	28949	0.970
RLS20	63.500	127.000	23.812	49739	35225	1.250
RLS22	69.850	133.350	23.812	53975	38598	1.360
RLS24	76.200	146.050	26.988	58133	42364	1.850
RLS26	82.550	152.400	26.988	67155	49503	1.940
RLS28	88.900	165.100	28.575	76805	57270	2.370
RLS30	95.250	171.450	28.575	87083	65508	2.500
RLS32	101.600	184.150	31.750	98066	74452	3.360
RLS34	107.950	190.500	31.750	85513	72333	4.180
RLS36	114.300	203.200	33.338	103558	84729	4.950
RLS38	120.650	209.550	33.338	102773	85513	5.180
RLS40	127.000	228.600	34.925	108265	94928	6.800
RLS44	139.700	241.300	34.925	112972	104342	7.300
RLS48	152.400	266.700	39.688	138077	133370	10.300
RLS52	165.100	279.400	39.688	137293	135724	10.900
RLS56	177.800	304.800	44.450	158475	164751	14.800
RLS60	190.500	317.500	44.450	165536	180442	15.600

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Single Row

Series : **RMS**

085

Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (Kg)
	d	D	B	N		
				Dynamic	Static	
RMS4	12.700	41.275	15.875	7570	3530	0.104
RMS5	15.875	46.038	15.875	9257	4432	0.122
RMS6	19.050	50.800	17.462	11061	5452	0.163
RMS7	22.225	57.150	17.462	14827	7492	0.204
RMS8	25.400	63.500	19.050	16475	9022	0.258
RMS9	28.575	71.438	20.638	21339	12003	0.390
RMS10	31.750	79.375	22.225	24006	13729	0.470
RMS11	34.925	88.900	22.225	29576	17259	0.610
RMS12	38.100	95.250	23.812	35774	21260	0.770
RMS13	41.275	101.600	23.812	39069	23614	0.900
RMS14	44.450	107.950	26.988	45973	281670	1.040
RMS15	47.625	114.300	26.988	49582	30596	1.220
RMS16	50.800	114.300	26.988	49582	30596	1.220
RMS18	57.150	127.000	31.750	57506	36480	1.720
RMS22	69.850	158.750	34.925	83160	54603	2.980
RMS24	76.200	177.800	39.688	98066	69352	4.080
RMS26	82.550	190.500	39.688	105911	77433	4.260
RMS27	85.725	190.500	39.688	113757	85513	4.880
RMS28	88.900	206.375	44.450	122386	94928	6.650
RMS30	95.250	209.550	44.450	122386	94928	6.700
RMS32	101.600	215.900	44.450	138862	112972	8.100
RMS34	107.950	222.250	44.450	133370	111403	8.850
RMS36	114.300	238.125	50.800	148276	126309	11.500
RMS38	120.650	254.000	50.800	160829	145922	13.300
RMS40	127.000	254.000	50.800	160829	145922	12.900
RMS44	139.700	279.400	50.800	172597	167105	15.600
RMS48	152.400	304.800	57.150	189856	189072	20.900

Deep Groove Ball Bearings DG

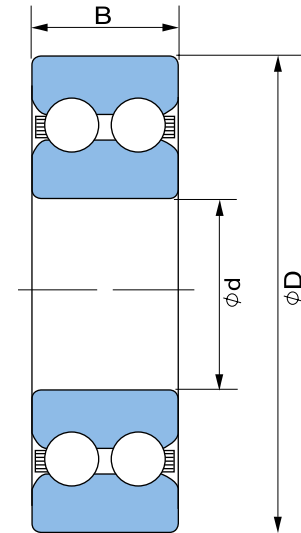
086

Double Row Series : 4200

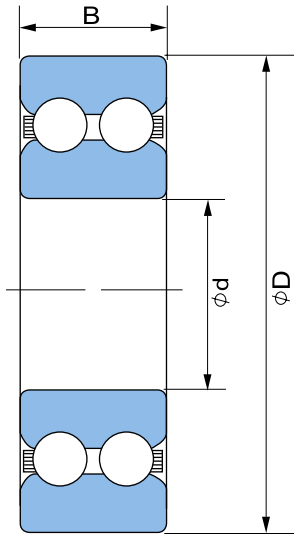
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Deep Groove Ball Bearings

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
4200	10.000	30.000	14.000	8370	4680	19800	0.049
4201	12.000	32.000	14.000	9540	5580	18000	0.053
4202	15.000	35.000	14.000	10710	6750	15300	0.059
4203	17.000	40.000	16.000	13320	8550	13500	0.090
4204	20.000	47.000	18.000	16020	11250	11700	0.140
4205	25.000	52.000	18.000	17100	13140	9900	0.160
4206	30.000	62.000	20.000	23400	18720	8550	0.260
4207	35.000	72.000	23.000	31590	25650	7200	0.400
4208	40.000	80.000	23.000	33390	29250	6300	0.500
4209	45.000	85.000	23.000	35100	32400	6030	0.540
4210	50.000	90.000	23.000	36900	36000	5400	0.580
4211	55.000	100.000	25.000	40410	39600	5040	0.800
4212	60.000	110.000	28.000	51480	49500	4770	1.100
4213	65.000	120.000	31.000	60840	60300	4320	1.450
4214	70.000	125.000	31.000	63180	66150	3870	1.500
4215	75.000	130.000	31.000	65520	72000	3600	1.600
4216	80.000	140.000	33.000	72540	81000	3420	2.000
4217	85.000	150.000	36.000	84240	91800	3240	2.550
4218	90.000	160.000	40.000	100800	109800	3060	3.200
4220	95.000	145.000	18.000	126000	140400	2700	4.700

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Double Row Series : 4300

087

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
4301	12.000	37.000	17.000	11700	7020	16200	0.092
4302	15.000	42.000	17.000	13320	8550	13500	0.120
4303	17.000	47.000	19.000	17550	11880	11700	0.160
4304	20.000	52.000	21.000	21060	14400	10800	0.210
4305	25.000	62.000	24.000	28710	20160	9000	0.340
4306	30.000	72.000	27.000	36900	27000	7650	0.500
4307	35.000	80.000	31.000	45630	34200	6750	0.690
4308	40.000	90.000	33.000	50310	40500	6030	0.950
4309	45.000	100.000	36.000	62010	50400	5400	1.250
4310	50.000	110.000	40.000	73710	62550	4770	1.700
4311	55.000	120.000	43.000	87750	74700	4500	2.150
4312	60.000	130.000	46.000	100800	88200	4050	2.650
4313	65.000	140.000	48.000	108900	95400	3870	3.250
4314	70.000	150.000	51.000	124200	112500	3420	3.950
4315	75.000	160.000	55.000	140400	128700	3240	4.800

Deep Groove Ball Bearings

DG

***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.



KG[®]

Miniature and Extra Small Ball Bearings



KG[®]

Deep Groove Ball Bearings with an outer diameter less than 9 mm are known as Miniature Ball Bearings. Deep Groove Ball Bearings having an outside diameter more than 9 mm, and bore diameter less than 10 mm are known as Extra Small Ball Bearings.

They are available in a wide range, as defined by the ISO standard plan. These types could also be made to meet customer's special dimensional requirements, but with some basic design limitations.

Miniature and Extra Small Ball Bearings are

- capable of carrying relatively smaller loads
- suitable for low, medium & high speed applications
- suited for low noise and low torque applications

KG can offer following variants

- open basic design types
- as Sealed types
- as Flange types
- with Snap Ring groove
- with Snap Ring groove and Snap Ring
- with C2, CN, C3, C4 radial clearance
- standard precision grade (ISO Grade 0 - ABEC1) & higher precision grade (ISO Grade 1 - ABEC3)
- with extended Inner Ring
- pressed Steel and riveted Cage





Apart from the list of items presented in the following pages, many other special type of KG Miniature and Extra Small Ball Bearings have been developed to meet specific application requirements. Technical information for such Bearings, is available on request.

KG standard suffixes for Miniature and Extra Small Ball Bearings

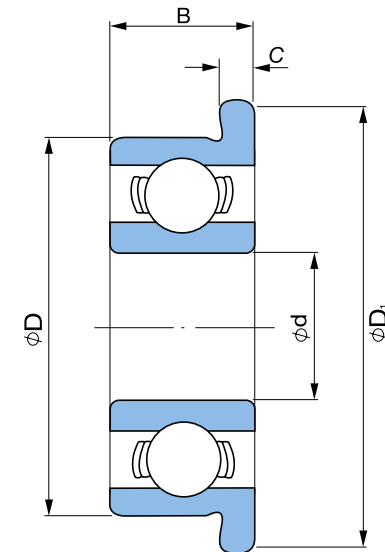
A	Modified internal design.
C2	Radial internal clearance less than normal.
CN	Normal radial internal clearance. Generally, no special suffix is used in KG Bearings for normal radial internal clearance.
C3	Radial internal clearance higher than normal.
C4	Radial internal clearance higher than C3.
E	Electric motor quality.
G1-G15	KG internal grease type codes. For details, please contact KG International FZCO.
N	Snap Ring groove in the Outer Ring.
NR	Snap Ring groove in the Outer Ring, with Snap Ring.
P	Plastic Cage.
P5	Dimensional and running accuracy confirming to ISO class 5.
P6	Dimensional and running accuracy confirming to ISO class 6.
Q1-Q8	KG internal reference codes. For details please contact KG International FZCO.
RS	Rubber Seal with Steel sheet reinforcement on one side of the Bearing.
RSL	Double Lip type Rubber Seal sheet with special groove in the Inner Ring, fixed at one side of the Bearing.
2RS	Rubber Seal with Steel sheet reinforcement on both sides of the Bearing.
2RSL	Double Lip type Rubber Seal with special groove in the Inner Ring, fixed at both sides of the Bearing.
Z	Metallic Shield on one side of the Bearing.
ZZ	Metallic Shields on both sides of the Bearing.
F	Flange on Outer Ring.

Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.

Single Row Flange Type



Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (gms)
	d	D	D ₁	B	C	N			
						Dynamic	Static		
F015M04	1.500	4.000	5.000	1.200	0.400	101	30	108000	0.120
F015M05	1.500	5.000	6.500	2.000	0.600	216	62	90000	0.260
F015M06	1.500	6.000	7.500	2.500	0.600	297	89	81000	0.420
F682	2.000	5.000	6.100	1.500	0.500	169	53	90000	0.190
F2M05	2.000	5.000	6.200	2.000	0.600	169	53	90000	0.210
F692	2.000	6.000	7.500	2.300	0.600	297	89	81000	0.350
F2M06	2.000	6.000	7.200	2.500	0.600	297	89	81000	0.360
F2M07	2.000	7.000	8.200	2.500	0.600	346	115	67500	0.490
F602	2.000	7.000	9.500	2.800	0.700	346	115	67500	0.600
F68/2.5	2.500	6.000	7.100	1.800	0.500	188	66	72000	0.250
F69/2.5	2.500	7.000	8.500	2.500	0.700	346	115	67500	0.500
F025M08	2.500	8.000	9.200	2.500	0.600	504	161	60300	0.680
F60/2.5	2.500	9.000	9.500	2.800	0.700	495	157	60300	0.710
F3M06	3.000	6.000	7.200	2.000	0.600	188	66	72000	0.260
F683	3.000	7.000	8.100	2.000	0.500	346	116	65700	0.380
F3M08	3.000	8.000	9.200	2.500	0.600	504	161	60300	0.560
F693	3.000	8.000	9.500	3.000	0.700	504	161	60300	0.710
F3M09	3.000	9.000	10.200	2.500	0.600	576	203	59400	0.840
F603	3.000	9.000	10.500	3.000	0.700	576	203	58500	0.930
F623	3.000	10.000	11.500	4.000	1.000	553	203	49500	1.650
F4M07	4.000	7.000	8.200	2.000	0.600	283	103	61200	0.300
F4M08	4.000	8.000	9.200	2.000	0.600	355	126	60300	0.470
F684	4.000	9.000	10.300	2.500	0.600	576	203	54900	0.740
F4M10	4.000	10.000	11.200	3.000	0.600	585	212	49500	1.000
F694	4.000	11.000	12.500	4.000	1.000	643	255	47700	1.800
F604	4.000	12.000	13.500	4.000	1.000	873	324	42300	3.100
F624	4.000	13.000	15.000	5.000	1.000	1170	436	40500	4.100



*Note:

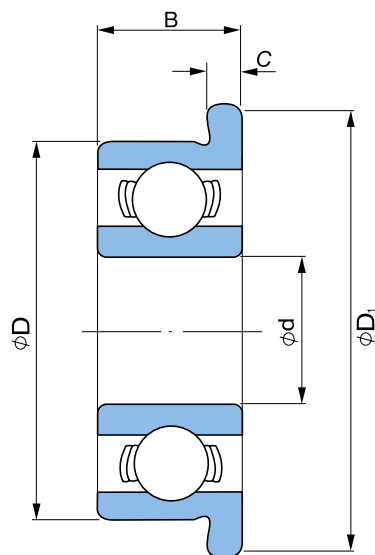
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG[®]

Single Row Flange Type

093



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

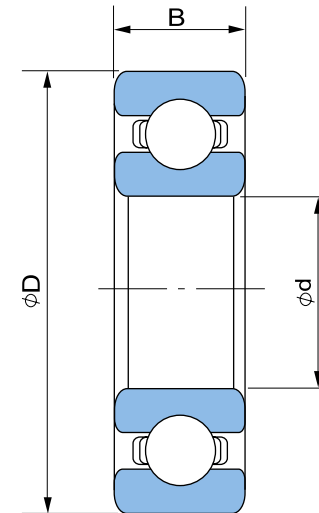
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (gms)
	d	D	D ₁	B	C	N			
						Dynamic	Static		
F5M08	5.000	8.000	9.200	2.000	0.600	250	118	56700	0.330
F5M09	5.000	9.000	10.200	2.500	0.600	391	151	54000	0.600
F5M10	5.000	10.000	11.200	3.000	0.600	391	151	52200	1.000
F685	5.000	11.000	12.500	3.000	0.800	643	255	46800	1.300
F695	5.000	13.000	15.000	4.000	1.000	972	387	45000	2.700
F605	5.000	14.000	16.000	5.000	1.000	1197	454	40500	4.200
F625	5.000	16.000	18.000	5.000	1.000	1557	603	38700	6.200
F6M10	6.000	10.000	11.200	2.500	0.600	445	197	47700	0.650
F6M12	6.000	12.000	13.200	3.000	0.600	643	263	45000	1.500
F686	6.000	13.000	15.000	3.500	1.000	972	396	43200	2.200
F696	6.000	15.000	17.000	5.000	1.200	1566	603	42300	4.200
F606	6.000	17.000	19.000	6.000	1.200	2034	756	37800	6.200
F626	6.000	19.000	22.000	6.000	1.500	2358	954	34200	8.700
F7M11	7.000	11.000	12.200	2.500	0.600	409	181	45000	0.800
F7M13	7.000	13.000	14.200	3.000	0.600	747	337	43200	1.600
F687	7.000	14.000	16.000	3.500	1.000	1053	459	40500	2.500
F697	7.000	17.000	19.000	5.000	1.200	1449	643	37800	5.300
F607	7.000	19.000	22.000	6.000	1.500	2358	954	36000	8.400
F8M12	8.000	12.000	13.200	2.500	0.600	481	244	43200	0.820
F8M14	8.000	14.000	15.600	3.500	0.800	738	346	40500	2.100
F688	8.000	16.000	18.000	4.000	1.000	1125	531	38700	3.400
F698	8.000	19.000	22.000	6.000	1.500	2016	814	37800	8.200
F608	8.000	22.000	25.000	7.000	1.500	2970	1224	34200	12.600
F689	9.000	17.000	19.000	4.000	1.000	1557	729	36900	6.000
F699	9.000	20.000	23.000	6.000	1.500	1908	886	36000	8.800

Miniature and Extra Small Bearings
M-X

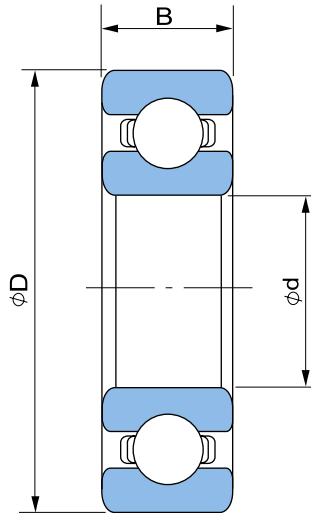


Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (gms)
	d	D	B	N			
				Dynamic	Static		
015M04	1.500	4.000	1.200	101	30	108000	0.100
015M05	1.500	5.000	2.000	216	62	90000	0.220
015M06	1.500	6.000	2.500	297	89	81000	0.350
682	2.000	5.000	1.500	169	53	90000	0.150
2M05	2.000	5.000	2.000	169	53	90000	0.170
692	2.000	6.000	2.300	297	89	81000	0.250
2M06	2.000	6.000	2.500	297	89	81000	0.300
2M07	2.000	7.000	2.500	346	115	67500	0.450
602	2.000	7.000	2.800	346	115	67500	0.500
68/2.5	2.500	6.000	1.800	188	66	72000	0.200
69/2.5	2.500	7.000	2.500	346	115	67500	0.400
025M08	2.500	8.000	2.500	504	161	60300	0.550
60/2.5	2.500	8.000	2.800	495	157	60300	0.600
3M06	3.000	6.000	2.000	188	66	72000	0.200
683	3.000	7.000	2.000	346	116	65700	0.320
3M08	3.000	8.000	2.500	504	161	60300	0.500
693	3.000	8.000	3.000	504	161	60300	0.600
634	3.000	9.000	2.500	576	203	59400	0.750
3M09	3.000	9.000	3.000	576	203	58500	0.800



KG[®]
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Single Row

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (gms)
	d	D	B	N			
				Dynamic	Static		
603	3.000	10.000	4.000	553	203	49500	1.400
623	3.000	13.000	5.000	1170	436	45000	3.000
633	4.000	7.000	2.000	283	103	61200	0.240
4M07	4.000	8.000	2.000	355	126	60300	0.400
4M08	4.000	9.000	2.500	576	203	54900	0.650
684	4.000	10.000	3.000	585	212	49500	0.900
4M10	4.000	11.000	4.000	643	255	47700	1.600
694	4.000	12.000	4.000	873	324	42300	2.800
604	4.000	13.000	5.000	1170	436	40500	3.800
624	4.000	16.000	5.000	1566	603	38700	5.000
5M08	5.000	8.000	2.000	250	118	56700	0.250
5M09	5.000	9.000	2.500	391	151	54000	0.550
5M10	5.000	10.000	3.000	391	151	52200	0.900
685	5.000	11.000	3.000	643	255	46800	1.200
695	5.000	13.000	4.000	972	387	45000	2.400
605	5.000	14.000	5.000	1197	454	40500	4.000
625	5.000	16.000	5.000	1557	603	38700	6.000
635	5.000	19.000	6.000	2358	954	34200	9.000

095
 Miniature and Extra Small Bearings
 M-X

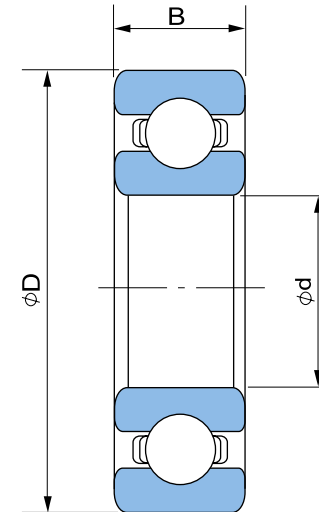
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Single Row

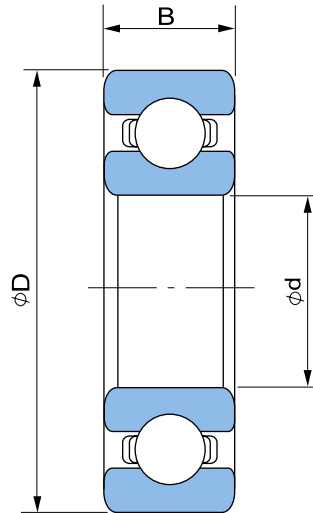
KG®

M-X
Miniature and Extra Small Bearings

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (gms)
	d	D	B	N			
				Dynamic	Static		
6M10	6.000	10.000	2.500	445	197	47700	0.550
6M12	6.000	12.000	3.000	643	263	45000	1.300
686	6.000	13.000	3.500	972	396	43200	1.900
696	6.000	15.000	5.000	1566	603	42300	3.900
606	6.000	17.000	6.000	2034	756	37800	6.000
626	6.000	19.000	6.000	2358	954	34200	8.000
636	6.000	22.000	7.000	2970	1224	30600	13.000
7M11	7.000	11.000	2.500	409	181	45000	0.700
7M13	7.000	13.000	3.000	747	337	43200	1.500
687	7.000	14.000	3.500	1053	459	40500	2.000
697	7.000	17.000	5.000	1449	643	37800	4.800
607	7.000	19.000	6.000	2358	954	36000	8.000
627	7.000	22.000	7.000	2970	1224	32400	12.000
637	7.000	26.000	9.000	3600	1422	27000	24.000
8M12	8.000	12.000	2.200	481	244	43200	0.700
8M14	8.000	14.000	3.500	738	346	40500	1.900
688	8.000	16.000	4.000	1125	531	38700	3.000
698	8.000	19.000	6.000	2016	814	37800	7.200
608	8.000	22.000	7.000	2970	1224	34200	12.000
628	8.000	24.000	8.000	3015	1269	30600	17.000
638	8.000	28.000	9.000	4095	1773	25200	27.000
689	9.000	17.000	4.000	1557	729	36900	5.800
699	9.000	20.000	6.000	1908	886	36000	7.700
609	9.000	24.000	7.000	3015	1269	32400	16.000
629	9.000	26.000	8.000	4095	1773	28800	20.000
639	9.000	30.000	10.000	4590	2151	23400	34.000

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**

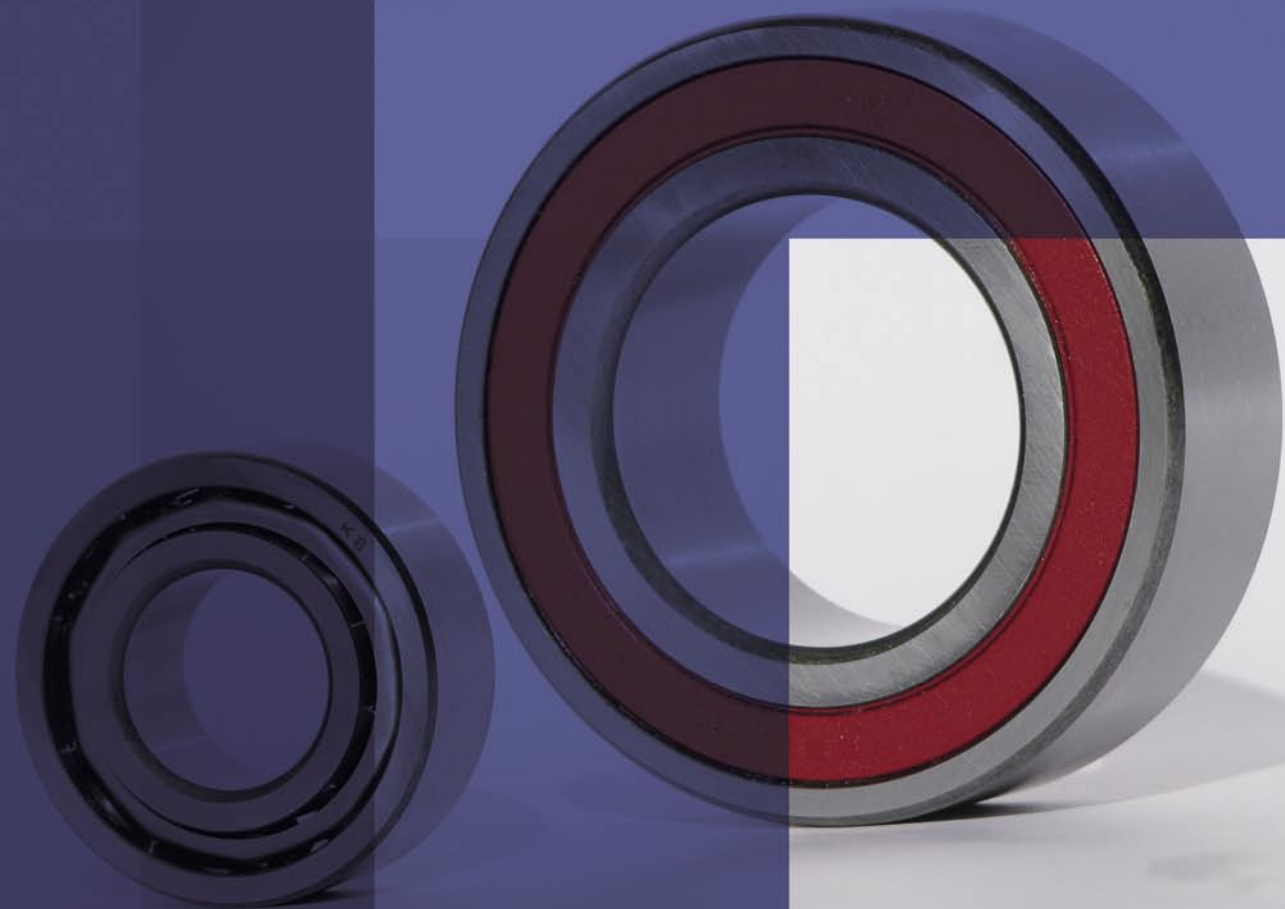
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Single Row

097

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (gms)
	d	D	B	N			
				Dynamic	Static		
R1-4	1.984	6.350	2.380	251	80	71100	0.350
R133	2.380	4.762	1.588	112	38	76500	0.120
R1-5	2.380	7.938	2.779	387	137	59400	0.690
R144	3.175	6.356	2.380	256	86	63000	0.270
R2-5	3.175	7.938	2.779	504	162	56700	0.610
R2-6	3.175	9.525	2.779	576	202	52200	0.880
R2	3.175	9.525	3.967	576	202	52200	1.300
R2A	3.175	12.700	4.366	1035	355	45900	2.500
R155	3.967	7.938	2.779	301	120	54000	0.540
R156	4.762	7.938	2.779	355	129	52200	0.440
R166	4.762	9.525	3.175	639	241	49500	0.800
R3	4.762	12.700	3.967	1179	441	43200	2.200
R168	6.350	9.525	3.175	241	122	45900	0.600
R188	6.350	12.700	3.175	747	333	41400	1.600
R4	6.350	15.875	4.978	1332	553	38700	4.400
R4A	6.350	19.050	5.566	2016	796	36000	7.000
R1810	7.938	12.700	3.967	481	244	43200	1.700
R6	9.525	22.225	5.566	3015	1269	34200	9.000

Miniature and Extra Small Bearings
M-X



KG[®]

Angular Contact Ball Bearings



KG[®]

Angular Contact Ball Bearings are similar to Deep Groove Ball Bearings, however they can sustain combined radial & axial loads, because the line of contact between the Balls & Raceway is at an angle in the radial plane.

There are three standard contact angle classifications for Single Row Angular Contact Ball Bearings. These have been explained under " Design and Features of Rolling Contact Bearings" section of this handbook.

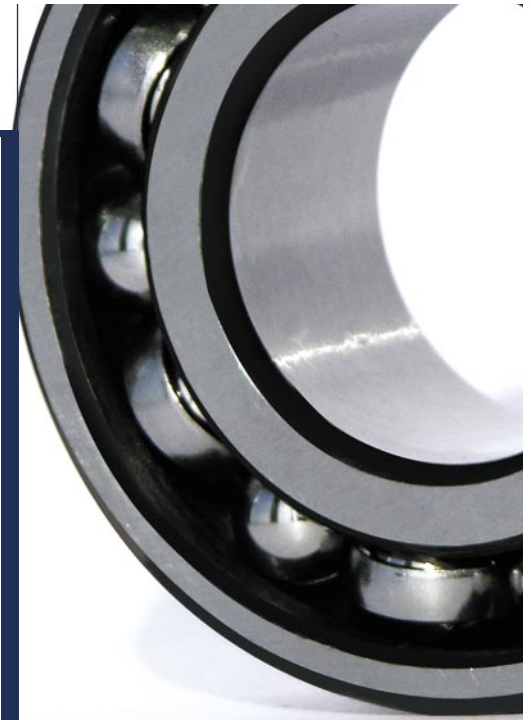
Single Row Angular Contact Ball Bearings can also be used as a combination of two or more units as Back-to-Back (BTB), Face-to-Face (FTF) or Tandem (TD) configurations.

Angular Contact Ball Bearings are

- capable of carrying both axial and radial loads
- suitable for low, medium & high speed applications

KG can offer following variants

- open basic design type Single and Double Row Angular Contact Ball Bearings
- as Sealed types
- with Snap Ring groove
- with Snap Ring groove and Snap Ring
- standard precision grade (ISO Grade 0 –ABEC1) for Single and Double Row Angular Contact Ball Bearings
- standard as well as higher grade (P5 & P4) for Single Row Angular Contact Ball Bearings used in combination
- pressed Steel, Nylon Fiber and Brass Cage





KG standard suffixes for Angular Contact Ball Bearings

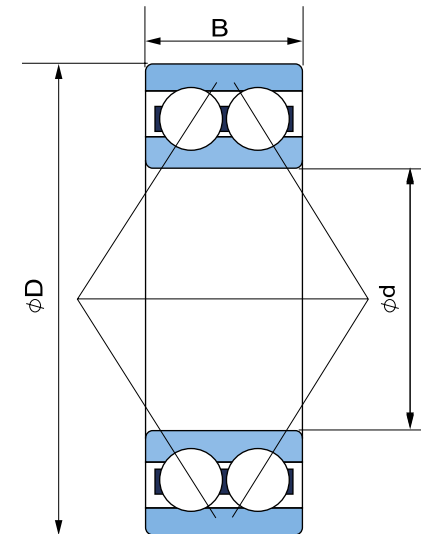


- A Contact angle of 30 degrees.
- B Contact angle of 40 degrees.
- C Contact angle of 15 degrees.
- F Fiber Cage
- G1-G15 KG internal grease type codes. For details, please contact KG International FZCO.
- M Machined brass Cage.
- N Snap Ring groove in the Outer Ring.
- NR Snap Ring groove in the Outer Ring, with Snap Ring.
- P Nylon Cage (for open types)
- P4 Dimensional and running accuracy confirming to ISO class 4.
- P5 Dimensional and running accuracy confirming to ISO class 5.
- P6 Dimensional and running accuracy confirming to ISO class 6.
- Q1-Q8 KG internal reference codes. For details please contact KG International FZCO.
- RS Rubber Seal with Steel sheet reinforcement on one side of the Bearing.
- 2RS Rubber Seal with Steel sheet reinforcement on both sides of the Bearing.
- Z Metallic Shield on one side of the Bearing.
- ZZ Metallic Shields on both sides of the Bearing.

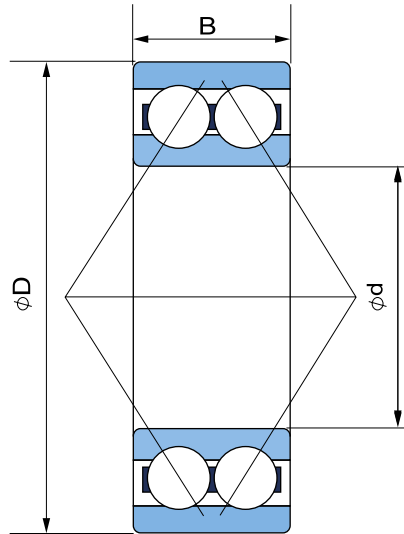
Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
3200	10.000	30.000	14.300	7560	5850	17100	0.051
3201	12.000	32.000	15.900	7605	6030	15300	0.060
3202	15.000	35.000	15.900	9990	8145	13500	0.069
3203	17.000	40.000	17.500	12780	10620	11700	0.099
3204	20.000	47.000	20.600	15750	13680	10800	0.166
3205	25.000	52.000	20.600	17370	16560	8820	0.183
3206	30.000	62.000	23.800	24930	24660	7560	0.303
3207	35.000	72.000	27.000	33750	34200	6660	0.458
3208	40.000	80.000	30.200	36450	40500	5940	0.627
3209	45.000	85.000	30.200	41850	46800	5310	0.678
3210	50.000	90.000	30.200	47250	54000	4770	0.698
3211	55.000	100.000	33.300	59400	68850	4410	1.070
3212	60.000	110.000	36.500	63450	79200	4050	1.340
3213	65.000	120.000	38.100	70200	89100	3780	1.680
3214	70.000	125.000	39.700	77400	99000	3510	1.840
3215	75.000	130.000	41.300	84600	109800	3240	2.010
3216	80.000	140.000	44.400	93600	117900	3060	2.710
3217	85.000	150.000	49.200	108900	139500	2880	3.480
3218	90.000	160.000	52.400	121500	153000	2700	4.240
3219	95.000	170.000	55.600	129600	165600	2520	5.100
3220	100.000	180.000	60.300	170100	210600	2430	5.880


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



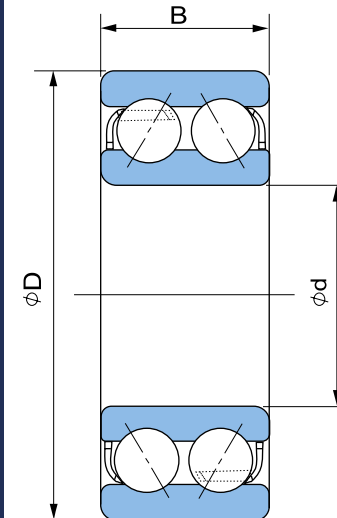
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Double Row Series : 33

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
3300	10.000	32.000	19.000	7800	3200	10000	0.058
3301	12.000	37.000	19.000	9000	5100	12000	0.063
3302	15.000	42.000	19.000	12780	10620	11700	0.127
3303	17.000	47.000	22.200	15750	13500	10800	0.185
3304	20.000	52.000	22.200	18990	16740	9900	0.221
3305	25.000	62.000	25.400	26460	24120	8010	0.354
3306	30.000	72.000	30.200	35100	32850	6840	0.558
3307	35.000	80.000	34.900	44550	42750	5940	0.756
3308	40.000	90.000	36.500	49050	51750	5310	1.030
3309	45.000	100.000	39.700	60750	65250	4770	1.370
3310	50.000	110.000	44.400	73350	80550	4320	1.980
3311	55.000	120.000	49.200	86850	97200	3960	2.420
3312	60.000	130.000	54.000	101700	115200	3600	3.070
3313	65.000	140.000	58.700	117900	135000	3330	3.900
3314	70.000	150.000	63.500	137700	151200	3150	5.200
3315	75.000	160.000	68.300	154980	171900	2880	6.300
3316	80.000	170.000	68.300	163800	140400	3240	6.800
3317	85.000	180.000	73.000	175500	158480	3060	8.300
3318	90.000	190.000	73.000	175500	162000	2880	9.250
3319	95.000	200.000	77.800	202500	194400	2700	11.000
3320	100.000	215.000	82.600	229500	229500	2520	13.500

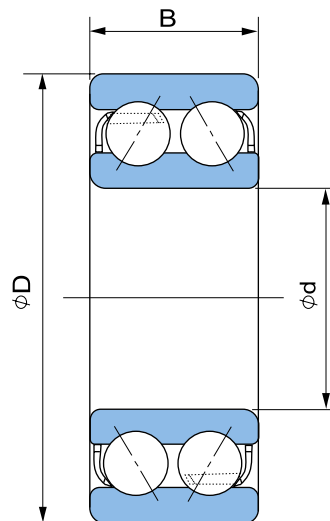
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
5200	10.000	30.000	14.300	6255	3420	17100	0.049
5201	12.000	52.000	15.900	8235	4545	15300	0.057
5202	15.000	35.000	15.900	9000	5445	13500	0.064
5203	17.000	40.000	17.500	11520	7110	11700	0.096
5204	20.000	47.000	20.600	17100	10890	10800	0.153
5205	25.000	52.000	20.600	18540	12870	8820	0.175
5206	30.000	62.000	23.800	25740	18360	7560	0.286
5207	35.000	72.000	27.000	34200	25020	6660	0.436
5208	40.000	80.000	30.200	38250	29250	5940	0.590
5209	45.000	85.000	30.200	43200	33300	5310	0.640
5210	50.000	90.000	30.200	45900	37800	4770	0.689
5211	55.000	100.000	33.300	56700	47700	4410	0.986
5212	60.000	110.000	36.500	64350	52650	4050	1.270
5213	65.000	120.000	38.100	75150	65250	3780	1.570
5214	70.000	125.000	39.700	81450	71550	3510	1.800
5215	75.000	130.000	41.300	81000	72450	3240	1.900
5216	80.000	140.000	44.400	95400	85950	3060	2.390
5217	85.000	150.000	49.200	100800	95400	2880	3.060
5218	90.000	160.000	54.400	126000	116100	2700	3.730
5219	95.000	170.000	55.600	143100	133200	2520	4.860
5220	100.000	180.000	60.300	160200	150300	2430	5.940


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG®



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Double Row Series : 53

105

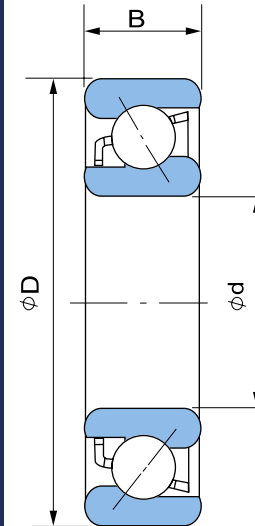
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
5303	17.000	47.000	22.200	18360	10890	10800	0.181
5304	20.000	52.000	22.200	18540	11430	9900	0.217
5305	25.000	62.000	25.400	27450	18450	8010	0.362
5306	30.000	72.000	30.200	35550	24750	6840	0.553
5307	35.000	80.000	34.900	44550	31500	5940	0.766
5308	40.000	90.000	36.500	54450	39600	5310	1.010
5309	45.000	100.000	39.700	65250	48600	4770	1.340
5310	50.000	110.000	44.400	76950	58050	4320	1.810
5311	55.000	120.000	49.200	95400	73800	3960	2.320
5312	60.000	130.000	54.000	109800	85950	3600	3.050
5313	65.000	140.000	58.700	124200	98100	3330	3.960
5314	70.000	150.000	63.500	139500	112500	3150	4.740
5315	75.000	160.000	68.300	151200	126900	2880	5.650
5316	80.000	170.000	68.300	172800	150300	3600	6.810

Angular Contact Ball Bearings AC



KG[®]

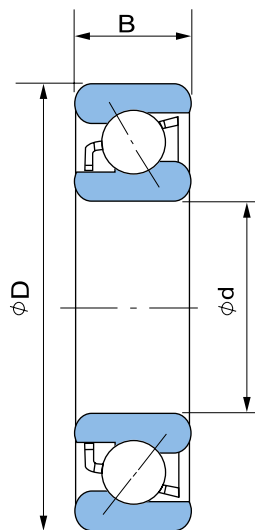
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
7000	10.000	26.000	8.000	4185	1863	35100	0.023
7001	12.000	28.000	8.000	4545	2214	31500	0.025
7002	15.000	32.000	9.000	5220	2835	27900	0.035
7003	17.000	35.000	10.000	6435	3465	25200	0.046
7004	20.000	42.000	12.000	8730	5040	22500	0.080
7005	25.000	47.000	12.000	9630	6165	18900	0.093
7006	30.000	55.000	13.000	12510	8505	16200	0.135
7007	35.000	62.000	14.000	15750	11340	14400	0.180
7008	40.000	68.000	15.000	16920	13140	12600	0.222
7009	45.000	75.000	16.000	20070	15930	11700	0.282
7010	50.000	80.000	16.000	21330	18090	9900	0.306
7011	55.000	90.000	18.000	27900	23670	9900	0.447
7012	60.000	95.000	18.000	28800	25290	8640	0.478
7013	65.000	100.000	18.000	30150	28350	8100	0.509
7014	70.000	110.000	20.000	38250	35550	7470	0.705
7015	75.000	115.000	20.000	39150	37350	7020	0.745
7016	80.000	125.000	22.000	48150	45450	6570	0.994
7017	85.000	130.000	22.000	49050	48150	6210	1.040
7018	90.000	140.000	24.000	58500	57150	5850	1.350
7019	95.000	145.000	24.000	60300	60300	5490	1.410
7020	100.000	150.000	24.000	61650	63450	5220	1.470
7022	110.000	170.000	28.000	82800	83700	4770	2.300
7024	120.000	180.000	28.000	84150	88650	4320	2.470
7026	130.000	200.000	33.000	105300	112500	3960	3.730
7028	140.000	210.000	33.000	108000	119700	3690	3.960
7030	150.000	225.000	35.000	123300	138600	3420	4.820

***Note:**

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KG®



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Single Row Series : 72

107

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
7200	10.000	30.000	9.000	4905	2466	33300	0.029
7201	12.000	32.000	10.000	6435	3140	29700	0.035
7202	15.000	35.000	11.000	8145	4230	26100	0.046
7203	17.000	40.000	12.000	10800	5940	23400	0.064
7204	20.000	47.000	14.000	13050	7560	20700	0.100
7205	25.000	52.000	15.000	14580	9270	17100	0.125
7206	30.000	62.000	16.000	20250	13320	14400	0.193
7207	35.000	72.000	17.000	26730	18090	12600	0.281
7208	40.000	80.000	18.000	31950	22590	11700	0.355
7209	45.000	85.000	19.000	35550	25830	10800	0.404
7210	50.000	90.000	20.000	37350	28350	9000	0.457
7211	55.000	100.000	21.000	45900	35550	8550	0.600
7212	60.000	110.000	22.000	55350	44100	7920	0.765
7213	65.000	120.000	23.000	63450	52200	7290	0.962
7214	70.000	125.000	24.000	68850	57150	6840	1.090
7215	75.000	130.000	25.000	71100	61650	6390	1.170
7216	80.000	140.000	26.000	80100	68400	5940	1.390
7217	85.000	150.000	28.000	89550	79650	5580	1.780
7218	90.000	160.000	30.000	106200	92700	5310	2.180
7219	95.000	170.000	32.000	119700	106200	4950	2.670
7220	100.000	180.000	34.000	129600	113400	4680	3.200
7221	105.000	190.000	36.000	141300	127800	4500	3.790
7222	110.000	200.000	38.000	153000	142200	4230	4.450
7224	120.000	215.000	40.000	164700	159300	3870	6.260
7226	130.000	230.000	40.000	176400	178200	3600	7.150
7228	140.000	250.000	42.000	182700	193500	3240	8.780
7230	150.000	270.000	45.000	208800	233100	3060	11.000

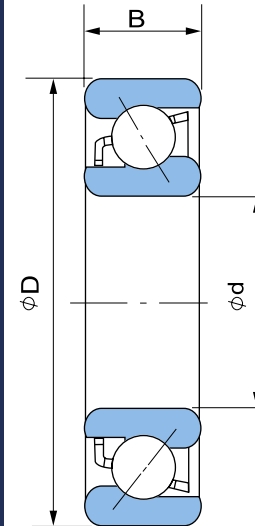
Angular Contact Ball Bearings AC



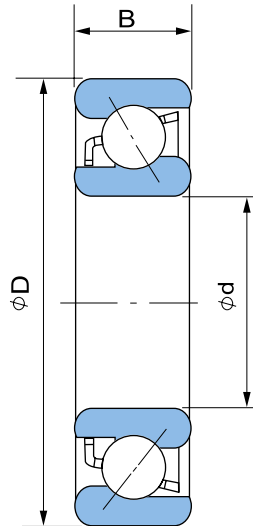


KG[®]

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
7300	10.000	35.000	11.000	9090	4455	30600	0.040
7301	12.000	37.000	12.000	10080	4725	27000	0.044
7302	15.000	42.000	13.000	12150	6480	23400	0.055
7303	17.000	47.000	14.000	14310	7785	21600	0.107
7304	20.000	52.000	15.000	16830	9360	18900	0.138
7305	25.000	62.000	17.000	23760	14220	15300	0.230
7306	30.000	72.000	19.000	30150	20070	13500	0.345
7307	35.000	80.000	21.000	36000	23670	11700	0.462
7308	40.000	90.000	23.000	44100	29700	10800	0.625
7309	45.000	100.000	25.000	57150	39150	9000	0.837
7310	50.000	110.000	27.000	66600	46800	8460	1.090
7311	55.000	120.000	29.000	77400	55350	7740	1.390
7312	60.000	130.000	31.000	88200	64350	7110	1.740
7313	65.000	140.000	33.000	99900	73800	6570	2.110
7314	70.000	150.000	35.000	112500	84150	6120	2.560
7315	75.000	160.000	37.000	122400	95400	5670	3.070
7316	80.000	170.000	39.000	132300	107100	5310	3.650
7317	85.000	180.000	41.000	143100	119700	5040	4.340
7318	90.000	190.000	43.000	153900	132300	4770	5.060
7319	95.000	200.000	45.000	164700	145800	4500	5.890
7320	100.000	215.000	47.000	186300	117300	4230	7.180
7321	105.000	225.000	48.000	198000	189000	4050	8.200
7322	110.000	240.000	50.000	221400	221400	3870	9.600
7324	120.000	260.000	55.000	221400	226800	3510	14.700
7326	130.000	280.000	58.000	245700	263700	3240	17.600
7328	140.000	300.000	62.000	270000	301500	2970	21.500
7330	150.000	320.000	65.000	297000	342000	2790	25.100

***Note:**

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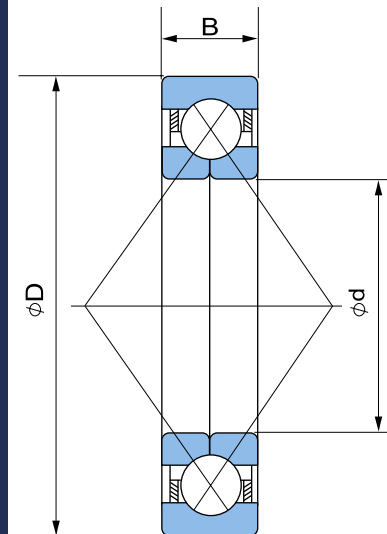
Single Row Series : 79

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
7905	25.000	42.000	9.000	6435	4455	19800	0.050
7906	30.000	47.000	9.000	6795	5175	17100	0.058
7907	35.000	55.000	10.000	10800	7965	15300	0.088
7908	40.000	62.000	12.000	11430	9180	13500	0.130
7909	45.000	68.000	12.000	14130	11610	12600	0.150
7910	50.000	72.000	12.000	14940	13050	10800	0.157
7911	55.000	80.000	13.000	15570	14490	9900	0.214
7912	60.000	85.000	13.000	16290	15660	9000	0.230
7913	65.000	90.000	13.000	16470	16200	8640	0.245
7914	70.000	100.000	16.000	23580	23580	8100	0.397
7915	75.000	105.000	16.000	23850	24390	7560	0.420
7916	80.000	110.000	16.000	24210	25200	7020	0.444
7917	85.000	120.000	18.000	32400	34200	6660	0.628
7918	90.000	125.000	18.000	32850	35550	6300	0.658
7919	95.000	130.000	18.000	33300	36450	5940	0.688
7920	100.000	140.000	20.000	43200	47250	5580	0.934
7921	105.000	145.000	20.000	43650	49050	5310	0.972
7922	110.000	150.000	20.000	44550	50400	5130	1.010
7924	120.000	165.000	22.000	54900	62550	4680	1.660
7926	130.000	180.000	24.000	67500	78750	4230	1.820
7928	140.000	190.000	24.000	67950	81000	3960	1.940
7930	150.000	210.000	28.000	87750	105300	3690	2.960

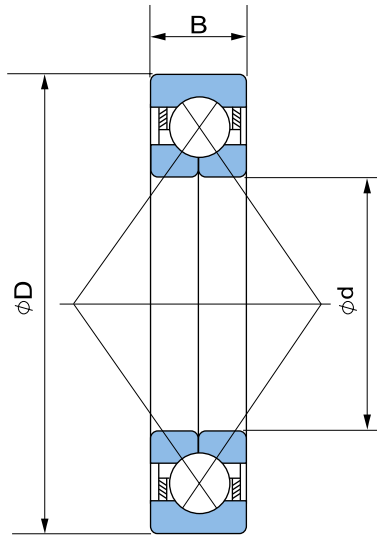
110

AC
Angular Contact Ball BearingsSeries : **QJ200****KG**[®]

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
QJ203	17.000	40.000	12.000	14310	9540	17100	0.082
QJ205	25.000	52.000	15.000	22590	18000	12600	0.160
QJ206	30.000	62.000	16.000	31590	25650	10800	0.240
QJ207	35.000	72.000	17.000	41580	35100	9000	0.350
QJ208	40.000	80.000	18.000	47430	40500	8100	0.450
QJ209	45.000	85.000	19.000	52650	45900	7650	0.520
QJ210	50.000	90.000	20.000	55620	50400	6750	0.590
QJ211	55.000	100.000	21.000	71370	68850	6300	0.770
QJ212	60.000	110.000	22.000	83070	77850	5670	0.990
QJ213	65.000	120.000	23.000	93600	93600	5040	1.200
QJ214	70.000	125.000	24.000	102600	102600	5040	1.300
QJ215	75.000	130.000	25.000	105300	109800	4770	1.450
QJ216	80.000	140.000	26.000	124200	131400	4320	1.850
QJ217	85.000	150.000	28.000	133200	144000	4050	2.250
QJ218	90.000	160.000	30.000	156600	167400	3870	2.750
QJ219	95.000	170.000	32.000	179100	190800	3600	3.350
QJ220	100.000	180.000	34.000	202500	216000	3420	4.050
QJ222	110.000	200.000	38.000	238500	274500	3060	5.600
QJ224	120.000	215.000	40.000	257400	306000	2880	6.950
QJ226	130.000	230.000	40.000	266400	328500	2520	7.750
QJ228	140.000	250.000	42.000	292500	396000	2340	9.850
QJ230	150.000	270.000	45.000	304200	418500	2160	12.500

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

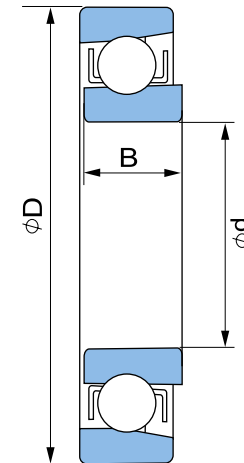
Series : **QJ300**

111

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
QJ303	17.000	47.000	14.000	21060	13500	15300	0.140
QJ304	20.000	52.000	15.000	26640	18000	13500	0.180
QJ306	30.000	72.000	19.000	44460	35100	9000	0.420
QJ307	35.000	80.000	21.000	53280	41850	8550	0.570
QJ308	40.000	90.000	23.000	64350	52650	7650	0.780
QJ309	45.000	100.000	25.000	84240	68850	6750	1.050
QJ310	50.000	110.000	27.000	99900	82350	6030	1.350
QJ311	55.000	120.000	29.000	114300	97200	5400	1.750
QJ312	60.000	130.000	31.000	131400	112500	5040	2.150
QJ313	65.000	140.000	33.000	148500	131400	4770	2.700
QJ314	70.000	150.000	35.000	167400	149400	4320	3.150
QJ315	75.000	160.000	37.000	179100	167400	4050	3.900
QJ316	80.000	170.000	39.000	194400	187200	3870	4.600
QJ317	85.000	180.000	41.000	210600	212400	3600	5.450
QJ318	90.000	190.000	43.000	238500	256500	3420	6.450
QJ319	95.000	200.000	45.000	257400	283500	3240	7.450
QJ320	100.000	215.000	47.000	276300	306000	3060	9.300
QJ322	110.000	240.000	50.000	327600	387000	2700	12.500
QJ324	120.000	260.000	55.000	351000	441000	2520	16.000
QJ326	130.000	280.000	58.000	380700	504000	2340	19.500
QJ328	140.000	300.000	62.000	421200	576000	2160	24.000
QJ330	150.000	320.000	65.000	444600	639000	1980	29.000

Angular Contact Ball Bearings
AC

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
E4	4.000	16.000	5.000	1485	259	36000	0.005
E5	5.000	16.000	5.000	1485	259	36000	0.004
E6	6.000	21.000	7.000	2241	400	32400	0.011
E7	7.000	22.000	7.000	2241	400	32400	0.013
E8	8.000	24.000	7.000	3105	585	30600	0.014
E9	9.000	28.000	8.000	4095	418	27000	0.022
E10	10.000	28.000	8.000	4095	418	27000	0.021
E11	11.000	32.000	7.000	3960	760	23400	0.029
E12	12.000	32.000	7.000	3960	760	23400	0.028
E13	13.000	30.000	7.000	3960	760	23400	0.021
E15	15.000	35.000	8.000	5220	1035	19800	0.034
B015	15.000	40.000	10.000	6660	1350	18000	0.055
L17	17.000	40.000	10.000	6660	1350	18000	0.051
B017	17.000	44.000	11.000	6615	1350	17100	0.080
E19	19.000	40.000	9.000	4545	927	18000	0.049
E20	20.000	47.000	12.000	9900	2142	15300	0.089
L20	20.000	47.000	14.000	9900	2142	15300	0.101

KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG Self-aligning Ball Bearings



KG

The Inner Ring of Self-aligning Bearings has two Raceways, and Outer Ring has one spherical Raceway with its center at the axis of Bearing. These Bearings have a self-aligning character, hence the name.

These Bearings are suitable for applications where small deflection of shaft may occur in usage.

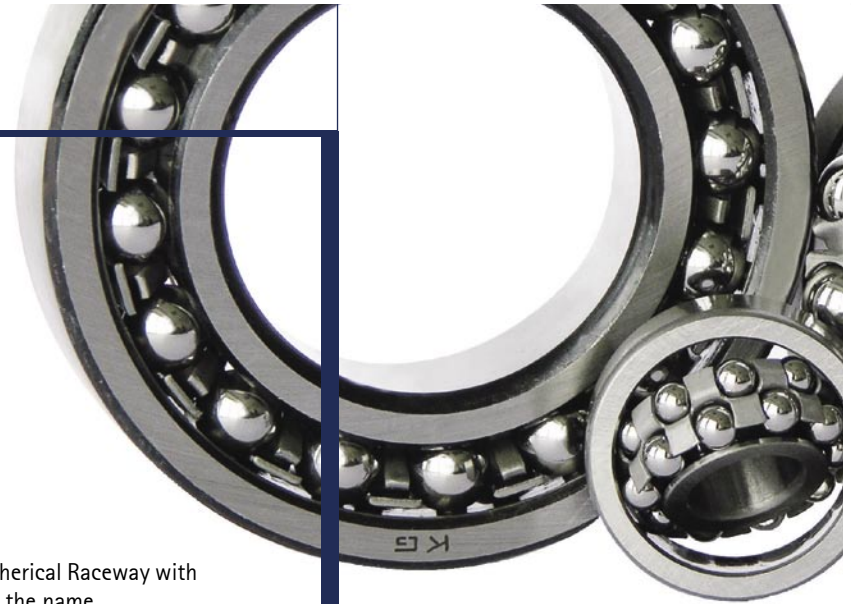
Self-aligning Ball Bearings are

- capable of carrying radial loads, but they are not suitable for axial loads
- suitable for low or medium speed applications only

KG can offer following variants

- open basic design type
- Straight Bore and Tapered Bore type
- Sealed type
- with C2, CN, C3, radial clearance
- with extended Inner Ring
- pressed Steel, machined Brass or Nylon Cage

KG also offers as a set, Tapered Bore Self-aligning Ball Bearings with Adapter Sleeves.



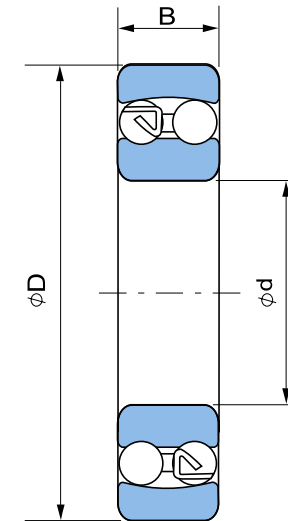


KG standard suffixes for Self-aligning Ball Bearings

C2	Radial internal clearance less than normal.
CN	Normal radial internal clearance. Generally, no special suffix is used in KG Bearings for normal radial internal clearance.
C3	Radial internal clearance higher than normal.
G1-G15	KG internal grease type codes. For details, please contact KG International FZCO.
K	Tapered Bore, with taper of 1:12.
M	Machined Brass Cage.
P	Nylon Cage.
P5	Dimensional and running accuracy confirming to ISO class 5.
Q1-Q1	KG internal reference codes. For details please contact KG International FZCO.
RS	Rubber Seal with Steel sheet reinforcement on one sides of the Bearing.
2RS	Rubber Seal with Steel sheet reinforcement on both sides of the Bearing.

Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.

