



The Quality Advantage
AN ISO 9001 COMPANY



PRECISION BEARINGS PVT. LTD.

The Commitment to Quality... The Commitment to Growth



ISO 9001:2000

ISO 9001
Registered
BUREAU VERITAS
By Quality Advantage

Certificate of Registration
EPMU Quality Register (A Institute unit of EPDMQ Quality Register)



Precision Bearings Private Limited
D.A. Chaudhari Industrial Estate, Changanassery, Thrissur - 682 111, Kerala, India
and its quality system as assessed in accordance to the standard:

ISO 9001:2000

For the scope:
Manufacture of ball, cylindrical roller, spherical roller, taper roller and needle bearings.

Certificate Number	0992262
Effective Date	December 30, 2002
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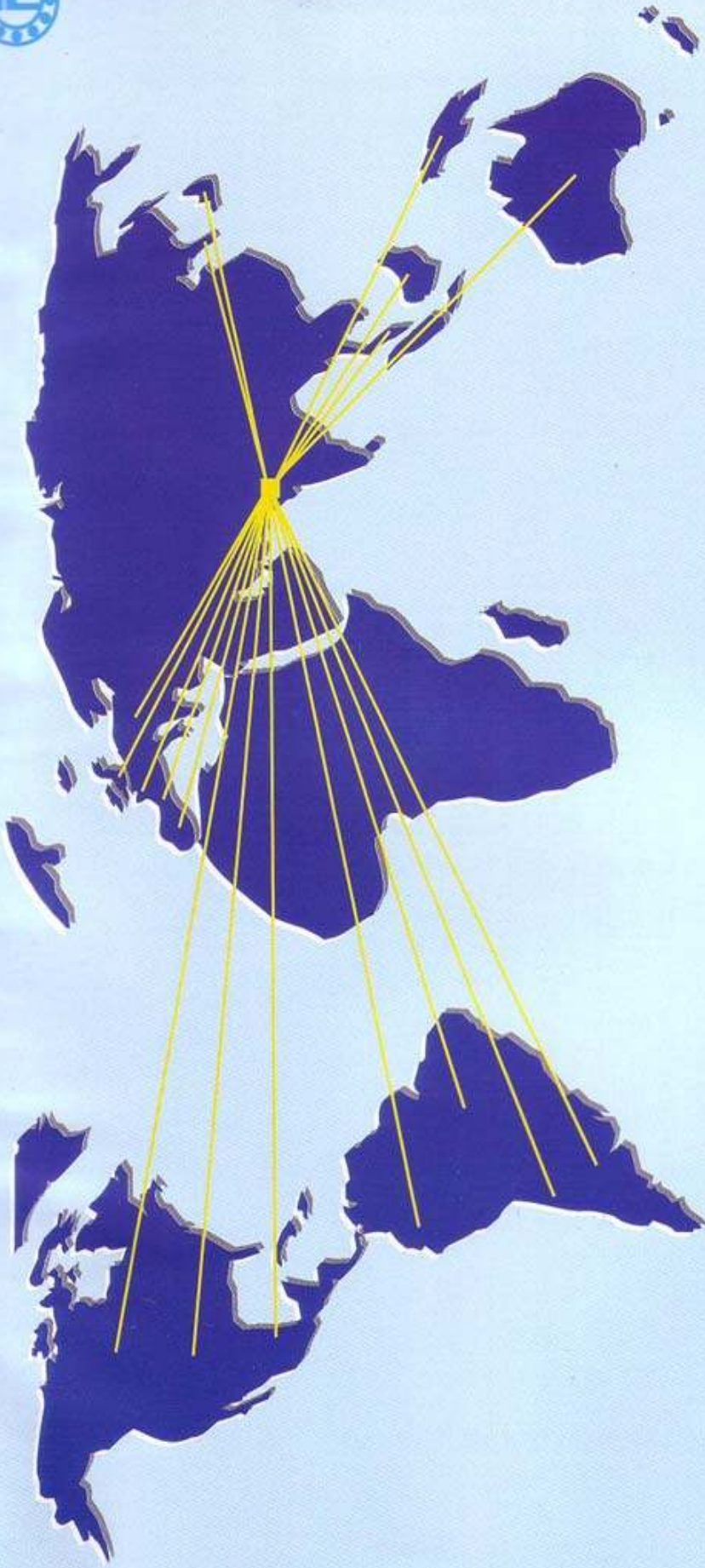
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Executive Director - EPMU



The certificate is given subject to the condition that the holder will continue to conform to the requirements of the registered standard.
Registration does not represent the effectiveness of the quality system in a specific sector.
EPMU is not liable for any consequences of the certificate holder's failure to comply with the requirements of the registered standard.

Quality Control





SALES NETWORK IN ALL OVER THE WORLD

ARGENTINA	DENMARK	ITALY	NETHERLANDS	SPAIN	UK
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MEXICO FAIR



CHINA FAIR



BRAZIL FAIR



HANNOVER MESSE 2003, GERMANY FAIR



Precision Bearings Private Limited is the most advanced Technological business venture of Technocrats and market leaders, ZNL is a fast growing company in the manufacturing of Ball Bearings, spherical roller bearings, Taper Roller Bearings, cylindrical roller bearings, mounted pillow block bearing & needle roller bearings.

With the sound working experience of varied Rolling Bearings, Precision Bearings Private Limited produces in their most sophisticated plant, a considerable variety of Rolling Bearings under the manufacturing plant of Precision Bearings Private Limited has the modern computerized machinery and equipment to produce highly precise quality bearings. It has also fully equipped Chemical & metallurgical laboratories and standard room facilities.

ZNL Bearings are designed as per BS/ISO/DIN Standards to perform well in a varied cost saving application like construction, mining, material handling equipment, farm machinery, reduction gear boxes, mechanical power transmission equipment and a wide range of other industrial machinery. ZNL also produces special purpose bearings for their customers.

CUSTOMER SERVICES

Our main target is customer service. We believe that it makes difference in this competitive age of business.

ZNL gives every customer fast and dependable response from Experienced expert personnel. We start taking care as our customer makes an inquiry. We always try to understand first our customer's need and their Problems. We try to provide them the best suitable products at very competitive price.

Some of our customers have special requirements, we responses their call immediately, we always try to meet them on their place to understand their needs and meet their need which is the core of the relationship between our customer and ZNL.

BOUNDARY DIMENSIONS

International Standard Organisation (ISO) has set up the international standards for the bearing industry. The standardisation of boundary dimensions and tolerances allows the bearing manufacturer to utilize the most modern production machines and quality control techniques in producing high quality bearing at an economical price level. The ZNL generally, follow the metric measures for its manufacturing program.

TOLERANCES

Generally, ZNL produces bearings according to standard Tolerances and produces bearings on Normal Class Clearance in its bearings but upon specific requirement ZNL can produce C2, C3, or C4 Clearance bearings.

SURFACE FINISH

ZNL has the equipment's for super finishing of track of the bearing rings as well as outer diameter of the rollers. Each bearing component i.e. inner and outer Rings and rollers are super finished for the maximum achievement of bearing life.

QUALITY EQUIPMENT & TESTING FACILITIES

We have quality equipments like roundness tester, surface finish measuring equipment, profile projector, calibrating equipments & other accessories including Air Comparators in our standard room to support the quality parameters. Our quality is an integral part of our culture and every effort is made to ensure that customer get value for money. The company is having skilled employees at all levels to bring their experience and expertise in to the manufacturing of quality bearings.

CHEMICAL & METALLURGICAL LAB

We have carbon chromium analyzer & Microscope polishing machine etc.

QUALITY CONTROL

Chemical analysis of raw material is done before forging of each batch, Microstructure & HRc is checked after annealing & heat treatment. Ra value of each batch is checked at grinding stage. 100% inspection of ID, OD Width, Radial Clearance. We are doing rig test (Life Test)

R & D

We Design and Develop extra Load carrying capacity Bearings as per customers requirement. Support technical side and suggest correct Bearings in all application areas.

MARKET

ZNL bearings are marketed through out whole Europe, U.S.A, Latin America and most of the Asian countries. The quality of bearings is accepted by every one and you can visit our web site at. www.znlbearings.com

THE SINGLE SOURCE MULTIPLE SOLUTIONS

ZNL is the single targets manufacturer of the most diverse range of bearings today. But behind the diversity lies an essential unity : an inherent commitment towards our clients and towards providing them the most specialized bearings.

ZNL has successfully developed customized bearings tailoring to suit specific needs. We deliver the most comprehensive package of bearing solutions for every conceivable application.

YOUR SOURCE FOR NEW SOLUTIONS

For More than 8 years, the people at ZNL Bearings have been dedicated to providing companies like yours, new solutions to product cost, performance and maintenance challenges.



COST SOLUTIONS

Although You'll receive premium performance from ZNL products, you won't need to pay a premium price.

ZNL highly engineered product lines, combined with state-of-art manufacturing technologies, offer the quality and performance you expect.....at price you can afford.

PRODUCT SOLUTION

The entire ZNL line of bearings - spherical Roller Bearings **Spherical Roller Thrust Bearings**, Cylindrical Roller Bearings, Ball Bearings, Needle Roller Bearings is based upon a single criteria...to design, build and distribute products that meet customer needs better than anyone else.

An example of this dedication, is ZNL's paint line drying over conveyor trolley wheel bearings. While these bearings offer the cost, maintenance and performance advantages customer have come to expect from world-class bearings of this type.....

APPLICATION SOLUTIONS

ZNL bearings are designed, manufactured and marketed to be truly use friendly, For example, all product selection, installation and maintenance information is presented in easy-to-use, comprehensive and easy to understand formats.

AVAILABILITY SOLUTIONS

The decision to offer ZNL bearings with ISO standard quality product in normal class bearings ZNL's engineering department always prepared to provide C2, C3 or C4 class bearings as per customer's choice. ZNL bearings are available through their distributors.

SPHERICAL ROLLER BEARINGS & SPHERICAL ROLLER THRUST BEARINGS HIGH PERFORMANCE "E" TYPE WITH "W33" and EW33 2RS

FROM RESEARCH TO APPLICATION

ZNL offers you the maximum capacity Spherical Roller Bearings designed and manufactured within design its own roof. ZNL's Research and Development Center have completely redesigned the Spherical Roller Bearing by using computer aided design and advanced methods of calculations. The result is a bearing that meets the ISO Standards. Tests carried out, both on ZNL test rigs and in the field have confirmed the improved reliability and performance of the design.

ADVANTAGES

ALL W33 Series bearings are manufactured with an oil groove and lubrication holes in the outer rings. Improved features such as cage design, surface finish, stress distribution across the rollers and elimination of the rubbing surfaces lead to :

Doubling of expectancy and in some cases trebling for the same space envelope, due to the use of more reliable materials. This allows smaller bearings to be used when machines are being redesigned.

Doubling of static capacity allowing the bearing to perform well in low speed applications under a very heavy load.

Higher operating speeds that allow a wider range of application.

Better performance under shock loading and vibration is a valuable characteristic in difficult applications.

MATERIAL

The standard material for spherical roller bearings we are using SAE 52100 steel.

CAGES

The standard cages are made out of CRCA steel sheet metal material but we can also supply machined brass/bronze cages.

TOLERANCE

The ZNL bearings are always manufactured in normal class tolerance of ISO 492.

CLEARANCE

ZNL bearings are generally manufactured in normal class clearance but upon customer's specific request we supply bearings with C2, C3, C4 or C5 clearances. The internal clearance of a spherical roller bearing is the value of the maximum displacement being measured without load.

**We invite you to visit our factory to understand us better
and for long term business relationship.**

Please ask for free bearings samples and price list.

GENERAL

The choice of a bearing depends on many factors that need to be examined in order to obtain the most successful results at the lowest cost.

In most cases the selection should be made when the overall design of the machine has been decided. Dimensional limits are then known, as well as the speeds and loads. At this stage in choice can be made from the many types of bearings offered from the ZNL standard ranges and the notes given in this section will generally permit selection of the most suitable bearing for each application.

When calculating the cost of the assembly, not only should the price of the bearing be considered, but also costs for heat treatment, machining and handling and fitting of ancillary items (snap rings, locking devices, tools etc) and the eventual quantities required. Large economies can be made on these items if the correct bearing is selected. Sometimes it is more advantageous to choose a bearing of slightly higher cost, which will however, when all criteria are taken into consideration, provide the most economic solution.

In the studies that are undertaken ZNL the bearings proposed frequently occupy less space and save material, machining and installation costs, which benefit the entire assembly.

The results obtained from bearings depend to a large extent on the design and method of assembly, loading, and alignment between inner and outer rings.

Bearing alignment depends first of all on the geometry of the parts involved and secondly on the deflection of the shaft under load. The shaft diameter should therefore be sufficient to prevent large deflections. This is easier to achieve using needle bearings because they occupy a small radial area.

BEARINGS STANDARDS

ZNL standard metric bearing conform to international standards (ISO) for boundary dimensions, tolerances and internal clearances. They also comply with the associated DIN, AFBMA and British Standards. ZNL have comprehensive specifications for materials, heat treatment and quality control to ensure high precision products made from clean bearings steels.

DESIGN PRINCIPLES

ZNL have developed their range of bearings to incorporate high load capacity whilst maintaining good cage strength and adequate ring sections. Design optimisation take account of the need to balance the requirements for increased fatigue performance under ideal conditions against the effects of misalignment and other mounting errors that occur in normal engineering situations. Advantage has been taken of polyamide materials in new standard range cage designs. ZNL have the advantage of many years of manufacturing and application experience with such materials on high volume production of both standard and special bearings.

MATERIALS

Standard bearings are made using high quality carbonchrome through hardening steel of similar composition of the following specifications:

SAE 52100 (or)
100Cr6

CALCULATIONS FOR RADIAL AND THRUST BEARINGS

the calculations for a radial or thrust bearing must take account of the following principal factors:

- Actual supported loads and possible shock loads
- Speed of rotation
- Operating temperature
- hardness of the bearing raceways

Other features such as lubrication, sealing and alignment do not enter directly into life calculations but they must be considered in order to avoid introducing unfavorable factors.

The life calculation of a radial bearing or a thrust bearing under rotation is established from the dynamic capacity C indicated in the tables of dimensions. The static capacity CO enables one to determine the maximum load under certain conditions

DYNAMIC CAPACITY C

The dynamic capacity of a bearing is the constant radial load which it can support during 1000 000 revolutions before the first sign of fatigue appear on a bearing race or rolling element. For a thrust bearing, the capacity of 1000 000

revolutions assumes a constant axial load centered in line with the axis of rotation.

The dynamic capacity C for caged needle bearings and thrust bearings shown in the tables of dimensions has been established in conformance with the ISO standard 281 (1990).

NOMINAL LIFE

The life of a radial bearing or thrust bearing is the number of revolutions (or the number of hours at constant speed) that it will maintain before showing the first signs of material fatigue.

The relationship between the life in millions of revolutions L₁₀ the dynamic capacity C and the supported load P, is given by the formula:

$$L_{10} = \left(\frac{C}{P}\right)^3$$

In which:

- L₁₀ - Basic rating life (10⁶ Revolutions)
- C - Basic dynamic load rating Newtons
- P - Equivalent dynamic load (Newtons)
- P - is equal to 10/3 for needle or roller bearings and 3 for ball bearings.

The formula above is independent of speed of rotation which must not exceed the recommended limit in respects of the radial bearing or the thrust bearing used and the method of fabrications.

If the speed of rotation n (r.p.m.) is constant, the life is given in hours by the function

$$L_{10h} = \frac{L_{10n} \times 10^6}{60 n} \text{ hours}$$

The life in hours is then inversely proportional to the speed.

C/P as a function of the product n x h (speed in r.p.m. and h life in hours). For example for 800 rpm and 6000 hrs.

(800 x 6000 = 48000 000) one finds factor C/P = 5.47

The above formulae will ensure that 90% of the bearings operating under the same conditions will attain at least the calculated L₁₀ life. Known as the nominal life (the figure bearing the percentage of bearings which may not attain this life). The formulae are based on the use of standard quality bearing steel and assume a satisfactory method of lubrication.

MODIFIED LIFE L_{na}

In various conditions modified life can be determined (in millions of revolutions) following the general formula:

$$L_{na} = a_1 a_2 a_3 L_{10}$$

In which a₁, a₂ and a₃ are correction factors linked to reliability material and lubrication respectively.

Reliability correction factor a₁

A reliability factor in excess of 90% may be required in certain industries, such as aviation, for reasons of security and to reduce the risk of very costly immobilisation.

The table below indicates the values of the correction factor a₁ as a function of reliability:

Reliability %	Factor a ₁	Corrected Life L _{na1}
90	1	L ₁₀
95	0.62	L ₅
96	0.53	L ₄
97	0.44	L ₃
98	0.33	L ₂
99	0.21	L ₁

In order to select as an example a bearing of L₄ life reliability 96%) it is necessary to consider a theoretical L₁₀ life (reliability 90%) equal to L₄/ 0.53 applied in the formula L₁₀ = (C/P)³ using the dynamic capacity C given in this catalogues.

LIMITING SPEEDS

The limiting speed of a bearing depends principally on the type under consideration, the pitch diameter of the rolling elements and the method of lubrication.

Other factors such as the alignment and geometry of the bearing raceways, functional clearances and dispersion of heat are of greater importance when at high speed rotation is considered.

In the case of needle bushes where thin outer ring is deformed to the shape of the housing, the cylindrical tolerance of this later element is of prime importance to good function at high speeds.

When satisfactory conditions exists, the speed limits given in the tables of dimensions can be obtained with oil lubrication maintaining a regular flow to the radial or thrust bearing. These speed limits may be exceeded if the flow rate, cooling and recirculation of the oil is specially studied. In such cases it is recommended that the ZNL Technical Department is consulted with respect to the special characteristics of the particular bearing envisaged.

The speed limits shown in the tables of dimension are for oil lubrication. For grease lubrication the following coefficients should be applied according to type:

Types	Coefficient
Sealing rings	0.8
Needle bushes with seal incorporated	0.8
Caged needle bearings and bushes	0.66
Full complement needle bearings and bushes	0.5
Needle or roller thrust bearings and combined bearings	0.5

Since cam followers are normally supplied with suitable operating grease, their speed limits are shown accordingly in the tables of dimensions. For cam followers without incorporated seals and having oil lubrication, the speed limits shown may be increased by approximately 30% for continuous rotation (50% for intermittent rotation)

LUBRICATION

Lubrication of a bearing provides a viscous film between the rolling elements in order to reduce heat and wear caused by friction.

The lubricant can also assist in preventing corrosion and help to seal the bearing from the introduction of dirt and impurities; it reduces friction between the shafts and seals and lowers the noise level generated within the bearing.

Wherever the operating conditions permit, grease should be chosen in preference to oil, as it is more convenient to use and economical. Furthermore, it acts as an efficient seal against the effects of dust and humidity. On account of its consistency, grease can improve the effectiveness of sealing rings and can be used on its own as a seal, when it is used to fill grooves or labyrinths provided for this purpose.

Grease is indispensable for the lubrication of bearings in certain machines where any oil seepage is totally unacceptable (machines for the manufacture of textiles, paper, etc).

Alternatively, oil is necessary for high rotational speeds in excess of the limits advised for grease lubrication and in case where there is a problem of heat dissipation.

Oil lubrication is also necessary where it is used already in the function of the equipment, such as hydraulic motors and pumps, speed variators and gear boxes, etc.

Oil and grease lubricants must be free of all impurities which could cause premature failure of the bearing and removal from service. Sand and metal particles are particularly injurious to bearings. Every precaution must be taken to assure the cleanliness of gear casings, pipes, grease nipples, couplings, as well as lubricant containers.

The efficiency of a lubricant decreases in service both by age and by continuous mixing to which it is submitted. Therefore replenishment must take place at regular intervals, taking account of operating and environmental conditions (humidity, dirt, and temperature) except for applications where the bearings has been lubricated for life with a suitable grease.

GREASE LUBRICATION

Bearing greases offer a high strength lubrication, good mechanical stability, resistance to oxidation and satisfactory antitrust properties, particularly for equipment mounted in humid conditions or undergoing water spray.

Their consistency, generally grades 1,2 or 3 in the NLGI scale, must remain as stable as possible within the temperature limitations set according to their composition.

Principal types of grease

Lithium soap grease are particularly suitable for the lubrication of needle or roller, radial and thrust bearings. They can be utilised within the temperature range -30° to + 120° and even up to 150°C if they are of very good quality. Generally, they are supplied with anti-rust inhibitors and offer good protection against corrosion.

Sodium soap greases are suitable for lubrication bearings up to 100°C approx., (minimum temperature -30°C) and they assure good sealing against contamination. They can absorb small amounts of water without losing their effectiveness but large amounts will dissolve them and destroy their efficiency.

Calcium soap greases stabilised with water can only be used upto 50°C or 60°C. Their mechanical stability and anti-rust properties are poor. They are therefore not recommended for lubricating bearings but can be utilised in labyrinth seals. However, certain calcium greases having better mechanical stability and improved anti-rust properties can be used up to 100° C for lubricating bearings in humid atmospheres.

Special greases

Greases available with an EP (Extreme Pressure) additive can be used when heavy load conditions mean the bearings endure high stress rates. These greases are generally good lubricants with good anti-rust properties, even in the presence of humidity.

Elaborate greases (with gellified inorganic additives and synthetic oils) may be considered for special high temperature applications, provided there is no possibility of interaction with plastic materials or other incompatible materials.

Compatibility of greases

Certain greases are incompatible with others and, if they are mixed, their function will be impaired. With greases considered as compatible, account should be taken of the reduction in their consistency when mixed and maximum permissible temperature should be reduced accordingly.

Application

Grease can be introduced into the bearing at the time of assembly, care being taken to distribute it around the crown of needles (see below 'Quantity of grease'.)

The free space found in the bearing, which is filled with grease, constitutes a reservoir and a reinforced seal. This method is possible if replenishments of grease are necessary at regular maintenance periods. During the course of which one can dismount the bearings. Clean and examine them. Otherwise one has to use a hand pump which forces grease into the bearing by means of valves and replenishes the adjacent reservoir and also the channels and labyrinth seals.

The entry passage for the grease must directly about the bearing or be in close proximity to it, in order that new fresh grease pushes out the used grease through the seals. For this reason the lip of the sealing ring must be oriented towards the outside of the bearing for it to rise under the force of the grease being ejected. This method has the advantage of removing impurities which could be introduced into the seals, particularly in the case of a highly contaminated atmosphere.

Centralised manual or automatic systems provide for the periodic controlled injection of grease at the various lubrication points.

Quantity of grease

The amount of grease that should be contained in a bearing can be established by considering the relationship of the limiting speed permissible for the grease n_G to the speed of rotation:

$\frac{n_G}{n} < 1,25$ not filled the bearing being lightly smeared and the adjacent parts packed with grease

$1,25 < \frac{n_G}{n} < 5$ 1/3 to 2/3 of the available volume packed with grease of grade 2.

Application

Oil must be supplied to radial or thrust bearings regularly and in sufficient quantity but not abundantly, otherwise an abnormal increase in temperature can occur.

According to the speed of rotation, the following general lubrication methods can be applied.

Lubrication by oil bath is suitable for assemblies with the shaft horizontal and average speeds up to about half the values shown in the tables of dimensions. The level of oil in the bath a rest must reach the lowest point of the inner raceway of the bearing, though the movement of oil caused by the immersion of parts in the oil bath may be sufficient to feed bearings situated above this level, providing there are pipes and collectors to ensure sufficient oil reserve when starting.

Lubrication by drip feed is applicable to bearings possessing a lubrication hole in their outer ring. This method is suitable even for high speed applications and permits the application of the optimum quantity of oil, though it is necessary to maintain observation of the oil level in the reservoir.

Lubrication by oil circulation under pressure by pump is suitable for high speed applications. It prevents an increase in the operating temperature if adequate quantity is maintained and the pressure does not impede free expulsion of oil from the bearing.

For thrust bearings, the entry of oil must be ensured if possible at the shaft, in order to utilise the centrifugal force due to rotation.

The method of using an oil mist consist of applying to the bearings oil finely atomised in suspension in a current of clean compressed air. The pressure created within the bearing effectively protects it from the introduction of dust, humid vapours and noxious gases. This procedure, which allows substantial flow from small quantity of oil, is used particularly for ultra high speed applications in excess of speed limits given in the tables of dimensions.

OIL LUB

Centralised lubrication

On individual machines or particular assemblies operating automatically with many positions to be lubricated, it is useful to consider a centralised lubricating system. This may comprise a manual or automatically controlled pump, which via a distribution network supplies oil to the various lubrication points. The necessary equipment is manufactured by specialised suppliers and offers advantages such as filtration re-circulation, flow control and metering to each lubrication point.

SEALING

Sealing is required to prevent the escape of lubricant from the bearings and also introduction of abrasive or corrosive impurities.

A carefully studied and accurately manufactured seal is of prime importance to the correct operation of a bearing.

SEALING USING NARROW PASSAGES

This technique avoid the use of rubbing seals, which generate heat and induce wear and require a ground surface, usually heat treated.

A small groove or slot (about 0.1 mm) arranged at the end of the shaft is sufficient to ensure satisfactory sealing when operating in a dry clean atmosphere. The sealing can be improved if this narrow passage is packed with grease and if further grooves and multiple passages filled with grease can be arranged when operating in abrasive conditions.

The grease used in sealing is generally the same as that used for the lubrication of radial bearings but in the case where deflectors or baffles are used it is possible to select a different grease specifically chosen for its residence to water, dust and any other matter harmful to bearings. It is of course necessary to avoid the sealing grease coming into contact with the bearing grease in case of their incompatibility.

Sealing by narrow passages can also be effected by the use of oil in horizontal assemblies. In this method the rotating shaft has flanges or notches which take up the oil and centrifuge it into channels from where it is returned into the sump.

RUBBING SEALS

Sealing ring of different types provide an effective seal with a light resistance exerted on the surface, though the erection and heat generation which result determine rotational speed and require the rubbing surface to be hardened and

of the appropriate finish. The friction is generally highest at the commencement of use but diminishes rapidly during "running-in". The rubbing area must always be lubricated even before starting in order to avoid premature damage to the seal.

The parts that slide into the seal during assembly must be chamfered (to 30° max.) in front of the rubbing surface in order to avoid damage from a sharp edge.

Various Types of seals

Felt seals can be used successfully with grease lubrication for speeds of 4 or 5 m/sec. and up to temperature of about 100°C Before fitting into place, felt seals should be heated in an oil bath at 80°C. Their effectiveness is increased if they are themselves protected by a deflector forming a baffle.

Sealing Rings in synthetic nitrile rubber are the most frequently used type, for bearings lubricated with oil or grease. They withstand temperature of - 40 to + 120°C. The heat generation from the rubbing lip depends not only on the rotational speed but also the eccentricity and alignment of the rubbing surface and surface finish.

In cases where the sealing has to be particularly effective, it is recommended that the rubbing surface be plunge ground to avoid imperfections from machine tool.

For speeds above 4 m/sec. a maximum roughness of 0.5 recommended and above 8 m/sec. The rubbing surface must be heat treated and hardened up to 60 HRC.

Mounting

When using grease lubrication for bearings, the lip of the seal must be oriented to outside of the bearing to enable the expulsion of old grease during replenishment.

Alternatively, when the sealing ring is needed to enable the retention of oil, its lip should be oriented towards the inside of the bearing.

If the atmosphere is abrasive or in the case of water spray conditions, one can use two sealing rings spaced a little apart. The seal on the side adjacent to the bearing has its lip facing to the inside for oil lubrication and facing outside for grease lubrication. The other sealing ring is always oriented with its lip facing outwards. The space separating the two seals must be filled with grease, possibly that used to lubricate the bearings. Alternatively, a special passageway can be provided and a special fibrous grease more effective against water and impurities can be used.

Basic technical instructions for using the products

HANDLING AND TRANSPORTATION

In handling and transportation, it is necessary to protect the products against vibrations and impacts which could cause permanent damage to rolling surfaces

STORAGE : The bearing is protected and packed for storage at temperature 20±5°C and relative air humidity of up to 60% Failure of pack and storage conditions is reduced the protection.

MOUNTING : The bearing unpack from packed immediately prior mounting. Remove preservative preparation isn't necessary if this preservative preparation is partly harden please wash the bearing in pure petrol or in a hot emulsion and then dry in flow air. Check the bearing and if is found the defect, impurity and etc... it isn't possible to mounting this one. Check if marking on bearing correspond with demand, Mounting must be carried out by the trained personnel. During mounting the radial clearance in the bearing may not take up and transfer of force between the inner and outer rings through rolling elements. The installation forces must be suitable spread around the whole area of bearing ring fronts therefore is necessary use mounting operative (see the Mounting manual of manufacturer). For simplification of mounting suitable preheating of the bearings at temperature maximum 200°C Another heating is prohibited.

NOTICE : The manufacturer isn't liable for damages due to improper use of the product and non-performance a/m stated principle.



TABLE-RECOMMENDED SEATING FITS FOR HOUSING*			Examples	Housing bore Tolerances	Axial Displacement of Outer Ring
Solid Housing	Rotating Outer Ring Load	Heavy Loads on Bearing in Thin-Walled Housing Heavy Shock Loads	Automotive Wheel Hubs (Roller Bearings) Crane Travelling Wheels	P7	Impossible
		Normal and Heavy Loads	Automotive Wheel Hubs (Ball Bearings) vibrating Screens	N7	
	Direction of Load Indeterminate	Light and Variable Loads	Conveyor Rollers, Rope Sheaves, Tension Pulleys	M7	Generally Impossible
		Heavy Shock Loads	Traction Motors	K7	
Solid or Split Housings	Rotating Inner Ring Load	Normal and Heavy Loads	Pumps, Crankshaft Main Bearings Medium Large Motors	JS7 (J7)	Possible
		Normal and Light Loads	General Bearing Application, Railway Axle Boxes	H7	Easy Displacement
	Direction of Load Indeterminate	Normal and Light Loads	Plummer Blocks	H8	
		High Temperature Rise of Inner Ring Through Shaft	Papers Dryers	G7	
Solid Housings	Direction of Load Indeterminate	Accurate Running Desirable under Normal and Light Loads	Grinding Spindle Rear Ball Bearings, High Speed Centrifugal Compressor Fixed Bearings	JS6 (J6)	Generally Impossible
			Grinding Spindle Front Ball Bearings, High Speed Centrifugal Compressor Fixed Bearings	K6	
	Rotating Ringing Load	Accurate Running and High Rigidity Desirable Under Normal and Light Loads	Cylindrical Roller Bearings for Machine Tool Main Spindle	M6 or N6	Impossible
		Minimum Noise is required	Electrical Home Appliances	H6	Easily Possible



TABLE-RECOMMENDED SEATING FITS FOR SHAFTS*

Load Conditions	Example	Shaft Diameter (mm)			Shaft Tolerances	
		Ball Bearings	Cylindrical Roller & Tapered Roller Bearing	Spherical Roller Bearings		
Rotating Outer Ring Load	Easy axial displacement of inner ring on shaft, describable	All Shaft Diameters			g6	
	Easy axial displacement of inner ring on shaft unnecessary				h6	
Rotating inner Ring Load or Direction of Load Indeterminate	Light Load (<0.06 C(1)) Variable Load	< 18		60 - 60	js5	
		18 ~ 100	< 40		js(j6)	
		100 ~ 200	40 ~ 140		k6	
	Normal Loads (0.06 to 0.13 C(1))	General Bearing Applications, Medium & Large Motors, Turbines, Pumps, Engine Main Bearings, Gears, Woodworking Machines	< 18		140 ~ 200	m6
			18 ~ 100	> 40		js6 ~ 6 (j5~6)
			100 ~ 140	40 ~ 100	> 40	k5~6
			140 ~ 200	100 ~ 140	40 ~ 65	m5~6
			200 ~ 280	140 ~ 200	65 ~ 100	m6
				200 ~ 280	100 ~ 140	n6
					140 ~ 280	p6
					280 ~ 500	r6
					over 500	r7
					50 ~ 140	n6
Heavy Loads (>0.13 C(1)) Shock Loads	Railway Axle boxes, Industrial Vehicles, Traction Motors, Construction Equipment, Crushers	140 ~ 200	140 ~ 200	100 ~ 140	p6	
		over 200	over 200	140 ~ 200	r6	
				200 ~ 500	r7	
Axial Loads Only		All Shaft Diameters			js6(j6)	

Note (1) C represents the basic dynamic capacity of the bearing

* Applicable only to solid steel shafts



DIMENSIONAL ACCURACY

$$d_m = \frac{d_{\max} + d_{\min}}{2} = \text{mean diameter of bore}$$

$$D_m = \frac{D_{\max} + D_{\min}}{2} = \text{mean diameter of outside diameter}$$

B = Width of inner ring and outer ring (only cone width in case of tapered roller bearings)
 T = total width of tapered roller bearings

FORM ACCURACY

d = largest (d_{\max}) or smallest (d_{\min}) diameter of bore
 D = largest (D_{\max}) or smallest (D_{\min}) diameter of outside diameter
 $U_p = B_{\max} - B_{\min}$ = width variation

RUNNING ACCURACY

R_i = radial runout of inner ring = maximum variation of ring thickness
 R_o = radial runout of outer ring = maximum variation of ring thickness
 A = axial runout of thrust bearings = maximum variation of shaft or housing washer thickness
 S_i = side runout of inner ring = out-of-square of bore to face
 S_o = side runout of outer ring = out-of-square of outside diameter to face
 A_i = axial runout of inner ring = out-of-square of inner ring raceway to face
 A_o = axial runout of outer ring = out-of-square of outer ring raceway to face

Tolerances of chamfer r and r1

nominal dimension [mm]	0.2	0.3	0.4	0.5	0.8	1	1.2	1.5	1.6	2	2.4	2.5	3	3.2	3.5	4	4.8	5	6	6	10	12	15	18
min	0.1	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.2	1.5	1.8	1.9	2.3	2.5	2.7	3.1	3.7	3.9	4.7	6.3	8	9.5	11.8	14.2
max	0.4	0.5	0.6	0.8	1.2	1.5	1.7	2.1	2.2	2.7	3.2	3.3	4	4.2	4.5	5.2	6.3	6.5	7.5	10	12.5	15	19	23

Tolerances of metric radial bearings (Except metric Tapered roller Bearing)

Nominal bore diameter	over to	Dimensions in mm														
		2.5	10	18	30	50	80	120	180	250	315	400	500	630	800	1000
		10	18	30	50	80	120	180	250	315	400	500	630	800	1000	

Standard tolerance PO (approx. ABCE-1)

Tolerance in microns

Bore	d_m	-8	-8	-10	-12	-15	-20	-25	-30	-35	-40	-45	-50	-75	-100
		0	0	0	0	0	0	0	0	0	0	0	0	0	0
	d	-10	-11	-13	-15	-19	-25	-31	-38	-44	-50	-57	-64	-90	-120
		+2	+3	+3	+3	+4	+5	+6	+8	+9	+10	+12	+14	+15	+20
Width	-B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		-120	-120	-120	-120	-150	-200	-250	-300	-350	-400	-450	-500	-750	-1000
Width variation	U_p	15	20	20	20	25	25	30	30	35	40	60	60	80	80
Radial runout	R_i	10	10	13	15	20	25	30	40	50	60	65	70	80	90

Tolerance class P6 (Approx. ABCE-3)

Bore	d_m	-7	-7	-8	-10	-12	-15	-18	-22	-25	-30	-35	-40
		0	0	0	0	0	0	0	0	0	0	0	0
	d	-8	-8	-9	-11	-14	-18	-21	-26	-30	-35	-41	-48
		+1	+1	+1	+1	+2	+3	+3	+4	+5	+5	+6	+8
Width	-B	0	0	0	0	0	0	0	0	0	0	0	0
		-120	-120	-120	-120	-150	-200	-250	-300	-350	-400	-450	-500
Width variation	U_p	15	20	20	20	25	25	30	30	35	40	45	50
Radial runout	R_i	6	7	8	10	10	13	18	20	25	30	35	40



Outer ring

Dimensions in mm

Nominal outside diameter	over to	6	18	30	50	80	120	150	180	250	315	400	500	360	800	1000	1250	1600
		18	30	50	80	120	150	180	250	315	400	500	630	800	1000	1250	1600	

Standard tolerance (approx. ABCE-1)

Tolerance in microns

Outside diameter	D_m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			-8	-9	-11	-13	-15	-18	-25	-30	-35	-40	-45	-50	-75	-100	-125	-160
		+2	+2	+3	+4	+5	+6	+7	+8	+9	+10	+12	+14	+17	+20	+25	+30	
		-10	-11	-14	-17	-20	-24	-32	-38	-44	-50	-57	-64	-92	-120	-150	-190	
Radial runout	R_a	15	15	20	25	35	40	45	50	60	70	80	100	120	120	120	120	

The width tolerance is the same for outer and inner ring.

Tolerance class P6 (approx. ABCE-3)

Outside diameter	D_m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			-7	-8	-9	-11	-13	-15	-18	-20	-25	-28	-33	-38	-45	-60	
		+1	+1	+2	+2	+3	+3	+3	+4	+4	+5	+5	+7	+10	+10		
		-8	-9	-11	-13	-15	-18	-21	-24	-29	-33	-38	-45	-55	-70		
Radial runout	R_a	8	9	10	13	18	20	23	25	30	35	40	50	60	75		

The width tolerance is the same for outer and inner ring.