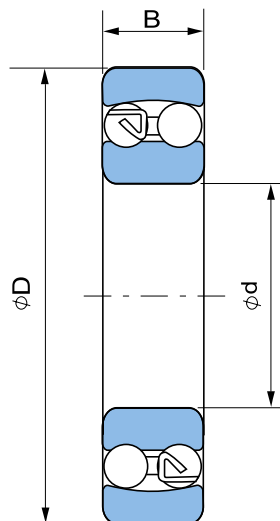
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
125	5.000	19.000	6.000	1870	360	32000	0.010
126	6.000	19.000	6.000	1870	360	32000	0.010
127	7.000	22.000	7.000	1980	420	30000	0.015
108	8.000	22.000	7.000	1980	420	30000	0.015
129	9.000	26.000	8.000	2900	610	27000	0.024
1200	10.000	30.000	9.000	4950	1071	21600	0.033
1201	12.000	32.000	10.000	5040	1143	19800	0.040
1202	15.000	35.000	11.000	6705	1575	17100	0.049
1203	17.000	40.000	12.000	7110	1809	15300	0.072
1204	20.000	47.000	14.000	8910	2349	13500	0.116
1205	25.000	52.000	15.000	10890	2970	11700	0.138
1206	30.000	62.000	16.000	14040	4185	9900	0.217
1207	35.000	72.000	17.000	14220	4590	8460	0.317
1208	40.000	80.000	18.000	17370	5895	7560	0.414
1209	45.000	85.000	19.000	19710	6615	6750	0.457
1210	50.000	90.000	20.000	20430	7290	6120	0.515
1211	55.000	100.000	21.000	24120	9000	5580	0.692
1212	60.000	110.000	22.000	27000	10350	5220	0.879
1213	65.000	120.000	23.000	27900	11250	4770	1.130
1214	70.000	125.000	24.000	31050	12420	4410	1.240
1215	75.000	130.000	25.000	35100	14131	4140	1.330
1216	80.000	140.000	26.000	36000	15300	3870	1.650
1217	85.000	150.000	28.000	44100	18720	3690	2.060
1218	90.000	160.000	30.000	51300	21150	3420	2.510
1219	95.000	170.000	32.000	57600	24390	3240	3.100
1220	100.000	180.000	34.000	62100	26730	3060	3.700
1221	105.000	190.000	36.000	67050	29250	2970	4.340
1222	110.000	200.000	38.000	72450	31950	2790	5.150
1224	120.000	215.000	40.000	89200	39800	2200	6.630


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG[®]



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Double Row Series : 13

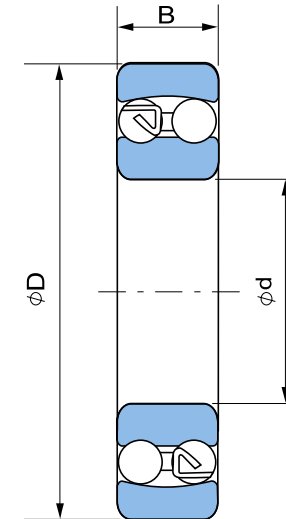
117

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
1300	10.000	35.000	11.000	6525	1458	18900	0.058
1301	12.000	37.000	12.000	8505	1944	16200	0.065
1302	15.000	42.000	13.000	8595	2070	14400	0.092
1303	17.000	47.000	14.000	11250	2880	12600	0.128
1304	20.000	52.000	15.000	11160	3015	11700	0.160
1305	25.000	62.000	17.000	16200	4500	9900	0.255
1306	30.000	72.000	19.000	19170	5670	8190	0.383
1307	35.000	80.000	21.000	22590	7065	7200	0.500
1308	40.000	90.000	23.000	26640	8730	6300	0.709
1309	45.000	100.000	25.000	34200	11430	5670	0.953
1310	50.000	110.000	27.000	39150	12690	5220	1.200
1311	55.000	120.000	29.000	46350	16110	4680	1.580
1312	60.000	130.000	31.000	51300	18720	4320	1.960
1313	65.000	140.000	33.000	55800	20610	4050	2.420
1314	70.000	150.000	35.000	67050	24930	3780	2.990
1315	75.000	160.000	37.000	71550	27000	3510	3.550
1316	80.000	170.000	39.000	79650	29700	3240	4.170
1317	85.000	180.000	41.000	87750	34200	3060	4.960
1318	90.000	190.000	43.000	104400	40050	2880	5.780
1319	95.000	200.000	45.000	118800	45900	2700	6.690
1320	100.000	215.000	47.000	128700	51750	2610	8.300
1321	105.000	225.000	49.000	140400	58050	2430	10.000
1322	110.000	240.000	50.000	147600	64350	2340	11.800

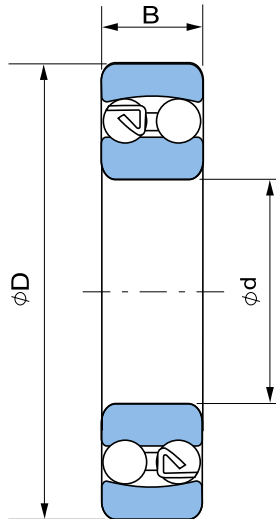
Self-aligning Ball Bearings SA



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
2200	10.000	30.000	14.000	6570	1431	20700	0.047
2201	12.000	32.000	14.000	6840	1557	18000	0.051
2202	15.000	35.000	14.000	6930	1665	16200	0.060
2203	17.000	40.000	16.000	8820	2169	14400	0.088
2204	20.000	47.000	18.000	11340	2970	12600	0.140
2205	25.000	52.000	18.000	11070	3105	10800	0.157
2206	30.000	62.000	20.000	13680	4050	9000	0.256
2207	35.000	72.000	23.000	19350	5940	7920	0.392
2208	40.000	80.000	23.000	20070	6615	7110	0.493
2209	45.000	85.000	23.000	20880	7335	6390	0.540
2210	50.000	90.000	23.000	20880	7605	5760	0.583
2211	55.000	100.000	25.000	23850	8910	5220	0.787
2212	60.000	110.000	28.000	30600	11340	4860	1.080
2213	65.000	120.000	31.000	39150	14760	4500	1.440
2214	70.000	125.000	31.000	39600	15390	4140	1.520
2215	75.000	130.000	31.000	40050	16020	3870	1.580
2216	80.000	140.000	33.000	43650	17910	3600	1.990
2217	85.000	150.000	36.000	52200	21240	3420	2.540
2218	90.000	160.000	40.000	63000	25830	3240	3.190
2219	95.000	170.000	43.000	75150	31050	3060	3.890
2220	100.000	180.000	46.000	84600	34650	2880	4.650


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



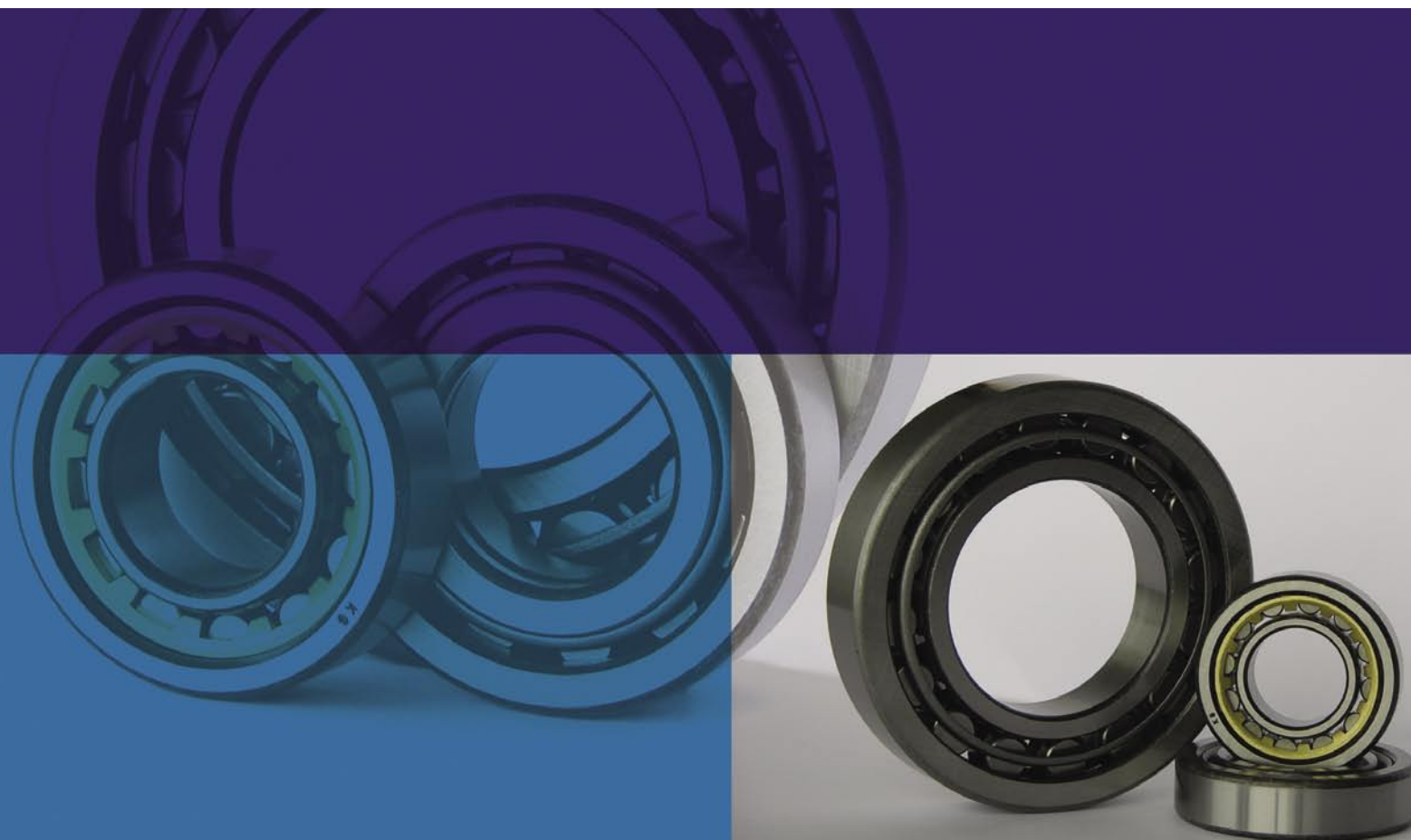
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Double Row Series : 23

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
2300	10.000	35.000	17.000	9090	1935	18000	0.083
2301	12.000	37.000	17.000	10620	2439	15300	0.091
2302	15.000	42.000	17.000	10800	2610	13500	0.114
2303	17.000	47.000	19.000	12960	3195	12600	0.156
2304	20.000	52.000	21.000	16290	3663	10800	0.206
2305	25.000	62.000	24.000	21960	5940	9000	0.334
2306	30.000	72.000	27.000	28350	7875	7650	0.496
2307	35.000	80.000	31.000	35550	10170	6660	0.671
2308	40.000	90.000	33.000	40500	12150	5940	0.918
2309	45.000	100.000	36.000	48600	15030	5310	1.230
2310	50.000	110.000	40.000	58050	18180	4860	1.630
2311	55.000	120.000	43.000	67950	21600	4410	2.100
2312	60.000	130.000	46.000	78300	25380	4050	2.590
2313	65.000	140.000	48.000	86400	29250	3780	3.200
2314	70.000	150.000	51.000	98100	33750	3510	3.920
2315	75.000	160.000	55.000	110700	38700	3240	4.780
2316	80.000	170.000	58.000	115200	40500	3060	5.650
2317	85.000	180.000	60.000	126000	46350	2880	6.550
2318	90.000	190.000	64.000	136800	51750	2700	7.750
2319	95.000	200.000	67.000	148500	58050	2520	9.050
2320	100.000	215.000	73.000	172800	71100	2430	11.500

Self-aligning Ball Bearings SA



KG[®]

Cylindrical Roller Bearings



KG[®]

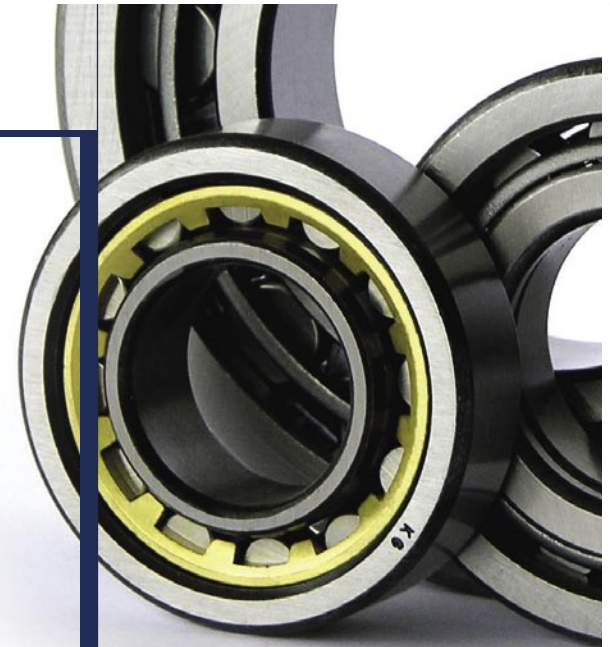
As the name implies, these Bearings have Cylindrical Rollers as Rolling Elements. They form a line contact with the Raceway of Inner and Outer Ring. KG Cylindrical Roller Bearings are produced in many variants, and can also be made as per special dimensional requirements, but within some basic design limitations.

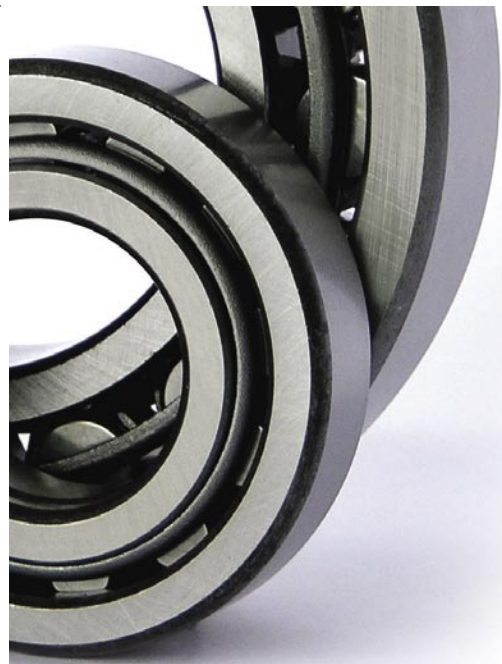
Cylindrical Roller Bearings are

- capable of carrying high radial loads but limited axial loads
- suitable for medium to high load applications
- suitable for low & medium speed applications
- suitable for applications requiring good running accuracy at higher radial loads

KG can offer following variants

- Single Row type - N, NF, NJ, NU & NUP
- Double Row type - NN & NNU (Details available on request)
- higher load capacity - E type
- with Snap Ring groove
- with Snap Ring groove and Snap Ring
- with C2, CN & C3 radial clearance
- standard precision grade P0 & higher precision grade P6 & P5
- pressed Steel, machined Brass or Steel Cage
- Straight or Taper bore





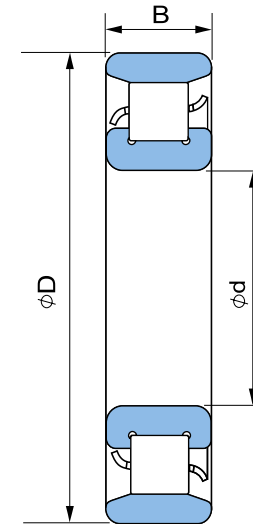
Standard suffixes for KG Cylindrical Roller Bearings

- A Modified internal design.
- C2 Radial internal clearance less than normal.
- CN Normal radial internal clearance. Generally, no special suffix is used in KG Bearings for normal radial internal clearance.
- C3 Radial internal clearance higher than normal.
- E Enhanced load capacity.
- K Tapered Bore, with taper of 1:12.
- M Machined Brass Cage.
- N Snap Ring groove in the Outer Ring.
- NR Snap Ring groove in the Outer Ring, with Snap Ring.
- P5 Dimensional and running accuracy confirming to ISO class 5.
- P6 Dimensional and running accuracy confirming to ISO class 6.
- Q1-Q3 KG internal reference codes. For details please contact KG International FZCO.



Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
N204	20.000	47.000	14.000	14940	12510	18000	0.109
N205	25.000	52.000	15.000	16920	15300	14400	0.134
N206	30.000	62.000	16.000	22410	20970	12600	0.203
N207	35.000	72.000	17.000	31950	30600	10800	0.289
N208	40.000	80.000	18.000	39420	38700	9900	0.370
N209	45.000	85.000	19.000	41400	42300	8910	0.423
N210	50.000	90.000	20.000	45450	49050	8100	0.460
N211	55.000	100.000	21.000	54900	59850	7380	0.626
N212	60.000	110.000	22.000	64800	72000	6840	0.802
N213	65.000	120.000	23.000	75600	85050	6300	1.000
N214	70.000	125.000	24.000	78750	90900	5850	1.100
N215	75.000	130.000	25.000	90900	106200	5400	1.210
N216	80.000	140.000	26.000	99900	117000	5130	1.470
N217	85.000	150.000	28.000	113400	134100	4770	1.830
N218	90.000	160.000	30.000	136800	160200	4500	2.250
N219	95.000	170.000	32.000	149400	175500	4230	2.720
N220	100.000	180.000	34.000	164700	195300	4050	3.260
N221	105.000	190.000	36.000	180900	216900	3870	3.870
N222	110.000	200.000	38.000	216000	261000	3600	4.540
N224	120.000	215.000	40.000	244800	306000	3330	5.460
N226	130.000	230.000	40.000	253800	324000	3060	6.170
N228	140.000	250.000	42.000	292500	378000	2790	7.720
N230	150.000	270.000	45.000	337500	441000	2610	9.720

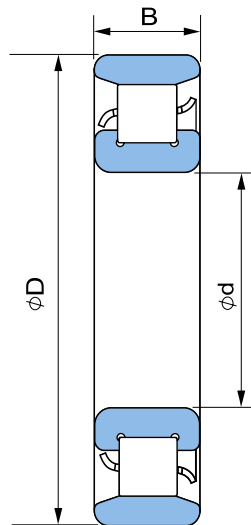
KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : N3

125



***Note:**

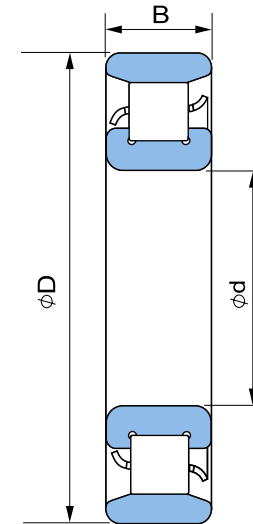
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
N304	20.000	52.000	15.000	20790	17280	15300	0.149
N305	25.000	62.000	17.000	28350	24930	12600	0.235
N306	30.000	72.000	19.000	34650	31500	10800	0.350
N307	35.000	80.000	21.000	44550	42300	9900	0.451
N308	40.000	90.000	23.000	52650	51300	8460	0.643
N309	45.000	100.000	25.000	71100	69750	7560	0.857
N310	50.000	110.000	27.000	78300	77400	6930	1.110
N311	55.000	120.000	29.000	99900	99900	6300	1.420
N312	60.000	120.000	31.000	111600	113400	5850	1.760
N313	65.000	140.000	33.000	121500	125100	5400	2.180
N314	70.000	150.000	35.000	142200	151200	4950	2.650
N315	75.000	160.000	37.000	171000	184500	4680	3.210
N316	80.000	170.000	39.000	180900	200700	4320	3.770
N317	85.000	180.000	41.000	202500	222300	4140	4.440
N318	90.000	190.000	43.000	216000	238500	3870	5.180
N319	95.000	200.000	45.000	246600	279000	3600	5.990
N320	100.000	215.000	47.000	283500	328500	3420	7.320
N321	105.000	225.000	49.000	324000	373500	3330	8.330
N322	110.000	240.000	50.000	360000	418500	3150	9.770
N324	120.000	260.000	55.000	427500	495000	2880	12.500
N326	130.000	280.000	58.000	504000	598500	2610	17.000
N328	140.000	300.000	62.000	553500	670500	2430	20.700
N330	150.000	320.000	65.000	598500	724500	2250	24.700

Cylindrical Roller Bearings CR



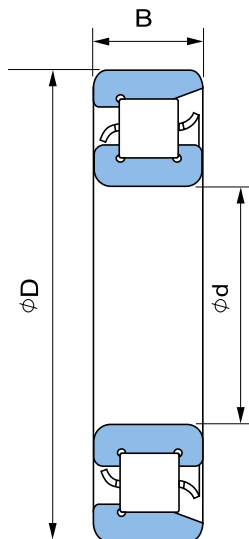
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
N405	25.000	80.000	21.000	41850	36000	9000	0.536
N406	30.000	90.000	23.000	56250	49500	7650	0.732
N407	35.000	100.000	25.000	67950	62100	6750	0.965
N408	40.000	110.000	27.000	85950	80100	6030	1.270
N409	45.000	120.000	29.000	103500	100800	5400	1.580
N410	50.000	130.000	31.000	125100	122400	4950	1.970
N411	55.000	140.000	33.000	125100	124200	4500	2.420
N412	60.000	150.000	5.000	150300	151200	4140	2.930
N413	65.000	160.000	37.000	175500	182700	3870	3.500
N414	70.000	180.000	42.000	218700	231300	3600	5.100
N415	75.000	190.000	45.000	235800	246600	3330	6.060
N416	80.000	200.000	48.000	269100	283500	3150	7.140
N417	85.000	210.000	52.000	301500	315000	2970	9.170
N418	90.000	225.000	54.000	337500	360000	2790	10.900
N419	95.000	240.000	55.000	360000	400500	2610	12.900
N420	100.000	250.000	58.000	400500	445500	2520	14.500
N421	105.000	260.000	60.000	445500	499500	2340	16.200
N422	110.000	280.000	65.000	495000	558000	2250	20.600
N424	120.000	310.000	72.000	607500	693000	2070	28.200
N426	130.000	340.000	78.000	742500	859500	1890	36.800
N428	140.000	360.000	82.000	787500	918000	1710	43.200
N430	150.000	380.000	85.000	837000	1008000	1620	49.600

KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : NF2

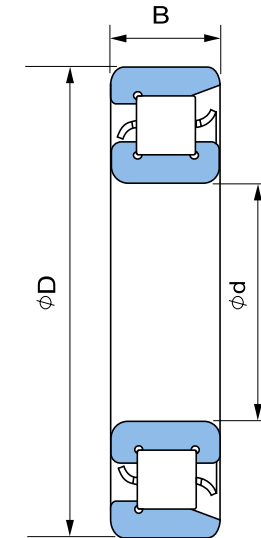


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NF204	20.000	47.000	14.000	14940	12510	18000	0.109
NF205	25.000	52.000	15.000	16920	15300	14400	0.134
NF206	30.000	62.000	16.000	22410	20970	12600	0.203
NF207	35.000	72.000	17.000	31950	30600	10800	0.289
NF208	40.000	80.000	18.000	39420	38700	9900	0.370
NF209	45.000	85.000	19.000	41400	42300	8910	0.423
NF210	50.000	90.000	20.000	45450	49050	8100	0.460
NF211	55.000	100.000	21.000	54900	59850	7380	0.626
NF212	60.000	110.000	22.000	64800	72000	6840	0.802
NF213	65.000	120.000	23.000	75600	85050	6300	1.000
NF214	70.000	125.000	24.000	78750	90900	5850	1.100
NF215	75.000	130.000	25.000	90900	106200	5400	1.210
NF216	80.000	140.000	26.000	99900	117000	5130	1.470
NF217	85.000	150.000	28.000	113400	134100	4770	1.830
NF218	90.000	160.000	30.000	136800	160200	4500	2.250
NF219	95.000	170.000	32.000	149400	175500	4230	2.720
NF220	100.000	180.000	34.000	164700	195300	4050	3.260
NF221	105.000	190.000	36.000	180900	216900	3870	3.870
NF222	110.000	200.000	38.000	216000	261000	3600	4.540
NF224	120.000	215.000	40.000	244800	306000	3330	5.460
NF226	130.000	230.000	40.000	253800	324000	3060	6.170
NF228	140.000	250.000	42.000	292500	378000	2790	7.720
NF230	150.000	270.000	45.000	337500	441000	2610	9.720



KG[®]***Note:**

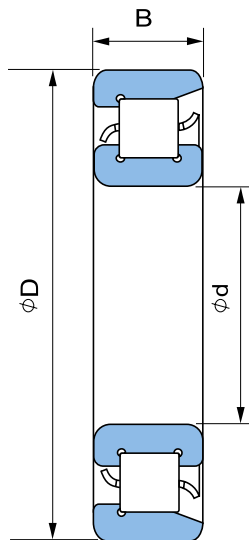
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NF304	20.000	52.000	15.000	20790	17280	15300	0.149
NF305	25.000	62.000	17.000	28350	24930	12600	0.235
NF306	30.000	72.000	19.000	34650	31500	10800	0.350
NF307	35.000	80.000	21.000	44550	42300	9900	0.451
NF308	40.000	90.000	23.000	52650	51300	8460	0.643
NF309	45.000	100.000	25.000	71100	69750	7560	0.857
NF310	50.000	110.000	27.000	78300	77400	6930	1.110
NF311	55.000	120.000	29.000	99900	99900	6300	1.420
NF312	60.000	130.000	31.000	111600	113400	5850	1.760
NF313	65.000	140.000	33.000	121500	125100	5400	2.180
NF314	70.000	150.000	35.000	142200	151200	4950	2.650
NF315	75.000	160.000	37.000	171000	184500	4680	3.210
NF316	80.000	170.000	39.000	180900	200700	4320	3.770
NF317	85.000	180.000	41.000	202500	222300	4140	4.440
NF318	90.000	190.000	43.000	216000	238500	3870	5.180
NF319	95.000	200.000	45.000	246600	279000	3600	5.990
NF320	100.000	215.000	47.000	283500	328500	3420	7.320
NF321	105.000	225.000	49.000	324000	373500	3330	8.330
NF322	110.000	240.000	50.000	360000	418500	3150	9.770
NF324	120.000	260.000	55.000	427500	495000	2880	12.500
NF326	130.000	280.000	58.000	504000	598500	2610	17.000
NF328	140.000	300.000	62.000	553500	670500	2430	20.700
NF330	150.000	320.000	65.000	598500	724500	2250	24.700



Single Row Series : NF4

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***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NF405	25.000	80.000	21.000	41850	36000	9000	0.536
NF406	30.000	90.000	23.000	56250	49500	7650	0.732
NF407	35.000	100.000	25.000	67950	62100	6750	0.965
NF408	40.000	110.000	27.000	85950	80100	6030	1.270
NF409	45.000	120.000	29.000	103500	100800	5400	1.580
NF410	50.000	130.000	31.000	125100	122400	4950	1.970
NF411	55.000	140.000	33.000	125100	124200	4500	2.420
NF412	60.000	150.000	35.000	150300	151200	4140	2.930
NF413	65.000	160.000	37.000	175500	182700	3870	3.500
NF414	70.000	180.000	42.000	218700	231300	3600	5.100
NF415	75.000	190.000	45.000	235800	246600	3330	6.060
NF416	80.000	200.000	48.000	269100	283500	3150	7.140
NF417	85.000	210.000	52.000	301500	315000	2970	9.170
NF418	90.000	225.000	54.000	337500	360000	2790	10.900
NF419	95.000	240.000	55.000	360000	400500	2610	12.900
NF420	100.000	250.000	58.000	400500	445500	2520	14.500
NF421	105.000	260.000	60.000	445500	499500	2340	16.200
NF422	110.000	280.000	65.000	495000	558000	2250	20.600
NF424	120.000	310.000	72.000	607500	693000	2070	28.200
NF426	130.000	340.000	78.000	742500	859500	1890	36.800
NF428	140.000	360.000	82.000	787500	918000	1710	43.200
NF430	150.000	380.000	85.000	837000	1008000	1620	49.600

Cylindrical Roller Bearings CR

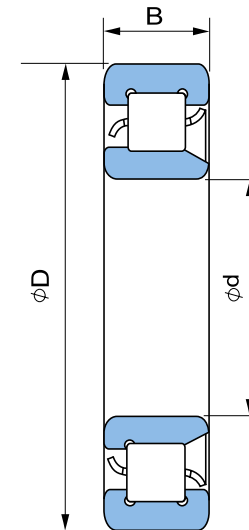


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Single Row

Series : **NJ2****KG**[®]CR
Cylindrical Roller Bearings

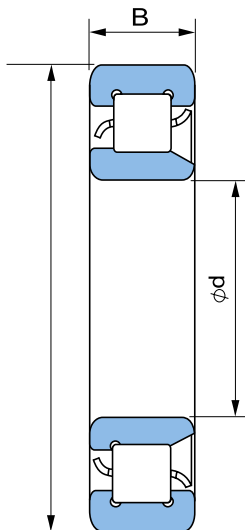
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NJ204	20.000	47.000	14.000	14940	12510	18000	0.109
NJ205	25.000	52.000	15.000	16920	15300	14400	0.134
NJ206	30.000	62.000	16.000	22410	20970	12600	0.203
NJ207	35.000	72.000	17.000	31950	30600	10800	0.289
NJ208	40.000	80.000	18.000	39420	38700	9900	0.370
NJ209	45.000	85.000	19.000	41400	42300	8910	0.423
NJ210	50.000	90.000	20.000	45450	49050	8100	0.460
NJ211	55.000	100.000	21.000	54900	59850	7380	0.626
NJ212	60.000	110.000	22.000	64800	72000	6840	0.802
NJ213	65.000	120.000	23.000	75600	85050	6300	1.000
NJ214	70.000	125.000	24.000	78750	90900	5850	1.100
NJ215	75.000	130.000	25.000	90900	106200	5400	1.210
NJ216	80.000	140.000	26.000	99900	117000	5130	1.470
NJ217	85.000	150.000	28.000	113400	134100	4770	1.830
NJ218	90.000	160.000	30.000	136800	160200	4500	2.250
NJ219	95.000	170.000	32.000	149400	175500	4230	2.720
NJ220	100.000	180.000	34.000	164700	195300	4050	3.260
NJ221	105.000	190.000	36.000	180900	216900	3870	3.870
NJ222	110.000	200.000	38.000	216000	261000	3600	4.540
NJ224	120.000	215.000	40.000	244800	306000	3330	5.460
NJ226	130.000	230.000	40.000	253800	324000	3060	6.170
NJ228	140.000	250.000	42.000	292500	378000	2790	7.720
NJ230	150.000	270.000	45.000	337500	441000	2610	9.720

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



KG®



Single Row Series : NJ3

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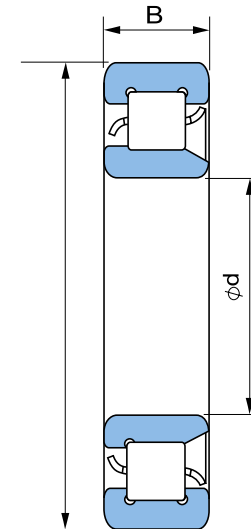
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NJ304	20.000	52.000	15.000	20790	17280	15300	0.149
NJ305	25.000	62.000	17.000	28350	24930	12600	0.235
NJ306	30.000	72.000	19.000	34650	31500	10800	0.350
NJ307	35.000	80.000	21.000	44550	42300	9900	0.451
NJ308	40.000	90.000	23.000	52650	51300	8460	0.643
NJ309	45.000	100.000	25.000	71100	69750	7560	0.857
NJ310	50.000	110.000	27.000	78300	77400	6930	1.110
NJ311	55.000	120.000	29.000	99900	99900	6300	1.420
NJ312	60.000	120.000	31.000	111600	113400	5850	1.760
NJ313	65.000	140.000	33.000	121500	125100	5400	2.180
NJ314	70.000	150.000	35.000	142200	151200	4950	2.650
NJ315	75.000	160.000	37.000	171000	184500	4680	3.210
NJ316	80.000	170.000	39.000	180900	200700	4320	3.770
NJ317	85.000	180.000	41.000	202500	222300	4140	4.440
NJ318	90.000	190.000	43.000	216000	238500	3870	5.180
NJ319	95.000	200.000	45.000	246600	279000	3600	5.990
NJ320	100.000	215.000	47.000	283500	328500	3420	7.320
NJ321	105.000	225.000	49.000	324000	373500	3330	8.330
NJ322	110.000	240.000	50.000	360000	418500	3150	9.770
NJ324	120.000	260.000	55.000	427500	495000	2880	12.500
NJ326	130.000	280.000	58.000	504000	598500	2610	17.000
NJ328	140.000	300.000	62.000	553500	670500	2430	20.700
NJ330	150.000	320.000	65.000	598500	724500	2250	24.700

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Cylindrical Roller Bearings CR



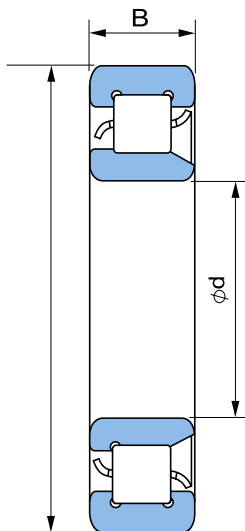
KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NJ405	25.000	80.000	21.000	41850	36000	9000	0.550
NJ406	30.000	90.000	23.000	56250	49500	7650	0.751
NJ407	35.000	100.000	25.000	67950	62100	6750	0.990
NJ408	40.000	110.000	27.000	85950	80100	6030	1.300
NJ409	45.000	120.000	29.000	103500	100800	5400	1.620
NJ410	50.000	130.000	31.000	125100	122400	4950	2.020
NJ411	55.000	140.000	33.000	125100	124200	4500	2.480
NJ412	60.000	150.000	5.000	150300	151200	4140	3.000
NJ413	65.000	160.000	37.000	175500	182700	3870	3.600
NJ414	70.000	180.000	42.000	218700	231300	3600	5.240
NJ415	75.000	190.000	45.000	235800	246600	3330	6.220
NJ416	80.000	200.000	48.000	269100	283500	3150	7.320
NJ417	85.000	210.000	52.000	301500	315000	2970	9.400
NJ418	90.000	225.000	54.000	337500	360000	2790	11.200
NJ419	95.000	240.000	55.000	360000	400500	2610	13.200
NJ420	100.000	250.000	58.000	400500	445500	2520	14.900
NJ421	105.000	260.000	60.000	445500	499500	2340	16.600
NJ422	110.000	280.000	65.000	495000	558000	2250	21.100
NJ424	120.000	310.000	72.000	607500	693000	2070	28.900
NJ426	130.000	340.000	78.000	742500	859500	1890	37.700
NJ428	140.000	360.000	82.000	787500	918000	1710	44.300
NJ430	150.000	380.000	85.000	837000	1008000	1620	50.800



KG®



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Single Row Series : NJ22

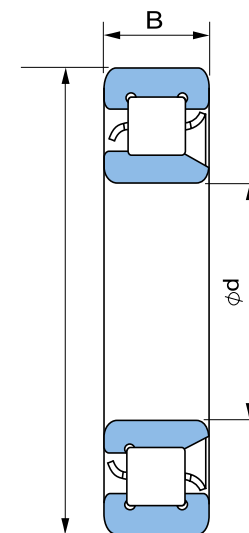
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Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NJ2204	20.000	47.000	18.000	19980	18270	16200	0.144
NJ2205	25.000	52.000	18.000	22590	22230	13500	0.166
NJ2206	30.000	62.000	20.000	31500	32400	11700	0.255
NJ2207	35.000	72.000	23.000	46800	49950	9900	0.404
NJ2208	40.000	80.000	23.000	52200	55800	9000	0.490
NJ2209	45.000	85.000	23.000	55350	61200	8100	0.530
NJ2210	50.000	90.000	23.000	60750	70650	7290	0.571
NJ2211	55.000	100.000	25.000	71100	83700	6660	0.773
NJ2212	60.000	110.000	28.000	90900	110700	6120	1.060
NJ2213	65.000	120.000	31.000	108000	134100	5670	1.400
NJ2214	70.000	125.000	31.000	112500	144000	5310	1.470
NJ2215	75.000	130.000	31.000	122400	154800	4950	1.550
NJ2216	80.000	140.000	33.000	138600	178200	4590	2.010
NJ2217	85.000	150.000	36.000	160200	208800	4320	2.440
NJ2218	90.000	160.000	40.000	186300	238500	4140	3.100
NJ2219	95.000	170.000	43.000	207000	268200	3870	3.790
NJ2220	100.000	180.000	46.000	232200	306000	3690	4.570
NJ2222	110.000	200.000	53.000	301500	396000	3330	6.560
NJ2224	120.000	215.000	58.000	342000	472500	3060	8.190
NJ2226	130.000	230.000	64.000	355500	504000	2790	10.200
NJ2228	140.000	250.000	68.000	418500	603000	2520	12.900
NJ2230	150.000	270.000	73.000	490500	720000	2340	16.300

Cylindrical Roller Bearings CR



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NJ2304	20.000	52.000	21.000	29700	27000	13500	0.250
NJ2305	25.000	62.000	24.000	41400	40500	10800	0.343
NJ2306	30.000	72.000	27.000	46350	45900	9900	0.520
NJ2307	35.000	80.000	31.000	58050	58950	8370	0.720
NJ2308	40.000	90.000	33.000	74250	79200	7380	0.951
NJ2309	45.000	100.000	36.000	95400	101700	6660	1.270
NJ2310	50.000	110.000	40.000	108900	117900	6030	1.700
NJ2311	55.000	120.000	43.000	133200	145800	5490	2.170
NJ2312	60.000	120.000	46.000	152100	169200	5130	2.710
NJ2313	65.000	140.000	48.000	169200	190800	4680	3.270
NJ2314	70.000	150.000	51.000	200700	235800	4320	3.980
NJ2315	75.000	160.000	55.000	246600	292500	4050	4.870
NJ2316	80.000	170.000	58.000	246600	297000	3780	5.790
NJ2317	85.000	180.000	60.000	283500	342000	3600	6.700
NJ2318	90.000	190.000	64.000	292500	355500	3420	7.950
NJ2319	95.000	200.000	67.000	355500	445500	3150	9.200
NJ2320	100.000	215.000	73.000	414000	531000	3060	11.700
NJ2322	110.000	240.000	80.000	544500	711000	2790	17.100
NJ2324	120.000	260.000	86.000	639000	828000	2520	21.500
NJ2326	130.000	280.000	93.000	756000	1017000	2340	29.600
NJ2328	140.000	300.000	102.000	828000	1125000	2070	33.800
NJ2330	150.000	320.000	108.000	918000	1260000	1980	40.600

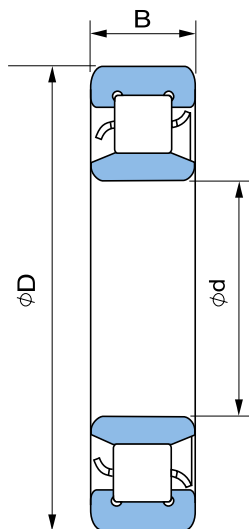
KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : NU2

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***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

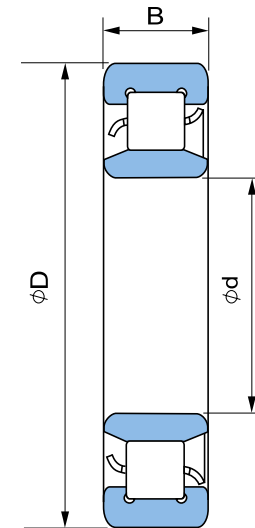
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU203	17.000	40.000	12.000	9400	6000	16000	0.068
NU204	20.000	47.000	14.000	14940	12510	18000	0.111
NU205	25.000	52.000	15.000	16920	15300	14400	0.137
NU206	30.000	62.000	16.000	22410	20970	12600	0.207
NU207	35.000	72.000	17.000	31950	30600	10800	0.295
NU208	40.000	80.000	18.000	39420	38700	9900	0.378
NU209	45.000	85.000	19.000	41400	42300	8910	0.432
NU210	50.000	90.000	20.000	45450	49050	8100	0.470
NU211	55.000	100.000	21.000	54900	59850	7380	0.638
NU212	60.000	110.000	22.000	64800	72000	6840	0.818
NU213	65.000	120.000	23.000	75600	85050	6300	1.020
NU214	70.000	125.000	24.000	78750	90900	5850	1.120
NU215	75.000	130.000	25.000	90900	106200	5400	1.230
NU216	80.000	140.000	26.000	99900	117000	5130	1.500
NU217	85.000	150.000	28.000	113400	134100	4770	1.870
NU218	90.000	160.000	30.000	136800	160200	4500	2.300
NU219	95.000	170.000	32.000	149400	175500	4230	2.780
NU220	100.000	180.000	34.000	164700	195300	4050	3.330
NU221	105.000	190.000	36.000	180900	216900	3870	3.950
NU222	110.000	200.000	38.000	216000	261000	3600	4.630
NU224	120.000	215.000	40.000	244800	306000	3330	5.570
NU226	130.000	230.000	40.000	253800	324000	3060	6.300
NU228	140.000	250.000	42.000	292500	378000	2790	7.880
NU230	150.000	270.000	45.000	337500	441000	2610	9.920

Cylindrical Roller Bearings CR



Single Row Series : NU3

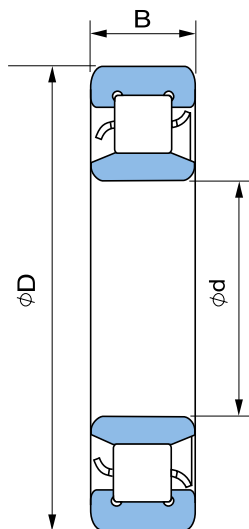
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU304	20.000	52.000	15.000	20790	17280	15300	0.153
NU305	25.000	62.000	17.000	28350	24930	12600	0.241
NU306	30.000	72.000	19.000	34650	31500	10800	0.358
NU307	35.000	80.000	21.000	44550	42300	9900	0.461
NU308	40.000	90.000	23.000	52650	51300	8460	0.658
NU309	45.000	100.000	25.000	71100	69750	7560	0.877
NU310	50.000	110.000	27.000	78300	77400	6930	1.140
NU311	55.000	120.000	29.000	99900	99900	6300	1.450
NU312	60.000	120.000	31.000	111600	113400	5850	1.800
NU313	65.000	140.000	33.000	121500	125100	5400	2.230
NU314	70.000	150.000	35.000	142200	151200	4950	2.710
NU315	75.000	160.000	37.000	171000	184500	4680	3.280
NU316	80.000	170.000	39.000	180900	200700	4320	3.860
NU317	85.000	180.000	41.000	202500	222300	4140	4.540
NU318	90.000	190.000	43.000	216000	238500	3870	5.300
NU319	95.000	200.000	45.000	246600	279000	3600	6.130
NU320	100.000	215.000	47.000	283500	328500	3420	7.490
NU321	105.000	225.000	49.000	324000	373500	3330	8.530
NU322	110.000	240.000	50.000	360000	418500	3150	10.000
NU324	120.000	260.000	55.000	427500	495000	2880	12.800
NU326	130.000	280.000	58.000	504000	598500	2610	17.400
NU328	140.000	300.000	62.000	553500	670500	2430	21.200
NU330	150.000	320.000	65.000	598500	724500	2250	25.300


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : **NU4**

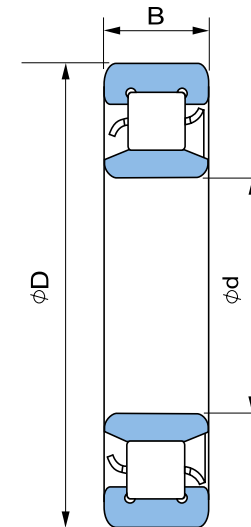


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU405	25.000	80.000	21.000	41850	36000	9000	0.550
NU406	30.000	90.000	23.000	56250	49500	7650	0.751
NU407	35.000	100.000	25.000	67950	62100	6750	0.990
NU408	40.000	110.000	27.000	85950	80100	6030	1.300
NU409	45.000	120.000	29.000	103500	100800	5400	1.620
NU410	50.000	130.000	31.000	125100	122400	4950	2.020
NU411	55.000	140.000	33.000	125100	124200	4500	2.480
NU412	60.000	150.000	5.000	150300	151200	4140	3.000
NU413	65.000	160.000	37.000	175500	182700	3870	3.600
NU414	70.000	180.000	42.000	218700	231300	3600	5.240
NU415	75.000	190.000	45.000	235800	246600	3330	6.220
NU416	80.000	200.000	48.000	269100	283500	3150	7.320
NU417	85.000	210.000	52.000	301500	315000	2970	9.400
NU418	90.000	225.000	54.000	337500	360000	2790	11.200
NU419	95.000	240.000	55.000	360000	400500	2610	13.200
NU420	100.000	250.000	58.000	400500	445500	2520	14.900
NU421	105.000	260.000	60.000	445500	499500	2340	16.600
NU422	110.000	280.000	65.000	495000	558000	2250	21.100
NU424	120.000	310.000	72.000	607500	693000	2070	28.900
NU426	130.000	340.000	78.000	742500	859500	1890	37.700
NU428	140.000	360.000	82.000	787500	918000	1710	44.300
NU430	150.000	380.000	85.000	837000	1008000	1620	50.800



KG[®]***Note:**

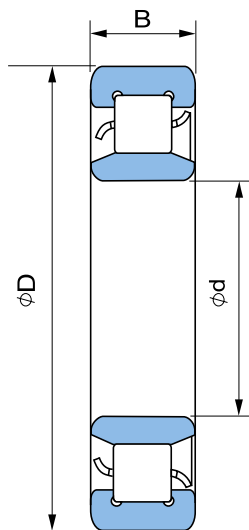
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU1005	25.000	47.000	12.000	13590	12690	17100	0.092
NU1006	30.000	55.000	13.000	17730	17640	14400	0.130
NU1007	35.000	62.000	14.000	20340	20880	13500	0.179
NU1008	40.000	68.000	15.000	24570	26100	11700	0.220
NU1009	45.000	75.000	16.000	27900	30600	10800	0.280
NU1010	50.000	80.000	16.000	28800	32400	9900	0.295
NU1011	55.000	90.000	18.000	33750	39600	8730	0.442
NU1012	60.000	95.000	18.000	36000	43650	7920	0.474
NU1013	65.000	100.000	18.000	36900	45900	7380	0.485
NU1014	70.000	110.000	20.000	52650	63450	6840	0.699
NU1015	75.000	115.000	20.000	54000	67050	6390	0.738
NU1016	80.000	125.000	22.000	65250	81450	6030	0.980
NU1017	85.000	130.000	22.000	67050	85950	5670	1.030
NU1018	90.000	140.000	24.000	79200	102600	5310	1.330
NU1019	95.000	145.000	24.000	81450	108000	5040	1.400
NU1020	100.000	150.000	24.000	83700	113400	4860	1.450
NU1021	105.000	160.000	26.000	94500	127800	4590	1.840
NU1022	110.000	170.000	28.000	117900	156600	4320	2.330
NU1024	120.000	180.000	28.000	125100	171900	3960	2.440
NU1026	130.000	200.000	33.000	154800	214200	3600	3.690
NU1028	140.000	210.000	33.000	158400	225000	3420	4.050
NU1030	150.000	225.000	35.000	181800	264600	3150	4.770



Single Row Series : **NU22**

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***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU2204	20.000	47.000	18.000	19980	18270	16200	0.144
NU2205	25.000	52.000	18.000	22590	22230	13500	0.166
NU2206	30.000	62.000	20.000	31500	32400	11700	0.261
NU2207	35.000	72.000	23.000	46800	49950	9900	0.404
NU2208	40.000	80.000	23.000	52200	55800	9000	0.490
NU2209	45.000	85.000	23.000	55350	61200	8100	0.530
NU2210	50.000	90.000	23.000	60750	70650	7290	0.571
NU2211	55.000	100.000	25.000	71100	83700	6660	0.773
NU2212	60.000	110.000	28.000	90900	110700	6120	1.060
NU2213	65.000	120.000	31.000	108000	134100	5670	1.400
NU2214	70.000	125.000	31.000	112500	144000	5310	1.470
NU2215	75.000	130.000	31.000	122400	154800	4950	1.550
NU2216	80.000	140.000	33.000	138600	178200	4590	1.930
NU2217	85.000	150.000	36.000	160200	208800	4320	2.440
NU2218	90.000	160.000	40.000	186300	238500	4140	3.100
NU2219	95.000	170.000	43.000	207000	268200	3870	3.790
NU2220	100.000	180.000	46.000	232200	306000	3690	4.570
NU2222	110.000	200.000	53.000	301500	396000	3330	6.560
NU2224	120.000	215.000	58.000	342000	472500	3060	8.190
NU2226	130.000	230.000	64.000	355500	504000	2790	10.200
NU2228	140.000	250.000	68.000	418500	603000	2520	12.900
NU2230	150.000	270.000	73.000	490500	720000	2340	16.300

Cylindrical Roller Bearings CR



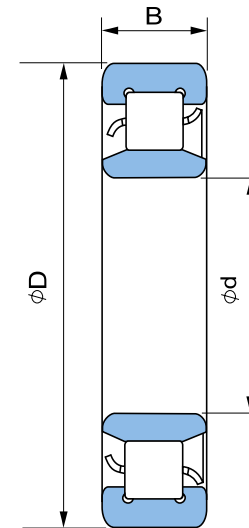
140

Single Row

Series : **NU23****KG**[®]

Cylindrical Roller Bearings

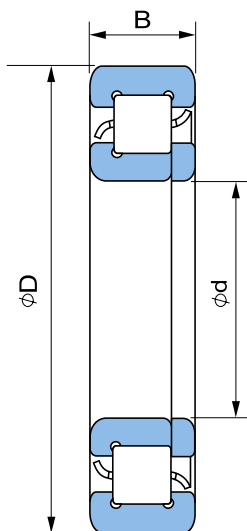
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NU2304	20.000	52.000	21.000	29700	27000	13500	0.250
NU2305	25.000	62.000	24.000	41400	40500	10800	0.343
NU2306	30.000	72.000	27.000	46350	45900	9900	0.513
NU2307	35.000	80.000	31.000	58050	58950	8370	0.712
NU2308	40.000	90.000	33.000	74250	79200	7380	0.951
NU2309	45.000	100.000	36.000	95400	101700	6660	1.270
NU2310	50.000	110.000	40.000	108900	117900	6030	1.700
NU2311	55.000	120.000	43.000	133200	145800	5490	2.170
NU2312	60.000	120.000	46.000	152100	169200	5130	2.710
NU2313	65.000	140.000	48.000	169200	190800	4680	3.270
NU2314	70.000	150.000	51.000	200700	235800	4320	3.980
NU2315	75.000	160.000	55.000	246600	292500	4050	4.870
NU2316	80.000	170.000	58.000	246600	297000	3780	5.790
NU2317	85.000	180.000	60.000	283500	342000	3600	6.700
NU2318	90.000	190.000	64.000	292500	355500	3420	7.950
NU2319	95.000	200.000	67.000	355500	445500	3150	9.200
NU2320	100.000	215.000	73.000	414000	531000	3060	11.700
NU2322	110.000	240.000	80.000	544500	711000	2790	17.100
NU2324	120.000	260.000	86.000	639000	828000	2520	21.500
NU2326	130.000	280.000	93.000	756000	1017000	2340	26.900
NU2328	140.000	300.000	102.000	828000	1125000	2070	33.800
NU2330	150.000	320.000	108.000	918000	1260000	1980	40.600

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : NUP2



***Note:**

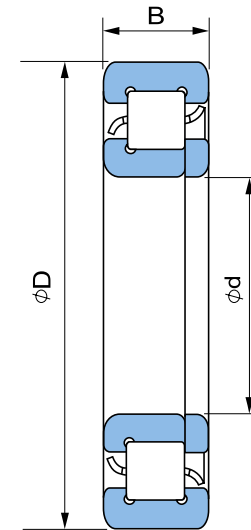
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NUP203	17.000	40.000	12.000	9400	6000	16000	0.080
NUP204	20.000	47.000	14.000	14940	12510	18000	0.111
NUP205	25.000	52.000	15.000	16920	15300	14400	0.137
NUP206	30.000	62.000	16.000	22410	20970	12600	0.207
NUP207	35.000	72.000	17.000	31950	30600	10800	0.295
NUP208	40.000	80.000	18.000	39420	38700	9900	0.378
NUP209	45.000	85.000	19.000	41400	42300	8910	0.432
NUP210	50.000	90.000	20.000	45450	49050	8100	0.470
NUP211	55.000	100.000	21.000	54900	59850	7380	0.630
NUP212	60.000	110.000	22.000	64800	72000	6840	0.820
NUP213	65.000	120.000	23.000	75600	85050	6300	1.020
NUP214	70.000	125.000	24.000	78750	90900	5850	1.120
NUP215	75.000	130.000	25.000	90900	106200	5400	1.230
NUP216	80.000	140.000	26.000	99900	117000	5130	1.500
NUP217	85.000	150.000	28.000	113400	134100	4770	1.870
NUP218	90.000	160.000	30.000	136800	160200	4500	2.300
NUP219	95.000	170.000	32.000	149400	175500	4230	2.780
NUP220	100.000	180.000	34.000	164700	195300	4050	3.330
NUP221	105.000	190.000	36.000	180900	216900	3870	3.950
NUP222	110.000	200.000	38.000	216000	261000	3600	4.630
NUP224	120.000	215.000	40.000	244800	306000	3330	5.670
NUP226	130.000	230.000	40.000	253800	324000	3060	6.300
NUP228	140.000	250.000	42.000	292500	378000	2790	7.880
NUP230	150.000	270.000	45.000	337500	441000	2610	9.920

Cylindrical Roller Bearings CR

KG[®]

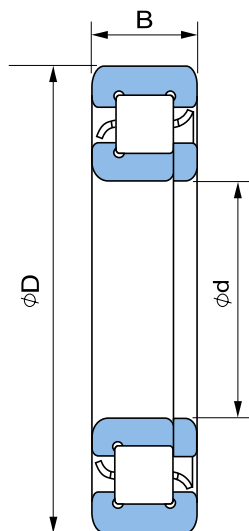
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NUP304	20.000	52.000	15.000	20790	17280	15300	0.153
NUP305	25.000	62.000	17.000	28350	24930	12600	0.241
NUP306	30.000	72.000	19.000	34650	31500	10800	0.358
NUP307	35.000	80.000	21.000	44550	42300	9900	0.461
NUP308	40.000	90.000	23.000	52650	51300	8460	0.658
NUP309	45.000	100.000	25.000	71100	69750	7560	0.877
NUP310	50.000	110.000	27.000	78300	77400	6930	1.140
NUP311	55.000	120.000	29.000	99900	99900	6300	1.145
NUP312	60.000	120.000	31.000	111600	113400	5850	1.800
NUP313	65.000	140.000	33.000	121500	125100	5400	2.230
NUP314	70.000	150.000	35.000	142200	151200	4950	2.710
NUP315	75.000	160.000	37.000	171000	184500	4680	3.280
NUP316	80.000	170.000	39.000	180900	200700	4320	3.860
NUP317	85.000	180.000	41.000	202500	222300	4140	4.540
NUP318	90.000	190.000	43.000	216000	238500	3870	5.300
NUP319	95.000	200.000	45.000	246600	279000	3600	6.130
NUP320	100.000	215.000	47.000	283500	328500	3420	7.490
NUP321	105.000	225.000	49.000	324000	373500	3330	8.530
NUP322	110.000	240.000	50.000	360000	418500	3150	10.000
NUP324	120.000	260.000	55.000	427500	495000	2880	12.800
NUP326	130.000	280.000	58.000	504000	598500	2610	17.400
NUP328	140.000	300.000	62.000	553500	670500	2430	21.200
NUP330	150.000	320.000	65.000	598500	724500	2250	25.300

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.



Single Row Series : NUP4



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.
- Above speed ratings are for machined cages. For pressed steel Cages, please use 80% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
NUP405	25.000	80.000	21.000	41850	36000	9000	0.550
NUP406	30.000	90.000	23.000	56250	49500	7650	0.751
NUP407	35.000	100.000	25.000	67950	62100	6750	0.990
NUP408	40.000	110.000	27.000	85950	80100	6030	1.300
NUP409	45.000	120.000	29.000	103500	100800	5400	1.620
NUP410	50.000	130.000	31.000	125100	122400	4950	2.010
NUP411	55.000	140.000	33.000	125100	124200	4500	2.480
NUP412	60.000	150.000	35.000	150300	151200	4140	3.000
NUP413	65.000	160.000	37.000	175500	182700	3870	3.600
NUP414	70.000	180.000	42.000	218700	231300	3600	5.240
NUP415	75.000	190.000	45.000	235800	246600	3330	6.220
NUP416	80.000	200.000	48.000	269100	283500	3150	7.320
NUP417	85.000	210.000	52.000	301500	315000	2970	9.400
NUP418	90.000	225.000	54.000	337500	360000	2790	11.200
NUP419	95.000	240.000	55.000	360000	405000	2610	13.200
NUP420	100.000	250.000	58.000	400500	445500	2520	14.900
NUP421	105.000	260.000	60.000	445500	499500	2340	16.600
NUP422	110.000	280.000	65.000	495000	558000	2250	21.100
NUP424	120.000	310.000	72.000	607500	693000	2070	28.900
NUP426	130.000	340.000	78.000	742500	859500	1890	37.700
NUP428	140.000	360.000	82.000	787500	918000	1710	44.300
NUP430	150.000	380.000	85.000	837000	1008000	1620	50.800

Cylindrical Roller Bearings CR





KG[®]

Tapered Roller Bearings



KG[®]

The Rolling Elements of this Bearing are Tapered Rollers. They form a line contact with the Raceway of Inner Ring and Outer Ring (Cup). These are separable type Bearings. Tapered Roller Bearings can also be made according to special dimensional requirement, but within basic design limitations. They are available in both metric and inch dimensions.

Tapered Roller Bearings are

- capable of carrying high radial loads, as well as axial loads in one direction
- suitable for low & medium speed applications

KG can offer following variants

- Single Row type 302, 303, 303D, 320, 322, 323, 330, 331 & 332 series
- Double Row type -DRT (details available on request)
- Four Row type -FRT (details available on request)
- precision grade P0 & higher precision grade P6
- pressed Steel, riveted, machined Brass or Polyamide Cage



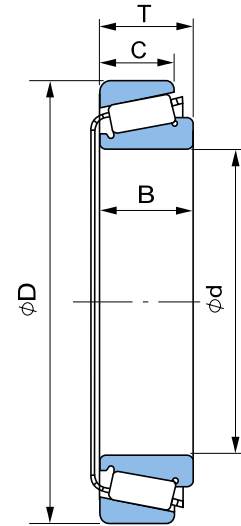


KG standard suffixes for Tapered Roller Bearings

A	Modified internal design.
AR/RA	Flange on the Cup
D	Used with 303 series to denote equivalence to 313 series in other Brands.
M	Machined Brass Cage.
P	Polyamide Cage.
P6	Dimensional and running accuracy confirming to ISO class 6.
Q1-Q4	KG internal reference codes. For details please contact KG International FZCO.

Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.