Tolerances of metric tapered roller bearings

Cone

Dimensions in mm

Nominal bore diameter	over to	6	18	30	50	80	120	180	250	315	400	500	630	800
		18	30	50	80	120	180	250	315	400	500	630	800	1000

Standard tolerance

Tolerance in microns

Bore	d_m	-8	-10	-12	-15	-20	-25	-30	-35	-40	-45	-50	-75	-100
			0	0	0	0	0	0	0	0	0	0	0	0
d		-11	-13	-15	-19	-25	-31	-38	-44	-50	-57	-64	-90	-120
		+3	+3	+3	+4	+5	+6	+8	+9	+10	+12	+14	+15	+20
Width B		0	0	0	0	0	0	0	0	0	0	0	0	0
		-200	-200	-240	-300	-400	-500	-600	-700	-800	-900	-1000	-1500	-2000
Radial runout R_t		15	18	20	25	30	35	50	60	70	70	85	100	120
Total width T		0	0	0	0	-200	-250	-250	-250	-400	-400	-500	-600	-750
		+200	+200	+200	+200	+200	+350	+350	+350	+400	+400	+500	+600	+750

Tolerance class P6

Bore	d_m	-7	-8	-10	-12	-15	-18	-22	-25
			0	0	0	0	0	0	0
d		-8	-9	-11	-14	-18	-21	-26	-30
		+1	+1	+1	+2	+3	+3	+4	+5
Width B		0	0	0	0	0	0	0	0
		-200	-200	-240	-300	-400	-500	-600	-700
Radial runout R_t		7	8	10	10	13	18	20	25
Side runout S_t		10	10	12	12	15	15	15	18
Total width T		+200	+200	+200	+200	+200	+350	+350	+350
		0	0	0	0	-200	-250	-250	-250

Rolling Bearings Tolerances



BEARINGS

CUP

Dimensions in mm

Nominal outside diameter	over to	30	30 50	50 80	80 120	120 150	150 180	180 250	250 315	315 400	400 500	500 630	630 800	800 1000	1000 1250	1250 1600
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Standard tolerance

Tolerance in microns

Outside diameter	D_m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		- 8	- 11	- 13	- 15	- 18	- 25	- 30	- 35	- 40	- 45	- 50	- 75	- 100	- 125	- 160
	D	+ 2	+ 3	+ 4	+ 5	+ 6	+ 7	+ 8	+ 9	+ 10	+ 12	+ 14	+ 17	+ 20	+ 25	+ 30
Radial runout	R_a	18	20	25	35	40	45	50	60	70	80	100	120	120	120	120

Tolerance class P6

Outside diameter	D_m	0	0	0	0	0	0	0	0	0
		- 8	- 9	- 11	- 13	- 15	- 18	- 20	- 25	- 28
	D	+ 1	+ 2	+ 2	+ 2	+ 3	+ 3	+ 4	+ 4	+ 5
Radial runout	R_a	9	10	13	18	20	23	25	30	35

Tolerances of metric thrust bearings

Shaft washer

Dimensions in mm

Nominal bore diameter	over to	18	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400	400 500	500 630	630 800	800 1000
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Standard tolerance (approx. ABEC-1)

Tolerance in microns

Bore	d_m	8	10	12	15	20	25	30	35	40	45	50	75	100
		- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0
Axial runout	A	10	10	10	10	15	15	20	25	30	30	35	40	45

Tolerance class P6 (approx. ABEC-3)

Bore	d_m	8	10	12	15	20	25	30	35	40	45	50	75	100
		- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0	- 0
Axial runout	A	5	5	6	7	8	9	10	13	15	18	21	25	30

Housing washer

Dimensions in mm

Nominal outside diameter	over to	30	30 50	50 80	80 120	120 180	180 250	250 315	315 400	400 500	500 630	630 800	800 1000	1000 1250
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Standard tolerance (approx. ABEC-1)

Tolerance in microns

Outside diameter	D_m	0	0	0	0	0	0	0	0	0	0	0	0	0
		- 13	- 16	- 19	- 22	- 25	- 30	- 35	- 40	- 45	- 50	- 75	- 100	- 125
Axial runout	A	10	10	10	15	15	20	25	30	30	35	40	45	50

Tolerance class P6 (approx. ABEC-3)

Outside diameter	D_m	0	0	0	0	0	0	0	0	0	0	0	0	0
		- 13	- 16	- 19	- 22	- 25	- 30	- 35	- 40	- 45	- 50	- 75	- 100	- 125
Axial runout	A	5	6	7	8	9	10	13	15	18	21	25	30	35

Tolerances of inch radial bearings (except inch tapered roller bearings)

Inner ring

Dimensions in mm

Nominal outside diameter	over to	1/8	3/8	1/2	1 1/8	2	3 1/8	4 3/4	7	10	12 1/2	16
		3/8	3/4	1 1/8	2	3 1/8	4 3/4	7	10	12 1/2	16	

Tolerance in 0.0001 INCH

Size	d _m	- 2 + 2	- 2 + 2	- 2 + 2	- 3 + 2	- 3 + 2	- 3 + 2	- 3 + 2	- 5 + 2	- 5 + 2	- 8 + 2
Width	B	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20
Width variation	U _p	5	5	5	5	5	5	5	5	5	5
Radial runout	R _i	4	4	4	4	5	7	7	13	13	20

Tolerances of inch thrust ball bearings

Shaft washer

Nominal bore diameter	d _m	d _{ll} sizes
		0 + 10

Tolerance in 0.0001 inch

Outer ring

Dimensions in mm

Nominal outside diameter	over to	3/8	3/4	1 1/8	2 1/8	3 1/8	4 3/4	7	10	12 1/2	16	20
		3/4	1 1/8	2	3 1/8	4 3/4	7	10	12 1/2	16	20	

Tolerance in 0.0001 inch

Outside diameter	D _m	- 3 - 7	- 3 - 7	- 3 - 8	- 5 - 10	- 8 - 13	- 13 - 18	- 13 - 18	- 13 - 18	- 13 - 23	- 13 - 23
Width	B	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20
Width variation	U _p	5	5	5	5	5	5	5	5	5	5
Radial runout	R _a	4	4	4	5	7	13	13	13	20	20

Housing washer

Nominal Bore dia	all size
	0 -10

Axial clearance of ZNL double row angular contact ball bearings series 32 and 33

Dimensions in mm

Nominal bore diameter	over to	6	10	18	24	30	40	50	65	80	100	120
		10	18	24	30	40	50	65	80	100	120	140

Bearing clearance in microns

Clearance group C2	min	2	3	4	6	7	8	8	10	11	11	11
	D _m	11	13	15	17	19	22	24	26	28	30	32
Normal clearance	min	7	9	11	13	15	18	20	22	24	26	28
	max	18	21	24	27	31	35	39	43	46	48	50
Clearance group C3	min	16	19	22	25	29	33	37	41	44	46	48
	max	29	32	37	42	47	52	57	62	66	70	72
Clearance group C4	min	27	30	35	40	45	50	55	60	64	68	70
	max	42	47	53	58	65	72	77	83	88	93	96



Radial clearance of ZNL deep groove ball bearings

		Dimensions in mm															
Nominal outside diameter	over to	2.5	6	10	15	24	30	40	50	65	80	100	120	140	160	180	200
		Bearing clearance in microns															
Clearance group C2	min	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	
	Dm	7	7	9	10	11	11	11	15	15	18	20	23	23	25	30	
Normal clearance	min	2	2	3	5	5	6	6	8	10	12	15	18	18	20	25	
	max	13	13	18	20	20	20	23	25	30	36	41	48	53	61	71	
Clearance group C3	min	8	8	11	13	13	15	18	23	25	30	36	41	46	53	63	
	max	23	23	25	28	28	33	36	43	51	58	66	81	91	102	117	
Clearance group C4	min	14	14	18	20	23	28	30	38	46	53	61	71	81	91	107	
	max	29	29	33	36	41	46	51	61	71	84	97	114	130	147	163	
Clearance group C5	min	21	21	25	28	34	39	44	53	63	75	88	104	115	132	148	
	max	36	37	41	45	53	61	69	83	98	115	133	154	175	202	226	

Radial clearance of ZNL self-aligning ball bearings

		Dimensions in mm															
Nominal outside diameter	over to	3	10	15	30	40	50	65	80	100	120	140	160	180	200	225	250
		Bearing clearance in microns															
Clearance group C2	min	3	4	4	5	5	5	6	7	8	8	11	12	14	15	18	
	Dm	8	9	10	11	12	12	16	18	20	22	26	28	32	35	40	
Normal clearance	min	8	9	10	11	12	12	16	18	20	22	26	28	32	35	40	
	max	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
Clearance group C3	min	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
	max	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
Clearance group C4	min	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
	max	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
Clearance group C5	min	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
	max	36	40	45	55	62	68	78	89	97	110	125	140	150	175	190	
		Bearing clearance in microns															
		with cylindrical bore															
C2	min	8	9	10	11	12	12	16	18	20	22	26	28	32	35	40	
	max	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
Normal	min	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
	max	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
Clearance group C3	min	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
	max	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
Clearance group C4	min	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
	max	36	40	45	55	62	68	78	89	97	110	125	140	150	175	190	
Clearance group C5	min	36	40	45	55	62	68	78	89	97	110	125	140	150	175	190	
	max	46	50	57	73	82	90	103	117	125	142	160	180	195	225	245	
		with Tapered bore															
C2	min	8	9	10	11	12	12	16	18	20	22	26	28	32	35	40	
	max	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
Normal	min	13	15	17	19	21	22	27	31	35	40	44	48	52	60	65	
	max	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
Clearance group C3	min	19	22	25	28	32	34	40	46	52	58	66	73	77	95	100	
	max	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
Clearance group C4	min	27	31	35	39	44	48	56	64	72	82	93	103	110	130	140	
	max	36	40	45	55	62	68	78	89	97	110	125	140	150	175	190	
Clearance group C5	min	36	40	45	55	62	68	78	89	97	110	125	140	150	175	190	
	max	46	50	57	73	82	90	103	117	125	142	160	180	195	225	245	

Radial clearance of ZNL cylindrical roller bearings

		Dimensions in mm										
Nominal bore diameter	over		24	30	40	50	65	80	100	120	140	160
	to	24	30	40	50	65	80	100	120	140	160	180
		Bearing clearance in microns										
Clearance group C2	min	0	0	0	5	5	5	10	10	10	15	20
	min	10	10	12	15	15	20	25	25	30	35	35
	max	20	25	25	30	35	40	45	50	60	65	75
	max	30	30	35	40	45	55	60	65	75	80	85
Normal clearance	min	20	25	25	30	35	40	45	50	60	65	75
	min	20	25	25	30	35	40	45	50	60	65	75
	max	30	35	40	45	50	60	70	80	90	100	110
	max	40	45	50	55	65	75	80	90	105	115	125
Clearance group C3	min	25	30	35	40	45	55	65	80	90	100	110
	min	35	40	45	50	55	70	80	95	105	115	125
	max	45	50	55	65	75	90	105	120	135	150	165
	max	55	65	70	75	90	105	115	135	155	165	175
Clearance group C4	min	35	40	45	55	65	75	90	105	115	130	150
	min	45	50	55	65	75	90	105	120	135	150	165
	max	55	60	70	80	90	110	125	145	160	180	200
	max	65	70	80	90	105	125	140	160	180	195	215
Clearance group C5	min	55	60	70	85	100	115	145	165	185	210	235
	min	65	70	80	95	110	130	155	180	200	225	250
	max	75	80	95	110	130	150	180	205	230	260	285
	max	85	90	105	120	140	165	195	220	250	275	300

Black numbers apply to non-interchanged bearing rings.

Red numbers apply to interchanged bearing rings.

Black numbers apply also to NA design cylindrical roller bearings.

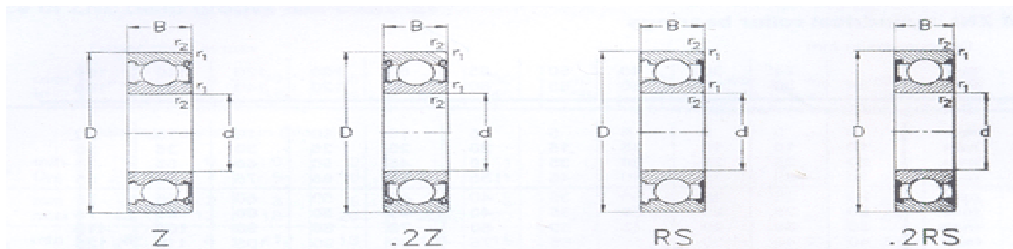
		Bearing clearance in microns										
Clearance group C1 NA	min	12	15	15	20	20	25	30	35	40	45	50
	max	20	25	25	30	35	40	45	50	60	65	75
Clearance group C2 NA	min	20	25	25	30	35	40	45	50	60	65	75
	max	30	35	40	45	50	60	70	80	90	100	110

Radial clearance of ZNL spherical roller bearings

		Dimensions in mm										Cylindrical Bore	
Nominal bore diameter	over	30	40	50	65	80	100	120	140	160	180	200	
	to	40	50	65	80	100	120	140	160	180	200	225	
		Bearing clearance in microns											
Clearance group C2	min	15	20	20	30	35	40	50	60	65	70	80	
	max	30	35	40	50	60	75	95	110	120	130	140	
Normal clearance	min	30	35	40	50	60	75	95	110	120	130	140	
	mix	45	55	65	80	100	120	145	170	180	200	220	
Clearance group C3	min	45	55	65	80	100	120	145	170	180	200	220	
	max	60	75	90	110	135	160	190	220	240	260	290	
Clearance group C4	min	60	75	90	110	135	160	190	220	240	260	290	
	mix	80	100	120	145	180	210	240	280	310	340	380	
Clearance group C5	min	80	100	120	145	180	210	240	280	310	340	380	
	mix	105	130	160	185	230	260	300	350	390	430	470	
		Bearing clearance in microns										Taper Bore	
Clearance group C2	min	25	30	40	50	55	65	80	90	100	110	120	
	max	35	45	55	70	80	100	120	130	140	160	180	
Normal clearance	min	35	45	55	70	80	100	120	130	140	160	180	
	mix	50	60	75	95	110	135	160	180	200	220	250	
Clearance group C3	min	50	60	75	95	110	135	160	180	200	220	250	
	max	65	80	95	120	140	170	200	230	260	290	320	
Clearance group C4	min	65	80	95	120	140	170	200	230	260	290	320	
	mix	85	100	120	150	180	220	260	300	340	370	410	
Clearance group C5	min	85	100	120	150	180	220	260	300	340	370	410	
	mix	105	130	160	200	230	280	330	380	430	470	520	

Single Row Deep Groove Ball Bearings

BEARINGS



Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m [kg/d]
d	D	B		dyn.	stat.	grease	oil	
2	6	2.3	619/2	0.28	0.09	62000	79000	0.001
2.5	8	2.8	60/2.5	0.32	0.11	65000	80000	0.001
3	10	4	623	0.64	0.23	52000	60000	0.001
3	10	4	623Z	0.64	0.23	52000	60000	0.001
3	10	4	623.2Z	0.64	0.23	52000--		0.001
4	11	4	619/4	0.96	0.35	48000	56000	0.001
12	4	604		0.8	0.28	52000	62000	0.002
13	5	624		1.29	0.49	38000	45000	0.003
13	5	624Z		1.29	0.49	38000	45000	0.003
13	5	624.2Z		1.29	0.49	38000--		0.003
16	5	634		1.46	0.6	36000	43000	0.006
16	5	634Z		1.46	0.6	36000	43000	0.006
16	5	634.2Z		1.46	0.6	36000--		0.006
5	13	4	619/5	1.08	0.43	43000	50000	0.002
16	5	625		1.46	0.6	36000	43000	0.005
16	5	625Z		1.46	0.6	36000	43000	0.005
16	5	625.2Z		1.46	0.6	36000--		0.005
19	6	635		2.45	1.06	32000	38000	0.009
19	6	635Z		2.45	1.06	32000	38000	0.009
19	6	635.2Z		2.45	1.06	32000--		0.009
6	15	5	619/6	1.36	0.50	38000	45000	0.04
19	6	626		2.45	1.06	32000	38000	0.009
19	6	626RS		2.45	1.06	32000--		0.009
19	6	626.2Rs		2.45	1.06	32000--		0.009
19	6	626Z		2.45	1.06	32000	38000	0.009
19	6	626.2Z		2.45	1.06	32000--		0.009
7	17	5	619/7	1.61	0.71	36000	43000	0.05
19	6	607		2.45	1.06	32000	38000	0.008
19	6	607RS		2.45	1.06	20000--		0.008
19	6	607.2RS		2.45	1.06	20000--		0.008
19	6	607Z		2.45	1.06	32000	38000	0.008
19	6	607.3Z		2.45	1.06	32000--		0.008
22	7	627		3.25	1.37	30000	36000	0.013
22	7	627RS		3.25	1.37	20000--		0.013
22	7	627.2RS		3.25	1.37	20000--		0.013
22	7	627Z		3.25	1.37	30000	36000	0.013
22	7	627.2Z		3.25	1.37	30000	36000	0.013
8	19	6	619/8	2.24	0.91	36000	43000	0.07
22	7	608		3.25	1.37	30000	36000	0.013
22	7	608RS		3.25	1.37	20000--		0.013
22	7	608.2RS		3.25	1.37	20000--		0.013
22	7	608.Z		3.25	1.37	30000	36000	0.013

Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m [kg/d]
d	D	B		dyn.	stat.	grease	oil	
	22	7	608.2Z	3.25	1.37	30000--		0.013
9	20	6	619/9	1.72	0.84	34000	40000	0.08
	24	7	609	3.65	1.63	30000	36000	0.015
	24	7	609RS	3.65	1.63	18000--		0.015
	24	7	609.2RS	3.65	1.63	18000--		0.015
	24	7	609Z	3.65	1.63	30000	36000	0.015
	24	7	609.2Z	3.65	1.63	30000--		0.015
	26	8	629	4.55	1.96	28000	34000	0.02
	26	8	629RS	4.55	1.96	18500--		0.02
	26	8	629.2RS	4.55	1.96	18500--		0.02
	26	8	629Z	4.55	1.96	28000	34000	0.02
	26	8	629.2Z	4.55	1.96	28000--		0.02
10	19	5	61800	1.73	0.83	34000	40000	0.005
	19	5	618.2RS	1.73	0.83	22000--		0.005
	19	5	61800.2Z	1.73	0.83	34000--		0.005
	22	6	61900	2.7	1.27	34000	40000	0.01
	22	6	61900.RS	2.7	1.27	22000--		0.01
	22	6	61900.2Z	2.7	1.27	34000--		0.01
	26	8	6000	4.55	1.96	28000	34000	0.019
	26	8	6000RS	4.55	1.96	17000--		0.019
	26	8	6000.2RS	4.55	1.96	17000--		0.019
	26	8	6000Z	4.55	1.96	28000	34000	0.019
	26	8	6000.2Z	4.55	1.96	28000--		0.019
	30	9	6200	6	2.6	26000	32000	0.03
	30	9	6200RS	6	2.6	17000--		0.03
	30	9	6200.2RS	6	2.6	17000--		0.03
	30	9	6200Z	6	2.6	26000	32000	0.03
	30	9	6200.2Z	6	2.6	26000--		0.03
	30	14	62200.2RS	6	2.6	17000		0.048
	35	17	62300.RS	8.15	3.45	14500--		0.06
	35	11	6300	8.15	1.45	22000	28000	0.055
	35	11	6300RS	8.15	3.45	14500--		0.055
	35	11	6300.2RS	8.15	3.45	14500--		0.055
	35	11	6300Z	8.15	3.45	22000	28000	0.055
	35	11	6300.2Z	8.15	3.45	22000--		0.055
12	21	5	61801	1.8	0.95	32000	37000	0.006
	21	5	61801.2RS	1.8	0.95	21000--		0.006
	21	5	61801.2Z	1.8	0.95	32000--		0.006
	24	6	61901	2.25	0.98	30000	36000	0.011
	24	6	61901.2RS	2.25	0.98	20000--		0.011
	24	6	61901.2Z	2.25	0.98	30000--		0.011
	28	8	6001	5.1	2.36	26000	32000	0.02



Single Row Deep Groove Ball Bearings

BEARINGS

Boundary (Dimension)		Designation	Load ratings (kN)		Speed ratings [rpm]			m	Boundary (Dimension)		Designation	Load ratings (kN)		Speed ratings [rpm]			m
d	D		B	dyn.	stat.	grease	oil		[kg]d	d		D	B	dyn.	stat.	grease	
	28	8	6001RS	5.1	2.36	17000--		0.02		40	126203.2Z	9.5	4.75	18000--		0.063	
	28	8	6001.2RS	5.1	2.36	17000--		0.02		40	1662203.2RS	9.5	4.75	12000--		0.085	
	28	8	6001Z	5.1	2.36	26000	32000	0.02		47	1962303.RS	13.4	6.55	10500--		0.151	
	28	8	6001.2Z	5.1	2.36	26000--		0.02		47	146303	13.4	6.55	16000	19000	0.11	
	32	10	6201	6.95	3.1	24000	30000	0.04		47	146303RS	13.4	6.55	10500--		0.11	
	32	10	6201RS	6.95	3.1	16000--		0.04		47	146303.2RS	13.4	6.55	10500--		0.11	
	32	10	6201.2RS	6.95	3.1	16000--		0.04		47	146303Z	13.4	6.55	16000	19000	0.11	
	32	10	6201Z	6.95	3.1	24000	30000	0.04		47	146303.2Z	13.4	6.55	16000--		0.11	
	32	10	6201.2Z	6.95	3.1	24000--		0.04		62	176403	23.6	11	12000	15000	0.275	
	32	14	62201.2RS	6.95	3.1	16000--		0.048	20	32	761804	3.45	2.24	19000	24000	0.018	
	37	17	62301.2RS	9.6	4.1	13000--		0.065		32	761804.2RS	3.45	2.24	12500--		0.018	
	37	12	6301	9.6	4.1	20000	26000	0.06		32	761804.2Z	3.45	2.24	19000--		0.018	
	37	12	6301RS	9.6	4.1	13000--		0.06		37	961904	6.35	3.65	18000	22000	0.038	
	37	12	6301.2RS	9.6	4.1	13000--		0.06		37	961904.2RS	6.35	3.65	12000--		0.038	
	37	12	6301Z	9.6	4.1	20000	26000	0.06		37	961904.2Z	6.35	3.65	18000--		0.038	
	37	12	6301.2Z	9.6	4.1	20000--		0.06		42	816004	6.95	4.05	18000	22000	0.049	
15	24	5	61802	2.8	1.25	28000	34000	0.07		42	126004	9.3	5	17000	20000	0.065	
	24	5	61802.2RS	2.8	1.25	18500--		0.07		42	126004RS	9.3	5	11000--		0.065	
	24	5	61802.2Z	2.8	1.25	28000--		0.07		42	126004.2RS	9.3	5	11000--		0.065	
	28	7	61902	4.03	2.04	24000	30000	0.016		42	126004Z	9.3	5	17000	20000	0.065	
	28	7	61902.2RS	4.03	2.04	16000--		0.016		42	126004.2Z	9.3	5	17000--		0.065	
	28	7	61902.2Z	4.03	2.04	24000--		0.016		47	146204	12.7	6.55	15000	18000	0.105	
	32	8	6002	5.6	2.9	24000	30000	0.03		47	146204RS	12.7	6.55	9900--		0.105	
	32	9	6002	5.6	2.85	24000	30000	0.029		47	146204.2RS	12.7	6.55	9900--		0.105	
	32	9	6002RS	5.6	2.85	15000--		0.029		47	146204Z	12.7	6.55	15000	18000	0.105	
	32	9	6002.2RS	5.6	2.85	15000--		0.029		47	146204.2Z	12.7	6.55	15000--		0.105	
	32	9	6002Z	5.6	2.85	24000	30000	0.029		47	1862204.2RS	12.7	6.55	9900--		0.105	
	32	9	6002.2Z	5.6	2.85	24000--		0.029		52	2162304.2RS	17.3	8.5	9300--		0.133	
	35	11	6202	7.8	3.75	20000	26000	0.043		52	156304	17.3	8.5	14000	17000	0.207	
	35	11	6202RS	7.8	3.75	13000--		0.043		52	156304RS	17.3	8.5	9300--		0.148	
	35	11	6202.2RS	7.8	3.75	13000--		0.043		52	156304.2RS	17.3	8.5	9300--		0.148	
	35	11	6202Z	7.8	3.75	20000	26000	0.043		52	156304Z	17.3	8.5	14000	17000	0.148	
	35	11	6202.2Z	7.8	3.75	20000--		0.043		52	156304.2Z	17.3	8.5	14000--		0.148	
	35	14	62202.2RS	7.8	3.75	13000--		0.053		72	196404	30.5	15	10000	13000	0.412	
	42	17	62302.2RS	11.4	5.4	12000--		0.111	22	44	1260/22	9.3	5	17000	20000	0.07	
	42	13	6302	11.4	5.4	18000	22000	0.08		44	1260/22.2RS	9.3	5	11500--		0.07	
	42	13	6302RS	11.4	5.4	12000--		0.08		44	1260/22.2Z	9.3	5	17000--		0.07	
	42	13	6302.2RS	11.4	5.4	12000--		0.08		50	1462/22	12.7	6.55	15000	18000	0.11	
	42	13	6302Z	11.4	5.4	18000	22000	0.08		50	1462/22.2RS	12.7	6.55	10000--		0.11	
	42	13	6302.2Z	11.4	5.4	18000--		0.08		50	1462/22.2Z	12.7	6.55	15000--		0.11	
17	26	5	61803	2.24	1.46	24000	30000	0.008		56	1663/22	17.3	8.5	14000	17000	0.16	
	26	5	61803.2RS	2.24	1.46	16000--		0.008		56	1663/22.2RS	17.3	8.5	9500--		0.16	
	26	5	61803.2Z	2.24	1.46	24000--		0.008		56	1663/22.2Z	17.3	8.5	14000--		0.16	
	30	7	61903	4.36	2.32	22000	28000	0.018	25	37	761805	4.36	2.6	17000	20000	0.022	
	30	7	61-903.2RS	4.36	2.32	14500--		0.018		37	761805.2RS	4.36	2.6	11000--		0.022	
	30	7	61903.2Z	4.36	2.32	22000--		0.018		37	761805.2Z	4.36	2.6	17000--		0.022	
	35	8	16003	6	3.25	22000	28000	0.03		42	961905	6.6	4	16000	19000	0.045	
	35	10	6003	6	3.25	22000	28000	0.037		42	961905.2RS	6.6	4	10500--		0.045	
	35	10	6003RS	6	3.25	13000--		0.037		42	961905.2Z	6.6	4	16000--		0.045	
	35	10	6003.2RS	6	3.25	13000--		0.037		47	816005	7.2	4.65	16000	19000	0.056	
	35	10	6003Z	6	3.25	22000	28000	0.037		47	126005	10	5.85	15000	18000	0.078	
	35	10	6003.2Z	6	3.25	22000--		0.037		47	126005RS	10	5.85	10000--		0.078	
	40	12	6203	9.5	4.75	18000	22000	0.063		47	126005.2RS	10	5.85	10000--		0.078	
	40	12	6203RS	9.5	4.75	12000--		0.063		47	126005Z	10	5.85	15000	18000	0.078	
	40	12	6203.2RS	9.5	4.75	12000--		0.063		47	126005.2Z	10	5.85	15000--		0.078	
	40	12	6203Z	9.5	4.75	18000	22000	0.063		52	156205	14.3	8	14000	17000	0.125	



Single Row Deep Groove Ball Bearings

BEARINGS

Boundary (Dimension)			Designation	Load ratings (kN)				Speed ratings [rpm]				m					
d	D	B		dyn.	stat.	grease	oil	[kg]d	d	D	B		dyn.	stat.	grease	oil	[kg]d
	52	15	6205RS	14.3	8	9300--		0.125		47	7	61807.2RS	4.75	3.2	8500--	0.03	
	52	15	6205.2RS	14.3	8	9300--		0.125		47	7	61807.2Z	4.75	3.2	13000--	0.03	
	52	15	6205Z	14.3	8	14000	17000	0.125		55	10	61907	9.55	6.2	11000	14000	0.08
	52	15	6205.2Z	14.3	8	14000--		0.125		55	10	61907.2RS	9.55	6.2	7500--	0.08	
	52	18	62205.2RS	14.3	8	9300--		0.154		55	10	61907.2Z	9.55	6.2	11000--	0.08	
	62	24	62305.2RS	22.4	11.4	7300--		0.326		62	9	16007	12.2	8.8	11000	14000	0.107
	62	17	6305	22.4	11.4	11000	14000	0.232		62	14	6007	16.3	10.4	11000	14000	0.151
	62	17	6305RS	22.4	11.4	7300--		0.232		62	14	6007RS	16.3	10.4	7300--	0.151	
	62	17	6305.2RS	22.4	11.4	7300--		0.232		62	14	6007.2RS	16.3	10.4	7300--	0.151	
	62	17	6305Z	22.4	11.4	11000	14000	0.232		62	14	6007Z	16.3	10.4	11000	14000	0.151
	62	17	6305.2Z	22.4	11.4	11000--		0.232		62	14	6007.2Z	16.3	10.4	11000--	0.151	
	80	21	6405	36	19.4	9000	11000	0.232		72	17	6207	25.5	15.3	9500	12000	0.288
28	52	12	60/28	14.3	8	14000	17000	0.1		72	17	6207RS	25.5	15.3	6300--	0.288	
	52	12	60/28.2RS	14.3	8	9500--		0.1		72	17	6207.2RS	25.5	15.3	6300--	0.288	
	52	12	60/8.2Z	14.3	8	14000--		0.1		72	17	6207Z	25.5	15.3	9500	12000	0.288
	58	16	62/28	16.2	9.2	11000	14000	0.17		72	17	6207.2Z	25.5	15.3	9500--	0.288	
	58	16	62/28.2RS	16.2	9.2	7500--		0.17		72	23	62207.2RS	25.5	15.3	6300--	0.388	
	58	16	62/28.2Z	16.2	9.2	11000--		0.17		80	31	62307.2RS	33.5	19	5600--	0.68	
	68	18	63/28	22.4	11.4	9000	11000	0.29		80	21	6307	33.5	19	8500	10000	0.458
	68	18	63/28.2RS	22.4	11.4	6000--		0.29		80	21	6307RS	33.5	19	5600--	0.458	
	68	18	63/28.2Z	22.4	11.4	9000--		0.29		80	21	6307.2RS	33.5	19	5600--	0.458	
30	42	7	61806	4.49	2.9	15000	18000	0.027		80	21	6307Z	33.5	19	8500	10000	0.458
	42	7	61806.2RS	4.49	2.9	10000--		0.027		80	21	6307.2Z	33.5	19	8500--	0.458	
	42	7	61806.2Z	4.49	2.9	15000--		0.027		100	25	6407	55	31	7000	8500	0.928
	47	9	61906	7.25	4.55	14000	17000	0.051	40	52	7	61808	4.94	3.45	11000	14000	0.034
	47	9	61906.2RS	7.25	4.55	9500--		0.051		52	7	61808.2RS	4.94	3.45	7000--	0.034	
	47	9	61906.2Z	7.25	4.55	14000--		0.051		52	7	61808.2Z	4.94	3.45	11000--	0.034	
	55	9	16006	11.2	7.35	13000	16000	0.084		62	12	61908.8	13.75	9.28	10000	13000	0.12
	55	13	6006	12.7	8	13000	16000	0.115		62	12	61908.2RS	13.75	9.28	6500--	0.12	
	55	13	6006RS	12.7	8	8500--		0.115		62	12	61908.2Z	13.75	9.28	10000--	0.12	
	55	13	6006.2RS	12.7	8	8500--		0.115		68	9	16008	13.2	10.2	10000	13000	0.126
	55	13	6006Z	12.7	8	13000	16000	0.115		68	15	6008	17	11.8	10000	13000	0.188
	55	13	6006.2Z	12.7	8	13000--		0.115		68	15	6008RS	17	11.8	6600--	0.188	
	62	16	6206	19.3	11.2	11000	14000	0.192		68	15	6008.2RS	17	11.8	6600--	0.188	
	62	16	6206RS	19.3	11.2	7300--		0.192		68	15	6008Z	17	11.8	10000	13000	0.188
	62	16	6206.2RS	19.3	11.2	7300--		0.192		68	15	6008.2Z	17	11.8	10000--	0.188	
	62	16	6206Z	19.3	11.2	11000	14000	0.192		80	18	6208	29	18	8500	10000	0.366
	62	16	6206.2Z	19.3	11.2	11000--		0.192		80	18	6208RS	29	18	5600--	0.366	
	62	20	62206.2RS	19.3	11.2	7300--		0.243		80	18	6208.2RS	29	18	5600--	0.366	
	72	27	62306.2RS	29	16.3	6300--		0.493		80	18	6208Z	29	18	8500	10000	0.366
	72	19	6306	29	16.3	9500	12000	0.348		80	18	6208.2Z	29	18	8500--	0.366	
	72	19	6306RS	29	16.3	6300--		0.348		80	23	6208.2RS	29	18	5600--	0.471	
	72	19	6306.2RS	29	16.3	6300--		0.348		90	33	6208.2RS	42.5	25	5000--	0.89	
	72	19	6306Z	29	16.3	9500	12000	0.348		90	33	6308	42.5	25	7500	9000	0.632
	72	19	6306.2Z	29	16.3	9500--		0.348		90	23	6308RS	42.5	25	5000--	0.632	
	90	23	6406	42.5	23.2	8500	10000	0.746		90	23	6308.2RS	42.5	25	5000--	0.632	
32	58	13	60132	12.7	8	11000	14000	0.13		90	23	6308Z	42.5	25	7500	9000	0.632
	58	13	60/32.2RS	12.7	8	7300--		0.13		90	23	6308.2Z	42.5	25	7500--	0.632	
	58	13	60/32.2Z	12.7	8	11000--		0.13		110	27	6408	63	36.5	6700	8000	1.18
	65	17	62/32	19.3	11.2	9500	12000	0.23	45	58	7	61809	6.05	4.3	9500	12000	0.04
	65	17	62/32.2RS	19.3	11.2	6300--		0.23		58	7	61809.2RS	6.05	4.3	6300--	0.04	
	65	17	62/32.2Z	19.3	11.2	9500--		0.23		58	7	61809.2Z	6.05	4.3	9500--	0.04	
	75	20	63/32	29	16.3	8500	10000	0.39		68	12	61909	10	6.5	9000	11000	0.14
	75	20	63/32.2RS	29	16.3	5700--		0.39		68	12	61909.2RS	10	6.5	6000--	0.14	
	75	20	63/32.2Z	29	16.3	8500--		0.39		68	12	61909.2Z	10	6.5	9000--	0.14	
35	47	7	61807	4.75	3.2	13000	16000	0.03		75	10	61009	15.6	12.2	9000	11000	0.168

Single Row Deep Groove Ball Bearings



BEARINGS

Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m												
d	D	B		dyn.	stat.	grease	oil		[kg]d											
	75	16	6009	20	14.3	9000	11000	0.231												
	75	16	6009RS	20	14.3	6000--		0.231			120	29	6311.2RS	76.5	47.4	3500			1.39	
	75	16	6009.2RS	20	14.3	6000--		0.231			120	29	6311.ZZ	76.5	47.4	5300	6300		1.39	
	75	16	6009Z	20	14.3	9000	11000	0.231			140	33	6411	100	62	5000	6000		2.4	
	75	16	6009.ZZ	20	14.3	9000--		0.231			60	78	10	61812	11.8	11	7500	9000	0.11	
	85	19	6209	32.5	20.4	8000	9500	0.405			85	13	61912	16.5	12	7500	9000		0.2	
	85	19	6209RS	32.5	20.4	5300--		0.405			95	11	16012	29	23.2	7000	8500		0.28	
	85	19	6209.2RS	32.5	20.4	5300--		0.405			95	18	6012	29	23.2	7000	8500		0.41	
	85	19	6209Z	32.5	20.4	8000	9500	0.405			95	18	6012RS	29	23.2	4500--			0.41	
	85	19	6209.ZZ	32.5	20.4	8000--		0.405			95	18	6012.2RS	29	23.2	4500--			0.41	
	85	23	62209.2RS	32.5	20.4	5300--		0.523			95	18	6012z	29	23.2	7000	8500		0.41	
	100	36	62309.2RS	53	32	4400--		0.19			95	18	6012.zz	29	23.2	7000--			0.41	
	100	25	6309	53	32	6700	8000	0.848			110	22	6212	52	36	6000	7000		0.783	
	100	25	6309RS	53	32	4400--		0.848			110	22	6212RS	52	36	4000--			0.783	
	100	25	6309.2RS	53	32	4400--		0.848			110	22	6212.2RS	52	36	4000--			0.783	
	100	25	6309Z	53	32	6700	8000	0.848			110	22	6212z	52	36	6000	7000		0.783	
	100	25	6309.ZZ	53	32	6700--		0.848			110	22	6212.zz	52	36	6000--			0.783	
	120	29	6409	76.5	45	6000	7000	1.51			130	31	6312	81.5	52	5000	6000		1.72	
50	65	7	61810	6.24	4.75	9000	11000	0.052			130	31	6312RS	81.5	52	3300--			1.72	
	72	12	61910	14.5	10.75	8500	10000	0.14			130	31	6312.2RS	81.5	52	3300--			1.72	
	72	12	61910.2RS	14.5	10.75	5500--		0.14			130	31	6312z	81.5	52	5000	6000		1.72	
	72	12	61910.ZZ	14.5	10.75	8500--		0.14			130	31	6312.zz	81.5	52	5000--			1.72	
	80	10	16010	16	13.2	8500	10000	0.18			150	35	6412	110	69.5	4300	5100		2.8	
	80	16	6010	20.8	15.6	8500	10000	0.261			65	85	10	61813	12.2	12	7500	9100		0.13
	80	16	610RS	20.8	15.6	5600--		0.261			90	13	61913	17.3	3.4	6700	8000		0.22	
	80	16	6010.2RS	20.8	15.6	5600--		0.261			100	11	16013	21.2	19.6	6700	8000		0.298	
	80	16	6010Z	20.8	15.6	8500	10000	0.261			100	18	6013	30.5	25	6300	7500		0.436	
	80	16	6010.ZZ	20.8	15.6	8500--		0.261			100	18	6013RS	30.5	25	4100--			0.436	
	90	20	6210	36.5	24	7500	9000	0.453			100	18	6013.2RS	30.5	25	4100--			0.436	
	90	20	6210RS	36.5	24	5000--		0.453			100	18	6013Z	30.5	25	6300	7500		0.436	
	90	20	6210.2RS	36.5	24	5000--		0.453			100	18	6013.ZZ	30.5	25	6300--			0.436	
	90	20	6210Z	36.5	24	7500	9000	0.453			120	23	6213	60	41.5	5300	6300		0.982	
	90	20	6210.ZZ	36.5	24	7500--		0.453			120	23	6213RS	60	41.5	3500--			0.982	
	90	23	62210.2RS	36.5	24	5000--		0.55			120	23	6213.2RS	60	41.5	3500--			0.982	
	110	40	62310.2RS	62	38	4000--		1.6			120	23	6213Z	60	41.5	5300	6300		0.982	
	110	27	6310	62	38	6000	7000	1.1			120	23	6213.ZZ	60	41.5	5300--			0.982	
	110	27	6310RS	62	38	4000--		1.1			140	33	6313	93	60	4500	5300		2.13	
	110	27	6310.2RS	62	38	4000--		1.1			140	33	6313RS	93	60	3000--			2.13	
	110	27	6310Z	62	38	6000	7000	1.1			140	33	6313.2RS	93	60	3000--			2.13	
	110	27	6310.ZZ	62	38	6000--		1.1			140	33	6313Z	93	60	4500	5300		2.13	
	130	31	6410	86.5	52	5300	6300	1.83			140	33	6313.ZZ	93	60	4500--			2.13	
55	72	9	61811	8.6	8.5	9500	10000	0.083			160	37	6413	118	78	4000	4800		3.3	
	80	13	61911	15.8	11.5	8000	9500	0.19			70	90	10	61814	12.1	12.5	7000	8500		0.14
	90	11	16011	19.3	16.3	7500	9000	0.26			100	16	61914	23.8	18.4	6300	7500		0.35	
	90	18	6011	28.5	21.2	7500	9000	0.311			110	13	16014	28	25	60--0	7000		0.43	
	90	18	6011RS	28.5	21.2	5000--		0.311			110	20	6014	39	31.5	6000	7000		0.60	
	90	18	6011.2RS	28.5	21.2	5000--		0.311			110	20	6014RS	39	31.5	4000--			0.604	
	90	18	6011Z	28.5	21.2	7500	9000	0.311			110	20	6014.2RS	39	31.5	4000--			0.604	
	90	18	6011.ZZ	28.5	21.2	7500--		0.311			110	20	6014Z	39	31.5	6000	7000		0.604	
	100	21	6211	43	29	6700	8000	0.607			110	20	6014.ZZ	39	31.5	6000--			0.604	
	100	21	6211 RS	43	29	4400--		0.607			125	24	6214	62	44	5000	6000		1.08	
	100	21	6211.2RS	43	29	4400--		0.607			125	24	6214RS	62	44	3300--			1.08	
	100	21	6211Z	43	29	6700	8000	0.607			125	24	6214.2RS	62	44	3300--			1.08	
	100	21	6211.ZZ	43	29	6700--		0.607			125	24	6214Z	62	44	5000	6000		1.08	
	120	29	6311w	76.5	47.4	5300	6300	1.39			125	24	6214.ZZ	62	44	5000--			1.08	
	120	29	6311RA	76.5	47.4	3500--		1.39			150	35	6314	104	68	4300	5000		2.63	

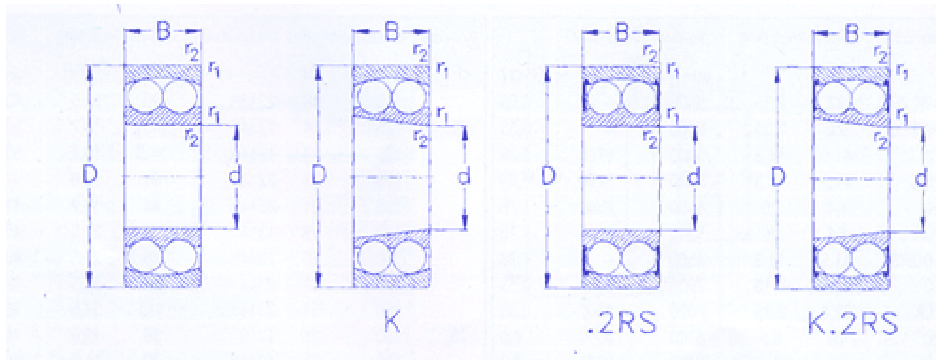


Single Row Deep Groove Ball Bearings

BEARINGS

Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m	Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m
d	D	B		dyn.	stat.	grease	oil	[kg/d]	d	D	B		dyn.	stat.	grease	oil	[kg]
	150	35	6314RS	104	68	2800--		2.63		130	22	6017.2Z	50	43	4800--		0.8
	150	35	6314.2RS	104	68	2800--		2.63		150	28	6217	83	64	4300	5000	1.
	150	35	6314Z	104	68	4300	5000	2.63		150	28	6217RS	83	64	2800--		1.
	150	35	6314.2Z	104	68	4300--		2.63		150	28	6217.2RS	83	64	2800--		1.
75	180	42	6414	143	104	3800	4500	4.8		150	28	6217Z	83	64	4300	5000	1.
	95	10	61815	13.2	10.8	6700	8000	0.15		150	28	6217.2Z	83	64	4300--		1.
	105	16	61915	24.2	19.2	6000	7000	0.37	90	115	13	61818	19.5	20.4	5300	6300	0.
	115	13	16015	28.5	27	5600	6700	0.456		125	18	61918	33.2	31.5	5000	6000	0.
	115	20	6015	40	34	5600	6700	0.643		140	16	16018	41.5	39	4500	5300	0.8
	115	20	6015RS	40	34	3700--		0.643		140	24	6018	58.5	50	4500	5300	1.
	115	20	6015.2RS	40	34	3700--		0.643		140	24	6018RS	58.5	50	3000--		1.
	115	20	6015Z	40	34	5600	6700	0.643		140	24	6018.2RS	58.5	50	3000--		1.
	115	20	6015.2Z	40	34	5600--		0.643		140	24	6018Z	58.5	50	4500	5300	1.
	130	25	6215	65.5	49	4800	5600	1.21		140	24	6018.2Z	58.5	50	4500--		1.
	130	25	6215RS	65.5	49	3200--		1.21		160	30	6218	96.5	72	3800	4500	2.
	130	25	6215.2RS	65.5	49	3200--		1.21		160	30	6218RS	96.5	72	2500--		2.
	130	25	6215Z	65.5	49	4800	5600	1.21		160	30	6218.2RS	96.5	72	2500--		2.
	130	25	6215.2Z	65.5	49	4800--		1.21		160	30	6218Z	96.5	72	3800	4500	2.
	160	37	6315	114	76.5	4000	4800	3.12		160	30	6218.2Z	96.5	72	3800--		2.
	160	37	6315RS	114	76.5	2700--		3.12	95	120	13	61819	19.8	21.2	5000	6000	0.
	160	37	6315.2RS	114	76.5	2700--		3.12		130	18	61919	33.8	33.5	4800	5600	0.
	160	37	6315Z	114	76.5	4000	4800	3.12		145	16	16019	40	40.5	4500	5300	0.9
	160	37	6315.2Z	114	76.5	4000--		3.12		145	24	16019	60	54	4300	5000	1.
80	190	45	6415	153	114	3600	4300	6.75		145	24	6019RS	60	54	2900--		1.
	100	10	61816	12.9	13.7	6200	7400	0.15		145	24	6019.2RS	60	54	2900--		1.
	110	16	61916	25	20.5	5600	6700	0.4		145	24	6019Z	60	54	4300	5000	1.
	125	14	16016	32	31	5300	6300	0.615		145	24	6019.2Z	60	54	4300--		1.
	125	22	6016	47.5	40	5000	6000	0.85		170	32	6219	108	81.5	3600	4300	2.
	125	22	6016RS	47.5	40	3300--		0.85	100	125	13	61820	19.9	22	4800	5600	0.
	125	22	6016.2RS	47.5	40	3300--		0.85		140	20	61920	42.2	41.5	4500	5300	0.
	125	22	6016Z	47.5	40	5000	6000	0.85		150	16	16020	44	44	4300	5000	0.9
	125	22	6016.2Z	47.5	40	5000--		0.85		150	24	6020	60	54	4000	4800	1.
	140	26	6216	72	53	4500	5300	1.42		150	24	6020RS	60	54	2700--		1.
	140	26	6216RS	72	53	3000--		1.42		150	24	6020.2RS	60	54	2700--		1.
	140	26	6216.2RS	72	53	3000--		1.42		150	24	6020Z	60	54	4000	4800	1.
	140	26	6216Z	72	53	4500	5300	1.42		150	24	6020.2Z	60	54	4000--		1.
	140	26	6216.2Z	72	53	4500--		1.42		180	34	6220	122	93	3400	4000	3.
	170	39	6316	122	86.5	3800	4500	3.73	105	130	13	61821	20.8	19.6	4500	5300	0.
	170	39	6316RS	122	86.5	2500--		3.73		145	20	61921	44.2	44	4300	5000	0.
	170	39	6316.2RS	122	86.5	2500--		3.73		160	18	16021	54	54	4000	4800	1.
	170	39	6316Z	122	86.5	3800	4500	3.73		160	26	6021	17	64	3800	4500	1.
	170	39	6316.2Z	122	86.5	3800--		3.73	110	140	16	61822	28.1	30.5	4300	5000	0.
85	200	48	6416	163	125	3400	4000	8.0		150	20	61922	43.5	45	4000	4800	0.
	110	13	61817	19.5	20	5600	6700	0.27		170	19	16022	57	57	570300	4500	1.
	120	18	61917	31.9	30	5300	6300	0.55		170	28	6022	80	71	3600	4300	1.
	130	14	16017	34	33.5	5000	6000	0.641	120	150	16	61824	29.1	32.5	3800	4500	0.
	130	22	6017	50	43	4800	5600	0.895		165	22	61924	55	57	3600	4300	1.
	130	22	6017RS	50	43	3200--		0.895		180	19	16024	61	64	3400	4000	1.
	130	22	6017.2RS	50	43	3200--		0.895		180	28	6024	83	78	3400	4000	2.
	130	22	6017Z	50	43	4800	5600	0.895									

DEVELOPED XLJ, RLS (LJ), RMS (MJ),
LSN, MSN, LTW, MTW SERIES.