***Note:**

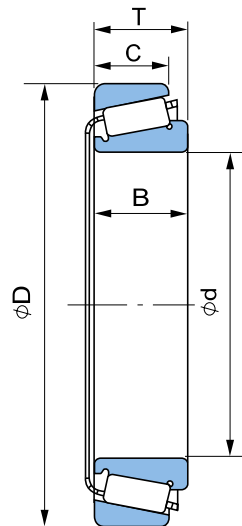
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
30202	15.000	35.000	11.750	11.000	10.000	14220	13050	13500	0.053
30203	17.000	40.000	13.250	12.000	11.000	18450	18270	11700	0.080
30204	20.000	47.000	15.250	14.000	12.000	25380	25830	10800	0.127
30205	25.000	52.000	16.250	15.000	13.000	28350	30600	8820	0.154
30206	30.000	62.000	17.250	16.000	14.000	39150	43200	7560	0.241
30207	35.000	72.000	18.250	17.000	15.000	49950	55350	6660	0.344
30208	40.000	80.000	18.750	18.000	16.000	54900	60300	5940	0.435
30209	45.000	85.000	20.750	19.000	16.000	60750	70650	5310	0.495
30210	50.000	90.000	21.750	20.000	17.000	69300	83700	4770	0.563
30211	55.000	100.000	22.750	21.000	18.000	83700	99900	4410	0.740
30212	60.000	110.000	23.750	22.000	19.000	94500	112500	4050	0.949
30213	65.000	120.000	24.750	23.000	20.000	110700	133200	3780	1.180
30214	70.000	125.000	26.250	24.000	21.000	117900	145800	3510	1.260
30215	75.000	130.000	27.250	25.000	22.000	125100	157500	3240	1.410
30216	80.000	140.000	28.250	26.000	22.000	144000	180000	3060	1.720
30217	85.000	150.000	30.500	28.000	24.000	164700	208800	2880	2.140
30218	90.000	160.000	32.500	30.000	26.000	187200	240300	2700	2.660
30219	95.000	170.000	34.500	32.000	27.000	203400	261000	2520	3.070
30220	100.000	180.000	37.000	34.000	29.000	232200	301500	2430	3.780
30221	105.000	190.000	39.000	36.000	30.000	258300	342000	2250	4.390
30222	110.000	200.000	41.000	38.000	32.000	292500	391500	2160	5.180
30224	120.000	215.000	43.500	40.000	34.000	310500	423000	1980	6.230
30226	130.000	230.000	43.750	40.000	34.000	337500	454500	1800	7.250
30228	140.000	250.000	45.750	42.000	36.000	378000	513000	1710	9.260
30230	150.000	270.000	49.000	45.000	38.000	405000	544500	1530	11.200
30232	160.000	290.000	52.000	48.000	40.000	528000	735000	1600	13.000
30234	170.000	310.000	57.000	52.000	43.000	616000	865000	1500	19.000
30236	180.000	320.000	57.000	52.000	43.000	583000	815000	1500	20.000
30238	190.000	340.000	60.000	55.000	46.000	721000	1000000	1400	24.000
30240	200.000	360.000	64.000	58.000	48.000	792000	1120000	1300	25.000
30244	220.000	400.000	72.000	65.000	54.000	990000	1400000	1200	40.000



Single Row Series : 303

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Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
						N			
	d	D	T	B	C	Dynamic	Static		
30302	15.000	42.000	14.250	13.000	11.000	20880	18720	11700	0.098
30303	17.000	47.000	15.250	14.000	12.000	26010	23670	10800	0.134
30304	20.000	52.000	16.250	15.000	13.000	31950	30600	9900	0.169
30305	25.000	62.000	18.250	17.000	15.000	43650	42750	8010	0.272
30306	30.000	72.000	20.750	19.000	16.000	54000	54900	6840	0.408
30307	35.000	80.000	22.750	21.000	18.000	67500	69300	5940	0.540
30308	40.000	90.000	25.250	23.000	20.000	82350	91800	5310	0.769
30309	45.000	100.000	27.250	25.000	22.000	99900	113400	4770	1.010
30310	50.000	110.000	29.250	27.000	23.000	119700	136800	4320	1.310
30311	55.000	120.000	31.500	29.000	25.000	139500	161100	3960	1.660
30312	60.000	130.000	33.500	31.000	26.000	162000	189000	3600	2.060
30313	65.000	140.000	36.000	33.000	28.000	182700	214200	3330	2.550
30314	70.000	150.000	38.000	35.000	30.000	207000	244800	3150	3.060
30315	75.000	160.000	40.000	37.000	31.000	229500	274500	2880	3.570
30316	80.000	170.000	42.500	39.000	33.000	261900	315000	2700	4.410
30317	85.000	180.000	44.500	41.000	34.000	274500	328500	2610	5.200
30318	90.000	190.000	46.500	43.000	36.000	301500	364500	2430	6.030
30319	95.000	200.000	49.500	45.000	38.000	328500	400500	2250	6.980
30320	100.000	215.000	51.500	47.000	39.000	328500	450000	2160	8.560
30321	105.000	225.000	53.500	49.000	41.000	391500	477000	2070	9.790
30322	110.000	240.000	54.500	50.000	42.000	432000	531000	1980	11.400
30324	120.000	260.000	59.500	55.000	46.000	504000	625500	1800	14.200
30326	130.000	280.000	63.750	58.000	49.000	585000	747000	1620	17.400
30328	140.000	300.000	67.750	62.000	53.000	661500	855000	1530	21.200
30330	150.000	320.000	72.000	65.000	55.000	742500	96300	1440	25.500

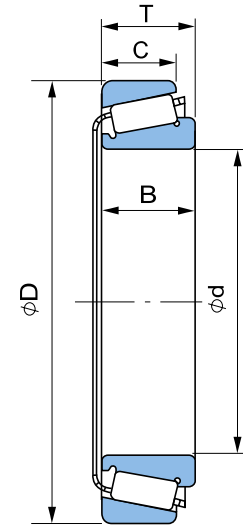
***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Tapered Roller Bearings TR



KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
30305D	25.000	62.000	18.750	17.000	13.000	36450	39150	7020	0.284
30306D	30.000	72.000	20.750	19.000	14.000	43650	46350	6030	0.398
30307D	35.000	80.000	22.750	21.000	15.000	57150	63000	5220	0.530
30308D	40.000	90.000	25.250	23.000	17.000	69300	76950	4680	0.738
30309D	45.000	100.000	27.250	25.000	18.000	86400	98100	4140	0.958
30310D	50.000	110.000	29.250	27.000	19.000	101700	117000	3780	1.250
30311D	55.000	120.000	31.500	29.000	21.000	118800	138600	3420	1.590
30312D	60.000	130.000	33.500	31.000	22.000	135000	158400	3240	1.970
30313D	65.000	140.000	36.000	33.000	23.000	155700	183600	2970	2.420
30314D	70.000	150.000	38.000	35.000	25.000	173700	206100	2700	2.920
30315D	75.000	160.000	40.000	37.000	26.000	193500	230400	2520	3.470
30316D	80.000	170.000	42.500	39.000	27.000	212400	254700	2430	4.110
30317D	85.000	180.000	44.500	41.000	28.000	222300	263700	2250	4.850
30318D	90.000	190.000	46.500	43.000	30.000	243000	288000	2160	5.660
30319D	95.000	200.000	49.500	45.000	32.000	266400	319500	1980	6.470
30320D	100.000	215.000	51.500	47.000	33.000	259200	297000	1980	7.900
30321D	105.000	225.000	53.500	49.000	36.000	297000	355500	1800	9.200
30322D	110.000	240.000	54.500	50.000	36.000	333000	396000	1710	10.400

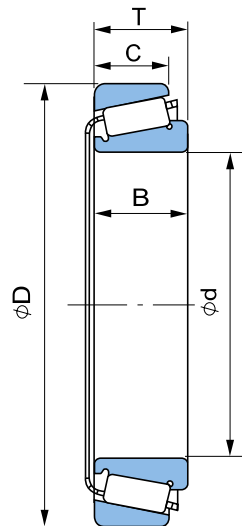
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Row Series : 320

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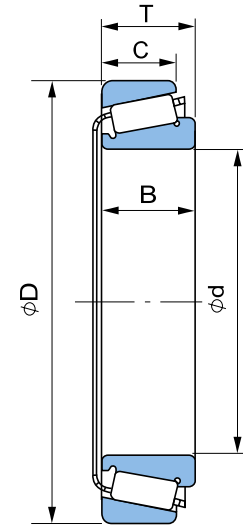
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
32005	25.000	47.000	15.000	15.000	11.500	25020	30150	9900	0.114
320/28	28.000	52.000	16.000	16.000	12.000	29700	36450	8730	0.146
32006	30.000	55.000	17.000	17.000	13.000	33750	41400	8280	0.166
320/32	32.000	58.000	17.000	17.000	13.000	33300	41850	7830	0.181
32007	35.000	62.000	18.000	18.000	14.000	37350	47250	7290	0.224
32008	40.000	68.000	19.000	19.000	14.500	45000	58950	6390	0.273
32009	45.000	75.000	20.000	20.000	15.500	51750	68850	5760	0.346
32010	50.000	80.000	20.000	20.000	15.500	56250	79200	5220	0.366
32011	55.000	90.000	23.000	23.000	17.500	72450	106200	4860	0.563
32012	60.000	95.000	23.000	23.000	17.500	73800	110700	4410	0.576
32013	65.000	100.000	23.000	23.000	17.500	74700	115200	4140	0.630
32014	70.000	110.000	25.000	25.000	19.000	94500	144000	3780	0.848
32015	75.000	115.000	25.000	25.000	19.000	95400	150300	3600	0.909
32016	80.000	125.000	29.000	29.000	22.000	125100	194400	3330	1.280
32017	85.000	130.000	29.000	29.000	22.000	127800	201600	3150	1.350
32018	90.000	140.000	32.000	32.000	24.000	151200	243000	2970	1.790
32019	95.000	154.000	32.000	32.000	24.000	153900	252000	2790	1.830
32020	100.000	150.000	32.000	32.000	24.000	153000	252900	2700	1.910
32021	105.000	160.000	35.000	35.000	26.000	180900	301500	2520	2.420
32022	110.000	170.000	38.000	38.000	29.000	212400	351000	2430	3.070
32024	120.000	180.000	38.000	38.000	29.000	220500	378000	2250	3.250
32026	130.000	200.000	45.000	45.000	34.000	288000	490500	1980	4.960
32028	140.000	210.000	45.000	45.000	34.000	297000	522000	1890	5.280
32030	150.000	225.000	48.000	48.000	36.000	333000	589500	1710	6.370
32032	160.000	240.000	51.000	51.000	38.000	391500	711000	1620	7.800
32034	170.000	260.000	57.000	57.000	43.000	450000	805500	1530	10.500
32036	180.000	280.000	64.000	64.000	48.000	580500	1053000	1440	14.500
32038	190.000	290.000	64.000	64.000	48.000	589500	1089000	1350	15.100
32040	200.000	310.000	70.000	70.000	53.000	720000	1323000	1260	19.300

Tapered Roller Bearings TR

***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.



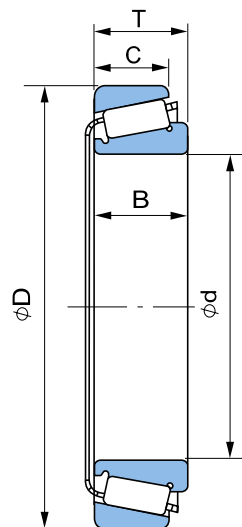
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
32203	17.000	40.000	17.250	16.000	14.000	24570	25470	11700	0.102
32204	20.000	47.000	19.250	18.000	15.000	32850	35550	10800	0.160
32205	25.000	52.000	19.250	18.000	15.000	37800	42300	8820	0.187
32206	30.000	62.000	21.250	20.000	17.000	49050	57600	7560	0.301
32207	35.000	72.000	24.250	23.000	19.000	65250	78300	6660	0.457
32208	40.000	80.000	24.750	23.000	19.000	71550	84150	5940	0.558
32209	45.000	85.000	24.750	23.000	19.000	73800	90000	5310	0.607
32210	50.000	90.000	24.750	23.000	19.000	78750	98100	4770	0.648
32211	55.000	100.000	26.750	25.000	21.000	97200	120600	4410	0.876
32212	60.000	110.000	29.750	28.000	24.000	117000	147600	4050	1.180
32213	65.000	120.000	32.750	31.000	27.000	143100	185400	3780	1.580
32214	70.000	125.000	33.250	31.000	27.000	149400	198000	3510	1.680
32215	75.000	130.000	33.250	31.000	27.000	151200	201600	3240	1.740
32216	80.000	140.000	35.250	33.000	28.000	179100	238500	3060	2.180
32217	85.000	150.000	38.500	36.000	30.000	201600	270000	2880	2.750
32218	90.000	160.000	42.500	40.000	34.000	235800	324000	2700	3.490
32219	95.000	170.000	45.500	43.000	37.000	269100	373500	2520	4.300
32220	100.000	180.000	49.000	46.000	39.000	297000	418500	2430	5.120
32221	105.000	190.000	53.000	50.000	43.000	342000	486000	2250	6.250
32222	110.000	200.000	56.000	53.000	46.000	378000	544500	2160	7.430
32224	120.000	215.000	61.500	58.000	50.000	414000	612000	1980	9.080
32226	130.000	230.000	67.750	64.000	54.000	477000	733500	1800	11.200
32228	140.000	250.000	71.750	68.000	58.000	549000	828000	1710	14.100
32230	150.000	270.000	77.000	73.000	60.000	630000	963000	1530	18.200
32232	160.000	290.000	84.000	80.000	67.000	792000	1260000	1440	25.500
32234	170.000	310.000	91.000	86.000	71.000	909000	1467000	1350	28.500
32236	180.000	320.000	91.000	86.000	71.000	909000	1467000	1260	29.500
32238	190.000	340.000	97.000	92.000	75.000	1071000	1737000	1170	36.000
32240	200.000	360.000	104.000	98.000	82.000	1089000	1800000	1170	42.500
32244	220.000	400.000	114.000	108.000	90.000	1449000	2430000	999	60.000
32248	240.000	440.000	127.000	120.000	100.000	1746000	3015000	900	81.500


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG®



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Single Row

Series : **323**

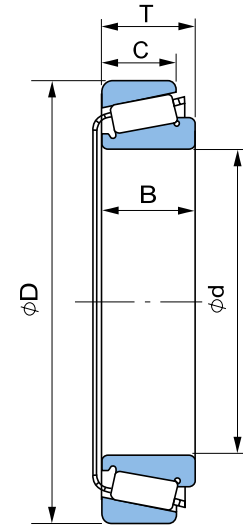
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Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
32303	17.000	47.000	20.250	19.000	16.000	27450	29700	10800	0.170
32304	20.000	52.000	22.250	21.000	18.000	41850	43650	9900	0.245
32305	25.000	62.000	25.250	24.000	20.000	55350	58050	8010	0.381
32306	30.000	72.000	28.750	27.000	23.000	73980	82440	7110	0.579
32307	35.000	80.000	32.750	31.000	25.000	90900	102600	6300	0.758
32308	40.000	90.000	35.250	33.000	27.000	104400	125100	5580	1.040
32309	45.000	100.000	38.250	36.000	30.000	138600	171900	4770	1.460
32310	50.000	110.000	42.250	40.000	33.000	165600	208800	4320	1.920
32311	55.000	120.000	45.500	43.000	35.000	193500	247500	3960	2.440
32312	60.000	130.000	48.500	46.000	37.000	219600	283500	3600	3.020
32313	65.000	140.000	51.000	48.000	39.000	245700	315000	3330	3.660
32314	70.000	150.000	54.000	51.000	42.000	279000	364500	3150	4.460
32315	75.000	160.000	58.000	55.000	45.000	319500	423000	2880	5.350
32316	80.000	170.000	61.500	58.000	48.000	355500	472500	2700	6.410
32317	85.000	180.000	63.500	60.000	49.000	364500	472500	2610	7.150
32318	90.000	190.000	67.500	64.000	53.000	405000	535500	2430	8.570
32319	95.000	230.000	71.500	67.000	55.000	454500	603000	2250	10.100
32320	100.000	215.000	77.500	73.000	60.000	513000	693000	2160	12.700
32321	105.000	225.000	81.500	77.000	63.000	549000	742500	2070	14.500
32322	110.000	240.000	84.500	80.000	65.000	558000	747000	1980	16.900
32324	120.000	260.000	90.500	86.000	69.000	733500	1026000	1800	21.200
32326	130.000	280.000	98.750	93.000	78.000	733500	1017000	1620	25.800
32328	140.000	300.000	107.750	102.000	85.000	882000	1287000	1530	32.700
32330	150.000	320.000	114.000	108.000	90.000	1044000	1575000	1440	38.800
32332	160.000	340.000	121.000	114.000	95.000	1044000	1530000	1350	47.000
32334	170.000	360.000	127.000	120.000	100.000	1089000	1602000	1260	36.900
32336	180.000	380.000	134.000	126.000	105.000	1269000	1908000	1170	64.800
32338	190.000	400.000	140.000	132.000	109.000	1377000	2079000	1080	74.800
32340	200.000	420.000	146.000	138.000	115.000	1503000	2286000	1080	86.000

Tapered Roller Bearings
TR



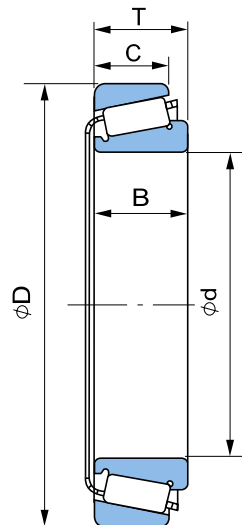
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
33005	25.000	47.000	17.000	17.000	14.000	24750	33300	9630	0.140
33006	30.000	55.000	20.000	20.000	16.000	35550	53550	8190	0.220
33007	35.000	62.000	21.000	21.000	17.000	41400	63900	7200	0.520
33008	40.000	68.000	22.000	22.000	18.000	53100	73800	6480	0.330
33009	45.000	75.000	24.000	24.000	19.000	58050	89100	5850	0.440
33010	50.000	80.000	24.000	24.000	19.000	60300	96300	5400	0.450
33011	55.000	90.000	27.000	27.000	21.000	77850	126000	4860	0.700
33012	60.000	95.000	27.000	27.000	21.000	83250	133200	4500	0.730
33013	65.000	100.000	27.000	27.000	21.000	88200	144000	4230	0.780
33014	70.000	110.000	31.000	31.000	25.500	113400	178200	3870	1.100
33015	75.000	115.000	31.000	31.000	25.500	116100	185400	3690	1.150
33016	80.000	125.000	36.000	36.000	29.500	141300	249300	3420	1.650
33017	85.000	130.000	36.000	36.000	29.500	154800	256500	3240	1.740
33018	90.000	140.000	39.000	39.000	32.500	194400	319500	2970	2.200
33019	95.000	145.000	39.000	39.000	32.500	203400	343800	2970	2.290
33020	100.000	150.000	39.000	39.000	32.500	207900	353700	2880	2.390
33021	105.000	160.000	43.000	43.000	34.000	216000	360000	2610	3.050
33022	110.000	170.000	47.000	47.000	37.000	245700	418500	2430	3.890
33024	120.000	180.000	48.000	48.000	38.000	252900	445500	2250	4.200
33026	130.000	200.000	55.000	55.000	43.000	351000	648000	2070	6.440
33028	140.000	210.000	56.000	56.000	44.000	310500	625500	1890	6.880
33030	150.000	225.000	59.000	59.000	46.000	315000	720000	1800	8.480


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG®



Single Row Series : 331

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Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
						N			
	d	D	T	B	C	Dynamic	Static		
33108	40.000	75.000	26.000	26.000	20.500	69750	91800	6030	0.520
33109	45.000	80.000	26.000	26.000	20.500	71550	97200	5580	0.560
33110	50.000	85.000	26.000	26.000	20.000	76050	10800	5130	0.600
33111	55.000	95.000	30.000	30.000	23.000	102600	144900	4680	0.860
33112	60.000	100.000	30.000	30.000	23.000	105300	149400	4410	0.940
33113	65.000	110.000	34.000	34.000	26.500	136800	200700	4140	1.300
33114	70.000	120.000	37.000	37.000	29.000	153900	221400	3690	1.720
33115	75.000	125.000	37.000	37.000	29.000	158400	234000	3510	1.800
33116	80.000	130.000	37.000	37.000	29.000	171900	264600	3420	1.900
33117	85.000	140.000	41.000	41.000	32.000	193500	292500	3150	2.500
33118	90.000	150.000	45.000	45.000	35.000	232200	371700	2970	3.130
33119	95.000	160.000	49.000	49.000	38.000	258300	391500	2700	3.990
33120	100.000	165.000	52.000	52.000	40.000	274500	436500	2610	4.130
33121	105.000	175.000	56.000	56.000	44.000	301500	477000	2430	4.430
33122	110.000	180.000	56.000	56.000	43.000	310500	504000	2340	5.550
33124	120.000	200.000	62.000	62.000	48.000	391500	621000	2070	7.300

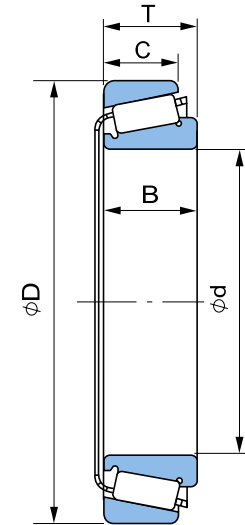
Tapered Roller Bearings TR

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
33205	25.000	52.000	22.000	22.000	18.000	42750	51750	8820	0.217
33206	30.000	62.000	25.000	25.000	19.500	58500	69300	7560	0.344
33207	35.000	72.000	28.000	28.000	22.000	78750	98100	6660	0.531
33208	40.000	80.000	32.000	32.000	25.000	92700	118800	5940	0.728
33209	45.000	85.000	32.000	32.000	25.000	96300	126900	5310	0.783
33210	50.000	90.000	32.000	32.000	24.500	103500	142200	4770	0.852
33211	55.000	100.000	35.000	35.000	27.000	124200	169200	4410	1.150
33212	60.000	110.000	38.000	38.000	29.000	150300	210600	4050	1.550
33213	65.000	120.000	41.000	41.000	32.000	175500	238500	3780	1.980
33214	70.000	125.000	41.000	41.000	32.000	180900	253800	3510	2.100
33215	75.000	130.000	41.000	41.000	31.000	187200	268200	3240	2.200
33216	80.000	140.000	46.000	46.000	35.000	225000	328500	3060	2.920
33217	85.000	150.000	49.000	49.000	37.000	255600	378000	2880	3.580


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Index For Inch Type Tapered Roller Bearings

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365	362-370A	168, 169,170	3100	3120-3196	162,163
385	382-389A	169,170,171,172	3300	3320-3386	164,165,166
395	390-399AS	169, 172,17,174	3400	3420-3490	163,164,165
415	414-420	165	3500	3520-3586	165,166,167,168
435	432-438	167,168	3500	3510-3549A	164
455	453A-469	167,169,171,172	3700	3720-3784	167,168,169,170
475	472-484	174,175,76	3800	3820-3880	164,165,166
495	492A-498	175,176,177	3900	3920-3994	170,172,173,174
525	522-529X	176,169,170	4000	4050-4138	160
535	532A-543	166,170,171	4300	4335-4395	166,167
555	552A-560S	170,171,172,173,174	5300	5335-5395	169
565	563-568	173,174,175	5500	5535-5584	171,172,173
575	572-582	175,176	5700	5735-5760	175
595	592A-598A	176,177,178	6000	6075-6157	160
615	612-623	170,171,172	6200	6220-6277	168
635	632-644	17,174,175	6300	6320-6389	173,174
655	652-665A	174,176,177	6400	6420-6461A	175,176
675	672-687	178	6500	6535-6580	176,177
745	740-749S	174,175,176,177	02400	02420-02476	162,163
755	752-766	176,177,178	02800	02820-02878	162,163
775	772-787	178,179	03000	03062-03162	160
795	792-799A	180	05000	05062-05158	160
835	832-850	174,177	07000	07079-07204	160,161
855	854-861	178	09000	09062-09196	160
895	892-898A	180	11000	11162-11315	166
935	932-941	179	11500	11520-11590	160
1200	1220-1280	160	11700	11710-11749	160
1300	1328-1380	160	11900	11910-11949	160
1700	1729-1780	160,161	12000	12175-12303	167
1900	1930-1988	161,162	12500	12520-12580	160
2400	2420-2474	162	12600	12610-12649	160
2500	2520-2585	162,163	12700	12711-12749	160
2600	2631-2690	161,163	13600	13620-13687	165
2700	2720-2796	163,164,165	13800	13830-13889	165

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Note:

- Please first locate row of your required Bearing series and then look for its specifications on page number mentioned next to it.

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15500	15520-15590	161	44000	44143-44348	164,166
16000	16137-16284	163,165	44600	44610-44649	161
17000	17118-17244	162	45200	45220-45291	168,169,170,171,172
17500	17520-17580	160	45400	45410-45449	162
18500	18520-18590	166	46000	46162-46368	166,167
18600	18620-18690	167	46700	46720-46790	181
18700	18720-18790	169	47400	47420-47490	174,175
19000	19150-19283	166	47600	47620-47687	175,176
21000	21075-21212	160	47800	47820-47896	178
22700	22720-22780	167	48200	48220-48290	179
23000	23100-23256	161	48300	48320-48393	180
24700	24720-24780	166	48500	48510-48548A	163
25500	25519-25592	165,167,168	48600	48620-48685	180
25800	25820-25880	164	49500	49520-49585	170
26800	26820-26886	164,165,166	52000	52375-52638	178
27600	27620-27691	176,177	53000	53162-53377	167
27800	27820-27881	165	55000C	55175C-55443	168,169,170
28000	28150-28315	165,166	56000	56425-56662	179
28500	28520-28584	169,170	59000	59200-59412	170
28600	28622-28682	171,172	64000	64433-64708	179
28900	28919-28995	172,173	65000	65237-65500	173
29500	29520-29590	172,173,174	65300	65320-65390	169
29600	29620-29688	174,175	66000	66200-66462	170,172
29700	29710-29749	165	66500	66520-66589	171,172
31500	31520-31597	164	67000	67010-67048	162
33000	33225-33472	172,175	67300	67322-67391	180
33800	33821-33895	167,170,171	67700	67720-67790	181
34000	34274-34492A	174,175,176	68000	68450-68712	179
36600	36620-36691	180	68100	68111-68149	164
36900	36920-36990	181	69300	69310-69349	165
37000	37425-37625	179	71000	71453-71750	179
39500	39520-39590	170,172,173,174	72000C	72188C-72487	169,170,171,172
41000	41125-41286	162	72800	72810-72849	160
42000	42346-42584	177,178	74000	74500-74850	180

Note:

- Please first locate row of your required Bearing series and then look for its specifications on page number mentioned next to it.



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807000	807010-807049	168,169,170,171		917800	917810-917840	176
812100	812111-812148	174		924000	924010-924045	179
813000	813010-813049	175		926700	926710-926747	179
813800	813810-813844	171,173,174		603000	603011-603049	168
814700	814710-814749	175		610500	610510-610549	173
814800	814810-814849	176		612900	612910-612949	175
822000	822010-822049	179		617000	617010-617049	177
903200	903210-903249A	167		630300	630310-630349	180
903300	903310-903345	167		639200	639210-632949	181
907600	907614-907643	170		704600	704610-704649	169
911200	911210-911245	171,172,173		710900	710910-710949	173

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Note:

- Please first locate row of your required Bearing series and then look for its specifications on page number mentioned next to it.

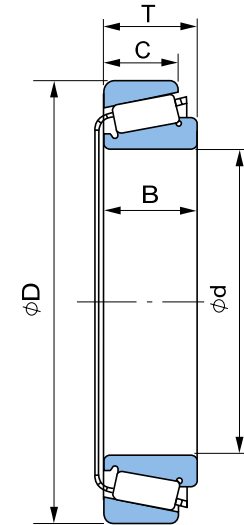


Single Row

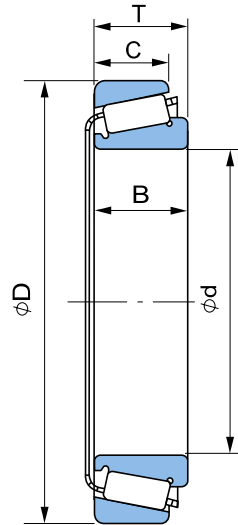


KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
4050/4138	12.700	34.988	10.998	10.988	8.730	11070	10440	14400	0.053
4059/4138	14.989	34.988	10.998	10.988	8.730	11070	10440	14400	0.049
03062/03162	15.875	41.275	14.288	14.681	11.112	18270	16830	11700	0.092
11590/11520	15.875	42.862	14.288	14.288	9.525	15840	15750	10800	0.103
17580/17520	15.875	42.862	16.670	16.670	13.495	24030	23400	11700	0.122
05062/05185	15.875	47.000	14.381	14.381	11.112	21600	21780	9900	0.131
09062/09195	15.875	49.225	19.845	21.539	14.288	34650	35100	9900	0.203
05066/05185	16.993	47.000	14.381	14.381	11.112	21600	21780	9900	0.127
11749/11710	17.462	39.878	13.843	14.605	10.668	21420	21780	11700	0.084
6075/6157	19.050	39.992	12.014	11.153	9.525	11520	11520	11700	0.065
11949/11910	19.050	45.237	15.494	16.637	12.065	25470	25740	10800	0.122
05075/05185	19.050	47.000	14.381	14.381	11.112	21600	21780	9900	0.121
09067/09195	19.050	49.225	18.034	19.050	14.288	34650	35100	9900	0.179
09074/09195	19.050	49.225	19.845	21.539	14.288	34650	35100	9900	0.188
09078/09195	19.050	49.225	19.845	21.539	14.288	34650	35100	9900	0.188
09067/09194	19.050	49.225	21.209	19.050	17.462	34650	35100	9900	0.195
09067/09196	19.050	49.225	21.209	19.050	17.462	34650	35100	9900	0.198
21075/21212	19.050	53.975	22.225	21.839	15.875	36000	35100	9900	0.248
1775/1729	19.050	56.896	19.368	19.837	15.875	38250	41850	8640	0.272
05079/05185	19.987	47.000	14.381	14.381	11.112	21600	21780	9900	0.117
07079/07196	20.000	50.005	13.495	14.260	9.525	23400	25110	9000	0.138
09081/09195	20.625	49.225	19.845	21.539	14.288	34650	35100	9900	0.179
12580/12520	20.638	49.225	19.845	19.845	15.875	33750	35100	9900	0.182
12649/12610	21.430	50.005	17.526	18.288	13.970	34200	35100	9900	0.169
12749/12711	21.986	45.974	15.494	16.637	12.065	26640	30600	9900	0.123
07087/07196	22.225	50.005	13.495	14.260	9.525	23400	25110	9000	0.130
12648/12610	22.225	50.005	17.526	18.288	13.970	34200	35100	9900	0.165
1380/1328	22.225	52.388	19.368	20.168	14.288	36450	38700	9000	0.200
1380/1329	22.225	53.975	19.368	20.168	14.288	36450	38700	9000	0.215
1755/1729	22.225	56.896	19.368	19.837	15.875	38250	41850	8640	0.256
1280/1220	22.225	57.150	22.225	22.225	17.462	42300	44550	8550	0.286
72849/72810	22.606	47.000	15.500	15.500	12.000	24750	29250	9900	0.125

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

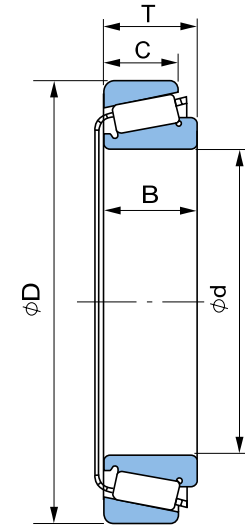
Single Row

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
07093/07196	23.812	50.005	13.495	14.260	9.525	23400	25110	9000	0.123
44640/44610	23.812	50.292	14.224	14.732	10.668	25920	30600	8910	0.137
1779/1729	23.812	56.896	19.368	19.837	15.875	38250	41850	8640	0.247
07098/07196	24.981	50.005	13.495	14.260	9.525	23400	25110	9000	0.118
07097/07196	25.000	50.005	13.495	14.260	9.525	23400	25110	9000	0.118
07096/07196	25.159	50.005	13.495	14.260	9.525	23400	25110	9000	0.117
07100/07196	25.400	50.005	13.495	14.260	9.525	23400	25110	9000	0.117
07100S/07196	25.400	50.005	13.495	14.260	9.525	23400	25110	9000	0.116
44643/44610	25.400	50.292	14.224	14.732	10.668	25920	30600	8910	0.130
07100/07204	25.400	51.994	15.011	14.260	12.700	23400	25110	9000	0.144
1780/1729	25.400	56.896	19.368	19.837	15.875	38250	41850	8640	0.238
84548/84510	25.400	57.150	19.431	19.431	14.732	37800	43650	8280	0.241
84249/84210	25.400	59.530	23.368	23.114	18.288	45000	51750	8190	0.324
15578/15523	25.400	60.325	19.842	17.462	15.875	35550	40950	8010	0.271
15101/15243	25.400	61.912	19.050	20.638	14.288	41850	48600	7380	0.300
15100/15245	25.400	62.000	19.050	20.638	14.288	41850	48600	7380	0.299
15101/15245	25.400	62.000	19.050	20.638	14.288	41850	48600	7380	0.301
15102/15245	25.400	62.000	19.050	20.638	14.288	41850	48600	7380	0.301
15101/15244	25.400	62.000	20.638	20.638	15.875	41850	48600	7380	0.315
15101/15250	25.400	63.500	20.638	20.638	15.875	41850	48600	7380	0.333
15101/15250X	25.400	63.500	20.638	20.638	15.875	41850	48600	7380	0.333
86643/86610	25.400	64.292	21.433	21.433	16.670	46350	58050	7290	0.371
23100/23256	25.400	65.088	22.225	21.463	15.875	42300	45450	6840	0.360
2687/2631	25.400	66.421	23.812	25.433	19.050	58050	65250	7380	0.442
15103/15245	26.157	62.000	19.050	20.638	14.288	41850	48600	7380	0.296
2682/2631	26.162	66.421	23.812	25.433	19.050	58050	65250	7380	0.436
44649/44610	26.988	50.292	14.224	14.732	10.668	25920	30600	8910	0.120
15580/15523	26.988	60.325	19.842	17.462	15.875	35550	40950	8010	0.260
15106/15245	26.988	62.000	19.050	20.638	14.288	41850	48600	7380	0.291
2688/2631	26.988	66.421	23.812	25.433	19.050	58050	65250	7380	0.429
1985/1930	28.575	56.896	19.845	19.355	15.875	36450	40050	8010	0.217
15590/15520	28.575	57.150	17.462	17.462	13.495	35550	40950	8010	0.196
1985/1932	28.575	58.738	19.050	19.355	15.080	36450	40050	8010	0.230
1988/1932	28.575	58.738	19.050	19.355	15.080	36450	40050	8010	0.228

Tapered Roller Bearings TR

Single Row

KG®

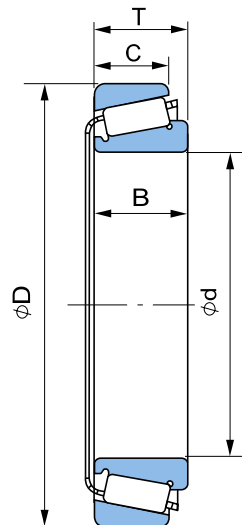
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
15590/15523	28.575	60.325	19.842	17.462	15.875	35550	40950	8010	0.250
1985/1931	28.575	60.325	19.845	19.355	15.875	36450	40050	8010	0.255
15112/15245	28.575	62.000	19.050	20.638	14.288	41850	48600	7380	0.277
15113/15245	28.575	62.000	19.050	20.638	14.288	41850	48600	7380	0.280
86647/86610	28.575	64.292	21.433	21.433	16.670	46350	58050	7290	0.348
2689/2631	28.575	66.421	23.812	25.433	19.050	58050	65250	7380	0.416
02474/02420	28.575	68.262	22.225	22.225	17.462	51300	60300	6930	0.409
2474/2420	28.575	68.262	22.225	23.812	17.462	51750	58950	6930	0.410
2578/2523	28.575	69.850	23.812	25.357	19.050	62100	73350	6840	0.483
41125/41286	28.575	72.626	24.608	24.257	17.462	52200	49950	6930	0.477
41126/41286	28.575	72.626	24.608	24.257	17.462	52200	49950	6930	0.481
02872/02820	28.575	73.025	22.225	22.225	17.462	50850	61200	6300	0.480
45449/45410	29.000	50.292	14.224	14.732	10.668	25200	31950	8640	0.113
2690/2631	29.367	66.421	23.812	25.433	19.050	58050	65250	7380	0.406
17118/17244	29.987	62.000	16.002	16.566	14.288	35100	37800	7560	0.228
15117/15245	29.987	62.000	19.050	20.638	14.288	41850	48600	7380	0.269
14117A/14276	30.000	69.012	19.845	19.583	15.875	43650	52200	6660	0.369
88540/88513	30.000	72.000	29.370	27.783	23.020	64800	87300	6390	0.619
15116/15245	30.112	62.000	19.050	20.638	14.288	41850	48600	7380	0.268
17119/17244	30.162	62.000	16.002	16.566	14.288	35100	37800	7560	0.226
86649/86610	30.162	64.292	21.433	21.433	16.670	46350	58050	7290	0.336
2558/2523	30.162	69.850	23.812	25.357	19.050	62100	73350	6840	0.468
3187/3120	30.162	72.626	30.162	29.997	23.812	76050	88200	6570	0.621
15118/15245	30.213	62.000	19.050	20.638	14.288	41850	48600	7380	0.265
15119/15245	30.213	62.000	19.050	20.638	14.288	41850	48600	7380	0.267
15120/15245	30.213	62.000	19.050	20.638	14.288	41850	48600	7380	0.267
14116/14274	30.226	69.012	19.845	19.583	15.875	43650	52200	6660	0.366
14116/14276	30.226	69.012	19.845	19.583	15.875	43650	52200	6660	0.370
14116/14283	30.226	72.085	22.385	19.583	18.415	43650	52200	6660	0.447
67048/67010	31.750	59.131	15.875	16.764	11.811	31050	36900	7560	0.182
15123/15245	31.750	62.000	18.161	19.050	14.288	41850	48600	7380	0.244
15125/15245	31.750	62.000	19.050	20.638	14.288	41850	48600	7380	0.253
15126/15245	31.750	62.000	19.050	20.638	14.288	41850	48600	7380	0.255



Single Row



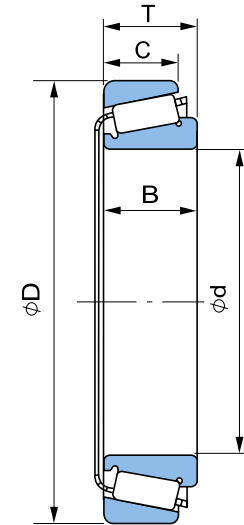
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
2580/2520	31.750	66.421	25.400	25.357	20.638	62100	73350	6840	0.409
02475/02420	31.750	68.262	22.225	22.225	17.462	51300	60300	6930	0.380
02476/02420	31.750	68.262	22.225	22.225	17.462	51300	60300	6930	0.383
14124/14276	31.750	69.012	19.845	19.583	15.875	43650	52200	6660	0.359
14125A/14276	31.750	69.012	19.845	19.583	15.875	43650	52200	6660	0.356
2580/2523	31.750	69.850	23.812	25.357	19.050	62100	73350	6840	0.454
2580/2523S	31.750	69.850	23.812	25.357	19.050	62100	73350	6840	0.453
2582/02523	31.750	69.850	23.812	25.357	19.050	62100	73350	6840	0.451
3188/3120	31.750	72.626	30.162	29.997	23.812	76050	88200	6570	0.603
3193/3120	31.750	72.626	30.162	29.997	23.812	76050	88200	6570	0.601
02875/02820	31.750	73.025	22.225	22.225	17.462	50850	61200	6300	0.451
2879/2820	31.750	73.025	22.225	23.812	17.462	56250	67950	6300	0.465
88542/88510	31.750	73.025	29.370	27.783	23.020	64800	87300	6390	0.622
88542/88511	31.750	73.025	29.370	27.783	23.020	64800	87300	6390	0.626
88542/88512	31.750	73.812	29.370	27.783	23.020	64800	87300	6390	0.638
89440/89410	31.750	76.200	29.370	28.575	23.020	70200	94500	6120	0.686
3476/3420	31.750	79.375	29.370	29.771	23.812	83700	102600	5940	0.767
88048/88010	33.338	68.262	22.225	22.225	17.462	50850	63900	6750	0.378
14130/14276	33.338	69.012	19.845	19.583	15.875	43650	52200	6660	0.344
14131/14276	33.338	69.012	19.845	19.583	15.875	43650	52200	6660	0.346
2585/2523	33.338	69.850	23.812	25.357	19.050	62100	73350	6840	0.435
3196/3120	33.338	72.626	30.162	29.997	23.812	76050	88200	6570	0.581
88547/88510	33.338	73.025	29.370	27.783	23.020	64800	87300	6390	0.604
2785/2720	33.338	76.200	23.812	25.654	19.050	65700	81450	6120	0.551
2790/2720	33.338	76.200	23.812	25.654	19.050	65700	81450	6120	0.553
89443/89410	33.338	76.200	29.370	28.575	23.020	70200	94500	6120	0.668
89444/89410	33.338	76.200	29.370	28.575	23.020	70200	94500	6120	0.665
43131/43312	33.338	79.375	25.400	24.074	17.462	58950	60300	5580	0.568
48548/48510	34.925	65.088	18.034	18.288	13.970	41850	50400	6840	0.249
48548A/48510	34.925	65.088	18.034	18.288	13.970	41850	50400	6840	0.252
14137A/14276	34.925	69.012	19.845	19.583	15.875	43650	52200	6660	0.333
14138A/14276	34.925	69.012	19.845	19.583	15.875	43650	52200	6660	0.331
88649/88610	34.925	72.233	25.400	25.400	19.842	58500	76050	6480	0.489
16137/16284	34.925	72.238	20.638	20.638	15.875	43200	52650	6300	0.385
02877/02820	34.925	73.025	22.225	22.225	17.462	50850	61200	6300	0.422
02878/02820	34.925	73.025	22.225	22.225	17.462	50850	61200	6300	0.425

***Note:**

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Single Row


***Note:**

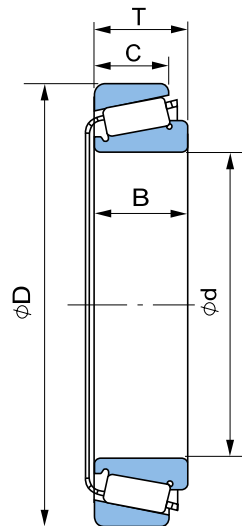
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
2878/2820	34.925	73.025	22.225	23.812	17.462	56250	67950	6300	0.434
25877/25820	34.925	73.025	23.812	24.608	19.050	63900	76500	6390	0.471
25877/25821	34.925	73.025	23.812	24.608	19.050	63900	76500	6390	0.474
25878/25821	34.925	73.025	23.812	24.608	19.050	63900	76500	6390	0.471
2793/2735X	34.925	73.025	23.812	25.654	19.050	65700	81450	6120	0.485
2793/2720	34.925	76.200	23.812	25.654	19.050	65700	81450	6120	0.536
2793/2729	34.925	76.200	23.812	25.654	19.050	65700	81450	6120	0.541
2796/2720	34.925	76.200	23.812	25.654	19.050	65700	81450	6120	0.533
89446/89410	34.925	76.200	29.370	28.575	23.020	70200	94500	6120	0.646
31593/31520	34.925	76.200	29.370	28.575	23.812	72450	87300	6120	0.625
31594/31520	34.925	76.200	29.370	28.575	23.812	72450	87300	6120	0.627
31594/31521	34.925	76.200	29.370	28.575	23.812	72450	87300	6120	0.631
3478/3420	34.925	79.375	29.370	29.771	23.812	83700	102600	5940	0.725
3379/3320	34.925	80.167	29.370	30.391	23.812	85500	100800	5760	0.732
3872/3820	34.925	85.725	30.162	30.162	23.812	94500	118800	5400	0.897
14139/14276	34.976	69.012	19.845	19.583	15.875	43650	52200	6660	0.333
68149/68111	34.988	59.974	15.875	16.764	11.938	31950	42750	7290	0.179
78349A/78310A	34.988	61.973	16.700	17.000	13.600	33300	43200	7110	0.209
78349/78310 C	34.988	61.973	18.000	17.000	15.000	33300	43200	7110	0.218
3549A/3510	35.000	70.000	24.000	23.500	19.000	55800	70200	6570	0.420
26883/26822	35.000	79.375	23.812	25.400	19.050	68850	87750	5760	0.610
339/332	35.000	80.000	21.000	22.403	17.826	61200	67500	5670	0.534
88648/88610	35.717	72.233	25.400	25.400	19.842	58500	76050	6480	0.478
88648/88611AS	35.717	72.626	25.400	25.400	19.842	58500	76050	6480	0.482
25880/25821	36.487	73.025	23.812	24.608	19.050	63900	76500	6390	0.457
2780/2720	36.487	76.200	23.812	25.654	19.050	65700	81450	6120	0.518
2794/2720	36.487	76.200	23.812	25.654	19.050	65700	81450	6120	0.516
89448/89410	36.512	76.200	29.370	28.575	23.020	70200	94500	6120	0.629
89449/89410	36.512	76.200	29.370	28.575	23.020	70200	94500	6120	0.626
89449/89411	36.512	76.200	29.370	28.575	23.020	70200	94500	6120	0.631
31597/31520	36.512	76.200	29.370	28.575	23.812	72450	87300	6120	0.605
89249/89210	36.512	79.375	29.370	28.829	22.664	77850	93600	5940	0.686
3479/3420	36.512	79.375	29.370	29.771	23.812	83700	102600	5940	0.707
44143/44348	36.512	88.500	25.400	23.698	17.462	63450	70200	4770	0.729



Single Row

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***Note:**
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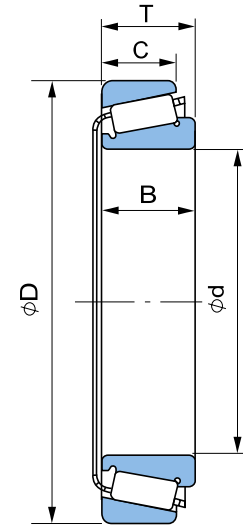
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
69349/69310	38.000	63.000	17.000	17.000	13.500	34650	47250	6840	0.198
13889/13830	38.100	63.500	12.700	11.908	9.525	23310	30150	6570	0.147
29748/29710	38.100	65.088	18.034	18.288	13.970	39150	51300	6660	0.233
29749/29710	38.100	65.088	18.034	18.288	13.970	39150	51300	6660	0.235
29749/29711	38.100	65.088	19.812	18.288	15.748	39150	51300	6660	0.250
13685/13621	38.100	69.012	19.050	19.050	15.083	42750	53550	6390	0.293
13687/13620	38.100	69.012	19.050	19.050	15.083	42750	53550	6390	0.298
13687/13621	38.100	69.012	19.050	19.050	15.083	42750	53550	6390	0.296
19150/19281	38.100	71.438	15.875	16.520	11.908	39150	45900	6480	0.273
19150/19283	38.100	72.000	17.018	16.520	14.288	39150	45900	6480	0.300
16150/16282	38.100	72.000	19.000	20.638	14.237	43200	52650	6300	0.331
16150/16284	38.100	72.238	20.638	20.638	15.875	43200	52650	6300	0.355
28150/28300	38.100	76.200	20.638	20.940	15.507	49950	56700	6030	0.405
2776/2720	38.100	76.200	23.812	25.654	19.050	65700	81450	6120	0.495
2777/2720	38.100	76.200	23.812	25.654	19.050	65700	81450	6120	0.492
2788/2720	38.100	76.200	23.812	25.654	19.050	65700	81450	6120	0.497
2788A/2720	38.100	76.200	23.812	25.654	19.050	65700	81450	6120	0.499
26878/26822	38.100	79.375	23.812	25.400	19.050	68850	87750	5760	0.574
3490/3420	38.100	79.375	29.370	29.771	23.812	83700	102600	5940	0.683
28150/28315	38.100	80.000	21.006	20.940	15.875	49950	56700	6030	0.467
27880/27820	38.100	80.035	24.608	23.698	18.512	60300	74250	5760	0.562
27881/27820	38.100	80.035	24.608	23.698	18.512	60300	74250	5760	0.559
801346/801310	38.100	82.550	29.370	28.575	23.020	78300	105300	5580	0.767
25572/25520	38.100	82.931	23.812	25.400	19.050	68400	88200	5400	0.645
3875/3820	38.100	85.725	30.162	30.162	23.812	94500	118800	5400	0.857
3876/3820	38.100	85.725	30.162	30.162	23.812	94500	118800	5400	0.854
3580/3525	38.100	87.312	30.162	30.886	23.812	84600	105300	5310	0.881
44150/44348	38.100	88.500	25.400	23.698	17.462	63450	70200	4770	0.711
418/414	38.100	88.500	26.988	29.083	22.225	85950	96300	5490	0.840
2789/2720	39.688	76.200	23.812	25.654	19.050	65700	81450	6120	0.477
3382/3321	39.688	77.534	29.370	30.391	23.812	85500	100800	5760	0.669
26880/26822	39.688	79.375	23.812	25.400	19.050	68850	87750	5760	0.554
26881/26822	39.688	79.375	23.812	25.400	19.050	68850	87750	5760	0.552
3382/3339	39.688	80.035	29.370	30.391	23.812	85500	100800	5760	0.666
3382/3320	39.688	80.167	29.370	30.391	23.812	85500	100800	5760	0.665
3382/3331	39.688	80.167	29.370	30.391	23.812	85500	100800	5760	0.670

Tapered Roller Bearings TR



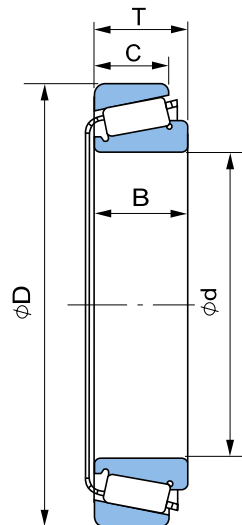
Single Row

KG®



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
3386/3320	39.688	80.167	29.370	30.391	23.812	85500	100800	5760	0.668
44158/44348	39.688	88.500	25.400	23.698	17.462	63450	70200	4770	0.691
28158/28300	40.000	76.200	20.638	20.940	15.507	49950	56700	6030	0.386
344/332	40.000	80.000	21.000	22.403	17.826	61200	67500	5670	0.479
344A/332	40.000	80.000	21.000	22.403	17.826	61200	67500	5670	0.482
350A/354A	40.000	85.000	20.638	21.692	17.462	62550	71550	5220	0.562
420/414	40.000	88.500	26.988	29.083	22.225	85950	96300	5490	0.813
543/532X	40.000	107.950	36.512	36.957	28.575	126900	159300	4320	1.770
801349/801310	40.483	82.550	29.370	28.575	23.020	78300	105300	5580	0.731
300849/300811	40.988	67.975	17.500	18.000	13.500	41400	56250	6300	0.239
18590/18520	41.275	73.025	16.667	17.462	12.700	41400	49950	5940	0.281
501349/501310	41.275	73.431	19.558	19.812	14.732	50400	62550	5940	0.335
501349/501314	41.275	73.431	21.430	19.812	16.604	50400	62550	5940	0.355
11162/11300	41.275	76.200	18.009	17.384	14.288	38250	46350	5850	0.337
24780/24720	41.275	76.200	22.225	23.020	17.462	58500	72450	5850	0.432
26882/26823	41.275	76.200	25.400	25.400	20.638	68850	87750	5760	0.488
26882/26822	41.275	79.375	23.812	25.400	19.050	68850	87750	5760	0.531
26882/26822A	41.275	79.375	23.812	25.400	19.050	68850	87750	5760	0.528
26885/26822	41.275	79.375	23.812	25.400	19.050	68850	87750	5760	0.535
11162/11315	41.275	80.000	18.009	17.384	14.288	38250	46350	5850	0.389
336/332	41.275	80.000	21.000	22.403	17.826	61200	67500	5670	0.468
342/332	41.275	80.000	21.000	22.403	17.826	61200	67500	5670	0.465
26882/26824	41.275	80.000	23.812	25.400	19.050	68850	87750	5760	0.542
26882/26820	41.275	80.167	25.400	25.400	20.638	68850	87750	5760	0.563
802048/802011	41.275	82.550	26.543	25.654	20.193	72450	93600	5490	0.642
3880/3820	41.275	85.725	30.162	30.162	23.812	94500	118800	5400	0.810
3576/3525	41.275	87.312	30.162	30.886	23.812	84600	105300	5310	0.834
3577/3525	41.275	87.312	30.162	30.886	23.812	84600	105300	5310	0.831
3585/3525	41.275	87.312	30.162	30.886	23.812	84600	105300	5310	0.833
803145/803110	41.275	88.900	30.162	29.370	23.020	84150	112500	5220	0.901
803146/803110	41.275	88.900	30.162	29.370	23.020	84150	112500	5220	0.898
4388/4335	41.275	90.488	39.688	40.386	33.338	122400	157500	5220	1.250
903345/903310	41.275	92.075	26.195	23.812	16.670	65250	73350	4500	0.758
46162/46368	41.275	93.662	31.750	31.750	26.195	92700	117900	4950	1.090
804840/804810	41.275	95.250	30.162	29.370	23.020	98100	132300	4770	1.080

**KG**[®]

Single Row

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
53162/53375	41.275	95.250	30.958	28.300	20.638	74250	82800	4500	0.975
903245/903210	41.275	95.250	30.958	28.575	22.225	86400	104400	4410	1.050
4395/4335	42.070	90.488	39.688	40.386	33.338	122400	157500	5220	1.240
22780/22720	42.862	82.550	26.195	26.988	20.638	67950	87300	5490	0.617
25578/25520	42.862	82.931	23.812	25.400	19.050	68400	88200	5400	0.584
3579/3525	42.862	87.312	30.162	30.886	23.812	84600	105300	5310	0.805
26884/26822	42.875	79.375	23.812	25.400	19.050	68850	87750	5760	0.510
26886/26822	42.875	79.375	23.812	25.400	19.050	68850	87750	5760	0.513
25577/25520	42.875	82.931	23.812	25.400	19.050	68400	88200	5400	0.581
12175/12303	44.450	76.992	17.462	17.145	11.908	39600	48600	5670	0.308
18685/18620	44.450	79.375	17.462	17.462	13.495	40950	50400	5580	0.345
25580/25520	44.450	82.931	23.812	25.400	19.050	68400	88200	5400	0.560
25581/25520	44.450	82.931	23.812	25.400	19.050	68400	88200	5400	0.563
25582/25520	44.450	82.931	23.812	25.400	19.050	68400	88200	5400	0.556
3578/3520	44.450	84.138	30.162	30.886	23.812	84600	105300	5310	0.699
355/354A	44.450	85.000	20.638	21.692	17.462	62550	71550	5220	0.511
355A/354A	44.450	85.000	20.638	21.692	17.462	62550	71550	5220	0.512
3578/3525	44.450	87.312	30.162	30.886	23.812	84600	105300	5310	0.779
3578/3526	44.450	87.312	30.162	30.886	23.812	84600	105300	5310	0.784
803149/803110	44.450	88.900	30.162	29.370	23.020	84150	112500	5220	0.849
3782/3720	44.450	93.264	30.162	30.302	23.812	91800	120600	4770	0.961
46175/46368	44.450	93.662	31.750	31.750	26.195	92700	117900	4950	1.040
46176/46368	44.450	93.662	31.750	31.750	26.195	92700	117900	4950	1.030
33885/33821	44.450	95.250	27.783	28.575	22.225	96300	125100	4680	0.987
438/432	44.450	95.250	27.783	29.900	22.225	97200	116100	5040	0.953
438/432A	44.450	95.250	27.783	29.900	22.225	97200	116100	5040	0.956
804842/804810	44.450	95.250	30.162	29.370	23.020	98100	132300	4770	1.040
53176/53375	44.450	95.250	30.958	28.300	20.638	74250	82800	4500	0.928
53176/53377	44.450	95.250	30.958	28.300	20.638	74250	82800	4500	0.924
53177/53375	44.450	95.250	30.958	28.300	20.638	74250	82800	4500	0.925
53178/53375	44.450	95.250	30.958	28.300	20.638	74250	82800	4500	0.927
903249A/903210	44.450	95.250	30.958	28.300	22.225	86400	104400	4410	0.999
903249/903210	44.450	95.250	30.958	28.575	22.225	86400	104400	4410	1.000
527/522	44.450	101.600	34.925	36.068	26.988	121500	148500	4500	1.370
460/453X	44.450	104.775	30.162	29.317	24.605	103500	133200	4230	1.290

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

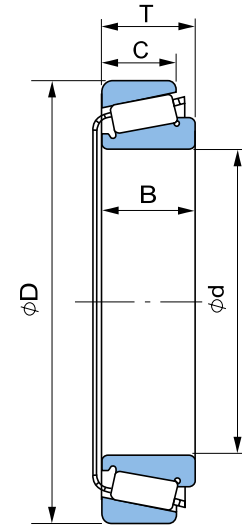


Single Row

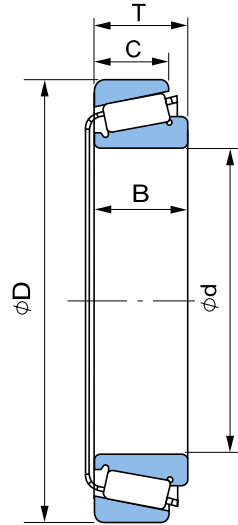


KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
45280/45220	44.450	104.775	30.162	30.958	23.812	117000	152100	4230	1.350
807040/807010	44.450	104.775	36.512	36.512	28.575	124200	170100	4320	1.620
55175C/55437	44.450	111.125	30.162	26.909	20.638	93600	122400	3780	1.450
55176C/55437	44.450	111.125	30.162	26.909	20.638	93600	122400	3780	1.090
6277/6220	44.450	127.000	50.800	52.388	41.275	225000	288000	3870	3.580
25584/25520	44.983	82.931	23.812	25.400	19.050	68400	88200	5400	0.555
3776/3720	44.983	93.264	30.162	30.302	23.812	91800	120600	4770	0.952
358/354A	45.000	85.000	20.638	21.692	17.462	62550	71550	5220	0.505
367/362A	45.000	88.900	20.638	22.225	16.513	68850	81450	4950	0.595
3586/3525	45.237	87.312	30.162	30.886	23.812	84600	105300	5310	0.765
102949/102910	45.242	73.431	19.558	19.812	15.748	48600	68400	5760	0.307
603049/603011	45.242	77.788	19.842	19.842	15.080	51750	66150	5580	0.372
603049/603012	45.242	77.788	21.430	19.842	16.667	51750	66150	5580	0.391
603049/603014	45.242	79.974	19.842	19.842	15.080	51750	66150	5580	0.405
25590/25519	45.618	82.550	23.812	25.400	19.050	68400	88200	5400	0.534
25590/25520	45.618	82.931	23.812	25.400	19.050	68400	88200	5400	0.543
25590/25523	45.618	82.931	26.988	25.400	22.225	68400	88200	5400	0.588
25590/25521	45.618	83.058	23.812	25.400	19.050	68400	88200	5400	0.541
25590/25522	45.618	83.058	23.876	25.400	19.114	68400	88200	5400	0.545
25590/25526	45.618	85.000	23.812	25.400	19.050	68400	88200	5400	0.581
503349A/503310	45.987	74.976	18.000	18.000	14.000	45900	63900	5670	0.296
18690/18620	46.038	79.375	17.462	17.462	13.495	40950	50400	5580	0.329
25592/25520	46.038	82.931	23.812	25.400	19.050	68400	88200	5400	0.538
359A/354A	46.038	85.000	20.638	21.692	17.462	62550	71550	5220	0.489
359S/354A	46.038	85.000	20.638	21.692	17.462	62550	71550	5220	0.491
2984/2924	46.038	85.000	25.400	25.608	20.638	71100	93600	5220	0.615
359S/352	46.038	90.119	23.000	21.692	21.808	62550	71550	5220	0.651
3777/3720	46.038	93.264	30.162	30.302	23.812	91800	120600	4770	0.934
436/432	46.038	95.250	27.783	29.900	22.225	97200	116100	5040	0.927
369A/362A	47.625	88.900	20.638	22.225	16.513	68850	81450	4950	0.559
369S/392A	47.625	88.900	20.638	22.225	16.513	68850	81450	4950	0.561
804048/804010	47.625	88.900	25.400	25.400	19.050	73800	90900	5040	0.662
804049/804010	47.625	88.900	25.400	25.400	19.050	73800	90900	5040	0.657
3778/3720	47.625	93.264	30.162	30.302	23.812	91800	120600	4770	0.898

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**
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 For grease lubrication, please use 75% of the indicated values.