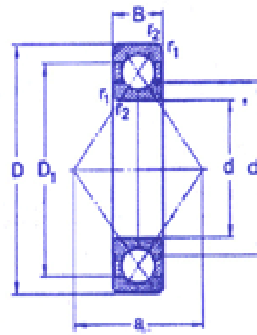
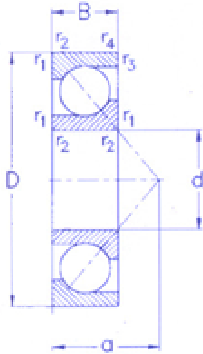
Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m [kg/d]	Boundary (Dimension)			Designation	Load ratings (kN)		Speed ratings [rpm]		m [kg/d]
d	D	B		dyn.	stat.	grease	oil		d	D	B		dyn.	stat.	grease	oil	
5	19	6	135	2.4	0.5	30000	35000	0.01	30	62	16	1206	15.6	4.65	11000	14000	0.22
6	19	6	126	2.4	0.5	30000	35000	0.01	62	62	16	1206K	15.6	4.65	11000	14000	0.22
7	22	7	127	2.6	0.6	30000	35000	0.02	62	20	2206	25	6.9	9500	12000	0.25	
8	22	7	108	2.6	0.6	30000	35000	0.02	62	20	2206K	25	6.0	9500	12000	0.25	
9	26	8	129	3.8	0.8	26000	32000	0.02	62	20	2206K.2RS	15.6	4.65	8000--		0.25	
10	30	9	1200	5.3	1.1	24000	30000	0.03	62	20	2206.2RS	15.6	4.65	8000--		0.25	
	30	14	2200	8.3	1.75	22000	28000	0.05	72	19	1306	21.2	6.3	9000	11000	0.41	
	35	11	1300	7.1	1.6	20000	25000	0.06	72	19	1306K	21.2	6.3	9000	11000	0.41	
12	32	10	1201	5.5	1.3	23000	29000	0.04	72	27	2306	31.5	8.65	8500	10000	0.55	
	32	14	2201	9	1.95	20000	26000	0.05	72	27	2306K	31.5	8.65	8500	10000	0.55	
	32	14	2201.2RS	5.6	1.27	16000--		0.05	72	27	2306.2RS	21.2	6.3	6700--		0.55	
	37	12	1301	9.5	2.2	18000	22000	0.07	35	72	17	1207	16	5.2	9500	12000	0.33
15	35	11	1202	7.5	1.7	20000	25000	0.05	72	17	1207K	16	5.2	9500	12000	0.33	
	35	14	2202	9.1	2.1	19000	24000	0.06	72	23	2207	31.5	9	8000	9500	0.4	
	35	14	2202.2RS	7.5	1.76	15000--		0.06	72	23	2207K	31.5	9	8000	9500	0.4	
	42	13	1302	9.5	2.3	17000	20000	0.10	72	23	2207K.2RS	16	5.2	7000--		0.4	
	42	17	2302	11.9	2.8	16000	19000	0.13	72	23	2207.2RS	16	5.2	7000--		0.4	
17	40	12	1203	8	2	18000	22000	0.08	80	21	1307	25	8	8000	9500	0.54	
	40	16	2203	11.2	2.7	16000	19000	0.09	80	21	1307K	25	8	8000	9500	0.54	
	40	16	2203.2RS	8	2.04	14000--		0.09	80	31	2307	39	11.2	7500	9000	0.74	
	47	14	1303	12.5	3.2	15000	17000	0.14	80	31	2307K	39	11.2	7500	9000	0.74	
	47	19	2303	14.2	3.6	14000	17000	0.18	80	31	2307.2RS	25	8	6000--		0.74	
	47	19	2303.2RS	12.5	3.2	11000--		0.18	40	80	18	1208	19.3	6.55	8500	10000	0.42
20	47	14	1204	10	2.65	15000	18000	0.13	80	18	1208K	19.3	6.55	8500	10000	0.42	
	47	14	1204K	10	2.65	15000	18000	0.12	80	23	2208	32	9.5	7500	9000	0.49	
	47	18	2204	14	3.5	14000	17000	0.14	80	23	2208K	32	9.5	7500	9000	0.49	
	47	18	2204.2RS	10	2.65	11000--		0.14	80	23	2208K.2RS	19.3	6.55	6300--		0.49	
	52	15	1304	12.5	3.35	13000	16000	0.17	80	23	2208.2RS	19.3	6.55	6300--		0.49	
	52	15	1304K	12.5	3.35	13000	16000	0.17	90	23	1308	29	9.65	7000	8500	0.74	
	52	21	2304	18	4.65	13000	16000	0.24	90	23	1308K	29	9.65	7000	8500	0.74	
	52	21	2304.2RS	12.5	3.35	10000--		0.24	90	33	2308	45	13.4	6700	8000	1.0	
25	52	15	1205	12.2	3.35	13000	16000	0.14	90	33	2308K	45	13.4	6700	8000	1.0	
	52	15	1205K	12.2	3.35	13000	16000	0.14	90	33	2308.2RS	29	9.65	5300--		1.0	
	52	18	2205	16.9	4.2	12000	15000	0.16	45	100	25	1309	38	12.9	6300	7500	0.99
	52	18	2205K	16.9	4.2	12000	15000	0.16	100	25	1309K	38	12.9	6300	7500	0.99	
	52	18	2205.2RS	12.2	3.35	9500--		0.16	100	36	2309	54	16.3	6000	7000	1.32	
	52	18	2205.2RS	12.2	3.35	9500--		0.16	100	36	2309K	54	16.3	6000	7000	1.32	
	62	17	1305	18	5	11000	14000	0.28	100	36	2309.2RS	38	12.9	4800--		1.32	
	62	17	1305K	18	5	11000	14000	0.28	85	19	1209	22	7.35	7500	9000	0.46	
	62	24	2305	24.5	6.55	10000	13000	0.37	85	19	1209K	22	7.35	7500	9000	0.46	
	62	24	2305K	24.5	6.55	10000	13000	0.37	85	23	2209	28	9	7000	8500	0.53	
	62	24	2305.2RS	18	5	8000--		0.37	85	23	2209K	28	9	7000	8500	0.53	

Single Row Angular Contact Ball Bearings

Four-Point Contact Ball Bearings



BEARINGS



Boundary (Dimension)			Designation	Load ratings (kN)				Speed ratings [rpm]		m	Boundary (Dimension)			Designation	Load ratings (kN)				Speed ratings [rpm]		m
d	D	B		dyn.	stat.	grease	oil	[kg]d	[rpm]		[rpm]	d	D		B	dyn.	stat.	grease	oil	[kg]d	
10	30		97200B	5	2.5	20000	30000	0.03		17	40		12QJ203	15.9	10.6	14000	19000	0.082			
12	32		1072018	7	3.4	18000	26000	0.04			47		14QJ303	23.4	15.0	12000	17000	0.14			
		37	1273018	10.5	6	17000	24000	0.06		20	52		15QJ304	29.6	20.0	10000	15000	0.18			
15	35		117202B	8	4.3	17000	24000	0.05		25	52		15QJ205	25.1	20.0	9500	14000	0.16			
		42	137302B	13	6.7	15000	20000	0.08		30	62		16QJ206	35.1	28.5	8500	12000	0.24			
17	40		127203B	10	5.5	15000	20000	0.07			72		19QJ306	49.4	39.0	7500	10000	0.42			
		47	147303B	15.9	8.3	13000	18000	0.11		35	72		17QJ207	46.2	39.0	7500	10000	0.35			
20	47		147204B	13.4	7.65	13000	18000	0.11			80		21QJ307	59.2	46.5	7000	9500	0.57			
		52	1573048	19	10.4	12000	17000	0.15		40	80		18QJ208	52.7	45.0	6700	9000	0.45			
25	52		157205B	14.6	9.3	11000	16000	0.13			90		23QJ308	71.5	58.5	6300	8500	0.78			
		62	177305B	26	15	9500	14000	0.23		45	85		19QJ209	58.5	51.0	6300	8500	0.52			
30	62		1672068	20.4	13.4	9000	13000	0.20			100		25QJ309	93.6	76.5	5600	7500	1.05			
		72	1973068	32.5	20	8000	11000	0.35		50	90		20QJ210	61.8	56.0	5600	7500	0.59			
35	72		177207B	27	18.3	8000	11000	0.30			110		27QJ310	111.0	91.5	5000	6700	1.35			
		80	2173078	39	25	7000	9500	0.46		55	100		21QJ211	79.3	76.5	5300	7000	0.77			
40	80		187208B	32	23.2	7000	9500	0.37			120		29QJ311	127.0	108.0	4500	6000	1.75			
		90	237308B	50	32.5	6300	8500	0.63		60	110		22QJ212	92.3	86.5	4800	6300	0.99			
45	85		197209B	36	26.5	6300	8500	0.41			130		31QJ312	146.0	125.0	4300	5600	2.15			
		100	257309B	60	40	5600	7500	0.84		65	120		23QJ213	104.0	104.0	4300	5600	1.20			
50	90		207210B	37.5	28.5	6000	8000	0.47			140		33QJ313	165.0	146.0	4000	5300	2.70			
		110	277310B	69.5	47.5	5300	7000	1.1		70	125		24QJ214	114.0	114.0	4300	5600	1.30			
75	130		257215B	68	58.3	4000	5300	1.2			150		35QJ314	186.0	166.0	3600	4800	3.15			
		160	377315B	127	100	3400	4500	3.2		75	130		25QJ215	117.0	122.0	4000	5300	1.45			
80	140		2672168	80	69.5	3800	5000	1.5			160		37QJ315N2	199.0	186.0	3400	4500	3.90			
85	150		2872178	90	80	3400	4500	1.9													
90	160		307218B	106	93	3200	4300	2.4													

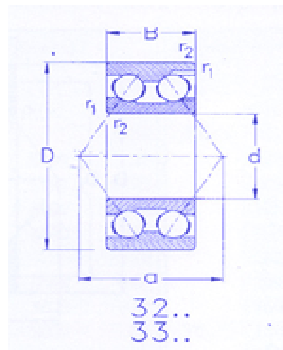
DEVELOPED
ALS (LJT), AMS (MJT), XLJT SERIES

DEVELOPED
DLJT, DMJT, LDJT, MDJT, QL AND QM SERIES

Double Row Angular Contact Ball Bearings



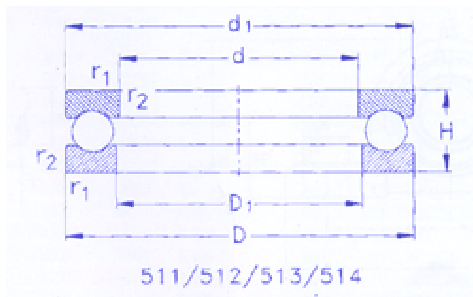
BEARINGS



Boundary (Dimension)								Boundary (Dimension)									
Designation		Load ratings (kN)		Speed ratings [rpm]		m		Designation		Load ratings (kN)		Speed ratings [rpm]		m			
d	D	B	dyn.	stat.	grease	oil	[kg]d	d	D	B	dyn.	stat.	grease	oil	[kg]d		
10	30	14	3200	7.8	4.55	16000	22000	0.05	80	34.9	3307.2Z	51	34.5	5600--	0.8		
	30	14	3200.2S	7.8	4.55	10500--		0.05	40	80	30.2	3208	48	36.5	5600	7500	0.6
	30	14	3200.2Z	7.8	4.55	16000--		0.05	80	30.2	3208.2RS	48	36.5	3700--		0.6	
12	32	15.9	3201	10.6	5.85	15000	20000	0.06	80	30.2	320.2Z	48	36.5	5600--		0.6	
	32	15.9	3201.2RS	10.6	5.85	10000--		0.06	90	36.5	3308	62	45	5000	6700	1.0	
	32	15.9	3201.2Z	10.6	5.85	15000--		0.06	90	36.5	3308.2RS	62	45	3300--		1.0	
15	35	15.9	3202	11.8	7.1	12000	17000	0.07	90	36.5	3308.2Z	62	45	5000--		1.0	
	35	15.9	3202.2RS	11.8	7.1	8000--		0.07	45	85	30.2	3209	48	37.5	5000	6700	0.6
	35	15.9	3202.2Z	11.8	7.1	12000--		0.07	85	30.2	3209.2RS	48	37.5	3300--		0.6	
	42	19	3302	16.3	10	10000	15000	0.13	85	30.2	3209.2Z	48	37.5	5000--		0.6	
17	40	17.5	3203	14.6	9	10000	15000	0.1	100	39.7	3309	68	51	4500	6000	1.4	
	40	17.5	3203.2RS	14.6	9	6600--		0.1	100	39.7	3309.2RS	68	51	3000--		1.4	
	40	17.5	3202.2Z	14.6	9	1000--		0.1	100	39.7	3309.2Z	68	51	4500--		1.4	
	47	22.2	3303	20.8	12.5	9500	14000	0.2	50	90	30.2	3210	51	42.5	4800	6300	0.7
	47	22.2	3303.2RS	20.8	12.5	6300--		0.2	90	30.2	3210.2RS	51	42.5	3200--		0.7	
	47	22.2	3303.2Z	20.8	12.5	9500--		0.2	90	30.2	3210.2Z	51	42.5	4800--		0.7	
20	47	20.6	3204	19.6	12.5	9000	13000	0.2	110	44.4	3310	81.5	62	4000	5300	2.0	
	47	20.6	3204.2RS	19.6	12.5	6000--		0.2	110	44.4	3310.2RS	81.5	62	2600--		2.0	
	47	20.6	3204.2Z	19.6	12.5	9000--		0.2	110	44.4	3310.2Z	81.5	62	4000--		2.0	
	52	22.2	3304	23.2	15	8500	12000	0.2	55	100	33.3	3211	58.5	49	4300	5600	1.1
	52	22.2	3304.2RS	23.2	15	5500--		0.2	100	33.3	3211.2RS	58.5	49	2800--		1.1	
	52	22.2	3304.2Z	23.2	15	8500--		0.2	100	33.3	3211.2Z	58.5	49	4300--		1.1	
25	52	20.6	3205	21.2	14.6	8000	11000	0.2	120	49.2	3311	102	78	3800	5000	2.6	
	52	20.6	3205.2RS	21.2	14.6	5300--		0.2	120	49.2	3311.2RS	102	78	2500--		2.6	
	52	20.6	3205.2Z	21.2	14.6	8000--		0.2	120	49.2	3311.2Z	102	78	3800--		2.6	
	62	25.4	3305	30	20	7500	10000	0.4	60	110	36.5	3212	72	61	3800	5000	1.4
	62	25.4	3305.2RS	30	20	5000--		0.4	110	36.5	3212.2RS	72	61	2500--		1.4	
	62	25.4	3305.2Z	30	20	7500--		0.4	110	36.5	3212.2Z	72	61	3800--		1.4	
30	62	23.8	3206	30	21.2	7000	9500	0.3	130	54	3312	125	98	3400	4500	3.3	
	62	23.8	3206.2RS	30	21.2	4500--		0.3	130	54	3312.2RS	125	98	2300--		3.3	
	62	23.8	3206.2Z	30	21.2	7000--		0.3	130	54	3312.2Z	125	98	3400--		3.3	
30	72	30.2	3306	41.5	28.5	6300	8500	0.6	65	120	38.1	3213	80	73.5	3600	4800	1.8
	72	30.2	3306.2RS	41.5	28.5	4200--		0.6	120	38.1	3213.2RS	80	73.5	2400--		1.8	
	72	30.2	3306.2Z	41.5	28.5	6300--		0.6	120	38.1	3213.2Z	80	73.5	3600--		1.8	
35	72	27	3207	39	28.5	6000	8000	0.4	140	58.7	3313	150	118	3200	4300	4.1	
	72	27	3207.2RS	39	28.5	4000--		0.4	140	58.7	3313.2RS	150	118	2100--		4.1	
	72	27	3207.2Z	39	28.5	6000--		0.4	140	58.7	3313.2Z	150	118	3200--		4.1	
	80	34.9	3307	51	34.5	5600	7500	0.8	70	125	39.7	3214	83	76.5	3200	4300	1.9
	80	34.9	3307.2RS	51	34.5	3700--		0.8									

Thrust Ball Bearings, Single Direction

BEARINGS

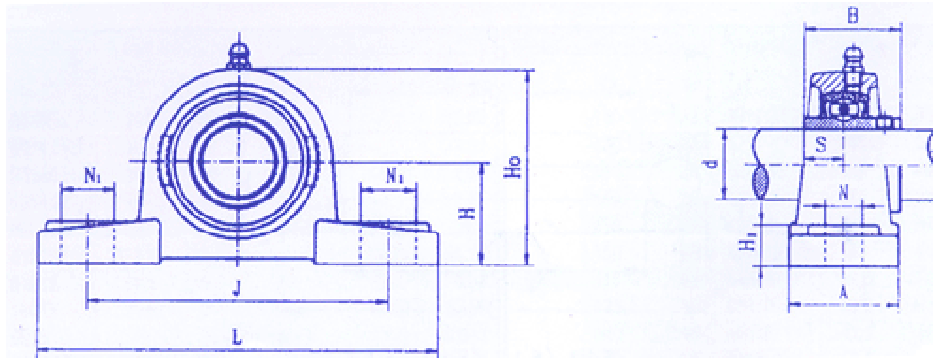


Boundary (Dimension)									Boundary (Dimension)										
Designation			Load ratings (kN)			Speed ratings [rpm]			m	Designation			Load ratings (kN)			Speed ratings [rpm]			m
d	D	B	dyn.	stat.	grease	oil	[kg]d		d	D	B	dyn.	stat.	grease	oil	[kg]d			
10	24	9	51100	10	14	7000	9500	0.02	60	85	17	51112	36.5	93	2600	3600	0.33		
	26	11	51200	12.7	17	6000	8000	0.03		95	26	51212	62	140	2000	3000	0.65		
12	26	9	51101	10.4	15.3	6700	9000	0.02		110	35	51312	102	208	1600	2200	1.37		
	28	11	51201	13.2	19	6000	8000	0.03		130	51	51412	200	400	1200	1700	3.70		
15	28	9	51102	10.4	15.3	6300	8500	0.02	65	90	18	51113	37.5	98	2400	3400	0.36		
	32	12	51202	16.6	25	5000	6700	0.05		100	27	51213	64	150	2000	3000	0.74		
17	30	9	51103	9.65	15.3	6300	8500	0.03		115	36	51313	106	220	1600	2200	1.49		
	35	12	51203	17.3	27.5	5000	6700	0.05		140	56	51413	213	450	1100	1600	4.67		
20	35	10	51104	12.7	20.8	5300	7000	0.04	70	95	18	51114	37.5	104	2400	3400	0.36		
	40	14	51204	22.4	37.5	4300	5600	0.08		105	27	51214	65.5	160	1900	2800	0.74		
25	42	11	51105	15.6	29	4800	6300	0.06		125	40	51314	137	300	1400	1900	1.49		
	47	15	51205	25	50	3800	5000	0.12		150	60	51414	236	500	1100	1600	4.67		
52	15	51305	34.5	55	3150	4200	0.17	75	100	19	51115	44	137	2200	3200	0.52			
	60	24	51405	56	90	2600	3600	0.36		110	27	51215	67	170	1900	2800	0.83		
30	47	11	51106	16.6	33.5	4300	5600	0.07		135	44	51315	163	360	1300	1800	2.61		
	52	16	51206	25.5	47.5	3600	4800	0.13		160	65	51415	250	560	1000	1500	7.06		
	60	21	51306	38	65.5	2900	3900	0.26	80	105	19	51116	45	140	2200	3200	0.56		
	70	28	51406	72	125	2200	3200	0.58		115	28	51216	75	190	1800	2600	0.91		
35	52	12	51107	17.6	37.5	4000	5300	0.09		140	44	51316	160	360	1300	1800	2.71		
	62	18	51207	53.5	67	3000	4000	0.22		170	68	51416	170	620	950	1400	8.23		
	68	24	51307	50	88	2600	3600	0.38	85	110	19	51117	45.5	150	2200	3200	0.60		
	80	32	51407	86.5	156	2000	3000	0.96		125	31	51217	98	150	1600	2200	1.22		
40	60	13	51108	23.2	50	3400	4500	0.13		150	49	51317	190	425	1200	1700	3.53		
	68	19	51208	46.5	98	2800	3800	0.28		177	72	51417	290	680	900	1300	9.79		
	78	26	51308	61	112	2200	3200	0.53	90	120	22	51118	60	190	1900	2800	0.88		
	90	36	51408	112	204	1700	2400	1.17		135	35	51218	126	300	1500	2000	1.68		
45	65	14	51109	24.5	57	3400	4500	0.15		155	50	51318	196	465	1200	1700	3.57		
	73	20	51209	39	80	2600	3600	0.30		187	77	51418	305	750	850	1200	11.60		
	85	28	51309	75	140	2000	3000	0.61	100	135	25	51120	85	270	1600	2200	1.30		
	100	39	51409	129	245	1600	2200	1.60		150	38	51220	122	320	1400	1900	2.22		
50	70	14	51110	25.5	63	3200	4300	0.17		170	55	51320	232	560	1100	1600	4.95		
	78	22	51210	50	106	2400	3400	0.37		205	85	51420	365	965	750	1000	15.40		
	95	31	51310	88	173	1900	2800	0.94	110	145	25	51122	86.5	290	1600	2200	1.45		
	110	43	51410	156	310	1500	2000	2.18		160	38	51222	129	360	1300	1800	2.41		
55	78	16	51111	31	78	2800	3800	0.25		187	63	51322	275	720	950	1400	7.70		
	90	25	51211	61	134	2200	3200	0.59	120	155	25	51124	90	310	1500	2000	1.59		
	105	35	51311	102	208	1700	2400	1.30		170	39	51224	140	400	1200	1700	2.67		
	120	48	51411	180	360	1300	1800	2.91		205	70	51324	325	915	850	1200	10.70		

DEVELOPED
XLJ, LT, MT, HT, EW, FT, O, T, SERIES.

Pillow Blocks Bearings (Unit Bearings)

BEARINGS



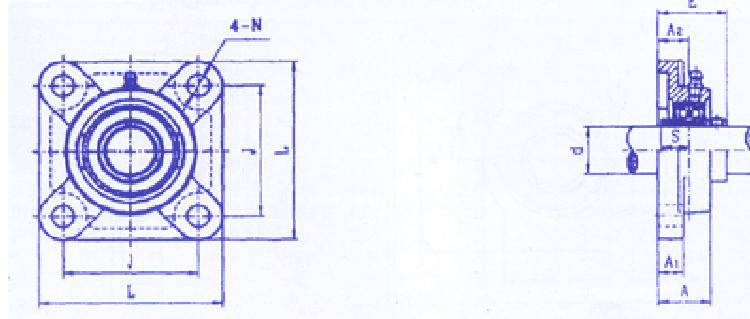
UCF2
Setscrew type

Unit No.	Shaft Dia.		Dimensions (mm)										Bolt Size	Bearing No.	Housing No	Mass (kg.)	Available		
	[in]	[mm]	H	L	J	A	N	N1	H1	Ho	S	B					N	Ni	
UCP 202		15													UC 202				
UCP 202-10	5/8														UCP202-10	P203	0.6	--	--
UCP 203		17	30.2	125	96	32	12	16	13	57	11.5	27.4	M10	UCP203					
UCP 203-11	11/6													UC203-11					
UCP 204-12	3/4		33.3	127	96	37	13	16	14	63.8	12.7	31	M10	UC 204-12	P204	0.65	13	19	
UCP 204		20												UCP204					
UCP 205-14	7/8													UC 205-14					
UCP 205-15	15/16													UCP205-15	P205	0.72	--	--	
UCP 205		25	36.5	140	105	38	13	19	15	69.5	14.3	34	M10	UC205					
UCP 205-16	1													UC205-16					
UCP 206-18	1-1/8													UC 206-18					
UCP 206														UCP206					
UCP 206-19	1-3/16	30	42.9	160	121	44	14	19	16	82	15.9	38.1	M12	UC206-19	P207	1.53	17	21	
UCP 20620	1-1/4													UCP206-20					
UCP 207-20	1-1/4													UC 207-20					
UCP 207-21	1-5/16													UC207-21					
UCP 207-22	1-3/8	35	47.6	167	126	48	15	19	17	92	17.5	42.9	M12	UC207-22	P207	1.53	17	21	
UCP 207														UCP207					
UCP 207-23	1-7/16													UC207-23					
UCP 208-24	1-1/2													UC 208-24					
UCP 208-25	1-9/16		49.2	180	136	52	15	21	18	98	19	49.2	M12	UC208-25	P208	1.88	17	23	
UCP 208		40												UCP208					
UCP 209-26	1-5/8													UC 209-26					
UCP 209-27	1-11/16													UC209-27					
UCP209-28	1-3/4		54	189	146	54	15	21	20	105.5	19	49.2	M12	UC209-28	P209	2.1	17	23	
UCP 209		45												UCP209					
UCP 210-30	1-7/8													UC 210-30					
UCP 210-31	1-15/16		57.2	204	159	57	19	22	21	112.2	19	51.6	M16	UC210-31	P210	2.5		--	
UCP 210		50												UCP210					
UCP 211-32	2													UC 211-32					
UCP 211-34	2-1/8													UC211-34					
UCP 211		55	63.5	217	172	60	19	22	22	124.5	22.2	55.6	M16	UC211	P211	3.3			
UCP 211-35	2-3/16													UC211-35					
UCP 212-36	2-1/4													UC212-36					
UCP 212		60	69.9	238	186	66	19	25	24	137	25.4	65.1	M16	UC212	P212	5.5			
UCP 212-38	2-3/8													UC 212-38					
UCP 212-39	2-7/16													UC 212-39					
UCP 213-40	2-1/2													UC 213-40					
UCP 213		65	76.2	262	203	70	23	29	26	149	25.4	65.1	M20	UC 213	P213	5.6	25	29	
UCP 214-44	2-3/4													UC 214-44					
UCP 214		70	79.4	266	210	72	23	29	27	155	30.2	74.6	M20	UC 214	P214	6.6	25	29	

Square Flange Units

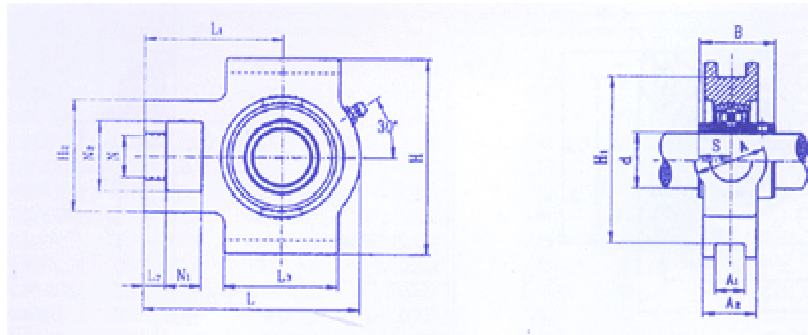


BEARINGS



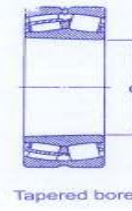
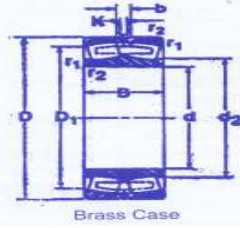
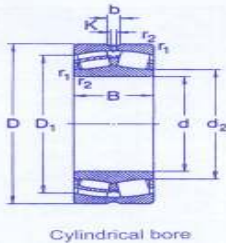
UCF2
Setscrew type

Unit No.	Shaft Dia.		Dimensions (min)							Bolt S	Bearing No.	Housing No.	Mass (kg.)	Available N	
	[in.]	(mm)	L	J	A2	A1	A	E	N						
UCP 202		15										UC 202		0.57	
UCP 202-10	5/8											UC 202-10			
UCP 203		17	76	54	15	11	24.5	30.9	11.5	11.5	M10	UC 203	F203		--
UCP 203-11	11/16											UC 203-11		0.5	
UCF 204-12	3/4											UC 204-12	F204	0.61	12
UCP 204		20	86	64	15	11	25.5	33.5	11.5	12.7	M10	UC 204			
UCF 205-14	7/8											UC 205-14			
UCP 205-15	15/16											UC 205-15			
UCP 205		25	95	76	16	13	27	35.7	11.5	14.3	M10	UC 205	F205	0.80	12
205-16	1											UC 205-16			
UCF 206-18	1-1/8											UC 206-18			
UCP 206		30										UC 206			
UCP 206-19	1-2/16		108	83	18	13	31	40.2	11.5	15.9	M10	UC 206-19	F206	1.07	12
UCP 206-20	1-1/4											UC 206-20			
UCF 207-20	1-1/4											UC 207-20			
UCP 207-21	1-5/16											UC 207-21			
UCP 207-22	1-3/8		117	92	19	15	34	44.4	14	17.5	M12	UC 207-22	F207	1.40	--
UCP 207		35										UC 207			
UCP 207-23	1-7/16											UC 207-23			
UCF 208-24	1-1/2											UC 208-24			
UCP 208-25	1-9/16		130	102	21	15	36	51.2	14	19	M12	UC 208-25	F208	1.80	16
UCP 208		40										UC 208			
UCF 209-26	1-5/8											UC 209-26			
UCP 209-27	1-11/16											UC 209-27			
UCP 209-28	1-3/4		137	105	22	16	38	52.2	16	19	M14	UC 209-28	F209	2.20	--
UCP 209		45										UC 209			
UCF 210-30	1-7/8											UC 210-30			
UCP 210-31	1-15/16		43	111	22	16	40	54.6	18	19	M16	UC 210-31	F210	2.41	16
UCP 210		50										UC 210			
UCF 211-32	2											UC 211-32			
UCP 211-34	2-1/8		162	130	25	18	43	58.4	18	22.2	M16	UC 211-34	F211	3.50	19
UCP 211		55										UC 211			
UCP 211-35	2-3/16											UC 211-35			
UCF 212-36	2-1/4											UC 212-36			
UCP 212		16										UC 212			
UCP 212-38	2-3/8		175	143	29	18	48	68.7	18	25.4	M16	UC 212-38	F212	4.20	19
UCP 212-39	2-7/16											UC 212-39			
UCF 213-40	2-3/4		187	149	30	22	50	69.7	18	25.4	M16	UC 213-40	F213	5.30	19
UCP 213		65										UC 213			
UCF 214-44	2-3/4		193	152	31	22	54	75.4	18	30.2	M16	UC 214-44	F214	5.90	19
UCP 214		70										UC 214			



UCT2
Setscrew type

Unit No.	Shaft Dia		Dimensions (mm)															Bearing No.	Housing No.	Mass (kg.)
	[in.]	[mm]	Ni	L2	H2	N2	N	L3	A1	Hi	H	L	A	A2	Li	B	S			
UCP 204-12	3/4		16	10	51	32	19	51	12	76	89	94	32	21	61	31	12.7	UC 204-12	T204	0.79
UCP 204		20																		
UCT 205-14	7/8																	UC 205-14		
UCT205-15	15/16		16	10	51	32	19	51	12	76	89	97	32	24	62	34	14.3	205-15	T205	0.88
UCT205		25																205		
UCT205-16	1																	205-16		
UCT 206-18	1-1/8																	UC 206-18		
UCT206		30																206		
UCT206-10	1-3/16		16	10	56	37	22	57	12	89	102	113	37	28	70	38.1	15.9	206-19	T206	1.3
UCT206-20	1-1/4																	206-10		
UCT 207-20	1-1/4																	UC 207-20		
UCT207-21	1/5-16																	207-21		
UCT207-22	1-3/8		16	13	64	37	22	64	12	89	102	129	37	30	78	42.9	17.5	207-22	T207	1.7
UCT207		35																207		
UCT207-3	1-7/16																	207-23		
UCT 208-24	1-1/2																	UC 208-24		
UCT208-25	1-9/16		19	16	83	49	29	83	16	102	114	144	49	33	88	49.2	19	208-25	T208	2.5
UCT208		40																208		
UCT 209-26	1-5/8																	UC 209-26		
UCT209-27	1-11/16		19	16	83	49	29	83	16	102	117	144	49	35	87	49.2	19	209-27	T209	2.5
UCT209-28	1-3/4																	209-28		
UCT209		35																209		
UCT 210-30	1-7/8																	UC 210-30		
UCT210-31	1-15/16		19	16	83	49	29	86	16	102	117	149	49	37	90	51.6	19	210-31	T2110	2.6
UCT210		50																210		
UCT 211-32	2																	UC 211-32		
UCT211-34	2-1/8		25	19	102	64	35	95	22	130	146	171	64	38	106	55.6	22.2	211-34	T211	4.0
UCT211		55																211		
UCT211-35	2-3/16																	211-35		
UCT 212-36	2-1/4																	UC 212-36		
UCT212		60																212		
UCT212-36	2-3/8		32	19	102	64	35	102	22	130	146	194	64	42	119	65.1	25.4	212-38	T212	4.9
UCT212-39	2-7/16																	212-39		
UCT 213-30	2-4/2																			
UCT213		65	32	21	111	70	41	121	26	151	167	224	70	44	137	65.1	25.4	UC 213-40	T213	7.0
UCT 214-44	2-3/4		32	21	111	70	41	121	26	151	167	224	70	46	137	74.6	30.2	UC 214-44	T214	7.1
UCT 214		70																UC 214		

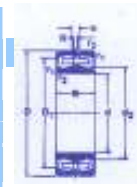


Principal Dimension		KN Basic load Rating	KN Ratings Static	Speed ratings Lubrication Grease	Oil	Mass Kg	Designations Standard Bearing	Principal Dimension		KN Basic load Rating	KN Ratings Static	Speed ratings Lubrication Grease	Oil	Mass Kg	Designations Standard Bearing				
d	D	B	C	Co	rpm			d	D	B	C	Co	rpm						
20	52	15	30	30	8000	10000	0.16 21304 CC	150	35	207	260	2600	3400	3.00	21314 CC				
25	52	15	35	35	8500	11000	0.18 22205 CC	150	51	311	380	2400	3200	4.30	22314 CC/W				
	52	18	43	44	8500	11000	0.18 22205 E			345	430	2200	3000	4.30	22314 E				
30	62	17	41	41	6700	8500	0.25 21305 CC	75	130	31	158	208	3400	4300	1.7	22215 CC			
	62	20	48	52	7500	9500	0.28 22206 CC			130	31	184	240	3400	4300	1.70	22215 E		
	62	20	61	64	7500	9500	0.28 22206 E	160	37			235	300	2400	3200	3.6	21315 CC		
	72	19	55	61	6000	7500	0.38 21306 CC			55	345	430	2200	3000	5.3	22315 CC/W			
35	72	23	67	73	6300	8000	0.43 22207 CC	160	55	385	475	2200	3000	5.3	22315 E				
	72	23	79	85	6700	8500	0.43 22207 E			80	140	33	176	228	3200	4000	2.1	22216 CC	
40	80	21	65	72	5300	6700	0.51 21307 CC	140	33			207	270	3200	4000	2.10	22216E		
	80	23	73	81	6000	7500	0.52 22208 CC			170	39	258	335	2200	3000	4.20	21316 CC		
	80	23	89	98	5600	7000	0.52 22208 E					58	374	455	2000	2800	6.20	22316 CC/W	
45	90	23	82	98	4500	5600	0.71 21308 CC	85	150	39	210	270	3000	3800	2.6	22217 CC/W			
	90	33	115	122	4500	5600	1.00 22308 CC			150	36	244	325	2800	3600	2.7	22217 E		
	90	33	127	137	4300	5300	1.00 22308 E					180	41	293	375	2000	2800	5.00	21317 CC
	85	23	77	88	5300	6700	0.56 22209 CC			60	420			520	1900	2600	7.3	22317 CC/W	
	100	25	101	114	4300	5300	0.95 21309 CC			60	477			620	1900	2600	7.3	22317 E	
50	100	36	164	183	3800	4800	1.35 22309 E	90	160	40	253	340	2600	3400	3.40	22218 CCW3			
	90	23	84	100	5000	6300	0.60 22210 CC			160	40	282	375	2600	3400	3.40	22218 E		
	90	23	97	118	5000	6300	0.60 22210 E					160	54.4	311	440	1900	2600	4.60	23218 CC/W
	110	27	120	140	3600	4800	1.20 21310 CC			43	322			425	1900	2600	5.80	21318CC	
55	110	40	176	200	3400	4300	1.85 22310 CC	95	190	64	477	610	1800	2400	8.60	22318 CC/W			
	110	40	199	224	3400	4300	1.85 22310 E			190	64	535	695	1800	2400	8.60	22318 E		
	100	25	99	118	4500	5600	0.82 22211 CC					170	43	282	375	2400	3200	4.00	22219 CC/W
	100	25	115	137	4500	5600	0.82 22211 E			43	334			450	2400	3200	4.2	22219 E	
	120	29	138	163	3400	4300	1.60 21311 CC			45	351			480	1800	2400	7.2	21319 CC	
60	120	43	199	232	3200	4000	2.35 22311 CC	200	67	518	670	1800	2400	10.0	22319 CC/W				
	120	43	235	280	3200	4000	2.35 22311 E			200	67	587	765	1800	2400	10.0	22319 E		
	110	28	122	146	4000	5000	1.10 22212 CC					100	165	52	322	490	2000	2800	4.40
	110	28	140	173	4300	5300	1.15 22212 E			180	46			311	415	2200	3000	4.9	22220 CC/W
	130	31	161	200	3000	3800	1.95 21312 CC							46	368	490	2200	3000	4.90
	65	130	46	235	280	3000	3800			2.95 22312 CC	215	60.3	414	600	1700	2200	6.70	23220 CC/W	
130		46	271	335	2800	3600	2.90 22312 E	215	47	385			530	1700	2200	8.80	21320 CC		
120		31	148	183	3800	4800	1.45 22213 CC			215			73	610	800	1700	2200	13.0	22320 CC/W
120		31	176	216	3800	4800	1.50 22213 E	110	170					702	950	1700	2200	13.0	22320 E
140		33	184	240	2800	3600	2.45 21313 CC			45			267	440	2200	3000	3.8	23022 CC	
140		48	253	300	2600	3400	3.55 22313 CC			56			374	585	1900	2600	5.6	23122 CC/W	
70	140	48	299	360	2600	3400	3.55 22313 E	180	69	460	750	1000	1400	6.9	24122 MW3				
	125	31	148	186	3600	4500	1.55 22214 CC			200	53	408	560	2000	2800	7.00	22222 CC/W		
	125	31	179	228	3600	4500	1.55 22214 E					53	489	640	2000	2800	7.00	22222 E	

All the Bearings available in Taper Bore and Brass Cage.

Spherical Roller Bearings

Screen Bearings



BEARINGS

Principal Dimension		Basic load Ratings		Speed ratings		Mass	Designations Standard Bearing	Principal Dimension		In mm	KN	KN	Speed ratings		Mass Kg	Designations Standard Bearing		
d	D	B	C	Co	Lubrication Grease			Oil	d	D	B	C	Co	Dynamic			Static	Lubrication Grease
												r/min						
120	200	69.8	518	765	1600	2000	9.70	23222	CC/W33	40	90	33	107	112	4500	5600	1.00	452308CACM2/W502
	240	50	460	630	1600	2000	12.0	21322	CC	45	100	36	133	150	3800	4800	1.35	452309DACM2/W502
	240	80	725	965	1600	2000	18.0	22322	CC/W33	50	110	40	168	186	3400	4300	1.85	452310CACM2/W502
	240	80	828	1120	1500	1900	17.5	22322	E	55	120	43	199	232	3200	4000	2.35	452311CACM2/W502
	180	46	305	510	2000	2800	4.20	23024	CC/W33	60	130	46	235	280	3800	3000	2.95	452312CACM2/W502
	180	60	374	670	1600	2000	5.40	24024	M/W33	65	140	48	258	305	2600	3400	3.55	452313CACM2/W502
	200	62	449	695	1800	2400	7.80	23124	CC/W33	70	150	51	299	360	2400	3200	4.30	452314CACM2/W502
	200	80	575	950	900	1200	10.0	24124	M/W33	75	160	55	328	405	2200	3000	5.20	452315CACM2/W502
	215	58	466	670	1900	2600	8.70	22224	CC/W33	80	170	58	374	465	2000	2800	6.10	452316CACM2/W502
	215	58	552	765	1900	2600	8.85	22224	E	85	180	60	408	490	1900	2600	7.25	452317CACM2/W502
	215	76	640	930	1500	1900	12.0	23224	CC/W33	90	190	64	460	570	1800	2400	8.60	452318CACM2/W502
	260	86	845	1120	1400	1800	22.0	22324	CC/W33	95	200	67	518	670	1800	2400	10.0	452319CACM2/W502
130	200	52	375	610	1900	2600	6.10	23026	CC/W33	100	215	73	610	800	1700	2200	13.0	452320CACM2/W502
	200	69	477	815	1500	1900	7.95	24026	MW33									
	210	64	489	780	1700	2200	8.55	23126	CC/W33									
	210	80	587	1000	900	1200	11.0	24126	M/W33									
	230	64	546	800	1800	2400	11.0	22226	CC/W33									
	230	64	644	930	1800	2400	11.0	22226	E									
	230	80	690	1060	1300	1700	14.0	23226	CC/W33									
140	210	53	397	680	1800	2400	6.55	23028	CC/W33									
	210	69	495	900	1400	1800	8.45	24028	M/W33									
	225	68	546	900	1600	2000	10.5	23128	CC/W33									
	225	85	673	1160	850	1100	13.0	24128	M/W33									
	250	68	610	900	1700	2200	14.0	22228	CC/W33									
	250	88	799	1250	1200	1600	18.5	23228	CC/W33									
150	225	56	437	750	1700	2200	7.95	23030	CC/W33									
	225	75	564	1040	1300	1700	10.5	24030	MM33									
	250	80	725	1200	1400	1800	16.0	23130	CC/W33									
	250	100	897	1530	800	1000	19.5	24130	M/W33									
	270	73	736	1080	1600	2000	18.0	22230	CC/W33									
	270	96	937	1460	1100	1500	24.0	23230	CC/W33									
160	240	60	506	880	1700	2200	9.70	23032	CC/W33									
	240	80	656	1200	1100	1500	13.0	24032	M/W33									
	270	86	845	1370	1300	1700	20.5	23132	CC/W33									
	270	109	1040	1760	700	900	25.0	24132	M/W33									
	290	80	863	1290	1500	1900	22.5	22232	CC/W33									
170	260	67	621	1060	1600	2000	13.0	23034	CC/W33									
	260	90	799	1460	1000	1400	17.5	24034	M/W33									
	280	88	897	1500	1200	1600	21.5	23134	CC/W33									

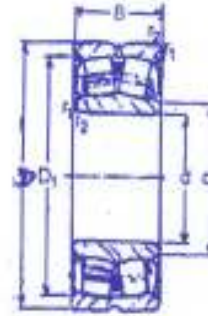
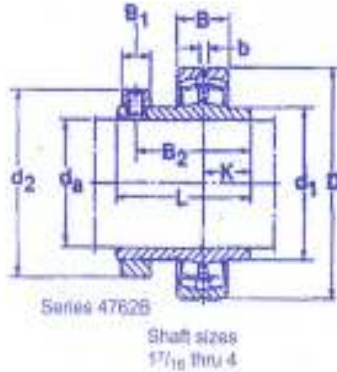
* Available in Taper Bore and Brass Cage

**Roller Bearings Units
Insert Bearings / Collar Mounted
4762(00)B**

**Spherical Roller
Rubber Sealed
Bearings**



BEARINGS

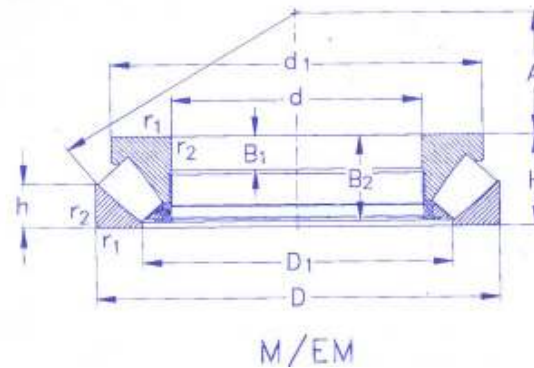


Shaft Dia. Da	Designation	In mm			KN Bearing Basic load rating Dynamic	KN Static Co	Mass Kg	Designation	Basic Load Rating Load Fatigue			Speed Rating R/min (Grease)	Weight Kg	Bore d	OD D	Width H
		D	B	L					C (KN)	CO (KN)	Pu (N)					
17/16	476208B-107	80	23	23/4	16	18	2.50	SB22206W33SS	51	65	6	2800	0.350	30	62	25
11/2	476208B-108						2.45	SB22207W33SS	83	91	9	2400	0.520	35	72	28
111/16	476209B-111	85	23	27/8	17	19	2.75	SB22208W33SS	92	102	11	2200	0.570	40	80	28
13/4	476209B-112						2.70	SB22308W33SS	143	151	16	1500	1.150	40	90	40
115/16	476210B-115	90	23	27/8	19	22	2.90	SB22209W33SS	96	110	11	2000	0.650	45	85	28
2	476210B-200						2.80	SB22309W33SS	171	198	21	1400	1.550	45	100	44
23/16	476211B-203	100	25	31/8	22	26	3.90	SB22210W33SS	105	125	13	1900	0.700	50	90	28
27/16	4762138-207	120	31	33/8	33	41	6.75	SB22310W33SS	220	250	27	1300	2.100	50	110	48
21/2	4762138-208							SB22211W33SS	12	146	18	1700	1.000	55	100	31
211/16	476215B-211							SB22311W33SS	247	287	31	1200	2.520	55	120	51
23/4	476215B-212							SB22212W33SS	153	183	20	1600	1.300	60	110	34
275/16	4762158-215	130	31	35/8	35	46	9.35	SB22312W33SS	293	350	37	1100	3.300	60	130	55
3	476215B-300							SB22213W33SS	191	237	28	1500	1.600	65	120	38
37/16	476218B-307	160	40	41/32	56	76	13.5	SB22313W33SS	328	390	40	1000	3.800	65	140	57
311/16	476220B-311							SB22214W33SS	193	241	26	1400	1.800	70	125	38
315/16	476220B-315	180	46	415/32	69	93	19.5	SB22314W33SS	405	494	50	950	4.600	70	150	60
4	476220B-400							SB22215W33SS	202	267	28	1300	2.100	75	130	38
47/15	476222B-407VSB	200	35	61/8	91	126	29.5	SB22315W33SS	448	561	65	900	5.650	75	160	65
41/2	4762228-408VSB							SB22216W33SS	227	295	32	1200	2.400	80	140	40
415/16	4762268-415VSB	230	64	65/8	123	180	46.5	SB22217W33SS	273	351	38	850	3.000	85	150	44
								SB22218W33SS	327	438	46	1000	3.700	90	160	48
								SB22219W33SS	384	485	50	900	4.300	95	170	51
								SB22220W33SS	419	637	65	850	4.750	100	180	55

Spherical Roller thrust Bearings



BEARINGS



Boundary Dimensions (mm)			Designation	Load Ratings (KN)				Speed Ratings (rpm)		Boundary Dimensions (mm)			Designation	Load Ratings (KN)				Speed Ratings (rpm)	
d	D	H		dyn.	Stat.	Grease	Oil	M [Kg]	d	D	H	dyn.		Stat.	Grease	Oil	M [Kg]		
60	130	42	29412M	287	810	1800	2400	2.60											
65	140	45	29413M	340	970	1700	2200	3.30											
70	150	48	29414M	370	1070	1600	2000	4.00											
75	160	51	29415M	430	1250	1600	2000	4.90											
80	170	54	29416M	465	1370	1500	1900	5.80											
85	180	58	29417M	530	1570	1300	1800	6.90											
90	190	60	29418M	580	1790	1300	1700	8.10											
	155	39	29318M	345	1080	1600	2200	2.85											
100	210	67	29420M	710	2130	1100	1500	11.8											
	170	42	29320M	408	1290	1500	2000	3.65											
110	190	48	29322M	440	1420	1300	1600	5.50											
	230	73	29422M	820	2600	950	1400	14.50											
120	210	54	29324M	560	1830	1100	1400	7.60											
	250	78	29424M	935	3000	900	1300	18.10											
130	225	58	29326M	630	2070	1000	1900	9.30											
	270	85	29426M	1090	3540	850	1200	22.50											
140	240	60	29328M	675	2310	950	1300	11.00											
	280	85	29428M	1130	3750	850	1200	24.20											
150	250	60	29330M	700	2430	950	1200	11.50											
	300	90	29430M	1280	4270	800	1100	29.40											
160	270	67	29332M	810	2810	850	1100	15.20											
	320	95	29432M	1460	4810	750	1000	35.50											
170	280	67	29334M	835	2950	850	1100	16.00											
	340	103	29434M	1620	5380	700	940	43.70											
180	300	73	29336M	985	3580	800	1000	20.30											
	360	109	29436M	1800	6020	670	890	52.00											
190	320	78	29338M	1120	4010	750	940	24.80											
200	340	85	29340M	1340	4740	700	890	30.80											
	400	122	29440M	2210	7510	600	790	69.00											

Taper Roller Bearings Single Row



BEARINGS



Principal dimensions			Basic Load Rating (N)				Speed Ratings		Mass Kg	Designation	Principal dimensions				Basic Load Rating (N)		Speed Ratings		Mass Kg	Designation
d	D	T	dyn.	Stat.	Grease	Oil	d	D	T		dyn.	Stat.	Grease	Oil	d	D	T	dyn.	Stat.	
15	42	14	22400	20000	9000	13000	0.095		30302	85	33	121000	150000	4500	6000	0.90	T2EE 040			
17	40	13	19000	18600	9000	13000	0.075		30203	90	25.25	85800	95000	4500	6000	0.72	30308			
	47	15	28100	25000	8500	12000	0.13		30303	90	25.25	73700	81500	4000	5300	0.72	31308			
	47	20	34700	33500	8500	11000	0.17		32303	90	35.25	117000	140000	4000	5300	1.00	32308			
20	42	15	24200	27000	8500	12000	0.097		32004 x	90	35.25	108000	140000	4000	5300	1.10	32208 B			
	47	15	27500	28000	8000	11000	0.12		30204	45	75	20	58300	80000	4800	6300	0.34	32009 X		
	52	16	34100	32500	8000	11000	0.17		30304	80	26	84200	114000	4500	6000	0.56	33109			
	52	22	44100	45500	7500	10000	0.23		32304	85	20.75	66000	76500	4500	6000	0.48	30209			
22	44	15	25100	29000	8000	11000	0.10		320/22 x	85	24.75	80900	98000	4500	6000	0.58	32209			
	47	17	34100	36500	8000	11000	0.14		T2CC 022	85	24.75	73700	93000	4300	5600	0.60	32209 B			
25	47	15	27000	32500	8000	11000	0.11		32005	85	32	108000	143000	4000	5300	0.82	33209			
	52	16	30800	33500	7500	10000	0.15		30205	95	29	89700	112000	3600	4800	0.92	T7FC 045			
	52	19	35800	44000	7000	9500	0.19		32205 B	95	36	147000	186000	4000	5300	1.20	T2ED 045			
	52	22	47300	56000	6700	9000	0.23		33205	100	27.25	108000	120000	4000	5300	0.97	30309			
	62	18	44600	43000	6700	9000	0.26		30305	100	27.25	91300	102000	3400	4500	0.95	31309			
	62	18	38000	40000	5600	7500	0.26		31305	100	38.25	140000	170000	3600	4800	1.35	32309			
	62	25	60500	63000	6000	8000	0.36		32305	100	38.25	134000	176000	3600	4800	1.45	323098			
28	52	16	31900	38000	7000	9500	0.15		320/28 x	50	80	20	60500	8800	4500	6000	0.37	32010 X		
	58	20	41800	50000	6300	8500	0.25		322/28 B	80	24	69300	102000	4500	6000	0.45	33010			
30	55	17	35800	44000	6700	9000	0.17		32006 x	82	21.5	72100	100000	4500	6000	0.43	KJLM104948			
	62	17	40200	44000	6300	8500	0.23		30206								KJLM104910			
	62	21	50100	57000	6300	8500	0.28		32206	85	26	85800	122000	4300	5600	0.59	33110			
	62	21	49500	58500	6000	8000	0.30		32206 B	90	21.75	76500	91500	4300	5600	0.54	30210			
	62	25	64400	76500	5600	7500	0.37		33206	90	24.75	82500	100000	4300	5600	0.61	32210			
	72	21	56100	56000	5600	7500	0.39		30306	90	24.75	82500	104000	4000	5300	0.65	32210 B			
	72	21	47300	50000	5000	6700	0.39		31306	90	28	106000	140000	4000	5300	0.75	KJM205149			
	72	29	76500	85000	5300	7000	0.55		32306								KJM205110			
32	58	17	36900	46500	6300	8500	0.19		320/32 x	90	28	106000	140000	4000	5300	0.75	KJM205149			
35	62	18	42900	54000	6000	8000	0.22		32007 x								KJM205110A			
	72	18	51200	56000	5300	7000	0.32		30207	90	32	114000	160000	3800	5000	0.90	33210			
	72	24	66000	78000	5300	7000	0.43		32207	100	36	154000	200000	3800	5000	1.30	T2ED 050			
	72	24	60500	75000	5300	7000	0.44		32207 B	105	32	108000	137000	3200	4300	1.20	T7FC 050			
	72	28	84200	106000	4800	6300	0.56		33207	110	29.25	12500	140000	3600	4800	1.25	30310			
	80	23	72100	73500	5000	6700	0.52		30307	55	110	29.25	106000	120000	3200	4300	1.20	31310		
	80	23	61600	67000	4500	6000	0.52		31307	110	42.25	172000	212000	3200	4300	1.80	32310			
	80	33	95200	106000	4800	6300	0.73		32307	110	42.25	161000	216000	3200	4300	1.85	32310 B			
	80	33	93500	114000	4500	6000	0.80		32307 B	90	23	78100	112000	4000	5300	0.56	KJM506849			
40	68	19	52800	71000	5300	7000	0.27		32008 x								KJLM506810			
	75	26	79200	104000	5000	6700	0.51		33108	90	23	80900	116000	4000	5300	0.55	32011 X			
	80	20	61600	68000	4800	6300	0.42		30208	90	27	89700	137000	4000	5300	0.67	33011			
	80	25	74800	86500	4800	6300	0.53		32208	95	30	110000	156000	3800	5000	0.86	33111			
	80	32	105000	132000	4300	5600	0.77		33208	100	22.75	89700	106000	3800	5000	0.70	30211			

Taper Roller Bearings Single Row



BEARINGS																	
Principial dimensions			Basic Load Rating		Speed Ratings		Mass	Designation	Principial dimensions			Basic Load Rating		Speed Ratings		Mass	Designation
			(N)		Lubrication		Kg					(N)		Lubrication		Kg	
d	D	T	dyn.	stat.	Grease	Oil			d	D	T	dyn.	stat.	Grease	Oil		
	100	26.75	106000	129000	3800	5000	0.83	32211		115	25	106000	163000	3000	4000	0.90	32015 X
	100	26.75	101000	127000	3600	4800	0.87	32211 B		115	31	134000	228000	3000	4000	1.15	33015
	100	35	138000	190000	3400	4500	1.20	33211		120	31	138000	216000	2800	3800	1.30	KJM714249
	110	39	179000	232000	3400	4500	1.70	T2ED 055									KJM714210
	115	34	125000	163000	3000	4000	1.60	T7FC 055		125	37	176000	265000	2800	3800	1.80	33115
	120	31.5	142000	163000	3200	4300	1.55	30311		130	27.25	140000	176000	2800	3800	1.40	30215
	120	31.5	121000	137000	2800	3800	1.55	31311		130	33.25	161000	212000	2600	3600	1.70	33215
	120	45.5	198000	250000	2000	4000	2.30	32311		130	41	209000	300000	2400	3400	2.25	33215
	120	45.5	190000	260000	2800	3800	2.50	32311 B		145	51	308000	450000	2400	3400	3.90	KJH415647
60	95	23	82500	122000	3800	5000	0.59	32012 X									KJH415610
	95	24	84200	132000	3600	4800	0.62	KJLM508748		150	42	201000	280000	2000	3000	3.25	T7FC 075
								KJLM508710		160	40	246000	290000	2200	3200	3.45	30315
	95	27	91300	143000	3800	5000	0.71	33012		160	40	209000	245000	1900	2800	3.50	31315
	100	30	117000	170000	3600	4800	0.792	33112		160	58	336000	440000	2000	3000	5.20	32315
	110	23.75	99000	114000	3400	4500	0.88	30212		160	58	336000	475000	1900	2800	5.55	32315 B
	110	29.75	125000	160000	3400	4500	1.15	30212	80	125	29	136000	216000	2600	3600	1.30	32016 X
	110	38	168000	236000	3000	4500	1.60	32212		125	36	168000	285000	2600	3600	1.65	33016
	115	39	168000	250000	3000	4000	1.85	33212		130	87	179000	280000	2600	3600	1.90	33116
	115	40	194000	260000	3200	4000	1.85	TSED 060		140	28.25	151000	183000	2400	3400	1.60	30216
	125	37	154000	204000	2600	4300	2.05	THE 060		140	35.25	187000	245000	2400	3400	2.05	32216
	130	33.5	168000	196000	3000	3600	1.95	T7FC 060		140	46	251000	375000	2200	3200	2.90	33216
	130	33.5	145000	166000	2600	4000	1.90	30313		145	46	281000	400000	2400	3400	3.25	T2ED 080
	130	48.5	229000	290000	2600	3600	2.85	31312		170	42.5	270000	320000	2000	3000	4.10	30316
	130	48.5	220000	305000	2600	3600	2.80	32312		170	42.5	224000	265000	1900	2800	4.85	31316
65	100	23	84200	127000	14300	4500	0.63	32312 B		170	61.5	380000	500000	1900	2800	6.20	32316
	100	27	96800	156000	17600	4500	0.78	32013 X		170	61.5	358000	520000	1800	2600	5.70	32316 B
	110	28	123000	183000	21200	4300	1.05	KJM511946/10	85	130	29	140000	224000	2400	3400	1.35	32017 X
										130	30	140000	228000	2600	3600	1.40	KJM716649
	110	34	142000	208000	24500	4300	1.30	33113									KJM716610
	120	24.75	114000	134000	16300	4000	1.15	30213		130	36	183000	310000	2600	3600	1.75	33017
	120	32.75	151000	193000	23200	4000	1.50	32213		140	41	220000	340000	2400	3400	2.45	33117
	120	39	161000	240000	27500	4000	1.95	TSED 065		150	30.5	176000	220000	2200	3200	2.05	30217
	120	39	187000	265000	3000	4000	1.90	KJH211749		150	38.5	212000	285000	2200	3200	2.60	32217
								KJH211710		150	49	286000	430000	2000	3000	3.70	33217
	120	41	194000	270000	2800	3800	2.05	33213		180	44.5	303000	365000	1900	2800	4.85	30317
	130	37	157000	216000	2400	3400	2.20	T7FC 065		180	44.5	242000	285000	1800	2600	4.60	31317
	140	36	194000	228000	2600	3600	2.40	30313		180	63.5	402000	530000	1800	2600	6.85	32317
	140	36	165000	193000	2200	3200	2.35	31313		180	63.5	391000	560000	1800	2600	7.50	32317 B
	140	51	264000	335000	2400	3400	3.45	32313	90	140	32	168000	270000	2200	3200	1.75	32018 X
	140	51	246000	345000	2200	3200	3.45	32313 B		140	39	216000	355000	2200	3200	2.20	33018
70	110	25	101000	153000	3200	4300	0.84	32014 X		145	85	201000	305000	2200	3200	2.15	KJM718149
	110	26	101000	160000	3200	4300	0.91	KJLM813049									KJM718110
								KJLM813010		150	45	251000	390000	2000	3000	3.10	33118
	110	31	130000	196100	3200	4300	1.10	33014		155	46	286000	430000	2000	3000	3.50	T2ED 090
	120	37	172000	250000	3000	4000	1.70	33114		160	32.5	194000	245000	2000	3000	2.55	30218
	125	25.25	125000	156000	3000	4000	1.25	30214		160	42.5	251000	340000	2000	3000	3.35	32218
	125	33.25	157000	208000	2800	3800	1.60	32214		175	48	270000	380000	1700	2400	4.95	T7FC 090
	125	41	201000	285000	2600	3600	2.10	33214		190	46.5	330000	400000	1800	2600	5.65	30318
	130	43	233000	325000	2800	3800	2.45	T2ED 070		190	46.5	264000	315000	1700	2400	5.90	31318
	140	39	176000	240000	2200	3200	2.65	T7FC 070		190	67.5	457000	610000	1700	2400	8.40	32318
	140	52	281000	405000	2400	3400	3.70	T4FE 070	95	145	32	168000	270000	2200	3200	1.80	32019 X
	150	38	220000	260000	2400	3400	2.90	30314		145	39	220000	375000	2200	3200	2.30	33019
	150	38	187000	220000	2000	3000	2.95	31314		160	46	297000	455000	2000	3000	3.65	T2ED 095
	150	54	297000	380000	2200	3200	4.30	32314		170	34.5	216000	275000	1900	2800	3.00	30219
	150	54	281000	400000	2000	3000	4.25	32314 B		170	45.5	281000	390000	1900	2800	4.05	32219

Taper Roller Bearings Single Row



BEARINGS

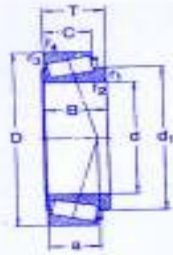
Principal dimensions			Basic Load Rating		Speed Ratings		Mass Kg	Designation	Principal dimensions			Basic Load Rating		Speed Ratings		Mass Kg	Designation
d	D	T	(N)		Lubrication				d	D	T	(N)		Lubrication			
			dyn.	stat.	Grease	Oil				dyn.	stat.	Grease	Oil				
	200	49.5	292000	355000		1700 2400	6.95	31319		200	41	308000	405000		1700 2400	5.10	30222
	200	71.5	501000	670000		1700 2400	11.03	2319		200	56	402000	570000		1700 2400	7.10	32222
100	145	24	125000	190000		2200 3200	1.15	T4CB 100	120	170	27	157000	250000		1800 2600	1.70	T4CB 120
	150	32	172000	280000		2000 3000	1.90	32020 X		180	38	242000	415000		1700 2400	3.25	32024 X
	150	39	224000	390000		2000 3000	2.40	33020		180	48	292000	540000		1800 2600	4.20	33024
	160	41	246000	390000		1900 2800	3.05	KJHM720249		215	43.5	341000	465000		1600 2200	6.15	30224
								KJHM720210		215	61.5	468000	695000		1600 2200	9.15	32224
	165	47	314000	480000		1900 2800	3.90	T2EE 100	130	180	32	198000	365000		1700 2400	2.40	32926
	180	37	246000	320000		1900 2800	3.65	30220		200	45	314000	540000		1600 2200	4.95	32026 X
	180	49	319000	440000		1800 2600	4.90	32220		230	43.75	369000	490000		1500 2000	7.60	30226
	180	63	429000	655000		1700 2400	6.95	33220		230	67.75	550000	830000		1500 2000	11.53	32226
	215	51.5	402000	490000		1700 2400	8.05	30320	140	190	32	205000	390000		1600 2200	2.55	32928
	215	56.5	374000	465000		1600 2200	8.60	31320 X		195	29	194000	325000		1600 2200	2.40	T4CB 140
	215	77.5	572000	780000		1600 2200	12.53	32320		210	45	330000	585000		1600 2200	5.25	32028 X
105	160	35	201000	335000		1900 2800	2.40	320201 X		250	45.75	418000	570000		1400 1900	8.65	30228
	160	43	246000	430000		1900 2800	3.05	33021		250	71.75	644000	1000000		1400 1900	14.53	32228
	190	39	270000	355000		1800 2600	4.25	30221	150	210	32	233000	390000		1500 2000	3.05	T4B 150
	190	53	358000	510000		1800 2600	6.00	32221		225	48	369000	655000		1500 2000	6.35	32030 X
	225	53.5	429000	530000		1600 2200	9.15	30321		225	59	457000	865000		1500 2000	8.15	33030
110	150	25	125000	224000		2000 3000	1.25	32922		270	49	429000	560000		1300 1800	11.03	30230
	160	27	154000	232000		1900 2800	1.60	T4CB 110		270	77	737000	1140000		2000 1700	17.53	32230
	170	38	233000	390000		1800 2600	3.05	32022X									
	170	47	281000	500000		1800 2600	3.85	33022									
	180	47	319000	520000		1800 2600	4.65	KJHM522649									
								KJHM522610									

Taper Roller Bearings Single Row, inch sizes



BEARINGS

Note :
*Load Rating
Metric in 'N'
Inch in Lbf



Note :
▲ Mass
For Metric in kg
for Inch Lb

Principal Dimensions (mm)			Basic Load rating		Speed rating Lubrication		Mass	Designations Cone / Cup
d1	D	T	dynamic C	Static Co	grease	Oil		
0.5901	1.3775	0.4330	3010	2970	11000	16000	0.11	A 4059/A 4138
14.9891	34.988	10.998	13400	13200			0.051	
0.6250	1.6250	0.5625	4950	4770	9500	14000	0.021	03062/03162
15.875	41.275	14.288	22000	21200			0.095	
	1.6875	0.5625	3960	3960	8500	12000	0.22	11590/1152
	42.863	14.288	17600	17600			0.10	
0.6875	1.5700	0.5450	4700	4680	9000	13000	0.18	LM 11749/LM 11710
17.462	39.878	13.843	21200	20800			0.018	
0.7500	1.7810	0.6100	6180	6300	8500	12000	0.26	LM 11949/LM 11910
19.050	45.237	15.494	27500	28000			0.12	
	1.9380	0.7100	8050	7980	8000	11000	0.40	09067/091195
	49.225	18.034	35800	35500			0.18	
	1.9380	0.7813	8050	7980	8000	11000	0.42	09074/09195
	49.225	19.845	35800	35500			0.19	
	1.9380	0.7813	8050	7980	8000	11000	0.42	09078/09195
	49.225	19.845	35800	35500			0.19	
	1.9380	0.8350	8050	7980	8000	11000	0.44	09067/09196
	49.114	21.209	35800	35500			0.20	
	1.9380	0.9063	8050	7980	8000	11000	0.46	09074/09196
	49.225	23.020	35800	35500			0.21	
	1.9380	0.9063	8050	7980	8000	11000	0.46	09078/09196
	49.225	23.020	35800	35500			0.21	
	2.1250	0.8750	8900	8770	7500	10000	0.55	21075/21212
	53.975	22.225	39600	39000			0.25	
0.8120	1.9380	0.7813	8050	7980	8000	11000	0.40	09081/09195
20.625	49.225	19.845	35800	35500			0.18	
	1.9380	0.9063	8050	7980	8000	11000	0.44	09081/09196
	49.225	23.020	35800	35500			0.20	
0.8437	1.9687	0.6900	8300	8540	8000	11000	0.37	M 12649/M 12610
21.430	50.005	17.526	36900	38000			0.17	
0.8656	1.7810	0.6100	6180	6970	8000	11000	0.26	LM 12749/LM 12710
21.9861)	45.237	15.494	27500	31000			0.12	
	1.8100	0.6100	6180	6970	8000	11000	0.26	LM 12749/ LM 12711
	45.974	15.494	27500	31000			0.12	
0.8750	2.0000	0.5910	5350	5620	7500	10000	0.33	07087 X/07210 X
22.225	50.800	15.011	23800	25000			0.15	
	2.0625	0.7625	9400	9890	7500	10000	0.44	1380/1328
	52.388	19.368	41800	44000			0.20	
1.0000	1.9800	0.5600	5850	6740	7500	10000	0.29	L 44643/L 44610
25.400	50.292	14.224	26000	30000			0.13	
	2.0000	0.5910	5350	5620	7500	10000	0.29	07100 S/07210 X

Principal Dimensions (mm)		Basic Load rating			Speed rating Lubrication		Designations Cone / Cup	
d1	D	T	dynamic	Static	grease	Oil	Mass	
			C	Co				
	50.800	15.011	26000	25000			0.13	
	2.0000	0.5910	5350	5620	7500	10000	0.29	07100 SA/ 07210 X
	50.800	15.011	23800	25000			0.13	
	2.2500	0.7650	8900	10100	6700	9000	0.53	M 84548/M 84510
	57.150	19.431	36600	45000			0.24	
	2.4409	0.7500	9400	10700	6000	8000	0.68	15101/15245
	61.999	19.050	41800	47500			0.31	
	2.5000	0.8125	9400	10700	6000	8000	0.75	15101/1520 X
	63.500	20.638	41800	47500			0.34	
1.0625	1.9800	0.5600	5850	6740	7500	10000	0.24	L 44649/L 44610
26.988	5.0292	14.224	26000	30000			0.11	
1.1250	2.2500	0.7813	10600	12400	6700	9000	0.49	1988/1922
28.575	57.100	19.845	47300	55000			0.22	
	2.4409	0.7500	10900	10700	6000	8000	0.62	15112/15245
	61.999	19.050	48400	47500			0.28	
	2.2500	0.8125	9400	10700	6000	8000	0.68	15112/15250 X
	63.500	20.638	41800	47500			0.31	
	2.5312	0.8438	11100	13700	6000	8000	0.77	M 86647/M 8610
	64.292	21.433	49500	61000			0.35	
	2.9875	0.8750	13100	15600	5600	7500	0.93	02474/02420
	68.263	22.225	58300	69500			0.42	
1.1417	1.9800	0.5600	5850	7310	7000	9500	0.24	331274
29.000	50.292	14.224	26000	32500			0.11	
1.1811	2.7170	0.7813	10300	12100	5600	7500	0.82	14118/14276
30.000	69.012	19.345	45700	54000			0.37	
	2.8380	0.8813	10300	12100	5600	7500	0.99	1418/14283
	72.085	22.385	45700	54000			0.45	
1.1875	2.5312	0.8438	11100	13700	6000	8000	0.37	M 86649/M 86610
30.162	64.292	21.433	49500	61000			0.33	
	2.6875	0.8750	12400	15600	5600	7500	0.90	M 88403/ M 88010
	68.263	22.225	55000	69500			0.41	
	2.6875	0.8750	12400	15600	5600	7500	0.90	M 88043/ M 88011
	68.263	22.225	55000	69500			0.41	
1.1895	2.4409	0.7500	9400	10700	6000	8000	0.57	15118/15245
30.213	61.999	19.050	41800	47500			0.26	
	2.5000	0.8125	9400	10700	6000	8000	0.64	18118/15250 X
	63.500	20.638	41800	47500			0.29	
1.2500	2.3280	0.6250	7500	8990	6300	8500	0.40	LM 67048/LM 67010
31.750	59.131	15.875	33600	40000			0.18	
	2.4409	0.7150	9400	10700	6000	8000	0.53	15123/15245
	61.999	18.161	41800	47500			0.24	
	2.5000	0.7775	9400	10700	6000	8000	0.60	15123/15250 X
	63.500	19.749	41800	47500			0.27	
	2.6150	1.0000	15600	18300	5600	7500	0.88	2580/2520
	66.421	25.400	69300	81500			0.40	
	2.6875	0.8750	12400	15600	5600	7500	0.88	M 88046/M 88010
	68.263	22.225	55000	69500			0.40	
	2.6875	0.8750	12400	15600	5600	7500	0.86	M 88046/M 88011
	68.263	22.225	55000	69500			0.39	
	2.8750	1.1563	15800	21400	5000	6700	1.35	HM 88542/HM 88510
	73.025	29.370	70400	95000			0.62	
	3.1250	1.0000	15100	16000	5000	6700	1.30	43125/43312
	79.375	25.400	67100	71000			0.60	
1.3125	2.6875	0.8750	12400	15600	5600	7500	0.84	M 88048// M 88010
33.338	68.263	22.225	55000	69500			0.38	
	2.6875	0.8750	12400	15600	5600	7500	0.84	M 88048/M 88011
	68.263	22.225	55000	69500			0.38	
	2.7170	0.7813	10300	12100	5600	7500	0.77	14130/14274
	69.012	19.845	45700	54000			0.35	
	2.7170	0.7813	10300	12100	5600	7500	0.77	14130/14276
	69.012	19.845	45700	54000			0.35	
1.3125	2.8380	0.8813	10300	12100	5600	7500	0.93	14130/14283

Note:*Load Rating Metric in 'N' Inch in Lbf

Note:Mass For Metric in kg for inch lb

Principal Dimensions (mm)			Basic Load rating		Speed rating Lubrication			Designations Cone / Cup
d1	D	T	dynamic	Static	grease	Oil	Mass	
			C	Co				
33.338	72.085	22.385	45700	54000			0.42	
(cont.)	3.0000	1.1563	17600	23800	4800	6300	1	HM 89443/HM 89410
	76.200	29.370	78100	100000			0.68	
	3.1250	1.0000	15100	16000	5000	6700	1.30	43131/43312
	79.375	25.400	67100	71000			0.58	
1.3750	2.5625	0.7100	10300	12400	5600	7500	0.55	LM 48548/LM 48510
34.925	65.088	18.034	45700	55000			0.25	
	2.7170	0.7813	10700	12100	5600	7500	0.75	14137 A/14276
	69.102	19.845	45700	54000			0.34	
	2.7170	0.7813	10300	12100	5600	7500	0.73	14138A/14276
	69.012	19.845	45700	54000			0.33	
	2.7170	1.0623	10300	12100	5600	7500	0.73	14136A/14276
	69.012	26.982	45700	54000			0.33	
	2.7170	9.7813	10300	12100	5600	7500	0.75	14137A/14276
	69.012	248.445	45700	54000			0.34	
	2.7170	0.7813	10300	12100	5600	7500	0.73	14138A/14274
	69.012	19.845	45700	54000			0.33	
	2.7170	1.0623	10300	12100	5600	7500	0.73	14136A/14274
	69.012	26.982	45700	54000			0.33	
	2.8380	0.8813	10300	12100	5600	7500	0.90	14137A/14283
	72.085	22.385	45700	54000			0.41	
	2.8380	0.8813	10300	12100	5600	7500	0.9	14138A/14283
	72.085	22.385	45700	54000			0.41	
	2.8380	1.1623	10300	12100	5600	7500	0.9	14136A/14283
	72.085	29.522	45700	54000			0.41	
	2.8438	1.0000	15100	20200	5000	6700	1.1	HM 88649/HM 88610
	72.233	25.400	67100	90000			0.50	
	2.8750	0.9375	15600	18700	5300	7000	1.05	25877/25821
	73.025	23.813	69300	83000			0.47	
	2.8750	0.9375	15600	18700	5300	7000	1.05	25877/25820
	73.025	23.813	69300	83000			0.47	
	2.8750	1.0625	16600	19800	5300	7000	1.15	23690/23620
	73.025	26.988	76500	93000			0.52	
	3.0000	0.8125	12600	14400	5000	6700	0.97	28137/28300
	76.200	20.638	56100	64000			0.44	
	3.0000	1.1563	17600	23800	4800	6300	1.45	HM 89446/HM 89410
	76.200	29.370	78100	106000			0.66	
	3.0000	1.1563	19300	23800	5000	6700	1.40	31593/31520
	76.200	29.370	85800	106000			0.63	
	3.0000	1.1563	19300	23800	5000	6700	1.40	31594/31520
	76.200	29.370	85800	106000			0.63	
	3.1250	1.1563	20500	14700	5000	6700	1.60	3478/3420
	79.375	29.370	91300	110000			0.72	
	3.1510	0.8438	12600	14400	5000	6700	1.1	28137/28317
	80.035	21.433	56100	64000			0.50	
	3.4375	1.1875	22900	29700	4500	6000	2.05	3581/1325
	87.313	30.163	102000	132000			0.94	
1.3775	2.3280	0.6250	7420	9670	6000	8000	0.37	L 68149/L 68110
34.9881)	59.131	15.875	3300	43000			0.17	
	2.3612	0.6250	7420	9670	6000	8000	0.37	L 68149/L 68111
	59.974	15.875	33000	43000			0.17	
1.4365	2.8750	0.9375	15600	18700	5300	7000	1.00	20.5880/25821
	73.025	23.813	69300	83000			0.46	
	2.8750	0.8375	15600	18700	5300	7000	0.99	25880/25820
	73.025	23.813	69300	83000			0.45	
1.4365	2.8750	0.9375	14500	17500	5000	6700	1.1	2794/2735 x
36.487	73.025	23.813	64400	78000			0.5	
(cont.)	3.0000	0.9375	14500	17500	5000	6700	1.1	2794/2720
	76.200	23.813	64400	78000			0.50	
1.4375	3.0000	1.1563	17600	23800	4800	6300	1.40	HM 89448/HM 89410
36.512	76.200	29.370	78100	106000			0.64	
	3.0000	1.1563	17600	23800	4800	6300	1.40	HM 89449/HM 89410