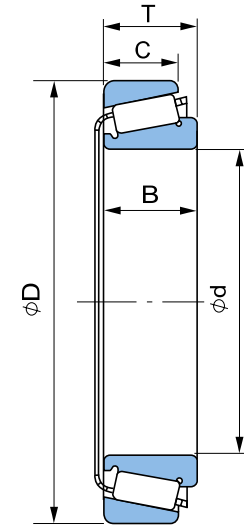
Single Row

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
3779/3720	47.625	93.264	30.162	30.302	23.812	91800	120600	4770	0.906
804846/804810	47.625	95.250	30.162	29.370	23.020	98100	132300	4770	0.978
386A/382A	47.625	96.838	21.000	21.946	15.875	70200	86850	4500	0.720
528/522	47.625	101.600	34.925	36.068	26.988	121500	148500	4500	1.300
463/453X	47.625	104.775	30.162	29.317	24.605	103500	133200	4230	1.240
467/453X	47.625	104.775	30.162	29.317	24.605	103500	133200	4230	1.240
45282/45220	47.625	104.775	30.162	30.958	23.812	117000	152100	4230	1.290
55187C/55437	47.625	111.125	30.162	26.909	20.638	93600	122400	3780	1.400
72188C/72487	47.625	123.825	36.512	32.791	25.400	138600	169200	3510	2.160
804848/804810	48.412	95.250	30.162	29.370	23.020	98100	132300	4770	0.967
804849/804810	48.412	95.250	30.162	29.370	23.020	98100	132300	4770	0.964
3781/3720	49.212	93.264	30.162	30.302	23.812	91800	120600	4770	0.877
5395/5335	49.212	103.188	43.658	44.475	36.512	156600	208800	4500	1.750
807044/807010	49.212	104.775	36.512	36.512	28.575	124200	170100	4320	1.520
65390/65320	49.212	114.300	44.450	44.450	34.925	167400	202500	4320	2.230
506348/506310	49.212	114.300	44.450	44.500	36.068	182700	234900	4230	2.330
104947A/104911	49.987	82.550	21.590	22.250	16.510	62550	84600	5130	0.434
28579/28520	49.987	89.980	24.750	25.400	19.987	75150	104400	4770	0.670
28579/28521	49.987	92.075	24.608	25.400	19.845	75150	104400	4770	0.718
506349/506310	49.987	114.300	44.450	44.450	36.068	182700	234900	4230	2.270
104948/104910	50.000	82.000	21.500	21.500	17.000	62550	84600	5130	0.420
704649/704610	50.000	84.000	22.000	22.000	17.500	62550	85050	5130	0.466
365/362A	50.000	88.900	20.638	22.225	16.513	68850	81450	4950	0.530
366/362A	50.000	88.900	20.638	22.225	16.513	68850	81450	4950	0.529
205149/205110	50.000	90.000	28.000	28.000	23.000	95400	126900	4860	0.752
205149A/205110	50.000	90.000	28.000	28.000	23.000	95400	126900	4860	0.747
807045/807012	50.000	105.000	37.000	36.000	29.000	124200	170100	4320	1.520
396/394A	50.000	110.000	22.000	21.996	18.824	80550	108000	3870	1.060
104949/104911	50.800	82.550	21.590	22.225	16.510	62550	84600	5130	0.419
104949/104912	50.800	82.931	21.590	22.225	16.510	62550	84600	5130	0.425
18790/18720	50.800	85.000	17.462	17.462	13.495	44550	58500	5040	0.374
18790/18724	50.800	88.900	17.462	17.462	13.495	44550	58500	5040	0.431
368/362A	50.800	88.900	20.638	22.225	16.513	68850	81450	4950	0.519
368A/362A	50.800	88.900	20.638	22.225	16.513	68850	81450	4950	0.516
370A/362A	50.800	88.900	20.638	22.225	16.513	68850	81450	4950	0.511

Tapered Roller Bearings TR

Single Row

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
368A/362	50.800	90.000	20.000	22.225	15.875	68850	81450	4950	0.525
368A/363	50.800	90.000	20.000	22.225	20.000	68850	81450	4950	0.556
28580/28521	50.800	92.075	24.608	25.400	19.845	75150	104400	4770	0.703
3775/3720	50.800	93.264	30.162	30.302	23.812	91800	120600	4770	0.852
3780/3720	50.800	93.264	30.162	30.302	23.812	91800	120600	4770	0.848
3780/3730	50.800	93.264	30.162	30.302	23.812	91800	120600	4770	0.854
3784/3720	50.800	93.264	30.162	30.302	23.812	91800	120600	4770	0.839
33889/33821	50.800	95.250	27.783	28.575	22.225	96300	125100	4680	0.876
3780/3726	50.800	95.250	30.162	30.302	23.812	91800	120600	4770	0.903
385A/382A	50.800	96.838	21.000	21.946	15.875	70200	86850	4500	0.676
28678/28622	50.800	97.630	24.608	24.608	19.446	79650	115200	4410	0.852
3780/3732	50.800	98.425	30.162	30.302	23.812	91800	120600	4770	0.993
49585/49520	50.800	101.600	31.750	31.750	25.400	99000	122400	4500	1.130
529/522	50.800	101.600	34.925	36.068	26.988	121500	148500	4500	1.240
529X/522	50.800	101.600	34.925	36.068	26.988	121500	148500	4500	1.230
455/453X	50.800	104.775	30.162	29.317	24.605	103500	133200	4230	1.190
455S/453X	50.800	104.775	30.162	29.317	24.605	103500	133200	4230	1.180
45284/45220	50.800	104.775	30.162	30.958	23.812	117000	152100	4230	1.220
45285/45220	50.800	104.775	30.162	30.958	23.812	117000	152100	4230	1.230
45285A/45220	50.800	104.775	30.162	30.958	23.812	117000	152100	4230	1.230
807046/807010	50.800	104.775	36.512	36.512	28.575	124200	170100	4320	1.490
59200/59412	50.800	104.775	36.512	36.512	28.575	128700	160200	4410	1.440
537/532X	50.800	107.950	36.512	36.957	28.575	126900	159300	4320	1.550
907643/907614	50.800	111.125	30.162	28.575	20.638	93600	122400	3780	1.360
55200C/55443	50.800	112.712	30.162	26.909	20.638	93600	122400	3780	1.340
3975/3920	50.800	112.712	30.162	30.048	23.812	107100	156600	3870	1.530
39573/39520	50.800	112.712	30.162	30.162	23.812	124200	175500	3780	1.550
39575/39520	50.800	112.712	30.162	30.162	23.812	124200	175500	3780	1.540
66200/66462	50.800	117.475	33.338	31.750	23.812	117000	137700	3960	1.670
619/612	50.800	120.650	41.275	41.275	31.750	154800	191700	3960	2.300
72200C/72487	50.800	123.825	36.512	32.791	25.400	138600	169200	3510	2.100
72201C/72487	50.800	123.825	36.512	32.791	25.400	138600	169200	3510	2.100
555/552A	50.800	123.825	38.100	36.678	30.162	142200	194400	3690	2.340
368S/362A	51.592	88.900	20.638	22.225	16.513	68850	81450	4950	0.507
28584/28521	52.388	92.075	24.608	25.400	19.845	75150	104400	4770	0.677
3767/3720	52.388	93.264	30.162	30.302	23.812	91800	120600	4770	0.819

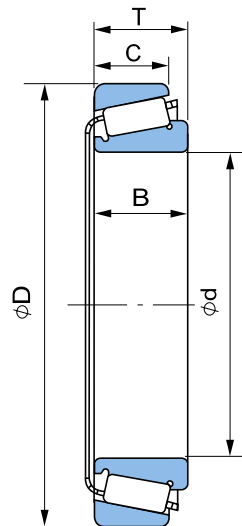

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Row

171



Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
33890/33821	52.388	95.250	27.783	28.575	22.225	96300	125100	4680	0.851
33891/33821	52.388	95.250	27.783	28.575	22.225	96300	125100	4680	0.847
806649/806610	53.975	88.900	19.050	19.050	13.492	54900	74250	4770	0.437
33895/33821	53.975	95.250	27.783	28.575	22.225	96300	125100	4680	0.821
33895/33822	53.975	95.250	27.783	28.575	22.225	96300	125100	4680	0.824
389A/382A	53.975	96.838	21.000	21.946	15.875	70200	86850	4500	0.633
45287/45220	53.975	104.775	30.162	30.958	23.812	117000	152100	4230	1.170
807049/807010	53.975	104.775	36.512	36.512	28.575	124200	170100	4320	1.410
539/532X	53.975	107.950	36.512	36.957	28.575	126900	159300	4320	1.470
539A/532X	53.975	107.950	36.512	36.957	28.575	126900	159300	4320	1.470
539/532A	53.975	111.125	38.100	36.957	30.162	126900	159300	4320	1.650
621/612	53.975	120.650	41.275	41.275	31.750	154800	191700	3960	2.210
66584/66520	53.975	122.238	33.338	31.750	23.812	120600	146700	3780	1.790
5578/5535	53.975	122.238	43.658	43.764	36.512	174600	254700	3690	2.640
72212C/72487	53.975	123.825	36.512	32.791	25.400	138600	169200	3510	2.030
557S/552A	53.975	123.825	38.100	36.678	30.162	142200	194400	3690	2.260
911242/911210	53.975	130.175	36.512	33.338	23.812	140400	167400	3240	2.270
78214C/78551	53.975	140.030	36.512	33.236	23.520	153900	190800	3060	2.770
78215C/78551	53.975	140.030	36.512	33.236	23.520	153900	190800	3060	2.760
807048/807010	54.448	104.775	36.512	36.512	28.575	124200	170100	4320	1.400
506849/506810	55.000	90.000	23.000	23.000	18.500	69750	98100	4770	0.558
207049/207010	55.000	95.000	29.000	29.000	23.500	96300	129600	4590	0.820
207049A/207010	55.000	95.000	29.000	29.000	23.500	96300	129600	4590	0.809
385/382A	55.000	96.838	21.000	21.946	15.875	70200	86850	4500	0.616
385X/382A	55.000	96.838	21.000	21.946	15.875	70200	86850	4500	0.614
307749/307710	55.000	110.000	39.000	39.000	32.000	155700	197100	4140	1.710
28680/28622	55.562	97.630	24.608	24.608	19.446	79650	115200	4410	0.774
72218C/72487	55.562	123.825	36.512	32.791	25.400	138600	169200	3510	1.990
813840/813810	55.562	127.000	36.512	36.512	26.988	146700	205200	3420	2.340
389/382A	55.575	96.838	21.000	21.946	15.875	70200	86850	4500	0.608
387/382A	57.150	96.838	21.000	21.946	15.875	70200	86850	4500	0.583
387A/382A	57.150	96.838	21.000	21.946	15.875	70200	86850	4500	0.581
387AS/382A	57.150	96.838	21.000	21.946	15.875	70200	86850	4500	0.576
387S/382A	57.150	96.838	21.000	21.946	15.875	70200	86850	4500	0.585
387A/382S	57.150	96.838	25.400	21.946	20.274	70200	86850	4500	0.650

***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

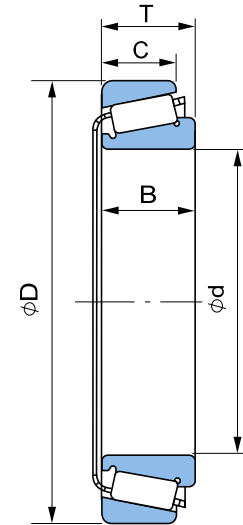
Tapered Roller Bearings TR

Single Row



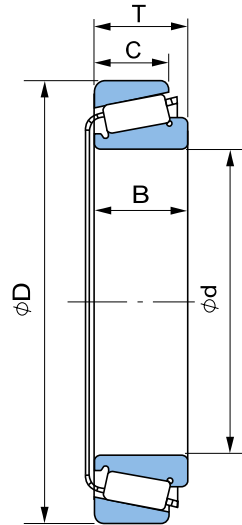
KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
28682/28622	57.150	97.630	24.608	24.608	19.446	79650	115200	4410	0.747
387A/382	57.150	98.425	21.000	21.946	17.826	70200	86850	4500	0.628
387A/383A	57.150	100.000	21.000	21.946	17.826	70200	86850	4500	0.660
462/453X	57.150	104.775	30.162	29.317	24.605	103500	133200	4230	1.060
469/453X	57.150	104.775	30.162	29.317	24.605	103500	133200	4230	1.060
45289/45220	57.150	104.775	30.162	30.958	23.812	117000	152100	4230	1.100
45290/45220	57.150	104.775	30.162	30.958	23.812	117000	152100	4230	1.100
45291/45220	57.150	104.775	30.162	30.958	23.812	117000	152100	4230	1.090
469/453A	57.150	107.950	27.783	29.317	22.225	103500	133200	4230	1.110
390/394A	57.150	110.000	22.000	21.996	18.824	80550	108000	3870	0.954
469/454	57.150	110.000	27.795	29.317	27.000	103500	133200	4230	1.240
3979/3920	57.150	112.712	30.162	30.048	23.812	107100	156600	3870	1.400
39580/39520	57.150	112.712	30.162	30.162	23.812	124200	175500	3780	1.410
39581/39520	57.150	112.712	30.162	30.162	23.812	124200	175500	3780	1.400
33225/33462	57.150	117.475	30.162	30.162	23.812	105300	157500	3600	1.580
66225/66462	57.150	117.475	33.338	31.750	23.812	117000	137700	3960	1.540
623/612	57.150	120.650	41.275	41.275	31.750	154800	191700	3960	2.120
72225C/72487	57.150	123.825	36.512	32.791	25.400	138600	169200	3510	1.960
555S/552A	57.150	123.825	38.100	36.678	30.162	142200	194400	3690	2.180
78225/78551	57.150	140.030	36.512	33.236	23.520	153900	190800	3060	2.690
388A/382A	57.531	96.838	21.000	21.946	15.875	70200	86850	4500	0.575
66589/66520	59.972	122.238	33.338	31.750	23.812	120600	146700	3780	1.660
913840/913810	59.987	146.050	41.275	39.688	25.400	179100	210600	2880	3.220
508748/508710	60.000	95.000	24.000	24.000	19.000	74700	109800	4410	0.606
29580/29520	60.000	107.950	25.400	25.400	19.050	82350	126000	3870	0.992
29582/29520	60.000	107.950	25.400	25.400	19.050	82350	126000	3870	0.997
397/394A	60.000	110.000	22.000	21.996	18.824	80550	108000	3870	0.910
911244/911211	60.000	130.000	34.100	30.924	22.650	140400	167400	3240	2.010
28985/28919	60.325	99.979	24.605	25.400	19.050	81450	120600	4230	0.762
28985/28921	60.325	100.000	25.400	25.400	19.845	81450	120600	4230	0.772
28985/28920	60.325	101.600	25.400	25.400	19.845	81450	120600	4230	0.811
3980/3920	60.325	112.712	30.162	30.048	23.812	107100	156600	3870	1.330
212044/212011	60.325	122.238	38.100	38.354	29.718	168300	219600	3690	2.020
5583/5535	60.325	122.238	43.658	43.764	36.512	174600	254700	3690	2.440
558/552A	60.325	123.825	38.100	36.678	30.162	142200	194400	3690	2.100

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Single Row



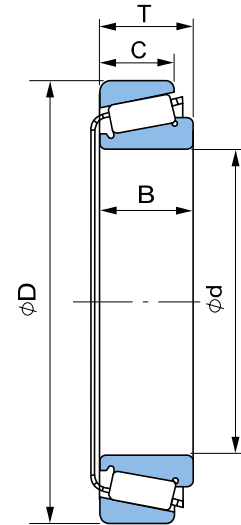
***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
813841/813810	60.325	127.000	36.512	36.512	26.988	146700	205200	3420	2.210
813841A/813810	60.325	127.000	36.512	36.512	26.988	146700	205200	3420	2.200
65237/65500	60.325	127.000	44.450	44.450	34.925	182700	236700	3780	2.650
911245/911210	60.325	130.175	36.512	33.338	23.812	140400	167400	3240	2.120
911245/911216	60.325	134.983	35.862	33.338	21.948	140400	167400	3240	2.250
392/394A	61.912	110.000	22.000	21.996	18.824	80550	108000	3870	0.879
715334/715311	61.912	136.525	46.038	46.038	36.512	201600	319500	3150	3.470
913842/913810	61.912	146.050	41.275	39.688	25.400	179100	210600	2880	3.170
28990/28920	61.976	101.600	24.608	24.608	19.845	81450	120600	4230	0.768
28995/28920	62.738	101.600	25.400	25.400	19.845	81450	120600	4230	0.764
610549/610510	63.500	94.458	19.050	19.050	15.083	54450	92700	4320	0.449
29585/29520	63.500	107.950	25.400	25.400	19.050	82350	126000	3870	0.924
29585/29522	63.500	107.950	25.400	25.400	19.050	82350	126000	3870	0.931
29586/29520	63.500	107.950	25.400	25.400	19.050	82350	126000	3870	0.929
390A/394A	63.500	110.000	22.000	21.996	18.824	80550	108000	3870	0.851
390A/394AS	63.500	110.000	22.000	21.996	18.824	80550	108000	3870	0.845
395/394A	63.500	110.000	22.000	21.996	18.824	80550	108000	3870	0.847
29585/29521	63.500	110.000	25.400	25.400	19.050	82350	126000	3870	0.982
3982/3920	63.500	112.712	30.162	30.048	23.812	107100	156600	3870	1.260
39585/39520	63.500	112.712	30.162	30.162	23.812	124200	175500	3780	1.270
39585A/39520	63.500	112.712	30.162	30.162	23.812	124200	175500	3780	1.280
477/472	63.500	120.000	29.794	29.007	24.237	115200	159300	3600	1.490
483/472	63.500	120.000	29.794	29.007	24.237	115200	159300	3600	1.480
212046/212011	63.500	122.238	38.100	38.354	29.718	168300	219600	3690	1.950
212047/212011	63.500	122.238	38.100	38.354	29.718	168300	219600	3690	1.940
5584/5535	63.500	122.238	43.658	43.764	36.512	174600	254700	3690	2.340
559/552A	63.500	123.825	38.100	36.678	30.162	142200	194400	3690	2.010
565/563	63.500	127.000	36.512	36.170	28.575	146700	206100	3420	2.110
813842/813810	63.500	127.000	36.512	36.512	26.988	146700	205200	3420	2.120
639/632	63.500	136.525	41.275	41.275	31.750	174600	235800	3420	2.850
78250/78551	63.500	140.030	36.512	33.236	23.520	153900	190800	3060	2.540
710949/710910	65.000	105.000	24.000	23.000	18.500	76500	105300	4050	0.742
511946/511910	65.000	110.000	28.000	28.000	22.500	107100	156600	3870	1.080
211749/211710	65.000	120.000	39.000	38.500	32.000	166500	223200	3690	1.900
6379/6320	65.088	135.755	53.975	56.007	44.450	250200	342000	3420	3.710

Tapered Roller Bearings TR

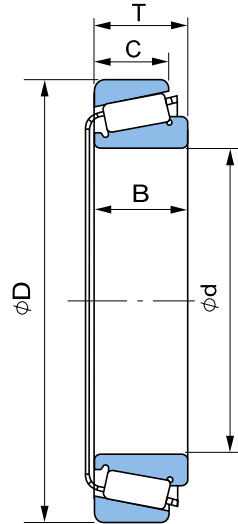
Single Row

KG®



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
812148/812111	66.675	103.213	17.602	17.602	11.989	54000	70200	3960	0.480
29590/29520	66.675	107.950	25.400	25.400	19.050	82350	126000	3870	0.860
395A/394A	66.675	110.000	22.000	21.996	18.824	80550	108000	3870	0.796
395S/394A	66.675	110.000	22.000	21.996	18.824	80550	108000	3870	0.791
3984/3920	66.675	112.712	30.162	30.048	23.812	107100	156600	3870	1.180
3984/3925	66.675	112.712	30.162	30.048	23.812	107100	156600	3870	1.190
3994/3920	66.675	112.712	30.162	30.048	23.812	107100	156600	3870	1.180
39590/39520	66.675	112.712	30.162	30.162	23.812	124200	175500	3780	1.190
212049/212010	66.675	122.238	38.100	38.354	29.718	168300	219600	3690	1.860
212049/212011	66.675	122.238	38.100	38.354	29.718	168300	219600	3690	1.850
560/552A	66.675	123.825	38.100	36.678	30.162	142200	194400	3690	1.920
813844/813810	66.675	127.000	36.512	36.512	26.988	146700	205200	3420	2.030
641/633	66.675	130.175	41.275	41.275	31.750	174600	235800	3420	2.410
6386/6320	66.675	135.755	53.975	56.007	44.450	250200	342000	3420	3.640
6389/6320	66.675	135.755	53.975	56.007	44.450	250200	342000	3420	3.630
641/632	66.675	136.525	41.275	41.275	31.750	174600	235800	3420	2.740
414242/414210	66.675	136.525	41.275	41.275	31.750	203400	263700	3330	2.750
399A/394A	68.262	110.000	22.000	21.996	18.824	80550	108000	3870	0.764
399AS/394A	68.262	110.000	22.000	21.996	18.824	80550	108000	3870	0.756
480/472	68.262	120.000	29.794	29.007	24.237	115200	159300	3600	1.370
560S/552A	68.262	123.825	38.100	36.678	30.162	142200	194400	3690	1.870
414245/414210	68.262	136.525	41.275	41.275	31.750	203400	263700	3330	2.700
715343/715311	68.262	136.525	46.038	46.038	36.512	201600	319500	3150	3.240
29675/29620	69.850	112.712	25.400	25.400	19.050	85950	135900	3690	0.949
33275/33462	69.850	117.475	30.162	30.162	23.812	105300	157500	3600	1.280
482/472A	69.850	120.000	29.002	29.007	23.444	115200	159300	3600	1.300
482/472	69.850	120.000	29.794	29.007	24.237	115200	159300	3600	1.330
47487/47420	69.850	120.000	32.545	32.545	26.195	132300	192600	3600	1.470
29675/29630	69.850	120.650	25.400	25.400	19.050	85950	135900	3690	1.170
566/563	69.850	127.000	36.512	36.170	28.575	146700	206100	3420	1.920
643/632	69.850	136.525	41.275	41.275	31.750	174600	235800	3420	2.630
655/653	69.850	146.050	41.275	41.275	31.750	185400	265500	2970	3.280
745A/742	69.850	150.089	44.450	46.672	36.512	234900	324000	2880	3.920
835/832	69.850	168.275	53.975	56.363	41.275	306000	414000	2700	6.130
34274/34478	69.952	121.442	24.608	23.012	17.462	81900	114300	3420	1.110
34274/34492A	69.952	125.052	23.731	23.012	16.400	81900	114300	3420	1.180



***Note:**
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 For grease lubrication, please use 75% of the indicated values.

Single Row

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
81349/813010	70.000	110.000	26.000	25.000	20.500	87300	135000	3780	0.889
612949/612910	70.000	115.000	29.000	29.000	23.000	111600	153900	3690	1.130
484/472	70.000	120.000	29.794	29.007	24.237	115200	159300	3600	1.330
913848/913811	70.000	150.000	41.275	39.688	25.400	179100	210600	2880	3.080
33281/33462	71.438	117.475	30.162	30.162	23.812	105300	157500	3600	1.240
47490/47420	71.438	120.000	32.545	32.545	26.195	132300	192600	3600	1.420
567A/563	71.438	127.000	36.512	36.170	28.575	146700	206100	3420	1.870
644/632	71.438	136.525	41.275	41.275	31.750	174600	235800	3420	2.570
414249/414210	71.438	136.525	41.275	41.275	31.750	203400	263700	3330	2.580
715345/715311	71.438	136.525	46.038	46.038	36.512	201600	319500	3150	3.110
29685/29620	73.025	112.712	25.400	25.400	19.050	85950	135900	3690	0.873
33287/33462	73.025	117.475	30.162	30.162	23.812	105300	157500	3600	1.190
33287/33472	73.025	120.000	29.794	30.162	23.444	105300	157500	3600	1.280
567/563	73.025	127.000	36.512	36.170	28.575	146700	206100	3420	1.820
576/572	73.025	139.992	36.512	36.098	28.575	160200	238500	3060	2.530
6460/6420	73.025	149.225	53.975	54.229	44.450	258300	369000	3060	4.420
744/742	73.025	150.089	44.450	46.672	36.512	234900	324000	2880	3.790
29688/29620	73.817	112.712	25.400	25.400	19.050	85950	135900	3690	0.860
568/563	73.817	127.000	36.512	36.170	28.575	146700	206100	3420	1.800
577/572	74.612	139.992	36.512	36.098	28.575	160200	238500	3060	2.480
714149/714110	75.000	115.000	25.000	25.000	19.000	85050	128700	3600	0.875
714249/714210	75.000	120.000	31.000	29.500	25.000	117900	177300	3510	1.290
415647/415610	75.000	145.000	51.000	51.000	42.000	258300	369000	3060	3.810
814749/814710	76.200	109.538	19.050	19.050	15.083	56700	103500	3690	0.579
34300/34478	76.200	121.442	24.608	23.012	17.462	81900	114300	3420	0.982
34301/34478	76.200	121.442	24.608	23.012	17.462	81900	114300	3420	0.977
42687/42620	76.200	127.000	30.162	31.000	22.225	121500	174600	3330	1.460
42688/42620	76.200	127.000	30.162	31.000	22.225	121500	174600	3330	1.440
47678/47620	76.200	133.350	33.338	33.338	26.195	137700	211500	3150	1.920
47679/47620	76.200	133.350	33.338	33.338	26.195	137700	211500	3150	1.930
47680/47620	76.200	133.350	33.338	33.338	26.195	137700	211500	3150	1.940
516442/516410	76.200	133.350	39.688	39.688	32.545	159300	274500	3150	2.430
5760/5735	76.200	135.733	44.450	46.100	34.925	189900	297000	3150	2.750
495A/493	76.200	136.525	30.162	29.769	22.225	116100	170100	3150	1.830
495AX/493	76.200	136.525	30.162	29.769	22.225	116100	170100	3150	1.820

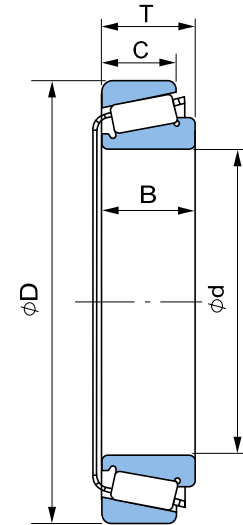
Tapered Roller Bearings
TR

Single Row



KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
575/572	76.200	139.992	36.512	36.098	28.575	160200	238500	3060	2.430
575S/572	76.200	139.992	36.512	36.098	28.575	160200	238500	3060	2.410
659/653	76.200	146.050	41.275	41.275	31.750	185400	265500	2970	3.040
6461/6420	76.200	149.225	53.975	54.229	44.450	258300	369000	3060	4.260
6461A/6420	76.200	149.225	53.975	54.229	44.450	258300	369000	3060	4.230
748S/742	76.200	150.089	44.450	46.672	36.512	234900	324000	2880	3.660
6576/6535	76.200	161.925	53.975	55.100	42.862	279000	414000	2700	5.440
917840/917810	76.200	180.975	53.975	53.183	35.720	292500	373500	2340	6.570
221430/221410	76.200	190.500	57.150	57.531	46.038	400500	549000	2340	8.690
814849/814810	77.788	117.475	25.400	25.400	19.050	89550	145800	3510	0.932
34306/34478	77.788	121.442	24.608	23.012	17.462	81900	114300	3420	0.943
34307/34478	77.788	121.442	24.608	23.012	17.462	81900	114300	3420	0.930
42690/42620	77.788	127.000	30.162	31.000	22.225	121500	174600	3330	1.410
495AS/493	77.788	136.525	30.162	29.769	22.225	116100	170100	3150	1.780
715348/715311	77.788	136.525	46.038	46.038	36.512	201600	319500	3150	2.840
661/653	79.375	146.050	41.275	41.275	31.750	185400	265500	2970	2.910
756A/752	79.375	161.925	47.625	48.260	38.100	243000	346500	2790	4.550
221431/221410	79.375	190.500	57.150	57.531	46.038	400500	549000	2340	8.520
515649/515610	80.000	130.000	35.000	34.000	28.500	149400	224100	3240	1.730
47681/47620	80.962	133.350	33.338	33.338	26.195	137700	211500	3150	1.780
496/493	80.962	136.525	30.162	29.769	22.225	116100	170100	3150	1.690
581/572	80.962	139.992	36.512	36.098	28.575	160200	238500	3060	2.260
740/742	80.962	150.089	44.450	46.672	36.512	234900	324000	2880	3.430
27687/27620	82.550	125.412	25.400	25.400	19.845	91800	146700	3240	1.070
47686/47620	82.550	133.350	33.338	33.338	26.195	137700	211500	3150	1.720
47686/47620A	82.550	133.350	33.338	33.338	26.195	137700	211500	3150	1.730
47687/47620	82.550	133.350	33.338	33.338	26.195	137700	211500	3150	1.710
516448/516410	82.550	133.350	39.688	39.688	32.545	159300	274500	3150	2.160
516449/516410	82.550	133.350	39.688	39.688	32.545	159300	274500	3150	2.180
495/493	82.550	136.525	30.162	29.769	22.225	116100	170100	3150	1.640
580/572	82.550	139.992	36.512	36.098	28.575	160200	238500	3060	2.200
582/572	82.550	139.992	36.512	36.098	28.575	160200	238500	3060	2.190
663/653	82.550	146.050	41.275	41.275	31.750	185400	265500	2970	2.780
749A/742	82.550	150.089	44.450	46.672	36.512	234900	324000	2880	3.370
595/592A	82.550	152.400	39.688	36.322	30.162	162000	251100	2790	3.020

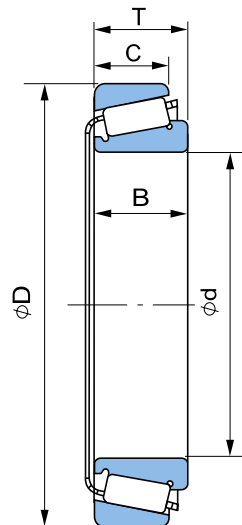
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Row

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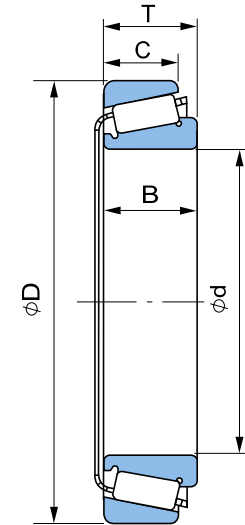
Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
663/652	82.550	152.400	41.275	41.275	31.750	185400	265500	2970	3.150
757/752	82.550	161.925	47.625	48.260	38.100	243000	346500	2790	4.420
6559C/6535	82.550	161.925	53.975	55.100	42.862	279000	414000	2700	5.090
842/832	82.550	168.275	53.975	56.363	41.275	306000	414000	2700	5.460
27689/27620	83.345	125.412	25.400	25.400	19.845	91800	146700	3240	1.060
27690/27620	83.345	125.412	25.400	25.400	19.845	91800	146700	3240	1.050
27691/27620	83.345	125.412	25.400	25.400	19.845	91800	146700	3240	1.040
498/493	84.138	136.525	30.162	29.769	22.225	116100	170100	3150	1.600
716648/716610	85.000	130.000	30.000	29.000	24.000	121500	192600	3150	1.370
716649/716610	85.000	130.000	30.000	29.000	24.000	121500	192600	3150	1.390
516849/516810	85.000	140.000	39.000	38.000	31.500	177300	267300	3060	2.300
749/742	85.026	150.089	44.450	46.672	36.512	234900	324000	2880	3.250
749S/742	85.026	150.089	44.450	46.672	36.512	234900	324000	2880	3.240
497/492A	85.725	133.350	30.162	29.769	22.225	116100	170100	3150	1.430
497/493	85.725	136.525	30.162	29.769	22.225	116100	170100	3150	1.550
497A/493	85.725	136.525	30.162	29.769	22.225	116100	170100	3150	1.530
617049/617010	85.725	142.138	42.862	42.862	34.133	194400	315000	2970	2.690
665/653	85.725	146.050	41.275	41.275	31.750	185400	265500	2970	2.650
665A/653	85.725	146.050	41.275	41.275	31.750	185400	265500	2970	2.630
596/592A	85.725	152.400	39.688	36.322	30.162	162000	251100	2790	2.900
758/752	85.725	161.925	47.625	48.260	38.100	243000	346500	2790	4.260
42346/42584	87.960	148.430	28.575	28.971	21.433	124200	193500	2790	1.990
217849/LL217810	88.900	121.442	15.083	15.083	11.112	50850	79200	3240	0.452
217849/L217810	88.900	123.825	20.638	20.638	16.670	72000	126900	3150	0.737
42350/42584	88.900	148.430	28.575	28.971	21.433	124200	193500	2790	1.960
593/592A	88.900	152.400	39.688	36.322	30.162	162000	251100	2790	2.780
593A/592A	88.900	152.400	39.688	36.322	30.162	162000	251100	2790	2.760
759/752	88.900	161.925	47.625	48.260	38.100	243000	346500	2790	4.090
766/752	88.900	161.925	47.625	48.260	38.100	243000	346500	2790	4.070
6580/6535	88.900	161.925	53.975	55.100	42.862	279000	414000	2700	4.730
850/832	88.900	168.275	53.975	56.363	41.275	306000	414000	2700	5.080
218248/218210	89.974	146.975	40.000	40.000	32.500	204300	306000	2880	2.550
718149/718110	90.000	145.000	35.000	34.000	27.000	170100	251100	2880	2.140

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Tapered Roller Bearings TR

Single Row


***Note:**

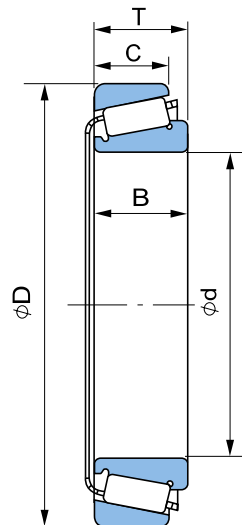
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
318448/318410	90.000	155.000	44.000	44.000	35.500	243000	346500	2790	3.320
90354/90748	90.000	190.000	50.800	46.038	31.750	252900	328500	2160	6.320
760/752	90.488	161.925	47.625	48.260	38.100	243000	346500	2790	4.010
47890/47820	92.075	146.050	33.338	34.925	26.195	146700	239400	2790	2.080
598/592A	92.075	152.400	39.688	36.322	30.162	162000	251100	2790	2.650
598A/592A	92.075	152.400	39.688	36.322	30.162	162000	251100	2790	2.630
681/672	92.075	168.275	41.275	41.275	30.162	199800	306000	2520	3.870
681A/672	92.075	168.275	41.275	41.275	30.162	199800	306000	2520	3.860
42368/42584	93.662	148.430	28.575	28.971	21.433	124200	193500	2790	1.800
719149/719113	95.000	150.000	35.000	34.000	27.000	162000	250200	2790	2.190
319249/319210	95.250	130.175	20.638	21.433	16.670	72900	132300	2970	0.789
47896/47820	95.250	146.050	33.338	34.925	26.195	146700	239400	2790	1.950
594A/592XE	95.250	147.638	35.717	36.322	26.192	162000	251100	2790	2.090
594A/592XS	95.250	147.638	35.717	36.322	26.192	162000	251100	2790	2.090
42375/42584	95.250	148.430	28.575	28.971	21.433	124200	193500	2790	1.750
594/592A	95.250	152.400	39.688	36.322	30.162	162000	251100	2790	2.510
594A/592A	95.250	152.400	39.688	36.322	30.162	162000	251100	2790	2.510
52375/52618	95.250	157.162	36.512	36.116	26.195	169200	274500	2610	2.760
683/672	95.250	168.275	41.275	41.275	30.162	199800	306000	2520	3.720
221440/221410	95.250	190.500	57.150	57.531	46.038	400500	549000	2340	7.500
42381/42584	96.838	148.430	28.575	28.971	21.433	124200	193500	2790	1.690
90381/90744	96.838	188.912	50.800	46.038	31.750	252900	328500	2160	5.670
52387/52618	98.425	157.162	36.512	36.116	26.195	169200	274500	2610	2.620
685/672	98.425	168.275	41.275	41.275	30.162	199800	306000	2520	3.560
224334/224310	99.974	212.725	66.675	66.675	53.975	517500	729000	2070	11.500
720249/720210	100.000	155.000	36.000	35.000	28.000	172800	279000	2610	2.400
720249/720210	100.000	160.000	41.000	40.000	32.000	211500	333000	2610	3.040
52393/52618	100.012	157.162	36.512	36.116	26.195	169200	274500	2610	2.550
52400/52618	101.600	157.162	36.512	36.116	26.195	169200	274500	2610	2.480
52400/52638	101.600	161.925	39.688	36.116	29.370	169200	274500	2610	2.890
687/672	101.600	168.275	41.275	41.275	30.162	199800	306000	2520	3.400
780/772	101.600	180.975	47.625	48.006	38.100	256500	387000	2430	5.110
861/854	101.600	190.500	57.150	57.531	44.450	342000	499500	2340	7.000



Single Row

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Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
221449/221410	101.600	190.500	57.150	57.531	46.038	400500	549000	2340	7.060
221449A/221410	101.600	190.500	57.150	57.531	46.038	400500	549000	2340	7.060
941/932	101.600	212.725	66.675	66.675	53.975	427500	625500	2070	11.200
224335/224310	101.600	212.725	66.675	66.675	53.975	517500	729000	2070	11.300
782/772	104.775	180.975	47.625	48.006	38.100	256500	387000	2430	4.920
786/772	104.775	180.975	47.625	48.006	38.100	256500	387000	2430	4.900
787/772	104.775	180.975	47.625	48.006	38.100	256500	387000	2430	4.900
37425/37625	107.950	158.750	23.020	21.438	15.875	91800	149400	2520	1.370
522546/522510	107.950	159.987	34.925	34.925	26.988	150300	288000	2520	2.370
56425/56650	107.950	165.100	36.512	36.512	26.988	171900	283500	2430	2.690
56425/56662	107.950	168.275	36.512	36.512	26.988	171900	283500	2430	2.870
936/932	107.950	212.725	66.675	66.675	53.975	427500	625500	2070	10.700
37431/37625	109.538	158.750	23.020	21.438	15.875	91800	149400	2520	1.330
522548/522510	109.987	159.987	34.925	34.925	26.988	150300	288000	2520	2.240
522549/522510	109.987	159.987	34.925	34.925	26.988	150300	288000	2520	2.270
64433/64700	109.992	177.800	41.275	41.275	30.162	208800	337500	2340	3.770
822049/822010	110.000	165.000	35.000	35.000	26.500	171900	283500	2430	2.520
522649/522610	110.000	180.000	47.000	46.000	38.000	274500	432000	2340	4.610
924045/924010	111.125	214.312	55.562	52.388	39.688	364500	504000	1800	8.180
64450/64700	114.300	177.800	41.275	41.275	30.162	208800	337500	2340	3.520
64450/64708	114.300	179.974	41.275	41.275	30.162	208800	337500	2340	3.670
68450/68712	114.300	180.975	34.925	31.750	25.400	152100	220500	2250	2.930
938/932	114.300	212.725	66.675	66.675	53.975	427500	625500	2070	10.100
224346/224310	114.300	212.725	66.675	66.675	53.975	517500	729000	2070	10.200
926740/926710	114.300	228.600	53.975	49.428	38.100	387000	558000	1710	9.760
71453/71750	115.087	190.500	47.625	49.212	34.925	270000	427500	2250	5.110
71455/71750	115.087	190.500	47.625	49.212	34.925	270000	427500	2250	5.080
68462/68712	117.475	180.975	34.925	31.750	25.400	152100	220500	2250	2.780
724348/724314	120.000	170.000	25.400	25.400	19.050	114300	189000	2340	1.670
95475/95925	120.650	234.950	63.500	63.500	49.212	472500	742500	1800	12.600
48286/48220	123.825	182.562	39.688	38.100	33.338	201600	391500	2160	3.520
48290/48220	127.000	182.562	39.688	38.100	33.338	201600	391500	2160	3.330

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Tapered Roller Bearings TR

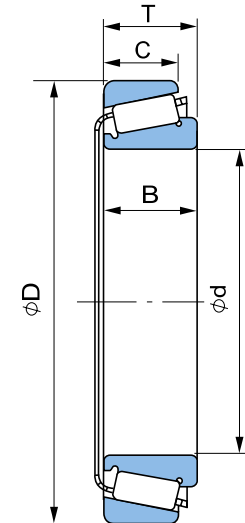


Single Row



KG[®]

Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
67388/67322	127.000	196.850	46.038	46.038	38.100	279000	495000	1980	5.100
74500/74850	127.000	215.900	47.625	47.625	34.925	288000	486000	1890	7.050
97500/97900	127.000	228.600	53.975	49.428	38.100	288000	400500	1710	8.430
926747/926710	127.000	228.600	53.975	49.428	38.100	387000	558000	1710	8.830
95500/95905	127.000	230.000	63.500	63.500	49.212	472500	742500	1800	12.900
95500/95925	127.000	234.950	63.500	63.500	49.212	472500	742500	1800	12.000
228349/228310	127.000	254.000	77.788	82.550	61.912	666000	963000	1710	19.500
799/792	128.588	206.375	47.625	47.625	34.925	283500	468000	1980	5.770
67389/67322	130.175	196.850	46.038	46.038	38.100	279000	495000	1980	4.870
799A/792	130.175	206.375	47.625	47.625	34.925	283500	468000	1980	5.650
327249/327210	133.350	177.008	25.400	26.195	20.638	113400	233100	2160	1.700
48385/48320	133.350	190.500	39.688	39.688	33.338	212400	427500	2070	3.640
67390/67322	133.350	196.850	46.038	46.038	38.100	279000	495000	1980	4.630
67391/67322	133.350	196.850	46.038	46.038	38.100	279000	495000	1980	4.590
74525/74850	133.350	215.900	47.625	47.625	34.925	288000	486000	1890	6.560
95525/95925	133.350	234.950	63.500	63.500	49.212	472500	742500	1800	11.300
95528/95925	133.350	234.950	63.500	63.500	49.212	472500	742500	1800	11.400
48393/48320	136.525	190.500	39.688	39.688	33.338	212400	427500	2070	3.430
896/892	136.525	228.600	57.150	57.150	44.450	400500	661500	1800	9.070
74550/74845	139.700	214.975	47.625	47.625	34.925	288000	486000	1890	5.970
74550/74850	139.700	215.900	47.625	47.625	34.925	288000	486000	1890	6.050
898/892	139.700	228.600	57.150	57.150	44.450	400500	661500	1800	8.760
898A/892	139.700	228.600	57.150	57.150	44.450	400500	661500	1800	8.730
99550/99100	139.700	254.000	66.675	66.675	47.625	495000	819000	1620	14.300
48684/48620	142.875	200.025	41.275	39.688	34.130	215100	441000	1890	3.850
48685/48620	142.875	200.025	41.275	39.688	34.130	215100	441000	1890	3.890
36690/36620	146.050	193.675	28.575	28.575	23.020	148500	306000	1980	2.270
36691/36620	146.050	193.675	28.575	28.575	23.020	148500	306000	1980	2.250
99575/99100	146.050	254.000	66.675	66.675	47.625	495000	819000	1620	13.500
630349/630310	152.400	192.088	25.000	24.000	19.000	117000	234900	1890	1.530
231648/231610	152.400	222.250	46.830	46.830	34.925	283500	526500	1800	5.720
231649/231610	152.400	222.250	46.830	46.830	34.925	283500	526500	1800	5.770
432349/432310	158.750	205.583	23.812	23.812	18.258	113400	222300	1800	1.890

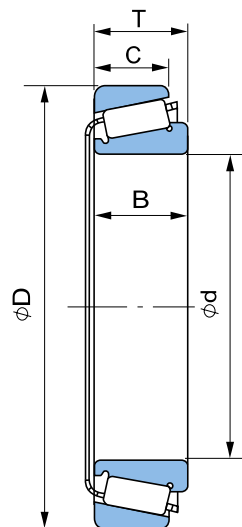
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Row

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Bearing No.	Dimensions in mm					Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	T	B	C	N			
						Dynamic	Static		
46780/46720	158.750	225.425	41.275	39.688	33.338	228600	499500	1710	5.200
46790/46720	165.100	225.425	41.275	39.688	33.338	228600	499500	1710	4.690
534149/534110	170.000	230.000	39.000	38.000	31.000	253800	468000	1620	4.370
36990/36920	177.800	227.012	30.162	30.162	23.020	162900	373500	1620	2.920
67790/67720	177.800	247.650	47.625	47.625	38.100	306000	621000	1530	6.570
736149/736110	180.000	250.000	47.000	45.000	37.000	333000	639000	1530	6.760
738249/738210	190.000	260.000	46.000	44.000	36.500	328500	648000	1440	6.850
639249/639210	196.850	241.300	23.812	23.017	17.462	144000	297000	1440	2.070

Tapered Roller Bearings
TR

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG[®]

Spherical Bearings



KG[®]

Spherical Roller Bearings have two Raceways on Inner Ring, and one Spherical Raceway on the Outer Ring. As the name implies, the Rolling Elements of this Bearing have a spherical profile.

Spherical Roller Bearings are

- capable of carrying both radial loads and axial loads
- suitable for low & medium speed applications
- suitable for applications where some mis-alignment of Shaft can arise

KG can offer following variants

- Single Row type - 202 series (details available on request)
- Double Row type - 213, 222, 223, 230, 231, 232, 239, 240, 241
- plain type - GE
- with C2, CN, C3 & C4 radial clearance
- pressed Steel or machined Brass Cage





Apart from the list of items presented in the following pages, many other type of Spherical Roller Bearings can also be developed to meet specific application requirements. Technical information for Bearings not appearing in our production program, is available on request.

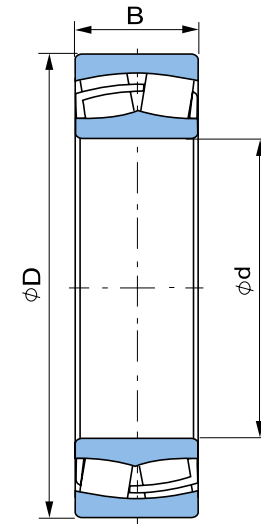
KG standard suffixes for Spherical Roller Bearings

- A Modified internal design.
- C2 Radial internal clearance less than normal.
- CN Normal radial internal clearance. Generally, no special suffix is used in KG Bearings for normal radial internal clearance.
- C3 Radial internal clearance higher than normal.
- C4 Radial internal clearance higher than C3.
- C Pressed Steel Cage.
- CA Machined Brass Cage, one-piece Cage.
- K Tapered Bore, with taper of 1:12.
- K30 Tapered Bore, with taper of 1:30.
- MB Machined Brass Cage, split type.
- Q1-Q3 KG internal reference codes. For details please contact KG International FZCO.
- W33 Oil groove with oil holes in the Outer Ring.

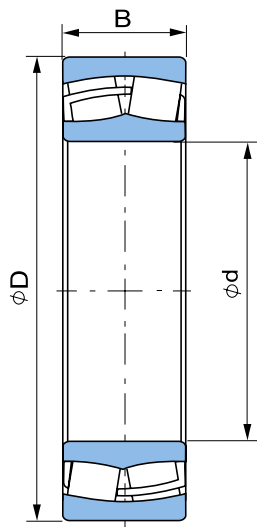
Note: Most of the Bearings listed in the following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
21304	20.000	52.000	15.000	30600	30150	8100	0.210
21305	25.000	62.000	17.000	41400	42750	7020	0.330
21306	30.000	72.000	19.000	53550	56250	5940	0.480
21307	35.000	80.000	21.000	93600	96300	6930	0.780
21308	40.000	90.000	23.000	79200	81000	2970	0.705
21309	45.000	100.000	25.000	91800	95400	2700	0.927
21310	50.000	110.000	27.000	106200	114300	2430	1.210
21311	55.000	120.000	29.000	130500	146700	2970	1.710
21312	60.000	130.000	31.000	150300	171900	2790	2.100
21313	65.000	140.000	33.000	174600	205200	2520	2.550
21314	70.000	150.000	35.000	198000	235800	2340	3.180
21315	75.000	160.000	37.000	215100	258300	2250	3.810
21316	80.000	170.000	39.000	234000	283500	2070	4.530
21317	85.000	180.000	41.000	260100	319500	1980	5.350
21318	90.000	190.000	43.000	288000	360000	1800	6.300
21319	95.000	200.000	45.000	301500	378000	1710	7.100
21320	100.000	215.000	47.000	333000	418500	1620	8.890
21322	110.000	240.000	50.000	445500	553500	1530	11.200


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

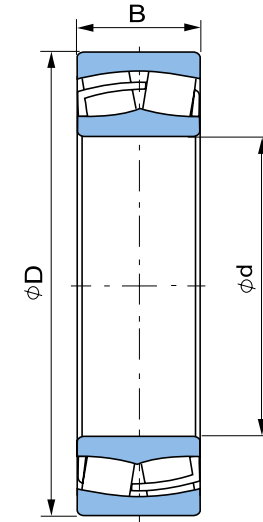
Double Row Series : 222

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
22205	25.000	52.000	18.000	40950	43200	8100	0.220
22206	30.000	62.000	20.000	54900	58500	6750	0.360
22207	35.000	72.000	23.000	72450	79650	5670	0.550
22208	40.000	80.000	23.000	71100	79650	4050	0.526
22209	45.000	85.000	23.000	74250	85500	3600	0.584
22210	50.000	90.000	23.000	77400	91800	3240	0.630
22211	55.000	100.000	25.000	84150	99000	4050	0.850
22212	60.000	110.000	28.000	103500	132300	3690	1.150
22213	65.000	120.000	31.000	128700	161100	3420	1.500
22214	70.000	125.000	31.000	138600	180900	3150	1.550
22215	75.000	130.000	31.000	149400	200700	2970	1.650
22216	80.000	140.000	33.000	161100	215100	2790	2.150
22217	85.000	150.000	36.000	185400	244800	2610	2.660
22218	90.000	160.000	40.000	230400	310500	2520	3.500
22219	95.000	170.000	43.000	261900	346500	2340	4.100
22220	100.000	180.000	46.000	279000	369000	2250	4.950
22222	110.000	200.000	53.000	369000	513000	1980	7.200
22224	120.000	215.000	58.000	436500	630000	1800	9.100
22226	130.000	230.000	64.000	508500	706500	1710	11.200
22228	140.000	250.000	68.000	612000	873000	1530	14.000
22230	150.000	270.000	73.000	697500	1044000	1440	18.100
22232	160.000	290.000	80.000	783000	1161000	1350	22.700
22234	170.000	310.000	86.000	900000	1368000	1260	28.000
22236	180.000	320.000	86.000	936000	1449000	1170	29.300
22238	190.000	340.000	92.000	1044000	1629000	1080	36.600
22240	200.000	360.000	98.000	1179000	1809000	1080	44.000
22244	220.000	400.000	108.000	1395000	2178000	900	60.400
22248	240.000	440.000	120.000	1728000	2745000	846	81.700
22252	260.000	480.000	130.000	2007000	3240000	774	106.000
22256	280.000	500.000	130.000	2079000	3420000	711	112.000
22260	300.000	540.000	140.000	2403000	3915000	657	141.000

Spherical Bearings

SP

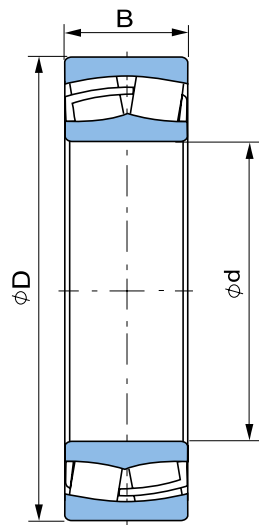
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
22308	40.000	90.000	33.000	108900	115200	3600	0.974
22309	45.000	100.000	36.000	133200	150300	3240	1.330
22310	50.000	110.000	40.000	167400	190800	2970	1.790
22311	55.000	120.000	43.000	183600	210600	3600	2.300
22312	60.000	130.000	46.000	213300	243000	3330	2.900
22313	65.000	140.000	48.000	237600	283500	3060	3.450
22314	70.000	150.000	51.000	288000	342000	2880	4.220
22315	75.000	160.000	55.000	297000	369000	2700	5.250
22316	80.000	170.000	58.000	346500	418500	2520	6.050
22317	85.000	180.000	60.000	373500	459000	2340	7.100
22318	90.000	190.000	64.000	427500	526500	2250	8.350
22319	95.000	200.000	67.000	445500	549000	2070	9.760
22320	100.000	215.000	73.000	544500	679500	1980	12.400
22322	110.000	240.000	80.000	670500	837000	1800	17.100
22324	120.000	260.000	86.000	792000	1008000	1620	21.500
22326	130.000	280.000	93.000	886500	1134000	1530	26.800
22328	140.000	300.000	102.000	999000	1287000	1350	33.800
22330	150.000	320.000	108.000	1125000	1548000	1260	42.700
22332	160.000	340.000	114.000	1251000	1755000	1170	50.800
22334	170.000	360.000	120.000	1368000	1935000	1080	59.800
22336	180.000	380.000	126.000	1539000	2268000	1080	70.000
22338	190.000	400.000	132.000	1665000	2475000	990	81.000
22340	200.000	420.000	138.000	1836000	2745000	900	93.200
22344	220.000	460.000	145.000	2115000	3150000	846	117.000
22348	240.000	500.000	155.000	2421000	3645000	765	148.000
22352	260.000	540.000	165.000	2790000	4230000	702	183.000
22356	280.000	580.000	175.000	3150000	4815000	639	224.000


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG®



***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Double Row Series : 230

189

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
23022	110.000	170.000	45.000	253800	409500	2340	3.710
23024	120.000	180.000	46.000	266400	445500	2160	4.050
23026	130.000	200.000	52.000	337500	558000	1980	5.900
23028	140.000	210.000	53.000	364500	621000	1800	6.350
23030	150.000	225.000	56.000	400500	697500	1710	7.730
23032	160.000	240.000	60.000	454500	796500	1530	9.420
23034	170.000	260.000	67.000	567000	972000	1440	12.700
23036	180.000	280.000	74.000	666000	1161000	1350	16.700
23038	190.000	290.000	75.000	679500	1215000	1260	17.700
23040	200.000	310.000	82.000	823500	1458000	1260	22.700
23044	220.000	340.000	90.000	954000	1728000	1080	29.900
23048	240.000	360.000	92.000	1017000	1926000	990	33.400
23052	260.000	400.000	104.000	1278000	2358000	900	48.500
23056	280.000	420.000	106.000	1359000	2628000	846	52.400
23060	300.000	460.000	118.000	1701000	3195000	783	72.400
23064	320.000	480.000	121.000	1764000	3465000	729	78.200
23068	340.000	520.000	133.000	2034000	3960000	684	104.000
23072	360.000	540.000	134.000	2133000	4230000	639	110.000
23076	380.000	560.000	135.000	2214000	4500000	594	115.000
23080	400.000	600.000	148.000	2619000	5265000	558	149.000
23084	420.000	620.000	150.000	2700000	5580000	531	157.000
23088	440.000	650.000	157.000	2970000	6165000	504	181.000
23092	460.000	680.000	163.000	3240000	6705000	477	206.000
23096	480.000	700.000	165.000	3330000	7110000	459	217.000
230/500	500.000	720.000	167.000	3465000	7470000	432	226.000

Spherical Bearings

SP



190

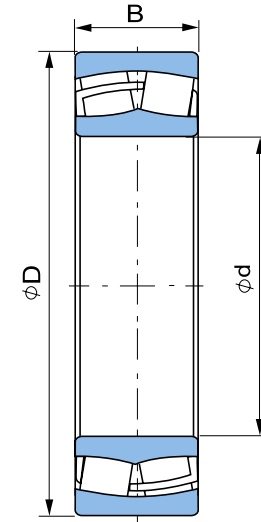
Double Row

Series : **231**

Spherical Bearings

SP

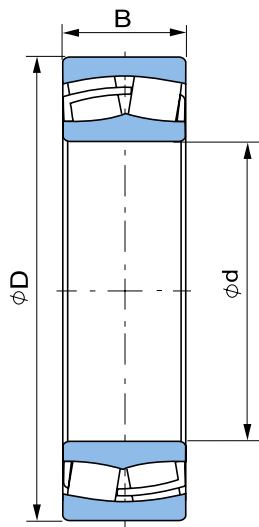
Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
23120	100.000	165.000	52.000	279000	423000	2160	4.300
23122	110.000	180.000	56.000	333000	522000	1980	5.400
23124	120.000	200.000	62.000	409500	634500	1800	7.700
23126	130.000	210.000	64.000	445500	715500	1620	8.470
23128	140.000	225.000	68.000	486000	805500	1530	10.200
23130	150.000	250.000	80.000	657000	1071000	1350	15.600
23132	160.000	270.000	86.000	756000	1233000	1260	19.800
23134	170.000	280.000	88.000	796500	1341000	1170	21.500
23136	180.000	300.000	96.000	927000	1557000	1170	25.100
23138	190.000	320.000	104.000	1071000	1818000	1080	35.300
23140	200.000	340.000	112.000	1215000	2043000	990	43.300
23144	220.000	370.000	120.000	1404000	2439000	900	53.300
23148	240.000	400.000	128.000	1557000	2745000	828	65.800
23152	260.000	440.000	144.000	1890000	3375000	756	91.400
23156	280.000	460.000	146.000	2025000	3735000	693	97.700
23160	300.000	500.000	160.000	2421000	4365000	639	131.000
23164	320.000	540.000	176.000	2790000	5220000	594	167.000
23168	340.000	580.000	190.000	3240000	5940000	558	210.000
23172	360.000	600.000	192.000	3375000	6345000	522	222.000
23176	380.000	620.000	194.000	3510000	6750000	486	235.000
23180	400.000	650.000	200.000	3780000	7245000	459	264.000
23184	420.000	700.000	224.000	4590000	8820000	432	354.000
23188	440.000	720.000	226.000	4680000	9090000	414	370.000
23192	460.000	760.000	240.000	5130000	10260000	387	443.000
23196	480.000	790.000	248.000	5670000	11250000	369	492.000
231/500	500.000	830.000	264.000	6165000	12150000	351	584.000

***Note:**

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KG®



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Double Row Series : 232

191

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
23218	90.000	160.000	52.400	283500	409500	2250	4.450
23220	100.000	180.000	60.300	364500	522000	1980	6.470
23222	110.000	200.000	69.800	463500	684000	1800	9.710
23224	120.000	215.000	76.000	526500	792000	1710	12.100
23226	130.000	230.000	80.000	616500	954000	1530	14.300
23228	140.000	250.000	88.000	724500	1143000	1440	18.800
23230	150.000	270.000	96.000	841500	1314000	1350	24.100
23232	160.000	290.000	104.000	945000	1494000	1260	30.000
23234	170.000	310.000	110.000	1062000	1764000	1170	36.800
23236	180.000	320.000	112.000	1134000	1872000	1080	39.000
23238	190.000	340.000	120.000	1278000	2124000	990	47.600
23240	200.000	360.000	128.000	1449000	2376000	990	57.200
23244	220.000	400.000	144.000	1773000	2925000	846	80.000
23248	240.000	440.000	160.000	2142000	3600000	774	108.000
23252	260.000	480.000	174.000	2484000	4230000	702	141.000
23256	280.000	500.000	176.000	2637000	4635000	648	150.000
23260	300.000	540.000	192.000	3105000	5400000	594	193.000
23264	320.000	580.000	208.000	3555000	6210000	558	243.000
23268	340.000	620.000	224.000	3960000	7065000	513	300.000
23272	360.000	650.000	232.000	4365000	7830000	486	339.000
23276	380.000	680.000	240.000	4680000	8685000	450	380.000
23280	400.000	720.000	256.000	5310000	9720000	423	457.000
23284	420.000	760.000	272.000	5805000	10620000	405	544.000
23288	440.000	790.000	280.000	6165000	11430000	378	600.000
23292	460.000	830.000	296.000	6930000	12870000	360	704.000
23296	480.000	870.000	310.000	7515000	14130000	342	814.000
232/500	500.000	920.000	336.000	8460000	16020000	324	1000.000

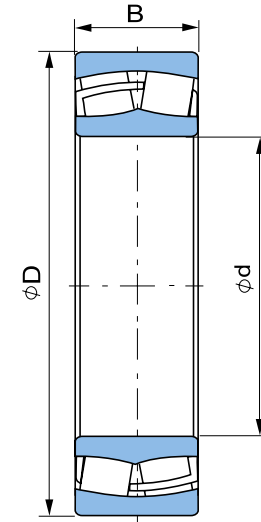
Spherical Bearings

SP

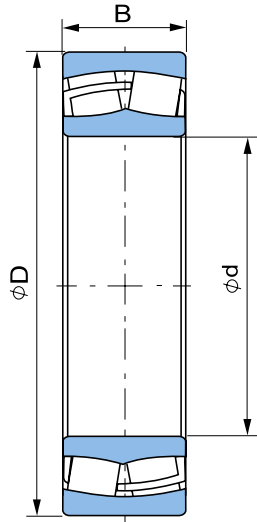


Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
23936	180.000	250.000	52.000	396000	751500	1440	8.210
23938	190.000	260.000	52.000	414000	801000	1440	8.600
23940	200.000	280.000	60.000	490500	990000	1350	12.100
23944	220.000	300.000	60.000	508500	1053000	1170	13.100
23948	240.000	320.000	60.000	508500	1071000	1080	14.000
23952	260.000	360.000	75.000	684000	1422000	990	24.000
23956	280.000	380.000	75.000	747000	1575000	900	26.400
23960	300.000	420.000	90.000	999000	2088000	837	40.000
23964	320.000	440.000	90.000	1026000	2214000	774	43.000
23968	340.000	460.000	90.000	1098000	2385000	720	44.700
23972	360.000	480.000	90.000	1188000	2637000	675	47.200
23976	380.000	520.000	106.000	1404000	3195000	639	69.900
23980	400.000	540.000	106.000	1422000	3285000	603	73.000
23984	420.000	560.000	106.000	1467000	3465000	567	76.200
23988	440.000	600.000	118.000	1827000	4230000	540	101.000
23992	460.000	620.000	118.000	1890000	4455000	513	107.000
23996	480.000	650.000	128.000	2097000	4950000	486	123.000
239/500	500.000	670.000	128.000	2133000	5040000	468	131.000



KG[®]
***Note:**

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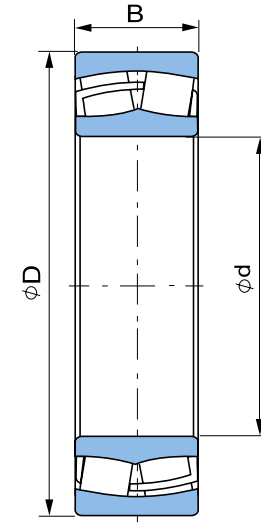
Double Row Series : 240

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
24024	120.000	180.000	60.000	351000	603000	2070	5.480
24026	130.000	200.000	69.000	454500	805500	1890	8.080
24028	140.000	210.000	69.000	459000	850500	1710	8.570
24030	150.000	225.000	75.000	526500	954000	1620	10.700
24032	160.000	240.000	80.000	585000	1080000	1530	13.000
24034	170.000	260.000	90.000	720000	1323000	1440	17.700
24036	180.000	280.000	100.000	868500	1593000	1350	23.300
24038	190.000	290.000	100.000	895500	1665000	1260	24.300
24040	200.000	310.000	109.000	1044000	1926000	1170	31.000
24044	220.000	340.000	118.000	1215000	2313000	1080	40.200
24048	240.000	360.000	118.000	1269000	2493000	990	43.000
24052	260.000	400.000	140.000	1647000	3195000	882	65.200
24056	280.000	420.000	140.000	1755000	3555000	810	69.000
24060	300.000	460.000	160.000	2205000	4455000	756	98.000
24064	320.000	480.000	160.000	2259000	4680000	702	103.000
24068	340.000	520.000	180.000	2700000	5580000	648	140.000
24072	360.000	540.000	180.000	2790000	5940000	612	147.000
24076	380.000	560.000	180.000	2925000	6390000	576	153.000
24080	400.000	600.000	200.000	3465000	7560000	540	202.000
24084	420.000	620.000	200.000	3465000	7605000	513	210.000
24088	440.000	650.000	212.000	3870000	8505000	486	245.000
24092	460.000	680.000	218.000	4140000	9180000	459	276.000
24096	480.000	700.000	218.000	4185000	9450000	441	285.000
240/500	500.000	720.000	218.000	4275000	9810000	414	295.000

Spherical Bearings

SP

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	B	N			
				Dynamic	Static		
24122	110.000	180.000	69.000	405000	679500	2160	7.070
24124	120.000	200.000	80.000	517500	850500	1890	10.300
24126	130.000	210.000	80.000	526500	895500	1800	11.000
24128	140.000	225.000	85.000	603000	1035000	1620	13.300
24130	150.000	250.000	100.000	805500	1395000	1530	20.200
24132	160.000	270.000	109.000	936000	1602000	1440	26.000
24134	170.000	280.000	109.000	972000	1692000	1350	27.200
24136	180.000	300.000	118.000	1125000	1989000	1260	34.300
24138	190.000	320.000	128.000	1278000	2232000	1170	42.800
24140	200.000	340.000	140.000	1467000	2610000	1080	53.400
24144	220.000	370.000	150.000	1692000	3060000	990	67.000
24148	240.000	400.000	160.000	1899000	3420000	900	82.200
24152	260.000	440.000	180.000	2214000	4050000	828	114.000
24156	280.000	460.000	180.000	2412000	4590000	765	120.000
24160	300.000	500.000	200.000	2970000	5760000	702	161.000
24164	320.000	540.000	218.000	3465000	6570000	657	207.000
24168	340.000	580.000	243.000	4140000	8055000	612	269.000
24172	360.000	600.000	243.000	4140000	8235000	567	281.000
24176	380.000	620.000	243.000	4320000	8685000	531	292.000
24180	400.000	650.000	250.000	4590000	9270000	504	329.000
24184	420.000	700.000	280.000	5535000	10980000	477	440.000
24188	440.000	720.000	280.000	5805000	11790000	450	456.000
24192	460.000	760.000	300.000	6390000	13050000	423	550.000
24196	480.000	790.000	308.000	6705000	13770000	405	608.000
241/500	500.000	830.000	325.000	7245000	15030000	387	716.000


***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

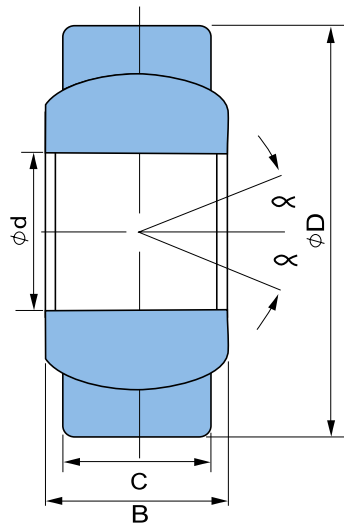


KG[®]

Plain type Series : GE...E

Spherical Bearings

SP

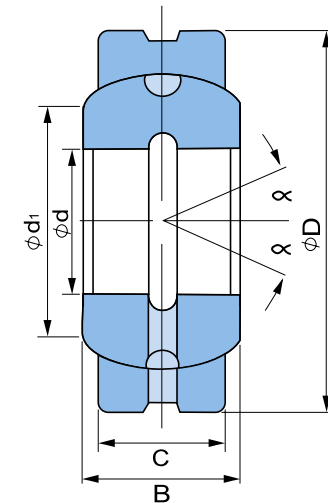


Bearing No.	Dimensions in mm				Basic Load Ratings N Static	Tilting Angle (α)	Wt. (Kg)
	d	D	B	C			
GE20E	20.000	35.000	16.000	12.000	130000	9	0.065
GE25E	25.000	42.000	20.000	16.000	200000	7	0.115
GE30E	30.000	47.000	22.000	18.000	275000	6	0.160
GE35E	35.000	55.000	25.000	20.000	360000	6	0.258
GE40E	40.000	62.000	28.000	22.000	440000	7	0.315
GE45E	45.000	68.000	32.000	25.000	550000	7	0.413
GE50E	50.000	75.000	35.000	28.000	700000	6	0.560
GE60E	60.000	90.000	44.000	36.000	1150000	6	1.100
GE70E	70.000	105.000	49.000	40.000	1400000	6	1.540
GE80E	80.000	120.000	55.000	45.000	1750000	6	2.156
GE90E	90.000	130.000	60.000	50.000	2100000	5	3.018

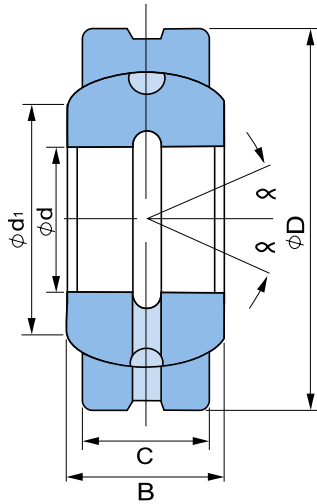


Plain type Series : **GE...ES**

Bearing No.		Dimensions in mm				d ₁	Basic Load Ratings		Tilting Angle (°)	Wt. (Kg)
		d	D	B	C		N			
							Dynamic	Static		
GE4E		4	12	5	3	6	2000	10000	16	0.0033
GE5E		5	14	6	4	7	3400	17000	13	0.0040
GE6E		6	14	6	4	8	3400	17000	13	0.0042
GE8E		8	16	8	5	10	5500	27000	15	0.0075
GE10E		10	19	9	6	13	8100	40000	12	0.0110
GE12E		12	22	10	7	15	10000	54000	10	0.0150
GE15ES	GE15ES-2RS	15	26	12	9	18	17000	85000	8	0.0270
GE17ES	GE17ES-2RS	17	30	14	10	20	21000	106000	10	0.0410
GE20ES	GE20ES-2RS	20	35	16	12	24	30000	146000	9	0.0660
GE25ES	GE25ES-2RS	25	42	20	16	29	48000	240000	7	0.1190
GE30ES	GE30ES-2RS	30	47	22	18	34	62000	310000	6	0.1530
GE35ES	GE35ES-2RS	35	55	25	20	39	80000	400000	6	0.2330
GE40ES	GE40ES-2RS	40	62	28	22	45	100000	500000	7	0.3060
GE45ES	GE45ES-2RS	45	68	32	25	50	127000	640000	7	0.4270
GE50ES	GE50ES-2RS	50	75	35	28	55	156000	780000	6	0.5460
GE60ES	GE60ES-2RS	60	90	44	36	66	245000	1220000	6	1.0450
GE70ES	GE70ES-2RS	70	105	49	40	77	315000	1560000	6	1.5500
GE80ES	GE80ES-2RS	80	120	55	45	88	400000	2000000	6	2.3100
GE90ES	GE90ES-2RS	90	130	60	50	98	490000	2450000	5	2.7500
GE100ES	GE100ES-2RS	100	150	70	55	109	610000	3050000	7	4.4500
GE110ES	GE110ES-2RS	110	160	70	55	120	655000	3250000	6	4.8200
GE120ES	GE120ES-2RS	120	180	85	70	130	950000	4750000	6	8.0500
GE140ES	GE140ES-2RS	140	210	90	70	150	1080000	5400000	7	11.0200
GE160ES	GE160ES-2RS	160	230	105	80	170	1370000	6800000	8	14.0100
GE180ES	GE180ES-2RS	180	260	105	80	192	1530000	7650000	6	18.6500
GE200ES	GE200ES-2RS	200	290	130	100	212	2120000	10600000	7	28.0300

KG[®]***Note:**

- For diagram of GE4E -GE12E, please refer previous page.



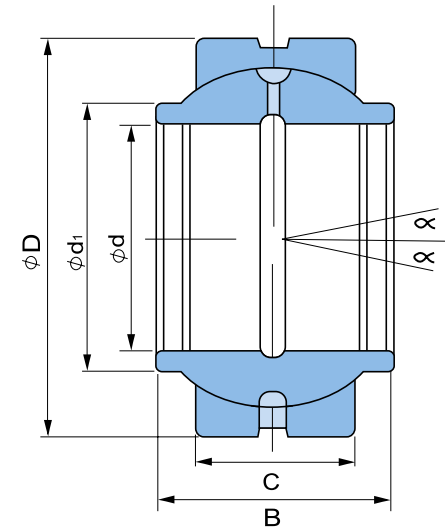
Plain type Series : GEG...ES

Bearing No.		Dimensions in mm				d ₁	Basic Load Ratings		Tilting Angle (α)	Wt. (Kg)
		d	D	B	C		N			
						Dynamic		Static		
GEG4E		4	14	7	4	7	3400	17000	20	0.0045
GEG5E		5	16	9	5	8	5500	27000	21	0.0066
GEG6E		6	16	9	5	9	5500	27000	21	0.0081
GEG8E		8	19	11	6	11	8100	40000	21	0.0140
GEG10E		10	22	12	7	13	10000	54000	18	0.0210
GEG12E		12	26	15	9	16	17000	85000	18	0.0330
GEG15ES	GEG15ES-2RS	15	30	16	10	19	21000	106000	16	0.0490
GEG17ES	GEG17ES-2RS	17	35	20	12	21	30000	146000	19	0.0830
GEG20ES	GEG20ES-2RS	20	42	25	16	24	48000	240000	17	0.1530
GEG25ES	GEG25ES-2RS	25	47	28	18	29	62000	310000	17	0.2030
GEG30ES	GEG30ES-2RS	30	55	32	20	34	80000	400000	17	0.3040
GEG35ES	GEG35ES-2RS	35	62	35	22	39	100000	500000	16	0.4080
GEG40ES	GEG40ES-2RS	40	68	40	25	44	127000	640000	17	0.5420
GEG45ES	GEG45ES-2RS	45	75	43	28	50	156000	780000	15	0.7130
GEG50ES	GEG50ES-2RS	50	90	56	36	57	245000	1220000	17	1.4400
GEG60ES	GEG60ES-2RS	60	105	63	40	67	315000	1560000	17	1.6000
GEG70ES	GEG70ES-2RS	70	120	70	45	77	400000	2000000	16	3.0100
GEG80ES	GEG80ES-2RS	80	130	75	50	87	490000	2450000	14	3.6400
GEG90ES	GEG90ES-2RS	90	150	85	55	98	610000	3050000	15	5.2200
GEG100ES	GEG100ES-2RS	100	160	85	55	110	655000	3250000	14	6.0500
GEG110ES	GEG110ES-2RS	110	180	100	70	122	950000	4750000	12	9.6800
GEG120ES	GEG120ES-2RS	120	210	115	70	132	1080000	5400000	16	14.7200
GEG140ES	GEG140ES-2RS	140	230	130	80	151	1370000	6800000	16	19.0100
GEG160ES	GEG160ES-2RS	160	260	135	80	176	1530000	7650000	16	20.0200
GEG180ES	GEG160ES-2RS	180	290	155	100	196	2120000	10600000	14	32.2100
GEG200ES	GEG200ES-2RS	200	320	165	100	220	2320000	11600000	15	45.2800

Spherical Bearings

SP

Bearing No.		Dimensions in mm				d _r	Basic Load Ratings		Tilting Angle (°)	Wt. (Kg)
		d	D	B	C		N			
						Dynamic		Static		
GEEW12ES	GEEW12ES-2RS	12	22	12	7	15.5	10000	54000	4	0.022
GEEW15ES	GEEW15ES-2RS	15	26	15	9	18.5	17000	85000	5	0.030
GEEW16ES	GEEW16ES-2RS	16	28	16	9	20.0	17000	85000	4	0.035
GEEW17ES	GEEW17ES-2RS	17	30	17	10	21.0	21000	106000	7	0.044
GEEW20ES	GEEW20ES-2RS	20	35	20	12	25.0	30000	146000	4	0.071
GEEW25ES	GEEW25ES-2RS	25	42	25	16	30.5	48000	240000	4	0.131
GEEW30ES	GEEW30ES-2RS	30	47	30	18	34.0	62000	310000	4	0.168
GEEW32ES	GEEW32ES-2RS	32	52	32	18	37.0	62000	310000	4	0.182
GEEW35ES	GEEW35ES-2RS	35	55	35	20	40.0	80000	400000	4	0.253
GEEW40ES	GEEW40ES-2RS	40	62	40	22	46.0	100000	500000	4	0.338
GEEW45ES	GEEW45ES-2RS	45	68	45	25	52.0	127000	640000	4	0.481
GEEW50ES	GEEW50ES-2RS	50	75	50	28	57.0	156000	780000	4	0.558
GEEW60ES	GEEW60ES-2RS	60	90	60	36	68.0	245000	1220000	3	1.150
GEEW63ES	GEEW63ES-2RS	63	95	63	36	71.5	245000	1220000	4	1.230
GEEW70ES	GEEW70ES-2RS	70	105	70	40	78.0	315000	1560000	4	1.710
GEEW80ES	GEEW80ES-2RS	80	120	80	45	91.0	400000	2000000	4	2.390
GEEW100ES	GEEW100ES-2RS	100	150	100	55	113.0	610000	3050000	4	4.800
GEEW125ES	GEEW125ES-2RS	125	180	125	70	138.0	950000	4750000	4	8.500



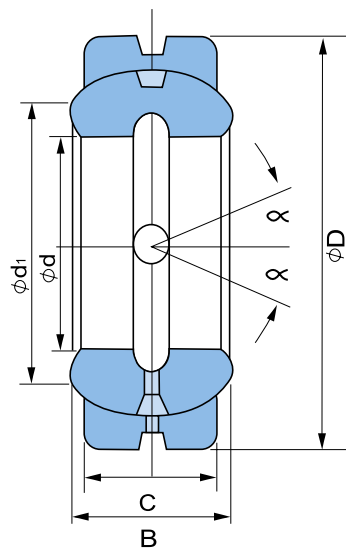
KG®

Plain type Series : GEZ...ES

199

Spherical Bearings

SP



Bearing No.		Dimensions in mm				d_1	Basic Load Ratings		Tilting Angle (∞)	Wt. (Kg)
		d	D	B	C		N			
							Dynamic	Static		
GEZ12ES		12.700	22.225	11.100	9.525	14.1	13700	41500	6	0.022
GEZ15ES		15.875	26.988	13.894	11.913	18.3	22000	65500	6	0.036
GEZ19ES		19.050	31.750	16.662	14.275	21.8	31500	95000	6	0.053
GEZ22ES		22.225	36.513	19.431	16.662	25.4	42500	127000	6	0.085
GEZ25ES	GEZ25ES-2RS	25.400	41.275	22.225	19.050	27.6	56000	166000	6	0.121
GEZ31ES	GEZ31ES-2RS	31.750	50.800	27.762	23.800	36.0	86500	260000	6	0.232
GEZ34ES	GEZ34ES-2RS	34.925	55.563	30.150	26.187	38.6	102000	310000	6	0.351
GEZ38ES	GEZ38ES-2RS	38.100	61.913	33.325	28.575	41.2	125000	375000	6	0.422
GEZ44ES	GEZ44ES-2RS	44.450	71.438	38.887	33.325	50.7	170000	510000	6	0.641
GEZ50ES	GEZ50ES-2RS	50.800	80.963	44.450	38.100	57.9	224000	670000	6	0.932
GEZ57ES	GEZ57ES-2RS	57.150	90.488	50.013	42.850	64.9	280000	850000	6	1.330
GEZ63ES	GEZ63ES-2RS	63.500	100.013	55.550	47.625	73.3	355000	1060000	6	1.850
GEZ69ES	GEZ69ES-2RS	69.850	111.125	61.112	52.375	79.1	415000	1250000	6	2.420
GEZ76ES	GEZ76ES-2RS	76.200	120.650	66.675	57.150	86.8	500000	1500000	6	3.100
GEZ82ES	GEZ82ES-2RS	82.550	130.175	72.238	61.900	94.5	585000	1760000	6	3.820
GEZ88ES	GEZ88ES-2RS	88.900	139.700	77.775	66.675	101.6	680000	2040000	6	4.790
GEZ95ES	GEZ95ES-2RS	95.250	149.225	83.337	71.425	108.7	780000	2360000	6	5.780
GEZ101ES	GEZ101ES-2RS	101.600	158.750	88.900	76.200	115.8	900000	2650000	6	6.990
GEZ107ES	GEZ107ES-2RS	107.950	168.275	94.463	80.950	122.8	1000000	3000000	6	8.410
GEZ114ES	GEZ114ES-2RS	114.300	177.800	100.013	85.725	130.6	1120000	3400000	6	9.790
GEZ120ES	GEZ120ES-2RS	120.650	187.325	105.562	90.475	137.6	1250000	3750000	6	11.500
GEZ127ES	GEZ127ES-2RS	127.000	196.850	111.125	95.250	145.3	1400000	4150000	6	13.500
GEZ152ES	GEZ152ES-2RS	152.400	222.250	120.650	104.775	168.2	1730000	5200000	6	17.500



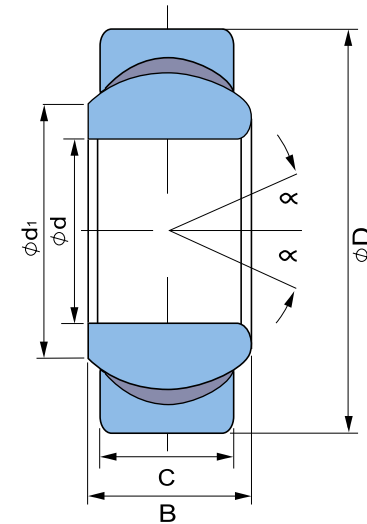
200

Plain type Series : GEG...ET2RS

Spherical Bearings

SP

Bearing No.	Dimensions in mm				d ₁	Basic Load Ratings N		Tilting Angle (°)	Wt. (Kg)
	d	D	B	C		Dynamic	Static		
GEG30ET-2RS	30	55	32	20	34	110000	220000	17	0.30
GEG35ET-2RS	35	62	35	22	39	140000	280000	17	0.35
GEG40ET-2RS	40	68	40	25	44	180000	350000	15	0.50
GEG45ET-2RS	45	75	43	28	50	220000	430000	15	0.60
GEG50ET-2RS	50	90	56	36	57	340000	680000	15	1.40
GEG60ET-2RS	60	105	63	40	67	430000	850000	15	2.00
GEG70ET-2RS	70	120	70	45	77	550000	1100000	16	2.80
GEG80ET-2RS	80	130	75	50	87	680000	1350000	14	3.40
GEG90ET-2RS	90	150	85	55	98	850000	1700000	15	5.00
GEG100ET-2RS	100	160	85	55	110	900000	1800000	14	5.50
GEG110ET-2RS	110	180	100	70	122	1300000	2700000	12	9.00
GEG120ET-2RS	120	210	115	70	132	1500000	3000000	15	14.50
GEG140ET-2RS	140	230	130	80	151	1900000	3500000	15	18.20





KG[®]

Needle Bearings & Cages



The Rolling Elements of Needle Roller Bearings are Cylindrical in shape with the Roller's length being far greater than its diameter. These Bearings are used where limited space is available between Shaft & Housing.

Needle Roller Bearings are

- capable of carrying high radial loads
- suitable for low & medium speed applications
- mainly used in Gearbox, Steering, Clutch, Differential, Engine, UV joints etc. in Automobiles

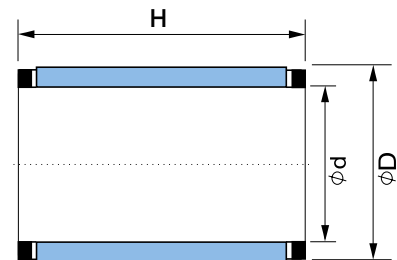
KG can offer following variants

- Needle Cages
- Needle Bushes
- Needle Rollers

Apart from the list of items presented in the following pages, many other special type of Needle Roller Bearings can be developed to meet specific application requirements. Technical information for Bearings not appearing in our production program, is available on request.

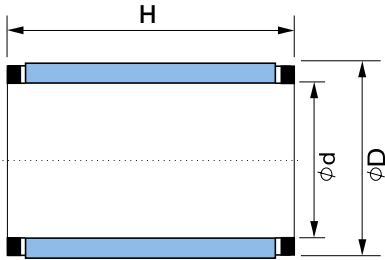


Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
10 KV 14 12.5	10.000	14.000	12.500	500	470	5.000
10 KV 14 13	10.000	14.000	12.800	760	830	5.500
10 KV 14 14	10.000	14.000	13.800	660	680	6.000
12 KV 15 15	12.000	15.000	14.800	660	870	5.000
12 KV 16 13	12.000	16.000	12.800	740	840	5.000
12 KV 16 16	16.000	16.000	15.800	820	940	7.500
14 KV 18 13	14.000	18.000	12.800	730	850	6.000
14 KV 18 16.5	14.000	18.000	16.300	920	1140	8.000
14 KV 18 17.5	14.000	18.000	17.300	970	1230	10.000
14 KV 18 20	14.000	18.000	19.800	970	1230	12.000
14 KV 19 17.3	14.000	19.000	17.100	1110	1260	12.000
15 KV 19 20	15.000	19.000	19.800	1080	1430	13.000
16 KV 20 19.5	16.000	20.000	21.200	1020	1350	13.000
16 KV 20 21.5	16.000	20.000	21.200	1330	1560	13.500
16 KV 20 22.5	16.000	20.000	22.300	1330	1560	14.000





For Connecting Rod Big End



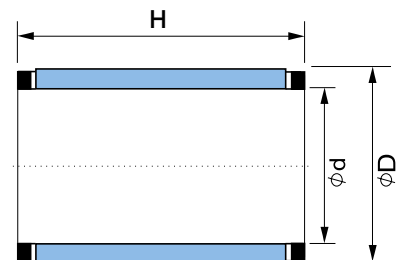
Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
12 KT 17 10	12.000	17.000	9.800	620	575	5.100
16 KT 21 10	16.000	21.000	9.800	760	810	7.000
16 KT 21 10 C	16.000	21.000	9.800	760	810	7.000
16 KT 21 12 C	16.000	21.000	11.800	900	1000	8.000
16 KT 22 12	16.000	22.000	11.800	1030	1060	10.000
16 KT 22 12 C	16.000	22.000	11.800	1030	1060	10.000
18 KT 24 12	18.000	24.000	11.800	1170	1290	11.000
18 KT 24 12 C	18.000	24.000	11.800	1170	1290	11.000
18 KT 24 13.5 C	18.000	24.000	13.300	1360	1560	12.000
20 KT 26 17 C	20.000	27.000	16.800	1460	1760	14.000
22 KT 28 14 C	22.000	28.000	13.800	1390	1690	14.000
22 KT 28 15 C	22.000	28.000	14.800	1480	1830	15.500
22 KT 28 16 C	22.000	28.000	15.800	1460	1830	16.000
22 KT 29 14 C	22.000	29.000	13.800	1600	1940	18.000
22 KT 29 15.6	22.000	29.000	15.400	1700	2000	20.000
25 KT 30 14 S	25.000	30.000	13.800	1430	2080	14.000
28 KT 33 14 S	28.000	33.000	13.800	1640	2570	18.000
28 KT 36 16 S	28.000	36.000	15.800	2430	3090	30.000
29 KT 39 16 C	29.000	39.000	15.800	2420	2670	40.000
30 KT 38 16 C	30.000	38.000	15.800	2420	3130	32.000

Needle Cages

NC

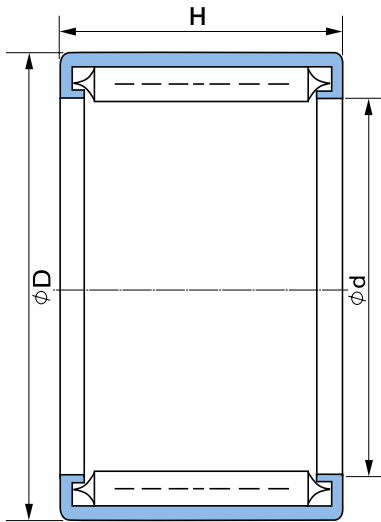


Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
16 NV 21 22	16.000	21.000	21.700	1430	1800	16.000
18 NV 22 17	18.000	22.000	16.800	1100	1550	11.000
20 NT 28 20	20.000	28.000	19.800	2110	2360	29.000
25 NT 30 20	25.000	30.000	19.800	1935	3060	21.000
25 NT 30 24	25.000	30.000	23.800	2150	3490	24.000
28 NT 35 20	28.000	35.000	19.800	2230	3010	32.000
30 NT 35 20	30.000	35.000	19.800	2020	3420	37.000
35 DV 39 34	35.000	39.000	33.800	2560	5700	42.000
40 DV 44 34.6	40.000	44.000	34.400	2750	6560	50.000





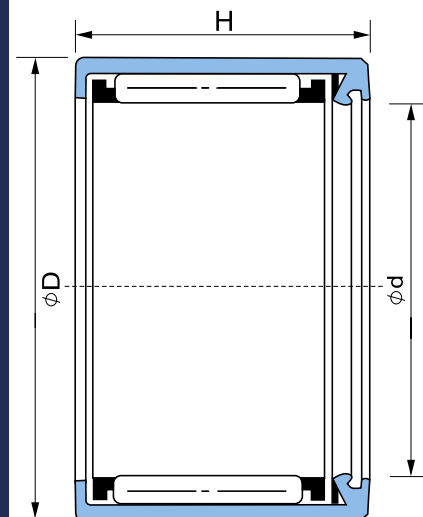
Full Compliment Type



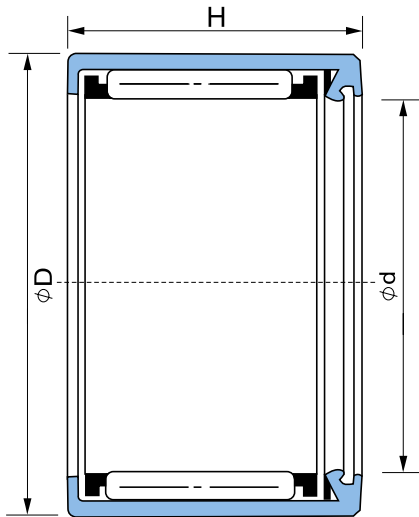
Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
				Grease Retained		
10 HGM 15 10	10.000	15.000	9.350	620	860	6.000
12 HGM 18 10	12.000	18.000	10.000	870	1110	14.000
12 HGM 20 12	12.000	20.000	12.000	1240	1430	8.000
13 HGM 19 12	13.000	19.000	12.000	1040	1500	12.000
				Full Complement Needle Bush: Type H, HM.		
28 HM 36 20	28.000	36.000	20.000	3075	3090	45.000
35 HM 43 20	35.000	43.000	20.000	3450	7000	58.000
H 24 16	38.100	47.625	25.400	4880	9970	98.000
H 24 20	38.100	47.620	31.750	6130	13370	124.000



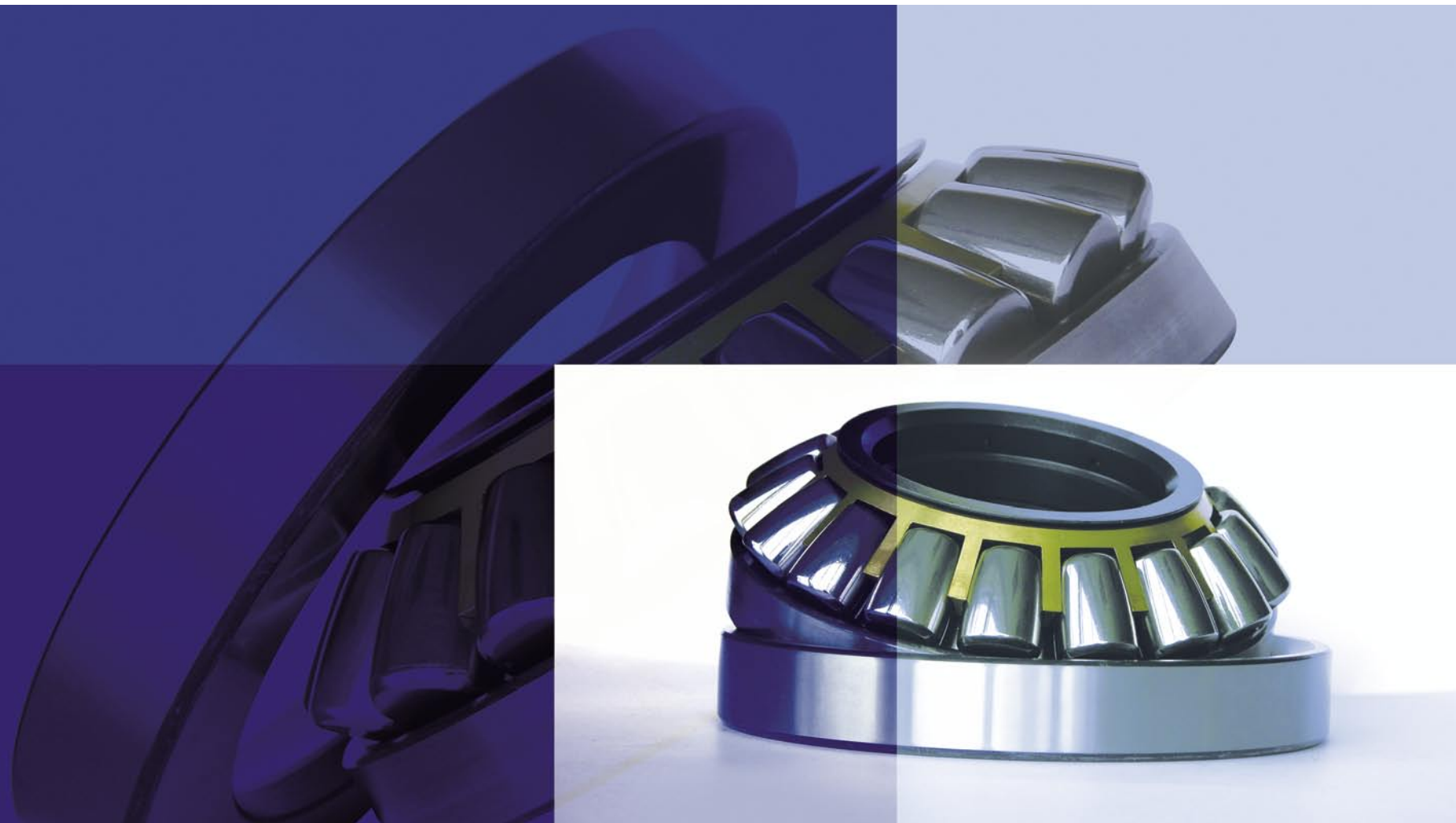
Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
8 HR 12 10	8.000	12.000	10.000	340	240	3.500
9 HR 13 10	9.000	13.000	10.000	380	280	4.000
9 HR 13 12	9.000	13.000	12.000	470	370	4.500
9 HR 16 12	9.000	16.000	12.000	490	405	8.000
10 HR 14 10	10.000	14.000	10.000	390	290	4.000
10 HR 14 12	10.000	14.000	12.000	490	390	4.500
10 HR 14 15	10.000	14.000	15.000	600	500	5.500
12 HR 16 10	12.000	16.000	10.000	440	350	5.000
12 HR 18 12	12.000	18.000	12.000	580	420	9.000
13 HR 19 12	13.000	19.000	12.000	600	450	10.000
14 HR 20 12	14.000	20.000	12.000	680	520	10.000
14 HR 20 16	14.000	20.000	16.000	960	820	10.000
15 HR 21 12	15.000	21.000	12.000	700	550	11.000
15 HR 21 16	15.000	21.000	16.000	930	820	15.000
15 HR 21 22	15.000	21.000	22.000	1180	1110	20.000
16 HR 22 12	16.000	22.000	12.000	680	550	16.000
16 HR 22 16	16.000	22.000	16.000	970	860	16.000
16 HR 22 22	16.000	22.000	22.000	1160	1090	22.000
17 HR 23 12	17.000	23.000	12.000	700	580	12.000
17 HR 25 18 RS	17.000	25.000	18.000	1200	900	22.000
18 HR 24 12	18.000	24.000	12.000	720	610	13.000
18 HR 24 16	18.000	24.000	16.000	1030	960	17.000
20 HR 26 12	20.000	26.000	12.000	765	670	19.000
20 HR 26 16	20.000	26.000	16.000	1130	1100	24.000
20 HR 26 20	20.000	26.000	20.000	1390	1440	24.000



For Gear Box

Bearing No.	Dimensions in mm			Basic Load Ratings		Wt. (gms)
	d	D	H	N		
				Dynamic	Static	
25 HR 32 12	25.000	32.000	12.000	970	830	21.000
25 HR 32 16	25.000	32.000	16.000	1380	1310	27.000
25 HR 32 20	25.000	32.000	20.000	1770	1800	34.000
25 HR 32 26	25.000	32.000	26.000	2260	2470	45.000
28 HR 35 16	28.000	35.000	16.000	1440	1430	30.000
28 HR 35 20	28.000	35.000	20.000	1660	1770	37.000
30 HR 37 12	30.000	37.000	12.000	1010	940	24.000
30 HR 37 16	30.000	37.000	16.000	1450	1480	32.000
30 HR 37 20	30.000	37.000	20.000	1850	2020	38.000
30 HR 37 26	30.000	37.000	26.000	2350	2750	52.000
35 HR 42 12	35.000	42.000	12.000	1100	1080	28.000
35 HR 42 16	35.000	42.000	16.000	1570	1710	37.000
35 HR 42 20	35.000	42.000	20.000	2000	2330	46.000
40 HR 47 12	40.000	47.000	12.000	1180	1230	32.000
40 HR 47 16	40.000	47.000	16.000	1685	1940	42.000
40 HR 47 20	40.000	47.000	20.000	2150	2660	52.000
40 HR 52 16	40.000	52.000	16.000	1780	2170	47.000
40 HR 52 20	40.000	52.000	20.000	2280	2950	57.000
16 02 38	11.113	17.463	16.670	1360	680	11.000



KG[®]

Thrust Ball Bearings & Spherical Roller Thrust Bearings



KG[®]

As the name indicates, the Rolling Elements of Thrust Ball Bearings are Balls. They generally have one Shaft Washer and one or two Housing Washer(s). Thrust Bearings are also available with aligning type Washer for specific applications.

Besides standard properties of Thrust Bearings, Spherical Roller Thrust Bearings can accommodate slight mis-alignment of Shafts along with small amount of radial loads.

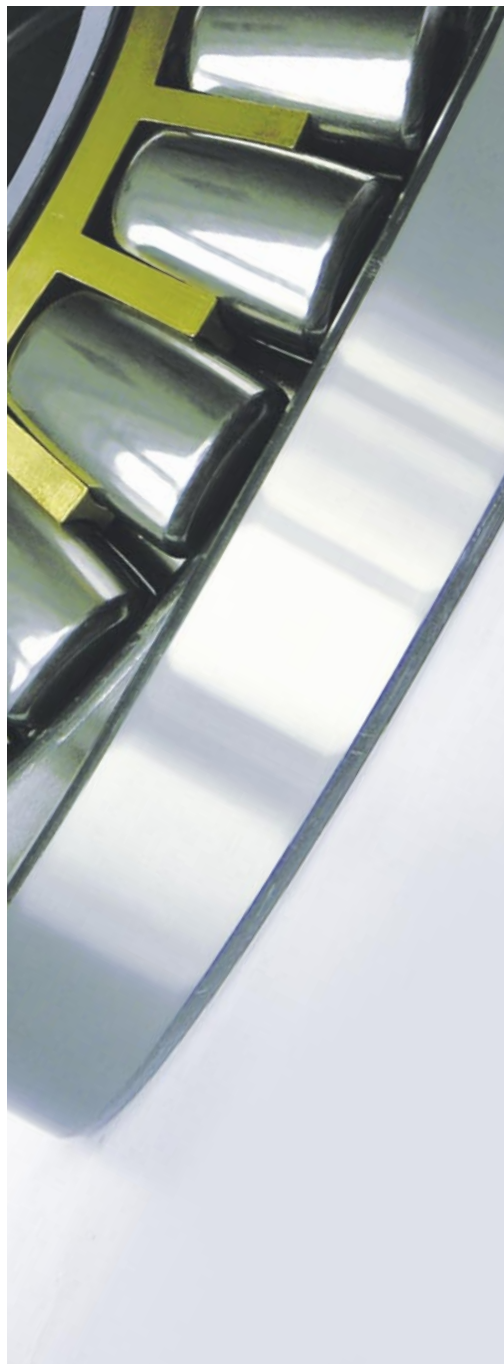
Thrust Ball Bearings are

- capable of carrying only axial loads in one direction or two-directions based on the type selected
- suitable for low, medium & high load applications
- suitable for low & medium speed applications

KG can offer following variants

- Single Direction Thrust Ball Bearing - 511, 512, 513 & 514
- Double Direction Thrust Ball Bearing - 522, 523 & 524
- Single Direction with Spherical Housing Washer - 532, 533 & 534
- Single Direction Thrust Roller Bearings - 292, 293 & 294
- with pressed Steel, Plastic or machined Brass Cage





Apart from the list of items presented in the following pages, many other special type of Thrust Ball Et Spherical Roller Thrust Bearings can also be developed to meet specific application requirements. Technical information for Bearings not appearing in our production program, is available on request.

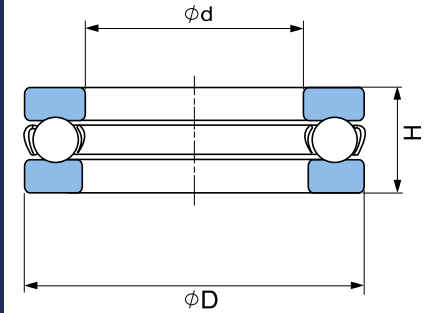
KG standard suffixes for Thrust Bearings

A	Modified internal design.
M	Machined Brass Cage.
P	Plastic Cage.
Q1-Q3	KG internal reference codes. For details please contact KG International FZCO.
SC	Special Cage design.

Note: Most of the Bearings listed in following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
51100	10.000	24.000	9.000	9000	12600	8550	0.021
51101	12.000	26.000	9.000	9270	13860	8280	0.023
51102	15.000	28.000	9.000	9450	15120	7920	0.024
51103	17.000	30.000	9.000	9720	16380	7650	0.026
51104	20.000	35.000	10.000	12780	22230	6750	0.040
51105	25.000	42.000	11.000	17640	33300	5850	0.060
51106	30.000	47.000	11.000	18360	37800	5580	0.069
51107	35.000	52.000	12.000	18360	40050	5040	0.085
51108	40.000	60.000	13.000	24210	56700	4500	0.125
51109	45.000	65.000	14.000	25110	62100	4140	0.148
51110	50.000	70.000	14.000	25920	67950	4050	0.161
51111	55.000	78.000	16.000	31500	83700	3600	0.226
51112	60.000	85.000	17.000	37350	101700	3330	0.296
51113	65.000	90.000	18.000	37350	105300	3150	0.338
51114	70.000	95.000	18.000	38700	114300	3060	0.356
51115	75.000	100.000	19.000	40050	122400	2880	0.399
51116	80.000	105.000	19.000	40050	126900	2790	0.422
51117	85.000	110.000	19.000	41400	135000	2700	0.444
51118	90.000	120.000	22.000	53550	171000	2430	0.687
51120	100.000	135.000	25.000	76500	241200	2160	0.987
51122	110.000	145.000	25.000	78390	261000	1980	1.050
51124	120.000	155.000	25.000	79560	279000	1980	1.150
51126	130.000	170.000	30.000	99900	351000	1710	1.850
51128	140.000	180.000	31.000	99900	360000	1620	2.050
51130	150.000	190.000	31.000	99900	360000	1530	2.200
51132	160.000	200.000	31.000	100800	382500	1530	2.350
51134	170.000	215.000	34.000	119700	450000	1440	3.300
51136	180.000	225.000	34.000	121500	477000	1350	3.500
51138	190.000	240.000	37.000	154800	589500	1260	4.050

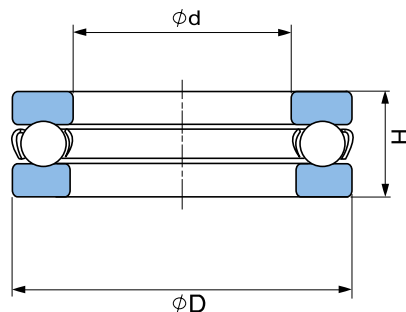
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Direction Series : 512

215



***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
51200	10.000	26.000	11.000	11430	15390	7470	0.030
51201	12.000	28.000	11.000	11880	17100	7200	0.034
51202	15.000	32.000	12.000	14940	22320	6390	0.046
51203	17.000	35.000	12.000	15480	24570	6120	0.054
51204	20.000	40.000	14.000	20070	33750	5310	0.081
51205	25.000	47.000	15.000	25020	45450	4770	0.111
51206	30.000	52.000	16.000	26370	52200	4410	0.139
51207	35.000	62.000	18.000	35100	70200	3780	0.215
51208	40.000	68.000	19.000	42300	88650	3510	0.276
51209	45.000	73.000	20.000	43200	94500	3330	0.317
51210	50.000	78.000	22.000	43650	99900	3060	0.378
51211	55.000	90.000	25.000	62550	143100	2700	0.608
51212	60.000	95.000	26.000	66150	161100	2520	0.676
51213	65.000	100.000	27.000	67500	170100	2430	0.767
51214	70.000	105.000	27.000	68400	179100	2340	0.793
51215	75.000	110.000	27.000	69750	188100	2340	0.874
51216	80.000	115.000	28.000	70650	196200	2160	0.916
51217	85.000	125.000	31.000	85950	237600	1980	1.250
51218	90.000	135.000	35.000	105300	292500	1800	1.700
51220	100.000	150.000	38.000	132300	369000	1620	2.290
51222	110.000	160.000	38.000	117000	324000	1530	2.400
51224	120.000	170.000	39.000	126000	360000	1440	2.650
51226	130.000	190.000	45.000	167400	486000	1260	4.000
51228	140.000	200.000	46.000	171000	513000	1260	4.350
51230	150.000	215.000	50.000	214200	661500	1170	6.100
51232	160.000	225.000	51.000	217800	702000	1080	6.550
51234	170.000	240.000	55.000	257400	837000	990	8.150
51236	180.000	250.000	56.000	266400	900000	990	8.600
51238	190.000	270.000	62.000	298800	1044000	900	11.700
51240	200.000	280.000	62.000	304200	1098000	900	12.000

Thrust Ball Bearings

TH



216

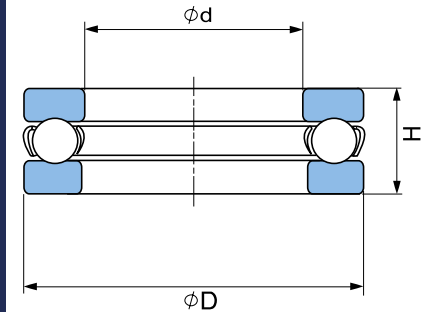
Single Direction

Series : 513

Thrust Ball Bearings

KG®

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
51305	25.000	52.000	18.000	31950	55350	4140	0.176
51306	30.000	60.000	21.000	38700	70650	3510	0.269
51307	35.000	68.000	24.000	49950	94500	3150	0.383
51308	40.000	78.000	26.000	62100	121500	2790	0.548
51309	45.000	85.000	28.000	72000	146700	2610	0.684
51310	50.000	95.000	31.000	86850	181800	2340	0.951
51311	55.000	105.000	35.000	107100	221400	2070	1.290
51312	60.000	110.000	35.000	110700	240300	2000	1.370
51313	65.000	115.000	36.000	115200	258300	1980	1.510
51314	70.000	125.000	40.000	133200	306000	1800	2.010
51315	75.000	135.000	44.000	153900	355500	1620	2.610
51316	80.000	140.000	44.000	158400	382500	1540	2.720
51317	85.000	150.000	49.000	180900	421000	1440	3.520
51318	90.000	155.000	50.000	178200	441000	1340	3.740
51320	100.000	170.000	55.000	213300	535500	1260	4.880

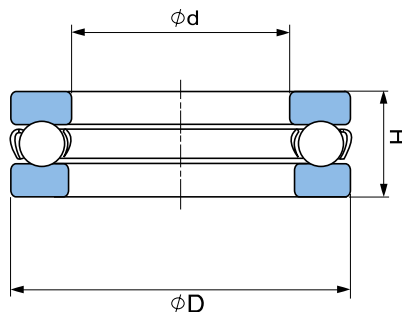
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Direction Series : 514

217



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
				N			
	d	D	H	Dynamic	Static		
51405	25.000	60.000	24.000	49950	80550	3330	0.330
51406	30.000	70.000	28.000	65250	113400	2880	0.516
51407	35.000	80.000	32.000	78300	139500	2520	0.759
51408	40.000	90.000	36.000	100800	184500	2250	1.080
51409	45.000	100.000	39.000	117000	217800	1980	1.430
51410	50.000	110.000	43.000	133200	254700	1800	1.900
51411	55.000	120.000	48.000	160200	324000	1620	2.520
51412	60.000	130.000	51.000	192600	391500	1530	3.120
51413	65.000	140.000	56.000	208800	445500	1440	3.960
51414	70.000	150.000	60.000	225000	499500	1350	4.860
51415	75.000	160.000	65.000	242100	553500	1260	5.970
51416	80.000	170.000	68.000	243000	558000	1170	7.770
51417	85.000	180.000	72.000	259200	616500	1080	9.170
51418	90.000	190.000	77.000	274500	675000	990	11.000
51420	100.000	210.000	85.000	333000	873000	900	14.700

Thrust Ball Bearings

TH

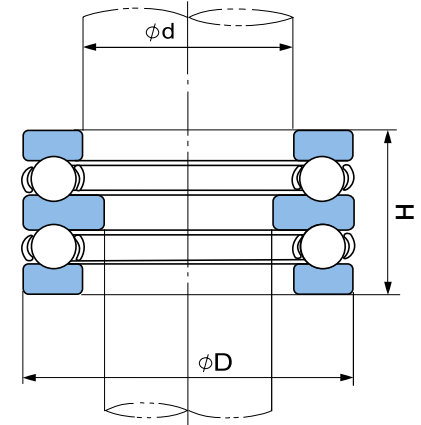
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
52202	10.000	32.000	22.000	14940	22320	6390	0.085
52204	15.000	40.000	26.000	20070	33750	5310	0.149
52205	20.000	47.000	28.000	25020	45450	4770	0.212
52206	25.000	52.000	29.000	26370	52200	4410	0.252
52207	30.000	62.000	34.000	35100	70200	3780	0.418
52208	30.000	68.000	36.000	42300	88650	3510	0.559
52209	35.000	73.000	37.000	43200	94500	3330	0.634
52210	40.000	78.000	39.000	43650	99900	3060	0.730
52211	45.000	90.000	45.000	62550	143100	2700	1.140
52212	50.000	95.000	46.000	66150	161100	2520	1.250
52213	55.000	100.000	47.000	67500	170100	2430	1.370
52214	55.000	105.000	47.000	68400	179100	2340	1.570
52215	60.000	110.000	47.000	69750	188100	2340	1.670
52216	65.000	115.000	48.000	70650	196200	2160	1.800
52217	70.000	125.000	55.000	85950	237600	1980	2.470
52218	75.000	135.000	62.000	105300	292500	1800	3.260
52220	85.000	150.000	67.000	132300	369000	1620	4.270
52222	95.000	160.000	67.000	137700	405000	1620	4.630
52224	100.000	170.000	68.000	138600	423000	1530	5.360



KG[®]
***Note:**

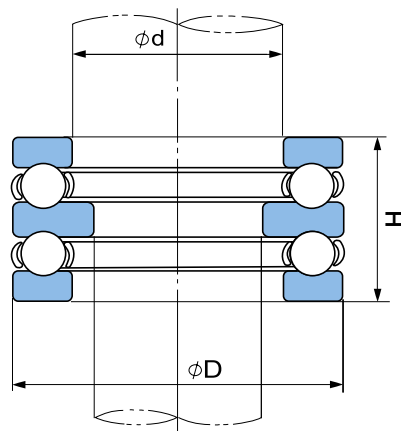
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Double Direction

Series : **523**

219



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
52305	20.000	52.000	34.000	31950	55350	4140	0.327
52306	25.000	60.000	38.000	38700	70650	3510	0.488
52307	30.000	68.000	44.000	49950	94500	3510	0.678
52308	30.000	78.000	49.000	62100	121500	2790	1.060
52309	35.000	85.000	52.000	72000	146700	2610	1.340
52310	40.000	95.000	58.000	86850	181800	2340	1.800
52311	45.000	105.000	64.000	107100	221400	2070	2.410
52312	50.000	110.000	64.000	110700	240300	2070	2.560
52313	55.000	115.000	65.000	115200	258300	1980	2.760
52314	55.000	125.000	72.000	133200	306000	1800	3.750
52315	60.000	135.000	79.000	153900	355500	1620	4.820
52316	65.000	140.000	79.000	158400	382500	1620	5.070
52317	70.000	150.000	87.000	180900	441000	1440	6.390
52318	75.000	155.000	88.000	178200	441000	1440	6.760
52320	85.000	170.000	97.000	213300	535500	1260	8.800
52322	95.000	190.000	110.000	240300	634500	1080	13.100
52324	100.000	210.000	123.000	266400	724500	990	18.400

Thrust Ball Bearings

TH

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



220

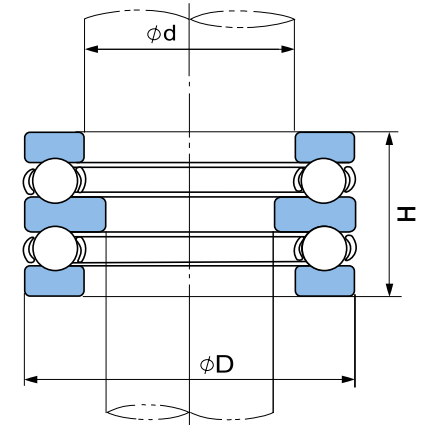
Double Direction

Series : 524

Thrust Ball Bearings

KG®

Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
52405	15.000	60.000	45.000	49950	80550	3330	0.630
52406	20.000	70.000	52.000	65250	113400	2880	1.000
52407	25.000	80.000	59.000	78300	139500	2520	1.440
52408	30.000	90.000	65.000	100800	184500	2250	2.030
52409	35.000	100.000	72.000	117000	217800	1980	2.710
52410	40.000	110.000	78.000	142200	279000	1800	3.560
52411	45.000	120.000	87.000	160200	324000	1620	4.700
52412	50.000	130.000	93.000	192600	391500	1530	6.330
52413	50.000	140.000	101.000	208800	445500	1440	8.030
52414	55.000	150.000	107.000	225000	499500	1350	9.710
52415	60.000	160.000	115.000	242100	553500	1260	11.800
52416	65.000	170.000	120.000	243000	558000	1170	14.800
52417	65.000	180.000	128.000	259200	616500	1080	18.600
52418	70.000	190.000	135.000	274500	675000	990	20.800
52420	80.000	210.000	150.000	333000	873000	900	28.200
52422	90.000	230.000	166.000	391500	1116000	828	37.800
52424	95.000	250.000	177.000	409500	1206000	756	48.400
52426	100.000	270.000	192.000	468000	1431000	693	60.100

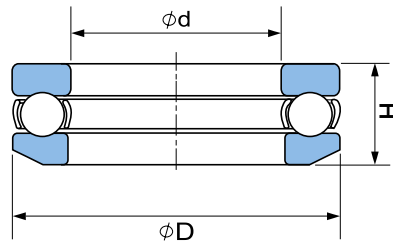
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Direction With Spherical Housing Washer Series : **532**

221



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
53202	15.000	32.000	13.300	14940	22320	6840	0.048
53203	17.000	35.000	13.200	15390	24570	6570	0.055
53204	20.000	40.000	14.700	19980	33750	5670	0.080
53205	25.000	47.000	16.700	25020	45450	5040	0.125
53206	30.000	52.000	17.800	26370	52200	4680	0.160
53207	35.000	62.000	19.900	35100	70200	3960	0.220
53208	40.000	68.000	20.300	42300	88650	3690	0.270
53209	45.000	73.000	21.300	42750	94500	3510	0.320
53210	50.000	78.000	23.500	43650	100800	3240	0.380
53211	55.000	90.000	27.300	62550	143100	2790	0.620
53212	60.000	95.000	28.000	66150	161100	2700	0.690
53213	65.000	100.000	28.700	67500	170100	2520	0.770
53214	70.000	105.000	28.800	68400	179100	2520	0.800
53215	75.000	110.000	28.300	69750	188100	2430	0.840
53216	80.000	115.000	29.500	70650	197100	2340	0.930
53217	85.000	125.000	33.100	85950	237600	2160	1.290
53218	90.000	135.000	38.500	104400	292500	1890	1.780
53220	100.000	150.000	40.900	131400	369000	1710	2.360

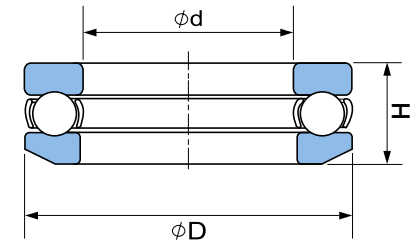
Thrust Ball Bearings

TH

***Note:**
 • Mentioned speed ratings are with oil lubrication.
 For grease lubrication, please use 75% of the indicated values.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
53305	25.000	52.000	19.800	31950	55350	4410	0.185
53306	30.000	60.000	22.600	38250	70650	3780	0.270
53307	35.000	68.000	25.600	49950	94500	3330	0.390
53308	40.000	78.000	28.500	62100	121500	2970	0.570
53309	45.000	85.000	30.100	72000	146700	2700	0.680
53310	50.000	95.000	34.400	86850	181800	2430	1.000
53311	55.000	105.000	39.300	108000	221400	2160	1.400
53312	60.000	110.000	38.300	110700	240300	2160	1.450
53313	65.000	115.000	39.400	114300	258300	2070	1.600
53314	70.000	125.000	44.200	133200	306000	1890	2.150
53315	75.000	135.000	48.100	153000	355500	1710	2.700
53316	80.000	140.000	47.600	158400	382500	1620	2.850
53317	85.000	150.000	53.100	185400	441000	1530	3.650
53318	90.000	155.000	54.600	191700	472500	1440	3.840
53320	100.000	170.000	69.200	212400	535500	1350	5.120

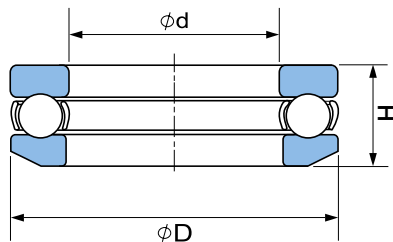
***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Single Direction With Spherical Housing Washer Series : **534**

223



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
53408	40.000	90.000	38.200	100800	184500	2340	1.130
53409	45.000	100.000	42.400	116100	218700	2160	1.500
53410	50.000	110.000	45.600	133200	254700	1890	1.970
53411	55.000	120.000	50.500	160200	324000	1710	2.550
53412	60.000	130.000	54.000	191700	391500	1620	3.250
53413	65.000	140.000	60.200	207900	445500	1440	4.170
53414	70.000	150.000	63.600	225000	499500	1350	4.940
53415	75.000	160.000	69.000	226800	504000	1260	6.250
53416	80.000	170.000	72.200	243000	558000	1170	7.830
53417	85.000	180.000	77.000	259200	616500	1080	9.200
53418	90.000	190.000	81.200	274500	675000	990	10.700
53420	100.000	210.000	90.000	310500	805500	900	14.500

Thrust Ball Bearings

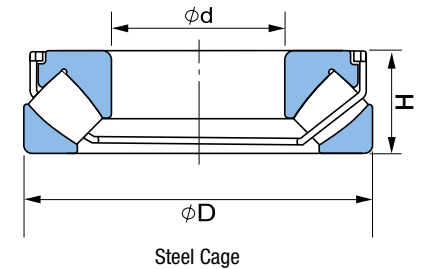
TH

***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
29230	150.000	215.000	39.000	306000	1206000	1620	4.560
29232	160.000	225.000	39.000	324000	1314000	1530	4.880
29234	170.000	240.000	42.000	382500	1593000	1440	6.020
29236	180.000	250.000	42.000	405000	1728000	1440	6.270
29238	190.000	270.000	48.000	477000	2007000	1260	8.800
29240	200.000	280.000	48.000	481500	2070000	1260	9.140
29244	220.000	300.000	48.000	499500	2232000	1170	9.940
29248	240.000	340.000	60.000	742500	3240000	990	17.500
29252	260.000	360.000	60.000	783000	3555000	990	18.600
29256	280.000	380.000	60.000	787500	3645000	900	19.800
29260	300.000	420.000	73.000	1071000	4815000	783	30.900
29264	320.000	440.000	73.000	1134000	5220000	756	33.500
29268	340.000	460.000	73.000	1116000	5220000	738	34.400
29272	360.000	500.000	85.000	1359000	6345000	648	50.500
29276	380.000	520.000	85.000	1431000	6885000	630	53.400
29280	400.000	540.000	85.000	1458000	7155000	612	55.800
29284	420.000	580.000	95.000	1890000	9360000	558	76.600
29288	440.000	600.000	95.000	1935000	9810000	540	79.600
29292	460.000	620.000	95.000	1935000	9900000	531	82.800
29296	480.000	650.000	103.000	2160000	10800000	495	98.600
292/500	500.000	670.000	103.000	2286000	11700000	477	102.000

KG[®]***Note:**

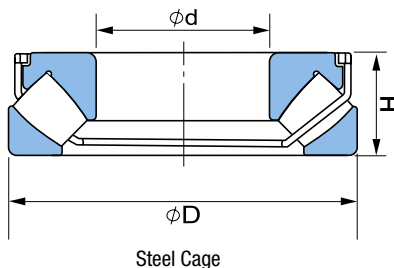
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



Series : **293**

225

KG[®]



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
29317	85.000	150.000	39.000	238500	738000	2070	2.940
29318	90.000	155.000	39.000	256500	823500	2070	3.080
29320	100.000	170.000	42.000	310500	1044000	1890	3.940
29322	110.000	190.000	48.000	400500	1350000	1620	5.780
29324	120.000	210.000	54.000	481500	1593000	1440	7.920
29326	130.000	225.000	58.000	553500	1890000	1350	9.760
29328	140.000	240.000	60.000	616500	2124000	1260	11.400
29330	150.000	250.000	60.000	607500	2151000	1260	12.000
29332	160.000	270.000	67.000	738000	2574000	1170	15.900
29334	170.000	280.000	67.000	769500	2745000	1080	16.600
29336	180.000	300.000	73.000	895500	3240000	990	21.200
29338	190.000	320.000	78.000	1035000	3825000	990	26.000
29340	200.000	340.000	85.000	1152000	4140000	882	31.900
29344	220.000	360.000	85.000	1251000	4680000	846	34.500
29348	240.000	380.000	85.000	1242000	4725000	819	36.600
29352	260.000	420.000	95.000	1539000	6120000	729	52.000
29356	280.000	440.000	95.000	1620000	6525000	711	54.600
29360	300.000	480.000	109.000	1926000	7425000	630	75.800

***Note:**

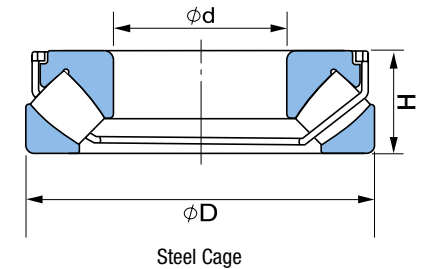
- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.