Note:*Load Rating Metric in 'N' Inch in Lbf

Note:Mass For Metric in kg for inch lb

Principal Dimensions (mm)			Basic Load rating		Speed rating Lubrication		Designations Cone / Cup	
d1	D	T	dynamic C	Static Co	grease	Oil	Mass	
	76.200	29.370	18100	106000			0.64	
	3.0000	1.1563	19300	23800	5000	6700	1.40	31597/31520
	76.200	29.370	85800	106000			0.63	
1.5000	2.5625	0.7100	9290	11900	5600	7500	0.53	LM 297491M 29710
38.100	65.088	18.034	41300	53000			0.24	
	2.5625	0.7800	9290	11900	5600	7500	0.55	LM 29749/LM 59711
	65.088	19.812	41300	53000			0.25	
	2.8346	0.6700	9640	11500	5300	7000	0.66	19150/19283 X
	71.999	17.018	42900	51000			0.30	
	2.8346	0.7480	11100	13500	5300	7000	0.73	19150/16282
	71.799	18.999	49500	60000			0.33	
	2.8440	0.8125	11100	13500	5300	7000	0.79	16150116284
	72.238	20.638	49500	60000			0.36	
	2.8440	0.9375	11100	13500	5300	7000	0.86	16150/16283
	72.238	23.813	49500	60000			0.39	
	2.8750	0.9375	14500	17500	5000	6700	1.15	2788/2735 X
	73.025	23.813	64400	78000			0.52	
	3.0000	0.8125	12600	14400	5000	6700	0.90	28150/28300
	76.200	20.638	56100	64000			0.41	
	3.0000	0.9375	14500	17500	5000	6700	1.1	2788/2729
	76.200	23.813	64400	78000			0.50	
	3.0000	0.9375	14500	17500	5000	6700	1.1	2788/2720
	76.200	23.813	64400	78000			0.50	
	3.1250	1.1563	20500	14700	5000	6700	1.5	3490/3420
	79.375	29.370	91300	110000			0.67	
	3.1510	0.8438	12600	14400	5000	6700	1.05	28150/28317
	80.035	21.433	56100	64000			0.47	
	3.2500	1.1563	19300	26500	4500	6000	1.70	HM 801346/HM 801310
	82.550	29.370	85800	118000			0.78	
	3.2500	1.1563	19300	26500	4500	6000	1.70	HM 801346 X/HM 801310
	82.550	29.370	85800	118000			0.77	
	3.4843	1.0625	22700	25600	4800	6300	1.85	418/414
	88.501	26.988	101000	114000			0.83	
1.5625	2.8750	0.9375	14500	17500	5000	6700	0.95	2789/2735 X
39.688	73.025	23.813	64600	78000			0.43	
	2.8750	1.0100	14800	19500	5000	6700	0.99	M 201047/M 201011
	73.025	25.6546	66000	86500			0.45	
	3.0000	0.9375	14500	17500	5000	6700	1.05	2789/2729
	76.200	23.813	64400	78000			0.48	
	3.0000	0.9375	14500	17500	5000	6700	1.05	2789/2720
	76.200	23.813	64400	78000			0.48	
1.6137	2.6762	0.6890	9890	13200	5300	7000	0.53	LM 300849/LM 300811
40.9881)	67.975	17.501	44000	58500			0.24	
1.6250	2.8750	0.6562	9640	11500	5000	6700	0.62	18590/18520
41.275	73.025	16.667	42900	51000			0.28	
	2.8910	0.7700	11900	14700	4800	6300	0.73	LM 501349/LM 501310
	73.431	19.558	52800	65500			0.33	
	2.8910	0.8437	11800	14700	4800	6300	0.77	LM 501349/LM 501314
	73.431	21.430	52800	65500			0.35	
1.6250	2.8910	0.9060	11900	14700	4800	6300	0.82	LM 501349/LM 501311
41.275	73.431	23.012	52800	65500			0.37	
(cont.)	3.0000	0.7090	10300	12600	5000	6700	0.75	11662/11300
	76.200	18.009	45700	56000			0.34	
	3.0000	0.8750	13600	16500	5000	6700	0.95	24780/24720
	76.200	22.225	60500	73500			0.43	
	3.2500	1.0450	16600	21400	4500	6000	1.35	M 802048/M 802011
	82.550	26.543	73700	95000			0.62	
	3.4375	1.1875	22900	29700	4500	6000	1.85	3585/3525
	87.313	30.163	102000	132000			0.85	
	3.4375	1.1875	22900	29700	4500	6000	1.85	3577/3525
	87.313	30.163	102000	132000			0.85	
	3.4843	1.0625	22700	25600	4800	6300	1.80	419/414

Note:*Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating		Speed rating Lubrication			Designations Cone / Cup	
d1	D	T	dynamic C	Static Co	grease	Oil	Mass	
	88.501	26.988	101000	114000			0.81	
	3.5000	1.1875	21400	28600	4300	5600	2.00	HM 803146/HM 803110
	88.900	30.163	95200	127000			0.90	
	3.7500	1.2188	19800	21700	3800	5000	2.15	53162/53375
	95.250	30.958	88000	96500			0.98	
	3.7500	1.2188	19800	21700	3800	5000	2.15	53162/53370
	95.250	30.958	88000	96500			0.98	
	3.8750	1.2188	19800	21700	3800	5000	2.35	53162/53387 X
	98.425	30.958	88000	96500			1.07	
	4.0000	1.3750	34000	42700	3800	5000	3.20	526/522
	101.600	34.925	151000	190000			1.45	
1.6875	3.4375	1.1875	22900	29700	4500	6000	1.75	3579/3525
42.862	87.313	30.163	102000	132000			0.80	
1.6880	3.2650	0.9375	16800	21400	4500	6000	1.25	25577/25520
42.875	82.931	23.813	74800	95000			0.57	
	3.2650	1.0625	16800	21400	4500	6000	1.35	25577/25523
	82.931	26.988	74800	95000			0.61	
	3.2700	0.9400	16700	21400	4500	6000	1.25	25577/25522
	83.058	23.876	74800	95000			0.57	
1.7500	2.8750	0.7188	10900	15100	5000	6700	0.64	L 102849/L 102810
44.450	73.025	18.258	48400	67000			0.29	
	3.2650	0.9375	16800	21400	4500	6000	1.25	25580125520
	82.931	23.813	74800	95000			0.57	
	3.2650	1.0625	16800	21400	4500	6000	1.35	25580/25523
	82.931	26.988	74800	95000			0.61	
	3.2700	0.9400	16800	21400	4500	6000	1.25	25580/25522
	83.058	23.876	74800	95000			0.57	
	3.4375	1.1875	22900	29700	4500	6000	1.75	3578/3525
	87.313	30.163	102000	132000			0.80	
	3.5000	1.1875	21400	28600	4300	5600	1.85	HM 80149/HM 803110
	88.900	30.163	95200	127000			0.85	
	3.5480	0.9055	15800	18300	4500	6000	1.45	355 X/352
	90.119	23.000	70400	81500			0.66	
	3.6718	1.1875	22700	29700	4000	5300	2.10	3582/3720
	93.264	30.165	101000	132000			0.96	
	3.7500	1.0938	23600	28100	4300	5600	2.05	438/432
	95.250	27.783	105000	125000			0.93	
	3.7500	1.0938	23600	30800	4000	5300	2.20	33885/33822
	95.250	27.783	105000	137000			0.99	
	3.7500	1.2188	19800	21700	3800	5000	2.05	53176/53375
	95.250	30.958	88000	96500			0.94	
1.7500	3.7500	1.2188	19800	21700	3800	5000	2.05	53176/53377
44.450	95.250	30.958	88000	96500			0.93	
(cont.)	3.7500	1.2188	19800	21700	3800	5000	2.05	53178/53375
	95.250	30.958	88000	96500			0.94	
	3.7500	1.2188	19800	21700	3800	5000	2.05	53178/53377
	95.250	30.958	88000	96500			0.93	
	3.7500	1.2188	19800	21700	3800	5000	2.05	53177/53375
	95.250	30.958	88000	96500			0.94	
	3.7500	1.2188	22900	26500	3600	4800	2.20	HM 903249/HM 903210
	95.250	30.958	102000	118000			1.00	
	3.8750	1.2188	19800	21700	3800	5000	2.20	53176/53387 X
	98.425	30.958	88000	96500			1.00	
	4.0000	1.3750	34000	42700	3800	5000	3.00	527/522
	101.600	34.925	151000	190000			1.35	
	4.25000	1.4375	34000	42700	3600	4800	3.85	535/532 X
	107.950	36.513	151000	190000			1.75	
	4.3754	1.1875	23800	29700	3200	4300	3.20	55175 C 55437
	111.135	30.162	106000	132000			1.45	
	4.3750	1.5000	34000	42700	3600	4800	4.20	5353532 A
	111.125	38.100	151000	190000			1.90	
	4.7500	1.6250	38700	47700	3200	4300	5.40	615/612

Note:*Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)				Basic Load rating		Speed rating Lubrication		Designations Cone / Cup	
	d1	D	T	dynamic	Static	grease	Oil		Mass
				C	Co				
	120.650	41.275		172000	212000			2.45	
1.7710	3.6718	1.1875		22700	29700	4000	5300	2.20	3776/3720
44.983	93.264	30.163		101000	132000			1.00	
1.7712	3.3465	0.8125		15800	18300	4500	6000	1.10	358 X/354 X
44.988	85.001	20.638		70400	81500			0.50	
	4.1333	1.2800		24700	32800	3200	4300	3.10	HM 905843/HM 905810
	104.986	32.512		110000	146000			1.40	
1.7812	3.0625	0.7812		12100	15600	4800	6300	0.82	LM 603049/LM 603011
45.242	77.788	19.842		53900	69500			0.37	
1.7960	3.2650	0.9375		16800	21400	4500	6000	1.20	25590/25520
45.618	82.931	23.813		74800	95000			0.55	
	3.2650	1.0625		16800	21400	4500	6000	1.30	25590/25523
	82.931	26.988		74800	95000			0.59	
	3.2700	0.9400		16800	21400	4500	6000	1	25590/25522
	83.058	23.876		74800	95000			0.55	
1.8105	2.9518	0.7087		11300	16000	4800	6300	0.68	LM 503349/LM 503310
45.9871)	74.976	18.001		50100	71000			0.31	
	3.5817	1.2598		27200	35100	4300	5600	2.05	HM 204049/HM 204010
	90.975	31.999		121000	156000			0.94	
1.8125	3.1250	0.6875		11100	13900	4800	6300	0.73	18690/18620
46.038	79.375	17.463		49500	62000			0.33	
	3.3465	0.8125		15800	18300	4500	6000	1.10	359 S/354 X
	85.001	20.638		70400	81500			0.49	
1.8750	3.8125	0.8268		16800	20900	3800	5000	1.60	386 A/382 A
47.625	96.838	21.001		74800	93000			0.73	
	4.0000	1.3750		34000	42700	3800	5000	3.00	526/522
	101.600	34.925		151000	190000			1.35	
	4.0000	1.3750		34000	42700	3800	5000	2.85	528 R/522
	101.600	34.925		151000	190000			1.30	
	4.3750	1.8750		23800	29700	3200	4300	3.00	55187C/55437
	111.125	47.625		106000	132000			1.35	
1.8750	4.4375	1.1875		23800	29700	3200	4300	3.10	55187055443
47.625	112.713	30.163		106000	132000			1.40	
(cont.)	4.8750	1.4375		33100	40500	2800	3800	4.95	721880/72487
	123.825	36.512		147000	180000			2.25	
1.9375	4.0625	1.7188		39600	54000	3800	5000	3.85	5395/5335
49.212	103.188	43.658		176000	240000			1.75	
	4.1250	1.4375		32600	45900	3400	4500	3.40	HM 807044/HM 807010
	104.775	36.513		145000	204000			1.55	
2.0000	3.3465	0.6875		11300	14700	4300	5600	0.82	18790/18720
50.800	85.001	17.463		50100	65500			0.37	
	3.5000	0.8125		17200	20600	4300	5600	1.10	368 A/362 A
	88.900	20.638		76500	91500			0.50	
	3.5433	0.9843		17200	20600	4300	5600	1.30	368 A/362 X
	90.000	25.001		76500	91500			0.58	
	3.6250	0.9688		19300	26500	4000	5300	1.60	28580/28521
	92.075	24.608		85800	118000			0.72	
	3.6718	1.1875		22700	29700	4000	5300	0.90	3780/3720
	93.264	30.163		101000	132000			0.87	
	3.7500	1.0938		23600	20800	4000	5300	1.95	33889/33822
	95.250	27.783		105000	137000			0.88	
	3.8437	0.9688		20200	29000	3800	5000	1.85	28678/28622
	97.630	24.608		89700	129000			0.85	
	4.0000	1.3750		34000	42700	3800	5000	2.75	529 X1522
	101.600	34.925		151000	190000			1.25	
	4.1250	1.1875		29200	38900	3600	4800	2.65	45284/45220
	104.775	30.163		130000	173000			1.20	
	4.1250	1.4375		32600	45900	3400	4500	3.30	HM 807046/HM 807010
	104.775	36.513		145000	204000			1.50	
	4.1250	1.5625		35300	50400	3600	4800	3.65	4580/4535
	104.775	39.688		157000	224000			0.65	
	4.2500	1.4375		34000	42700	3600	4800	3.40	537/532 X

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating		Speed rating Lubrication			Designations Cone / Cup	
d1	D	T	dynamic C	Static Co	grease	Oil	Mass	
	107.950	36.513	151000	190000			1.55	
	4.3750	1.1875	23600	31500	3000	4000	3.00	HM 907643/HM 90614
	111.125	30.163	105000	140000			1.35	
	4.3750	1.1875	23800	29700	3200	4300	2.85	552000/55437
	111.125	30.163	106000	132000			1.3	
	4.3750	1.5000	34000	42700	3600	4800	3.85	537/532 A
	111.125	38.100	151000	190000			1.75	
	4.4375	1.1875	23800	29700	3200	4300	3.00	552000/55443
	112.713	30.163	106000	132000			1.35	
	4.6250	1.3125	28800	33700	3200	4300	3.65	66200/66462
	117.475	33.338	128000	150000			1.65	
	4.8750	1.4375	33100	40500	2800	3800	4.85	722000/72487
	123.825	36.512	147000	180000			2.20	
2.1250	3.5000	0.7500	13100	17500	4000	5300	0.97	LM 806649/LM 8066610
53.975	88.900	19.050	58300	78000			0.44	
	3.7500	1.0938	23600	30800	4000	5300	1.80	33895/33822
	95.250	27.783	105000	137000			0.82	
	4.1250	1.4375	32600	45900	3400	4500	3.10	HM 807049/HM 807010
	104.775	36.513	145000	204000			1.40	
	4.2500	1.4375	34000	42700	3600	4800	3.30	539/532 X
	107.950	36.513	151000	190000			1.5	
	4.3750	1.500	34000	42700	3600	4800	3.75	539/532 A
	111.125	38.100	151000	190000			1.7	
	4.7500	1.6250	38700	47700	3200	4300	4.85	621/612
	120.650	41.275	172000	212000			2.20	
2.1250	4.8750	1.4375	33100	40500	2800	3800	4.65	72212 C/72487
53.975	123.825	36.512	147000	180000			2.10	
(cont)	5.0000	1.7500	47000	618000	3000	4000	6.15	65212/65500
	127.000	44.450	209000	275000			2.80	
2.1875	3.8437	0.9688	20200	29000	3800	5000	1	28680/28622
55.562	97.630	24.608	89700	129000			0.76	
	4.8125	1.7188	43600	64100	3000	4000	5.85	5566/5535
	122.238	43.658	194000	285000			2.65	
	4.8750	1.4375	33100	40500	2800	3800	4.65	722180172487
	123.825	36.512	147000	180000			2.10	
2.2500	3.8125	0.8268	16800	20900	3800	5000	1.30	387/382 A
57.150	96.838	21.001	74800	93000			0.59	
	3.8125	0.8268	16800	20900	3800	5000	1.30	387 A/382 A
	96.838	21.001	24800	93000			0.59	
	3.8125	08168	16800	20900	3800	5000	1.3	387 AS/382 A
	96.838	21.001	74800	93000			0.58	
	3.8125	1.0000	16800	20900	3800	5000	1.30	387/382 S
	96.838	25.400	74800	93000			0.59	
	3.8125	1.000	16800	20900	3800	5000	1.30	387 A/382 S
	96.838	25.400	74800	93000			0.59	
	3.8125	1.0000	16800	20900	3800	5000	1.30	387 AS/382 S
	96.838	25.400	74800	93000			0.58	
	3.8437	0.9677	20200	29000	3800	5000	1.55	28682/28622
	97.630	24.608	89700	129000			0.70	
	3.8750	0.8268	16800	20900	3800	5000	1.40	387/382
	98.425	21.001	74800	93000			0.64	
	3.8750	0.8268	16800	20900	3800	5000	1.40	367 A/382
	98.425	21.001	74800	93000			0.64	
	3.8750	0.8268	16800	16400	3800	5000	1.40	387 AS/382
	98.425	21.001	74800	73000			0.63	
	3.9370	0.8168	16800	20900	3800	5000	1.40	387/383 A
	100.000	21.001	74800	93000			0.64	
	3.9370	0.8168	16800	20900	3800	5000	1.40	387 AS/383 A
	100.000	21.001	74800	93000			0.64	
	3.9370	0.8268	16800	20900	3800	5000	1.40	387 AS/383 A
	100.000	21.001	74800	93000			0.63	
	4.1250	1.1875	25200	32200	3600	4800	2.30	462/453 X

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating			Speed rating Lubrication			Designations Cone / Cup
d1	D	T	dynamic		grease	Oil	Mass	
			C	Co				
	104.775	30.163	112000	143000			1.05	
	4.2500	1.0938	25200	32200	3600	4800	2.30	462/453 AS
	107.950	27.783	112000	143000			1.05	
	4.4375	1.1875	31000	44100	3200	4300	3.10	39581/39520
	112.713	30.163	138000	196000			1.40	
	4.4375	1.1875	31000	44100	3200	4300	3.20	39580/39520
	112.713	30.163	138000	196000			1.45	
	4.7238	1.2894	31000	44100	3200	4300	3.85	39580/39528
	119.985	32.751	138000	196000			1.75	
	4.7500	1.6250	38700	47700	3200	4300	4.65	623/612
	120.650	41.175	172000	212000			2.10	
	5.0000	1.7500	47700	61800	3000	4000	6.15	65225/65500
	127.000	44.450	209000	275000			2.80	
2.2650	3.8125	0.8268	16800	20900	3800	5000	1.35	388 A1382 A
57.531	96.838	21.001	74800	93000			0.61	
	3.8125	1.0000	16800	20900	3800	5000	1.50	388 A/382 S
	96.838	25.400	74800	93000			0.68	
2.2650	3.8750	0.8628	16800	20900	3800	5000	1.35	388 A/382
57.531	98.425	2.1915	74800	93000			0.61	
(cont.)	3.9370	0.8268	16800	20900	3800	5000	1.5	388 A/383 A
	100.000	21.001	74800	93000			0.69	
2.3750	3.9370	1.0000	19300	28100	3600	4800	1.70	28985/28921
60.325	100.000	25.400	85800	125000			0.77	
	4.0000	1.0000	19300	28100	3600	4800	1.80	28985/28920
	101.600	25.400	85800	125000			0.81	
	5.0000	1.4375	37100	53100	2800	3800	4.85	HM 813841/HM 813811
	127.000	36.513	165000	236000			2.20	
	5.0000	1.7500	47000	61800	3000	4000	5.75	65237/65500
	127.000	44.450	209000	275000			2.60	
	5.1250	1.4375	34000	40500	2600	3600	4.65	HM 911245/HM 911210
	130.175	36.513	151000	180000			2.10	
2.4375	5.3750	1.8125	49500	79800	2400	3400	7.60	H 715334/H715311
61.912	136.525	46.038	220000	355000			3.45	
	5.7500	1.6250	44500	53100	2200	3200	7.05	H 913842/H913810
	146.050	41.275	198000	236000			3.20	
	5.7500	1.6250	44500	53100	2200	4500	7.05	H 91843/H913810
	146.050	41.275	198000	236000			3.20	
2.5000	4.1250	0.8438	19300	25200	3400	4300	1.5	39250/39412
63.500	104.775	21.433	85800	112000			0.67	
	4.3307	0.8661	18600	24700	3200	4300	1.85	395/394 A
	110.000	21.999	82500	110000			0.84	
	4.2500	1.0000	20200	30800	3200	4300	2.00	25585/29520
	107.950	25.400	89700	137000			0.90	
	4.3307	0.8661	19800	26500	3200	4300	0.37	390 A/394 AS
	110.000	22.000	88000	118000			0.82	
	4.4375	1.1875	31000	44100	3200	4300	2.75	39585/38520
	112.713	30.163	138000	196000			1.25	
	4.4375	1.1875	25600	37300	3200	4000	2.75	3982/3920
	112.713	30.163	114000	166000			1.25	
	4.8125	1.5000	43600	57300	3000	4000	4.20	HM 212047/HM 21201.1
	122.238	38.100	194000	255000			1.90	
	4.8750	1.5000	35300	48600	3000	3800	4.40	559/552 A
	123.825	38.100	157000	216000			2.00	
2.5625	5.3477	2.2150	58500	79800	2800	4000	8.15	6379/6320
65.088	135.832	56.261	260000	355000			3.70	
2.5979	4.8809	1.6339	50400	69700	3000	4300	4.85	H 212749/H 212710
65.987	123.975	41.501	224000	310000			2.20	
2.6250	4.3307	0.8661	18600	24700	3200	4300	1.75	395 A/394A
66.675	110.000	21.999	82500	110000			0.79	
	4.3307	0.8661	18600	14700	3200	4300	1.75	395 S/394 A
	110.000	21.999	82500	110000			0.79	
	4.3307	1.0000	20200	30800	3200	4300	2.05	29590/29521

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating			Speed rating Lubrication			Designations Cone / Cup
d1	D	T	dynamic C	Static Co	grease	Oil	Mass	
	110.000	25.400	89700	137000			0.93	
	4.4375	1.1875	25600	37300	3200	4300	2.55	3984/3920
	112.713	30.163	114000	166000			1.15	
	4.4375	1.1875	25600	37300	3200	4300	2.65	3984/3925
	112.713	30.163	114000	166000			1.2	
	4.4375	1.1875	31000	44100	3200	4300	2.65	39590/39520
	112.713	30.163	138000	196000			1.20	
	4.6250	1.1875	25600	38900	3000	4000	3.00	33262/33462
	117.475	30.163	114000	173000			1.35	
2.6250	4.7244	1.1730	25600	38900	3000	4000	3.20	33262/33472
66.675	120.00	29.794	114000	173000			1.45	
(cont.)	4.8125	1.5000	43600	57300	3000	4000	4.10	HM 212049/HM 212010
	122.238	38.100	194000	255000			1.85	
	4.8125	1.5000	43600	57300	3000	4000	4.10	HM 212049/HM 212011
	122.238	38.100	194000	255000			1.85	
	4.8750	1.5000	35300	59600	3000	4000	4.30	560/552 A
	123.825	38.100	157000	216000			1.95	
	5.3447	2.2150	58500	79800	2800	3800	8.05	6386/6320
	135.755	53.975	260000	355000			3.65	
	5.5370	1.6250	43600	58500	2800	3800	5.05	641/632
	140.640	41.275	194000	260000			2.75	
2.6875	4.3307	0.8661	18600	24700	3200	4300	1.7	399 A/394 A
68.262	110.000	21.999	82500	110000			0.76	
	5.3750	1.8125	49500	79800	2400	3400	7.50	H 715343/H 715311
	136.525	46.038	220000	355000			3.40	
	6.3750	1.9375	58500	75300	1900	2800	11.0	9278/K 9220
	161.925	49.213	260000	335000			5.00	
2.7500	3.9062	0.6993	10500	17200	3400	4500	0.86	LL 713149/LL713110
69.850	99.217	17.762	46800	76500			0.39	
	4.4375	1.0000	21000	32800	3000	4000	2.15	29675/29620
	112.713	25.400	93500	146000			0.97	
	4.6250	1.1875	25600	38800	3000	4000	2.85	33275/33462
	117.475	30.163	114000	173000			1.30	
	4.7244	1.1730	25600	38800	3000	4000	3.10	33275/33472
	120.000	29.794	114000	173000			1.40	
	4.7244	1.1730	29700	41800	3000	4000	3.00	482/472
	120.000	29.794	132000	186000			1.35	
	4.7244	1.2813	34000	51300	3000	4000	3.30	47487/47420
	120.000	32.545	154000	228000			1.50	
	4.8750	1.1875	29700	41800	3000	4000	3.00	482/472 X
	123.825	30.163	132000	186000			1.35	
	5.0000	1.4375	34000	45900	2800	3800	4.10	566/563
	127.000	36.513	151000	204000			1.85	
	5.3750	1.6250	43600	58500	2800	3800	5.75	643/632
	136.525	41.275	194000	260000			2.60	
	5.7500	1.6250	49500	71900	2200	3200	7.15	655/653
	146.050	41.275	220000	320000			3.25	
2.7559	4.7244	1.1730	29700	41800	3000	4000	2.85	484/472
70.000	120.000	29.794	132000	186000			1.30	
2.8125	4.6250	1.1875	25600	38900	3000	4000	2.75	33281/33462
71.438	117.475	30.163	114000	173000			1.25	
	4.7244	1.1730	25600	38900	3000	4000	3.00	33281/33472
	120.000	29.794	114000	173000			1.35	
	4.7244	1.2813	34600	51300	3000	4000	3.20	47490/47420
	120.000	32.545	154000	228000			1.45	
	5.0000	1.4375	37100	53100	2800	3800	4.20	HM 813849/HM 813811
	127.000	36.513	165000	236000			1	
	5.3750	1.6250	43600	58500	2800	3800	5.60	645/632
	136.525	41.275	194000	260000			2.55	
	5.3750	1.6250	40400	65200	2600	3600	5.75	H 414249/H 414210
	136.525	41.275	224000	290000			2.60	
	5.3750	1.8125	49500	79800	2400	3400	6.95	H 715345/H 715311

Principal Dimensions (mm)			Basic Load rating		Speed rating Lubrication			Designations Cone / Cup
d1	D	T	dynamic C	Static Co	grease	Oil	Mass	
	136.525	46.038	220000	355000			3.15	
2.8750	4.4375	1.0000	21000	32800	3000	4000	1.95	29685/29620
73.025	112.713	25.400	93500	146000			0.89	
	4.6250	1.1875	25600	38900	3000	4000	2.65	33287/33462
	117.475	30.163	114000	173000			1.2	
	4.7244	1.1730	25600	38900	3000	4000	2.65	33287/33472
	120.000	29.794	114000	173000			1.3	
	4.7500	1.0000	22300	35100	3000	4000	1.96	29685/29630
	120.650	25.400	99000	156000			0.89	
	5.0000	1.4376	34000	45900	2800	3800	4.10	567/563
	127.000	36.513	151000	204000			1.85	
	5.0000	1.4735	34000	45800	2800	3800	4.10	567/563
	127.000	37.427	151000	204000			1.85	
3.0000	4.3125	0.7500	13100	22900	3000	4000	1.25	L 8147491E 814710
76.200	109.538	19.050	58300	102000			0.57	
	5.0000	1.1875	31000	45900	2800	3800	3.20	42687/42620
	127.000	30.163	138000	204000			1.45	
	5.0000	1.1875	31000	45900	2800	3800	3.20	42688/42620
	127.000	30.163	138000	204000			1.45	
	5.2500	1.1875	28800	42700	2400	3400	3.85	495 AX/492 A
	133.350	30.163	128000	190000			1.75	
	5.2500	1.1875	28800	42700	2400	3400	3.85	495 A/492 A
	133.350	30.163	128000	190000			1.75	
	5.2500	1.3125	34000	51300	2400	3400	4.20	47678/47620
	133.350	33.338	151000	228000			1.90	
	5.3438	1.7500	45000	79800	2400	3400	5.95	5760/5735
	135.733	44.450	200000	355000			2.70	
	5.3750	1.1875	28800	42700	2400	3400	4.10	495 A/493
	136.525	30.163	128000	190000			1.85	
	5.3750	1.1875	28800	42700	2400	3400	4.10	495 ax/493
	136.525	30.163	128000	190000			1.85	
	5.5000	1.4735	38700	57300	2400	3400	5.30	575/572 x
	139.700	37.425	172000	255000			2.40	
	5.5115	1.4375	38700	57300	2400	3400	5.40	575/572
	139.992	36.513	172000	255000			2.45	
	5.7500	1.6520	46100	65200	2200	3200	6.75	659/653
	146.050	41.961	205000	190000			3.05	
	5.8750	2.1250	69200	101000	2400	3400	9.15	6461 A16420
	149.225	53.975	308000	450000			4.15	
	5.9090	1.7500	58500	82100	2200	3200	8.15	748 S/742
	150.089	44.450	260000	365000			3.70	
	6.0000	1.6520	46100	65200	2200	3200	7.50	659/652
	152.400	41.961	205000	290000			3.40	
	6.3750	1.9375	58500	75300	1900	2800	9.70	9285/9220
	161.925	49.213	260000	335000			4.40	
3.0625	4.6250	1.0000	22700	36600	2800	3800	2.05	LM 81849/LM 814810
77.788	117.475	25.400	101000	163000			0.93	
3.1875	5.2500	1.1875	28800	38200	2400	3400	3.55	496/492 A
	133.350	30.163	128000	170000			1.60	
	5.3750	1.1875	28800	38200	2400	3400	3.75	496/493
	136.525	30.163	128000	170000			1.70	
	5.5115	1.4375	42000	63000	2400	3400	7.50	581/572
	139.992	36.512	187000	280000			3.40	
3.2500	4.9375	1.0000	25200	41800	2600	3600	2.45	27687/27620
82.550	125.413	25.400	112000	186000			1.1	
	5.2500	1.1875	28800	42700	2400	3400	3.40	495/492 A
	133.350	30.163	128000	190000			1.55	
3.25000	5.2500	1.3125	34000	51300	2400	3400	3.85	47686147620
82.550	133.350	33.338	151000	228000			1.75	
(cont.)	5.2500	1.5625	40200	70800	2400	3400	4.65	HM 516449/HM516410
	133.350	39.688	179000	315000			2.10	
	5.3750	1.1875	28800	42700	2400	3400	3.65	495/493

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)			Basic Load rating		Speed rating Lubrication			Designations Cone / Cup
d1	D	T	dynamic	Static	grease	Oil	Mass	
			C	Co				
	136.525	30.163	128000	190000			1.65	
	5.5000	1.4735	38700	57300	2400	3400	4.85	580/572 X
	139.700	37.427	172000	255000			2.20	
	5.5115	1.4375	38700	57300	2400	3400	4.85	580/572
	139.992	36.513	172000	255000			2.20	
	5.5115	1.475	38700	57300	2400	3400	4.85	582/572
	139.992	36.513	172000	255000			2.20	
	5.7500	1.6250	46100	65200	2200	3200	6.15	663/653
	146.050	41.275	205000	290000			2.80	
	5.9090	1.7500	58500	82100	2200	3200	7.50	749 A/742
	150.089	44.450	260000	365000			3.40	
	6.0000	1.6250	46100	65200	2200	3200	6.95	663/652
	152.400	41.275	205000	290000			3.15	
3.2813	4.9375	1.0000	25200	41800	2600	3600	2.30	27690/27620
83.345	125.413	25.400	112000	186000			1.05	
3.3125	5.2500	1.1875	28800	42700	2400	3400	3.30	498/492 A
84.138	133.350	30.163	128000	190000			1.50	
	5.3750	1.1875	28800	42700	2400	3400	3.55	498/493
	136.525	30.163	128000	190000			1.60	
3.3475	5.9090	1.7500	58500	82100	2200	3200	7.30	749/742
85.026	150.089	44.450	260000	365000			3.30	
3.3750	5.2500	1.1875	28800	42700	2400	3400	3.20	497/492 A
85.725	133.350	30.163	128000	190000			1.45	
	5.3750	1.1875	28800	42700	2400	3400	3.40	497/493
	136.525	30.163	128000	190000			1.55	
	5.5960	1.6875	50400	84300	2200	3200	5.95	H 617049/H 617010
	142.138	42.863	224000	375000			2.70	
	5.7500	1.6250	46100	65200	2200	3200	5.95	665/653
	146.050	41.275	205000	290000			2.70	
	6.0000	1.5625	43600	68600	2000	3000	6.30	596/592 A
	152.400	39.688	194000	305000			2.85	
	6.0000	1.6250	46100	65200	2200	3200	6.60	665/652
	152.400	41.275	205000	290000			3.00	
3.50000	6.0000	1.5625	40200	63000	2000	3000	6.15	592/592 A
88.900	152.400	39.688	179000	280000			2.80	
	6.0000	1.5625	55300	80900	2000	3000	6.30	HM 518445/HM 518410
	152.400	39.688	246000	360000			2.85	
	6.3750	1.8750	55300	77600	2000	3000	8.95	759/752
	161.925	47.625	246000	345000			4.05	
	6.3750	2.1250	68100	102000	2000	3000	10.5	6580/6535
	161.925	53.975	303000	455000			4.80	
3.5423	5.7864	1.5748	50400	75300	2200	3200	5.50	HM 218248/HM 218210
	146.975	40.000	224000	335000			2.50	
	6.3750	2.1250	68100	102000	2000	3000	10.5	6581 X/6535
	161.925	53.975	303000	455000			4.75	
3.6250	5.7500	1.3125	37100	60700	2200	3200	4.65	47890/47820
92.075	146.050	33.338	165000	270000			2.10	
	5.9055	1.4170	40200	63000	2000	3000	5.95	598 A/593 X
	150.000	35.992	17000	280000			2.70	
	6.0000	1.5625	40200	63000	2000	3000	5.95	598/592 A
	152.400	39.688	179000	280000			2.70	
	6.0000	1.5625	40200	63000	2000	3000	5.85	598 A/592 A
	152.400	39.688	179000	280000			2.65	
3.6875	5.8437	1.1250	29200	44100	2200	3200	3.30	42368/42584
93.662	148.430	28.575	130000	196000			1.5	
3.7500	5.0625	0.6250	13100	21400	2400	3400	1.20	LL 319349/LL 319310
95.250	128.588	15.875	58300	95000			0.54	
	5.7500	1.3125	37100	60700	2200	3200	4.20	47896/47820
	146.050	33.338	165000	270000			1.90	
	6.0000	1.5625	40200	63000	2200	3000	5.60	5941592 A
	152.400	39.688	179000	280000			2.55	
	6.0000	1.5625	40200	63000	2000	3000	5.60	594 A/592 A

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating			Speed rating Lubrication		Designations Cone / Cup	
d1	D	T	dynamic	Static	grease	Oil	Mass	
			C	Co				
	152.400	39.688	179000	280000			2.55	
	6.6250	1.6250	47700	73100	1900	2800	8.40	683/672
	168.275	41.275	212000	325000			3.80	
3.8125	5.8437	1.1250	29200	44100	2200	3200	3.65	42381/42584
96.838	148.430	28.575	130000	196000			1.65	
3.9360	6.1801	1.6535	55300	89900	2200	3000	6.40	HM 220149/HM 220110
99.9751	156.975	41.999	246000	400000			2.90	
4.0000	6.1875	1.4375	45200	75300	1900	2800	5.40	52400/52618
101.600	151.163	36.513	201000	335000			2.45	
	6.1875	1.4375	45200	75300	1900	2800	5.40	52401/52618
	157.163	36.513	201000	335000			2.45	
	6.6250	1.6250	47700	73100	1900	2800	7.60	687/672
	168.275	41.275	212000	325000			3.45	
	7.5000	2.2500	87900	128000	1800	2600	15.5	861/854
	190.500	57.150	391000	570000			6.95	
	7.5000	2.2500	98900	137000	1800	2600	16.0	HH 221449/HH 221410
	190.500	57.150	440000	610000			7.15	
4.1250	7.1250	1.8750	64300	96700	1800	2600	11.0	7821772
104.775	180.975	47.625	286000	430000			4.95	
4.1875	7.1250	1.8750	42700	70800	1900	2800	6.15	56418/56650
106.362	180.975	47.625	190000	315000			2.80	
4.2500	6.5000	0.9063	22700	36600	1900	2800	3.10	374225/37625
	165.100	23.020	101000	163000			1.40	
	6.3750	1.3750	41100	71900	1900	2800	5.40	48190/48120
	161.925	34.925	183000	320000			2.45	
	6.5000	1.4375	42700	70800	1900	2800	5.95	56425/56650
	165.100	36.513	190000	315000			2.70	
4.5000	7.0000	1.6250	50400	79800	1800	2600	7.95	64450/64700
114.300	177.800	41.275	224000	355000			3.60	
	7.1250	1.3750	41100	63000	1800	2600	6.50	68450/68712
	180.975	37.925	183000	280000			2.95	
	7.5000	1.8750	74200	121000	1700	2400	11.5	71450/71750
	190.200	47.625	330000	540000			5.25	
	8.3750	2.6250	105000	152000	1700	2400	22.0	938/932
	212.725	66.675	468000	675000			10.0	
4.5266	7.0000	1.6250	50400	79800	1800	2600	7.85	64452 A/64700
114.9761	177.800	41.275	224000	355000			3.55	
4.2650	7.1250	1.3750	41100	63000	1800	2600	6.15	68462/68712
117.475	180.975	34.925	183000	280000			2.80	
4.7500	7.5000	1.8125	70600	121000	1700	2400	10.5	HM 624749/HM 624710
120.650	190.500	46.038	314000	540000			4.85	
5.0000	6.6875	10000	29700	59600	1800	2600	3.55	L 225849/L225810
	169.863	25.400	132000	265000			1.60	
	7.1875	1.5625	51500	98900	1700	2400	7.30	48290/48220
	182563	39.688	229000	440000			3.30	
5.0000	7.7500	1.8125	69200	124000	1600	2200	11.5	67388/67322
127.000	196.850	46.038	308000	550000			5.20	
	9.0000	2.2150	94000	139000	1400	1900	19.5	HM 926747/HM 926710
	228.600	56.261	418000	620000			8.90	
5.2500	7.7500	1.8135	69200	124000	1600	2200	10.5	67390/67322
133.350	196.850	46.063	308000	550000			4.70	
	9.2500	2.5000	118000	183000	1500	2000	25.5	95525/95925
	234.950	63.000	523000	815000			11.5	
	9.2500	2.5000	118000	183000	1500	2000	25.5	95528/95925
	234.950	63.500	523000	815000			11.5	
5.3750	7.5000	1.5625	55300	112000	1700	2400	7.30	48393 A/48320
136.525	190.500	39.688	246000	500000			3.30	
5.5000	8.5000	1.8750	78000	137000	1500	2000	13.0	745520 A/74850
139.700	215.900	47.625	347000	610000			6.00	
5.7500	7.6250	1.1250	37900	79800	1600	2200	5.05	36690/36620
146.050	193.675	28.575	168700	35500			2.30	
	7.6250	1.1250	37900	79800	1600	2200	5.05	36691/36620

Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Principal Dimensions (mm)		Basic Load rating			Speed rating Lubrication		Designations Cone / Cup	
d1	D	T	dynamic	Static	grease	Oil	Mass	
			C	Co				
	193.675	28.575	168700	355000			2.30	
6.0000	10.0000	2.6252	199000	195000	1300	1800	27.5	99600/99100
152.400	254.000	66.675	528000	865000			12.5	
6.2500	8.8750	1.6250	60700	132000	1400	1900	11.5	46780/46720
158.750	225.425	41.275	270000	585000			5.30	
6.5000	8.8750	1.6250	60700	132000	1400	1900	10.5	46790/46720
165.100	225.425	41.275	270000	585000			4.75	
	13.2500	3.6250	60700	382000	950	1400	81.5	HH 437549/HH437510
	336.550	92.075	1270000	1700000			37.0	
6.8750	9.7500	1.8750	252000	165000	1200	1700	15.0	67786/67720
174.625	247.650	47.625	120000	735000			6.80	
	9.7500	1.8750	80500	165000	1200	1700	14.5	67790/67720
	247.650	47.625	358000	735000			6.60	
7.0000	10.2500	2.1250	109500	202000	1200	1700	20.5	M 236849/M236810
177.800	260.350	53.975	484000	900000			9.35	
7.0313	10.4375	2.0313	111000	198000	1200	1700	21.0	M 336948/M336912
178.595	265.113	51.595	495000	880000			9.60	
7.07840	10.4375	2.0313	111000	198000	1200	1700	20.5	M 336949/336912
179.934	265.113	51.595	495000	880000			9.40	
7.5000	10.5000	1.8750	84100	180000	1100	1600	18.0	67885/67820
190.500	266.700	47.625	374000	800000			8.20	
	11.1250	2.0000	90400	156000	1100	1600	21.0	877750/87111
	282.575	50.800	402000	695000			9.60	
7.7500	10.0000	1.1250	47700	96700	1200	1700	7.60	L 50049/L540010
196.850	254.000	28.575	212000	430000			3.45	
7.8750	10.8750	1.6875	87900	175000	1000	1500	17.0	LM 241147/LM 241110
200.025	276.225	42.863	391000	780000			7.70	
8.0000	11.1250	1.8125	80500	175000	1000	1500	19.5	67983/67920
203.200	282.575	46.038	358000	780000			8.95	
8.0310	11.1250	1.6875	87900	175000	1000	1500	16.0	LM 241148/LM 241110
203.987	282.575	42.863	391000	780000			7.25	

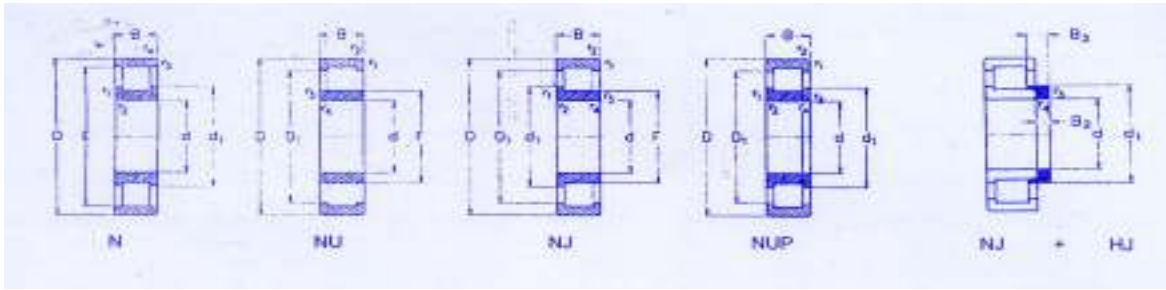
Note: *Load Rating Metric in 'N' Inch in Lbf

Note: Mass For Metric in kg for inch lb

Single Row Cylindrical Roller Bearings



BEARINGS



Primary dimensions (mm)			Designation	Load ratings		Speed Ratings		m[Kg]	Primary dimensions (mm)			Designation	Load ratings		Speed Ratings		m[Kg]
d	D	B		dyn.	stat.	grease	oil		d	D	B		dyn.	stat.	grease	oil	
15	35	11	N202	12.7	10.4	18000	22000	0.047	80	21	NU405M	45	38	8500	10000	0.625	
	35	11	NU202	12.7	10.4	18000	22000	0.047	80	21	NJ405M	45	38	8500	10000	0.625	
	35	11	NJ202	12.7	10.4	18000	22000	0.047	30	55	13	NU1006	16.6	16	12000	15000	0.134
17	40	12	N203	17.6	14.6	15000	18000	0.068	62	16	N206	39	37.5	9500	12000	0.21	
	40	12	NU203	17.6	14.6	15000	18000	0.068	62	16	NU206	39	37.5	9500	12000	0.21	
	40	12	NJ203	17.6	14.6	15000	18000	0.068	62	16	NJ206	39	37.5	9500	12000	0.21	
	40	12	NUP203	17.6	14.6	15000	18000	0.068	62	16	NUP206	39	37.5	9500	12000	0.21	
	40	16	NU2203	24	22	15000	18000	0.091	62	20	NU2206	49	50	9500	12000	0.26	
	40	16	NJ2203	24	22	15000	18000	0.091	62	20	NJ2206	49	50	9500	12000	0.26	
	40	16	NUP2203	24	22	15000	18000	0.091	62	20	NUP2206	49	50	9500	12000	0.26	
	47	14	NU303	25.5	21.2	13000	16000	0.12	72	19	N306	51	48	8500	10000	0.37	
	47	14	NJ303	25.5	21.2	13000	16000	0.12	72	19	NU306	51	48	8500	10000	0.37	
	47	14	NUP303	25.5	21.2	13000	16000	0.12	72	19	NJ306	51	48	8500	10000	0.37	
20	47	14	N204	27.5	24.5	13000	16000	0.132	72	19	NUP306	51	48	8500	10000	0.37	
	47	14	NU204	27.5	24.5	13000	16000	0.132	72	27	NU2306	73.5	75	8500	10000	0.528	
	47	14	NJ204	27.5	24.5	13000	16000	0.132	72	27	NJ2306	73.5	75	8500	10000	0.528	
	47	14	NUP204	27.5	24.5	13000	16000	0.132	72	27	NUP2306	73.5	75	8500	10000	0.528	
	47	18	NU2204	32.5	31	13000	16000	0.142	90	23	N406M	71	64	7000	8500	0.87	
	47	18	NJ2204	32.5	31	13000	16000	0.142	90	23	NU406M	71	64	7000	8500	0.87	
	47	18	NUP2204	32.5	31	13000	16000	0.142	90	23	NJ406M	71	64	7000	8500	0.87	
	52	15	N304	31.5	27	11000	14000	0.151	90	23	NUP406M	71	64	7000	8500	0.87	
	52	15	NU304	31.5	27	11000	14000	0.151	35	62	14	NU1007	23.6	24.5	10000	13000	0.18
	52	15	NJ304	31.5	27	11000	14000	0.151	72	17	N207	50	50	8500	10000	0.305	
	52	15	NUP304	31.5	27	11000	14000	0.150-	72	17	N U207	50	50	8500	10000	0.305	
	52	21	NU2304	41.5	39	11000	14000	0.21	72	17	NJ207	50	50	8500	10000	0.305	
	52	21	NJ2304	41.5	39	11000	14000	0.21	72	17	NUP207	50	50	8500	10000	0.305	
	52	21	NUP2304	41.5	39	11000	14000	0.21	72	23	NU2207	62	65.5	8500	10000	0.395	
25	47	12	NU1005	13.4	12	14000	17000	0.083	72	23	NJ2207	62	65.5	8500	10000	0.395	
	52	15	N205	29	27.5	12000	15000	0.14	72	23	NUP2207	62	65.5	8500	10000	0.395	
	52	15	NU205	29	27.5	12000	15000	0.14	80	21	N307	64	63	7500	9000	0.485	
	52	15	NJ205	29	27.5	12000	15000	0.14	80	21	NU307	64	63	7500	9000	0.485	
	52	15	NUP205	29	27.5	12000	15000	0.14	80	21	NJ307	64	63	7500	9000	0.485	
	52	18	NU2205	34.5	35	12000	15000	0.16	80	21	NUP307	64	63	7500	9000	0.485	
	52	18	NJ2205	34.5	35	12000	15000	0.16	80	31	NU2307	91.5	98	7500	9000	0.715	
	52	18	NUP2205	34.5	35	12000	15000	0.16	80	31	NJ2307	91.5	98	7500	9000	0.715	
	62	17	N305	41.5	37.5	9500	12000	0.245	80	31	NUP2307	91.5	98	7500	9000	0.715	
	62	17	NU305	41.5	37.5	9500	12000	0.245	100	25	N407M	75	69.5	6300	7500	1.05	
	62	17	NJ305	41.5	37.5	9500	12000	0.245	100	25	NU407M	75	69.5	6300	7500	1.05	
	62	17	NUP305	41.5	37.5	9500	12000	0.245	100	25	NJ407M	75	69.5	6300	7500	1.05	
	62	24	NU2305	57	56	9500	12000	0.35	100	25	NUP407M	75	69.5	6300	7500	1.05	
	62	24	NJ2305	57	56	9500	12000	0.35	40	68	15	NU1008	29	32	9500	12000	0.23
	62	24	NUP2305	57	56	9500	12000	0.35	80	18	N208	53	53	7500	9000	0.38	



Boundary Dimension			Designation	Load Ratings			Speed Ratings			Boundary Dimension			Designation	Load Ratings		Speed Ratings		
d	D	B		dyn.	stat.	grease	oil	m[kg]	d	D	B	dyn.		stat.	grease	oil	m[kg]	
	80	18	NU208	53	53	7500	9000	0.38		100	21	N211	83	95	6000	7000	0.75	
	80	18	NJ208	53	53	7500	9000	0.38		100	21	NU211	83	95	6000	7000	0.75	
	80	18	NUP208	53	53	7500	9000	0.38		100	21	NJ211	83	95	6000	7000	0.75	
	80	23	NU2208	71	75	7500	9000	0.49		100	21	NUP211	83	95	6000	7000	0.75	
	80	23	NJ2208	71	75	7500	9000	0.49		100	25	NU2211	98	118	6000	7000	0.9	
	80	23	NUP2208	71	75	7500	9000	0.49		100	25	NJ2211	98	118	6000	7000	0.9	
	90	23	N308	81.5	78	6300	7500	0.65		100	25	NUP2211	98	118	6000	7000	0.9	
	90	23	NU308	81.5	78	6300	7500	0.65		120	29	N311	134	140	4800	5600	1.6	
	90	23	NJ308	81.5	78	6300	7500	0.95		120	29	NU311	134	140	4800	5600	1.6	
	90	23	NUP308	81.5	78	6300	7500	0.95		120	29	NJ311	134	140	4800	5600	1.6	
	90	33	NU2308	112	120	6300	7500	0.95		120	29	NUP311	134	140	4800	5600	1.6	
	90	33	NJ2308	112	120	6300	7500	0.95		120	43	NU2311	200	228	4800	5600	2.3	
	90	33	NUP2308	112	120	6300	7500	0.95		120	43	NJ2311	200	228	4800	5600	2.3	
	110	27	N408M	93	86.5	5500	6800	1.30		120	43	NUP2311	200	228	4800	5600	2.3	
	110	27	NU408M	93	86.5	5500	6800	1.30		140	33	N411 M	140	137	4300	5000	2.5	
	110	27	NJ408M	93	86.5	5500	6800	1.30		140	33	NU411 M	140	137	4300	5000	2.5	
	110	27	NUP408M	93	86.5	5500	6800	1.30		140	33	NJ411 M	140	137	4300	5000	2.5	
45	75	16	NU1009	32.5	35.5	8500	10000	0.29		140	33	NUP411M	140	137	4300	5000	2.5	
	85	19	N209	61	63	7000	8500	0.5	60	95	18	NU1012	44	55	6700	8000	0.49	
	85	19	NU209	61	63	7000	8500	0.5		110	22	N212	95	104	5300	6300	1	
	85	19	NJ209	61	63	7000	8500	0.5		110	22	NU212	95	104	5300	6300	1	
	85	19	NUP209	61	63	7000	8500	0.5		110	22	NJ212	95	104	5300	6300	1	
	85	23	NU2209	73.5	81.5	7000	8500	0.6		110	22	NUP212	95	104	5300	6300	1	
	85	23	NJ2209	73.5	81.5	7000	8500	0.6		110	28	NU2212	129	153	5300	6300	1.2	
	85	23	NUP2209	73.5	81.5	7000	8500	0.6		110	28	NJ2212	129	153	5300	6300	1.2	
	100	25	N309	98	100	5600	6700	1		110	28	NUP2212	129	153	5300	6300	1.2	
	100	25	NU309	98	100	5600	6700	1		130	31	N312	150	156	4300	5000	1.9	
	100	25	NJ309	98	100	5600	6700	1		130	31	NU312	150	156	4300	5000	1.9	
	100	25	NUP309	98	100	5600	6700	1		130	31	NJ312	150	156	4300	5000	1.9	
	100	36	NU2309	137	153	5600	6700	1.3		130	31	NUP312	150	156	4300	5000	1.9	
	100	36	NJ2309	137	153	5600	6700	1.3		130	46	NU2312	224	260	4300	5000	2.9	
	100	36	NUP2309	137	153	5600	6700	1.3		130	46	NJ2312	224	260	4300	5000	2.9	
	120	29	N409M	106	100	5000	6000	1.7		130	46	NUP2312	224	260	4300	5000	2.9	
	120	29	NU409M	106	100	5000	6000	1.7		150	35	N412M	166	170	4000	4800	3.1	
	120	29	NJ409M	106	100	5000	6000	1.7		150	35	NU412M	166	170	4000	4800	3.1	
	120	29	NUP409M	106	100	5000	6000	1.7		150	35	NJ412M	166	170	4000	4800	3.1	
50	80	16	NU1010	36	41.5	8000	9500	0.32		150	35	NUP412M	166	170	4000	4800	3.1	
	90	20	N210E	64	68	6700	8000	0.6	65	100	18	NU1013	45	58.5	6300	7500	0.52	
	90	20	NU210	64	68	6700	8000	0.6		120	23	N213	108	120	5000	6000	1.2	
	90	20	NJ210	64	68	6700	8000	0.6		120	23	NU213	108	120	5000	6000	1.2	
	90	20	NUP210	64	68	6700	8000	0.6		120	23	NJ213	108	120	5000	6000	1.2	
	90	23	NU2210	78	88	6700	8000	0.65		120	23	NUP213	108	120	5000	6000	1.2	
	90	23	NJ2210	78	88	6700	8000	0.65		120	31	NU2213	150	183	4800	5600	1.6	
	90	23	NUP2210	78	88	6700	8000	0.65		120	31	NJ2213	150	183	4800	5600	1.6	
	110	27	N310	110	114	5300	6300	1.2		120	31	NUP2213	150	183	4800	5600	1.6	
	110	27	NU310	110	114	5300	6300	1.2		140	33	N313	180	190	4000	4800	2.3	
	110	27	NJ310	110	114	5300	6300	1.2		140	33	NU313	180	190	4000	4800	2.3	
	110	27	NUP310	110	114	5300	6300	1.2		140	33	NJ313	180	190	4000	4800	2.3	
	110	40	NU2310	163	186	5300	6300	1.9		140	33	NUP313	180	190	4000	4800	2.3	
	110	40	NJ2310	163	186	5300	6300	1.9		140	48	NU2313	245	285	4000	4800	3.3	
	110	40	NUP2310	163	186	5300	6300	1.9		140	48	NJ2313	245	285	4000	4800	3.3	
	130	31	N410M	129	125	4500	5300	2.1		140	48	NUP2313	245	285	4000	4800	3.3	
	130	31	NU410M	129	125	4500	5300	2.1		160	37	N413M	245	186	3800	4500	3.8	
	130	31	NJ410M	129	125	4500	5300	2.1		160	37	NU413M	183	186	3800	4500	3.8	
	130	31	NUP410	129	125	4500	5300	2.2		160	37	NJ413M	183	186	3800	4500	3.8	
55	90	18	NU1011	41.5	50	7000	8500	0.47		160	37	NUP413M	183	186	3800	4500	3.8	

Boundary Dimension		Designation	Load Ratings		Speed Ratings			Boundary Dimension		Designation	Load Ratings		Speed Ratings				
d	D	B	dyn.	stat.	grease	oil	m[kg]	d	D	B	dyn.	stat.	grease	oil	m[kg]		
70	110	20	NU1014	65	81.5	5600	6700	0.75	200	48	NUP416M	300	310	3000	3600	8.3	
	125	24	N214	120	137	4500	5300	1.3	85	130	22	NU1017	78	104	4800	5600	1.1
	125	24	NU214	120	137	4500	5300	1.3	150	25	N217	163	193	3800	4500	1.9	
	125	24	NJ214	120	137	4500	5300	1.3	150	25	NU217	163	193	3800	4500	1.9	
	125	24	NUP214	120	137	4500	5300	1.3	150	25	NJ217	163	193	3800	4500	1.9	
	125	31	NU2214	156	196	4500	5300	1.7	180	41	N317	270	300	3000	3600	5.3	
	125	31	NJ2214	156	196	4500	5300	1.7	180	41	NU317	270	300	3000	3600	5.3	
	125	31	NUP2214	156	196	4500	5300	1.7	180	41	NJ317	270	300	3000	3600	5.3	
	150	35	N314	204	220	3800	4500	2.8	90	140	24	NU1018	93	125	4500	5300	1.4
	150	35	NU314	204	220	3800	4500	2.8	160	30	N218	183	216	3600	4300	2.4	
	150	35	NJ314	204	220	3800	4500	2.8	160	30	NU218	183	216	3600	4300	2.4	
	150	35	NUP314	204	220	3800	4500	2.8	160	30	NUP218	183	216	3600	4300	2.4	
	150	51	NU2314	275	325	3800	4500	4.0	160	30	NJ218	183	216	3600	4300	2.7	
	150	51	NJ2314	275	325	3800	4500	4.0	190	43	N318	315	345	2800	3400	5.4	
	150	51	NUP2314	275	325	3800	4500	4.0	190	43	N U318	315	345	2800	3400	5.4	
	180	42	N414M	224	232	3400	4000	5.5	190	43	NJ318	315	345	2800	3400	5.4	
	180	42	NU414M	224	232	3400	4000	5.5	95	145	24	NU1019M	96.5	129	4300	5000	1.45
	180	42	NJ414M	224	232	3400	4000	5.5	170	32	N219	220	265	3200	3800	2.8	
	180	42	NUP414M	224	232	3400	4000	5.5	170	32	NU219	220	265	3200	3800	2.8	
75	115	20	NU1015	65.5	85	5300	6300	0.75	170	32	NJ219	220	265	3200	3800	2.8	
	130	25	N215	132	156	4500	5300	1.25	200	45	N319	335	380	2800	3400	6.3	
	130	25	NU215	132	156	4500	5300	1.25	200	45	NU319	335	380	2800	3400	6.3	
	130	25	NJ215	132	156	4500	5300	1.25	200	45	NJ319	335	380	2800	3400	6.3	
	130	25	NUP215	132	156	4500	5300	1.25	100	150	24	NU1020	98	134	4000	4800	1.5
	130	31	NU2215	163	208	4500	5300	1.6	180	34	N220	250	305	3200	3800	3.44	
	130	31	NJ2215	163	208	4500	5300	1.6	180	34	NU220	250	305	3200	3800	3.44	
	130	31	NUP2215	163	208	4500	5300	1.6	180	34	NJ220	250	305	3200	3800	3.44	
	160	37	N315	240	265	3400	4000	3.4	105	160	26	NU1021M	112	153	3800	4500	1.9
	160	37	NU315	240	265	3400	4000	3.4	190	36	N221	260	320	3000	3600	4.1	
	160	37	NJ315	240	265	3400	4000	3.4	190	36	NU221	260	320	3000	3600	4.1	
	160	37	NUP315	240	265	3400	4000	3.4	190	36	NJ221	260	320	3000	3600	4.1	
	160	55	NU2315	325	390	3400	4000	5.0	110	170	28	NU1022M	140	190	3600	4300	2.4
	160	55	NJ2315	325	390	3400	4000	5.0	200	38	N222	290	365	2800	3400	4.9	
	160	55	NUP2315	325	390	3400	4000	5.0	200	38	NU222	290	365	2800	3400	4.9	
	190	45	N415M	260	270	3200	3800	6.45	200	38	NJ222	290	365	2800	3400	4.9	
	190	45	NU415M	260	270	3200	3800	6.45	240	50	NU322	415	475	2400	3000	10.5	
	190	45	NJ415M	260	270	3200	3800	6.45	240	50	NJ322	415	475	2400	3000	10.5	
	190	45	NUP415M	260	270	3200	3800	6.45	120	180	28	NU1024	150	208	3400	4000	2.6
80	125	22	NU1016	76.5	98	5000	6000	1.03	215	40	N224	335	415	2600	3200	5.7	
	140	26	N216	140	170	4000	4800	1.54	215	40	NU224	335	415	2600	3200	5.7	
	140	26	NU216	140	170	4000	4800	1.54	215	40	NJ224	335	415	2600	3200	5.7	
	140	26	NJ216	140	170	4000	4800	1.54	260	55	NU324	520	600	2200	2800	13.4	
	140	26	NUP216	140	170	4000	4800	1.54	260	55	NJ324	520	600	2200	2800	13.4	
	140	33	NU2216	186	245	4000	4800	2.1	130	200	33	NU1026M	180	250	3000	3600	3.9
	140	33	NJ2216	186	245	4000	4800	2.1	230	40	N226	360	450	2400	3000	6.5	
	140	33	NUP2216	186	245	4000	4800	2.1	230	40	NU226	360	450	2400	3000	6.5	
	170	39	N316	255	275	3200	3800	3.95	230	40	NJ226	360	450	2400	3000	6.5	
	170	39	NU316	255	275	3200	3800	3.95	230	40	NUP226	360	450	2400	3000	6.5	
	170	39	NJ316	255	275	3200	3800	3.95	230	64	NU2226	530	735	2400	3000	10.5	
	170	39	NUP316	255	275	3200	3800	3.95	230	64	NJ2226	530	735	2400	3000	10.5	
	170	58	NU2316	355	425	3200	3800	5.9	230	64	NUP2226	530	735	2400	3000	10.5	
	170	58	NJ2316	355	425	3200	3800	5.9	280	58	N326	570	670	2000	2600	16.5	
	170	58	NUP2316	355	425	3200	3800	5.9	280	58	NU326	570	670	2000	2600	16.5	
	200	48	N416M	300	310	3000	3600	8.3	280	58	NJ326	570	670	2000	2600	16.5	
	200	48	NU416M	300	310	3000	3600	8.3	280	58	NUP326	570	670	2000	2600	16.5	
	200	48	NJ416M	300	310	3000	3600	8.3	280	93	NU2326.M	915	1220	1900	2400	29.6	

Developed CRL (LRJ), CRM (MRJ), RXLS, LRJA, MRJA, LLRJ, MMRJ, LLRJN, MMRJN, LLRJN, MMRJN, NU 1000 Series
All Bearings with and without inner and outer rings can be developed.

Full Complement Cylindrical Roller Bearings single Row

d 20-140 mm



BEARINGS



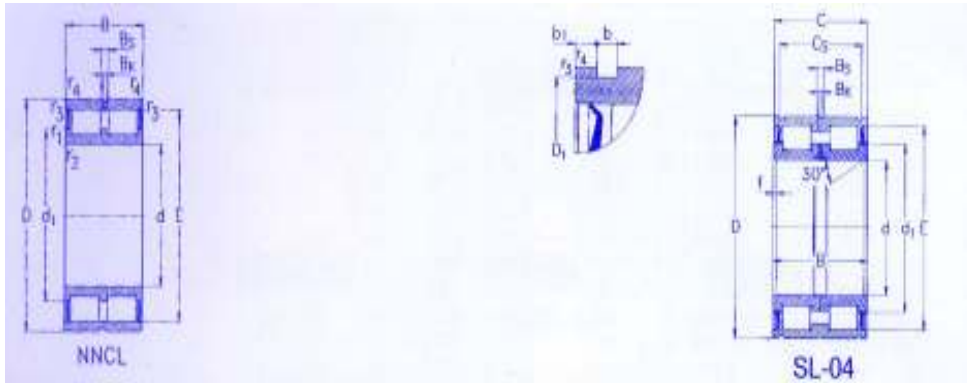
Principal dimensions		KN Basic Load dynamic	KN ratings static	Speed ratings Lubrication		Designation standard bearings	Principal dimensions		KN Basic Load dynamic	KN ratings static	Speed ratings Lubrication		Designation standard bearings					
d	D	B	C	Co	grease		Oil	Mass Kg	d	D	B	C		Co	grease	Oil	Mass Kg	
					r/min							r/min						
20	42	16	33	35	4500	8500	0.11	NCF 3004 V	170	45	330	500	850	1800	3.65	NCF 3022 V		
25	47	16	37	44	380	7000	0.12	NCF 3005 V	240	80	858	1060	560	1100	17.5	NJG 2322 VH		
	62	24	68	68	2200	4500	0.38	NJG 2305 VH	120	165	27	172	290	850	1800	1.70	NCF 2924 V	
30	55	19	49	58	3200	6000	0.20	NCF 3006 V	180	48	341	550	800	1700	3.95	NCF 3024 V		
	72	27	84	86	1900	4000	0.56	NJG 2306 VH	215	58	512	735	700	1500	9.05	NCF 2224 V		
35	62	20	55	67	2800	5300	0.25	NCF 3007 V	260	86	935	1200	530	1000	22.5	NJG 2324 VH		
	72	23	73	78	2400	4800	0.43	NCF 2207 V	130	180	30	205	360	750	1600	2.30	NCF 2926 V	
	80	31	108	114	1600	3400	0.75	NJG 2307 VH	200	52	429	659	700	1500	5.80	NCF 3026 V		
40	68	21	66	81	2400	4800	0.30	NCF 3008 V	280	93	1080	1430	500	950	28.0	NJG 2326 VH		
	90	33	145	156	1400	3000	1.00	NJG 2308 VH	140	190	30	220	390	700	1500	2.40	NCF 2928 V	
45	75	23	80	106	2000	4300	4.40	NCF 3009 V	210	53	468	750	670	1400	6.10	NCF 3028 V		
	85	23	84	98	1900	4000	0.58	NCF 2209 V	300	102	1230	1660	450	850	35.5	NJG 2328 VH		
	100	36	172	196	1300	2800	1.45	NJG 2309 VH	60	85	25	76	137	1600	3400	0.45	NNC 4912 V	
50	80	23	85	118	1900	4000	0.43	NCF 3010 V	65	100	46	194	325	1400	3000	1.30	NNCF 5013 V	
	90	23	91	110	1700	3600	0.62	NCF 2210 V	70	100	30	105	193	1400	3000	0.77	NNC 4914 V	
	110	40	198	220	1100	2400	1.85	NJG 2310 VH	75	115	54	233	380	1200	2600	1.39	NNCF 5015 V	
55	90	26	108	150	1600	3400	0.63	NCF 3011 V	80	110	30	112	216	1200	2600	0.87	NNCF 4916 V	
	120	43	233	260	1000	2200	2.30	NJG 2311 VH	110	30	112	216	1200	2600	8.87	NNCL 4916 V		
60	85	16	53	83	1600	3400	0.28	NCF 2912 V	85	130	60	292	475	1100	2400	2.75	NNCF 5017 V	
	95	26	112	156	1600	3400	0.68	NCF 3012 V	90	125	35	151	300	1100	2400	1.35	NNCF 4918 V	
65	100	26	117	173	1400	3000	0.72	NCF 3013 V	125	35	151	300	1100	2400	1.35	NNCL 4918 V		
	140	48	303	360	900	1900	3.55	NJG 2313 VH	125	35	151	300	1100	2400	1.35	NNCL 4918 V		
70	100	19	76	116	1400	3000	0.48	NCF 2314 V	100	140	40	194	400	950	2000	2.00	NNCF 4920 V	
	110	30	147	208	1300	2800	1.05	NCF 3014 V	140	40	194	400	950	2000	2.00	NNC 4920 V		
	150	55	336	400	850	1800	4.40	NJG 2314 VH	150	67	391	680	950	2000	4.05	NNCF 5020 V		
75	115	30	154	220	1200	2600	1.10	NCF3015V	110	150	40	201	430	900	1900	2.15	NNCF 4922 V	
	160	55	396	480	750	1600	5.35	NJG 2315 VH	150	40	201	430	900	1900	2.15	NNC 4922 V		
80	110	19	80	132	1200	2600	0.53	NCF 2916 V	120	165	45	224	480	800	1700	2.90	NNCF 4924 V	
	125	34	194	275	1100	2400	1.50	NCF 3016 V	165	45	224	480	800	1700	2.90	NNC 4924 V		
	170	58	457	570	700	1500	6.40	NJG 2316 VH	165	45	224	480	800	1700	2.90	NNCL 4924 V		
85	130	34	198	290	1100	2400	1.55	NCF 3017 V	180	80	561	1020	800	1700	7.10	NNCF 5024 V		
	180	60	484	620	670	1400	7.40	NJG 2317 VH	130	180	50	255	530	750	1600	3.90	NNCF 4926 V	
90	125	22	105	176	1100	2400	0.82	NCF 2918 V	180	50	255	530	750	1600	3.90	NNC 4926 V		
	140	37	229	340	1000	2200	2.05	NCF 3018 V	140	190	50	264	570	700	1500	4.15	NNCF 4928 V	
	160	40	275	365	950	2000	8.45	NCF 2218 V	190	50	264	570	700	1500	4.15	NNC 4928 V		
	190	64	550	680	670	1400	8.75	NJG 2318 VH	190	50	264	570	700	1500	4.15	NNCL 4928 V		
100	140	24	132	224	1000	2200	1.15	NCF 2920 V										
	150	37	242	375	950	2000	2.20	NCF 3020 V										
	180	46	380	530	850	1800	5.10	NCF 2220 V										
	215	73	704	900	600	1200	13.0	NJG 2320 VH										
110	150	24	140	250	900	1900	1.25	NCF 2922 V										

Double Row Full Complement Cylindrical Roller Bearings

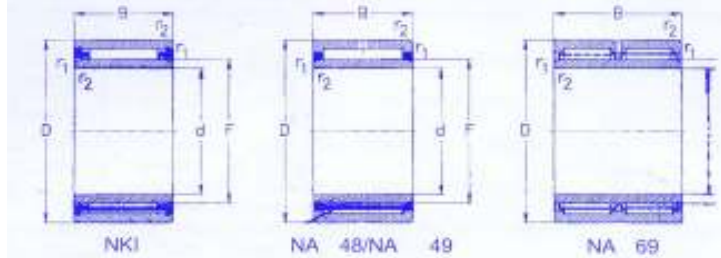
Sealed Double Row Full Complement Cylindrical Roller Bearings



BEARINGS



Boundary dimensions(mm)			Designation	Load ratings[kn]		Speed ratings[rpm]		m[kg]	Boundary dimensions(mm)			Designation	Load ratings[kn]		Speed ratings[rpm]		m[kg]
d	D	B		dyn.	stat	grease	oil		d	D	B		dyn.	stat	grease	oil	
25	47	30	NNCF5005V	55	76.4	3800	7000	0.23	25	47	30	SL045005PP	44.5	65.3	3000	7000	0.23
30	55	34	NNCF5006V	73.7	105	3200	6000	0.35	30	55	34	SL045006PP	48.5	70	2600	6000	0.35
35	62	36	NNCF5007V	88	131	2800	5300	0.46	35	62	36	SL045007PP	66	95.8	2200	5300	0.45
40	68	38	NNCF5008V	105	159	2400	4800	0.56	40	68	38	SL045008PP	79	121	2000	4800	0.53
45	75	40	NNCF5009V	128	195	2000	4300	0.70	45	75	40	SL045009PP	95.1	150	1800	4300	0.68
50	80	40	NNCF5010V	132	106	1900	4000	0.75	50	80	40	SL045010PP	101	162	1700	4000	0.73
55	90	46	NNCF5011V	176	294	1600	3400	1.15	55	90	46	SL045011PP	119	195	1500	3400	1.10
60	85	25	NNC4912V	76.5	134	1700	3400	0.48	60	95	46	SL045012PP	123	210	1600	3400	1.20
		25	NNCF4912V	76.5	134	1700	3400	0.46	65	100	46	SL045013PP	128	224	1400	3000	1.30
		25	NNCL4912V	76.5	134	1700	3400	0.46	70	110	54	SL045014PP	190	337	1400	3000	1.85
65	100	46	NNCF5012V	183	305	1600	3400	1.25	80	125	60	SL045016PP	233	420	1000	2400	2.70
		46	NNCF5013V	194	331	1400	3000	1.30	90	140	67	SL045018PP	297	552	1000	2200	3.80
		30	NNCF4914V	103	188	1400	3000	0.8	100	150	67	SL045020PP	314	580	950	2000	4.05
70	100	30	NNCF4914V	103	188	1400	3000	0.79	110	170	80	SL045022PP	380	699	850	1800	6.45
		30	NNCL4914V	103	188	1400	3000	0.76	120	180	80	SL045024PP	402	780	800	1600	6.90
		54	NNCF5014V	220	361	1300	2800	1.85	130	200	95	SL045026PP	572	1040	730	1460	10.5
80	110	30	NNC4916V	110	210	1200	2600	0.9	140	210	95	SL045028PP	594	1120	700	1400	11.0
		30	NNCF4916V	110	210	1200	2600	0.88	150	225	100	SL045030PP	693	1290	660	1220	13.5
		30	NNCL4916V	110	210	1200	2600	0.88									
90	125	60	NNCF5016	286	469	1100	2400	2.60									
		35	NNC4918V	146	292	1100	2300	1.4									
		35	NNCF4918V	146	292	1100	2300	1.37									
100	125	35	NNCL4918V	146	292	1100	2300	1.37									
		35	NNCF5018V	369	635	1000	2200	3.75									
		67	NNCF5018V	369	635	1000	2200	3.75									
100	140	40	NNC4920V	190	390	950	2000	2.1									
		40	NNCF4920V	190	390	950	2000	2.0									
		40	NNCL4920V	190	390	950	2000	2.0									
110	150	67	NNCF5020V	391	690	950	2000	4.05									
		40	NNC4922V	197	420	900	1900	2.3									
		40	NNCF4922V	197	420	900	1900	2.2									
120	150	40	NNCL4922V	197	420	900	1900	2.2									
		40	NNCF5022V	528	957	850	1800	6.60									
		80	NNCF5022V	528	957	850	1800	6.60									
120	165	45	NNC4924V	220	465	800	1700	3.2									
		45	NNCF4924V	220	465	800	1700	3.0									
		45	NNCL4924V	220	465	800	1700	3.0									
180	80	NNCF5024	561	1050	800	1700	7.10										



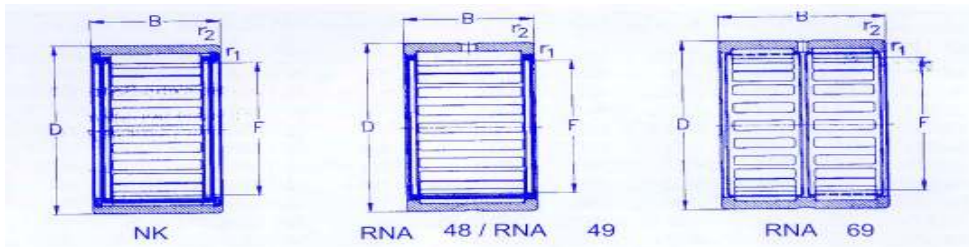
Boundary dimensions(mm)				Designation				Load ratings[kn]				Speed ratings[rpm]				m[kg]				
d	D	B		dyn.	stat	grease	oil	d	D	B		dyn.	stat	grease	oil	d	D	B		
5	15	12	NKI15/12	4.4	5.4	19000	32000	0.014	30	45	20	NKI30/20	23.2	42	7500	12000	0.12			
	15	12	NKI5/16	5.6	6.8	19000	32000	0.017		45	30	NKI30/30	34	68	7500	12000	0.179			
6	16	12	NKI6/12	4.05	4.75	18000	30000	0.015		47	17	NA4906	23.2	34	7500	12000	0.114			
	16	16	NKI6/16	5.85	7.65	18000	30000	0.019		47	30	NA6906	39	66	7500	12000	0.205			
7	17	12	NKI7/12	5.2	6.55	17000	28000	0.017		50	22	NKIS30	35.5	51	7000	11000	0.198			
	17	16	NKI7/16	5.6	7.35	17000	28000	0.021	32	47	20	NK132/20	23.6	43	7000	11000	0.127			
9	19	12	NKI9/12	6.4	7.65	16000	26000	0.024		47	30	NK132/30	34.5	71	7000	11000	0.192			
	19	16	MKI9/16	6.4	9.15	16000	26000	0.024		52	20	NA4932	28.5	47	6700	10000	0.169			
10	22	13	NA4900	8.15	9.15	16000	26000	0.025		52	36	NA69/32	43	78	6700	10000	0.313			
	22	16	NKI10/16	11	13.7	16000	26000	0.032	35	50	20	NK135/20	25	48	6700	10000	0.135			
	22	20	NKI10/20	13.2	17.3	16000	26000	0.04		50	30	NK135/30	36.5	77	6700	10000	0.208			
12	24	13	NA4901	9	11	15000	24000	0.028		55	20	NA4907	29	49	6700	10000	0.179			
	24	16	NKI12/16	11.4	15	15000	24000	0.036		55	36	NA6907	44	83	6700	10000	0.340			
	24	20	NKI12/20	13.7	19	15000	24000	0.046		58	22	NKIS35	37.5	57	6300	9500	0.235			
	24	22	NA6901	14.3	20	15000	24000	0.051	38	53	20	NK138/20	26	51	6300	9500	0.146			
15	27	16	NKI15/16	12.2	17.3	14000	22000	0.042		53	30	NK138/30	38	83	6300	9500	0.196			
	27	20	NKI15/20	15	22	14000	22000	0.054	40	55	20	NKI40/20	26.5	53	6300	9500	0.152			
	28	13	NA4902	10.2	13.7	13000	20000	0.037		55	30	NK140/30	69	87	6300	9500	0.229			
	28	23	NA6902	16.6	25.5	13000	20000	0.067		62	22	NA4908	40	64	5600	8500	0.248			
17	29	16	NKI17/16	13.4	20	13000	20000	0.047		62	40	NA6908	64	118	5600	8500	0.473			
	29	20	NKI17/20	16.3	25	13000	20000	0.059		65	22	NKIS40	41.5	68	5600	8500	0.292			
	30	13	NA4903	10.4	14.6	12000	19000	0.04	42	57	20	NK142/20	27	55	6000	9000	0.159			
	30	23	NA6903	18	29	12000	19000	0.084		57	30	NK142/30	39	90	6000	9000	0.241			
	37	20	NKIS17	26	31	10000	17000	0.108	45	62	25	NK145/25	37.5	77	5600	8500	0.244			
20	32	16	NKI20/16	14.3	22.4	10000	17000	0.053		62	35	NK145/35	51	114	5600	8500	0.345			
	32	20	NKI20/20	17.3	28.5	10000	17000	0.067		68	22	NA4909	41.5	70	5300	8000	0.291			
	37	17	NA4904	19	23.6	10000	17000	0.084		68	40	NA6909	65.5	125	5300	8000	0.559			
	37	30	NA6904	33.5	49	10000	17000	0.133		72	22	NKIS45	42.5	72	5000	7500	0.36			
	42	20	NKIS20	27.5	36.5	9000	15000	0.13	50	68	25	NKI50/25	41.5	82	5000	7500	0.288			
22	34	16	NK122/16	14.6	23.6	9500	16000	0.058		68	35	NK15035	57	122	5000	7500	0.406			
	34	20	NK122/20	17.6	30	9500	16000	0.071		72	22	NA4910	43	77	4800	7000	0.296			
	39	17	NA49/22	20.8	27.5	9000	15000	0.089		72	40	NA6910	67	132	4800	7000	0.577			
	39	30	NA39/22	29	51	9000	15000	0.163		80	28	NKIS50	60	98	4800	7000	0.523			
25	38	20	NK125/20	20.8	34	8500	14000	0.086	55	72	25	NK155/25	40	88	4800	7000	0.29			
	38	30	NK125/30	27	54	8500	14000	0.13		72	35	NK155/35	55	132	4800	7000	0.41			
	42	17	NA4905	21.5	30	8500	14000	0.099		80	25	NA4911	56	100	4500	6700	0.426			
	42	30	NA6905	36.5	57	8500	14000	0.178		80	45	NA6911	83	160	4500	6700	0.8			
	47	22	NKIS25	32.5	44	8000	13000	0.174		85	28	NKIS55	64	108	4300	6300	0.569			
28	42	20	NK128/20	22	37.5	8000	13000	0.104	60	82	25	NK160/25	44	95	4000	6000	0.44			
	42	30	NK128/30	32.5	62	8000	13000	0.156		82	35	NK160/35	60	143	4000	6000	0.52			
	45	17	NA49/28	22.4	31.5	8000	13000	0.108		85	25	NA4912	58.5	108	4000	6000	0.457			
	45	30	NA69128	40	60	8000	13000	0.19		85	45	NA6912	71	176	4000	6000	0.854			