Spherical Roller Thrust Bearings

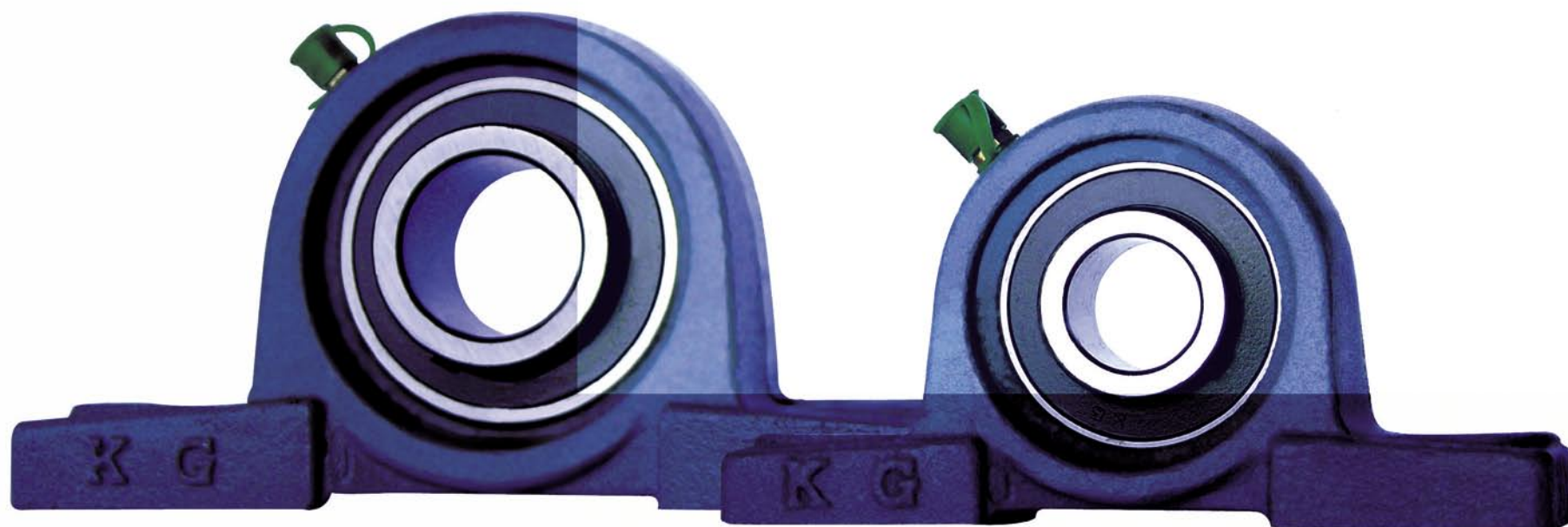
TH



Bearing No.	Dimensions in mm			Basic Load Ratings		RPM*	Wt. (Kg)
	d	D	H	N			
				Dynamic	Static		
29412	60.000	130.000	42.000	254700	724500	2340	2.780
29413	65.000	140.000	45.000	297000	850500	2160	3.440
29414	70.000	150.000	48.000	328500	936000	1980	4.190
29415	75.000	160.000	51.000	373500	1071000	1890	5.070
29416	80.000	170.000	54.000	414000	1242000	1710	6.090
29417	85.000	180.000	58.000	441000	1332000	1620	7.200
29418	90.000	190.000	60.000	490500	1512000	1530	8.380
29420	100.000	210.000	67.000	616500	1917000	1350	11.500
29422	110.000	230.000	73.000	760500	2358000	1260	15.000
29424	120.000	250.000	78.000	877500	2745000	1170	18.600
29426	130.000	270.000	85.000	972000	3195000	1080	23.700
29428	140.000	280.000	85.000	999000	3375000	1080	25.200
29430	150.000	300.000	90.000	1152000	3915000	990	30.500
29432	160.000	320.000	95.000	1350000	4635000	900	37.000
29434	170.000	340.000	103.000	1494000	5175000	846	45.000
29436	180.000	360.000	109.000	1656000	5580000	801	52.900
29438	190.000	380.000	115.000	1809000	6120000	756	62.000
29440	200.000	400.000	122.000	2007000	6885000	711	73.300
29444	220.000	420.000	122.000	2592000	8685000	675	75.000
29448	240.000	440.000	122.000	2691000	9180000	675	80.000
29452	260.000	480.000	132.000	3159000	11610000	603	105.000
29456	280.000	520.000	145.000	3879000	13770000	567	135.000
29460	300.000	540.000	145.000	3933000	14940000	540	140.000
29464	320.000	580.000	155.000	4455000	17100000	504	175.000
29468	340.000	620.000	170.000	5175000	20160000	450	220.000
29472	360.000	640.000	170.000	4815000	19080000	450	230.000
29476	380.000	670.000	175.000	5283000	21600000	432	260.000
29480	400.000	710.000	185.000	5904000	23850000	405	310.000

KG[®]***Note:**

- Mentioned speed ratings are with oil lubrication. For grease lubrication, please use 75% of the indicated values.



KG

Ball Bearing Units



KG[®]

Ball Bearing units are simple and economic Bearing arrangements. They offer convenient means to use Rolling Contact Bearings for various applications, without the need of separate Housing to support the Bearing.

Ball Bearing units are

- capable of handling Shaft mis-alignment (initial errors of alignment) upto a certain degree
- easy to mount and dismount
- suitable for low & medium load applications
- suitable for low & medium speed applications
- suited for low noise applications
- generally sealable from both sides; have good protection from the ambient working conditions
- commonly used in Agricultural Machinery, Conveyor Systems, Food Processing Industry, Packaging Machinery, Construction Equipment and Textile Industry

KG can offer following variants

- Pillow Blocks - UCP, UCPA type
- Square Flange - UCF type
- Flange Cartridge - UCFC type
- Oval Flange - UCFL type
- Take-up Units - UCT type
- AEL types
- Ball Bearing Units with Plastic & Stainless Steel Housings



Apart from the list of items presented in following pages, many other special type of Ball Bearing Units can also be developed to meet specific application requirements. Technical information for such Bearings, is available on request.

KG standard suffixes for Bearings / Ball Bearing Units

- A Modified internal geometry
- G 1 to G 06 KG internal grease type codes. For details, please contact KG International FZCO
- ND Special design
- NOH Without oil hole and oil groove on Outer Ring surface
- TS Tripple Rubber Seal design
- SD Special location of oil groove and oil holes on Outer Ring surface
- WOH With only oil holes on Outer Ring surface
- WOHG With oil hole and oil groove on Outer Ring surface

Note: Most of the Bearings listed in following pages of this chapter are available with above suffixes, subject to design or manufacturing constraints.



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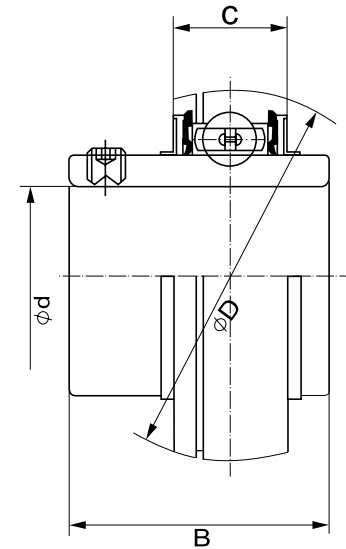
Single Row Series : UC200

Ball Bearings

BU



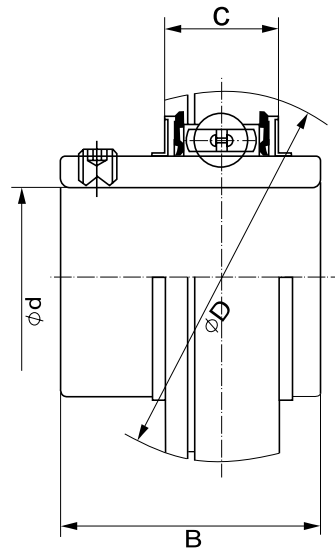
Bearing No.	Dimensions in mm				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC201	12.000	47.000	31.000	17.000	9880	6200	0.200
UC202	15.000	47.000	31.000	17.000	9880	6200	0.190
UC203	17.000	47.000	31.000	17.000	9880	6200	0.180
UC204	20.000	47.000	31.000	17.000	9880	6200	0.160
UC205	25.000	52.000	34.100	17.000	10780	6980	0.200
UC206	30.000	62.000	38.100	19.000	14970	10040	0.320
UC207	35.000	72.000	42.900	20.000	19750	13670	0.480
UC208	40.000	80.000	49.200	21.000	22710	15940	0.640
UC209	45.000	85.000	49.200	22.000	24360	17710	0.680
UC210	50.000	90.000	51.600	24.000	26980	19840	0.800
UC211	55.000	100.000	55.600	25.000	33370	25110	1.110
UC212	60.000	110.000	65.100	27.000	36740	27970	1.540
UC213	65.000	120.000	65.100	28.000	44010	34180	1.850
UC214	70.000	125.000	74.600	29.000	46790	37590	2.050
UC215	75.000	130.000	77.800	30.000	50850	41260	2.210
UC216	80.000	140.000	82.600	32.000	55040	45090	2.800
UC217	85.000	150.000	85.700	34.000	64010	53280	3.460
UC218	90.000	160.000	96.000	36.000	73830	60760	4.360





Single Row Series : UC300

231



Bearing No.	Dimensions in mm				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC305	25.000	62.000	38.000	20.000	17220	11930	0.350
UC306	30.000	72.000	43.000	23.000	20770	14170	0.560
UC307	35.000	80.000	48.000	25.000	25660	17920	0.710
UC308	40.000	90.000	52.000	27.000	31350	22380	0.960
UC309	45.000	100.000	57.000	30.000	40660	30000	1.280
UC310	50.000	110.000	61.000	32.000	47580	35710	1.650
UC311	55.000	120.000	66.000	34.000	55050	41910	2.070
UC312	60.000	130.000	71.000	36.000	62880	48600	2.600
UC313	65.000	140.000	75.000	38.000	72210	56680	3.250
UC314	70.000	150.000	78.000	40.000	80100	63480	3.890
UC315	75.000	160.000	82.000	42.000	87250	71670	4.720
UC316	80.000	170.000	86.000	44.000	94570	80350	5.550
UC317	85.000	180.000	96.000	46.000	102050	89520	6.670
UC318	90.000	190.000	96.000	48.000	110810	100760	7.560
UC319	95.000	200.000	103.000	50.000	120510	103750	8.700

Ball Bearings

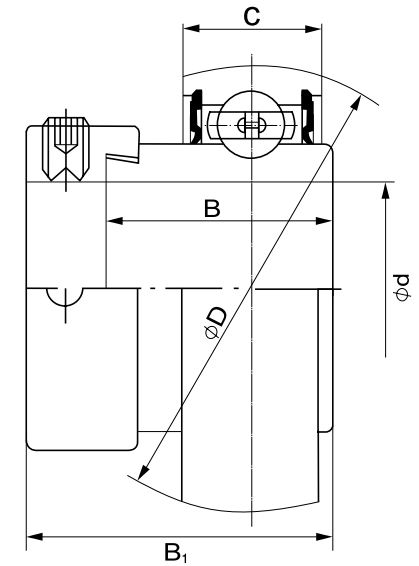
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Single Row Series : AEL200



Bearing No.	Dimensions in mm					Basic Load Ratings		Wt. (Kg)
	d	D	B ₁	B	C	N		
						Dynamic	Static	
AEL201	12.000	40.000	28.600	19.100	12.000	7360	4480	0.120
AEL202	15.000	40.000	28.600	19.100	12.000	7360	4480	0.100
AEL203	17.000	40.000	28.600	19.100	12.000	7360	4480	0.090
AEL204	20.000	47.000	31.000	21.500	14.000	9880	6200	0.160
AEL205	25.000	52.000	31.000	21.500	15.000	10780	6980	0.200
AEL206	30.000	62.000	35.700	23.800	16.000	14970	10040	0.300
AEL207	35.000	72.000	38.900	25.400	17.000	19750	13670	0.420
AEL208	40.000	80.000	43.700	30.200	18.000	22710	15940	0.600
AEL209	45.000	85.000	43.700	30.200	19.000	24360	17710	0.760
AEL210	50.000	90.000	43.700	30.200	20.000	26980	19840	0.910
AEL211	55.000	100.000	48.400	32.500	21.000	33370	25110	1.260
AEL212	60.000	110.000	53.100	37.200	22.000	36740	27970	1.700

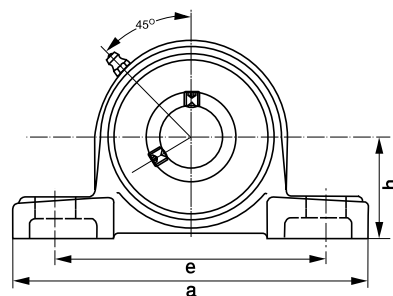




Single Row

Series : UCP200

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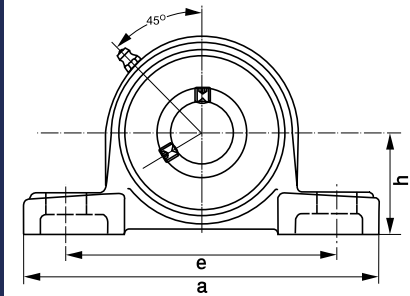
Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		h	a	e	
UCP201	12.000	30.200	127.000	95.000	0.650
UCP202	15.000	30.200	127.000	95.000	0.630
UCP203	17.000	30.200	127.000	95.000	0.620
UCP204	20.000	33.300	127.000	95.000	0.650
UCP205	25.000	36.500	140.000	105.000	0.790
UCP206	30.000	42.900	165.000	121.000	1.300
UCP207	35.000	47.600	167.000	127.000	1.600
UCP208	40.000	49.200	184.000	137.000	2.000
UCP209	45.000	54.000	190.000	146.000	2.300
UCP210	50.000	57.200	206.000	159.000	2.700
UCP211	55.000	63.500	219.000	171.000	3.300
UCP212	60.000	69.800	241.000	184.000	4.700
UCP213	65.000	76.200	265.000	203.000	5.600
UCP214	70.000	79.400	266.000	210.000	7.300
UCP215	75.000	82.600	275.000	217.000	7.900
UCP216	80.000	88.900	292.000	232.000	10.000
UCP217	85.000	95.200	310.000	247.000	12.200
UCP218	90.000	101.600	327.000	262.000	14.700

Pillow Block Units

BU



Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		h	a	e	
UCP305	25.000	45.000	175.000	132.000	1.600
UCP306	30.000	50.000	180.000	140.000	1.900
UCP307	35.000	56.000	210.000	160.000	2.700
UCP308	40.000	60.000	220.000	170.000	3.300
UCP309	45.000	67.000	245.000	190.000	4.500
UCP310	50.000	75.000	275.000	212.000	6.200
UCP311	55.000	80.000	310.000	236.000	7.700
UCP312	60.000	85.000	330.000	250.000	9.300
UCP313	65.000	90.000	340.000	260.000	9.800
UCP314	70.000	95.000	360.000	280.000	11.400
UCP315	75.000	100.000	380.000	290.000	13.600
UCP316	80.000	106.000	400.000	300.000	16.400
UCP317	85.000	112.000	420.000	320.000	18.600
UCP318	90.000	118.000	430.000	330.000	20.900
UCP319	95.000	125.000	470.000	360.000	26.500
UCP320	100.000	140.000	490.000	380.000	34.300

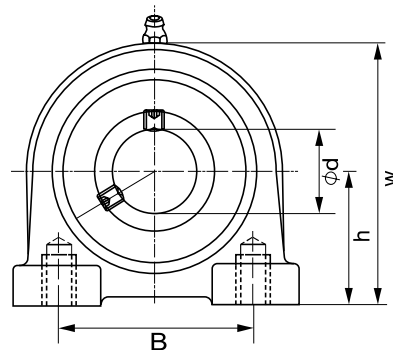
KG[®]



KG®

Series : **UCPA200**

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b: Inner Ring Width of Bearing

Bearing No.	Dimensions in mm					Wt. (Kg)
	d	h	b	w	B	
UCPA201	12.000	30.200	40.000	62.000	31.000	0.600
UCPA202	15.000	30.200	40.000	62.000	31.000	0.590
UCPA203	17.000	30.200	40.000	62.000	31.000	0.580
UCPA204	20.000	30.200	40.000	62.000	31.000	0.560
UCPA205	25.000	36.500	38.000	72.000	34.100	0.830
UCPA206	30.000	42.900	50.000	84.000	38.100	1.120
UCPA207	35.000	47.600	55.000	95.000	42.900	1.480
UCPA208	40.000	49.200	58.000	100.000	49.200	1.890
UCPA209	45.000	54.200	60.000	108.000	49.200	1.980
UCPA210	50.000	57.200	64.000	116.000	51.600	2.160
UCPA211	55.000	63.500	66.000	125.000	55.600	3.260
UCPA212	60.000	69.900	68.000	138.000	65.100	4.190

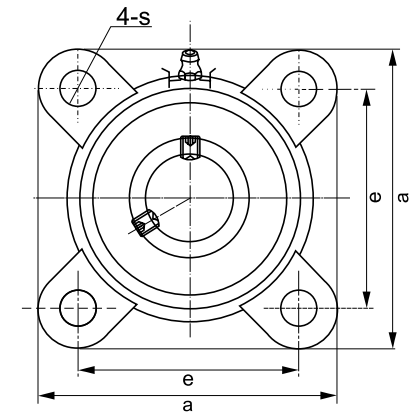
Pillow Block Units

BU



KG[®]

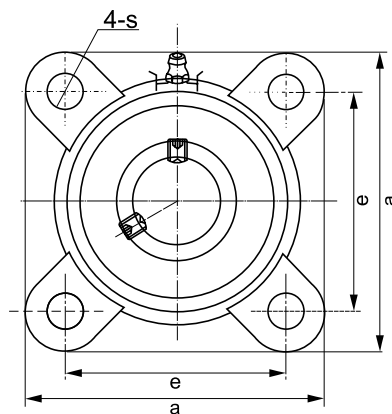
Bearing No.	Shaft Dia in mm	Dimensions in mm		Wt. (Kg)
		a	e	
UCF201	12.000	86.000	64.000	0.640
UCF202	15.000	86.000	64.000	0.620
UCF203	17.000	86.000	64.000	0.610
UCF204	20.000	86.000	64.000	0.590
UCF205	25.000	95.000	70.000	0.820
UCF206	30.000	108.000	83.000	1.100
UCF207	35.000	117.000	92.000	1.500
UCF208	40.000	130.000	102.000	2.000
UCF209	45.000	137.000	105.000	2.400
UCF210	50.000	143.000	111.000	2.500
UCF211	55.000	162.000	130.000	3.400
UCF212	60.000	175.000	143.000	4.600
UCF213	65.000	187.000	149.000	5.500
UCF214	70.000	193.000	152.000	6.100
UCF215	75.000	200.000	159.000	6.900
UCF216	80.000	208.000	165.000	7.800
UCF217	85.000	220.000	175.000	9.300
UCF218	90.000	235.000	187.000	11.300





Series : **UCF300**

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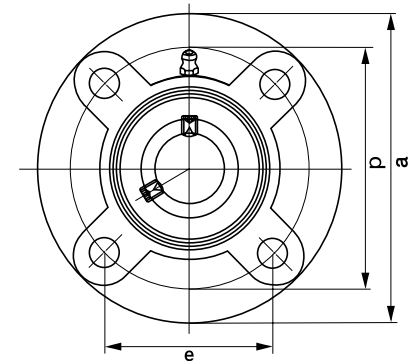
Bearing No.	Shaft Dia in mm	Dimensions in mm		Wt. (Kg)
		a	e	
UCF305	25.000	110.000	80.000	1.200
UCF306	30.000	125.000	95.000	1.700
UCF307	35.000	135.000	100.000	2.100
UCF308	40.000	150.000	112.000	2.900
UCF309	45.000	160.000	125.000	3.600
UCF310	50.000	175.000	132.000	4.700
UCF311	55.000	185.000	140.000	5.700
UCF312	60.000	195.000	150.000	6.800
UCF313	65.000	208.000	166.000	7.800
UCF314	70.000	226.000	178.000	9.600
UCF315	75.000	236.000	184.000	11.700
UCF316	80.000	250.000	196.000	13.700
UCF317	85.000	260.000	204.000	15.200
UCF318	90.000	280.000	216.000	18.800
UCF319	95.000	290.000	228.000	20.700
UCF320	100.000	310.000	242.000	24.800

Square Flange Units

BU



Bearing No.	Dimensions in mm					Wt. (Kg)
	d	a	p	e	B	
UCFC201	12.000	100.000	78.000	55.100	31.000	0.730
UCFC202	15.000	100.000	78.000	55.100	31.000	0.720
UCFC203	17.000	100.000	78.000	55.100	31.000	0.710
UCFC204	20.000	100.000	78.000	55.100	31.000	0.690
UCFC205	25.000	115.000	90.000	63.600	34.100	1.000
UCFC206	30.000	125.000	100.000	70.700	38.100	1.300
UCFC207	35.000	135.000	110.000	77.800	42.900	1.810
UCFC208	40.000	145.000	120.000	84.800	49.200	2.140
UCFC209	45.000	160.000	132.000	93.300	49.200	2.680
UCFC210	50.000	165.000	138.000	97.600	51.600	2.900
UCFC211	55.000	185.000	150.000	106.100	55.600	4.010
UCFC212	60.000	195.000	160.000	113.100	65.100	4.940
UCFC213	65.000	205.000	170.000	120.200	65.100	5.650
UCFC214	70.000	215.000	177.000	125.100	74.600	6.950
UCFC215	75.000	220.000	184.000	130.100	77.800	7.560
UCFC216	80.000	240.000	200.000	141.400	82.600	9.150
UCFC217	85.000	250.000	208.000	147.100	85.700	10.810
UCFC218	90.000	265.000	220.000	155.500	96.000	12.960

KG[®]

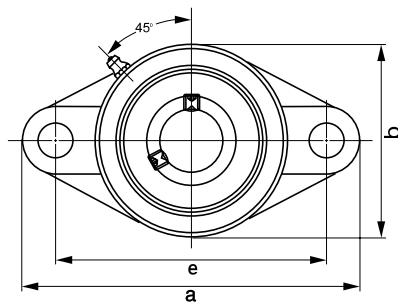
d: Shaft Diameter
B: Width of Inner Ring



KG®

Series : UCFL200

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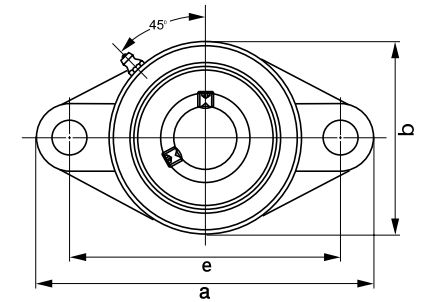
Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		a	e	b	
UCFL201	12.000	113.000	90.000	60.000	0.500
UCFL202	15.000	113.000	90.000	60.000	0.480
UCFL203	17.000	113.000	90.000	60.000	0.470
UCFL204	20.000	113.000	90.000	60.000	0.450
UCFL205	25.000	130.000	99.000	68.000	0.630
UCFL206	30.000	148.000	117.000	80.000	0.960
UCFL207	35.000	161.000	130.000	90.000	1.200
UCFL208	40.000	175.000	144.000	100.000	1.600
UCFL209	45.000	188.000	148.000	108.000	1.900
UCFL210	50.000	197.000	157.000	115.000	2.200
UCFL211	55.000	224.000	184.000	130.000	3.200
UCFL212	60.000	250.000	202.000	140.000	4.100
UCFL213	65.000	258.000	210.000	155.000	5.100
UCFL214	70.000	265.000	216.000	160.000	6.000
UCFL215	75.000	275.000	225.000	165.000	6.500
UCFL216	80.000	290.000	233.000	180.000	8.000
UCFL217	85.000	305.000	248.000	190.000	9.500
UCFL218	90.000	320.000	265.000	205.000	11.900



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Series : **UCFL300**

Oval Flange Units

KG[®]

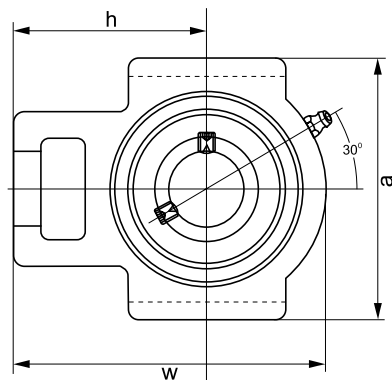
Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		a	e	b	
UCFL305	25.000	150.000	113.000	80.000	1.100
UCFL306	30.000	180.000	134.000	90.000	1.500
UCFL307	35.000	185.000	141.000	100.000	1.800
UCFL308	40.000	200.000	158.000	112.000	2.400
UCFL309	45.000	230.000	177.000	125.000	3.400
UCFL310	50.000	240.000	187.000	140.000	4.300
UCFL311	55.000	250.000	198.000	150.000	5.100
UCFL312	60.000	270.000	212.000	160.000	6.200
UCFL313	65.000	295.000	240.000	175.000	7.400
UCFL314	70.000	315.000	250.000	185.000	9.000
UCFL315	75.000	320.000	260.000	195.000	10.000
UCFL316	80.000	355.000	285.000	210.000	12.600
UCFL317	85.000	370.000	300.000	220.000	14.500
UCFL318	90.000	385.000	315.000	235.000	17.100
UCFL319	95.000	405.000	330.000	250.000	21.800
UCFL320	100.000	440.000	360.000	270.000	26.500

BU



Series : UCT200

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Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		a	w	h	
UCT201	12.000	89.000	94.000	61.000	0.790
UCT202	15.000	89.000	94.000	61.000	0.770
UCT203	17.000	89.000	94.000	61.000	0.760
UCT204	20.000	89.000	94.000	61.000	0.740
UCT205	25.000	89.000	97.000	62.000	0.820
UCT206	30.000	102.000	113.000	70.000	1.300
UCT207	35.000	102.000	129.000	78.000	1.600
UCT208	40.000	114.000	144.000	88.000	2.400
UCT209	45.000	117.000	144.000	87.000	2.400
UCT210	50.000	117.000	149.000	90.000	2.500
UCT211	55.000	146.000	171.000	106.000	4.000
UCT212	60.000	146.000	194.000	119.000	5.100
UCT213	65.000	167.000	224.000	137.000	7.000
UCT214	70.000	167.000	224.000	137.000	7.100
UCT215	75.000	167.000	232.000	140.000	7.500
UCT216	80.000	184.000	235.000	140.000	8.500
UCT217	85.000	198.000	260.000	162.000	11.200

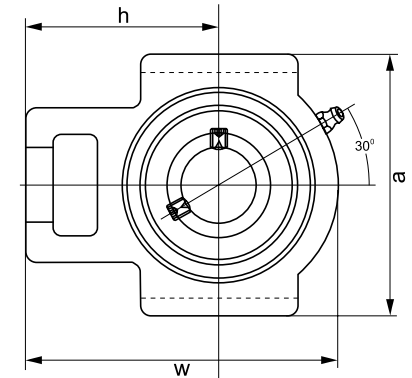
Take-up Units

BU



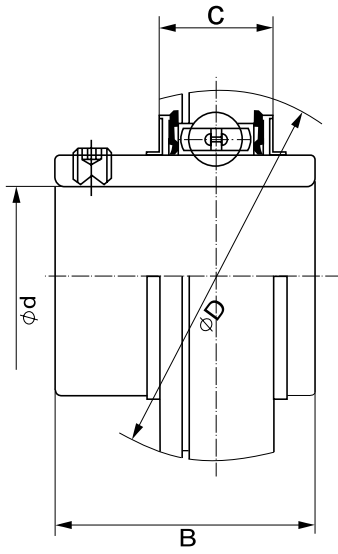
KG[®]

Bearing No.	Shaft Dia in mm	Dimensions in mm			Wt. (Kg)
		a	w	h	
UCT305	25.000	89.000	122.000	76.000	1.400
UCT306	30.000	100.000	137.000	85.000	1.800
UCT307	35.000	111.000	150.000	94.000	2.400
UCT308	40.000	124.000	162.000	100.000	3.000
UCT309	45.000	138.000	178.000	110.000	4.100
UCT310	50.000	151.000	191.000	117.000	5.200
UCT311	55.000	163.000	207.000	127.000	6.400
UCT312	60.000	178.000	220.000	135.000	7.600
UCT313	65.000	190.000	238.000	146.000	9.200
UCT314	70.000	202.000	252.000	155.000	11.200
UCT315	75.000	216.000	262.000	160.000	13.000
UCT316	80.000	230.000	282.000	174.000	15.600
UCT317	85.000	240.000	298.000	183.000	19.300
UCT318	90.000	255.000	312.000	192.000	21.200
UCT319	95.000	270.000	322.000	197.000	24.400
UCT320	100.000	290.000	345.000	210.000	30.600





Series : **UC200**

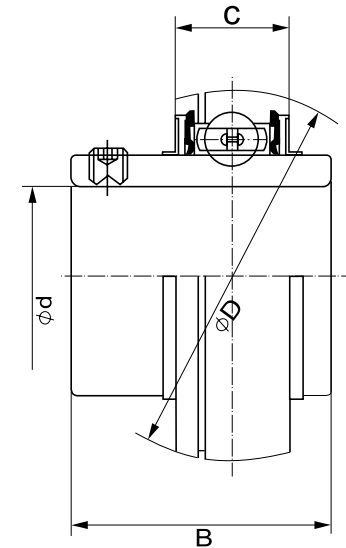


Bearing No.	Dimensions in inch				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC201-8	3/4	1.850	1.220	0.669	9880	6200	0.190
UC202-9	9/16	1.850	1.220	0.669	9880	6200	0.190
UC202-10	5/8	1.850	1.220	0.669	9880	6200	0.190
UC203-11	11/16	1.850	1.220	0.669	9880	6200	0.170
UC204-12	3/4	1.850	1.220	0.669	9880	6200	0.160
UC205-13	13/16	2.004	1.342	0.669	10780	6980	0.240
UC205-14	7/8	2.004	1.342	0.669	10780	6980	0.230
UC205-15	15/16	2.004	1.342	0.669	10780	6980	0.210
UC205-16	1	2.004	1.342	0.669	10780	6980	0.200
UC206-17	1-1/16	2.440	1.500	0.748	14970	10040	0.330
UC206-18	1-1/8	2.440	1.500	0.748	14970	10040	0.340
UC206-19	1-3/16	2.440	1.500	0.748	14970	10040	0.320
UC206-20	1-1/4	2.440	1.500	0.748	14970	10040	0.310
UC207-20	1-1/4	2.834	1.689	0.787	19750	13670	0.540
UC207-21	1-5/16	2.834	1.689	0.787	19750	13670	0.510
UC207-22	1-3/8	2.834	1.689	0.787	19750	13670	0.480
UC207-23	1-7/16	2.834	1.689	0.787	19750	13670	0.450
UC208-24	1-1/12	3.149	1.937	0.826	22710	15940	0.680
UC208-25	1-9/16	3.149	1.937	0.826	22710	15940	0.650
UC209-26	1-5/8	3.346	1.937	0.866	24360	17710	0.780
UC209-27	1-11/16	3.346	1.937	0.866	24360	17710	0.740
UC209-28	1-3/4	3.346	1.937	0.866	24360	17710	0.700
UC210-29	1-13/16	3.543	2.031	0.944	26980	19840	0.920
UC210-30	1-7/8	3.543	2.031	0.944	26980	19840	0.870
UC210-31	1-15/16	3.543	2.031	0.944	26980	19840	0.820
UC210-32	2	3.543	2.031	0.944	26980	19840	0.780
UC211-32	2	3.937	2.189	0.984	33370	25110	1.260
UC211-33	2-1/16	3.937	2.189	0.984	33370	25110	1.200



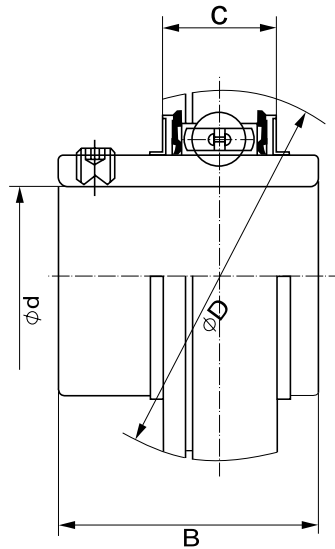
KG[®]

Bearing No.	Dimensions in inch				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC211-34	2-1/8	3.937	2.189	0.984	33370	25110	1.150
UC211-35	2-3/16	3.937	2.189	0.984	33370	25110	1.090
UC212-36	2-1/4	4.330	2.563	1.063	36740	27970	1.670
UC212-37	2-5/16	4.330	2.563	1.063	36740	27970	1.590
UC212-38	2-3/8	4.330	2.563	1.063	36740	27970	1.520
UC212-39	2-7/16	4.330	2.563	1.063	36740	27970	1.450
UC213-40	2-1/2	4.330	2.563	1.102	44010	34180	1.940
UC213-41	2-9/16	4.330	2.563	1.102	44010	34180	1.850
UC214-42	2-5/8	4.921	2.937	1.142	46790	37590	2.260
UC214-43	2-11/16	4.921	2.937	1.142	46790	37590	2.160
UC214-44	2-3/4	4.921	2.937	1.142	46790	37590	2.060
UC215-45	2-13/16	5.118	3.063	1.181	50850	41260	2.460
UC215-46	2-7/8	5.118	3.063	1.181	50850	41260	2.350
UC215-47	2-15/16	5.118	3.063	1.181	50850	41260	2.240
UC215-48	3	5.118	3.063	1.181	50850	41260	2.120
UC216-49	3-1/16	5.511	3.252	1.260	55040	45090	2.980
UC216-50	3-1/8	5.511	3.252	1.260	55040	45090	2.850
UC216-51	3-3/16	5.511	3.252	1.260	55040	45090	2.720
UC217-52	3-1/4	5.905	3.374	1.339	64010	53280	3.680
UC217-53	3-5/16	5.905	3.374	1.339	64010	53280	3.540
UC217-55	3-7/16	5.905	3.374	1.339	64010	53280	3.250
UC218-56	3-1/2	6.299	3.779	1.417	73830	60760	4.470





KG[®]



Series : **UC300**

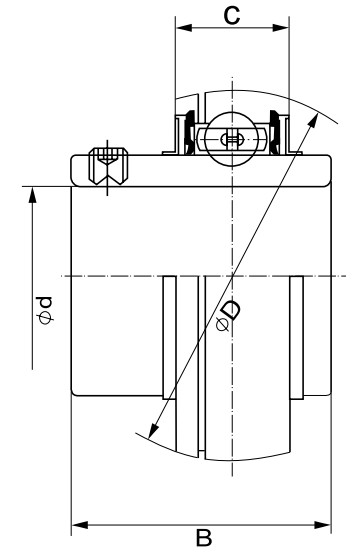
245

Bearing No.	Dimensions in inch				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC305-13	13/16	2.440	1.496	0.787	17220	11930	0.400
UC305-14	7/8	2.440	1.496	0.787	17220	11930	0.380
UC305-15	15/16	2.440	1.496	0.787	17220	11930	0.360
UC305-16	1	2.440	1.496	0.787	17220	11930	0.350
UC306-17	1-1/16	2.834	1.692	0.905	20770	14170	0.610
UC306-18	1-1/8	2.834	1.692	0.905	20770	14170	0.580
UC306-19	1-3/16	2.834	1.692	0.905	20770	14170	0.560
UC307-20	1-1/4	3.149	1.889	0.984	25660	17920	0.770
UC307-21	1-5/16	3.149	1.889	0.984	25660	17920	0.740
UC307-22	1-3/8	3.149	1.889	0.984	25660	17920	0.710
UC307-23	1-7/16	3.149	1.889	0.984	25660	17920	0.680
UC308-24	1-1/2	3.543	2.047	1.063	31350	22380	1.010
UC308-25	1-9/16	3.543	2.047	1.063	31350	22380	0.970
UC309-26	1-5/8	3.937	2.244	1.181	40660	30000	1.390
UC309-27	1-11/16	3.937	2.244	1.181	40660	30000	1.350
UC309-28	1-3/4	3.937	2.244	1.181	40660	30000	1.300
UC310-29	1-13/16	4.330	2.401	1.259	47580	35710	1.970
UC310-30	1-7/8	4.330	2.401	1.259	47580	35710	1.740
UC310-31	1-15/16	4.330	2.401	1.259	47580	35710	1.680
UC311-32	2	4.724	2.598	1.338	55050	41910	2.250
UC311-33	2-1/16	4.724	2.598	1.338	55050	41910	2.180
UC311-34	2-1/8	4.724	2.598	1.338	55050	41910	2.120
UC311-35	2-3/16	4.724	2.598	1.338	55050	41910	2.040
UC312-36	2-1/4	5.118	2.795	1.417	62880	48600	2.750
UC312-37	2-5/16	5.118	2.795	1.417	62880	48600	2.670
UC312-38	2-3/8	5.118	2.795	1.417	62880	48600	2.580
UC312-39	2-7/16	5.118	2.795	1.417	62880	48600	2.500
UC313-40	2-1/2	5.511	2.952	1.496	72210	56680	3.340

Ball Bearings

BU

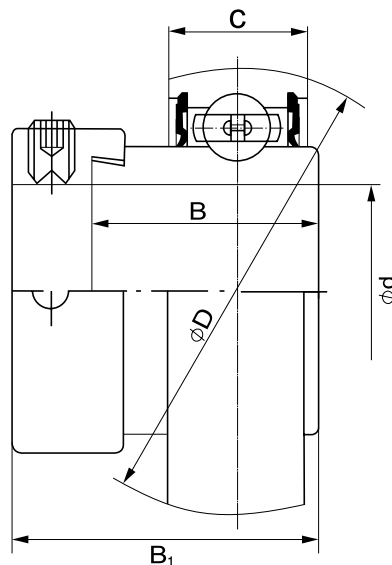
Bearing No.	Dimensions in inch				Basic Load Ratings		Wt. (Kg)
	d	D	B	C	N		
					Dynamic	Static	
UC313-41	2-9/16	5.511	2.953	1.496	72210	56680	3.240
UC314-42	2-5/8	5.905	3.071	1.574	80100	63480	4.110
UC314-43	2-11/16	5.905	3.071	1.574	80100	63480	4.000
UC314-44	2-3/4	5.905	3.071	1.574	80100	63480	3.900
UC315-45	2-13/16	6.299	3.228	1.653	87250	71670	4.990
UC315-46	3-7/8	6.299	3.228	1.653	87250	71670	4.850
UC315-47	2-15/16	6.299	3.228	1.653	87250	71670	4.760
UC315-48	3	6.299	3.228	1.653	87250	71670	4.630
UC316-49	3-1/16	6.692	3.386	1.732	94570	80350	5.720
UC316-50	3-1/8	6.692	3.386	1.732	94570	80350	5.580
UC316-51	3-3/16	6.692	3.386	1.732	94570	80350	5.490
UC317-52	3-1/4	7.086	3.779	1.811	102050	89520	6.890
UC317-53	3-5/16	7.086	3.779	1.811	102050	89520	6.760
UC317-55	3-7/16	7.086	3.779	1.811	102050	89520	6.440
UC318-55	3-7/16	7.480	3.779	1.889	110810	100760	7.850
UC318-56	3-1/2	7.480	3.779	1.889	110810	100760	7.670
UC319-58	3-5/8	7.874	4.055	1.968	120510	103750	9.030
UC319-59	3-11/16	7.874	4.055	1.968	120510	103750	8.850
UC319-60	3-3/4	7.874	4.055	1.968	120510	103750	8.660



Series : AEL200

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Bearing No.	Dimensions in inch					Basic Load Ratings		Wt. (Kg)
	d	D	B ₁	B	C	N		
						Dynamic	Static	
AEL201-8	3/4	1.574	1.126	0.752	0.472	7360	4480	0.120
AEL209-9	9/16	1.574	1.126	0.752	0.472	7360	4480	0.100
AEL209-10	5/8	1.574	1.126	0.752	0.472	7360	4480	1.100
AEL203-11	11/16	1.574	1.126	0.752	0.472	7360	4480	0.100
AEL204-12	3/4	1.850	1.220	0.846	0.551	9980	6200	0.160
AEL205-13	13/16	2.047	1.220	0.846	0.590	10780	6980	0.220
AEL205-14	7/8	2.047	1.220	0.846	0.590	10780	6980	0.210
AEL205-15	15/16	2.047	1.220	0.846	0.590	10780	6980	0.210
AEL205-16	1	2.047	1.220	0.846	0.590	10780	6980	0.200
AEL206-17	1-1/16	2.440	1.406	0.937	0.629	14970	10040	0.320
AEL206-18	1-1/8	2.440	1.406	0.937	0.629	14970	10040	0.310
AEL206-19	1-3/16	2.440	1.406	0.937	0.629	14970	10040	0.300
AEL206-20	1-1/4	2.440	1.406	0.937	0.629	14970	10040	0.290
AEL207-20	1-1/4	2.834	1.531	1.000	0.669	19750	13670	0.460
AEL207-21	1-5/16	2.834	1.531	1.000	0.669	19750	13670	0.430
AEL207-22	1-3/8	2.834	1.531	1.000	0.669	19750	13670	0.420
AEL207-23	1-7/16	2.834	1.531	1.000	0.669	19750	13670	0.410
AEL208-24	1-1/2	3.149	1.721	1.189	0.708	22710	15940	0.580
AEL208-25	1-9/16	3.149	1.721	1.189	0.708	22710	15940	0.600
AEL209-26	1-5/8	3.346	1.721	1.189	0.748	24360	17710	0.760
AEL209-27	1-11/16	3.346	1.721	1.189	0.748	24360	17710	0.760
AEL209-28	1-3/4	3.346	1.721	1.189	0.748	24360	17710	0.760
AEL210-29	1-13/16	3.543	1.721	1.189	0.787	26980	19840	0.910
AEL210-30	1-7/8	3.543	1.721	1.189	0.787	26980	19840	0.910
AEL210-31	1-15/16	3.543	1.721	1.189	0.787	26980	19840	0.910
AEL210-32	2	3.543	1.721	1.189	0.787	26980	19840	0.910
AEL211-32	2	3.937	1.906	1.279	0.826	33370	25110	1.260
AEL211-33	2-1/16	3.937	1.906	1.279	0.826	33370	25110	1.260
AEL211-34	2-1/8	3.937	1.906	1.279	0.826	33370	25110	1.260
AEL211-35	2-3/16	3.937	1.906	1.279	0.826	33370	25110	1.260
AEL212-36	2-1/4	4.330	2.091	1.464	0.866	36740	27970	1.700
AEL212-37	2-5/16	4.330	2.091	1.464	0.866	36740	27970	1.700
AEL212-38	2-3/8	4.330	2.091	1.464	0.866	36740	27970	1.700
AEL212-39	2-7/16	4.330	2.091	1.464	0.866	36740	27970	1.700

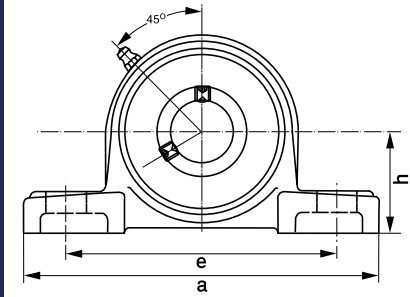
Ball Bearings

BU



KG[®]

Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		h	a	e	
UCP201-8	1/2	1-3/8	5	3-3/4	0.610
UCP202-9	9/16	1-3/8	5	3-3/4	0.610
UCP202-10	5/8	1-3/8	5	3-3/4	0.610
UCP203-11	11/16	1-3/8	5	3-3/4	0.610
UCP204-12	3/4	1-5/16	5	3-3/4	0.660
UCP205-14	7/8	1-7/16	5-1/2	4-1/8	0.800
UCP205-15	15/16	1-7/16	5-1/2	4-1/8	0.800
UCP205-16	1	1-7/16	5-1/2	4-1/8	0.800
UCP206-17	1-1/16	1-11/16			
UCP206-18	1-1/8	1-11/16	6-1/2	4-3/4	1.300
UCP206-19	1-3/16	1-11/16	6-1/2	4-3/4	1.300
			6-1/2	4-3/4	1.300
UCP207-20	1-1/4	1-7/8	6-9/16	5	1.600
UCP207-21	1-5/16	1-7/8	6-9/16	5	1.600
UCP207-22	1-3/8	1-7/8	6-9/16	5	1.600
UCP207-23	1-7/16	1-7/8	6-9/16	5	1.600
UCP208-24	1-1/2	1-15/16	7-1/4	5-3/8	2.000
UCP208-25	1-9/16	1-15/16	7-1/4	5-3/8	2.000
UCP209-26	1-5/8	2-1/8	7-1/2	5-3/4	2.200
UCP209-27	1-11/16	2-1/8	7-1/2	5-3/4	2.200
UCP209-28	1-3/4	2-1/8	7-1/2	5-3/4	2.200
UCP210-30	1-7/8	2-1/4	8-1/8	6-1/4	2.900
UCP210-31	1-15/16	2-1/4	8-1/8	6-1/4	2.900
UCP211-32	2	2-1/2	8-5/8	6-3/4	3.600
UCP211-34	2-1/8	2-1/2	8-5/8	6-3/4	3.600
UCP211-35	2-3/16	2-1/2	8-5/8	6-3/4	3.600
UCP212-36	2-1/4	2-3/4	9-1/2	7-1/4	4.900
UCP212-38	2-3/8	2-3/4	9-1/2	7-1/4	4.900
UCP212-39	2-3/8	2-3/4	9-1/2	7-1/4	4.900
UCP213-40	2-1/2	3	10-7/16	8	5.900
UCP214-44	2-3/4	3-1/8	10-1/2	8-1/4	6.800
UCP215-48	3	3-1/4	10-11/16	8-1/2	7.400





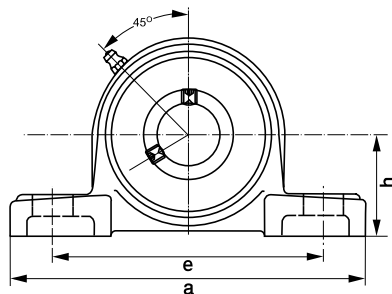
KG[®]

Series : **UCP300**

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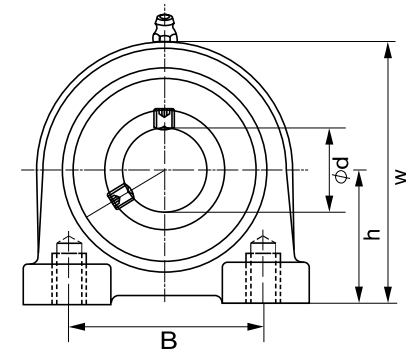
Pillow Block Units

BU



Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		h	a	e	
UCP305-14	7/8	1-49/64	6-7/8	5-1/4	1.600
UCP305-16	1	1-49/64	6-7/8	5-1/4	1.600
UCP306-18	1-1/8	1-31/32	7-1/6	5-1/2	1.900
UCP307-20	1-1/4	2-13/64	8-1/4	6-1/4	2.700
UCP307-22	1-3/8	2-13/64	8-1/4	6-1/4	2.700
UCP308-24	1-1/2	2-23/64	8-11/16	6-3/4	3.300
UCP309-26	1-5/8	2-41/64	9-5/8	7-1/2	4.500
UCP309-28	1-3/4	2-41/64	9-5/8	7-1/2	4.500
UCP310-30	1-7/8	2-61/64	10-13/16	8-3/8	6.200
UCP311-32	2	3-5/32	12-3/16	9-1/4	7.700
UCP311-34	2-1/8	3-5/32	12-3/16	9-1/4	7.700
UCP312-36	2-1/4	3-11/32	13	9-7/8	9.300
UCP312-38	2-3/8	3-11/32	13	9-7/8	9.300
UCP313-40	2-1/2	3-35/64	13-3/8	10-1/4	9.800
UCP314-44	2-3/4	3-47/64	14-3/16	11	11.400
UCP315-48	3	3-15/16	15	11-3/8	13.600
UCP316-50	3-1/8	4-11/64	15-3/4	11-3/4	16.400
UCP317-52	3-1/4	4-13/32	16-9/16	12-5/8	18.000
UCP318-56	3-1/2	4-41/64	16-15/16	13	20.900
UCP319-60	3-3/4	4-59/64	18-1/2	14-1/8	26.500
UCP320-64	4	5-33/64	19-5/16	15	34.300



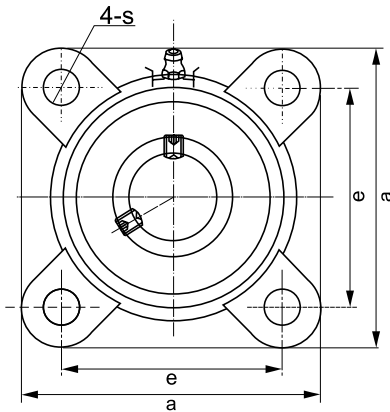


b: Inner Ring Width of Bearing

Bearing No.	Dimensions in inch					Wt. (Kg)
	d	h	b	w	B	
UCPA201-8	3/4	1-3/16	1-9/16	2-7/16	1.220	0.590
UCPA202-9	9/16	1-3/16	1-9/16	2-7/16	1.220	0.590
UCPA202-10	5/8	1-3/16	1-9/16	2-7/16	1.220	0.590
UCPA203-11	11/16	1-3/16	1-9/16	2-7/16	1.220	0.570
UCPA204-12	3/4	1-3/16	1-9/16	2-7/16	1.220	0.560
UCPA205-13	13/16	1-7/16	1-1/2	2-53/64	1.342	0.870
UCPA205-14	7/8	1-7/16	1-1/2	2-53/64	1.342	0.860
UCPA205-15	15/16	1-7/16	1-1/2	2-53/64	1.342	0.840
UCPA205-16	1	1-7/16	1-1/2	2-53/64	1.342	0.830
UCPA206-17	1-1/16	1-1/16	1-31/32	3-5/16	1.500	1.150
UCPA206-18	1-1/8	1-1/16	1-31/32	3-5/16	1.500	1.140
UCPA206-19	1-3/16	1-1/16	1-31/32	3-5/16	1.500	1.120
UCPA206-20	1-1/4	1-1/16	1-31/32	3-5/16	1.500	1.110
UCPA207-20	1-1/4	1-7/8	2-11/64	3-47/64	1.689	1.540
UCPA207-21	1-5/16	1-7/8	2-11/64	3-47/64	1.689	1.510
UCPA207-22	1-3/8	1-7/8	2-11/64	3-47/64	1.689	1.480
UCPA207-23	1-7/16	1-7/8	2-11/64	3-47/64	1.689	1.450
UCPA208-24	1-1/2	1-15/16	2-9/32	3-15/16	1.937	1.930
UCPA208-25	1-9/16	1-5/16	2-9/32	3-15/16	1.937	1.900
UCPA209-26	1-5/8	2-9/64	2-23/64	4-1/4	1.937	2.080
UCPA209-27	1-11/16	2-9/64	2-23/64	4-1/4	1.937	2.040
UCPA209-28	1-3/4	2-9/64	2-23/64	4-1/4	1.937	2.000
UCPA210-29	1-3/16	2-1/4	2-33/64	4-9/16	2.031	2.280
UCPA210-30	1-7/8	2-1/4	2-33/64	4-9/16	2.031	2.230
UCPA210-31	1-15/16	2-1/4	2-33/64	4-9/16	2.031	2.180
UCPA210-32	2	2-1/4	2-33/64	4-9/16	2.031	2.140
UCPA211-32	2	2-1/2	2-19/32	4-59/64	2.189	3.410
UCPA211-33	2-1/16	2-1/2	2-19/32	4-59/64	2.189	3.350
UCPA211-34	2-1/8	2-1/2	2-19/32	4-59/64	2.189	3.300
UCPA211-35	2-3/16	2-1/2	2-19/32	4-59/64	2.189	3.240
UCPA212-36	2-1/4	2-3/4	2-43/64	5-7/16	2.563	4.320
UCPA212-37	2-5/16	2-3/4	2-43/64	5-7/16	2.563	4.240
UCPA212-38	2-3/8	2-3/4	2-43/64	5-7/16	2.563	4.170
UCPA212-39	2-7/16	2-3/4	2-43/64	5-7/16	2.563	4.100



KG[®]



Series : **UCF200**

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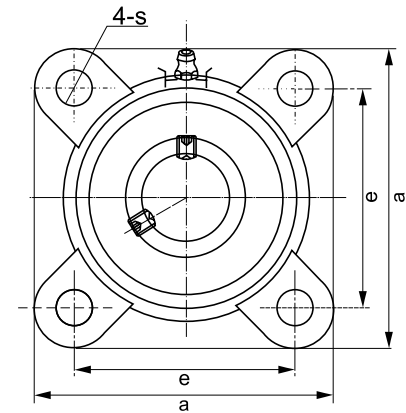
Bearing No.	Shaft Dia in inch	Dimensions in inch		Wt. (Kg)
		a	e	
UCF201-8	1/2	3-3/8	2-1/2	0.620
UCF202-9	9/16	3-3/8	2-1/2	0.620
UCF202-10	5/8	3-3/8	2-1/2	0.620
UCF203-11	11/16	3-3/8	2-1/2	0.620
UCF204-12	3/4	3-3/8	2-1/2	0.620
UCF205-14	7/8	3-3/4	2-3/4	0.830
UCF205-15	15/16	3-3/4	2-3/4	0.830
UCF205-16	1	3-3/4	2-3/4	0.830
UCF206-17	1-1/16	4-1/4	3-1/4	1.100
UCF206-18	1-1/8	4-1/4	3-1/4	1.100
UCF206-19	1-3/16	4-1/4	3-1/4	1.100
UCF207-20	1-1/4	4-5/8	3-5/8	1.500
UCF207-21	1-5/16	4-5/8	3-5/8	1.500
UCF207-22	1-3/8	4-5/8	3-5/8	1.500
UCF207-23	1-7/16	4-5/8	3-5/8	1.500
UCF208-24	1-1/2	5-1/8	4	1.900
UCF208-25	1-9/16	5-1/8	4	1.900
UCF209-26	1-5/8	5-3/8	4-1/8	2.200
UCF209-27	1-11/16	5-3/8	4-1/8	2.200
UCF209-28	1-3/4	5-3/8	4-1/8	2.200
UCF210-30	1-7/8	5-5/8	4-3/8	2.500
UCF210-31	1-15/16	5-5/8	4-3/8	2.500
UCF211-32	2	6-3/8	5-1/8	3.400
UCF211-34	2-1/8	6-3/8	5-1/8	3.400
UCF211-35	2-3/16	6-3/8	5-1/8	3.400
UCF212-36	2-1/4	6-7/8	5-5/8	4.200
UCF212-38	2-3/8	6-7/8	5-5/8	4.200
UCF212-39	2-7/16	6-7/8	5-5/8	4.200
UCF213-40	2-1/2	7-3/8	5-7/8	5.200
UCF214-44	2-3/4	7-5/8	6	5.900
UCF215-48	3	7-7/8	6-1/4	6.400
UCF216-50	3-1/8	8-3/16	6-1/2	7.300
UCF217-52	3-1/4	8-11/16	6-7/8	8.900
UCF218-56	3-1/2	9-1/4	7-3/8	11.400

Square Flange Units

BU

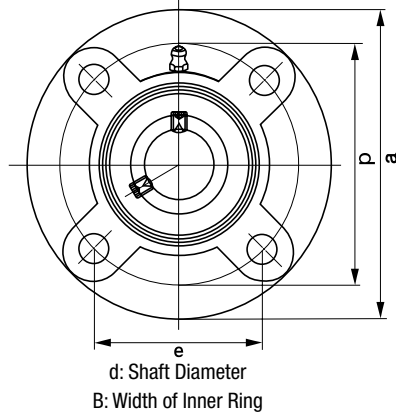
KG[®]

Bearing No.	Shaft Dia in inch	Dimensions in inch		Wt. (Kg)
		a	e	
UCF305-14	7/8	4-5/16	3-5/32	1.200
UCF305-16	1	4-5/16	3-5/32	1.200
UCF306-18	1-1/8	4-15/16	3-47/64	1.560
UCF307-20	1-1/4	5-5/16	3-15/16	2.100
UCF307-22	1-3/8	5-5/16	3-15/16	2.100
UCF308-24	1-1/2	5-7/8	4-13/32	2.900
UCF309-26	1-5/8	6-5/16	4-59/64	3.600
UCF309-28	1-3/4	6-5/16	4-59/64	3.600
UCF310-30	1-7/8	6-7/8	5-13/64	4.700
UCF311-32	2	7-5/16	5-33/64	5.700
UCF311-34	2-1/8	7-5/16	5-33/64	5.700
UCF312-36	2-1/4	7-11/16	5-29/32	6.800
UCF312-38	2-3/8	7-11/16	5-29/32	6.800
UCF313-40	2-1/2	8-3/16	6-17/32	7.800
UCF314-44	2-3/4	8-7/8	7-1/64	9.600
UCF315-48	3	9-5/16	7-1/4	11.700
UCF316-50	3-1/8	9-11/16	7-23/32	13.700
UCF317-52	3-1/4	10-1/4	8-1/32	15.200
UCF318-56	3-1/2	11	8-1/2	18.800
UCF319-60	3-3/4	11-7/16	8-31/32	20.700
UCF320-64	4	12-3/16	9-17/32	24.800





KG[®]



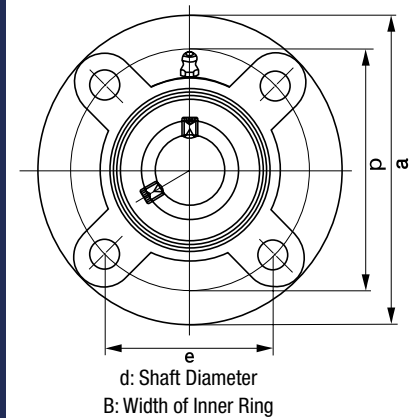
Series : **UCFC200**

Bearing No.	Dimensions in inch					Wt. (Kg)
	d	a	p	e	B	
UCFC201-8	3/4	3-15/16	3-5/64	2-11/64	1.220	0.720
UCFC202-9	9/16	3-15/16	3-5/64	2-11/64	1.220	0.720
UCFC202-10	5/8	3-15/16	3-5/64	2-11/64	1.220	0.720
UCFC203-11	11/16	3-15/16	3-5/64	2-11/64	1.220	0.700
UCFC204-12	3/4	3-15/16	3-5/64	2-11/64	1.220	0.690
UCFC205-13	13/16	4-17/32	3-35/64	2-1/2	1.342	1.040
UCFC205-14	7/8	4-17/32	3-35/64	2-1/2	1.342	1.030
UCFC205-15	15/16	4-17/32	3-35/64	2-1/2	1.342	1.010
UCFC205-16	1	4-17/32	3-35/64	2-1/2	1.342	1.000
UCFC206-17	1-1/16	4-59/64	3-15/16	2-25/32	1.500	1.310
UCFC206-18	1-1/8	4-59/64	3-15/16	2-25/32	1.500	1.320
UCFC206-19	1-3/16	4-59/64	3-15/16	2-25/32	1.500	1.300
UCFC206-20	1-1/4	4-59/64	3-15/16	2-25/32	1.500	1.290
UCFC207-20	1-1/4	5-5/16	4-21/64	3-1/16	1.689	1.870
UCFC207-21	1-5/16	5-5/16	4-21/64	3-1/16	1.689	1.840
UCFC207-22	1-3/8	5-5/16	4-21/64	3-1/16	1.689	1.810
UCFC207-23	1-7/16	5-5/16	4-21/64	3-1/16	1.689	1.780
UCFC208-24	1-1/2	5-45/64	4-23/32	3-11/32	1.937	2.180
UCFC208-25	1-9/16	5-45/64	4-23/32	3-11/32	1.937	2.150
UCFC209-26	1-5/8	6-19/64	5-13/64	3-43/64	1.937	2.780
UCFC209-27	1-1/16	6-19/64	5-13/64	3-43/64	1.937	2.740
UCFC209-28	1-3/4	6-19/64	5-13/64	3-43/64	1.937	2.700
UCFC210-29	1-13/16	6-1/2	5-7/16	3-27/32	2.031	3.020
UCFC210-30	1-7/8	6-1/2	5-7/16	3-27/32	2.031	2.970
UCFC210-31	1-15/16	6-1/2	5-7/16	3-27/32	2.031	2.920
UCFC210-32	2	6-1/2	5-7/16	3-27/32	2.031	2.880
UCFC211-32	2	7-9/32	5-29/32	4-3/16	2.189	4.160
UCFC211-33	2-1/16	7-9/32	5-29/32	4-3/16	2.189	4.100
UCFC211-34	2-1/8	7-9/32	5-29/32	4-3/16	2.189	4.050
UCFC211-35	2.3/16	7-9/32	5-29/32	4-3/16	2.189	3.990
UCFC212-36	2-1/4	7-11/16	6-19/64	4-29/64	2.563	5.070
UCFC212-37	2-5/16	7-11/16	6-19/64	4-29/64	2.563	4.990

Flange Cartridge Units

BU

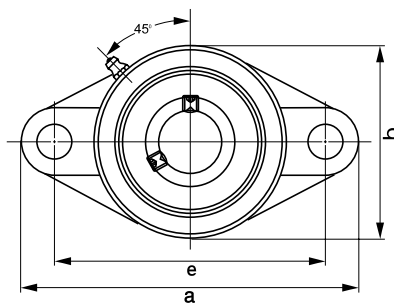
Bearing No.	Dimensions in inch					Wt. (Kg)
	d	a	p	e	B	
UCFC212-38	2-3/8	7-11/16	6-19/64	4-29/64	2.563	4.920
UCFC212-39	2-7/16	7-11/16	6-19/64	4-29/64	2.563	4.850
UCFC213-40	2-1/2	8-5/64	6-11/16	4-47/64	2.563	5.740
UCFC213-41	2-9/16	8-5/64	6-11/16	4-47/64	2.563	5.650
UCFC214-42	2-5/8	8-15/32	6-31/32	4-59/64	2.937	7.160
UCFC214-43	2-11/16	8-15/32	6-31/32	4-59/64	2.937	7.060
UCFC214-44	2-3/4	8-15/32	6-31/32	4-59/64	2.937	6.960
UCFC215-45	2-13/16	8-21/32	7-1/4	5-1/8	3.063	7.810
UCFC215-46	2-7/8	8-21/32	7-1/4	5-1/8	3.063	7.700
UCFC215-47	2-15/16	8-21/32	7-1/4	5-1/8	3.063	7.590
UCFC215-48	3	8-21/32	7-1/4	5-1/8	3.063	7.470
UCFC216-49	3-1/16	9-29/64	7-7/8	5-9/16	3.252	9.280
UCFC216-50	3-1/8	9-29/64	7-7/8	5-9/16	3.252	9.200
UCFC216-51	3-3/6	9-29/64	7-7/8	5-9/16	3.252	9.070
UCFC217-52	3-1/4	9-27/32	8-3/16	5-51/64	3.374	11.030
UCFC217-53	3-5/16	9-27/32	8-3/16	5-51/64	3.374	10.890
UCFC217-54	3-7/16	9-27/32	8-3/16	5-51/64	3.374	10.600
UCFC218-56	3-1/2	10-7/16	8-21/32	6-1/8	3.779	13.070

KG[®]



Series : UCFL200

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Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		b	a	e	
UCFL201-8	1/2	4-7/16	3-35/64	2-3/8	0.480
UCFL202-9	9/16	4-7/16	3-35/64	2-3/8	0.480
UCFL202-10	5/8	4-7/16	3-35/64	2-3/8	0.480
UCFL203-11	11/16	4-7/16	3-35/64	2-3/8	0.480
UCFL204-12	3/4	4-7/16	3-35/64	2-3/8	0.480
UCFL205-14	7/8	5-1/8	3-57/64	2-11/16	0.640
UCFL205-15	15/16	5-1/8	3-57/64	2-11/16	0.640
UCFL205-16	1	5-1/8	3-57/64	2-11/16	0.640
UCFL206-17	1-1/16	5-13/16	4-39/64	3-1/8	0.930
UCFL206-18	1-1/8	5-13/16	4-39/64	3-1/8	0.930
UCFL206-19	1-3/16	5-13/16	4-39/64	3-1/8	0.930
UCFL207-20	1-1/4	6-5/16	5-1/8	3-9/16	1.200
UCFL207-21	1-5/16	6-5/16	5-1/8	3-9/16	1.200
UCFL207-22	1-3/8	6-5/16	5-1/8	3-9/16	1.200
UCFL207-23	1-7/16	6-5/16	5-1/8	3-9/16	1.200
UCFL208-24	1-1/2	6-7/8	5-43/64	3-15/16	1.600
UCFL208-25	1-9/16	6-7/8	5-43/64	3-15/16	1.600
UCFL209-26	1-5/8	7-3/8	5-53/64	4-1/4	1.900
UCFL209-27	1-11/16	7-3/8	5-53/64	4-1/4	1.900
UCFL209-28	1-3/4	7-3/8	5-53/64	4-1/4	1.900
UCFL210-30	1-7/8	7-3/4	6-3/16	4-1/2	2.200
UCFL210-31	1-15/16	7-3/4	6-3/16	4-1/2	2.200
UCFL211-32	2	8-13/16	7-1/4	5-1/8	3.300
UCFL211-34	2-1/8	8-13/16	7-1/4	5-1/8	3.300
UCFL211-35	2-3/16	8-13/16	7-1/4	5-1/8	3.300
UCFL212-36	2-1/4	9-13/16	7-61/64	5-1/2	4.200
UCFL212-38	2-3/8	9-13/16	7-61/64	5-1/2	4.200
UCFL212-39	2-7/16	9-13/16	7-61/64	5-1/2	4.200
UCFL213-40	2-1/2	10-13/16	8-17/64	6-1/8	5.100
UCFL214-44	2-3/4	10-7/16	8-1/2	6-5/16	5.700
UCFL215-48	3	10-13/16	8-55/64	6-1/2	6.400
UCFL216-50	3-1/8	11-7/16	9-11/64	7-1/16	7.800

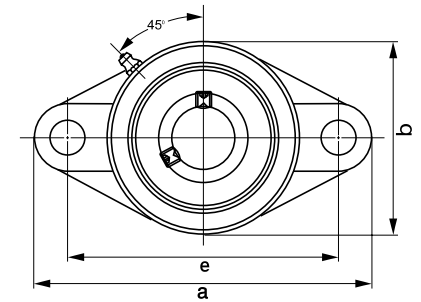
Oval Flange Units

BU



KG[®]

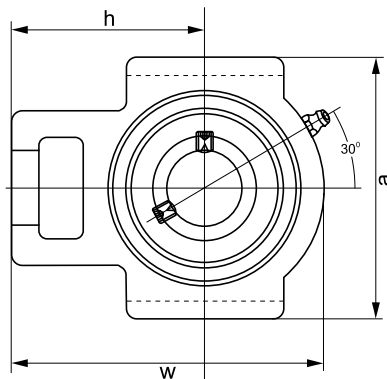
Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		b	a	e	
UCFL305-14	7/8	5-7/8	4-29/64	3-1/8	1.100
UCFL305-16	1	5-7/8	4-29/64	3-1/8	1.100
UCFL306-18	1-1/8	7-1/16	5-9/32	3-9/16	1.500
UCFL307-20	1-1/4	7-5/16	5-35/64	3-15/16	1.800
UCFL307-22	1-3/8	7-5/16	5-35/64	3-15/16	1.800
UCFL308-24	1-1/2	7-7/8	6-7/32	4-7/16	2.400
UCFL309-26	1-5/8	9-1/16	6-31/32	4-15/16	3.400
UCFL309-28	1-3/4	9-1/16	6-31/32	4-15/16	3.400
UCFL310-30	1-7/8	9-7/16	7-23/64	5-1/2	4.300
UCFL311-32	2	9-13/16	7-51/64	5-7/8	5.100
UCFL311-34	2-1/8	9-13/16	7-51/64	5-7/8	5.100
UCFL312-36	2-1/4	10-5/8	8-11/32	6-5/16	6.200
UCFL312-38	2-3/8	10-5/8	8-11/32	6-5/16	6.200
UCFL313-40	2-1/2	11-5/8	9-29/64	6-7/8	7.400
UCFL314-44	2-3/4	12-3/8	9-27/32	7-5/16	9.000
UCFL315-48	3	12-5/8	10-15/64	7-11/16	10.000
UCFL316-50	3-1/8	14	11-3/16	8-1/4	12.600
UCFL317-52	3-1/4	14-9/16	11-13/16	8-11/16	14.500
UCFL318-56	3-1/2	15-3/16	12-13/32	9-1/4	17.100
UCFL319-60	3-3/4	15-15/16	12-63/64	9-13/16	21.800
UCFL320-64	4	17-5/16	14-11/64	10-5/8	26.500





Series : UCT200

257



Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		a	w	h	
UCT203-11	11/16	3-1/2	3-11/16	2-13/32	0.790
UCT204-12	3/4	3-1/2	3-11/16	2-13/32	0.790
UCT205-14	7/8	3-1/2	3-11/16	2-7/16	0.840
UCT205-15	15/16	3-1/2	3-11/16	2-7/16	0.840
UCT205-16	1	3-1/2	3-11/16	2-7/16	0.840
UCT206-17	1-1/16	4	4-7/16	2-3/4	1.300
UCT206-18	1-1/8	4	4-7/16	2-3/4	1.300
UCT206-19	1-3/16	4	4-7/16	2-3/4	1.300
UCT207-20	1-1/4	4	5-1/16	3-1/16	1.600
UCT207-21	1-5/16	4	5-1/16	3-1/16	1.600
UCT207-22	1-3/8	4	5-1/16	3-1/16	1.600
UCT207-23	1-7/16	4	5-1/16	3-1/16	1.600
UCT208-24	1-1/2	4-1/2	5-11/16	3-15/32	2.500
UCT208-25	1-9/16	4-1/2	5-11/16	3-15/32	2.500
UCT209-26	1-5/8	4-5/8	5-11/16	3-7/16	2.400
UCT209-27	1-11/16	4-5/8	5-11/16	3-7/16	2.400
UCT209-28	1-3/4	4-5/8	5-11/16	3-7/16	2.400
UCT210-30	1-7/8	4-5/8	5-7/8	3-17/32	2.600
UCT210-31	1-15/16	4-5/8	5-7/8	3-17/32	2.600
UCT211-32	2	5-3/4	6-3/4	4-3/16	4.000
UCT211-34	2-1/8	5-3/4	6-3/4	4-3/16	4.000
UCT211-35	2-3/16	5-3/4	6-3/4	4-3/16	4.000
UCT212-36	2-1/4	5-3/4	7-5/8	4-11/16	4.900
UCT212-38	2-3/8	5-3/4	7-5/8	4-11/16	4.900
UCT212-39	2-7/16	5-3/4	7-5/8	4-11/16	4.900
UCT213-40	2-1/2	6-9/16	8-13/16	5-13/32	6.900
UCT214-44	2-3/4	6-9/16	8-13/16	5-13/32	7.000
UCT215-48	3	6-9/16	9-1/8	5-1/2	7.300
UCT216-50	3-1/8	7-1/4	9-1/4	5-1/2	8.200
UCT217-52	3-1/4	7-13/16	10-1/4	6-3/8	11.000

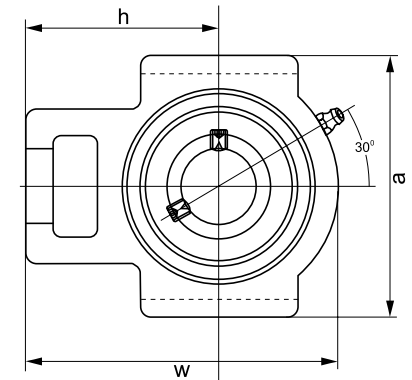
Take-up Units

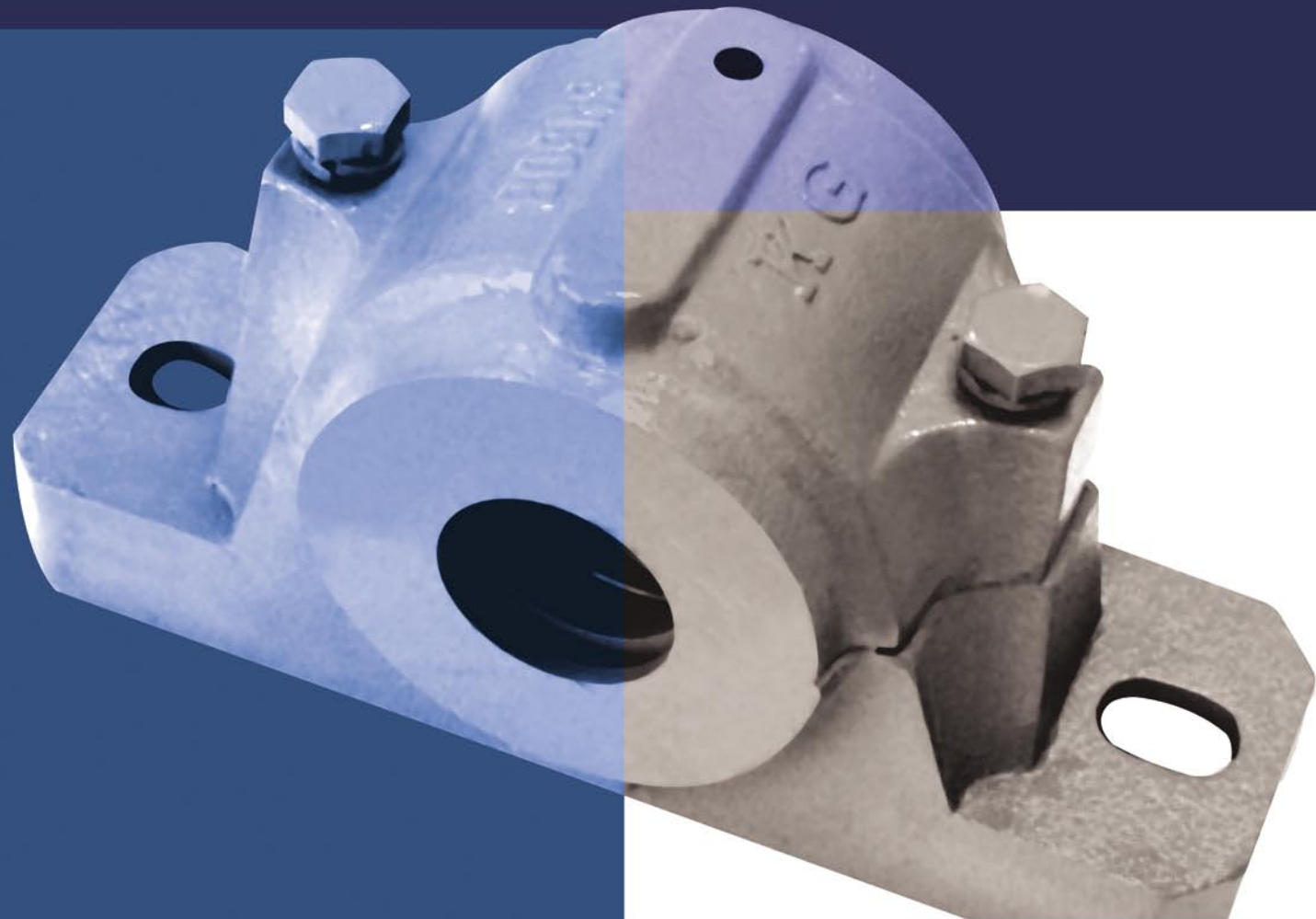
BU



KG[®]

Bearing No.	Shaft Dia in inch	Dimensions in inch			Wt. (Kg)
		a	w	h	
UCT305-14	7/8	3-1/2	4-13/16	3	1.400
UCT305-16	1	3-1/2	4-13/16	3	1.400
UCT306-18	1-1/8	3-15/16	5-3/8	3-11/32	1.800
UCT307-20	1-1/4	4-3/8	5-7/8	3-11/16	2.400
UCT307-22	1-3/8	4-3/8	5-7/8	3-11/16	2.400
UCT308-24	1-1/2	4-7/8	6-3/8	3-15/16	3.000
UCT309-26	1-5/8	5-7/16	7	4-11/32	4.100
UCT309-28	1-3/4	5-7/16	7	4-11/32	4.100
UCT310-30	1-7/8	5-15/16	7-1/2	4-19/32	5.200
UCT311-32	2	6-7/16	8-1/8	5	6.400
UCT311-34	2-1/8	6-7/16	8-1/8	5	6.400
UCT312-36	2-1/4	7	8-11/16	5-5/16	7.600
UCT312-38	2-3/8	7	8-11/16	5-5/16	7.600
UCT313-40	2-1/2	7-1/2	9-3/8	5-3/4	9.200
UCT314-44	2-3/4	7-15/16	9-15/16	6-3/32	11.200
UCT315-48	3	8-1/2	10-5/16	6-5/16	13.000
UCT316-50	3-1/8	9-1/16	11-1/8	6-27/32	15.600
UCT317-52	3-1/4	9-7/16	11-3/4	7-7/32	19.300
UCT318-56	3-1/2	10-1/16	12-5/16	7-9/16	21.200
UCT319-60	3-3/4	10-5/8	12-11/16	7-3/4	24.400
UCT320-64	4	11-7/16	13-9/16	8-9/32	30.600





KG[®]

Plummer Block Housings





Plummer Block Housings help to form Bearing units, with Self-aligning Ball Bearings & Spherical Roller Bearings. They permit flexibility in the choice of Bearing, location on Shaft, Seals & lubrication. Made on modular principle using Cast Iron HT 200 JIS 5501, KG Housings are available in a wide range of sizes to suit various application requirements.

To allow slight adjustment in the position, KG Plummer Block Housings have two elongated holes for attachment bolts. The Bearing seat in the Housing bore is designed for non-locating Bearing arrangements. Bearing can move slightly in either direction to compensate Shaft elongation, which may happen due to thermal expansion.

Plummer Block Housings offer

- low weight to strength ratio
- ease of mounting and dismounting
- high strength and rigidity

Generally Bearings used in the Plummer Blocks are lubricated with grease, and since it lasts for a longer time, Plummer Blocks do not have re-lubrication holes. However, Bearing performance should be periodically monitored to ascertain re-lubrication requirements.

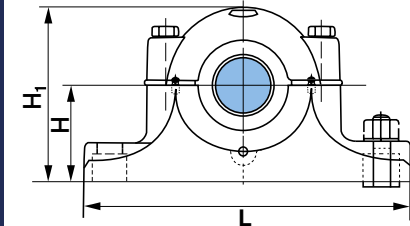
Special Felt Seals are provided along with KG Plummer Block Housings, for use under normal operating conditions. For more information on use of special Seals, please contact KG International FZCO.

Apart from the list of Plummer Block types presented in following pages, special types can also be developed to meet specific requirements. Technical information for such special Plummer Blocks which do not appear in our regular production program, can be made available whenever required.



KG[®]

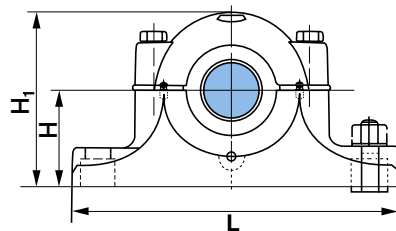
Bearing No.	Shaft Dia mm	Dimensions in mm			Wt. (Kg)
		L	H	H ₁	
SN205	25.000	165.000	40.000	75.000	1.100
SN206	30.000	185.000	50.000	90.000	1.700
SN207	35.000	185.000	50.000	95.000	1.900
SN208	40.000	205.000	60.000	110.000	2.600
SN209	45.000	205.000	60.000	112.000	2.800
SN210	50.000	205.000	60.000	115.000	3.000
SN211	55.000	255.000	70.000	130.000	4.500
SN212	60.000	255.000	70.000	135.000	5.000
SN213	65.000	275.000	80.000	150.000	5.600
SN214	70.000	275.000	80.000	155.000	6.200
SN215	75.000	280.000	80.000	155.000	7.000
SN216	80.000	315.000	95.000	175.000	9.000
SN217	85.000	320.000	95.000	185.000	10.000
SN218	90.000	345.000	100.000	195.000	13.000
SN219	95.000	345.000	112.000	210.000	15.000
SN220	100.000	380.000	112.000	218.000	19.000
SN222	110.000	410.000	125.000	240.000	20.000
SN224	120.000	410.000	140.000	270.000	25.000
SN226	130.000	445.000	150.000	290.000	30.000
SN228	140.000	500.000	150.000	305.000	38.000
SN230	150.000	530.000	160.000	325.000	46.000





Series : **SN5**

263



Bearing No.	Shaft Dia mm	Dimensions in mm			Wt. (Kg)
		L	H	H ₁	
SN505	20.000	165.000	40.000	75.000	1.200
SN506	25.000	185.000	50.000	90.000	1.700
SN507	30.000	185.000	50.000	95.000	2.000
SN508	35.000	205.000	60.000	110.000	2.700
SN509	40.000	205.000	60.000	112.000	2.900
SN510	45.000	205.000	60.000	115.000	3.200
SN511	50.000	255.000	70.000	130.000	4.200
SN512	55.000	255.000	70.000	135.000	4.800
SN513	60.000	275.000	80.000	150.000	5.600
SN515	65.000	280.000	80.000	155.000	6.900
SN516	70.000	315.000	95.000	175.000	8.800
SN517	75.000	320.000	95.000	185.000	9.500
SN518	80.000	345.000	100.000	195.000	13.000
SN519	85.000	345.000	112.000	210.000	15.000
SN520	90.000	380.000	112.000	223.000	19.000
SN522	100.000	410.000	125.000	245.000	20.200
SN524	110.000	410.000	140.000	270.000	23.200
SN526	115.000	445.000	150.000	290.000	29.000
SN528	125.000	500.000	150.000	305.000	36.500
SN530	135.000	530.000	160.000	325.000	43.060

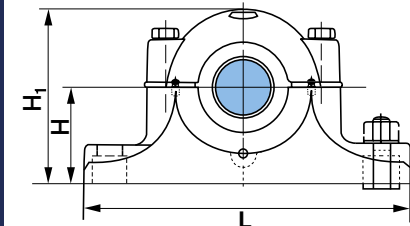
Plummer Block Housings

PB



KG[®]

Bearing No.	Shaft Dia mm	Dimensions in mm			Wt. (Kg)
		L	H	H ₁	
SN605	20.000	185.000	50.000	90.000	1.600
SN606	25.000	185.000	50.000	95.000	1.800
SN607	30.000	205.000	60.000	110.000	2.600
SN608	35.000	205.000	60.000	115.000	2.900
SN609	40.000	255.000	70.000	130.000	4.100
SN610	45.000	255.000	70.000	135.000	4.700
SN611	50.000	275.000	80.000	150.000	5.800
SN612	55.000	280.000	80.000	155.000	6.500
SN613	60.000	315.000	95.000	175.000	8.700
SN615	65.000	345.000	100.000	195.000	11.300
SN616	70.000	345.000	112.000	212.000	12.600
SN617	75.000	380.000	112.000	223.000	15.000
SN618	80.000	380.000	112.000	230.000	22.000
SN619	85.000	410.000	125.000	250.000	26.300
SN620	90.000	410.000	140.000	270.000	31.500
SN622	100.000	450.000	150.000	300.000	42.000
SN624	110.000	530.000	160.000	320.000	60.000
SN626	115.000	550.000	170.000	340.000	63.200
SN628	125.000	610.000	180.000	365.000	94.500
SN630	135.000	650.000	190.000	385.000	105.000





KG[®]

Adapter Sleeve Assemblies



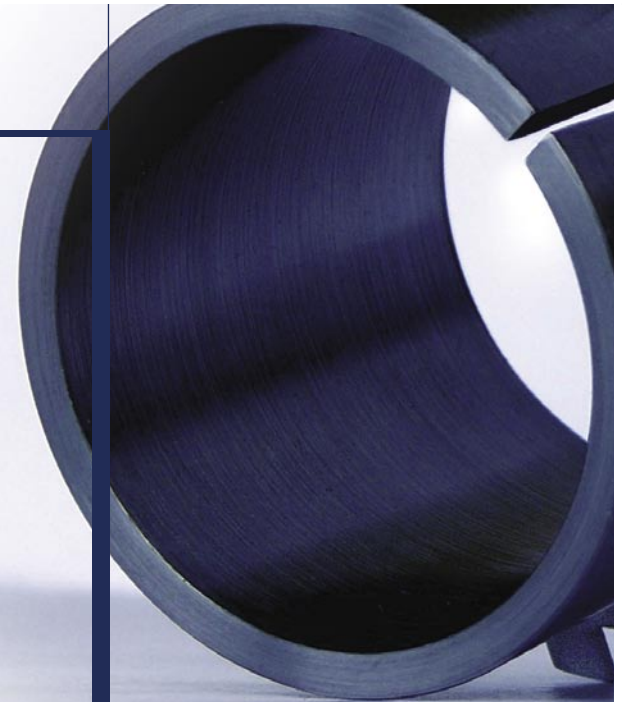
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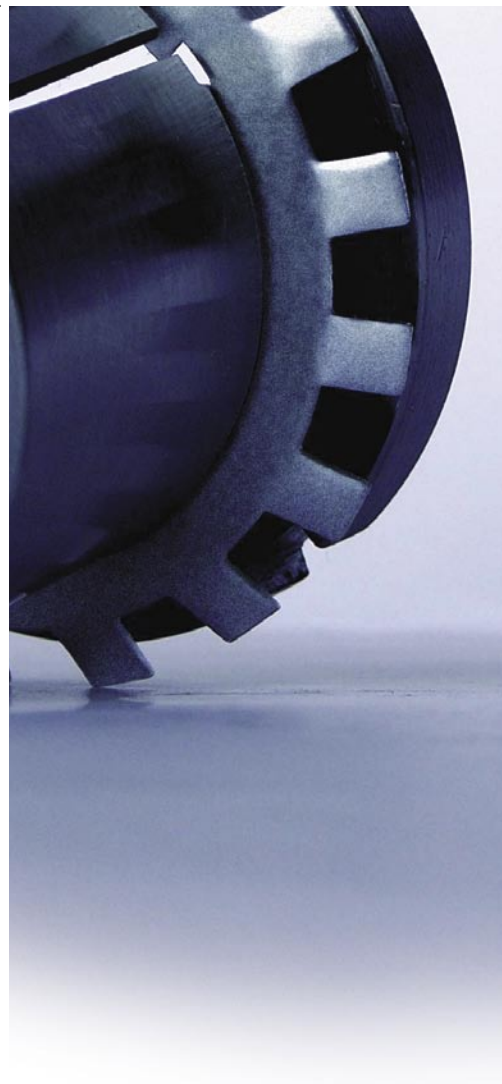
Adapter Sleeve typically comprise of slotted Adapter Sleeve, Locknut and Retaining Plate.

Adapter Sleeves

- facilitate mounting of Tapered Bore Self-aligning Ball Bearings, Spherical Bearings, & Cylindrical Roller Bearings, on cylindrical Shafts
- help to mount Bearings on a smooth Shaft, at any location
- enable easy mounting and dis-mounting of Bearings
- are available for Shafts with both metric and inch dimensions

Apart from the list of items presented in following pages, several other type of Adapter Sleeves have also been developed to meet specific application requirement. Technical information for such sleeves can be made available whenever required.



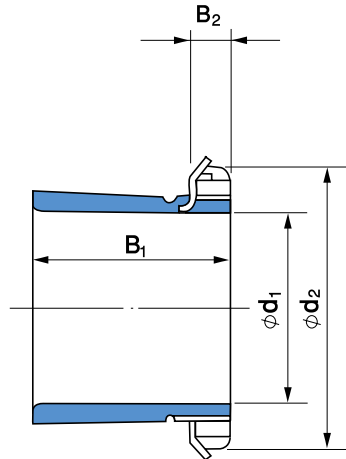


Adapter Sleeve Selection Guide

Adapter Sleeve Series	Bearing Types			
	Deep Groove Ball Bearings	Self-aligning Ball Bearings	Spherical Roller Bearings	Cylindrical Roller Bearings
H 2	6211K - 6222K	1204K - 1222K	-	N 206K - N 222K NU 204K - NU 222K
H 3	6311K - 6322K	1304K - 1322K 2204K - 2222K	22205K - 22222K 21304K - 21322K	NU2205K - NU2222K N306K - N322K NU304K - NU322K
H 23	-	2304K - 2322K	23218K - 23256K 22308K - 22356K	NU2305K - NU2356K
H 30	6224K - 6240K	-	23024K - 230/500K	N224K - N264K NU224K - NU264K N344K - N356K NU344K - NU356K
H 31	6324K - 6340K	-	23122K - 231/500K 22224K - 22264K	NU2224K - NU2264K N324K - N340K NU324K - NU340K
H 32	-	-	23260K - 232/500K	-

AS



KG[®]

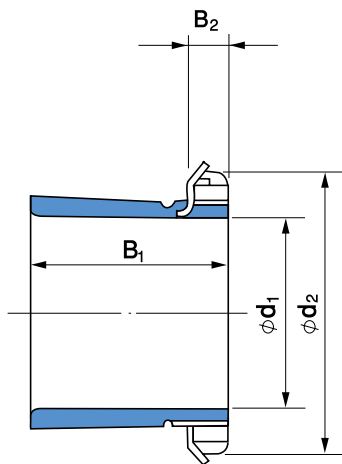
Adapter Sleeve No.	d_1	d_2	B_1	B_2	Wt. (Kg)
H204	17.000	32.000	24.000	7.000	0.041
H205	20.000	38.000	26.000	8.000	0.070
H206	25.000	45.000	27.000	8.000	0.099
H207	30.000	52.000	29.000	9.000	0.125
H208	35.000	58.000	31.000	10.000	0.174
H209	40.000	65.000	33.000	11.000	0.226
H210	45.000	70.000	35.000	12.000	0.274
H211	50.000	75.000	37.000	12.000	0.308
H212	55.000	80.000	38.000	13.000	0.346
H213	60.000	85.000	40.000	14.000	0.401
H214	60.000	92.000	41.000	14.000	0.555
H215	65.000	98.000	43.000	15.000	0.708
H216	70.000	105.000	46.000	17.000	0.881
H217	75.000	110.000	50.000	18.000	1.020
H218	80.000	120.000	52.000	18.000	1.180
H219	85.000	125.000	55.000	19.000	1.370
H220	90.000	130.000	58.000	20.000	1.490
H221	95.000	140.000	60.000	20.000	1.700
H222	100.000	145.000	63.000	21.000	1.930



Series : **H3**

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KG[®]



Adapter Sleeve No.	d_1	d_2	B_1	B_2	Wt. (Kg)
H304	17.000	32.000	28.000	7.000	0.045
H305	20.000	38.000	29.000	8.000	0.075
H306	25.000	45.000	31.000	8.000	0.109
H307	30.000	52.000	35.000	9.000	0.142
H308	35.000	58.000	36.000	10.000	0.189
H309	40.000	65.000	39.000	11.000	0.248
H310	45.000	70.000	42.000	12.000	0.302
H311	50.000	75.000	45.000	12.000	0.345
H312	55.000	80.000	47.000	13.000	0.393
H313	60.000	85.000	50.000	14.000	0.459
H314	60.000	92.000	52.000	14.000	0.723
H315	65.000	98.000	55.000	15.000	0.830
H316	70.000	105.000	59.000	17.000	1.030
H317	75.000	110.000	63.000	18.000	1.180
H318	80.000	120.000	65.000	18.000	1.370
H319	85.000	125.000	68.000	19.000	1.560
H320	90.000	130.000	71.000	20.000	1.690
H321	95.000	140.000	74.000	20.000	1.930
H322	100.000	145.000	77.000	21.000	2.180
H3024	110.000	145.000	72.000	22.000	1.960
H3026	115.000	155.000	80.000	23.000	2.850
H3028	125.000	165.000	82.000	24.000	3.180
H3030	135.000	180.000	87.000	26.000	3.900

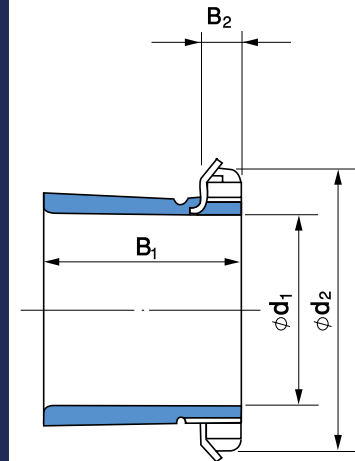
Adapter Sleeve Assemblies

AS



KG[®]

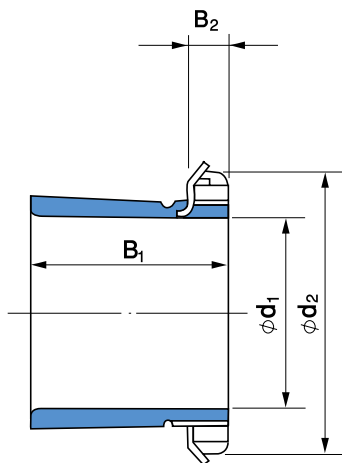
Adapter Sleeve No.	d ₁	d ₂	B ₁	B ₂	Wt. (Kg)
H2304	17.000	32.000	31.000	7.000	0.049
H2305	20.000	38.000	35.000	8.000	0.087
H2306	25.000	45.000	38.000	8.000	0.126
H2307	30.000	52.000	43.000	9.000	0.165
H2308	35.000	58.000	46.000	10.000	0.224
H2309	40.000	65.000	50.000	11.000	0.280
H2310	45.000	70.000	55.000	12.000	0.362
H2311	50.000	75.000	59.000	12.000	0.420
H2312	55.000	80.000	62.000	13.000	0.480
H2313	60.000	85.000	65.000	14.000	0.556
H2314	60.000	92.000	68.000	14.000	0.897
H2315	65.000	98.000	73.000	15.000	1.050
H2316	70.000	105.000	78.000	17.000	1.280
H2317	75.000	110.000	82.000	18.000	1.450
H2318	80.000	120.000	86.000	18.000	1.700
H2319	85.000	125.000	90.000	19.000	1.940
H2320	90.000	130.000	97.000	20.000	2.150
H2321	95.000	140.000	101.000	20.000	2.450
H2322	100.000	145.000	105.000	21.000	2.740
H2324	110.000	155.000	112.000	22.000	3.200
H2326	115.000	165.000	121.000	23.000	4.600
H2328	125.000	180.000	131.000	24.000	5.520
H2330	135.000	195.000	139.000	26.000	6.600
H2332	140.000	210.000	147.000	28.000	9.150
H2334	150.000	220.000	154.000	29.000	10.400
H2336	160.000	230.000	161.000	30.000	11.300
H2338	170.000	240.000	169.000	31.000	12.600
H2340	180.000	250.000	176.000	32.000	13.900
H2344	200.000	280.000	183.000	32.000	16.600
H2348	220.000	300.000	196.000	34.000	19.700
H2352	240.000	330.000	208.000	36.000	24.200
H2356	260.000	350.000	221.000	38.000	27.800





Series : **H31**

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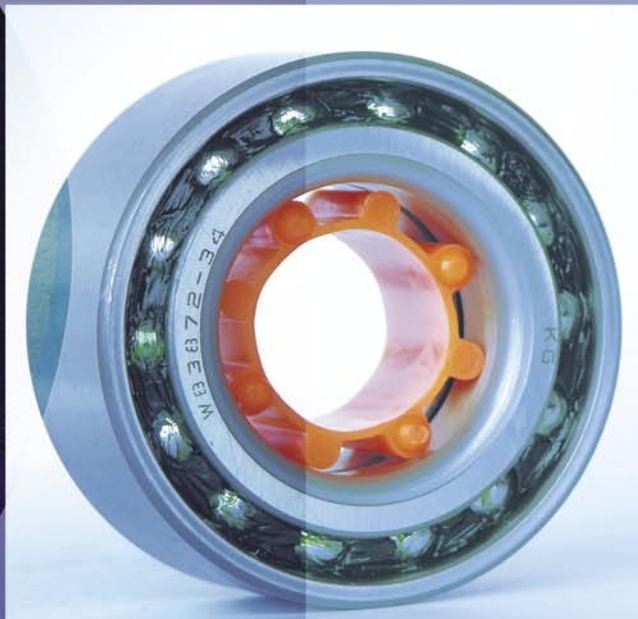


Adapter Sleeve No.	d_1	d_2	B_1	B_2	Wt. (Kg)
H3122	100.000	145.000	81.000	21.000	2.250
H3124	110.000	155.000	88.000	22.000	2.640
H3126	115.000	165.000	92.000	23.000	3.660
H3128	125.000	180.000	97.000	24.000	4.340
H3130	135.000	195.000	111.000	26.000	5.540
H3132	140.000	210.000	119.000	28.000	7.700
H3134	150.000	220.000	122.000	29.000	8.400
H3136	160.000	230.000	131.000	30.000	9.500
H3138	170.000	240.000	141.000	31.000	10.800
H3140	180.000	250.000	150.000	32.000	12.100
H3144	200.000	280.000	158.000	32.000	14.700
H3148	220.000	300.000	169.000	34.000	17.300
H3152	240.000	330.000	187.000	36.000	22.000
H3156	260.000	350.000	192.000	38.000	24.500
H3160	280.000	380.000	208.000	40.000	30.300
H3164	300.000	400.000	226.000	42.000	35.000
H3168	320.000	440.000	254.000	55.000	49.500
H3172	340.000	460.000	259.000	58.000	54.500
H3176	360.000	490.000	264.000	60.000	61.600
H3180	380.000	520.000	272.000	62.000	70.100
H3184	400.000	540.000	304.000	70.000	84.000
H3188	410.000	560.000	307.000	70.000	103.000
H3192	430.000	580.000	326.000	75.000	116.000
H3196	450.000	620.000	335.000	75.000	133.000

Adapter Sleeve Assemblies

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KG Automotive Bearings







Many type of Bearings have been designed to meet the specific requirements of Automotive industry. They are primarily Angular Contact Ball Bearings, with additional features to suit industry requirements.

KG has developed numerous Automotive Bearings for

- Wheel Applications
- Clutch Releases
- Steering Assemblies
- Car Air Conditioners
- Hub Unit Assemblies

Apart from above specially developed Automotive Bearings, many standard Bearings are also used in Automotive applications; few of them are mentioned in following pages.

The information and list of Bearings presented in following pages is for reference purposes only. Apart from the list of items presented, other special type of automotive Bearings have also been developed to meet specific application requirements. Technical information for such Bearings, that do not appear in our regular production program, can be made available whenever required.

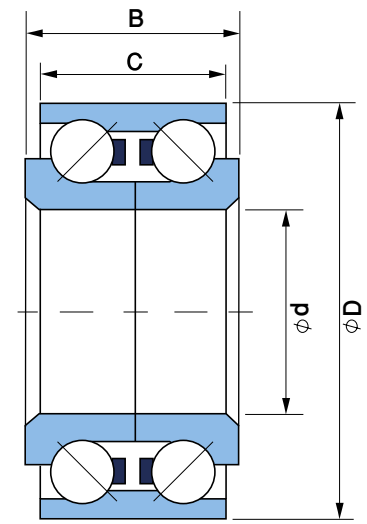
It is advisable to use KG Automotive Bearings in consultation with KG International FZCO.



KG Bearing Code	Dimensions in mm				Wt. (Kg)	Bearing No.	Equivalent Bearing No. in other Brands						
	d	D	B	C			KOYO	FAG	NTN	NSK			
WB2552-206	25	52.00	20.6	20.6	0.19	DAC255200206							
WB2552-37	25	52.00	37.0	37.0	0.31	DAC25520037		546467, 576467					
WB2552-43	25	52.00	43.0	43.0	0.36	DAC25520043							
WB2555-43	25	55.00	43.0	43.0	0.44	DAC25550043		803837					
WB2556-32	25	56.00	32.0	32.0	0.34	DAC25560032		445979					
WB2753-43	27	53.00	43.0	43.0	0.34	DAC27530043							
WB2760-50	27	60.00	50.0	50.0	0.56	DAC27600050			DE0565LZCS34PXK244		28BWD8A, 27KWD01		
WB2858-42	28	58.00	42.0	42.0	0.47	DAC28580042	DAC2858WCS47, DAC2858AWCS40				28BW03A, 28BWD08A		
WB2861-42	28	61.00	42.0	42.0	0.56	DAC28610042	DAC286142AWCS40, DAC28614AW				28BWD01ACA60, 28BWD01A		
WB2953-37	29	53.00	37.0	37.0	0.35	DAC29530037							
WB3058-42	30	58.00	42.0	42.0	0.40	DAC30580042			4T-CRI-0678		30KWD01AG3		
WB3060-37	30	60.00	37.0	37.0	0.42	DAC30600037	DAC3060372RS	(581736)	6-256706				
WB306003-37	30	60.03	37.0	37.0	0.42	DAC30600337	DAC3060W	529891AB, 545312, 581736			30BWD07		
WB3064-42	30	64.00	42.0	42.0	0.49	DAC30640042	DAC3064W2RKBCS28		DE0776CS46		34BWD03ACA78		
WB3065-264	30	65.00	26.4	26.4	0.36	DAC306500264							
WB3270-38	32	70.00	38.0	38.0	0.62	DAC32700038							
WB327203-45	32	72.03	45.0	45.0	0.60	DAC32720345							
WB3462-37	34	62.00	37.0	37.0	0.41	DAC34620037		531910, 561447			32BWD05CA75, 32BV07-7		
WB3464-34	34	64.00	34.0	34.0	0.43	DAC34640034	DAC3464D		DE0776CS4615A		34BWD03		
WB3464-37	34	65.00	37.0	37.0	0.47	DAC34640037	DAC3464G1	532066DE, 540466B	DE07A39LL, 6-256907E1		34BWD04BCA70, 34BWD11		
WB3466-37	34	66.00	37.0	37.0	3.50	DAC34660037		580400CA, 559529			34BWD10B		
WB35618-40	35	61.80	40.0	40.0	0.43	DAC35618040	DAC3562W-S, DAC3562W-5CS35		AU0706-3				
WB3564-37	35	65.00	37.0	37.0	0.46	DAC35640037	DAC3564A-1		DE0749, DE-0766LUA, AU0704-1LL				
WB3565-35	35	65.00	35.0	35.0	0.40	DAC35650035	DAC35WCS30	546238A			(12438GB)		
WB3566-32	35	66.00	32.0	32.0	0.42	DAC35660032					35BWD14, 35BWD19E		



Equivalent Bearing No. in other Brands				Application
SKF	SNR	IRB		
BAHB617546A		IR-8032	Fiat, Seat, Poleaventilador124	
BAHB445539	FC12025 S07 & S09, GB40570	IR-2220	Renault, Peugeot, Citroen, TRS	
	FC12180	IR-2221	Renault, Peugeot, Citroen	
	FC12271S03	IR-2222	Renault	
BAHB5000		IR-8520	Citroen	
			Nissan	
		IR-8653	Nissan	
	(GB615505)		SK10, Skoda 410	
		IR-8549	Toyota Corolla Gtiæ92 1.6x16v8f	
	HB-3080C/SBR		Fiat, Lada, Lancia, Seat, Volvo	
BA2B 633313C, BAHB405956A, BAHB418780	GB10790S05	IR-8040	Fiat, Lada, Lancia, Seat ,Volvo	
BAHB311316B, BAHB309724		IR-8051	Audi, Volkswagen, Chrysler	
			Honda JAZZAA1.2 B4-86	
BAH0092, 309726DA	GB10884, HB-4022C/SBR	IR-8041	Lada, Opel, Volkswagen, Bedford	
BAHB636114A, BAHB479399	HB-110487/SBR	IR-8622	Opel, Vauxhall, Accord, Corsa	
BAHB0042, BT2B445620B			TJ7300:Daihatsu	
BT2B445620B, BAHB443952	GB12004, FC12033S03,	IR-8042	Renault, Chrysler	
	GB12438S01		Subaru	



Wheel Bearings

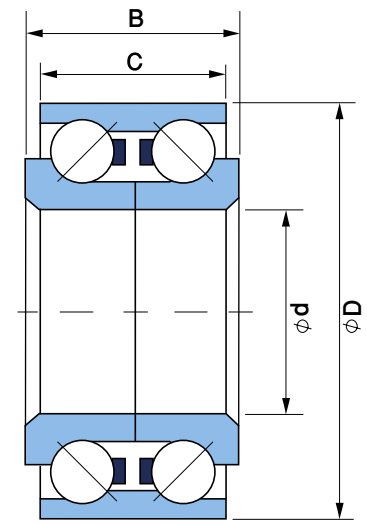
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KG Bearing Code	Dimensions in mm				Wt. (Kg)	Bearing No.	Equivalent Bearing No. in other Brands					
	d	D	B	C			KOYO	FAG	NTN	NSK		
WB3566-33	35.00	66.00	33	33	0.43	DAC35660033						
WB3566-37	35.00	66.00	37	37	0.48	DAC35660037		546238				
WB3568-37	35.00	68.00	37	37	0.52	DAC35680037	DAC3568A2RS	546238, 544307				
WB3568-39-36	35.00	68.00	39	36	0.56	DAC35680039/36		567918B, 541153A, 430042C			35BWD16CA74	
WB3568-33-30	35.00	68.02	33	30	0.47	DAC35680233/30	DAC3568W-6					
WB3572-33	35.00	72.00	33	33	0.58	DAC35720033	DAC357233B-W				35BWD06A	
WB3572-34	35.00	72.00	34	34	0.58	DAC35720034	DAC357234A	548083	DE0763CS46PXI		35BWD064ACA38	
WB357202-28	35.00	72.02	28	28	0.49	DAC35720228		540763				
WB3572-33-31	35.00	72.02	33	31	0.54	DAC35720233/31	DAC357233B-1W	544033			35BWD08A, 35BWD064ACA111	
WB3572-334	35.00	72.04	33	33	0.58	DAC35720433	DAC3668WCS36	562686				
WB357204-34	35.00	72.04	34	34	0.58	DAC35720434						
WB3576-54	35.00	76.00	54	54	0.95	DAC35760054					35BWD10	
WB3668-33	36.00	68.00	33	33	0.47	DAC36680033	DAC3668AWCS36		DE0784		35BWD04	
WB3672-33-28	36.00	72.00	33	28		DAC36720033/28		805172				
WB3672-34	36.00	72.05	34	34	0.58	DAC36720534	DAC367234A		DE0769		36BW01BCA60	
WB3676-29-27	36.00	76.00	29	27	0.55	DAC36760029/27						
WB3772-33	37.00	72.00	33	33	0.51	DAC37720033						
WB3772-37	37.00	72.00	37	37	0.59	DAC37720037			6-256908			
WB377202-37	37.00	72.02	37	37	0.59	DAC37720237						
WB3772-437	37.00	72.04	37	37	0.59	DAC37720437		527631				
WB3574-45	35.00	74.00	45	45	0.79	DAC37740045		562398A			37BWD01	
WB3870-37	38.00	70.00	37	37	0.56	DAC38700037		541521C			38BWD19	
WB3870-38	38.00	70.00	38	38	0.57	DAC38700038	DAC3870BW, DAC3870DWCS41				38BWD21CA53	
WB37997102-33-30	37.99	71.02	33	30	0.49	DAC38710233/30	DAC3871W-1CS74, DAC3871W-2	686908A	90369-38006		38BWD09A	
WB3872-34	38.00	72.00	34	34	0.54	DAC38720034	DAC3872A		DE0769CS46P		38BWD04CA60	
WB3872-40	38.00	72.00	40	40	0.63	DAC38720040	DAC3872B12RSCS42, DAC3872W		DE0871		38BV07-10	
WB387202-36-33	38.00	72.02	36	33	0.56	DAC38720236/33	DAC3872W-6, DAC38728CS81	575069			38BWD12CA145	



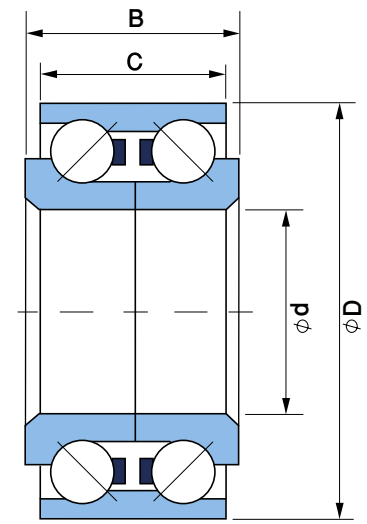
Equivalent Bearing No. in other Brands			Application
SKF	SNR	IRB	
BAHB633676, BAHB-0015	GB12306S01	IR-8089	Fiat, TIPO 1.4
BAHB311309, BAHB0023	GB12136	IR-8055	Volkswagen, Chrysler, Goif11, Polo, VW
BAHB633528F, BAHB633295B, BAHB633976	GB10840S02	IR-8611, IR-8026	Fiat, Lancia, Seat, Volvo, Zastava, Chrysler
BA2B446762B, BA2B445535AE, BAH0013	GB12094S04, GB40582	IR-8055	Nissan Micra 10 Citroen, Peugeot
BAHB441832AB	DE0763CS46PXI GB10679	IR-8028	LZW7100, Honda Civic1.2SF,1.5SG77.01 Citroen, Peugeot, Renault, Simca, Talbot
BAHB633669, BAHB0013D	GB12862, GB40714 DE0763	IR-8094 IR-8524	Toyota Tercel AI20 13 82,-4WDAL251 Fiat, Lancia, TIPO 1.6, Honda, Suzuki Honda, TIPO 1.6
BAHB0087			Suzuki Swift 10 86-89, 1.3 84-89, GT11
		IR-8005	Chrysler, Honda
	GB12807 S03, GB40706	IR-8066	Fiat, Ford, Lancia, Renault19-21, Chrysler
BA2B633028CB	GB12258	IR-8048	Chrysler
BAHB633531, BAHBC0012, BAH0094	GB12131S03	IR-8088	Alfa Romeo, Fiat, Lancia, Chrysler, Renault
BA2B309946AC, 309946AC 2RS	GB12095S01	IR-8513, IR-8049	BMW, Opel, Ford
BAHB636193C	GB13870S01		Santro-FW
BAHB686908A			7100 Charade TJ7100
			Honda 44300-SB3-961/2
			Honda, Rover, Toyota 90363-30010/11