Needle Roller Bearings



BEARINGS

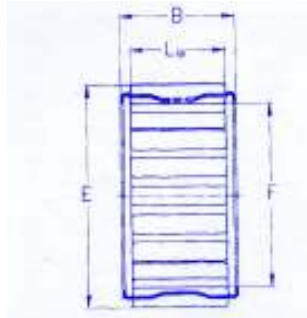
Boundary dimensions(mm)			Designation	Load ratings[kn]				Speed ratings[rpm]			m[kg]	Boundary dimensions(mm)			Designation	Load ratings[kn]				Speed ratings[rpm]			m[kg]
d	D	B		dyn.	stat	grease	oil	d	D	B		dyn.	stat	grease		oil							
	90	25	NKIS60	65.5	114	4000	6000	0.607		120	32	NAK80	64	176	2600	4000	1,200						
65	90	25	NK165/25	55	112	3800	5600	0.5		120	35	NA4917	100	220	2800	4300	1,310						
	90	25	NA4913	58.5	114	4000	6000	0.489		120	63	NA6917	143	415	2800	4300	2,430						
	90	35	NK165/35	75	166	3800	5600	0.69	90	120	26	NKI90/26	75	153	2800	4300	0.78						
	90	45	NA6913	95	196	4000	6000	0.945		120	36	NKI90/36	108	245	2800	4300	1,080						
	95	28	NKIS65	69.5	125	3800	5600	0.655		125	32	NAK90	64	180	2600	4000	1,260						
70	95	25	NKI70/25	58.5	122	3600	5300	0.561		125	35	NA4918	104	236	2600	4000	1,370						
	95	35	NK170/35	72	176	3600	5300	0.7		125	63	NA6918	160	405	2600	4000	2,640						
	100	28	NKIS/70	72	137	3400	5000	0.68	95	125	26	NK195/26	50	129	2600	4500	0.935						
	100	30	NA4914	78	150	3600	5300	0.772		125	36	NK195/36	69.5	196	2600	4000	1,300						
	100	54	NA6914	125	270	3600	5300	1,450		130	32	NAK95	67	193	2400	3800	1,350						
75	105	25	NK175/25	69.5	129	3400	5000	0.64		130	35	NA4919	106	245	2400	3800	1,430						
	105	30	NA4915	80	156	3400	5000	0.817		130	63	NA6919	150	455	2400	3800	2,670						
	105	35	NAK75/35	98	208	3400	5000	1,050	100	130	30	NKI100/30	93	208	2400	3800	0.984						
	105	54	NA6915	129	290	3400	5000	1,550		130	40	NKI100/40	122	290	2400	3800	1,413						
	110	32	NAK75	61	160	3000	4500	0.09		135	32	NKIS100	95	216	2200	3600	1,340						
80	110	25	NKI80/25	72	140	3000	4500	0.79		140	40	NA4920	127	285	2200	3600	2,010						
	110	30	NA4916	83	170	3000	4500	0.862	110	140	30	NA4822	81.5	216	2000	3400	1,210						
	110	35	NK180/35	102	220	3000	4500	0.98		150	40	NA4922	134	315	2000	3400	2,190						
	110	54	NA6916	118	320	3000	4500	1,620	120	150	30	NA4824	85	236	1900	3200	1,310						
	115	32	NAK80	63	170	2800	4500	1,150		165	45	NA4924	160	380	1800	3000	3,040						
85	115	26	NK185/26	46.5	116	3000	4500	0.862															
	115	36	NK185/36	104	228	3000	4500	1,040															



Boundary dimension			Designation	load ratings		speed ratings		m kg	Boundary dimension			Designation	load ratings		speed ratings		m kg
F	D	B		dyn.	stat.	grease	oil		F	D	B		dyn.	stat.	grease	oil	
8	15	22	NK8/12	4.4	5.0	19000	32000	0.011	38	20	NKS25	26	31	10000	17000	0.076	
	15	16	NK8/16	5.6	6.8	19000	32000	0.013	26	34	16	NK26/16	14.6	23.6	9500	16000	0.039
9	16	12	NK9/12	4.1	4.8	18000	30000	0.012	34	20	NK26/20	17.6	30	9500	16000	0.048	
	16	16	NK9/16	5.9	7.7	18000	30000	0.015	28	37	20	NK28/20	20	32	9000	15000	0.057
10	17	12	NK10/12	5.2	6.6	17000	28000	0.013	37	30	NK28/30	26.5	52	9000	15000	0.088	
	17	16	NK10/16	5.6	7.4	17000	28000	0.016	39	17	RNA49/22	20.8	27.5	9000	15000	0.06	
12	19	12	NK12/12	5.7	6.6	16000	26000	0.013	39	30	RNA69/22	29	51	9000	15000	0.105	
	19	16	NK12/16	6.4	9.2	16000	26000	0.018	42	20	NKS28	27.5	36.5	9000	15000	0.095	
14	22	13	RNA4900	8.2	9.2	16000	26000	0.018	29	38	20	NK29/20	20.8	34	8500	14000	0.09
	22	16	NK14/16	11.0	13.7	16000	26000	0.023	38	30	NK29/30	27	34	8500	14000	0.09	
	22	20	NK14/20	13.2	17.3	16000	26000	0.028	30	40	20	NK30/20	21.6	36	8500	14000	0.07
15	23	16	NK15/16	10.8	13.7	16000	26000	0.024	40	30	NK30/30	31.5	58.5	8500	14000	0.107	
	23	20	NK15/20	13.2	17.3	16000	26000	0.03	42	14	RNA4905	21.6	30	8500	14000	0.071	
16	24	13	RNA4901	9.0	11.0	15000	24000	0.02	42	30	RNA6905	36.5	57	8500	14000	0.127	
	24	16	NK16/16	11.4	15	15000	24000	0.025	45	22	NKS30	31	40.5	8500	14000	0.114	
	24	20	NK16/20	13.7	19	15000	24000	0.032	32	42	20	NK32/20	22	37.5	8000	13000	0.074
	24	22	RNA6901	14.3	20	15000	24000	0.035	42	30	NK32/30	32.5	62	8000	13000	0.112	
17	25	16	NK17/16	12	16	15000	24000	0.027	45	17	RNA49/28	22.4	31	8000	13000	0.08	
	25	20	MK17/20	13.7	19	15000	24000	0.034	45	30	RNA69/28	40	60	8000	13000	0.14	
18	26	16	NK18/16	12	16.3	15000	24000	0.028	47	22	NKS32	32.5	44	8000	13000	0.12	
	26	20	NK18/20	14.3	20.4	15000	24000	0.035	35	45	20	NK35/20	23.2	41.5	7500	12000	0.08
19	27	16	NK19/16	12.5	17.3	14000	22000	0.029	45	30	NK35/30	34	68	7500	12000	0.122	
	27	20	NK19/20	15	22	14000	22000	0.037	47	17	RNA4905	23.2	33.5	7500	12000	0.08	
20	28	13	RNA4902	10.2	13.7	13000	20000	0.023	47	30	RNA6906	39	65.5	7500	12000	0.148	
	28	16	NK20/16	12.5	17.6	13000	20000	0.032	50	22	NKS35	34	47.5	7500	12000	0.13	
	28	20	NK20/20	15.6	23.6	13000	20000	0.038	37	47	20	NK37/20	23.6	43	7000	11000	0.084
	28	23	RNA6902	16.6	25.5	13000	20000	0.042	47	30	NK37/30	34.5	71	7000	11000	0.128	
	32	20	NKS20	22	25	13000	20000	0.058	52	22	NKS37	35.5	51	7000	11000	0.134	
21	29	16	NK21/16	13.4	20	13000	20000	0.032	38	48	20	NK38/20	20.8	41.5	7000	11000	0.087
	29	20	NK21/20	16.3	25	13000	20000	0.04	48	30	NK38/30	30.5	68	7000	11000	0.13	
22	30	13	RNA4903	10.4	14.6	12000	19000	0.025	40	52	20	RNA49/32	28.5	46.5	6700	10000	0.1
	30	16	NK22/16	13.4	20	12000	19000	0.034	52	36	RNA6943	43	78	6700	10000	0.185	
	30	20	NK22/20	16	25	12000	19000	0.04	50	20	NK49/20	25	47.5	6700	10000	0.089	
	30	23	RNA6903	18	29	12000	19000	0.056	50	30	NK40/30	36.5	76.5	6700	10000	0.137	
	35	20	NKS22	20.8	25.5	12000	19000	0.069	55	22	NKS40	36.5	54	6700	10000	0.14	
24	32	16	NK24/16	14.3	22.4	10000	17000	0.035	42	52	20	NK42/20	25.5	49	6700	10000	0.085
	32	20	NK24/20	17.3	28.5	10000	17000	0.045	52	30	NK42/30	37.5	80	6700	10000	0.14	
	37	20	NKS24	26	31	10000	17000	0.072	55	20	RNA4907	29	49	6700	10000	0.115	
25	33	16	NK25/16	14.3	22.4	10000	17000	0.035	55	36	RNA6907	44	83	6700	10000	0.22	
	33	20	NK25/20	17	28.5	10000	17000	0.045	43	53	20	NK43/20	26	51	6300	9500	0.095
	37	17	RNA4904	19	23.6	10000	17000	0.06	53	30	NK43/30	38	83	6300	9500	0.133	
	37	30	RNA6904	33.5	49	10000	17000	0.09	58	22	NKS43	37.5	57	6300	9500	0.15	



Boundary dimension			Designation	load ratings		speed ratings		m kg	Boundary dimension			Designation	load ratings		speed ratings		m kg
F	D	B		dyn.	stat.	grease	oil		F	D	B		dyn.	stat.	grease	oil	
45	55	20	NK45/20	26.5	53	6300	9500	0.1	91	28	28	NKS75	69.5	125	3800	5600	0.41
	55	30	NK45/30	39	86.5	6300	9500	0.15	80	95	25	NK80/25	58.5	122	3600	5300	0.33
	60	22	NKS45	39	61	6300	9500	0.155	95	35	35	NK80/35	72	176	3600	5300	0.38
47	57	20	NK47/20	27	55	6000	9000	0.105	100	30	30	RNA4914	78	150	3600	5300	0.5
	57	30	NK47/30	39	90	6000	9000	0.16	100	54	54	RNA6914	125	270	3600	5300	0.945
48	62	20	RNA4908	40	64	5600	8500	0.155	85	105	25	NK85/25	69.5	129	3400	5000	0.4
	62	40	RNA6908	64	118	5600	8500	0.305	105	30	30	RNA4915	80	156	3400	5000	1,530
50	62	25	NK50125	37.5	76.5	5600	8500	0.17	105	35	35	NK85/35	98	208	3400	5000	0.71
	62	35	NK50/35	51	114	5600	8500	0.24	105	54	54	RNA6915	129	290	3400	5000	1,020
	62	22	NKS50	41.5	68	5600	8500	0.17	90	110	25	NK90/25	72	140	3000	4500	0.53
52	68	22	RNA4909	41.5	69.5	5300	8000	0.2	110	30	30	RNA4916	83	170	3000	4500	0.556
	68	40	RNA6909	65.5	125	5300	8000	0.39	110	35	35	NK90/35	102	220	3000	4500	0.62
55	68	25	NK55/25	41.5	81.5	5000	7500	0.21	110	54	54	RNA6919	118	320	3000	4500	1,050
	68	35	NK55/35	57	122	5000	7500	0.295	95	115	26	NK95/26	46.5	116	3000	4500	0.572
	72	22	NKS55	42.5	72	5000	7500	0.23	115	36	36	NK95/36	104	228	3000	4500	0.640
58	72	22	RNA4910	43	76.5	4800	7000	0.18	100	120	34	RNA4917	100	220	2800	4300	0.715
	72	40	RNA6911	67	132	4800	7000	0.365	120	63	63	RNA6917	143	415	2800	4300	1,350
60	80	28	NKS60	60	98	4800	7000	0.335	120	26	26	NK100/26	75	153	2800	4300	0.48
	72	25	NK60/25	40	88	4800	7000	0.2	120	36	36	NK100/36	108	245	2800	4300	0.66
	72	35	NK60/35	55	132	4800	7000	0.285	105	125	35	RNA4918	104	236	2600	4000	0.75
63	80	25	RNA4911	56	100	4500	6700	0.285	125	63	63	RNA6918	160	405	2600	4000	1.50
	80	45	RNA6911	83	160	4500	6700	0.540	125	26	26	NK105/26	50	129	2600	4000	0.63
65	78	25	NK65/25	43	91.5	4500	6700	0.260	125	36	36	NK105/36	69.5	196	2600	4000	0.87
	78	35	NKS65/35	60	137	4500	6700	0.300	110	130	30	NK110/30	93	208	2400	3800	0.60
	85	28	NK65	64	108	4300	6300	0.360	130	40	40	NK110/40	122	290	2400	3800	0.90
68	82	25	NK68/25	40	95	4000	6000	0.285	130	35	35	RNA4919	106	245	2400	3800	0.78
	82	35	NK68/35	60	143	4000	6000	0.350	130	63	63	RNA6919	150	455	2400	3800	1.47
	85	25	RNA4912	58.5	108	4000	6000	0.7305	115	140	40	RNA4920	127	285	2200	3600	1.22
	85	45	RNA6912	71	176	4000	6000	0.57	120	140	30	RNA4822	81.5	216	2000	3400	0.79
70	85	25	NK70/25	41.5	90	4000	6000	0.300	125	150	40	RNA4922	134	315	2000	3400	1.32
	85	35	NK70/35	58.5	140	4000	6000	0.410	130	150	30	RNA4824	85	236	1900	3200	0.85
	70	28	NKS60	65.5	114	4000	6000	0.385	135	165	45	RNA4924	160	380	1800	3000	1.98
72	90	25	RNA4913	58.5	114	4000	6000	0.345	145	165	35	RNA4826	98	300	1700	2800	1.10
	90	45	RNA6913	95	196	4000	6000	0.68	150	180	50	RNA4926	190	490	1700	2800	2.42
73	90	25	NK73/25	55	112	3800	5600	0.320	155	175	35	RNA4828	102	315	1600	2600	1.17
	90	35	NK73/35	75	166	3800	5600	0.45	160	190	49	RNA9828	193	520	1600	2600	2.56
75	92	25	NK75/25	41.5	91.5	3800	5600	0.365	165	190	30	RNA483	125	375	1600	2600	1.82
	92	35	NK75/35	58.5	143	3800	5600	0.52	175	200	40	RNA4832	129	390	1500	2400	1.90

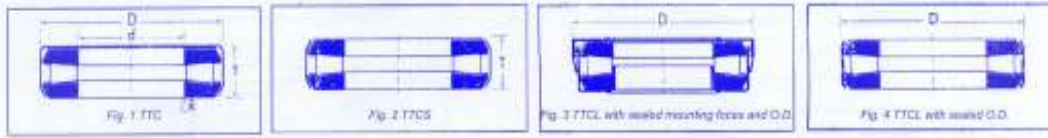


Boundary dimension			Designation	load ratings		speed ratings		m kg	Boundary dimension			Designation	load ratings		speed ratings		m kg
F	D	B		dyn.	stat.	grease	oil		F	D	B		dyn.	stat.	grease	oil	
8	11	8	K8x11x8	3.1	3.2	19000	32000	0.002		21	21	K15x21x21	16.6	20.8	16000	26000	0.018
	11	10	K8x11x10	3.8	4.25	19000	32000	0.002	16	20	8	K16x20x8	6.1	7.65	15000	24000	0.005
	11	13	K8x11x13	5	5.85	19000	32000	0.003		20	10	K16x20x10	7.35	9.8	15000	24000	0.006
	12	13	K8x12x13	5.85	6	19000	32000	0.005		20	13	K16x20x13	9.5	13.7	15000	24000	0.007
9	12	10	K9x12x10	4.05	4.75	18000	30000	0.003		20	14	K16x20x14	10.2	15	15000	24000	0.008
	12	13	K9x12x13	5.3	6.55	18000	30000	0.004		20	17	K16x20x17	11.2	17	15000	24000	0.008
10	13	9	K10x13x9	4.6	5.7	17000	28000	0.002		20	20	K16x20x20	12.7	19.6	15000	24000	0.01
	13	10	K10x13x10	5.2	6.55	17000	28000	0.002		22	12	K16x22x12	11	12.5	16000	26000	0.012
	13	13	K10x13x13	5.6	7.35	17000	28000	0.004		22	20	K16x22x20	17.6	23.2	16000	26000	0.021
	13	16	K10x13x16	7.1	9.8	17000	28000	0.004		24	20	K16x24x20	19.3	21.6	16000	26000	0.031
	14	10	K10x14x10	5.85	6.4	18000	30000	0.004	17	20	10	K17x20x10	5.7	8.8	15000	24000	0.005
	14	13	K10x14x13	7.5	8.8	18000	30000	0.005		21	10	K17x21x10	7.65	10.6	15000	24000	0.005
11	14	10	K110410	4.55	5.7	17000	28000	0.003		21	13	K17x21x13	10	14.6	15000	24000	0.008
12	15	9	K12x15x9	4.55	5.85	16000	26000	0.002		21	15	K17x21x15	10.8	16.3	15000	24000	0.009
	15	10	K12x15x10	5.6	7.65	16000	26000	0.003		21	17	K17x21x17	11.2	17	15000	24000	0.012
	15	13	K12x15x13	6.4	9.15	16000	26000	0.004		22	20	K17x22x20	16.3	23.6	15000	24000	0.018
	15	15	K12x15x15	6.7	9.65	16000	26000	0.005		23	15	K17x23x15	13.4	16.6	15000	24000	0.017
	16	10	K12x16x10	6.55	7.8	16000	26000	0.005	18	22	10	K18x22x10	8	11.2	15000	24000	0.006
	16	13	K12x16x13	7.1	8.65	16000	26000	0.007		22	13	K18x22x13	10.2	15.6	15000	24000	0.008
	17	17	K12x17x13	8.5	9.5	17000	28000	0.008		22	14	K18x22x14	11	17	15000	24000	0.009
	17	17	K12x17x14	9.8	11.4	17000	28000	0.009		22	17	K18x22x17	12.5	20	15000	24000	0.01
	18	18	K12x18x12	9.5	9.8	17000	28000	0.009		22	20	K18x22x20	14.3	23.6	15000	24000	0.014
13	17	17	K13x17x10	6.8	8.5	16000	26000	0.005		23	20	K18x23x20	17	25.5	15000	24000	0.019
	18	18	K13x18x15	10.4	12.2	16000	26000	0.011		24	12	K18x24x12	11.2	13.4	15000	24000	0.013
14	18	8	K14x18x8	5.1	6	16000	26000	0.005		24	13	K18x24x13	11.6	13.7	15000	24000	0.016
	18	10	K14x18x10	6.8	8.5	16000	26000	0.005		24	20	K18x24x20	18.3	25	15000	24000	0.02
	18	13	K14x18x13	9.15	12.5	16000	26000	0.007		25	22	K18x25x22	22	29	15000	24000	0.028
	18	15	K14x18x15	10	14	16000	26000	0.007		26	20	K18x26x20	20.8	24.5	15000	24000	0.034
	18	16	K14x18x16	9.5	12.9	16000	26000	0.007	19	23	13	K19x23x13	10.2	15.6	14000	22000	0.008
	18	17	K14x18x17	11.8	17.9	16000	26000	0.008		23	17	K19x23x17	12.7	20.8	14000	22000	0.013
	19	13	K14x19x13	9.8	11.6	16000	26000	0.007	20	24	8	K20x24x8	6.95	9.8	13000	20000	0.006
	19	18	K14x19x18	12.5	16.3	16000	26000	0.014		24	10	K20x24x10	8.5	12.7	13000	20000	0.007
	20	12	K14x20x12	10	10.8	16000	26000	0.01		24	12	K20x24x12	10.2	16	13000	20000	0.008
15	18	14	K15x18x14	7.8	12.5	15000	24000	0.005		24	13	K20x24x13	11	17.3	13000	20000	0.009
	18	16	K15x18x16	8	12.9	15000	24000	0.007		24	14	K20x24x14	11.8	19	13000	20000	0.009
	18	17	K15x18x17	8.3	13.7	15000	24000	0.005		24	17	K20x24x17	14	24	13000	20000	0.011
	19	10	K15x19x10	7.5	9.8	15000	24000	0.005		26	12	K20x26x12	12.5	15.6	13000	20000	0.014
	19	13	K15x19x13	9.15	12.7	15000	24000	0.007		26	13	K20x26x13	12.7	16	13000	20000	0.015
	19	14	K15x19x14	10.2	14.6	15000	24000	0.007		26	17	K20x26x17	18.6	26.5	13000	20000	0.019
	19	17	K15x19x17	11.6	17.3	15000	24000	0.009		26	20	K20x26x20	19.3	27.5	13000	20000	0.022
	20	13	K15x20x13	9.5	11.6	16000	26000	0.011		28	20	K20x28x20	23.2	29	13000	20000	0.032
	21	15	K15x21x15	12.7	15	16000	26000	0.014		28	20	K20x28x20	23.2	29	13000	20000	0.032

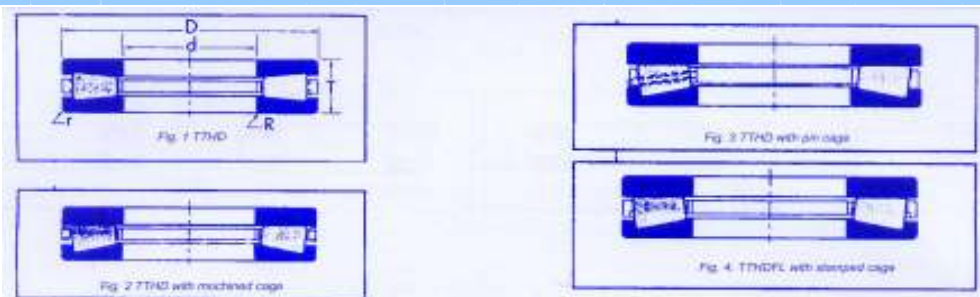
Boundary dimension			Designation	load ratings		speed ratings		m kg	Boundary dimension			Designation	load ratings		speed ratings		m kg
F	D	B		dyn.	stat.	grease	oil		F	D	B		dyn.	stat.	grease	oil	
	28	25	K20x28x25	28	37.5	13000	20000	0.039		35	17	K30x35x17	19.3	35.5	8500	14000	0.02
	30	30	K20x30x30	34.5	42.5	13000	20000	0.059		35	18	K30x35x18	20.4	37.5	8500	14000	0.02
21	25	17	K21x25x17	13.7	23.2	13000	20000	0.014		35	20	K30x35x20	21.6	43	8500	14000	0.03
22	26	10	K22x26x10	8.65	13.4	12000	19000	0.006		35	23	K30x35x23	24.5	47.5	8500	14000	0.03
	26	13	K22x26x13	11.2	18.6	12000	19000	0.01		35	24	K30x35x24	26	52	8500	14000	0.03
	26	14	K22x26x14	12.5	21.2	12000	19000	0.01		35	27	K30x35x27	29	60	8500	14000	0.03
	26	17	K22x26x17	14.6	26.5	12000	19000	0.012		36	14	K30x36x14	17	26.5	8500	14000	0.02
	26	18	K22x26x18	14.6	25.5	12000	19000	0.013		37	18	K30x37x18	23.2	35.5	8500	14000	0.04
	27	17	K22x27x17	15.6	24	12000	19000	0.016		40	30	K30x40x30	44	64	8500	14000	0.08
	28	13	K22x28x13	14	18.6	12000	19000	0.017		42	30	K30x42x30	51	68	8500	14000	0.1
	28	17	K22x28x17	17.3	24.5	12000	19000	0.021	32	36	15	K32x36x15	11	20.4	8000	13000	0.02
	30	15	K22x30x15	18.6	22.8	12000	19000	0.027		37	13	K32x37x13	14.6	25	8000	13000	0.02
	32	28	K22x32x28	37.5	48	12000	19000	0.072		37	17	K32x37x17	19	35.5	8000	13000	0.02
	32	30	K22x32x30	39	51	12000	19000	0.064		37	27	K32x37x27	28	57	8000	13000	0.04
23	28	24	K23x28x24	21.2	36.5	11000	18000	0.028		38	20	K32x38x20	26	48.5	8000	13000	0.04
24	28	10	K24x28x10	8.8	14	10000	17000	0.008		38	26	K32x38x26	31.5	58.5	8000	13000	0.04
	28	13	K24x28x13	11.8	20.4	10000	17000	0.01		39	14	K32x39x14	20	30	8000	13000	0.03
	28	16	K24x28x16	12	20.4	10000	17000	0.015		39	16	K32x39x16	21.2	32.5	8000	13000	0.04
	28	17	K24x28x17	14.6	26.5	10000	17000	0.012		39	18	K32x39x18	24.5	39	8000	13000	0.04
	30	17	K24x30x17	18.6	28	10000	17000	0.023		40	25	K32x40x25	36	57	8000	13000	0.06
	30	22	K24x30x22	22	34.5	10000	17000	0.03		40	36	K32x40x36	49	86.5	8000	13000	0.08
25	29	10	K25x29x10	9.15	15	10000	17000	0.008		42	42	K32x42x42	65.5	108	8000	13000	0.12
	29	13	K25x29x13	10	18.6	10000	17000	0.014	34	44	26	K32x44x26	40.5	58.5	7500	12000	0.09
	29	17	K25x29x17	14.3	26.5	10000	17000	0.017	35	40	13	K35x40x13	15.6	28	7500	12000	0.02
	30	13	K25x30x13	14	22	10000	17000	0.014		40	17	K35x40x17	20	39	7500	12000	0.03
	30	17	K25x30x17	18	30.5	10000	17000	0.019		40	19	K35x40x19	22	44	7500	12000	0.03
	30	18	K25x30x18	19.6	34	10000	17000	0.02		40	25	K35x40x25	27	57	7500	12000	0.03
	30	20	K25x30x20	20	34.5	10000	17000	0.022		40	27	K35x40x27	28.5	60	7500	12000	0.04
	30	24	K25x30x24	23.6	43	10000	17000	0.025		40	31	K35x40x31	32	69.5	7500	12000	0.04
	31	14	K25x31x14	16	23.2	10000	17000	0.019		42	16	K35x42x16	23.6	37.5	7500	12000	0.04
	31	17	K25x31x17	18.6	28	10000	17000	0.023		42	18	K35x42x18	26	43	7500	12000	0.04
	31	21	K25x31x21	23.6	38	10000	17000	0.029		42	30	K35x42x30	38	71	7500	12000	0.06
	31	24	K25x31x24	24	39	10000	17000	0.038		45	20	K35x45x20	35.5	50	7500	12000	0.08
	32	15	K25x32x15	18.3	25	10000	17000	0.028		45	41	K35x45x41	67	114	7500	12000	0.13
	32	16	K25x32x16	19	26	10000	17000	0.027		45	49	K35x45x49	78	137	7500	12000	0.15
	33	20	K25x33x20	27.5	38	10000	17000	0.039	36	40	29	K36x40x29TN	20.4	47.5	7500	12000	0.02
	33	25	K25x33x25	31	45	10000	17000	0.046		42	16	K36x42x16	21.6	38	7500	12000	0.03
	35	25	K25x35x25	35.5	46.5	10000	17000	0.059	37	42	13	K37x42x13	16.3	30	7000	11000	0.02
	35	30	K25x35x30	42.5	57	10000	17000	0.07		42	17	K37x42x17	20.8	41.5	7000	11000	0.03
26	30	13	K26x30x13	11.6	20.4	9500	16000	0.013		42	27	K37x42x27	30.5	68	7000	11000	0.05
	30	17	K26x30x17	14.3	26.5	9500	16000	0.017		44	19	K37x42x19	28.5	49	7000	11000	0.04
	31	20	K26x31x20	19	32.5	9500	16000	0.026	38	43	17	K38x43x17	20.8	41.5	7000	11000	0.03
27	34	17	K27x34x17	19.3	27	9000	15000	0.035		43	27	K38x43x27	30.5	68	7000	11000	0.05
28	32	21	K28x32x21	17.6	36	9000	15000	0.022		46	2	K38x46x20	31.5	52	7000	11000	0.06
	33	17	K28x33x17	19	33.5	9000	15000	0.02		46	32	K38x46x32	52	98	7000	11000	0.09
	33	27	K28x33x27	27.5	54	9000	15000	0.031		50	33	K38x50x33	64	98	7000	11000	0.13
	34	17	K28x34x17	20	32	9000	15000	0.026	39	44	24	K39x44x24	29	64	7000	11000	0.037
	34	20	K28x34x20	23.2	38	9000	15000	0.024	40	45	17	K40x45x17	22.8	48	6700	10000	0.02
	35	16	K28x35x16	20	28.5	9000	15000	0.034		45	18	K40x45x18	24	51	6700	10000	0.03
	35	17	K28x35x17	20	28.5	9000	15000	0.036		45	21	K40x45x21	22	45.5	6700	10000	0.03
	35	18	K28x35x18	23.2	34.5	9000	15000	0.033		45	27	K40x45x27	31	71	6700	10000	0.04
	35	27	K28x35x27	33.5	55	9000	15000	0.047		46	17	K40x46x17	24	45	6700	10000	0.04
	36	20	K28x36x20	26.5	37.5	9000	15000	0.049		47	18	K40x47x18	27	46.5	6700	10000	0.05
	40	30	K28x40x30	51	68	9000	15000	0.097		48	20	K40x48x20	31	51	6700	10000	0.06
29	34	27	K29x34x27	27.5	55	8500	14000	0.039		50	27	K40x50x27	50	81.5	6700	10000	0.09
30	35	13	K30x35x13	15	25.5	8500	14000	0.017		55	45	K40x55x45	96.5	146	6700	10000	0.24



Boundary dimension									Boundary dimension							
Designation			load ratings		speed ratings		m kg	Designation			load ratings		speed ratings		m kg	
F	D	B	dyn.	stat.	grease	oil	F	D	B	dyn.	stat.	grease	oil	m kg		
42	47	13	K42x47x13	18	36	6700	10000	0.023	65	36	K55x65x36	75	150	5000	7500	0.21
	47	17	K42x47x17	21.6	46	6700	10000	0.035	58	63	K58x63x17	26	64	4800	7000	0.05
	47	27	K42x47x27	32	75	6700	10000	0.054	65	18	K58x65x18	33	68	4800	7000	0.07
	50	13	K42x50x13	21.2	30	6700	10000	0.041	60	65	K60x65x20	31	80	4800	7000	0.05
	50	18	K42x50x18	30	50	6700	10000	0.053	65	30	K60x65x30	41	116	4800	7000	0.09
	50	20	K42x50x20	32	54	6700	10000	0.062	68	20	K60x68x20	40	80	4800	7000	0.08
43	48	17	K43x48x17	21.6	47	6300	9500	0.036	68	23	K60x68x23	47	98	4800	7000	0.11
	48	27	K43x48x27	32	75	6300	9500	0.045	68	25	K60x68x25	49	104	4800	7000	0.12
44	50	22	K44x50x22	30	61	6300	9500	0.046	75	42	K60x75x42	112	196	4800	7000	0.41
45	50	13	K45x50x13	17.6	36	6300	9500	0.024	63	71	K63x71x20	39	80	4500	6700	0.09
	50	17	K45x50x17	23.6	53	6300	9500	0.032	64	70	K64x70x16	25	56	4500	6700	0.06
	50	21	K45x50x21	23.2	51	6300	9500	0.034	65	70	K65x70x20	27	69.5	4300	6300	0.05
	50	27	K45x50x27	32.5	78	6300	9500	0.058	70	30	K65x70x30	43	125	4300	6300	0.09
	52	18	K45x52x18	29	53	6300	9500	0.052	73	30	K65x73x30	57	129	4300	6300	0.13
	52	21	K45x52x21	33.5	64	6300	9500	0.067	68	74	K68x74x28	43	110	4000	6000	0.08
	53	20	K45x53x20	34	60	6300	9500	0.065	74	30	K68x74x30	45	120	4000	6000	0.1
	53	21	K45x53x21	37.5	67	6300	9500	0.069	70	76	K70x76x20	34	85	4000	6000	0.08
	53	25	K45x53x25	40.5	75	6300	9500	0.094	76	30	K70x76x30	49	134	4000	6000	0.12
	53	28	K45x53x28	46.5	90	6300	9500	0.088	78	20	K70x78x20	42	90	4000	6000	0.1
	55	20	K45x55x20	40	62	6300	9500	0.077	78	23	K70x78x23	48	106	4000	6000	0.13
	59	18	K45x59x18TN	46.5	56	6300	9500	0.079	78	30	K70x78x30	59	140	4000	6000	0.14
	59	36	K45x59x36	78	118	6300	9500	0.186	72	80	K73x80x20	43	91.5	4000	6000	0.1
	60	40	K45x60x40	88	134	6300	9500	0.305	73	79	K73x79x20	36	90	3800	5600	0.09
	60	45	K45x60x45	98	153	6300	9500	0.342	75	83	K75x83x23	50	116	3800	5600	0.12
47	52	17	K47x52x17	23.2	51	6000	9000	0.034	83	30	K75x83x20	57	140	3800	5600	0.18
	52	27	K47x52x27	33.5	83	6000	9000	0.049	80	86	K80x86x20	37	98	3600	5300	0.09
	55	26	K47x55x26	43	83	6000	9000	0.101	88	25	K80x88x25	51	122	3600	5300	0.16
	55	28	K47x55x28	46.5	90	6000	9000	0.092	88	30	K80x88x30	64	163	3600	5300	0.16
48	53	17	K48x53x17	24.5	56	5600	8500	0.033	85	92	K85x92x20	38	93	3400	5000	0.1
	54	19	K48x54x19	29	62	5600	8500	0.047	93	25	K85x93x25	53	129	3400	5000	0.17
49	65	38	K49x65x38	93	140	5600	8500	0.249	93	30	K85x93x30	66	173	3400	5000	0.17
50	55	17	K50x55x17	24	56	5600	8500	0.034	90	97	K90x97x20	42	116	3000	4500	0.11
	55	20	K50x55x20	28.5	70	5600	8500	0.04	98	25	K90x98x25	52	129	3000	4500	0.18
	55	30	K50x55x30	36	93	5600	8500	0.071	98	30	K90x98x30	60	156	3000	4500	0.22
	56	23	K50x56x23	33.5	75	5600	8500	0.056	95	103	K95x103x20	47	116	2800	4300	0.15
	58	20	K50x58x20	36.5	68	5600	8500	0.072	100	108	K100x108x30	68	193	2800	4300	0.24
	58	25	K50x58x25	44	87	5600	8500	0.087	105	113	K105x113x27	64	180	2600	4000	0.23
	58	35	K50x58x35	61	132	5600	8500	0.105	110	118	K110x118x24	61	170	2400	3800	0.21
	60	32	K50x60x32	58.5	106	5600	8500	0.172	118	30	K110x118x30	71	208	2400	3800	0.26
52	57	12	K52x57x12	15.6	32	5300	8000	0.03	120	128	K120x128x25	63	183	2000	3400	0.24
	57	14	K52x57x17	20.4	45	5300	8000	0.043	130	137	K130x137x24	61	200	1900	3200	0.21
	60	24	K52x60x24	45	90	5300	8000	0.088	140	45	K130x140x45	127	400	1900	3200	0.59
55	60	17	K55x60x17	24.5	60	5000	7500	0.045	135	145	K135x145x38	116	355	1800	3000	0.51
	60	20	K55x60x20	29	74	5000	7500	0.043	140	150	K140x150x43	132	430	1800	3000	0.6
	60	27	K55x60x27	38	102	5000	7500	0.062	150	160	K150x160x43	137	455	1700	2800	0.64
	60	30	K55x60x30	38	104	5000	7500	0.078	160	168	K160x168x22	62	200	1600	2600	0.28
	63	15	K55x63x15	29	52	5000	7500	0.068	165	173	K165x173x26	75	255	1600	2600	0.34
	63	20	K55x63x20	38	75	5000	7500	0.078								
	63	25	K55x63x25	47.5	98	5000	7500	0.095								
	63	32	K55x63x32	57	125	5000	7500	0.143								



Dimensions, mm (in)				Shaft	Steering pivot rating, N(bf)	Part Number				Mass Kg (lb)	Dimensions, mm (in) Shaft				Steering pivot rating, N(bf)	Part Number				Mass Kg (lb)
d	D	T	R			No hole in retainer	Holes in retainer	fig.	d		D	T	R	No hole in retainer		Holes in retainer	fig.			
27,102	66,675	19,446	0.8	42200	T130		1	0.34	16,129	41,275	12,700	0.8	11100	T63	T63W	1	0.08			
1.0670	2.6250	0.7656	0.03	9450				0.75	0.6350	1.6250	0.5000	0.03	2500				0.17			
32,004	55,562	15,875	0.8	27600	T1260	T1260W	1	0.17	19,304	41,275	12,700	0.8	11100	T77	T77W	1	0.17			
1.2600	2.1875	0.6250	0.03	6200				0.37	0.7600	1.6250	0.5000	0.03	2500				0.15			
32,004	66,675	18,654	8.0	42200	T128		2	0.29	19,304	41,275	13,487	0.8	11100	T76	T76W	1	0.08			
1.2600	2.6250	0.7344	0.0	9450				0.64	0.7600	1.6250	0.5310	0.03	2500				0.17			
32,004	66,675	19,446	0.8	42200	T127	T127W	1	0.31	20,256	39,688	14,288	1.3	10700	T86		1	0.07			
1.2600	2.6250	0.7656	0.03	9450				0.68	0.7975	1.5625	0.5625	0.05	2400				0.16			
35,179	59,400	15,875	0.8	31200	T1380		4	0.35	20,879	41,275	13,487	0.8	11100	T82	T82W	1	0.07			
1.3850	2.3386	0.6250	0.03	7000				0.77	0.8220	1.6250	0.5310	0.03	2500				0.16			
35,179	66,675	18,654	0.8	42200	T136		2	0.28	20,879	42,164	13,487	0.8	13200	T83	T83W	2	0.09			
1.3850	2.6250	0.7344	0.03	9450				0.62	0.8220	1.6600	0.5310	0.03	2960				0.19			
35,179	66,675	19,446	0.8	42200	T138	T138W	1	0.30	22,479	48,021	15,088	0.8	17300	T88	T88W	1	0.11			
1,380	2.6250	0.7656	0.03	9450				0.66	0.8850	1.8906	0.5940	0.03	3890				0.24			
36,754	66,675	19,446	1.5	42200	T144	T144W	1	0.29	22,479	48,021	15,875	0.8	17350	T89		1	0.12			
1.4470	2.6250	0.7656	0.06	9450				0.64	0.8850	1.8906	0.6250	0.03	3900				0.26			
38,354	72,619	20,368	0.8	47000	T152		2	0.35	24,054	44,958	13,487	0.8	11950	T93		1	0.09			
1.5100	2.8590	0.8019	0.03	10600				0.77	0.9470	1.7700	0.5310	0.03	2690				0.20			
38,354	72,619	21,433	0.8	47000	T151	T151W	1	0.37	24,054	48,021	15,088	0.8	17350	T94	T94W	1	0.11			
1.5100	2.8590	0.8438	0.03	10600				0.82	0.9470	1.8906	0.5940	0.03	3900				0.24			
39,954	72,619	21,433	0.8	4700	T157	T157W	1	0.37	24,130	50,800	15,875	0.8	18600	T95	T95W	1	0.13			
1.5730	2.8590	0.8438	0.03	10600				8.82	0.9500	2.0000	0.6250	0.03	4200				0.29			
39,954	72,619	21,433	0.8	47000	T157	T157W	1	0.37	25,654	50,800	15,875	0.8	18600	T101	T101W	1	0.13			
1.5730	2.8590	0.8438	0.03	10600				0.82	1.0100	2.0000	0.6250	0.03	4200				0.29			
40,386	73,000	19,000	0.8	47500	T178		1	0.32	26,289	50,800	15,875	0.8	18600	T104	T104W	1	0.13			
1.5900	2.8740	0.7480	0.03	10700				0.17	1.0350	2.0000	0.6250	0.03	4200				0.29			
41,529	72,619	21,433	0.8	47000	T163	T163W	1	0.35	27,229	50,800	15,875	0.8	18600	T107	T107W	1	0.12			
1.6350	2.8590	0.8438	0.03	10600				0.77	1.0720	2.0000	0.6250	0.03	4200				0.26			
43,104	82,956	23,812	0.8	64000	T169	T169W	1	0.55	28,829	53,188	15,875	0.8	20000	T110	T110W	1	0.14			
1.6970	3.2660	0.9375	0.03	14300				1.21	1.1350	2.0940	0.6250	0.03	4500				0.31			
44,704	82,956	23,812	0.8	64000	T176	T176W	1	0.54	28,829	55,562	15,875	0.8	20000	T113	T113W	1	0.15			
1.7600	3.2660	0.9375	0.03	14300				1.19	1.1350	2.1875	0.6250	0.03	4500				0.33			
45,000	73,000	20,000	0.8	47500	T177		1	0.32	30,416	54,745	11,430	0.8	15500	T120		2	0.11			
1.7717	2.8740	0.7874	0.03	10700				0.71	1.1975	2.1553	0.4500	0.03	3710				0.24			
45,000	74,500	20,221	0.8	47500	T1775		3	0.35	30,416	55,562	15,875	0.8	20000	T119	T119W	3	0.15			
1.7717	2.9331	0.7961	0.03	10700				0.77	1.1975	2.1875	0.6250	0.03	4500				0.33			
45,484	73,000	20,000	0.8	47500	T177A		1	0.33	30,716	55,562	15,875	0.8	20000	T121		1	0.16			
1.7907	2.8740	0.7874	0.03	10700				0.73	1.2093	2.1875	0.6250	0.03	4500				0.35			
46,279	80,010	15,977	0.8	56500	T1921		1	0.34	32,004	55,562	15,875	0.8	20000	T126	T126W	1	0.14			
1.8220	3.1500	0.6290	0.03	12700				0.75	1.2600	2.1875	0.6250	0.03	45000				0.31			
46,279	82,956	23,812	0.8	64000	T182	T182W	1	0.52	35,179	58,738	15,875	0.8	21400	T139	T139W	1	0.15			
1.8220	3.2660	0.9375	0.03	14300				1.15	1.3850	2.3125	0.6250	0.03	4800				0.33			



Dimensions, mm (in)		Thrust ratings, N (lbf)				Dimensions, mm (in)		Thrust ratings, N (lbf)							
Part Number	d	D	T	Cao	Dynamic(1)	Dynamic(2)	Static	Part Number	d	D	T	Cao	Dynamic(1)	Dynamic(2)	Static
T 135	34,925	76,200	18,875	12300	318000	T 7519	190,000	355,600	74,219	2180000	6940000				
	1.3750	3.0000	0.7431	27700	71700		7.4803	14.0000	2.9220	489000	1560000				
T 1750	44,450	84,734	18,258	162000	434000	T 811	203,200	419,100	92,075	3350000	11400000				
	1.7500	3.3360	0.7188	3500	97700		8.0000	16.5000	3.6250	754000	2560000				
T 200A	50,800	109,538	22,225	282000	803000	T811 X	203,200	419.100	120,650	3350000	11400000				
	2.0000	4.3125	0.8750	63400	181000		8.0000	16.5000	4.7500	75000	2560000				
T 2520	63,500	117,475	25,400	290000	799000	T 9020	228,600	431,800	88,773	3320000	1100000				
	2.5000	4.6250	1000	65100	180000		99000	17005	34950	740808	7470000				
T 311	76,200	161,925	33,338	586000	1760000	T 911	228,600	482.600	104,775	4410000	15300000				
	3.0000	6.3750	1.3125	132000	395000		9.0000	19.0000	4.1250	991000	3440000				
T 411	101,600	215,900	46,038	974000	3030000	T 9010 V	228,600	482,600	104,775	493000	18500000				
	4.000	8.5000	1.8125	219000	682000		9.0000	19.0000	4.1250	1110000	4170000				
T 441	111,760	223,520	55,880	1040000	4250000	T 911 A	234,950	482,600	104,775	4410000	15300000				
	4.4000	8.8000	2.2000	234000	956000		9.2500	19.0000	4.1250	991000	3440000				
T 451	114,300	250,825	53,975	1360000	4370000	T 921	234,950	546,100	127.000	6050000	21300000				
	4.5000	9.8750	2.1250	305000	985000		9.2500	21.5000	5.0000	1360000	4810000				
T 4921	124,993	185,610	25,400	360000	1250000	T 921V	234,950	546,100	127,000	6050000	21300000				
	4.9210	7.3075	1,000	80900	28100		9.2500	21.5000	5.0000	1360000	4810000				
T 4920	124,993	185,738	25,400	360000	1250000	T 1011	254,000	539,750	117,475	5480000	19300000				
	4.9210	7.3125	1.0000	80900	281000		10.0000	21.2500	4.6250	1230000	4650000				
T 520	127,000	250,825	55,562	1190000	3690000	T 1115	279,400	495,300	133,350	4200000	14000000				
	5.0000	9.8750	2.1875	268000	831000		11.0000	19.5000	5.2500	944000	3150000				
T 511	127,000	266,700	58,738	1430000	4570000	T 1120	279,400	603,250	136,525	7000000	25300000				
	5.0000	10.5000	2.3125	322000	1030000		11.0000	23.7500	5.3750	1570000	5690000				
T 511A	128,588	266,700	58,738	1430000	4570000	T 1421	355,600	533,400	101,600	3250000	12000000				
	5.0625	10.5000	2.3125	322000	1030000		14,000	21.0000	4.0000	731000	2710000				
T 611	152,400	317,500	69,850	2030000	6650000	T 14520	368,300	603,250	120,650	5460000	18000000				
	6.0000	12.5000	2.7500	456000	1500000		14.5000	23.7500	4.7500	1230000	4060000				
T 651	165,100	311,150	88,900	2180000	5720000										
	6.5000	12.2500	3.5000	491000	1290000										
T 660	168,275	304,800	69,850	1900000	6470000										
	6.6250	12.0000	2.7500	428000	1450000										
T 661	168,278	304.8000	69,850	1700000	5330000										
	6.6251	12.0000	2.7500	383000	1200000										
	174,625	358,775	82,550	2390000	7860000										
	6.8750	14.1250	3.2500	538000	1770000										
	177,800	368,300	82,550	2680000	8940000										
	7.0000	14.5000	3.2500	603000	2010000										
	177,800	368,300	82,550	2990000	10800000										
	7.0000	14.5000	3.2500	672000	2440000										
	177,800	431,800	101,600	3960000	13600000										
	7.0000	17.0000	4.0000	890000	3060000										

DAC Type Double Row Angular Contact Ball Bearings



BEARINGS

ZNL	d	D	B	C	Weight	FAG	SKF	Interchange		BCA
								IRB	SNR	
DAC255200206A	25	52	20.6	20.6	0.19		617546A	IR-8032		
DAC25520037	25	52	37	37	0.31	546467	445539AA	R2220	F012025 S07	
DAC27600050	27	60	50	50	0.56			R8635		513071
DAC30600037	30	60	37	37	0.42					513116
DAC30600337	30	60.03	37	37	0.42	529891AB	BA2B633313C	IR-8040	GB10790S05	B-81
						545312	418780			
DAC30640042	30	64	42	42	0.49					
DAC30650021	30	65	21	21	0.27					
DAC34620037	34	62	37	37	0.41	531910	309724	IR-8051		
						561447	BAHB31136B			
DAC34640037	34	64	37	37	0.43	532066DE	309726DA	RB-8041	GB10884	B-35
						5404668				
DAC34660037	34	66	37	37	0.50	5804000A	636114A	IR8622		
DAC35640037	35	64	37	37	0.41					510014
DAC35650035	35	65	35	35	0.40	54623BA	BT2B445620B	IR-8042	GB12004	
							443952		F012033 S03	
DAC35660032	35	66	32	32	0.42		445980A	R-8091		
DAC35660033	35	66	33	33	0.43		BAHB633676	IR-8089	GB123106S01	
DAC35660037	35	66	37	37	0.48	546238	BAHB311309	IR-8065	GB12136	513021
						544307				FW107
DAC35680037	35	68	37	37	0.52	567918B	BAHB633528F	8611	GB10840S02	B-33
						541153A	BAHB633295B	IR-8026		
						430042C	633976	IR-8611		
DAC35680233/30	35	68.02	33	30	0.47					
DAC35720028	35	72	28	28	0.48	544033	BA2B441932AB	IR-8028	GB10679	
DAC35720033	35	72	33	33	0.58	548083	BA2B446762B	IR-8055	GB12094	
							BA2B445535AE			
DAC35720433	35	72.04	33	33	0.58		BAHB633669	IR-8094	GB12862	
DAC35720233/31	35	72.02	33	31	0.56					
DAC35720034	35	72	34	34	0.58	5460763				B-26
DAC35720434	35	72.04	34	34	0.58			8524		
DAC36720534	36	72.05	34	3	0.58					B-32
DAC37720037	37	72	37	37	0.59			IR-8066	GB12807S03	
									TGB10872 S02	
DAC37720237	37	72.02	37	37	0.59	527631	BA28633028CB		GB12258	
							445533A			
DAC37720437	37	72.04	37	37	0.59	562398A	633531B	IR-8088	GB1231 S03	
DAC37720045	37	74	45	45	0.79	541521C	30994SAC	IR-8049		
								R-8513		
DAC38700038	38	70	38	38	0.55		686908A			510012
DAC38720236/33	37.99	72.02	36	33	0.54					510007
DAC38740236/33	37.99	74.02	36	33	0.58			8550		514002
DAC38740050	38	74	50	50	0.78	559192	NTNDECO892	IR-8651		
DAC39680037	39	68	37	37	0.48	540733	BA2B309692	IR-8055		B-38
						528810	BA2B309396	IR-8111		
						309791				
						311315 BD				
DAC39680637	39	68.06	37	37	0.48					
DAC39680737	39	68.07	37	37	0.48					B-38A
DAC39720037	39	72	37	37	0.56	542186A	309639	IR-8085	GB12776	B-83
							BAHB311396B			513113
DAC39720637	39	72.06	37	37	0.56	542186CA				
DAC39740039	39	74	39	39	0.66	579557	BAHB636096A	IR-8603		
DAC40720037	40	72	37	37	0.55	566719	BAHB3114438	IR-8095	GB12320S01	FW-130

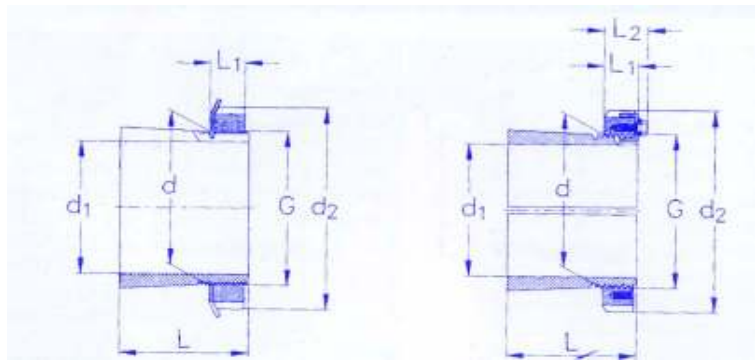
DAC Type Double Row Angular Contact Ball Bearings and Roller Bearings



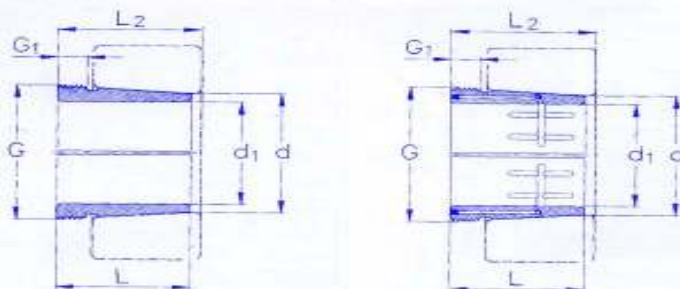
BEARINGS

ZNL	d	D	B	C	Weight	FAG	SKF	Interchange IRB	SNR	BCA
DAC40740036/34	40	74	36	34	0.58					
DAC40740040	40	74	40	40	0.66					510003
DAC40750037	40	75	37	37	0.62		BAHB633966E	IR-8593		
DAC39/41750037	39/41	75	37	37	0.62	567447B	BAHB633815A	8530	G812399 S01	
DAC40760033/28	40	76	33	28	0.54	539166AB	474743	IR-8110		B-39
DAC40800036/34	40	80	36	34	0.74					513036
DAC408000302	40	80	30.2	30.2		565636	440320H	IR-6006	Y44FB10394 S01	
						523854				
DAC40820040	40	82	40	40						
DAC408402538	40	84.03	38	38	0.97			IR-8638	GB40250	
DAC42750037	42	75	37	37	0.59	533953	BA2B 633457	IR-8061	GB12010	513102
						545495D	BAHB311424A	IR-8509		513112
						521771	309245			513106
							603694A			
DAC42760038/35	42	76	38	35				IR-8650		
DAC42760039	42	46	39	39	0.62					513058
DAC42760040/37	42	46	40	37	0.64	547059A	909042	IR-8112		513006
							BA2B309796BA			B-42
DAC42800342	42	80.03	42	42	0.81	52724	BA2B309609AD	IR-8515		
							305988			
DAC42820036	42	82	36	36	0.77	588226	BA2B446047	IR-8086	GB12163 S04	513073
						561481		IR-8642		
DAC42820037	42	82	37	37	0.79	565636	BAHB 311412A	IR-8090	GB12269	
	42	84	36	36		564727	BA26444090AB	IR-8039	GB 10857 SO	
DAC428400039	42	84	39	39	0.93	543359B	440090	IR-8101	GB10702 S02	
DAC43/45820037	43/45	82	37	37	0.76	567519A	BAHB633814A	IR-8506		
DAC45800045	45	0	45	45	0.78	564725AB				
DAC45840039	45	84	39	39		547103E	BAH8309797C	IR-8572	GB40264 S01	513130
							BAHB633809AC	IR-8529	G812398S02	
DAC45850023	45	85	23	23	0.54	4209BTVH	4209ATN9/	IR8566		
							MT33VB2669			
DAC45850041	45	85	41	41	0.89	580191				
DAC50900034	50	90	34	34	0.82	528514	633007C			

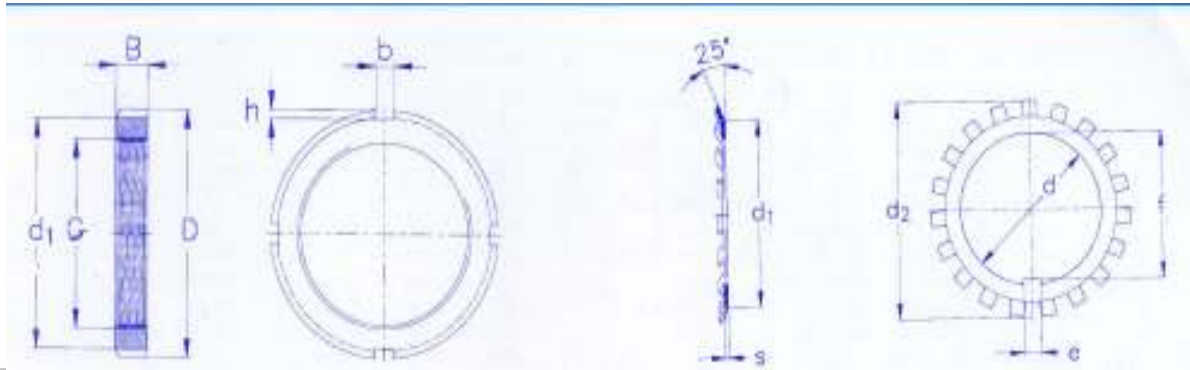
ZNL	d	D	T	Timken/Other OE	Interchange IRB	SNR	BCA
IR2220	25	52	37		IR2220	FC12025S08	
IR2221	25	52	43		IR2221	FC12180S04	
IR2222	25	55	43		IR2222	FC12271S03	
801437	27	52	43	801437			
E97106E	30	55	30	E97106E			
513055	30	58	42				513055
S33SR	32	58	57	S33SR			
UCF346437	34	64	37	UCF346437			
T356437	35	64	37	T356437			
JRM3535/65XD	35	65	35	JRM3535/65XD		FC12033S01	
JRM3939X2JRM3870XD	38	70	38	JRM3938X2/JRM3870XD			
JRM3939/68XD	39	68	37	JRM3939/68XD			
JRM3939/JRM3972XD	39	72	37	JRM3939/JRM3972XD			
JRM3940/JRM4068XD	40	68	42	JRM3940X2/JRM4068XD			
JRM3940/LRM4072XD	40	72	37	JRM3940/LRM4072XD			
JRM3940/LRM4282XD	40	82	42	JRM3942/LRM4282XD			
T427639	42	76	39	T427639			
JXC25469XC-98UA	49	84	48	JXC25469XC-98UA		FC 40240 S01	
JXC25723CA				JXC25723CA			
T508454	50	54	54	T508454			
350210X2'	50	90	49	350210X2			



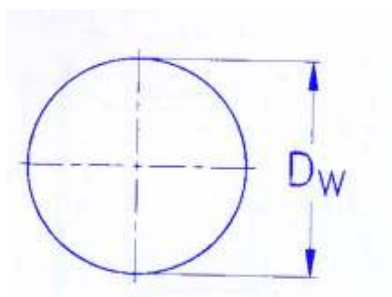
Boundary dimensions[mm]				Designation adapter sleeve, complete	Weight [kg]	Boundary dimensions[mm]				Designation adapter sleeve, complete	Weight [kg]
Shaft [mm] d1	d	d2	L			Shaft [mm] d1	d	d2	L		
17	20	32	24	H 204	0.04	85	95	120	65	H 318	1.3
		32	28	H 304	0.04			120	86	H 2318	1.6
		32	31	H 2304	0.05			125	55	H 219	1.25
20	25	38	26	H 205	0.06	90	100	125	68	H 319	1.4
		38	29	H 305	0.07			125	90	H 2319	1.8
		38	35	H 2305	0.09			130	58	H 220	1.4
25	30	45	27	H 206	0.09	100	100	130	71	H 320	1.6
		45	21	H 306	0.10			130	97	H 2320	2
		45	38	H2306	0.11			130	76	H3120	1.80
30	35	52	29	H 207	0.12	95	105	140	60	H 221	1.6
		52	35	H 307	0.14			140	74	H 321	1.85
		52	43	H 2307	0.15			100	110	145	63
35	40	58	31	H 208	0.16	110	120	145	77	H 322	2.05
		58	36	H 308	0.18			145	105	H 2322	2.75
		58	46	H 2308	0.22			145	81	H 3122	2.1
40	45	65	33	H 209	0.21	115	130	155	112	H 2324	3
		65	39	H 309	0.23			145	72	H 3024	1.8
		65	50	H 2309	0.27			155	88	H 3124	2.5
45	50	70	35	H 210	0.24	125	140	165	212	H 2326	4.45
		70	42	H 310	0.27			155	80	H 3026	2.8
		70	55	H 2310	0.34			165	92	H 3126	3.45
50	55	75	37	H 211	0.28	135	150	180	131	H 2328	5.4
		75	45	H 311	0.32			165	82	H 3028	3.05
		75	59	H 2311	0.39			180	97	H 3128	4.1
55	60	80	38	H 212	0.31	140	160	195	139	H 2330	6.4
		80	47	H 312	0.35			180	87	H 3030	3.75
		80	62	H 2312	0.45			195	111	H 3130	5.25
60	65	85	40	H 213	0.36	160	180	210	147	H 2332	8.8
		85	50	H 313	0.42			210	147	OH 2332 H	8.8
		85	65	H 2313	0.52			190	93	H 3032	5.1
65	70	92	52	H 314	0.68	150	170	160	93	OH 3032 H	5.1
		92	68	H 2314	0.88			210	119	H 3132	7.25
		92	43	H 215	0.66			210	119	OH 3132 H	7.25
70	75	98	55	H 315	0.78	160	180	220	154	H 2334	9.9
		98	73	H 2315	1.10			220	154	OH 2334 H	9.9
		105	46	H 216	0.81			200	101	H3034	5.8
75	80	105	59	H 316	0.95	160	180	200	101	OH 3034 H	5.8
		105	78	H 2316	1.2			220	101	H 3134	8.1
		110	50	H 217	0.94			220	122	OH 3134 H	8.1
80	85	110	63	H 317	1.10	160	180	230	161	H 2336	11
		110	82	H 2317	1.35			230	161	OH 2336 H	11
		120	52	H 218	1.1			210	109	H 3036	6.7



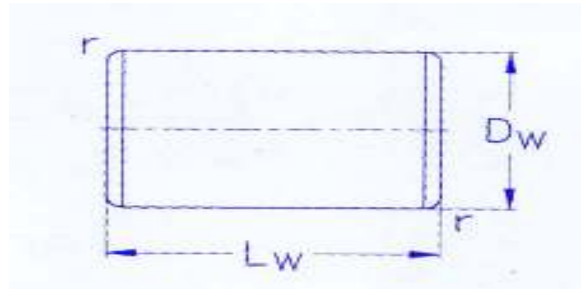
Shaft [mm]		Boundary Dimensions [mm]		Designation	Weight [kg]	Shaft [mm]		Boundary Dimensions [mm]		Designation	Weight [kg]
d1	d	G				d1	d	G			
35	40	M 45 x 1,5		AH 308	0.09	135	140	M145x2		AHX 2326	2.00
		M 45 x 1,5		AH 2308	0.13			M 135 x 2		AHX 24026	0.88
40	45	M 50 x 1,5		AH 309	0.12	135	140	M 140 x 2		AHX 24126	1.15
		M 50 x 1,5		AH 2309	0.16			M 150 x 2		AHX 3028	1.00
45	50	M 55 x 2		AHX 310	0.13	135	140	M 150 x 2		AHX 3128	1.30
		M 55 x 2		AHX 2310	0.19			M 155 x 3		AHX 3228	1.85
50	55	M 60 x 2		AHX 311	0.16	135	140	M 155 x 3		AHX 2328	2.35
		M 60 x 2		AHX 2311	0.26			M 145 x 2		AH 2408	0.95
55	60	M 65 x 2		AHX 312	0.19	145	150	M150x2		AH 24128	1.30
		M 65 x 2		AHX 2312	0.30			M 160 x 3		AHX '3030	1.15
	65	NIM x 2		AM 3136	0.22	145	150	M 165 x 3		AHX 3130	1.80
		M 75 x 2		AH 2313	0.39			M165x3		AHX 3230	2.20
65	70	M 75 x 2		AH 314G	0.24	145	150	M 165 x 3		AHX 2330	2.80
		M 80 x 2		AHX 2314	0.45			M 155 x 3		AHX 24030	1.05
70	75	M 80 x 2		AH 315G	0.29	150	160	M 160 x 3		AHX 24130	1.55
		M80x2		AHX 2315	0.53			M 170 x 3		AH 3032	2.05
75	80	M90x2		AH 316	0.37	150	160	M 180 x 3		AH 3132	3.20
		M 90 x 2		AHX 2316	0.57			M 180 x 3		AH 3232	4.00
80	85	M 95 x 2		AHX 317	0.43	150	160	M180x3		AH 2332	4.65
		M 95 x 2		AHX 2317	0.65			M 170 x 3		AH 24032	2.3
85	90	M 100 x 2		AHX 318	0.46	160	170	M170x3		AH 24132	3.05
		M100x2		AHX 2318	0.57			M 180 x 3		AH 3034	2.40
		M100x2		AHX 2318	0.76			M 190 x 3		AH 3134	3.45
90	95	M 105 x 2		AHX 319	0.54	160	170	M 190 x 3		AH 3234	4.80
		M 105 x 2		AHX 2319	0.90			M 190 x 3		AH 2334	5.25
95	100	M110x2		AHX 320	0.58	170	180	M180x3		AH 24034	2.70
		M110x2		AHX 3120	0.66			M 180 x 3		AH 24132	3.25
		M 110 x 2		AHX 3220	0.76			M 190 x 3		AH 3036	2.80
105	110	M110x2		AHX 2320	1.00	170	180	M 200 x 3		AH 2236	3.75
		M120x2		AHX 3122	0.76			M 200 x 3		AH 3136	4.25
		M125x2		AHX 3222	1.05			M 200 x 3		AH 3236	5.25
115	120	M 125 x 2		AHX 2322	1.35	180	190	M 200 x 3		AH 2336	6.05
		M 115 x 2		AHX 2422	0.31			M 190 x 3		AH 24036	3.2
		M 130 x 2		AHX 3024	0.73			M 190 x 3		AH 241136	3.75
		M 130 x 2		AHX 3124	0.94			Tr 205 x 4		AH 3038	3.4
125	130	M 135 x 2		AHX 3224	1.30	190	200	Tr 210 x 4		AH 2238	4.25
		M 135 x 2		AHX 2324	1.65			Tr210x4		AH 3138	4.9
		M 125 x 2		AH 24024				Tr210x4		AH 3238	6
		M 140 x 2		AHX 3026	0.91			M 200 x 4		AH 24038	3.55
		M 140 x 2		AHX 3126	1.10	190	200	M. 200 x 4		AH 24138	4.45
		M 145 x 2		AHX 3226	1.55			Tr 215 x 4		AH 3040	3.85



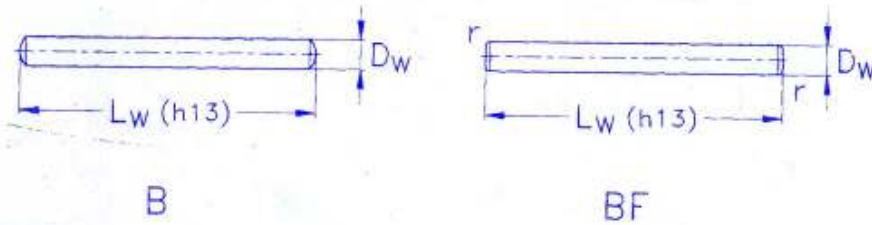
Thread	Boundary dimension					Designation	Weight [kg]	Locking Washer	Boundary dimensions					
	G	d1	D	B	B				h	d	d1	d2	s	e
M 10 x 0,75	13.5	18	4	3	2	KM 0	0,006	MB 0	10	13.5	21	1	3	8.5
M 12 x 1	17	22	4	3	2	KM	0,008	MB 1	12	17	25	1	3	10.5
M 15 x 1	21	25	5	4	2	KM 2	0,012	MB 2	15	21	28	1	4	13.5
M 17 x 1	24	28	5	4	2	KM 3	0,012	MB 3	17	24	32	1	4	15.5
M 20 x 1	26	32	6	4	2	KM 4	0,020	MB 4	20	26	36	1	4	18.5
M 25 x 1,5	32	38	7	5	2	KM 5	0,028	MB 5	25	32	42	1.25	5	23
M 30 x 1,5	38	45	7	5	2	KM 6	0,038	MB 6	30	38	49	1.25	5	27.5
M 35 x 1,5	44	52	8	5	2	KM 7	0,058	MB 7	35	44	57	1.25	6	32.5
M 40 x 1,5	50	58	9	6	2.5	KM 8	0,078	MB 8	40	5	62	1.25	6	37.5
M 50 x 1,5	61	70	11	6	2.5	KM 10	0.14	MB 10	50	61	74	1.25	6	47.5
M 55 x 2	67	75	11	7	3	KM 11	0.15	MB 11	55	67	81	1.5	8	51.5
M 60 x 2	73	80	11	7	3	KM 12	0.16	MB 12	60	73	86	1.5	8	57.5
M 65 x 2	79	85	12	7	3	KM 13	0.19	MB 13	65	79	92	1.5	8	62.5
M 70 x 2	85	92	12	8	3.5	KM 14	0.22	MB 14	70	85	98	1.5	8	66.5
M 75 x 2	90	98	13	8	3.5	KM 15	0.27	MB 15	75	90	104	1.5	8	71.5
M 80 x 2	95	105	15	8	3.5	KM 16	0.36	MB 16	80	95	112	1.75	10	76.5
M 85 x 2	102	110	16	8	3.5	KM 17	0.42	MB 17	85	102	119	1.75	10	81.5
M 90 x 2	108	120	16	10	4	KM 18	0.51	MB 18	90	108	126	1.75	10	86.5
M 95 x 2	113	125	17	10	4	KM 19	0.58	MB 19	95	113	133	1.75	10	91.5
M 100 x 2	120	130	18	10	4	KM 20	0.68	MB 20	100	120	142	1.75	12	96.5
M 105 x 2	126	140	18	12	5	KM 21	0.81	MB 21	105	126	145	1.75	12	100.5
M 110 x 2	133	145	19	12	5	KM 22	0.89	MB 22	110	133	154	1.75	12	105.5
M 115 x 2	137	150	19	12	5	KM 23	0.91	MB 23	115	137	159	2	12	110.5
M 120 x 2	135	145	20	12	5	KML 24	0.69	MBL 24	120	138	164	2	14	115
	138	155	20	12	5	KM 24	0.98	ME 24	125	148	170	2	14	120
M 125 x 2	148	160	21	12	5	KM 5	1.10	MB 25	130	149	175	2	14	125
M 130 x 2	145	155	21	12	5	KML 26	0.84	MBL 26	135	160	185	2	14	130
	149	165	21	12	5	KM 26	1.20	MB 26	140	160	192	2	16	135
M 135 x 2	160	175	22	14	6	KM 27	1.40	MB 27	145	172	202	2	16	140
M 140 x 2	155	165	22	12	5	KML 28	0.92	MBL 28	150	171	205	2	16	145
	160	180	22	14	6	KM 28	1.40	MB 28	155	182	212	2.5	16	147.5
M 145 x 2	171	190	24	14	6	KM 29	1.85	MB 29	160	182	217	2.5	18	154
M 150 x 2	170	180	24	14	5	KML 30	1.30	MBL 30	165	183	222	2.5	18	157.5
	171	195	24	14	6	KM 30	1.85	MB 30	170	193	232	2.5	18	164
M 155 x 3	182	200	25	16	7	KM 31	2.05	MB 31	180	203	242	2.5	20	174
M 160 x 3	180	190	25	14	5	KML 32	1.40	MBL 32						
	182	210	25	16	7	KM 32	2.25	MB 32						
M 165 x 3	193	210	26	16	7	KM 33	2.30	MB 33						
M170x3	190	200	26	16	5	KML34	1.60	MBL34						
	193	220	26	16	7	KM 34	2.55	MB 34						



Ball Diameter, Dw		Designation	Weight per 100 balls	Ball Diameter, Dw		Designation	Weight per 100 balls
[mm]	[inch]			[mm]	[inch]		
0.4		RB 0,4	0.0001	12.5	-	RB 12,5	0803
0.5		RB 0.5	0.0001	12,700	1/2	RB 12.7	0842
1		RB 1	0.0004	13	-	RB 13	0903
1.5		RB 1,5	0.0014	13,494	17/32	RB 13,494	101
1,588	1/16	RB 1.588	0.0016	14	-	RB 14	1.13
2	-	RB 2	0.0033	14.28	9/16	RB 14,288	120
2,381	3/32	RB 2,381	0.0055	15	-	RB 15	1.39
2,5	-	RB 2.5	0,0064	15,081	19/32	RB 15,081	1,41
3		R B 3	020111	15.875	5/8	RB 15,875	1.65
3,175	1/8	RB 3,175	0.0132	16		RB 16	1.68
3.5	-	RR 3,5	0.0117	16.5	-	RB 16,5	185
3,969	5/32	RB 3,969	0.0257	16.669	21/32	RB 16,669	1.91
4	-	RB 4	0.0263	17	-	RB 17	2.02
4.5	-	RB 4,5	0.0374	17,462	11/16	RB 17,462	213
4,762	3/16	RB 4,762	0.0446	18	-	RB 18	240
5		RB 5	0.0514	18,256	23/32	RB 18,256	2.50
5.5		RB 5,5	0.0679	19	-	RB 19	282
5,556	7/32	RB 5,556	0.0702	19,050	3/4	RB 19.05	284
6	-	RB 6	0.0882	19,844	25/32	RB 19,844	324
6,350	1/4	RB 6,35	0,103	20	-	RB 20	329
6.5	-	RB 6,5	0,113	20.5	-	RB 20,5	354
7	-	RB 7	0,141	20,638	13/16	RB 20,638	362
7,144	9/32	RB 7,144	0,150	21	-	RB 21	381
7.5	-	RB 7,5	0,174	22	-	RB 22	438
7,938	5/16	RB 7,938	0,106	22,225	7/8	RB 22,225	452
8	-	RB 8	0.210	22.5	-	RB 22,5	468
8.5	-	RB 8,5	0,220	23	-	RB 23	500
8,731	11/32	RB 8.731	0,266	23,812	15/16	RB 21812	555
9	-	RB 9	0,330	24	-	RB 24	568
9,525	3/8	RB 9,525	0,355	25		RB 25	642
10	-	RB 10	0.411	25,400	1	RB 25,4	674
10,319	13/32	RB 10,319	0,443	26	-	RB 26	723
10.5	-	RB 10,5	0,476	26,988	1-1/16	RB 26,988	808
11	-	RB 11	0,547	28	-	RB 28	9.02
11,112	7/16	RB 11,112	0,564	28,575	1-51/18	RB 28,575	9.55
11.5	-	RB 11,5	0,625				
11,906	15/32	RB 11,906	0,693				
12	-	RB 12		0,710			



Ball Diameter, Dw		Designation	Weight per 100 balls	Ball Diameter, Dw		Designation	Weight per 100 balls
[mm]	[inch]			[mm]	[inch]		
3	5	RC 3 x 5	0,027	22		RC 15 x 22	3.00
3.5	5	RC 3,5 x 5	0,037	16	16	RC 16 x 16	2.48
	8	RC 3,5 x 8	0,060		24	RC16 x 24	3.73
4	4	RC 4 x 4	0,038	17	17	RC 17 x 17	2.97
	6	RC 4 x 6	0,058		24	RC 17 x 24	4.20
	9	RC 4 x 8	0,078	18	18	RC 18 x 18	3.57
4.5	6	RC 4,5 x 6	0,073		26	RC 18 x 26	5.10
5	5	RC 5 x 5	0,075	19	19	RC 19 x 19	4.16
	6	RC5x6	0,091		28	RC 19 x 28	6.10
	8	RC5x8	0,121		30	RC 20 x30	7.30
5.5	5.5	RC 5,5 x 5.5	0,100		30	RC 21 x 30	8.0
	8	RC 5,5 x 8	0,146	22	22	RC 22 x 22	6.4
6	6	RC 6 x 6	0,130		34	RC 22 x 34	10.4
	8	RC6x8	0,178	23	23	RC 23 x 23	7.4
	12	RC 6 x 12	0,261		34	RC 23 x 34	11.2
6.5	6.5	RC 6,5 x 6,5	0,166	24	24	RC 24 x 24	8.4
	9	RC 6,5 x 9	0,230		36	RC 24 x 36	12.6
7	7	RC 7 x 7	0,206	25	25	RC 25 x 25	9.5
	10	RC 7 x 10	0.30		36	RC 25 x 36	13.7
	14	RC 7 x 14	0.42	26	26	RC 26 x 26	10.7
7.5	7.5	RC 7,5 x 7,5	0.25		40	RC 26 x 40	16.4
	11	RC 7,5 x 11	0.37	28	28	RC 28 x 28	13.3
8	8	RC8x8	0.31		44	RC 28 x 44	21.0
	12	RC 8 x 12	0.47	30	30	RC 30 x 30	16.3
9	9	RC 9 x 9	0.44		48	RC 30 x 48	26.2
	14	RC 9 x 14	0.68	32	32	RC 32 x 32	19.9
10	10	RC 10 x 10	0.60		52	RC 32 x 52	32.4
	14	RC 10 x 14	0.85	34	34	RC 34 x 34	23.9
11	11	RC 11 x 11	0.81		55	RC34x55	38.7
	15	RC11x15	1.10	36	36	RC 36 x 36	28.3
12	12	RC12x12	1.04		58	RC 36 x 58	45.3
	18	RC12x18	1.57	38	38	RC 38 x 38	33.3
13	13	RC 13 x 13	1.33		62	RC 24 x 62	55.0
	20	RC 13 x 20	2.04	40	40	RC 40 x 40	38.9
14	14	RC14x14	1.66		65	RC 40 x 65	63.0
	20	RC 14 x 20	2.38				
15	15	RC 15 x 15	2.04				



Dimensions [mm]		Designation		Weight per 100 rollers [Kg]	Dimensions [mm]		Designation		Weight per 100 rollers [kg]	
Dw	Lw	"Sphered end" type	"Flat and" type		Dw	Lw	"Sphered end" type	"flat and" type		
1.5	5.8	RN 1,5 x 5,8 B	RN 1,5 x 5,8 BF	0,008	15.8	15.8	RN 2,5 x 15,8 B	RN 25 x 158 BF	0.06	
	7.8	RN 1,5 x 7,8 B	RN 1.5 x 7,8 BF	0,011		17.8	RN 2,5 x 17,8 B	RN 25 x 178 BF	0.07	
	9.8	RN 1.5 X 9,8 B	RN 1,5 x 8.8 BF	0,013		19.8	RN 2,5 x 19,8 B	RN 25 x 198 BF	0.08	
	11.8	RN 1,5 x 11,8 B	RN 1,5 x 11,8 B	0.016		21.8	RN 2,5x21, 8B	RN 25 x 218 BF	0.08	
	13.8	RN 1,5 x 13,8 B	RN1, 5x13,88	0,020		23.8	RN 2,5 x 23.8 B	RN 25 x 238 BF	0.09	
2	7.8	RN2x7, 8B	RN2x7, 8BF	0.02	3	9.8	RN 3 x 19,8 B	RN 3 x 198 BF	0.05	
	9.8	RN 2X9,8 B	RN 2X9,8 BF	0.02		11.8	RN 3X11,8 B	RN 3X11, 8 BF	0,07	
	11,8	RN 2X11, 8 B	RN 2X11,8 BF	0.03		13,8	RN 3X13, 8 B	RN 3X13, 8 BF	0,08	
	13,8	RN 2X 13,8 B	RN 2X 13,8 BF	0.03		15,8	RN 3X 13,8 B	RN 3X 13,8 BF	0,09	
	15,8	RN 2X 15,8 B	RN 2X 15,8 B	0.04		17,8	RN3x17,88	RN 3x 17,8 BF	010	
	17,8	RN 2 x 17,8 B	RN 2 x 17,8 BF	0.04		19,8	RN3x19.8B	RN3x198BF	0,11	
	19,8	RN 2 x 19,8 B	RN 2 x 19.8 BF	0.05		23,8	RN 3 x 23,8 B	RN 3 x 23,8 BF	0,13	
	21.8	RN2, 5x21, 8B	RN 2,5 x 21,8 BF	0.05	27.8	RN3x27.89	RN3x278BF	015		
2.5	7.8	RN 2,5 x 7,8 B	RN 2,5 x 7,8 BF	0.03	3.5	29.8	RN 3,5 x 29,8 B	RN 3,5 x 298 BF	0,23	
	9.8	RN 2,5 x 9,8 B	RN 2,5 x 9,8 BF	0.04		34.8	RN 3,5 x 34,8 B	RN 3,5 x 348 BF	0,27	
	11.8	RN 2,5 x 11,8 B	RN 2,5 x 11,8 BF	0.05		4	39.8	RN 4 x 39,8 B	RN 4 x 398 BF	0,40
	13.8	RN 2,5 x 13,8 B	RN 2.5x13, 8BF	0.05		5	49.8	RN 5 x 49,8 B	RN 5 x 49,8 BF	0.75

Assembly & Production Floor





PLANT

PRECISION BEARINGS PVT. LTD.

Plot No.-28 A, Changodar Ind. Estate, Changodar,
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