KG Bearing Code	Dimensions in mm				Wt. (Kg)	Bearing No.	Equivalent Bearing No. in other Brands			
	d	D	B	C			KOYO	FAG	NTN	NSK
WB3873-40	38	73.00	40.0	40	0.67	DAC38730040	DAC3873W3			38BVV07-20G, 38BWD26E
WB3874-36-33	38	74.00	36.0	33	0.61	DAC38740036/33		574795A	DE08A48	38BVV07/NACHI, 38BWD15
WB3874-50	38	74.00	50.0	50	0.85	DAC38740050	DAC3874368W	559192		38BWD06
WB3874-36-33	38	74.00	36.0	33	0.59	DAC38740236/33		574795A	DE0892, DE0874	38BWD01A1ACA147, 38BWD15, 38BVV07-26G
WB387404-50	38	74.04	50.0	50	0.85	DAC38740450	DAC3874W-6CS84			
WB39(41)75-37	39(41)	75	37.0	37	0.62	DAC39(41)750037		567447B, 539166AB, 523854	DE0892	
WB3968-37	39	68	37.0	37	0.48	DAC39680037		540733, 528810, 439622C		39BWD02, 39BWD03CA69
WB396806-37	39	68.06	37.0	37	0.48	DAC39680637		540733C	4T-CRI-0868, DE0810	
WB396807-37	39	68.07	37.0	37	0.48	DAC39680737				
WB3972-37	39	72	37.0	37	0.60	DAC39720037		542186A		39BWD01C
WB397206-37	39	72.06	37.0	37	0.60	DAC39720637	DAC3972AW4	542186CA	TU0811	
WB3974-39	39	74.00	39.0	39	0.66	DAC39740039		579557		
WB40108-32-17	40	108.00	32.0	17	1.04	DAC401080032/17				
WB4072-36-33	40	72.00	36.0	33	0.67	DAC40720036/33				
WB4072-37	40	72.00	37.0	37	0.55	DAC40720037	DAC4072CS34	566719, 455608		
WB407206-37	40	72.06	37.0	37	0.55	DAC40720637				
WB4074-36	40	74.00	36.0	36	0.62	DAC40740036				40BWD15A
WB4074-36-34	40	74.00	36.0	34	0.58	DAC40740036-34			AU0817-1	
WB4074-40	40	74.00	40.0	40	0.67	DAC40740040		559493		40BWD06B
WB4074-42	40	74.00	42.0	42	0.70	DAC40740042	DAC407440		DE08A27	40BWD12CA88
WB4075-37	40	75.00	37.0	37	0.62	DAC40750037	DAC4074W-3	559494		
WB4076-33	40	76.00	33.0	33	0.52	DAC40760033		55580, 539166		40BWD08AC55
WB4076-33-28	40	76.00	33.0	28	0.54	DAC40760033/28		539166AB		
WB4076-41-38	40	76.00	41.0	38	0.69	DAC40760041/38		559226		40BWD05
WB407604-41-38	40	76.04	41.0	38	0.69	DAC40760441/38	DAC407641 2RS		DE0891	
WB4080-302	40	80.00	30.2	30.2	0.64	DAC408000302		523854		
WB4080-31	40	80.00	31.0	31	0.65	DAC40800031				
WB4080-36-34	40	80.00	36.0	34	0.74	DAC40800036/34				40BWD07A
WB4082-40	40	82.00	40.0	40		DAC40820040	DAC4080MICS68M			
WB408202-538	40	82.02	53.8	53.8	0.97	DAC408402538				
WB4168-40-35	41	68.00	40.0	35		DAC41680040/35				
WB4276-39	42	76.00	39.0	39	0.62	DAC425760039				
WB4272-38	42	72.00	38.0	38	0.54	DAC42720038			4T-CRI-0822	42KWD02



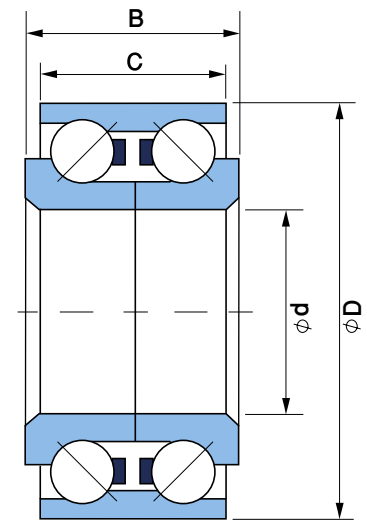
Equivalent Bearing No. in other Brands			Application
SKF	SNR	IRB	
		IR-8550	Honda Fit 1.3,1.5,1.6
	DE0874		Toyota Celica 4WD2.OIT 16V ST18590
BAH-0041		IR-8651	Nissan
		IR-8550	Toyota
BAHB633815A	GB12399 S01		Nissan, Chrysler
BA2B309692, BA2B309396, BAHB309791		IR-8530	AUDI
BAHB311315AD		IR-8052,IR-8111	Ford, Audi, Sonata, Mazda 626, Passat
			Volkswagen
BAHB309639, BAHB311396B, BAHB0036A	GB12776		Volkswagen, Ford, Bedford, Vauxhall, Monza
		IR-8085	BMW, Opel, Ford, Bedford, Vauxhall, Monza
BAHB636096A	GB40037		BMW, Opel, Ford, Bedford, Vauxhall, Monza
BA2B445533	TGB10872S02	IR-8603	Opel, Vauxhall
		IR-8048	Renault 18GTX
BAHB311443B	GB12320 S02		
		IR-8095	Volkswagen, Seat, Golf111-Vento, Swift 1.6
BAHB636060C			Proton
		IR-8668	Mazda, Allegra
BAHB633966E, BAH0086			
		IR-8593	Ford, Audi 100
BAHB474743			
		IR-8110	Chrysler, Volkswagen, Rover
		IR-8583	Honda, Rover
BAHB440320	Y44FB10394 S01		
BA2B445469BA	GB12088S01	IR-8006	Peugeot, Simca, Talbot, Volvo
BAHB636187		IR-8062	Alfa, Romeo, Citroen, Peugeot
			GM, Mitsubishi
	GB40250		Citroen
		IR-8638	Renault
			Chrysler, Opel, VM
BAH1866047A			Mazda 626-2WD (GD) 89-90



KG Bearing Code	Dimensions in mm				Wt. (Kg)	Bearing No.	Equivalent Bearing No. in other Brands					
	d	D	B	C			KOYO	FAG	NTN	NSK		
WB4275-37	42	75.00	37.0	37.0	0.60	DAC42750037	DAC4275BW 2RS	533953, 545495D, 521771				
WB4276-38-35	42	76.00	38.0	35.0	0.65	DAC42760038/35			TM-DU08A21	42BWD06CS98		
WB4276-40-37	42	76.00	40.0	37.0	0.66	DAC42760040/37	DAC427640 2RSF	547059A				
WB4278-41-38	42	78.00	41.0	38.0	0.75	DAC42780041/38	DAC4278C2RS		DE0829CS32			
WB4278-45	42	78.00	45.0	45.0		DAC42780045						
WB427805-41-38	42	78.05	41.0	38.0		DAC42780541/38						
WB4280-36-34	42	80.00	36.0	34.0	0.81	DAC42800036/34						
WB4280-37	42	80.00	37.0	37.0	0.68	DAC42800037				42BWD08		
WB4280-42	42	80.00	42.0	42.0	0.82	DAC42800042		582226	DE08A30LLCS67PX2			
WB4280-45	42	80.00	45.0	45.0	0.86	DAC42800045	DAC428045BW, DAC4280W-2CS40			42BWD11		
WB428003-42	42	80.03	42.0	42.0	0.82	DAC42800342	DCSAC4280B 2RS	52721B, 582226, 527243C				
WB4282-36	42	82.00	36.0	36.0	0.77	DAC42820036	DAC4282	561481, 588226				
WB4282-37	42	82.00	37.0	37.0	0.79	DAC42820037		565636				
WB4284-34	42	84.00	34.0	34.0		DAC42840034						
WB4284-36	42	84.00	36.0	36.0	0.84	DAC42840036		564727				
WB4284-39	42	84.00	39.0	39.0	0.93	DAC42840039		543359B				
WB428402-36	42	84.02	36.0	36.0	0.84	DAC42840236						
WB43(45)82-37	43(45)	82.00	37.0	37.0	0.76	DAC43(45)820037		567519A, 800941C				
WB4379-41-38	43	79.00	41.0	38.0	0.77	DAC43790041/38	DAC4379W-1CS57, DAC4379W2CS94			43BWD08		
WB4380-38	43	80.00	38.0	38.0	0.75	DAC43800038		579943B				
WB4380-50-45	43	80.00	50.0	45.0	0.91	DAC43800050/45	DAC4380A, DAC4380ACS69			43BWD03		
WB4382-45	43	82.00	45.0	45.0	0.96	DAC43820045	DAC4382W-3CS79			43BWD06		
WB44825.37	44	82.50	37.0	37.0	0.73	DAC44825037						
WB4580-45	45	80.00	45.0	45.0	0.78	DAC45800045		564725AB		45BWD06		
WB4584-39	45	84.00	39.0	39.0	0.85	DAC45840039	DAC458439BW, DAC4584DWCS76	547103E				
WB4584-42-40	45	84.00	42.0	40.0	0.94	DAC45840042/40			B-DE0994, AU-0901-4LX1	45BWD07B		
WB4585-23	45	85.00	23.0	23.0	0.54	DAC45850023		4209BTVH	4209ATN9, MT33VB2669			
WB4585-302	45	85.00	30.2	30.2	0.63	DAC458500302						
WB4585-41	45	85.00	41.0	41.0	0.89	DAC45850041		580191, 578413A		48BWD01		
WB4889-42	48	89.00	42.0	42.0	1.07	DAC48890044/42	DAC4889WS			49BWD01B		
WB4988-46	49	88.00	46.0	46.0	1.05	DAC49880046		572506E				
WB5090-34	50	90.00	34.0	34.0		DAC50900034		528514				
WB5090-35	50	90.00	35.0	35.0		DAC50900035						



Equivalent Bearing No. in other Brands			Application
SKF	SNR	IRB	
BA2B 633457, BAHB311424A, BAHB309245, BAHB603694A, BAHB633196, BAHB633791	GB12010	IR-8061, IR-8509 IR-8650 IR-8112	Alfa Romeo, Audi100-200, Porsche, BMW Nissan Chrysler Honda Civic EE9, CRXEE81.6116 V DOHC
BA2B309796BA, BAHB 909042			
BAH-0069			
	GB12955 S04	IR-8502	Alfa Romeo
BAHB633770, BAH0004-A BAHB309609			VM Transporter Syncro 4X4 84-92 Mazda
BAH-0028		IR-8515	BMW, Chrysler
BA2B305988, BA2B309609	GB12163 S04, GB12875	IR-8086, IR-8642	Citroen, GM, Puegeot 306-405
BA2B446047, BAHB446097, GB40574 BAHB311413A	GB12269	IR-8090 IR-8012	Audi 100-200 Avant Quattro
BAHB440667	GB10857 S02	IR-8039	Puegeot, Simca, Talbot
BA2B444090AB BAHB440090	GB10702 S02	IR-8101	Renault, Puegeot
		IR-8506	Audi 200
BAHB633814A, BAHB0011A		IR-8667	Honda Civic EG6/EH9 Ford, Fiat, Volkswagen
			Toyota Supra 3.1124V 86-3.0 Toyota Camry 2.21, 3.01 91-
	GB40246	IR-8618	Citroen, Puegeot
BAHB311363 BAHB309797C, BAHB636149D	GB40264S01, GB12398S02	IR-8572, IR-8529	Citroen, Mercedes, Peugeot Mitsubishi
420ATN/9, MT33VB2669	GB12865S04	IR-8566 IR-8597	Ford, Citroen, Fiat Ford Ford, BMW
BAHB633960			Lexus GS300, GS400 JZS 160/UZS 1, BENZ
BAHB633007C			



KG Bearing Code	Equivalent Bearing No. In Other Brands				OEM No.	Application
	KOYO	NSK	NTN	NACHI		
			TK40-1B		NBN-40-B	Datsun
				BC12S11		
	RCT45-1S	45TKD02	SF0914	45TMK-1	0222-16-222/MD702241	Mazda, Mitsubishi
	RCT3360L1	TK33-1U3	SF0724/2E	BC7S1SB	90363-33001	Toyota
		TK55-1BU3			0727-16-512A	Mazda
	RCT401SA	54TKA3501				
CB38668-316		50TKA3805				
	CT24AG					
CB35250-408		50SCRN40			31230-35070	Toyota
CB354233		50TKB3504BR			31230-35090	Toyota
CB3366-70			50TKB3301BR	50SCRN31P	31230-12170	Toyota
				50SCRN31P-1	31230-12170	Toyota
CB285728	RCT282SA	44TKB2805				Charade
			FCR55-17-9			
			FCR55-17-11			
		FCR54-48-3/2E				
CB3377-395	RCT331SA		FCR50-10/2E			
		47TKB3101			22810-P20-005	Honda
		47TKB3102				Honda
CB3572-41	CBU553524B					Honda
CB3155-351	RCTS31SA	55TKA3102	X10-FCR55-5/2E		22810-PL8-921	Honda
CB31870-335	RCT322SA	48TKA3201	FCR45-11/2E	48SCRN32K	MD706180	Mitsubishi
	RCT47SA1	58TKA3703			ME602710	Mitsubishi
		48TKA3214			8-94101-243-0	Chev LUV



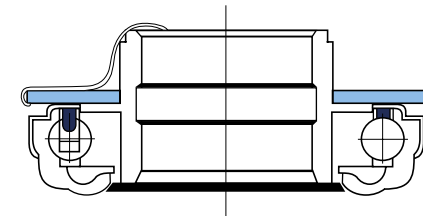
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Diagram of a typical Clutch Bearing

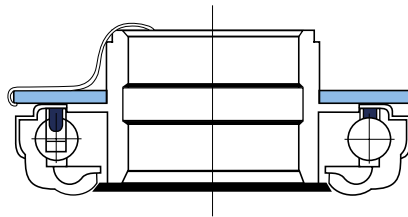
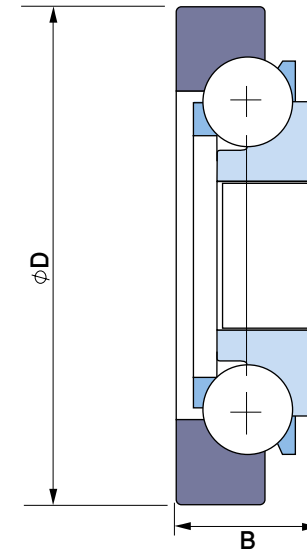


Diagram of a typical Clutch Bearing

KG Bearing Code	Equivalent Bearing No. In Other Brands				OEM No.	Application
	KOYO	NSK	NTN	NACHI		
	RCT38SL1	24TK308B	SF0816	BC12S4	9-0095-040-1	Isuzu
CB3557-13	CT35S	35TMK29B		35TRK-1	90043-63002	Mitsubishi
CB40636-16	RCT4064SL1	TK40-14AU3	SF0815	40TRK39-4SB	90363-40003	Toyota
CB4067-20	RCT4067A2RS	40TKD07	SF0859	40TRBC07-27SB	90363-40022	Toyota
	TCT40	TK40-16AU3	SF0845	T0TRK30W2SB		Toyota
		48TKA3214		RCT37SA7		Isuzu
	RCT338SA1	50TKE3301				
	RCT45-1S	TK40-4B	SF0914			Isuzu
CB407519	RCT4075-1S	TK40-4A	SF0820	40TRK1		Nissan
	RCT3360A	33TKD03/TK33-Z1	SF0743	BC7S1W2SB	30502-21000	Toyota
CB5588-196	CT55BL1		55TMK804X	55TMK804	90363-3302	Isuzu
CB70117-27	CT70B	TK70-1A	SF1412	70TNK-1		Hino, Mitsubishi
CB45736-18	CT45-1S	TK45-4	45TMK804X	40TNK804	345221003	Nissan, Mazda
	CT52A-1	TK52Z-1BA	52TMK804	BC11S3	90363-4009	
	RCT45-4S	45TKD02	SF0914	45TMK-1		
				052TRBC09-7		Toyota

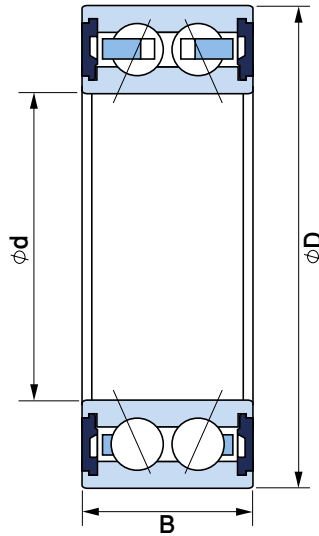
KG Bearing Code	Equivalent No.	Dimensions in mm	
		D	B
SB3811	VBT17Z-2	38	11.0
SB4011	VBT17Z-4	40	11.0
SB41115	VTAA19Z-1	41	11.5
SB4112	VTAA19Z-4	41	12.0
SB4011 A	ACS0304	40	11.0
SB43125	ACS040412	43	12.5
SB3879	128802	38	7.9
SB4213	17VBSW02	42	13.0
SB3511	15BCS02	35	11.0
SB4713	BT-19Z-LA	47	13.0
SB5214	20BSW01	52	14.0
SB44135	VBT20Z-1	44	13.5
SB47135	ACS0405J-2	47	13.5
SB4711	ACS0405J-4	47	11.0
SB4011 B	VBT17Z-3	40	11.0



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KG Bearing Code	Equivalent No.	Dimensions in mm		
		d	D	B
ACB3047-18	30BG4S8G	30	47	18.000
ACB3047-22	30BG4S13	30	47	22.000
ACB3052-22	30BD5222DUMS	30	52	22.000
ACB3055-23	30BG05SSDS	30	55	23.000
ACB3062-27	30BGS1	30	62	27.000
ACB3257-18	32BG4718BU	32	57	18.000
ACB3255-23	32BG05S1DSE	32	55	23.000
ACB3550-20	35BGS05S7G	35	50	20.000
ACB3552-23	35BG05S6G	35	52	23.000
ACB3555-20	DAC3555RD3H/35BD219DU	35	55	20.000
ACB3562-21	35BG06GDS	35	62	21.000
ACB3854-17	35BG05S6G	38	54	17.000
ACB4055-24	40BGS40G	40	55	24.000
ACB4057-24	40BG05S1G	40	57	24.000
ACB4057-24 A	40BD219V/DF0882LB	40	57	24.000
ACB4062-20625	907257A/40 BD 49V	40	62	20.625
ACB4062-24	40BGS12G	40	62	24.000
ACB4062-24 A	40BD219DU	40	62	24.000
ACB4066-24	40BGS39G	40	66	24.000
ACB4068-30	40BD6830DUK	40	68	30.000

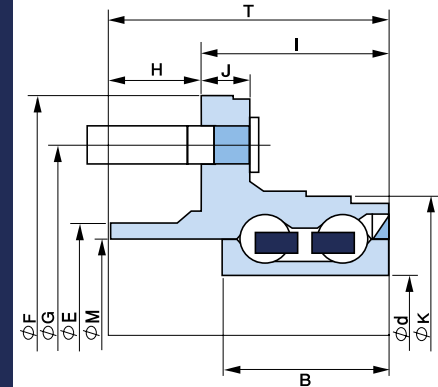
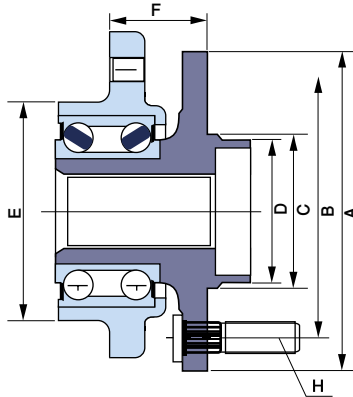


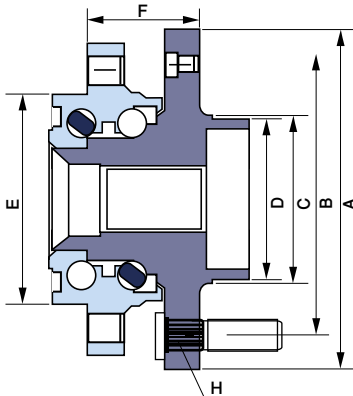
Diagram of a typical Hub Unit

KG Bearing Code	Bearing No.	Dimensions in mm											Bolt Size	Outer Ring Flange	
		d	F	B	T	E	M	G	K	H	I	J		Bolt Hole mm	Bolt Q'ty
2HUB25108-734	DACF1035B	25.0	133.0	43.0	73.4	60.00	54.25	108.0	71.0	19.4	54.0	12.25	M12*1.5	Φ 14.22	5
2HUB25100-734	DACF1029	25.0	133.0	43.0	73.4	60.00	54.30	100.0	71.0	19.4	54.0	11.00	-	M12*1.5	4
2HUB271143-73	DACF1082C	27.0	148.0	55.0	73.0	66.00	52.00	114.3	64.0	15.5	57.5	9.00	-	Φ 12.5	4
2HUB2897-42	DACF1076D	28.0	-	42.0	-	-	61.00	97.0	66.2	-	51.8	7.50	-	Φ 10.5	4
2HUB281143-645	DACF1112A	28.0	139.0	38.0	64.5	67.00	58.00	114.3	70.0	14.0	50.5	9.00	-	Φ 14.0	4
2HUB281143-705	DACF1050A	28.0	140.0	48.0	70.5	67.00	59.00	114.3	63.0	14.0	50.5	9.00	M12*1.5	Φ 14.0	4
2HUB28100-71	DACF1050B	28.0	140.8	50.5	71.0	56.00	47.80	100.0	66.6	18.9	52.1	4.50	M12*1.5	Φ 14.0	4
2HUB3099-42 A	DACF1072B-1	30.0	-	42.0	-	-	63.00	99.0	68.2	-	51.8	7.50	-	Φ 10.5	4
2HUB3098-613	DACF1083CR	30.0	117.0	37.0	61.3	58.00	52.00	98.0	71.8	17.0	44.3	10.00	M12*1.5	-	4
2HUB30100-595	DACF1041C	30.0	122.0	47.0	59.5	54.00	48.00	100.0	68.0	13.5	56.0	8.00	M12*1.5	Φ 12.56	4
2HUB30100-79	DACF1049A	30.0	126.0	59.0	79.0	56.00	50.50	100.0	65.5	14.5	62.5	10.00	M12*1.5	Φ 14.0	5
2HUB30108-713	DACF1038A	30.0	131.0	43.0	71.3	65.00	59.00	108.0	76.0	19.0	21.0	13.50	-	M12*1.5	4
2HUB30100-66 A	DACF1102A	30.0	136.0	41.0	66.0	56.00	51.00	100.0	68.5	11.5	54.5	8.00	-	Φ 12.1	4
2HUB30100-66	DACF1015	30.0	136.0	40.0	66.0	56.00	51.00	100.0	68.5	11.5	54.5	8.00	M12*1.5	Φ 12.1	4
2HUB301143-705	DACF1086	30.0	140.0	50.0	70.5	67.00	59.00	114.3	68.9	14.0	56.5	9.00	M12*1.5	Φ 14.0	4
2HUB30100-705	DACF1087A	30.0	125.0	50.0	70.5	56.00	50.00	100.0	68.9	14.0	56.5	10.00	M12*1.5	Φ 14.0	4
2HUB301143-675	DACF1065A	30.0	152.0	41.0	67.5	64.00	58.00	114.3	67.0	11.5	55.5	9.00	M12*1.5	Φ 12.1	4
2HUB30999-42	DACF1022	30.0	-	42.0	-	-	63.00	99.9	72.0	-	58.5	7.50	-	Φ 10.5	4
2HUB3090-50	DACF1091A	30.0	-	50.0	-	66.00	58.30	99.0	68.0	10.0	44.0	10.00	-	M12*1.5	4
2HUB3099-42	DACF1097D	30.0	-	42.0	-	-	63.00	100.0	73.6	-	51.8	7.50	-	Φ 10.5	4
2HUB311143-61	DACF1005C	31.0	120.0	40.0	61.0	57.00	50.50	114.3	73.8	19.0	42.0	12.00	-	M12*1.5	4
2HUB331143-712	DACF1034C	33.0	140.0	47.0	71.2	67.00	59.00	114.3	77.0	14.0	54.7	9.00	M12*1.5	Φ 14.0	5
2HUB341143-645	DACF1081C	34.0	139.0	42.0	64.5	67.00	58.00	114.3	74.0	14.0	50.5	9.00	M12*1.5	Φ 14.0	4
2HUB34107-70	DACF1036A	34.0	139.5	42.0	70.0	64.00	58.00	107.0	75.0	15.0	55.0	9.00	M12*1.5	Φ 12.1	4
2HUB34595-655	DACF1031B	34.5	139.0	52.0	65.5	63.26	58.00	95.0	86.0	13.5	52.0	10.00	M12*1.5	Φ 13.1	5
2HUB35108-695	DACF1023D	35.0	137.0	45.0	69.5	65.00	53.30	108.0	81.0	20.5	49.0	12.00	M12*1.5	Φ 13.1	5
2HUB35110-74	DACF1082L	35.0	137.0	45.0	74.0	65.00	57.00	110.0	81.0	25.0	49.0	12.00	-	M12*1.5	5
2HUB361143-71	DACF1063A	36.0	140.0	50.0	71.0	67.00	59.00	114.3	79.0	14.0	57.0	11.00	M12*1.5	Φ 14.0	5
2HUB37120-64	DACF1033K	37.0	139.0	45.0	64.0	72.50	66.00	120.0	84.0	19.0	45.0	11.00	-	M12*1.5	5
2HUB37120-64 A	DACF1033K-1	37.0	139.0	45.0	64.0	72.50	66.00	120.0	80.0	19.0	45.0	11.00	-	M12*1.5	5
2HUB37120-64 B	DACF1033K-2	37.0	139.0	45.0	64.0	72.50	66.00	120.0	80.0	19.0	45.0	11.00	-	M12*1.5	5
2HUB381143-77	DACF1074CR	38.0	146.5	52.0	77.0	70.00	64.00	114.3	76.8	15.0	62.0	9.00	M12*1.5	Φ 12.1	5
2HUB40106-43	DACF1092A	40.0	-	53.0	43.0	84.00	-	106.0	84.0	16.4	26.5	10.00	-	M12*1.5	5

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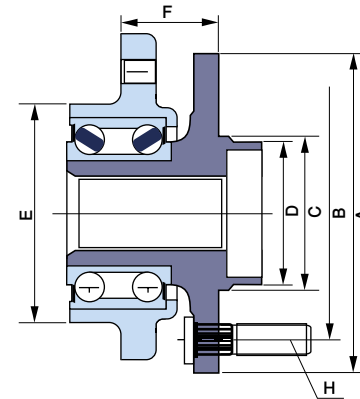


Type X

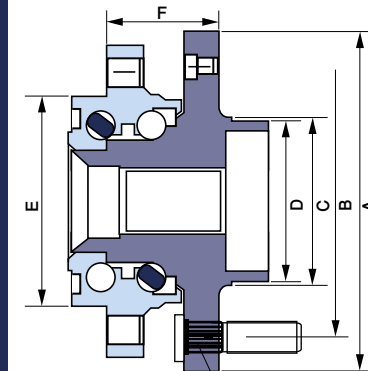


Type Y

KG Bearing Code	Other Equivalent No.	Dimensions in mm						Inner Flange		Bearing Unit Model
								Bolt Hole Size (Q'ty)	Bolt Size (Q'ty)	
		A	B	C	D	E	F	H		
3HUB65108-43	DAC2F01	135.5	108.0	68.00	65.00	83.50	43.0	M12x1.75 (-4)	-	Y
3HUB65108-43 A	DAC2F01-1	135.5	108.0	68.00	65.00	83.50	43.0	M12x1.75 (-5)	-	Y
3HUB65108-37	DAC2F02	130.5	108.0	68.00	65.00	81.00	37.0	M12x1.75 (-4)	-	Y
3HUB57100-44	DAC2F03	125.0	100.0	58.20	57.00	73.50	44.0	-	M12x1.5 (-5)	X
3HUB7131143-375	DAC2F04	140.0	114.3	73.32	71.30	86.40	37.5	-	M12x1.5 (-5)	Y
3HUB7014115-42	DAC2F05	147.0	115.0	70.63	70.14	90.00	42.0	-	M12x1.5 (-5)	Y
3HUB57100-444	DAC2F06	125.0	100.0	58.33	57.00	73.50	44.4	-	M12x1.5 (-5)	Y
3HUB71431143-542	DAC2F07	153.5	114.3	71.93	71.43	100.13	54.2	-	1/2-20UNF (-5)	X
3HUB568100-374	DAC2F08	127.2	100.0	60.80	56.80	87.00	37.4	-	M12x1.5 (-5)	X
3HUB74120-51	DAC2F09	139.0	120.0	79.00	74.00	90.00	51.0	M12x1.5 (-5)	-	Y
3HUB57112-70	DAC2F10	131.0	112.0	68.00	57.00	-	70.0	M14x1.5 (-5)	-	Y
3HUB65108-37	DAC2F11	130.5	108.0	68.00	65.00	83.00	37.0	M14x1.5 (-4)	-	Y



Type X



Type Y

KG Bearing Code	Other Equivalent No.	Dimensions in mm						Inner Flange		Bearing Unit Model
		A	B	C	D	E	F	Bolt Hole Size (Q'ty)	Bolt Size (Q'ty)	
		H								
3HUB65108-37 A	DAC2F12	130.5	108.00	68.00	65.00	83.00	37.00	M14x1.5 (-4)	-	Y
3HUB57100-4218	DAC2F13	125.0	100.00	55.77	57.00	71.00	42.18	-	M12x1.5 (-5)	X
3HUB701412065-4728	DAC2F14ABS	144.5	120.65	70.63	70.14	91.98	47.28	-	M12x1.5 (-5)	Y
3HUB601143-72	DAC2F16	152.0	114.30	62.00	60.00	79.30	72.00	-	M12x1.5 (-5)	Y
3HUB701412065-4728 A	DAC2F17	145.0	120.65	70.63	70.14	91.98	47.28	-	M12x1.5 (-5)	Y
3HUB701412065-4728 B	DAC2F17ABS	145.0	120.65	70.63	70.14	91.98	47.28	-	M12x1.5 (-5)	Y
3HUB565100-79	DAC2F18	135.5	100.00	57.00	56.50	60.00	79.00	M12x1.5 (-4)	M10x1.25 (-4)	Y



KG Bearing Code	Equivalent No.	Application	Wt. (Kg)
K6207 2RS		Agricultural Machinery	0.288
612949/612910		Agricultural Machinery	1.100
W208 PP8	Koyo W208 PP8	Agricultural Machinery	0.700
W210 PP2	Koyo W210 PP2	Agricultural Machinery	0.720
DRT407232	SKF 407232D, KOYO 46T1011 0RC3	Bedford Pinion	3.120
2RNU0619	SKF 411919, KOYO 06NU0624	Bedford Pinion	0.327
30303D	NTN CR0357	Bedford Tractor Pinion	0.130
88509		Bedford Propeller Shaft	0.466
CB4067-20	NACHI 40TRBC07-27SB	Clutch Release-Toyota	0.280
35BCD08-2LR	NACHI 35BCD08S6CS, NSK B35 77C4	Clutch	0.250
C06		Collar	0.090
C014		Collar	0.170
CB3557-13	Nachi 35TRK-1	Clutch release - Mitsubishi	0.100
CT1310	URB 76Z12	Massey Ferguson Clutch	0.636
CT1310 2RS		Clutch release	0.636
28TAG12		Mitsubishi Clutch	0.125
98205		Crank Shaft	0.186
98305	SKF 1838001 C3	Crank Shaft	0.188
19341	FLT 68341	Gear Box	0.200
62/22		Gear Box	0.120
62/28		Gear Box	0.175
63/28		Gear Box	0.287
63/28 Z		Gear Box	0.287
63/32 N R		Gear Box	0.382
16006		Autorickshaw Gear Box	0.084
RMS 8		Bedford Gear Box	0.258

KG Bearing Code	Equivalent No.	Application	Wt. (Kg)
RMS 9		Bedford Gear Box	0.390
33889/33821		Mercedes Truck Gear Box	0.876
512533		Mercedes Truck Gear Box	0.334
JC 8002	FLT CBK 239	Massey Bevel Pinion Pilot	0.274
JC 8003	FLT CBK 238	Massey Bevel Pinion Pilot	0.258
AC 10059		Peugeot Car Wheel	0.150
411280		Peykan Wheel	0.476
33275/33472		Tractor Rear Wheel	1.347
395A/394A	FLT CBK 336	Tractor Wheel	0.791
P2040		Water Pump	0.528
P2047-01		Water Pump	0.750
885158		Water Pump	0.300
FPS 14		Water Pump	0.298
32213UX1	FLT 515-769	Wheel	1.480
2580/20		Wheel	0.400
938/932		Wheel	10.100
88506		Wheel	0.280
88507		Wheel	0.355
3490/20	FLT 515-809	Wheel	0.683
3984/20	FLT CBK 337	Wheel	1.168
256907	ZKL PLC-14-24	Wheel	0.438
88512		Wheel	0.994



KG Bearing Code	Equivalent Reference	Application	Wt.(Kg)
CR-1252	NTN CR-1252 L	Wheel	0.686
639213		Fiat Wheel	0.094
639174		Fiat Wheel	0.136
639175		Fiat Wheel	0.148
500636	Timken TI 77	King Pin	0.320
532792	Timken TI 19	King Pin	0.150
532796	Timken T126	King Pin	0.140
532803	Timken T144	King Pin	0.290
532805	Timken TI 38	King Pin	0.300
EB 6210 WG	Nachi 30B60	Engine - Honda	0.214
509043 P		Steering	0.150
3982X/3927SX	KOYO 57239	Bedford Differential Side	1.148
594/592A			2.510
323/42AR			1.480
37425/37625	FLT CBK 339		1.370
807813A			1.108
7909AA			1.575
102605M			0.360
30310D			1.220
285216	NSK TF28KW02g5SA; KBC TR285216g		0.152
KG38KW01 CG5	NSK TF38KW01 Cg5, KBC 38KW01 Cg5		0.252
6304NR			0.148
392/3920			0.900
801346-22/10-22			0.752
804358			2.556
BT25-4			0.229
QJ209 M	QJ209 M		0.520
QJ309 M	QJ309 M		1.050



Appendix - Tables



Table 1. Inch-mm Conversion Table



Inch		0"	1"	2"	3"	4"	5"	6"	7"	8"
Fractions	Decimals									
0	.000000	0.0000	25.4000	50.8000	76.2000	101.6000	127.0000	152.4000	177.8000	203.2000
1/64	.015625	0.3969	25.7969	51.1969	76.5969	101.9969	127.3969	152.7969	178.1969	203.5969
1/32	.031250	0.7938	26.1938	51.5938	76.9938	102.3938	127.7938	153.1938	178.5938	203.9938
3/64	.046875	1.1906	26.5906	51.9906	77.3906	102.7906	128.1906	153.5906	178.9906	204.3906
1/16	.062500	1.5875	26.9875	52.3875	77.7875	103.1875	128.5875	153.9875	179.3875	204.7875
5/64	.078125	1.9844	27.3844	52.7844	78.1844	103.5844	128.9844	154.3844	179.7844	205.1844
3/32	.093750	2.3812	27.7812	53.1812	78.5812	103.9812	129.3812	154.7812	180.1812	205.5812
7/64	.109375	2.7781	28.1781	53.5781	78.9781	104.3781	129.7781	155.1781	180.5781	205.9781
1/8	.125000	3.1750	28.5750	53.9750	79.3750	104.7750	130.1750	155.5750	180.9750	206.3750
9/64	.140625	3.5719	28.9719	54.3719	79.7719	105.1719	130.5719	155.9719	181.3719	206.7719
5/32	.156250	3.9688	29.3688	54.7688	80.1688	105.5688	130.9688	156.3688	181.7688	207.1688
11/64	.171875	4.3656	29.7656	55.1656	80.5656	105.9656	131.3656	156.7656	182.1656	207.5656
3/16	.187500	4.7625	30.1625	55.5625	80.9625	106.3625	131.7625	157.1625	182.5625	207.9625
13/64	.203125	5.1594	30.5594	55.9594	81.3594	106.7594	132.1594	157.5594	182.9594	208.3594
7/32	.218750	5.5562	30.9562	56.3562	81.7562	107.1562	132.5562	157.9562	183.3562	208.7562
15/64	.234375	5.9531	31.3531	56.7531	82.1531	107.5531	132.9531	158.3531	183.7531	209.1531
1/4	.250000	6.3500	31.7500	57.1500	82.5500	107.9500	133.3500	158.7500	184.1500	209.5500
17/64	.265625	6.7469	32.1469	57.5469	82.9469	108.3469	133.7469	159.1469	184.5469	209.9469
9/32	.281250	7.1438	32.5438	57.9438	83.3438	108.7438	134.1438	159.5438	184.9438	210.3438
19/64	.296875	7.5406	32.9406	58.3406	83.7406	109.1406	134.5406	159.9406	185.3406	210.7406
5/16	.312500	7.9375	33.3375	58.7375	84.1375	109.5375	134.9375	160.3375	185.7375	211.1375
21/64	.328125	8.3344	33.7344	59.1344	84.5344	109.9344	135.3344	160.7344	186.1344	211.5344
11/32	.343750	8.7312	34.1312	59.5312	84.9312	110.3312	135.7312	161.1312	186.5312	211.9312
23/64	.359375	9.1281	34.5281	59.9281	85.3281	110.7281	136.1281	161.5281	186.9281	212.3281
3/8	.375000	9.5250	34.9250	60.3250	85.7250	111.1250	136.5250	161.9250	187.3250	212.7250
25/64	.390625	9.9219	35.3219	60.7219	86.1219	111.5219	136.9219	162.3219	187.7219	213.1219
13/32	.406250	10.3188	35.7188	61.1188	86.5188	111.9188	137.3188	162.7188	188.1188	213.5188
27/64	.421875	10.7156	36.1156	61.5156	86.9156	112.3156	137.7156	163.1156	188.5156	213.9156
7/16	.437500	11.1125	36.5125	61.9125	87.3125	112.7125	138.1125	163.5125	188.9125	214.3125
29/64	.453125	11.5094	36.9094	62.3094	87.7094	113.1094	138.5094	163.9094	189.3094	214.7094
15/32	.468750	11.9062	37.3062	62.7062	88.1062	113.5062	138.9062	164.3062	189.7062	215.1062
31/64	.484375	12.3031	37.7031	63.1031	88.5031	113.9031	139.3031	164.7031	190.1031	215.5031
1/2	.500000	12.7000	38.1000	63.5000	88.9000	114.3000	139.7000	165.1000	190.5000	215.9000
33/64	.515625	13.0969	38.4969	63.8969	89.2969	114.6969	140.0969	165.4969	190.8969	216.2969
17/32	.531250	13.4938	38.8938	64.2938	89.6938	115.0938	140.4938	165.8938	191.2938	216.6938
35/64	.546875	13.8906	39.2906	64.6906	90.0906	115.4906	140.8906	166.2906	191.6906	217.0906
9/16	.562500	14.2875	39.6875	65.0875	90.4875	115.8875	141.2875	166.6875	192.0875	217.4875
37/64	.578125	14.6844	40.0844	65.4844	90.8844	116.2844	141.6844	167.0844	192.4844	217.8844
19/32	.593750	15.0812	40.4812	65.8812	91.2812	116.6812	142.0812	167.4812	192.8812	218.2812
39/64	.609375	15.4781	40.8781	66.2781	91.6781	117.0781	142.4781	167.8781	193.2781	218.6781
5/8	.625000	15.8750	41.2750	66.6750	92.0750	117.4750	142.8750	168.2750	193.6750	219.0750
41/64	.640625	16.2719	41.6719	67.0719	92.4719	117.8719	143.2719	168.6719	194.0719	219.4719
21/32	.656250	16.6688	42.0688	67.4688	92.8688	118.2688	143.6688	169.0688	194.4688	219.8688
43/64	.671875	17.0656	42.4656	67.8656	93.2656	118.6656	144.0656	169.4656	194.8656	220.2656
11/16	.687500	17.4625	42.8625	68.2625	93.6625	119.0625	144.4625	169.8625	195.2625	220.6625
45/64	.703125	17.8594	43.2594	68.6594	94.0594	119.4594	144.8594	170.2594	195.6594	221.0594
23/32	.718750	18.2562	43.6562	69.0562	94.4562	119.8562	145.2562	170.6562	196.0562	221.4562
47/64	.734375	18.6531	44.0531	69.4531	94.8531	120.2531	145.6531	171.0531	196.4531	221.8531
3/4	.750000	19.0500	44.4500	69.8500	95.2500	120.6500	146.0500	171.4500	196.8500	222.2500
49/64	.765625	19.4469	44.8469	70.2469	95.6469	121.0469	146.4469	171.8469	197.2469	222.6469
25/32	.781250	19.8438	45.2438	70.6438	96.0438	121.4438	146.8438	172.2438	197.6438	223.0438
51/64	.796875	20.2406	45.6406	71.0406	96.4406	121.8406	147.2406	172.6406	198.0406	223.4406
13/16	.812500	20.6375	46.0375	71.4375	96.8375	122.2375	147.6375	173.0375	198.4375	223.8375
53/64	.828125	21.0344	46.4344	71.8344	97.2344	122.6344	148.0344	173.4344	198.8344	224.2344
27/32	.843750	21.4312	46.8312	72.2312	97.6312	123.0312	148.4312	173.8312	199.2312	224.6312
55/64	.859375	21.8281	47.2281	72.6281	98.0281	123.4281	148.8281	174.2281	199.6281	225.0281
7/8	.875000	22.2250	47.6250	73.0250	98.4250	123.8250	149.2250	174.6250	200.0250	225.4250
57/64	.890625	22.6219	48.0219	73.4219	98.8219	124.2219	149.6219	175.0219	200.4219	225.8219
29/32	.906250	23.0188	48.4188	73.8188	99.2188	124.6188	150.0188	175.4188	200.8188	226.2188
59/64	.921875	23.4156	48.8156	74.2156	99.6156	125.0156	150.4156	175.8156	201.2156	226.6156
15/16	.937500	23.8125	49.2125	74.6125	100.0125	125.4125	150.8125	176.2125	201.6125	227.0125
61/64	.953125	24.2094	49.6094	75.0094	100.4094	125.8094	151.2094	176.6094	202.0094	227.4094
31/32	.968750	24.6062	50.0062	75.4062	100.8062	126.2062	151.6062	177.0062	202.4062	227.8062
63/64	.984375	25.0031	50.4031	75.8031	101.2031	126.6031	152.0031	177.4031	202.8031	228.2031



Table 2. Hardness Conversion Table

Approximate Conversion for Rockwell C Scale of Steel

Rockwell C Scale (1471N)	Vickers	Brinell		Rockwell		Shore
		Standard Ball	Tungsten Carbide Ball	A Scale (588.4N)	B Scale (980.7N)	
68	940	—	—	85.6	—	97
67	900	—	—	85.0	—	95
66	865	—	—	84.5	—	92
65	832	—	(739)	83.9	—	91
64	800	—	(722)	83.4	—	88
63	772	—	(705)	82.8	—	87
62	746	—	(688)	82.3	—	85
61	720	—	(670)	81.8	—	83
60	697	—	(654)	81.2	—	81
59	674	—	(634)	80.7	—	80
58	653	—	615	80.1	—	78
57	633	—	595	79.6	—	76
56	613	—	577	79.0	—	75
55	595	—	560	78.5	—	74
54	577	—	543	78.0	—	72
53	560	—	525	77.4	—	71
52	544	(500)	512	76.8	—	69
51	528	(487)	496	76.3	—	68
50	513	(475)	481	75.9	—	67
49	498	(464)	469	75.2	—	66
48	484	451	455	74.7	—	64
47	471	442	443	74.1	—	63
46	548	432	432	73.6	—	62
45	446	421	421	73.1	—	60
44	434	409	409	72.5	—	58
43	423	400	400	72.0	—	57
42	412	390	390	71.5	—	56
41	402	381	381	70.9	—	55
40	392	371	371	70.4	—	54
39	382	362	362	69.9	—	52
38	372	353	353	69.4	—	51
37	363	344	344	66.9	—	50
36	354	336	336	68.4	(109.0)	49
35	345	327	327	67.9	(108.5)	48
34	336	319	319	67.4	(108.0)	47
33	327	311	311	66.8	(107.5)	46
32	318	301	301	66.3	(107.0)	44
31	310	294	294	65.8	(106.0)	43
30	302	286	286	65.3	(105.5)	42
29	294	279	279	84.7	(104.5)	41
28	286	271	271	64.3	(104.0)	41
27	279	264	264	63.8	(103.0)	40
26	272	258	258	63.3	(102.5)	38
25	266	253	253	62.8	(101.5)	38
24	260	247	247	62.4	(101.0)	37
23	254	243	243	62.0	100.0	36
22	248	237	237	61.5	99.0	35
21	243	231	231	61.0	98.5	35
20	238	226	226	60.5	97.8	34
(18)	230	219	219	—	96.7	33
(16)	222	212	212	—	95.5	32
(14)	213	203	203	—	93.9	31
(12)	204	194	194	—	92.3	29
(10)	196	187	187	—	90.7	28
(8)	188	179	179	—	89.5	27
(6)	180	171	171	—	87.1	26
(4)	173	165	165	—	85.5	25
(2)	166	158	158	—	83.5	24
(0)	160	152	152	—	81.7	24

Table 3. kgf-N Conversion Table

kgf	N	kgf	N	kgf	N					
0.1020	1	9.8066		3.4670	34	333.43		6.8321	67	657.05
0.2039	2	19.6130		3.5690	35	343.23		6.9341	68	666.85
0.3059	3	29.4200		3.6710	36	353.04		7.0361	69	676.66
0.4079	4	39.2270		3.7730	37	362.85		7.1380	70	686.47
0.5099	5	49.0330		3.8749	38	372.65		7.2400	71	696.27
0.6118	6	58.8400		3.9769	39	382.46		7.3420	72	706.08
0.7138	7	68.6470		4.0789	40	392.27		7.4440	73	715.89
0.8158	8	78.4530		4.1809	41	402.07		7.5459	74	725.69
0.9177	9	88.2600		4.2828	42	411.88		7.6479	75	735.50
1.0197	10	98.0660		4.3848	43	421.69		7.7499	76	745.31
1.1217	11	107.8700		4.4868	44	431.49		7.8518	77	755.11
1.2237	12	117.6800		4.5887	45	441.30		7.9538	78	764.92
1.3256	13	127.4900		4.6907	46	451.11		8.0558	79	774.73
1.4276	14	137.2900		4.7927	47	460.91		8.1578	80	784.53
1.5296	15	147.1000		4.8947	48	470.72		8.2597	81	794.34
1.3616	16	156.9100		4.9966	49	480.53		8.3617	82	804.15
1.7335	17	166.7100		5.0986	50	490.33		8.4637	83	813.95
1.8355	18	176.5200		5.2006	51	500.14		8.5656	84	823.76
1.9375	19	186.3300		5.3025	52	509.95		8.6676	85	833.57
2.0394	20	196.1300		5.4045	53	519.75		8.7696	86	843.37
2.1414	21	205.9400		5.5065	54	529.56		8.8716	87	853.18
2.2434	22	215.7500		5.6085	55	539.37		8.9735	88	862.99
2.3454	23	225.5500		5.7104	56	549.17		9.0755	89	872.79
2.4473	24	235.3600		5.8124	57	558.98		9.1775	90	882.60
2.5493	25	245.1700		5.9144	58	568.79		9.2795	91	892.41
2.6513	26	254.9700		6.0163	59	578.59		9.3814	92	902.21
2.7532	27	264.7800		6.1183	60	588.40		9.4834	93	912.02
2.8552	28	274.5900		6.2203	61	598.21		9.5854	94	921.83
2.9572	29	284.3900		6.3223	62	608.01		9.6873	95	931.63
3.0592	30	294.2000		6.4242	63	617.82		9.7893	96	941.44
3.1611	31	304.0100		6.5262	64	627.63		9.8913	97	951.25
3.2631	32	313.8100		6.6282	65	637.43		9.9933	98	961.05
3.3651	33	323.6200		6.7302	66	647.24		10.0952	99	970.86

How to convert:

- To convert 10kgf into N, look for the number 10 on the central column of above table, the corresponding number in 'N' column is the converted value in Newtons.
- Likewise, 10N could be converted into kgf by referring to corresponding entry in kgf column.

KG[®]

Table 4. kg-lb Conversion Table

kg	lb	kg	lb	kg	lb
0.454	1	15.422	34	30.391	67
0.907	2	15.876	35	30.844	68
1.361	3	16.329	36	31.298	69
1.814	4	16.783	37	31.751	70
2.268	5	17.236	38	32.205	71
2.722	6	17.690	39	32.659	72
3.175	7	18.144	40	33.112	73
3.629	8	18.597	41	33.566	74
4.082	9	19.051	42	34.019	75
4.536	10	19.504	43	34.473	76
4.990	11	19.958	44	34.927	77
5.443	12	20.412	45	35.380	78
5.897	13	20.865	46	35.834	79
6.350	14	21.319	47	36.287	80
6.804	15	21.772	48	36.741	81
7.257	16	22.226	49	37.194	82
7.711	17	22.680	50	37.648	83
8.165	18	23.133	51	38.102	84
8.618	19	23.587	52	38.555	85
9.072	20	24.040	53	39.009	86
9.525	21	24.494	54	39.462	87
9.979	22	24.948	55	39.916	88
10.433	23	25.401	56	40.370	89
10.886	24	25.855	57	40.823	90
11.340	25	26.308	58	41.277	91
11.793	26	26.762	59	41.730	92
12.247	27	27.216	60	42.184	93
12.701	28	27.669	61	42.638	94
13.154	29	28.123	62	43.091	95
13.608	30	28.576	63	43.545	96
14.061	31	29.030	64	43.998	97
14.515	32	29.483	65	44.452	98
14.968	33	29.937	66	44.906	99

How to convert:

- To convert 10kg into lb, look for the number 10 on the central column of above table, the corresponding number in 'lb' column is the converted value in Pounds (lb).
- Likewise, 10lb could be converted into kg by referring to corresponding entry in kg column.

Table 5. °C - °F Conversion Table

°C	°C	°F	°C	°C	°F	°C	°C	°F	°C	°C	°F
73.0	-100	-148.0	-1.70	29	84.2	17.8	64	147.2	37.2	99	210.2
-62.0	-80	-112.0	-1.10	30	86.0	18.3	65	149.0	37.8	100	212.0
-51.0	-60	-76.0	0.60	31	87.8	18.9	66	150.8	40.6	105	221.0
-40.0	-40	-40.0	0.00	32	89.6	19.4	67	152.6	43.0	110	230.0
-29.0	-20	-4.0	0.60	33	91.4	20.0	68	154.4	49.0	120	248.0
-23.3	-10	14.0	1.10	34	93.2	20.6	69	156.2	54.0	130	266.0
-17.8	0	32.0	1.70	35	95.0	21.1	70	158.0	60.0	140	284.0
-17.2	1	33.8	2.20	36	96.8	21.7	71	159.8	66.0	150	302.0
-16.7	2	35.6	2.80	37	98.6	22.2	72	161.6	71.0	160	320.0
-16.1	3	37.4	3.30	38	100.4	22.8	73	163.4	77.0	170	338.0
-15.6	4	39.2	3.90	39	102.2	23.3	74	165.2	82.0	180	356.0
-15.0	5	41.0	4.40	40	104.0	23.9	75	167.0	88.0	190	374.0
-14.4	6	42.8	5.00	41	105.8	24.4	76	168.8	93.0	200	392.0
-13.9	7	44.6	5.60	42	107.6	25.0	77	170.6	121.0	250	482.0
-13.3	8	46.4	6.10	43	109.4	25.6	78	172.4	149.0	300	572.0
-12.8	9	48.2	6.70	44	111.2	26.1	79	174.2	177.0	350	662.0
-12.2	10	50.0	7.20	45	113.0	26.7	80	176.0	204.0	400	752.0
-11.7	11	51.8	7.80	46	114.8	27.2	81	177.8	232.0	450	842.0
-11.1	12	53.6	8.30	47	116.6	27.8	82	179.6	260.0	500	932.0
-10.6	13	55.4	8.90	48	118.4	28.3	83	181.4	288.0	550	1022.0
-10.0	14	57.2	9.40	49	120.2	28.9	84	183.2	316.0	600	1112.0
-9.4	15	59.0	10.00	50	122.0	29.4	85	185.0	343.0	650	1202.0
-8.9	16	60.8	10.60	51	123.8	30.0	86	186.8	371.0	700	1292.0
-8.3	17	62.6	11.10	52	125.6	30.6	87	188.6	399.0	750	1382.0
-7.8	18	64.4	11.70	53	127.4	31.1	88	190.4	427.0	800	1472.0
-7.2	19	66.2	12.20	54	129.2	31.7	89	192.2	454.0	850	1562.0
-6.7	20	68.0	12.80	55	131.0	32.2	90	194.0	482.0	900	1652.0
-6.1	21	69.8	13.30	56	132.8	32.8	91	195.8	510.0	950	1742.0
-5.6	22	71.6	13.90	57	134.6	33.3	92	197.6	538.0	1000	1832.0
-5.0	23	73.4	14.40	58	136.4	33.9	93	199.4	593.0	1100	2012.0
-4.4	24	75.2	15.00	59	138.2	34.4	94	201.2	649.0	1200	2192.0
-3.9	25	77.0	15.60	60	140.0	35.0	95	203.0	704.0	1300	2372.0
-3.3	26	78.8	16.10	61	141.8	35.6	96	204.8	760.0	1400	2552.0
-2.8	27	80.6	16.70	62	143.6	36.1	97	206.6	816.0	1500	2732.0
-2.2	28	82.4	17.20	63	145.4	36.7	98	208.4	871.0	1600	2912.0

How to convert ?

- To convert 10° C into °F, look for the number 10 on the central column of above table, the corresponding number in °F column is the converted value in Fahrenheit.
- Likewise, 10°F could be converted into °C by referring to corresponding entry in °C column.

KG[®]

Table 6. International Units SI Conversion Table

Category	Name of unit	Symbol	Conversion SI	SI Name of Unit	SI Abbreviations
Angle	Degree	°	$\pi/180$	Radian	rad
	Minute	'	$\pi/10800$		
	Second	"	$\pi/648000$		
Length	Meter	m	1	Meter	m
	Micron	μ	10^{-6}		
	Angstrom	Å	10^{-10}		
	Nautical Mile	mile	1852		
Area	Square Meter	m ²	1	Square Meter	m ²
	Radius	a	10^2		
	Hectare	ha	10^4		
Volume	Cubic Meter	m ³	1	Cubic Meter	m ³
	Liter	ℓ	10^3		
Mass	Kilogram	kg	1	Kilogram	kg
	Ton	t	10^3		
	Atomic Mass Unit	u	$=1.66057 \times 10^{-27}$		
Time	Second	s	1	Second	s
	Minute	min	60		
	Hour	h	3600		
	Day	d	86400		
Speed	Meter Per Second	m/s	1	Meter/Second	m/s
	Knot	kn	1852/3600		
Frequency & Oscillation	Cycle	s ⁻¹	1	Hertz	Hz
Speed of Rotation	Revolution Per Minute	min ⁻¹	1/60	Per Second	s ⁻¹
Angular Speed	Radial Per Second	rad/s	1	Radian Per Second	rad/s
Acceleration	Meters Per Second Squared	m/s ²	1	Meters/Second Squared	m/s ²
	Gravity	G	9.80665		
Force	Kilogram Force Meter	kgf	9.80665	Newton	N
	Ton Force	tf	9806.65		
	Dyne	dyn	10^{-5}		
Moment of Force	Kilogram Force Meter	kgf-m	9.80665	Newton Meter	N*m
Stress & Pressure	Kilogram Force/Meter Squared	kgf/m ²	9.80665	Pascal	Pa
	Kilogram Force/Centimetre Squared	kgf/cm ²	90.80665×10^4		
	Kilogram Force Millimetre Squared	kgf/mm ²	9.80665×10^6		
Pressure	Meter of Water	mH ₂ O	9806.65	Pascal	Pa
	Millimetre of Mercury	mmHg	101325/760		
	Torr	Torr	101325/760		
	Atmosphere	atm	101325		
Energy	Bar	bar	10^5	Joule	J
	Erg	erg	10^{-7}		
	I.T. Calorie	cal _{I.T.}	4.1868		
	Kilogram Force Meter	kgf-m	9.80665		
	Kilowatt Hour	kw-h	3.600×10^6		
	Metric Horsepower Hour	PS-h	$=2.64779 \times 10^6$		
Power & Dynamic Force	Electron Volt	eV	$=1.60219 \times 10^{-19}$	Watt	W
	Watt	W	1		
	Horsepower	PS	$=735.5$		
Viscosity	Kilogram Force Meter/Second	kgf m/s	9.80665	Pascal Second	Pa s
	Poise	P	10^{-1}		
	Centipoise	cP	10^{-3}		
Kinematic Viscosity	Kilogram Force/Square Meter	kgf s/m ²	9.80665	Square Meter Per Second	m ² /s
	Stoke	St	10^{-4}		
	Centistoke	cSt	10^{-6}		